

norelem moves

Systems and components for machine and plant construction

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Position indicators
freely programmable

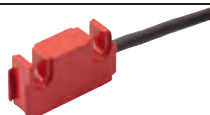
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Position indicator, plastic, electronic
IO link interface



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Magnetic sensors, passive sensors,
miniature design
IO link interface



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Reducing bushings

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Intermediate plates

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Mounting brackets

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Adjusting knobs with position indicator
digital display

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Position indicators for handwheels
analogue-digital display

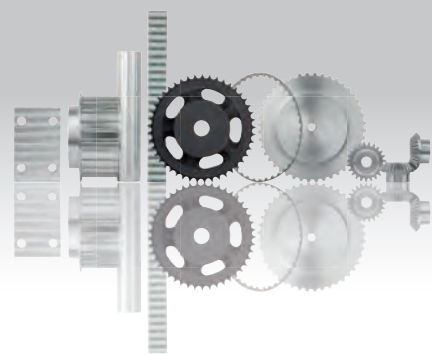
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Handwheels for position indicators

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Drive technology



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Toothed belt pulleys
T profile

22003
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Toothed belt pulleys
AT profile

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Toothed pulleys
profile HTD 5M

22004
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Toothed pulleys
profile HTD 8M

22005
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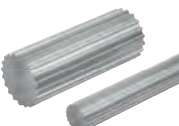
Toothed pulleys
profile HTD 5M, for assembly with taper
clamping bushes

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Toothed pulleys
profile HTD 8M, for assembly with taper
clamping bushes

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Splined shafts
T profile

22008
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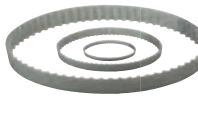
Splined shafts
AT profile

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Clamp plates for toothed belts
profile T and AT

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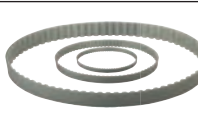
Toothed belts
T profile

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Toothed belts by the meter
T profile

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Toothed belts
AT profile

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Toothed belts by the meter
AT profile

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Toothed belt
profile HTD 5M

 New/Expanded Items

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Systems and components for machine and plant construction

22000

22062 Page 363  Toothed belt profile HTD 8M	22201 Page 396  Roller chains duplex DIN ISO 606, curved link plate	22213 Page 401  Connecting links duplex, stainless steel DIN ISO 606	22252 Page 419  Sprockets single 3/4" x 7/16" DIN ISO 606
22070 Page 364  V-belt pulleys, grey cast iron for mounting with taper clamping bushes	22201 Page 397  Connecting links duplex DIN ISO 606	22250 Page 402  Sprockets single 3/8" x 7/32" DIN ISO 606, ready to install	22252 Page 420  Sprockets single 1" x 17.02 mm DIN ISO 606
22071 Page 370  V-belts DIN 2215	22202 Page 398  Roller chains triplex DIN ISO 606, curved link plate	22250 Page 404  Sprockets single 1/2" x 5/16" DIN ISO 606, ready to install	22253 Page 421  Sprockets duplex 8.0 mm x 3.0 mm DIN ISO 606
22071-02 Page 380  V-belts DIN 7753	22202 Page 398  Roller chains single DIN ISO 606, straight link plate	22250 Page 407  Sprockets single 5/8" x 3/8" DIN ISO 606, ready to install	22253 Page 422  Sprockets duplex 3/8" x 7/32" DIN ISO 606
22100 Page 389  Belt tension meter	22208 Page 399  Links DIN ISO 606	22250 Page 410  Sprockets single 3/4" x 7/16" DIN ISO 606, ready to install	22253 Page 423  Sprockets duplex 1/2" x 5/16" DIN ISO 606
22101 Page 390  Line laser	22208 Page 399  Links stainless steel DIN ISO 606, curved link plate	22250 Page 413  Sprockets single 1" x 17.02 mm DIN ISO 606, ready to install	22253 Page 424  Sprockets duplex 5/8" x 3/8" DIN ISO 606
22102 Page 391  Tension pulleys	22212 Page 400  Links DIN ISO 606	22252 Page 416  Sprockets single 3/8" x 7/32" DIN ISO 606	22253 Page 425  Sprockets duplex 3/4" x 7/16" DIN ISO 606
22200 Page 394  Roller chains single DIN ISO 606, curved link plate	22212 Page 400  Links stainless steel DIN ISO 606	22252 Page 417  Sprockets single 1/2" x 5/16" DIN ISO 606	22253 Page 426  Sprockets duplex 1" x 17.02 mm DIN ISO 606
22200 Page 395  Links DIN ISO 606	22213 Page 401  Roller chain duplex, stainless steel DIN ISO 606, curved link plate	22252 Page 418  Sprockets single 5/8" x 3/8" DIN ISO 606	22253 Page 427  Sprockets duplex 1 1/4" x 3/4" DIN ISO 606

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22000

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Sprockets duplex 1 1/2" x 1"
DIN ISO 606

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Sprockets triplex 3/8" x 7/32"
DIN ISO 606

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Sprockets triplex 1/2" x 5/16"
DIN ISO 606

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Sprockets triplex 5/8" x 3/8"
DIN ISO 606

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Sprockets triplex 3/4" x 7/16"
DIN ISO 606

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Sprockets triplex 1" x 17,02 mm
DIN ISO 606

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Sprockets single 3/8" x 7/32" stainless
steel
DIN ISO 606

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Sprockets single 1/2" x 5/16" stainless
steel
DIN ISO 606

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Sprockets single 5/8" x 3/8" stainless
steel
DIN ISO 606

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Sprockets single 3/4" x 7/16" stainless
steel
DIN ISO 606

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Sprockets single 1" x 17,02 mm
stainless steel
DIN ISO 606

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Sprockets single 3/8" x 7/32"
DIN ISO 606

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Sprockets single 1/2" x 5/16"
DIN ISO 606

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Sprockets single 5/8" x 3/8"
DIN ISO 606

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Sprockets single 3/4" x 7/16"
DIN ISO 606

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Sprockets single 1" x 17,02 mm
DIN ISO 606

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Sprockets duplex 8.0 mm x 3.0 mm
DIN ISO 606

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Sprockets duplex 3/8" x 7/32"
DIN ISO 606

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Sprockets duplex 1/2" x 5/16"
DIN ISO 606

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Sprockets, duplex 5/8" x 3/8"
DIN ISO 606

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Sprockets duplex 3/4" x 7/16"
DIN ISO 606

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Sprockets duplex 1" x 17,02 mm
DIN ISO 606

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Sprockets duplex 1 1/4" x 3/4"
DIN ISO 606

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Sprockets duplex 1 1/2" x 1"
DIN ISO 606

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Sprockets triplex 3/8" x 7/32"
DIN ISO 606

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Sprockets triplex 1/2" x 5/16"
DIN ISO 606

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Sprockets triplex 5/8" x 3/8"
DIN ISO 606

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Sprockets triplex 3/4" x 7/16"
DIN ISO 606

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Sprockets triplex 1" x 17,02 mm
DIN ISO 606

22280
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Idler sprockets with ball bearing

22280
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Mounting screws
for idler sprockets

22281
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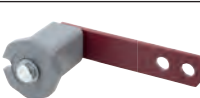
Sprocket sets

22281-01
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Chain tensioner sets

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Clamping elements

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Clamping elements stainless steel

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Clamping elements with front fastening

+ New/Expanded Items

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Systems and components for machine and plant construction

22000

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Angle bracket for clamping elements

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Glide rails PE-UHMW for roller chains DIN ISO 606

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Glide rails PE-UHMW for roller chains DIN ISO 606 for C profiles

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C profiles steel or stainless steel for glide rails

22400

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Spur gears in steel, module 1 toothing milled, straight teeth, engagement angle 20°

22400

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Spur gears in steel, module 1.5 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 2 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 2.5 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 3 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 4 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 5 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 6 toothing milled, straight teeth, engagement angle 20°

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Spur gears in steel, module 8 toothing milled, straight teeth, engagement angle 20°

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Spur gears, plastic, module 0.5 injection moulded, straight teeth, engagement angle 20°

22402

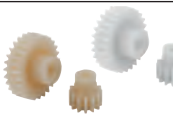
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Spur gears, plastic, module 0.7 injection moulded, straight teeth, engagement angle 20°

22402

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Spur gears, plastic, module 1 injection moulded, straight teeth, engagement angle 20°

22402

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Spur gears, plastic, module 1.25 injection moulded, straight teeth, engagement angle 20°

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Spur gears, plastic, module 1.5 injection moulded, straight teeth, engagement angle 20°

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Spur gears, plastic, module 2 injection moulded, straight teeth, engagement angle 20°

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Spur gears, plastic, module 2.5 injection moulded, straight teeth, engagement angle 20°

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Spur gears, plastic, module 3 injection moulded, straight teeth, engagement angle 20°

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Gear racks, plastic injection moulded, straight teeth, engagement angle 20°

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Bevel gears, plastic, ratio 1:1 injection-moulded, straight teeth, engagement angle 20°

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Bevel gears, plastic, ratio 1:1.5 injection moulded, straight teeth, engagement angle 20°

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Bevel gears, plastic, ratio 1:2 injection moulded, straight teeth, engagement angle 20°

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Bevel gears, plastic, ratio 1:3 injection moulded, straight teeth, engagement angle 20°

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Bevel gears, plastic, ratio 1:4 injection-moulded, straight teeth, engagement angle 20°

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Bevel gears, plastic, ratio 1:5 injection moulded, straight teeth, engagement angle 20°

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Bevel gears, zinc, ratio 1:1 cast, straight teeth, engagement angle 20°

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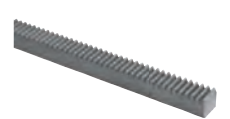
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Bevel gear drive with plastic bevel gears

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Gear racks in steel toothing milled, straight teeth, engagement angle 20°

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Gear racks in steel toothing milled, straight teeth, engagement angle 20°

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Bevel gears in steel, ratio 1:1 toothing milled, straight teeth, engagement angle 20°

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Bevel gears in steel, ratio 1:2 toothing milled, straight teeth, engagement angle 20°

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Bevel gears in steel, ratio 1:3 toothing milled, straight teeth, engagement angle 20°

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Bevel gears in steel, ratio 1:4 toothing milled, straight teeth, engagement angle 20°

+ New/Expanded Items

norelem moves

Systems and components for machine and plant construction

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22500
Page 537



Worm gears, right-hand
centre distance 17 mm

22500
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Worm gears, right-hand
centre distance 22.62 mm

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Worm gears, right-hand
centre distance 25 mm

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Worm gears, right-hand
centre distance 31 mm

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Worm gears, right-hand
centre distance 33 mm

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Worm gears, right-hand
centre distance 35 mm

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Worm gears, right-hand
centre distance 40 mm

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Worm gears, right-hand
centre distance 50 mm

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Worm gears, right-hand
centre distance 53 mm

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Worm gears, right-hand
centre distance 63 mm

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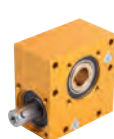
Worm gears, right-hand
centre distance 65 mm

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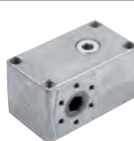
Worm gears, right-hand
centre distance 80 mm

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Worm drives

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Worm drives

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Worm drive
compact

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Bevel gears
plastic housing

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Bevel gears

22714
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Bevel gears

22750
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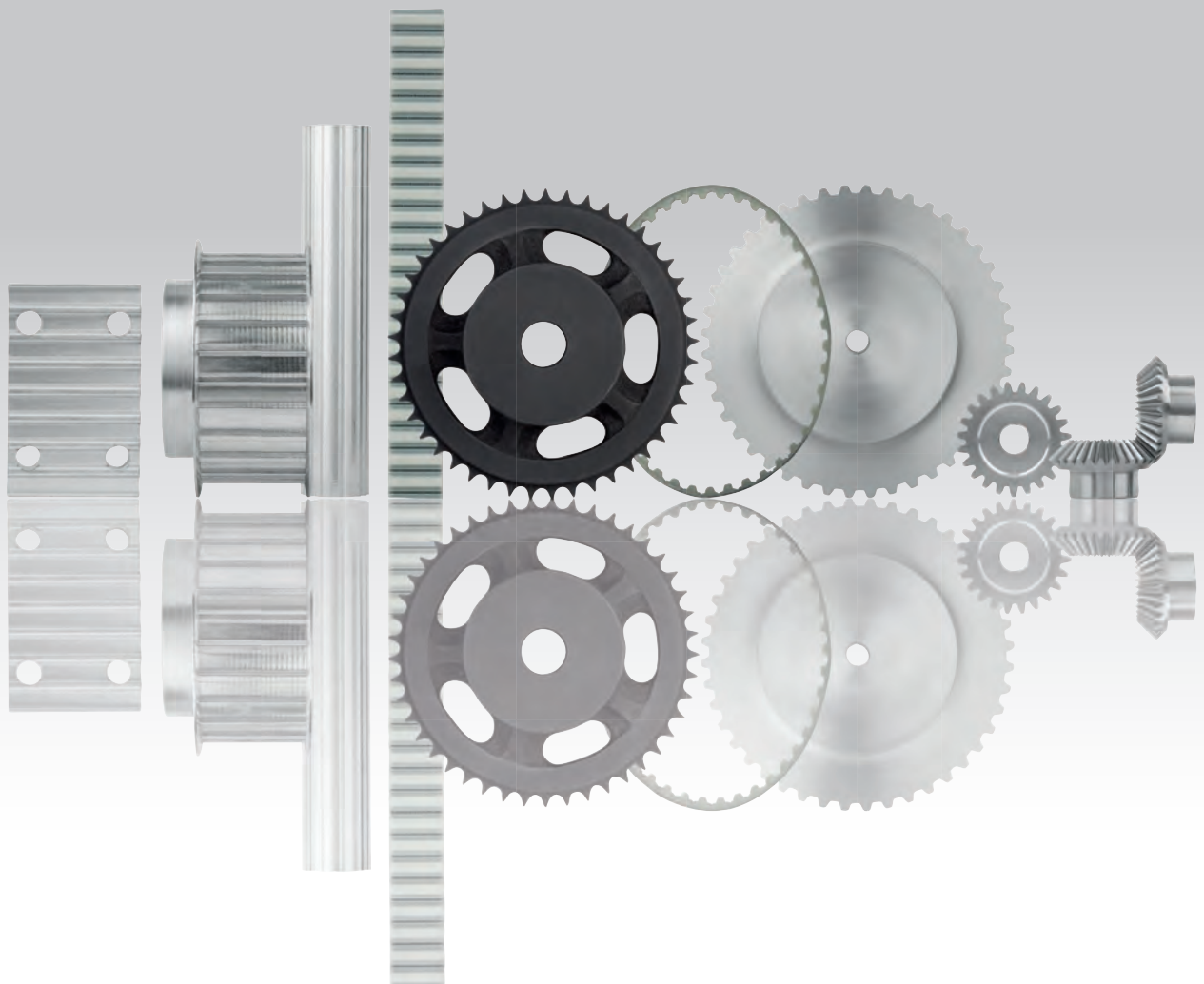
Planetary gearing
for stepper motors



New/Expanded Items

22000

Drive technology



Technical Information for toothed belts 22052, 22054, 22057 and 22059

General

Our toothed belts are made of abrasion-resistant polyurethane and reinforced with high-tensile steel cording. They allow for a smooth and synchronous transmission of power. They are maintenance-free and extremely cost-efficient.

Drive installation

Diagrams and performance tables are available on these pages for selecting the size. The axes must be parallel to one another. It is possible to align the toothed pulleys very precisely using a straight edge or laser. Use the largest possible toothed pulleys. Make sure that at least one toothed pulley has rim flanges. When installing the toothed belts, never forcefully lever over the rim flange. Adjustment possibilities should be pre-planned for mounting and setting the correct belt tension.

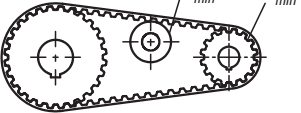
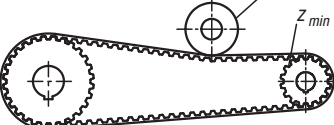
Belt tension

In order to guarantee a long service life and low-noise operation, correct alignment and tensioning of the drive are absolutely necessary. Idlers are often used on drives with fixed centre distances in order to be able to set the belt tension accurately. A smooth roller is the preferred idler to use on the slack side of the belt. Smooth idlers produce counter-flection which reduces the service life of the drive. If it is not possible to do without them, the idler should be at least 1.25 times as large as the drive's smallest toothed pulley and fitted as close as possible to the small pulley in order to maximise the number of teeth in mesh.

Belt storage

Never bend the toothed belt. When storing, prevent bending, direct solar radiation and chemical influences.

Minimum number of teeth and minimum diameter

	Profile	T5	T10	AT5	AT10
without counterflection 	Synchronising wheel z_{min}	10	12	15	15
	Inner idler on teeth $d_{min} [mm]$	30	60	30	50
with counterflection 	Synchronising wheel z_{min}	15	20	25	25
	Outer idler on belt back $d_{min} [mm]$	30	60	60	120

Technical information for toothed belts 22052 and 22057

Specific tooth force

Output "P" and torque "M" to be transferred via the belt are calculated using the following formulas:

P	=	Power [kW]	
M	=	Torque [Nm]	
P _{spez}	=	Specific power	
M _{spez}	=	Specific torque	P [kW] = P _{spez}
z _e	=	Engaging teeth of small gear wheel	M [Nm] = M _{spez}
z _{emax}	=	12 for calculating max. permissible engaging teeth	
z _k	=	Nr. of teeth of small gear wheel	
b	=	Belt width [cm]	
A	=	Centre distance [mm]	

Pitch T 5

Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]
0	2,523	0,000	1200	1,607	2,019	3400	1,248	4,444
20	2,458	0,051	1300	1,580	2,151	3600	1,229	4,632
40	2,403	0,101	1400	1,555	2,279	3800	1,209	4,812
60	2,354	0,148	1440	1,545	2,330	4000	1,191	4,988
80	2,312	0,194	1500	1,532	2,406	4500	1,149	5,414
100	2,276	0,238	1600	1,510	2,529	5000	1,111	5,818
200	2,135	0,447	1700	1,489	2,651	5500	1,078	6,206
300	2,032	0,638	1800	1,470	2,770	6000	1,046	6,571
400	1,951	0,817	1900	1,451	2,888	6500	1,017	6,924
500	1,884	0,987	2000	1,433	3,001	7000	0,991	7,262
600	1,829	1,149	2200	1,400	3,226	7500	0,966	7,588
700	1,781	1,306	2400	1,371	3,445	8000	0,943	7,897
800	1,738	1,456	2600	1,342	3,654	8500	0,920	8,191
900	1,701	1,603	2800	1,317	3,860	9000	0,900	8,480
1000	1,667	1,745	3000	1,306	3,940	9500	0,880	8,758
1100	1,635	1,884	3200	1,292	4,059	10000	0,862	9,027

Pitch T 10

Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]
0	8,244	0,000	1200	4,808	6,042	3400	3,460	12,318
20	8,009	0,168	1300	4,708	6,409	3600	3,385	12,761
40	7,805	0,327	1400	4,614	6,764	3800	3,312	13,179
60	7,627	0,479	1440	4,577	6,902	4000	3,245	13,592
80	7,472	0,626	1500	4,526	7,109	4500	3,088	14,549
100	7,339	0,768	1600	4,444	7,445	5000	2,946	15,424
200	6,804	1,425	1700	4,366	7,771	5500	2,817	16,224
300	6,411	2,014	1800	4,292	8,090	6000	2,701	16,969
400	6,105	2,557	1900	4,222	8,401	6500	2,593	17,646
500	5,857	3,066	2000	4,157	8,706	7000	2,492	18,269
600	5,648	3,549	2200	4,033	9,291	7500	2,398	18,836
700	5,467	4,007	2400	3,920	9,851	8000	2,311	19,359
800	5,306	4,445	2600	3,815	10,386	8500	2,228	19,832
900	5,163	4,866	2800	3,718	10,901	9000	2,150	20,264
1000	5,034	5,271	3000	3,680	11,097	9500	2,077	20,661
1100	4,916	5,663	3200	3,626	11,389	10000	2,007	21,015

Pitch AT 5

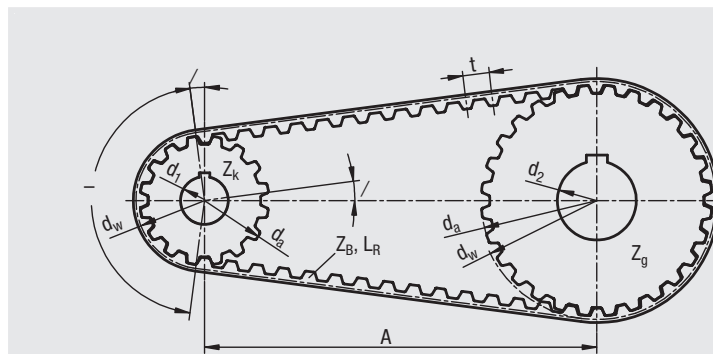
Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]
0	3,813	0,000	1200	2,668	3,352	3400	1,993	7,096
20	3,758	0,079	1300	2,620	3,566	3600	1,954	7,368
40	3,708	0,155	1400	2,574	3,773	3800	1,917	7,627
60	3,663	0,230	1440	2,557	3,855	4000	1,881	7,879
80	3,623	0,304	1500	2,531	3,975	4500	1,799	8,479
100	3,586	0,376	1600	2,491	4,173	5000	1,725	9,032
200	3,448	0,722	1700	2,452	4,365	5500	1,658	9,549
300	3,343	1,050	1800	2,416	4,554	6000	1,596	10,029
400	3,235	1,355	1900	2,381	4,737	6500	1,539	10,473
500	3,137	1,642	2000	2,348	4,918	7000	1,485	10,887
600	3,050	1,916	2200	2,285	5,265	7500	1,436	11,278
700	2,972	2,178	2400	2,229	5,601	8000	1,389	11,635
800	2,900	2,430	2600	2,175	5,923	8500	1,346	11,980
900	2,834	2,671	2800	2,125	6,231	9000	1,304	12,289
1000	2,775	2,905	3000	2,106	6,352	9500	1,264	12,576
1100	2,719	3,132	3200	2,079	6,531	10000	1,228	12,854

Pitch AT 10

Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	Speed [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]
0	15,903	0,000	1200	10,174	12,785	3400	7,019	24,898
20	15,670	0,328	1300	9,945	13,538	3600	6,838	25,778
40	15,452	0,647	1400	9,731	14,266	3800	6,664	26,516
60	15,246	0,958	1440	9,649	14,550	4000	6,500	27,225
80	15,053	1,261	1500	9,529	14,968	4500	6,120	28,837
100	14,870	1,557	1600	9,340	15,649	5000	5,777	30,248
200	14,103	2,954	1700	9,160	16,305	5500	5,464	31,470
300	13,483	4,236	1800	8,990	16,944	6000	5,179	32,536
400	12,927	5,414	1900	8,828	17,563	6500	4,916	33,460
500	12,439	6,513	2000	8,672	18,162	7000	4,670	34,232
600	12,008	7,545	2200	8,380	19,305	7500	4,441	34,878
700	11,626	8,522	2400	8,113	20,390	8000	4,227	35,409
800	11,282	9,451	2600	7,866	21,414	8500	4,023	35,808
900	10,969	10,337	2800	7,632	22,378	9000	3,832	36,113
1000	10,683	11,186	3000	7,544	22,751	9500	3,651	36,322
1100	10,418	12,000	3200	7,416	23,296	10000	3,479	36,429

Technical information for toothed belts 22052 and 22057

b	(cm)	Belt width
L_R	(mm)	Belt length
Z_R	-	Number of belt teeth
B	(mm)	Pulley width
A	(mm)	Centre distance
A_{eff}	(mm)	Effective centre distance
d	(mm)	Diameter of bore
d_a	(mm)	Outer diameter
d_{ak}	(mm)	Outer diameter of small pulley
d_{ag}	(mm)	Outer diameter of large pulley
d_w	(mm)	Effective diameter
d_{wk}	(mm)	Effective diameter of small pulley
d_{wg}	(mm)	Effective diameter of large pulley
F_{Wsta}	(N)	Static shaft power
F_{TV}	(N)	Pre-tensioning force per belt
F_{Tzul}	(N)	Maximum permissible belt tension
F_U	(N)	Peripheral force
M	(Nm)	Torque
P	(kW)	Output
t_{ab}	(s)	Acceleration time
t_{av}	(s)	Deceleration time
v	(m/s)	Speed / peripheral speed
Z_e	-	Number of teeth in mesh
Z_k	-	Number of teeth on small pulley
Z_g	-	Number of teeth on large pulley
i	-	Speed ratio $n_1 : n_2$
ρ	(kg/dm ³)	Density
J	(kgm ²)	Mass moment of inertia
t	(mm)	Pitch
n	(min ⁻¹)	Speed
n_1	(min ⁻¹)	Drive pulley speed
ω	(s ⁻¹)	Angular speed
β	(°)	Wrap angle



Formula's

Power

$$P = \frac{M \cdot n}{9550}$$

$$P = \frac{F_u \cdot d_w \cdot n}{19100 \cdot 10^3}$$

Angular velocity

$$\omega = \frac{\pi \cdot n}{30}$$

Moment of inertia

$$J = 98,2 \cdot 10^{-15} \cdot B \cdot \rho \cdot (d_a^4 - d^4)$$

Belt length for $i=1$

$$L_R = 2 \cdot A + \pi \cdot d_w$$

$$L_R = 2 \cdot A + z \cdot t$$

Belt length for $i \neq 1$ (simplified)

$$L_R = \frac{t}{2} \cdot (Z_g + Z_k) + 2A + \frac{1}{4A} \cdot \left[\left(\frac{Z_g - Z_k}{\pi} \right) \cdot t \right]^2$$

Circumferential force

$$F_u = \frac{19100 \cdot P \cdot 10^3}{n \cdot d_w}$$

$$F_u = \frac{2000 \cdot M}{d_w}$$

Circumferential speed

$$v = \frac{d_w \cdot n}{19100}$$

Speed

$$n = \frac{19100 \cdot v}{d_w}$$

Torque

$$M = \frac{F_u \cdot d_w}{2000}$$

$$M = \frac{9550 \cdot P}{n}$$

Acceleration torque

$$M_{ab} = \frac{J \cdot n}{9,55 \cdot t_{ab}}$$

Effective diameter

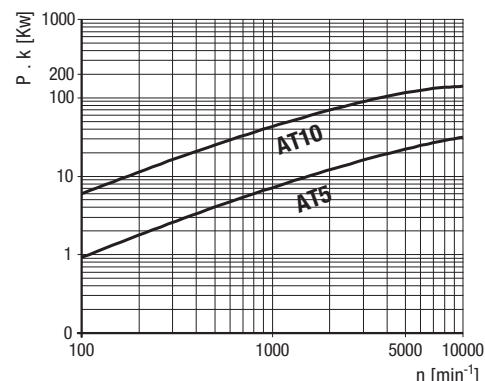
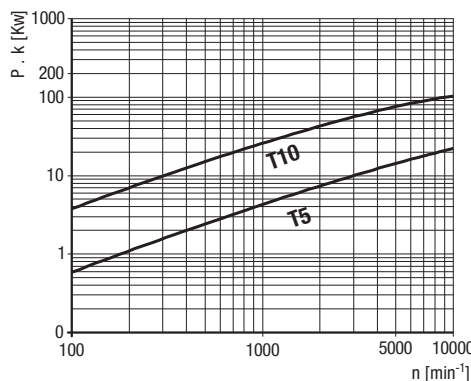
$$d_w = \frac{z \cdot t}{\pi}$$

Belt length for $i \neq 1$ (for greater accuracy)

$$L_R = 2A \cdot \sin \frac{\alpha}{2} + \frac{t}{2} \cdot \left[Z_g + Z_k + \left(1 - \frac{\alpha}{180} \right) \cdot (Z_g - Z_k) \right]$$

Selection diagram

The selection diagrams enables the selection of the belt profile for the drive task in advance. The application c safety factors and the speed of the small pulley must be taken into account.



Technical information for toothed belts 22052 and 22057

Drive calculation

The following data are required for the calculation:

• drive output to be transferred	= P	[kW]
• drive speed	= n_1	[1/min]
• motor starting torque	= M_{ab}	[Nm]
• centre distance required	= A	[mm]
• max. permissible drive pulley diameter	= d_{w1}	[mm]

Safety factor

Belts are selected for uniform loads. A c_1 safety factor must be anticipated for peak and dynamic loads.

drive with uniform load $c_1 = 1.0$

drive with peak or dynamic load:

light c_1	=	1.4
medium c_1	=	1.7
heavy c_1	=	2.0

For speed step-up ratios a c_2 acceleration factor must be anticipated:

$i =$ from 0.66 to 1.0	c_2	=	1.1
$i =$ from 0.40 to 0.66	c_2	=	1.2
$i < 0.40$	c_2	=	1.3

The overall service factor is:

$$C_0 = C_1 \times C_2$$

Belt and washer selection

Use the selection diagram for belt pre-selection. Selecting the largest permissible pulley is recommended.

Calculating speed ratio i

$$i = \frac{n_1}{n_2}$$

Calculation example

- motor output to be transferred	10 kW
- drive speed n_1	2600 1/min
- drive speed n_2	2600 1/min
- motor starting torque	50 Nm
- centre distance required A	400 mm
- max. permissible drive pulley diameter d_w	130 mm
- safety factor c_1	1.4

Calculating the speed ratio

$$\frac{n_1}{n_2} = 1$$

Belt selection:

Belt pitch T10 is selected from the selection diagram taking into account safety factor 1.4 for calculated output PB of 14 kW corrected as a result.

Calculating the number of washer teeth z :

The number of teeth is calculated from the maximum permissible pulley diameter and the selected belt pitch T10. On the basis of speed ratio $i = 1$, driving and driven pulley are the same size.

$$z = \frac{130}{10} = 13 - \text{selected } z = 40 \text{ with } d_w = 127.32 \text{ mm.}$$

The maximum permissible diameter was selected in order to minimise the belt width.

$$z_1 = 40, z_2 = 40$$

Calculating the belt length

$$L_R = 2 \cdot A + \pi \cdot d_w = 2 \cdot A + z \cdot t$$

$$L_R = 2 \cdot 400 + 40 \cdot 10 = 1200 \text{ mm}$$

Calculating the number of teeth in mesh

$$z_e = \frac{\hat{\alpha}}{360} \cdot z_k$$

with $\hat{\alpha}$ [°] = wrap angle

$$\hat{\alpha} = 2 \cdot \arccos \left[\frac{t \cdot (z_g - z_k)}{2 \cdot A} \right]$$

Determining the belt width

$$b = \frac{P \cdot 1000 \cdot c_0}{z_k \cdot z_e \cdot P_{spez}} \quad b = \frac{100 \cdot M \cdot c_0}{z_k \cdot z_e \cdot M_{spez}}$$

Checking the permissible belt tension

The permissible belt tension must be greater than the maximum peripheral force anticipated.

$$F_{Tzul} > C_0 \cdot F_U \quad \text{with} \quad F_U = \frac{2000 \cdot M}{d_w}$$

Static shaft power

$$FW_{sta} = 2 \times FTV \times \cos \alpha \times \beta$$

$$FW_{sta} = 2 \times FTV \quad (\text{for } i = 1)$$

Determining the tension

The belt is tensioned correctly if the slack side remains tensioned under every operating condition that occurs. More than the required tension should be avoided so that the lowest load possible on the shaft is achieved. The correct belt tension also depends on the belt length LR (number of belt teeth z_R).

The following tension forces per side are recommended:

2 shaft drives:

$$z_R < 75 \quad F_{TV} = 1/3 F_U$$

$$75 < z_R < 150 \quad F_{TV} = 1/2 F_U$$

$$z_R > 150 \quad F_{TV} = 2/3 F_U$$

$$\text{Multi-shaft drives:} \quad F_{TV} > F_U$$

Use of an applicable measurement device is recommended to set the tension correctly.

Number of teeth in mesh

When $i = 1$ the number of teeth in mesh on both pulleys is $z_e = 20$.

Determining belt width b :

$$b = \frac{1000 \cdot 10 \cdot 1,4}{40 \cdot 12 \cdot 10,386} = 2,81 \text{ cm} = 28,1 \text{ mm}$$

The next largest standard belt width of 32 mm is selected. The belt width selected is checked based on the motor starting torque for speed $n = 0$.

$$b = \frac{100 \cdot 50}{40 \cdot 12 \cdot 3,815} = 2,73 \text{ cm} = 27,3 \text{ mm}$$

The next largest standard width of 32 mm is selected.

Checking the permissible belt tension FT_{zul} :

$$F_U = \frac{2000 \cdot 50}{127,32} = 785,4 \text{ N}$$

Tensioning force via No. of belt teeth

$$z_R = \frac{1200}{10} = 120 \text{ teeth}$$

Belt tensioning force FTV per side is:

$$F_{TV} = \frac{1}{2} \cdot F_U = 392,7 \text{ N with } z_R = 120$$

Flexibility:

The requisite minimum diameters are maintained.

Belt selected:

32 T10 - 1200

Toothed belt pulleys

T profile


Material:

Aluminium.
Rim flanges, steel.

Version:

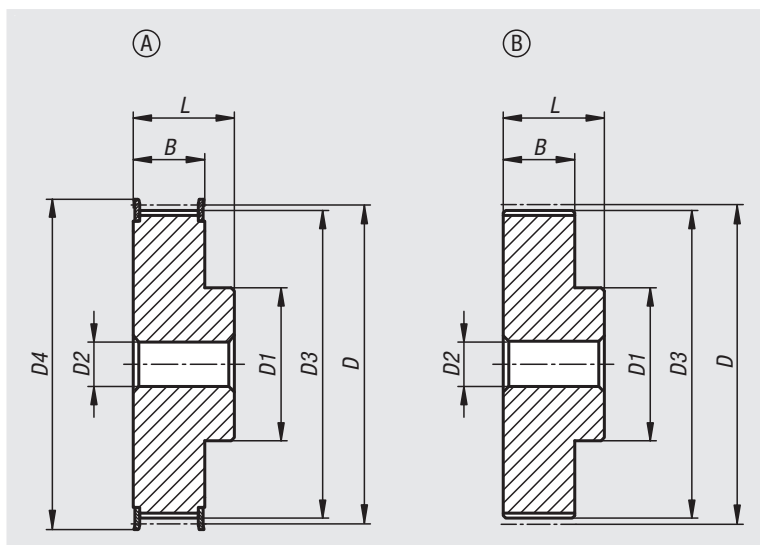
Aluminium bright.
Steel electro zinc-plated.

Sample order:

nlm 22002-051010

Note:

Standard T-profile to DIN 7721 T2 with metric pitch (trapezoidal toothings). At least one toothed belt pulley must have rim flanges. The toothed belt pulleys have a centre or pilot hole.



Toothed belt pulleys, T5 profile

Order No. belt width 10	Order No. belt width 16	Order No. belt width 25	Form	No. of teeth	D	D1	D2 max.	D3	D4	B	L
22002-051010	22002-051610	22002-052510	A	10	15,92	8	5	15,05	19,5	15/21/30	21/27/36
22002-051012	22002-051612	22002-052512	A	12	19,01	10	6	18,25	23	15/21/30	21/27/36
22002-051014	22002-051614	22002-052514	A	14	22,29	13	8	21,45	25	15/21/30	21/27/36
22002-051015	22002-051615	22002-052515	A	15	23,88	16	10	23,05	28	15/21/30	21/27/36
22002-051016	22002-051616	22002-052516	A	16	25,47	18	11	24,6	32	15/21/30	21/27/36
22002-051018	22002-051618	22002-052518	A	18	28,65	20	12	27,8	30	15/21/30	21/27/36
22002-051019	22002-051619	22002-052519	A	19	30,25	22	12	29,4	36	15/21/30	21/27/36
22002-051020	22002-051620	22002-052520	A	20	31,83	23	14	31	36	15/21/30	21/27/36
22002-051022	22002-051622	22002-052522	A	22	35,12	24	15	34,25	38	15/21/30	21/27/36
22002-051024	22002-051624	22002-052524	A	24	38,21	26	15	37,4	42	15/21/30	21/27/36
22002-051025	22002-051625	22002-052525	A	25	39,8	26	15	39	44	15/21/30	21/27/36
22002-051026	22002-051626	22002-052526	A	26	41,47	26	16	40,6	44	15/21/30	21/27/36
22002-051027	22002-051627	22002-052527	A	27	42,98	30	18	42,2	48	15/21/30	21/27/36
22002-051028	22002-051628	22002-052528	A	28	44,62	32	18	43,75	48	15/21/30	21/27/36
22002-051030	22002-051630	22002-052530	A	30	47,76	34	18	46,95	51	15/21/30	21/27/36
22002-051032	22002-051632	22002-052532	A	32	50,94	38	22	50,1	54	15/21/30	21/27/36
22002-051036	22002-051636	22002-052536	A	36	57,31	38	22	56,45	63	15/21/30	21/27/36
22002-051040	22002-051640	22002-052540	A	40	63,66	40	23	62,85	66	15/21/30	21/27/36
22002-051042	22002-051642	22002-052542	A	42	66,87	40	24	66	71	15/21/30	21/27/36
22002-051044	22002-051644	22002-052544	B	44	70,07	45	26	69,2	-	15/21/30	21/27/36
22002-051048	22002-051648	22002-052548	B	48	76,42	50	28	75,55	-	15/21/30	21/27/36
22002-051060	22002-051660	22002-052560	B	60	95,52	65	35	94,65	-	15/21/30	21/27/36

Toothed belt pulleys

T profile

Toothed belt pulleys, T10 profile

Order No. belt width 16	Order No. belt width 25	Order No. belt width 32	Form	No. of teeth	D	D1	D2 max.	D3	D4	B	L
22002-101612	22002-102512	-	A	12	38,2	28	16	36,35	42	21/30	31/40
22002-101614	22002-102514	-	A	14	44,56	32	18	42,7	48	21/30	31/40
22002-101615	22002-102515	-	A	15	47,75	32	18	45,9	51	21/30	31/40
22002-101616	22002-102516	-	A	16	50,93	35	20	49,05	54	21/30	31/40
22002-101618	22002-102518	22002-103218	A	18	57,29	40	22	55,45	60	21/30/37	31/40/47
22002-101619	22002-102519	22002-103219	A	19	60,48	44	22	58,6	66	21/30/37	31/40/47
22002-101620	22002-102520	22002-103220	A	20	63,66	46	24	61,8	66	21/30/37	31/40/47
22002-101622	22002-102522	22002-103222	A	22	70,03	52	28	68,15	75	21/30/37	31/40/47
22002-101624	22002-102524	22002-103224	A	24	76,39	58	30	74,55	83	21/30/37	31/40/47
22002-101625	22002-102525	22002-103225	A	25	79,58	60	30	77,7	83	21/30/37	31/40/47
22002-101626	22002-102526	22002-103226	A	26	82,76	60	30	80,9	87	21/30/37	31/40/47
22002-101627	22002-102527	22002-103227	A	27	85,95	60	30	84,1	91	21/30/37	31/40/47
22002-101628	22002-102528	22002-103228	A	28	89,13	60	30	87,25	93	21/30/37	31/40/47
22002-101630	22002-102530	22002-103230	A	30	95,49	60	30	93,65	97	21/30/37	31/40/47
22002-101632	22002-102532	22002-103232	A	32	101,86	65	32	100	106	21/30/37	31/40/47
22002-101636	22002-102536	22002-103236	A	36	114,59	70	35	112,75	119	21/30/37	31/40/47
22002-101640	22002-102540	22002-103240	A	40	127,32	80	40	125,45	131	21/30/37	31/40/47
22002-101644	22002-102544	22002-103244	B	44	140,06	88	46	138,2	-	21/30/37	31/40/47
22002-101648	22002-102548	22002-103248	B	48	152,78	95	48	150,95	-	21/30/37	31/40/47
22002-101660	22002-102560	22002-103260	B	60	190,98	110	60	189,1	-	21/30/37	31/40/47

Toothed belt pulleys

AT profile


Material:

Aluminium.
Rim flanges, steel.

Version:

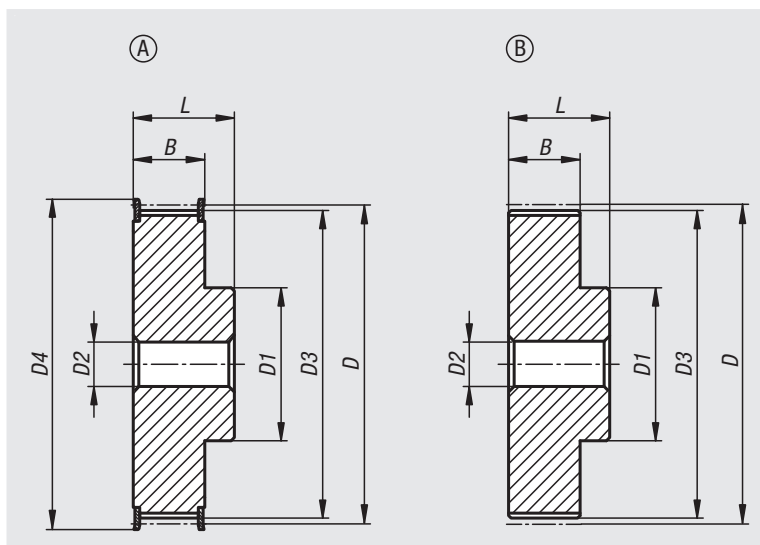
Aluminium bright.
Steel electro zinc-plated.

Sample order:

nlm 22003-051012

Note:

Standard AT profile with metric pitch (trapezoidal toothing). At least one belt pulley must have a rim flange. The toothed belt pulleys are centre bored or pre-drilled. The pulleys may be recessed on the sides.



Toothed belt pulleys, AT5 profile

Order No. belt width 10	Order No. belt width 16	Order No. belt width 25	Form	No. of teeth	D=diameter	D1	D2 max.	D3	D4	B	L
22003-051012	22003-051612	22003-052512	A	12	19,01	10	6	17,85	23	15/21/30	21/27/36
22003-051014	22003-051614	22003-052514	A	14	22,29	13	8	21,05	25	15/21/30	21/27/36
22003-051015	22003-051615	22003-052515	A	15	23,88	16	10	22,65	28	15/21/30	21/27/36
22003-051016	22003-051616	22003-052516	A	16	25,47	18	11	24,2	32	15/21/30	21/27/36
22003-051018	22003-051618	22003-052518	A	18	28,65	20	12	27,4	32	15/21/30	21/27/36
22003-051019	22003-051619	22003-052519	A	19	30,25	22	12	29	36	15/21/30	21/27/36
22003-051020	22003-051620	22003-052520	A	20	31,83	23	14	30,6	36	15/21/30	21/27/36
22003-051022	22003-051622	22003-052522	A	22	35,12	24	15	33,85	38	15/21/30	21/27/36
22003-051024	22003-051624	22003-052524	A	24	38,21	26	15	37	42	15/21/30	21/27/36
22003-051025	22003-051625	22003-052525	A	25	39,8	26	15	38,6	44	15/21/30	21/27/36
22003-051026	22003-051626	22003-052526	A	26	41,47	26	16	40,2	44	15/21/30	21/27/36
22003-051027	22003-051627	22003-052527	A	27	42,98	30	18	41,8	48	15/21/30	21/27/36
22003-051028	22003-051628	22003-052528	A	28	44,62	32	18	43,35	48	15/21/30	21/27/36
22003-051030	22003-051630	22003-052530	A	30	47,76	34	18	46,55	51	15/21/30	21/27/36
22003-051032	22003-051632	22003-052532	A	32	50,94	36	22	49,7	54	15/21/30	21/27/36
22003-051036	22003-051636	22003-052536	A	36	57,31	38	22	56,05	63	15/21/30	21/27/36
22003-051040	22003-051640	22003-052540	A	40	63,66	40	23	62,45	66	15/21/30	21/27/36
22003-051042	22003-051642	22003-052542	A	42	66,87	40	24	65,6	71	15/21/30	21/27/36
22003-051044	22003-051644	22003-052544	B	44	70,07	45	26	68,8	-	15/21/30	21/27/36
22003-051048	22003-051648	22003-052548	B	48	76,42	50	28	75,15	-	15/21/30	21/27/36
22003-051060	22003-051660	22003-052560	B	60	95,52	65	35	94,25	-	15/21/30	21/27/36

Toothed belt pulleys

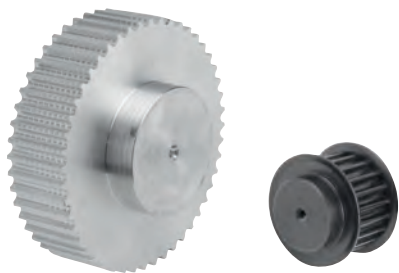
AT profile

Toothed belt pulleys, AT10 profile

Order No. belt width 16	Order No. belt width 25	Order No. belt width 32	Form	No. of teeth	D=diameter	D1	D2 max.	D3	D4	B	L
22003-101615	22003-102515	-	A	15	47,75	32	18	45,9	51	21/30	31/40
22003-101616	22003-102516	-	A	16	50,93	35	20	49,05	54	21/30	31/40
22003-101618	22003-102518	22003-103218	A	18	57,29	40	22	55,45	60	21/30/37	31/40/47
22003-101619	22003-102519	22003-103219	A	19	60,48	44	22	58,6	66	21/30/37	31/40/47
22003-101620	22003-102520	22003-103220	A	20	63,66	46	24	61,8	66	21/30/37	31/40/47
22003-101622	22003-102522	22003-103222	A	22	70,03	52	28	68,15	75	21/30/37	31/40/47
22003-101624	22003-102524	22003-103224	A	24	76,39	58	30	74,55	83	21/30/37	31/40/47
22003-101625	22003-102525	22003-103225	A	25	79,58	60	30	77,7	83	21/30/37	31/40/47
22003-101626	22003-102526	22003-103226	A	26	82,76	60	30	80,9	87	21/30/37	31/40/47
22003-101627	22003-102527	22003-103227	A	27	85,95	60	30	84,1	91	21/30/37	31/40/47
22003-101628	22003-102528	22003-103228	A	28	89,13	60	30	87,25	93	21/30/37	31/40/47
22003-101630	22003-102530	22003-103230	A	30	95,49	60	30	93,65	97	21/30/37	31/40/47
22003-101632	22003-102532	22003-103232	A	32	101,86	65	32	100	106	21/30/37	31/40/47
22003-101636	22003-102536	22003-103236	A	36	114,59	70	35	112,75	119	21/30/37	31/40/47
22003-101640	22003-102540	22003-103240	A	40	127,32	80	40	125,45	131	21/30/37	31/40/47
22003-101644	22003-102544	22003-103244	B	44	140,06	88	46	138,2	-	21/30/37	31/40/47
22003-101648	22003-102548	22003-103248	B	48	152,78	95	48	150,95	-	21/30/37	31/40/47
22003-101660	22003-102560	22003-103260	B	60	190,98	110	60	189,1	-	21/30/37	31/40/47

Toothed pulleys

profile HTD 5M



Material:

Steel.

Toothed pulleys without aluminium rim flanges.

Version:

Steel phosphated.

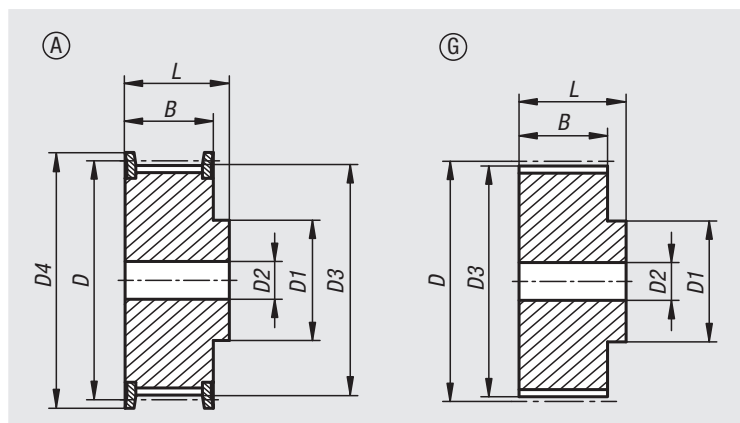
Aluminium bright.

Sample order:

nlm 22004-051512

Note:

Standard HTD profile with metric pitch (rounded toothing). At least one toothed belt pulley must have a rim flange. The toothed belt pulleys are centre bored or pre-drilled. The pulleys may be recessed on the sides.



Order No. belt width 15	Order No. belt width 25	Form	Main material	No. of teeth	D1 max.	D2 max.	D3	D4 max.	B	L
22004-051512	22004-052512	A	steel	12	13	6	17,96	23	20,5/30	26/36
22004-051514	22004-052514	A	steel	14	14	6	21,14	25	20,5/30	26/36
22004-051515	22004-052515	A	steel	15	16	6	22,73	28	20,5/30	26/36
22004-051516	22004-052516	A	steel	16	16,5	6	24,32	28	20,5/30	26/36
22004-051518	22004-052518	A	steel	18	20	6	27,51	32	20,5/30	26/36
22004-051520	22004-052520	A	steel	20	23	6	30,69	36	20,5/30	26/36
22004-051521	22004-052521	A	steel	21	24	6	32,28	38	20,5/30	26/38
22004-051522	22004-052522	A	steel	22	25,5	6	33,87	39	20,5/30	26/38
22004-051524	22004-052524	A	steel	24	27	6	37,06	42	20,5/30	28/38
22004-051526	22004-052526	A	steel	26	30	6	40,24	46	20,5/30	28/38
22004-051528	22004-052528	A	steel	28	30,5	6	43,42	50	20,5/30	28/38
22004-051530	22004-052530	A	steel	30	35	8	46,61	51	20,5/30	28/38
22004-051532	22004-052532	A	steel	32	38	8	49,79	55	20,5/30	28/38
22004-051536	22004-052536	A	steel	36	38	8	56,16	62	20,5/30	28/38
22004-051540	22004-052540	A	steel	40	38	8	62,52	71	20,5/30	28/38
22004-051544	22004-052544	G	aluminium	44	38	8	68,89	-	20,5/30	30/40
22004-051548	22004-052548	G	aluminium	48	45	8	75,25	-	20,5/30	30/40
22004-051560	22004-052560	G	aluminium	60	50	8	94,35	-	20,5/30	30/40
22004-051572	22004-052572	G	aluminium	72	50	8	113,45	-	20,5/30	30/40

Toothed pulleys

profile HTD 8M



Material:

Steel or grey cast iron.

Version:

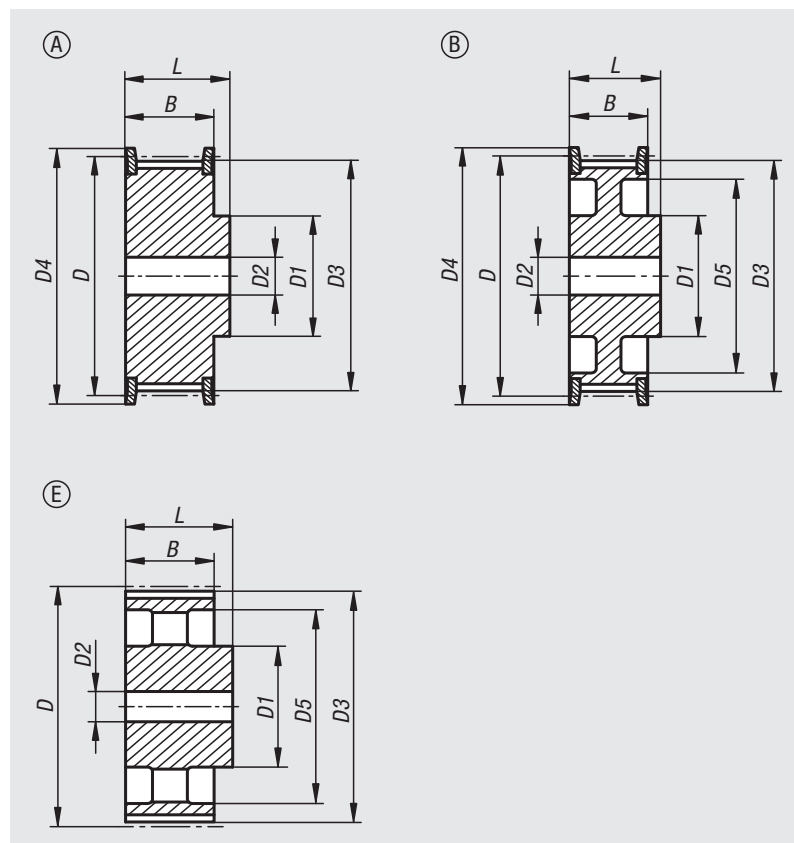
Phosphated

Sample order:

nlm 22004-0820018

Note:

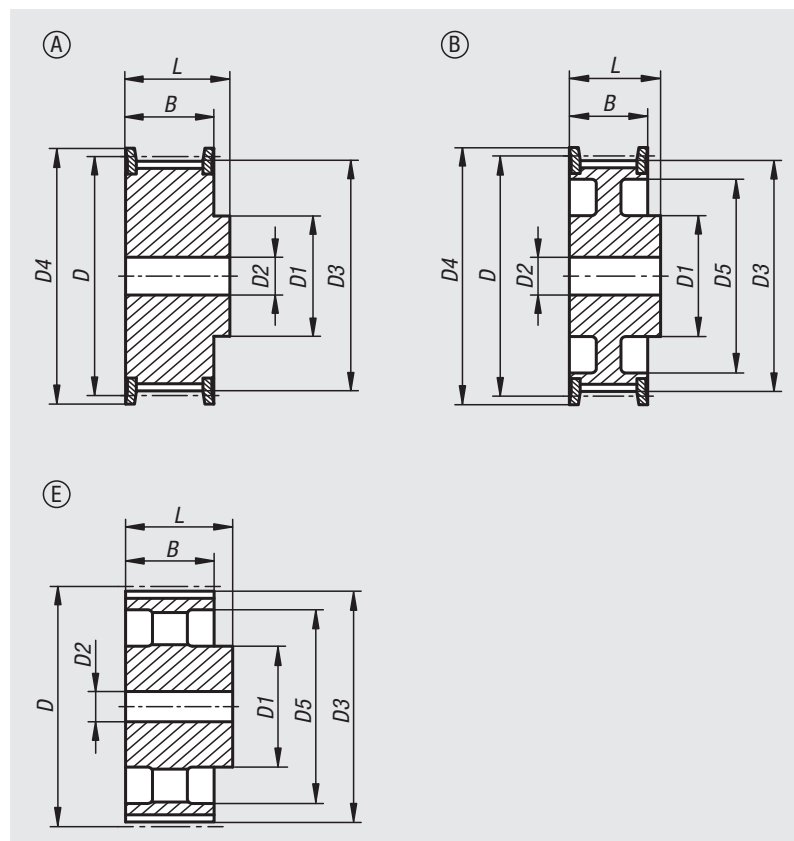
Standard HTD profile with metric graduation (rounded toothings). At least one toothed belt pulley must have a rim flange. The toothed belt pulleys are centre bored or pre-drilled.



Order No.	belt width	Form	Material	No. of teeth	D	D1 max.	D2 max.	D3	D4 max.	D5	B	L
22004-0820018	20	A	steel	18	45,84	32	12	44,46	51	-	28	38
22004-0820020	20	A	steel	20	50,93	36	12	49,56	57	-	28	38
22004-0820022	20	A	steel	22	56,02	43	12	54,65	62	-	28	38
22004-0820024	20	A	steel	24	61,12	49	12	59,74	67	-	28	38
22004-0820026	20	A	steel	26	66,21	50	12	64,84	73	-	28	38
22004-0820028	20	A	steel	28	71,3	55	14	69,93	77	-	28	38
22004-0820030	20	A	steel	30	76,39	60	14	75,02	84	-	28	38
22004-0820032	20	A	steel	32	81,49	64	14	80,12	88	-	28	38
22004-0820034	20	A	steel	34	86,58	70	14	85,21	94	-	28	38
22004-0820036	20	A	steel	36	91,67	75	14	90,3	98	-	28	38
22004-0820038	20	A	steel	38	96,77	80	14	95,39	104	-	28	38
22004-0820040	20	A	steel	40	101,86	85	14	100,49	108	-	28	38
22004-0820044	20	A	grey cast iron	44	112,05	96	14	110,67	121	-	28	38
22004-0820048	20	A	grey cast iron	48	122,23	104	14	120,86	129	-	28	38
22004-0820056	20	B	grey cast iron	56	142,6	80	14	141,23	150	117	28	38
22004-0820060	20	B	grey cast iron	60	152,79	80	14	151,42	158	127	28	38
22004-0820064	20	B	grey cast iron	64	162,97	80	14	161,6	168	137	28	38
22004-0820072	20	B	grey cast iron	72	183,35	80	18	181,97	192	158	28	38
22004-0820080	20	E	grey cast iron	80	203,72	90	14	202,35	-	179	28	38
22004-0820084	20	E	grey cast iron	84	213,9	90	14	212,53	-	190	28	38
22004-0820090	20	E	grey cast iron	90	229,18	90	14	227,81	-	204	28	38
22004-0820112	20	E	grey cast iron	112	285,21	90	20	283,83	-	260	28	38
22004-0820144	20	E	grey cast iron	144	366,69	90	20	365,32	-	342	28	38
22004-0820168	20	E	grey cast iron	168	427,8	100	20	426,42	-	403	28	38
22004-0820192	20	E	grey cast iron	192	488,92	100	20	487,54	-	465	28	38

Toothed pulleys

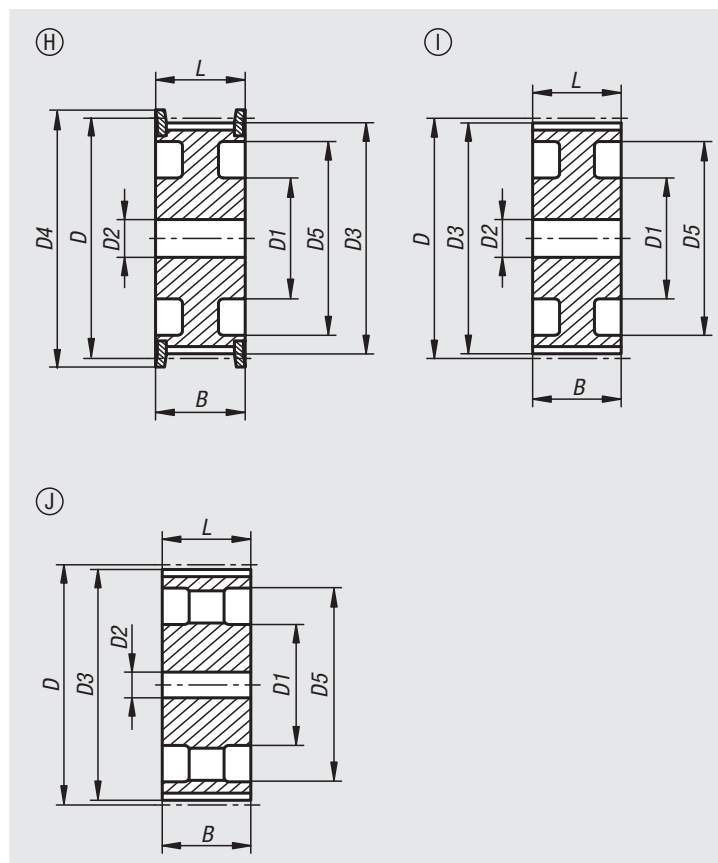
profile HTD 8M



Order No.	belt width	Form	Material	No. of teeth	D	D1 max.	D2 max.	D3	D4 max.	D5	B	L
22004-0830018	30	A	steel	18	45,84	32	12	44,46	51	-	38	48
22004-0830020	30	A	steel	20	50,93	36	12	49,56	57	-	38	48
22004-0830022	30	A	steel	22	56,02	43	12	54,65	62	-	38	48
22004-0830024	30	A	steel	24	61,12	49	12	59,74	67	-	38	48
22004-0830026	30	A	steel	26	66,21	50	12	64,84	73	-	38	48
22004-0830028	30	A	steel	28	71,3	55	14	69,93	77	-	38	48
22004-0830030	30	A	steel	30	76,39	60	14	75,02	84	-	38	48
22004-0830032	30	A	steel	32	81,49	64	14	80,12	88	-	38	48
22004-0830034	30	A	steel	34	86,58	70	14	85,21	94	-	38	48
22004-0830036	30	A	steel	36	91,67	75	14	90,3	98	-	38	48
22004-0830038	30	A	steel	38	96,77	80	14	95,39	104	-	38	48
22004-0830040	30	A	steel	40	101,86	85	14	100,49	108	-	38	48
22004-0830044	30	A	grey cast iron	44	112,05	96	14	110,67	121	-	38	48
22004-0830048	30	A	grey cast iron	48	122,23	104	14	120,86	129	-	38	48
22004-0830056	30	B	grey cast iron	56	142,6	90	14	141,23	150	117	38	48
22004-0830060	30	B	grey cast iron	60	152,79	90	14	151,42	158	127	38	48
22004-0830064	30	B	grey cast iron	64	162,97	90	14	161,6	168	137	38	48
22004-0830072	30	B	grey cast iron	72	183,35	95	14	181,97	192	158	38	48
22004-0830080	30	E	grey cast iron	80	203,72	100	14	202,35	-	179	38	48
22004-0830084	30	E	grey cast iron	84	213,9	100	14	212,53	-	190	38	48
22004-0830090	30	E	grey cast iron	90	229,18	100	14	227,81	-	204	38	48
22004-0830112	30	E	grey cast iron	112	285,21	100	20	283,83	-	260	38	48
22004-0830144	30	E	grey cast iron	144	366,69	100	20	365,32	-	342	38	48
22004-0830168	30	E	grey cast iron	168	427,8	100	20	426,42	-	403	38	48
22004-0830192	30	E	grey cast iron	192	488,92	100	20	487,54	-	465	38	48

Toothed pulleys

profile HTD 8M



Order No.	belt width	Form	Material	No. of teeth	D	D1 max.	D2 max.	D3	D4 max.	D5	B	L
22004-0850018	50	A	steel	18	45,84	32	12	44,46	51	-	60	70
22004-0850020	50	A	steel	20	50,93	36	12	49,56	57	-	60	70
22004-0850022	50	A	steel	22	56,02	43	12	54,65	62	-	60	70
22004-0850024	50	A	steel	24	61,12	49	12	59,74	67	-	60	70
22004-0850026	50	A	steel	26	66,21	50	12	64,84	73	-	60	70
22004-0850028	50	A	steel	28	71,3	55	14	69,93	77	-	60	70
22004-0850030	50	A	steel	30	76,39	60	14	75,02	84	-	60	70
22004-0850032	50	A	steel	32	81,49	64	14	80,12	88	-	60	70
22004-0850034	50	A	steel	34	86,58	70	14	85,21	94	-	60	70
22004-0850036	50	A	steel	36	91,67	75	14	90,3	98	-	60	70
22004-0850038	50	A	steel	38	96,77	80	14	95,39	104	-	60	70
22004-0850040	50	A	steel	40	101,86	85	14	100,49	108	-	60	70
22004-0850044	50	A	grey cast iron	44	112,05	96	14	110,67	121	-	60	70
22004-0850048	50	A	grey cast iron	48	122,23	104	14	120,86	129	-	60	70
22004-0850056	50	H	grey cast iron	56	142,6	90	18	141,23	150	117	60	60
22004-0850060	50	H	grey cast iron	60	152,79	100	18	151,42	158	127	60	60
22004-0850064	50	H	grey cast iron	64	162,97	100	18	161,6	168	137	60	60
22004-0850072	50	H	grey cast iron	72	183,35	100	18	181,97	192	158	60	60
22004-0850080	50	I	grey cast iron	80	203,72	110	18	202,35	-	179	60	60
22004-0850084	50	J	grey cast iron	84	213,9	110	18	212,53	-	190	60	60
22004-0850090	50	J	grey cast iron	90	229,18	110	18	227,81	-	204	60	60
22004-0850112	50	J	grey cast iron	112	285,21	110	20	283,83	-	260	60	60
22004-0850144	50	J	grey cast iron	144	366,69	110	20	365,32	-	342	60	60
22004-0850168	50	J	grey cast iron	168	427,8	120	20	426,42	-	403	60	60
22004-0850192	50	J	grey cast iron	192	488,92	130	20	487,54	-	465	60	60

Toothed pulleys

profile HTD 5M, for assembly with taper clamping bushes


Material:

Steel or grey cast iron.

Version:

Phosphated

Sample order:

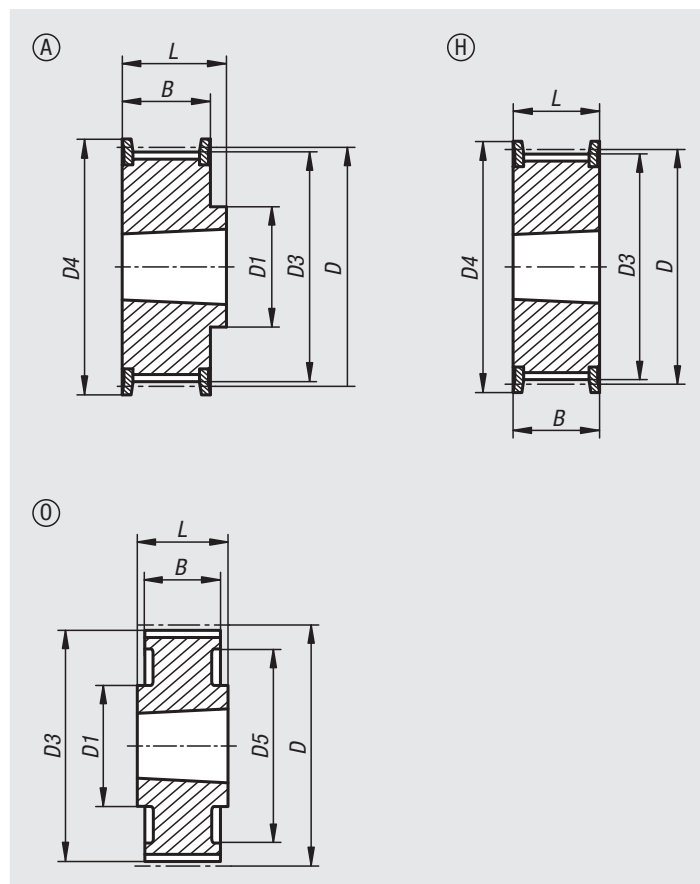
nlm 22005-0515034

Note:

Standard HTD profile with metric pitch (rounded toothing). At least one toothed belt pulley must have a rim flange. Conical hole for taper clamping bushes. The taper clamping bushes must be ordered separately and are available for various shaft diameters. Pulleys with a taper hole are statically balanced as per ISO 1940 grade G16.

Accessories:

Taper clamping bushes 23200.



Order No.	belt width	Form	Main material	Version 2	No. of teeth	D	D1 max.	D3	D4 max.	D5	B	L
22005-0515034	15	H	steel	for taper bush 1008	34	54,11	-	52,97	57	-	22	22
22005-0515036	15	H	steel	for taper bush 1108	36	57,3	-	56,16	62	-	22	22
22005-0515038	15	H	steel	for taper bush 1108	38	60,48	-	59,34	67	-	22	22
22005-0515040	15	H	steel	for taper bush 1108	40	63,66	-	62,52	73	-	22	22
22005-0515044	15	H	steel	for taper bush 1108	44	70,03	-	68,89	75	-	22	22
22005-0515048	15	A	steel	for taper bush 1210	48	76,39	64	75,25	84	-	20,5	25
22005-0515056	15	A	grey cast iron	for taper bush 1210	56	89,13	70	87,99	94	-	20,5	25
22005-0515064	15	A	grey cast iron	for taper bush 1210	64	101,86	80	100,72	108	-	20,5	25
22005-0515072	15	A	grey cast iron	for taper bush 1610	72	114,59	92	113,45	121	-	20,5	25
22005-0515080	15	A	grey cast iron	for taper bush 1610	80	127,32	92	126,18	135	-	20,5	25
22005-0515090	15	O	grey cast iron	for taper bush 1610	90	143,24	92	142,1	-	122	20,5	25
22005-0515112	15	O	grey cast iron	for taper bush 1610	112	178,25	110	177,11	-	157	20,5	25

Toothed pulleys

profile HTD 8M, for assembly with taper clamping bushes



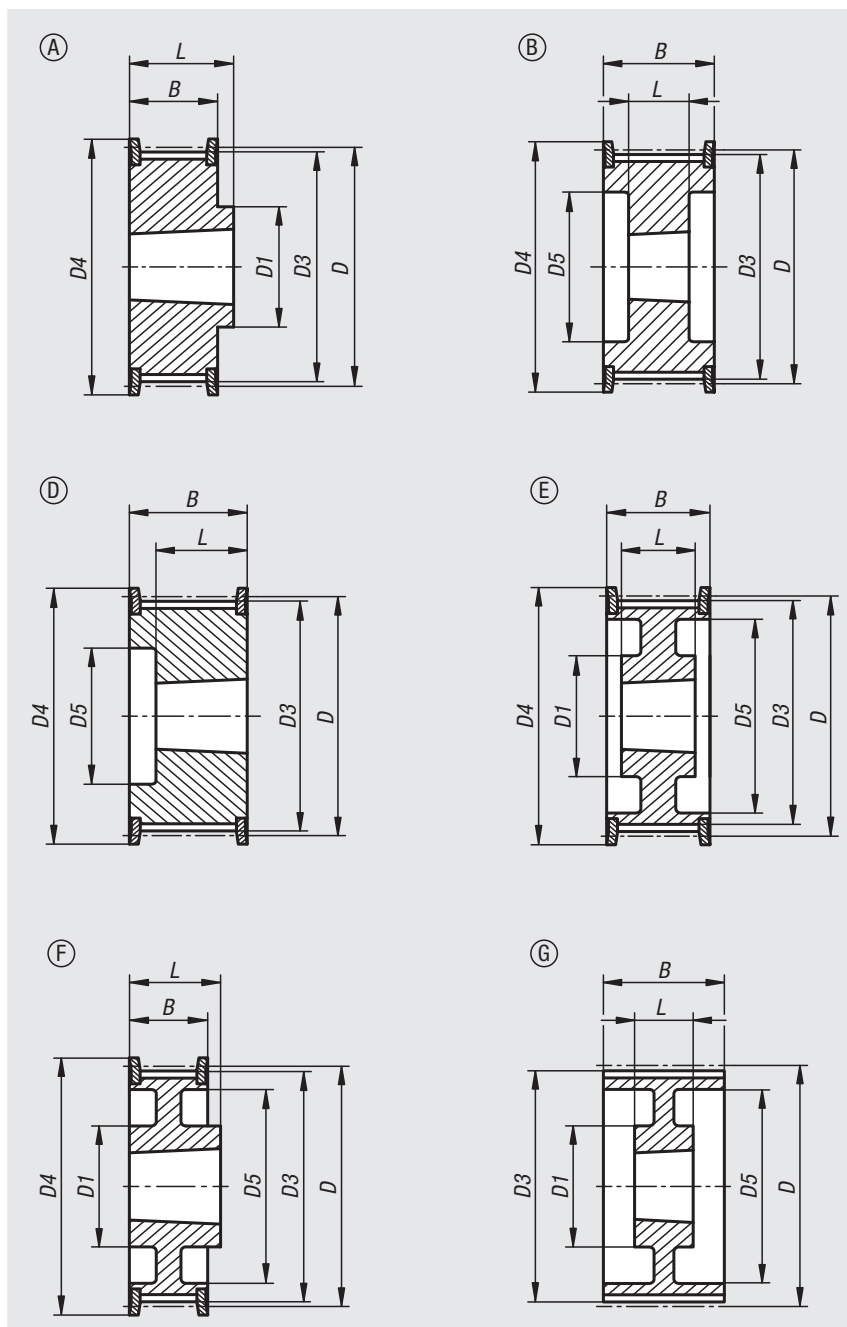
Material:
Cast Iron.

Version:
Phosphated

Sample order:
nlm 22005-0820022

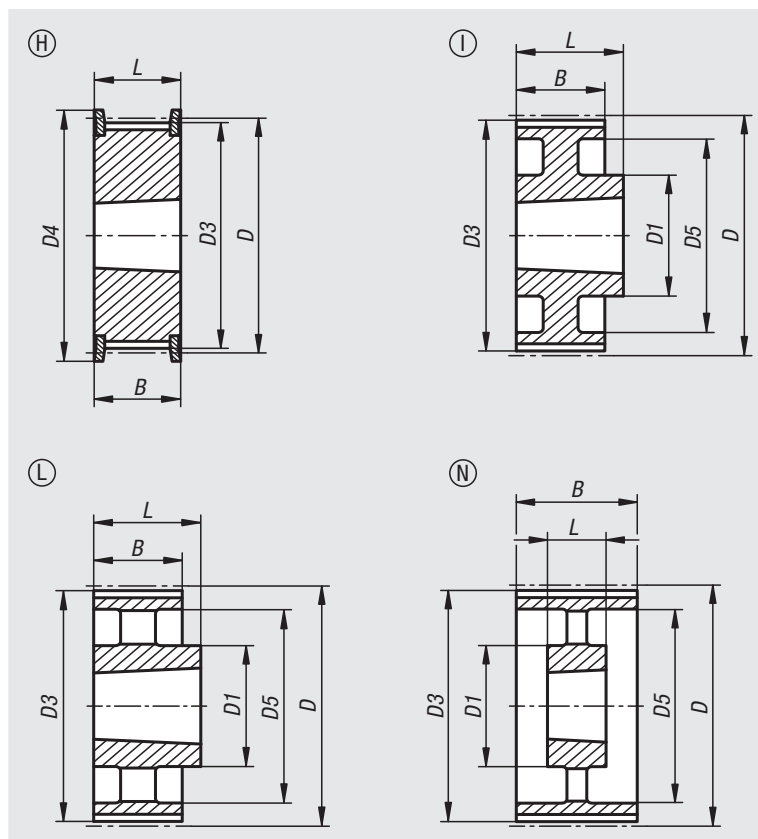
Note:
Standard HTD profile with metric pitch (rounded toothing). At least one toothed belt pulley must have a rim flange. Conical hole for taper clamping bushes. The taper clamping bushes must be ordered separately and are available for various shaft diameters. Pulleys with a taper hole are statically balanced as per ISO 1940 grade G16.

Accessories:
Taper clamping bushes 23200.



Toothed pulleys

profile HTD 8M, for assembly with taper clamping bushes



Order No.	belt width	Form	Main material	Version 2	No. of teeth	D	D1 max.	D3	D4 max.	D5	B	L
22005-0820022	20	D	grey cast iron	for taper bush 1008	22	56,02	-	54,65	62	38	28	22
22005-0820024	20	D	grey cast iron	for taper bush 1108	24	61,12	-	59,74	67	42	28	22
22005-0820026	20	D	grey cast iron	for taper bush 1108	26	66,21	-	64,84	73	45	28	22
22005-0820028	20	D	grey cast iron	for taper bush 1108	28	71,3	-	69,93	77	52	28	22
22005-0820030	20	D	grey cast iron	for taper bush 1108	30	76,39	-	75,02	84	56	28	22
22005-0820032	20	D	grey cast iron	for taper bush 1610	32	81,49	-	80,12	88	65	28	25
22005-0820034	20	D	grey cast iron	for taper bush 1610	34	86,58	-	85,21	94	66	28	25
22005-0820036	20	D	grey cast iron	for taper bush 1610	36	91,67	-	90,3	98	68	28	25
22005-0820038	20	D	grey cast iron	for taper bush 1610	38	96,77	-	95,39	104	76	28	25
22005-0820040	20	D	grey cast iron	for taper bush 1610	40	101,86	-	100,49	108	80	28	25
22005-0820044	20	A	grey cast iron	for taper bush 2012	44	112,05	99	110,67	121	-	28	32
22005-0820048	20	A	grey cast iron	for taper bush 2012	48	122,23	105	120,86	129	-	28	32
22005-0820056	20	A	grey cast iron	for taper bush 2012	56	142,6	110	141,23	150	-	28	32
22005-0820064	20	F	grey cast iron	for taper bush 2012	64	162,97	110	161,6	168	140	28	32
22005-0820072	20	F	grey cast iron	for taper bush 2012	72	183,35	110	181,97	192	158	28	32
22005-0820080	20	I	grey cast iron	for taper bush 2012	80	203,74	110	202,35	-	178	28	32
22005-0820090	20	L	grey cast iron	for taper bush 2012	90	229,18	110	227,81	-	204	28	32

Toothed pulleys

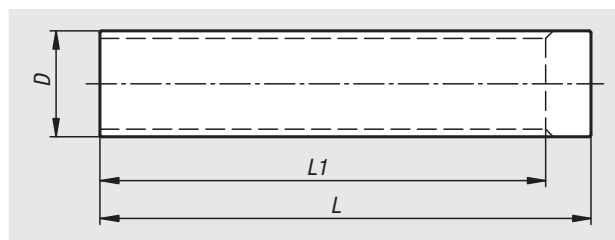
profile HTD 8M, for assembly with taper clamping bushes

Order No.	belt width	Form	Main material	Version 2	No. of teeth	D	D1 max.	D3	D4 max.	D5	B	L
22005-0830022	30	D	grey cast iron	for taper bush 1008	22	56,02	-	54,65	62	38	38	22
22005-0830024	30	D	grey cast iron	for taper bush 1108	24	61,12	-	59,74	67	42	38	22
22005-0830026	30	D	grey cast iron	for taper bush 1108	26	66,21	-	64,84	73	45	38	22
22005-0830028	30	D	grey cast iron	for taper bush 1108	28	71,3	-	69,93	77	52	38	22
22005-0830030	30	H	grey cast iron	for taper bush 1615	30	76,39	-	75,02	84	-	38	38
22005-0830032	30	H	grey cast iron	for taper bush 1615	32	81,49	-	80,12	88	-	38	38
22005-0830034	30	H	grey cast iron	for taper bush 1615	34	86,58	-	85,21	94	-	38	38
22005-0830036	30	H	grey cast iron	for taper bush 1615	36	91,67	-	90,3	98	-	38	38
22005-0830038	30	H	grey cast iron	for taper bush 1615	38	96,77	-	95,39	104	-	38	38
22005-0830040	30	H	grey cast iron	for taper bush 1615	40	101,86	-	100,49	108	-	38	38
22005-0830044	30	B	grey cast iron	for taper bush 2012	44	112,05	-	110,67	121	90	38	32
22005-0830048	30	B	grey cast iron	for taper bush 2012	48	122,23	-	120,86	129	98	38	32
22005-0830056	30	B	grey cast iron	for taper bush 2012	56	142,6	-	141,23	150	118	38	32
22005-0830064	30	F	grey cast iron	for taper bush 2517	64	162,97	125	161,6	168	140	38	45
22005-0830072	30	F	grey cast iron	for taper bush 2517	72	183,35	125	181,97	192	158	38	45
22005-0830080	30	I	grey cast iron	for taper bush 2517	80	203,74	125	202,35	-	178	38	45
22005-0830090	30	L	grey cast iron	for taper bush 2517	90	229,18	125	227,81	-	204	38	45
22005-0830112	30	L	grey cast iron	for taper bush 2517	112	285,21	125	283,83	-	260	38	45
22005-0830144	30	L	grey cast iron	for taper bush 2517	144	366,69	125	365,32	-	341	38	45

Order No.	belt width	Form	Main material	Version 2	No. of teeth	D	D1 max.	D3	D4 max.	D5	B	L
22005-0850028	50	B	grey cast iron	for taper bush 1108	28	71,3	-	69,93	77	52	60	22
22005-0850030	50	D	grey cast iron	for taper bush 1615	30	76,39	-	75,02	84	58	60	38
22005-0850032	50	D	grey cast iron	for taper bush 1615	32	81,49	-	80,12	88	60	60	38
22005-0850034	50	D	grey cast iron	for taper bush 1615	34	86,58	-	85,21	94	66	60	38
22005-0850036	50	D	grey cast iron	for taper bush 1615	36	91,67	-	90,3	98	68	60	38
22005-0850038	50	D	grey cast iron	for taper bush 1615	38	96,77	-	95,39	104	75	60	38
22005-0850040	50	B	grey cast iron	for taper bush 2012	40	101,86	-	100,49	108	80	60	32
22005-0850044	50	B	grey cast iron	for taper bush 2012	44	112,05	-	110,67	121	90	60	32
22005-0850048	50	B	grey cast iron	for taper bush 2012	48	122,23	-	120,86	129	100	60	32
22005-0850056	50	B	grey cast iron	for taper bush 2517	56	142,6	-	141,23	150	120	60	45
22005-0850064	50	E	grey cast iron	for taper bush 2517	64	162,97	120	161,6	168	138	60	45
22005-0850072	50	E	grey cast iron	for taper bush 2517	72	183,35	125	181,97	192	158	60	45
22005-0850080	50	G	grey cast iron	for taper bush 3020	80	203,74	170	202,35	-	178	60	51
22005-0850090	50	G	grey cast iron	for taper bush 3020	90	229,18	170	227,81	-	204	60	51
22005-0850112	50	N	grey cast iron	for taper bush 3020	112	285,21	170	283,83	-	260	60	51
22005-0850144	50	N	grey cast iron	for taper bush 3020	144	366,69	170	365,32	-	341	60	51
22005-0850168	50	N	grey cast iron	for taper bush 3020	168	427,8	198	426,42	-	402	60	51
22005-0850192	50	N	grey cast iron	for taper bush 3020	192	488,92	198	487,54	-	462	60	51

Splined shafts

T profile



Material:
Aluminium.

Version:
Bright.

Sample order:
nlm 22007-05010

Note:
Standard T-profile to DIN 7721-2 with metric pitch (trapezoidal toothing). For manufacturing your own toothed wheels

Splined shafts, T5 profile

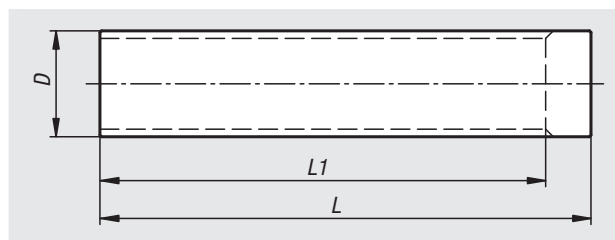
Order No.	Profile	No. of teeth	D	L	L1
22007-05010	T5	10	15,05	140	125
22007-05011	T5	11	16,65	140	125
22007-05012	T5	12	18,25	140	125
22007-05013	T5	13	19,85	140	125
22007-05014	T5	14	21,45	140	132
22007-05015	T5	15	23,05	140	132
22007-05016	T5	16	24,6	140	140
22007-05017	T5	17	26,2	140	140
22007-05018	T5	18	27,8	140	140
22007-05019	T5	19	29,4	140	140
22007-05020	T5	20	31	160	160
22007-05021	T5	21	32,7	160	160
22007-05022	T5	22	34,15	160	160
22007-05023	T5	23	35,85	160	160
22007-05024	T5	24	37,4	160	160
22007-05025	T5	25	38,95	160	160
22007-05026	T5	26	40,6	160	160
22007-05027	T5	27	42,2	160	160
22007-05028	T5	28	43,75	160	160
22007-05029	T5	29	45,35	160	160
22007-05030	T5	30	46,95	160	160
22007-05032	T5	32	50,1	160	160
22007-05034	T5	34	53,25	160	160
22007-05035	T5	35	54,85	160	160
22007-05036	T5	36	56,45	160	160
22007-05037	T5	37	58,06	160	160
22007-05038	T5	38	59,65	160	160
22007-05040	T5	40	62,85	160	160
22007-05042	T5	42	66	160	160
22007-05044	T5	44	69,2	160	160
22007-05045	T5	45	70,8	160	160
22007-05046	T5	46	72,4	160	160
22007-05048	T5	48	75,55	160	160
22007-05050	T5	50	78,75	160	160
22007-05060	T5	60	94,65	160	160
22007-05072	T5	72	113,75	160	160
22007-05080	T5	80	126,48	160	160
22007-05090	T5	90	142,4	160	160
22007-05100	T5	100	158,31	160	160

Splined shafts, T10 profile

Order No.	Profile	No. of teeth	D	L	L1
22007-10010	T10	10	29,98	140	140
22007-10011	T10	11	33,16	140	140
22007-10012	T10	12	36,35	140	140
22007-10013	T10	13	39,5	140	140
22007-10014	T10	14	42,7	160	160
22007-10015	T10	15	45,9	160	160
22007-10016	T10	16	49,1	160	160
22007-10017	T10	17	52,25	160	160
22007-10018	T10	18	55,45	160	160
22007-10019	T10	19	58,65	160	160
22007-10020	T10	20	61,8	160	160
22007-10021	T10	21	65	160	160
22007-10022	T10	22	68,2	160	160
22007-10023	T10	23	71,35	160	160
22007-10024	T10	24	74,55	160	160
22007-10026	T10	26	80,9	160	160
22007-10028	T10	28	87,25	160	160
22007-10030	T10	30	93,65	160	160
22007-10032	T10	32	100	160	160
22007-10034	T10	34	106,4	160	160
22007-10036	T10	36	112,75	160	160
22007-10038	T10	38	119,1	160	160
22007-10040	T10	40	125,45	160	160
22007-10045	T10	45	141,4	160	160
22007-10048	T10	48	150,95	160	160
22007-10060	T10	60	189,1	160	160
22007-10072	T10	72	227,29	160	160

Splined shafts

AT profile



Material:
Aluminium.

Version:
Bright.

Sample order:
nlm 22008-05012

Note:
Standard AT-profile with metric pitch (trapezoidal toothing). For manufacturing your own toothed wheels

Splined shafts, AT5 profile

Order No.	Profile	No. of teeth	D	L	L1
22008-05012	AT5	12	17,85	140	125
22008-05013	AT5	13	19,45	140	125
22008-05014	AT5	14	21,05	140	132
22008-05015	AT5	15	22,65	140	132
22008-05016	AT5	16	24,2	140	140
22008-05017	AT5	17	25,8	140	140
22008-05018	AT5	18	27,4	140	140
22008-05019	AT5	19	29	140	140
22008-05020	AT5	20	30,6	160	160
22008-05021	AT5	21	32,3	160	160
22008-05022	AT5	22	33,85	160	160
22008-05023	AT5	23	35,45	160	160
22008-05024	AT5	24	37	160	160
22008-05025	AT5	25	38,6	160	160
22008-05026	AT5	26	40,2	160	160
22008-05027	AT5	27	41,8	160	160
22008-05028	AT5	28	43,35	160	160
22008-05030	AT5	30	46,55	160	160
22008-05032	AT5	32	49,7	160	160
22008-05034	AT5	34	52,85	160	160
22008-05036	AT5	36	56,05	160	160
22008-05038	AT5	38	59,25	160	160
22008-05040	AT5	40	62,45	160	160
22008-05042	AT5	42	65,6	160	160
22008-05044	AT5	44	68,8	160	160
22008-05046	AT5	46	72	160	160
22008-05048	AT5	48	75,15	160	160
22008-05052	AT5	52	81,55	160	160
22008-05056	AT5	56	87,9	160	160
22008-05058	AT5	58	91,1	160	160
22008-05060	AT5	60	94,25	160	160
22008-05064	AT5	64	100,65	160	160
22008-05072	AT5	72	113,25	160	160

Splined shafts, AT10 profile

Order No.	Profile	No. of teeth	D	L	L1
22008-10015	AT10	15	45,9	160	160
22008-10016	AT10	16	49,05	160	160
22008-10017	AT10	17	52,25	160	160
22008-10018	AT10	18	55,45	160	160
22008-10019	AT10	19	58,6	160	160
22008-10020	AT10	20	61,8	160	160
22008-10021	AT10	21	65	160	160
22008-10022	AT10	22	68,15	160	160
22008-10023	AT10	23	71,35	160	160
22008-10024	AT10	24	74,55	160	160
22008-10025	AT10	25	77,7	160	160
22008-10026	AT10	26	80,9	160	160
22008-10027	AT10	27	84,1	160	160
22008-10028	AT10	28	87,25	160	160
22008-10030	AT10	30	93,65	160	160
22008-10032	AT10	32	100	160	160
22008-10034	AT10	34	106,4	160	160
22008-10036	AT10	36	112,75	160	160
22008-10038	AT10	38	119,1	160	160
22008-10040	AT10	40	125,45	160	160
22008-10042	AT10	42	131,85	160	160
22008-10044	AT10	44	138,2	160	160
22008-10046	AT10	46	144,55	160	160
22008-10048	AT10	48	150,95	160	160
22008-10052	AT10	52	163,65	160	160
22008-10056	AT10	56	176,4	160	160
22008-10058	AT10	58	182,75	160	160
22008-10060	AT10	60	189,1	160	160
22008-10070	AT10	70	220,95	160	160

Clamp plates for toothed belts

profile T and AT


Material:

Aluminium.

Version:

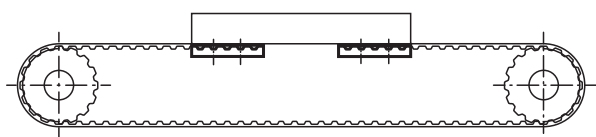
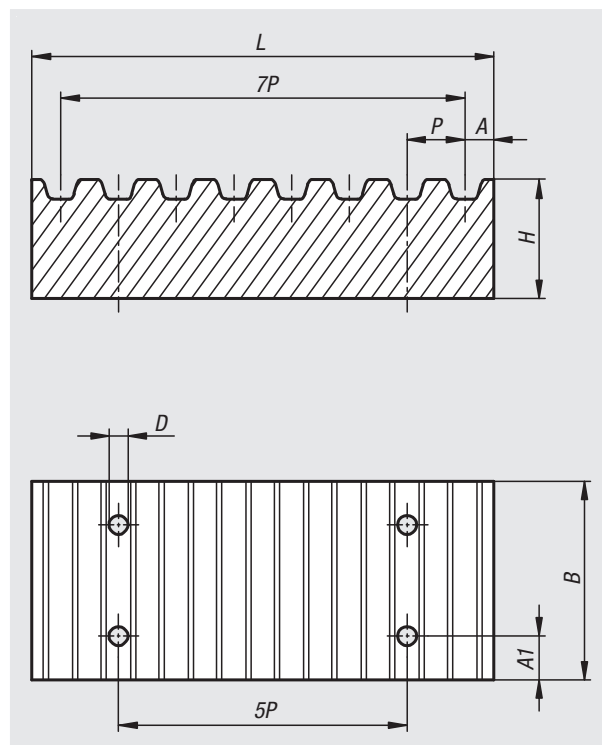
Bright.

Sample order:

nlm 22012-05101

Note:

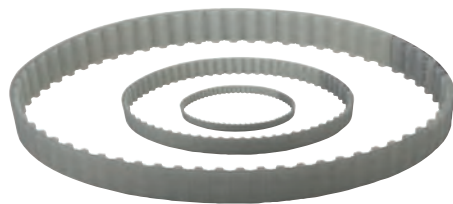
Clamp plates are used to mechanically secure the free belt end for numerous linear applications. The clamp plates must have matching tooth profiles to the belts to be secure to apply a uniform clamping force. For standard applications at least 7 belt teeth per belt end and must be engaged.



Order No.	Profile	belt width	P	A	A1	B	D	H	L
22012-05101	T5	10	5	3,4	6	29	5,5	8	41,8
22012-05161	T5	16	5	3,4	6	35	5,5	8	41,8
22012-05251	T5	25	5	3,4	6	44	5,5	8	41,8
22012-10161	T10	16	10	5	8	41	9	15	80
22012-10251	T10	25	10	5	8	50	9	15	80
22012-10321	T10	32	10	5	8	57	9	15	80
22012-05102	AT5	10	5	3,4	6	29	5,5	8	41,8
22012-05162	AT5	16	5	3,4	6	35	5,5	8	41,8
22012-05252	AT5	25	5	3,4	6	44	5,5	8	41,8
22012-10162	AT10	16	10	5	8	41	9	15	80
22012-10252	AT10	25	10	5	8	50	9	15	80
22012-10322	AT10	32	10	5	8	57	9	15	80

Toothed belts

T profile



Material:

Polyurethane (PU) with steel cord reinforcement.

Sample order:

nIm 22052-0510X0165

Note:

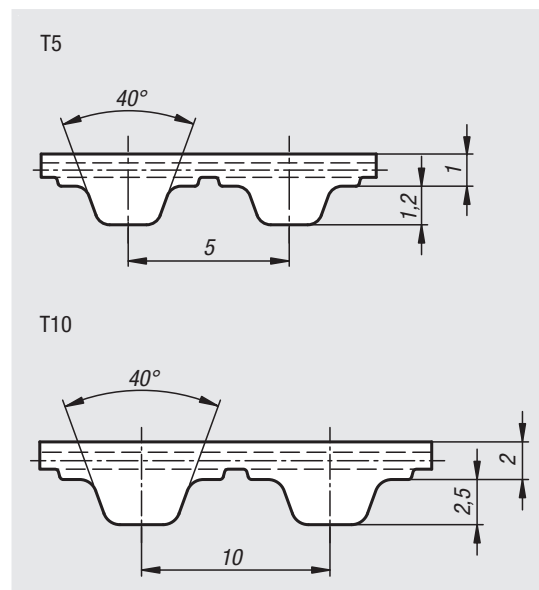
Endless toothed belt with trapezoidal profile to DIN 7721 T1 with metric pitch. Ideal for drives with high belt flexibility. Permits smallest pulley diameters. The toothed belts are intended for drives where precision is a requirement, safety is important and the effects of chemicals are a concern.

Temperature range:

from -30 °C to +90 °C

Features:

- maintenance-free
- high-power transmission
- minimal belt extension
- accurate positioning and angles
- very good chemical resistance, especially to oils, greases and fuels
- extremely high abrasion resistance
- transmits power up to 30 kW
- reliable speed up to 10,000 rpm



Toothed belts T5 profile

Order No. belt width 10	Order No. belt width 16	Order No. belt width 25	No. of teeth	Effective length
22052-0510X0165	22052-0516X0165	22052-0525X0165	33	165
22052-0510X0185	22052-0516X0185	22052-0525X0185	37	185
22052-0510X0200	22052-0516X0200	22052-0525X0200	40	200
22052-0510X0215	22052-0516X0215	22052-0525X0215	43	215
22052-0510X0220	22052-0516X0220	22052-0525X0220	44	220
22052-0510X0225	22052-0516X0225	22052-0525X0225	45	225
22052-0510X0245	22052-0516X0245	22052-0525X0245	49	245
22052-0510X0250	22052-0516X0250	22052-0525X0250	50	250
22052-0510X0255	22052-0516X0255	22052-0525X0255	51	255
22052-0510X0260	22052-0516X0260	22052-0525X0260	52	260
22052-0510X0270	22052-0516X0270	22052-0525X0270	54	270
22052-0510X0275	22052-0516X0275	22052-0525X0275	55	275
22052-0510X0280	22052-0516X0280	22052-0525X0280	56	280
22052-0510X0295	22052-0516X0295	22052-0525X0295	59	295
22052-0510X0300	22052-0516X0300	22052-0525X0300	60	300
22052-0510X0305	22052-0516X0305	22052-0525X0305	61	305
22052-0510X0325	22052-0516X0325	22052-0525X0325	65	325
22052-0510X0330	22052-0516X0330	22052-0525X0330	66	330
22052-0510X0340	22052-0516X0340	22052-0525X0340	68	340
22052-0510X0350	22052-0516X0350	22052-0525X0350	70	350
22052-0510X0355	22052-0516X0355	22052-0525X0355	71	355
22052-0510X0365	22052-0516X0365	22052-0525X0365	73	365
22052-0510X0375	22052-0516X0375	22052-0525X0375	75	375
22052-0510X0390	22052-0516X0390	22052-0525X0390	78	390
22052-0510X0400	22052-0516X0400	22052-0525X0400	80	400
22052-0510X0410	22052-0516X0410	22052-0525X0410	82	410
22052-0510X0420	22052-0516X0420	22052-0525X0420	84	420
22052-0510X0425	22052-0516X0425	22052-0525X0425	85	425
22052-0510X0450	22052-0516X0450	22052-0525X0450	90	450
22052-0510X0455	22052-0516X0455	22052-0525X0455	91	455
22052-0510X0475	22052-0516X0475	22052-0525X0475	95	475

Toothed belts

T profile

Toothed belts T5 profile

Order No. belt width 10	Order No. belt width 16	Order No. belt width 25	No. of teeth	Effective length
22052-0510X0480	22052-0516X0480	22052-0525X0480	96	480
22052-0510X0500	22052-0516X0500	22052-0525X0500	100	500
22052-0510X0510	22052-0516X0510	22052-0525X0510	102	510
22052-0510X0525	22052-0516X0525	22052-0525X0525	105	525
22052-0510X0545	22052-0516X0545	22052-0525X0545	109	545
22052-0510X0550	22052-0516X0550	22052-0525X0550	110	550
22052-0510X0560	22052-0516X0560	22052-0525X0560	112	560
22052-0510X0575	22052-0516X0575	22052-0525X0575	115	575
22052-0510X0600	22052-0516X0600	22052-0525X0600	120	600
22052-0510X0610	22052-0516X0610	22052-0525X0610	122	610
22052-0510X0620	22052-0516X0620	22052-0525X0620	124	620
22052-0510X0630	22052-0516X0630	22052-0525X0630	126	630
22052-0510X0640	22052-0516X0640	22052-0525X0640	128	640
22052-0510X0650	22052-0516X0650	22052-0525X0650	130	650
22052-0510X0660	22052-0516X0660	22052-0525X0660	132	660
22052-0510X0690	22052-0516X0690	22052-0525X0690	138	690
22052-0510X0700	22052-0516X0700	22052-0525X0700	140	700
22052-0510X0720	22052-0516X0720	22052-0525X0720	144	720
22052-0510X0750	22052-0516X0750	22052-0525X0750	150	750
22052-0510X0780	22052-0516X0780	22052-0525X0780	156	780
22052-0510X0815	22052-0516X0815	22052-0525X0815	163	815
22052-0510X0840	22052-0516X0840	22052-0525X0840	168	840
22052-0510X0850	22052-0516X0850	22052-0525X0850	170	850
22052-0510X0900	22052-0516X0900	22052-0525X0900	180	900
22052-0510X0990	22052-0516X0990	22052-0525X0990	198	990
22052-0510X1000	22052-0516X1000	22052-0525X1000	200	1000
22052-0510X1075	22052-0516X1075	22052-0525X1075	215	1075
22052-0510X1100	22052-0516X1100	22052-0525X1100	220	1100
22052-0510X1215	22052-0516X1215	22052-0525X1215	243	1215
22052-0510X1380	22052-0516X1380	22052-0525X1380	276	1380
22052-0510X1440	22052-0516X1440	22052-0525X1440	288	1440

Toothed belts T10 profile

Order No. belt width 16	Order No. belt width 25	Order No. belt width 32	No. of teeth	Effective length
22052-1016X0260	22052-1025X0260	22052-1032X0260	26	260
22052-1016X0370	22052-1025X0370	22052-1032X0370	37	370
22052-1016X0400	22052-1025X0400	22052-1032X0400	40	400
22052-1016X0410	22052-1025X0410	22052-1032X0410	41	410
22052-1016X0440	22052-1025X0440	22052-1032X0440	44	440
22052-1016X0450	22052-1025X0450	22052-1032X0450	45	450
22052-1016X0500	22052-1025X0500	22052-1032X0500	50	500
22052-1016X0530	22052-1025X0530	22052-1032X0530	53	530

Toothed belts

T profile

Toothed belts T10 profile

Order No. belt width 16	Order No. belt width 25	Order No. belt width 32	No. of teeth	Effective length
22052-1016X0560	22052-1025X0560	22052-1032X0560	56	560
22052-1016X0610	22052-1025X0610	22052-1032X0610	61	610
22052-1016X0630	22052-1025X0630	22052-1032X0630	63	630
22052-1016X0660	22052-1025X0660	22052-1032X0660	66	660
22052-1016X0690	22052-1025X0690	22052-1032X0690	69	690
22052-1016X0700	22052-1025X0700	22052-1032X0700	70	700
22052-1016X0720	22052-1025X0720	22052-1032X0720	72	720
22052-1016X0750	22052-1025X0750	22052-1032X0750	75	750
22052-1016X0780	22052-1025X0780	22052-1032X0780	78	780
22052-1016X0810	22052-1025X0810	22052-1032X0810	81	810
22052-1016X0840	22052-1025X0840	22052-1032X0840	84	840
22052-1016X0880	22052-1025X0880	22052-1032X0880	88	880
22052-1016X0890	22052-1025X0890	22052-1032X0890	89	890
22052-1016X0900	22052-1025X0900	22052-1032X0900	90	900
22052-1016X0920	22052-1025X0920	22052-1032X0920	92	920
22052-1016X0960	22052-1025X0960	22052-1032X0960	96	960
22052-1016X0970	22052-1025X0970	22052-1032X0970	97	970
22052-1016X0980	22052-1025X0980	22052-1032X0980	98	980
22052-1016X1010	22052-1025X1010	22052-1032X1010	101	1010
22052-1016X1080	22052-1025X1080	22052-1032X1080	108	1080
22052-1016X1110	22052-1025X1110	22052-1032X1110	111	1110
22052-1016X1140	22052-1025X1140	22052-1032X1140	114	1140
22052-1016X1150	22052-1025X1150	22052-1032X1150	115	1150
22052-1016X1210	22052-1025X1210	22052-1032X1210	121	1210
22052-1016X1240	22052-1025X1240	22052-1032X1240	124	1240
22052-1016X1250	22052-1025X1250	22052-1032X1250	125	1250
22052-1016X1300	22052-1025X1300	22052-1032X1300	130	1300
22052-1016X1320	22052-1025X1320	22052-1032X1320	132	1320
22052-1016X1350	22052-1025X1350	22052-1032X1350	135	1350
22052-1016X1390	22052-1025X1390	22052-1032X1390	139	1390
22052-1016X1400	22052-1025X1400	22052-1032X1400	140	1400
22052-1016X1420	22052-1025X1420	22052-1032X1420	142	1420
22052-1016X1440	22052-1025X1440	22052-1032X1440	144	1440
22052-1016X1450	22052-1025X1450	22052-1032X1450	145	1450
22052-1016X1460	22052-1025X1460	22052-1032X1460	146	1460
22052-1016X1500	22052-1025X1500	22052-1032X1500	150	1500
22052-1016X1560	22052-1025X1560	22052-1032X1560	156	1560
22052-1016X1610	22052-1025X1610	22052-1032X1610	161	1610
22052-1016X1750	22052-1025X1750	22052-1032X1750	175	1750
22052-1016X1780	22052-1025X1780	22052-1032X1780	178	1780
22052-1016X1880	22052-1025X1880	22052-1032X1880	188	1880
22052-1016X1960	22052-1025X1960	22052-1032X1960	196	1960
22052-1016X2250	22052-1025X2250	22052-1032X2250	225	2250

Toothed belts by the meter

T profile


Material:

Polyurethane (PU) with steel cord reinforcement.

Sample order:

nlm 22054-0510X0500
(include length L)

Note:

Toothed belt with trapezoidal profile to DIN 7721 T1. Intended especially for drives subject to high bending loads. May be used for pulleys with a very small diameter. Generally used for linear drives, low-power transmission and transport applications. Polyurethane belts may be welded. The power transmission rating of welded belts drops by about 50%.

Width tolerance: ± 0.5 mm

Thickness tolerance: ± 0.2 mm

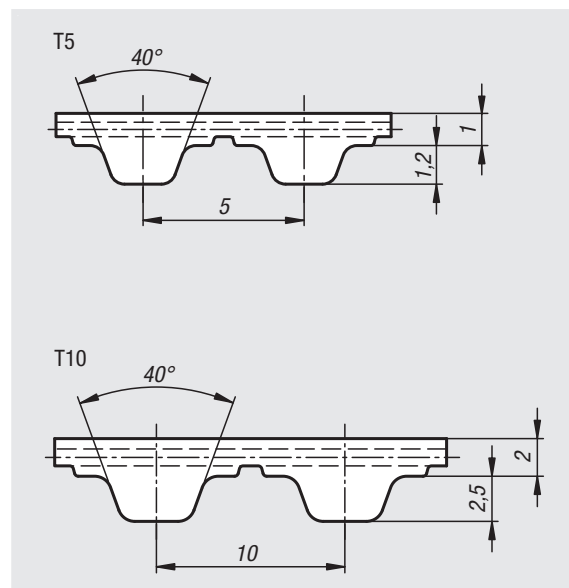
On request:

Other lengths.

With T5 pitch, in 5 mm increments.

With T10 pitch, in 10 mm increments.

Maximum belt length 100 metres.



Order No.	Profile	belt width	Tension max. N	Length	matching clamp plate
22054-0510X	T5	10	320	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-05101
22054-0516X	T5	16	540	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-05161
22054-0525X	T5	25	900	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-05251
22054-1016X	T10	16	1610	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-10161
22054-1025X	T10	25	2650	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-10251
22054-1032X	T10	32	3450	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-10321

Toothed belts by the meter

T profile

Specific tooth force

The specific tooth force F_{Uspez} is the maximum force that a single engaged belt tooth 1 cm wide can transmit.

This force depends on the speed of the drive pulley. To calculate the transmissible longitudinal force F_U for the belt cross-section, the number z_e of engaged teeth is multiplied by the specific tooth force F_{Uspez} and the belt width b .

$$F_U = F_{Uspec} \cdot z_e \cdot b$$

F_U = transmissible longitudinal force

F_{Uspec} = specific tooth force

z_e = number of engaged teeth

z_{emax} = for the calculation, perm. maximum number of engaged teeth = 12

b = belt width in cm

Pitch T5

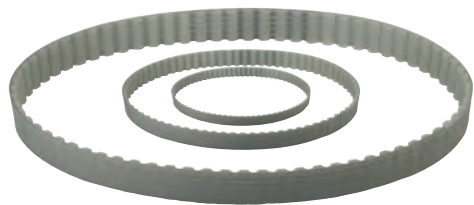
rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)
0	24,70	800	17,02	1900	14,21	4500	11,25
20	24,07	900	16,65	2000	14,03	5000	10,88
40	23,53	1000	16,32	2200	13,71	5500	10,55
60	23,05	1100	16,01	2400	13,42	6000	10,24
80	22,64	1200	15,73	2600	13,14	6500	9,96
100	22,28	1300	15,47	2800	12,89	7000	9,70
200	20,90	1400	15,22	3000	12,65	7500	9,46
300	19,89	1440	15,13	3200	12,43	8000	9,23
400	19,10	1500	15,00	3400	12,22	8500	9,01
500	18,45	1600	14,78	3600	12,03	9000	8,81
600	17,91	1700	14,58	3800	11,84	9500	8,62
700	17,44	1800	14,39	4000	11,66	10000	8,44

Pitch T10

rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)
0	51,80	800	33,34	1900	26,53	4500	19,40
20	50,32	900	32,44	2000	26,12	5000	18,51
40	49,04	1000	31,63	2200	25,34	5500	17,70
60	47,92	1100	30,89	2400	24,63	6000	16,97
80	46,95	1200	30,21	2600	23,97	6500	16,29
100	46,11	1300	29,58	2800	23,36	7000	15,66
200	42,75	1400	28,99	3000	22,78	7500	15,07
300	40,28	1440	28,76	3200	22,25	8000	14,52
400	38,36	1500	28,44	3400	21,74	8500	14,00
500	36,80	1600	27,92	3600	21,27	9000	13,51
600	35,49	1700	27,43	3800	20,81	9500	13,05
700	34,35	1800	26,97	4000	20,39	10000	12,61

Toothed belts

AT profile



Material:

Polyurethane (PU) with steel cord reinforcement.

Sample order:

nIm 22057-0510X0225

Note:

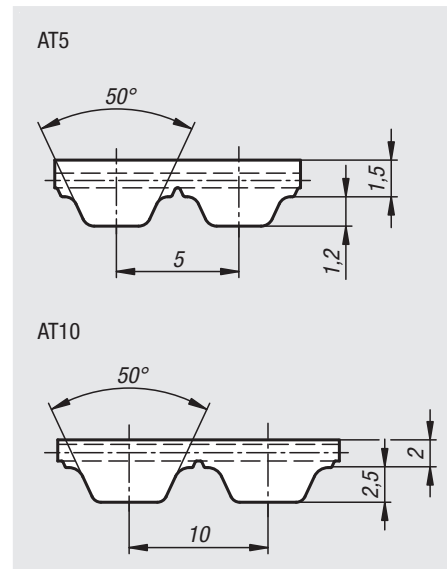
Endless toothed belt with trapezoidal profile and reinforced steel cord (compared to T-Series) with metric pitch. Optimised tooth profile for more uniform force distribution and lower tooth deformation under load. Reduced polygon effect for quieter belt operation. The toothed belts are intended for drives where precision is a requirement, safety is important and the effects of chemicals are a concern.

Temperature range:

from -30 °C to +90 °C

Features:

- maintenance-free
- high-power transmission
- minimal belt extension
- accurate positioning and angles
- very good chemical resistance, especially to oils, greases and fuels
- extremely high abrasion resistance
- transmits power up to 70 kW
- reliable speed up to 10,000 rpm



Toothed belts AT5 profile

Order No. belt width 10	Order No. belt width 16	Order No. belt width 25	No. of teeth	Effective length
22057-0510X0225	22057-0516X0225	22057-0525X0225	45	225
22057-0510X0255	22057-0516X0255	22057-0525X0255	51	255
22057-0510X0280	22057-0516X0280	22057-0525X0280	56	280
22057-0510X0300	22057-0516X0300	22057-0525X0300	60	300
22057-0510X0340	22057-0516X0340	22057-0525X0340	68	340
22057-0510X0375	22057-0516X0375	22057-0525X0375	75	375
22057-0510X0390	22057-0516X0390	22057-0525X0390	78	390
22057-0510X0420	22057-0516X0420	22057-0525X0420	84	420
22057-0510X0455	22057-0516X0455	22057-0525X0455	91	455
22057-0510X0500	22057-0516X0500	22057-0525X0500	100	500
22057-0510X0545	22057-0516X0545	22057-0525X0545	109	545
22057-0510X0600	22057-0516X0600	22057-0525X0600	120	600
22057-0510X0610	22057-0516X0610	22057-0525X0610	122	610
22057-0510X0660	22057-0516X0660	22057-0525X0660	132	660
22057-0510X0720	22057-0516X0720	22057-0525X0720	144	720
22057-0510X0750	22057-0516X0750	22057-0525X0750	150	750
22057-0510X0780	22057-0516X0780	22057-0525X0780	156	780
22057-0510X0825	22057-0516X0825	22057-0525X0825	165	825
22057-0510X0975	22057-0516X0975	22057-0525X0975	195	975
22057-0510X1050	22057-0516X1050	22057-0525X1050	210	1050
22057-0510X1125	22057-0516X1125	22057-0525X1125	225	1125
22057-0510X1500	22057-0516X1500	22057-0525X1500	300	1500

Toothed belts

AT profile

Toothed belts AT10 profile

Order No. belt width 16	Order No. belt width 25	Order No. belt width 32	No. of teeth	Effective length
22057-1016X0500	22057-1025X0500	22057-1032X0500	50	500
22057-1016X0560	22057-1025X0560	22057-1032X0560	56	560
22057-1016X0610	22057-1025X0610	22057-1032X0610	61	610
22057-1016X0660	22057-1025X0660	22057-1032X0660	66	660
22057-1016X0700	22057-1025X0700	22057-1032X0700	70	700
22057-1016X0730	22057-1025X0730	22057-1032X0730	73	730
22057-1016X0780	22057-1025X0780	22057-1032X0780	78	780
22057-1016X0800	22057-1025X0800	22057-1032X0800	80	800
22057-1016X0840	22057-1025X0840	22057-1032X0840	84	840
22057-1016X0890	22057-1025X0890	22057-1032X0890	89	890
22057-1016X0920	22057-1025X0920	22057-1032X0920	92	920
22057-1016X0960	22057-1025X0960	22057-1032X0960	96	960
22057-1016X0980	22057-1025X0980	22057-1032X0980	98	980
22057-1016X1010	22057-1025X1010	22057-1032X1010	101	1010
22057-1016X1050	22057-1025X1050	22057-1032X1050	105	1050
22057-1016X1080	22057-1025X1080	22057-1032X1080	108	1080
22057-1016X1150	22057-1025X1150	22057-1032X1150	115	1150
22057-1016X1210	22057-1025X1210	22057-1032X1210	121	1210
22057-1016X1250	22057-1025X1250	22057-1032X1250	125	1250
22057-1016X1320	22057-1025X1320	22057-1032X1320	132	1320
22057-1016X1400	22057-1025X1400	22057-1032X1400	140	1400
22057-1016X1500	22057-1025X1500	22057-1032X1500	150	1500
22057-1016X1600	22057-1025X1600	22057-1032X1600	160	1600
22057-1016X1700	22057-1025X1700	22057-1032X1700	170	1700
22057-1016X1800	22057-1025X1800	22057-1032X1800	180	1800

Toothed belts by the meter

AT profile



Material:

Polyurethane (PU) with steel cord reinforcement.

Sample order:

nIm 22059-0510X0500
(include length L)

Note:

Toothed belt with trapezoidal profile and reinforced steel cord (compared to T-Series). Optimised tooth profile for more uniform force distribution and lower tooth deformation under load. High-performance steel cord reinforcement for high breaking strength and low belt extension. Reduced polygon effect for quieter belt operation. Especially well-suited for linear drives and low power transmission where exact axial and angular positioning are required. Polyurethane belts may be welded. The power transmission rating of welded belts drops by about 50%.

Width tolerance: ± 0.5 mm

Thickness tolerance: ± 0.2 mm

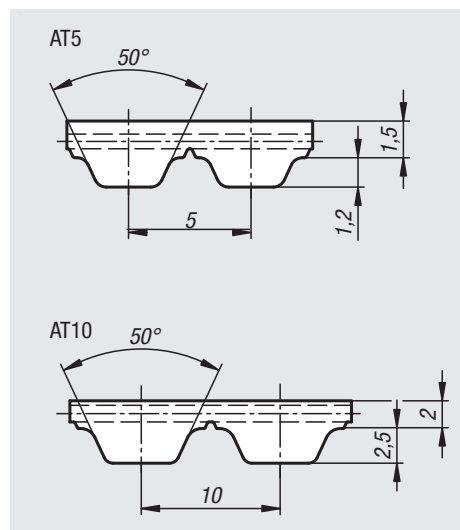
On request:

Other lengths.

AT5 pitch in 5 mm length increases.

AT10 pitch in 10 mm length increases.

Maximum belt length 100 metres.



Order No.	Profile	belt width	Tension max. N	Length	matching clamp plate
22059-0510X	AT5	10	640	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-05102
22059-0516X	AT5	16	1120	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-05162
22059-0525X	AT5	25	1840	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-05252
22059-1016X	AT10	16	2450	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-10162
22059-1025X	AT10	25	4170	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-10252
22059-1032X	AT10	32	5390	500/1000/1500/2000/2500/3000/3500/4000/5000	22012-10322

Toothed belts by the meter

AT profile

Specific tooth force

The specific tooth force F_{Uspez} is the maximum force that a single engaged belt tooth 1 cm wide can transmit.
This force depends on the speed of the drive pulley. To calculate the transmissible longitudinal force F_U for the belt cross-section, the number z_e of engaged teeth is multiplied by the specific tooth force F_{Uspez} and the belt width b .

$$F_U = F_{Uspec} \cdot z_e \cdot b$$

F_U = transmissible longitudinal force

F_{Uspec} = specific tooth force

z_e = number of engaged teeth

z_{emax} = for the calculation, perm. maximum number of engaged teeth = 12

b = belt width in cm

Pitch AT5

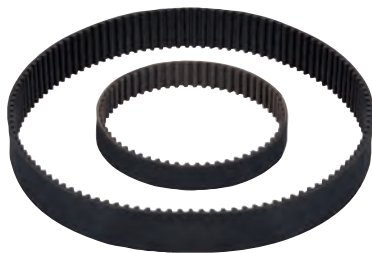
rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)
0	36,40	800	27,69	1900	22,73	4500	17,18
20	35,88	900	27,06	2000	22,42	5000	16,47
40	35,40	1000	26,49	2200	21,82	5500	15,83
60	34,97	1100	25,96	2400	21,28	6000	15,24
80	34,59	1200	25,47	2600	20,77	6500	14,69
100	34,24	1300	25,01	2800	20,29	7000	14,18
200	32,92	1400	24,57	3000	19,85	7500	13,71
300	31,92	1440	24,41	3200	19,43	8000	13,26
400	30,89	1500	24,16	3400	19,03	8500	12,85
500	29,95	1600	23,78	3600	18,66	9000	12,45
600	29,12	1700	23,41	3800	18,30	9500	12,07
700	28,37	1800	23,07	4000	17,96	10000	11,72

Pitch AT10

rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)	rpm	F_{Uspec} (N/cm)
0	75,70	800	53,70	1900	42,02	4500	29,13
20	74,59	900	52,21	2000	41,28	5000	27,50
40	73,55	1000	50,85	2200	39,89	5500	26,01
60	72,57	1100	49,59	2400	38,62	6000	24,65
80	71,65	1200	48,43	2600	37,44	6500	23,40
100	70,78	1300	47,34	2800	36,33	7000	22,23
200	67,13	1400	46,32	3000	35,30	7500	21,14
300	64,18	1440	45,93	3200	34,33	8000	20,12
400	61,53	1500	45,36	3400	33,41	8500	19,15
500	59,21	1600	44,46	3600	32,55	9000	18,24
600	57,16	1700	43,60	3800	31,72	9500	17,38
700	55,34	1800	42,79	4000	30,94	10000	16,56

Toothed belt

profile HTD 5M



Material:

Belt back and belt teeth CR.
Tension cords Glascord.
Tooth covering mesh polyamide.

Sample order:

nln 22062-0515X0275

Note:

Endless toothed belts with an arched profile as per ISO 13050 with metric pitch. The rounded shape of the tooth contour provides a particularly high degree of safety against incorrect tooth interlocking, combined with a very rounded tooth mesh.

Operating noise is significantly reduced by the rounded tooth mesh.

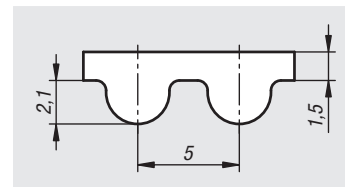
The toothed belts are robust, economical and versatile.

Temperature range:

From -20°C to +100°C

Features:

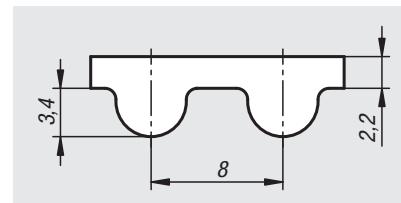
- Belt speed v_{max} perm. 50 m/s
- Transmissible power up to 8.42 kW
- Permissible speed up to 14000 rpm
- Low-noise and low-maintenance
- Very good chemical resistance, particularly against oils, greases and fuels
- Accurate positioning and angles



Order No. belt width 15	Order No. belt width 25	No. of teeth	Effective length
22062-0515X0275	22062-0525X0275	55	275
22062-0515X0300	22062-0525X0300	60	300
22062-0515X0330	22062-0525X0330	66	330
22062-0515X0350	22062-0525X0350	70	350
22062-0515X0375	22062-0525X0375	75	375
22062-0515X0385	22062-0525X0385	77	385
22062-0515X0400	22062-0525X0400	80	400
22062-0515X0425	22062-0525X0425	85	425
22062-0515X0450	22062-0525X0450	90	450
22062-0515X0460	22062-0525X0460	92	460
22062-0515X0475	22062-0525X0475	95	475
22062-0515X0500	22062-0525X0500	100	500
22062-0515X0535	22062-0525X0535	107	535
22062-0515X0550	22062-0525X0550	110	550
22062-0515X0565	22062-0525X0565	113	565
22062-0515X0600	22062-0525X0600	120	600
22062-0515X0615	22062-0525X0615	123	615
22062-0515X0620	22062-0525X0620	124	620
22062-0515X0630	22062-0525X0630	126	630
22062-0515X0635	22062-0525X0635	127	635
22062-0515X0665	22062-0525X0665	133	665
22062-0515X0700	22062-0525X0700	140	700
22062-0515X0710	22062-0525X0710	142	710
22062-0515X0740	22062-0525X0740	148	740
22062-0515X0755	22062-0525X0755	151	755
22062-0515X0800	22062-0525X0800	160	800
22062-0515X0835	22062-0525X0835	167	835
22062-0515X0840	22062-0525X0840	168	840
22062-0515X0860	22062-0525X0860	172	860
22062-0515X0890	22062-0525X0890	178	890
22062-0515X0900	22062-0525X0900	180	900
22062-0515X0925	22062-0525X0925	185	925
22062-0515X0950	22062-0525X0950	190	950
22062-0515X1000	22062-0525X1000	200	1000
22062-0515X1050	22062-0525X1050	210	1050
22062-0515X1125	22062-0525X1125	225	1125
22062-0515X1200	22062-0525X1200	240	1200
22062-0515X1270	22062-0525X1270	254	1270
22062-0515X1420	22062-0525X1420	284	1420
22062-0515X1500	22062-0525X1500	300	1500
22062-0515X1595	22062-0525X1595	319	1595
22062-0515X1690	22062-0525X1690	338	1690
22062-0515X1800	22062-0525X1800	360	1800
22062-0515X2000	22062-0525X2000	400	2000

Toothed belt

profile HTD 8M



Material:

Belt back and belt teeth CR.
Tension cords Glascord.
Tooth covering mesh polyamide.

Sample order:

nml 22062-0820X0288

Note:

Endless toothed belts with an arched profile as per ISO 13050 with metric pitch. The rounded shape of the tooth contour provides a particularly high degree of safety against incorrect tooth interlocking, combined with a very rounded tooth mesh.

Operating noise is significantly reduced by the rounded tooth mesh.

The toothed belts are robust, economical and versatile.

Temperature range:

From -20°C to +100°C

Features:

- Belt speed v_{max} perm. 50 m/s
- Transmissible power up to 99.1 kW
- Permissible speed up to 6000 rpm
- Low-noise and low-maintenance
- Very good chemical resistance, particularly against oils, greases and fuels
- Accurate positioning and angles

Order No. belt width 20	Order No. belt width 30	Order No. belt width 50	No. of teeth	Effective length
22062-0820X0288	22062-0830X0288	22062-0850X0288	36	288
22062-0820X0304	22062-0830X0304	22062-0850X0304	38	304
22062-0820X0352	22062-0830X0352	22062-0850X0352	44	352
22062-0820X0376	22062-0830X0376	22062-0850X0376	47	376
22062-0820X0400	22062-0830X0400	22062-0850X0400	50	400
22062-0820X0416	22062-0830X0416	22062-0850X0416	52	416
22062-0820X0424	22062-0830X0424	22062-0850X0424	53	424
22062-0820X0480	22062-0830X0480	22062-0850X0480	60	480
22062-0820X0560	22062-0830X0560	22062-0850X0560	70	560
22062-0820X0600	22062-0830X0600	22062-0850X0600	75	600
22062-0820X0640	22062-0830X0640	22062-0850X0640	80	640
22062-0820X0656	22062-0830X0656	22062-0850X0656	82	656
22062-0820X0688	22062-0830X0688	22062-0850X0688	86	688
22062-0820X0720	22062-0830X0720	22062-0850X0720	90	720
22062-0820X0784	22062-0830X0784	22062-0850X0784	98	784
22062-0820X0800	22062-0830X0800	22062-0850X0800	100	800
22062-0820X0880	22062-0830X0880	22062-0850X0880	110	880
22062-0820X0920	22062-0830X0920	22062-0850X0920	115	920
22062-0820X0960	22062-0830X0960	22062-0850X0960	120	960
22062-0820X1040	22062-0830X1040	22062-0850X1040	130	1040
22062-0820X1120	22062-0830X1120	22062-0850X1120	140	1120
22062-0820X1160	22062-0830X1160	22062-0850X1160	145	1160
22062-0820X1200	22062-0830X1200	22062-0850X1200	150	1200
22062-0820X1280	22062-0830X1280	22062-0850X1280	160	1280
22062-0820X1304	22062-0830X1304	22062-0850X1304	163	1304
22062-0820X1360	22062-0830X1360	22062-0850X1360	170	1360
22062-0820X1424	22062-0830X1424	22062-0850X1424	178	1424
22062-0820X1440	22062-0830X1440	22062-0850X1440	180	1440
22062-0820X1520	22062-0830X1520	22062-0850X1520	190	1520
22062-0820X1600	22062-0830X1600	22062-0850X1600	200	1600
22062-0820X1760	22062-0830X1760	22062-0850X1760	220	1760
22062-0820X1800	22062-0830X1800	22062-0850X1800	225	1800
22062-0820X2000	22062-0830X2000	22062-0850X2000	250	2000
22062-0820X2248	22062-0830X2248	22062-0850X2248	281	2248
22062-0820X2400	22062-0830X2400	22062-0850X2400	300	2400
22062-0820X2600	22062-0830X2600	22062-0850X2600	325	2600
22062-0820X2800	22062-0830X2800	22062-0850X2800	350	2800
22062-0820X3008	22062-0830X3008	22062-0850X3008	376	3008
22062-0820X3280	22062-0830X3280	22062-0850X3280	410	3280
22062-0820X3408	22062-0830X3408	22062-0850X3408	426	3408
22062-0820X3808	22062-0830X3808	22062-0850X3808	476	3808

V-belt pulleys, grey cast iron

for mounting with taper clamping bushes



Material:

Grey cast iron EN-GJL-250.

Version:

Phosphated

Sample order:

nIm 22070-10631

Note:

V-belt pulleys for use with narrow V-belt DIN 2215 and V-belt DIN 7753.

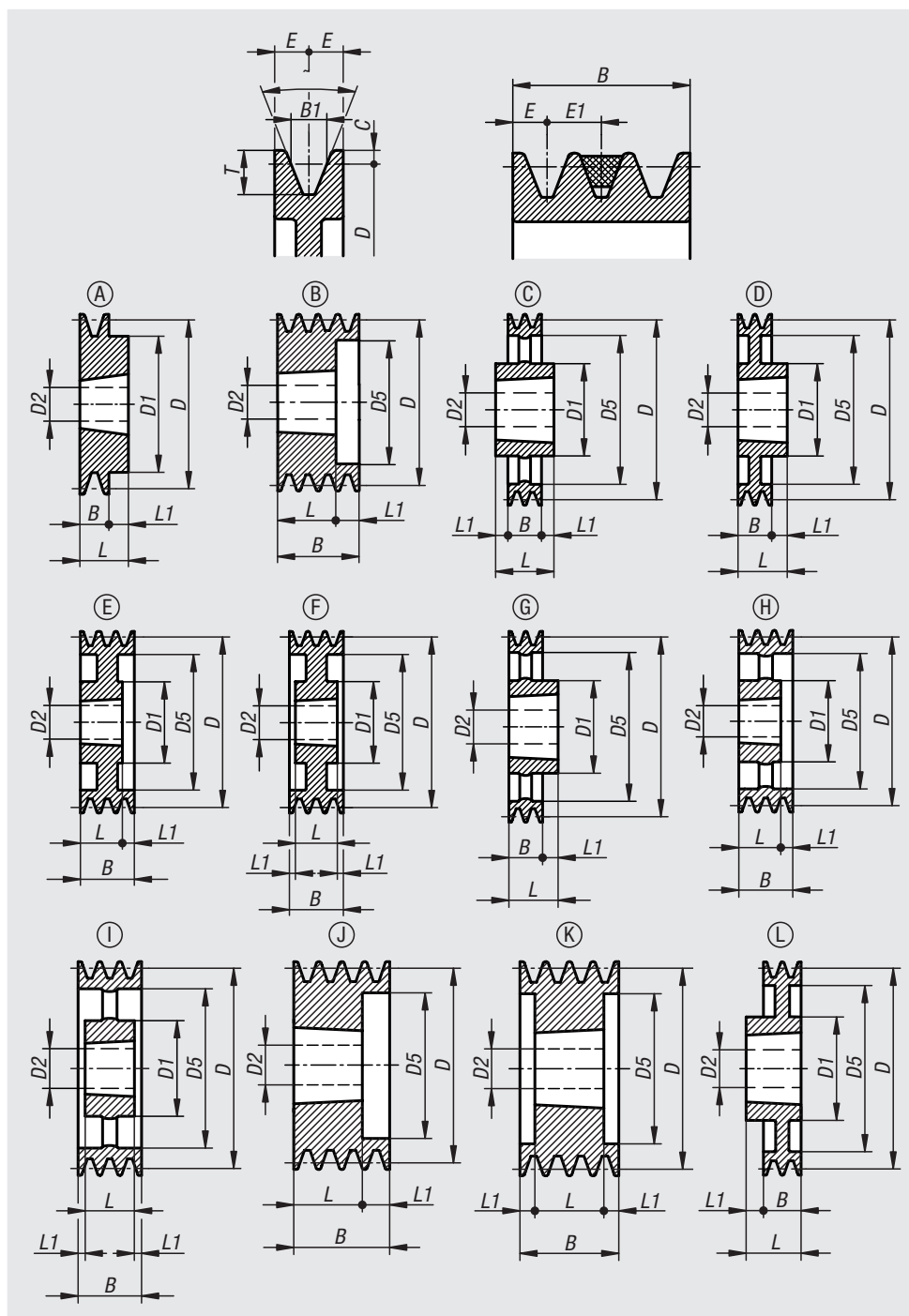
The V-belt pulleys are based on DIN 2211 or DIN 2217. They have a conical bore for taper clamping bushes. The taper clamping bushes must be ordered separately and are available for various shaft diameters.

The V-belt pulleys are statically balanced according to ISO 1940 quality class G6,3.

The V-belt pulleys are designed for a maximum circumferential speed of 35 m/s.

Accessories:

Taper clamping bushes 23200.



Order No.	Version 1	Version 2	Form	N=number of mounting holes	B	B1	C	D	D1 max.	D2	D5	E	E1	L	L1	T	α
22070-10631	type spz/10/z	for taper bush 1108	A	1	16	8,5	2	63	62	11-28	-	8	12	22	6	11	34°
22070-10632	type spz/10/z	for taper bush 1108	J	2	28	8,5	2	63	-	11-28	38	8	12	22	6	11	34°
22070-10633	type spz/10/z	for taper bush 1108	J	3	40	8,5	2	63	-	11-28	38	8	12	22	18	11	34°
22070-10671	type spz/10/z	for taper bush 1108	A	1	16	8,5	2	67	62	11-28	-	8	12	22	6	11	34°
22070-10672	type spz/10/z	for taper bush 1108	J	2	28	8,5	2	67	-	11-28	38	8	12	22	6	11	34°
22070-11673	type spz/10/z	for taper bush 1108	J	3	40	8,5	2	67	-	11-28	38	8	12	22	18	11	34°
22070-12711	type spz/10/z	for taper bush 1108	A	1	16	8,5	2	71	62	11-28	-	8	12	22	6	11	34°
22070-13712	type spz/10/z	for taper bush 1108	J	2	28	8,5	2	71	-	11-28	42	8	12	22	6	11	34°

V-belt pulleys, grey cast iron

for mounting with taper clamping bushes



Order No.	Version 1	Version 2	Form	N=number of mounting holes	B	B1	C	D	D1 max.	D2	D5	E	E1	L	L1	T	α
22070-14713	type spz/10/z	for taper bush 1108	J	3	40	8,5	2	71	-	11-28	42	8	12	22	18	11	34°
22070-15751	type spz/10/z	for taper bush 1108	A	1	16	8,5	2	75	62	11-28	-	8	12	22	6	11	34°
22070-16752	type spz/10/z	for taper bush 1210	J	2	28	8,5	2	75	-	11-32	48	8	12	25	3	11	34°
22070-17753	type spz/10/z	for taper bush 1210	J	3	40	8,5	2	75	-	11-32	48	8	12	25	15	11	34°
22070-18801	type spz/10/z	for taper bush 1210	A	1	16	8,5	2	80	75	11-32	-	8	12	25	9	11	34°
22070-19802	type spz/10/z	for taper bush 1210	J	2	28	8,5	2	80	-	11-32	52	8	12	25	3	11	34°
22070-10803	type spz/10/z	for taper bush 1210	J	3	40	8,5	2	80	-	11-32	52	8	12	25	15	11	34°
22070-21851	type spz/10/z	for taper bush 1210	A	1	16	8,5	2	85	86	11-32	-	8	12	25	9	11	38°
22070-22852	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	85	-	12-42	57	8	12	25	3	11	38°
22070-23853	type spz/10/z	for taper bush 1610	J	3	40	8,5	2	85	-	12-42	57	8	12	25	15	11	38°
22070-24901	type spz/10/z	for taper bush 1210	A	1	16	8,5	2	90	86	11-32	-	8	12	25	9	11	38°
22070-25902	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	90	-	12-42	62	8	12	25	3	11	38°
22070-26903	type spz/10/z	for taper bush 1610	J	3	40	8,5	2	90	-	12-42	62	8	12	25	15	11	38°
22070-27951	type spz/10/z	for taper bush 1210	A	1	16	8,5	2	95	86	11-32	-	8	12	25	9	11	38°
22070-28952	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	95	-	12-42	67	8	12	25	3	11	38°
22070-29953	type spz/10/z	for taper bush 1610	J	3	40	8,5	2	95	-	12-42	67	8	12	25	15	11	38°
22070-11001	type spz/10/z	for taper bush 1210	A	1	16	8,5	2	100	86	11-32	-	8	12	25	9	11	38°
22070-11002	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	100	-	12-42	71	8	12	25	3	11	38°
22070-11003	type spz/10/z	for taper bush 1610	J	3	40	8,5	2	100	-	12-42	71	8	12	25	15	11	38°
22070-11061	type spz/10/z	for taper bush 1610	A	1	16	8,5	2	106	92	12-42	-	8	12	25	9	11	38°
22070-11062	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	106	-	12-42	76	8	12	25	3	11	38°
22070-11063	type spz/10/z	for taper bush 1615	J	3	40	8,5	2	106	-	12-42	76	8	12	25	15	11	38°
22070-11121	type spz/10/z	for taper bush 1610	A	1	16	8,5	2	112	92	12-42	-	8	12	25	9	11	38°
22070-11122	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	112	-	12-42	84	8	12	25	3	11	38°
22070-11123	type spz/10/z	for taper bush 2012	J	3	40	8,5	2	112	-	14-50	84	8	12	32	8	11	38°
22070-11181	type spz/10/z	for taper bush 1610	A	1	16	8,5	2	118	92	12-42	-	8	12	25	9	11	38°
22070-11182	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	118	-	12-42	90	8	12	25	3	11	38°
22070-11183	type spz/10/z	for taper bush 2012	B	3	40	8,5	2	118	-	14-50	90	8	12	32	8	11	38°
22070-11251	type spz/10/z	for taper bush 1610	A	1	16	8,5	2	125	92	12-42	-	8	12	25	9	11	38°
22070-11252	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	125	-	12-42	98	8	12	25	3	11	38°
22070-11253	type spz/10/z	for taper bush 2012	B	3	40	8,5	2	125	-	14-50	98	8	12	32	8	11	38°
22070-11321	type spz/10/z	for taper bush 1610	A	1	16	8,5	2	132	92	12-42	-	8	12	25	9	11	38°
22070-11322	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	132	-	12-42	103	8	12	25	3	11	38°
22070-11323	type spz/10/z	for taper bush 2012	B	3	40	8,5	2	132	-	14-50	103	8	12	32	8	11	38°
22070-11401	type spz/10/z	for taper bush 1610	D	1	16	8,5	2	140	92	12-42	-	8	12	25	9	11	38°
22070-11402	type spz/10/z	for taper bush 1610	J	2	28	8,5	2	140	-	12-42	112	8	12	25	3	11	38°
22070-11403	type spz/10/z	for taper bush 2012	B	3	40	8,5	2	140	-	14-50	112	8	12	32	8	11	38°
22070-11501	type spz/10/z	for taper bush 1610	D	1	16	8,5	2	150	92	12-42	-	8	12	25	9	11	38°
22070-11502	type spz/10/z	for taper bush 2012	A	2	28	8,5	2	150	112	14-50	-	8	12	32	4	11	38°
22070-11503	type spz/10/z	for taper bush 2012	B	3	40	8,5	2	150	-	14-50	122	8	12	32	8	11	38°
22070-11601	type spz/10/z	for taper bush 1610	D	1	16	8,5	2	160	92	12-42	-	8	12	25	9	11	38°
22070-11602	type spz/10/z	for taper bush 2012	D	2	28	8,5	2	160	112	14-50	-	8	12	32	4	11	38°
22070-11603	type spz/10/z	for taper bush 2012	B	3	40	8,5	2	160	-	14-50	131	8	12	32	8	11	38°
22070-11801	type spz/10/z	for taper bush 1610	D	1	16	8,5	2	180	92	12-42	152	8	12	25	9	11	38°
22070-11802	type spz/10/z	for taper bush 2012	D	2	28	8,5	2	180	106	14-50	152	8	12	32	4	11	38°
22070-11803	type spz/10/z	for taper bush 2012	E	3	40	8,5	2	180	106	14-50	152	8	12	32	8	11	38°
22070-12001	type spz/10/z	for taper bush 2012	D	1	16	8,5	2	200	112	14-50	171	8	12	32	16	11	38°

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Order No.	Version 1	Version 2	Form	N=number of mounting holes	B	B1	C	D	D1 max.	D2	D5	E	E1	L	L1	T	α
22070-12002	type spz/10/z	for taper bush 2012	D	2	28	8,5	2	200	112	14-50	171	8	12	32	4	11	38°
22070-12003	type spz/10/z	for taper bush 2012	F	3	40	8,5	2	200	112	14-50	171	8	12	32	4	11	38°
22070-12241	type spz/10/z	for taper bush 2012	L	1	16	8,5	2	224	110	14-50	195	8	12	32	8	11	38°
22070-12242	type spz/10/z	for taper bush 2012	G	2	28	8,5	2	224	112	14-50	195	8	12	32	4	11	38°
22070-12243	type spz/10/z	for taper bush 2012	F	3	40	8,5	2	224	112	14-50	195	8	12	32	4	11	38°
22070-12501	type spz/10/z	for taper bush 2012	C	1	16	8,5	2	250	110	14-50	223	8	12	32	8	11	38°
22070-12502	type spz/10/z	for taper bush 2012	C	2	28	8,5	2	250	112	14-50	223	8	12	32	2	11	38°
22070-12503	type spz/10/z	for taper bush 2012	I	3	40	8,5	2	250	112	14-50	223	8	12	32	4	11	38°
22070-12801	type spz/10/z	for taper bush 2012	C	1	16	8,5	2	280	110	14-50	252	8	12	32	8	11	38°
22070-12802	type spz/10/z	for taper bush 2012	C	2	28	8,5	2	280	112	14-50	253	8	12	32	2	11	38°
22070-12803	type spz/10/z	for taper bush 2517	C	3	40	8,5	2	280	124	18-65	254	8	12	45	2,5	11	38°
22070-13151	type spz/10/z	for taper bush 2012	C	1	16	8,5	2	315	110	14-50	288	8	12	32	8	11	38°
22070-13152	type spz/10/z	for taper bush 2012	C	2	28	8,5	2	315	110	14-50	288	8	12	32	2	11	38°
22070-20711	type spa/13/a	for taper bush 1108	A	1	20	11	2,8	71	60	11-28	-	10	15	22	2	13,8	34°
22070-13153	type spz/10/z	for taper bush 2517	C	3	40	8,5	2	315	120	18-65	288	8	12	45	2,5	11	38°
22070-20712	type spa/13/a	for taper bush 1108	J	2	35	11	2,8	71	-	11-28	40	10	15	22	13	13,8	34°
22070-20713	type spa/13/a	for taper bush 1108	J	3	50	11	2,8	71	-	11-28	40	10	15	22	28	13,8	34°
22070-20751	type spa/13/a	for taper bush 1108	A	1	20	11	2,8	75	60	11-28	-	10	15	22	2	13,8	34°
22070-20752	type spa/13/a	for taper bush 1108	J	2	35	11	2,8	75	-	11-28	44	10	15	22	13	13,8	34°
22070-20753	type spa/13/a	for taper bush 1108	J	3	50	11	2,8	75	-	11-28	44	10	15	22	28	13,8	34°
22070-20801	type spa/13/a	for taper bush 1210	A	1	20	11	2,8	80	84	11-32	-	10	15	25	5	13,8	34°
22070-20802	type spa/13/a	for taper bush 1210	J	2	35	11	2,8	80	-	11-32	50	10	15	25	10	13,8	34°
22070-20803	type spa/13/a	for taper bush 1210	J	3	50	11	2,8	80	-	11-32	50	10	15	25	25	13,8	34°
22070-20851	type spa/13/a	for taper bush 1210	A	1	20	11	2,8	85	88	11-32	-	10	15	25	5	13,8	34°
22070-20852	type spa/13/a	for taper bush 1210	J	2	35	11	2,8	85	-	11-32	55	10	15	25	10	13,8	34°
22070-20853	type spa/13/a	for taper bush 1210	J	3	50	11	2,8	85	-	11-32	55	10	15	25	25	13,8	34°
22070-20901	type spa/13/a	for taper bush 1210	A	1	20	11	2,8	90	90	11-32	-	10	15	25	5	13,8	34°
22070-20902	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	90	-	12-42	60	10	15	25	10	13,8	34°
22070-20903	type spa/13/a	for taper bush 1610	J	3	50	11	2,8	90	-	12-42	56	10	15	25	25	13,8	34°
22070-20951	type spa/13/a	for taper bush 1210	A	1	20	11	2,8	95	90	11-32	-	10	15	25	5	13,8	34°
22070-20952	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	95	-	12-42	62	10	15	25	10	13,8	34°
22070-20953	type spa/13/a	for taper bush 1610	J	3	50	11	2,8	95	-	12-42	62	10	15	25	25	13,8	34°
22070-21001	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	100	92	12-42	-	10	15	25	5	13,8	34°
22070-21002	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	100	-	12-42	66	10	15	25	10	13,8	34°
22070-21003	type spa/13/a	for taper bush 1610	B	3	50	11	2,8	100	-	12-42	66	10	15	25	25	13,8	34°
22070-21061	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	106	85	12-42	-	10	15	25	5	13,8	34°
22070-21062	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	106	-	12-42	72	10	15	25	10	13,8	34°
22070-21063	type spa/13/a	for taper bush 1610	B	3	50	11	2,8	106	-	12-42	72	10	15	25	25	13,8	34°
22070-21121	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	112	90	12-42	-	10	15	25	5	13,8	34°
22070-21122	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	112	-	12-42	77	10	15	25	10	13,8	34°
22070-21123	type spa/13/a	for taper bush 2012	J	3	50	11	2,8	112	-	14-50	77	10	15	32	18	13,8	34°
22070-21181	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	118	96,4	12-42	-	10	15	25	5	13,8	34°
22070-21182	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	118	-	12-42	85	10	15	25	10	13,8	34°
22070-21183	type spa/13/a	for taper bush 2012	B	3	50	11	2,8	118	-	14-50	85	10	15	32	18	13,8	34°
22070-21251	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	125	92	12-42	-	10	15	25	20	13,8	38°
22070-21252	type spa/13/a	for taper bush 1610	J	2	35	11	2,8	125	-	12-42	92	10	15	25	10	13,8	38°
22070-21253	type spa/13/a	for taper bush 2012	B	3	50	11	2,8	125	-	14-50	92	10	15	32	18	13,8	38°

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Order No.	Version 1	Version 2	Form	N=number of mounting holes	B	B1	C	D	D1 max.	D2	D5	E	E1	L	L1	T	α
22070-21321	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	132	92	12-42	-	10	15	25	5	13,8	38°
22070-21322	type spa/13/a	for taper bush 2012	J	2	35	11	2,8	132	-	14-50	97	10	15	32	3	13,8	38°
22070-21323	type spa/13/a	for taper bush 2012	B	3	50	11	2,8	132	-	14-50	97	10	15	32	18	13,8	38°
22070-21401	type spa/13/a	for taper bush 1610	A	1	20	11	2,8	140	92	12-42	-	10	15	25	5	13,8	38°
22070-21402	type spa/13/a	for taper bush 2012	J	2	35	11	2,8	140	-	14-50	106	10	15	32	3	13,8	38°
22070-21403	type spa/13/a	for taper bush 2517	J	3	50	11	2,8	140	-	18-65	106	10	15	45	5	13,8	38°
22070-21501	type spa/13/a	for taper bush 1610	D	1	20	11	2,8	150	92	12-42	-	10	15	25	5	13,8	38°
22070-21502	type spa/13/a	for taper bush 2012	J	2	35	11	2,8	150	-	14-50	116	10	15	32	3	13,8	38°
22070-21503	type spa/13/a	for taper bush 2517	J	3	50	11	2,8	150	-	18-65	116	10	15	45	5	13,8	38°
22070-21601	type spa/13/a	for taper bush 1610	D	1	20	11	2,8	160	92	12-42	-	10	15	25	5	13,8	38°
22070-21602	type spa/13/a	for taper bush 2012	J	2	35	11	2,8	160	-	14-50	126	10	15	32	3	13,8	38°
22070-21603	type spa/13/a	for taper bush 2517	J	3	50	11	2,8	160	-	18-65	126	10	15	45	5	13,8	38°
22070-21701	type spa/13/a	for taper bush 1610	D	1	20	11	2,8	170	92	12-42	-	10	15	25	5	13,8	38°
22070-21702	type spa/13/a	for taper bush 2012	J	2	35	11	2,8	170	-	14-50	135	10	15	32	3	13,8	38°
22070-21703	type spa/13/a	for taper bush 2517	J	3	50	11	2,8	170	-	18-65	135	10	15	45	5	13,8	38°
22070-21801	type spa/13/a	for taper bush 1610	D	1	20	11	2,8	180	92	12-42	146	10	15	25	5	13,8	38°
22070-21802	type spa/13/a	for taper bush 2012	F	2	35	11	2,8	180	108	14-50	146	10	15	32	1,5	13,8	38°
22070-21803	type spa/13/a	for taper bush 2517	J	3	50	11	2,8	180	-	18-65	146	10	15	45	5	13,8	38°
22070-21901	type spa/13/a	for taper bush 1610	D	1	20	11	2,8	190	92	12-42	156	10	15	25	5	13,8	38°
22070-21902	type spa/13/a	for taper bush 2012	F	2	35	11	2,8	190	108	14-50	156	10	15	32	1,5	13,8	38°
22070-21903	type spa/13/a	for taper bush 2517	J	3	50	11	2,8	190	-	18-65	165	10	15	45	5	13,8	38°
22070-22001	type spa/13/a	for taper bush 2012	D	1	20	11	2,8	200	108	14-50	165	10	15	32	12	13,8	38°
22070-22002	type spa/13/a	for taper bush 2517	L	2	35	11	2,8	200	123	18-65	165	10	15	45	5	13,8	38°
22070-22003	type spa/13/a	for taper bush 2517	F	3	50	11	2,8	200	123	18-65	177	10	15	45	2,5	13,8	38°
22070-22241	type spa/13/a	for taper bush 2012	G	1	20	11	2,8	224	112	14-50	189	10	15	32	12	13,8	38°
22070-22242	type spa/13/a	for taper bush 2517	D	2	35	11	2,8	224	124	18-65	189	10	15	45	10	13,8	38°
22070-22243	type spa/13/a	for taper bush 2517	F	3	50	11	2,8	224	124	18-65	189	10	15	45	2,5	13,8	38°
22070-22361	type spa/13/a	for taper bush 2012	G	1	20	11	2,8	236	110	14-50	203	10	15	32	12	13,8	38°
22070-22362	type spa/13/a	for taper bush 2517	G	2	35	11	2,8	236	124	18-65	203	10	15	45	10	13,8	38°
22070-22363	type spa/13/a	for taper bush 2517	I	3	50	11	2,8	236	124	18-65	203	10	15	45	2,5	13,8	38°
22070-22501	type spa/13/a	for taper bush 2012	C	1	20	11	2,8	250	112	14-50	215	10	15	32	6	13,8	38°
22070-22502	type spa/13/a	for taper bush 2517	C	2	35	11	2,8	250	124	18-65	215	10	15	45	5	13,8	38°
22070-22503	type spa/13/a	for taper bush 2517	I	3	50	11	2,8	250	124	18-65	215	10	15	45	2,5	13,8	38°
22070-22801	type spa/13/a	for taper bush 2012	G	1	20	11	2,8	280	110	14-50	246	10	15	32	10	13,8	38°
22070-22802	type spa/13/a	for taper bush 2517	G	2	35	11	2,8	280	120	18-65	246	10	15	45	10	13,8	38°
22070-22803	type spa/13/a	for taper bush 2517	I	3	50	11	2,8	280	124	18-65	246	10	15	45	2,5	13,8	38°
22070-23151	type spa/13/a	for taper bush 2012	G	1	20	11	2,8	315	110	14-50	282	10	15	32	10	13,8	38°
22070-23152	type spa/13/a	for taper bush 2517	G	2	35	11	2,8	315	120	18-65	282	10	15	45	10	13,8	38°
22070-23153	type spa/13/a	for taper bush 3020	C	3	50	11	2,8	315	146	22-75	282	10	15	51	0,5	13,8	38°
22070-23551	type spa/13/a	for taper bush 2012	G	1	20	11	2,8	355	110	14-50	322	10	15	32	10	13,8	38°
22070-23552	type spa/13/a	for taper bush 2517	G	2	35	11	2,8	355	120	18-65	322	10	15	45	10	13,8	38°
22070-23553	type spa/13/a	for taper bush 3020	C	3	50	11	2,8	355	146	22-75	322	10	15	51	0,5	13,8	38°
22070-24001	type spa/13/a	for taper bush 2012	G	1	20	11	2,8	400	110	14-50	366	10	15	32	10	13,8	38°
22070-24002	type spa/13/a	for taper bush 2517	G	2	35	11	2,8	400	120	18-65	366	10	15	45	10	13,8	38°
22070-24003	type spa/13/a	for taper bush 3020	G	3	50	11	2,8	400	159	22-75	366	10	15	51	1	13,8	38°
22070-30901	type spb/17/b	for taper bush 1210	A	1	25	14	3,5	90	-	14-50	-	12,5	19	25	-	17,5	34°
22070-30902	type spb/17/b	for taper bush 1210	J	2	44	14	3,5	90	-	14-50	52	12,5	19	25	19	17,5	34°

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Order No.	Version 1	Version 2	Form	N=number of mounting holes	B	B1	C	D	D1 max.	D2	D5	E	E1	L	L1	T	α
22070-30903	type spb/17/b	for taper bush 1210	J	3	63	14	3,5	90	-	14-50	50	12,5	19	25	38	17,5	34°
22070-31001	type spb/17/b	for taper bush 1610	A	1	25	14	3,5	100	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31002	type spb/17/b	for taper bush 1610	J	2	44	14	3,5	100	-	12-42	57	12,5	19	25	19	17,5	34°
22070-31003	type spb/17/b	for taper bush 1610	J	3	63	14	3,5	100	-	12-42	57	12,5	19	25	38	17,5	34°
22070-31121	type spb/17/b	for taper bush 1610	A	1	25	14	3,5	112	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31122	type spb/17/b	for taper bush 1610	B	2	44	14	3,5	112	-	12-42	69	12,5	19	25	19	17,5	34°
22070-31123	type spb/17/b	for taper bush 1610	J	3	63	14	3,5	112	-	12-42	69	12,5	19	25	38	17,5	34°
22070-31181	type spb/17/b	for taper bush 1610	A	1	25	14	3,5	118	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31182	type spb/17/b	for taper bush 1610	B	2	44	14	3,5	118	-	12-42	76	12,5	19	25	19	17,5	34°
22070-31183	type spb/17/b	for taper bush 1610	J	3	63	14	3,5	118	-	12-42	76	12,5	19	25	38	17,5	34°
22070-31251	type spb/17/b	for taper bush 1610	A	1	25	14	3,5	125	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31252	type spb/17/b	for taper bush 2012	B	2	44	14	3,5	125	-	14-50	86	12,5	19	32	12	17,5	34°
22070-31253	type spb/17/b	for taper bush 2012	B	3	63	14	3,5	125	-	14-50	86	12,5	19	32	31	17,5	34°
22070-31321	type spb/17/b	for taper bush 1610	A	1	25	14	3,5	132	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31322	type spb/17/b	for taper bush 2012	B	2	44	14	3,5	132	-	14-50	89	12,5	19	32	12	17,5	34°
22070-31323	type spb/17/b	for taper bush 2012	B	3	63	14	3,5	132	-	14-50	89	12,5	19	32	31	17,5	34°
22070-31401	type spb/17/b	for taper bush 1610	A	1	25	14	3,5	140	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31402	type spb/17/b	for taper bush 2012	B	2	44	14	3,5	140	-	14-50	97	12,5	19	32	12	17,5	34°
22070-31403	type spb/17/b	for taper bush 2012	B	3	63	14	3,5	140	-	14-50	97	12,5	19	32	31	17,5	34°
22070-31501	type spb/17/b	for taper bush 1610	D	1	25	14	3,5	150	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31502	type spb/17/b	for taper bush 2012	B	2	44	14	3,5	150	-	14-50	107	12,5	19	32	12	17,5	34°
22070-31503	type spb/17/b	for taper bush 2517	B	3	63	14	3,5	150	-	18-65	107	12,5	19	45	18	17,5	34°
22070-31601	type spb/17/b	for taper bush 1610	D	1	25	14	3,5	160	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31602	type spb/17/b	for taper bush 2012	B	2	44	14	3,5	160	-	14-50	120	12,5	19	32	12	17,5	34°
22070-31603	type spb/17/b	for taper bush 2517	B	3	63	14	3,5	160	-	18-65	120	12,5	19	45	18	17,5	34°
22070-31701	type spb/17/b	for taper bush 1610	D	1	25	14	3,5	170	-	12-42	-	12,5	19	25	-	17,5	34°
22070-31702	type spb/17/b	for taper bush 2012	B	2	44	14	3,5	170	-	14-50	130	12,5	19	32	12	17,5	34°
22070-31703	type spb/17/b	for taper bush 2517	B	3	63	14	3,5	170	-	18-65	130	12,5	19	45	18	17,5	34°
22070-31801	type spb/17/b	for taper bush 1610	F	1	25	14	3,5	180	90	12-42	132	12,5	19	25	-	17,5	34°
22070-31802	type spb/17/b	for taper bush 2517	A	2	44	14	3,5	180	120	18-65	-	12,5	19	45	1	17,5	34°
22070-31803	type spb/17/b	for taper bush 2517	B	3	63	14	3,5	180	-	18-65	137	12,5	19	45	18	17,5	34°
22070-31901	type spb/17/b	for taper bush 2012	L	1	25	14	3,5	190	104	14-50	147	12,5	19	32	3,5	17,5	34°
22070-31902	type spb/17/b	for taper bush 2517	A	2	44	14	3,5	190	120	18-65	-	12,5	19	45	1	17,5	34°
22070-31903	type spb/17/b	for taper bush 2517	B	3	63	14	3,5	190	-	18-65	147	12,5	19	45	18	17,5	34°
22070-32001	type spb/17/b	for taper bush 2012	L	1	25	14	3,5	200	104	14-50	157	12,5	19	32	3,5	17,5	34°
22070-32002	type spb/17/b	for taper bush 2517	D	2	44	14	3,5	200	117	18-65	-	12,5	19	45	1	17,5	34°
22070-32003	type spb/17/b	for taper bush 2517	B	3	63	14	3,5	200	-	18-65	157	12,5	19	45	18	17,5	34°
22070-32121	type spb/17/b	for taper bush 2012	C	1	25	14	3,5	212	104	14-50	169	12,5	19	32	3,5	17,5	34°
22070-32122	type spb/17/b	for taper bush 2517	D	2	44	14	3,5	212	125	18-65	169	12,5	19	45	1	17,5	34°
22070-32123	type spb/17/b	for taper bush 2517	E	3	63	14	3,5	212	125	18-65	169	12,5	19	45	18	17,5	34°
22070-32241	type spb/17/b	for taper bush 2012	L	1	25	14	3,5	224	104	14-50	181	12,5	19	32	3,5	17,5	34°
22070-32242	type spb/17/b	for taper bush 2517	D	2	44	14	3,5	224	117	18-65	181	12,5	19	45	1	17,5	34°
22070-32243	type spb/17/b	for taper bush 2517	E	3	63	14	3,5	224	117	18-65	181	12,5	19	45	18	17,5	34°
22070-32362	type spb/17/b	for taper bush 2517	D	2	44	14	3,5	236	117	18-65	193	12,5	19	45	1	17,5	34°
22070-32363	type spb/17/b	for taper bush 2517	E	3	63	14	3,5	236	117	18-65	193	12,5	19	45	18	17,5	34°
22070-32501	type spb/17/b	for taper bush 2012	L	1	25	14	3,5	250	104	14-50	207	12,5	19	32	3,5	17,5	34°
22070-32502	type spb/17/b	for taper bush 2517	D	2	44	14	3,5	250	124	18-65	207	12,5	19	45	1	17,5	34°

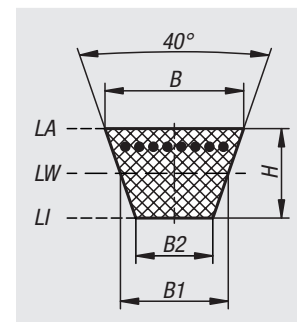
V-belt pulleys, grey cast iron

for mounting with taper clamping bushes



Order No.	Version 1	Version 2	Form	N=number of mounting holes	B	B1	C	D	D1 max.	D2	D5	E	E1	L	L1	T	α
22070-32503	type spb/17/b	for taper bush 3020	E	3	63	14	3,5	250	144	22-75	207	12,5	19	51	12	17,5	34°
22070-32801	type spb/17/b	for taper bush 2012	C	1	25	14	3,5	280	104	14-50	237	12,5	19	32	3,5	17,5	34°
22070-32802	type spb/17/b	for taper bush 2517	G	2	44	14	3,5	280	125	18-65	237	12,5	19	45	1	17,5	34°
22070-32803	type spb/17/b	for taper bush 3020	I	3	63	14	3,5	280	144	22-75	237	12,5	19	51	6	17,5	34°
22070-33001	type spb/17/b	for taper bush 2012	C	1	25	14	3,5	300	104	14-50	285	12,5	19	32	3,5	17,5	34°
22070-33002	type spb/17/b	for taper bush 2517	G	2	44	14	3,5	300	125	18-65	257	12,5	19	45	1	17,5	34°
22070-33003	type spb/17/b	for taper bush 3020	I	3	63	14	3,5	300	144	22-75	257	12,5	19	51	6	17,5	34°
22070-33151	type spb/17/b	for taper bush 2012	C	1	25	14	3,5	315	104	14-50	272	12,5	19	32	3,5	17,5	34°
22070-33152	type spb/17/b	for taper bush 2517	G	2	44	14	3,5	315	125	18-65	272	12,5	19	45	1	17,5	34°
22070-33153	type spb/17/b	for taper bush 3020	I	3	63	14	3,5	315	144	22-75	272	12,5	19	51	6	17,5	34°
22070-33552	type spb/17/b	for taper bush 2517	C	2	44	14	3,5	355	146	22-75	315	12,5	19	51	3,5	17,5	38°
22070-33553	type spb/17/b	for taper bush 3020	I	3	63	14	3,5	355	146	22-75	315	12,5	19	51	6	17,5	38°
22070-34002	type spb/17/b	for taper bush 3020	C	2	44	14	3,5	400	146	22-75	357	12,5	19	51	3,5	17,5	38°

V-belts DIN 2215

**Material:**

Neoprene with polyester tensile cord.

Sample order:

nIm 22071-10425

Note:

Endless V-belt acc. to DIN 2215 (classic V-belt). Electrically conductive acc. to ISO 1813. The V-belts are of equal length (from 1000 mm).

The V-belts have limited oil resistance. Avoid continuous contact with mineral oils and grease as these will reduce the service life.

Temperature range:

-55 °C to +70 °C.

Service life is reduced if the V-belts are exposed to continuous temperatures above +60 °C.

Assembly:

The belts need to be tensioned after installation. Re-tensioning is required after an initial run time of 15 - 20 minutes.

If, by a drive with several belts, one belt requires changing, then the full belt set should be replaced.

Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-10425	Type 10/Z	10	8,5	6,1	6	463	425	448
22071-10450	Type 10/Z	10	8,5	6,1	6	488	450	473
22071-10475	Type 10/Z	10	8,5	6,1	6	513	475	498
22071-10483	Type 10/Z	10	8,5	6,1	6	521	483	506
22071-10500	Type 10/Z	10	8,5	6,1	6	538	500	523
22071-10508	Type 10/Z	10	8,5	6,1	6	546	508	531
22071-10520	Type 10/Z	10	8,5	6,1	6	558	520	543
22071-10530	Type 10/Z	10	8,5	6,1	6	568	530	553
22071-10560	Type 10/Z	10	8,5	6,1	6	598	560	583
22071-10575	Type 10/Z	10	8,5	6,1	6	613	575	598
22071-10584	Type 10/Z	10	8,5	6,1	6	622	584	607
22071-10600	Type 10/Z	10	8,5	6,1	6	638	600	623
22071-10610	Type 10/Z	10	8,5	6,1	6	648	610	633
22071-10630	Type 10/Z	10	8,5	6,1	6	668	630	653
22071-10650	Type 10/Z	10	8,5	6,1	6	688	650	673
22071-10670	Type 10/Z	10	8,5	6,1	6	708	670	693
22071-10686	Type 10/Z	10	8,5	6,1	6	724	686	709

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-10700	Type 10/Z	10	8,5	6,1	6	738	700	723
22071-10710	Type 10/Z	10	8,5	6,1	6	748	710	733
22071-10725	Type 10/Z	10	8,5	6,1	6	763	725	748
22071-10730	Type 10/Z	10	8,5	6,1	6	768	730	753
22071-10750	Type 10/Z	10	8,5	6,1	6	788	750	773
22071-10765	Type 10/Z	10	8,5	6,1	6	803	765	788
22071-10775	Type 10/Z	10	8,5	6,1	6	813	775	798
22071-10800	Type 10/Z	10	8,5	6,1	6	838	800	823
22071-10813	Type 10/Z	10	8,5	6,1	6	851	813	836
22071-10820	Type 10/Z	10	8,5	6,1	6	858	820	843
22071-10825	Type 10/Z	10	8,5	6,1	6	863	825	848
22071-10838	Type 10/Z	10	8,5	6,1	6	876	838	861
22071-10850	Type 10/Z	10	8,5	6,1	6	888	850	873
22071-10865	Type 10/Z	10	8,5	6,1	6	903	865	888
22071-10875	Type 10/Z	10	8,5	6,1	6	913	875	898
22071-10889	Type 10/Z	10	8,5	6,1	6	927	889	912
22071-10900	Type 10/Z	10	8,5	6,1	6	938	900	923
22071-10914	Type 10/Z	10	8,5	6,1	6	952	914	937
22071-10925	Type 10/Z	10	8,5	6,1	6	963	925	948
22071-10953	Type 10/Z	10	8,5	6,1	6	991	953	976
22071-10990	Type 10/Z	10	8,5	6,1	6	1028	990	1013
22071-11000	Type 10/Z	10	8,5	6,1	6	1038	1000	1023
22071-11016	Type 10/Z	10	8,5	6,1	6	1054	1016	1039
22071-11030	Type 10/Z	10	8,5	6,1	6	1068	1030	1053
22071-11041	Type 10/Z	10	8,5	6,1	6	1079	1041	1064
22071-11060	Type 10/Z	10	8,5	6,1	6	1098	1060	1083
22071-11080	Type 10/Z	10	8,5	6,1	6	1118	1080	1103
22071-11105	Type 10/Z	10	8,5	6,1	6	1143	1105	1128
22071-11120	Type 10/Z	10	8,5	6,1	6	1158	1120	1143
22071-11150	Type 10/Z	10	8,5	6,1	6	1188	1150	1173
22071-11170	Type 10/Z	10	8,5	6,1	6	1208	1170	1193
22071-11180	Type 10/Z	10	8,5	6,1	6	1218	1180	1203
22071-11194	Type 10/Z	10	8,5	6,1	6	1232	1194	1217
22071-11215	Type 10/Z	10	8,5	6,1	6	1253	1215	1238
22071-11230	Type 10/Z	10	8,5	6,1	6	1268	1230	1253
22071-11250	Type 10/Z	10	8,5	6,1	6	1288	1250	1273
22071-11270	Type 10/Z	10	8,5	6,1	6	1308	1270	1293
22071-11295	Type 10/Z	10	8,5	6,1	6	1333	1295	1318
22071-11320	Type 10/Z	10	8,5	6,1	6	1358	1320	1343
22071-11346	Type 10/Z	10	8,5	6,1	6	1384	1346	1369
22071-11371	Type 10/Z	10	8,5	6,1	6	1409	1371	1394
22071-11400	Type 10/Z	10	8,5	6,1	6	1438	1400	1423
22071-11450	Type 10/Z	10	8,5	6,1	6	1488	1450	1473
22071-11475	Type 10/Z	10	8,5	6,1	6	1513	1475	1498

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-11500	Type 10/Z	10	8,5	6,1	6	1538	1500	1523
22071-11550	Type 10/Z	10	8,5	6,1	6	1588	1550	1573
22071-11575	Type 10/Z	10	8,5	6,1	6	1613	1575	1598
22071-11600	Type 10/Z	10	8,5	6,1	6	1638	1600	1623
22071-11680	Type 10/Z	10	8,5	6,1	6	1718	1680	1703
22071-11700	Type 10/Z	10	8,5	6,1	6	1738	1700	1723
22071-11750	Type 10/Z	10	8,5	6,1	6	1788	1750	1773
22071-11800	Type 10/Z	10	8,5	6,1	6	1838	1800	1823
22071-11900	Type 10/Z	10	8,5	6,1	6	1938	1900	1923
22071-11975	Type 10/Z	10	8,5	6,1	6	2013	1975	1998
22071-12000	Type 10/Z	10	8,5	6,1	6	2038	2000	2023
22071-12080	Type 10/Z	10	8,5	6,1	6	2118	2080	2103
22071-12120	Type 10/Z	10	8,5	6,1	6	2158	2120	2143
22071-12360	Type 10/Z	10	8,5	6,1	6	2398	2360	2383

Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-20457	Type 13/A	13	11	7,8	8	495	457	480
22071-20483	Type 13/A	13	11	7,8	8	521	483	506
22071-20508	Type 13/A	13	11	7,8	8	546	508	531
22071-20535	Type 13/A	13	11	7,8	8	573	535	558
22071-20560	Type 13/A	13	11	7,8	8	598	560	583
22071-20580	Type 13/A	13	11	7,8	8	618	580	603
22071-20600	Type 13/A	13	11	7,8	8	638	600	623
22071-20630	Type 13/A	13	11	7,8	8	668	630	653
22071-20660	Type 13/A	13	11	7,8	8	698	660	683
22071-20670	Type 13/A	13	11	7,8	8	708	670	693
22071-20690	Type 13/A	13	11	7,8	8	728	690	713
22071-20710	Type 13/A	13	11	7,8	8	748	710	733
22071-20730	Type 13/A	13	11	7,8	8	768	730	753
22071-20750	Type 13/A	13	11	7,8	8	788	750	773
22071-20767	Type 13/A	13	11	7,8	8	805	767	790
22071-20780	Type 13/A	13	11	7,8	8	818	780	803
22071-20787	Type 13/A	13	11	7,8	8	825	787	810
22071-20800	Type 13/A	13	11	7,8	8	838	800	823
22071-20813	Type 13/A	13	11	7,8	8	851	813	836
22071-20825	Type 13/A	13	11	7,8	8	863	825	848
22071-20838	Type 13/A	13	11	7,8	8	876	838	861
22071-20850	Type 13/A	13	11	7,8	8	888	850	873
22071-20855	Type 13/A	13	11	7,8	8	893	855	878
22071-20875	Type 13/A	13	11	7,8	8	913	875	898
22071-20889	Type 13/A	13	11	7,8	8	927	889	912
22071-20900	Type 13/A	13	11	7,8	8	938	900	923

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-20914	Type 13/A	13	11	7,8	8	952	914	937
22071-20925	Type 13/A	13	11	7,8	8	963	925	948
22071-20939	Type 13/A	13	11	7,8	8	977	939	962
22071-20950	Type 13/A	13	11	7,8	8	988	950	973
22071-20965	Type 13/A	13	11	7,8	8	1003	965	988
22071-20975	Type 13/A	13	11	7,8	8	1013	975	998
22071-20991	Type 13/A	13	11	7,8	8	1029	991	1014
22071-21000	Type 13/A	13	11	7,8	8	1038	1000	1023
22071-21016	Type 13/A	13	11	7,8	8	1054	1016	1039
22071-21030	Type 13/A	13	11	7,8	8	1068	1030	1053
22071-21041	Type 13/A	13	11	7,8	8	1079	1041	1064
22071-21060	Type 13/A	13	11	7,8	8	1098	1060	1083
22071-21075	Type 13/A	13	11	7,8	8	1113	1075	1098
22071-21090	Type 13/A	13	11	7,8	8	1128	1090	1113
22071-21105	Type 13/A	13	11	7,8	8	1143	1105	1128
22071-21120	Type 13/A	13	11	7,8	8	1158	1120	1143
22071-21143	Type 13/A	13	11	7,8	8	1181	1143	1166
22071-21168	Type 13/A	13	11	7,8	8	1206	1168	1191
22071-21180	Type 13/A	13	11	7,8	8	1218	1180	1203
22071-21200	Type 13/A	13	11	7,8	8	1238	1200	1223
22071-21220	Type 13/A	13	11	7,8	8	1258	1220	1243
22071-21240	Type 13/A	13	11	7,8	8	1278	1240	1263
22071-21250	Type 13/A	13	11	7,8	8	1288	1250	1273
22071-21270	Type 13/A	13	11	7,8	8	1308	1270	1293
22071-21300	Type 13/A	13	11	7,8	8	1338	1300	1323
22071-21320	Type 13/A	13	11	7,8	8	1358	1320	1343
22071-21346	Type 13/A	13	11	7,8	8	1384	1346	1369
22071-21372	Type 13/A	13	11	7,8	8	1410	1372	1395
22071-21400	Type 13/A	13	11	7,8	8	1438	1400	1423
22071-21422	Type 13/A	13	11	7,8	8	1460	1422	1445
22071-21448	Type 13/A	13	11	7,8	8	1486	1448	1471
22071-21475	Type 13/A	13	11	7,8	8	1513	1475	1498
22071-21500	Type 13/A	13	11	7,8	8	1538	1500	1523
22071-21525	Type 13/A	13	11	7,8	8	1563	1525	1548
22071-21550	Type 13/A	13	11	7,8	8	1588	1550	1573
22071-21575	Type 13/A	13	11	7,8	8	1613	1575	1598
22071-21600	Type 13/A	13	11	7,8	8	1638	1600	1623
22071-21625	Type 13/A	13	11	7,8	8	1663	1625	1648
22071-21651	Type 13/A	13	11	7,8	8	1689	1651	1674
22071-21676	Type 13/A	13	11	7,8	8	1714	1676	1699
22071-21700	Type 13/A	13	11	7,8	8	1738	1700	1723
22071-21725	Type 13/A	13	11	7,8	8	1763	1725	1748
22071-21750	Type 13/A	13	11	7,8	8	1788	1750	1773
22071-21780	Type 13/A	13	11	7,8	8	1818	1780	1803
22071-21800	Type 13/A	13	11	7,8	8	1838	1800	1823

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-21825	Type 13/A	13	11	7,8	8	1863	1825	1848
22071-21854	Type 13/A	13	11	7,8	8	1892	1854	1877
22071-21880	Type 13/A	13	11	7,8	8	1918	1880	1903
22071-21900	Type 13/A	13	11	7,8	8	1938	1900	1923
22071-21930	Type 13/A	13	11	7,8	8	1968	1930	1953
22071-21956	Type 13/A	13	11	7,8	8	1994	1956	1979
22071-21980	Type 13/A	13	11	7,8	8	2018	1980	2003
22071-22000	Type 13/A	13	11	7,8	8	2038	2000	2023
22071-22010	Type 13/A	13	11	7,8	8	2048	2010	2033
22071-22030	Type 13/A	13	11	7,8	8	2068	2030	2053
22071-22040	Type 13/A	13	11	7,8	8	2078	2040	2063
22071-22057	Type 13/A	13	11	7,8	8	2095	2057	2080
22071-22083	Type 13/A	13	11	7,8	8	2121	2083	2106
22071-22100	Type 13/A	13	11	7,8	8	2138	2100	2123
22071-22120	Type 13/A	13	11	7,8	8	2158	2120	2143
22071-22134	Type 13/A	13	11	7,8	8	2172	2134	2157
22071-22150	Type 13/A	13	11	7,8	8	2188	2150	2173
22071-22184	Type 13/A	13	11	7,8	8	2222	2184	2207
22071-22200	Type 13/A	13	11	7,8	8	2238	2200	2223
22071-22240	Type 13/A	13	11	7,8	8	2278	2240	2263
22071-22261	Type 13/A	13	11	7,8	8	2299	2261	2284
22071-22285	Type 13/A	13	11	7,8	8	2323	2285	2308
22071-22311	Type 13/A	13	11	7,8	8	2349	2311	2334
22071-22337	Type 13/A	13	11	7,8	8	2375	2337	2360
22071-22360	Type 13/A	13	11	7,8	8	2398	2360	2383
22071-22388	Type 13/A	13	11	7,8	8	2426	2388	2411
22071-22413	Type 13/A	13	11	7,8	8	2451	2413	2436
22071-22435	Type 13/A	13	11	7,8	8	2473	2435	2458
22071-22475	Type 13/A	13	11	7,8	8	2513	2475	2498
22071-22500	Type 13/A	13	11	7,8	8	2538	2500	2523
22071-22540	Type 13/A	13	11	7,8	8	2578	2540	2563
22071-22591	Type 13/A	13	11	7,8	8	2629	2591	2614
22071-22616	Type 13/A	13	11	7,8	8	2654	2616	2639
22071-22650	Type 13/A	13	11	7,8	8	2688	2650	2673
22071-22667	Type 13/A	13	11	7,8	8	2705	2667	2690
22071-22730	Type 13/A	13	11	7,8	8	2768	2730	2753
22071-22743	Type 13/A	13	11	7,8	8	2781	2743	2766
22071-22800	Type 13/A	13	11	7,8	8	2838	2800	2823
22071-22840	Type 13/A	13	11	7,8	8	2878	2840	2863
22071-22946	Type 13/A	13	11	7,8	8	2984	2946	2969
22071-23000	Type 13/A	13	11	7,8	8	3038	3000	3023
22071-23050	Type 13/A	13	11	7,8	8	3088	3050	3073
22071-23150	Type 13/A	13	11	7,8	8	3188	3150	3173
22071-23250	Type 13/A	13	11	7,8	8	3288	3250	3273

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-23350	Type 13/A	13	11	7,8	8	3388	3350	3373
22071-23404	Type 13/A	13	11	7,8	8	3442	3404	3427
22071-23454	Type 13/A	13	11	7,8	8	3492	3454	3477
22071-23550	Type 13/A	13	11	7,8	8	3588	3550	3573
22071-23650	Type 13/A	13	11	7,8	8	3688	3650	3673
22071-23683	Type 13/A	13	11	7,8	8	3721	3683	3706
22071-24000	Type 13/A	13	11	7,8	8	4038	4000	4023
22071-24572	Type 13/A	13	11	7,8	8	4610	4572	4595
22071-25000	Type 13/A	13	11	7,8	8	5038	5000	5023

Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-30615	Type 17/B	17	14	9,4	11	653	615	638
22071-30635	Type 17/B	17	14	9,4	11	673	635	658
22071-30650	Type 17/B	17	14	9,4	11	688	650	673
22071-30670	Type 17/B	17	14	9,4	11	708	670	693
22071-30686	Type 17/B	17	14	9,4	11	724	686	709
22071-30710	Type 17/B	17	14	9,4	11	748	710	733
22071-30725	Type 17/B	17	14	9,4	11	763	725	748
22071-30737	Type 17/B	17	14	9,4	11	775	737	760
22071-30750	Type 17/B	17	14	9,4	11	788	750	773
22071-30762	Type 17/B	17	14	9,4	11	800	762	785
22071-30775	Type 17/B	17	14	9,4	11	813	775	798
22071-30788	Type 17/B	17	14	9,4	11	826	788	811
22071-30800	Type 17/B	17	14	9,4	11	838	800	823
22071-30813	Type 17/B	17	14	9,4	11	851	813	836
22071-30826	Type 17/B	17	14	9,4	11	864	826	849
22071-30838	Type 17/B	17	14	9,4	11	876	838	861
22071-30850	Type 17/B	17	14	9,4	11	888	850	873
22071-30864	Type 17/B	17	14	9,4	11	902	864	887
22071-30875	Type 17/B	17	14	9,4	11	913	875	898
22071-30889	Type 17/B	17	14	9,4	11	927	889	912
22071-30900	Type 17/B	17	14	9,4	11	938	900	923
22071-30915	Type 17/B	17	14	9,4	11	953	915	938
22071-30925	Type 17/B	17	14	9,4	11	963	925	948
22071-30940	Type 17/B	17	14	9,4	11	978	940	963
22071-30950	Type 17/B	17	14	9,4	11	988	950	973
22071-30965	Type 17/B	17	14	9,4	11	1003	965	988
22071-30975	Type 17/B	17	14	9,4	11	1013	975	998
22071-30991	Type 17/B	17	14	9,4	11	1029	991	1014
22071-31000	Type 17/B	17	14	9,4	11	1038	1000	1023
22071-31017	Type 17/B	17	14	9,4	11	1055	1017	1040
22071-31030	Type 17/B	17	14	9,4	11	1068	1030	1053

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-31040	Type 17/B	17	14	9,4	11	1078	1040	1063
22071-31050	Type 17/B	17	14	9,4	11	1088	1050	1073
22071-31060	Type 17/B	17	14	9,4	11	1098	1060	1083
22071-31075	Type 17/B	17	14	9,4	11	1113	1075	1098
22071-31090	Type 17/B	17	14	9,4	11	1128	1090	1113
22071-31100	Type 17/B	17	14	9,4	11	1138	1100	1123
22071-31120	Type 17/B	17	14	9,4	11	1158	1120	1143
22071-31150	Type 17/B	17	14	9,4	11	1188	1150	1173
22071-31175	Type 17/B	17	14	9,4	11	1213	1175	1198
22071-31180	Type 17/B	17	14	9,4	11	1218	1180	1203
22071-31200	Type 17/B	17	14	9,4	11	1238	1200	1223
22071-31215	Type 17/B	17	14	9,4	11	1253	1215	1238
22071-31225	Type 17/B	17	14	9,4	11	1263	1225	1248
22071-31250	Type 17/B	17	14	9,4	11	1288	1250	1273
22071-31270	Type 17/B	17	14	9,4	11	1308	1270	1293
22071-31300	Type 17/B	17	14	9,4	11	1338	1300	1323
22071-31320	Type 17/B	17	14	9,4	11	1358	1320	1343
22071-31335	Type 17/B	17	14	9,4	11	1373	1335	1358
22071-31350	Type 17/B	17	14	9,4	11	1388	1350	1373
22071-31360	Type 17/B	17	14	9,4	11	1398	1360	1383
22071-31372	Type 17/B	17	14	9,4	11	1410	1372	1395
22071-31400	Type 17/B	17	14	9,4	11	1438	1400	1423
22071-31422	Type 17/B	17	14	9,4	11	1460	1422	1445
22071-31450	Type 17/B	17	14	9,4	11	1488	1450	1473
22071-31470	Type 17/B	17	14	9,4	11	1508	1470	1493
22071-31500	Type 17/B	17	14	9,4	11	1538	1500	1523
22071-31525	Type 17/B	17	14	9,4	11	1563	1525	1548
22071-31550	Type 17/B	17	14	9,4	11	1588	1550	1573
22071-31575	Type 17/B	17	14	9,4	11	1613	1575	1598
22071-31600	Type 17/B	17	14	9,4	11	1638	1600	1623
22071-31625	Type 17/B	17	14	9,4	11	1663	1625	1648
22071-31650	Type 17/B	17	14	9,4	11	1688	1650	1673
22071-31676	Type 17/B	17	14	9,4	11	1714	1676	1699
22071-31700	Type 17/B	17	14	9,4	11	1738	1700	1723
22071-31725	Type 17/B	17	14	9,4	11	1763	1725	1748
22071-31750	Type 17/B	17	14	9,4	11	1788	1750	1773
22071-31761	Type 17/B	17	14	9,4	11	1799	1761	1784
22071-31775	Type 17/B	17	14	9,4	11	1813	1775	1798
22071-31800	Type 17/B	17	14	9,4	11	1838	1800	1823
22071-31829	Type 17/B	17	14	9,4	11	1867	1829	1852
22071-31850	Type 17/B	17	14	9,4	11	1888	1850	1873
22071-31880	Type 17/B	17	14	9,4	11	1918	1880	1903
22071-31900	Type 17/B	17	14	9,4	11	1938	1900	1923
22071-31930	Type 17/B	17	14	9,4	11	1968	1930	1953
22071-31950	Type 17/B	17	14	9,4	11	1988	1950	1973

V-belts DIN 2215



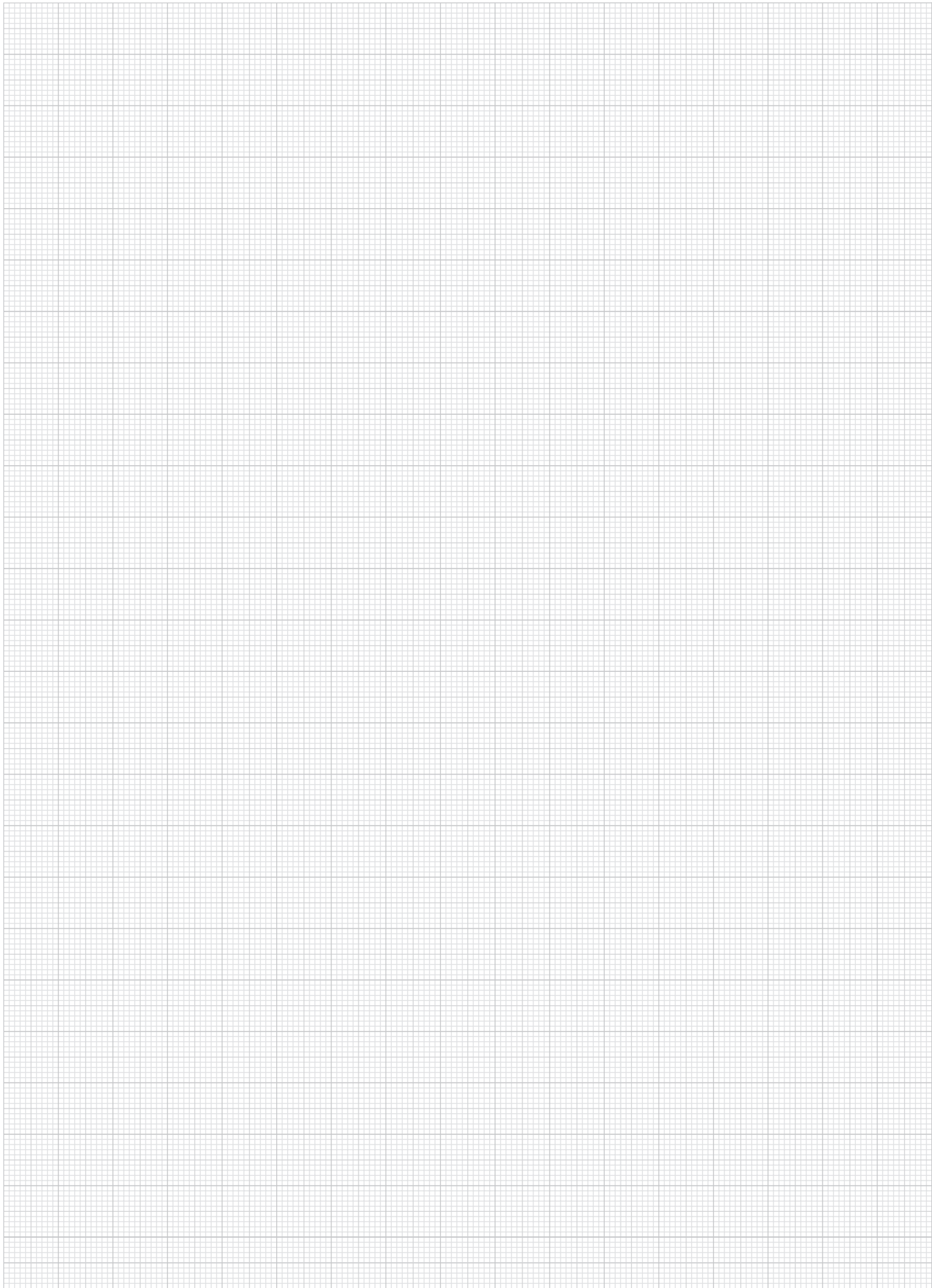
Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-31981	Type 17/B	17	14	9,4	11	2019	1981	2004
22071-32000	Type 17/B	17	14	9,4	11	2038	2000	2023
22071-32030	Type 17/B	17	14	9,4	11	2068	2030	2053
22071-32060	Type 17/B	17	14	9,4	11	2098	2060	2083
22071-32083	Type 17/B	17	14	9,4	11	2121	2083	2106
22071-32108	Type 17/B	17	14	9,4	11	2146	2108	2131
22071-32120	Type 17/B	17	14	9,4	11	2158	2120	2143
22071-32134	Type 17/B	17	14	9,4	11	2172	2134	2157
22071-32160	Type 17/B	17	14	9,4	11	2198	2160	2183
22071-32184	Type 17/B	17	14	9,4	11	2222	2184	2207
22071-32200	Type 17/B	17	14	9,4	11	2238	2200	2223
22071-32210	Type 17/B	17	14	9,4	11	2248	2210	2233
22071-32240	Type 17/B	17	14	9,4	11	2278	2240	2263
22071-32261	Type 17/B	17	14	9,4	11	2299	2261	2284
22071-32286	Type 17/B	17	14	9,4	11	2324	2286	2309
22071-32300	Type 17/B	17	14	9,4	11	2338	2300	2323
22071-32337	Type 17/B	17	14	9,4	11	2375	2337	2360
22071-32360	Type 17/B	17	14	9,4	11	2398	2360	2383
22071-32388	Type 17/B	17	14	9,4	11	2426	2388	2411
22071-32400	Type 17/B	17	14	9,4	11	2438	2400	2423
22071-32413	Type 17/B	17	14	9,4	11	2451	2413	2436
22071-32438	Type 17/B	17	14	9,4	11	2476	2438	2461
22071-32450	Type 17/B	17	14	9,4	11	2488	2450	2473
22071-32465	Type 17/B	17	14	9,4	11	2503	2465	2488
22071-32500	Type 17/B	17	14	9,4	11	2538	2500	2523
22071-32515	Type 17/B	17	14	9,4	11	2553	2515	2538
22071-32540	Type 17/B	17	14	9,4	11	2578	2540	2563
22071-32565	Type 17/B	17	14	9,4	11	2603	2565	2588
22071-32600	Type 17/B	17	14	9,4	11	2638	2600	2623
22071-32616	Type 17/B	17	14	9,4	11	2654	2616	2639
22071-32650	Type 17/B	17	14	9,4	11	2688	2650	2673
22071-32667	Type 17/B	17	14	9,4	11	2705	2667	2690
22071-32700	Type 17/B	17	14	9,4	11	2738	2700	2723
22071-32718	Type 17/B	17	14	9,4	11	2756	2718	2741
22071-32750	Type 17/B	17	14	9,4	11	2788	2750	2773
22071-32800	Type 17/B	17	14	9,4	11	2838	2800	2823
22071-32840	Type 17/B	17	14	9,4	11	2878	2840	2863
22071-32900	Type 17/B	17	14	9,4	11	2938	2900	2923
22071-32921	Type 17/B	17	14	9,4	11	2959	2921	2944
22071-32950	Type 17/B	17	14	9,4	11	2988	2950	2973
22071-33000	Type 17/B	17	14	9,4	11	3038	3000	3023
22071-33050	Type 17/B	17	14	9,4	11	3088	3050	3073
22071-33100	Type 17/B	17	14	9,4	11	3138	3100	3123
22071-33150	Type 17/B	17	14	9,4	11	3188	3150	3173
22071-33175	Type 17/B	17	14	9,4	11	3213	3175	3198

V-belts DIN 2215



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-33200	Type 17/B	17	14	9,4	11	3238	3200	3223
22071-33250	Type 17/B	17	14	9,4	11	3288	3250	3273
22071-33302	Type 17/B	17	14	9,4	11	3340	3302	3325
22071-33350	Type 17/B	17	14	9,4	11	3388	3350	3373
22071-33378	Type 17/B	17	14	9,4	11	3416	3378	3401
22071-33404	Type 17/B	17	14	9,4	11	3442	3404	3427
22071-33450	Type 17/B	17	14	9,4	11	3488	3450	3473
22071-33505	Type 17/B	17	14	9,4	11	3543	3505	3528
22071-33550	Type 17/B	17	14	9,4	11	3588	3550	3573
22071-33581	Type 17/B	17	14	9,4	11	3619	3581	3604
22071-33600	Type 17/B	17	14	9,4	11	3638	3600	3623
22071-33658	Type 17/B	17	14	9,4	11	3696	3658	3681
22071-33700	Type 17/B	17	14	9,4	11	3738	3700	3723
22071-33750	Type 17/B	17	14	9,4	11	3788	3750	3773
22071-33810	Type 17/B	17	14	9,4	11	3848	3810	3833
22071-33895	Type 17/B	17	14	9,4	11	3933	3895	3918
22071-33861	Type 17/B	17	14	9,4	11	3899	3861	3884
22071-33912	Type 17/B	17	14	9,4	11	3950	3912	3935
22071-33950	Type 17/B	17	14	9,4	11	3988	3950	3973
22071-34000	Type 17/B	17	14	9,4	11	4038	4000	4023
22071-34115	Type 17/B	17	14	9,4	11	4153	4115	4138
22071-34200	Type 17/B	17	14	9,4	11	4238	4200	4223
22071-34250	Type 17/B	17	14	9,4	11	4288	4250	4273
22071-34378	Type 17/B	17	14	9,4	11	4416	4378	4401
22071-34394	Type 17/B	17	14	9,4	11	4432	4394	4417
22071-34450	Type 17/B	17	14	9,4	11	4488	4450	4473
22071-34500	Type 17/B	17	14	9,4	11	4538	4500	4523
22071-34572	Type 17/B	17	14	9,4	11	4610	4572	4595
22071-34699	Type 17/B	17	14	9,4	11	4737	4699	4722
22071-34750	Type 17/B	17	14	9,4	11	4788	4750	4773
22071-34826	Type 17/B	17	14	9,4	11	4864	4826	4849
22071-34877	Type 17/B	17	14	9,4	11	4915	4877	4900
22071-34953	Type 17/B	17	14	9,4	11	4991	4953	4976
22071-35000	Type 17/B	17	14	9,4	11	5038	5000	5023

Notes



20000
21000
22000
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24000
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29000
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32000
33000

V-belts DIN 7753

**Material:**

Neoprene with polyester tensile cord.

Sample order:

nlm 22071-02-10512

Note:

Endless V-belt acc. to DIN 7753 (narrow V-belts). Electrically conductive acc. to ISO 1813. The V-belts are of equal length (from 1000 mm).

Narrow V-belts are more efficient than classic V-belts.

The V-belts have limited oil resistance. Avoid continuous contact with mineral oils and grease as these will reduce the service life.

Temperature range:

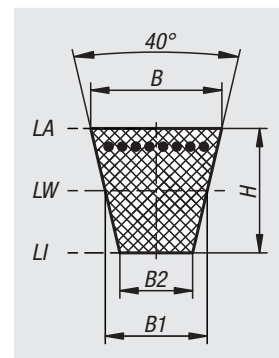
-55 °C to +70 °C.

Service life is reduced if the V-belts are exposed to continuous temperatures above +60 °C.

Assembly:

The belts need to be tensioned after installation. Re-tensioning is required after an initial run time of 15 - 20 minutes.

If, by a drive with several belts, one belt requires changing, then the full belt set should be replaced.



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-10512	Type SPZ	9,7	8,5	4,5	8	524	474	512
22071-02-10562	Type SPZ	9,7	8,5	4,5	8	574	524	562
22071-02-10587	Type SPZ	9,7	8,5	4,5	8	599	549	587
22071-02-10612	Type SPZ	9,7	8,5	4,5	8	624	574	612
22071-02-10630	Type SPZ	9,7	8,5	4,5	8	642	592	630
22071-02-10637	Type SPZ	9,7	8,5	4,5	8	649	599	637
22071-02-10662	Type SPZ	9,7	8,5	4,5	8	674	624	662
22071-02-10670	Type SPZ	9,7	8,5	4,5	8	682	632	670
22071-02-10677	Type SPZ	9,7	8,5	4,5	8	689	639	677
22071-02-10687	Type SPZ	9,7	8,5	4,5	8	699	649	687
22071-02-10697	Type SPZ	9,7	8,5	4,5	8	709	659	697
22071-02-10710	Type SPZ	9,7	8,5	4,5	8	722	672	710
22071-02-10722	Type SPZ	9,7	8,5	4,5	8	734	684	722
22071-02-10737	Type SPZ	9,7	8,5	4,5	8	749	699	737
22071-02-10750	Type SPZ	9,7	8,5	4,5	8	762	712	750
22071-02-10762	Type SPZ	9,7	8,5	4,5	8	774	724	762
22071-02-10772	Type SPZ	9,7	8,5	4,5	8	784	734	772

V-belts DIN 7753



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-10787	Type SPZ	9,7	8,5	4,5	8	799	749	787
22071-02-10800	Type SPZ	9,7	8,5	4,5	8	812	762	800
22071-02-10812	Type SPZ	9,7	8,5	4,5	8	824	774	812
22071-02-10825	Type SPZ	9,7	8,5	4,5	8	837	787	825
22071-02-10837	Type SPZ	9,7	8,5	4,5	8	849	799	837
22071-02-10850	Type SPZ	9,7	8,5	4,5	8	862	812	850
22071-02-10862	Type SPZ	9,7	8,5	4,5	8	874	824	862
22071-02-10875	Type SPZ	9,7	8,5	4,5	8	887	837	875
22071-02-10887	Type SPZ	9,7	8,5	4,5	8	899	849	887
22071-02-10900	Type SPZ	9,7	8,5	4,5	8	912	862	900
22071-02-10912	Type SPZ	9,7	8,5	4,5	8	924	874	912
22071-02-10922	Type SPZ	9,7	8,5	4,5	8	934	884	922
22071-02-10925	Type SPZ	9,7	8,5	4,5	8	937	887	925
22071-02-10927	Type SPZ	9,7	8,5	4,5	8	939	889	927
22071-02-10937	Type SPZ	9,7	8,5	4,5	8	949	899	937
22071-02-10950	Type SPZ	9,7	8,5	4,5	8	962	912	950
22071-02-10962	Type SPZ	9,7	8,5	4,5	8	974	924	962
22071-02-10970	Type SPZ	9,7	8,5	4,5	8	982	932	970
22071-02-10987	Type SPZ	9,7	8,5	4,5	8	999	949	987
22071-02-11000	Type SPZ	9,7	8,5	4,5	8	1012	962	1000
22071-02-11012	Type SPZ	9,7	8,5	4,5	8	1024	974	1012
22071-02-11024	Type SPZ	9,7	8,5	4,5	8	1036	986	1024
22071-02-11037	Type SPZ	9,7	8,5	4,5	8	1049	999	1037
22071-02-11047	Type SPZ	9,7	8,5	4,5	8	1059	1009	1047
22071-02-11060	Type SPZ	9,7	8,5	4,5	8	1072	1022	1060
22071-02-11077	Type SPZ	9,7	8,5	4,5	8	1089	1039	1077
22071-02-11087	Type SPZ	9,7	8,5	4,5	8	1099	1049	1087
22071-02-11112	Type SPZ	9,7	8,5	4,5	8	1124	1074	1112
22071-02-11120	Type SPZ	9,7	8,5	4,5	8	1132	1082	1120
22071-02-11127	Type SPZ	9,7	8,5	4,5	8	1139	1089	1127
22071-02-11137	Type SPZ	9,7	8,5	4,5	8	1149	1099	1137
22071-02-11147	Type SPZ	9,7	8,5	4,5	8	1159	1109	1147
22071-02-11150	Type SPZ	9,7	8,5	4,5	8	1162	1112	1150
22071-02-11162	Type SPZ	9,7	8,5	4,5	8	1174	1124	1162
22071-02-11180	Type SPZ	9,7	8,5	4,5	8	1192	1142	1180
22071-02-11187	Type SPZ	9,7	8,5	4,5	8	1199	1149	1187
22071-02-11202	Type SPZ	9,7	8,5	4,5	8	1214	1164	1202
22071-02-11212	Type SPZ	9,7	8,5	4,5	8	1224	1174	1212
22071-02-11222	Type SPZ	9,7	8,5	4,5	8	1234	1184	1222
22071-02-11237	Type SPZ	9,7	8,5	4,5	8	1249	1199	1237
22071-02-11250	Type SPZ	9,7	8,5	4,5	8	1262	1212	1250
22071-02-11262	Type SPZ	9,7	8,5	4,5	8	1274	1224	1262
22071-02-11270	Type SPZ	9,7	8,5	4,5	8	1282	1232	1270
22071-02-11287	Type SPZ	9,7	8,5	4,5	8	1299	1249	1287

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Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-11312	Type SPZ	9,7	8,5	4,5	8	1324	1274	1312
22071-02-11320	Type SPZ	9,7	8,5	4,5	8	1332	1282	1320
22071-02-11337	Type SPZ	9,7	8,5	4,5	8	1349	1299	1337
22071-02-11347	Type SPZ	9,7	8,5	4,5	8	1359	1309	1347
22071-02-11362	Type SPZ	9,7	8,5	4,5	8	1374	1324	1362
22071-02-11387	Type SPZ	9,7	8,5	4,5	8	1399	1349	1387
22071-02-11400	Type SPZ	9,7	8,5	4,5	8	1412	1362	1400
22071-02-11412	Type SPZ	9,7	8,5	4,5	8	1424	1374	1412
22071-02-11420	Type SPZ	9,7	8,5	4,5	8	1432	1382	1420
22071-02-11437	Type SPZ	9,7	8,5	4,5	8	1449	1399	1437
22071-02-11457	Type SPZ	9,7	8,5	4,5	8	1469	1419	1457
22071-02-11462	Type SPZ	9,7	8,5	4,5	8	1474	1424	1462
22071-02-11487	Type SPZ	9,7	8,5	4,5	8	1499	1449	1487
22071-02-11500	Type SPZ	9,7	8,5	4,5	8	1512	1462	1500
22071-02-11512	Type SPZ	9,7	8,5	4,5	8	1524	1474	1512
22071-02-11520	Type SPZ	9,7	8,5	4,5	8	1532	1482	1520
22071-02-11537	Type SPZ	9,7	8,5	4,5	8	1549	1499	1537
22071-02-11550	Type SPZ	9,7	8,5	4,5	8	1562	1512	1550
22071-02-11562	Type SPZ	9,7	8,5	4,5	8	1574	1524	1562
22071-02-11587	Type SPZ	9,7	8,5	4,5	8	1599	1549	1587
22071-02-11600	Type SPZ	9,7	8,5	4,5	8	1612	1562	1600
22071-02-11612	Type SPZ	9,7	8,5	4,5	8	1624	1574	1612
22071-02-11637	Type SPZ	9,7	8,5	4,5	8	1649	1599	1637
22071-02-11650	Type SPZ	9,7	8,5	4,5	8	1662	1612	1650
22071-02-11662	Type SPZ	9,7	8,5	4,5	8	1674	1624	1662
22071-02-11687	Type SPZ	9,7	8,5	4,5	8	1699	1649	1687
22071-02-11700	Type SPZ	9,7	8,5	4,5	8	1712	1662	1700
22071-02-11712	Type SPZ	9,7	8,5	4,5	8	1724	1674	1712
22071-02-11737	Type SPZ	9,7	8,5	4,5	8	1749	1699	1737
22071-02-11750	Type SPZ	9,7	8,5	4,5	8	1762	1712	1750
22071-02-11762	Type SPZ	9,7	8,5	4,5	8	1774	1724	1762
22071-02-11787	Type SPZ	9,7	8,5	4,5	8	1799	1749	1787
22071-02-11800	Type SPZ	9,7	8,5	4,5	8	1812	1762	1800
22071-02-11812	Type SPZ	9,7	8,5	4,5	8	1824	1774	1812
22071-02-11837	Type SPZ	9,7	8,5	4,5	8	1849	1799	1837
22071-02-11850	Type SPZ	9,7	8,5	4,5	8	1862	1812	1850
22071-02-11862	Type SPZ	9,7	8,5	4,5	8	1874	1824	1862
22071-02-11887	Type SPZ	9,7	8,5	4,5	8	1899	1849	1887
22071-02-11900	Type SPZ	9,7	8,5	4,5	8	1912	1862	1900
22071-02-11937	Type SPZ	9,7	8,5	4,5	8	1949	1899	1937
22071-02-11950	Type SPZ	9,7	8,5	4,5	8	1962	1912	1950
22071-02-11987	Type SPZ	9,7	8,5	4,5	8	1999	1949	1987
22071-02-12000	Type SPZ	9,7	8,5	4,5	8	2012	1962	2000
22071-02-12037	Type SPZ	9,7	8,5	4,5	8	2049	1999	2037

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Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-12062	Type SPZ	9,7	8,5	4,5	8	2074	2024	2062
22071-02-12087	Type SPZ	9,7	8,5	4,5	8	2099	2049	2087
22071-02-12120	Type SPZ	9,7	8,5	4,5	8	2132	2082	2120
22071-02-12137	Type SPZ	9,7	8,5	4,5	8	2149	2099	2137
22071-02-12160	Type SPZ	9,7	8,5	4,5	8	2172	2122	2160
22071-02-12187	Type SPZ	9,7	8,5	4,5	8	2199	2149	2187
22071-02-12240	Type SPZ	9,7	8,5	4,5	8	2252	2202	2240
22071-02-12287	Type SPZ	9,7	8,5	4,5	8	2299	2249	2287
22071-02-12360	Type SPZ	9,7	8,5	4,5	8	2372	2322	2360
22071-02-12410	Type SPZ	9,7	8,5	4,5	8	2422	2372	2410
22071-02-12500	Type SPZ	9,7	8,5	4,5	8	2512	2462	2500
22071-02-12540	Type SPZ	9,7	8,5	4,5	8	2552	2502	2540
22071-02-12650	Type SPZ	9,7	8,5	4,5	8	2662	2612	2650
22071-02-12800	Type SPZ	9,7	8,5	4,5	8	2812	2762	2800
22071-02-12840	Type SPZ	9,7	8,5	4,5	8	2852	2802	2840
22071-02-13000	Type SPZ	9,7	8,5	4,5	8	3012	2962	3000
22071-02-13150	Type SPZ	9,7	8,5	4,5	8	3162	3112	3150
22071-02-13170	Type SPZ	9,7	8,5	4,5	8	3182	3132	3170
22071-02-13350	Type SPZ	9,7	8,5	4,5	8	3362	3312	3350
22071-02-13550	Type SPZ	9,7	8,5	4,5	8	3562	3512	3550

Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-20647	Type SPA	12,7	11	6,2	10	664	601	647
22071-02-20707	Type SPA	12,7	11	6,2	10	724	661	707
22071-02-20732	Type SPA	12,7	11	6,2	10	749	686	732
22071-02-20757	Type SPA	12,7	11	6,2	10	774	711	757
22071-02-20782	Type SPA	12,7	11	6,2	10	799	736	782
22071-02-20800	Type SPA	12,7	11	6,2	10	817	754	800
22071-02-20807	Type SPA	12,7	11	6,2	10	824	761	807
22071-02-20832	Type SPA	12,7	11	6,2	10	849	786	832
22071-02-20850	Type SPA	12,7	11	6,2	10	867	804	850
22071-02-20857	Type SPA	12,7	11	6,2	10	874	811	857
22071-02-20882	Type SPA	12,7	11	6,2	10	899	836	882
22071-02-20900	Type SPA	12,7	11	6,2	10	917	854	900
22071-02-20907	Type SPA	12,7	11	6,2	10	924	861	907
22071-02-20925	Type SPA	12,7	11	6,2	10	942	879	925
22071-02-20932	Type SPA	12,7	11	6,2	10	949	886	932
22071-02-20950	Type SPA	12,7	11	6,2	10	967	904	950
22071-02-20957	Type SPA	12,7	11	6,2	10	974	911	957
22071-02-20967	Type SPA	12,7	11	6,2	10	984	921	967

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Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-20982	Type SPA	12,7	11	6,2	10	999	936	982
22071-02-21000	Type SPA	12,7	11	6,2	10	1017	954	1000
22071-02-21007	Type SPA	12,7	11	6,2	10	1024	961	1007
22071-02-21032	Type SPA	12,7	11	6,2	10	1049	986	1032
22071-02-21042	Type SPA	12,7	11	6,2	10	1059	996	1042
22071-02-21057	Type SPA	12,7	11	6,2	10	1074	1011	1057
22071-02-21060	Type SPA	12,7	11	6,2	10	1077	1014	1060
22071-02-21082	Type SPA	12,7	11	6,2	10	1099	1036	1082
22071-02-21090	Type SPA	12,7	11	6,2	10	1107	1044	1090
22071-02-21100	Type SPA	12,7	11	6,2	10	1117	1054	1100
22071-02-21107	Type SPA	12,7	11	6,2	10	1124	1061	1107
22071-02-21120	Type SPA	12,7	11	6,2	10	1137	1074	1120
22071-02-21132	Type SPA	12,7	11	6,2	10	1149	1086	1132
22071-02-21150	Type SPA	12,7	11	6,2	10	1167	1104	1150
22071-02-21157	Type SPA	12,7	11	6,2	10	1174	1111	1157
22071-02-21175	Type SPA	12,7	11	6,2	10	1192	1129	1175
22071-02-21180	Type SPA	12,7	11	6,2	10	1197	1134	1180
22071-02-21207	Type SPA	12,7	11	6,2	10	1224	1161	1207
22071-02-21225	Type SPA	12,7	11	6,2	10	1242	1179	1225
22071-02-21232	Type SPA	12,7	11	6,2	10	1249	1186	1232
22071-02-21250	Type SPA	12,7	11	6,2	10	1267	1204	1250
22071-02-21257	Type SPA	12,7	11	6,2	10	1274	1211	1257
22071-02-21272	Type SPA	12,7	11	6,2	10	1289	1226	1272
22071-02-21282	Type SPA	12,7	11	6,2	10	1299	1236	1282
22071-02-21300	Type SPA	12,7	11	6,2	10	1317	1254	1300
22071-02-21307	Type SPA	12,7	11	6,2	10	1324	1261	1307
22071-02-21320	Type SPA	12,7	11	6,2	10	1337	1274	1320
22071-02-21332	Type SPA	12,7	11	6,2	10	1349	1286	1332
22071-02-21357	Type SPA	12,7	11	6,2	10	1374	1311	1357
22071-02-21367	Type SPA	12,7	11	6,2	10	1384	1321	1367
22071-02-21375	Type SPA	12,7	11	6,2	10	1392	1329	1375
22071-02-21382	Type SPA	12,7	11	6,2	10	1399	1336	1382
22071-02-21400	Type SPA	12,7	11	6,2	10	1417	1354	1400
22071-02-21407	Type SPA	12,7	11	6,2	10	1424	1361	1407
22071-02-21425	Type SPA	12,7	11	6,2	10	1442	1379	1425
22071-02-21432	Type SPA	12,7	11	6,2	10	1449	1386	1432
22071-02-21450	Type SPA	12,7	11	6,2	10	1467	1404	1450
22071-02-21457	Type SPA	12,7	11	6,2	10	1474	1411	1457
22071-02-21482	Type SPA	12,7	11	6,2	10	1499	1436	1482
22071-02-21500	Type SPA	12,7	11	6,2	10	1517	1454	1500
22071-02-21507	Type SPA	12,7	11	6,2	10	1524	1461	1507
22071-02-21525	Type SPA	12,7	11	6,2	10	1542	1479	1525

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Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-21532	Type SPA	12,7	11	6,2	10	1549	1486	1532
22071-02-21557	Type SPA	12,7	11	6,2	10	1574	1511	1557
22071-02-21582	Type SPA	12,7	11	6,2	10	1599	1536	1582
22071-02-21600	Type SPA	12,7	11	6,2	10	1617	1554	1600
22071-02-21607	Type SPA	12,7	11	6,2	10	1624	1561	1607
22071-02-21632	Type SPA	12,7	11	6,2	10	1649	1586	1632
22071-02-21657	Type SPA	12,7	11	6,2	10	1674	1611	1657
22071-02-21675	Type SPA	12,7	11	6,2	10	1692	1629	1675
22071-02-21682	Type SPA	12,7	11	6,2	10	1699	1636	1682
22071-02-21700	Type SPA	12,7	11	6,2	10	1717	1654	1700
22071-02-21707	Type SPA	12,7	11	6,2	10	1724	1661	1707
22071-02-21732	Type SPA	12,7	11	6,2	10	1749	1686	1732
22071-02-21750	Type SPA	12,7	11	6,2	10	1767	1704	1750
22071-02-21757	Type SPA	12,7	11	6,2	10	1774	1711	1757
22071-02-21782	Type SPA	12,7	11	6,2	10	1799	1736	1782
22071-02-21800	Type SPA	12,7	11	6,2	10	1817	1754	1800
22071-02-21807	Type SPA	12,7	11	6,2	10	1824	1761	1807
22071-02-21832	Type SPA	12,7	11	6,2	10	1849	1786	1832
22071-02-21850	Type SPA	12,7	11	6,2	10	1867	1804	1850
22071-02-21857	Type SPA	12,7	11	6,2	10	1874	1811	1857
22071-02-21882	Type SPA	12,7	11	6,2	10	1899	1836	1882
22071-02-21900	Type SPA	12,7	11	6,2	10	1917	1854	1900
22071-02-21907	Type SPA	12,7	11	6,2	10	1924	1861	1907
22071-02-21925	Type SPA	12,7	11	6,2	10	1942	1879	1925
22071-02-21932	Type SPA	12,7	11	6,2	10	1949	1886	1932
22071-02-21950	Type SPA	12,7	11	6,2	10	1967	1904	1950
22071-02-21957	Type SPA	12,7	11	6,2	10	1974	1911	1957
22071-02-21982	Type SPA	12,7	11	6,2	10	1999	1936	1982
22071-02-22000	Type SPA	12,7	11	6,2	10	2017	1954	2000
22071-02-22032	Type SPA	12,7	11	6,2	10	2049	1986	2032
22071-02-22057	Type SPA	12,7	11	6,2	10	2074	2011	2057
22071-02-22082	Type SPA	12,7	11	6,2	10	2099	2036	2082
22071-02-22120	Type SPA	12,7	11	6,2	10	2137	2074	2120
22071-02-22132	Type SPA	12,7	11	6,2	10	2149	2086	2132
22071-02-22182	Type SPA	12,7	11	6,2	10	2199	2136	2182
22071-02-22207	Type SPA	12,7	11	6,2	10	2224	2161	2207
22071-02-22232	Type SPA	12,7	11	6,2	10	2249	2186	2232
22071-02-22240	Type SPA	12,7	11	6,2	10	2257	2194	2240
22071-02-22282	Type SPA	12,7	11	6,2	10	2299	2236	2282
22071-02-22300	Type SPA	12,7	11	6,2	10	2317	2254	2300
22071-02-22307	Type SPA	12,7	11	6,2	10	2324	2261	2307
22071-02-22332	Type SPA	12,7	11	6,2	10	2349	2286	2332
22071-02-22360	Type SPA	12,7	11	6,2	10	2377	2314	2360
22071-02-22382	Type SPA	12,7	11	6,2	10	2399	2336	2382
22071-02-22432	Type SPA	12,7	11	6,2	10	2449	2386	2432

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Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-22475	Type SPA	12,7	11	6,2	10	2492	2429	2475
22071-02-22482	Type SPA	12,7	11	6,2	10	2499	2436	2482
22071-02-22500	Type SPA	12,7	11	6,2	10	2517	2454	2500
22071-02-22532	Type SPA	12,7	11	6,2	10	2549	2486	2532
22071-02-22582	Type SPA	12,7	11	6,2	10	2599	2536	2582
22071-02-22607	Type SPA	12,7	11	6,2	10	2624	2561	2607
22071-02-22632	Type SPA	12,7	11	6,2	10	2649	2586	2632
22071-02-22650	Type SPA	12,7	11	6,2	10	2667	2604	2650
22071-02-22682	Type SPA	12,7	11	6,2	10	2699	2636	2682
22071-02-22732	Type SPA	12,7	11	6,2	10	2749	2686	2732
22071-02-22782	Type SPA	12,7	11	6,2	10	2799	2736	2782
22071-02-22800	Type SPA	12,7	11	6,2	10	2817	2754	2800
22071-02-22832	Type SPA	12,7	11	6,2	10	2849	2786	2832
22071-02-22847	Type SPA	12,7	11	6,2	10	2864	2801	2847
22071-02-22882	Type SPA	12,7	11	6,2	10	2899	2836	2882
22071-02-22900	Type SPA	12,7	11	6,2	10	2917	2854	2900
22071-02-22932	Type SPA	12,7	11	6,2	10	2949	2886	2932
22071-02-22982	Type SPA	12,7	11	6,2	10	2999	2936	2982
22071-02-23000	Type SPA	12,7	11	6,2	10	3017	2954	3000
22071-02-23032	Type SPA	12,7	11	6,2	10	3049	2986	3032
22071-02-23082	Type SPA	12,7	11	6,2	10	3099	3036	3082
22071-02-23150	Type SPA	12,7	11	6,2	10	3167	3104	3150
22071-02-23182	Type SPA	12,7	11	6,2	10	3199	3136	3182
22071-02-23250	Type SPA	12,7	11	6,2	10	3267	3204	3250
22071-02-23282	Type SPA	12,7	11	6,2	10	3299	3236	3282
22071-02-23350	Type SPA	12,7	11	6,2	10	3367	3304	3350
22071-02-23382	Type SPA	12,7	11	6,2	10	3399	3336	3382
22071-02-23450	Type SPA	12,7	11	6,2	10	3467	3404	3450
22071-02-23550	Type SPA	12,7	11	6,2	10	3567	3504	3550
22071-02-23650	Type SPA	12,7	11	6,2	10	3667	3604	3650
22071-02-23750	Type SPA	12,7	11	6,2	10	3767	3704	3750
22071-02-24000	Type SPA	12,7	11	6,2	10	4017	3954	4000
22071-02-24250	Type SPA	12,7	11	6,2	10	4267	4204	4250
22071-02-24500	Type SPA	12,7	11	6,2	10	4517	4454	4500

Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-31250	Type SPB	16,3	14	7,9	13	1272	1190	1250
22071-02-31320	Type SPB	16,3	14	7,9	13	1342	1260	1320
22071-02-31340	Type SPB	16,3	14	7,9	13	1362	1280	1340
22071-02-31360	Type SPB	16,3	14	7,9	13	1382	1300	1360
22071-02-31400	Type SPB	16,3	14	7,9	13	1422	1340	1400
22071-02-31410	Type SPB	16,3	14	7,9	13	1432	1350	1410
22071-02-31450	Type SPB	16,3	14	7,9	13	1472	1390	1450

V-belts DIN 7753



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-31500	Type SPB	16,3	14	7,9	13	1522	1440	1500
22071-02-31550	Type SPB	16,3	14	7,9	13	1572	1490	1550
22071-02-31600	Type SPB	16,3	14	7,9	13	1622	1540	1600
22071-02-31650	Type SPB	16,3	14	7,9	13	1672	1590	1650
22071-02-31700	Type SPB	16,3	14	7,9	13	1722	1640	1700
22071-02-31750	Type SPB	16,3	14	7,9	13	1772	1690	1750
22071-02-31778	Type SPB	16,3	14	7,9	13	1800	1718	1778
22071-02-31800	Type SPB	16,3	14	7,9	13	1822	1740	1800
22071-02-31850	Type SPB	16,3	14	7,9	13	1872	1790	1850
22071-02-31860	Type SPB	16,3	14	7,9	13	1882	1800	1860
22071-02-31900	Type SPB	16,3	14	7,9	13	1922	1840	1900
22071-02-31950	Type SPB	16,3	14	7,9	13	1972	1890	1950
22071-02-32000	Type SPB	16,3	14	7,9	13	2022	1940	2000
22071-02-32020	Type SPB	16,3	14	7,9	13	2042	1960	2020
22071-02-32060	Type SPB	16,3	14	7,9	13	2082	2000	2060
22071-02-32098	Type SPB	16,3	14	7,9	13	2120	2038	2098
22071-02-32120	Type SPB	16,3	14	7,9	13	2142	2060	2120
22071-02-32150	Type SPB	16,3	14	7,9	13	2172	2090	2150
22071-02-32180	Type SPB	16,3	14	7,9	13	2202	2120	2180
22071-02-32200	Type SPB	16,3	14	7,9	13	2222	2140	2200
22071-02-32240	Type SPB	16,3	14	7,9	13	2262	2180	2240
22071-02-32264	Type SPB	16,3	14	7,9	13	2286	2204	2264
22071-02-32280	Type SPB	16,3	14	7,9	13	2302	2220	2280
22071-02-32300	Type SPB	16,3	14	7,9	13	2322	2240	2300
22071-02-32310	Type SPB	16,3	14	7,9	13	2332	2250	2310
22071-02-32360	Type SPB	16,3	14	7,9	13	2382	2300	2360
22071-02-32391	Type SPB	16,3	14	7,9	13	2413	2331	2391
22071-02-32400	Type SPB	16,3	14	7,9	13	2422	2340	2400
22071-02-32410	Type SPB	16,3	14	7,9	13	2432	2350	2410
22071-02-32430	Type SPB	16,3	14	7,9	13	2452	2370	2430
22071-02-32450	Type SPB	16,3	14	7,9	13	2472	2390	2450
22071-02-32500	Type SPB	16,3	14	7,9	13	2522	2440	2500
22071-02-32530	Type SPB	16,3	14	7,9	13	2552	2470	2530
22071-02-32580	Type SPB	16,3	14	7,9	13	2602	2520	2580
22071-02-32600	Type SPB	16,3	14	7,9	13	2622	2540	2600
22071-02-32650	Type SPB	16,3	14	7,9	13	2672	2590	2650
22071-02-32680	Type SPB	16,3	14	7,9	13	2702	2620	2680
22071-02-32720	Type SPB	16,3	14	7,9	13	2742	2660	2720
22071-02-32760	Type SPB	16,3	14	7,9	13	2782	2700	2760
22071-02-32800	Type SPB	16,3	14	7,9	13	2822	2740	2800
22071-02-32840	Type SPB	16,3	14	7,9	13	2862	2780	2840
22071-02-32850	Type SPB	16,3	14	7,9	13	2872	2790	2850
22071-02-32900	Type SPB	16,3	14	7,9	13	2922	2840	2900
22071-02-32950	Type SPB	16,3	14	7,9	13	2972	2890	2950

V-belts DIN 7753



Order No.	Version 1	belt width	B1	B2	H	External length LA	Internal length LI	Effective length LW
22071-02-32990	Type SPB	16,3	14	7,9	13	3012	2930	2990
22071-02-33000	Type SPB	16,3	14	7,9	13	3022	2940	3000
22071-02-33070	Type SPB	16,3	14	7,9	13	3092	3010	3070
22071-02-33150	Type SPB	16,3	14	7,9	13	3172	3090	3150
22071-02-33170	Type SPB	16,3	14	7,9	13	3192	3110	3170
22071-02-33250	Type SPB	16,3	14	7,9	13	3272	3190	3250
22071-02-33320	Type SPB	16,3	14	7,9	13	3342	3260	3320
22071-02-33350	Type SPB	16,3	14	7,9	13	3372	3290	3350
22071-02-33450	Type SPB	16,3	14	7,9	13	3472	3390	3450
22071-02-33500	Type SPB	16,3	14	7,9	13	3522	3440	3500
22071-02-33550	Type SPB	16,3	14	7,9	13	3572	3490	3550
22071-02-33650	Type SPB	16,3	14	7,9	13	3672	3590	3650
22071-02-33750	Type SPB	16,3	14	7,9	13	3772	3690	3750
22071-02-33800	Type SPB	16,3	14	7,9	13	3822	3740	3800
22071-02-33870	Type SPB	16,3	14	7,9	13	3892	3810	3870
22071-02-34000	Type SPB	16,3	14	7,9	13	4022	3940	4000
22071-02-34060	Type SPB	16,3	14	7,9	13	4082	4000	4060
22071-02-34120	Type SPB	16,3	14	7,9	13	4142	4060	4120
22071-02-34250	Type SPB	16,3	14	7,9	13	4272	4190	4250
22071-02-34310	Type SPB	16,3	14	7,9	13	4332	4250	4310
22071-02-34370	Type SPB	16,3	14	7,9	13	4392	4310	4370
22071-02-34500	Type SPB	16,3	14	7,9	13	4522	4440	4500
22071-02-34560	Type SPB	16,3	14	7,9	13	4582	4500	4560
22071-02-34620	Type SPB	16,3	14	7,9	13	4642	4560	4620
22071-02-34750	Type SPB	16,3	14	7,9	13	4772	4690	4750
22071-02-34820	Type SPB	16,3	14	7,9	13	4842	4760	4820
22071-02-34870	Type SPB	16,3	14	7,9	13	4892	4810	4870
22071-02-35000	Type SPB	16,3	14	7,9	13	5022	4940	5000

Belt tension meter



Sample order:
nlm 22100-01

Note:
The tension meter is used to perform a pre-tension test on commercially available belt systems quickly and easily by means of frequency measurement. Fully electronic and equipped with state-of-the-art microprocessor technology, the meter enables precise adjustment of all V, toothed and flat belts that have to be tensioned in the range from 10 to 600 Hz.

Attention:
- The measurement must never be performed while the drive is running
- The meter is not permitted or certified for use in potentially explosive areas.

Technical data:
- Measuring range: 10–600 Hz
- Measurement accuracy: 10–400 Hz ± 1% / >400 Hz ± 2%
- Resolution: 10–99.9 Hz: 0.1 Hz / >100 Hz: 1 Hz
- Measurement method: contact-free (acoustic with electronic interference noise suppression)
- Power supply: 2 x 1.5 V Micro (AAA cells)
- Operating time: >48 h permanent measurement (depending on the quality of the batteries used). Automatic shut down after 2 minutes of non-use
- Current consumption: max. 12 mA
- Indicator: - dual-row LCD, 2 x 8 characters

Order No.	Item
22100-01	Belt Tension Meter

Line laser

**Sample order:**

nlm 22101-01

Note:

The line laser is a measuring device for aligning drive pulleys laterally, horizontally and vertically using a laser beam, preventing heavy wear to the edges of the belt.

Attention:

- Never look directly into the laser beam and do not point it at other people, animals or strongly reflective surfaces.
- The device and the target points contain high-powered magnets.
- Individuals with pacemakers should not use the device due to safety reasons. Keep a safe distance away from electronic devices and wristwatches in order to prevent interference.
- The device must not be used in potentially explosive areas.

Technical data:

- Laser beam range approx. 5 to 10 m
- Laser class 2 (EN 60825-1:1997)
- Wavelength 630–680 nm
- Power < 1 mW
- Power supply 2 x 1.5 V (LR44)

Order No.

Item

22101-01

Line Laser

Tension pulleys



Material:

Pulley plastic PA6.
Ball bearing chrome steel.
Screw and nut steel.

Version:

Ball bearing with sealing discs 2Z-C3.
Screw ISO 4017, grade 8.8, electro zinc-plated.
Nut ISO 4035, grade 8, electro zinc-plated.

Sample order:

nIm 22102-30035

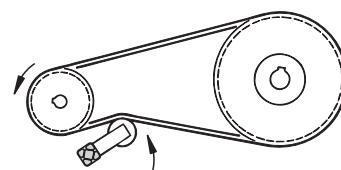
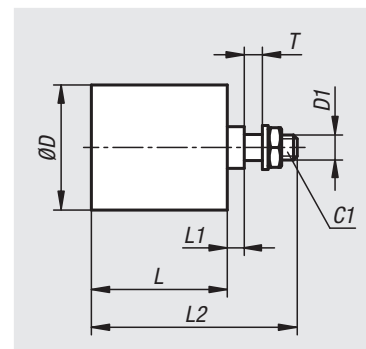
Note:

Ready-to-install tension pulleys for belts, complete with ball bearing. The ball bearings are sealed both sides, permanently lubricated and maintenance-free.

For tensioning belts on the back of the belt. The tension pulleys can be combined with all tensioning elements to form an elastic belt tensioner. Rigid mounting without a tensioning element is also possible. Can also be used as an idler pulley.

Temperature range:

-40 °C to +100 °C.



Order No.	D	D1	L	L1	L2	T max.	belt width max.	Tightening torque of screw C1 Nm	Max. rpm	Suitable for clamping element size
22102-30035	30	M8	35	3	51	7	30	10	8000	1
22102-40045	40	M10	45	6	67	9	40	20	8000	2+3
22102-60060	60	M12	60	7,5	89	13	55	35	6000	4
22102-80090	80	M20	90	9	127	14	85	160	5000	5

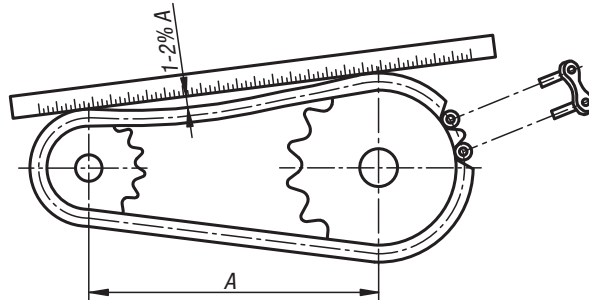
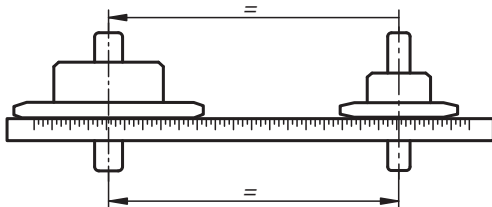
Technical information for roller chains

By steel link chains, roller chains have the greatest significance and the widest application possibilities. They are primarily used as drive chains but also as transport, conveyor and hoist chains. They offer positive and non-slip power transmission. As a result, constant transmission ratios are possible. The roller chains work without pre-tension. This means that bearings are only subjected to low loads. The direction of rotation always remains the same for a two sprocket chain drive. For a chain drive with more than two sprockets, economic solutions for the same or differing rotation directions can be easily solved. Chain speeds of 20 m/s and more are possible. With good lubrication, under normal operating conditions and at full load the efficiency of a chain drive is ca. 98% .

Mounting instructions:

The power to be transmitted, the speed of the smallest sprocket and the operating conditions must be known for correct chain selection. Where possible, sprockets with at least 17 teeth should be selected. At high speeds and high loads, the small sprocket should have at least 21 teeth and be hardened. The following numbers of teeth are recommended: 17, 19, 21, 23, 25, 38, 57, 76, 95 and 114. The distance between shafts can be freely selected. A value between 30 and 60 times the chain pitch is recommended. The chain should however have a wrap angle of at least 120° on the small sprocket. A ratio up to 4:1 per stage is usual for chain drives (a maximum of 7:1 should not be exceeded). The transmission ratio can be simply altered by exchanging the sprockets while maintaining the distance between the shafts.

The sprockets must be aligned and the shafts must be parallel. To ensure simple installation, place the connecting links on the sprocket. The chain slack should be between 1 and 2% of the shaft centre distance. The chains stretch while running due to wear; a method of tensioning the chain should be provided for this purpose. If the chains stretches too much (> 3%), the chain, and if necessary the sprockets should be replaced.



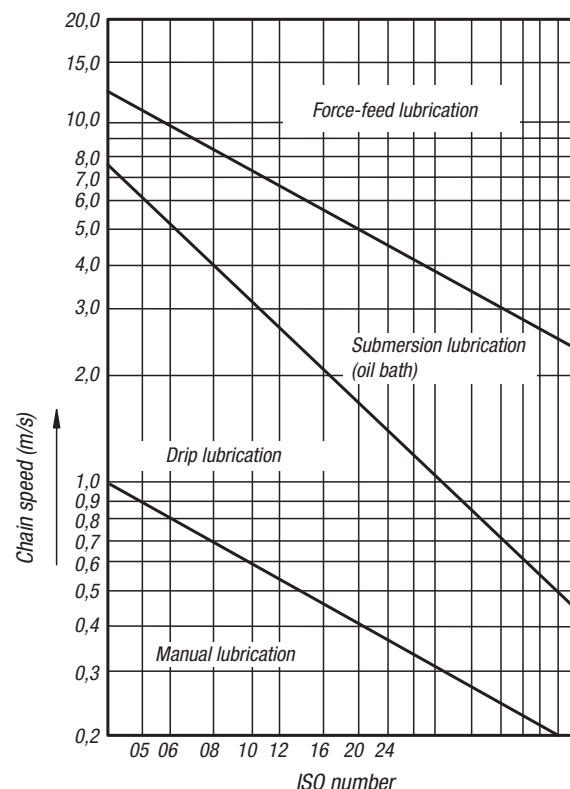
Maintenance and lubrication:

Regular maintenance of the chains is important in order to achieve a maximum service life. Our chains are supplied with corrosion protection and must be lubricated before commissioning. For a correctly dimensioned chain drive with suitable lubrication and maintenance, the service life is approx. 15,000 hours.

The type of lubrication is dependent on the power to be transmitted, the chain speed and the operating conditions. Highly viscous oil and greases are too thick to penetrate the chain and should be avoided. For roller chains, lubricants are used that are suitable for common lubricating methods such as manual lubrication, drip lubrication, submersion lubrication in an oil bath, force-feed lubrication or spray lubrication. Depending on the operating temperature, lubricating oils with SAE viscosity classes of between 30 and 50 should be used.

Ambient temperature:

-5°C to +25°C SAE 30
over +25°C to +45°C SAE 40
over +45°C to +65°C SAE 50



Technical information for roller chains

Calculation of chain drives with 2 sprockets

$$P_1 = P_N \cdot K_1 \cdot K_2$$

P_1 = corrected power (kW)

P_N = power to be transmitted (kW)

K_1 = factor for operating conditions

Running mode (examples)	Transmission ratio $i = n_1/n_2 = z_2/z_1$	Factor K1 for operating conditions No. of teeth on the small wheel z_1							
		11	13	15	17	19	21	23	25
Drive without shocks and normal power Conveyors, generators, packaging machines, saws, centrifugal pumps, printing machines, escalators	1:1	*2,22	*1,85	1,59	1,39	1,22	1,10	0,99	0,91
	2:1	*1,97	1,64	1,41	1,23	1,08	0,97	0,88	0,80
	3:1	1,82	1,52	1,30	1,14	1,00	0,90	0,81	0,74
	5:1	1,68	1,40	1,20	1,05	0,92	0,83	0,75	0,68
Smooth drive with occasional slight shocks, normal to medium load Blowers, rotary dryers, continuous conveyors, cellulose machines, agitators for solids, bending machines, winches, weaving looms, knitting machines	1:1	*2,78	*2,32	1,98	1,74	1,53	1,38	1,24	1,13
	2:1	*2,46	*2,05	1,76	1,55	1,35	1,22	1,10	1,05
	3:1	*2,28	1,90	1,63	1,43	1,25	1,13	1,02	0,93
	5:1	2,10	1,75	1,50	1,31	1,15	1,04	0,93	0,85
Slight shocks, medium load Piston pumps, compressors, broaching machines, mills, mixing machines	1:1	*3,33	*2,79	2,38	2,09	1,83	1,65	1,49	1,36
	2:1	*2,95	*2,47	2,11	1,85	1,62	1,46	1,31	1,20
	3:1	*2,73	2,28	1,95	1,71	1,50	1,35	1,22	1,11
	5:1	*2,52	2,10	1,80	1,58	1,38	1,25	1,12	1,03
Moderate shocks, heavy pulsating load Planers, windlass, presses, compressors, mining machinery, stamping machines	1:1	*3,89	*3,25	*2,78	2,44	2,14	1,92	1,73	1,58
	2:1	*3,44	*2,87	2,46	2,16	1,89	1,70	1,53	1,40
	3:1	*3,19	*2,66	2,28	2,00	1,75	1,58	1,42	1,30
	5:1	*2,93	*2,45	2,09	1,84	1,16	1,45	1,31	1,19
Heavy shocks, alternating loads Excavators, crushers, calender rollers, pile drivers, brickwork machinery, hammer mills, construction machinery	1:1	*4,44	*3,71	*3,17	*2,78	2,44	2,20	1,98	1,81
	2:1	*3,93	*3,28	*2,81	2,46	2,16	1,95	1,75	1,60
	3:1	*3,64	*3,04	2,60	2,28	2,00	1,80	1,62	1,48
	5:1	*3,35	*2,80	2,39	2,10	1,84	1,66	1,49	1,36

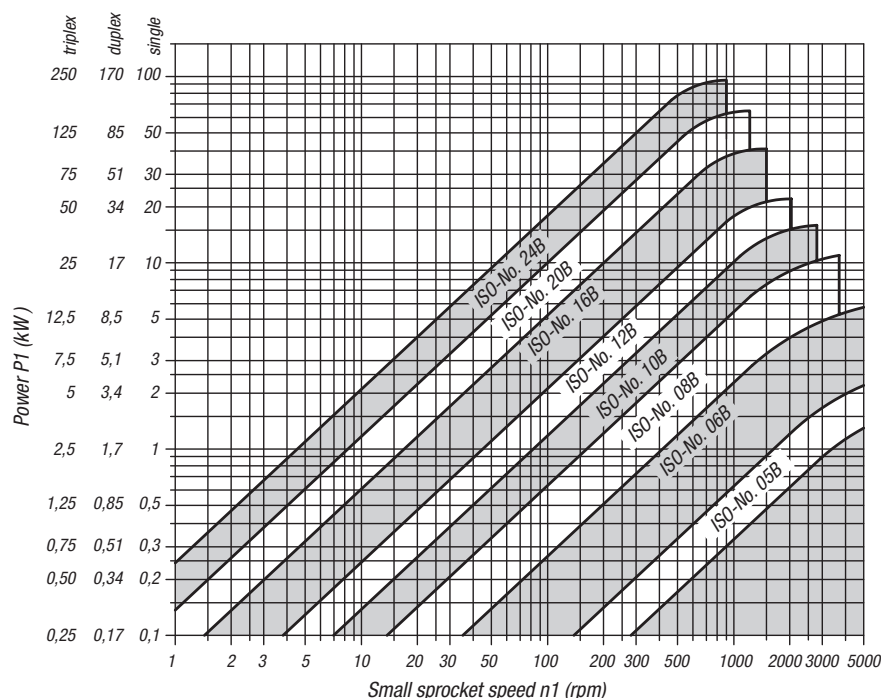
For electric motors and smooth-running drive units.

For combustion engines and other non-smooth running drive types the factor increases by 0.5.

* Conditions for preventing slack

Power diagram for DIN ISO 606 roller chains

For chain drives with 19 teeth, a chain length of 100 links, a ratio of 1:3 and a life expectancy of 15,000 operating hours.



The power diagram is not binding. It assumes operation under optimum conditions and is based on empirical values.

Roller chains single

DIN ISO 606, curved link plate



Material:

Steel.

Version:

Pre-stretched.

Sample order:

nlm 22200-0380732525

Note for ordering:

Packaging unit: 5 metres with odd number of links.
Ending with an inner link at both ends. Connecting links must be ordered separately.

Note:

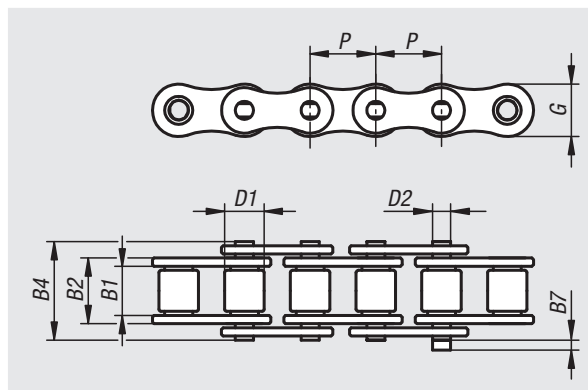
European-type roller chains acc. to DIN ISO 606 with curved link plates (ISO No. 06 with straight links). All chains are pre-stretched. Initial lubrication: anti-corrosion mineral based oil.

B7 = maximum value for links.

Pitch = PxB1

Temperature range:

-20°C to +120°C.



Order No.	ISO No.	Pitch inch	Pitch mm	B2	B4	B7	D1	D2	G	~L	No. of links	Break force F min. kN
22200-0800030625	05 B-1	-	8,0 x 3,0	4,77	8,6	3,1	5	2,31	7,11	~5000	625	4,4
22200-0380732525	06 B-1	3/8X7/32	9,525 x 5,72	8,53	13,5	3,3	6,35	3,28	8,26	~5000	525	6,6
22200-0120516393	08 B-1	1/2X5/16	12,7 x 7,75	11,3	17	3,9	8,51	4,45	11,81	~5000	393	12
22200-0580308315	10 B-1	5/8X3/8	15,875 x 9,65	13,28	19,6	4,1	10,16	5,08	14,73	~5000	315	15
22200-0340716263	12 B-1	3/4X7/16	19,05 x 11,68	15,62	22,7	4,6	12,07	5,72	16,13	~5000	263	17
22200-1001702197	16 B-1	1X17,02mm	25,4 x 17,02	25,45	36,1	5,4	15,88	8,28	21,08	~5000	197	40
22200-1140304157	20 B-1	1 1/4X3/4	31,75 x 19,56	29,01	43,2	6,1	19,05	10,19	26,42	~5000	157	95
22200-1121000131	24 B-1	1 1/2X1	38,1 x 25,4	37,92	53,4	6,6	25,4	14,63	33,4	~5000	131	160

Links

DIN ISO 606



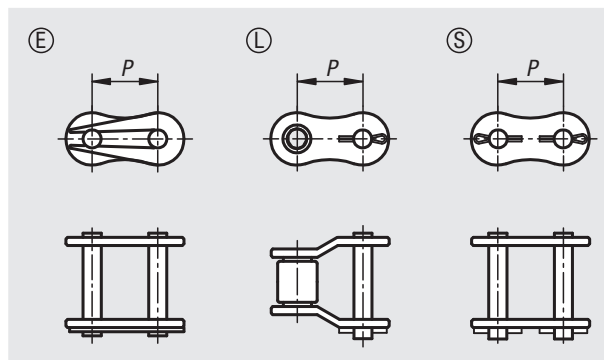
Material:
Steel.

Sample order:
nlm 22200-30380732

Note:
Links for single roller chains acc. to DIN ISO 606.

With Form E, the spring clips must be mounted with the closed end pointing in the direction of travel.

Offset links are required to close the chain if there is an odd number of links. Using offset links reduces the power and tensile strength by 20%.



Form E connecting links

Order No.	ISO No.	P	Suitable for chains
22200-30800030	05 B-1	8	8,0 x 3,0mm
22200-30380732	06 B-1	9,525	3/8 x 7/32
22200-30120516	08 B-1	12,7	1/2 x 5/16
22200-30580308	10 B-1	15,875	5/8 x 3/8
22200-30340716	12 B-1	19,05	3/4 x 7/16
22200-31001702	16 B-1	25,4	1 x 17,02 mm

Form L offset links

Order No.	ISO No.	P	Suitable for chains
22200-40800030	05 B-1	8	8,0 x 3,0mm
22200-40380732	06 B-1	9,525	3/8 x 7/32
22200-40120516	08 B-1	12,7	1/2 x 5/16
22200-40580308	10 B-1	15,875	5/8 x 3/8
22200-40340716	12 B-1	19,05	3/4 x 7/16
22200-41001702	16 B-1	25,4	1 x 17,02 mm
22200-41140340	20 B-1	31,75	1 1/4 x 3/4
22200-41121000	24 B-1	38,1	1 1/2 x 1

Form S, connecting links with cotter pin

Order No.	ISO No.	P	Suitable for chains
22200-51140340	20 B-1	31,75	1 1/4 x 3/4
22200-51121000	24 B-1	38,1	1 1/2 x 1

Roller chains duplex

DIN ISO 606, curved link plate


Material:

Steel.

Version:

Pre-stretched.

Sample order:

nIm 22201-0800030625

Note for ordering:

Packaging unit: 5 metres with odd number of links.
Ending with an inner link at both ends. Connecting links must be ordered separately.

Note:

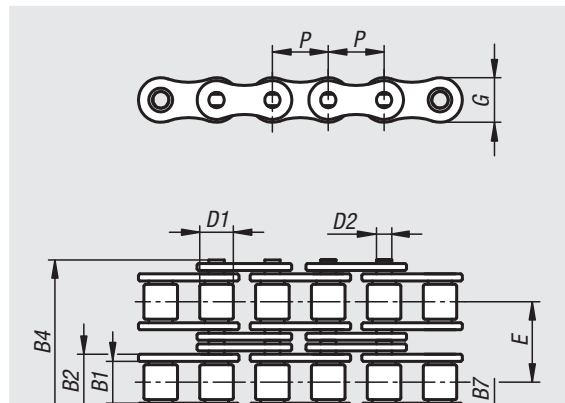
European-type roller chains acc. to DIN ISO 606 with curved link plates (ISO No. 06 with straight links). All chains are pre-stretched. Initial lubrication: anti-corrosion mineral based oil.

B7 = maximum value for links.

Pitch = $P \times B1$

Temperature range:

-20°C to +120°C.



Order No.	ISO No.	Pitch inch	Pitch mm	B2	B4	B7	D1	D2	E	G	~L	No. of links	Break force F min. kN
22201-0800030625	05 B-2	-	8,0 x 3,0	4,77	14,3	3,1	5	2,31	5,64	7,11	~5000	625	7,8
22201-0380732525	06 B-2	3/8 x 7/32	9,525 x 5,72	8,53	23,8	3,3	6,35	3,28	10,24	8,26	~5000	525	16,9
22201-0120516393	08 B-2	1/2 x 5/16	12,7 x 7,75	11,3	31	3,9	8,51	4,45	13,92	11,81	~5000	393	31,1
22201-0580308315	10 B-2	5/8 x 3/8	15,875 x 9,65	13,28	36,2	4,1	10,16	5,08	16,59	14,73	~5000	315	44,5
22201-0340716263	12 B-2	3/4 x 7/16	19,05 x 11,68	15,62	42,2	4,6	12,07	5,72	19,46	16,13	~5000	263	57,8
22201-1001702197	16 B-2	1 x 17,02mm	25,4 x 17,02	25,45	68	5,4	15,88	8,28	31,88	21,08	~5000	197	106
22201-1140340157	20 B-2	1 1/4 x 3/4	31,75 x 19,56	29,01	79,7	6,1	19,05	10,19	36,45	26,42	~5000	157	170
22201-1121000131	24 B-2	1 1/2 x 1	38,1 x 25,4	37,92	101,8	6,6	25,4	14,63	48,36	33,4	~5000	131	280

Connecting links duplex

DIN ISO 606



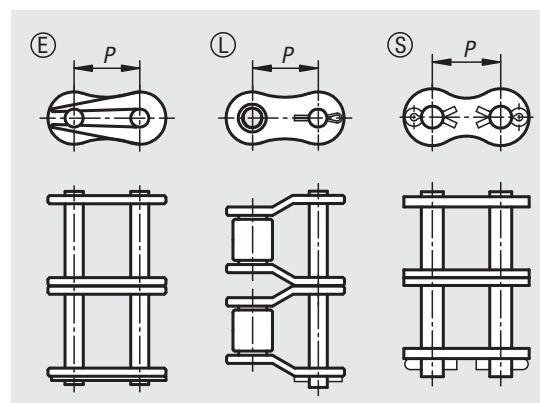
Material:
Steel.

Sample order:
nlm 22201-30800030

Note:
Connecting links for DIN ISO 606 duplex roller chains.

By Form E, the spring clip must be mounted with the closed end facing the direction of movement.

Offset links are required to close the chain if there is an odd number of links. Using offset links reduces the power and tensile strength by 20%.



Form E connecting links

Order No.	ISO No.	P	Suitable for chains
22201-30800030	05 B-2	8	8,0 x 3,0mm
22201-30380732	06 B-2	9,525	3/8 x 7/32
22201-30120516	08 B-2	12,7	1/2 x 5/16
22201-30580308	10 B-2	15,875	5/8 x 3/8
22201-30340716	12 B-2	19,05	3/4 x 7/16
22201-31001702	16 B-2	25,4	1 x 17,02 mm

Form L offset links

Order No.	ISO No.	P	Suitable for chains
22201-40800030	05 B-2	8	8,0 x 3,0mm
22201-40380732	06 B-2	9,525	3/8 x 7/32
22201-40120516	08 B-2	12,7	1/2 x 5/16
22201-40580308	10 B-2	15,875	5/8 x 3/8
22201-40340716	12 B-2	19,05	3/4 x 7/16
22201-41001702	16 B-2	25,4	1 x 17,02 mm
22201-41140340	20 B-2	31,75	1 1/4 x 3/4
22201-41121000	24 B-2	38,1	1 1/2 x 1

Form S, connecting links with cotter pin

Order No.	ISO No.	P	Suitable for chains
22201-51140340	20 B-2	31,75	1 1/4 x 3/4
22201-51121000	24 B-2	38,1	1 1/2 x 1

Roller chains triplex

DIN ISO 606, curved link plate

Material:

Steel.

Version:

Pre-stretched.

Sample order:

nIm 22202-0380732525

Note for ordering:

Packaging unit: 5 metres with odd number of links. Ending with an inner link at both ends. Connecting links must be ordered separately.

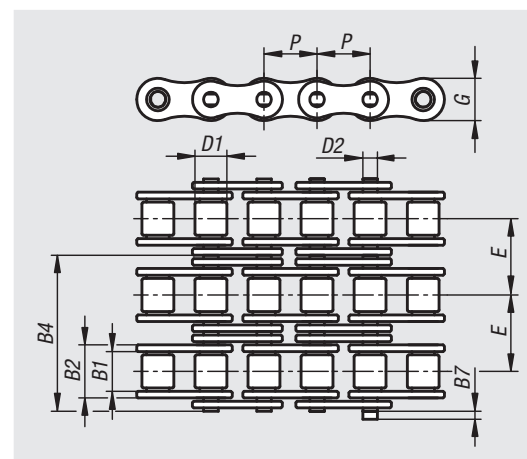
Note:

European-type roller chains acc. to DIN ISO 606 with curved link plates (ISO No. 06 with straight links). All chains are pre-stretched. Initial lubrication: anti-corrosion mineral based oil. B7 = maximum value for links.

Pitch = PxB1

Temperature range:

Order No.	ISO No.	Pitch inch	Pitch mm	B2	B4	B7	D1	D2	E	G	~L	No. of links	Break force F min. kN
22202-0380732525	06 B-2	3/8 x 7/32	9,525 x 5,72	8,53	34	3,3	6,35	3,28	10,24	8,26	~5000	525	24,9
22202-0120516393	08 B-2	1/2 x 5/16	12,7 x 7,75	11,3	44,9	3,9	8,51	4,45	13,92	11,81	~5000	393	44,5
22202-0580308315	10 B-2	5/8 x 3/8	15,875 x 9,65	13,28	52,8	4,1	10,16	5,08	16,59	14,73	~5000	315	66,7
22202-0340716263	12 B-2	3/4 x 7/16	19,05 x 11,68	15,62	61,7	4,6	12,07	5,72	19,46	16,13	~5000	263	86,7
22202-1001702197	16 B-2	1 x 17,02mm	25,4 x 17,02	25,45	99,9	5,4	15,88	8,28	31,88	21,08	~5000	197	160



-20°C to +120°C.

Connecting links triplex

DIN ISO 606



Material:

Steel.

Sample order:

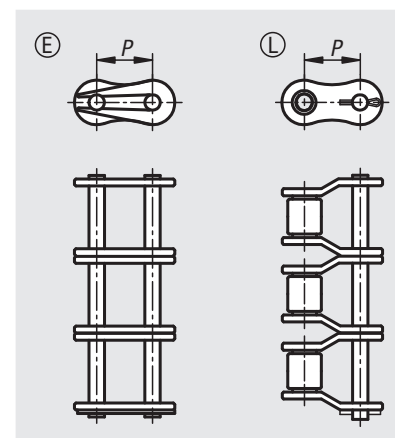
nIm 22202-30380732

Note:

Connecting links for DIN ISO 606 triplex roller chains.

By Form E, the spring clip must be mounted with the closed end facing in the direction of movement.

Offset links are required to close the chain if there is an odd number of links. Using offset links reduces the power and tensile strength by 20%.



Form E connecting links

Order No.	ISO No.	P	Suitable for chains
22202-30380732	06 B-2	9,525	3/8 x 7/32
22202-30120516	08 B-2	12,7	1/2 x 5/16
22202-30580308	10 B-2	15,875	5/8 x 3/8
22202-30340716	12 B-2	19,05	3/4 x 7/16
22202-31001702	16 B-2	25,4	1 x 17,02 mm

Form L offset links

Order No.	ISO No.	P	Suitable for chains
22202-40380732	06 B-2	9,525	3/8 x 7/32
22202-40120516	08 B-2	12,7	1/2 x 5/16
22202-40580308	10 B-2	15,875	5/8 x 3/8
22202-40340716	12 B-2	19,05	3/4 x 7/16
22202-41001702	16 B-2	25,4	1 x 17,02 mm

Roller chains single

DIN ISO 606, straight link plate

Material:

Steel.

Version:

Pre-stretched.

Sample order:

nIm 22208-0120516393

Note for ordering:

Packaging unit: 5 metres with odd number of links. Ending with an inner link at both ends. Connecting links must be ordered separately.

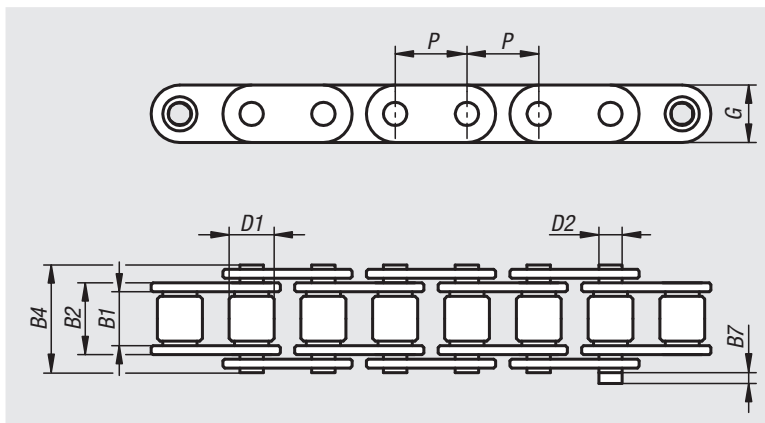
Note:

European-type roller chains acc. to DIN ISO 606 with straight link plates. All chains are pre-stretched.

Initial lubrication: anti-corrosion mineral based oil.

B7 = maximum value for links.

Pitch = Px B1



Temperature range:

-20°C to +120°C.

Order No.	ISO No.	Pitch inch	Pitch mm	B2	B4	B7	D1	D2	G	~L	No. of links	Break force F min. kN
22208-0120516393	08 B-1	1/2 x 5/16	12,7 x 7,75	11,3	17	1,5	8,51	4,45	11,8	~5000	393	18
22208-0580308315	10 B-1	5/8 x 3/8	15,875 x 9,65	13,28	19,6	2,4	10,16	5,08	14,7	~5000	315	22,4
22208-0340716263	12 B-1	3/4 x 7/16	19,05 x 11,68	15,62	22,7	2,7	12,07	5,72	16	~5000	263	29
22208-1001702197	16 B-1	1 x 17,02mm	25,4 x 17,02	25,45	36,1	3	15,88	8,28	21	~5000	197	60

22208

Links

DIN ISO 606



Material:

Steel.

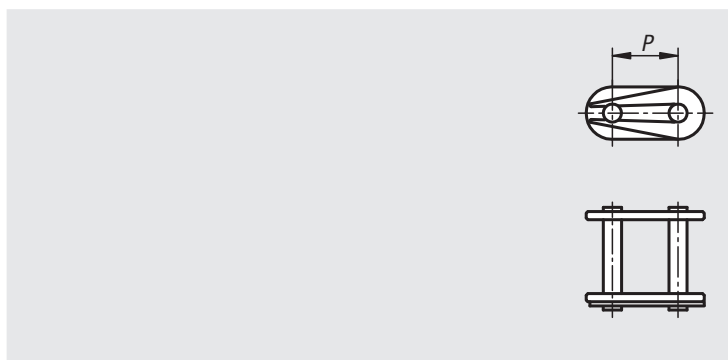
Sample order:

nIm 22208-30120516

Note:

Links for single roller chains acc. to DIN ISO 606.

The spring clips must be mounted with the closed end pointing in the direction of travel.



Order No.	ISO No.	P	Suitable for chains
22208-30120516	08 B-1	12,7	1/2 x 5/16
22208-30580308	10 B-1	15,875	5/8 x 3/8
22208-30340716	12 B-1	19,05	3/4 x 7/16
22208-31001702	16 B-1	25,4	1 x 17,02 mm

Roller chains single stainless steel

DIN ISO 606, curved link plate

Material:

Stainless steel 1.4301.

Version:

Pre-stretched.

Sample order:

nIm 22212-0380732525

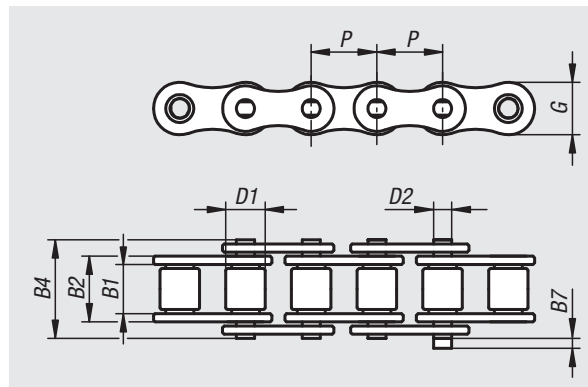
Note for ordering:

Packaging unit: 5 metres with odd number of links. Ending with an inner link at both ends. Connecting links must be ordered separately.

Note:

European-type DIN ISO 606 roller chains with curved link plates (ISO No. 06 with straight links). All chains are pre-stretched. Not lubricated, the chains must be lubricated depending on the application.

The stainless steel roller chains offer excellent corrosion protection and good chemical resistance. They can be used in applications with water and at high temperatures.



B7 = maximum value for links.

Pitch = $P \times B1$

Temperature range:

-20°C to +400°C.

Order No.	ISO No.	Pitch inch	Pitch mm	B2	B4	B7	D1	D2	G	~L	No. of links	Break force F min. kN
22212-0380732525	06 B-1	3/8 x 7/32	9,525 x 5,72	8,53	13,5	3,3	6,35	3,28	8,26	~5000	525	6,6
22212-0120516393	08 B-1	1/2 x 5/16	12,7 x 7,75	11,3	17	3,9	8,51	4,45	11,81	~5000	393	12
22212-0580308315	10 B-1	5/8 x 3/8	15,875 x 9,65	13,28	19,6	4,1	10,16	5,08	14,73	~5000	315	15
22212-0340716263	12 B-1	3/4 x 7/16	19,05 x 11,68	15,62	22,7	4,6	12,07	5,72	16,13	~5000	263	17
22212-1001702197	16 B-1	1 x 17,02mm	25,4 x 17,02	25,45	36,1	5,4	15,88	8,28	21,08	~5000	197	40

22212

Links stainless steel

DIN ISO 606



Material:

Stainless steel 1.4301.

Sample order:

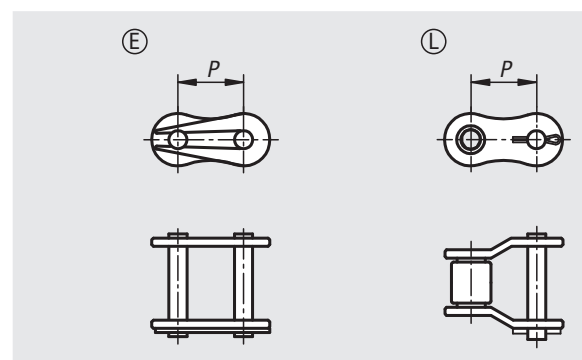
nIm 22212-30380732

Note:

Links for single roller chains acc. to DIN ISO 606.

With Form E, the spring clips must be mounted with the closed end pointing in the direction of travel.

Offset links are required to close the chain if there is an odd number of links. Using offset links reduces the power and tensile strength by 20%.



Form E connecting links

Order No.	ISO No.	P	Suitable for chains
22212-30380732	06 B-1	9,525	3/8 x 7/32
22212-30120516	08 B-1	12,7	1/2 x 5/16
22212-30580308	10 B-1	15,875	5/8 x 3/8
22212-30340716	12 B-1	19,05	3/4 x 7/16
22212-31001702	16 B-1	25,4	1 x 17,02 mm

Form L offset links

Order No.	ISO No.	P	Suitable for chains
22212-40380732	06 B-1	9,525	3/8 x 7/32
22212-40120516	08 B-1	12,7	1/2 x 5/16
22212-40580308	10 B-1	15,875	5/8 x 3/8
22212-40340716	12 B-1	19,05	3/4 x 7/16
22212-41001702	16 B-1	25,4	1 x 17,02 mm

Roller chain duplex, stainless steel

DIN ISO 606, curved link plate

Material:

Stainless steel 1.4301.

Version:

Pre-stretched.

Sample order:

nlm 22213-0380732525

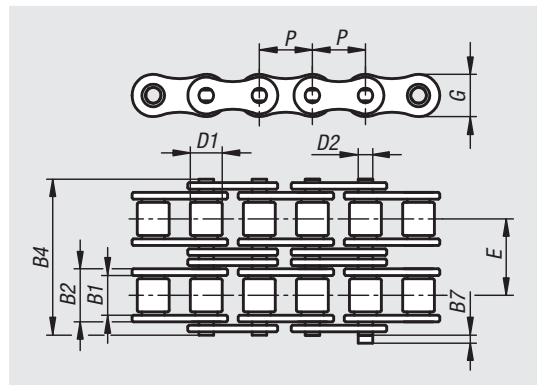
Note for ordering:

Packaging unit: 5 metres with odd number of links. Ending with an inner link at both ends. Connecting links must be ordered separately.

Note:

European-type DIN ISO 606 roller chains with curved link plates (ISO No. 06 with straight links). All chains are pre-stretched. Not lubricated, the chains must be lubricated depending on the application.

The stainless steel roller chains offer excellent corrosion protection and good chemical resistance. They can be used in applications with water and at high temperatures.



B7 = maximum value for links.

Pitch = PxB1

Temperature range:

-20°C to +400°C.

Order No.	ISO No.	Pitch inch	Pitch mm	B2	B4	B7	D1	D2	E	G	~L	No. of links	Break force F min. kN
22213-0380732525	06 B-2	3/8 x 7/32	9,525 x 5,72	8,53	23,8	3,3	6,35	3,28	10,24	8,26	~5000	525	10,5
22213-0120516393	08 B-2	1/2 x 5/16	12,7 x 7,75	11,3	31	3,9	8,51	4,45	13,92	11,81	~5000	393	22
22213-0580308315	10 B-2	5/8 x 3/8	15,875 x 9,65	13,28	36,2	4,1	10,16	5,08	16,59	14,73	~5000	315	28,4
22213-0340716263	12 B-2	3/4 x 7/16	19,05 x 11,68	15,62	42,2	4,6	12,07	5,72	19,46	16,13	~5000	263	33,3
22213-1001702197	16 B-2	1 x 17,02mm	25,4 x 17,02	25,45	68	5,4	15,88	8,28	31,88	21,08	~5000	197	74,4

Connecting links duplex, stainless steel

DIN ISO 606



Material:

Stainless steel 1.4301.

Sample order:

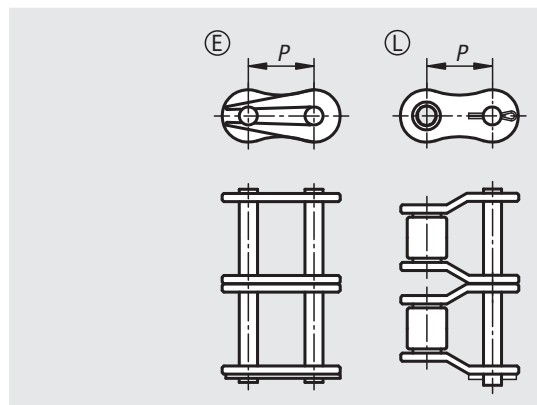
nlm 22213-30380732

Note:

Connecting links for DIN ISO 606 duplex roller chains.

By Form E, the spring clip must be mounted with the closed end facing the direction of movement.

Offset links are required to close the chain if there is an odd number of links. Using offset links reduces the power and tensile strength by 20%.



Form E connecting links

Order No.	ISO No.	P	Suitable for chains
22213-30380732	06 B-2	9,525	3/8 x 7/32
22213-30120516	08 B-2	12,7	1/2 x 5/16
22213-30580308	10 B-2	15,875	5/8 x 3/8
22213-30340716	12 B-2	19,05	3/4 x 7/16
22213-31001702	16 B-2	25,4	1 x 17,02 mm

Form L offset links

Order No.	ISO No.	P	Suitable for chains
22213-40380732	06 B-2	9,525	3/8 x 7/32
22213-40120516	08 B-2	12,7	1/2 x 5/16
22213-40580308	10 B-2	15,875	5/8 x 3/8
22213-40340716	12 B-2	19,05	3/4 x 7/16
22213-41001702	16 B-2	25,4	1 x 17,02 mm

Sprockets single 3/8" x 7/32"

DIN ISO 606, ready to install

**Material:**

Steel C45.

Version:

Bright.

Teeth inductively hardened ~HRC 50.

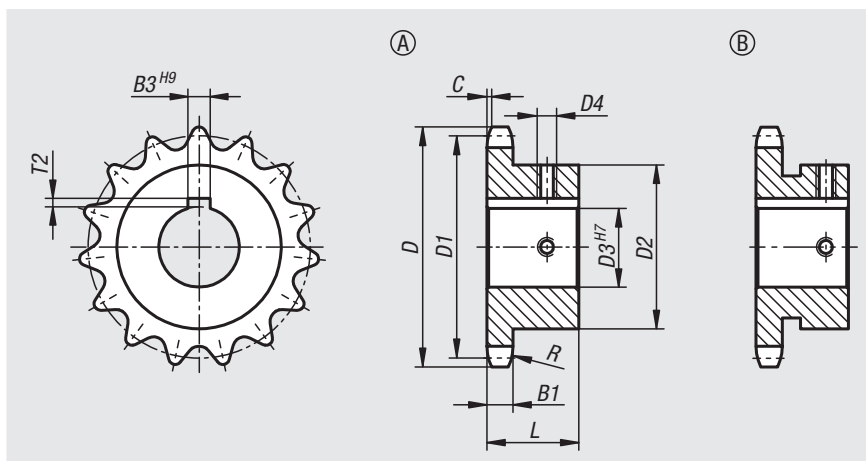
Sample order:

nlm 22250-1038073201010

Note:

Ready to install sprockets with hub on one side for DIN ISO 606 roller chains. Teeth are milled and inductively hardened. Keyway acc. to DIN 6885 / BS 4235. The keyway is aligned with the tooth tip.

With two grub screws. One tapped hole aligned with the keyway centre, the other offset by 90°.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22250	06 B-1	3/8 x 7/32	9,525 x 5,72	10	1	5,3

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1038073201010	B	10	34,5	30,82	24	10	M4	3	20	1,4
22250-1038073201012	B				26	12	M4	4	20	1,8
22250-1038073201014	B				29	14	M4	5	20	2,3
22250-1038073201110	B	11	37,5	33,8	24	10	M4	3	25	1,4
22250-1038073201112	B				26	12	M4	4	25	1,8
22250-1038073201114	B				29	14	M4	5	25	2,3
22250-1038073201115	B				30	15	M4	5	25	2,3
22250-1038073201116	B				31	16	M4	5	25	2,3
22250-1038073201210	A	12	40,5	36,8	25	10	M4	3	25	1,4
22250-1038073201212	B				26	12	M4	4	25	1,8
22250-1038073201214	B				29	14	M4	5	25	2,3
22250-1038073201215	B				30	15	M4	5	25	2,3
22250-1038073201216	B				31	16	M4	5	25	2,3
22250-1038073201312	A	13	43,5	39,8	28	12	M4	4	25	1,8
22250-1038073201314	A				28	14	M4	5	25	2,3
22250-1038073201310	A				28	10	M4	3	25	1,4
22250-1038073201315	A				28	15	M4	5	25	2,3
22250-1038073201316	B				31	16	M4	5	25	2,3
22250-1038073201318	B				34	18	M5	6	25	2,8
22250-1038073201418	A	14	46,5	42,8	31	18	M5	6	25	2,8

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1038073201412	A				31	12	M4	4	25	1,8
22250-1038073201416	A				31	16	M4	5	25	2,3
22250-1038073201410	A				31	10	M4	3	25	1,4
22250-1038073201415	A				31	15	M4	5	25	2,3
22250-1038073201414	A				31	14	M4	5	25	2,3
22250-1038073201419	B				35	19	M5	6	25	2,8
22250-1038073201515	A	15	49,5	45,81	34	15	M4	5	25	2,3
22250-1038073201516	A				34	16	M4	5	25	2,3
22250-1038073201518	A				34	18	M5	6	25	2,8
22250-1038073201519	A				34	19	M5	6	25	2,8
22250-1038073201512	A				34	12	M4	4	25	1,8
22250-1038073201520	A				34	20	M5	6	25	2,8
22250-1038073201514	A				34	14	M4	5	25	2,3
22250-1038073201525	B				42	25	M6	8	25	3,3
22250-1038073201522	B				42	22	M5	6	25	2,8
22250-1038073201524	B				42	24	M6	8	25	3,3
22250-1038073201616	A	16	52,5	48,82	37	16	M4	5	28	2,3
22250-1038073201612	A				37	12	M4	4	28	1,8
22250-1038073201618	A				37	18	M5	6	28	2,8
22250-1038073201614	A				37	14	M4	5	28	2,3

Sprockets single 3/8" x 7/32"

DIN ISO 606, ready to install

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1038073201619	A				37	19	M5	6	28	2,8
22250-1038073201620	A				37	20	M5	6	28	2,8
22250-1038073201622	A				37	22	M5	6	28	2,8
22250-1038073201615	A				37	15	M4	5	28	2,3
22250-1038073201624	B				42	24	M6	8	28	3,3
22250-1038073201625	B				42	25	M6	8	28	3,3
22250-1038073201716	A	17	55,5	51,83	40	16	M4	5	28	2,3
22250-1038073201718	A				40	18	M5	6	28	2,8
22250-1038073201719	A				40	19	M5	6	28	2,8
22250-1038073201720	A				40	20	M5	6	28	2,8
22250-1038073201722	A				40	22	M5	6	28	2,8
22250-1038073201712	A				40	12	M4	4	28	1,8
22250-1038073201715	A				40	15	M4	5	28	2,3
22250-1038073201714	A				40	14	M4	5	28	2,3
22250-1038073201724	B				46	24	M6	8	28	3,3
22250-1038073201725	B				46	25	M6	8	28	3,3
22250-1038073201814	A	18	58,6	54,85	40	14	M4	5	28	2,3
22250-1038073201812	A				40	12	M4	4	28	1,8
22250-1038073201824	A				43	24	M6	8	28	3,3
22250-1038073201816	A				43	16	M4	5	28	2,3
22250-1038073201825	A				43	25	M6	8	28	3,3
22250-1038073201818	A				43	18	M5	6	28	2,8
22250-1038073201819	A				43	19	M5	6	28	2,8
22250-1038073201820	A				43	20	M5	6	28	2,8
22250-1038073201822	A				43	22	M5	6	28	2,8
22250-1038073201815	A				43	15	M4	5	28	2,3
22250-1038073201912	A	19	61,6	57,87	40	12	M4	4	28	1,8
22250-1038073201914	A				40	14	M4	5	28	2,3
22250-1038073201916	A				45	16	M4	5	28	2,3
22250-1038073201915	A				45	15	M4	5	28	2,3
22250-1038073201918	A				45	18	M5	6	28	2,8
22250-1038073201925	A				45	25	M6	8	28	3,3
22250-1038073201919	A				45	19	M5	6	28	2,8
22250-1038073201920	A				45	20	M5	6	28	2,8
22250-1038073201922	A				45	22	M5	6	28	2,8
22250-1038073201924	A				45	24	M6	8	28	3,3
22250-1038073202014	A	20	64,6	60,89	40	14	M4	5	28	2,3
22250-1038073202012	A				40	12	M4	4	28	1,8
22250-1038073202016	A				46	16	M4	5	28	2,3
22250-1038073202018	A				46	18	M5	6	28	2,8
22250-1038073202015	A				46	15	M4	5	28	2,3
22250-1038073202019	A				46	19	M5	6	28	2,8
22250-1038073202025	A				46	25	M6	8	28	3,3
22250-1038073202020	A				46	20	M5	6	28	2,8
22250-1038073202022	A				46	22	M5	6	28	2,8
22250-1038073202024	A				46	24	M6	8	28	3,3
22250-1038073202122	A	21	67,6	63,91	48	22	M5	6	28	2,8
22250-1038073202124	A				48	24	M6	8	28	3,3

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1038073202125	A				48	25	M6	8	28	3,3
22250-1038073202115	A				48	15	M4	5	28	2,3
22250-1038073202118	A				48	18	M5	6	28	2,8
22250-1038073202116	A				48	16	M4	5	28	2,3
22250-1038073202119	A				48	19	M5	6	28	2,8
22250-1038073202120	A				48	20	M5	6	28	2,8
22250-1038073202216	A	22	70,6	66,93	50	16	M4	5	28	2,3
22250-1038073202218	A				50	18	M5	6	28	2,8
22250-1038073202215	A				50	15	M4	5	28	2,3
22250-1038073202219	A				50	19	M5	6	28	2,8
22250-1038073202225	A				50	25	M6	8	28	3,3
22250-1038073202220	A				50	20	M5	6	28	2,8
22250-1038073202222	A				50	22	M5	6	28	2,8
22250-1038073202224	A				50	24	M6	8	28	3,3
22250-1038073202315	A	23	73,7	69,95	50	15	M4	5	28	2,3
22250-1038073202316	A				50	16	M4	5	28	2,3
22250-1038073202319	A				52	19	M5	6	28	2,8
22250-1038073202320	A				52	20	M5	6	28	2,8
22250-1038073202318	A				52	18	M5	6	28	2,8
22250-1038073202322	A				52	22	M5	6	28	2,8
22250-1038073202325	A				52	25	M6	8	28	3,3
22250-1038073202324	A				52	24	M6	8	28	3,3
22250-1038073202418	A	24	76,7	72,97	50	18	M5	6	28	2,8
22250-1038073202416	A				50	16	M4	5	28	2,3
22250-1038073202425	A				54	25	M6	8	28	3,3
22250-1038073202422	A				54	22	M5	6	28	2,8
22250-1038073202430	A				54	30	M6	8	28	3,3
22250-1038073202420	A				54	20	M5	6	28	2,8
22250-1038073202419	A				54	19	M5	6	28	2,8
22250-1038073202428	A				54	28	M6	8	28	3,3
22250-1038073202424	A				54	24	M6	8	28	3,3
22250-1038073202516	A	25	79,7	76	50	16	M4	5	28	2,3
22250-1038073202518	A				50	18	M5	6	28	2,8
22250-1038073202519	A				50	19	M5	6	28	2,8
22250-1038073202528	A				57	28	M6	8	28	3,3
22250-1038073202525	A				57	25	M6	8	28	3,3
22250-1038073202524	A				57	24	M6	8	28	3,3
22250-1038073202530	A				57	30	M6	8	28	3,3
22250-1038073202522	A				57	22	M5	6	28	2,8
22250-1038073202520	A				57	20	M5	6	28	2,8
22250-1038073203022	A	30	94,8	91,12	60	22	M5	6	30	2,8
22250-1038073203020	A				60	20	M5	6	30	2,8
22250-1038073203024	A				60	24	M6	8	30	3,3
22250-1038073203030	A				60	30	M6	8	30	3,3
22250-1038073203025	A				60	25	M6	8	30	3,3
22250-1038073203028	A				60	28	M6	8	30	3,3

Sprockets single 1/2" x 5/16"

DIN ISO 606, ready to install

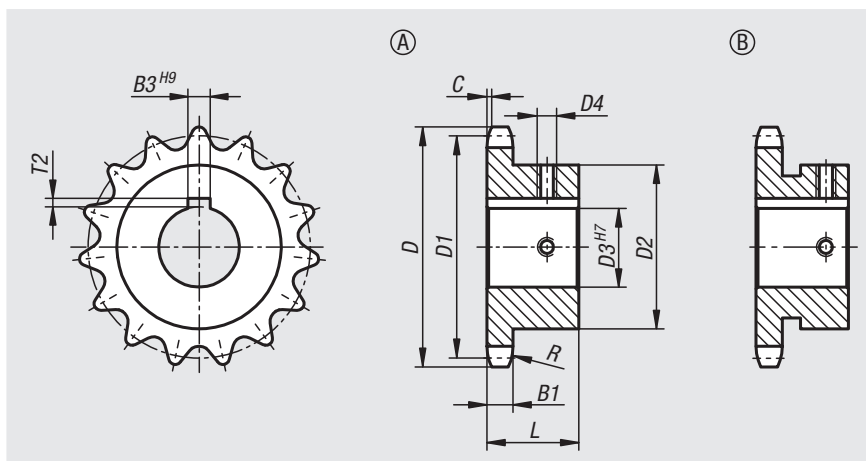


Material:
Steel C45.

Version:
Bright.
Teeth inductively hardened ~HRC 50.

Sample order:
nlm 22250-1012051601012

Note:
Ready to install sprockets with hub on one side for DIN ISO 606 roller chains. Teeth are milled and inductively hardened. Keyway acc. to DIN 6885 / BS 4235. The keyway is aligned with the tooth tip.
With two grub screws. One tapped hole aligned with the keyway centre, the other offset by 90°.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22250	08 B-1	1/2 x 5/16	12,7 x 7,75	13	1,3	7,2

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1012051601012	A	10	45,9	41,1	26	12	M4	4	25	1,8
22250-1012051601014	A				26	14	M4	5	25	2,3
22250-1012051601015	B				31	15	M4	5	25	2,3
22250-1012051601016	B				31	16	M4	5	25	2,3
22250-1012051601114	A	11	49,9	45,07	29	14	M4	5	25	2,3
22250-1012051601112	A				29	12	M4	4	25	1,8
22250-1012051601115	B				31	15	M4	5	25	2,3
22250-1012051601116	B				31	16	M4	5	25	2,3
22250-1012051601119	B				37	19	M5	6	25	2,8
22250-1012051601118	B				37	18	M5	6	25	2,8
22250-1012051601220	A	12	53,9	49,07	33	20	M5	6	28	2,8
22250-1012051601214	A				33	14	M4	5	28	2,3
22250-1012051601215	A				33	15	M4	5	28	2,3
22250-1012051601216	A				33	16	M4	5	28	2,3
22250-1012051601218	A				33	18	M5	6	28	2,8
22250-1012051601219	A				33	19	M5	6	28	2,8
22250-1012051601212	A				33	12	M4	4	28	1,8
22250-1012051601222	B				40	22	M5	6	28	2,8
22250-1012051601224	B				41	24	M6	8	28	3,3
22250-1012051601225	B				42	25	M6	8	28	3,3

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1012051601314	A	13	57,9	56,06	33	14	M4	5	28	2,3
22250-1012051601312	A				33	12	M4	4	28	1,8
22250-1012051601319	A				37	19	M5	6	28	2,8
22250-1012051601316	A				37	16	M4	5	28	2,3
22250-1012051601320	A				37	20	M5	6	28	2,8
22250-1012051601322	A				37	22	M5	6	28	2,8
22250-1012051601318	A				37	18	M5	6	28	2,8
22250-1012051601315	A				37	15	M4	5	28	2,3
22250-1012051601324	B				42	24	M6	8	28	3,3
22250-1012051601325	B				42	25	M6	8	28	3,3
22250-1012051601328	B				45	28	M6	8	28	3,3
22250-1012051601414	A	14	61,9	57,07	37	14	M4	5	28	2,3
22250-1012051601412	A				37	12	M4	4	28	1,8
22250-1012051601419	A				41	19	M5	6	28	2,8
22250-1012051601420	A				41	20	M5	6	28	2,8
22250-1012051601422	A				41	22	M5	6	28	2,8
22250-1012051601424	A				41	24	M6	8	28	3,3
22250-1012051601425	A				41	25	M6	8	28	3,3
22250-1012051601415	A				41	15	M4	5	28	2,3
22250-1012051601416	A				41	16	M4	5	28	2,3

Sprockets single 1/2" x 5/16"

DIN ISO 606, ready to install

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1012051601418	A				41	18	M5	6	28	2,8
22250-1012051601428	B				48	28	M6	8	28	3,3
22250-1012051601514	A	15	65,9	61,09	37	14	M4	5	28	2,3
22250-1012051601512	A				37	12	M4	4	28	1,8
22250-1012051601519	A				45	19	M5	6	28	2,8
22250-1012051601520	A				45	20	M5	6	28	2,8
22250-1012051601522	A				45	22	M5	6	28	2,8
22250-1012051601524	A				45	24	M6	8	28	3,3
22250-1012051601525	A				45	25	M6	8	28	3,3
22250-1012051601528	A				45	28	M6	8	28	3,3
22250-1012051601516	A				45	16	M4	5	28	2,3
22250-1012051601515	A				45	15	M4	5	28	2,3
22250-1012051601518	A				45	18	M5	6	28	2,8
22250-1012051601532	B				52	32	M8	10	28	3,3
22250-1012051601530	B				52	30	M6	8	28	3,3
22250-1012051601624	A	16	69,9	65,1	50	24	M6	8	28	3,3
22250-1012051601622	A				50	22	M5	6	28	2,8
22250-1012051601620	A				50	20	M5	6	28	2,8
22250-1012051601630	A				50	30	M6	8	28	3,3
22250-1012051601619	A				50	19	M5	6	28	2,8
22250-1012051601628	A				50	28	M6	8	28	3,3
22250-1012051601618	A				50	18	M5	6	28	2,8
22250-1012051601616	A				50	16	M4	5	28	2,3
22250-1012051601615	A				50	15	M4	5	28	2,3
22250-1012051601625	A				50	25	M6	8	28	3,3
22250-1012051601632	B				57	32	M8	10	28	3,3
22250-1012051601720	A	17	74	69,11	52	20	M5	6	28	2,8
22250-1012051601722	A				52	22	M5	6	28	2,8
22250-1012051601724	A				52	24	M6	8	28	3,3
22250-1012051601725	A				52	25	M6	8	28	3,3
22250-1012051601728	A				52	28	M6	8	28	3,3
22250-1012051601730	A				52	30	M6	8	28	3,3
22250-1012051601732	A				52	32	M8	10	28	3,3
22250-1012051601715	A				52	15	M4	5	28	2,3
22250-1012051601716	A				52	16	M4	5	28	2,3
22250-1012051601718	A				52	18	M5	6	28	2,8
22250-1012051601719	A				52	19	M5	6	28	2,8
22250-1012051601816	A	18	78	73,14	52	16	M4	5	28	2,3
22250-1012051601818	A				52	18	M5	6	28	2,8
22250-1012051601819	A				52	19	M5	6	28	2,8
22250-1012051601822	A				56	22	M5	6	28	2,8
22250-1012051601820	A				56	20	M5	6	28	2,8
22250-1012051601824	A				56	24	M6	8	28	3,3
22250-1012051601835	A				56	35	M8	10	28	3,3
22250-1012051601825	A				56	25	M6	8	28	3,3
22250-1012051601828	A				56	28	M6	8	28	3,3
22250-1012051601830	A				56	30	M6	8	28	3,3
22250-1012051601832	A				56	32	M8	10	28	3,3

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1012051601838	A				56	38	M8	10	28	3,3
22250-1012051601918	A	19	82	77,16	52	18	M5	6	28	2,8
22250-1012051601919	A				52	19	M5	6	28	2,8
22250-1012051601916	A				52	16	M4	5	28	2,3
22250-1012051601938	A				60	38	M8	10	28	3,3
22250-1012051601935	A				60	35	M8	10	28	3,3
22250-1012051601932	A				60	32	M8	10	28	3,3
22250-1012051601920	A				60	20	M5	6	28	2,8
22250-1012051601930	A				60	30	M6	8	28	3,3
22250-1012051601922	A				60	22	M5	6	28	2,8
22250-1012051601928	A				60	28	M6	8	28	3,3
22250-1012051601925	A				60	25	M6	8	28	3,3
22250-1012051601924	A				60	24	M6	8	28	3,3
22250-1012051602018	A	20	86	81,19	55	18	M5	6	28	2,8
22250-1012051602016	A				55	16	M4	5	28	2,3
22250-1012051602019	A				55	19	M5	6	28	2,8
22250-1012051602025	A				64	25	M6	8	28	3,3
22250-1012051602020	A				64	20	M5	6	28	2,8
22250-1012051602022	A				64	22	M5	6	28	2,8
22250-1012051602038	A				64	38	M8	10	28	3,3
22250-1012051602035	A				64	35	M8	10	28	3,3
22250-1012051602024	A				64	24	M6	8	28	3,3
22250-1012051602032	A				64	32	M8	10	28	3,3
22250-1012051602028	A				64	28	M6	8	28	3,3
22250-1012051602030	A				64	30	M6	8	28	3,3
22250-1012051602119	A	21	90,1	85,22	55	19	M5	6	28	2,8
22250-1012051602118	A				55	18	M5	6	28	2,8
22250-1012051602116	A				55	16	M4	5	28	2,3
22250-1012051602120	A				60	20	M5	6	28	2,8
22250-1012051602122	A				60	22	M5	6	28	2,8
22250-1012051602124	A				68	24	M6	8	28	3,3
22250-1012051602135	A				68	35	M8	10	28	3,3
22250-1012051602132	A				68	32	M8	10	28	3,3
22250-1012051602130	A				68	30	M6	8	28	3,3
22250-1012051602128	A				68	28	M6	8	28	3,3
22250-1012051602125	A				68	25	M6	8	28	3,3
22250-1012051602138	A				68	38	M8	10	28	3,3
22250-1012051602218	A	22	94,1	89,24	55	18	M5	6	28	2,8
22250-1012051602216	A				55	16	M4	5	28	2,3
22250-1012051602219	A				55	19	M5	6	28	2,8
22250-1012051602220	A				65	20	M5	6	28	2,8
22250-1012051602222	A				65	22	M5	6	28	2,8
22250-1012051602230	A				70	30	M6	8	28	3,3
22250-1012051602232	A				70	32	M8	10	28	3,3
22250-1012051602235	A				70	35	M8	10	28	3,3
22250-1012051602224	A				70	24	M6	8	28	3,3
22250-1012051602238	A				70	38	M8	10	28	3,3
22250-1012051602225	A				70	25	M6	8	28	3,3

Sprockets single 1/2" x 5/16"

DIN ISO 606, ready to install

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1012051602228	A				70	28	M6	8	28	3,3
22250-1012051602320	A	23	98,1	93,27	65	20	M5	6	28	2,8
22250-1012051602319	A				65	19	M5	6	28	2,8
22250-1012051602338	A				70	38	M8	10	28	3,3
22250-1012051602325	A				70	25	M6	8	28	3,3
22250-1012051602322	A				70	22	M5	6	28	2,8
22250-1012051602328	A				70	28	M6	8	28	3,3
22250-1012051602324	A				70	24	M6	8	28	3,3
22250-1012051602330	A				70	30	M6	8	28	3,3
22250-1012051602332	A				70	32	M8	10	28	3,3
22250-1012051602335	A				70	35	M8	10	28	3,3
22250-1012051602420	A	24	102,1	97,29	65	20	M5	6	28	2,8
22250-1012051602419	A				65	19	M5	6	28	2,8
22250-1012051602438	A				70	38	M8	10	28	3,3
22250-1012051602425	A				70	25	M6	8	28	3,3
22250-1012051602428	A				70	28	M6	8	28	3,3
22250-1012051602430	A				70	30	M6	8	28	3,3
22250-1012051602422	A				70	22	M5	6	28	2,8
22250-1012051602432	A				70	32	M8	10	28	3,3
22250-1012051602424	A				70	24	M6	8	28	3,3
22250-1012051602435	A				70	35	M8	10	28	3,3
22250-1012051602519	A	25	106,2	101,33	65	19	M5	6	28	2,8
22250-1012051602520	A				65	20	M5	6	28	2,8
22250-1012051602530	A				70	30	M6	8	28	3,3
22250-1012051602528	A				70	28	M6	8	28	3,3
22250-1012051602525	A				70	25	M6	8	28	3,3
22250-1012051602538	A				70	38	M8	10	28	3,3
22250-1012051602524	A				70	24	M6	8	28	3,3
22250-1012051602535	A				70	35	M8	10	28	3,3
22250-1012051602522	A				70	22	M5	6	28	2,8
22250-1012051602532	A				70	32	M8	10	28	3,3
22250-1012051603028	A	30	126,3	121,5	75	28	M6	8	30	3,3
22250-1012051603025	A				75	25	M6	8	30	3,3
22250-1012051603030	A				80	30	M6	8	30	3,3
22250-1012051603032	A				80	32	M8	10	30	3,3
22250-1012051603035	A				80	35	M8	10	30	3,3
22250-1012051603038	A				80	38	M8	10	30	3,3

Sprockets single 5/8" x 3/8"

DIN ISO 606, ready to install



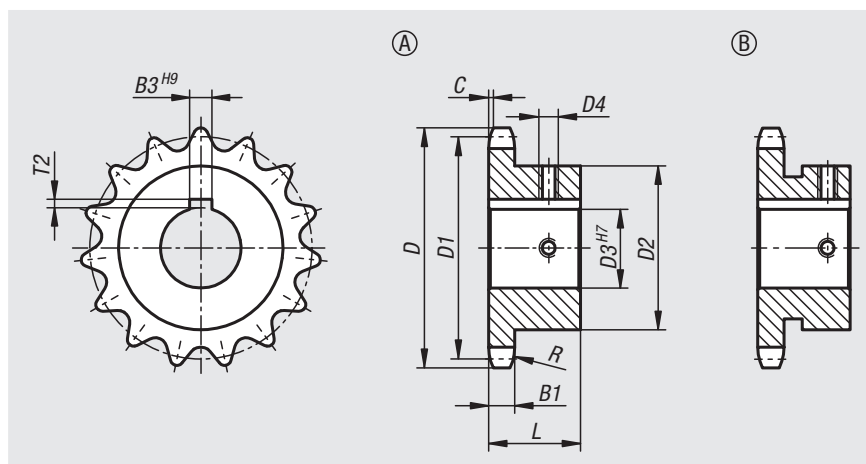
Material:
Steel C45.

Version:
Bright.
Teeth inductively hardened ~HRC 50.

Sample order:
nlm 22250-1058030801015

Note:

Ready to install sprockets with hub on one side for DIN ISO 606 roller chains. Teeth are milled and inductively hardened. Keyway acc. to DIN 6885 / BS 4235. The keyway is aligned with the tooth tip.
With two grub screws. One tapped hole aligned with the keyway centre, the other offset by 90°.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22250	10 B-1	5/8 x 3/8	15,875 x 9,65	16	1,6	9,1

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1058030801016	A	10	58,3	51,37	35	16	M4	5	25	2,3
22250-1058030801015	A				35	15	M4	5	25	2,3
22250-1058030801018	A				35	18	M5	6	25	2,8
22250-1058030801020	A				35	20	M5	6	25	2,8
22250-1058030801019	A				35	19	M5	6	25	2,8
22250-1058030801024	B				42	24	M6	8	25	3,3
22250-1058030801116	A	11	63,2	56,34	37	16	M4	5	30	2,3
22250-1058030801115	A				37	15	M4	5	30	2,3
22250-1058030801118	A				37	18	M5	6	30	2,8
22250-1058030801119	A				37	19	M5	6	30	2,8
22250-1058030801120	A				37	20	M5	6	30	2,8
22250-1058030801124	B				47	24	M6	8	30	3,3
22250-1058030801125	B				47	25	M6	8	30	3,3
22250-1058030801128	B				47	28	M6	8	30	3,3
22250-1058030801219	A	12	68,2	61,34	42	19	M5	6	30	2,8
22250-1058030801220	A				42	20	M5	6	30	2,8
22250-1058030801222	A				42	22	M5	6	30	2,8
22250-1058030801224	A				42	24	M6	8	30	3,3
22250-1058030801225	A				42	25	M6	8	30	3,3
22250-1058030801215	A				42	15	M4	5	30	2,3

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1058030801218	A				42	18	M5	6	30	2,8
22250-1058030801216	A				42	16	M4	5	30	2,3
22250-1058030801228	B				51	28	M6	8	30	3,3
22250-1058030801230	B				51	30	M6	8	30	3,3
22250-1058030801232	B				55	32	M8	10	30	3,3
22250-1058030801324	A	13	73,2	66,32	47	24	M6	8	30	3,3
22250-1058030801325	A				47	25	M6	8	30	3,3
22250-1058030801328	A				47	28	M6	8	30	3,3
22250-1058030801330	A				47	30	M6	8	30	3,3
22250-1058030801318	A				47	18	M5	6	30	2,8
22250-1058030801319	A				47	19	M5	6	30	2,8
22250-1058030801320	A				47	20	M5	6	30	2,8
22250-1058030801315	A				47	15	M4	5	30	2,3
22250-1058030801322	A				47	22	M5	6	30	2,8
22250-1058030801316	A				47	16	M4	5	30	2,3
22250-1058030801332	B				57	32	M8	10	30	3,3
22250-1058030801430	A	14	78,2	71,34	52	30	M6	8	30	3,3
22250-1058030801432	A				52	32	M8	10	30	3,3
22250-1058030801424	A				52	24	M6	8	30	3,3
22250-1058030801425	A				52	25	M6	8	30	3,3

Sprockets single 5/8" x 3/8"

DIN ISO 606, ready to install

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1058030801422	A				52	22	M5	6	30	2,8
22250-1058030801428	A				52	28	M6	8	30	3,3
22250-1058030801420	A				52	20	M5	6	30	2,8
22250-1058030801419	A				52	19	M5	6	30	2,8
22250-1058030801418	A				52	18	M5	6	30	2,8
22250-1058030801416	A				52	16	M4	5	30	2,3
22250-1058030801415	A				52	15	M4	5	30	2,3
22250-1058030801532	A	15	83,2	76,36	57	32	M8	10	30	3,3
22250-1058030801535	A				57	35	M8	10	30	3,3
22250-1058030801522	A				57	22	M5	6	30	2,8
22250-1058030801524	A				57	24	M6	8	30	3,3
22250-1058030801525	A				57	25	M6	8	30	3,3
22250-1058030801519	A				57	19	M5	6	30	2,8
22250-1058030801528	A				57	28	M6	8	30	3,3
22250-1058030801520	A				57	20	M5	6	30	2,8
22250-1058030801530	A				57	30	M6	8	30	3,3
22250-1058030801638	A	16	88,3	81,37	60	38	M8	10	30	3,3
22250-1058030801624	A				60	24	M6	8	30	3,3
22250-1058030801625	A				60	25	M6	8	30	3,3
22250-1058030801635	A				60	35	M8	10	30	3,3
22250-1058030801628	A				60	28	M6	8	30	3,3
22250-1058030801630	A				60	30	M6	8	30	3,3
22250-1058030801619	A				60	19	M5	6	30	2,8
22250-1058030801620	A				60	20	M5	6	30	2,8
22250-1058030801622	A				60	22	M5	6	30	2,8
22250-1058030801632	A				60	32	M8	10	30	3,3
22250-1058030801735	A	17	93,3	86,39	60	35	M8	10	30	3,3
22250-1058030801720	A				60	20	M5	6	30	2,8
22250-1058030801738	A				60	38	M8	10	30	3,3
22250-1058030801722	A				60	22	M5	6	30	2,8
22250-1058030801724	A				60	24	M6	8	30	3,3
22250-1058030801725	A				60	25	M6	8	30	3,3
22250-1058030801728	A				60	28	M6	8	30	3,3
22250-1058030801730	A				60	30	M6	8	30	3,3
22250-1058030801732	A				60	32	M8	10	30	3,3
22250-1058030801719	A				60	19	M5	6	30	2,8
22250-1058030801820	A	18	98,3	91,42	60	20	M5	6	30	2,8
22250-1058030801819	A				60	19	M5	6	30	2,8
22250-1058030801838	A				70	38	M8	10	30	3,3
22250-1058030801840	A				70	40	M10	12	30	3,3
22250-1058030801842	A				70	42	M10	12	30	3,3
22250-1058030801822	A				70	22	M5	6	30	2,8
22250-1058030801825	A				70	25	M6	8	30	3,3
22250-1058030801824	A				70	24	M6	8	30	3,3
22250-1058030801828	A				70	28	M6	8	30	3,3
22250-1058030801830	A				70	30	M6	8	30	3,3
22250-1058030801832	A				70	32	M8	10	30	3,3
22250-1058030801835	A				70	35	M8	10	30	3,3

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1058030801920	A	19	103,3	96,45	60	20	M5	6	30	2,8
22250-1058030801919	A				60	19	M5	6	30	2,8
22250-1058030801938	A				70	38	M8	10	30	3,3
22250-1058030801940	A				70	40	M10	12	30	3,3
22250-1058030801942	A				70	42	M10	12	30	3,3
22250-1058030801925	A				70	25	M6	8	30	3,3
22250-1058030801922	A				70	22	M5	6	30	2,8
22250-1058030801928	A				70	28	M6	8	30	3,3
22250-1058030801924	A				70	24	M6	8	30	3,3
22250-1058030801930	A				70	30	M6	8	30	3,3
22250-1058030801932	A				70	32	M8	10	30	3,3
22250-1058030801935	A				70	35	M8	10	30	3,3
22250-1058030802019	A	20	108,4	101,49	65	19	M5	6	30	2,8
22250-1058030802022	A				65	22	M5	6	30	2,8
22250-1058030802020	A				65	20	M5	6	30	2,8
22250-1058030802025	A				70	25	M6	8	30	3,3
22250-1058030802024	A				70	24	M6	8	30	3,3
22250-1058030802035	A				75	35	M8	10	30	3,3
22250-1058030802032	A				75	32	M8	10	30	3,3
22250-1058030802042	A				75	42	M10	12	30	3,3
22250-1058030802030	A				75	30	M6	8	30	3,3
22250-1058030802040	A				75	40	M10	12	30	3,3
22250-1058030802028	A				75	28	M6	8	30	3,3
22250-1058030802038	A				75	38	M8	10	30	3,3
22250-1058030802120	A	21	113,4	106,52	65	20	M5	6	30	2,8
22250-1058030802122	A				65	22	M5	6	30	2,8
22250-1058030802119	A				65	19	M5	6	30	2,8
22250-1058030802124	A				70	24	M6	8	30	3,3
22250-1058030802125	A				70	25	M6	8	30	3,3
22250-1058030802132	A				75	32	M8	10	30	3,3
22250-1058030802135	A				75	35	M8	10	30	3,3
22250-1058030802128	A				75	28	M6	8	30	3,3
22250-1058030802138	A				75	38	M8	10	30	3,3
22250-1058030802130	A				75	30	M6	8	30	3,3
22250-1058030802140	A				75	40	M10	12	30	3,3
22250-1058030802142	A				75	42	M10	12	30	3,3
22250-1058030802222	A	22	118,4	111,55	65	22	M5	6	30	2,8
22250-1058030802220	A				65	20	M5	6	30	2,8
22250-1058030802219	A				65	19	M5	6	30	2,8
22250-1058030802224	A				70	24	M6	8	30	3,3
22250-1058030802225	A				70	25	M6	8	30	3,3
22250-1058030802240	A				80	40	M10	12	30	3,3
22250-1058030802238	A				80	38	M8	10	30	3,3
22250-1058030802235	A				80	35	M8	10	30	3,3
22250-1058030802232	A				80	32	M8	10	30	3,3
22250-1058030802230	A				80	30	M6	8	30	3,3
22250-1058030802242	A				80	42	M10	12	30	3,3
22250-1058030802228	A				80	28	M6	8	30	3,3

Sprockets single 5/8" x 3/8"

DIN ISO 606, ready to install

Order No.	Form	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1058030802322	A	23	123,5	116,58	65	22	M5	6	30	2,8
22250-1058030802319	A				65	19	M5	6	30	2,8
22250-1058030802320	A				65	20	M5	6	30	2,8
22250-1058030802324	A				70	24	M6	8	30	3,3
22250-1058030802325	A				70	25	M6	8	30	3,3
22250-1058030802328	A				80	28	M6	8	30	3,3
22250-1058030802332	A				80	32	M8	10	30	3,3
22250-1058030802330	A				80	30	M6	8	30	3,3
22250-1058030802335	A				80	35	M8	10	30	3,3
22250-1058030802338	A				80	38	M8	10	30	3,3
22250-1058030802340	A				80	40	M10	12	30	3,3
22250-1058030802342	A				80	42	M10	12	30	3,3
22250-1058030802419	A	24	128,5	121,62	65	19	M5	6	30	2,8
22250-1058030802420	A				65	20	M5	6	30	2,8
22250-1058030802422	A				65	22	M5	6	30	2,8
22250-1058030802424	A				70	24	M6	8	30	3,3
22250-1058030802425	A				70	25	M6	8	30	3,3
22250-1058030802432	A				80	32	M8	10	30	3,3
22250-1058030802438	A				80	38	M8	10	30	3,3
22250-1058030802435	A				80	35	M8	10	30	3,3
22250-1058030802440	A				80	40	M10	12	30	3,3
22250-1058030802430	A				80	30	M6	8	30	3,3
22250-1058030802428	A				80	28	M6	8	30	3,3
22250-1058030802442	A				80	42	M10	12	30	3,3
22250-1058030802520	A	25	133,6	126,66	65	20	M5	6	30	2,8
22250-1058030802519	A				65	19	M5	6	30	2,8
22250-1058030802522	A				65	22	M5	6	30	2,8
22250-1058030802524	A				70	24	M6	8	30	3,3
22250-1058030802525	A				70	25	M6	8	30	3,3
22250-1058030802528	A				80	28	M6	8	30	3,3
22250-1058030802532	A				80	32	M8	10	30	3,3
22250-1058030802530	A				80	30	M6	8	30	3,3
22250-1058030802535	A				80	35	M8	10	30	3,3
22250-1058030802538	A				80	38	M8	10	30	3,3
22250-1058030802540	A				80	40	M10	12	30	3,3
22250-1058030802542	A				80	42	M10	12	30	3,3

Sprockets single 3/4" x 7/16"

DIN ISO 606, ready to install

**Material:**

Steel C45.

Version:

Bright.

Teeth inductively hardened ~HRC 50.

Sample order:

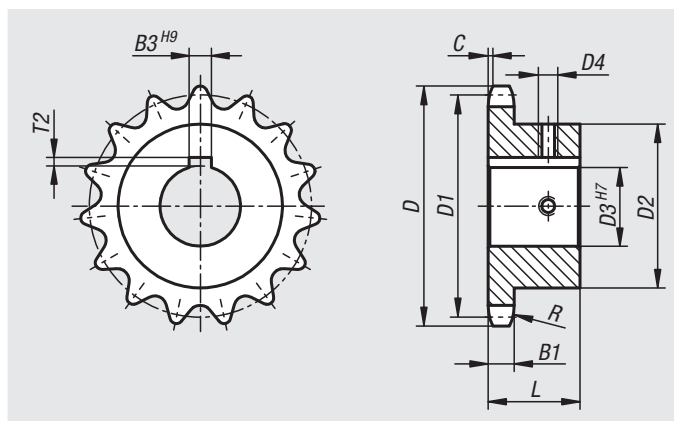
nlm 22250-1034071601019

Note:

Ready to install sprockets with hub on one side for DIN ISO 606 roller chains. Teeth are milled and inductively hardened.

Keyway acc. to DIN 6885 / BS 4235. The keyway is aligned with the tooth tip.

With two grub screws. One tapped hole aligned with the keyway centre, the other offset by 90°.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22250	12 B-1	3/4 x 7/16	19,05 x 11,68	19	2	11,1

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1034071601020	10	69,8	61,64	42	20	M5	6	30	2,8
22250-1034071601024				42	24	M6	8	30	3,3
22250-1034071601019				42	19	M5	6	30	2,8
22250-1034071601025				42	25	M6	8	30	3,3
22250-1034071601119	11	75,8	67,61	46	19	M5	6	35	2,8
22250-1034071601120				46	20	M5	6	35	2,8
22250-1034071601124				46	24	M6	8	35	3,3
22250-1034071601125				46	25	M6	8	35	3,3
22250-1034071601219	12	81,8	73,6	52	19	M5	6	35	2,8
22250-1034071601230				52	30	M6	8	35	3,3
22250-1034071601220				52	20	M5	6	35	2,8
22250-1034071601222				52	22	M5	6	35	2,8
22250-1034071601224				52	24	M6	8	35	3,3
22250-1034071601225				52	25	M6	8	35	3,3
22250-1034071601228				52	28	M6	8	35	3,3
22250-1034071601232				56	32	M8	10	35	3,3
22250-1034071601235				56	35	M8	10	35	3,3
22250-1034071601319	13	87,8	79,59	58	19	M5	6	35	2,8
22250-1034071601320				58	20	M5	6	35	2,8
22250-1034071601335				58	35	M8	10	35	3,3

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1034071601322				58	22	M5	6	35	2,8
22250-1034071601324				58	24	M6	8	35	3,3
22250-1034071601325				58	25	M6	8	35	3,3
22250-1034071601328				58	28	M6	8	35	3,3
22250-1034071601330				58	30	M6	8	35	3,3
22250-1034071601332				58	32	M8	10	35	3,3
22250-1034071601338				61	38	M8	10	35	3,3
22250-1034071601419	14	93,8	85,61	60	19	M5	6	35	2,8
22250-1034071601420				60	20	M5	6	35	2,8
22250-1034071601422				60	22	M5	6	35	2,8
22250-1034071601424				64	24	M6	8	35	3,3
22250-1034071601425				64	25	M6	8	35	3,3
22250-1034071601438				64	38	M8	10	35	3,3
22250-1034071601428				64	28	M6	8	35	3,3
22250-1034071601430				64	30	M6	8	35	3,3
22250-1034071601432				64	32	M8	10	35	3,3
22250-1034071601435				64	35	M8	10	35	3,3
22250-1034071601440				67	40	M10	12	35	3,3
22250-1034071601519	15	99,8	91,63	65	19	M5	6	35	2,8
22250-1034071601520				65	20	M5	6	35	2,8

Sprockets single 3/4" x 7/16"

DIN ISO 606, ready to install

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1034071601522				65	22	M5	6	35	2,8
22250-1034071601525				70	25	M6	8	35	3,3
22250-1034071601528				70	28	M6	8	35	3,3
22250-1034071601530				70	30	M6	8	35	3,3
22250-1034071601524				70	24	M6	8	35	3,3
22250-1034071601532				70	32	M8	10	35	3,3
22250-1034071601540				70	40	M10	12	35	3,3
22250-1034071601535				70	35	M8	10	35	3,3
22250-1034071601538				70	38	M8	10	35	3,3
22250-1034071601619	16	105,8	97,65	65	19	M5	6	35	2,8
22250-1034071601620				65	20	M5	6	35	2,8
22250-1034071601622				65	22	M5	6	35	2,8
22250-1034071601624				70	24	M6	8	35	3,3
22250-1034071601625				70	25	M6	8	35	3,3
22250-1034071601630				75	30	M6	8	35	3,3
22250-1034071601628				75	28	M6	8	35	3,3
22250-1034071601632				75	32	M8	10	35	3,3
22250-1034071601640				75	40	M10	12	35	3,3
22250-1034071601635				75	35	M8	10	35	3,3
22250-1034071601638				75	38	M8	10	35	3,3
22250-1034071601725	17	111,9	103,67	70	25	M6	8	35	3,3
22250-1034071601730				80	30	M6	8	35	3,3
22250-1034071601732				80	32	M8	10	35	3,3
22250-1034071601735				80	35	M8	10	35	3,3
22250-1034071601738				80	38	M8	10	35	3,3
22250-1034071601740				80	40	M10	12	35	3,3
22250-1034071601728				80	28	M6	8	35	3,3
22250-1034071601742				80	42	M10	12	35	3,3
22250-1034071601825	18	117,9	109,71	70	25	M6	8	35	3,3
22250-1034071601830				80	30	M6	8	35	3,3
22250-1034071601828				80	28	M6	8	35	3,3
22250-1034071601832				80	32	M8	10	35	3,3
22250-1034071601842				80	42	M10	12	35	3,3
22250-1034071601835				80	35	M8	10	35	3,3
22250-1034071601838				80	38	M8	10	35	3,3
22250-1034071601840				80	40	M10	12	35	3,3
22250-1034071601925	19	123,9	115,75	70	25	M6	8	35	3,3
22250-1034071601930				80	30	M6	8	35	3,3
22250-1034071601932				80	32	M8	10	35	3,3
22250-1034071601935				80	35	M8	10	35	3,3
22250-1034071601938				80	38	M8	10	35	3,3
22250-1034071601928				80	28	M6	8	35	3,3
22250-1034071601940				80	40	M10	12	35	3,3
22250-1034071601950				80	50	M12	14	35	3,8
22250-1034071601942				80	42	M10	12	35	3,3
22250-1034071601945				80	45	M12	14	35	3,8
22250-1034071601948				80	48	M12	14	35	3,8
22250-1034071602025	20	130	121,78	70	25	M6	8	35	3,3

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1034071602030				80	30	M6	8	35	3,3
22250-1034071602032				80	32	M8	10	35	3,3
22250-1034071602035				80	35	M8	10	35	3,3
22250-1034071602038				80	38	M8	10	35	3,3
22250-1034071602040				80	40	M10	12	35	3,3
22250-1034071602028				80	28	M6	8	35	3,3
22250-1034071602042				80	42	M10	12	35	3,3
22250-1034071602050				80	50	M12	14	35	3,8
22250-1034071602045				80	45	M12	14	35	3,8
22250-1034071602048				80	48	M12	14	35	3,8
22250-1034071602125	21	136	127,82	70	25	M6	8	40	3,3
22250-1034071602128				80	28	M6	8	40	3,3
22250-1034071602130				80	30	M6	8	40	3,3
22250-1034071602135				90	35	M8	10	40	3,3
22250-1034071602138				90	38	M8	10	40	3,3
22250-1034071602132				90	32	M8	10	40	3,3
22250-1034071602140				90	40	M10	12	40	3,3
22250-1034071602150				90	50	M12	14	40	3,8
22250-1034071602142				90	42	M10	12	40	3,3
22250-1034071602145				90	45	M12	14	40	3,8
22250-1034071602148				90	48	M12	14	40	3,8
22250-1034071602225	22	142	133,86	70	25	M6	8	40	3,3
22250-1034071602228				80	28	M6	8	40	3,3
22250-1034071602230				80	30	M6	8	40	3,3
22250-1034071602235				90	35	M8	10	40	3,3
22250-1034071602232				90	32	M8	10	40	3,3
22250-1034071602238				90	38	M8	10	40	3,3
22250-1034071602250				90	50	M12	14	40	3,8
22250-1034071602240				90	40	M10	12	40	3,3
22250-1034071602242				90	42	M10	12	40	3,3
22250-1034071602245				90	45	M12	14	40	3,8
22250-1034071602248				90	48	M12	14	40	3,8
22250-1034071602325	23	148,1	139,9	70	25	M6	8	40	3,3
22250-1034071602328				80	28	M6	8	40	3,3
22250-1034071602330				80	30	M6	8	40	3,3
22250-1034071602335				90	35	M8	10	40	3,3
22250-1034071602338				90	38	M8	10	40	3,3
22250-1034071602332				90	32	M8	10	40	3,3
22250-1034071602340				90	40	M10	12	40	3,3
22250-1034071602350				90	50	M12	14	40	3,8
22250-1034071602342				90	42	M10	12	40	3,3
22250-1034071602345				90	45	M12	14	40	3,8
22250-1034071602348				90	48	M12	14	40	3,8
22250-1034071602425	24	154,1	145,94	70	25	M6	8	40	3,3
22250-1034071602428				80	28	M6	8	40	3,3
22250-1034071602430				80	30	M6	8	40	3,3
22250-1034071602435				90	35	M8	10	40	3,3
22250-1034071602432				90	32	M8	10	40	3,3

Sprockets single 3/4" x 7/16"

DIN ISO 606, ready to install

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1034071602438				90	38	M8	10	40	3,3
22250-1034071602450				90	50	M12	14	40	3,8
22250-1034071602440				90	40	M10	12	40	3,3
22250-1034071602442				90	42	M10	12	40	3,3
22250-1034071602445				90	45	M12	14	40	3,8
22250-1034071602448				90	48	M12	14	40	3,8
22250-1034071602525	25	160,2	152	70	25	M6	8	40	3,3
22250-1034071602528				80	28	M6	8	40	3,3
22250-1034071602530				80	30	M6	8	40	3,3
22250-1034071602535				90	35	M8	10	40	3,3
22250-1034071602532				90	32	M8	10	40	3,3
22250-1034071602538				90	38	M8	10	40	3,3
22250-1034071602550				90	50	M12	14	40	3,8
22250-1034071602540				90	40	M10	12	40	3,3
22250-1034071602542				90	42	M10	12	40	3,3
22250-1034071602545				90	45	M12	14	40	3,8
22250-1034071602548				90	48	M12	14	40	3,8

Sprockets single 1" x 17.02 mm

DIN ISO 606, ready to install

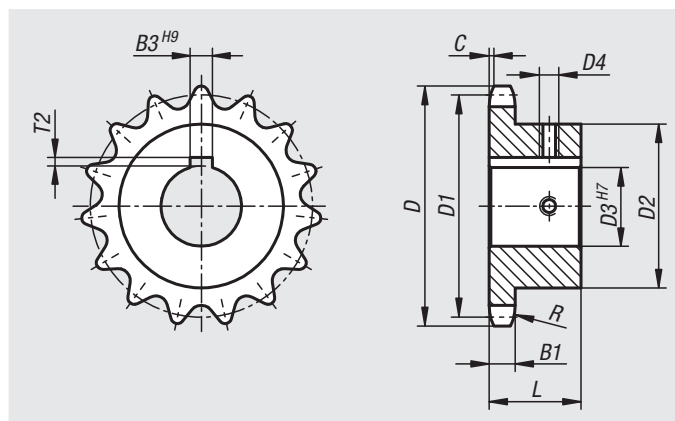


Material:
Steel C45.

Version:
Bright.
Teeth inductively hardened ~HRC 50.

Sample order:
nlm 22250-1100170201125

Note:
Ready to install sprockets with hub on one side for DIN ISO 606 roller chains. Teeth are milled and inductively hardened.
Keyway acc. to DIN 6885 / BS 4235. The keyway is aligned with the tooth tip.
With two grub screws. One tapped hole aligned with the keyway centre, the other offset by 90°.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22250	16 B-1	1 x 17,02mm	25,4 x 17,02	26	2,5	16,2

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1100170201128	11	101,7	90,14	61	28	M6	8	40	3,3
22250-1100170201130				61	30	M6	8	40	3,3
22250-1100170201125				61	25	M6	8	40	3,3
22250-1100170201132				61	32	M8	10	40	3,3
22250-1100170201135				61	35	M8	10	40	3,3
22250-1100170201138				65	38	M8	10	40	3,3
22250-1100170201140				67	40	M10	12	40	3,3
22250-1100170201142	12	109,7	98,14	67	42	M10	12	40	3,3
22250-1100170201228				69	28	M6	8	40	3,3
22250-1100170201230				69	30	M6	8	40	3,3
22250-1100170201232				69	32	M8	10	40	3,3
22250-1100170201235				69	35	M8	10	40	3,3
22250-1100170201238				69	38	M8	10	40	3,3
22250-1100170201240				69	40	M10	12	40	3,3
22250-1100170201225				69	25	M6	8	40	3,3
22250-1100170201242				69	42	M10	12	40	3,3
22250-1100170201325	13	117,7	106,12	70	25	M6	8	40	3,3
22250-1100170201330				78	30	M6	8	40	3,3
22250-1100170201332				78	32	M8	10	40	3,3
22250-1100170201335				78	35	M8	10	40	3,3

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1100170201338				78	38	M8	10	40	3,3
22250-1100170201340				78	40	M10	12	40	3,3
22250-1100170201328				78	28	M6	8	40	3,3
22250-1100170201342				78	42	M10	12	40	3,3
22250-1100170201350				78	50	M12	14	40	3,8
22250-1100170201345				78	45	M12	14	40	3,8
22250-1100170201348				78	48	M12	14	40	3,8
22250-1100170201425	14	125,7	114,15	70	25	M6	8	40	3,3
22250-1100170201428				80	28	M6	8	40	3,3
22250-1100170201430				80	30	M6	8	40	3,3
22250-1100170201432				80	32	M8	10	40	3,3
22250-1100170201438				84	38	M8	10	40	3,3
22250-1100170201440				84	40	M10	12	40	3,3
22250-1100170201442				84	42	M10	12	40	3,3
22250-1100170201445				84	45	M12	14	40	3,8
22250-1100170201435				84	35	M8	10	40	3,3
22250-1100170201448				84	48	M12	14	40	3,8
22250-1100170201450				84	50	M12	14	40	3,8
22250-1100170201525	15	133,7	122,17	70	25	M6	8	40	3,3
22250-1100170201528				80	28	M6	8	40	3,3

Sprockets single 1" x 17.02 mm

DIN ISO 606, ready to install

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1100170201530				80	30	M6	8	40	3,3
22250-1100170201532				80	32	M8	10	40	3,3
22250-1100170201538				92	38	M8	10	40	3,3
22250-1100170201535				92	35	M8	10	40	3,3
22250-1100170201540				92	40	M10	12	40	3,3
22250-1100170201550				92	50	M12	14	40	3,8
22250-1100170201542				92	42	M10	12	40	3,3
22250-1100170201545				92	45	M12	14	40	3,8
22250-1100170201548				92	48	M12	14	40	3,8
22250-1100170201625	16	141,8	130,2	80	25	M6	8	45	3,3
22250-1100170201628				80	28	M6	8	45	3,3
22250-1100170201630				80	30	M6	8	45	3,3
22250-1100170201635				100	35	M8	10	45	3,3
22250-1100170201638				100	38	M8	10	45	3,3
22250-1100170201632				100	32	M8	10	45	3,3
22250-1100170201640				100	40	M10	12	45	3,3
22250-1100170201650				100	50	M12	14	45	3,8
22250-1100170201642				100	42	M10	12	45	3,3
22250-1100170201645				100	45	M12	14	45	3,8
22250-1100170201648				100	48	M12	14	45	3,8
22250-1100170201725	17	149,8	138,22	80	25	M6	8	45	3,3
22250-1100170201728				80	28	M6	8	45	3,3
22250-1100170201730				80	30	M6	8	45	3,3
22250-1100170201735				100	35	M8	10	45	3,3
22250-1100170201738				100	38	M8	10	45	3,3
22250-1100170201732				100	32	M8	10	45	3,3
22250-1100170201740				100	40	M10	12	45	3,3
22250-1100170201750				100	50	M12	14	45	3,8
22250-1100170201742				100	42	M10	12	45	3,3
22250-1100170201745				100	45	M12	14	45	3,8
22250-1100170201748				100	48	M12	14	45	3,8
22250-1100170201825	18	157,8	146,28	80	25	M6	8	45	3,3
22250-1100170201828				80	28	M6	8	45	3,3
22250-1100170201830				80	30	M6	8	45	3,3
22250-1100170201835				100	35	M8	10	45	3,3
22250-1100170201838				100	38	M8	10	45	3,3
22250-1100170201840				100	40	M10	12	45	3,3
22250-1100170201842				100	42	M10	12	45	3,3
22250-1100170201832				100	32	M8	10	45	3,3
22250-1100170201845				100	45	M12	14	45	3,8
22250-1100170201850				100	50	M12	14	45	3,8
22250-1100170201848				100	48	M12	14	45	3,8
22250-1100170201925	19	165,9	154,33	80	25	M6	8	45	3,3
22250-1100170201928				80	28	M6	8	45	3,3
22250-1100170201930				80	30	M6	8	45	3,3
22250-1100170201935				100	35	M8	10	45	3,3
22250-1100170201938				100	38	M8	10	45	3,3
22250-1100170201932				100	32	M8	10	45	3,3

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1100170201940				100	40	M10	12	45	3,3
22250-1100170201950				100	50	M12	14	45	3,8
22250-1100170201942				100	42	M10	12	45	3,3
22250-1100170201945				100	45	M12	14	45	3,8
22250-1100170201948				100	48	M12	14	45	3,8
22250-1100170202025	20	173,9	162,38	80	25	M6	8	45	3,3
22250-1100170202028				80	28	M6	8	45	3,3
22250-1100170202030				80	30	M6	8	45	3,3
22250-1100170202035				100	35	M8	10	45	3,3
22250-1100170202038				100	38	M8	10	45	3,3
22250-1100170202032				100	32	M8	10	45	3,3
22250-1100170202040				100	40	M10	12	45	3,3
22250-1100170202050				100	50	M12	14	45	3,8
22250-1100170202042				100	42	M10	12	45	3,3
22250-1100170202045				100	45	M12	14	45	3,8
22250-1100170202048				100	48	M12	14	45	3,8
22250-1100170202128	21	182	170,43	80	28	M6	8	50	3,3
22250-1100170202125				80	25	M6	8	50	3,3
22250-1100170202130				80	30	M6	8	50	3,3
22250-1100170202132				100	32	M8	10	50	3,3
22250-1100170202135				100	35	M8	10	50	3,3
22250-1100170202138				100	38	M8	10	50	3,3
22250-1100170202140				110	40	M10	12	50	3,3
22250-1100170202150				110	50	M12	14	50	3,8
22250-1100170202142				110	42	M10	12	50	3,3
22250-1100170202145				110	45	M12	14	50	3,8
22250-1100170202148				110	48	M12	14	50	3,8
22250-1100170202225	22	190,1	178,48	80	25	M6	8	50	3,3
22250-1100170202228				80	28	M6	8	50	3,3
22250-1100170202230				80	30	M6	8	50	3,3
22250-1100170202235				100	35	M8	10	50	3,3
22250-1100170202232				100	32	M8	10	50	3,3
22250-1100170202238				100	38	M8	10	50	3,3
22250-1100170202240				110	40	M10	12	50	3,3
22250-1100170202242				110	42	M10	12	50	3,3
22250-1100170202245				110	45	M12	14	50	3,8
22250-1100170202248				110	48	M12	14	50	3,8
22250-1100170202250				110	50	M12	14	50	3,8
22250-1100170202328	23	198,1	186,53	80	28	M6	8	50	3,3
22250-1100170202325				80	25	M6	8	50	3,3
22250-1100170202330				80	30	M6	8	50	3,3
22250-1100170202332				100	32	M8	10	50	3,3
22250-1100170202335				100	35	M8	10	50	3,3
22250-1100170202338				100	38	M8	10	50	3,3
22250-1100170202340				110	40	M10	12	50	3,3
22250-1100170202350				110	50	M12	14	50	3,8
22250-1100170202342				110	42	M10	12	50	3,3
22250-1100170202345				110	45	M12	14	50	3,8

Sprockets single 1" x 17.02 mm

DIN ISO 606, ready to install

Order No.	No. of teeth	D	D1	D2	D3	D4	B3	L	T2
22250-1100170202348				110	48	M12	14	50	3,8
22250-1100170202428	24	206,2	194,59	80	28	M6	8	50	3,3
22250-1100170202425				80	25	M6	8	50	3,3
22250-1100170202430				80	30	M6	8	50	3,3
22250-1100170202432				100	32	M8	10	50	3,3
22250-1100170202435				100	35	M8	10	50	3,3
22250-1100170202438				100	38	M8	10	50	3,3
22250-1100170202440				110	40	M10	12	50	3,3
22250-1100170202450				110	50	M12	14	50	3,8
22250-1100170202442				110	42	M10	12	50	3,3
22250-1100170202445				110	45	M12	14	50	3,8
22250-1100170202448				110	48	M12	14	50	3,8
22250-1100170202525	25	214,2	202,66	80	25	M6	8	50	3,3
22250-1100170202528				80	28	M6	8	50	3,3
22250-1100170202530				80	30	M6	8	50	3,3
22250-1100170202532				100	32	M8	10	50	3,3
22250-1100170202535				100	35	M8	10	50	3,3
22250-1100170202538				100	38	M8	10	50	3,3
22250-1100170202540				110	40	M10	12	50	3,3
22250-1100170202550				110	50	M12	14	50	3,8
22250-1100170202542				110	42	M10	12	50	3,3
22250-1100170202545				110	45	M12	14	50	3,8
22250-1100170202548				110	48	M12	14	50	3,8

Sprockets single 3/8" x 7/32"

DIN ISO 606

**Material:**

Steel C45.

Grey cast iron GG22 from 38 teeth.

Version:

Bright, not hardened.

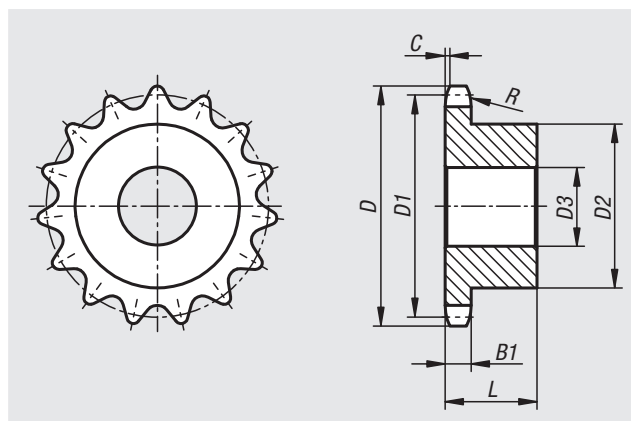
Sample order:

nlm 22252-10380732008

Note:

Sprockets with hub one side for DIN ISO 606 roller chains.

The sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22252	06 B-1	3/8X7/32	9,525 x 5,72	10	1	5,3

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10380732008	8	28,6	24,89	15	8	20
22252-10380732009	9	31,5	27,85	18	8	20
22252-10380732010	10	34,5	30,82	20	8	20
22252-10380732011	11	37,5	33,8	22	8	25
22252-10380732012	12	40,5	36,8	25	8	25
22252-10380732013	13	43,5	39,8	28	8	25
22252-10380732014	14	46,5	42,8	31	8	25
22252-10380732015	15	49,5	45,81	34	8	25
22252-10380732016	16	52,5	48,82	37	10	28
22252-10380732017	17	55,5	51,83	40	10	28
22252-10380732018	18	58,6	54,85	43	10	28
22252-10380732019	19	61,6	57,87	45	10	28
22252-10380732020	20	64,6	60,89	46	10	28
22252-10380732021	21	67,6	63,91	48	12	28
22252-10380732022	22	70,6	66,93	50	12	28
22252-10380732023	23	73,7	69,95	52	12	28
22252-10380732024	24	76,7	72,97	54	12	28
22252-10380732025	25	79,7	76	57	12	28
22252-10380732026	26	82,7	79,02	60	12	28
22252-10380732027	27	85,7	82,04	60	12	28

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10380732028	28	88,8	85,07	60	12	28
22252-10380732029	29	91,8	88,09	60	12	28
22252-10380732030	30	94,8	91,12	60	12	30
22252-10380732031	31	97,9	94,15	65	14	30
22252-10380732032	32	100,9	97,17	65	14	30
22252-10380732033	33	103,9	100,2	65	14	30
22252-10380732034	34	106,9	103,23	65	14	30
22252-10380732035	35	110	106,26	65	14	30
22252-10380732036	36	113	109,29	70	16	30
22252-10380732037	37	116	112,32	70	16	30
22252-10380732038	38	119	115,34	70	20	32
22252-10380732045	45	141,1	136,54	70	20	32
22252-10380732057	57	177,5	172,91	70	20	32
22252-10380732076	76	235,1	230,49	70	20	35
22252-10380732095	95	292,7	288,08	80	20	40
22252-10380732114	114	350,3	345,68	80	20	40

Sprockets single 1/2" x 5/16"

DIN ISO 606

**Material:**

Steel C45.

Grey cast iron GG22 from 38 teeth.

Version:

Bright, not hardened.

Sample order:

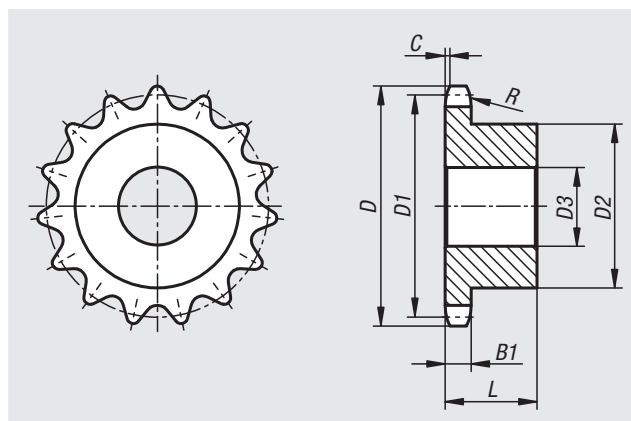
nlm 22252-10120516008

Note:

Sprockets with hub one side for DIN ISO 606 roller chains.

The sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the sprockets are supplied with.

This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22252	08 B-1	1/2X5/16	12,7 x 7,75	13	1,3	7,2

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10120516008	8	38	33,18	20	10	25
22252-10120516009	9	42	37,13	24	10	25
22252-10120516010	10	45,9	41,1	26	10	25
22252-10120516011	11	49,9	45,07	29	10	25
22252-10120516012	12	53,9	49,07	33	10	28
22252-10120516013	13	57,9	53,06	37	10	28
22252-10120516014	14	61,9	57,07	41	10	28
22252-10120516015	15	65,9	61,09	45	10	28
22252-10120516016	16	69,9	65,1	50	12	28
22252-10120516017	17	74	69,11	52	12	28
22252-10120516018	18	78	73,14	56	12	28
22252-10120516019	19	82	77,16	60	12	28
22252-10120516020	20	86	81,19	64	12	28
22252-10120516021	21	90,1	85,22	68	14	28
22252-10120516022	22	94,1	89,24	70	14	28
22252-10120516023	23	98,1	93,27	70	14	28
22252-10120516024	24	102,1	97,29	70	14	28
22252-10120516025	25	106,2	101,33	70	14	28
22252-10120516026	26	110,2	105,36	70	16	30
22252-10120516027	27	114,2	109,4	70	16	30

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10120516028	28	118,3	113,42	70	16	30
22252-10120516029	29	122,3	117,46	80	16	30
22252-10120516030	30	126,3	121,5	80	16	30
22252-10120516031	31	130,4	125,54	90	16	30
22252-10120516032	32	134,4	129,56	90	16	30
22252-10120516033	33	138,4	133,6	90	16	30
22252-10120516034	34	142,5	137,64	90	16	30
22252-10120516035	35	146,5	141,68	90	16	30
22252-10120516036	36	150,6	145,72	90	16	35
22252-10120516037	37	154,6	149,76	90	16	35
22252-10120516038	38	158,6	153,8	70	24	40
22252-10120516045	45	188,6	182,07	70	24	40
22252-10120516057	57	237,1	230,54	70	24	40
22252-10120516076	76	313,9	307,33	80	24	40
22252-10120516095	95	390,7	384,11	80	24	45
22252-10120516114	114	467,4	460,9	80	24	45

Sprockets single 5/8" x 3/8"

DIN ISO 606

**Material:**

Steel C45.

Grey cast iron GG22 from 38 teeth.

Version:

Bright, not hardened.

Sample order:

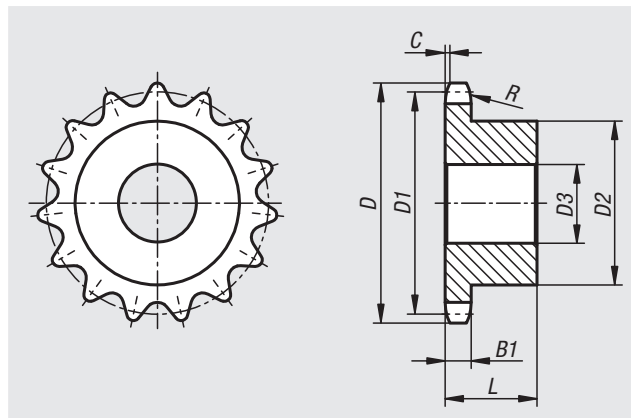
nlm 22252-10580308008

Note:

Sprockets with hub one side for DIN ISO 606 roller chains.

The sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the sprockets are supplied with.

This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22252	10 B-1	5/8X3/8	15,875 x 9,65	16	1,6	9,1

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10580308008	8	48,4	41,48	25	10	25
22252-10580308009	9	53,3	46,42	30	10	25
22252-10580308010	10	58,3	51,37	35	10	25
22252-10580308011	11	63,2	56,34	37	12	30
22252-10580308012	12	68,2	61,34	42	12	30
22252-10580308013	13	73,2	66,32	47	12	30
22252-10580308014	14	78,2	71,34	52	12	30
22252-10580308015	15	83,2	76,36	57	12	30
22252-10580308016	16	88,3	81,37	60	12	30
22252-10580308017	17	93,3	86,39	60	12	30
22252-10580308018	18	98,3	91,42	70	14	30
22252-10580308019	19	103,3	96,45	70	14	30
22252-10580308020	20	108,4	101,49	75	14	30
22252-10580308021	21	113,4	106,52	75	16	30
22252-10580308022	22	118,4	111,55	80	16	30
22252-10580308023	23	123,5	116,58	80	16	30
22252-10580308024	24	128,5	121,62	80	16	30
22252-10580308025	25	133,6	126,66	80	16	30
22252-10580308026	26	138,6	131,7	85	20	35
22252-10580308027	27	143,6	136,75	85	20	35

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10580308028	28	148,7	141,78	90	20	35
22252-10580308029	29	153,7	146,83	90	20	35
22252-10580308030	30	158,8	151,87	90	20	35
22252-10580308031	31	163,8	156,92	95	20	35
22252-10580308032	32	168,9	161,95	95	20	35
22252-10580308033	33	173,9	167	95	20	35
22252-10580308034	34	178,9	172,05	95	20	35
22252-10580308035	35	184	177,1	95	20	35
22252-10580308036	36	189	182,15	100	20	35
22252-10580308037	37	194,1	187,2	100	20	35
22252-10580308038	38	199,1	192,24	80	24	40
22252-10580308045	45	236	227,58	80	24	40
22252-10580308057	57	296,6	288,18	90	24	45
22252-10580308076	76	392,5	384,16	90	24	50
22252-10580308095	95	488,5	480,14	100	24	56
22252-10580308114	114	584,5	576,13	100	24	56

Sprockets single 3/4" x 7/16"

DIN ISO 606

**Material:**

Steel C45.

Grey cast iron GG22 from 38 teeth.

Version:

Bright, not hardened.

Sample order:

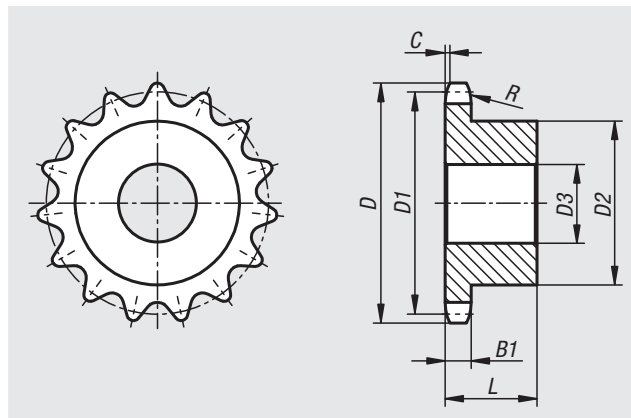
nlm 22252-10340716008

Note:

Sprockets with hub one side for DIN ISO 606 roller chains.

The sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the sprockets are supplied with.

This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22252	12 B-1	3/4X7/16	19,05 x 11,68	19	2	11,1

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10340716008	8	58	49,78	31	12	30
22252-10340716009	9	63,9	55,7	37	12	30
22252-10340716010	10	69,8	61,64	42	12	30
22252-10340716011	11	75,8	67,61	46	16	35
22252-10340716012	12	81,8	73,6	52	16	35
22252-10340716013	13	87,8	79,59	58	16	35
22252-10340716014	14	93,8	85,61	64	16	35
22252-10340716015	15	99,8	91,63	70	16	35
22252-10340716016	16	105,8	97,65	75	16	35
22252-10340716017	17	111,9	103,67	80	16	35
22252-10340716018	18	117,9	109,71	80	16	35
22252-10340716019	19	123,9	115,75	80	16	35
22252-10340716020	20	130	121,78	80	16	35
22252-10340716021	21	136	127,82	90	20	40
22252-10340716022	22	142	133,86	90	20	40
22252-10340716023	23	148,1	139,9	90	20	40
22252-10340716024	24	154,1	145,94	90	20	40
22252-10340716025	25	160,2	152	90	20	40
22252-10340716026	26	166,2	158,04	95	20	40
22252-10340716027	27	172,3	164,09	95	20	40

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-10340716028	28	178,3	170,13	95	20	40
22252-10340716029	29	184,4	176,19	95	20	40
22252-10340716030	30	190,4	182,25	95	20	40
22252-10340716031	31	196,5	188,31	95	20	40
22252-10340716032	32	202,5	194,35	95	20	40
22252-10340716033	33	208,6	200,4	95	20	40
22252-10340716034	34	214,6	206,46	95	20	40
22252-10340716035	35	220,7	212,52	95	20	40
22252-10340716036	36	226,8	218,58	100	20	40
22252-10340716037	37	232,8	224,64	100	20	40
22252-10340716038	38	238,9	230,69	100	24	56
22252-10340716045	45	283,2	273,1	100	24	56
22252-10340716057	57	355,9	345,81	100	30	56
22252-10340716076	76	471,1	460,99	100	30	56
22252-10340716095	95	586,2	576,17	100	30	65
22252-10340716114	114	701,4	691,36	100	30	65

Sprockets single 1" x 17.02 mm

DIN ISO 606

**Material:**

Steel C45.

Grey cast iron GG22 from 38 teeth.

Version:

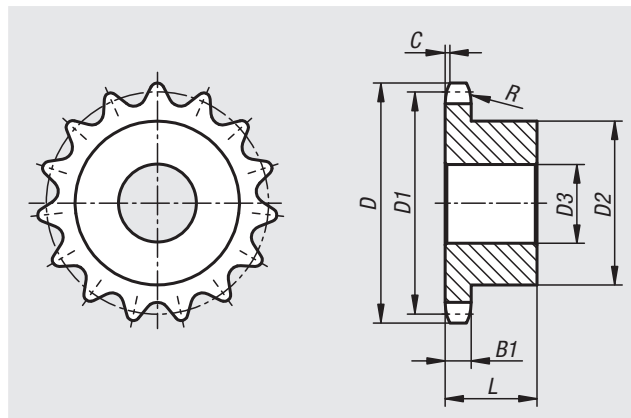
Bright, not hardened.

Sample order:

nlm 22252-11001702008

Note:

Sprockets with hub one side for DIN ISO 606 roller chains. The sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22252	16 B-1	1X17,02mm	25,4 x 17,02	26	2,5	16,2

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-11001702008	8	77,9	66,37	42	16	35
22252-11001702009	9	85,8	74,27	50	16	35
22252-11001702010	10	93,8	82,19	55	16	35
22252-11001702011	11	101,7	90,14	61	16	40
22252-11001702012	12	109,7	98,14	69	16	40
22252-11001702013	13	117,7	106,12	78	16	40
22252-11001702014	14	125,7	114,15	84	16	40
22252-11001702015	15	133,7	122,17	92	16	40
22252-11001702016	16	141,8	130,2	100	20	45
22252-11001702017	17	149,8	138,22	100	20	45
22252-11001702018	18	157,8	146,28	100	20	45
22252-11001702019	19	165,9	154,33	100	20	45
22252-11001702020	20	173,9	162,38	100	20	45
22252-11001702021	21	182	170,43	110	20	50
22252-11001702022	22	190,1	178,48	110	20	50
22252-11001702023	23	198,1	186,53	110	20	50
22252-11001702024	24	206,2	194,59	110	20	50
22252-11001702025	25	214,2	202,66	110	20	50
22252-11001702026	26	222,3	210,72	120	20	50
22252-11001702027	27	230,4	218,79	120	20	50

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22252-11001702028	28	238,4	226,85	120	20	50
22252-11001702029	29	246,5	234,92	120	20	50
22252-11001702030	30	254,6	243	120	20	50
22252-11001702031	31	262,6	251,08	120	25	50
22252-11001702032	32	270,7	259,13	120	25	50
22252-11001702033	33	278,8	267,21	120	25	50
22252-11001702034	34	286,9	275,28	120	25	50
22252-11001702035	35	294,9	283,36	120	25	50
22252-11001702036	36	303	291,44	120	25	50
22252-11001702037	37	311,1	299,51	120	25	50
22252-11001702038	38	319,2	307,59	110	30	65
22252-11001702045	45	377,9	364,12	125	30	70
22252-11001702057	57	474,9	461,07	125	35	70
22252-11001702076	76	628,4	614,65	140	35	80
22252-11001702095	95	782	768,22	140	40	80
22252-11001702114	114	935,6	921,81	150	40	80

Sprockets duplex 8.0 mm x 3.0 mm

DIN ISO 606

**Material:**

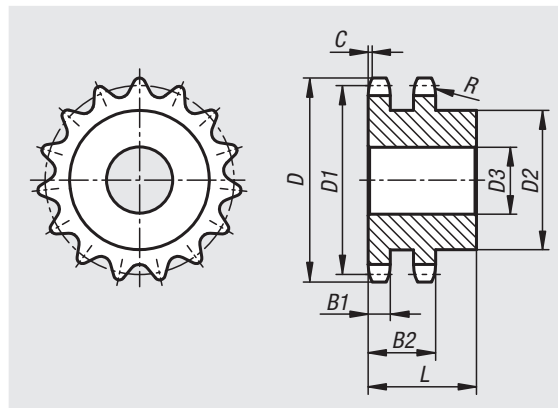
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-20800030008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch mm	R	C	B1	B2
22253	05 B-2	8,0 x 3,0	8	0,8	2,7	8,3

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20800030008	8	23,4	20,9	12	6	18
22253-20800030009	9	25,9	23,39	15	6	18
22253-20800030010	10	28,4	25,89	17	8	18
22253-20800030011	11	31	28,39	19	8	18
22253-20800030012	12	33,7	30,91	21	8	18
22253-20800030013	13	36,7	33,42	24	8	18
22253-20800030014	14	39,2	35,95	26	8	18
22253-20800030015	15	41,7	38,48	29	8	18
22253-20800030016	16	44,2	41,01	32	10	20
22253-20800030017	17	46,7	43,53	34	10	20
22253-20800030018	18	49,2	46,07	37	10	20
22253-20800030019	19	51,7	48,61	39	10	20
22253-20800030020	20	54,2	51,14	40	10	20
22253-20800030021	21	57,2	53,67	45	12	20
22253-20800030022	22	59,4	56,21	45	12	20
22253-20800030023	23	62,2	58,75	45	12	20
22253-20800030024	24	64,7	61,29	45	12	20
22253-20800030025	25	67,2	63,83	45	12	20
22253-20800030026	26	69,7	66,37	50	12	22
22253-20800030027	27	72,3	68,91	50	12	22
22253-20800030030	30	80,2	76,53	50	12	22
22253-20800030032	32	85,2	81,61	60	12	22
22253-20800030035	35	92,7	89,24	60	12	22
22253-20800030036	36	95,2	91,79	60	12	22
22253-20800030038	38	100,2	96,88	60	12	22
22253-20800030040	40	105,7	101,97	60	12	22

Sprockets duplex 3/8" x 7/32"

DIN ISO 606

**Material:**

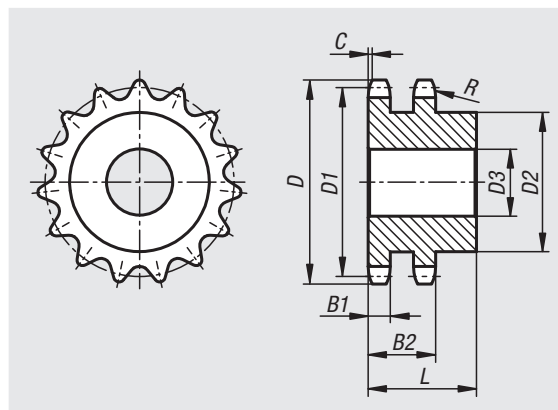
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-20380732008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	06 B-2	3/8 x 7/32	9,525 x 5,72	10	1	5,2	15,4

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20380732008	8	28,6	24,89	15	8	25
22253-20380732009	9	31,5	27,85	18	8	25
22253-20380732010	10	34,5	30,82	20	8	25
22253-20380732011	11	37,5	33,8	22	10	30
22253-20380732012	12	40,5	36,8	25	10	30
22253-20380732013	13	43,5	39,8	28	10	30
22253-20380732014	14	46,5	42,8	31	10	30
22253-20380732015	15	49,5	45,81	34	10	30
22253-20380732016	16	52,5	48,82	37	12	30
22253-20380732017	17	55,5	51,83	40	12	30
22253-20380732018	18	58,6	54,85	43	12	30
22253-20380732019	19	61,6	57,87	46	12	30
22253-20380732020	20	64,6	60,89	49	12	30
22253-20380732021	21	67,6	63,91	52	16	30
22253-20380732022	22	70,6	66,93	55	16	30
22253-20380732023	23	73,7	69,95	58	16	30
22253-20380732024	24	76,7	72,97	61	16	30
22253-20380732025	25	79,7	76	64	16	30
22253-20380732026	26	82,7	79,02	67	16	30
22253-20380732027	27	85,7	82,04	70	16	30
22253-20380732028	28	88,8	85,07	73	16	30

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20380732029	29	91,8	88,09	76	16	30
22253-20380732030	30	94,8	91,12	79	16	30
22253-20380732031	31	97,9	94,15	80	16	30
22253-20380732032	32	100,9	97,17	80	16	30
22253-20380732033	33	103,9	100,2	80	16	30
22253-20380732034	34	106,9	103,23	80	16	30
22253-20380732035	35	110	106,26	80	16	30
22253-20380732036	36	113	109,29	90	16	30
22253-20380732037	37	116	112,32	90	16	30
22253-20380732038	38	119	115,34	90	16	30
22253-20380732039	39	122,1	118,37	90	16	30
22253-20380732040	40	125,1	121,4	90	16	30
22253-20380732042	42	132,1	127,46	88	20	50
22253-20380732045	45	141,1	136,54	88	20	50
22253-20380732048	48	150,2	145,64	88	20	50
22253-20380732050	50	156,3	151,69	88	20	50
22253-20380732057	57	177,5	172,91	88	20	50
22253-20380732060	60	186,6	181,99	88	20	50
22253-20380732076	76	235,1	230,49	88	25	50
22253-20380732095	95	292,7	288,08	108	25	50

Sprockets duplex 1/2" x 5/16"

DIN ISO 606

**Material:**

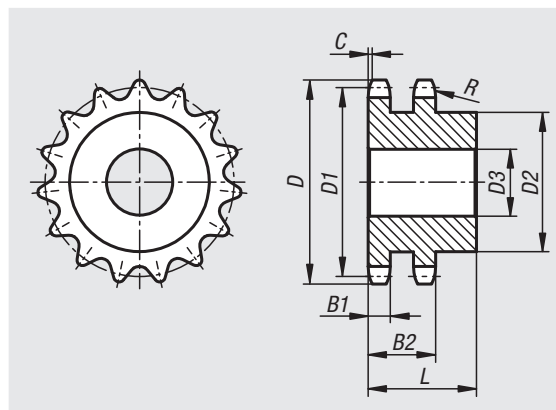
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-20120516008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	08 B-2	1/2 x 5/16	12,7 x 7,75	13	1,3	7	21

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20120516008	8	38	33,18	20	10	32
22253-20120516009	9	42	37,13	24	10	32
22253-20120516010	10	45,9	41,1	28	10	32
22253-20120516011	11	49,9	45,07	32	12	35
22253-20120516012	12	53,9	49,07	35	12	35
22253-20120516013	13	57,9	53,06	38	12	35
22253-20120516014	14	61,9	57,07	42	12	35
22253-20120516015	15	65,9	61,09	46	12	35
22253-20120516016	16	69,9	65,1	50	16	38
22253-20120516017	17	74	69,11	54	16	38
22253-20120516018	18	78	73,14	58	16	38
22253-20120516019	19	82	77,16	62	16	38
22253-20120516020	20	86	81,19	66	16	38
22253-20120516021	21	90,1	85,22	70	16	40
22253-20120516022	22	94,1	89,24	70	16	40
22253-20120516023	23	98,1	93,27	70	16	40
22253-20120516024	24	102,1	97,29	75	16	40
22253-20120516025	25	106,2	101,33	80	16	40
22253-20120516026	26	110,2	105,36	85	16	40
22253-20120516027	27	114,2	109,4	85	16	40
22253-20120516028	28	118,3	113,42	90	16	40

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20120516029	29	122,3	117,46	95	16	40
22253-20120516030	30	126,3	121,5	100	16	40
22253-20120516031	31	130,4	125,54	100	20	40
22253-20120516032	32	134,4	129,56	100	20	40
22253-20120516033	33	138,4	133,6	100	20	40
22253-20120516034	34	142,5	137,64	100	20	40
22253-20120516035	35	146,5	141,68	100	20	40
22253-20120516036	36	150,6	145,72	100	20	40
22253-20120516037	37	154,6	149,76	100	20	40
22253-20120516038	38	158,6	153,8	100	20	40
22253-20120516039	39	162,7	157,83	100	20	40
22253-20120516040	40	166,7	161,87	100	20	40
22253-20120516042	42	176,5	169,95	108	20	55
22253-20120516045	45	188,6	182,07	108	20	55
22253-20120516046	46	192,6	186,1	108	20	55
22253-20120516048	48	200,7	194,18	108	20	55
22253-20120516050	50	208,8	202,26	108	20	55
22253-20120516057	57	237,1	230,54	108	25	55
22253-20120516060	60	249,2	242,66	108	25	55
22253-20120516076	76	313,9	307,33	108	25	55
22253-20120516095	95	390,7	384,11	120	25	55

Sprockets duplex 5/8" x 3/8"

DIN ISO 606

**Material:**

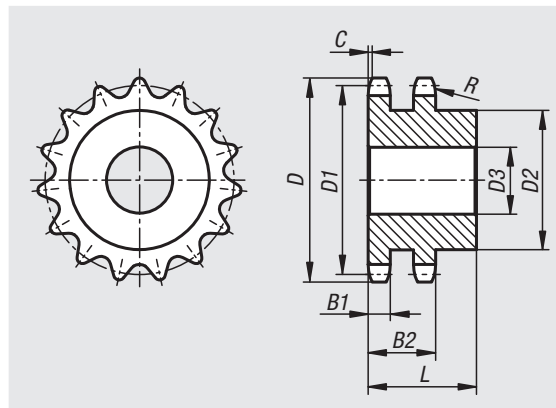
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-20580308008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	10 B-2	5/8 x 3/8	15,875 x 9,65	16	1,6	9	25,5

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20580308008	8	48,4	41,48	25	12	40
22253-20580308009	9	53,3	46,42	30	12	40
22253-20580308010	10	58,3	51,37	35	12	40
22253-20580308011	11	63,2	56,34	39	16	40
22253-20580308012	12	68,2	61,34	44	16	40
22253-20580308013	13	73,2	66,32	49	16	40
22253-20580308014	14	78,2	71,34	54	16	40
22253-20580308015	15	83,2	76,36	59	16	40
22253-20580308016	16	88,3	81,37	64	16	45
22253-20580308017	17	93,3	86,39	69	16	45
22253-20580308018	18	98,3	91,42	74	16	45
22253-20580308019	19	103,3	96,45	79	16	45
22253-20580308020	20	108,4	101,49	84	16	45
22253-20580308021	21	113,4	106,52	85	16	45
22253-20580308022	22	118,4	111,55	90	16	45
22253-20580308023	23	123,5	116,58	95	16	45
22253-20580308024	24	128,5	121,62	100	16	45
22253-20580308025	25	133,6	126,66	105	16	45
22253-20580308026	26	138,6	131,7	110	20	45
22253-20580308027	27	143,6	136,75	110	20	45
22253-20580308028	28	148,7	141,78	115	20	45

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20580308029	29	153,7	146,83	115	20	45
22253-20580308030	30	158,8	151,87	120	20	45
22253-20580308031	31	163,8	156,92	120	20	45
22253-20580308032	32	168,9	161,95	120	20	45
22253-20580308033	33	173,9	167	120	20	45
22253-20580308034	34	178,9	172,05	120	20	45
22253-20580308035	35	184	177,1	120	20	45
22253-20580308036	36	189	182,15	120	20	45
22253-20580308037	37	194,1	187,2	120	20	45
22253-20580308038	38	199,1	192,24	120	20	45
22253-20580308039	39	204,2	197,29	120	20	45
22253-20580308040	40	209,2	202,34	120	20	45
22253-20580308042	42	220,8	212,44	120	25	59
22253-20580308045	45	236	227,58	120	25	59
22253-20580308046	46	241	236,63	120	25	59
22253-20580308048	48	251,1	242,73	120	25	59
22253-20580308050	50	261,2	252,82	120	25	59
22253-20580308057	57	296,6	288,18	120	25	59
22253-20580308060	60	311,7	303,32	120	25	59
22253-20580308076	76	392,5	384,16	120	25	59
22253-20580308095	95	488,5	480,14	145	30	58

Sprockets duplex 3/4" x 7/16"

DIN ISO 606

**Material:**

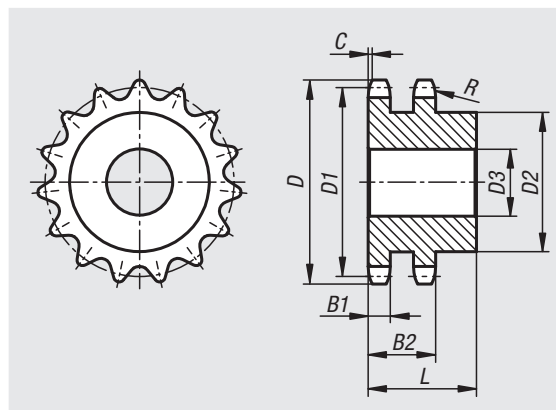
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-20340716008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	12 B-2	3/4 x 7/16	19,05 x 11,68	19	2	10,8	30,3

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20340716008	8	58	49,78	31	12	45
22253-20340716009	9	63,9	55,7	37	12	45
22253-20340716010	10	69,8	61,64	42	12	45
22253-20340716011	11	75,8	67,61	47	16	50
22253-20340716012	12	81,8	73,6	53	16	50
22253-20340716013	13	87,8	79,59	59	16	50
22253-20340716014	14	93,8	85,61	65	16	50
22253-20340716015	15	99,8	91,63	71	16	50
22253-20340716016	16	105,8	97,65	77	20	50
22253-20340716017	17	111,9	103,67	83	20	50
22253-20340716018	18	117,9	109,71	89	20	50
22253-20340716019	19	123,9	115,75	95	20	50
22253-20340716020	20	130	121,78	100	20	50
22253-20340716021	21	136	127,82	100	20	50
22253-20340716022	22	142	133,86	100	20	50
22253-20340716023	23	148,1	139,9	110	20	50
22253-20340716024	24	154,1	145,94	110	20	50
22253-20340716025	25	160,2	152	120	20	50
22253-20340716026	26	166,2	158,04	120	20	50
22253-20340716027	27	172,3	164,09	120	20	50
22253-20340716028	28	178,3	170,13	120	20	50

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-20340716029	29	184,4	176,19	120	20	50
22253-20340716030	30	190,4	182,25	120	20	50
22253-20340716031	31	196,5	188,31	120	20	50
22253-20340716032	32	202,5	194,35	120	20	50
22253-20340716033	33	208,6	200,4	120	20	50
22253-20340716034	34	214,6	206,46	120	20	50
22253-20340716035	35	220,7	212,52	120	20	50
22253-20340716036	36	226,8	218,58	120	25	50
22253-20340716037	37	232,8	224,64	120	25	50
22253-20340716038	38	238,9	230,69	120	25	50
22253-20340716039	39	244,9	236,75	120	25	50
22253-20340716040	40	251	242,81	120	25	50
22253-20340716042	42	265	254,93	136	25	62
22253-20340716045	45	283,2	273,1	136	25	62
22253-20340716046	46	289,2	279,16	136	25	62
22253-20340716048	48	301,4	291,27	136	25	62
22253-20340716050	50	313,5	303,39	136	25	62
22253-20340716057	57	355,9	345,81	136	25	62
22253-20340716060	60	374,1	363,99	136	25	62
22253-20340716076	76	471,1	460,99	145	30	63
22253-20340716095	95	586,2	576,17	145	30	63

Sprockets duplex 1" x 17,02 mm

DIN ISO 606

**Material:**

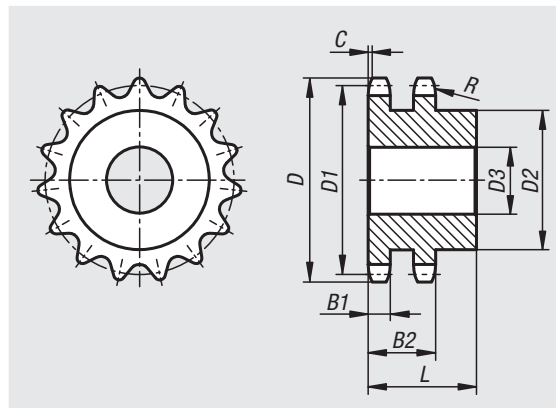
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-21001702008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	16 B-2	1 x 17,02mm	25,4 x 17,02	26	2,5	15,8	47,7

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-21001702008	8	77,9	66,37	42	20	65
22253-21001702009	9	85,8	74,27	50	20	65
22253-21001702010	10	93,8	82,19	56	20	65
22253-21001702011	11	101,7	90,14	64	20	70
22253-21001702012	12	109,7	98,14	72	20	70
22253-21001702013	13	117,7	106,12	80	20	70
22253-21001702014	14	125,7	114,15	88	20	70
22253-21001702015	15	133,7	122,17	96	20	70
22253-21001702016	16	141,8	130,2	104	20	70
22253-21001702017	17	149,8	138,22	112	20	70
22253-21001702018	18	157,8	146,28	120	20	70
22253-21001702019	19	165,9	154,33	128	20	70
22253-21001702020	20	173,9	162,38	130	20	70
22253-21001702021	21	182	170,43	130	25	70
22253-21001702022	22	190,1	178,48	130	25	70
22253-21001702023	23	198,1	186,53	130	25	70
22253-21001702024	24	206,2	194,59	130	25	70
22253-21001702025	25	214,2	202,66	130	25	70
22253-21001702026	26	222,3	210,72	130	25	70
22253-21001702027	27	230,4	218,79	130	25	70
22253-21001702028	28	238,4	226,85	130	25	70

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-21001702029	29	246,5	234,92	130	25	70
22253-21001702030	30	254,6	243	130	25	70
22253-21001702031	31	262,6	251,08	140	25	70
22253-21001702032	32	270,7	259,13	140	25	70
22253-21001702033	33	278,8	267,21	140	25	70
22253-21001702034	34	286,9	275,28	140	25	70
22253-21001702035	35	294,9	283,36	140	25	70
22253-21001702036	36	303	291,44	140	25	70
22253-21001702037	37	311,1	299,51	140	25	70
22253-21001702038	38	319,2	307,59	140	25	70
22253-21001702039	39	327,2	315,67	140	25	70
22253-21001702040	40	335,3	323,73	140	25	70
22253-21001702042	42	353,7	339,9	140	25	70
22253-21001702045	45	377,9	364,12	140	25	70
22253-21001702046	46	386	372,21	140	25	70
22253-21001702048	48	402,1	388,36	140	25	70
22253-21001702050	50	418,3	404,52	140	25	70
22253-21001702057	57	474,9	461,07	160	40	82
22253-21001702060	60	499,1	485,32	160	40	82
22253-21001702076	76	628,4	614,65	160	40	82
22253-21001702095	95	782	768,22	180	40	109

Sprockets duplex 1 1/4" x 3/4"

DIN ISO 606

**Material:**

Steel C45.

Version:

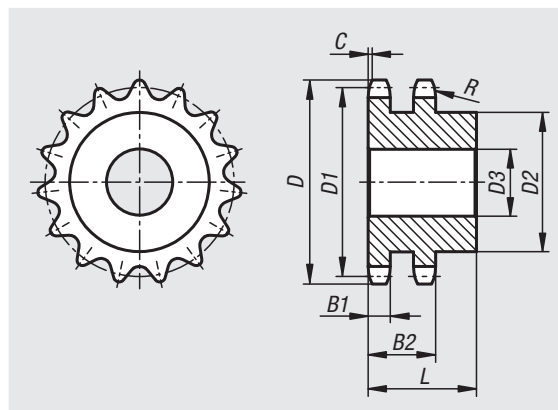
Bright, not hardened.

Sample order:

nlm 22253-21140340008

Note:

Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	20 B-2	1 1/4X3/4	31,75 x 19,56	32	3,5	18,2	54,6

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-21140340008	8	96	82,96	53	20	75
22253-21140340009	9	106,5	92,84	63	20	75
22253-21140340010	10	117	102,74	70	20	75
22253-21140340011	11	127	112,68	80	25	80
22253-21140340012	12	137	122,68	90	25	80
22253-21140340013	13	147,5	132,65	100	25	80
22253-21140340014	14	157,6	142,68	110	25	80
22253-21140340015	15	167,7	152,72	120	25	80
22253-21140340016	16	177,7	162,75	120	30	80
22253-21140340017	17	187,7	172,78	120	30	80
22253-21140340018	18	197,8	182,85	120	30	80
22253-21140340019	19	207,9	192,91	120	30	80
22253-21140340020	20	217,9	202,98	120	30	80
22253-21140340021	21	228	213,04	140	30	80
22253-21140340022	22	238,1	223,11	140	30	80
22253-21140340023	23	248,2	233,17	140	30	80
22253-21140340024	24	258,3	243,23	140	30	80
22253-21140340025	25	268,4	253,33	140	30	80
22253-21140340026	26	278,4	263,4	150	30	80
22253-21140340027	27	288,5	273,48	150	30	80
22253-21140340028	28	298,5	283,56	150	30	80

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-21140340029	29	308,6	293,65	150	30	80
22253-21140340030	30	318,7	303,75	150	30	80
22253-21140340031	31	328,8	313,85	150	30	80
22253-21140340032	32	338,9	323,91	150	30	80
22253-21140340034	34	359,1	344,1	150	30	80
22253-21140340035	35	369,2	354,2	150	30	80
22253-21140340036	36	379,2	364,3	150	30	80
22253-21140340038	38	399,4	384,49	150	30	80
22253-21140340040	40	419,6	404,66	150	30	80
22253-21140340045	45	471,1	455,17	160	30	101
22253-21140340046	46	481,2	465,26	160	30	101
22253-21140340050	50	521,6	505,65	160	30	101
22253-21140340057	57	592,3	576,36	180	40	116
22253-21140340076	76	784,3	768,32	180	40	116
22253-21140340095	95	976,2	960,28	200	40	116

Sprockets duplex 1 1/2" x 1"

DIN ISO 606

**Material:**

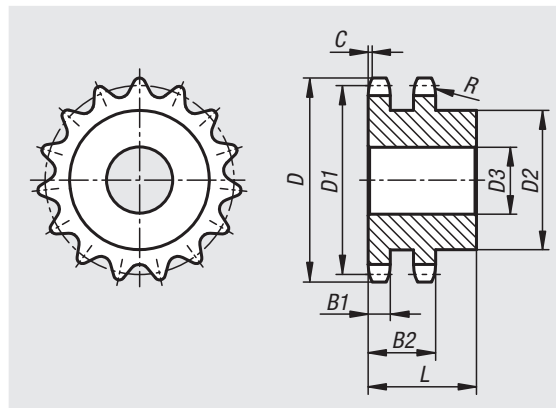
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22253-2112100008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22253	24 B-2	1 1/2X1	38,1 x 25,4	38	4	23,6	72

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-2112100008	8	113	99,55	58	25	95
22253-2112100009	9	125	111,4	70	25	95
22253-21121000010	10	137	123,29	80	25	95
22253-21121000011	11	149	135,21	90	25	100
22253-21121000012	12	161	147,22	102	25	100
22253-21121000013	13	173	159,18	114	25	100
22253-21121000014	14	185	171,22	128	25	100
22253-21121000015	15	197	183,26	132	25	100
22253-21121000016	16	209	195,3	136	30	100
22253-21121000017	17	221	207,34	136	30	100
22253-21121000018	18	233	219,42	160	30	100
22253-21121000019	19	245,5	231,49	160	30	100
22253-21121000020	20	257,5	243,57	160	30	100
22253-21121000021	21	270,5	255,65	160	30	100
22253-21121000022	22	282,5	267,73	160	30	100
22253-21121000023	23	294,5	279,8	160	30	100
22253-21121000024	24	307	291,88	160	30	100
22253-21121000025	25	319	304	160	30	100
22253-21121000026	26	331	316,08	160	30	100
22253-21121000027	27	343	328,19	160	30	100
22253-21121000028	28	355	340,27	160	30	100

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22253-21121000029	29	367,5	352,38	160	30	100
22253-21121000030	30	379,5	364,5	160	30	100
22253-21121000031	31	391,5	376,62	160	40	100
22253-21121000032	32	403,5	388,69	160	40	100
22253-21121000033	33	415,5	400,81	160	40	100
22253-21121000034	34	428	412,83	160	40	100
22253-21121000035	35	440	425,04	160	40	100
22253-21121000036	36	452	437,16	160	40	100
22253-21121000037	37	464	449,27	160	40	100
22253-21121000038	38	476,5	461,39	160	40	100
22253-21121000040	40	501,5	485,62	160	40	100
22253-21121000045	45	562	546,2	180	40	133
22253-21121000050	50	622,5	606,78	180	40	133
22253-21121000057	57	707,5	691,63	180	40	133
22253-21121000076	76	939	921,98	200	40	133

Sprockets triplex 3/8" x 7/32"

DIN ISO 606

**Material:**

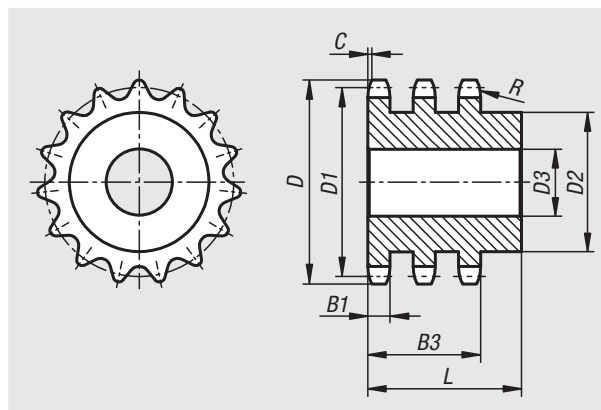
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22254-30380732008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22254	06 B-3	3/8 x 7/32	9,525 x 5,72	10	1	5,2	25,6

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30380732008	8	28,6	24,89	15	8	32
22254-30380732009	9	31,5	27,85	18	8	32
22254-30380732010	10	34,5	30,82	20	10	32
22254-30380732011	11	37,5	33,8	22	12	35
22254-30380732012	12	40,5	36,8	25	12	35
22254-30380732013	13	43,5	39,8	28	12	35
22254-30380732014	14	46,5	42,8	31	12	35
22254-30380732015	15	49,5	45,81	34	12	35
22254-30380732016	16	52,5	48,82	37	12	35
22254-30380732017	17	55,5	51,83	40	12	35
22254-30380732018	18	58,6	54,85	43	12	35
22254-30380732019	19	61,6	57,87	46	12	35
22254-30380732020	20	64,6	60,89	49	12	35
22254-30380732021	21	67,6	63,91	52	16	40
22254-30380732022	22	70,6	66,93	55	16	40
22254-30380732023	23	73,7	69,95	58	16	40
22254-30380732024	24	76,7	72,97	61	16	40
22254-30380732025	25	79,7	76	64	16	40
22254-30380732026	26	82,7	79,02	67	16	40
22254-30380732027	27	85,7	82,04	70	16	40
22254-30380732028	28	88,8	85,07	73	16	40

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30380732029	29	91,8	88,09	76	16	40
22254-30380732030	30	94,8	91,12	79	16	40
22254-30380732031	31	97,9	94,15	80	16	40
22254-30380732032	32	100,9	97,17	80	16	40
22254-30380732033	33	103,9	100,2	80	16	40
22254-30380732034	34	106,9	103,23	85	16	40
22254-30380732035	35	110	106,26	85	16	40
22254-30380732036	36	113	109,29	90	16	40
22254-30380732037	37	116	112,32	90	16	40
22254-30380732038	38	119	115,34	90	16	40
22254-30380732039	39	122,1	118,37	90	16	40
22254-30380732040	40	125,1	121,4	90	16	40
22254-30380732045	45	141,1	136,54	88	20	60
22254-30380732050	50	156,3	151,69	88	20	60
22254-30380732057	57	177,5	172,91	88	25	60
22254-30380732060	60	186,6	181,99	88	25	60
22254-30380732076	76	235,1	230,49	88	25	60
22254-30380732095	95	292,7	288,08	120	25	60

Sprockets triplex 1/2" x 5/16"

DIN ISO 606

**Material:**

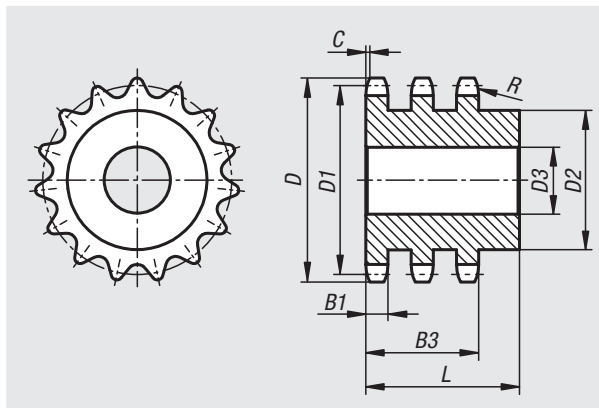
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22254-30120516008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22254	08 B-3	1/2 x 5/16	12,7 x 7,75	13	1,3	7	34,9

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30120516008	8	38	33,18	20	10	46
22254-30120516009	9	42	37,13	24	12	46
22254-30120516010	10	45,9	41,1	28	12	46
22254-30120516011	11	49,9	45,07	32	16	50
22254-30120516012	12	53,9	49,07	35	16	50
22254-30120516013	13	57,9	53,06	38	16	50
22254-30120516014	14	61,9	57,07	42	16	50
22254-30120516015	15	65,9	61,09	46	16	50
22254-30120516016	16	69,9	65,1	50	16	50
22254-30120516017	17	74	69,11	54	16	50
22254-30120516018	18	78	73,14	58	16	50
22254-30120516019	19	82	77,16	62	16	50
22254-30120516020	20	86	81,19	66	16	50
22254-30120516021	21	90,1	85,22	70	16	55
22254-30120516022	22	94,1	89,24	70	16	55
22254-30120516023	23	98,1	93,27	70	16	55
22254-30120516024	24	102,1	97,29	75	16	55
22254-30120516025	25	106,2	101,33	80	16	55
22254-30120516026	26	110,2	105,36	85	20	55
22254-30120516027	27	114,2	109,4	85	20	55
22254-30120516028	28	118,3	113,42	90	20	55

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30120516029	29	122,3	117,46	95	20	55
22254-30120516030	30	126,3	121,5	100	20	55
22254-30120516031	31	130,4	125,54	110	20	55
22254-30120516032	32	134,4	129,56	110	20	55
22254-30120516033	33	138,4	133,6	110	20	55
22254-30120516034	34	142,5	137,64	110	20	55
22254-30120516035	35	146,5	141,68	110	20	55
22254-30120516036	36	150,6	145,72	120	25	55
22254-30120516037	37	154,6	149,76	120	25	55
22254-30120516038	38	158,6	153,8	120	25	55
22254-30120516039	39	162,7	157,83	120	25	55
22254-30120516040	40	166,7	161,87	120	25	55
22254-30120516045	45	188,6	182,07	120	25	68
22254-30120516050	50	208,8	202,26	120	25	68
22254-30120516057	57	237,1	230,54	120	25	68
22254-30120516060	60	249,2	242,66	120	25	68
22254-30120516076	76	313,9	307,33	120	25	68
22254-30120516095	95	390,7	384,11	136	25	68

Sprockets triplex 5/8" x 3/8"

DIN ISO 606

**Material:**

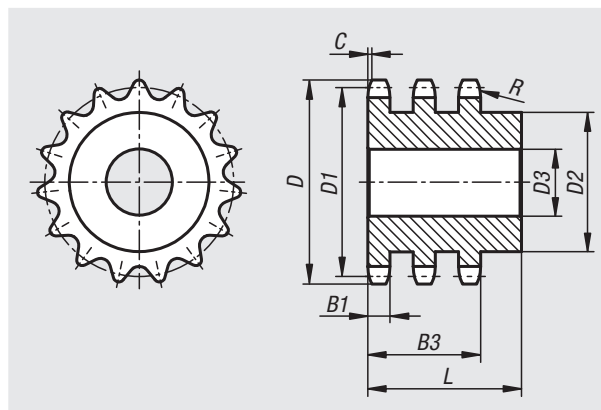
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22254-30580308008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22254	10 B-3	5/8 x 3/8	15,875 x 9,65	16	1,6	9	42,1

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30580308008	8	48,4	41,48	25	12	55
22254-30580308009	9	53,3	46,42	30	12	55
22254-30580308010	10	58,3	51,37	35	16	55
22254-30580308011	11	63,2	56,34	39	16	55
22254-30580308012	12	68,2	61,34	44	16	55
22254-30580308013	13	73,2	66,32	49	16	55
22254-30580308014	14	78,2	71,34	54	16	55
22254-30580308015	15	83,2	76,36	59	16	55
22254-30580308016	16	88,3	81,37	64	16	60
22254-30580308017	17	93,3	86,39	69	16	60
22254-30580308018	18	98,3	91,42	74	16	60
22254-30580308019	19	103,3	96,45	79	16	60
22254-30580308020	20	108,4	101,49	84	16	60
22254-30580308021	21	113,4	106,52	85	20	60
22254-30580308022	22	118,4	111,55	90	20	60
22254-30580308023	23	123,5	116,58	95	20	60
22254-30580308024	24	128,5	121,62	100	20	60
22254-30580308025	25	133,6	126,66	105	20	60
22254-30580308026	26	138,6	131,7	110	20	60
22254-30580308027	27	143,6	136,75	110	20	60
22254-30580308028	28	148,7	141,78	115	20	60

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30580308029	29	153,7	146,83	115	20	60
22254-30580308030	30	158,8	151,87	120	20	60
22254-30580308031	31	163,8	156,92	120	20	60
22254-30580308032	32	168,9	161,95	120	20	60
22254-30580308033	33	173,9	167	120	20	60
22254-30580308034	34	178,9	172,05	120	20	60
22254-30580308035	35	184	177,1	120	20	60
22254-30580308036	36	189	182,15	120	25	60
22254-30580308037	37	194,1	187,2	120	25	60
22254-30580308038	38	199,1	192,24	120	25	60
22254-30580308039	39	204,2	197,29	120	25	60
22254-30580308040	40	209,2	202,34	120	25	60
22254-30580308045	45	236	227,58	136	25	74
22254-30580308050	50	261,2	252,82	136	25	74
22254-30580308057	57	296,6	288,18	136	25	74
22254-30580308060	60	311,7	303,32	136	25	74
22254-30580308076	76	392,5	384,16	145	30	75
22254-30580308095	95	488,5	480,14	145	30	75

Sprockets triplex 3/4" x 7/16"

DIN ISO 606

**Material:**

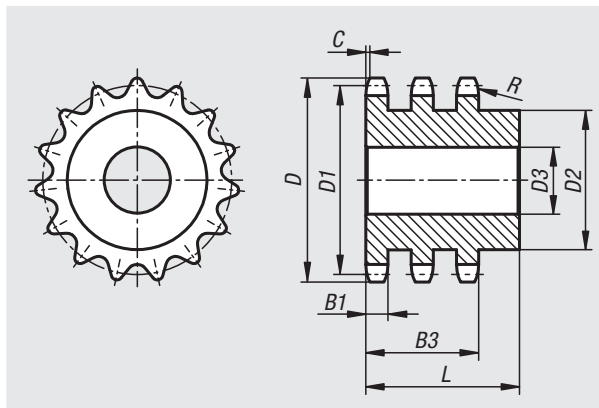
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22254-30340716008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22254	12 B-3	3/4 x 7/16	19,05 x 11,68	19	2	10,8	49,8

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30340716008	8	58	49,78	31	16	65
22254-30340716009	9	63,9	55,7	37	16	65
22254-30340716010	10	69,8	61,64	42	16	65
22254-30340716011	11	75,8	67,61	47	20	70
22254-30340716012	12	81,8	73,6	53	20	70
22254-30340716013	13	87,8	79,59	59	20	70
22254-30340716014	14	93,8	85,61	65	20	70
22254-30340716015	15	99,8	91,63	71	20	70
22254-30340716016	16	105,8	97,65	77	20	70
22254-30340716017	17	111,9	103,67	83	20	70
22254-30340716018	18	117,9	109,71	89	20	70
22254-30340716019	19	123,9	115,75	95	20	70
22254-30340716020	20	130	121,78	100	20	70
22254-30340716021	21	136	127,82	100	20	70
22254-30340716022	22	142	133,86	100	20	70
22254-30340716023	23	148,1	139,9	110	20	70
22254-30340716024	24	154,1	145,94	110	20	70
22254-30340716025	25	160,2	152	120	20	70
22254-30340716026	26	166,2	158,04	120	20	70
22254-30340716027	27	172,3	164,09	120	20	70
22254-30340716028	28	178,3	170,13	120	20	70

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-30340716029	29	184,4	176,19	120	20	70
22254-30340716030	30	190,4	182,25	120	20	70
22254-30340716031	31	196,5	188,31	130	25	70
22254-30340716032	32	202,5	194,35	130	25	70
22254-30340716033	33	208,6	200,4	130	25	70
22254-30340716034	34	214,6	206,46	130	25	70
22254-30340716035	35	220,7	212,52	130	25	70
22254-30340716036	36	226,8	218,58	130	25	70
22254-30340716037	37	232,8	224,64	130	25	70
22254-30340716038	38	238,9	230,69	130	25	70
22254-30340716039	39	244,9	236,75	130	25	70
22254-30340716040	40	251	242,81	130	25	70
22254-30340716045	45	283,2	273,1	140	25	72
22254-30340716050	50	313,5	303,39	140	25	72
22254-30340716057	57	355,9	345,81	140	30	75
22254-30340716060	60	374,1	363,99	140	30	75
22254-30340716076	76	471,1	460,99	150	30	75
22254-30340716095	95	586,2	576,17	150	30	75

Sprockets triplex 1" x 17,02 mm

DIN ISO 606

**Material:**

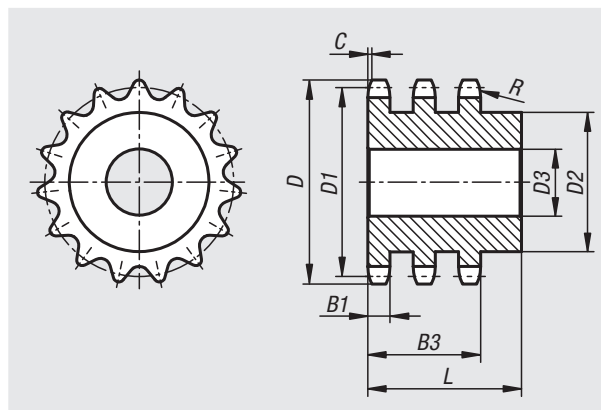
Steel C45.

Version:

Bright, not hardened.

Sample order:

nlm 22254-31001702008

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22254	16 B-3	1 x 17,02mm	25,4 x 17,02	26	2,5	15,8	79,6

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-31001702008	8	77,9	66,37	42	20	95
22254-31001702009	9	85,8	74,27	50	20	95
22254-31001702010	10	93,8	82,19	56	20	95
22254-31001702011	11	101,7	90,14	64	25	100
22254-31001702012	12	109,7	98,14	72	25	100
22254-31001702013	13	117,7	106,12	80	25	100
22254-31001702014	14	125,7	114,15	88	25	100
22254-31001702015	15	133,7	122,17	96	25	100
22254-31001702016	16	141,8	130,2	104	25	100
22254-31001702017	17	149,8	138,22	112	25	100
22254-31001702018	18	157,8	146,28	120	25	100
22254-31001702019	19	165,9	154,33	128	25	100
22254-31001702020	20	173,9	162,38	130	25	100
22254-31001702021	21	182	170,43	130	25	100
22254-31001702022	22	190,1	178,48	130	25	100
22254-31001702023	23	198,1	186,53	130	25	100
22254-31001702024	24	206,2	194,59	130	25	100
22254-31001702025	25	214,2	202,66	130	25	100
22254-31001702026	26	222,3	210,72	130	30	100
22254-31001702027	27	230,4	218,79	130	30	100
22254-31001702028	28	238,4	226,85	130	30	100

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22254-31001702029	29	246,5	234,92	130	30	100
22254-31001702030	30	254,6	243	130	30	100
22254-31001702031	31	262,6	251,08	140	30	100
22254-31001702032	32	270,7	259,13	140	30	100
22254-31001702033	33	278,8	267,21	140	30	100
22254-31001702034	34	286,9	275,28	140	30	100
22254-31001702035	35	294,9	283,36	140	30	100
22254-31001702036	36	303	291,44	140	30	100
22254-31001702038	38	319,2	307,59	140	30	100
22254-31001702040	40	335,3	323,73	140	30	100
22254-31001702045	45	377,9	364,12	160	30	110
22254-31001702050	50	418,3	404,52	160	30	110
22254-31001702057	57	474,9	461,07	180	40	112
22254-31001702076	76	628,4	614,65	180	40	112
22254-31001702095	95	782	768,22	180	40	112

Sprockets single 3/8" x 7/32" stainless steel

DIN ISO 606

**Material:**

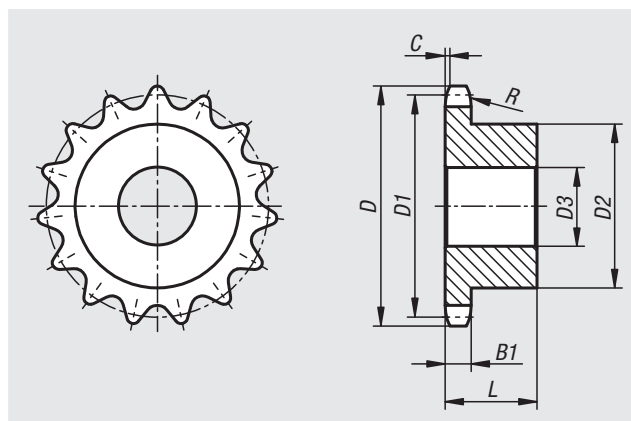
Stainless steel 1.4305.

Version:

Bright.

Sample order:

nlm 22255-10380732013

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22255	06 B-1	3/8 x 7/32	9,525 x 5,72	10	1	5,3

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22255-10380732013	13	43,5	39,8	28	8	25
22255-10380732014	14	46,5	42,8	31	8	25
22255-10380732015	15	49,5	45,81	34	8	25
22255-10380732016	16	52,5	48,82	37	10	28
22255-10380732017	17	55,5	51,83	40	10	28
22255-10380732018	18	58,6	54,85	43	10	28
22255-10380732019	19	61,6	57,87	45	10	28
22255-10380732020	20	64,6	60,89	46	10	28
22255-10380732021	21	67,6	63,91	48	12	28
22255-10380732023	23	73,7	69,95	52	12	28
22255-10380732025	25	79,7	76	57	12	28
22255-10380732030	30	94,8	91,12	60	12	30

Sprockets single 1/2" x 5/16" stainless steel

DIN ISO 606

**Material:**

Stainless steel 1.4305.

Version:

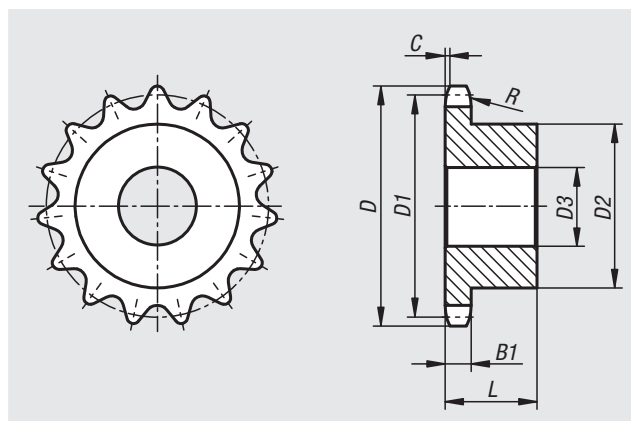
Bright.

Sample order:

nlm 22255-10120516012

Note:

Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22255	08 B-1	1/2 x 5/16	12,7 x 7,75	13	1,3	7,2

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22255-10120516012	12	53,9	49,07	33	10	28
22255-10120516013	13	57,9	53,06	37	10	28
22255-10120516014	14	61,9	57,07	41	10	28
22255-10120516015	15	65,9	61,09	45	10	28
22255-10120516016	16	69,9	65,1	50	12	28
22255-10120516017	17	74	69,11	52	12	28
22255-10120516018	18	78	73,14	56	12	28
22255-10120516019	19	82	77,16	60	12	28
22255-10120516020	20	86	81,19	64	12	28
22255-10120516021	21	90,1	85,22	68	14	28
22255-10120516023	23	98,1	93,27	70	14	28
22255-10120516025	25	106,2	101,33	70	14	28
22255-10120516030	30	126,3	121,5	80	16	30

Sprockets single 5/8" x 3/8" stainless steel

DIN ISO 606

**Material:**

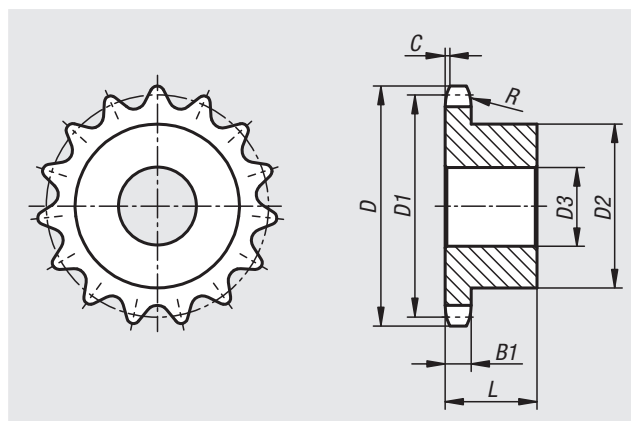
Stainless steel 1.4305.

Version:

Bright.

Sample order:

nlm 22255-10580308013

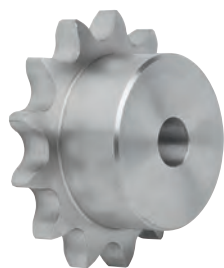
Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22255	10 B-1	5/8 x 3/8	15,875 x 9,65	16	1,6	9,1

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22255-10580308013	13	73,2	66,32	47	12	30
22255-10580308014	14	78,2	71,34	52	12	30
22255-10580308015	15	83,2	76,36	57	12	30
22255-10580308016	16	88,3	81,37	60	12	30
22255-10580308017	17	93,3	86,39	60	12	30
22255-10580308018	18	98,3	91,42	70	14	30
22255-10580308019	19	103,3	96,45	70	14	30
22255-10580308020	20	108,4	101,49	75	14	30
22255-10580308021	21	113,4	106,52	75	16	30
22255-10580308023	23	123,5	116,58	80	16	30
22255-10580308025	25	133,6	126,66	80	16	30
22255-10580308030	30	158,8	151,87	90	20	35

Sprockets single 3/4" x 7/16" stainless steel

DIN ISO 606

**Material:**

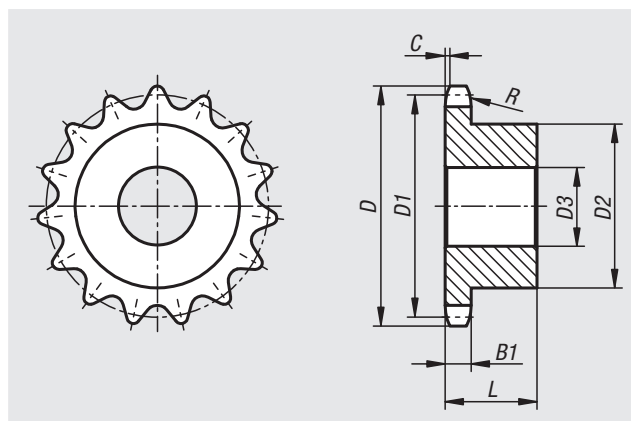
Stainless steel 1.4305.

Version:

Bright.

Sample order:

nlm 22255-10340716013

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22255	12 B-1	3/4 x 7/16	19,05 x 11,68	19	2	11,1

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22255-10340716013	13	87,8	79,59	58	16	35
22255-10340716014	14	93,8	85,61	64	16	35
22255-10340716015	15	99,8	91,63	70	16	35
22255-10340716016	16	105,8	97,65	75	16	35
22255-10340716017	17	111,9	103,67	80	16	35
22255-10340716018	18	117,9	109,71	80	16	35
22255-10340716019	19	123,9	115,75	80	16	35
22255-10340716020	20	130	121,78	80	16	35
22255-10340716021	21	136	127,82	90	20	40
22255-10340716023	23	148,1	139,9	90	20	40
22255-10340716025	25	160,2	152	90	20	40

Sprockets single 1" x 17.02 mm stainless steel

DIN ISO 606

**Material:**

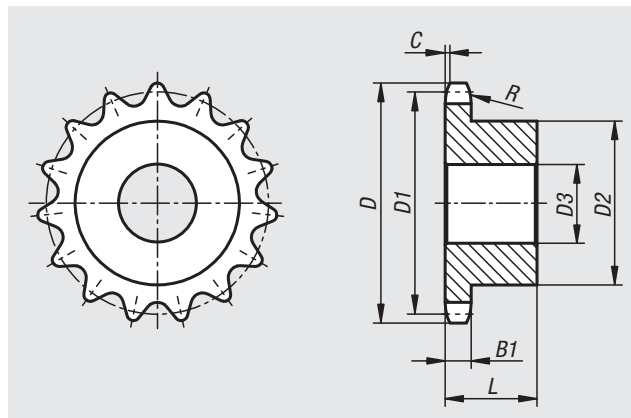
Stainless steel 1.4305.

Version:

Bright.

Sample order:

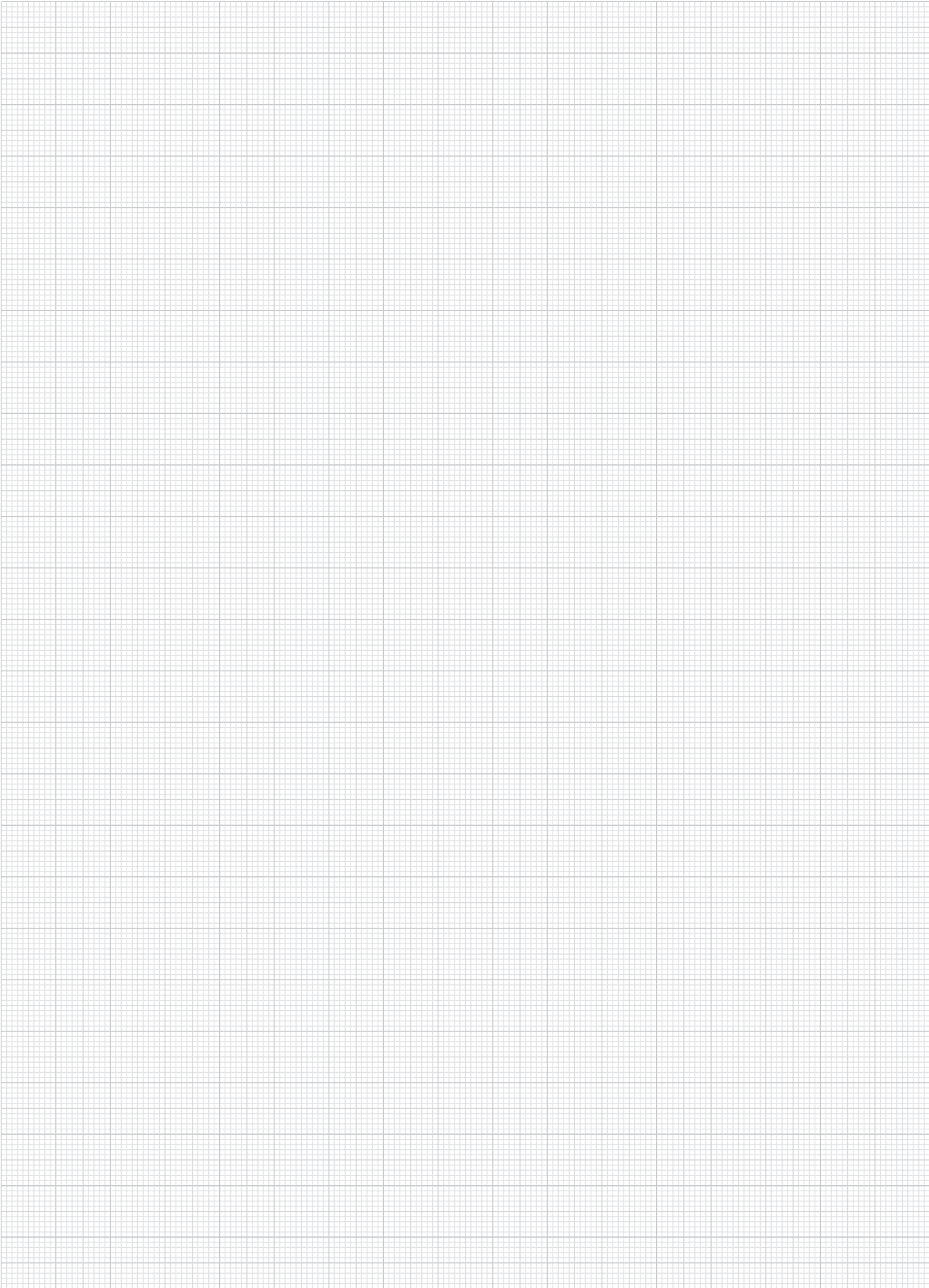
nlm 22255-11001702013

Note:Sprockets with hub one side for DIN ISO 606 roller chains.
The sprockets are pre-bored.

Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22255	16 B-1	1 x 17,02mm	25,4 x 17,02	26	2,5	16,2

Order No.	No. of teeth	D	D1	D2	D3 max.	L
22255-11001702013	13	117,7	106,12	78	16	40
22255-11001702014	14	125,7	114,15	84	16	40
22255-11001702015	15	133,7	122,17	92	16	40
22255-11001702016	16	141,8	130,2	100	20	45
22255-11001702017	17	149,8	138,22	100	20	45
22255-11001702018	18	157,8	146,28	100	20	45
22255-11001702019	19	165,9	154,33	100	20	45
22255-11001702020	20	173,9	162,38	100	20	45
22255-11001702021	21	182	170,43	110	20	50

Notes



20000
21000
22000
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32000
33000

Sprockets single 3/8" x 7/32"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

Bright, not hardened (cannot be hardened).

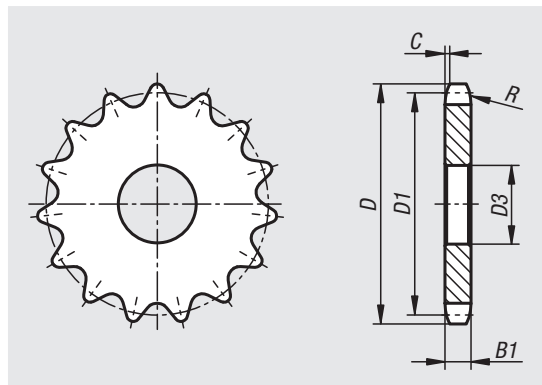
Sample order:

nlm 22264-10380732008

Note:

Sprockets for DIN ISO 606 roller chains.

The disc sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the disc sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22264	06 B-1	3/8X7/32	9,525 x 5,72	10	1	5,3

Order No.	No. of teeth	D	D1	D3 max.
22264-10380732008	8	28,6	24,89	6
22264-10380732009	9	31,5	27,85	8
22264-10380732010	10	34,5	30,82	8
22264-10380732011	11	37,5	33,8	8
22264-10380732012	12	40,5	36,8	8
22264-10380732013	13	43,5	39,8	8
22264-10380732014	14	46,5	42,8	8
22264-10380732015	15	49,5	45,81	8
22264-10380732016	16	52,5	48,82	10
22264-10380732017	17	55,5	51,83	10
22264-10380732018	18	58,6	54,85	10
22264-10380732019	19	61,6	57,87	10
22264-10380732020	20	64,6	60,89	10
22264-10380732021	21	67,6	63,91	10
22264-10380732022	22	70,6	66,93	10
22264-10380732023	23	73,7	69,95	10
22264-10380732024	24	76,7	72,97	10
22264-10380732025	25	79,7	76	10
22264-10380732026	26	82,7	79,02	10
22264-10380732027	27	85,7	82,04	10

Order No.	No. of teeth	D	D1	D3 max.
22264-10380732028	28	88,8	85,07	10
22264-10380732029	29	91,8	88,09	10
22264-10380732030	30	94,8	91,12	10
22264-10380732031	31	97,9	94,15	12
22264-10380732032	32	100,9	97,17	12
22264-10380732033	33	103,9	100,2	12
22264-10380732034	34	106,9	103,23	12
22264-10380732035	35	110	106,26	12
22264-10380732036	36	113	109,29	12
22264-10380732037	37	116	112,32	12
22264-10380732038	38	119	115,34	12
22264-10380732039	39	122,1	118,37	12
22264-10380732040	40	125,1	121,4	12
22264-10380732041	41	129	124,43	16
22264-10380732042	42	132,1	127,46	16
22264-10380732043	43	135,1	130,49	16
22264-10380732044	44	135,1	133,52	16
22264-10380732045	45	141,1	136,54	16
22264-10380732046	46	144,2	139,58	16
22264-10380732047	47	147,2	142,61	16

Sprockets single 3/8" x 7/32"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22264-10380732048	48	150,2	145,64	16
22264-10380732049	49	153,3	148,66	16
22264-10380732050	50	156,3	151,69	20
22264-10380732051	51	159,3	154,72	20
22264-10380732052	52	162,4	157,75	20
22264-10380732053	53	165,4	160,78	20
22264-10380732054	54	168,4	163,82	20
22264-10380732055	55	171,4	166,85	20
22264-10380732056	56	174,5	169,88	20
22264-10380732057	57	177,5	172,91	20
22264-10380732058	58	180,5	175,93	20
22264-10380732060	60	186,6	181,99	20
22264-10380732062	62	192,7	188,06	20
22264-10380732064	64	198,7	194,12	20
22264-10380732065	65	201,8	197,15	20
22264-10380732066	66	204,8	200,18	20
22264-10380732068	68	210,8	206,24	20
22264-10380732070	70	216,9	212,3	20
22264-10380732072	72	223	218,37	20
22264-10380732075	75	232,1	227,46	20
22264-10380732076	76	235,1	230,49	20
22264-10380732080	80	247,2	242,61	20
22264-10380732085	85	262,4	257,77	25
22264-10380732090	90	277,5	272,93	25
22264-10380732095	95	292,7	288,08	25
22264-10380732100	100	307,8	303,25	25
22264-10380732110	110	338,2	333,55	25
22264-10380732114	114	350,3	345,68	25
22264-10380732120	120	368,5	363,86	25
22264-10380732125	125	383,6	379,02	25

Sprockets single 1/2" x 5/16"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

Bright, not hardened (cannot be hardened).

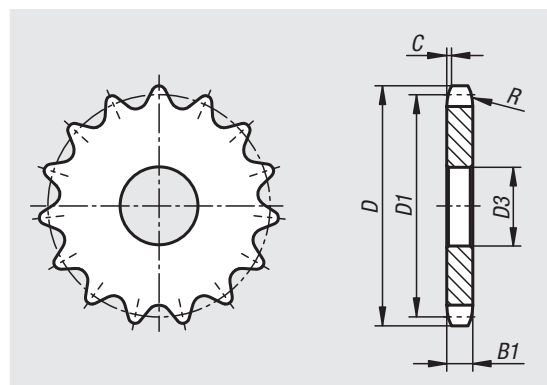
Sample order:

nlm 22264-10120516008

Note:

Sprockets for DIN ISO 606 roller chains.

The disc sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the disc sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22264	08 B-1	1/2X5/16	12,7 x 7,75	13	1,3	7,2

Order No.	No. of teeth	D	D1	D3 max.
22264-10120516008	8	38	33,18	8
22264-10120516009	9	42	37,13	8
22264-10120516010	10	45,9	41,1	8
22264-10120516011	11	49,9	45,07	10
22264-10120516012	12	53,9	49,07	10
22264-10120516013	13	57,9	53,06	10
22264-10120516014	14	61,9	57,07	10
22264-10120516015	15	65,9	61,09	10
22264-10120516016	16	69,9	65,1	10
22264-10120516017	17	74	69,11	10
22264-10120516018	18	78	73,14	10
22264-10120516019	19	82	77,16	10
22264-10120516020	20	86	81,19	10
22264-10120516021	21	90,1	85,22	12
22264-10120516022	22	94,1	89,24	12
22264-10120516023	23	98,1	93,27	12
22264-10120516024	24	102,1	97,29	12
22264-10120516025	25	106,2	101,33	16
22264-10120516026	26	110,2	105,36	16
22264-10120516027	27	114,2	109,4	16

Order No.	No. of teeth	D	D1	D3 max.
22264-10120516028	28	118,3	113,42	16
22264-10120516029	29	122,3	117,46	16
22264-10120516030	30	126,3	121,5	16
22264-10120516031	31	130,4	125,54	16
22264-10120516032	32	134,4	129,56	16
22264-10120516033	33	138,4	133,6	16
22264-10120516034	34	142,5	137,64	16
22264-10120516035	35	146,5	141,68	16
22264-10120516036	36	150,6	145,72	16
22264-10120516037	37	154,6	149,76	16
22264-10120516038	38	158,6	153,8	16
22264-10120516039	39	162,7	157,83	16
22264-10120516040	40	166,7	161,87	16
22264-10120516041	41	172,4	165,91	20
22264-10120516042	42	176,5	169,95	20
22264-10120516043	43	180,5	173,99	20
22264-10120516044	44	184,6	178,03	20
22264-10120516045	45	188,6	182,07	20
22264-10120516046	46	192,6	186,1	20
22264-10120516047	47	196,7	190,14	20

Sprockets single 1/2" x 5/16"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22264-10120516048	48	200,7	194,18	20
22264-10120516049	49	204,8	198,22	20
22264-10120516050	50	208,8	202,26	20
22264-10120516051	51	212,8	206,3	20
22264-10120516052	52	216,9	210,34	20
22264-10120516053	53	220,9	214,37	20
22264-10120516054	54	225	218,43	20
22264-10120516055	55	229	222,46	20
22264-10120516056	56	233	226,5	20
22264-10120516057	57	237,1	230,54	20
22264-10120516058	58	241,1	234,58	20
22264-10120516060	60	249,2	242,66	20
22264-10120516062	62	257,3	250,75	25
22264-10120516064	64	265,4	258,82	25
22264-10120516065	65	269,4	262,86	25
22264-10120516066	66	273,4	266,9	25
22264-10120516068	68	281,5	274,99	25
22264-10120516070	70	289,6	283,07	25
22264-10120516072	72	297,7	291,16	25
22264-10120516075	75	309,8	303,27	25
22264-10120516076	76	313,9	307,33	25
22264-10120516078	78	321,9	315,4	25
22264-10120516080	80	330	323,48	25
22264-10120516085	85	350,2	343,69	25
22264-10120516090	90	370,4	363,9	25
22264-10120516095	95	390,7	384,11	25
22264-10120516100	100	410,9	404,31	25
22264-10120516110	110	451,3	444,74	25
22264-10120516114	114	467,4	460,9	25
22264-10120516120	120	491,7	485,16	25
22264-10120516125	125	511	505,37	25

Sprockets single 5/8" x 3/8"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

Bright, not hardened (cannot be hardened).

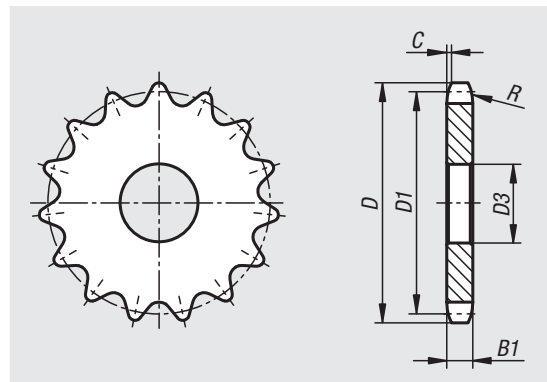
Sample order:

nlm 22264-10580308008

Note:

Sprockets for DIN ISO 606 roller chains.

The disc sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the disc sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22264	10 B-1	5/8X3/8	15,875 x 9,65	16	1,6	9,1

Order No.	No. of teeth	D	D1	D3 max.
22264-10580308008	8	48,4	41,48	10
22264-10580308009	9	53,3	46,42	10
22264-10580308010	10	58,3	51,37	10
22264-10580308011	11	63,2	56,34	10
22264-10580308012	12	68,2	61,34	10
22264-10580308013	13	73,2	66,32	10
22264-10580308014	14	78,2	71,34	12
22264-10580308015	15	83,2	76,36	12
22264-10580308016	16	88,3	81,37	12
22264-10580308017	17	93,3	86,39	12
22264-10580308018	18	98,3	91,42	12
22264-10580308019	19	103,3	96,45	12
22264-10580308020	20	108,4	101,49	12
22264-10580308021	21	113,4	106,52	12
22264-10580308022	22	118,4	111,55	12
22264-10580308023	23	123,5	116,58	12
22264-10580308024	24	128,5	121,62	12
22264-10580308025	25	133,6	126,66	12
22264-10580308026	26	138,6	131,7	16
22264-10580308027	27	143,6	136,75	16

Order No.	No. of teeth	D	D1	D3 max.
22264-10580308028	28	148,7	141,78	16
22264-10580308029	29	153,7	146,83	16
22264-10580308030	30	158,8	151,87	16
22264-10580308031	31	163,8	156,92	16
22264-10580308032	32	168,9	161,95	16
22264-10580308033	33	173,9	167	16
22264-10580308034	34	178,9	172,05	16
22264-10580308035	35	184	177,1	16
22264-10580308036	36	189	182,15	20
22264-10580308037	37	194,1	187,2	20
22264-10580308038	38	199,1	192,24	20
22264-10580308039	39	204,2	197,29	20
22264-10580308040	40	209,2	202,34	20
22264-10580308041	41	215,8	207,39	20
22264-10580308042	42	220,8	212,44	20
22264-10580308043	43	225,9	217,49	20
22264-10580308044	44	230,9	222,53	20
22264-10580308045	45	236	227,58	20
22264-10580308046	46	241	236,63	20
22264-10580308047	47	246,1	237,68	20

Sprockets single 5/8" x 3/8"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22264-10580308048	48	251,1	242,73	20
22264-10580308049	49	256,2	247,78	20
22264-10580308050	50	261,2	252,82	20
22264-10580308051	51	266,3	257,87	20
22264-10580308052	52	271,3	262,92	20
22264-10580308053	53	276,4	267,97	20
22264-10580308054	54	281,4	273,03	20
22264-10580308055	55	286,5	278,08	20
22264-10580308056	56	291,5	283,13	25
22264-10580308057	57	296,6	288,18	25
22264-10580308058	58	301,6	293,23	25
22264-10580308060	60	311,7	303,32	25
22264-10580308062	62	321,8	313,43	25
22264-10580308064	64	331,9	323,53	25
22264-10580308065	65	337	328,58	25
22264-10580308068	68	352,1	343,74	25
22264-10580308070	70	362,2	353,84	25
22264-10580308072	72	372,2	363,95	25
22264-10580308075	75	387,5	379,09	25
22264-10580308076	76	392,5	384,16	25
22264-10580308078	78	402,6	394,25	25
22264-10580308080	80	412,7	404,35	25
22264-10580308085	85	438	429,62	30
22264-10580308090	90	463,3	454,88	30
22264-10580308095	95	488,5	480,14	30
22264-10580308100	100	513,8	505,4	30
22264-10580308110	110	564,3	555,92	30
22264-10580308114	114	584,5	576,13	30
22264-10580308120	120	614,8	606,44	30
22264-10580308125	125	640,1	631,71	30

Sprockets single 3/4" x 7/16"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

Bright, not hardened (cannot be hardened).

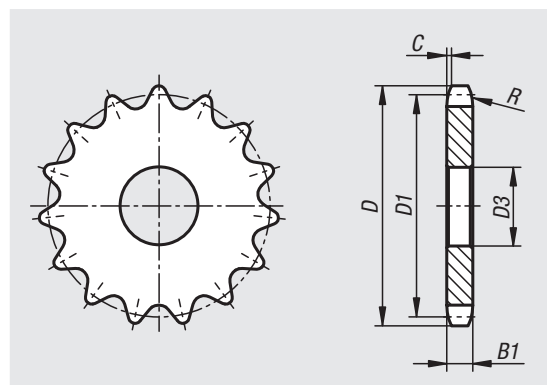
Sample order:

nlm 22264-10340716008

Note:

Sprockets for DIN ISO 606 roller chains.

The disc sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the disc sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22264	12 B-1	3/4X7/16	19,05 x 11,68	19	2	11,1

Order No.	No. of teeth	D	D1	D3 max.
22264-10340716008	8	58	49,78	10
22264-10340716009	9	63,9	55,7	10
22264-10340716010	10	69,8	61,64	10
22264-10340716011	11	75,8	67,61	12
22264-10340716012	12	81,8	73,6	14
22264-10340716013	13	87,8	79,59	14
22264-10340716014	14	93,8	85,61	14
22264-10340716015	15	99,8	91,63	14
22264-10340716016	16	105,8	97,65	14
22264-10340716017	17	111,9	103,67	14
22264-10340716018	18	117,9	109,71	14
22264-10340716019	19	123,9	115,75	14
22264-10340716020	20	130	121,78	14
22264-10340716021	21	136	127,82	16
22264-10340716022	22	142	133,86	16
22264-10340716023	23	148,1	139,9	16
22264-10340716024	24	154,1	145,94	16
22264-10340716025	25	160,2	152	16
22264-10340716026	26	166,2	158,04	16
22264-10340716027	27	172,3	164,09	16

Order No.	No. of teeth	D	D1	D3 max.
22264-10340716028	28	178,3	170,13	16
22264-10340716029	29	184,4	176,19	16
22264-10340716030	30	190,4	182,25	16
22264-10340716031	31	196,5	188,31	20
22264-10340716032	32	202,5	194,35	20
22264-10340716033	33	208,6	200,4	20
22264-10340716034	34	214,6	206,46	20
22264-10340716035	35	220,7	212,52	20
22264-10340716036	36	226,8	218,58	20
22264-10340716037	37	232,8	224,64	20
22264-10340716038	38	238,9	230,69	20
22264-10340716039	39	244,9	236,75	20
22264-10340716040	40	251	242,81	20
22264-10340716041	41	258,9	248,87	25
22264-10340716042	42	265	254,93	25
22264-10340716043	43	271,1	260,98	25
22264-10340716044	44	277,1	267,03	25
22264-10340716045	45	283,2	273,1	25
22264-10340716046	46	289,2	279,16	25
22264-10340716047	47	295,3	285,21	25

Sprockets single 3/4" x 7/16"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22264-10340716048	48	301,4	291,27	25
22264-10340716049	49	307,4	297,33	25
22264-10340716050	50	313,5	303,39	25
22264-10340716051	51	319,5	309,45	25
22264-10340716052	52	325,6	315,5	25
22264-10340716053	53	331,6	321,56	25
22264-10340716054	54	337,7	327,64	25
22264-10340716055	55	343,8	333,7	25
22264-10340716056	56	349,8	339,75	25
22264-10340716057	57	355,9	345,81	25
22264-10340716058	58	362	351,87	25
22264-10340716060	60	374,1	363,99	25
22264-10340716062	62	386,2	376,12	25
22264-10340716064	64	398,3	388,24	25
22264-10340716065	65	404,4	394,29	25
22264-10340716068	68	422,6	412,49	30
22264-10340716070	70	434,7	424,61	30
22264-10340716072	72	446,8	436,74	30
22264-10340716075	75	465	454,91	30
22264-10340716076	76	471,1	460,99	30
22264-10340716078	78	483,2	473,1	30
22264-10340716080	80	495,3	485,22	30
22264-10340716085	85	525,6	515,55	30
22264-10340716090	90	555,9	545,86	30
22264-10340716095	95	586,2	576,17	30
22264-10340716100	100	616,6	606,47	30
22264-10340716110	110	677,2	667,11	30
22264-10340716114	114	701,4	691,36	30
22264-10340716120	120	737,8	727,74	30
22264-10340716125	125	768,1	758,05	30

Sprockets single 1" x 17.02 mm

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

Bright, not hardened (cannot be hardened).

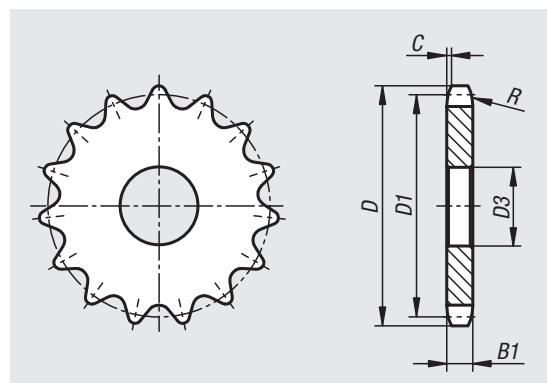
Sample order:

nlm 22264-11001702008

Note:

Sprockets for DIN ISO 606 roller chains.

The disc sprockets have a centre bore or are pre-drilled (this can vary due to production methods). For this reason, the dimension D3 max. given in the table is the maximum diameter of the bore that the disc sprockets are supplied with. This pilot hole/centre bore can be customised with a reamed hole, reamed hole with keyway or a tapped hole by the customer. Alternatively, bushes can be fitted by the customer to reduce the diameter.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1
22264	16 B-1	1X17,02mm	25,4 x 17,02	26	2,5	16,2

Order No.	No. of teeth	D	D1	D3 max.
22264-11001702008	8	77,9	66,37	16
22264-11001702009	9	85,8	74,27	16
22264-11001702010	10	93,8	82,19	16
22264-11001702011	11	101,7	90,14	16
22264-11001702012	12	109,7	98,14	16
22264-11001702013	13	117,7	106,12	16
22264-11001702014	14	125,7	114,15	16
22264-11001702015	15	133,7	122,17	16
22264-11001702016	16	141,8	130,2	20
22264-11001702017	17	149,8	138,22	20
22264-11001702018	18	157,8	146,28	20
22264-11001702019	19	165,9	154,33	20
22264-11001702020	20	173,9	162,38	20
22264-11001702021	21	182	170,43	20
22264-11001702022	22	190,1	178,48	20
22264-11001702023	23	198,1	186,53	20
22264-11001702024	24	206,2	194,59	20
22264-11001702025	25	214,2	202,66	20
22264-11001702026	26	222,3	210,72	20
22264-11001702027	27	230,4	218,79	20

Order No.	No. of teeth	D	D1	D3 max.
22264-11001702028	28	238,4	226,85	20
22264-11001702029	29	246,5	234,92	20
22264-11001702030	30	254,6	243	20
22264-11001702031	31	262,6	251,08	25
22264-11001702032	32	270,7	259,13	25
22264-11001702033	33	278,8	267,21	25
22264-11001702034	34	286,9	275,28	25
22264-11001702035	35	294,9	283,36	25
22264-11001702036	36	303	291,44	25
22264-11001702037	37	311,1	299,51	25
22264-11001702038	38	319,2	307,59	25
22264-11001702039	39	327,2	315,67	25
22264-11001702040	40	335,3	323,73	25
22264-11001702041	41	345,6	331,82	25
22264-11001702042	42	353,7	339,9	25
22264-11001702043	43	361,7	347,98	25
22264-11001702044	44	369,8	356,06	25
22264-11001702045	45	377,9	364,12	25
22264-11001702046	46	386	372,21	25
22264-11001702047	47	394,1	380,29	25

Sprockets single 1" x 17.02 mm

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22264-11001702048	48	402,1	388,36	25
22264-11001702049	49	410,2	396,44	25
22264-11001702050	50	418,3	404,52	25
22264-11001702051	51	426,4	412,6	30
22264-11001702052	52	434,5	420,67	30
22264-11001702053	53	442,5	428,75	30
22264-11001702054	54	450,6	436,85	30
22264-11001702055	55	458,7	444,93	30
22264-11001702056	56	466,8	453,01	30
22264-11001702057	57	474,9	461,07	30
22264-11001702058	58	482,9	469,16	30
22264-11001702060	60	499,1	485,32	30
22264-11001702062	62	515,3	501,5	30
22264-11001702064	64	531,4	517,65	30
22264-11001702065	65	539,5	525,73	30
22264-11001702068	68	563,8	549,98	30
22264-11001702070	70	579,9	566,14	30
22264-11001702072	72	596,1	582,32	30
22264-11001702075	75	620,3	606,55	30
22264-11001702076	76	628,4	614,65	30
22264-11001702078	78	644,6	630,8	30
22264-11001702080	80	660,7	646,96	30
22264-11001702085	85	701,2	687,4	30
22264-11001702090	90	741,63	727,81	30
22264-11001702095	95	782	768,22	30
22264-11001702100	100	822,4	808,63	30
22264-11001702110	110	903,3	889,48	30
22264-11001702114	114	935,6	921,82	30
22264-11001702120	120	984,1	970,33	30
22264-11001702125	125	1024,5	1010,73	30

Sprockets duplex 8.0 mm x 3.0 mm

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

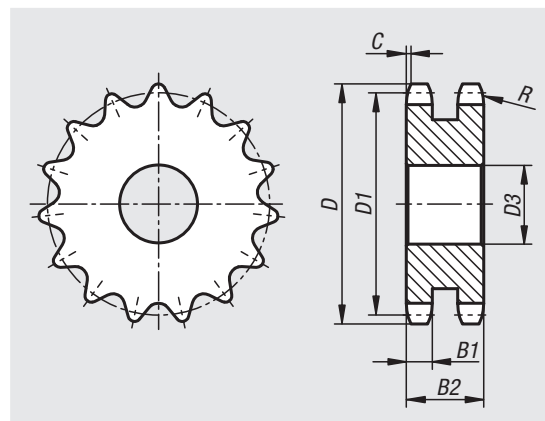
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-20800030008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.

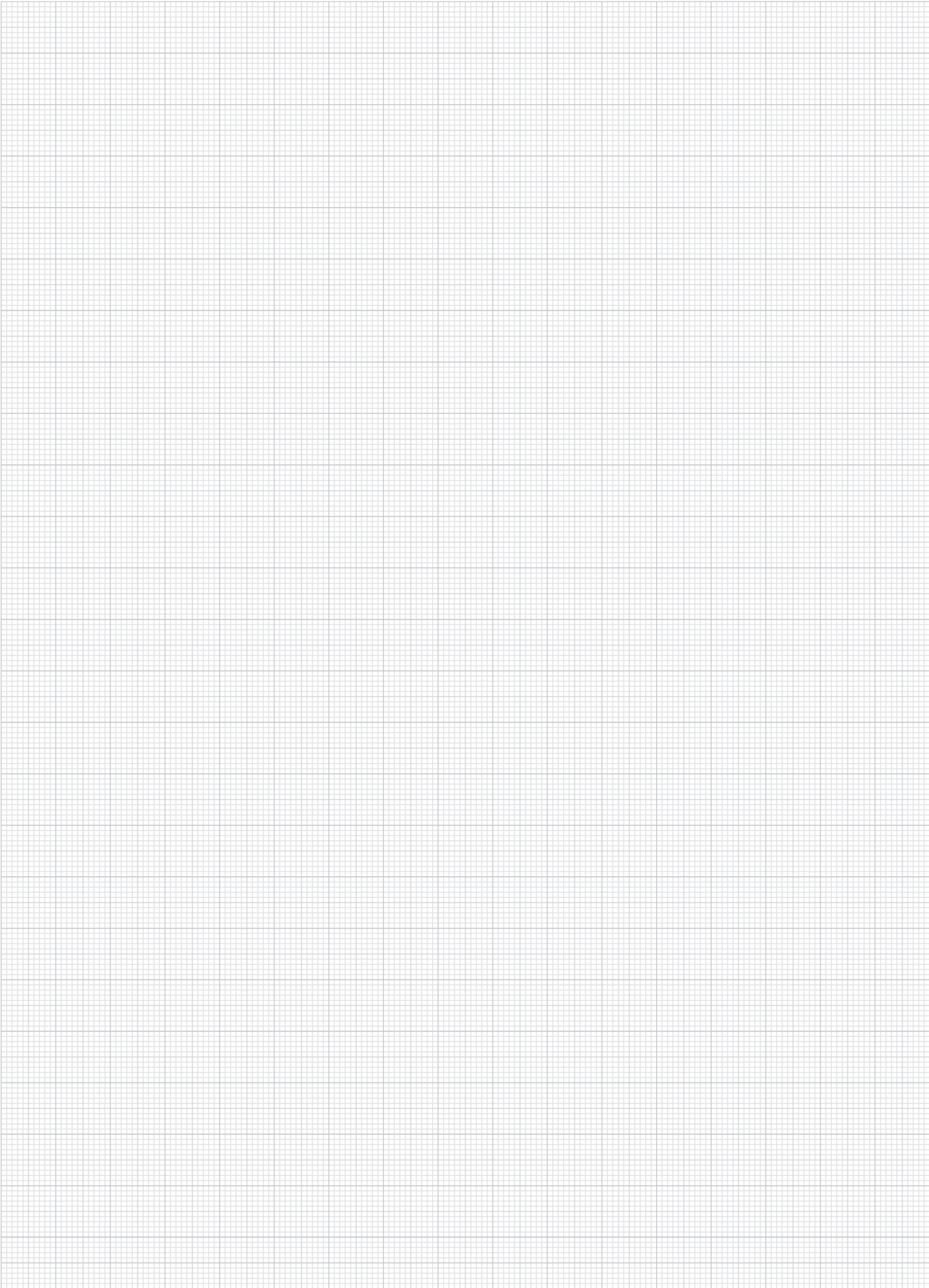


Order No.	ISO No.	Pitch mm	R	C	B1	B2
22265	05 B-2	8,0 x 3,0	8	0,8	2,7	8,3

Order No.	No. of teeth	D	D1	D3 max.
22265-20800030008	8	23,4	20,9	8
22265-20800030009	9	25,9	23,39	8
22265-20800030010	10	28,4	25,89	8
22265-20800030011	11	31	28,39	8
22265-20800030012	12	33,7	30,91	8
22265-20800030013	13	36,7	33,42	8
22265-20800030014	14	39,2	35,95	8
22265-20800030015	15	41,7	38,48	8
22265-20800030016	16	44,2	41,01	10
22265-20800030017	17	46,7	43,53	10
22265-20800030018	18	49,2	46,07	10
22265-20800030019	19	51,7	48,61	10
22265-20800030021	21	57,2	53,67	10
22265-20800030022	22	59,4	56,21	10
22265-20800030023	23	62,2	58,75	10
22265-20800030024	24	64,7	61,29	10
22265-20800030025	25	67,2	63,83	10
22265-20800030026	26	69,7	66,37	12
22265-20800030028	28	74,7	71,45	12
22265-20800030030	30	80,2	76,53	12
22265-20800030032	32	85,2	81,61	12

Order No.	No. of teeth	D	D1	D3 max.
22265-20800030034	34	90,2	86,7	12
22265-20800030035	35	92,7	89,24	12
22265-20800030036	36	95,2	91,79	12
22265-20800030038	38	100,2	96,88	12
22265-20800030040	40	105,2	101,97	12
22265-20800030046	46	121,2	117,23	16
22265-20800030048	48	125,5	122,32	16
22265-20800030050	50	131,5	127,41	16
22265-20800030052	52	136,6	132,49	16
22265-20800030057	57	149,3	145,22	16
22265-20800030060	60	156	152,85	16
22265-20800030076	76	196,7	193,59	20
22265-20800030080	80	208,1	203,77	20

Notes



20000
21000
22000
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Sprockets duplex 3/8" x 7/32"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

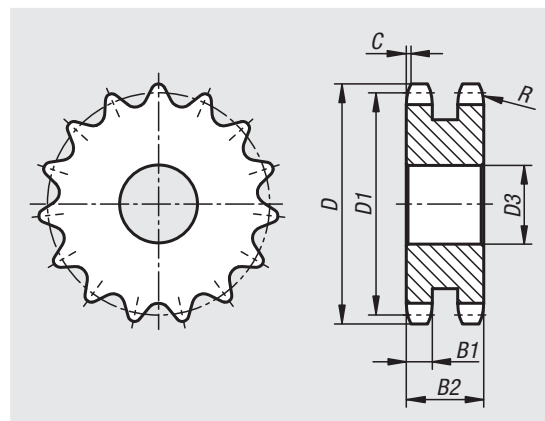
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-30380732008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	06 B-2	3/8 x 7/32	9,525 x 5,72	10	1	5,2	15,4

Order No.	No. of teeth	D	D1	D3 max.
22265-30380732008	8	28,6	24,89	8
22265-30380732009	9	31,5	27,85	8
22265-30380732010	10	34,5	30,82	8
22265-30380732011	11	37,5	33,8	10
22265-30380732012	12	40,5	36,8	10
22265-30380732013	13	43,5	39,8	10
22265-30380732014	14	46,5	42,8	10
22265-30380732015	15	49,5	45,81	10
22265-30380732016	16	52,5	48,82	12
22265-30380732017	17	55,5	51,83	12
22265-30380732018	18	58,6	54,85	12
22265-30380732019	19	61,6	57,87	12
22265-30380732020	20	64,6	60,89	12
22265-30380732021	21	67,6	63,91	12
22265-30380732022	22	70,6	66,93	12
22265-30380732023	23	73,7	69,95	12
22265-30380732024	24	76,7	72,97	12
22265-30380732025	25	79,7	76	12
22265-30380732026	26	82,7	79,02	16
22265-30380732027	27	85,7	82,04	16
22265-30380732028	28	88,8	85,07	16

Order No.	No. of teeth	D	D1	D3 max.
22265-30380732029	29	91,8	88,09	16
22265-30380732030	30	94,8	91,12	16
22265-30380732031	31	97,9	94,15	16
22265-30380732032	32	100,9	97,17	16
22265-30380732033	33	103,9	100,2	16
22265-30380732034	34	106,9	103,23	16
22265-30380732035	35	110	106,26	16
22265-30380732036	36	113	109,29	16
22265-30380732037	37	116	112,32	16
22265-30380732038	38	119	115,34	16
22265-30380732039	39	122,1	118,37	16
22265-30380732040	40	125,1	121,4	16
22265-30380732041	41	129	124,43	20
22265-30380732042	42	132,1	127,46	20
22265-30380732043	43	135,1	130,49	20
22265-30380732044	44	138,1	133,52	20
22265-30380732045	45	141,1	136,54	20
22265-30380732046	46	144,2	139,58	20
22265-30380732048	48	150,2	145,64	20
22265-30380732049	49	153,3	148,66	20
22265-30380732050	50	156,3	151,69	20

Sprockets duplex 3/8" x 7/32"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22265-30380732051	51	159,3	154,72	20
22265-30380732052	52	162,4	157,75	20
22265-30380732053	53	165,4	160,78	20
22265-30380732054	54	168,4	163,82	20
22265-30380732055	55	171,4	166,85	20
22265-30380732056	56	174,5	169,88	20
22265-30380732057	57	177,5	172,91	20
22265-30380732058	58	180,5	175,93	20
22265-30380732060	60	186,6	181,99	20
22265-30380732062	62	192,7	188,06	25
22265-30380732064	64	198,7	194,12	25
22265-30380732065	65	201,8	197,15	25
22265-30380732068	68	210,8	206,24	25
22265-30380732070	70	216,9	212,3	25
22265-30380732072	72	223	218,37	25
22265-30380732075	75	232,1	227,46	25
22265-30380732076	76	235,1	230,49	25
22265-30380732080	80	247,2	242,61	25
22265-30380732085	85	262,4	257,77	25
22265-30380732090	90	277,5	272,93	25
22265-30380732095	95	292,7	288,08	25
22265-30380732100	100	307,8	303,25	25
22265-30380732110	110	338,2	333,55	25
22265-30380732114	114	350,3	345,68	25
22265-30380732120	120	368,5	363,86	25
22265-30380732125	125	383,6	379,02	25

Sprockets duplex 1/2" x 5/16"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

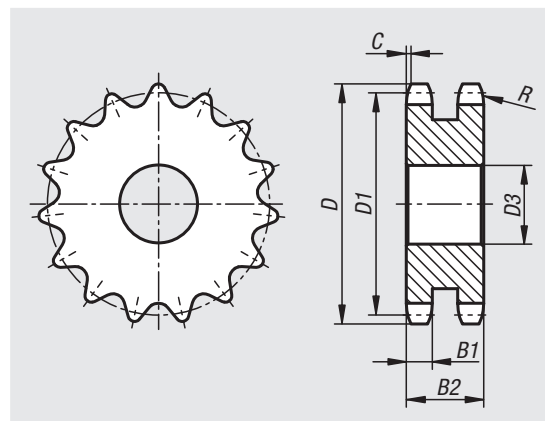
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-30120516008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	08 B-2	1/2 x 5/16	12,7 x 7,75	13	1,3	7	21

Order No.	No. of teeth	D	D1	D3 max.
22265-30120516008	8	38	33,18	10
22265-30120516009	9	42	37,13	10
22265-30120516010	10	45,9	41,1	10
22265-30120516011	11	49,9	45,07	10
22265-30120516012	12	53,9	49,07	10
22265-30120516013	13	57,9	53,06	10
22265-30120516014	14	61,9	57,07	10
22265-30120516015	15	65,9	61,09	10
22265-30120516016	16	69,9	65,1	12
22265-30120516017	17	74	69,11	12
22265-30120516018	18	78	73,14	12
22265-30120516019	19	82	77,16	12
22265-30120516020	20	86	81,19	12
22265-30120516021	21	90,1	85,22	16
22265-30120516022	22	94,1	89,24	16
22265-30120516023	23	98,1	93,27	16
22265-30120516024	24	102,1	97,29	16
22265-30120516025	25	106,2	101,33	16
22265-30120516026	26	110,2	105,36	16
22265-30120516027	27	114,2	109,4	16
22265-30120516028	28	118,3	113,42	16

Order No.	No. of teeth	D	D1	D3 max.
22265-30120516029	29	122,3	117,46	16
22265-30120516030	30	126,3	121,5	16
22265-30120516031	31	130,4	125,54	16
22265-30120516032	32	134,4	129,56	16
22265-30120516033	33	138,4	133,6	16
22265-30120516034	34	142,5	137,64	16
22265-30120516035	35	146,5	141,68	16
22265-30120516036	36	150,6	145,72	20
22265-30120516037	37	154,6	149,76	20
22265-30120516038	38	158,6	153,8	20
22265-30120516039	39	162,7	157,83	20
22265-30120516040	40	166,7	161,87	20
22265-30120516041	41	172,4	165,91	20
22265-30120516042	42	176,5	169,95	20
22265-30120516043	43	180,5	173,99	20
22265-30120516044	44	184,6	178,03	20
22265-30120516045	45	188,6	182,07	20
22265-30120516046	46	192,6	186,1	20
22265-30120516048	48	200,7	194,18	20
22265-30120516049	49	204,8	198,22	20
22265-30120516050	50	208,8	202,26	20

Sprockets duplex 1/2" x 5/16"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22265-30120516051	51	212,8	206,3	25
22265-30120516052	52	216,9	210,34	25
22265-30120516053	53	220,9	214,37	25
22265-30120516054	54	225	218,43	25
22265-30120516055	55	229	222,46	25
22265-30120516056	56	233	226,5	25
22265-30120516057	57	237,1	230,54	25
22265-30120516058	58	241,1	234,58	25
22265-30120516060	60	249,2	242,66	25
22265-30120516062	62	257,3	250,75	25
22265-30120516064	64	265,4	258,82	25
22265-30120516065	65	269,4	262,86	25
22265-30120516068	68	281,5	274,99	25
22265-30120516070	70	289,6	283,07	25
22265-30120516072	72	297,7	291,16	25
22265-30120516075	75	309,8	303,27	25
22265-30120516076	76	313,9	307,33	25
22265-30120516080	80	330	323,48	25
22265-30120516085	85	350,2	343,69	25
22265-30120516090	90	370,4	363,9	25
22265-30120516095	95	390,7	384,11	25
22265-30120516100	100	410,9	404,31	25
22265-30120516110	110	451,3	444,74	25
22265-30120516114	114	467,4	460,9	25
22265-30120516120	120	491,7	485,16	25
22265-30120516125	125	511	505,37	25

Sprockets, duplex 5/8" x 3/8"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

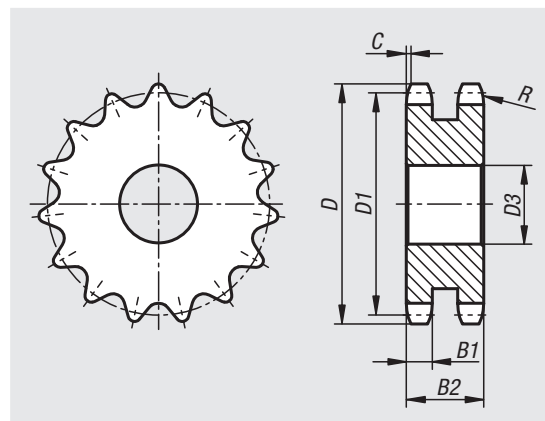
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-30580308008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	10 B-2	5/8 x 3/8	15,875 x 9,65	16	1,6	9	25,5

Order No.	No. of teeth	D	D1	D3 max.
22265-30580308008	8	48,4	41,48	10
22265-30580308009	9	53,3	46,42	10
22265-30580308010	10	58,3	51,37	10
22265-30580308011	11	63,2	56,34	10
22265-30580308012	12	68,2	61,34	10
22265-30580308013	13	73,2	66,32	10
22265-30580308014	14	78,2	71,34	10
22265-30580308015	15	83,2	76,36	12
22265-30580308016	16	88,3	81,37	12
22265-30580308017	17	93,3	86,39	12
22265-30580308018	18	98,3	91,42	12
22265-30580308019	19	103,3	96,45	12
22265-30580308020	20	108,4	101,49	12
22265-30580308021	21	113,4	106,52	16
22265-30580308022	22	118,4	111,55	16
22265-30580308023	23	123,5	116,58	16
22265-30580308024	24	128,5	121,62	16
22265-30580308025	25	133,6	126,66	16
22265-30580308026	26	138,6	131,7	20
22265-30580308027	27	143,6	136,75	20
22265-30580308028	28	148,7	141,78	20

Order No.	No. of teeth	D	D1	D3 max.
22265-30580308029	29	153,7	146,83	20
22265-30580308030	30	158,8	151,87	20
22265-30580308031	31	163,8	156,92	20
22265-30580308032	32	168,9	161,95	20
22265-30580308033	33	173,9	167	20
22265-30580308034	34	178,9	172,05	20
22265-30580308035	35	184	177,1	20
22265-30580308036	36	189	182,15	20
22265-30580308037	37	194,1	187,2	20
22265-30580308038	38	199,1	192,24	20
22265-30580308039	39	204,2	197,29	20
22265-30580308040	40	209,2	202,34	20
22265-30580308042	42	220,8	212,44	25
22265-30580308043	43	225,9	217,49	25
22265-30580308044	44	230,9	222,53	25
22265-30580308045	45	236	227,58	25
22265-30580308046	46	241	236,63	25
22265-30580308047	47	246,1	237,68	25
22265-30580308048	48	251,1	242,73	25
22265-30580308050	50	261,2	252,82	25
22265-30580308052	52	271,3	262,92	25

Sprockets, duplex 5/8" x 3/8"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22265-30580308053	53	276,4	267,97	25
22265-30580308054	54	281,4	273,03	25
22265-30580308055	55	286,5	278,08	25
22265-30580308056	56	291,5	283,13	25
22265-30580308057	57	296,6	288,18	25
22265-30580308058	58	301,6	293,23	25
22265-30580308060	60	311,7	303,32	25
22265-30580308062	62	321,8	313,43	25
22265-30580308065	65	337	328,58	25
22265-30580308066	66	342	333,63	25
22265-30580308070	70	362,2	353,84	25
22265-30580308072	72	372,3	363,95	25
22265-30580308075	75	387,5	379,09	25
22265-30580308076	76	392,5	384,16	25
22265-30580308080	80	412,7	404,35	25
22265-30580308085	85	438	429,62	30
22265-30580308090	90	463,3	454,88	30
22265-30580308095	95	488,5	480,14	30
22265-30580308100	100	513,8	505,4	30
22265-30580308114	114	584,5	576,13	30
22265-30580308120	120	614,8	606,44	30
22265-30580308125	125	640,1	631,71	30

Sprockets duplex 3/4" x 7/16"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

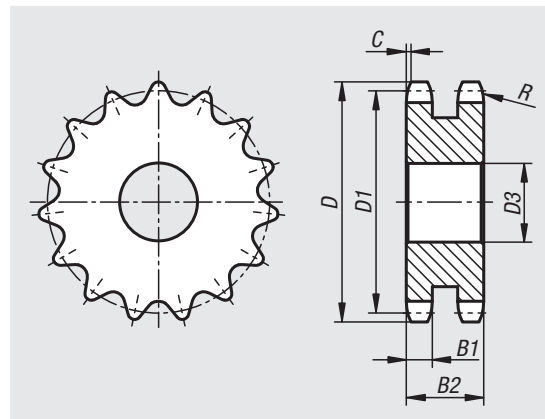
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-30340716008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	12 B-2	3/4 x 7/16	19,05 x 11,68	19	2	10,8	30,3

Order No.	No. of teeth	D	D1	D3 max.
22265-30340716008	8	58	49,78	12
22265-30340716009	9	63,9	55,7	12
22265-30340716010	10	69,8	61,64	12
22265-30340716011	11	75,8	67,61	12
22265-30340716012	12	81,8	73,5	14
22265-30340716013	13	87,8	79,59	14
22265-30340716014	14	93,8	85,61	16
22265-30340716015	15	99,8	91,63	16
22265-30340716016	16	105,8	97,65	16
22265-30340716017	17	111,9	103,67	16
22265-30340716018	18	117,9	109,71	16
22265-30340716019	19	123,9	115,75	16
22265-30340716020	20	130	121,78	16
22265-30340716021	21	136	127,82	20
22265-30340716022	22	142	133,86	20
22265-30340716023	23	148,1	139,9	20
22265-30340716024	24	154,1	145,94	20
22265-30340716025	25	160,2	152	20
22265-30340716026	26	166,2	158,04	20
22265-30340716027	27	172,3	164,09	20
22265-30340716028	28	178,3	170,13	20

Order No.	No. of teeth	D	D1	D3 max.
22265-30340716029	29	184,4	176,19	20
22265-30340716030	30	190,4	182,25	20
22265-30340716031	31	196,5	188,31	20
22265-30340716032	32	202,5	194,35	20
22265-30340716033	33	208,6	200,4	20
22265-30340716034	34	214,6	206,46	20
22265-30340716035	35	220,7	212,52	20
22265-30340716036	36	226,8	218,58	25
22265-30340716037	37	232,8	224,64	25
22265-30340716038	38	238,9	230,69	25
22265-30340716039	39	244,9	236,75	25
22265-30340716040	40	251	242,81	25
22265-30340716041	41	258,9	248,87	25
22265-30340716042	42	265	254,93	25
22265-30340716043	43	271,1	260,98	25
22265-30340716044	44	277,1	267,03	25
22265-30340716045	45	283,2	273,1	25
22265-30340716046	46	289,2	279,16	25
22265-30340716047	47	295,3	285,21	25
22265-30340716048	48	301,4	291,27	25
22265-30340716050	50	313,5	303,39	25

Sprockets duplex 3/4" x 7/16"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22265-30340716052	52	325,6	315,5	25
22265-30340716054	54	337,7	327,64	25
22265-30340716055	55	343,8	333,7	25
22265-30340716056	56	349,8	339,75	25
22265-30340716057	57	355,9	345,81	25
22265-30340716058	58	362	351,87	25
22265-30340716060	60	374,1	363,99	25
22265-30340716064	64	398,3	388,24	30
22265-30340716065	65	404,4	394,29	30
22265-30340716068	68	422,6	412,49	30
22265-30340716070	70	434,7	424,61	30
22265-30340716072	72	446,8	436,74	30
22265-30340716075	75	465	454,91	30
22265-30340716076	76	471,1	460,99	30
22265-30340716080	80	495,3	485,22	30
22265-30340716085	85	525,6	515,55	30
22265-30340716090	90	555,9	545,86	30
22265-30340716095	95	586,2	576,17	30
22265-30340716100	100	616,6	606,47	30
22265-30340716114	114	701,4	691,36	30
22265-30340716125	125	768,1	758,05	30

Sprockets duplex 1" x 17,02 mm

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

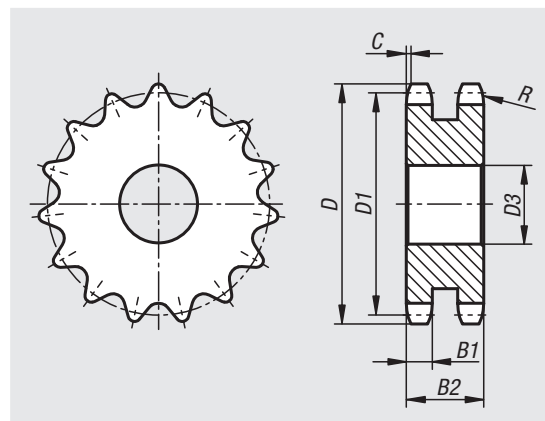
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-31001702008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	16 B-2	1 x 17,02mm	25,4 x 17,02	26	2,5	15,8	47,7

Order No.	No. of teeth	D	D1	D3 max.
22265-31001702008	8	77,9	66,37	16
22265-31001702009	9	85,8	74,27	16
22265-31001702010	10	93,8	82,19	16
22265-31001702011	11	101,7	90,14	20
22265-31001702012	12	109,7	98,14	20
22265-31001702013	13	117,7	106,12	20
22265-31001702014	14	125,7	114,15	20
22265-31001702015	15	133,7	122,17	20
22265-31001702016	16	141,8	130,2	20
22265-31001702017	17	149,8	138,22	20
22265-31001702018	18	157,8	146,28	20
22265-31001702019	19	165,9	154,33	20
22265-31001702020	20	173,9	162,38	20
22265-31001702021	21	182	170,43	25
22265-31001702022	22	190,1	178,48	25
22265-31001702023	23	198,1	186,53	25
22265-31001702024	24	206,2	194,59	25
22265-31001702025	25	214,2	202,66	25
22265-31001702026	26	222,3	210,72	25
22265-31001702027	27	230,4	218,79	25
22265-31001702028	28	238,4	226,85	25

Order No.	No. of teeth	D	D1	D3 max.
22265-31001702029	29	246,5	234,92	25
22265-31001702030	30	254,6	243	25
22265-31001702031	31	262,6	251,08	25
22265-31001702032	32	270,7	259,13	25
22265-31001702033	33	278,8	267,21	25
22265-31001702034	34	286,9	275,28	25
22265-31001702035	35	294,9	283,36	25
22265-31001702036	36	303	291,44	25
22265-31001702037	37	311,1	299,51	25
22265-31001702038	38	319,2	307,59	25
22265-31001702039	39	327,2	315,67	25
22265-31001702040	40	335,3	323,73	25
22265-31001702042	42	353,7	339,9	25
22265-31001702044	44	369,8	356,06	25
22265-31001702045	45	377,9	364,12	25
22265-31001702046	46	386	372,21	25
22265-31001702048	48	402,1	388,36	25
22265-31001702050	50	418,3	404,52	25
22265-31001702052	52	434,5	420,67	30
22265-31001702055	55	458,7	444,93	30
22265-31001702056	56	466,8	453,01	40

Sprockets duplex 1" x 17,02 mm

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22265-31001702057	57	474,9	461,07	40
22265-31001702060	60	499,1	485,32	40
22265-31001702062	62	515,3	501,5	40
22265-31001702065	65	539,5	525,73	40
22265-31001702068	68	563,8	549,98	40
22265-31001702070	70	579,9	566,14	40
22265-31001702072	72	596,1	582,32	40
22265-31001702075	75	620,3	606,55	40
22265-31001702076	76	628,4	614,65	40
22265-31001702080	80	660,7	646,96	40
22265-31001702085	85	701,2	687,4	40
22265-31001702090	90	741,6	727,81	40
22265-31001702095	95	782	768,22	40
22265-31001702100	100	822,4	808,63	40
22265-31001702114	114	935,6	921,82	40
22265-31001702125	125	1024,5	1010,73	40

Sprockets duplex 1 1/4" x 3/4"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

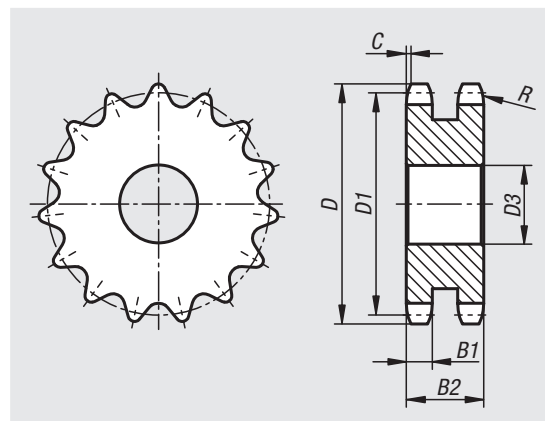
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-21140340008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	20 B-2	1 1/4X3/4	31,75 x 19,56	32	3,5	18,2	54,6

Order No.	No. of teeth	D	D1	D3 max.
22265-21140340008	8	96	82,96	20
22265-21140340009	9	106,5	92,84	20
22265-21140340010	10	117	102,74	20
22265-21140340011	11	127	112,68	20
22265-21140340012	12	137	122,68	20
22265-21140340013	13	147,5	132,65	20
22265-21140340014	14	157,6	142,68	20
22265-21140340015	15	167,7	152,72	20
22265-21140340016	16	177,7	162,75	30
22265-21140340017	17	187,7	172,78	30
22265-21140340018	18	197,8	182,85	30
22265-21140340019	19	207,9	192,91	30
22265-21140340020	20	217,9	202,98	30
22265-21140340021	21	228	213,04	30
22265-21140340022	22	238,1	223,11	30
22265-21140340023	23	248,2	233,17	30
22265-21140340024	24	258,3	243,23	30
22265-21140340025	25	268,4	253,33	30
22265-21140340026	26	278,4	263,4	30
22265-21140340027	27	288,5	273,48	30
22265-21140340028	28	298,5	283,56	30
22265-21140340029	29	308,6	293,65	30
22265-21140340030	30	318,7	303,75	30

Order No.	No. of teeth	D	D1	D3 max.
22265-21140340031	31	328,8	313,85	30
22265-21140340032	32	338,9	323,91	30
22265-21140340034	34	359,1	344,1	30
22265-21140340035	35	369,2	354,2	30
22265-21140340036	36	379,2	364,3	30
22265-21140340038	38	399,4	384,49	30
22265-21140340040	40	419,6	404,66	30
22265-21140340042	42	440,8	424,88	30
22265-21140340045	45	471,1	455,17	30
22265-21140340046	46	481,2	465,26	30
22265-21140340048	48	501,4	485,46	30
22265-21140340050	50	521,6	505,65	30
22265-21140340052	52	541,8	525,84	40
22265-21140340057	57	592,3	576,36	40
22265-21140340060	60	622,6	606,65	40
22265-21140340065	65	673,1	657,16	40
22265-21140340070	70	723,6	707,67	40
22265-21140340076	76	784,3	768,32	40
22265-21140340080	80	824,7	808,72	40
22265-21140340095	95	976,2	960,28	40
22265-21140340114	114	1168,2	1152,26	40

Sprockets duplex 1 1/2" x 1"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

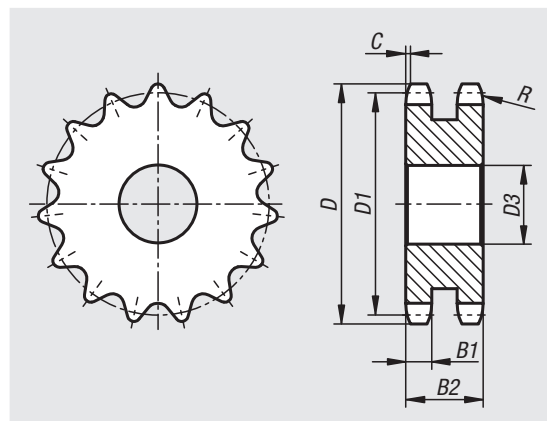
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22265-21121000008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B2
22265	24 B-2	1 1/2X1	38,1 x 25,4	38	4	23,6	72

Order No.	No. of teeth	D	D1	D3 max.
22265-21121000008	8	113	99,55	25
22265-21121000009	9	125	111,4	25
22265-21121000010	10	137	123,29	25
22265-21121000011	11	149	135,21	25
22265-21121000012	12	161	147,22	25
22265-21121000013	13	173	159,18	25
22265-21121000014	14	185	171,22	25
22265-21121000015	15	197	183,26	25
22265-21121000016	16	209	195,3	30
22265-21121000017	17	221	207,34	30
22265-21121000018	18	233	219,42	30
22265-21121000019	19	245,5	231,49	30
22265-21121000020	20	257,5	243,57	30
22265-21121000021	21	270,5	255,65	30
22265-21121000022	22	282,5	267,73	30
22265-21121000023	23	294,5	279,8	30
22265-21121000024	24	307	291,88	30
22265-21121000025	25	319	304	30
22265-21121000026	26	331	316,08	30
22265-21121000027	27	343	328,19	30
22265-21121000028	28	355	340,27	30
22265-21121000029	29	367,5	352,38	30
22265-21121000030	30	379,5	364,5	30

Order No.	No. of teeth	D	D1	D3 max.
22265-21121000031	31	391,5	376,62	40
22265-21121000032	32	403,5	388,69	40
22265-21121000033	33	415,5	400,81	40
22265-21121000034	34	428	412,93	40
22265-21121000035	35	440	425,04	40
22265-21121000036	36	452	437,16	40
22265-21121000037	37	464	449,27	40
22265-21121000038	38	476,5	461,39	40
22265-21121000040	40	501,5	485,62	40
22265-21121000042	42	525,5	509,85	40
22265-21121000045	45	562	546,2	40
22265-21121000048	48	598,5	582,55	40
22265-21121000050	50	622,5	606,78	40
22265-21121000057	57	707,5	691,63	40
22265-21121000060	60	745	727,97	40
22265-21121000065	65	805,5	788,59	40
22265-21121000076	76	939	921,98	40
22265-21121000095	95	1169	1152,33	40

Sprockets triplex 3/8" x 7/32"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

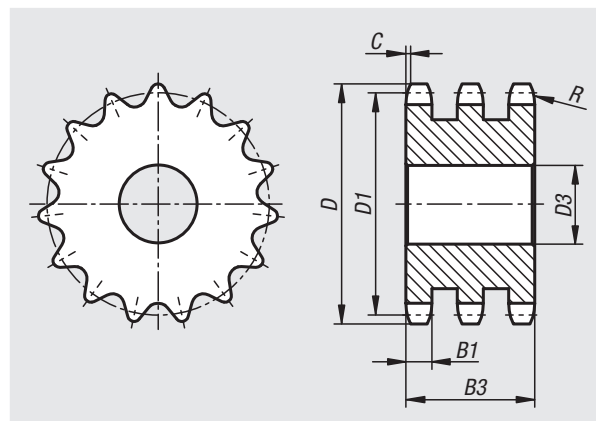
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22266-30380732008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.

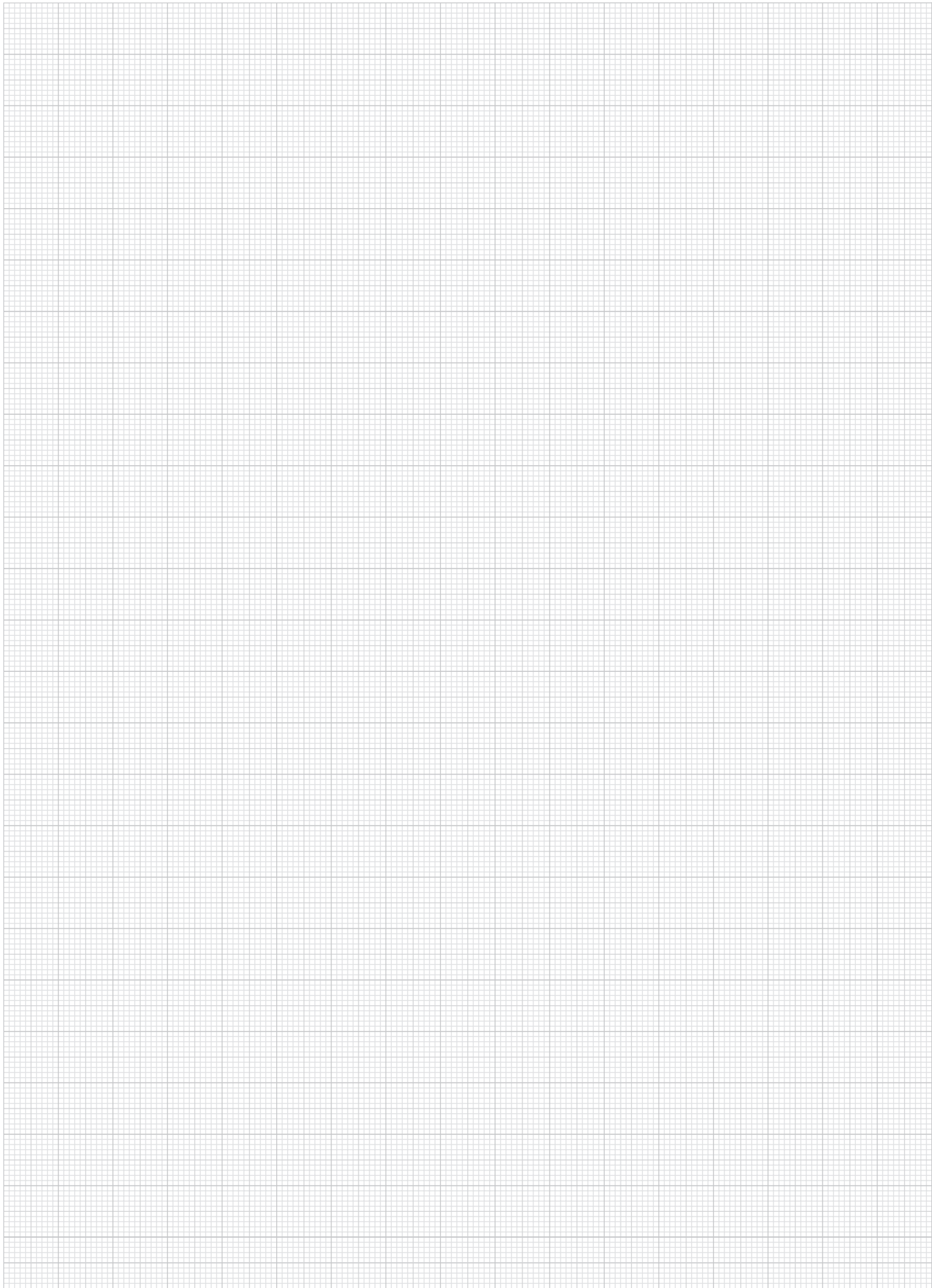


Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22266	06 B-3	3/8 x 7/32	9,525 x 5,72	10	1	5,2	25,6

Order No.	No. of teeth	D	D1	D3 max.
22266-30380732008	8	28,6	24,89	8
22266-30380732009	9	31,5	27,85	8
22266-30380732010	10	34,5	30,82	10
22266-30380732011	11	37,5	33,8	12
22266-30380732012	12	40,5	36,8	12
22266-30380732013	13	43,5	39,8	12
22266-30380732014	14	46,5	42,8	12
22266-30380732015	15	49,5	45,81	12
22266-30380732016	16	52,5	48,82	12
22266-30380732017	17	55,5	51,83	12
22266-30380732018	18	58,6	54,85	12
22266-30380732019	19	61,6	57,87	12
22266-30380732020	20	64,6	60,89	12
22266-30380732021	21	67,6	63,91	16
22266-30380732022	22	70,6	66,93	16
22266-30380732023	23	73,7	69,95	16
22266-30380732024	24	76,7	72,97	16
22266-30380732025	25	79,7	76	16
22266-30380732026	26	82,7	79,02	16
22266-30380732027	27	85,7	82,04	16
22266-30380732028	28	88,8	85,07	16
22266-30380732029	29	91,8	88,09	16
22266-30380732030	30	94,8	91,12	16
22266-30380732031	31	97,9	94,15	16
22266-30380732032	32	100,9	97,17	16
22266-30380732034	34	106,9	103,23	16

Order No.	No. of teeth	D	D1	D3 max.
22266-30380732035	35	110	106,26	16
22266-30380732036	36	113	109,29	20
22266-30380732038	38	119	115,34	20
22266-30380732040	40	125,1	121,4	20
22266-30380732042	42	132,1	127,46	20
22266-30380732044	44	138,1	133,52	20
22266-30380732045	45	141,1	136,54	20
22266-30380732048	48	150,2	145,64	20
22266-30380732050	50	156,3	151,69	20
22266-30380732057	57	177,5	172,91	25
22266-30380732058	58	180,5	175,93	25
22266-30380732060	60	186,6	181,99	25
22266-30380732064	64	198,7	194,12	25
22266-30380732065	65	201,8	197,15	25
22266-30380732066	66	204,8	200,18	25
22266-30380732070	70	216,9	212,3	25
22266-30380732072	72	223	218,37	25
22266-30380732076	76	235,1	230,49	25
22266-30380732080	80	247,2	242,61	25
22266-30380732085	85	262,4	257,77	25
22266-30380732090	90	277,5	272,93	25
22266-30380732095	95	292,7	288,08	25
22266-30380732100	100	307,8	303,25	25
22266-30380732114	114	350,3	345,68	25
22266-30380732125	125	383,6	379,02	25

Notes



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Sprockets triplex 1/2" x 5/16"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

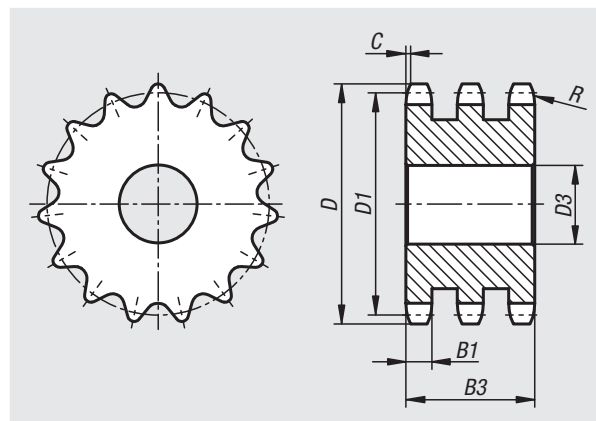
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22266-30120516008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22266	08 B-3	1/2 x 5/16	12,7 x 7,75	13	1,3	7	34,9

Order No.	No. of teeth	D	D1	D3 max.
22266-30120516008	8	38	33,18	10
22266-30120516009	9	42	37,13	10
22266-30120516010	10	45,9	41,1	10
22266-30120516011	11	49,9	45,07	12
22266-30120516012	12	53,9	49,07	12
22266-30120516013	13	57,9	53,06	12
22266-30120516014	14	61,9	57,07	12
22266-30120516015	15	65,9	61,09	12
22266-30120516016	16	69,9	65,1	16
22266-30120516017	17	74	69,11	16
22266-30120516018	18	78	73,14	16
22266-30120516019	19	82	77,16	16
22266-30120516020	20	86	81,19	16
22266-30120516021	21	90,1	85,22	16
22266-30120516022	22	94,1	89,24	16
22266-30120516023	23	98,1	93,27	16
22266-30120516024	24	102,1	97,29	16
22266-30120516025	25	106,2	101,33	16
22266-30120516026	26	110,2	105,36	16
22266-30120516027	27	114,2	109,4	16

Order No.	No. of teeth	D	D1	D3 max.
22266-30120516028	28	118,3	113,42	16
22266-30120516029	29	122,3	117,46	16
22266-30120516030	30	126,3	121,5	16
22266-30120516032	32	134,4	129,56	20
22266-30120516033	33	138,4	133,6	20
22266-30120516034	34	142,5	137,64	20
22266-30120516035	35	146,5	141,68	20
22266-30120516036	36	150,6	145,72	20
22266-30120516038	38	158,6	153,8	20
22266-30120516040	40	166,7	161,87	20
22266-30120516042	42	176,5	169,95	25
22266-30120516043	43	180,5	173,99	25
22266-30120516044	44	184,6	178,03	25
22266-30120516045	45	188,6	182,07	25
22266-30120516046	46	192,6	186,1	25
22266-30120516047	47	196,7	190,14	25
22266-30120516048	48	200,7	194,18	25
22266-30120516050	50	208,8	202,26	25
22266-30120516052	52	216,9	210,34	25
22266-30120516054	54	225	218,43	25

Sprockets triplex 1/2" x 5/16"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22266-30120516055	55	229	222,46	25
22266-30120516056	56	233	226,5	25
22266-30120516057	57	237,1	230,54	25
22266-30120516060	60	249,2	242,66	25
22266-30120516062	62	257,3	250,75	25
22266-30120516065	65	269,4	262,86	25
22266-30120516068	68	281,5	274,99	25
22266-30120516070	70	289,6	283,07	25
22266-30120516072	72	297,7	291,16	25
22266-30120516075	75	309,8	303,27	25
22266-30120516076	76	313,9	307,33	25
22266-30120516080	80	330	323,48	25
22266-30120516085	85	350,2	343,69	25
22266-30120516090	90	370,4	363,9	25
22266-30120516095	95	390,7	384,11	25
22266-30120516100	100	410,9	404,31	25
22266-30120516114	114	467,4	460,9	25
22266-30120516125	125	511	505,37	25

Sprockets triplex 5/8" x 3/8"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

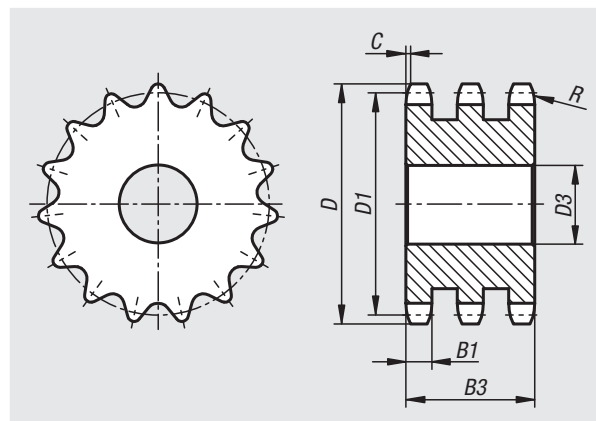
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22266-30580308008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22266	10 B-3	5/8 x 3/8	15,875 x 9,65	16	1,6	9	42,1

Order No.	No. of teeth	D	D1	D3 max.
22266-30580308008	8	48,4	41,48	12
22266-30580308009	9	53,3	46,42	12
22266-30580308010	10	58,3	51,37	12
22266-30580308011	11	63,2	56,34	12
22266-30580308012	12	68,2	61,34	12
22266-30580308013	13	73,2	66,32	12
22266-30580308014	14	78,2	71,34	12
22266-30580308015	15	83,2	76,36	12
22266-30580308016	16	88,3	81,37	16
22266-30580308017	17	93,3	86,39	16
22266-30580308018	18	98,3	91,42	16
22266-30580308019	19	103,3	96,45	16
22266-30580308020	20	108,4	101,49	16
22266-30580308021	21	113,4	106,52	16
22266-30580308022	22	118,4	111,55	16
22266-30580308023	23	123,5	116,58	16
22266-30580308024	24	128,5	121,62	16
22266-30580308025	25	133,6	126,66	16
22266-30580308026	26	138,6	131,7	20
22266-30580308027	27	143,6	136,75	20

Order No.	No. of teeth	D	D1	D3 max.
22266-30580308028	28	148,7	141,78	20
22266-30580308029	29	153,7	146,83	20
22266-30580308030	30	158,8	151,87	20
22266-30580308032	32	168,9	161,95	20
22266-30580308033	33	173,9	167	20
22266-30580308034	34	178,9	172,05	20
22266-30580308035	35	184	177,1	20
22266-30580308036	36	189	182,15	25
22266-30580308037	37	194,1	187,2	25
22266-30580308038	38	199,1	192,24	25
22266-30580308039	39	204,2	197,29	25
22266-30580308040	40	209,2	202,34	25
22266-30580308041	41	215,8	207,39	25
22266-30580308042	42	220,8	212,44	25
22266-30580308044	44	230,9	222,53	25
22266-30580308045	45	236	227,58	25
22266-30580308046	46	241	236,63	25
22266-30580308048	48	251,1	242,73	25
22266-30580308050	50	261,2	252,82	25
22266-30580308052	52	271,3	262,92	25

Sprockets triplex 5/8" x 3/8"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22266-30580308055	55	286,5	278,08	25
22266-30580308057	57	296,6	288,18	25
22266-30580308060	60	311,7	303,32	25
22266-30580308064	64	331,9	323,53	30
22266-30580308065	65	337	328,58	30
22266-30580308070	70	362,2	353,84	30
22266-30580308075	75	387,5	379,09	30
22266-30580308076	76	392,5	384,16	30
22266-30580308080	80	412,7	404,35	30
22266-30580308090	90	463,3	454,88	30
22266-30580308095	95	488,5	480,14	30
22266-30580308114	114	584,5	576,13	30
22266-30580308125	125	640,1	631,71	30

Sprockets triplex 3/4" x 7/16"

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

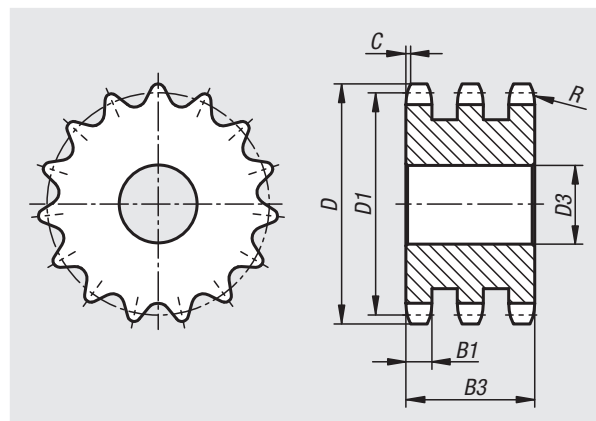
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22266-30340716008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22266	12 B-3	3/4 x 7/16	19,05 x 11,68	19	2	10,8	49,8

Order No.	No. of teeth	D	D1	D3 max.
22266-30340716008	8	58	49,78	12
22266-30340716009	9	63,9	55,7	12
22266-30340716010	10	69,8	61,64	12
22266-30340716011	11	75,8	67,61	16
22266-30340716012	12	81,8	73,5	16
22266-30340716013	13	87,8	79,59	16
22266-30340716014	14	93,8	85,61	16
22266-30340716015	15	99,8	91,63	16
22266-30340716016	16	105,8	97,65	20
22266-30340716017	17	111,9	103,67	20
22266-30340716018	18	117,9	109,71	20
22266-30340716019	19	123,9	115,75	20
22266-30340716020	20	130	121,78	20
22266-30340716021	21	136	127,82	20
22266-30340716022	22	142	133,86	20
22266-30340716023	23	148,1	139,9	20
22266-30340716024	24	154,1	145,94	20
22266-30340716025	25	160,2	152	20
22266-30340716026	26	166,2	158,04	20
22266-30340716027	27	172,3	164,09	20

Order No.	No. of teeth	D	D1	D3 max.
22266-30340716028	28	178,3	170,13	20
22266-30340716029	29	184,4	176,19	20
22266-30340716030	30	190,4	182,25	20
22266-30340716031	31	196,5	188,31	25
22266-30340716032	32	202,5	194,35	25
22266-30340716033	33	208,6	200,4	25
22266-30340716034	34	214,6	206,46	25
22266-30340716035	35	220,7	212,52	25
22266-30340716036	36	226,8	218,58	25
22266-30340716037	37	232,8	224,64	25
22266-30340716038	38	238,9	230,69	25
22266-30340716039	39	244,9	236,75	25
22266-30340716040	40	251	242,81	25
22266-30340716042	42	265	254,93	25
22266-30340716043	43	271,1	260,98	25
22266-30340716044	44	277,1	267,03	25
22266-30340716045	45	283,2	273,1	25
22266-30340716047	47	295,3	285,21	25
22266-30340716048	48	301,4	291,27	25
22266-30340716050	50	313,5	303,39	25

Sprockets triplex 3/4" x 7/16"

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22266-30340716052	52	325,6	315,5	25
22266-30340716054	54	337,7	327,64	25
22266-30340716055	55	343,8	333,7	25
22266-30340716057	57	355,9	345,81	30
22266-30340716060	60	374,1	363,99	30
22266-30340716065	65	404,4	394,29	30
22266-30340716070	70	434,7	424,61	30
22266-30340716072	72	446,8	436,74	30
22266-30340716076	76	471,1	460,99	30
22266-30340716080	80	495,3	485,22	30
22266-30340716085	85	525,6	515,55	30
22266-30340716090	90	555,9	545,86	30
22266-30340716095	95	586,2	576,17	30
22266-30340716100	100	616,6	606,47	30
22266-30340716114	114	701,4	691,36	30
22266-30340716120	120	737,8	727,74	30
22266-30340716125	125	768,1	758,05	30

Sprockets triplex 1" x 17,02 mm

DIN ISO 606

**Material:**

Low-carbon steel.

Version:

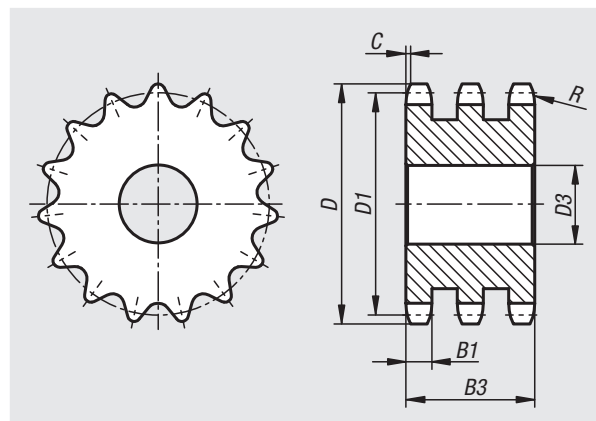
Bright, not hardened (cannot be hardened).

Sample order:

nlm 22266-31001702008

Note:

Sprockets for DIN ISO 606 roller chains. The sprockets are pre-bored.



Order No.	ISO No.	Pitch inch	Pitch mm	R	C	B1	B3
22266	16 B-3	1 x 17,02mm	25,4 x 17,02	26	2,5	15,8	79,6

Order No.	No. of teeth	D	D1	D3 max.
22266-31001702008	8	77,9	66,37	16
22266-31001702009	9	85,8	74,27	16
22266-31001702010	10	93,8	82,19	16
22266-31001702011	11	101,7	90,14	20
22266-31001702012	12	109,7	98,14	20
22266-31001702013	13	117,7	106,12	20
22266-31001702014	14	125,7	114,15	20
22266-31001702015	15	133,7	122,17	20
22266-31001702016	16	141,8	130,2	25
22266-31001702017	17	149,8	138,22	25
22266-31001702018	18	157,8	146,28	25
22266-31001702019	19	165,9	154,33	25
22266-31001702020	20	173,9	162,38	25
22266-31001702021	21	182	170,43	25
22266-31001702022	22	190,1	178,48	25
22266-31001702023	23	198,1	186,53	25
22266-31001702024	24	206,2	194,59	25
22266-31001702025	25	214,2	202,66	25
22266-31001702026	26	222,3	210,72	30
22266-31001702027	27	230,4	218,79	30

Order No.	No. of teeth	D	D1	D3 max.
22266-31001702028	28	238,4	226,85	30
22266-31001702029	29	246,5	234,92	30
22266-31001702030	30	254,6	243	30
22266-31001702031	31	262,6	251,08	30
22266-31001702032	32	270,7	259,13	30
22266-31001702033	33	278,8	267,21	30
22266-31001702034	34	286,9	275,28	30
22266-31001702035	35	294,9	283,36	30
22266-31001702036	36	303	291,44	30
22266-31001702038	38	319,2	307,59	30
22266-31001702040	40	335,3	323,73	30
22266-31001702042	42	353,7	339,9	30
22266-31001702044	44	369,8	356,06	30
22266-31001702045	45	377,9	364,12	30
22266-31001702046	46	386	372,21	30
22266-31001702048	48	402,1	388,36	30
22266-31001702050	50	418,3	404,52	30
22266-31001702052	52	434,5	420,67	40
22266-31001702055	55	458,7	444,93	40
22266-31001702057	57	474,9	461,07	40

Sprockets triplex 1" x 17,02 mm

DIN ISO 606

Order No.	No. of teeth	D	D1	D3 max.
22266-31001702060	60	499,1	485,32	40
22266-31001702065	65	539,5	525,73	40
22266-31001702070	70	579,9	566,14	40
22266-31001702072	72	596,1	582,32	40
22266-31001702076	76	628,4	614,65	40
22266-31001702080	80	660,7	646,96	40
22266-31001702085	85	701,2	687,4	40
22266-31001702090	90	741,6	727,81	40
22266-31001702095	95	782	768,22	40
22266-31001702114	114	935,6	921,82	40
22266-31001702125	125	1024,5	1010,73	40

Idler sprockets with ball bearing


Material:

Sprocket steel C45.

Ball bearing made from ball-bearing steel.

Version:

Sprocket black oxidised.

Sample order:

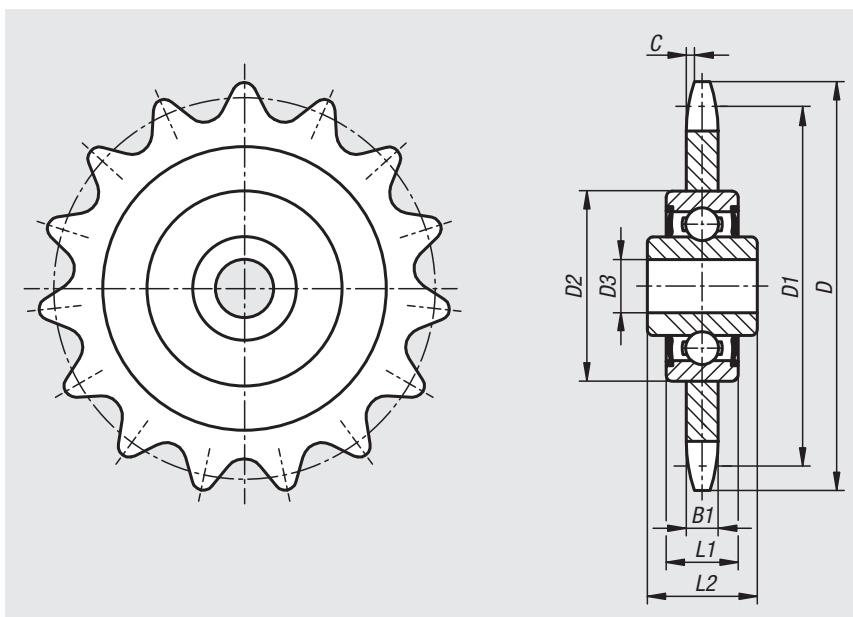
nlm 22280-038073221

Note:

Ready-to-install idler sprockets complete with ball bearing.
For DIN ISO 606 roller chains. The ball bearings are sealed both sides, permanently lubricated and therefore maintenance-free.

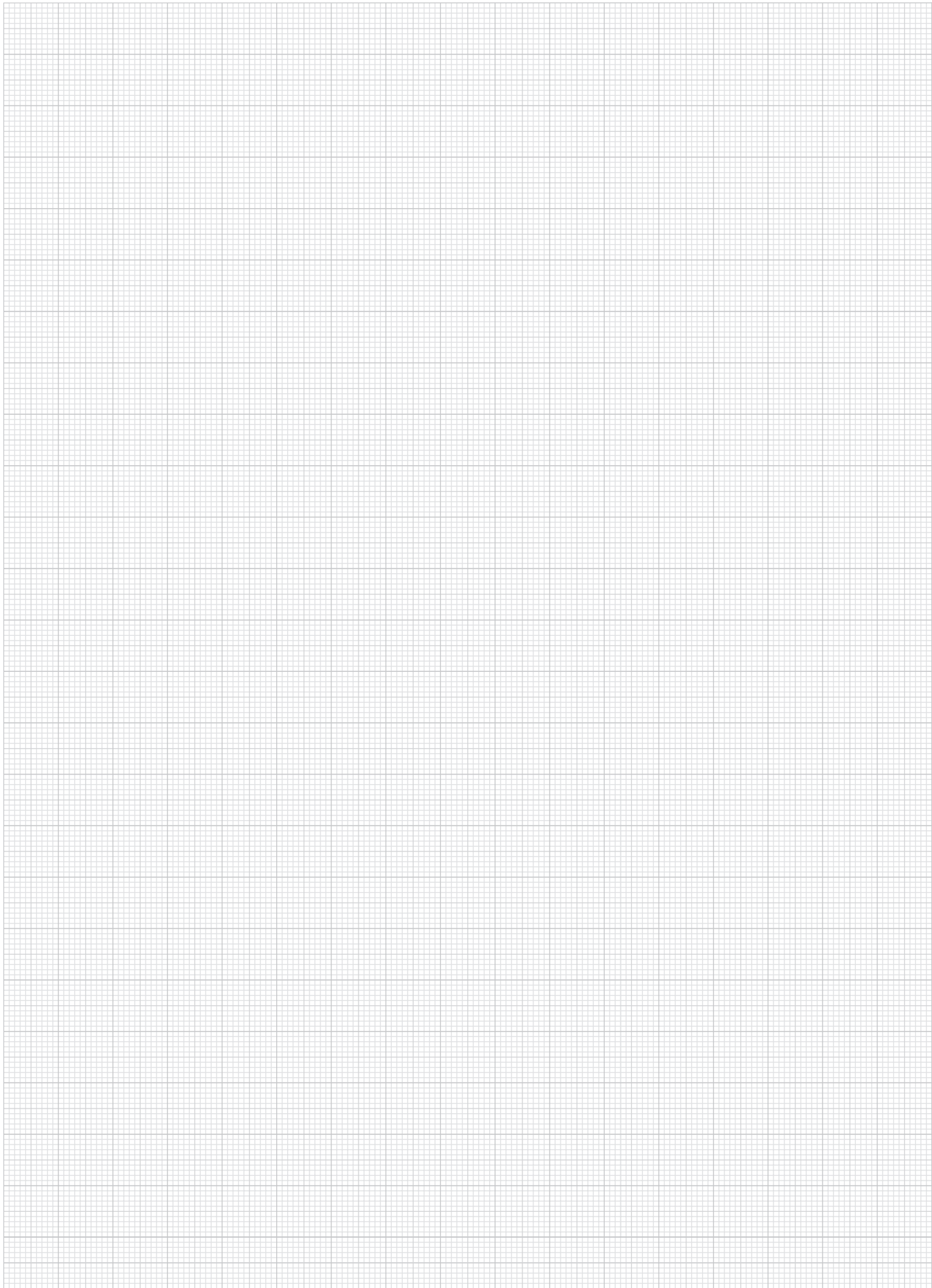
Temperature range:

-20°C to +120°C.



Order No.	ISO No.	Pitch inch	Pitch mm	No. of teeth	D	D1	D2	D3	B1	L1	L2	C
22280-038073221	06 B-1	3/8 x 7/32	9,525 x 5,72	21	67,6	63,91	40	16	5,3	12	18,3	1
22280-038073222	06 B-1	3/8 x 7/32	9,525 x 5,72	22	70,6	66,93	40	16	5,3	12	18,3	1
22280-012051614	08 B-1	1/2 x 5/16	12,7 x 7,75	14	61,9	57,07	40	16	7,2	12	18,3	1,3
22280-012051616	08 B-1	1/2 x 5/16	12,7 x 7,75	16	69,9	65,1	40	16	7,2	12	18,3	1,3
22280-012051618	08 B-1	1/2 x 5/16	12,7 x 7,75	18	78	73,14	40	16	7,2	12	18,3	1,3
22280-058030814	10 B-1	5/8 x 3/8	15,875 x 9,65	14	78,2	71,34	40	16	9,1	12	18,3	1,6
22280-058030815	10 B-1	5/8 x 3/8	15,875 x 9,65	15	83,2	76,36	40	16	9,1	12	18,3	1,6
22280-058030817	10 B-1	5/8 x 3/8	15,875 x 9,65	17	93,3	86,39	40	16	9,1	12	18,3	1,6
22280-034071613	12 B-1	3/4 x 7/16	19,05 x 11,68	13	87,8	79,59	40	16	11,1	12	18,3	2
22280-034071615	12 B-1	3/4 x 7/16	19,05 x 11,68	15	99,8	91,63	40	16	11,1	12	18,3	2
22280-100170212	16 B-1	1 x 17,02mm	25,4 x 17,02	12	109,7	98,14	47	20	16,2	14	17,7	2,5

Notes



20000
21000
22000
23000
24000
26000
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33000

Mounting screws

for idler sprockets


Material:

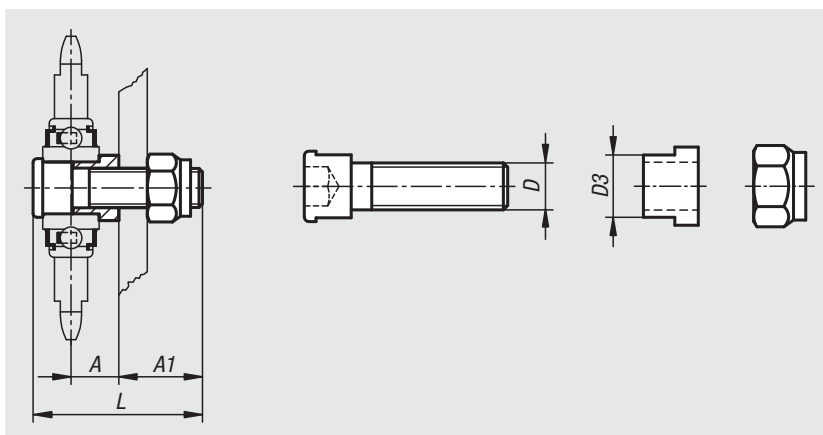
Steel C45.

Version:

Electro zinc-plated.

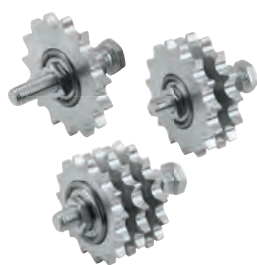
Sample order:

nlm 22280-1216



Order No.	A	A1	D	D3	L	Suitable for
22280-1216	15	25	M12	16	52	idler sprocket to ISO 12 B-1
22280-1620	25	28	M16	20	66	idler sprocket from ISO 16 B-1

Sprocket sets



Material:

Sprocket steel.
Ball bearing chrome steel.
Screw and nut steel.

Version:

Sprocket teeth hardened to HRC 50, electro zinc-plated.
Ball bearing with sealing discs 2Z-C3.
Screw ISO 4017, grade 8.8, electro zinc-plated.
Nut ISO 4035, grade 8, electro zinc-plated.

Sample order:

nlm 22281-06110

Note:

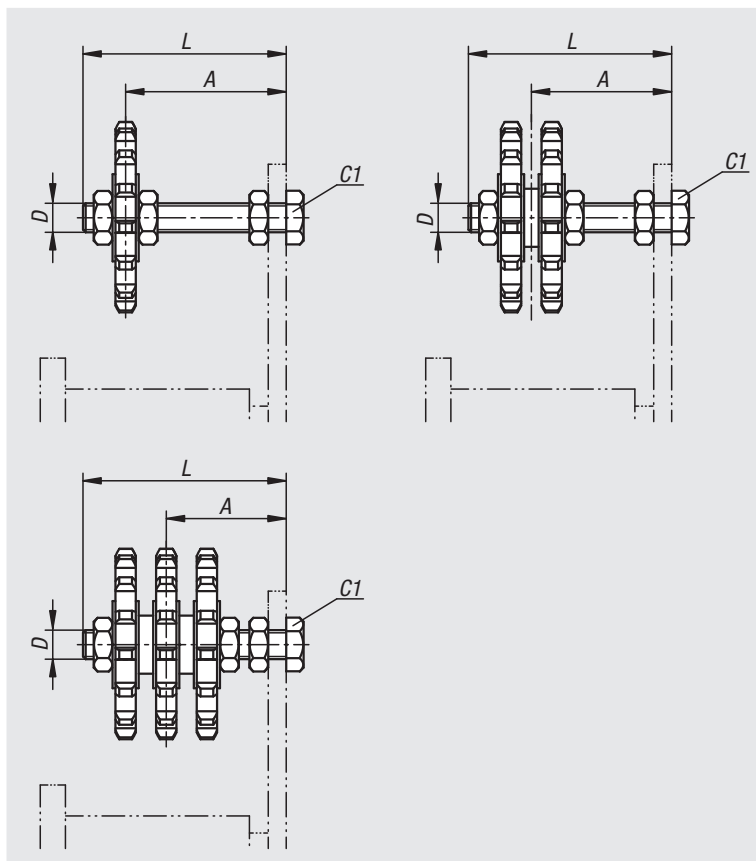
For tensioning roller chains. The sprocket set can be combined with all tensioning elements to form a ready-to-install chain clamp. The ball bearings are sealed both sides, permanently lubricated and maintenance-free.

The sprocket can be moved on the screw and thus adapted to the chain track. With the duplex and triplex version, precision spacer sleeves ensure correct chain guidance.

Rigid mounting without a tensioning element is also possible. Can also be used as an idler sprocket.

Temperature range:

-40 °C to +120 °C.



Order No.	Version 1	ISO No.	Pitch inch	Pitch mm	No. of teeth	A	D	L	Tightening torque of screw C1 Nm	Suitable for clamping element size
22281-06110	single	06 B-1	3/8 x 7/32	9,525 x 5,72	15	21 - 50	M10	60	20	2+3
22281-08110	single	08 B-1	1/2 x 5/16	12,7 x 7,75	15	21 - 50	M10	60	20	3
22281-10112	single	10 B-1	5/8 x 3/8	15,875 x 9,65	15	27 - 67	M12	80	35	4
22281-12112	single	12 B-1	3/4 x 7/16	19,05 x 11,68	15	27 - 67	M12	80	35	4
22281-12120	single	12 B-1	3/4 x 7/16	19,05 x 11,68	15	38 - 101	M20	120	160	5
22281-16120	single	16 B-1	1 x 17,02mm	25,4 x 17,02	13	38 - 101	M20	120	160	5
22281-06210	duplex	06 B-2	3/8 x 7/32	9,525 x 5,72	15	26 - 44	M10	60	20	2+3
22281-08210	duplex	08 B-2	1/2 x 5/16	12,7 x 7,75	15	28 - 42	M10	60	20	3
22281-10212	duplex	10 B-2	5/8 x 3/8	15,875 x 9,65	15	35 - 59	M12	80	35	4
22281-12212	duplex	12 B-2	3/4 x 7/16	19,05 x 11,68	15	37 - 57	M12	80	35	4
22281-12220	duplex	12 B-2	3/4 x 7/16	19,05 x 11,68	15	38 - 101	M20	120	160	5
22281-16220	duplex	16 B-2	1 x 17,02mm	25,4 x 17,02	13	48 - 92	M20	120	160	5
22281-06310	triplex	06 B-3	3/8 x 7/32	9,525 x 5,72	15	32 - 39	M10	60	20	3
22281-08312	triplex	08 B-3	1/2 x 5/16	12,7 x 7,75	15	41 - 53	M12	80	35	4
22281-10312	triplex	10 B-3	5/8 x 3/8	15,875 x 9,65	15	43 - 51	M12	80	35	4
22281-10320	triplex	10 B-3	5/8 x 3/8	15,875 x 9,65	15	55 - 85	M20	120	160	5
22281-12320	triplex	12 B-3	3/4 x 7/16	19,05 x 11,68	15	58 - 82	M20	120	160	5

Chain tensioner sets


Material:

Tensioner Vesconite® plastic.
Screw and nut steel.

Version:

Screw ISO 4017, grade 8.8, electro zinc-plated.
Nut ISO 4035, grade 8, electro zinc-plated.

Sample order:

nlm 22281-01-06108

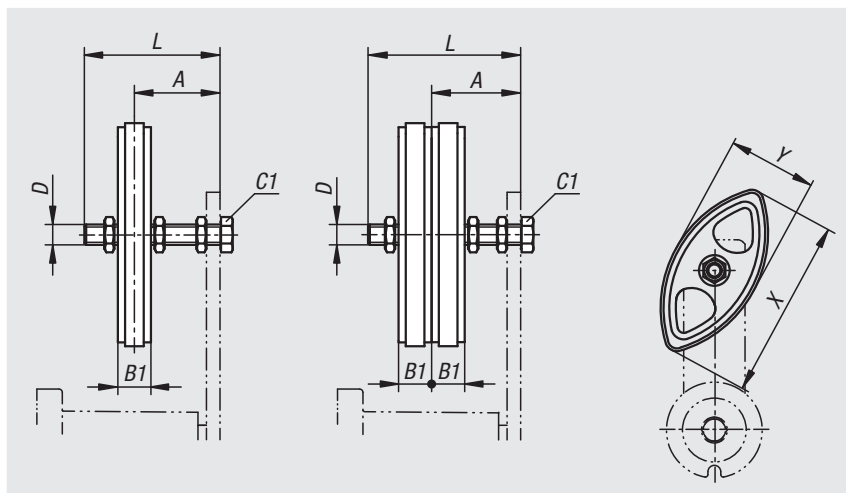
Note:

For tensioning roller chains. The chain tensioner set can be combined with all tensioning elements to form a ready-to-install chain clamp. The symmetrical design enables use on both sides. Large radii ensure very quiet running. The high-quality plastic does not require any lubrication.

The maximum chain speed should not exceed 1.5 m/s in continuous use.

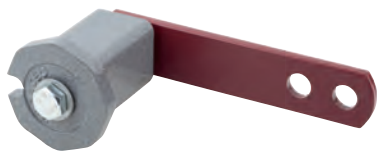
Temperature range:

-40 °C to +120 °C.



Order No.	Version 1	ISO No.	A	B1	D	L	X	Y	Tightening torque of screw C1 Nm	Suitable for clamping element size
22281-01-06108	single	06 B-1	21-34	10,2	M8	45	74	40	10	1
22281-01-08110	single	08 B-1	23-47	13,9	M10	60	96	50	20	2+3
22281-01-10110	single	10 B-1	25-48	16,5	M10	60	125	55	20	3
22281-01-12112	single	12 B-1	29-64	19,5	M12	80	147	80	35	4
22281-01-06208	duplex	06 B-2	26-29	10,2	M8	45	74	40	10	1
22281-01-08210	duplex	08 B-2	30-40	13,9	M10	60	96	50	20	2+3
22281-01-10210	duplex	10 B-2	34-47	16,5	M10	60	125	55	20	3
22281-01-12212	duplex	12 B-2	39-54	19,5	M12	80	147	80	35	4

Clamping elements



Material:

Housing sintered steel, from size 5 EN-GJS-400-15.

Clamping arm S235JR steel.

Buffer natural rubber.

Screw steel.

Version:

Steel parts painted.

Screw ISO 4762, grade 8.8, electro zinc-plated.

Sample order:

nlm 22281-10-1

Note:

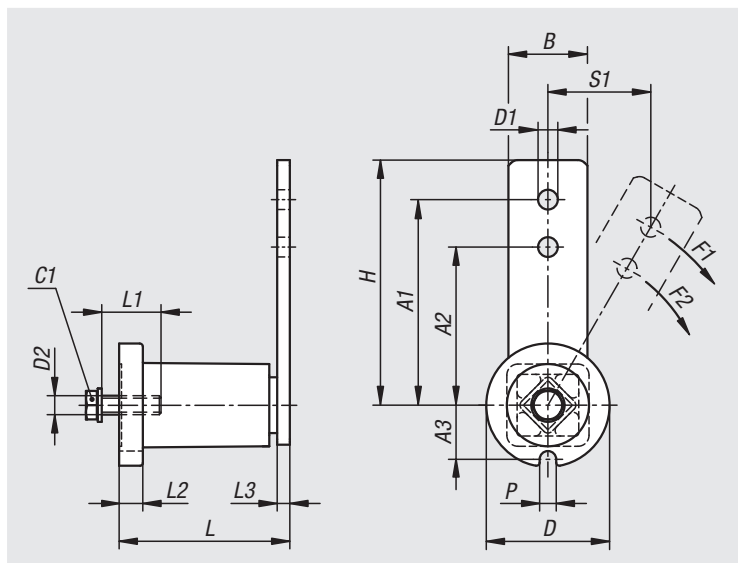
Clamping element with integrated highly elastic, shape-retaining natural rubber buffer.

Together with a chain tensioner set, sprocket set or a tension pulley, the clamping element makes a ready-to-install tensioning unit suitable for tensioning chain and belt drives. Suitable for both tensioning directions. The clamping elements are maintenance-free and tear-off resistant.

The clamping element is fastened to the machine component through a bore. If necessary, a heavy-duty dowel pin can be inserted in the positioning notch "P" for torque support.

Temperature range:

-55 °C to +85 °C.



Order No.	Size	A1	A2	A3	B	D	D1	D2	H	L	L1	L2	L3	P	S1	Tightening torque of screw C1 Nm	F1 N	F2 N
22281-10-1	1	80	60	16,6	20	37,5	8,5	M6	90	52+1 -0,5	25	6	5	8	42	10	90	110
22281-10-2	2	100	80	19,5	25	48	10,5	M8	115	63+1 -0,5	25	8	5	8,5	53	25	140	170
22281-10-3	3	100	80	24,5	30	60	10,5	M10	115	78+1,5 -0,5	30	10	6	8,5	53	49	320	430
22281-10-4	4	130	100	34	50	78	12,5	M12	155	108+2 -0,5	40	14	8	10,5	69	86	820	1050
22281-10-5	5	175	140	42	60	100	20,5	M16	205	145+2 -0,5	40	15	10	12,5	93	210	1500	1880

Clamping elements stainless steel



Material:

Housing 1.4308 stainless steel, from size 5 1.4301.

Clamping arm 1.4301 stainless steel.

Buffer natural rubber.

Screw stainless steel A2.

Version:

Housing and lever arm bright.

Screw ISO 4017, grade 70, bright.

Sample order:

nlm 22281-14-1

Note:

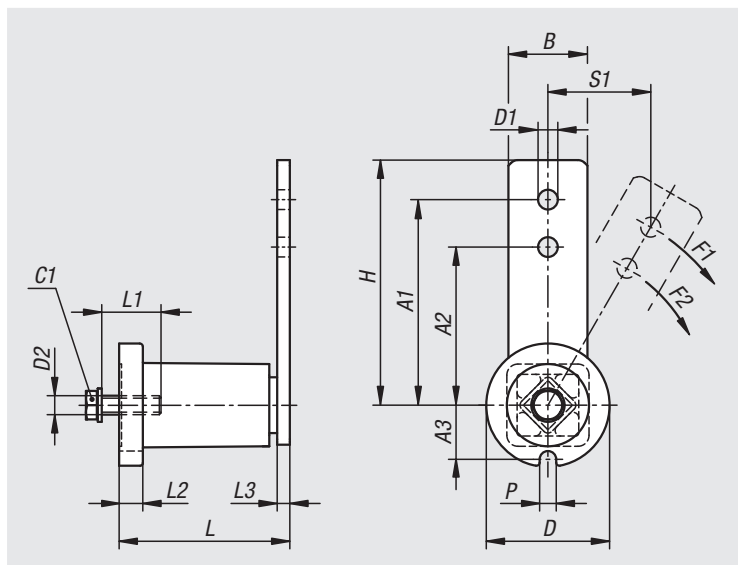
Clamping element with integrated highly elastic, shape-retaining natural rubber buffer.

Together with a chain tensioner set, sprocket set or a tension pulley, the clamping element makes a ready-to-install tensioning unit suitable for tensioning chain and belt drives. Suitable for both tensioning directions. The clamping elements are maintenance-free and tear-off resistant.

The clamping element is fastened to the machine component through a bore. If necessary, a heavy-duty dowel pin can be inserted in the positioning notch "P" for torque support.

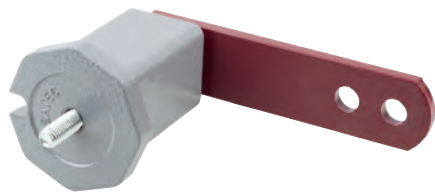
Temperature range:

-55 °C to +85 °C.



Order No.	Size	A1	A2	A3	B	D	D1	D2	H	L	L1	L2	L3	P	S1	Tightening torque of screw C1 Nm	F1 N	F2 N
22281-14-1	1	80	60	16,6	20	37,5	8,5	M6	90	52+1 -0,5	25	6	5	8	42	10	90	110
22281-14-2	2	100	80	19,5	25	48	10,5	M8	115	63+1 -0,5	25	8	5	8,5	53	25	140	170
22281-14-3	3	100	80	24,5	30	60	10,5	M10	115	78+1,5 -0,5	30	10	6	8,5	53	48	320	430
22281-14-4	4	130	100	34	50	78	12,5	M12	155	108+2 -0,5	40	14	8	10,5	69	82	820	1050
22281-14-5	5	175	135	42	60	98	20,5	M16	205	130+2 -0,5	40	15	8	12	93	199	1500	1940

Clamping elements with front fastening



Material:

Housing sintered steel, from size 5 EN-GJS-400-15.

Clamping arm S235JR steel.

Buffer natural rubber.

Screw steel.

Version:

Steel parts painted.

Screw ISO 4762, grade 8.8, electro zinc-plated.

Sample order:

nln 22281-16-2

Note:

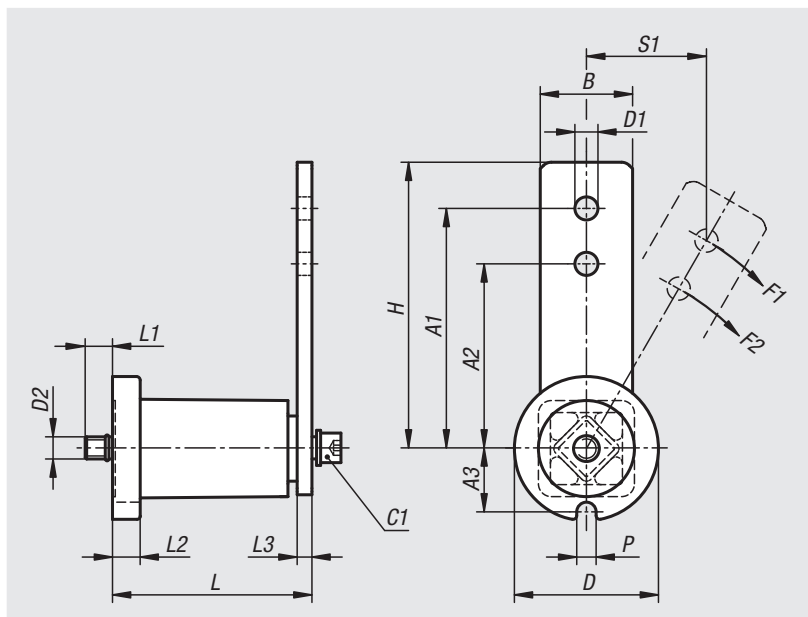
Clamping element with integrated highly elastic, shape-retaining natural rubber buffer.

Together with a chain tensioner set, sprocket set or a tension pulley, the clamping element makes a ready-to-install tensioning unit suitable for tensioning chain and belt drives. Suitable for both tensioning directions. The clamping elements are maintenance-free and tear-off resistant.

The clamping element is fastened to the machine component with a screw. If necessary, a heavy-duty dowel pin can be inserted in the positioning notch "P" for torque support.

Temperature range:

-55 °C to +85 °C.



Order No.	Size	A1	A2	A3	B	D	D1	D2	H	L	L1	L2	L3	P	S1	Tightening torque of screw C1 Nm	F1 N	F2 N
22281-16-2	2	100	80	19,5	25	48	10,5	M6	115	63+1 -0,5	13	8	5	8,5	53	10	140	170
22281-16-3	3	100	80	24,5	30	60	10,5	M8	115	78+1,5 -0,5	17	10	6	8,5	53	25	320	430
22281-16-4	4	130	100	34	50	78	12,5	M10	155	108+2 -0,5	17	14	8	10,5	69	49	820	1050
22281-16-5	5	175	140	42	60	100	20,5	M12	205	145+2 -0,5	10	15	10	12,5	93	145	1500	1880

Angle bracket for clamping elements


Material:

Steel.

Version:

Electro zinc-plated (size 5 painted).

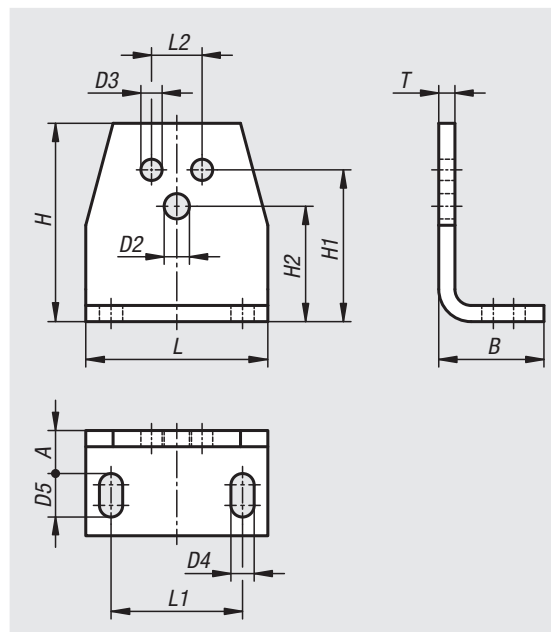
Sample order:

nln 22281-20-1

Note:

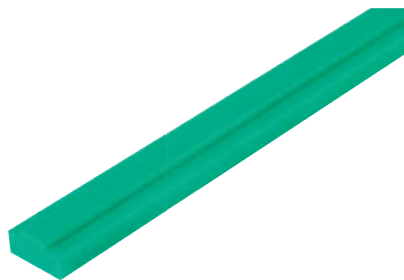
The angle bracket enables easy mounting of the clamping elements directly on the machine component. The bore D2 serves to hold the clamping element. The clamping element can be mounted on the front or rear of the bracket.

The bores D3 enable the bracket to be used for other applications.



Order No.	Size	A	B	D2	D3	D4	D5	H	H1	H2	L	L1	L2	T	Suitable for clamping element size
22281-20-1	1	12	30	6,5	5,5	7	13	46	35	27	50	30	10	4	1
22281-20-2	2	14	32	8,5	6,5	7	13	58	44	34	60	40	12	6	2
22281-20-3	3	16	38	10,5	8,5	9,5	16	75	55	45	70	50	20	6	3
22281-20-4	4	21	52	12,5	10,5	11,5	22	98	75	57	90	65	25	8	4
22281-20-5	5	21	55	16,5	12,5	14	24	116	85	66	110	80	35	8	5

Glide rails PE-UHMW for roller chains DIN ISO 606

**Material:**

Polyethylene PE-UHMW (ultra-high molecular weight polyethylene).

Version:

Green.

Sample order:

nln 22282-0812010X2000

Note:

Glide rails for roller chains as defined in DIN ISO 606.

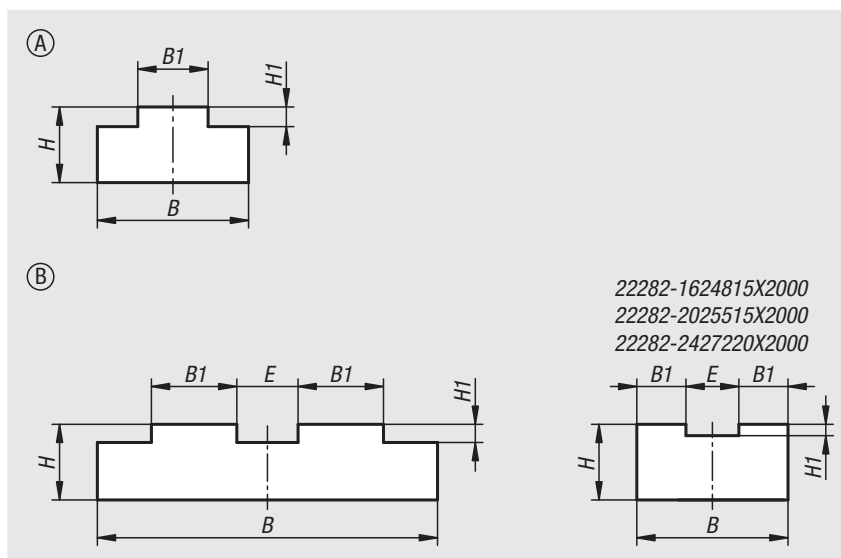
These support and guide the roller chains on the return side, thus extending useful life by significantly reducing wear on the roller chains. They reduce vibrations and noise in the chain drive.

These glide rails have high abrasion and wear resistance.

They are maintenance-free, acid-proof and have high chemical resistance.

Temperature range:

-200 °C to +60 °C (briefly up to +80 °C).

**Assembly:**

The glide rails can be fastened to the system by threaded holes or counterbores. Not suitable for gluing.

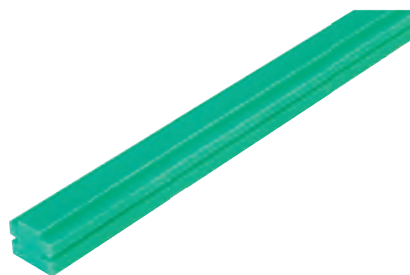
The glide rails must be mounted so that the material is allowed to expand. A property of thermoplastic materials is that they expand or contract more than metals when there are temperature variations.



Order No.	Form	ISO No.	Division inches	B	B1	E	H	H1	L
22282-0611510X2000	A	06 B-1	3/8X7/32	15	5,4	-	10	1,5	2000
22282-0812010X2000	A	08 B-1	1/2X5/16	20	7,4	-	10	2,2	2000
22282-0812015X2000	A	08 B-1	1/2X5/16	20	7,4	-	15	2,2	2000
22282-0812020X2000	A	08 B-1	1/2X5/16	20	7,4	-	20	2,2	2000
22282-1012010X2000	A	10 B-1	5/8X3/8	20	9,3	-	10	2,6	2000
22282-1012015X2000	A	10 B-1	5/8X3/8	20	9,3	-	15	2,6	2000
22282-1012020X2000	A	10 B-1	5/8X3/8	20	9,3	-	20	2,6	2000
22282-1212510X2000	A	12 B-1	3/4X7/16	25	11,3	-	10	2,4	2000
22282-1212515X2000	A	12 B-1	3/4X7/16	25	11,3	-	15	2,4	2000
22282-1212520X2000	A	12 B-1	3/4X7/16	25	11,3	-	20	2,4	2000
22282-1614015X2000	A	16 B-1	1X17mm	40	16	-	15	3,5	2000
22282-1614020X2000	A	16 B-1	1X17mm	40	16	-	20	3,5	2000
22282-2014515X2000	A	20 B-1	1 1/4X3/4	45	18	-	15	4,2	2000
22282-2416015X2000	A	24 B-1	1 1/2X1	60	24	-	15	5,5	2000
22282-0622510X2000	B	06 B-2	3/8X7/32	25	5,4	4,8	10	1,5	2000
22282-0823510X2000	B	08 B-2	1/2X5/16	35	7,4	6,4	10	2,2	2000
22282-0823515X2000	B	08 B-2	1/2X5/16	35	7,4	6,4	15	2,2	2000
22282-0823520X2000	B	08 B-2	1/2X5/16	35	7,4	6,4	20	2,2	2000
22282-1024010X2000	B	10 B-2	5/8X3/8	40	9,3	7,1	10	2,6	2000
22282-1224510X2000	B	12 B-2	3/4X7/16	45	11,3	8,1	10	2,4	2000
22282-1624815X2000	B	16 B-2	1X17mm	48	16	16	15	3,5	2000
22282-2025515X2000	B	20 B-1	1 1/4X3/4	55	18	19	15	4,2	2000
22282-2427220X2000	B	24 B-1	1 1/2X1	72	24	24	20	5,5	2000

Glide rails PE-UHMW for roller chains DIN ISO 606

for C profiles



Material:

Polyethylene PE-UHMW (ultra-high molecular weight polyethylene).

Version:

Green.

Sample order:

nln 22282-05-0811714X2000

Note:

Glide rails for roller chains as defined in DIN ISO 606.

These support and guide the roller chains on the return side, thus extending useful life by significantly reducing wear on the roller chains. They reduce vibrations and noise in the chain drive.

These glide rails have high abrasion and wear resistance.

They are maintenance-free, acid-proof and have high chemical resistance.

The additional C profiles are used for fastening to the system substructure and they protect the glide rails from lateral forces and torsion.

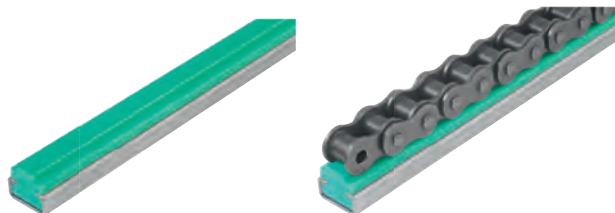
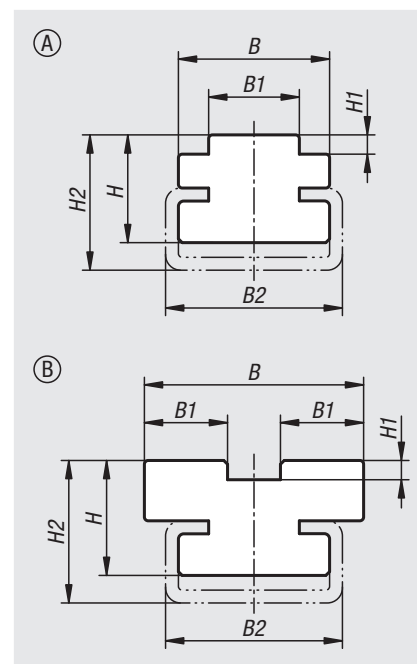
Temperature range:

-200 °C to +60 °C (briefly up to +80 °C).

Assembly:

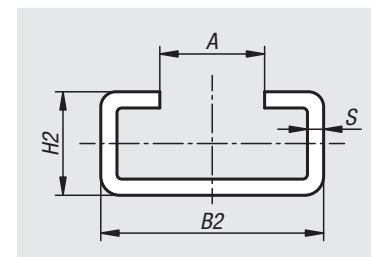
The glide rails are pushed into the C profiles fastened to the system.

The glide rails must be mounted so that the material is allowed to expand. A property of thermoplastic materials is that they expand or contract more than metals when there are temperature variations.



Order No.	Form	ISO No.	Division inches	B	B1	B2	H	H1	H2	L	matching C-profile
22282-05-0812010X2000	A	08 B-1	1/2X5/16	20	7,4	24	10	2,2	11	2000	C1
22282-05-0811714X2000	A	08 B-1	1/2X5/16	17	7,4	20	14	2,2	17	2000	C3
22282-05-1011714X2000	A	10 B-1	5/8X3/8	17	9,3	20	14	2,6	17	2000	C3
22282-05-1212014X2000	A	12 B-1	3/4X7/16	20	11,3	20	14	2,4	17	2000	C3
22282-05-1212414X2000	A	12 B-1	3/4X7/16	24	11,3	28	14	2,4	18	2000	C5
22282-05-1612414X2000	A	16 B-1	1X17mm	24	16	28	14	3,5	18	2000	C5
22282-05-2012814X2000	A	20 B-1	1 1/4X3/4	28	18	28	14	4,2	18	2000	C5
22282-05-2413323X2000	A	24 B-1	1 1/2X1	33	24	38	23	5,5	30	2000	C9
22282-05-0822114X2000	B	08 B-2	1/2X5/16	21,2	7,4	20	14	2,2	17	2000	C3
22282-05-1022514X2000	B	10 B-2	5/8X3/8	25,7	9,3	20	14	2,6	17	2000	C3
22282-05-1223015X2000	B	12 B-2	3/4X7/16	30,7	11,3	28	15	2,4	20	2000	C5
22282-05-1624820X2000	B	16 B-2	1X17mm	48	16	38	20	3,5	27	2000	C9
22282-05-2025522X2000	B	20 B-2	1 1/4X3/4	55	18	60	22	4,2	30	2000	C12
22282-05-2427225X2000	B	24 B-2	1 1/2X1	72	24	60	25	5,5	35	2000	C12

C profiles steel or stainless steel for glide rails

**Material:**

Steel or stainless steel A2.

Version:

Steel electro zinc-plated. Stainless steel bright.

Sample order:

nlm 22282-10-03X2000

Note:

The C profiles are used for fastening to the system substructure and they protect the glide rails from lateral forces and torsion. The glide rails can be simply pushed into the C profiles. Because the glide rails are positioned loosely in the C profiles, they can expand freely when there are temperature variations.

Order No.	Form	Main material	A	B2	H2	L	S
22282-10-01X2000	C1	steel	17,5	24	5,2	2000	1
22282-10-03X2000	C3	steel	10	20	10	2000	1,5
22282-10-05X2000	C5	steel	14	28	12	2000	2
22282-10-09X2000	C9	steel	22	38	18	2000	2,5
22282-10-12X2000	C12	steel	36	60	20	2000	2,5
22282-10-101X2000	C1	stainless steel	17,5	24	5,2	2000	1
22282-10-103X2000	C3	stainless steel	10	20	10	2000	1,5
22282-10-105X2000	C5	stainless steel	14	28	12	2000	2
22282-10-109X2000	C9	stainless steel	22	38	18	2000	2,5
22282-10-112X2000	C12	stainless steel	36	60	20	2000	2,5

Spur gears in steel, module 1

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nIm 22400-0110150012

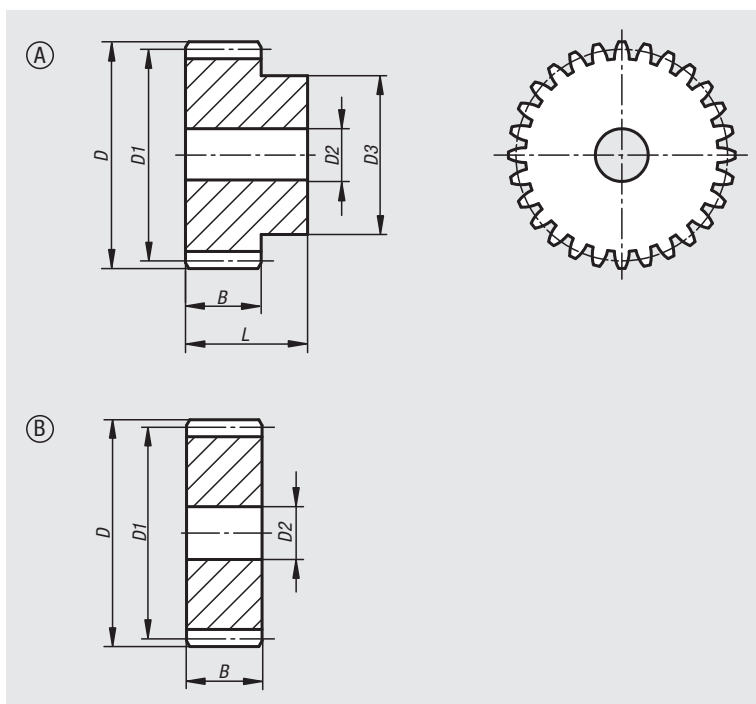
Note:

Up to 70 teeth with hub one side, from 72 teeth disc form.
The spur gears have a centre or pilot hole.

Drawing reference:

Form A: with hub

Form B: without hub



Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0110150012	A	12	14	12	6	9	15	25
22400-0110150013	A	13	15	13	-	10	15	25
22400-0110150014	A	14	16	14	-	11	15	25
22400-0110150015	A	15	17	15	-	12	15	25
22400-0110150016	A	16	18	16	-	13	15	25
22400-0110150017	A	17	19	17	-	14	15	25
22400-0110150018	A	18	20	18	8	15	15	25
22400-0110150019	A	19	21	19	8	15	15	25
22400-0110150020	A	20	22	20	8	16	15	25
22400-0110150021	A	21	23	21	8	16	15	25
22400-0110150022	A	22	24	22	8	16	15	25
22400-0110150023	A	23	25	23	8	18	15	25
22400-0110150024	A	24	26	24	10	20	15	25
22400-0110150025	A	25	27	25	10	20	15	25
22400-0110150026	A	26	28	26	10	20	15	25
22400-0110150027	A	27	29	27	10	20	15	25
22400-0110150028	A	28	30	28	10	20	15	25
22400-0110150029	A	29	31	29	10	20	15	25
22400-0110150030	A	30	32	30	10	20	15	25
22400-0110150031	A	31	33	31	10	25	15	25
22400-0110150032	A	32	34	32	10	25	15	25
22400-0110150033	A	33	35	33	10	25	15	25
22400-0110150034	A	34	36	34	10	25	15	25
22400-0110150035	A	35	37	35	10	25	15	25
22400-0110150036	A	36	38	36	10	25	15	25
22400-0110150037	A	37	39	37	10	25	15	25
22400-0110150038	A	38	40	38	10	25	15	25

Spur gears in steel, module 1

toothing milled, straight teeth, engagement angle 20°

Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0110150039	A	39	41	39	10	25	15	25
22400-0110150040	A	40	42	40	10	25	15	25
22400-0110150041	A	41	43	41	10	30	15	25
22400-0110150042	A	42	44	42	10	30	15	25
22400-0110150043	A	43	45	43	10	30	15	25
22400-0110150044	A	44	46	44	10	30	15	25
22400-0110150045	A	45	47	45	10	30	15	25
22400-0110150046	A	46	48	46	10	30	15	25
22400-0110150047	A	47	49	47	10	30	15	25
22400-0110150048	A	48	50	48	10	30	15	25
22400-0110150049	A	49	51	49	10	30	15	25
22400-0110150050	A	50	52	50	12	30	15	25
22400-0110150051	A	51	53	51	12	40	15	25
22400-0110150052	A	52	54	52	12	40	15	25
22400-0110150053	A	53	55	53	12	40	15	25
22400-0110150054	A	54	56	54	12	40	15	25
22400-0110150055	A	55	57	55	12	40	15	25
22400-0110150056	A	56	58	56	12	40	15	25
22400-0110150057	A	57	59	57	12	40	15	25
22400-0110150058	A	58	60	58	12	40	15	25
22400-0110150059	A	59	61	59	12	40	15	25
22400-0110150060	A	60	62	60	12	40	15	25
22400-0110150061	A	61	63	61	12	50	15	25
22400-0110150062	A	62	64	62	12	50	15	25
22400-0110150063	A	63	65	63	12	50	15	25
22400-0110150064	A	64	66	64	12	50	15	25
22400-0110150065	A	65	67	65	12	50	15	25
22400-0110150066	A	66	68	66	12	50	15	25
22400-0110150067	A	67	69	67	12	50	15	25
22400-0110150068	A	68	70	68	12	50	15	25
22400-0110150069	A	69	71	69	12	50	15	25
22400-0110150070	A	70	72	70	12	50	15	25

Order No.	Form	No. of teeth	D	D1	D2 max.	B
22400-0210150072	B	72	74	72	12	15
22400-0210150075	B	75	77	75	12	15
22400-0210150076	B	76	78	76	12	15
22400-0210150080	B	80	82	80	12	15
22400-0210150085	B	85	87	85	12	15
22400-0210150090	B	90	92	90	12	15
22400-0210150095	B	95	97	95	12	15
22400-0210150100	B	100	102	100	12	15
22400-0210150110	B	110	112	110	12	15
22400-0210150114	B	114	116	114	12	15
22400-0210150120	B	120	122	120	12	15
22400-0210150127	B	127	129	127	12	15

Spur gears in steel, module 1.5

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nlm 22400-0115170012

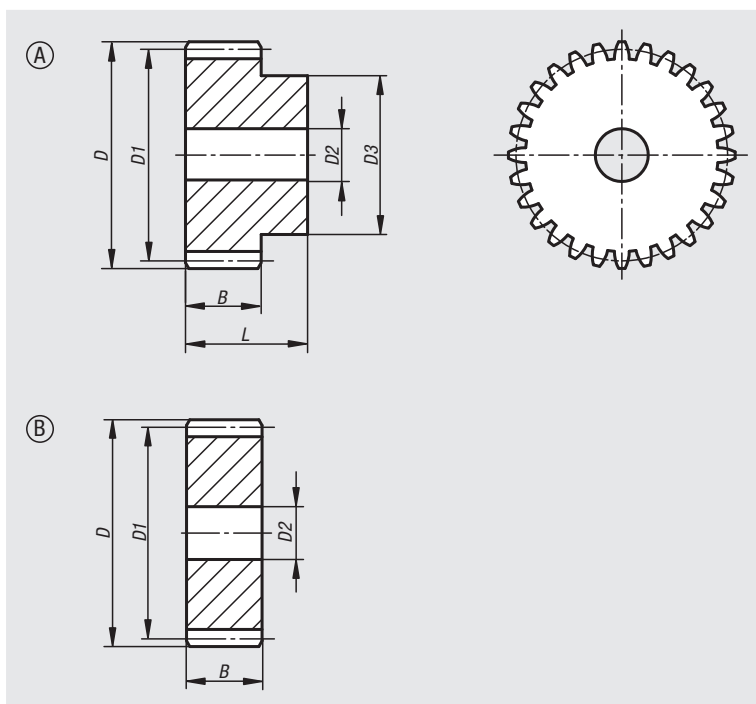
Note:

Up to 70 teeth with hub one side, from 72 teeth disc form.
The spur gears have a centre or pilot hole.

Drawing reference:

Form A: with hub

Form B: without hub



Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0115170012	A	12	21	18	8	14	17	30
22400-0115170013	A	13	22,5	19,5	8	15	17	30
22400-0115170014	A	14	24	21	8	17	17	30
22400-0115170015	A	15	25,5	22,5	8	18	17	30
22400-0115170016	A	16	27	24	8	19	17	30
22400-0115170017	A	17	28,5	25,5	8	20	17	30
22400-0115170018	A	18	30	27	8	20	17	30
22400-0115170019	A	19	31,5	28,5	8	20	17	30
22400-0115170020	A	20	33	30	8	25	17	30
22400-0115170021	A	21	34,5	31,5	10	25	17	30
22400-0115170022	A	22	36	33	10	25	17	30
22400-0115170023	A	23	37,5	34,5	10	25	17	30
22400-0115170024	A	24	39	36	10	25	17	30
22400-0115170025	A	25	40,5	37,5	10	25	17	30
22400-0115170026	A	26	42	39	12	30	17	30
22400-0115170027	A	27	43,5	40,5	12	30	17	30
22400-0115170028	A	28	45	42	12	30	17	30
22400-0115170029	A	29	46,5	43,5	12	30	17	30
22400-0115170030	A	30	48	45	12	30	17	30
22400-0115170031	A	31	49,5	46,5	12	35	17	30
22400-0115170032	A	32	51	48	12	35	17	30
22400-0115170033	A	33	52,5	49,5	12	35	17	30
22400-0115170034	A	34	54	51	12	35	17	30
22400-0115170035	A	35	55,5	52,5	12	35	17	30
22400-0115170036	A	36	57	54	12	35	17	30
22400-0115170037	A	37	58,5	55,5	12	40	17	30
22400-0115170038	A	38	60	57	12	40	17	30

Spur gears in steel, module 1.5

toothing milled, straight teeth, engagement angle 20°

Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0115170039	A	39	61,5	58,5	12	40	17	30
22400-0115170040	A	40	63	60	12	40	17	30
22400-0115170041	A	41	64,5	61,5	12	40	17	30
22400-0115170042	A	42	66	63	12	50	17	30
22400-0115170043	A	43	67,5	64,5	12	50	17	30
22400-0115170044	A	44	69	66	12	50	17	30
22400-0115170045	A	45	70,5	67,5	12	50	17	30
22400-0115170046	A	46	72	69	14	50	17	30
22400-0115170047	A	47	73,5	70,5	14	50	17	30
22400-0115170048	A	48	75	72	14	50	17	30
22400-0115170049	A	49	76,5	73,5	14	50	17	30
22400-0115170050	A	50	78	75	14	50	17	30
22400-0115170051	A	51	79,5	76,5	14	60	17	30
22400-0115170052	A	52	81	78	14	60	17	30
22400-0115170053	A	53	82,5	79,5	14	60	17	30
22400-0115170054	A	54	84	81	14	60	17	30
22400-0115170055	A	55	85,5	82,5	14	60	17	30
22400-0115170056	A	56	87	84	20	60	17	30
22400-0115170057	A	57	88,5	85,5	20	60	17	30
22400-0115170058	A	58	90	87	20	60	17	30
22400-0115170059	A	59	91,5	88,5	20	60	17	30
22400-0115170060	A	60	93	90	20	60	17	30
22400-0115170061	A	61	94,5	91,5	20	70	17	30
22400-0115170062	A	62	96	93	20	70	17	30
22400-0115170063	A	63	97,5	94,5	20	70	17	30
22400-0115170064	A	64	99	96	20	70	17	30
22400-0115170065	A	65	100,5	97,5	20	70	17	30
22400-0115170066	A	66	102	99	20	70	17	30
22400-0115170067	A	67	103,5	100,5	20	70	17	30
22400-0115170068	A	68	105	102	20	70	17	30
22400-0115170069	A	69	106,5	103,5	20	70	17	30
22400-0115170070	A	70	108	105	20	70	17	30

Order No.	Form	No. of teeth	D	D1	D2 max.	B
22400-0215170072	B	72	111	108	20	17
22400-0215170075	B	75	115,5	112,5	20	17
22400-0215170076	B	76	117	114	20	17
22400-0215170080	B	80	123	120	20	17
22400-0215170085	B	85	130,5	127,5	20	17
22400-0215170090	B	90	138	135	20	17
22400-0215170095	B	95	145,5	142,5	20	17
22400-0215170100	B	100	153	150	20	17
22400-0215170110	B	110	168	165	20	17
22400-0215170114	B	114	174	171	20	17
22400-0215170120	B	120	183	180	20	17
22400-0215170127	B	127	193,5	190,5	20	17

Spur gears in steel, module 2

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nIm 22400-0120200012

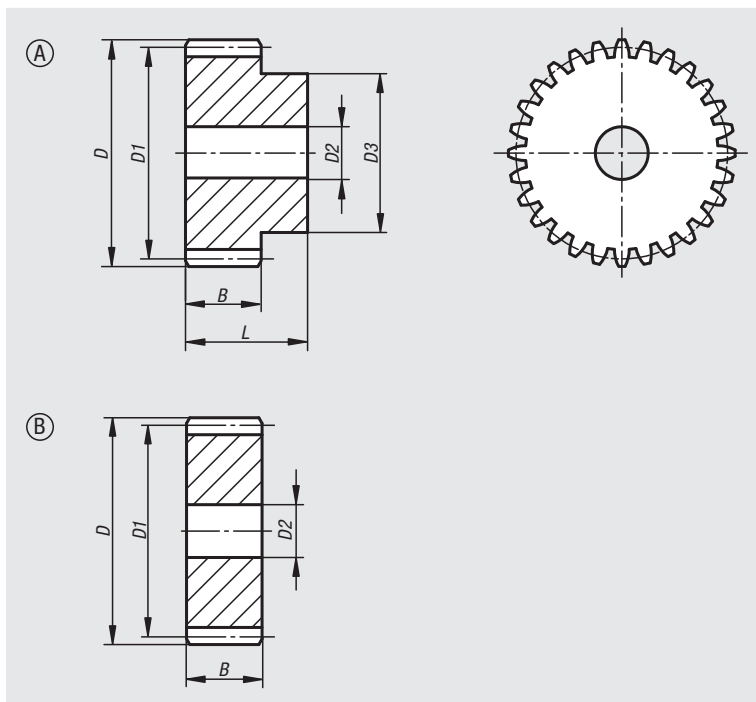
Note:

Up to 70 teeth with hub one side, from 72 teeth disc form.
The spur gears have a centre or pilot hole.

Drawing reference:

Form A: with hub

Form B: without hub



Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0120200012	A	12	28	24	10	18	20	35
22400-0120200013	A	13	30	26	10	20	20	35
22400-0120200014	A	14	32	28	10	22	20	35
22400-0120200015	A	15	34	30	10	24	20	35
22400-0120200016	A	16	36	32	10	25	20	35
22400-0120200017	A	17	38	34	10	25	20	35
22400-0120200018	A	18	40	36	10	25	20	35
22400-0120200019	A	19	42	38	10	25	20	35
22400-0120200020	A	20	44	40	10	30	20	35
22400-0120200021	A	21	46	42	12	30	20	35
22400-0120200022	A	22	48	44	12	30	20	35
22400-0120200023	A	23	50	46	12	30	20	35
22400-0120200024	A	24	52	48	12	35	20	35
22400-0120200025	A	25	54	50	12	35	20	35
22400-0120200026	A	26	56	52	12	40	20	35
22400-0120200027	A	27	58	54	12	40	20	35
22400-0120200028	A	28	60	56	12	40	20	35
22400-0120200029	A	29	62	58	14	40	20	35
22400-0120200030	A	30	64	60	14	40	20	35
22400-0120200031	A	31	66	62	14	45	20	35
22400-0120200032	A	32	68	64	14	45	20	35
22400-0120200033	A	33	70	66	14	45	20	35
22400-0120200034	A	34	72	68	14	45	20	35
22400-0120200035	A	35	74	70	14	45	20	35
22400-0120200036	A	36	76	72	14	45	20	35
22400-0120200037	A	37	78	74	14	50	20	35
22400-0120200038	A	38	80	76	14	50	20	35

Spur gears in steel, module 2

toothing milled, straight teeth, engagement angle 20°

Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0120200039	A	39	82	78	14	50	20	35
22400-0120200040	A	40	84	80	14	50	20	35
22400-0120200041	A	41	86	82	20	55	20	35
22400-0120200042	A	42	88	84	20	55	20	35
22400-0120200043	A	43	90	86	20	55	20	35
22400-0120200044	A	44	92	88	20	60	20	35
22400-0120200045	A	45	94	90	20	60	20	35
22400-0120200046	A	46	96	92	20	60	20	35
22400-0120200047	A	47	98	94	20	70	20	35
22400-0120200048	A	48	100	96	20	70	20	35
22400-0120200049	A	49	102	98	20	70	20	35
22400-0120200050	A	50	104	100	20	70	20	35
22400-0120200051	A	51	106	102	20	70	20	35
22400-0120200052	A	52	108	104	20	70	20	35
22400-0120200053	A	53	110	106	20	70	20	35
22400-0120200054	A	54	112	108	20	70	20	35
22400-0120200055	A	55	114	110	20	70	20	35
22400-0120200056	A	56	116	112	20	70	20	35
22400-0120200057	A	57	118	114	20	70	20	35
22400-0120200058	A	58	120	116	20	70	20	35
22400-0120200059	A	59	122	118	20	70	20	35
22400-0120200060	A	60	124	120	20	70	20	35
22400-0120200061	A	61	126	122	20	80	20	35
22400-0120200062	A	62	128	124	20	80	20	35
22400-0120200063	A	63	130	126	20	80	20	35
22400-0120200064	A	64	132	128	20	80	20	35
22400-0120200065	A	65	134	130	20	80	20	35
22400-0120200066	A	66	136	132	20	80	20	35
22400-0120200067	A	67	138	134	20	80	20	35
22400-0120200068	A	68	140	136	20	80	20	35
22400-0120200069	A	69	142	138	20	80	20	35
22400-0120200070	A	70	144	140	20	80	20	35

Order No.	Form	No. of teeth	D	D1	D2 max.	B
22400-0220200072	B	72	148	144	20	20
22400-0220200075	B	75	154	150	20	20
22400-0220200076	B	76	156	152	20	20
22400-0220200080	B	80	164	160	20	20
22400-0220200085	B	85	174	170	20	20
22400-0220200090	B	90	184	180	20	20
22400-0220200095	B	95	194	190	20	20
22400-0220200100	B	100	204	200	20	20
22400-0220200110	B	110	224	220	20	20
22400-0220200114	B	114	232	228	20	20
22400-0220200120	B	120	244	240	20	20
22400-0220200127	B	127	258	254	20	20

Spur gears in steel, module 2.5

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nlm 22400-0125250012

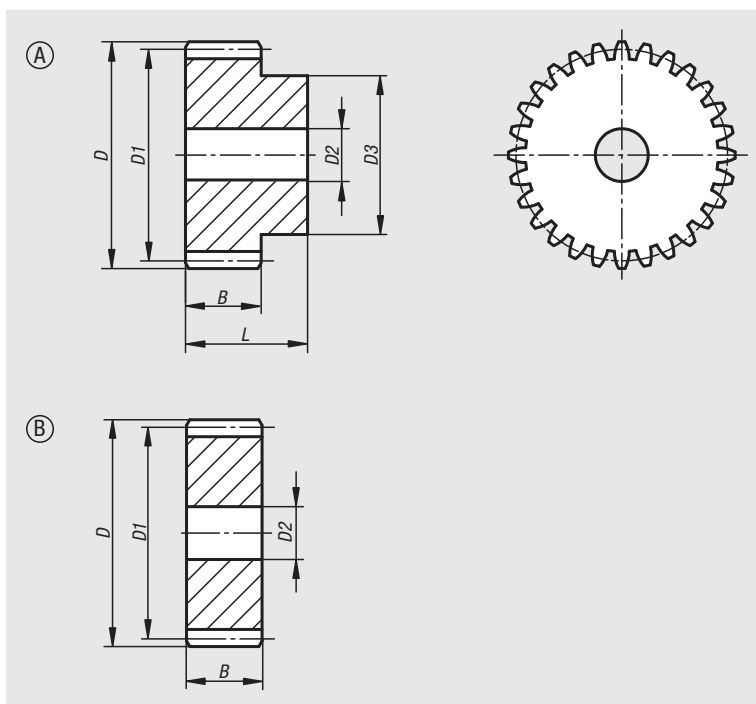
Note:

Up to 60 teeth with hub, from 65 teeth disc form.

Drawing reference:

Form A: with hub

Form B: without hub



Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0125250012	A	12	35	30	10	22	25	45
22400-0125250013	A	13	37,5	32,5	10	25	25	45
22400-0125250014	A	14	40	35	10	28	25	45
22400-0125250015	A	15	42,5	37,5	10	30	25	45
22400-0125250016	A	16	45	40	12	32	25	45
22400-0125250017	A	17	47,5	42,5	12	35	25	45
22400-0125250018	A	18	50	45	12	35	25	45
22400-0125250019	A	19	52,5	47,5	12	35	25	45
22400-0125250020	A	20	55	50	12	40	25	45
22400-0125250021	A	21	57,5	52,5	14	40	25	45
22400-0125250022	A	22	60	55	14	45	25	45
22400-0125250023	A	23	62,5	57,5	14	45	25	45
22400-0125250024	A	24	65	60	14	45	25	45
22400-0125250025	A	25	67,5	62,5	14	50	25	45
22400-0125250026	A	26	70	65	14	50	25	45
22400-0125250027	A	27	72,5	67,5	14	50	25	45
22400-0125250028	A	28	75	70	14	50	25	45
22400-0125250029	A	29	77,5	72,5	14	50	25	45
22400-0125250030	A	30	80	75	14	55	25	45

Spur gears in steel, module 2.5

toothing milled, straight teeth, engagement angle 20°

Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0125250031	A	31	82,5	77,5	20	55	25	45
22400-0125250032	A	32	85	80	20	55	25	45
22400-0125250033	A	33	87,5	82,5	20	55	25	45
22400-0125250034	A	34	90	85	20	55	25	45
22400-0125250035	A	35	92,5	87,5	20	60	25	45
22400-0125250036	A	36	95	90	20	60	25	45
22400-0125250037	A	37	97,5	92,5	20	60	25	45
22400-0125250038	A	38	100	95	20	60	25	45
22400-0125250039	A	39	102,5	97,5	20	60	25	45
22400-0125250040	A	40	105	100	20	70	25	45
22400-0125250041	A	41	107,5	102,5	20	70	25	45
22400-0125250042	A	42	110	105	20	70	25	45
22400-0125250043	A	43	112,5	107,5	20	70	25	45
22400-0125250044	A	44	115	110	20	70	25	45
22400-0125250045	A	45	117,5	112,5	20	70	25	45
22400-0125250046	A	46	120	115	20	70	25	45
22400-0125250047	A	47	122,5	117,5	20	80	25	45
22400-0125250048	A	48	125	120	20	80	25	45
22400-0125250049	A	49	127,5	122,5	20	80	25	45
22400-0125250050	A	50	130	125	20	80	25	45
22400-0125250051	A	51	132,5	127,5	20	80	25	45
22400-0125250052	A	52	135	130	20	90	25	45
22400-0125250053	A	53	137,5	132,5	20	90	25	45
22400-0125250054	A	54	140	135	20	90	25	45
22400-0125250055	A	55	142,5	137,5	20	90	25	45
22400-0125250056	A	56	145	140	20	100	25	45
22400-0125250057	A	57	147,5	142,5	20	100	25	45
22400-0125250058	A	58	150	145	20	100	25	45
22400-0125250059	A	59	152,5	147,5	20	100	25	45
22400-0125250060	A	60	155	150	20	100	25	45

Order No.	Form	No. of teeth	D	D1	D2 max.	B
22400-0225250065	B	65	167,5	162,5	20	25
22400-0225250070	B	70	180	175	20	25
22400-0225250072	B	72	185	180	20	25
22400-0225250075	B	75	192,5	187,5	20	25
22400-0225250076	B	76	195	190	20	25
22400-0225250080	B	80	205	200	25	25
22400-0225250085	B	85	217,5	212,5	25	25
22400-0225250090	B	90	230	225	25	25
22400-0225250095	B	95	242,5	237,5	25	25
22400-0225250100	B	100	255	250	25	25
22400-0225250110	B	110	280	275	25	25
22400-0225250114	B	114	290	285	25	25
22400-0225250120	B	120	305	300	25	25
22400-0225250127	B	127	322,5	317,5	25	25

Spur gears in steel, module 3

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nln 22400-0130300012

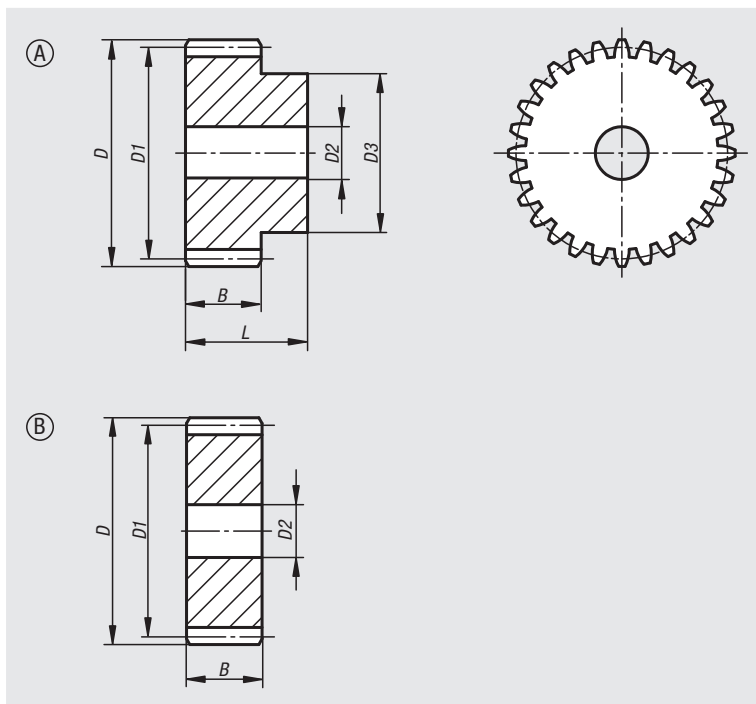
Note:

Up to 48 teeth with hub, from 50 teeth disc form.

Drawing reference:

Form A: with hub

Form B: without hub



Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0130300012	A	12	42	36	12	27	30	50
22400-0130300013	A	13	45	39	12	30	30	50
22400-0130300014	A	14	48	42	12	33	30	50
22400-0130300015	A	15	51	45	12	35	30	50
22400-0130300016	A	16	54	48	14	38	30	50
22400-0130300017	A	17	57	51	14	42	30	50
22400-0130300018	A	18	60	54	14	45	30	50
22400-0130300019	A	19	63	57	14	45	30	50
22400-0130300020	A	20	66	60	14	45	30	50
22400-0130300021	A	21	69	63	20	45	30	50
22400-0130300022	A	22	72	66	20	50	30	50
22400-0130300023	A	23	75	69	20	50	30	50
22400-0130300024	A	24	78	72	20	50	30	50

Spur gears in steel, module 3

toothing milled, straight teeth, engagement angle 20°

Order No.	Form	No. of teeth	D	D1	D2 max.	D3	B	L
22400-0130300025	A	25	81	75	20	60	30	50
22400-0130300026	A	26	84	78	20	60	30	50
22400-0130300027	A	27	87	81	20	60	30	50
22400-0130300028	A	28	90	84	20	60	30	50
22400-0130300029	A	29	93	87	20	60	30	50
22400-0130300030	A	30	96	90	20	60	30	50
22400-0130300031	A	31	99	93	20	60	30	50
22400-0130300032	A	32	102	96	20	70	30	50
22400-0130300033	A	33	105	99	20	70	30	50
22400-0130300034	A	34	108	102	20	70	30	50
22400-0130300035	A	35	111	105	20	70	30	50
22400-0130300036	A	36	114	108	20	70	30	50
22400-0130300037	A	37	117	111	20	70	30	50
22400-0130300038	A	38	120	114	20	80	30	50
22400-0130300039	A	39	123	117	20	80	30	50
22400-0130300040	A	40	126	120	20	80	30	50
22400-0130300041	A	41	129	123	20	80	30	50
22400-0130300042	A	42	132	126	20	80	30	50
22400-0130300043	A	43	135	129	20	80	30	50
22400-0130300044	A	44	138	132	20	90	30	50
22400-0130300045	A	45	141	135	20	90	30	50
22400-0130300046	A	46	144	138	20	90	30	50
22400-0130300047	A	47	147	141	20	100	30	50
22400-0130300048	A	48	150	144	20	100	30	50

Order No.	Form	No. of teeth	D	D1	D2 max.	B
22400-0230300050	B	50	156	150	20	30
22400-0230300052	B	52	162	156	20	30
22400-0230300055	B	55	171	165	20	30
22400-0230300057	B	57	177	171	20	30
22400-0230300060	B	60	186	180	20	30
22400-0230300065	B	65	201	195	20	30
22400-0230300070	B	70	216	210	25	30
22400-0230300072	B	72	222	216	25	30
22400-0230300075	B	75	231	225	25	30
22400-0230300076	B	76	234	228	25	30
22400-0230300080	B	80	246	240	25	30
22400-0230300085	B	85	261	255	25	30
22400-0230300090	B	90	276	270	25	30
22400-0230300095	B	95	291	285	25	30
22400-0230300100	B	100	306	300	25	30
22400-0230300110	B	110	336	330	25	30
22400-0230300114	B	114	348	342	30	30
22400-0230300120	B	120	366	360	30	30
22400-0230300127	B	127	387	381	30	30

Spur gears in steel, module 4

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nIm 22400-0140400013

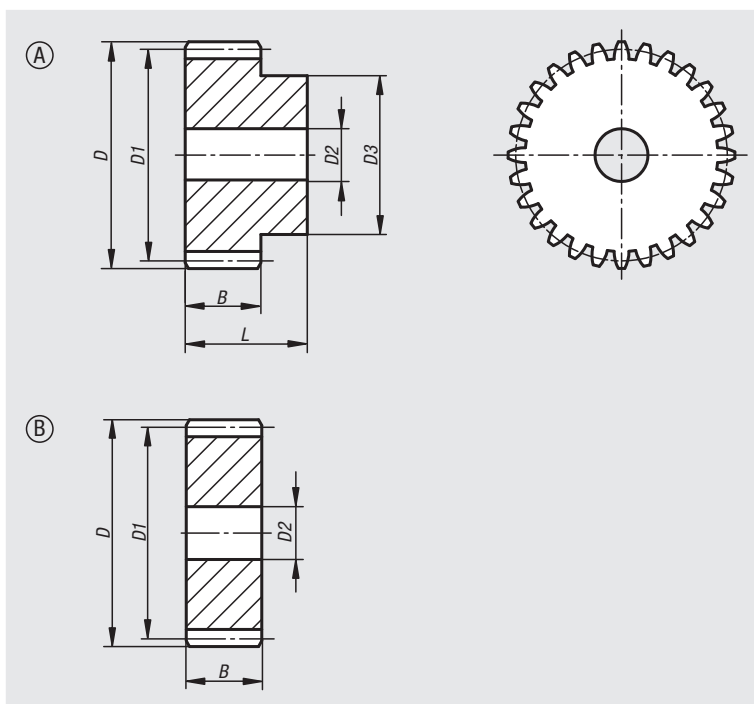
Note:

Up to 36 teeth with hub, from 38 teeth disc form.
The spur gears have a centre or pilot hole.

Drawing reference:

Form A: with hub

Form B: without hub



Spur gears in steel, module 4

toothing milled, straight teeth, engagement angle 20°



Order No.	Form	B	D	D1	D2 max.	D3	L	Module	No. of teeth
22400-0140400012	A	40	56	48	14	35	60	4	12
22400-0140400013	A	40	60	52	14	40	60	4	13
22400-0140400014	A	40	64	56	14	45	60	4	14
22400-0140400015	A	40	68	60	14	45	60	4	15
22400-0140400016	A	40	72	64	16	50	60	4	16
22400-0140400017	A	40	76	68	16	50	60	4	17
22400-0140400018	A	40	80	72	16	50	60	4	18
22400-0140400019	A	40	84	76	16	60	60	4	19
22400-0140400020	A	40	88	80	16	60	60	4	20
22400-0140400021	A	40	92	84	16	70	60	4	21
22400-0140400022	A	40	96	88	16	70	60	4	22
22400-0140400023	A	40	100	92	20	75	60	4	23
22400-0140400024	A	40	104	96	20	75	60	4	24
22400-0140400025	A	40	108	100	20	75	60	4	25
22400-0140400026	A	40	112	104	20	75	60	4	26
22400-0140400027	A	40	116	108	20	75	60	4	27
22400-0140400028	A	40	120	112	20	75	60	4	28
22400-0140400029	A	40	124	116	20	75	60	4	29
22400-0140400030	A	40	128	120	20	75	60	4	30
22400-0140400031	A	40	132	124	20	80	60	4	31
22400-0140400032	A	40	136	128	20	80	60	4	32
22400-0140400033	A	40	140	132	20	80	60	4	33
22400-0140400034	A	40	144	136	20	80	60	4	34
22400-0140400035	A	40	148	140	20	80	60	4	35
22400-0140400036	A	40	152	144	25	80	60	4	36

Order No.	Form	B	D	D1	D2 max.	Module	No. of teeth
22400-0240400038	B	40	160	152	25	4	38
22400-0240400040	B	40	168	160	25	4	40
22400-0240400045	B	40	188	180	25	4	45
22400-0240400048	B	40	200	192	25	4	48
22400-0240400050	B	40	208	200	25	4	50
22400-0240400052	B	40	216	208	25	4	52
22400-0240400055	B	40	228	220	25	4	55
22400-0240400057	B	40	236	228	25	4	57
22400-0240400060	B	40	248	240	25	4	60
22400-0240400065	B	40	268	260	25	4	65
22400-0240400070	B	40	288	280	25	4	70
22400-0240400075	B	40	308	300	25	4	75
22400-0240400076	B	40	312	304	30	4	76
22400-0240400080	B	40	328	320	30	4	80
22400-0240400085	B	40	348	340	30	4	85
22400-0240400090	B	40	368	360	30	4	90
22400-0240400095	B	40	388	380	30	4	95
22400-0240400100	B	40	408	400	30	4	100
22400-0240400110	B	40	448	440	30	4	110
22400-0240400114	B	40	464	456	30	4	114

Spur gears in steel, module 5

toothing milled, straight teeth, engagement angle 20°

**Material:**

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nlm 22400-0150500012

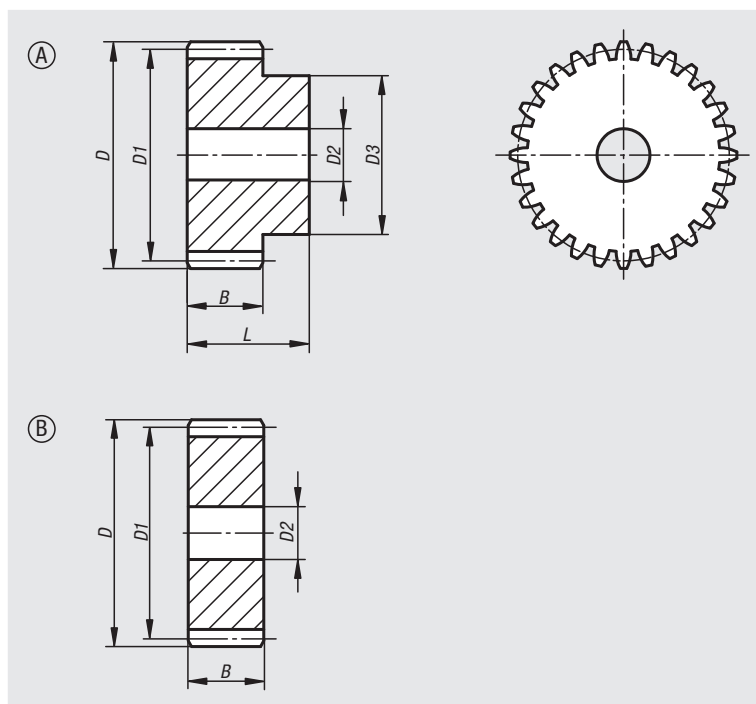
Note:

Up to 30 teeth with hub, from 32 teeth disc form. The spur gears have a centre or pilot hole.

Drawing reference:

Form A: with hub

Form B: without hub



Spur gears in steel, module 5

toothing milled, straight teeth, engagement angle 20°



Order No.	Form	B	D	D1	D2 max.	D3	L	Module	No. of teeth
22400-0150500012	A	50	70	60	20	45	75	5	12
22400-0150500013	A	50	75	65	20	50	75	5	13
22400-0150500014	A	50	80	70	20	55	75	5	14
22400-0150500015	A	50	85	75	20	60	75	5	15
22400-0150500016	A	50	90	80	20	65	75	5	16
22400-0150500017	A	50	95	85	20	70	75	5	17
22400-0150500018	A	50	100	90	20	70	75	5	18
22400-0150500019	A	50	105	95	20	70	75	5	19
22400-0150500020	A	50	110	100	20	80	75	5	20
22400-0150500021	A	50	115	105	20	80	75	5	21
22400-0150500022	A	50	120	110	20	80	75	5	22
22400-0150500023	A	50	125	115	20	90	75	5	23
22400-0150500024	A	50	130	120	20	90	75	5	24
22400-0150500025	A	50	135	125	20	90	75	5	25
22400-0150500026	A	50	140	130	20	100	75	5	26
22400-0150500027	A	50	145	135	20	100	75	5	27
22400-0150500028	A	50	150	140	25	100	75	5	28
22400-0150500029	A	50	155	145	25	110	75	5	29
22400-0150500030	A	50	160	150	25	110	75	5	30

Order No.	Form	B	D	D1	D2 max.	Module	No. of teeth
22400-0250500032	B	50	170	160	25	5	32
22400-0250500035	B	50	185	175	25	5	35
22400-0250500038	B	50	200	190	25	5	38
22400-0250500040	B	50	210	200	25	5	40
22400-0250500045	B	50	235	225	25	5	45
22400-0250500048	B	50	250	240	25	5	48
22400-0250500050	B	50	260	250	30	5	50
22400-0250500052	B	50	270	260	30	5	52
22400-0250500055	B	50	285	275	30	5	55
22400-0250500057	B	50	295	285	30	5	57
22400-0250500060	B	50	310	300	30	5	60
22400-0250500065	B	50	335	325	30	5	65
22400-0250500070	B	50	360	350	30	5	70
22400-0250500075	B	50	385	375	30	5	75
22400-0250500076	B	50	390	380	30	5	76
22400-0250500080	B	50	410	400	30	5	80
22400-0250500085	B	50	435	425	30	5	85
22400-0250500090	B	50	460	450	30	5	90
22400-0250500095	B	50	485	475	30	5	95
22400-0250500100	B	50	510	500	30	5	100
22400-0250500110	B	50	560	550	30	5	110
22400-0250500114	B	50	580	570	30	5	114

Spur gears in steel, module 6

toothed milled, straight teeth, engagement angle 20°



Material:

Steel 1.0503 (C45).

Version:

Milled toothed, straight teeth.
Engagement angle 20°, bright.

Sample order:

nlm 22400-0160600012

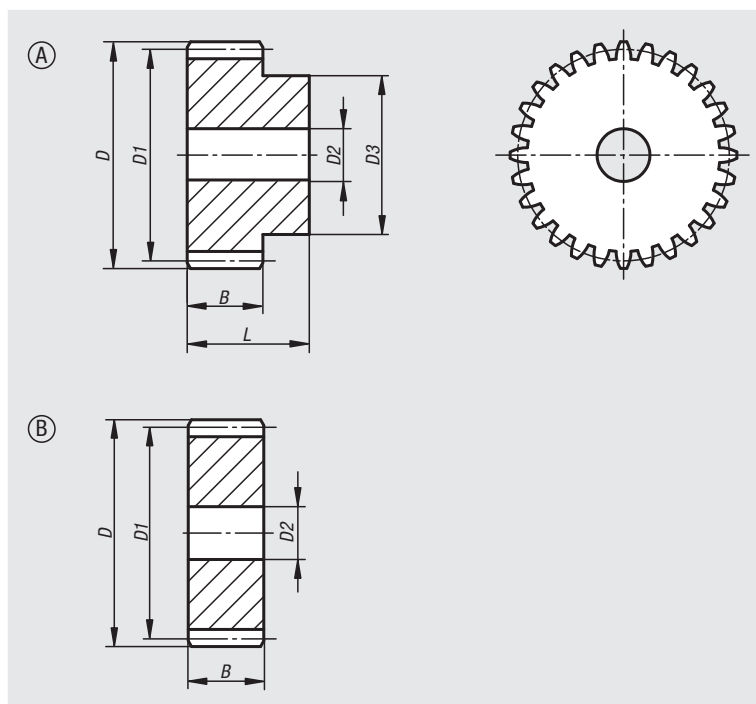
Note:

Up to 25 teeth with hub, from 28 teeth disc form. The spur gears have a centre or pilot hole.

Drawing reference:

Form A: with hub

Form B: without hub



Order No.	Form	B	D	D1	D2 max.	D3	L	No. of teeth
22400-0160600012	A	60	84	72	20	54	80	12
22400-0160600013	A	60	90	78	20	60	80	13
22400-0160600015	A	60	102	90	20	70	80	15
22400-0160600016	A	60	108	95	20	75	80	16
22400-0160600018	A	60	120	108	20	80	80	18
22400-0160600020	A	60	132	120	20	90	80	20
22400-0160600024	A	60	156	144	25	110	80	24
22400-0160600025	A	60	162	150	25	110	80	25

Order No.	Form	B	D	D1	D2 max.	No. of teeth
22400-0260600028	B	60	180	168	25	28
22400-0260600030	B	60	192	180	25	30
22400-0260600032	B	60	204	192	25	32
22400-0260600035	B	60	222	210	25	35
22400-0260600038	B	60	240	228	25	38
22400-0260600040	B	60	252	240	25	40

Spur gears in steel, module 8

toothing milled, straight teeth, engagement angle 20°



Material:

Steel 1.0503 (C45).

Version:

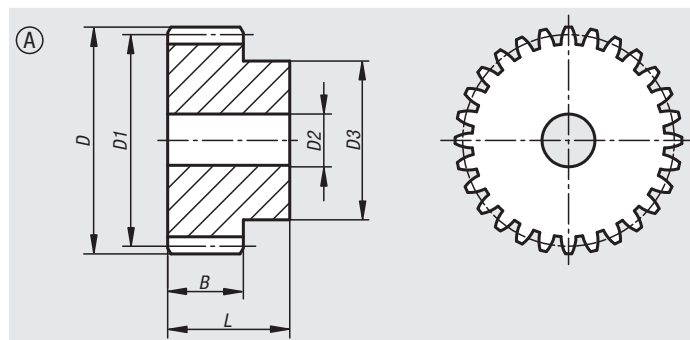
Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nIm 22400-0180800015

Note:

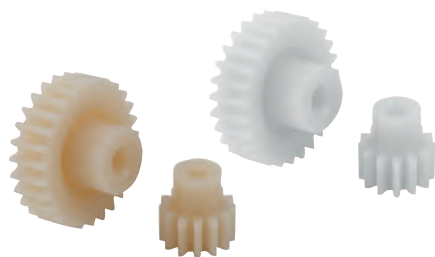
With hub one side. The spur gears have a centre or pilot hole.



Order No.	B	D	D1	D2 max.	D3	L	Module	No. of teeth
22400-0180800015	80	136	120	25	90	110	8	15
22400-0180800018	80	160	144	25	100	110	8	18
22400-0180800020	80	176	160	30	120	110	8	20
22400-0180800024	80	208	192	30	150	110	8	24
22400-0180800025	80	216	200	30	150	110	8	25
22400-0180800030	80	256	240	30	190	110	8	30

Spur gears, plastic, module 0.5

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1050012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

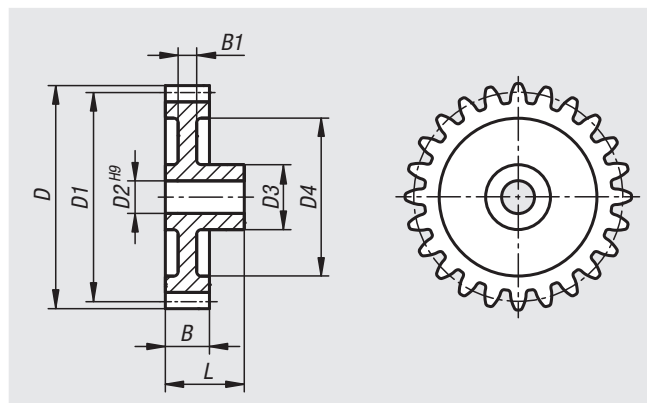
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



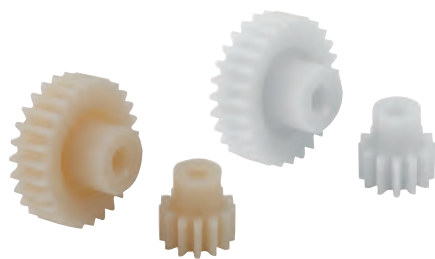
Spur gears, plastic, module 0.5

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1050012	22402-2050012	12	7	6	2	4	-	3	3	7	1,4/1,4
22402-1050013	22402-2050013	13	7,5	6,5	2	4	-	3	3	7	1,5/1,6
22402-1050014	22402-2050014	14	8	7	2	5	-	3	3	7	1,6/1,7
22402-1050015	22402-2050015	15	8,5	7,5	3	6	-	3	3	10	1,7/1,8
22402-1050016	22402-2050016	16	9	8	3	6	-	3	3	10	1,8/1,9
22402-1050017	22402-2050017	17	9,5	8,5	3	6	-	3	3	10	2/2,1
22402-1050018	22402-2050018	18	10	9	4	7,8	-	3	3	10	2,1/2,2
22402-1050019	22402-2050019	19	10,5	9,5	4	7,8	-	3	3	10	2,2/2,3
22402-1050020	22402-2050020	20	11	10	4	7,9	-	3	3	10	2,3/2,4
22402-1050021	22402-2050021	21	11,5	10,5	4	8	-	3	3	10	2,4/2,5
22402-1050022	22402-2050022	22	12	11	4	10	-	3	3	10	2,5/2,7
22402-1050023	22402-2050023	23	12,5	11,5	4	9,9	-	3	3	10	2,7/2,8
22402-1050024	22402-2050024	24	13	12	4	9,9	-	3	3	10	2,8/2,9
22402-1050025	22402-2050025	25	13,5	12,5	4	9,9	-	3	3	10	2,9/3,1
22402-1050026	22402-2050026	26	14	13	4	9,9	-	3	3	10	3/3,2
22402-1050027	22402-2050027	27	14,5	13,5	4	9,9	-	3	3	10	3,1/3,3
22402-1050028	22402-2050028	28	15	14	4	10	-	3	3	10	3,3/3,4
22402-1050030	22402-2050030	30	16	15	4	11,9	-	3	3	10	3,5/3,7
22402-1050032	22402-2050032	32	17	16	4	12	-	3	3	10	3,7/3,9
22402-1050035	22402-2050035	35	18,5	17,5	4	12	-	3	3	10	4,1/4,3
22402-1050036	22402-2050036	36	19	18	4	11,9	-	3	3	10	4,2/4,4
22402-1050038	22402-2050038	38	20	19	4	12	-	3	3	10	4,4/4,7
22402-1050040	22402-2050040	40	21	20	4	12	14,8	3	2	10	4,7/4,9
22402-1050042	22402-2050042	42	22	21	4	12,15	17	3	2	10	4,9/5,2
22402-1050045	22402-2050045	45	23,5	22,5	4	12,15	18	3	2	10	5,3/5,5
22402-1050048	22402-2050048	48	25	24	6	15	19	3	2	10	5,6/5,9
22402-1050050	22402-2050050	50	26	25	6	15	20	3	2	10	5,8/6,1
22402-1050052	22402-2050052	52	27	26	6	15	21	3	2	10	6,1/6,4
22402-1050054	22402-2050054	54	28	27	6	15	21	3	2	10	6,3/6,6
22402-1050055	22402-2050055	55	28,5	27,5	6	15	23	3	2	10	6,4/6,8
22402-1050056	22402-2050056	56	29	28	6	15	23	3	2	10	6,6/6,9
22402-1050060	22402-2050060	60	31	30	6	15	23	3	2	10	7/7,4
22402-1050064	22402-2050064	64	33	32	6	15	23	3	2	10	7,5/7,9
22402-1050065	22402-2050065	65	33,5	32,5	6	15	23	3	2	10	7,6/8
22402-1050070	22402-2050070	70	36	35	6	15	29	3	2	10	8,2/8,6
22402-1050072	22402-2050072	72	37	36	6	15	30	3	2	10	8,4/8,9
22402-1050075	22402-2050075	75	38,5	37,5	6	15	33	3	2	10	8,8/9,2
22402-1050080	22402-2050080	80	41	40	6	15	33	3	2	10	9,4/9,8
22402-1050090	22402-2050090	90	46	45	6	15	39	3	2	10	10,6/11,1
22402-1050096	22402-2050096	96	49	48	6	15	42	3	2	10	11,3/11,8
22402-1050100	22402-2050100	100	51	50	6	15	44	3	2	10	11,7/12,3
22402-1050120	22402-2050120	120	61	60	6	15	54	3	2	10	14,1/14,8

Spur gears, plastic, module 0.7

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1070012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

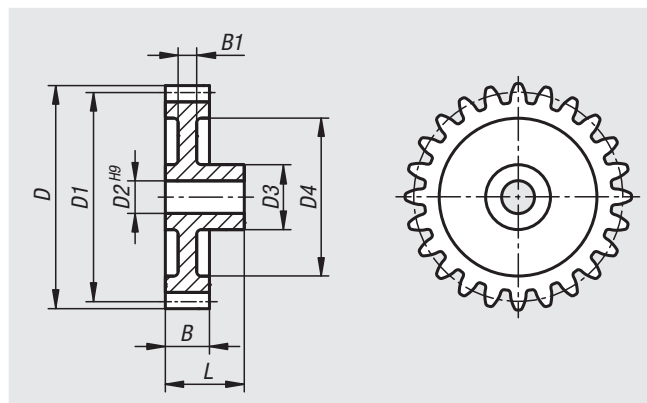
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



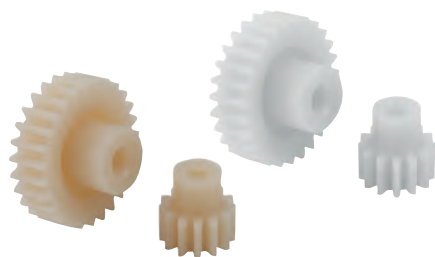
Spur gears, plastic, module 0.7

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1070012	22402-2070012	12	9,8	8,4	3	6	-	6	6	15	5,5/5,8
22402-1070013	22402-2070013	13	10,5	9,1	3	6	-	6	6	15	6/6,3
22402-1070014	22402-2070014	14	11,2	9,8	3	6	-	6	6	15	6,4/6,7
22402-1070015	22402-2070015	15	11,9	10,5	3	6	-	6	6	15	6,9/7,2
22402-1070016	22402-2070016	16	12,6	11,2	4	9	-	6	6	15	7,3/7,7
22402-1070017	22402-2070017	17	13,3	11,9	4	9	-	6	6	15	7,8/8,2
22402-1070018	22402-2070018	18	14	12,6	4	9	-	6	6	15	8,3/8,7
22402-1070019	22402-2070019	19	14,7	13,3	4	9	-	6	6	15	8,7/9,2
22402-1070020	22402-2070020	20	15,4	14	4	9	-	6	6	15	9,2/9,7
22402-1070021	22402-2070021	21	16,1	14,7	4	9	-	6	6	15	9,7/10,1
22402-1070022	22402-2070022	22	16,8	15,4	4	9	-	6	6	15	10,1/10,6
22402-1070023	22402-2070023	23	17,5	16,1	4	9	-	6	6	15	10,6/11,1
22402-1070024	22402-2070024	24	18,2	16,8	4	9	13	6	3	15	11/11,6
22402-1070025	22402-2070025	25	18,9	17,5	6	9	13	6	3	15	11,5/12,1
22402-1070026	22402-2070026	26	19,6	18,2	6	9	13	6	3	15	12/12,6
22402-1070027	22402-2070027	27	20,3	18,9	6	9	13	6	3	15	12,4/13
22402-1070028	22402-2070028	28	21	19,6	6	9	13	6	3	15	12,9/13,5
22402-1070030	22402-2070030	30	22,4	21	6	12	16	6	3	15	12,8/14,5
22402-1070032	22402-2070032	32	23,8	22,4	6	12	16	6	3	15	14,7/15,5
22402-1070035	22402-2070035	35	25,9	24,5	6	15	18,5	6	3	15	16,1/16,9
22402-1070036	22402-2070036	36	26,6	25,2	6	15	18,5	6	3	15	16,6/17,4
22402-1070038	22402-2070038	38	28	26,6	6	15	21	6	3	15	17,5/18,4
22402-1070040	22402-2070040	40	29,4	28	6	15	21	6	3	15	18,4/19,3
22402-1070042	22402-2070042	42	30,8	29,4	6	18	24	6	2	15	19,4/20,3
22402-1070045	22402-2070045	45	32,9	31,5	6	18	24	6	2	15	20,7/21,8
22402-1070048	22402-2070048	48	35	33,6	8	18	24	6	2	15	22,1/23,2
22402-1070050	22402-2070050	50	36,4	35	8	18	27,5	6	2	15	23/24,2
22402-1070052	22402-2070052	52	37,8	36,4	8	18	27,5	6	2	15	24/25,2
22402-1070054	22402-2070054	54	39,2	37,8	8	18	27,5	6	2	15	24,9/26,1
22402-1070055	22402-2070055	55	39,9	38,5	8	18	30	6	2	15	25,4/26,6
22402-1070056	22402-2070056	56	40,6	39,2	8	18	30	6	2	15	25,8/27,1
22402-1070060	22402-2070060	60	43,4	42	8	18	30	6	2	15	27,7/29,1
22402-1070064	22402-2070064	64	46,2	44,8	8	18	37	6	2	15	29,5/31
22402-1070065	22402-2070065	65	46,9	45,5	8	18	37	6	2	15	30/31,5
22402-1070070	22402-2070070	70	50,4	49	8	18	37	6	2	15	32,3/33,9
22402-1070072	22402-2070072	72	51,8	50,4	8	18	37	6	2	15	33,2/34,9
22402-1070075	22402-2070075	75	53,9	52,5	10	18	37	6	2	15	34,6/36,3
22402-1070080	22402-2070080	80	57,4	56	10	21	46,5	6	2	15	36,9/38,8
22402-1070090	22402-2070090	90	64,4	63	10	21	57	6	2	15	41,5/43,6
22402-1070096	22402-2070096	96	68,6	67,2	10	21	57	6	2	15	44,3/46,5
22402-1070100	22402-2070100	100	71,4	70	10	21	57	6	2	15	46,1/48,4
22402-1070120	22402-2070120	120	85,4	84	10	21	77	6	2	15	55,4/58,1

Spur gears, plastic, module 1

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°. Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1100012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

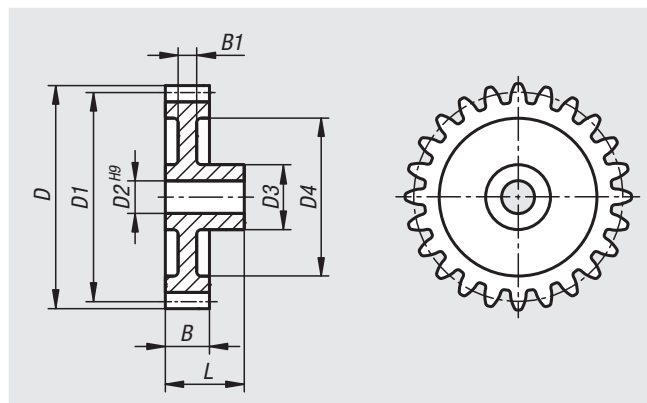
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



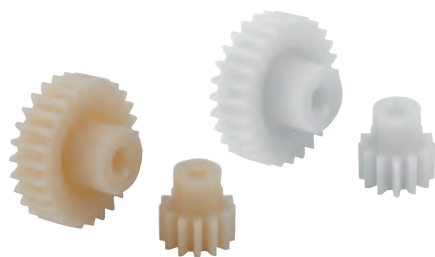
Spur gears, plastic, module 1

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1100012	22402-2100012	12	14	12	4	9	-	9	9	17	16,9/17,8
22402-1100013	22402-2100013	13	15	13	4	9	-	9	9	17	18,3/19,3
22402-1100014	22402-2100014	14	16	14	4	9	-	9	9	17	19,7/20,7
22402-1100015	22402-2100015	15	17	15	4	9	-	9	9	17	21,2/22,2
22402-1100016	22402-2100016	16	18	16	4	9	-	9	9	17	22,6/23,7
22402-1100017	22402-2100017	17	19	17	4	9	12	9	6	17	24/25,2
22402-1100018	22402-2100018	18	20	18	4	9	13	9	6	17	25,4/26,7
22402-1100019	22402-2100019	19	21	19	4	9	13	9	6	17	26,8/28,2
22402-1100020	22402-2100020	20	22	20	4	9	13	9	6	17	28,2/29,6
22402-1100021	22402-2100021	21	23	21	5	12	16	9	6	17	29,6/31,1
22402-1100022	22402-2100022	22	24	22	5	12	16	9	6	17	31,1/32,6
22402-1100023	22402-2100023	23	25	23	5	12	16	9	6	17	32,5/34,1
22402-1100024	22402-2100024	24	26	24	6	15	18,5	9	6	18	33,9/35,6
22402-1100025	22402-2100025	25	27	25	6	15	18,5	9	6	18	35,3/37,1
22402-1100026	22402-2100026	26	28	26	6	15	18,5	9	6	18	36,7/38,6
22402-1100027	22402-2100027	27	29	27	6	15	18,5	9	6	18	38,1/40
22402-1100028	22402-2100028	28	30	28	6	15	21	9	6	18	39,5/41,5
22402-1100030	22402-2100030	30	32	30	6	15	21	9	6	18	42,4/44,5
22402-1100032	22402-2100032	32	34	32	6	18	23,5	9	4,6	18	45,2/47,5
22402-1100035	22402-2100035	35	37	35	8	18	23,5	9	4,6	18	49,4/51,9
22402-1100036	22402-2100036	36	38	36	8	18	27	9	4,6	18	50,8/53,4
22402-1100038	22402-2100038	38	40	38	8	18	27	9	4,6	18	53,7/56,4
22402-1100040	22402-2100040	40	42	40	8	18	27	9	4,6	18	56,5/59,3
22402-1100042	22402-2100042	42	44	42	8	18	27	9	4,6	18	59,3/62,3
22402-1100045	22402-2100045	45	47	45	8	18	36,5	9	4,6	18	63,6/66,8
22402-1100048	22402-2100048	48	50	48	8	18	36,5	9	4,6	18	67,8/71,2
22402-1100050	22402-2100050	50	52	50	8	18	36,5	9	4,6	18	70,6/74,2
22402-1100052	22402-2100052	52	54	52	8	21	46	9	4,6	18	73,5/77,1
22402-1100054	22402-2100054	54	56	54	8	21	46	9	4,6	18	76,3/80,1
22402-1100055	22402-2100055	55	57	55	8	21	46	9	4,6	18	77,7/81,6
22402-1100056	22402-2100056	56	58	56	8	21	46	9	4,6	18	79,1/83,1
22402-1100058	22402-2100058	58	60	58	8	21	46	9	4,6	18	82/86,1
22402-1100060	22402-2100060	60	62	60	8	21	46	9	4,6	18	84,8/89
22402-1100064	22402-2100064	64	66	64	10	21	56,5	9	4,6	18	90,4/95
22402-1100065	22402-2100065	65	67	65	10	21	56,5	9	4,6	18	91,8/96,4
22402-1100070	22402-2100070	70	72	70	10	21	56,5	9	4,6	18	98,9/103,9
22402-1100072	22402-2100072	72	74	72	10	21	66	9	4,6	18	101,7/106,8
22402-1100075	22402-2100075	75	77	75	10	21	66	9	4,6	18	106/111,3
22402-1100080	22402-2100080	80	82	80	10	21	66	9	4,6	18	113,1/118,7
22402-1100085	22402-2100085	85	87	85	10	21	66	9	4,6	18	120,1/126,1
22402-1100090	22402-2100090	90	92	90	10	21	76	9	4,6	18	127,2/133,5
22402-1100100	22402-2100100	100	102	100	12	24	86	9	4,6	18	141,3/148,4
22402-1100110	22402-2100110	110	112	110	12	24	96	9	4,6	18	155,5/163,2
22402-1100120	22402-2100120	120	122	120	12	24	105,5	9	4,6	18	169,6/178,1
22402-1100130	22402-2100130	130	132	130	12	24	115	9	4,6	18	183,7/192,9
22402-1100140	22402-2100140	140	142	140	12	24	125	9	4,6	18	197,9/207,8

Spur gears, plastic, module 1.25

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1125012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

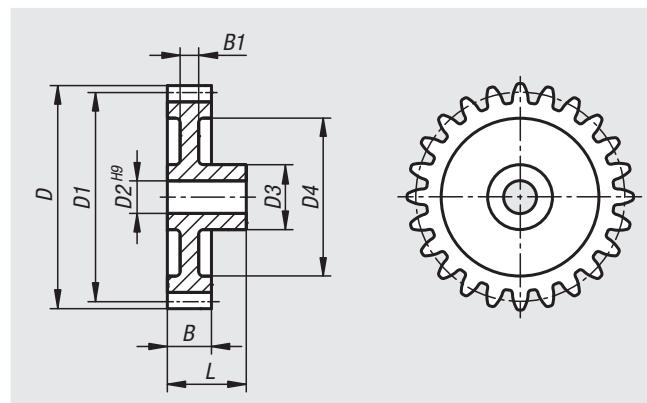
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



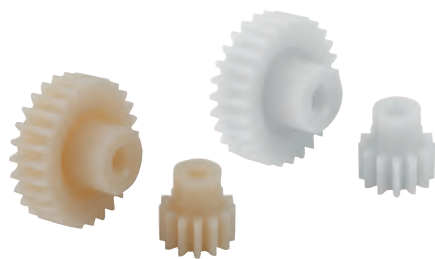
Spur gears, plastic, module 1.25

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1125012	22402-2125012	12	17,5	15	5	9	-	10	10	19	29,4/30,9
22402-1125013	22402-2125013	13	18,75	16,25	5	9	-	10	10	19	31,9/33,5
22402-1125014	22402-2125014	14	20	17,5	5	9	-	10	10	19	34,3/36
22402-1125015	22402-2125015	15	21,25	18,75	5	9	13	10	7	19	36,8/38,6
22402-1125016	22402-2125016	16	22,5	20	5	9	13	10	7	19	39,7/41,7
22402-1125017	22402-2125017	17	23,75	21,25	5	9	13	10	7	19	41,7/43,8
22402-1125018	22402-2125018	18	25	22,5	5	12	16	10	7	19	44,1/46,3
22402-1125019	22402-2125019	19	26,25	23,75	5	12	16	10	7	19	46,6/48,9
22402-1125020	22402-2125020	20	27,5	25	5	12	16	10	7	19	49/51,5
22402-1125021	22402-2125021	21	28,75	26,25	6	15	18,5	10	7	19	51,5/54,1
22402-1125022	22402-2125022	22	30	27,5	6	15	18,5	10	7	19	54/56,7
22402-1125023	22402-2125023	23	31,25	28,75	6	15	18,5	10	7	19	56,4/59,2
22402-1125024	22402-2125024	24	32,5	30	6	15	21	10	7	19	58,9/61,8
22402-1125025	22402-2125025	25	33,75	31,25	6	15	21	10	7	19	61,3/64,4
22402-1125026	22402-2125026	26	35	32,5	6	18	23,5	10	5,5	19	63,8/67
22402-1125027	22402-2125027	27	36,25	33,75	6	18	23,5	10	5,5	19	66,2/69,5
22402-1125028	22402-2125028	28	37,5	35	8	18	23,5	10	5,5	19	68,7/72,1
22402-1125030	22402-2125030	30	40	37,5	8	18	27	10	5,5	19	73,6/77,3
22402-1125032	22402-2125032	32	42,5	40	8	18	27	10	5,5	19	78,5/82,4
22402-1125035	22402-2125035	35	46,25	43,75	8	18	27	10	5,5	19	85,9/90,2
22402-1125036	22402-2125036	36	47,5	45	8	18	36	10	5,5	19	88,3/92,7
22402-1125038	22402-2125038	38	50	47,5	8	18	36	10	5,5	19	93,2/97,9
22402-1125040	22402-2125040	40	52,5	50	8	18	36	10	5,5	19	98,1/103
22402-1125042	22402-2125042	42	55	52,5	8	18	36	10	5,5	19	103/108,2
22402-1125045	22402-2125045	45	58,75	56,25	8	21	46	10	5,5	19	110,4/115,9
22402-1125048	22402-2125048	48	62,5	60	8	21	46	10	5,5	19	117,8/123,7
22402-1125050	22402-2125050	50	65	62,5	8	21	46	10	5,5	19	122,7/128,8
22402-1125052	22402-2125052	52	67,5	65	10	21	56	10	5,5	19	127,6/134
22402-1125054	22402-2125054	54	70	67,5	10	21	56	10	5,5	19	132,5/139,1
22402-1125055	22402-2125055	55	71,25	68,75	10	21	56	10	5,5	19	134,9/141,7
22402-1125056	22402-2125056	56	72,5	70	10	21	56	10	5,5	19	137,4/144,3
22402-1125060	22402-2125060	60	77,5	75	10	21	66	10	5,5	19	147,2/154,6
22402-1125064	22402-2125064	64	82,5	80	10	21	66	10	5,5	19	157/164,9
22402-1125065	22402-2125065	65	83,75	81,25	10	21	66	10	5,5	19	159,5/167,5
22402-1125070	22402-2125070	70	90	87,5	10	21	76	10	5,5	19	171,8/180,4
22402-1125072	22402-2125072	72	92,5	90	12	21	76	10	5,5	19	176,7/185,5
22402-1125075	22402-2125075	75	96,25	93,75	10	21	76	10	5,5	19	184/193,2
22402-1125080	22402-2125080	80	102,5	100	12	24	86	10	5,5	19	196,3/206,1
22402-1125090	22402-2125090	90	115	112,5	12	24	95	10	5,5	19	220,8/231,9
22402-1125100	22402-2125100	100	127,5	125	12	24	105,5	10	5,5	19	245,4/257,7
22402-1125110	22402-2125110	110	140	137,5	12	24	115	10	5,5	19	269,9/283,4

Spur gears, plastic, module 1.5

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1150012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

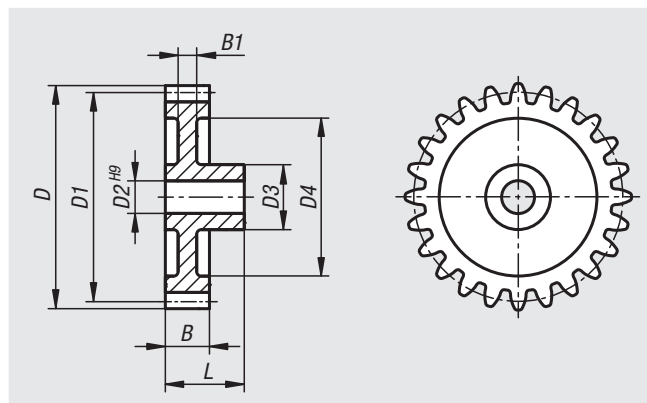
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



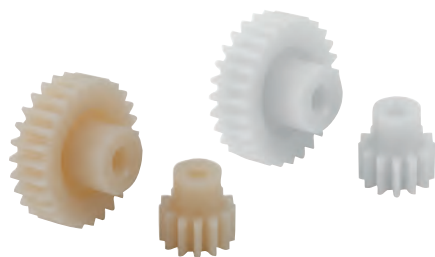
Spur gears, plastic, module 1.5

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1150012	22402-2150012	12	21	18	6	14	-	12	12	23	50,8/53,4
22402-1150013	22402-2150013	13	22,5	19,5	6	14	-	12	12	23	55,1/57,8
22402-1150014	22402-2150014	14	24	21	6	14	13	12	10,5	23	59,3/62,3
22402-1150015	22402-2150015	15	25,5	22,5	6	14	16	12	10,5	23	63,6/66,8
22402-1150016	22402-2150016	16	27	24	6	14	16	12	10,5	23	67,8/71,2
22402-1150017	22402-2150017	17	28,5	25,5	6	14	16	12	10,5	23	72,1/75,7
22402-1150018	22402-2150018	18	30	27	8	17	18,5	12	10,5	23	76,3/80,1
22402-1150019	22402-2150019	19	31,5	28,5	8	17	18,5	12	10,5	23	80,5/84,6
22402-1150020	22402-2150020	20	33	30	8	17	22,5	12	9	23	84,8/89
22402-1150021	22402-2150021	21	34,5	31,5	8	17	22,5	12	5	23	89/93,5
22402-1150022	22402-2150022	22	36	33	8	17	22,5	12	5	23	93,3/97,9
22402-1150023	22402-2150023	23	37,5	34,5	8	17	22,5	12	5	23	97,5/102,4
22402-1150024	22402-2150024	24	39	36	8	19	26,5	12	5	23	101,7/106,8
22402-1150025	22402-2150025	25	40,5	37,5	8	19	26,5	12	5	23	106/111,3
22402-1150026	22402-2150026	26	42	39	8	19	26,5	12	5	23	110,2/115,7
22402-1150027	22402-2150027	27	43,5	40,5	8	19	25,5	12	5	23	114,5/120,2
22402-1150028	22402-2150028	28	45	42	8	19	25,5	12	5	23	118,7/124,6
22402-1150030	22402-2150030	30	48	45	10	24	33,5	12	5	23	127,2/133,5
22402-1150032	22402-2150032	32	51	48	10	24	33,5	12	5	23	135,7/142,5
22402-1150035	22402-2150035	35	55,5	52,5	10	24	41,5	12	5	23	148,4/155,8
22402-1150036	22402-2150036	36	57	54	10	24	41,5	12	5	23	152,6/160,3
22402-1150038	22402-2150038	38	60	57	10	24	41,5	12	5	23	161,1/169,2
22402-1150040	22402-2150040	40	63	60	10	24	48,5	12	5	23	169,6/178,1
22402-1150042	22402-2150042	42	66	63	10	24	48,5	12	5	23	178,1/187
22402-1150045	22402-2150045	45	70,5	67,5	10	24	48,5	12	5	23	190,8/200,3
22402-1150048	22402-2150048	48	75	72	10	24	48,5	12	5	23	203,5/213,7
22402-1150050	22402-2150050	50	78	75	12	27	63	12	5	23	212/222,6
22402-1150052	22402-2150052	52	81	78	12	27	63	12	5	23	220,5/231,5
22402-1150054	22402-2150054	54	84	81	12	27	63	12	5	23	229/240,4
22402-1150055	22402-2150055	55	85,5	82,5	12	27	63	12	5	23	233,2/244,9
22402-1150060	22402-2150060	60	93	90	12	27	63	12	5	23	254,4/267,1
22402-1150070	22402-2150070	70	108	105	14	30	88	12	5	23	296,8/311,7
22402-1150080	22402-2150080	80	123	120	14	30	104	12	5	23	339,2/356,2
22402-1150090	22402-2150090	90	138	135	14	30	116	12	5	23	381,7/400,7
22402-1150100	22402-2150100	100	153	150	20	40	133	19	8	34 +1,5	671,5/705,1
22402-1150110	22402-2150110	110	168	165	20	40	148	19	8	34 +1,5	738,6/775,6
22402-1150120	22402-2150120	120	183	180	20	40	163	19	8	34 +1,5	805,8/846,1
22402-1150130	22402-2150130	130	198	195	20	40	178	19	8	34 +1,5	872,9/916,6
22402-1150140	22402-2150140	140	213	210	20	40	193	19	8	34 +1,5	940,1/987,1
22402-1150150	22402-2150150	150	228	225	20	40	208	19	8	34 +1,5	1007,2/1057,6

Spur gears, plastic, module 2

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1200012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

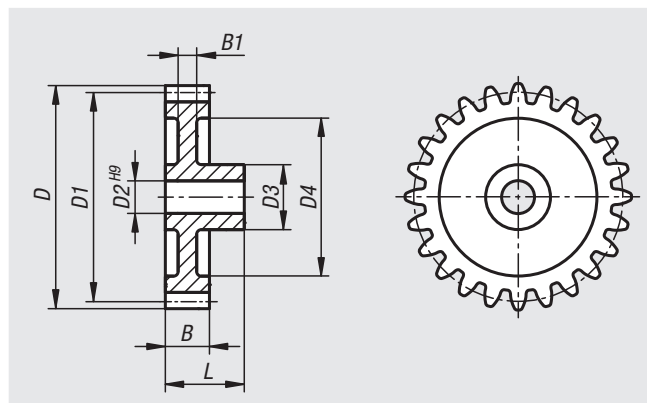
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothings. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



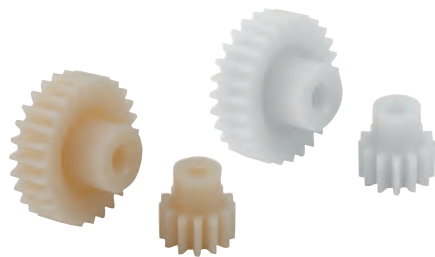
Spur gears, plastic, module 2

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1200012	22402-2200012	12	28	24	8	18,5	16	15	13,5	27	113,1/118,7
22402-1200013	22402-2200013	13	30	26	8	18,5	18,5	15	13,5	27	122,5/128,6
22402-1200014	22402-2200014	14	32	28	8	18,5	18,5	15	13,5	27	131,9/138,5
22402-1200015	22402-2200015	15	34	30	8	18,5	22	15	12	27	141,3/148,4
22402-1200016	22402-2200016	16	36	32	8	17,5	22	15	6	27	150,8/158,3
22402-1200017	22402-2200017	17	38	34	8	17,5	24	15	6	27	160,2/168,2
22402-1200018	22402-2200018	18	40	36	8	17,5	25	15	6	27	169,6/178,1
22402-1200019	22402-2200019	19	42	38	8	17,5	27	15	6	27	179/188
22402-1200020	22402-2200020	20	44	40	10	20	28	15	6	27	188,5/197,9
22402-1200021	22402-2200021	21	46	42	10	20	28	15	6	27	197,9/207,8
22402-1200022	22402-2200022	22	48	44	10	20	28	15	6	27	207,3/217,7
22402-1200023	22402-2200023	23	50	46	10	24	35	15	6	27	216,7/227,6
22402-1200024	22402-2200024	24	52	48	10	24	35	15	6	27	226,1/237,5
22402-1200025	22402-2200025	25	54	50	10	24	35	15	6	27	235,6/247,4
22402-1200026	22402-2200026	26	56	52	10	24	38,5	15	6	27	245/257,2
22402-1200027	22402-2200027	27	58	54	10	24	38,5	15	6	27	254,4/267,1
22402-1200028	22402-2200028	28	60	56	10	24	38,5	15	6	27	263,8/277
22402-1200030	22402-2200030	30	64	60	10	24	43,5	15	6	27	282,7/296,8
22402-1200032	22402-2200032	32	68	64	10	26	44	15	6	27	301,5/316,6
22402-1200035	22402-2200035	35	74	70	12	26	54	15	6	27	329,8/346,3
22402-1200036	22402-2200036	36	76	72	12	26	54	15	6	27	339,2/356,2
22402-1200038	22402-2200038	38	80	76	12	26	61,5	15	6	27	358,1/376
22402-1200040	22402-2200040	40	84	80	12	26	61,5	15	6	27	376,9/395,8
22402-1200042	22402-2200042	42	88	84	12	26	61,5	15	6	27	395,8/415,6
22402-1200045	22402-2200045	45	94	90	14	30	68	15	6	27	424,1/445,3
22402-1200048	22402-2200048	48	100	96	14	30	74	15	6	27	452,3/475
22402-1200050	22402-2200050	50	104	100	14	30	78	15	6	27	471,2/494,8
22402-1200055	22402-2200055	55	114	110	14	30	87,5	15	6	27	518,3/544,2
22402-1200060	22402-2200060	60	124	120	14	30	97,5	15	6	27	565,4/593,7
22402-1200070	22402-2200070	70	144	140	14	30	117	15	6	27	659,7/692,7
22402-1200075	22402-2200075	75	154	150	20	40	133	19	8	34	895,3/940,1
22402-1200080	22402-2200080	80	164	160	20	40	133	19	8	34	955/1002,7
22402-1200085	22402-2200085	85	174	170	20	40	148	19	8	34	1014,7/1065,4
22402-1200090	22402-2200090	90	184	180	20	40	163	19	8	34	1074,4/1128,1
22402-1200095	22402-2200095	95	194	190	20	40	163	19	8	34	1134,1/1190,8
22402-1200100	22402-2200100	100	204	200	20	40	178	19	8	34	1193,8/1253,5
22402-1200110	22402-2200110	110	224	220	20	40	193	19	8	34	1313,1/1378,8

Spur gears, plastic, module 2.5

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1250012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

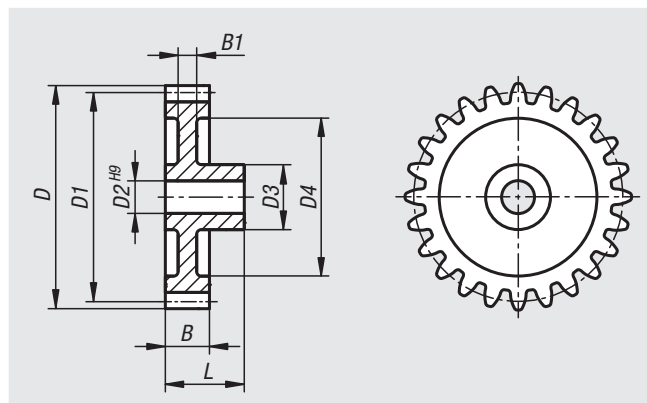
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



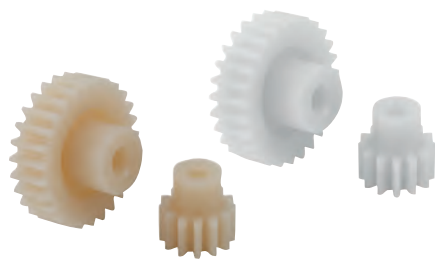
Spur gears, plastic, module 2.5

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1250012	22402-2250012	12	35	30	10	20	-	17	-	30	200,2/210,2
22402-1250013	22402-2250013	13	37,5	32,5	10	20	-	17	-	30	216,9/227,8
22402-1250014	22402-2250014	14	40	35	10	20	-	17	-	30	233,6/245,3
22402-1250015	22402-2250015	15	42,5	37,5	10	20	27	17	7	30	250,3/262,8
22402-1250016	22402-2250016	16	45	40	10	20	27	17	7	30	267/280,3
22402-1250017	22402-2250017	17	47,5	42,5	10	20	27	17	7	30	283,7/297,9
22402-1250018	22402-2250018	18	50	45	10	20	34	17	7	30	300,4/315,4
22402-1250019	22402-2250019	19	52,5	47,5	10	20	34	17	7	30	317,1/332,9
22402-1250020	22402-2250020	20	55	50	10	20	34	17	7	30	333,7/350,4
22402-1250021	22402-2250021	21	57,5	52,5	12	24	41	17	7	30	350,4/368
22402-1250022	22402-2250022	22	60	55	12	24	41	17	7	30	367,1/385,5
22402-1250023	22402-2250023	23	62,5	57,5	12	24	41	17	7	30	383,8/403
22402-1250024	22402-2250024	24	65	60	12	24	49	17	7	30	400,5/420,5
22402-1250025	22402-2250025	25	67,5	62,5	12	24	49	17	7	30	417,2/438,1
22402-1250026	22402-2250026	26	70	65	12	24	49	17	7	30	433,9/455,6
22402-1250027	22402-2250027	27	72,5	67,5	12	24	56	17	7	30	450,6/473,1
22402-1250028	22402-2250028	28	75	70	12	24	56	17	7	30	467,3/490,6
22402-1250030	22402-2250030	30	80	75	12	24	56	17	7	30	500,6/525,7
22402-1250032	22402-2250032	32	85	80	14	30	68	17	7	30	534/560,7
22402-1250035	22402-2250035	35	92,5	87,5	14	30	68	17	7	30	584,1/613,3
22402-1250036	22402-2250036	36	95	90	14	30	72	17	7	30	600,8/630,8
22402-1250038	22402-2250038	38	100	95	14	30	72	17	7	30	634,2/665,9
22402-1250040	22402-2250040	40	105	100	14	30	84	17	7	30	667,5/700,9
22402-1250042	22402-2250042	42	110	105	16	30	84	17	7	30	700,9/736
22402-1250045	22402-2250045	45	117,5	112,5	16	30	84	17	7	30	751/788,5
22402-1250048	22402-2250048	48	125	120	16	30	100	17	7	30	801,1/841,1
22402-1250050	22402-2250050	50	130	125	16	30	100	17	7	30	834,4/876,2
22402-1250055	22402-2250055	55	142,5	137,5	20	30	100	17	7	30	917,9/963,8
22402-1250060	22402-2250060	60	155	150	20	40	133	19	8	34	1119,1/1175,1
22402-1250065	22402-2250065	65	167,5	162,5	20	40	133	19	8	34	1212,4/1273
22402-1250070	22402-2250070	70	180	175	20	40	148	19	8	34	1305,7/1371
22402-1250075	22402-2250075	75	192,5	187,5	20	40	163	19	8	34	1398,9/1468,9
22402-1250080	22402-2250080	80	205	200	20	40	178	19	8	34	1492,2/1566,8
22402-1250085	22402-2250085	85	217,5	212,5	20	40	178	19	8	34	1585,5/1664,7
22402-1250090	22402-2250090	90	230	225	20	40	193	19	8	34	1678,7/1762,7
22402-1250095	22402-2250095	95	242,5	237,5	20	40	208	19	8	34	1772/1860,6

Spur gears, plastic, module 3

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Machined bore.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nIm 22402-1300012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

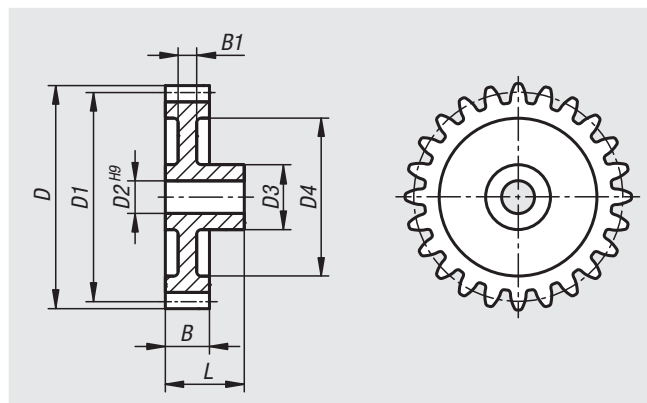
Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



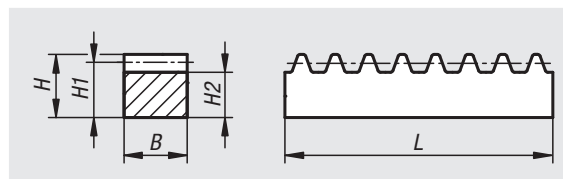
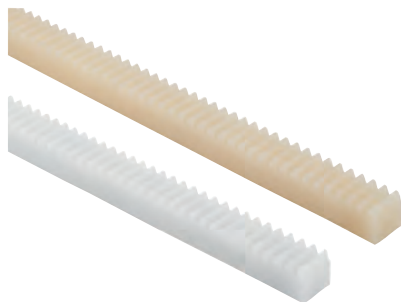
Spur gears, plastic, module 3

injection moulded, straight teeth, engagement angle 20°

Order No. polyacetal	Order No. polyketone	No. of teeth	D	D1	D2	D3	D4	B	B1	L	Max. torque Ncm
22402-1300012	22402-2300012	12	42	36	12	24	-	19	19	34	322,3/338,4
22402-1300013	22402-2300013	13	45	39	12	24	-	19	19	34	349/366,6
22402-1300014	22402-2300014	14	48	42	12	24	-	19	19	34	376/394,8
22402-1300015	22402-2300015	15	51	45	12	24	30,5	19	8	34	402,9/423
22402-1300016	22402-2300016	16	54	48	12	24	30,5	19	8	34	429,7/451,2
22402-1300017	22402-2300017	17	57	51	12	24	30,5	19	8	34	456,6/479,4
22402-1300018	22402-2300018	18	60	54	12	24	38	19	8	34	483,4/507,6
22402-1300019	22402-2300019	19	63	57	12	24	38	19	8	34	510,3/535,8
22402-1300020	22402-2300020	20	66	60	12	24	38	19	8	34	537,2/564
22402-1300021	22402-2300021	21	69	63	12	24	45	19	8	34	564/592,2
22402-1300022	22402-2300022	22	72	66	12	24	45	19	8	34	590,9/620,4
22402-1300023	22402-2300023	23	75	69	12	24	52	19	8	34	617,7/648,6
22402-1300024	22402-2300024	24	78	72	12	24	52	19	8	34	644,6/676,8
22402-1300025	22402-2300025	25	81	75	14	28	58	19	8	34	671,5/705,1
22402-1300026	22402-2300026	26	84	78	14	28	58	19	8	34	698,3/733,3
22402-1300027	22402-2300027	27	87	81	14	28	58	19	8	34	725,2/761,5
22402-1300028	22402-2300028	28	90	84	14	28	65	19	8	34	752,1/789,7
22402-1300030	22402-2300030	30	96	90	14	28	68	19	8	34	805,8/846,1
22402-1300032	22402-2300032	32	102	96	16	32	69	19	8	34	859,5/902,5
22402-1300033	22402-2300033	33	105	99	16	32	69	19	8	34	886,4/930,7
22402-1300034	22402-2300034	34	108	102	16	32	78	19	8	34	913,2/958,9
22402-1300035	22402-2300035	35	111	105	16	32	78	19	8	34	940,1/987,1
22402-1300038	22402-2300038	38	120	114	16	32	87	19	8	34	1020,7/1071,7
22402-1300040	22402-2300040	40	126	120	16	32	93	19	8	34	1074,4/1128,1
22402-1300045	22402-2300045	45	141	135	16	32	108	19	8	34	1208,7/1269,1
22402-1300050	22402-2300050	50	156	150	20	40	133	19	8	34	1343/1410,1
22402-1300055	22402-2300055	55	171	165	20	40	148	19	8	34	1477,3/1551,2
22402-1300060	22402-2300060	60	186	180	20	40	163	19	8	34	1611,6/1692,2
22402-1300065	22402-2300065	65	201	195	20	40	178	19	8	34	1745,9/1833,2
22402-1300070	22402-2300070	70	216	210	20	40	193	19	8	34	1880,2/1974,2
22402-1300075	22402-2300075	75	231	225	20	40	208	19	8	34	2014,5/2115,2

Gear racks, plastic

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

nlm 22422-10500404250

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

Due to the material properties, plastic gear racks are not straightened.

L= nominal length 250 mm. The actual length is roughly a whole multiple of the pitch.

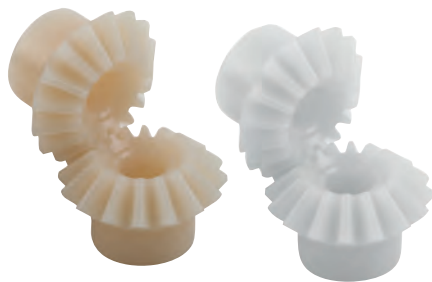
Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Order No. polyacetal	Order No. polyketone	Module	B	H	H1	H2	L
22422-10500404250	22422-20500404250	0,5	4	4,5	4	3,4	250
22422-10500406250	22422-20500406250	0,5	4	6	5,5	4,9	250
22422-10700606250	22422-20700606250	0,7	6	6,7	6	5,1	250
22422-11000909250	22422-21000909250	1	9	9	8	6,8	250
22422-11251011250	22422-21251011250	1,25	10	11	9,75	8,3	250
22422-11501212250	22422-21501212250	1,5	12	12	10,5	8,75	250
22422-12001511250	22422-22001511250	2	15,4	11	9	6,6	250
22422-13001915250	22422-23001915250	3	19,4	15	12	8,5	250

Bevel gears, plastic, ratio 1:1

injection-moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°. Axis angle = 90°.

Machined bores from module 1.5.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

nlm 22432-105110016

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

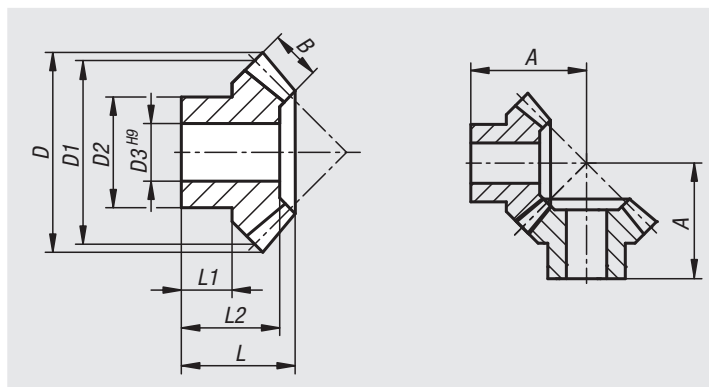
Can be used under water and other media.

Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Bevel gear wheels are supplied as single components. To obtain a pair of bevel gear wheels, please order the specified mating gear as well.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).



Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.

Order No.	Main material	Transmission ratio	Module	No. of teeth	A	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22432-105110016	polyacetal	1:1	0,5	16	10,5	2	8,7	8	7	3	8,1	6	8,1	1	22432-105110016
22432-110110016	polyacetal	1:1	1	16	18,4	4,7	17,6	16	12	5	13,6	8	13,6	9,4	22432-110110016
22432-110110030	polyacetal	1:1	1	30	25,1	7	31	30	15	6	15,4	7,6	13,3	26,3	22432-110110030
22432-115110016	polyacetal	1:1	1,5	16	25,8	7	26,4	24	18,5	8	18,4	10	16,2	31,6	22432-115110016
22432-120110016	polyacetal	1:1	2	16	30,4	10	34,9	32	21,9	10	21,2	9,7	18,3	80,4	22432-120110016
22432-125110016	polyacetal	1:1	2,5	16	37	12,3	43,5	40	25,2	12	25,5	11,5	22,9	154,5	22432-125110016
22432-130110016	polyacetal	1:1	3	16	43	13,8	52,3	48	28,8	14	29,2	13,2	25,7	249,7	22432-130110016
22432-135110016	polyacetal	1:1	3,5	16	49,5	15,8	61,4	56	33,3	18	33,1	14,6	28	389,1	22432-135110016
22432-205110016	polyketone	1:1	0,5	16	10,5	2	8,7	8	7	3	8,1	6	8,1	1	22432-205110016
22432-210110016	polyketone	1:1	1	16	18,4	4,7	17,6	16	12	5	13,6	8	13,6	9,9	22432-210110016
22432-210110030	polyketone	1:1	1	30	25,1	7	31	30	15	6	15,4	7,6	13,3	27,7	22432-210110030
22432-215110016	polyketone	1:1	1,5	16	25,8	7	26,4	24	18,5	8	18,4	10	16,2	33,2	22432-215110016
22432-220110016	polyketone	1:1	2	16	30,4	10	34,9	32	21,9	10	21,2	9,7	18,3	84,4	22432-220110016
22432-225110016	polyketone	1:1	2,5	16	37	12,3	43,5	40	25,2	12	25,5	11,5	22,9	162,3	22432-225110016
22432-230110016	polyketone	1:1	3	16	43	13,8	52,3	48	28,8	14	29,2	13,2	25,7	262,2	22432-230110016
22432-235110016	polyketone	1:1	3,5	16	49,5	15,8	61,4	56	33,3	18	33,1	14,6	28	408,6	22432-235110016

Bevel gears, plastic, ratio 1:1.5

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°. Axis angle = 90°.

Machined bores from module 1.5.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

n1m 22432-115115016

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

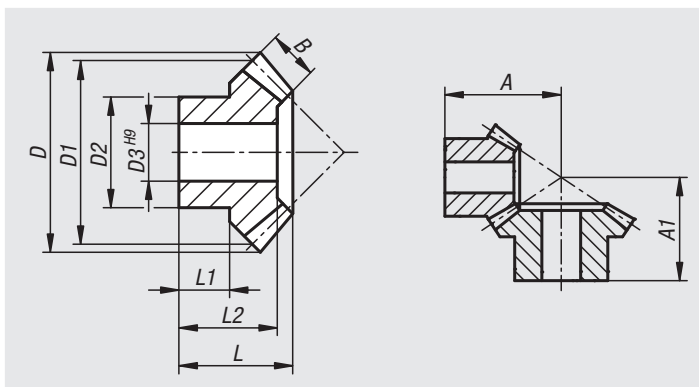
Bevel gear wheels are supplied as single components. To obtain a pair of bevel gear wheels, please order the specified mating gear as well.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



Order No.	Main material	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22432-115115016	polyacetal	1:1,5	1,5	16	30	-	8	26	24	20	8	18,8	10,8	17,8	36,1	22432-115115024
22432-115115024	polyacetal	1:1,5	1,5	24	-	26,6	8	37	36	24	10	19,5	11,3	18	54,2	22432-115115016
22432-215115016	polyketone	1:1,5	1,5	16	30	-	8	26	24	20	8	18,8	10,8	17,8	38	22432-215115024
22432-215115024	polyketone	1:1,5	1,5	24	-	26,6	8	37	36	24	10	19,5	11,3	18	57	22432-215115016

Bevel gears, plastic, ratio 1:2

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Axis angle = 90°.

Machined bores from module 1.5.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

n1m 22432-110120015

Note:

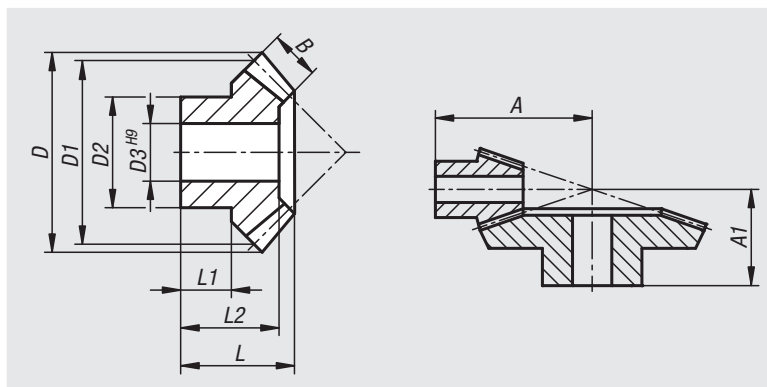
Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Bevel gear wheels are supplied as single components. To obtain a pair of bevel gear wheels, please order the specified mating gear as well.



Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.

Order No.	Main material	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22432-110120015	polyacetal	1:2	1	15	26,3	-	6,4	16,6	15	12,2	5	17,1	10,5	17,1	12	22432-110120030
22432-110120030	polyacetal	1:2	1	30	-	20,8	6,9	31	30	18	8	16	9	14,7	26	22432-110120015
22432-115120015	polyacetal	1:2	1,5	15	35,8	-	10,5	25	22,5	17	8	22,8	11,7	22,8	44,5	22432-115120030
22432-115120030	polyacetal	1:2	1,5	30	-	25,9	10,7	46,3	45	23,4	10	19,6	9,6	17,5	90,7	22432-115120015
22432-120120015	polyacetal	1:2	2	15	44	-	14,5	33,3	30	22,6	10	27	12	26	109,3	22432-120120030
22432-120120030	polyacetal	1:2	2	30	-	35	14,2	62	60	30,2	12	24,5	12	22,4	214,1	22432-120120015
22432-125120015	polyacetal	1:2	2,5	15	53,3	-	17,1	42	37,5	26,5	12	31,1	12,7	29,5	201,4	22432-125120030
22432-125120030	polyacetal	1:2	2,5	30	-	40,8	17,4	77,2	75	35,8	16	29,6	15,2	27,6	409,9	22432-125120015
22432-130120015	polyacetal	1:2	3	15	63,3	-	20,2	50	45	31,2	14	36,4	15,3	34,8	342,6	22432-130120030
22432-130120030	polyacetal	1:2	3	30	-	49,9	20,5	92,5	90	45	18	37,5	19	33,8	695,5	22432-130120015
22432-210120015	polyketone	1:2	1	15	26,3	-	6,4	16,6	15	12,2	5	17,1	10,5	17,1	12,6	22432-210120030
22432-210120030	polyketone	1:2	1	30	-	20,8	6,9	31	30	18	8	16	9	14,7	27,3	22432-210120015
22432-215120015	polyketone	1:2	1,5	15	35,8	-	10,5	25	22,5	17	8	22,8	11,7	22,8	46,7	22432-215120030
22432-215120030	polyketone	1:2	1,5	30	-	25,9	10,7	46,3	45	23,4	10	19,6	9,6	17,5	95,3	22432-215120015
22432-220120015	polyketone	1:2	2	15	44	-	14,5	33,3	30	22,6	10	27	12	26	114,8	22432-220120030
22432-220120030	polyketone	1:2	2	30	-	35	14,2	62	60	30,2	12	24,5	12	22,4	224,8	22432-220120015
22432-225120015	polyketone	1:2	2,5	15	53,3	-	17,1	42	37,5	26,5	12	31,1	12,7	29,5	211,5	22432-225120030
22432-225120030	polyketone	1:2	2,5	30	-	40,8	17,4	77,2	75	35,8	16	29,6	15,2	27,6	430,4	22432-225120015
22432-230120015	polyketone	1:2	3	15	63,3	-	20,2	50	45	31,2	14	36,4	15,3	34,8	359,8	22432-230120030
22432-230120030	polyketone	1:2	3	30	-	49,9	20,5	92,5	90	45	18	37,5	19	33,8	730,3	22432-230120015

Bevel gears, plastic, ratio 1:3

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Axis angle = 90°.

Machined bores from module 1.5.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

nIm 22432-110130015

Note:

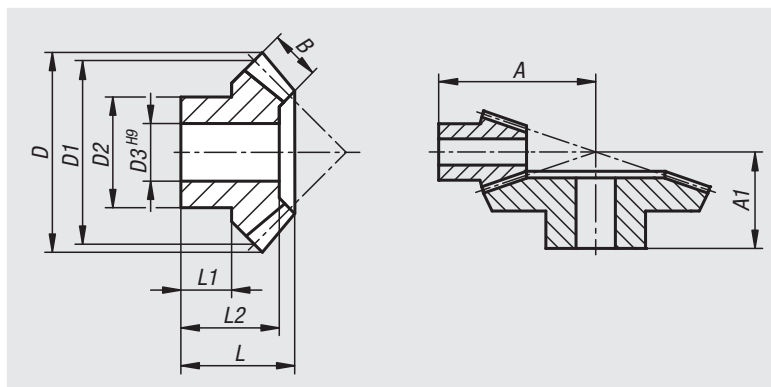
Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Bevel gear wheels are supplied as single components. To obtain a pair of bevel gear wheels, please order the specified mating gear as well.



Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

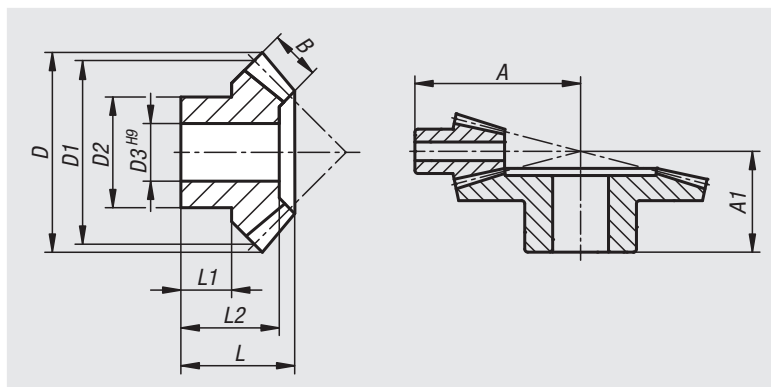
Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.

Order No.	Main material	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22432-110130015	polyacetal	1:3	1	15	34,3	-	9	16,4	15	12,3	5	20,5	11,4	-	16,9	22432-110130045
22432-110130045	polyacetal	1:3	1	45	-	22,4	8,8	45,7	45	23,4	10	17,9	9,6	16,2	49,7	22432-110130015
22432-115130015	polyacetal	1:3	1,5	15	47,3	-	14	25,1	22,5	17,2	8	26,6	12,3	-	59,3	22432-115130045
22432-115130045	polyacetal	1:3	1,5	45	-	29,7	14	68,5	67,5	30,4	12	23,2	11,8	21,4	178,1	22432-115130015
22432-120130010	polyacetal	1:3	2	10	43,3	-	12,2	23,6	20	15,5	6	25	12	-	61,3	22432-120130030
22432-120130030	polyacetal	1:3	2	30	-	28	12,5	61,7	60	30,3	12	22,5	11,8	19,8	188,5	22432-120130010
22432-125130010	polyacetal	1:3	2,5	10	52,4	-	15,2	29,6	25	18,8	8	28,7	13	-	119,3	22432-125130030
22432-125130030	polyacetal	1:3	2,5	30	-	35,8	15,7	77,2	75	36	18	29	15,9	25	369,9	22432-125130010
22432-210130015	polyketone	1:3	1	15	34,3	-	9	16,4	15	12,3	5	20,5	11,4	-	17,8	22432-210130045
22432-210130045	polyketone	1:3	1	45	-	22,4	8,8	45,7	45	23,4	10	17,9	9,6	16,2	52,2	22432-210130015
22432-215130015	polyketone	1:3	1,5	15	47,3	-	14	25,1	22,5	17,2	8	26,6	12,3	-	62,3	22432-215130045
22432-215130045	polyketone	1:3	1,5	45	-	29,7	14	68,5	67,5	30,4	12	23,2	11,8	21,4	187	22432-215130015
22432-220130010	polyketone	1:3	2	10	43,3	-	12,2	23,6	20	15,5	6	25	12	-	64,3	22432-220130030
22432-220130030	polyketone	1:3	2	30	-	28	12,5	61,7	60	30,3	12	22,5	11,8	19,8	197,9	22432-220130010
22432-225130010	polyketone	1:3	2,5	10	52,4	-	15,2	29,6	25	18,8	8	28,7	13	-	125,3	22432-225130030
22432-225130030	polyketone	1:3	2,5	30	-	35,8	15,7	77,2	75	36	18	29	15,9	25	388,4	22432-225130010

Bevel gears, plastic, ratio 1:4

injection-moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Axis angle = 90°.

Machined bores from module 1.5.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

nIm 22432-110140010

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

Bevel gear wheels are supplied as single components. To obtain a pair of bevel gear wheels, please order the specified mating gear as well.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.

Order No.	Main material	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22432-110140010	polyacetal	1:4	1	10	30,2	-	8	12	10	7,9	4	17,7	9,6	-	10	22432-110140040
22432-110140040	polyacetal	1:4	1	40	-	20,2	8,4	41	40	23,4	10	16,9	10,8	15,5	42,2	22432-110140010
22432-115140010	polyacetal	1:4	1,5	10	41,5	-	12,2	18	15	11,3	5	23,2	11	-	34,5	22432-115140040
22432-115140040	polyacetal	1:4	1,5	40	-	25,2	12,3	60,7	60	30,4	12	21	12,8	19	139,1	22432-115140010
22432-120140010	polyacetal	1:4	2	10	53,5	-	16	23,7	20	14	6	28,7	12,8	-	80,4	22432-120140040
22432-120140040	polyacetal	1:4	2	40	-	32,5	16,2	81,2	80	36,1	18	27	17	24,4	325,7	22432-120140010
22432-210140010	polyketone	1:4	1	10	30,2	-	8	12	10	7,9	4	17,7	9,6	-	10,5	22432-210140040
22432-210140040	polyketone	1:4	1	40	-	20,2	8,4	41	40	23,4	10	16,9	10,8	15,5	44,3	22432-210140010
22432-215140010	polyketone	1:4	1,5	10	41,5	-	12,2	18	15	11,3	5	23,2	11	-	36,2	22432-215140040
22432-215140040	polyketone	1:4	1,5	40	-	25,2	12,3	60,7	60	30,4	12	21	12,8	19	146	22432-215140010
22432-220140010	polyketone	1:4	2	10	53,5	-	16	23,7	20	14	6	28,7	12,8	-	84,4	22432-220140040
22432-220140040	polyketone	1:4	2	40	-	32,5	16,2	81,2	80	36,1	18	27	17	24,4	342	22432-220140010

Bevel gears, plastic, ratio 1:5

injection moulded, straight teeth, engagement angle 20°



Material:

Polyacetal (POM) or polyketone (PK).

Version:

Injection moulded, straight teeth. Engagement angle 20°.

Axis angle = 90°.

Machined bores from module 1.5.

Polyacetal, white.

Polyketone, ivory tone.

Sample order:

nlm 22432-110150012

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Can be used under water and other media.

Injection moulded gear wheels may have internal manufacture-related cavities. These may become visible during drilling or broaching. They do not impair the function.

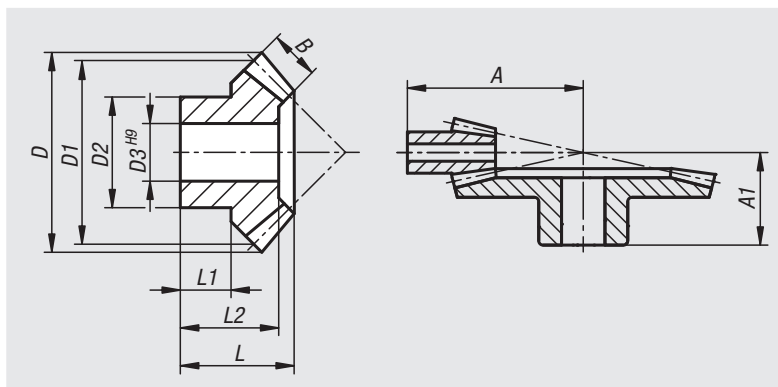
Bevel gear wheels are supplied as single components. To obtain a pair of bevel gear wheels, please order the specified mating gear as well.

Temperature range:

-40 °C to +140 °C (taking amount and duration of load into account).

Attention:

The torques specified in the tables relate exclusively to the toothing. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



Order No.	Main material	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22432-110150012	polyacetal	1:5	1	12	40,6	-	9,9	13,7	12	9,5	4	20,2	10,1	-	14,9	22432-110150060
22432-110150060	polyacetal	1:5	1	60	-	21,2	9,5	60,3	60	20,5	10	17,4	11,2	15,3	71,6	22432-110150012
22432-210150012	polyketone	1:5	1	12	40,6	-	9,9	13,7	12	9,5	4	20,2	10,1	-	15,6	22432-210150060
22432-210150060	polyketone	1:5	1	60	-	21,2	9,5	60,3	60	20,5	10	17,4	11,2	15,3	75,2	22432-210150012

Bevel gears, zinc, ratio 1:1

cast, straight teeth, engagement angle 20°



Material:

Zinc ZnAl4Cu1.

Version:

Cast, straight teeth. Engagement angle 20°. Axis angle = 90°.
Bright.
Machined bore.

Sample order:

nIm 22433-05110016

Note:

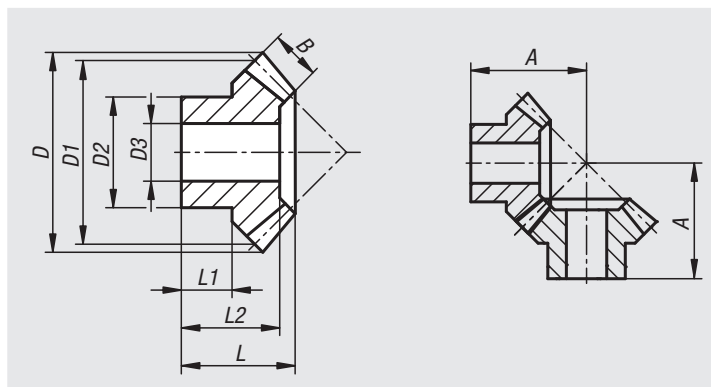
Bevel gears are supplied singly. To obtain a pair of bevel gears, please order the specified mating gear as well.

Temperature range:

Zinc bevel gears can only be used up to a maximum of temperature of +100°C under load.

Attention:

The torques specified in the tables relate exclusively to the toothling. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.



Order No.	Transmission ratio	Module	No. of teeth	A	B	D	D1	D2	D3	L	L1	L2	Max. torque Ncm	matching opposing gear
22433-05110016	1:1	1	16	17,9	4,5	17,3	16	12	6	13	7,5	13	21,8	22433-05110016
22433-15110016	1:1	1,5	16	25,2	6,9	26	24	19	8	18,6	10,7	17	73,1	22433-15110016
22433-20110016	1:1	2	16	30	9,6	34,8	32	23	10	21,3	10	19,2	185,7	22433-20110016
22433-25110016	1:1	2,5	16	36,2	12,3	43,3	40	26	12	25,5	12	23	357	22433-25110016
22433-30110016	1:1	3	16	42,7	14	52,3	48	30	14	29,3	13	26	576,8	22433-30110016
22433-35110016	1:1	3,5	16	49,4	15,5	61,4	56	34	16	33,2	14	29,2	898,9	22433-35110016

Bevel gear drive with plastic bevel gears



Material:

Housing, ZnAl4Cu1 die-cast zinc.

Shafts, 1.4301 stainless steel.

Bevel gears, polyacetal (POM) or polyketone (PK).

Version:

Housing and shafts, bright.

Bevel gears, injection moulded, straight teeth. Engagement angle 20°.

Polyacetal, white.

Polyketone, ivory-tone.

Sample order:

nlm 22715-1210

Note:

Polyacetal: Standard material with high hardness grade and low coefficient of friction.

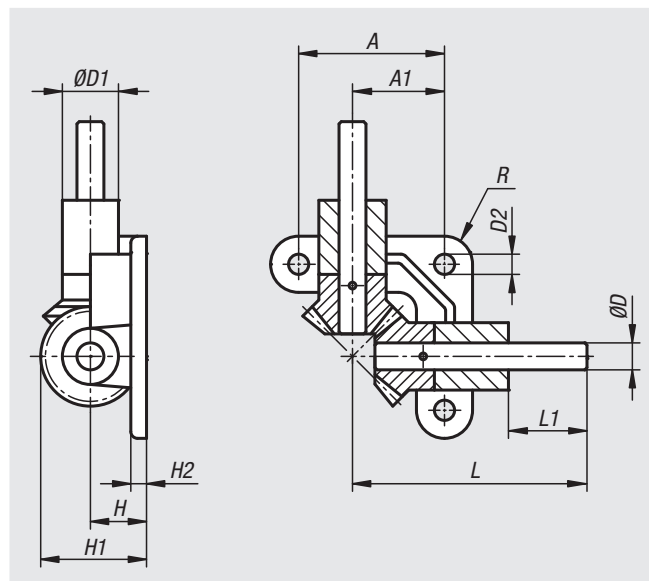
Polyketone: Material with significantly longer service life, higher power transmission and greater security against tooth breakage due to the extraordinarily high wear resistance and very good tribological properties.

Universally applicable and maintenance-free bevel gear drives in six different sizes with the ratio 1:1. The rotation direction is arbitrary. The shafts are mounted in the housing on self-lubricating plain bearings. The axis angle is 90°.

These bevel gears are suitable for manual drives and for temporary power drives at low speeds and with a low load.

Temperature range:

-20 °C to +100 °C.



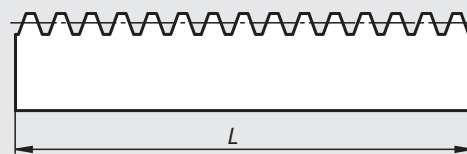
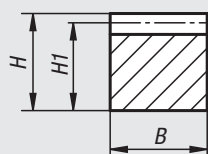
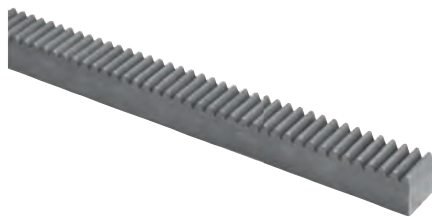
Attention:

The torques specified in the tables relate exclusively to the toothings. The shaft diameter, key size, etc. are not taken into account. The permissible load calculations are based on the basic principles of the pitting load capacity of the tooth flanks as well as the occurring tooth root stress. The respective permissible load of a gear wheel depends on so many different factors that the values specified can only be reference values meant to make selection easier. The torque specifications relate to a single tooth. The overlap, which is essential for determining the transmissible torque, occurs depending on the pitch diameter, gear wheel pairing, etc. In the simplest straight tooth cases, an overlap ratio of 1.1 to 1.25 is normal. To increase the overlap, a higher number of teeth with smaller modules is used. A good profile overlap can minimise damage such as pitting.

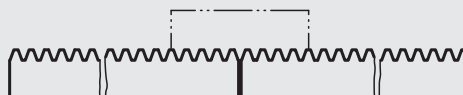
Order No.	Component material	Transmission ratio	Module	No. of teeth	A	A1	D	D1	D2	H	H1	H2	L	L1	R	Max. torque Ncm
22715-1210	polyacetal	1:1	1	16/16	32	19,4	5h9	12	4,8	10	18,8	4	50	15	6	8,3
22715-1215	polyacetal	1:1	1,5	16/16	45	28,4	8h9	18	5,8	15	28,2	5	70	20	9	29
22715-1220	polyacetal	1:1	2	16/16	55	35	10h6	22	7	20	37,5	6	90	30	11	73
22715-1225	polyacetal	1:1	2,5	16/16	65	41	12h6	25	9	25	46,8	7	105	35	12,5	145
22715-1230	polyacetal	1:1	3	16/16	75	47,5	15h6	30	9	30	56,2	8	120	40	15	250
22715-1235	polyacetal	1:1	3,5	16/16	85	54	18h6	33	11	35	65,7	9	135	45	16	440
22715-2210	polyketone	1:1	1	16/16	32	19,4	5h9	12	4,8	10	18,8	4	50	15	6	8,7
22715-2215	polyketone	1:1	1,5	16/16	45	28,4	8h9	18	5,8	15	28,2	5	70	20	9	30,4
22715-2220	polyketone	1:1	2	16/16	55	35	10h6	22	7	20	37,5	6	90	30	11	76,6
22715-2225	polyketone	1:1	2,5	16/16	65	41	12h6	25	9	25	46,8	7	105	35	12,5	152,2
22715-2230	polyketone	1:1	3	16/16	75	47,5	15h6	30	9	30	56,2	8	120	40	15	262,5
22715-2235	polyketone	1:1	3,5	16/16	85	54	18h6	33	11	35	65,7	9	135	45	16	462

Gear racks in steel

toothing milled, straight teeth, engagement angle 20°



mounting in series



Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.

Sample order:

nIm 22420-010150X500

Note:

The gear racks are suitable for mounting in series.

Order No.	Module	B	H	H1	L Nom. length	L Actual length
22420-010150X1000	1	15	15	14	1000	1002,17
22420-010150X2000	1	15	15	14	2000	2001,19
22420-010150X500	1	15	15	14	500	499,51
22420-015170X1000	1,5	17	17	15,5	1000	1003,74
22420-015170X2000	1,5	17	17	15,5	2000	2002,77
22420-015170X500	1,5	17	17	15,5	500	499,51
22420-020200X1000	2	20	20	18	1000	1005,31
22420-020200X2000	2	20	20	18	2000	2004,34
22420-020200X500	2	20	20	18	500	502,65
22420-025250X1000	2,5	25	25	22,5	1000	1005,31
22420-025250X2000	2,5	25	25	22,5	2000	2002,77
22420-025250X500	2,5	25	25	22,5	500	502,65
22420-030300X1000	3	30	30	27	1000	1008,45
22420-030300X2000	3	30	30	27	2000	2007,48
22420-030300X500	3	30	30	27	500	499,51
22420-040300X1000	4	30	30	26	1000	1005,31
22420-040300X2000	4	30	30	26	2000	2010,62
22420-040400X500	4	40	40	36	500	502,65
22420-040400X1000	4	40	40	36	1000	1005,31
22420-040400X2000	4	40	40	36	2000	2010,62
22420-040400X3000	4	40	40	36	3000	3003,36
22420-050500X500	5	50	50	45	500	502,65
22420-050500X1000	5	50	50	45	1000	1005,31
22420-050500X2000	5	50	50	45	2000	2010,62
22420-050500X3000	5	50	50	45	3000	3000,22
22420-060600X1000	6	60	60	54	1000	1017,88
22420-060600X2000	6	60	60	54	2000	2016,9
22420-080800X1000	8	80	80	72	1000	1005,31
22420-080800X2000	8	80	80	72	2000	2010,62

Gear racks in steel

toothing milled, straight teeth, engagement angle 20°



Material:

Steel 1.0503 (C45).

Version:

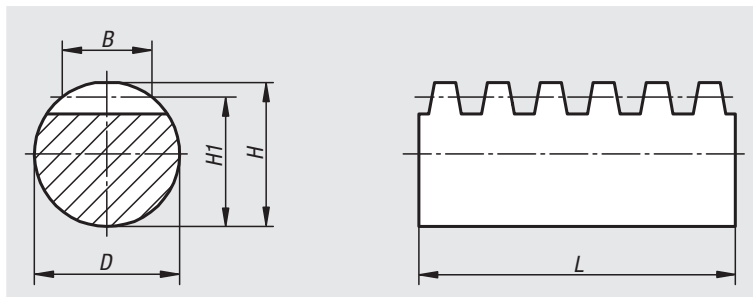
Milled toothing, straight teeth.
Engagement angle 20°, bright.
Outside diameter ground, tolerance h6.

Sample order:

nln 22425-010060X500

Note:

The gear rack teeth are cut using a hob mill.
This results in minus tolerances for dimensions H and H1:
up to module 2: -0.2 mm.
module 2.5 to 3: -0.3 mm.



Order No.	Module	B	D	H	H1	L
22425-010060X500	1	6	10	10	9	500
22425-010060X1000	1	6	10	10	9	1000
22425-010060X2000	1	6	10	10	9	2000
22425-015090X500	1,5	9	15	15	13,5	500
22425-015090X1000	1,5	9	15	15	13,5	1000
22425-015090X2000	1,5	9	15	15	13,5	2000
22425-020120X500	2	12	20	20	18	500
22425-020120X1000	2	12	20	20	18	1000
22425-020120X2000	2	12	20	20	18	2000
22425-025150X500	2,5	15	25	25	22,5	500
22425-025150X1000	2,5	15	25	25	22,5	1000
22425-025150X2000	2,5	15	25	25	22,5	2000
22425-030180X500	3	18	30	30	27	500
22425-030180X1000	3	18	30	30	27	1000
22425-030180X2000	3	18	30	30	27	2000

Bevel gears in steel, ratio 1:1

toothing milled, straight teeth, engagement angle 20°



Material:

Steel 1.0503 (C45).

Version:

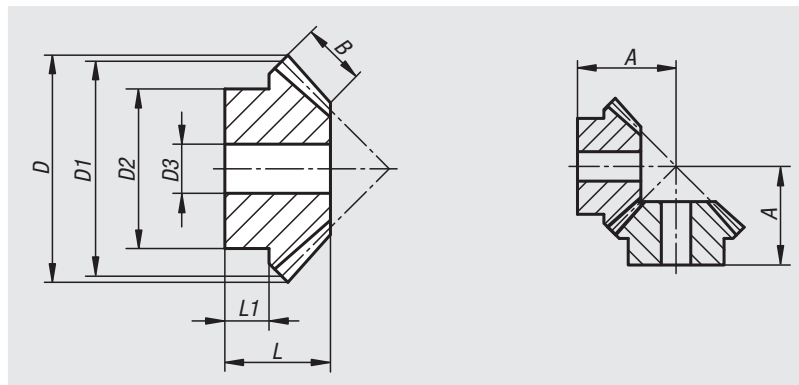
Milled toothing, straight teeth.
Engagement angle 20°, bright.
Axis angle = 90°.

Sample order:

nlm 22430-010110016

Note for ordering:

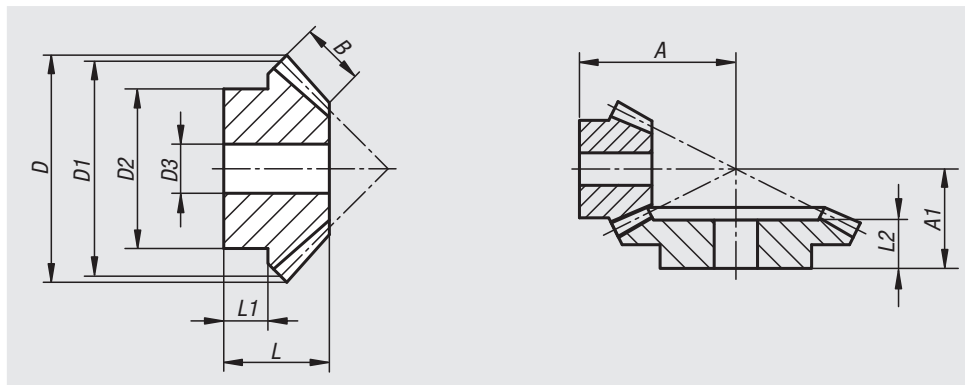
Bevel gears are supplied singly. To obtain a pair of bevel gears, please order the specified mating gear as well.



Order No.	Transmission ratio	Module	No. of teeth	A	B	D	D1	D2	D3	L	L1	matching opposing gear
22430-010110016	1:1	1	16	16	4	17,4	16	13,3	4	11,2	6,7	22430-010110016
22430-010110019	1:1	1	19	18	4	20,4	19	15,3	4	11,8	6,6	22430-010110019
22430-010110022	1:1	1	22	20	4,7	23,4	22	16,3	5	12,8	6,1	22430-010110022
22430-010110026	1:1	1	26	22	5,5	27,4	26	20,3	5	13,3	7	22430-010110026
22430-010110030	1:1	1	30	26	6,4	31,4	30	20,3	5	16	8	22430-010110030
22430-015110016	1:1	1,5	16	26	6	26,1	24	20,3	8	18,9	12,2	22430-015110016
22430-015110019	1:1	1,5	19	30	7	30,6	28,5	20,3	8	21,3	11,6	22430-015110019
22430-015110022	1:1	1,5	22	33	7,5	35,1	33	25,3	8	22,5	12,7	22430-015110022
22430-015110026	1:1	1,5	26	36	8,5	41,1	39	28,3	8	23,2	12	22430-015110026
22430-015110030	1:1	1,5	30	42	10	47,1	45	30	12	27,2	12,1	22430-015110030
22430-020110016	1:1	2	16	33	8	34,8	32	25,3	8	23,5	13,6	22430-020110016
22430-020110019	1:1	2	19	36	9	40,8	38	25,3	8	24,2	12	22430-020110019
22430-020110022	1:1	2	22	42	10	46,8	44	30,3	10	27,9	14	22430-020110022
22430-020110026	1:1	2	26	48	12	54,8	52	35,3	12	31,4	13,7	22430-020110026
22430-020110030	1:1	2	30	54	13	62,8	60	40,3	12	34,1	17	22430-020110030
22430-025110016	1:1	2,5	16	40	10	43,5	40	30,3	12	28,1	15,2	22430-025110016
22430-025110019	1:1	2,5	19	42	11	51	47,5	35,3	12	27,1	13	22430-025110019
22430-025110022	1:1	2,5	22	48	12	58,5	55	45,3	12	30,1	15,7	22430-025110022
22430-025110026	1:1	2,5	26	54	15	68,5	65	45,3	15	33,2	16	22430-025110026
22430-025110030	1:1	2,5	30	64	16	78,5	75	50,3	15	39	20	22430-025110030
22430-030110016	1:1	3	16	46	12	52,2	48	40,3	12	31,7	18,1	22430-030110016
22430-030110019	1:1	3	19	54	13	61,2	57	40,3	14	36	17,1	22430-030110019
22430-030110022	1:1	3	22	58	15	70,2	66	50,3	15	36,9	17,1	22430-030110022
22430-030110026	1:1	3	26	64	17	82,2	78	50,3	15	38,4	18	22430-030110026
22430-030110030	1:1	3	30	74	19	94,2	90	60,3	20	43,8	22	22430-030110030

Bevel gears in steel, ratio 1:2

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.
Engagement angle 20°, bright.
Axis angle = 90°.

Sample order:

nln 22430-010120015

Note for ordering:

Bevel gears are supplied singly. To obtain a pair of bevel gears, please order the specified mating gear as well.

Order No.	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	matching opposing gear
22430-010120015	1:2	1	15	22	-	5	17,4	15	13,3	4	11,9	6,6	-	22430-010120030
22430-010120030	1:2	1	30	-	20	5	30,6	30	20,3	5	15,1	9	14	22430-010120015
22430-015120015	1:2	1,5	15	35	-	9	26,1	22,5	20,3	8	21,1	12	-	22430-015120030
22430-015120030	1:2	1,5	30	-	32	9	45,9	45	32,3	8	25,2	16	23	22430-015120015
22430-020120015	1:2	2	15	45	-	11,5	34,8	30	25,3	8	26	13,8	-	22430-020120030
22430-020120030	1:2	2	30	-	39	11,5	61,2	60	40,3	12	29,8	18	27	22430-020120015
22430-025120015	1:2	2,5	15	55	-	15	43,5	37,5	32,3	12	31,8	16,2	-	22430-025120030
22430-025120030	1:2	2,5	30	-	45	15	76,5	75	45,3	15	33,7	20	30	22430-025120015
22430-030120015	1:2	3	15	66	-	17	52,2	45	40,3	12	37,3	19,8	-	22430-030120030
22430-030120030	1:2	3	30	-	56	17	91,8	90	55,3	15	42,1	25	38	22430-030120015

Bevel gears in steel, ratio 1:3

toothing milled, straight teeth, engagement angle 20°



Material:

Steel 1.0503 (C45).

Version:

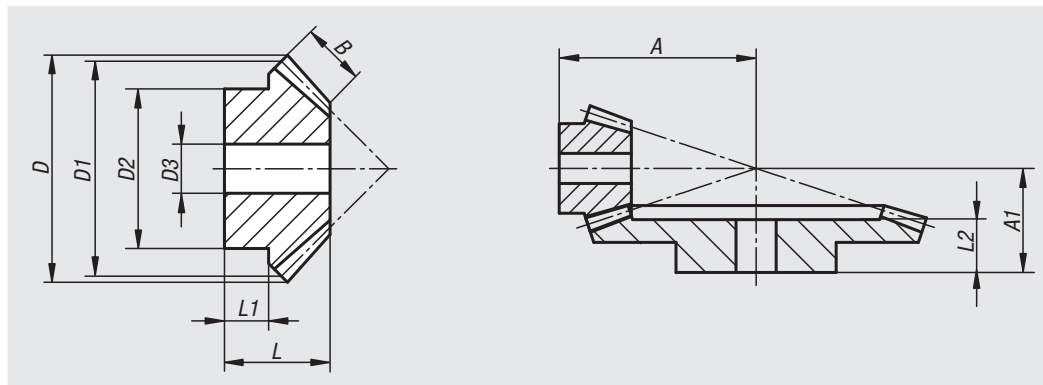
Milled toothing, straight teeth.
Engagement angle 20°, bright.
Axis angle = 90°.

Sample order:

nIm 22430-010130015

Note for ordering:

Bevel gears are supplied singly. To obtain a pair of bevel gears, please order the specified mating gear as well.



Order No.	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	matching opposing gear
22430-010130015	1:3	1	15	32	-	7,1	17,7	15	13,3	4	16,6	9,3	-	22430-010130045
22430-010130045	1:3	1	45	-	22	7,1	45,3	45	25,3	8	17,1	10	15	22430-010130015
22430-015130015	1:3	1,5	15	46	-	10,5	26,5	22,5	19,3	8	22,6	11,7	-	22430-015130045
22430-015130045	1:3	1,5	45	-	37	10,5	68,1	67,5	45,3	14	29,6	20	27	22430-015130015
22430-020130015	1:3	2	15	60	-	14	35,4	30	25,3	8	28,9	14,2	-	22430-020130045
22430-020130045	1:3	2	45	-	42	14	90,8	90	45,3	15	32,1	20	29	22430-020130015
22430-025130015	1:3	2,5	15	73	-	18	44,2	37,5	32,3	12	34,6	15,9	-	22430-025130045
22430-025130045	1:3	2,5	45	-	52	18	113,4	112,5	60,3	20	39,7	25	36	22430-025130015
22430-030130015	1:3	3	15	88	-	21	53	45	40,3	15	41,3	19,7	-	22430-030130045
22430-030130045	1:3	3	45	-	62	21	136,1	135	60,3	20	47,2	30	42,5	22430-030130015

Bevel gears in steel, ratio 1:4

toothing milled, straight teeth, engagement angle 20°


Material:

Steel 1.0503 (C45).

Version:

Milled toothing, straight teeth.

Engagement angle 20°, bright.

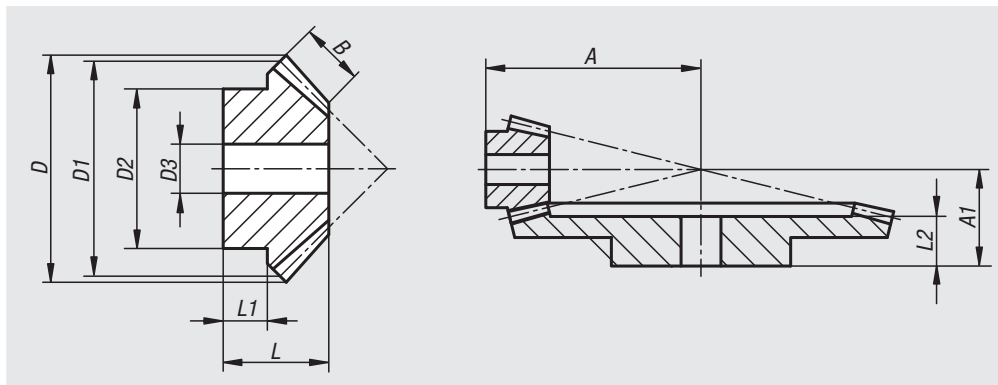
Axis angle = 90°.

Sample order:

nlm 22430-010140015

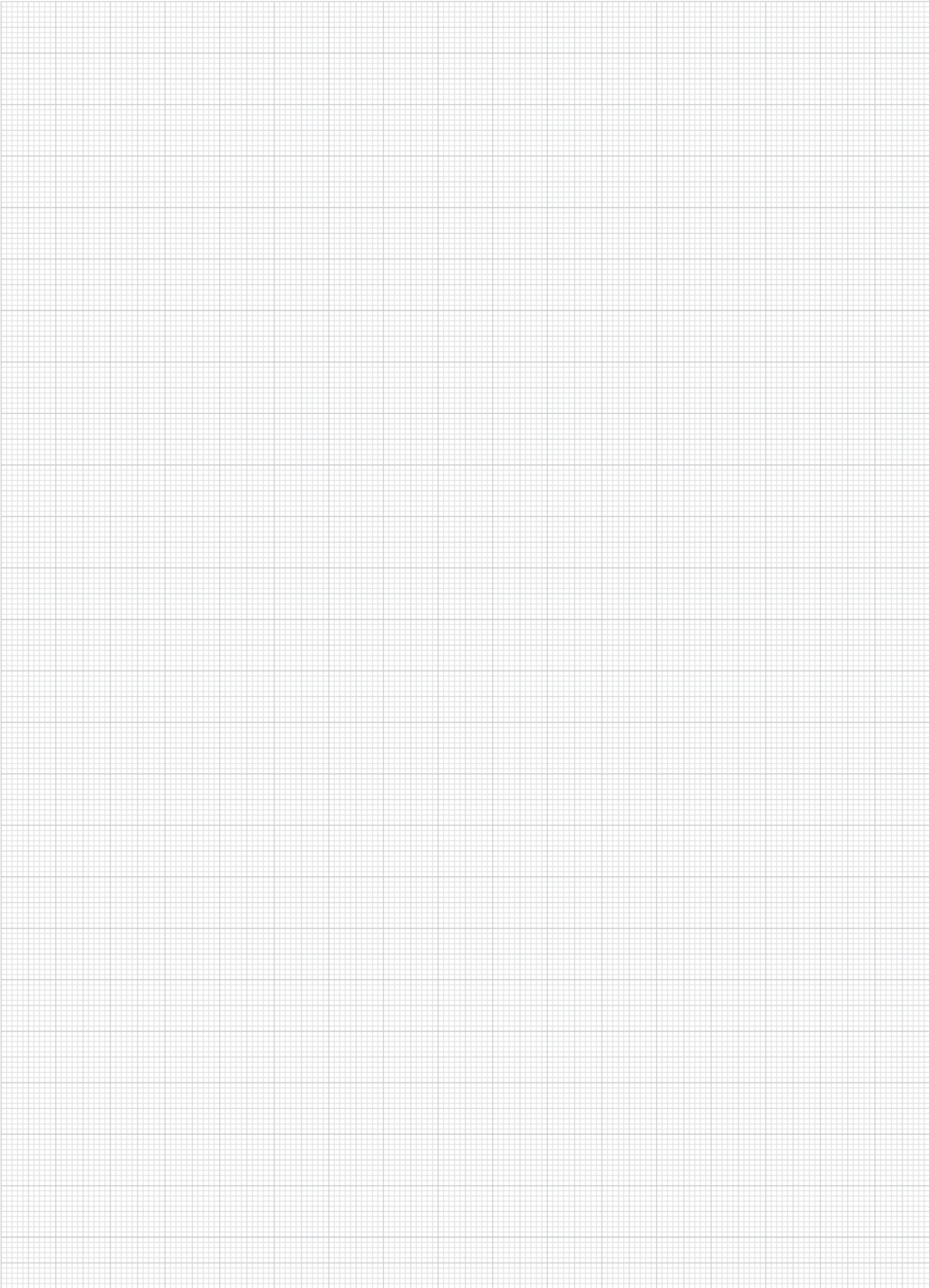
Note for ordering:

Bevel gears are supplied singly. To obtain a pair of bevel gears, please order the specified mating gear as well.



Order No.	Transmission ratio	Module	No. of teeth	A	A1	B	D	D1	D2	D3	L	L1	L2	matching opposing gear
22430-010140015	1:4	1	15	38	-	9,3	17,8	15	13,3	4	17,2	7,7	-	22430-010140060
22430-010140060	1:4	1	60	-	22	9,3	60,3	60	30,3	8	17,1	10	15	22430-010140015
22430-015140015	1:4	1,5	15	57	-	11	26,7	22,5	20,3	8	23	11,7	-	22430-015140060
22430-015140060	1:4	1,5	60	-	42	11	90,4	90	50,3	15	34	25	31	22430-015140015
22430-020140015	1:4	2	15	75	-	16	35,6	30	25,3	8	31	14,4	-	22430-020140060
22430-020140060	1:4	2	60	-	48	16	120,6	120	60,3	16	37,6	25	34	22430-020140015
22430-025140015	1:4	2,5	15	94	-	19	44,5	37,5	32,3	14	38,1	18,4	-	22430-025140060
22430-025140060	1:4	2,5	60	-	58	19	150,7	150	60,3	20	44,8	30	40	22430-025140015
22430-030140015	1:4	3	15	115	-	23	53,3	45	40,3	15	48,1	24,5	-	22430-030140060
22430-030140060	1:4	3	60	-	69	23	180,8	180	80,3	20	53,2	35	48	22430-030140015

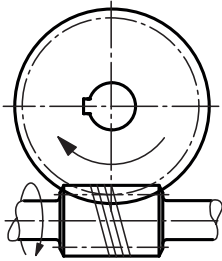
Notes



20000
21000
22000
23000
24000
26000
27000
28000
29000
31000
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33000

Technical information for worm gears

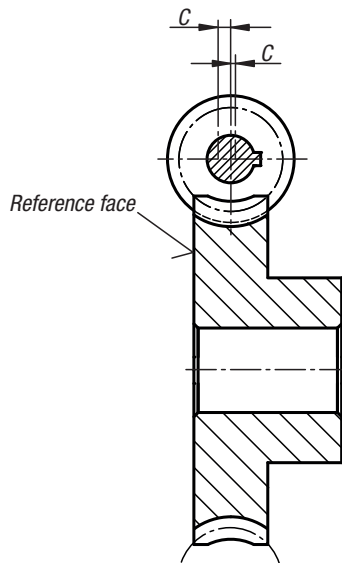
Worm gears right hand



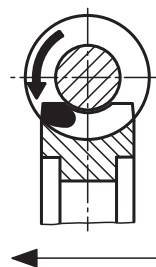
The parts available from the catalogue are right hand. Custom made left hand gears for opposite direction of rotation are only available on request.



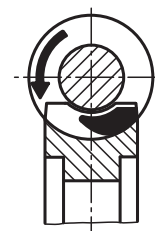
Installing the worm wheel



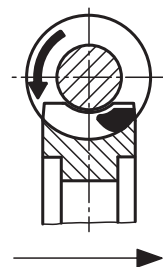
For lateral mounting of the worm wheel, the toleranced reference face is decisive. The lateral tolerance "c" must not exceed 0.15 mm for all centre distances.



Slide the wheel in the direction of the arrow



Correct marking



Slide the wheel in the direction of the arrow

Check the contact pattern to ensure that the worm wheel is correctly installed with regard to axial positioning. The contact pattern should tend towards the runout edge of the wheel. When the worm gear is put into reverse, the contact pattern should tend towards the centre.

Important: Some of the slots are not DIN standard. Please observe the specified slot widths.

Efficiency

The efficiency is generally dependent on the following conditions:

- Worm screw gradient angle
- Glide velocity
- Lubricant
- Surface finish
- Installation dimensions

The efficiency improves with increasing axial distance. For reasons of space and economy, plain bearings are often used by smaller centre distances. These have a higher co-efficient of friction compared to ball bearings and can strongly effect the overall efficiency. The specified efficiency values are only valid under optimum conditions.

Start-up efficiency: The lubricating film between the tooth flanks only forms once the transmission is in motion causing the start-up efficiency to be ca. 30% lower than the operating efficiency specified in the catalogue.

Self-locking

Self-locking is influenced by the gradient angle, the surface finish on the flanks, the glide velocity, the lubricant and the resulting heating. There is a difference between dynamic and static self-locking.

Dynamic self-locking: up to 3° gradient angle with grease lubrication; up to 2.5° gradient angle with synthetic oil lubrication.

Static self-locking: from 3° to 5° gradient angle with grease lubrication; from 2.5° to 4.5° gradient angle with synthetic oil lubrication. There is no self-locking by gradient angles over 4.5° or 5°. Shocks and vibrations can hinder the self-locking function. A number of factors relating to lubrication, glide velocity and load can create glide characteristics such that the self-locking function is negatively influenced and for this reason, no guarantees can be made with regard to the self-locking function.

Technical information for worm gears

Torque data and service life

The torque data is based on a screw speed of 2800 rpm. By reduced screw, the torque increases by the following factors:

n1	2800 rpm	1400 rpm	950 rpm	700 rpm	500 rpm	250 rpm	125 rpm
Factor n1	1	1,12	1,2	1,26	1,33	1,49	1,67

A service life of ca. 3000 hours is basic. The following factors are used for a shortened or increased service life:

Service life	approx. 3000 hours	approx. 1500 hours	approx. 6000 hours
Factor SI	1	1,4	0,71

Calculation example (operating conditions not taken into account)

Gear size centre distance 40 mm; transmission ratio 1:35; mineral oil lubrication; screw speed 700 rpm; service life 1500 hours

What output torque does this produce on the worm wheel?

Output torque

$$\begin{aligned}
 &= T_2 (\text{mineral oil}) \times n (\text{factor}) \times L (\text{factor}) \leq \text{breaking point} \\
 &= 37.2 \text{ Nm} \times 1.26 \times 1.4 \\
 &= 65.6 \text{ Nm}
 \end{aligned}$$

Warning! The output torque is limited by attainment of the yield point of the gear wheel. The yield point is attained at factor ca. 3 (or 300%) of the catalogue data.

T2 for mineral oil = 37.2 Nm x 3 = 111.6 Nm.

Calculation example (operating conditions taken into account)

Operating factors

Due to the wide spectrum of possible applications, the operating factors are guideline values that should be used at ones own discretion. When commissioning it must be taken into account that, independent of the type of operation, the housing temperature does not exceed 80 °C.

Shocks at the drive	None	Medium	Strong
Operating factor f1	1	1,2	1,5

Start-up frequency	10/h	60/h	360/h
Start-up factor f2	1	1,1	1,2

Duty cycle DC	<40%	<70%	<100%
Duty cycle factor f3	1	1,15	1,3

Gear set size 40 mm centre distance, transmission ration 1:35, T2=65.6 Nm (see above calculation) however with severe jolts / 360 starts per hour / 100% duty cycle operating conditions.

$$\text{Output torque} = \frac{T_2}{f_1 \times f_2 \times f_3} = \frac{65,6 \text{ Nm}}{1,5 \times 1,2 \times 1,3} = 28 \text{ Nm}$$

The relationship between service life, speed and torque can be calculated using the following simplified formula

Calculation of the service life (Lh new) with the required torque (T2 new)	$L_{h \text{ new}} = \left(\frac{T_{2 \text{ Nom.}}}{T_{2 \text{ new}}} \times \text{Factor } n_1 \right)^2 \cdot L_{h \text{ Nom.}}$	T2 Nom. = Output torque acc. to catalogue specifications Lh Nom. = Service life estimate acc. to catalogue ca. 3000 h
Calculation of the torque (T2 new) with the required service life (Lh new)	$T_{2 \text{ new}} = \frac{T_{2 \text{ Nom.}} \times \text{Factor } n_1}{\sqrt{\frac{L_{h \text{ new}}}{L_{h \text{ Nom.}}}}}$	

Worm gears, right-hand

centre distance 17 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-171002 Worm screw

nIm 22500-172002 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Attention:

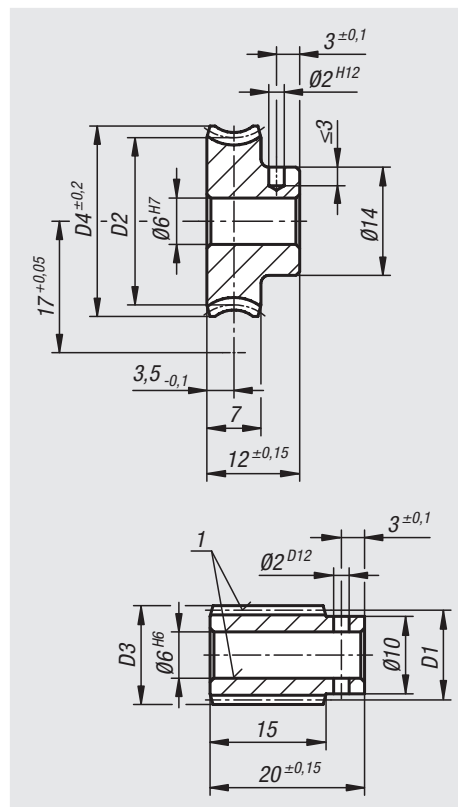
22500-171002: Screw polished only.

22500-172002: Worm wheel with helical gear toothing.

22500-171050: Screw has a Ø9 mm hub.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 17 mm

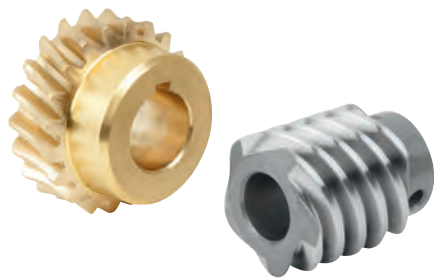


Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-171002	22500-172002	-/2,25:1	48° 15	0,9	8/-	10,15/-	11,95/-	-/18	-/23,85	-/25,63
22500-171004	22500-172004	-/4,5:1	21° 50	0,75	6/-	12,1/-	13,6/-	-/27	-/21,9	-/24,6
22500-171005	22500-172005	-/5:1	21° 37	0,7	6/-	11,4/-	12,8/-	-/30	-/22,6	-/24,6
22500-171007	22500-172007	-/7:1	14° 4	1	3/-	12,34/-	14,34/-	-/21	-/21,66	-/24,6
22500-171009	22500-172009	-/9:1	9° 40	0,75	3/-	13,4/-	14,9/-	-/27	-/20,6	-/22,7
22500-171010	22500-172010	-/10:1	11° 48	0,75	3/-	11/-	12,5/-	-/30	-/23	-/24,6
22500-171015	22500-172015	-/15:1	7° 38	0,75	2/-	11,3/-	12,8/-	-/30	-/22,7	-/24,6
22500-171025	22500-172025	-/25:1	4° 32	0,9	1/-	11,4/-	13,2/-	-/25	-/22,6	-/24,6
22500-171030	22500-172030	-/30:1	3° 45	0,75	1/-	11,45/-	12,95/-	-/30	-/22,55	-/24,6
22500-171040	22500-172040	-/40:1	2° 3	0,5	1/-	13,98/-	14,98/-	-/40	-/20,02	-/21,6
22500-171050	22500-172050	-/50:1	3° 12	0,5	1/-	8,95/-	9,95/-	-/50	-/25,05	-/27,2
22500-171060	22500-172060	-/60:1	2° 18	0,4	1/-	9,95/-	10,75/-	-/60	-/24,05	-/26
22500-171075	22500-172075	-/75:1	1° 28	0,3	1/-	11,74/-	12,34/-	-/75	-/22,26	-/24
22500-171080	22500-172080	-/80:1	1° 43	0,3	1/-	10/-	10,84/-	-/80	-/24	-/25,1

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-171002	22500-172002	-/2,25:1	1,1	1,3	1,6
22500-171004	22500-172004	-/4,5:1	1,7	2	2,6
22500-171005	22500-172005	-/5:1	1,8	2,2	2,7
22500-171007	22500-172007	-/7:1	1,6	1,9	2,4
22500-171009	22500-172009	-/9:1	1,5	1,8	2,2
22500-171010	22500-172010	-/10:1	1,9	2,3	2,8
22500-171015	22500-172015	-/15:1	1,9	2,3	2,8
22500-171025	22500-172025	-/25:1	1,8	2,2	2,7
22500-171030	22500-172030	-/30:1	1,9	2,3	2,8
22500-171040	22500-172040	-/40:1	1,4	1,7	2,1
22500-171050	22500-172050	-/50:1	1	1,2	1,5
22500-171060	22500-172060	-/60:1	1,6	1,9	2,4
22500-171075	22500-172075	-/75:1	1,5	1,8	2,2
22500-171080	22500-172080	-/80:1	1,5	1,8	2,2

Worm gears, right-hand

centre distance 22.62 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-221003 Worm screw

nIm 22500-222003 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

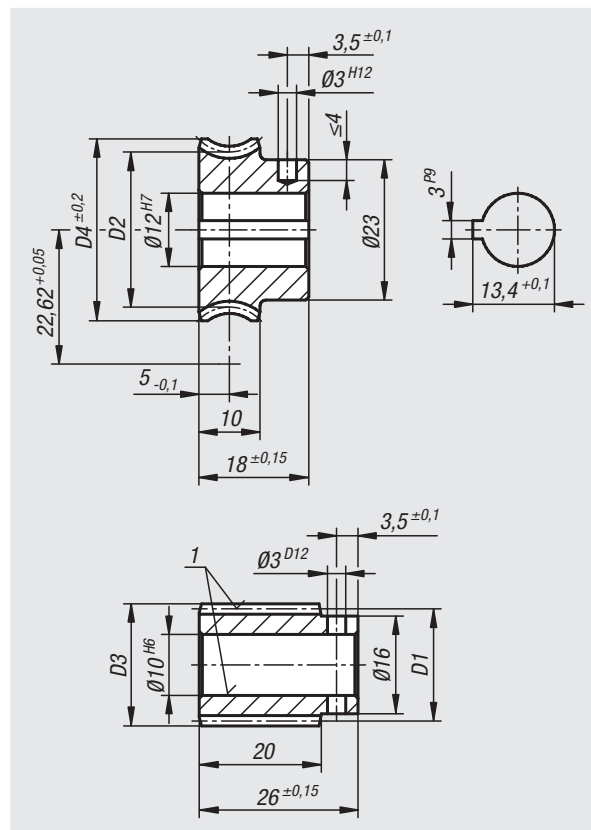
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 22.62 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-221003	22500-222003	-/3:1	17° 36	1	7/-	23,15/-	25,15/-	-/21	-/22,09	-/24,8
22500-221004	22500-222004	-/4:1	19° 32	1,25	5/-	18,7/-	21,2/-	-/20	-/26,54	-/29,8
22500-221007	22500-222007	-/7:1	11° 46	1,25	3/-	18,4/-	20,9/-	-/21	-/26,84	-/29,8
22500-221010	22500-222010	-/10,5:1	7° 41	1,25	2/-	18,7/-	21,2/-	-/21	-/26,54	-/29,8
22500-221021	22500-222021	-/21:1	3° 48	1,25	1/-	18,9/-	21,4/-	-/21	-/26,34	-/29,8
22500-221030	22500-222030	-/30:1	2° 50	0,9	1/-	18,2/-	20/-	-/30	-/27,04	-/29,8
22500-221040	22500-222040	-/40:1	2° 20	0,7	1/-	17,2/-	18,6/-	-/40	-/28,04	-/29,8

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-221003	22500-222003	/3:1	2,2	2,6	3,3
22500-221004	22500-222004	/4:1	3,6	4,3	5,4
22500-221007	22500-222007	/7:1	3,6	4,3	5,4
22500-221010	22500-222010	/10,5:1	3,4	4,1	5,1
22500-221021	22500-222021	/21:1	3,4	4,1	5,1
22500-221030	22500-222030	/30:1	3,6	4,3	5,4
22500-221040	22500-222040	/40:1	3,9	4,7	5,8

Worm gears, right-hand

centre distance 25 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-251004 Worm screw

nIm 22500-252004 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

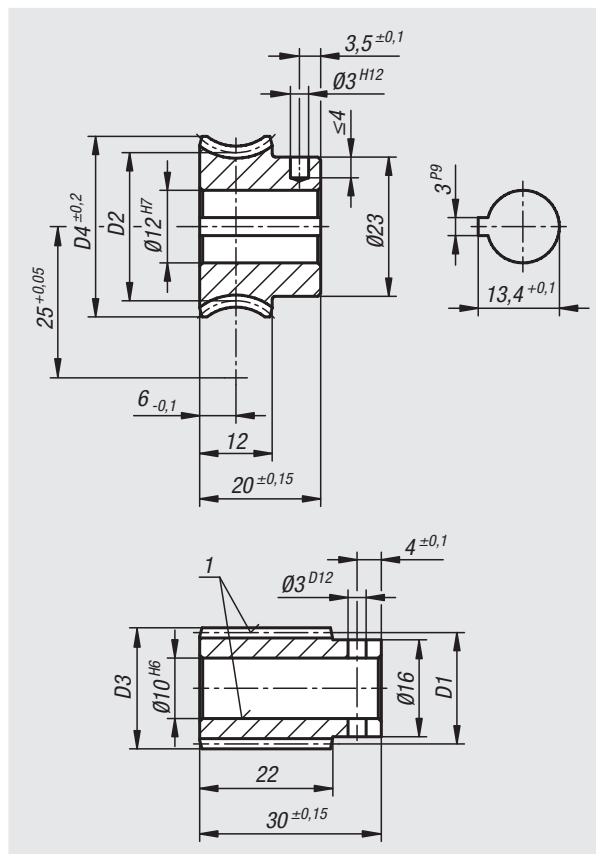
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 25 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-251004	22500-252004	-/4:1	20° 29	1,4	5/-	20/-	22,8/-	-/20	-/30	-/33,5
22500-251005	22500-252005	-/5:1	19° 15	1,5	4/-	18,2/-	21,2/-	-/20	-/31,8	-/34,8
22500-251006	22500-252006	-/6,5:1	13° 52	1,15	4/-	19,2/-	21,5/-	-/26	-/30,8	-/34,8
22500-251010	22500-252010	-/10:1	8° 48	1,5	2/-	19,6/-	22,6/-	-/20	-/30,4	-/34,8
22500-251015	22500-252015	-/15:1	6° 29	1	2/-	17,7/-	19,7/-	-/30	-/32,3	-/34,8
22500-251020	22500-252020	-/20:1	4° 19	1,5	1/-	19,9/-	22,9/-	-/20	-/30,1	-/34,8
22500-251025	22500-252025	-/25:1	2° 18	1	1/-	24,96/-	26,96/-	-/25	-/25,04	-/27,8
22500-251030	22500-252030	-/30:1	2° 53	1	1/-	19,9/-	21,9/-	-/30	-/30,1	-/33,5
22500-251040	22500-252040	-/40:1	2° 33	0,8	1/-	17,96/-	19,56/-	-/40	-/32,04	-/34,8
22500-251050	22500-252050	-/50:1	1° 43	0,6	1/-	19,96/-	21,16/-	-/50	-/30,04	-/33,5

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-251004	22500-252004	-/4:1	5,1	6,1	7,6
22500-251005	22500-252005	-/5:1	6,5	7,8	9,7
22500-251006	22500-252006	-/6,5:1	6	7,2	9
22500-251010	22500-252010	-/10:1	5,9	7,1	8,8
22500-251015	22500-252015	-/15:1	5,7	6,8	8,5
22500-251020	22500-252020	-/20:1	5,8	7	8,7
22500-251025	22500-252025	-/25:1	4,1	4,9	6,1
22500-251030	22500-252030	-/30:1	5,9	7,1	8,8
22500-251040	22500-252040	-/40:1	6,2	7,4	9,3
22500-251050	22500-252050	-/50:1	5,1	6,1	7,6

Worm gears, right-hand

centre distance 31 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-311002 Worm

nIm 22500-312002 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

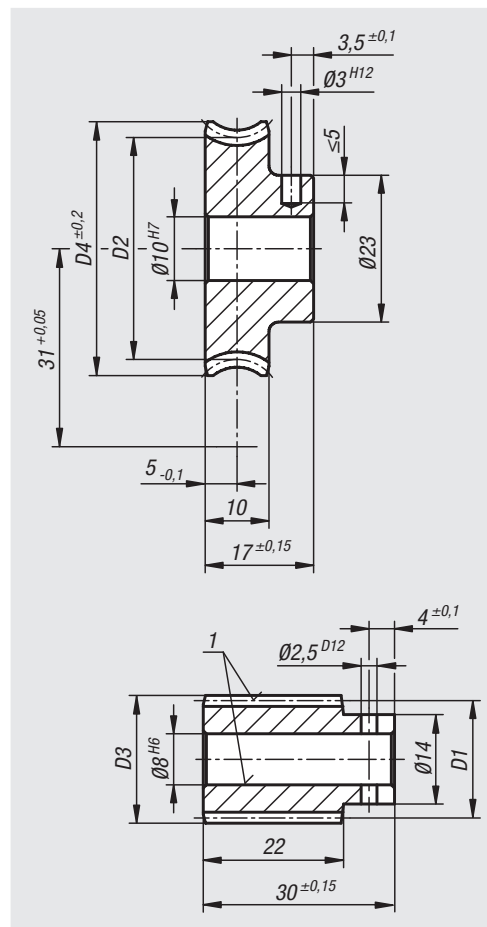
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-311002	22500-312002	-/2,5:1	45° 15	1,25	10/-	17,6/-	20,1/-	-/25	-/44,4	-/46,9
22500-311003	22500-312003	-/3:1	35° 10	1,15	10/-	19,97/-	22,27/-	-/30	-/42,03	-/44,5
22500-311004	22500-312004	-/4,28:1	25° 24	1,25	7/-	20,4/-	22,9/-	-/30	-/41,6	-/45
22500-311005	22500-312005	-/5:1	23° 46	1,3	6/-	19,35/-	21,95/-	-/30	-/42,65	-/46,5
22500-311006	22500-312006	-/6:1	18° 13	1,3	5/-	20,8/-	23,4/-	-/30	-/41,2	-/45
22500-311007	22500-312007	-/7:1	20° 32	1,5	4/-	17,1/-	20,1/-	-/28	-/44,9	-/48,8
22500-311008	22500-312008	-/8,33:1	19° 49	1,75	3/-	15,5/-	19/-	-/25	-/46,5	-/51
22500-311010	22500-312010	-/10:1	12° 50	1,4	3/-	18,9/-	21,7/-	-/30	-/43,1	-/47
22500-311012	22500-312012	-/12:1	13° 55	1,25	3/-	15,6/-	18,1/-	-/36	-/46,4	-/50
22500-311015	22500-312015	-/15:1	10° 40	1,5	2/-	16,2/-	19,2/-	-/30	-/45,8	-/50
22500-311018	22500-312018	-/18:1	8° 44	1,25	2/-	16,46/-	18,96/-	-/36	-/45,54	-/48,8
22500-311020	22500-312020	-/20:1	7° 49	0,75	3/-	16,54/-	18,04/-	-/60	-/45,46	-/48
22500-311022	22500-312022	-/22:1	6° 29	1	2/-	17,7/-	19,7/-	-/44	-/44,3	-/48

Worm gears, right-hand

centre distance 31 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-311023	22500-312023	-/23:1	7° 29	2	1/-	15,35/-	19,35/-	-/23	-/46,65	-/52
22500-311024	22500-312024	-/24:1	5° 4	1,75	1/-	19,8/-	23,3/-	-/24	-/42,2	-/47
22500-311025	22500-312025	-/25:1	5° 35	1,75	1/-	18/-	21,5/-	-/25	-/44	-/48,5
22500-311028	22500-312028	-/28:1	4° 20	1,5	1/-	19,85/-	22,85/-	-/28	-/42,15	-/46,5
22500-311030	22500-312030	-/30:1	5° 7	1,5	1/-	16,8/-	19,8/-	-/30	-/45,2	-/48,8
22500-311032	22500-312032	-/32:1	4° 45	1,4	1/-	16,9/-	19,7/-	-/32	-/45,1	-/48,8
22500-311038	22500-312038	-/38:1	5° 1	1,25	1/-	14,3/-	16,8/-	-/38	-/47,7	-/51,2
22500-311045	22500-312045	-/45:1	3° 23	1	1/-	16,93/-	18,93/-	-/45	-/45,07	-/48
22500-311050	22500-312050	-/50:1	3° 3	0,9	1/-	16,9/-	18,7/-	-/50	-/45,1	-/48
22500-311055	22500-312055	-/55:1	4° 12	0,9	1/-	12,3/-	14,1/-	-/55	-/49,7	-/52
22500-311060	22500-312060	-/60:1	2° 33	0,75	1/-	16,9/-	18,4/-	-/60	-/45,1	-/48
22500-311070	22500-312070	-/70:1	3° 7	0,7	1/-	12,9/-	14,3/-	-/70	-/49,1	-/52
22500-311075	22500-312075	-/75:1	2° 2	0,6	1/-	16,9/-	18,1/-	-/75	-/45,1	-/47
22500-311090	22500-312090	-/90:1	1° 41	0,5	1/-	17/-	18/-	-/90	-/45	-/48
22500-311100	22500-312100	-/100:1	2° 24	0,5	1/-	11,96/-	12,96/-	-/100	-/50,04	-/52,7

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-311002	22500-312002	-/2,5:1	4,4	5,3	6,6
22500-311003	22500-312003	-/3:1	4,5	5,4	6,7
22500-311004	22500-312004	-/4,28:1	9	10,8	13,5
22500-311005	22500-312005	-/5:1	9,5	11,4	14,2
22500-311006	22500-312006	-/6:1	7,6	9,1	11,4
22500-311007	22500-312007	-/7:1	9,7	11,6	14,5
22500-311008	22500-312008	-/8,33:1	10	12	15
22500-311010	22500-312010	-/10:1	9,5	11,4	14,2
22500-311012	22500-312012	-/12:1	12,1	14,5	18,1
22500-311015	22500-312015	-/15:1	10,7	12,8	16
22500-311018	22500-312018	-/18:1	10,3	12,4	15,4
22500-311020	22500-312020	-/20:1	8,3	10	12,4
22500-311022	22500-312022	-/22:1	9,6	11,5	14,4
22500-311023	22500-312023	-/23:1	10,5	12,6	15,7
22500-311024	22500-312024	-/24:1	9,2	11	13,8
22500-311025	22500-312025	-/25:1	9,6	11,5	14,4
22500-311028	22500-312028	-/28:1	9,1	10,9	13,6
22500-311030	22500-312030	-/30:1	10,3	12,4	15,4
22500-311032	22500-312032	-/32:1	10,2	12,2	15,3
22500-311038	22500-312038	-/38:1	11,4	13,7	17,1
22500-311045	22500-312045	-/45:1	9,5	11,4	14,2
22500-311050	22500-312050	-/50:1	9	10,8	13,5
22500-311055	22500-312055	-/55:1	10,4	12,5	15,6
22500-311060	22500-312060	-/60:1	8,2	9,8	12,3
22500-311070	22500-312070	-/70:1	9	10,8	13,5
22500-311075	22500-312075	-/75:1	7,3	8,8	10,9
22500-311090	22500-312090	-/90:1	6,4	7,7	9,6
22500-311100	22500-312100	-/100:1	7,4	8,9	11,1

Worm gears, right-hand

centre distance 33 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-331003 Worm

nIm 22500-332003 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

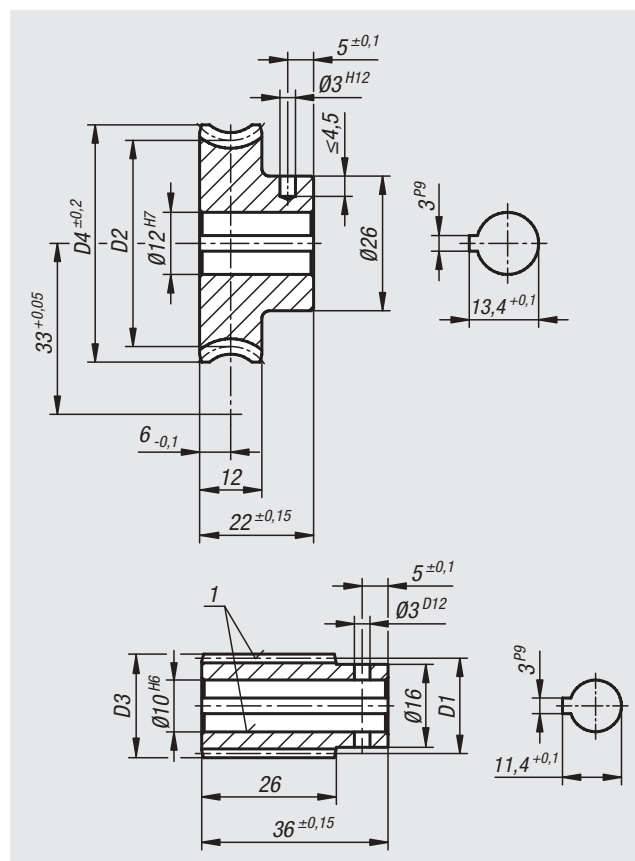
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 33 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-331003	22500-332003	-/3,5:1	25° 57	1,75	6/-	24/-	27,5/-	-/21	-/42	-/47
22500-331005	22500-332005	-/5:1	20° 50	2	4/-	22,5/-	26,5/-	-/20	-/43,5	-/49
22500-331007	22500-332007	-/7:1	15° 32	1,5	4/-	22,4/-	25,4/-	-/28	-/43,6	-/48
22500-331010	22500-332010	-/10:1	13° 10	1,5	3/-	19,75/-	22,75/-	-/30	-/46,25	-/51
22500-331011	22500-332011	-/11,33:1	10° 42	1,3	3/-	21/-	23,6/-	-/34	-/45	-/49,2
22500-331012	22500-332012	-/12:1	11° 14	1,9	2/-	19,5/-	23,3/-	-/24	-/46,5	-/52
22500-331015	22500-332015	-/15:1	8° 25	1,5	2/-	20,5/-	23,5/-	-/30	-/45,5	-/50
22500-331016	22500-332016	-/16:1	10° 1	1,5	2/-	17,24/-	20,24/-	-/32	-/48,76	-/53
22500-331017	22500-332017	-/17:1	9° 3	1,4	2/-	17,8/-	20,6/-	-/34	-/48,2	-/52,5
22500-331018	22500-332018	-/18:1	6° 57	1,25	2/-	20,65/-	23,15/-	-/36	-/45,35	-/49,2
22500-331020	22500-332020	-/20:1	6° 43	1,15	2/-	19,66/-	21,96/-	-/40	-/46,34	-/50,5
22500-331024	22500-332024	-/24:1	5° 27	1,9	1/-	20/-	23,8/-	-/24	-/46	-/51
22500-331028	22500-332028	-/28:1	3° 36	1,5	1/-	23,9/-	26,9/-	-/28	-/42,1	-/46,6
22500-331030	22500-332030	-/30:1	4° 8	1,5	1/-	20,85/-	23,85/-	-/30	-/45,15	-/50
22500-331032	22500-332032	-/32:1	4° 50	1,5	1/-	17,8/-	20,8/-	-/32	-/48,2	-/52,5
22500-331038	22500-332038	-/38:1	3° 55	1,25	1/-	18,28/-	20,76/-	-/38	-/47,74	-/51,6
22500-331050	22500-332050	-/50:1	2° 27	0,9	1/-	21/-	22,8/-	-/50	-/45	-/48
22500-331056	22500-332056	-/56:1	2° 10	0,8	1/-	21,15/-	22,75/-	-/56	-/44,85	-/48
22500-331060	22500-332060	-/60:1	2° 33	0,8	1/-	17,96/-	19,56/-	-/60	-/48,04	-/51,5
22500-331072	22500-332072	-/72:1	1° 30	0,6	1/-	22,8/-	24/-	-/72	-/43,2	-/46
22500-331075	22500-332075	-/75:1	1° 41	0,6	1/-	20,5/-	21,7/-	-/75	-/45,5	-/48

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-331003	22500-332003	-/3,5:1	10,1	12,1	15,1
22500-331005	22500-332005	-/5:1	10,6	12,7	15,9
22500-331007	22500-332007	-/7:1	12,2	14,6	18,3
22500-331010	22500-332010	-/10:1	13,3	16	19,9
22500-331011	22500-332011	-/11,33:1	13,3	16	19,9
22500-331012	22500-332012	-/12:1	13,5	16,2	20,2
22500-331015	22500-332015	-/15:1	13	15,6	19,5
22500-331016	22500-332016	-/16:1	14	16,8	21
22500-331017	22500-332017	-/17:1	14,2	17	21,3
22500-331018	22500-332018	-/18:1	12,6	15,1	18,9
22500-331020	22500-332020	-/20:1	12,7	15,2	19
22500-331024	22500-332024	-/24:1	13,2	15,8	19,8
22500-331028	22500-332028	-/28:1	11,2	13,4	16,8
22500-331030	22500-332030	-/30:1	12,7	15,2	19
22500-331032	22500-332032	-/32:1	13,5	16,2	20,2
22500-331038	22500-332038	-/38:1	13,9	16,7	20,8
22500-331050	22500-332050	-/50:1	10	12	15
22500-331056	22500-332056	-/56:1	10,1	12,1	15,1
22500-331060	22500-332060	-/60:1	11,4	13,7	17,1
22500-331072	22500-332072	-/72:1	8,4	10,01	12,6
22500-331075	22500-332075	-/75:1	9	10,8	13,5

Worm gears, right-hand

centre distance 35 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-351002 Worm screw

nIm 22500-352002 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

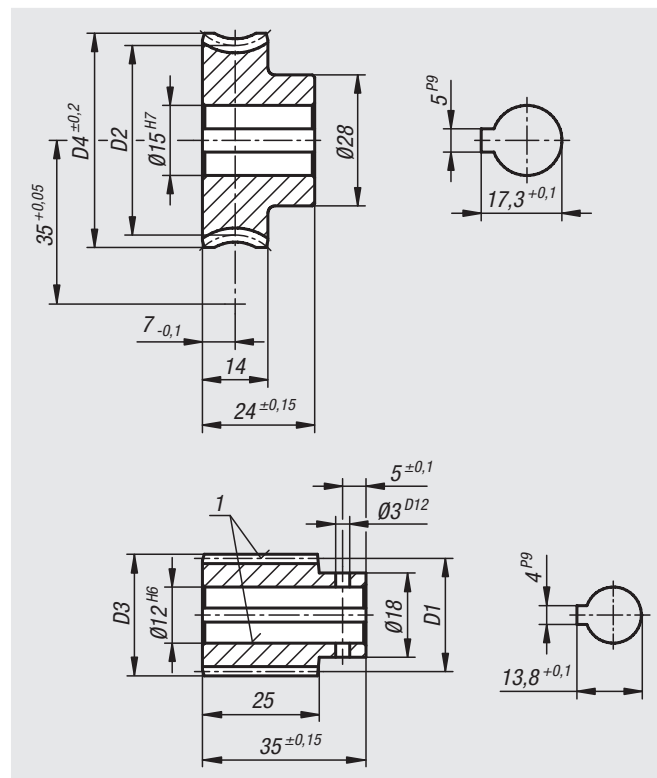
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 35 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-351002	22500-352002	-/2,78:1	31° 01	1,5	9/-	26,2/-	29,2/-	-/25	-/43,8	-/46,76
22500-351005	22500-352005	-/5:1	22° 52	1,75	5/-	22,52/-	26,02/-	-/25	-/47,48	-/53
22500-351007	22500-352007	-/7,25:1	13° 47	1,5	4/-	25,18/-	28,18/-	-/29	-/44,82	-/50
22500-351008	22500-352008	-/8:1	14° 25	1,9	3/-	22,89/-	26,69/-	-/24	-/47,11	-/53
22500-351010	22500-352010	-/10:1	10° 43	1,5	3/-	24,2/-	27,2/-	-/30	-/45,8	-/51
22500-351011	22500-352011	-/11:1	10° 32	1,4	3/-	22,98/-	25,78/-	-/33	-/47,02	-/52
22500-351012	22500-352012	-/12:1	9° 11	1,9	2/-	23,8/-	27,6/-	-/24	-/46,2	-/52
22500-351015	22500-352015	-/15:1	7°	1,5	2/-	24,62/-	27,62/-	-/30	-/45,38	-/50
22500-351020	22500-352020	-/20:1	5° 33	1,15	2/-	23,78/-	26,08/-	-/40	-/46,22	-/50,5
22500-351025	22500-352025	-/25:1	4° 9	0,9	2/-	24,87/-	26,67/-	-/50	-/45,13	-/49
22500-351030	22500-352030	-/30:1	3° 27	1,5	1/-	24,92/-	27,92/-	-/30	-/45,08	-/50
22500-351035	22500-352035	-/35:1	3° 51	1,4	1/-	20,85/-	23,65/-	-/35	-/49,15	-/53
22500-351040	22500-352040	-/40:1	2° 45	1,15	1/-	23,91/-	26,21/-	-/40	-/46,09	-/50,5
22500-351050	22500-352050	-/50:1	2° 4	0,9	1/-	24,93/-	26,73/-	-/50	-/45,07	-/49
22500-351058	22500-352058	-/58:1	2° 21	0,85	1/-	20,65/-	22,35/-	-/58	-/49,35	-/53
22500-351090	22500-352090	-/90:1	1° 9	0,5	1/-	25/-	26/-	-/90	-/45	-/49

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-351002	22500-352002	-/2,78:1	6,6	8,2	10,2
22500-351005	22500-352005	-/5:1	15,3	18,4	22,9
22500-351007	22500-352007	-/7,25:1	14,7	17,6	22
22500-351008	22500-352008	-/8:1	16,7	20	25
22500-351010	22500-352010	-/10:1	16	19,2	24
22500-351011	22500-352011	-/11:1	16,7	20	25
22500-351012	22500-352012	-/12:1	16,1	19,3	24
22500-351015	22500-352015	-/15:1	15,3	18,4	22,9
22500-351020	22500-352020	-/20:1	14,8	17,8	22,2
22500-351025	22500-352025	-/25:1	12,9	15,5	19,3
22500-351030	22500-352030	-/30:1	15	18	22,5
22500-351035	22500-352035	-/35:1	17,1	20,5	25,6
22500-351040	22500-352040	-/40:1	14,7	17,6	22
22500-351050	22500-352050	-/50:1	12,9	15,5	19,3
22500-351058	22500-352058	-/58:1	14,5	17,4	21,7
22500-351090	22500-352090	-/90:1	9,1	10,9	13,6

Worm gears, right-hand

centre distance 40 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-401006 Worm screw

nIm 22500-402006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

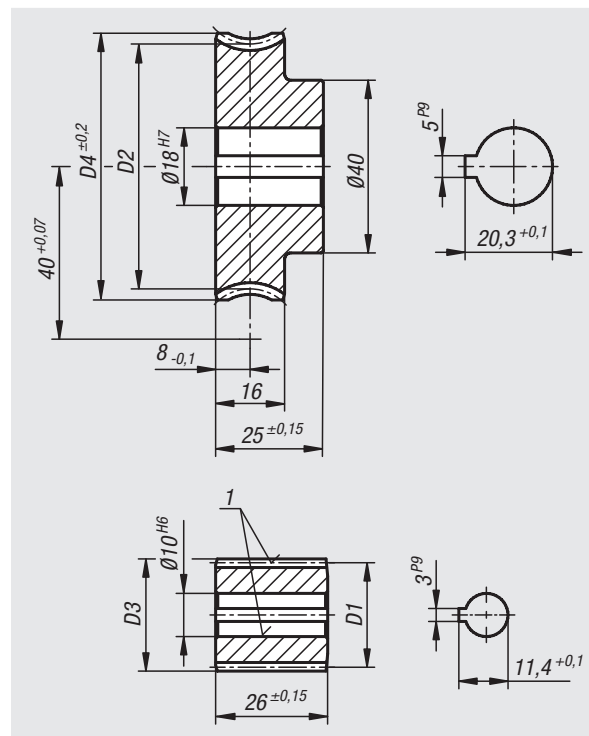
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 40 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-401006	22500-402006	-/6,75:1	21° 19	2	4/-	22/-	26/-	-/27	-/58	-/64
22500-401008	22500-402008	-/8:1	16° 35	2,25	3/-	23,64/-	28,14/-	-/24	-/56,36	-/62,5
22500-401010	22500-402010	-/10:1	16° 1	1,9	3/-	20,66/-	24,46/-	-/30	-/59,34	-/65
22500-401012	22500-402012	-/12:1	10° 21	1,5	3/-	25,05/-	28,05/-	-/36	-/54,95	-/60
22500-401015	22500-402015	-/15:1	9° 53	1,9	2/-	22,14/-	25,94/-	-/30	-/57,86	-/64
22500-401020	22500-402020	-/20:1	8° 59	1,5	2/-	19,2/-	22,2/-	-/40	-/60,8	-/66
22500-401025	22500-402025	-/25:1	5° 58	1,15	2/-	22,15/-	24,45/-	-/50	-/57,85	-/62
22500-401028	22500-402028	-/28:1	4° 47	2	1/-	24/-	28/-	-/28	-/56	-/61,5
22500-401030	22500-402030	-/30:1	5° 50	2	1/-	19,68/-	23,68/-	-/30	-/60,32	-/66
22500-401035	22500-402035	-/35:1	5° 26	1,75	1/-	18,48/-	21,98/-	-/35	-/61,52	-/67
22500-401036	22500-402036	-/36:1	3° 19	1,5	1/-	25,91/-	28,91/-	-/36	-/54,09	-/59
22500-401040	22500-402040	-/40:1	4° 20	1,5	1/-	19,83/-	22,83/-	-/40	-/60,17	-/65
22500-401050	22500-402050	-/50:1	4° 8	1,25	1/-	17,3/-	19,8/-	-/50	-/62,7	-/68
22500-401056	22500-402056	-/56:1	2° 23	1	1/-	24/-	26/-	-/56	-/56	-/59
22500-401060	22500-402060	-/60:1	1° 59	0,9	1/-	25,92/-	27,72/-	-/60	-/54,08	-/57,5
22500-401070	22500-402070	-/70:1	3° 3	0,9	1/-	16,91/-	18,71/-	-/70	-/63,09	-/67
22500-401075	22500-402075	-/75:1	1° 48	0,75	1/-	23,75/-	25,25/-	-/75	-/56,26	-/60
22500-401080	22500-402080	-/80:1	2° 10	0,75	1/-	19,9/-	21,4/-	-/80	-/60,1	-/64
22500-401090	22500-402090	-/90:1	2° 22	0,7	1/-	16,95/-	18,35/-	-/90	-/63,05	-/67

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-401006	22500-402006	-/6,75:1	29,5	35,4	44,2
22500-401008	22500-402008	-/8:1	27,5	33	41,2
22500-401010	22500-402010	-/10:1	29,5	35,4	44,2
22500-401012	22500-402012	-/12:1	25,2	30,2	37,8
22500-401015	22500-402015	-/15:1	28	33,6	42
22500-401020	22500-402020	-/20:1	28,9	34,6	43,3
22500-401025	22500-402025	-/25:1	24,4	29,2	36,6
22500-401028	22500-402028	-/28:1	28,4	34	42,6
22500-401030	22500-402030	-/30:1	30,1	36,1	45,1
22500-401035	22500-402035	-/35:1	31	37,2	46,5
22500-401036	22500-402036	-/36:1	23,9	28,6	35,8
22500-401040	22500-402040	-/40:1	28,3	33,9	42,4
22500-401050	22500-402050	-/50:1	27	32,4	40,5
22500-401056	22500-402056	-/56:1	21,9	26,2	32,8
22500-401060	22500-402060	-/60:1	19,3	23,1	28,9
22500-401070	22500-402070	-/70:1	24,1	28,9	36,1
22500-401075	22500-402075	-/75:1	18,8	22,5	28,2
22500-401080	22500-402080	-/80:1	20,1	24,1	30,1
22500-401090	22500-402090	-/90:1	19,1	22,9	28,6

Worm gears, right-hand

centre distance 50 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-531004 Worm screw

nIm 22500-502004 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

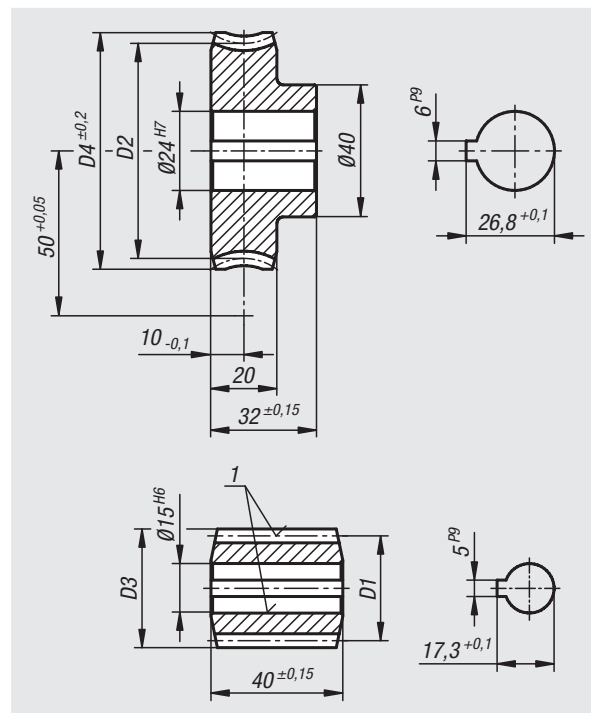
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

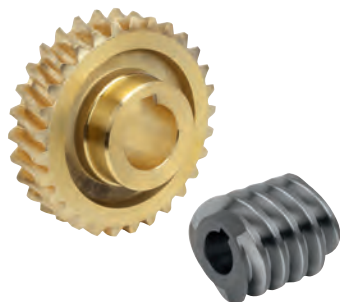
centre distance 50 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-502004	-/4,25:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/17	-/67,9	-/77
22500-531006	22500-502006	-/6:1	19° 17	3,5	3/-	31,8/-	38,8/-	-/18	-/68,2	-/77
22500-531008	22500-502008	-/8,66:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/26	-/68,71	-/77
22500-531012	22500-502012	-/12:1	10° 23	2,75	2/-	30,5/-	36/-	-/24	-/69,5	-/77
22500-531013	22500-502014	-/13,5:1	9° 38	2,5	2/-	29,9/-	34,9/-	-/27	-/70,1	-/77
22500-531019	22500-502019	-/19:1	6° 17	3,5	1/-	32/-	39/-	-/19	-/68	-/77
22500-531023	22500-502023	-/23:1	5° 38	3	1/-	30,58/-	36,58/-	-/23	-/69,42	-/77
22500-531027	22500-502027	-/27:1	4° 40	2,5	1/-	30,73/-	35,73/-	-/27	-/69,27	-/77
22500-531035	22500-502035	-/35:1	3° 51	2	1/-	29,78/-	33,78/-	-/35	-/70,22	-/77
22500-531046	22500-502046	-/46:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/46	-/69,15	-/74
22500-531055	22500-502055	-/55:1	2° 19	1,25	1/-	30,9/-	33,4/-	-/55	-/69,1	-/74
22500-531075	22500-502069	-/69:1	1° 51	1	1/-	30,9/-	32,9/-	-/69	-/69,1	-/74

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-531004	22500-502004	-/4,25:1	-/34	-/40,8	-/51
22500-531006	22500-502006	-/6:1	-/52	-/62,4	-/78
22500-531008	22500-502008	-/8,66:1	-/64,3	-/77,1	-/96,4
22500-531012	22500-502012	-/12:1	-/66,4	-/79,6	-/99,6
22500-531013	22500-502014	-/13,5:1	-/62,8	-/75,4	-/94,2
22500-531019	22500-502019	-/19:1	-/78,2	-/93,8	-/117,3
22500-531023	22500-502023	-/23:1	-/71,1	-/85,3	-/106,6
22500-531027	22500-502027	-/27:1	-/64,5	-/77,4	-/96,7
22500-531035	22500-502035	-/35:1	-/56,7	-/68	-/85
22500-531046	22500-502046	-/46:1	-/50,6	-/60,7	-/75,9
22500-531055	22500-502055	-/55:1	-/46,2	-/55,4	-/69,3
22500-531075	22500-502069	-/69:1	-/41,4	-/49,6	-/62,8

Worm gears, right-hand

centre distance 53 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-531004 Worm screw

nIm 22500-532004 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

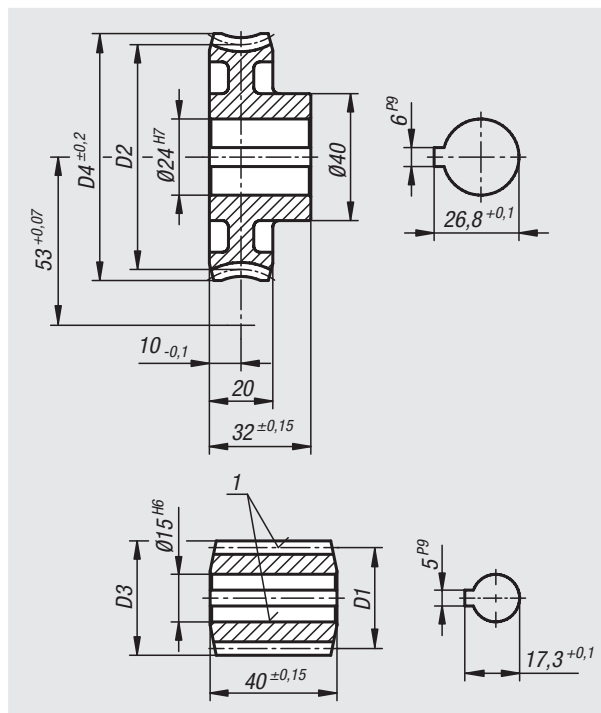
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 53 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-532004	-/4,75:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/19	-/73,9	-/83
22500-531006	22500-532006	-/6,67:1	19° 17	3,5	3/-	31,8/-	38,8/-	-/20	-/74,2	-/84
22500-531008	22500-532009	-/9,67:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/29	-/74,71	-/82
22500-531012	22500-532013	-/13,5:1	10° 23	2,75	2/-	30,5/-	36/-	-/27	-/75,5	-/84
22500-531013	22500-532015	-/15:1	9° 38	2,5	2/-	29,9/-	34,9/-	-/30	-/76,1	-/83
22500-531019	22500-532021	-/21:1	6° 17	3,5	1/-	32/-	39/-	-/21	-/74	-/83
22500-531023	22500-532025	-/25:1	5° 38	3	1/-	30,58/-	36,58/-	-/25	-/75,42	-/84
22500-531028	22500-532028	-/28:1	3° 59	2,5	1/-	36/-	41/-	-/28	-/70	-/77,5
22500-531027	22500-532030	-/30:1	4° 40	2,5	1/-	30,73/-	35,73/-	-/30	-/75,27	-/83
22500-531035	22500-532038	-/38:1	3° 51	2	1/-	29,78/-	33,78/-	-/38	-/76,21	-/83
22500-531046	22500-532050	-/50:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/50	-/75,15	-/81
22500-531055	22500-532060	-/60:1	2° 19	1,25	1/-	30,9/-	33,4/-	-/60	-/75,1	-/80
22500-531075	22500-532075	-/75:1	1° 51	1	1/-	30,9/-	32,9/-	-/75	-/75,1	-/78

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-531004	22500-532004	-/4,75:1	-/45	-/54	-/67,5
22500-531006	22500-532006	-/6,67:1	-/67	-/81	-/101
22500-531008	22500-532009	-/9,67:1	-/77	-/93	-/116
22500-531012	22500-532013	-/13,5:1	-/80	-/96	-/120
22500-531013	22500-532015	-/15:1	-/75	-/90	-/113
22500-531019	22500-532021	-/21:1	-/94	-/113	-/141
22500-531023	22500-532025	-/25:1	-/84	-/101	-/127
22500-531028	22500-532028	-/28:1	-/87	-/104	-/130
22500-531027	22500-532030	-/30:1	-/77	-/93	-/116
22500-531035	22500-532038	-/38:1	-/68	-/81	-/102
22500-531046	22500-532050	-/50:1	-/60	-/72	-/90
22500-531055	22500-532060	-/60:1	-/55	-/66	-/82
22500-531075	22500-532075	-/75:1	-/49	-/59	-/74

Worm gears, right-hand

centre distance 63 mm



Material:

Worm screw steel.

Worm wheel CuZn₃₇Mn₃Al₂PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nlm 22500-531004 Worm screw

nlm 22500-632006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

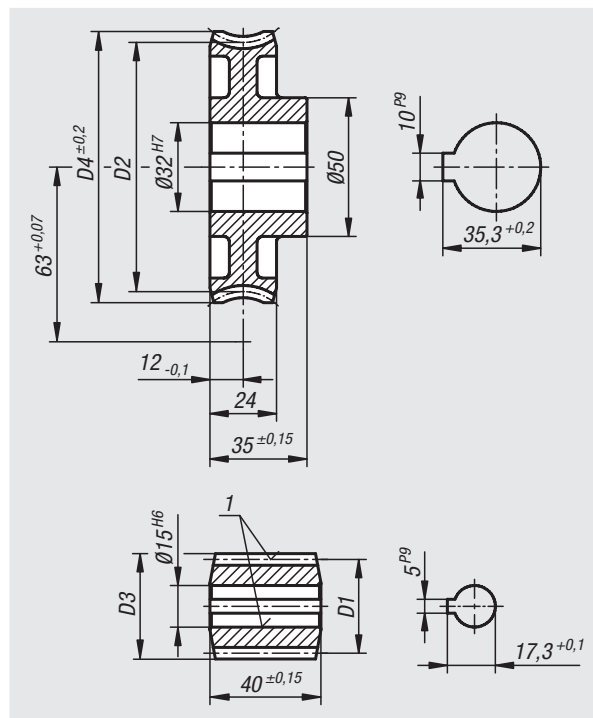
The toothings have the flank shape K. The engagement angle is 15° .
The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 63 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-632006	-/6:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/24	-/93,9	-/104
22500-531008	22500-632012	-/12:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/36	-/94,71	-/104
22500-631019	22500-632019	-/19:1	10° 8	2,5	2/-	28,4/-	33,4/-	-/38	-/97,6	-/104
22500-531019	22500-632026	-/26:1	6° 17	3,5	1/-	32/-	39/-	-/26	-/94	-/104
22500-631034	22500-632034	-/34:1	5° 9	2,75	1/-	30,6/-	36,1/-	-/34	-/95,4	-/104
22500-531035	22500-632048	-/48:1	3° 51	2	1/-	29,78/-	33,78/-	-/48	-/96,22	-/104
22500-531046	22500-632063	-/63:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/63	-/95,15	-/101
22500-651075	22500-632070	-/70:1	1° 59	1,25	1/-	36,1/-	38,6/-	-/70	-/89,9	-/97

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-531004	22500-632006	-/6:1	-/89	-/107	-/134
22500-531008	22500-632012	-/12:1	-/141	-/170	-/212
22500-631019	22500-632019	-/19:1	-/133	-/159	-/199
22500-531019	22500-632026	-/26:1	-/172	-/206	-/258
22500-631034	22500-632034	-/34:1	-/148	-/178	-/222
22500-531035	22500-632048	-/48:1	-/125	-/150	-/187
22500-531046	22500-632063	-/63:1	-/111	-/133	-/166
22500-651075	22500-632070	-/70:1	-/112	-/135	-/169

Worm gears, right-hand

centre distance 65 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-531004 Worm screw

nIm 22500-652006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

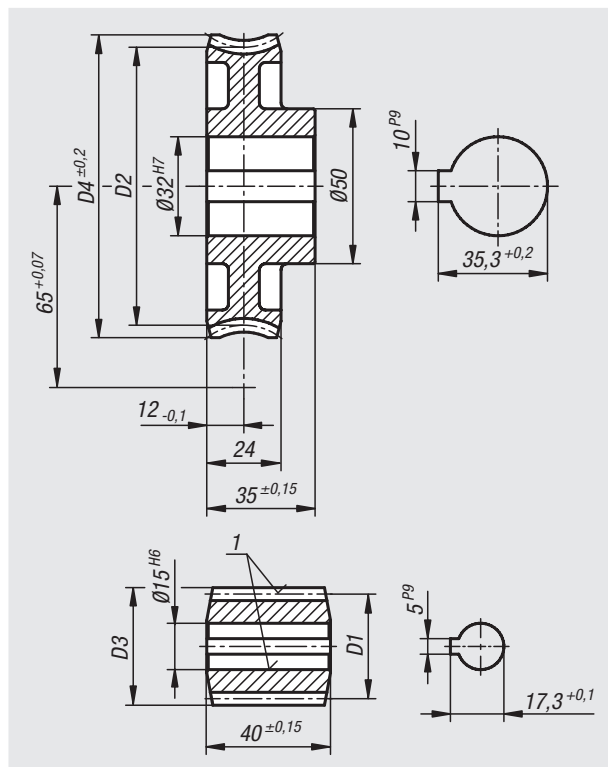
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



Worm gears, right-hand

centre distance 65 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-531004	22500-652006	-/6,25:1	25° 51	3,5	4/-	32,1/-	39,1/-	-/25	-/97,9	-/108
22500-531008	22500-652012	-/12,66:1	13° 52	2,5	3/-	31,29/-	36,29/-	-/38	-/98,71	-/108
22500-631019	22500-652020	-/20:1	10° 8	2,5	2/-	28,4/-	33,4/-	-/40	-/101,6	-/108
22500-531019	22500-652028	-/28:1	6° 17	3,5	1/-	32/-	39/-	-/28	-/98	-/108
22500-631034	22500-652036	-/36:1	5° 9	2,75	1/-	30,6/-	36,1/-	-/36	-/99,4	-/108
22500-531035	22500-652050	-/50:1	3° 51	2	1/-	29,78/-	33,78/-	-/50	-/100,22	-/108
22500-531046	22500-652066	-/66:1	2° 47	1,5	1/-	30,85/-	33,85/-	-/66	-/99,15	-/107
22500-651075	22500-652075	-/75:1	1° 59	1,25	1/-	36,1/-	38,6/-	-/75	-/93,9	-/100

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-531004	22500-652006	-/6,25:1	-/101	-/121	-/151
22500-531008	22500-652012	-/12,66:1	-/156	-/187	-/234
22500-631019	22500-652020	-/20:1	-/146	-/176	-/220
22500-531019	22500-652028	-/28:1	-/192	-/230	-/288
22500-631034	22500-652036	-/36:1	-/164	-/197	-/246
22500-531035	22500-652050	-/50:1	-/137	-/164	-/205
22500-531046	22500-652066	-/66:1	-/122	-/146	-/183
22500-651075	22500-652075	-/75:1	-/125	-/150	-/188

Worm gears, right-hand

centre distance 80 mm



Material:

Worm screw steel.

Worm wheel CuZn37Mn3Al2PbSi-S40.

Version:

Worm screw with right-hand pitch, case-hardened HV 620 – 700, flanks and hole ground.

Sample order:

nIm 22500-801006 Worm screw

nIm 22500-802006 Worm wheel

Note for ordering:

Wheels/screws can only be combined to form a worm gear if they have the same centre distance and transmission ratio.

Note:

A worm gear consists of a worm screw (shaft) and a worm wheel. Suitable for forming worm drives with a 90° shaft angle. A worm drive enables very large speed reduction ratios with a single stage.

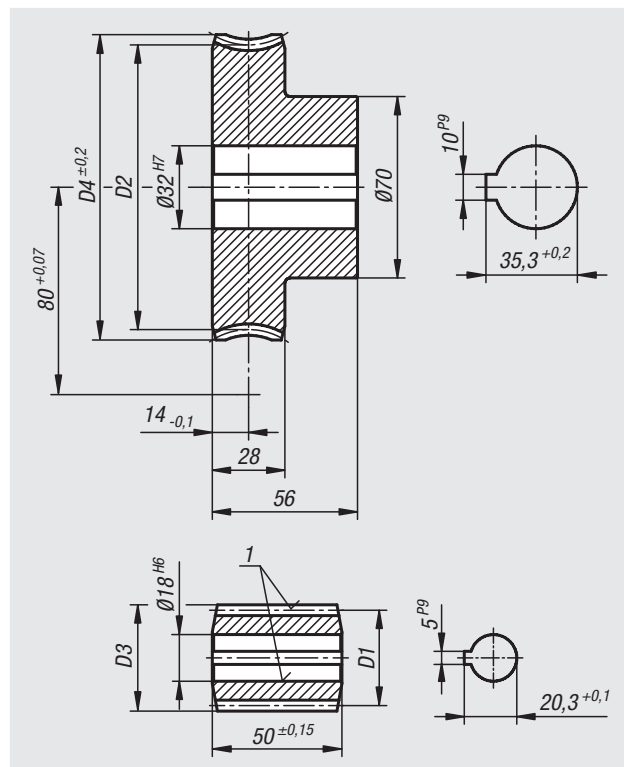
The toothing has the flank shape K. The engagement angle is 15°. The worm gears are pre-bored.

The stated T2 output torques are the permissible output torques on the worm wheel. These apply for an input speed of 2800 rpm of the worm screw.

The worm gears are suitable for continuous operation at high speeds and high torques.

Drawing reference:

1) ground



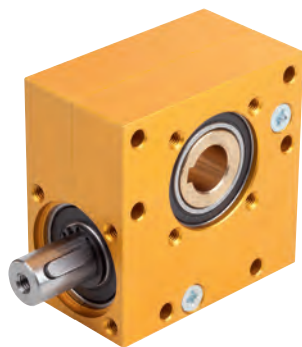
Worm gears, right-hand

centre distance 80 mm

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Pitch angle	Module	Z1	D1	D3	Z2	D2	D4
22500-801006	22500-802006	-/6,75:1	23° 35	4	4/-	40/-	48/-	-/27	-/120	-/132
22500-801012	22500-802012	-/12:1	16° 36	2,5	4/-	35/-	40/-	-/48	-/125	-/132,5
22500-801020	22500-802020	-/20:1	8° 58	3	2/-	38,5/-	44,5/-	-/40	-/121,5	-/130,5
22500-801030	22500-802030	-/30:1	5° 44	4	1/-	40/-	48/-	-/30	-/120	-/132,5
22500-801050	22500-802050	-/50:1	4° 6	2,5	1/-	35/-	40/-	-/50	-/125	-/132,5
22500-801080	22500-802080	-/80:1	2° 9	1,5	1/-	40/-	43/-	-/80	-/120	-/124,5

Order No. Worm	Order No. Worm Wheel	Transmission ratio	Output torque T2 (Nm) mineral grease	Output torque T2 (Nm) mineral oil	Output torque T2 (Nm) synthetic oil
22500-801006	22500-802006	-/6,75:1	150	180	225
22500-801012	22500-802012	-/12:1	243	290	365
22500-801020	22500-802020	-/20:1	290	348	435
22500-801030	22500-802030	-/30:1	348	417	522
22500-801050	22500-802050	-/50:1	248	297	372
22500-801080	22500-802080	-/80:1	213	255	320

Worm drives


Material:

Housing aluminium.

Worm screw steel, worm wheel special brass.

Version:

Housing anodised.

Ball bearing with rubber sealing washer RS.

Sample order:

nln 22700-13

Note:

Universally applicable and maintenance-free worm drive in one size with a centre distance of 20 mm and 7 different ratios. The housing is sealed to prevent grease leakage and keep dust out. These are left hand worm gears. The rotation direction on the shaft is arbitrary.

- smooth power transmission
- simple screw fastening
- quiet

Temperature range:

-20 °C to +60 °C.

Attention:

FR permissible radial force at FA=0

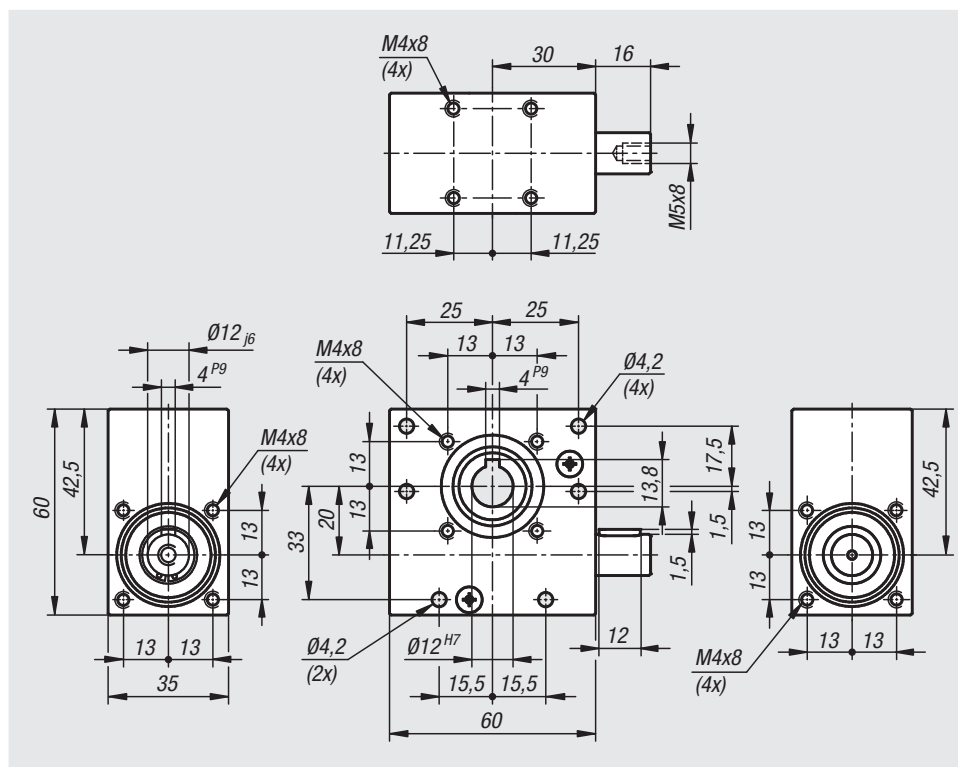
FA permissible axial force at FR=0

Technical data:

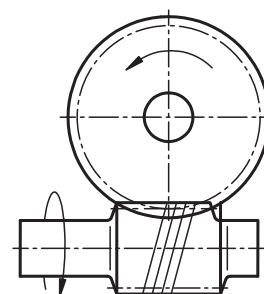
Radial backlash: $\pm 1^\circ$

Duty cycle: 20% (at 5 min.)

Service life: ca. 1000 hours (at full load, speed 500 rpm and duty cycle 20%)



Worm drives



Order No.	Transmission ratio	Self-locking	speed range n rpm	Max. driving torque M Nm
22700-13	13:1	not self-locking	100 / 500 / 1000	2,1 / 1,8 / 1,5
22700-15	15:1	not self-locking	100 / 500 / 1000	1,5 / 1,3 / 1,0
22700-18	18:1	self-locking	100 / 500 / 1000	1,1 / 0,9 / 0,7
22700-23	23:1	self-locking	100 / 500 / 1000	0,9 / 0,7 / 0,5
22700-30	30:1	self-locking	100 / 500 / 1000	0,6 / 0,5 / 0,4
22700-40	40:1	self-locking	100 / 500 / 1000	0,4 / 0,3 / 0,3
22700-65	65:1	self-locking	100 / 500 / 1000	0,2 / 0,2 / 0,2

Order No.	Max. output torque M Nm	Shaft load FR N	Shaft load FA N	Efficiency %
22700-13	15 / 13 / 11	200	200	56
22700-15	12 / 10 / 8	250	250	52
22700-18	11 / 9 / 7	250	250	55
22700-23	10 / 8 / 6	250	250	50
22700-30	8,5 / 7 / 5,5	350	350	45
22700-40	5,5 / 4,8 / 4	400	400	39
22700-65	4,5 / 3,8 / 3	500	500	29

Worm drives


Material:

Housing die-cast zinc. Worm screw and worm wheel steel.

Version:

Housing bright.

Worm screw and worm wheel case hardened.

Sample order:

nIm 22700-10-2

Note:

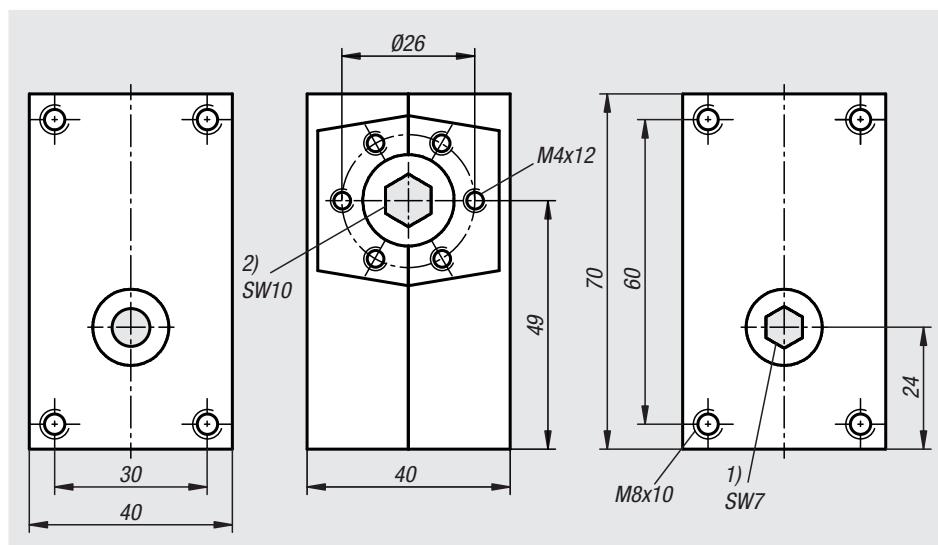
Compact, universally applicable and maintenance-free worm drive in one size with a centre distance of 25 mm and 4 different ratios. The rotation direction of the shaft is arbitrary. Compact design with maximum torque, ruggedness and smooth power transmission distinguish these gearboxes. A flexible screw mounting enables easy installation.

These worm gears are designed for manual operation.

Drive is provided by a 7 AF hexagon socket. Output via a 10 AF hexagon socket.

Drawing reference:

- 1) Drive
2) Output



Order No.	Transmission ratio	Self-locking	Max. output torque M Nm
22700-10-1	1:1	self-locking	2
22700-10-2	2:1	not self-locking	3
22700-10-20	20:1	self-locking	15
22700-10-30	30:1	self-locking	17

Worm drive

compact


Material:

Housing die-cast zinc. Worm screw and worm wheel steel.

Version:

Housing bright.

Worm screw and worm wheel case hardened.

Sample order:

nIm 22700-12-2

Note:

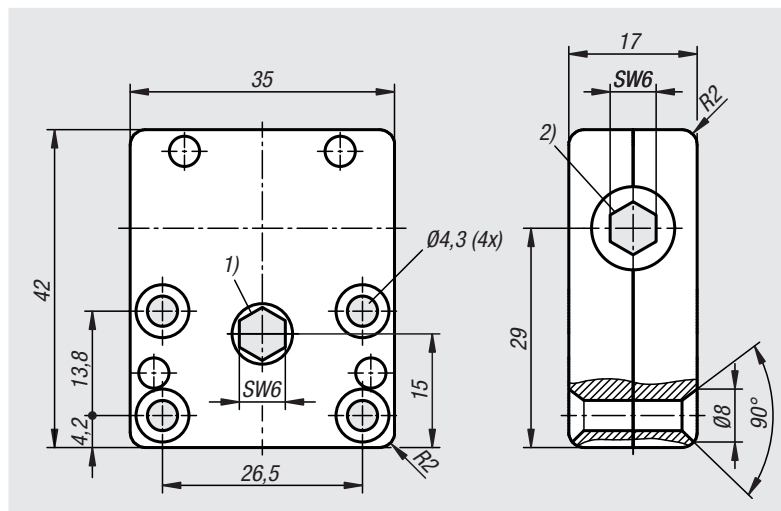
Compact, universally applicable and maintenance-free worm drive in one size with a centre distance of 14 mm and 5 different ratios. The drive is on the wide side of the box. The rotation direction of the shaft is arbitrary. Compact design with maximum torque, ruggedness and smooth power transmission distinguish these gearboxes. A flexible screw mounting enables easy installation.

These worm gears are designed for manual operation.

Drive is provided by a 6 AF hexagon socket. Output via a 6 AF hexagon socket.

Drawing reference:

- 1) Drive
- 2) Output



Order No.	Transmission ratio	Self-locking	Max. driving torque M Nm	Max. output torque M Nm
22700-12-1	1:1	not self-locking	4	2
22700-12-2	2,5:1	not self-locking	3	2
22700-12-4	4,33:1	self-locking	3	2
22700-12-6	6:1	self-locking	2	3
22700-12-13	13:1	self-locking	1	3

Bevel gears

plastic housing



Material:

Housing fibreglass reinforced plastic.
Bevel gears steel.

Version:

Bevel gears case hardened.
Ball bearings with sealing washers.

Sample order:

nln 22710-111000

Note:

Universally applicable and maintenance-free bevel gear transmission for redirecting rotational movements by 90°. The rotation direction is arbitrary.

These bevel gears are suitable for manual drives and for temporary mechanical drives at a low speed.

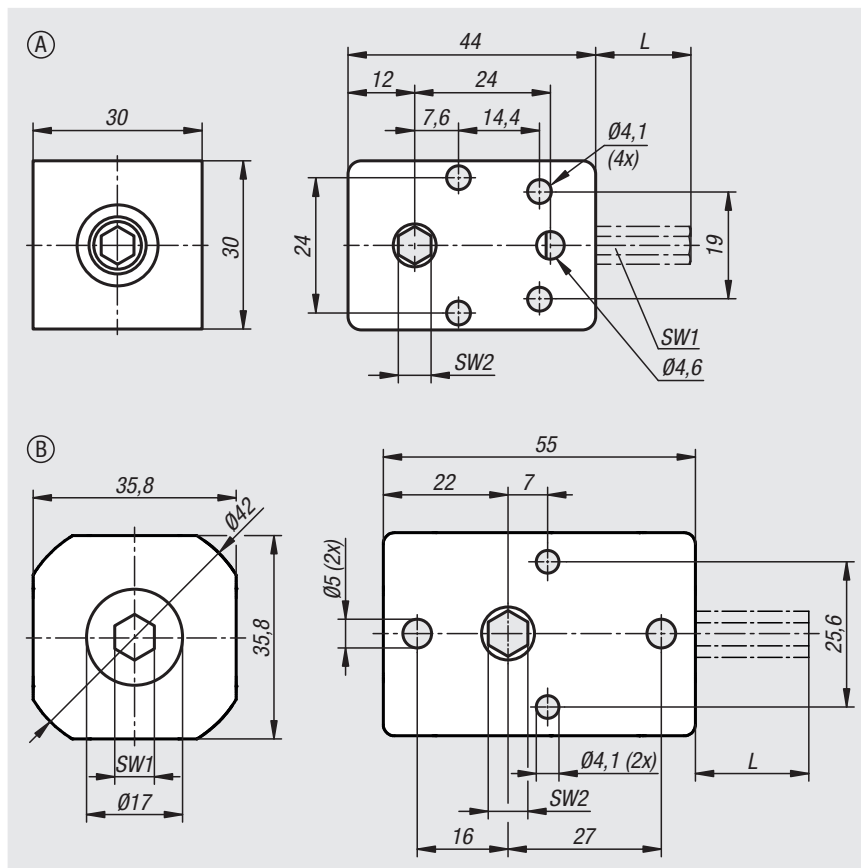
Power input over a hexagon socket. Power output over a hexagon socket or an hexagonal drive shaft.

Temperature range:

0 °C to +40 °C.

Technical data:

Duty cycle: 20% (at 5 min.)



Order No.	Form	Main colour	Transmission ratio	Max. rpm	Max. driving torque M Nm	SW1	SW2	L
22710-111000	A	blue	1:1	150	4	6	6	-
22710-111050	A	blue	1:1	150	4	6	6	50
22710-111080	A	blue	1:1	150	4	6	6	80
22710-111100	A	blue	1:1	150	4	6	6	100
22710-211000	B	red	1:1	150	5,5	7	7	-
22710-211050	B	red	1:1	150	5,5	7	7	50
22710-211080	B	red	1:1	150	5,5	7	7	80
22710-211100	B	red	1:1	150	5,5	7	7	100
22710-221000	B	green	2:1	150	5,5	7	7	-

Bevel gears



Material:

Housing aluminium. Bevel gears steel.

Version:

Housing anodised.

Bevel gears surface hardened.

Ball bearing with rubber sealing washer RS.

Sample order:

nIm 22712-1832

Note:

Universally applicable and maintenance-free bevel gear in seven different sizes with the ratio 1:1.

The housing is sealed to prevent grease leakage and keep dust out. Can be mounted in any position.

The rotation direction is arbitrary.

- smooth power transmission
- simple screw fastening
- quiet

Temperature range:

-20 °C to +60 °C.

Attention:

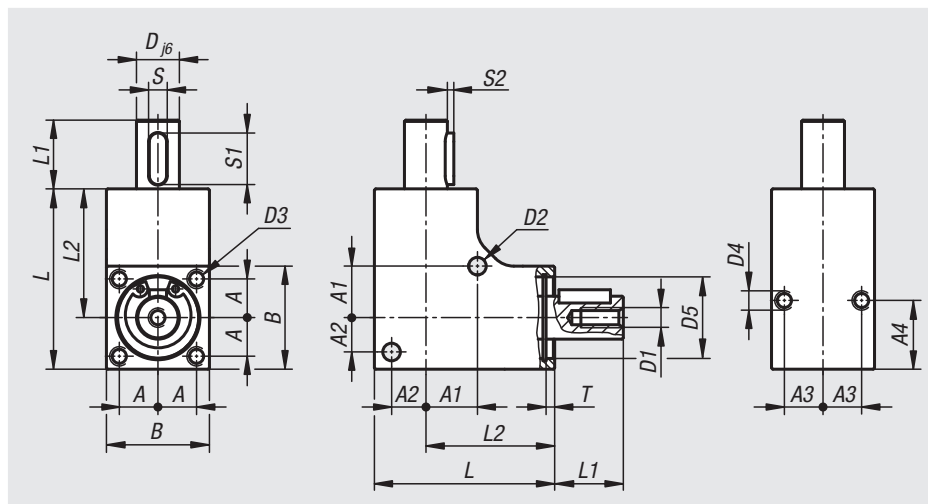
FR permissible radial force at FA=0

FA permissible axial force at FR=0

Technical data:

Duty cycle: 20% (at 5 min.)

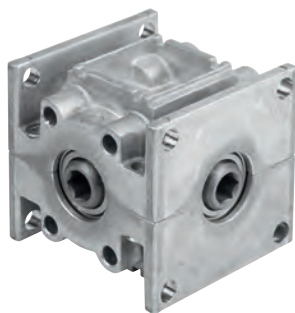
Service life: ca. 1000 hours (at full load, speed 500 rpm and duty cycle 20%)



Order No.	Transmission ratio	speed range n rpm	Max. torque Nm	D	A	A1	A2	A3	A4	B
22712-1832	1:1	100 / 500 / 1000	0,35 / 0,1 / 0,05	6	6,5	8,5	6	6,5	11	18
22712-2035	1:1	100 / 500 / 1000	0,75 / 0,3 / 0,15	8	7,5	10	7	7,5	10	20
22712-2442	1:1	100 / 500 / 1000	2,5 / 1 / 0,5	10	9	12	8	9	16	24
22712-2646	1:1	100 / 500 / 1000	4 / 1,5 / 0,75	12	10	13	9	10	16	26
22712-3053	1:1	100 / 500 / 1000	5 / 2 / 1	12	11	15	11	11	16	30
22712-3256	1:1	100 / 500 / 1000	8 / 3 / 1,5	12	12	17	12	12	16	32
22712-3560	1:1	100 / 500 / 1000	10 / 4 / 2	12	13	17,5	13,5	13	16	35

Order No.	D1	D2	D3	D4	D5	L	L1	L2	S	S1	S2	T	Shaft load FR N	Shaft load FA N
22712-1832	M3x8	3,1	M3x10	M3x6	13	32	12	23	2	8	0,8	2,1	60	60
22712-2035	M3x8	3,1	M3x10	M3x6	16	35	12	25	2	8	0,8	2,05	100	100
22712-2442	M4x8	4,1	M4x10	M4x8	19	42	16	30	4	12	1,5	2	120	120
22712-2646	M5x8	4,1	M4x10	M4x8	21	46	16	33	4	12	1,5	2	140	140
22712-3053	M5x8	4,1	M4x10	M4x8	24	53	16	38	4	12	1,5	2,1	240	240
22712-3256	M5x8	4,1	M4x10	M4x8	28	56	16	40	4	12	1,5	2,1	550	550
22712-3560	M5x8	4,1	M4x10	M4x8	30	60	16	42,5	4	12	1,5	2,1	550	550

Bevel gears


Material:

Housing die-cast zinc.
Bevel gears steel.

Version:

Housing bright.
Bevel gears surface hardened.
Ball bearing with sealing washer RS.

Sample order:

nln 22714-1171

Note:

Universally applicable and maintenance-free bevel gear, particularly suitable for drives with electric motors. The housing is sealed to prevent grease leakage and keep dust out. Can be mounted in any position. The rotation direction is arbitrary.

Drive and output over a hexagon socket.

This bevel gear transmission is ideal for use as a diversion drive, distribution transmission or gear reducer for electric motors; e.g. for louvre or actuators in special machine constructions.

Temperature range:

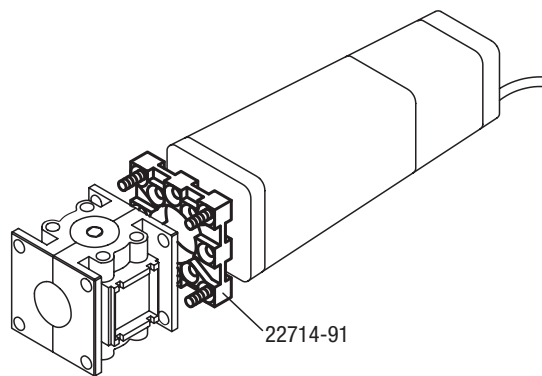
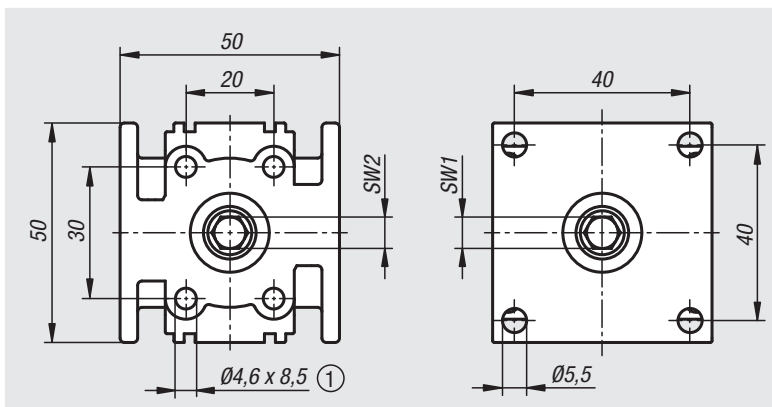
-20 °C to +40 °C.

Technical data:

Duty cycle: 20% (at 5 min.)

Drawing reference:

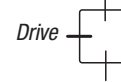
1) For DIN 7500 M5 self-tapping screws.


Number and arrangement of drive/output:

One output
22714-1171



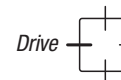
Two outputs
opposing
22714-1172



Two outputs 90°
22714-1173



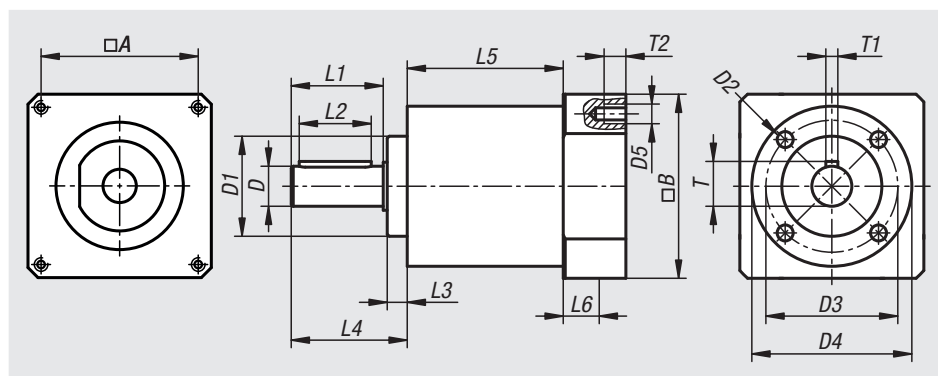
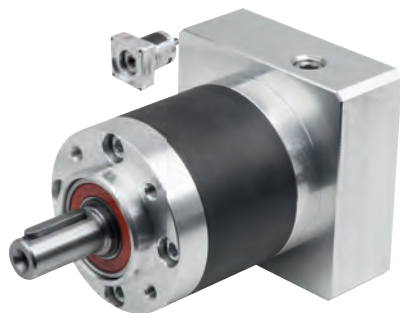
Three outputs
22714-1174



Order No.	Item	Transmission ratio	Max. rpm	Max. driving torque M Nm	SW1	SW2
22714-1171	Bevel Gear	1:1	150	10	7	7
22714-1172	Bevel Gear	1:1	150	10	7	7
22714-1173	Bevel Gear	1:1	150	10	7	7
22714-1174	Bevel Gear	1:1	150	10	7	7
22714-91	Mounting Flange	-	-	-	-	-

Planetary gearing

for stepper motors



Version:

Single-stage.

Sample order:

nIm 22750-341003

Note:

Planetary gearing for stepper motors of the NEMA 23 and NEMA 34 size. Suitable for all mounting positions. Maintenance-free thanks to lifetime lubrication. The planetary gearing is self-centring, equipped with a flange adapter system and axial length compensation.

Temperature range:

-25°C to +90°C (short-term up to +120°C)

Technical data:

Gear stages: 1

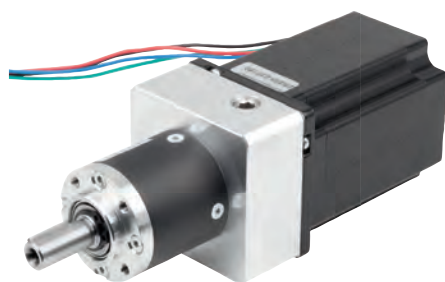
Nominal input speed: 3000 rpm

Max. input speed: 6000 rpm

Rating: IP64

Service life: ~20000 h

Mounting position: arbitrary



Order No.	Size	A	B	D	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6	T	T1	T2
22750-231004	NEMA 23	47,14	55	10	25	M04x8	33	40	M4	23	18	5	29	39	27	11,2	3	12
22750-341003	NEMA 34	69,6	85	14	40	M05x10	52	65	M5	30	25	8	39	64,5	31	16	5	12

Order No.	Transmission ratio	Max. output torque M Nm	Acceleration torque Nm	Torsional backlash arcmin	Torsional rigidity Nm/arcmin	Efficiency ratio by full load %	Max. permitted radial force N	Max. permitted axial force N
22750-231004	4:1	4	8	20	0,4	96	220	330
22750-341003	3:1	13	25	12	1,6	97	930	1080

Notes

