

easy  drive

The new standard



easy drive®
The catalog 2015

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Foreword

Dear business partners
and interested customers,

We have improved, expanded and revised our comprehensive **easy drive®** catalogue so that it reflects the current, large **easy drive®** - product range.

The **easy drive®** catalogue will prove an ideal tool for your planning process and – in view of its informative and detailed contents – it is an indispensable source of information about **easy drive®**, the new standard in timing belt engineering.

The strong and qualified demand following the successful participation in MOTEK Stuttgart, and Hannover Messe, and the highly effective presentation of the spectrum of **easy drive®** products has led to many new projects and system restructuring measures in the market. This once again underscores the significance of the development, expansion and innovation of **easy drive®** in very different fields of application.

easy drive® has gained a successful position in the market today with over 40 stocked ring sizes for more than 500 pulley diameters all common tooth pitches (T / AT / HTD / imperial). **easy drive®** can be obtained from us, since we are an official licensed and competent sales partner.

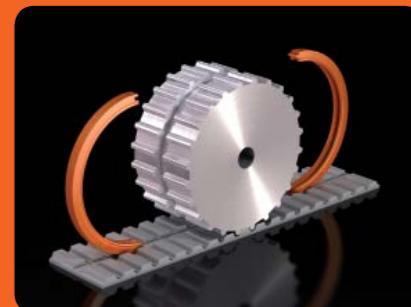
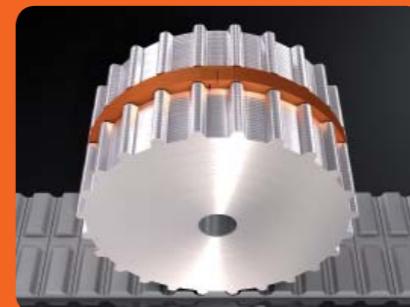
On our website www.easydrive.info, you will find detailed technical information, pictures of the products, the **easy drive®** product film as well as a list of licensed dealers and the **easy drive®** online configurator.

Please don't hesitate to contact us for any information or if you have any questions regarding possible applications of **easy drive®**.

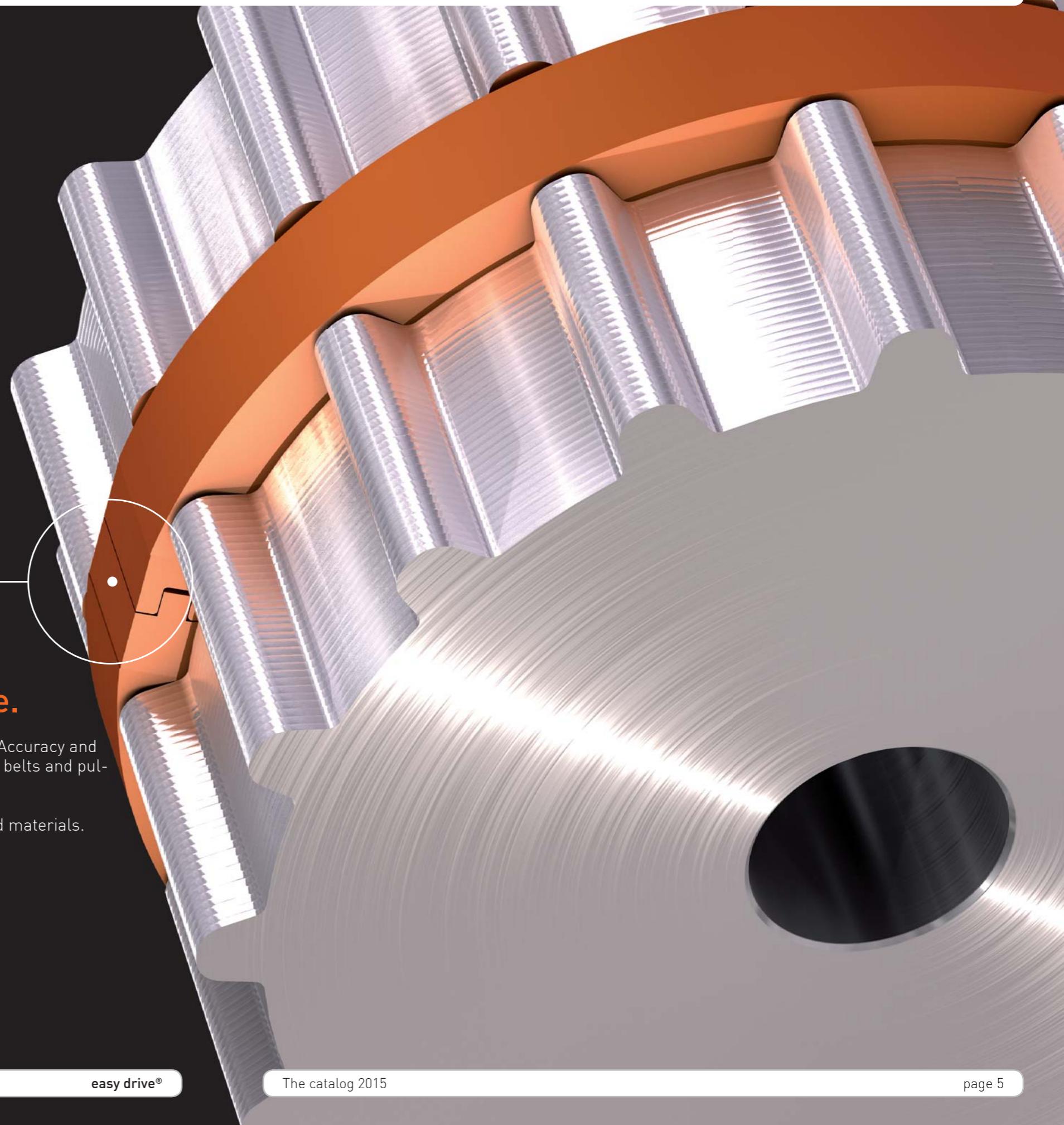
We wish you much success with **easy drive®**,
and look forward to working together with you,

Michael Bergevoet

Managing Director
NK Technics B.V.



Technical changes reserved. March 2015



The precisely meshing easy drive® ring for mounting on the pulley is innovative progress.

The timing belt, which is fitted with a corresponding groove, engages reliably and accurately with the guide ring.

This leads to extremely high directional stability in guiding the timing belt – also when it moves in both directions and there is only limited installation space in the plant.“

easy drive®

Safe. Directional stability. Versatile.

The new standard in timing belt engineering is simple and efficient. Accuracy and smoothness of running usually are absolutely necessary when timing belts and pulleys work together in a drive application.

Highest possible directional stability with all tooth shapes, pitches and materials.

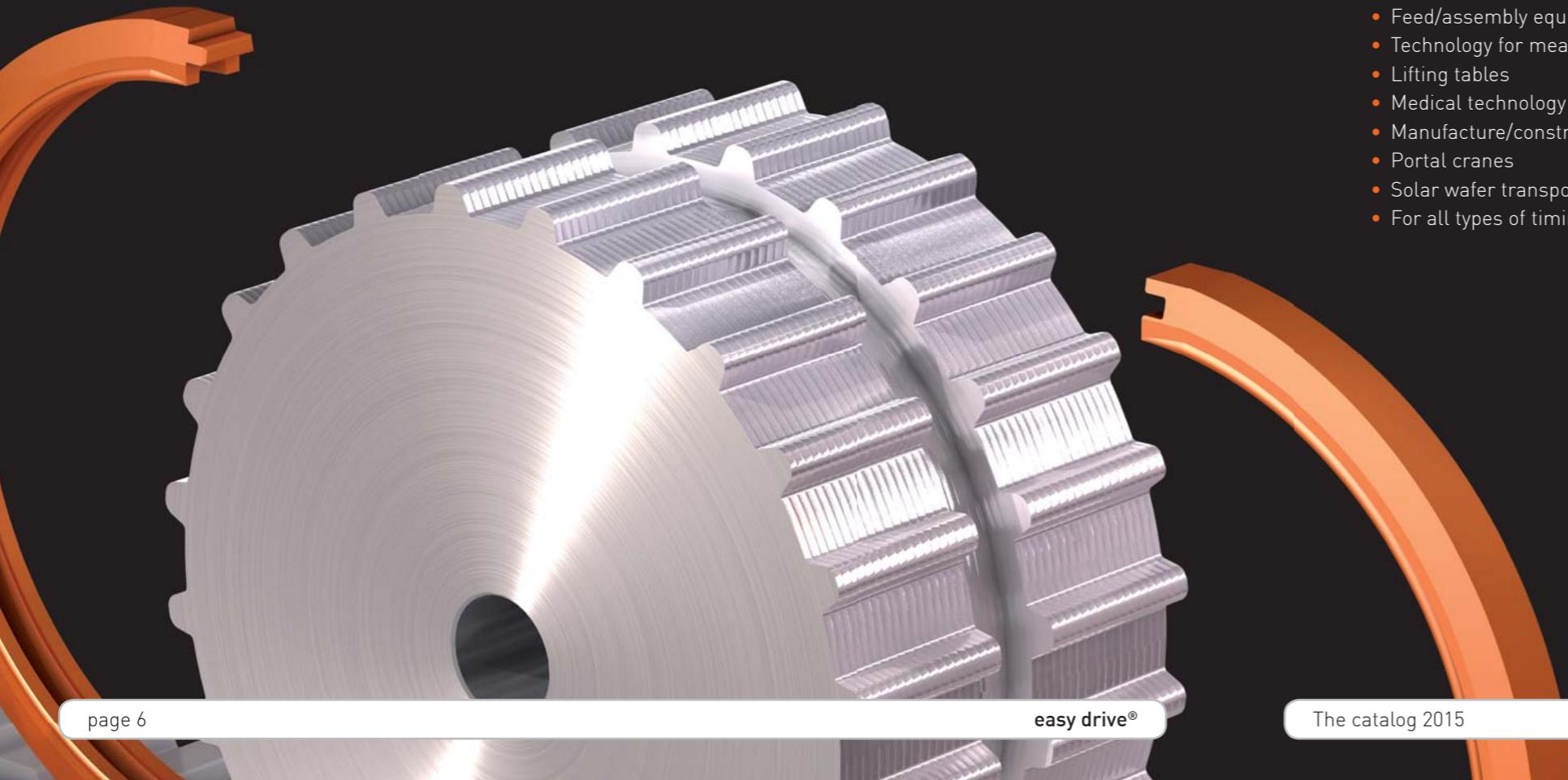
easy drive®

Creates successful solutions.

"With the introduction of the patented product easy drive®, completely new, cost- and resource-saving solutions can be realized for myriad tasks.

For dealers, OEM's and the manufacturers of plants and machines, the progress that can be achieved with easy drive® is not limited to qualitative improvements.

This new standard will open up unprecedented opportunities to meet individual and unconventional customer requirements throughout the entire range of synchronous belt engineering."



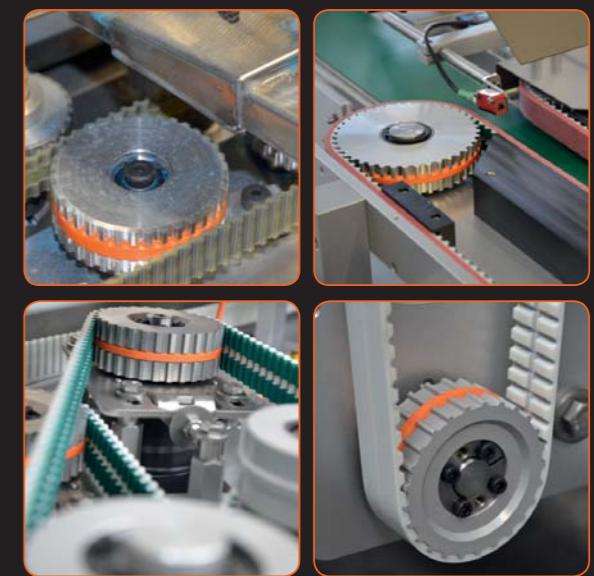
Advantages

- Universal application instead of flanged pulleys or special toothed belt guides
- Can be used with any tooth shape or belt pitch
- Can be combined with any material – steel, aluminium, grey cast-iron or plastics
- For polyurethane and also for neoprene timing belts
- Maximum directional stability of the timing belt without lateral play, inaccurate running or drift
- Timing belt vibrations are reduced – very smooth running properties
- Applicable in both running directions, reversible
- Less installation space required in the plant because the pulleys have smaller diameters and less thickness
- Suitable for omega drives and deflectors
- Low-cost, saves resources



Applications

- Packaging machines and labeling equipment
- Conveying systems and linear axles
- Storage and retrieval devices
- Flat glass production
- Feeds to pressing and grinding machines
- Feed/assembly equipment
- Technology for measuring devices
- Lifting tables
- Medical technology / pharmaceutical production
- Manufacture/construction of special machines
- Portal cranes
- Solar wafer transport
- For all types of timing belt applications



easy drive®

Five steps, one goal.

„The easy drive® Online Configurator sets the standard for design assistance and product information.

The five steps of the Online Configurator allow individual user inquiries and make it easy to calculate easy drive® pulleys as well as timing belts. Moreover, a quotation request or order for the selected configuration can be submitted immediately!“

<http://www.easydrive.info/configurator>

step 1 > step 2 > step 3 > step 4 > step 5 >

timingbelt / pulley selection

1. pulley
number of teeth * 34

2. pulley
number of teeth * 34

transmission / ratio
1 : 1

* mandatory field

next >

step 1 > step 2 > step 3 > step 4 > step 5 >

choose driver pulley

material: Aluminum
 Steel

surface finishing: DIN-std
 hub

step 1 > step 2 > step 3 > step 4 > step 5 >

choose driven pulley

material: Aluminum
 Steel

surface finishing: DIN-std
 hub

step 1 > step 2 > step 3 > step 4 > step 5 >

Summary

timingbelt type: T5 timingbelt length: 2000 implementation: KEENE-V

driver pulley: outside diameter: 53.3 number of teeth: 34 material: Aluminum bore/clamping bushing

driven pulley: outside diameter: 53.3 number of teeth: 34 material: Aluminum bore/clamping bushing

step 1 > step 2 > step 3 > step 4 > step 5 >

send inquiry

Name: Max
Company: Musterfirmen
Address: Musterstrasse 12
Zipcode/City: 12345 Musterstadt
Phone: 01234567890
E-mail: max.mustermaenner@online.de

further informations

step 1 > step 2 > step 3 > step 4 > step 5 >

Summary

timingbelt type: T5 timingbelt length: 2000 implementation: KEENE-V

driver pulley: outside diameter: 53.3 number of teeth: 34 material: Aluminum bore/clamping bushing

driven pulley: outside diameter: 53.3 number of teeth: 34 material: Aluminum bore/clamping bushing

3. ... deflection pulley.

step 1 > step 2 > step 3 > step 4 > step 5 >

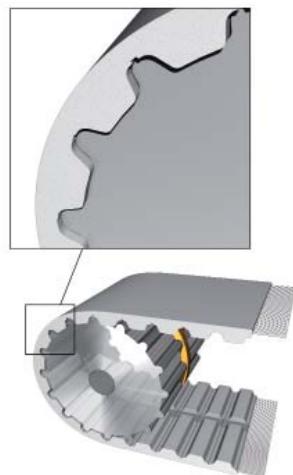
Summary

timingbelt type: T5 timingbelt length: 2000 implementation: KEENE-V

driver pulley: outside diameter: 53.3 number of teeth: 34 material: Aluminum bore/clamping bushing

driven pulley: outside diameter: 53.3 number of teeth: 34 material: Aluminum bore/clamping bushing

5. That's it! Now you can submit the configured result as a query or order.



Polyurethane timing belts are made of highly abrasion resistant and high-strength steel cords, Kevlar cords or special cords, such as highly flexible or stainless steel cords, and manufactured in a sophisticated production process. The combination of these materials forms the basis for the wide range of applications in synchronous drive technology as well as for transport, conveying and positioning plants. In view of their diverse tooth designs, materials and production methods, polyurethane timing belts are characterized by superior mechanical, chemical and physical properties. Polyurethane timing belts ensure a constant load distribution for the transmission of power and high torque, have high mechanical load capacity, are flexible and display high belt tension and heat resistance.



easy drive® polyurethane timing belts are produced as yard ware, endless welded, sleeve or flex-belt in almost all lengths and width sizes. The guiding groove on the tooth side can either be produced in the production process or milled later.



easy drive® open-end polyurethane timing belts offer highest flexibility for synchronous conveying and positioning applications and innumerable application possibilities because of the large number of tooth forms.



easy drive® endless welded polyurethane timing belts "V"
Endless welded timing belts can be produced in nearly all lengths. They are typically used in conveying applications.

easy drive® open linear polyurethane timing belts "M"
Open-end timing belts are preferably used for linear applications.

For special conveying applications, we can offer polyurethane timing belts with different kinds of backings and/or welded profiles.



Polyurethane molded timing belts (sleeves) are cast in special molds. These types of belts feature very exact pitch sizes along the whole belt and are particularly suitable whenever smooth running and high-speed drive are needed.



easy drive® polyurethane timing belts "Flex" are extruded with endless wound cords. In these belts the cords are helically spooled. Due to the high power transmission capacity of these belts, they can be used universally for power transmission as well as conveying and positioning applications.

min./max. length 720 – 15,000 mm (width 100 mm)
min./max. 900 – 22,700 mm (width 150 mm)

easy drive® polyurethane "Wide belts" are endless welded in widths up to 500 mm. These belts are especially developed for synchronous conveying applications. The wide range of widths as well as high chemical and mechanical properties allow a wide spectrum of applications. In addition, we can offer these belts in a special FDA polyurethane compound and polyamide fabric on the tooth and/or backside.

profile	min. width (mm)	max. width open / sleeve (mm)	min. no. of teeth of pulley
T2,5	12	100 / 200	27
T5	12	150 / 380	14
T10	12	500 / 380	12
T20	25	150	15
AT3	12	100	22
AT5	12	150 / 380	14
AT10	16	150 / 380	12
AT20	25	150	18
HTD3	12	30	23
HTD / STD5 / RPP5	12	150	14
HTD / STD8 / RPP8	15	150	20
HTD / STD14 / RPP14	25	170	28
MXL	12,7	50,8 / 183	33
XL	12,7	101,6 / 300	14
L	12,7	152,4 / 300	10
H	12,7	152,4	14
XH	25,4	152,4	18

**T-profile**

Trapezoid profile according to DIN 7721
Metric pitches: T2,5 / T5 / T10 / T20

The standard version is universally applicable for any tasks in drive and conveying technology

**AT-profile**

The AT-profile is a further development of the T-profile and, in particular, provides higher tooth volume, higher tooth load capacity and stronger cords.

Metric pitches: AT3 / AT5 / AT10 / AT20

- Advantages:
- greater tooth intermesh and less contact hit
- cords for constant pitch and higher tear resistance
- higher efficiency of up to 50% as compared to the T-profile

**Imperial profile**

Inch pitch sizes according to DIN/ISO 5296

MXL = 2,032 mm

XL = 5,08 mm

L = 9,525 mm

H = 12,7 mm

XH = 22,225 mm

XXH = 31,75 mm

Mainly used in GB, USA and Asia

**HTD-profile**

The High Torque Drive profile has round teeth to ensure faultless meshing with the pulley as well as optimized power and tension distribution. In addition, the high HTD tooth prevents jump-over.

Metric pitches: HTD5M / HTD8M / HTD14M

- Typical applications:
- Linear axles
- Lifting applications
- Drive positioning
- Conveying

**STD-profile**

The STD Super Torque Drive has involute toothing to ensure optimum meshing with the pulley as well as optimal power and tension distribution and, consequently, silent running of the belt.

Metric pitches: STD5M / STD8M / STD14M

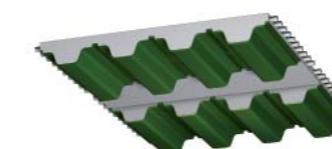
- Typical applications:
- Linear axles
- Positioning drives
- Silent run drives

**Single-sided toothing**

T2,5 / T5 / T10 / T20
AT3 / AT5 / AT10 / AT20
MXL / XL / L / H / XH
HTD / STD 5M, 8M, 14M

**Double-sided toothing**

T5DL / T10DL / (T20DL)
AT5DL / AT10DL
(HDL)

**Polyamide fabric on tooth side "NT"**

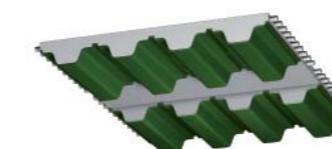
T5 / T10 / T20
AT5 / AT10 / AT20
XL / L / H / XH
HTD / STD / RPP

The low coefficient of friction on the tooth side lets the toothing mesh more easily with the pulley, reduces noise and friction on the running surface.

**Polyamide fabric on backside "NB"**

T5 / T10 / T20
AT5 / AT10 / AT20
XL / L / H / XH
HTD / STD

The polyamide fabric increases the sliding properties and is wear resistant.

**Polyamide fabric on both sides "NTB"**

T5 / T10 / T20
AT5 / AT10
XL / L / H / XH
HTD / STD / RPP



Neoprene timing belts, produced in sophisticated manufacturing processes with state-of-the-art production technology, are made of chloroprene rubber with glass-fiber cords and protective fabric covering on the running surface. Based on the combination of these materials, the timing belts can be used as high-speed and high load-capacity machine drives with constant revolutions. Moreover, they are maintenance-free. Neoprene timing belts are designed for high performance, precise running properties and high operation reliability. They have outstanding mechanical, chemical and physical properties.



easy drive® Neoprene timing belts are available in open length and endless sleeves in nearly all lengths and width sizes. The guiding groove on the tooth side is milled subsequently.



easy drive® timing belts endless (sleeve) are vulcanized in special molds. These types of belts have very accurate pitch sizes along the entire belt and are particularly suitable for smooth running and high driving speeds.



easy drive® Neoprene timing belts "M" open length

Open length timing belts are preferably used in linear applications. They are available with glass-fiber cords or metal cords.



Imperial profile

Inch pitch sizes
MXL = 2,032 mm
XL = 5,08 mm
L = 9,525 mm
H = 12,7 mm
XH = 22,225 mm
XXH = 31,75 mm



Double imperial profile

Inch pitch sizes
DXL = 5,08 mm
DL = 9,525 mm
DH = 12,7 mm



RPP/STD profile
2M, 3M, 5M, 8M, 14M, 20M



HTD profile
3M, 5M, 8M, 14M, 20M



Double RPP / HTD profile
D5M, D8M, D14M
D5M, D8M, D14M



STD profile
S2M, S3M, S5M, S8M, S14M



Double STD profile
DS2M, DS3M, DS8M, DS14M



L Pitch 9,525 mm		
Type	Length	Teeth
109	276,23	29
124	314,33	33
150	381,00	40
165	419,10	44
169	428,63	45
173	438,15	46
187	476,25	50
202	514,40	54
210	533,40	56
225	571,50	60
232	590,55	62
236	600,08	63
240	609,60	64
255	647,70	68
270	685,80	72
285	723,90	76
300	762,00	80
322	819,15	86
334	848,40	89
345	876,30	92
360	914,40	96
367	933,45	98
390	990,60	104
405	1028,70	108
420	1066,80	112
435	1104,90	116
450	1143,00	120
454	1152,53	121
480	1219,20	128
510	1295,40	136
525	1333,50	140
540	1371,60	144
600	1524,00	160
630	1600,20	168
660	1676,40	176
728	1847,90	194
817	2076,50	218

Standard widths

3/4"	~ 19,05 mm	Code no. 075
1"	~ 25,40 mm	Code no. 100
1 1/2"	~ 38,10 mm	Code no. 150
2"	~ 50,80 mm	Code no. 200
3"	~ 76,20 mm	Code no. 300
4"	~ 101,6 mm	Code no. 400
5"	~ 127,0 mm	Code no. 500

Length in mm
Other width available
Max. belt width ~ 470 mm.



DXL Pitch 5,08 mm		
Type	Length	Teeth
120	304,80	60
130	330,20	65
140	355,60	70
146	370,80	73
150	381,00	75
156	396,20	78
160	406,40	80
170	431,80	85
176	447,00	88
180	457,20	90
182	462,30	91
188	477,50	94
190	482,60	95
198	502,90	99
200	508,00	100
202	513,10	101
210	533,40	105
212	538,50	106
214	543,60	107
220	558,80	110
228	579,10	114
230	584,20	115
234	594,40	117
240	609,60	120
250	635,00	125
260	660,40	130
270	685,80	135
276	701,00	138
280	711,20	140
290	736,60	145
300	762,00	150
310	787,40	155
316	802,60	158
320	812,80	160
330	838,20	165
344	873,80	172
352	894,10	176
364	924,60	182
380	787,40	155
384	975,40	192
388	985,50	194
390	990,60	195
392	995,70	196
434	1102,40	217
460	1168,40	230
530	1346,20	265
600	1524,00	300
710	1803,40	355

Standard widths		
1"	~ 25,40 mm	Code no. 100
1 1/2"	~ 38,10 mm	Code no. 150
2"	~ 50,80 mm	Code no. 200
3"	~ 76,20 mm	Code no. 300
4"	~ 101,6 mm	Code no. 400
5"	~ 127,0 mm	Code no. 500

Length in mm
Other width available
Max. belt width ~ 203/305 mm.



S3M Pitch 3 mm		
Type	Length	Teeth
120*	120,00	40
150*	150,00	50
177*	177,00	59
201*	201,00	67
225*	225,00	75
252*	252,00	84
264*	264,00	88
276*	276,00	92
300*	300,00	100
339*	339,00	113
384*	384,00	128
420*	420,00	140
459*	459,00	153
486*	486,00	162
501*	501,00	167
537*	537,00	179
564*	564,00	188
633*	633,00	211

* On request

** Type S2M, on request

** Type S4,5M, on request

S5M Pitch 5 mm		
Type	Length	Teeth
255*	255,00	51
295*	295,00	59
325*	325,00	65
350*	350,00	70
375*	375,00	75
400*	400,00	80
425*	425,00	85
475*	475,00	95
500*	500,00	100
525*	525,00	105
560*	560,00	112
575*	575,00	115
600*	600,00	120
625*	625,00	125
650*	650,00	130
675*	675,00	135
700*	700,00	140
750*	750,00	150
800*	800,00	160
850*	850,00	170
900*	900,00	180
950*	950,00	190
1000*	1000,00	200
1050*	1050,00	210
1125*	1125,00	225
1270*	1270,00	254
1350*	1350,00	270
1420*	1420,00	284
1800*	1800,00	360
2000*	2000,00	400

S8M Pitch 8 mm		
Type	Length	Teeth
440	440,00	55
480	480,00	60
560	560,00	70
600	600,00	75
632	632,00	79
640	640,00	80
656	656,00	82
680	680,00	85
688	688,00	86
696	696,00	87
712	712,00	89
720	720,00	90
728	728,00	91
736	736,00	92
760	760,00	95
768	768,00	96
784	784,00	98
792	792,00	99
800	800,00	100
824	824,00	103
848	848,00	106
864	864,00	108
880	880,00	110
896	896,00	112
912	912,00	114
920	920,00	115
944	944,00	118
960	960,00	120
992	992,00	124
1000	1000,00	125
1024	1024,00	128
1032	1032,00	129
1040	1040,00	130
1056	1056,00	132
1064	1064,00	133
1072	1072,00	134
1120	1120,00	140
1136	1136,00	142

Timing Belt Neoprene STD



S8M Pitch 8 mm		
Type	Length	Teeth
1152	1152,00	144
1160	1160,00	145
1168	1168,00	146
1176	1176,00	147
1184	1184,00	148
1192	1192,00	149
1200	1200,00	150
12240	2240,00	160
1208	1208,00	151
1216	1216,00	152
1240	1240,00	155
1248	1248,00	156
1256	1256,00	157
1264	1264,00	158
1280	1280,00	160
1304	1304,00	163
1312	1312,00	164
1344	1344,00	168
1352	1352,00	169
1360	1360,00	170
1400	1400,00	175
1408	1408,00	176
1440	1440,00	180
1480	1480,00	185
1600	1600,00	200
1760	1760,00	220
1776	1776,00	222
1800	1800,00	225
1816	1816,00	227
1912	1912,00	239
2000	2000,00	250
2240	2240,00	280
2392	2392,00	299
2400	2400,00	300
2496	2496,00	312
2800	2800,00	350
3200	3200,00	400

Double Timing Belt DSTD



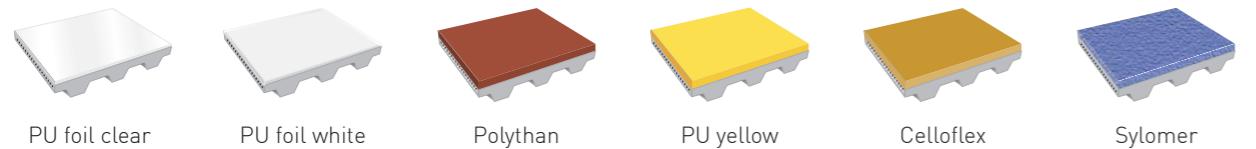
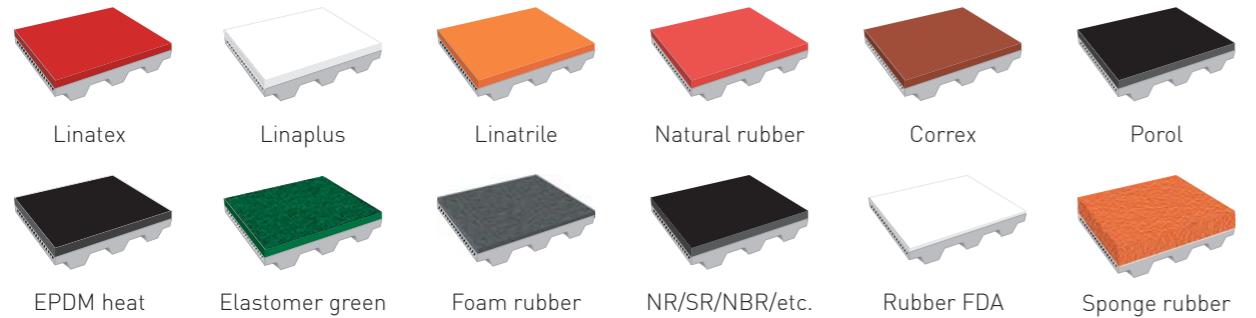
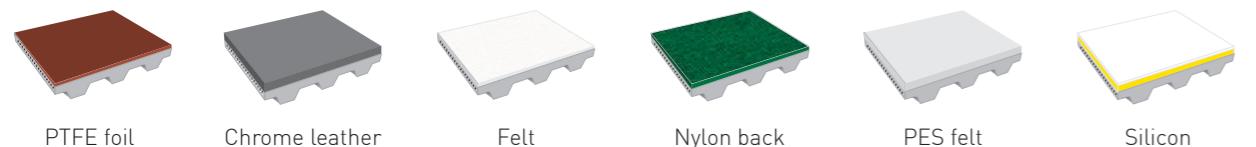
S14M
Pitch 14 mm

DS8M
Pitch 8 mm

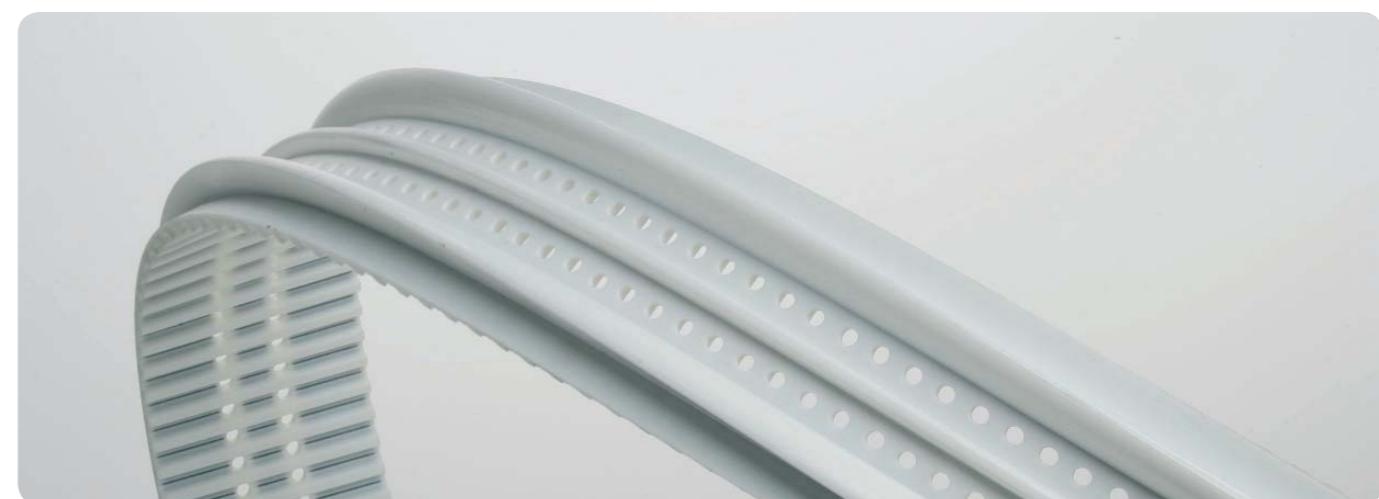
Type	Length	Teeth
1400	1400,00	100
1540	1540,00	110
1610	1610,00	115
1890	1890,00	135
2002	2002,00	143
2100	2100,00	150
2240	2240,00	160
2310	2310,00	165
2450	2450,00	175
2590	2590,00	185
2800	2800,00	200
3150	3150,00	225
3500	3500,00	250
3850	3850,00	275
4004	4004,00	286
4508	4508,00	322
5012	5012,00	358

Individuality and diverse applications

In order to optimize them for specific applications and material flow requirements, timing belts can be coated with a wide variety of materials, for example:

PVC coatings**PU coatings****Natural rubber, rubber and neoprene coatings****Different Coatings****Designs and specifications**

By processing the surfaces and timing belts, e.g. by milling, punching and grinding, additional special and customized properties can be obtained.

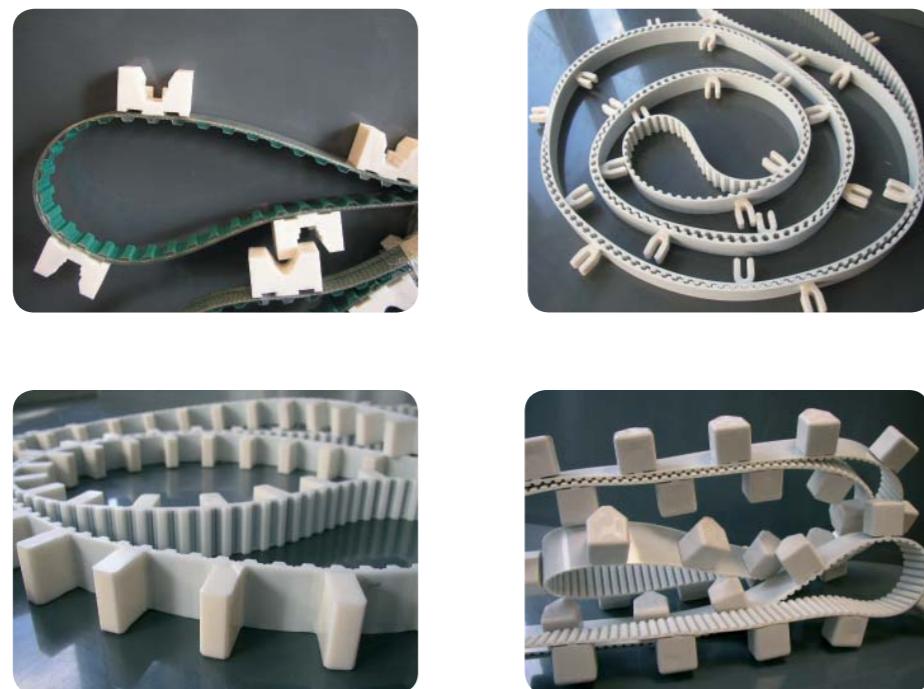
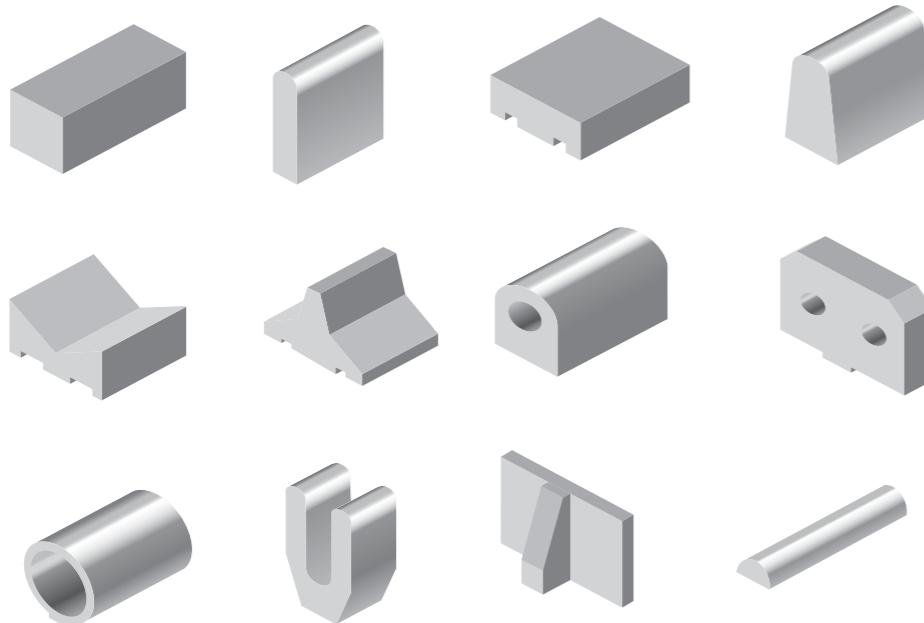
Milling**Other**

Material	Thickness in mm (approx.)	Shore A kg/m³	Color	Abrasion resistance	Max. Temp. in °C	Thickness factor min.	Resistance to simple oils/grease	FDA	Examples / fields of application
PVC coatings									
PVC transparent	1/2/3/4	80	Transparent	Medium	60	30	No	No	Packaging, transport of sensitive parts
PVC white FDA	1/2	75	White	Medium/low	60	30	Plant	Yes	Packaging, transport of sensitive parts
PVC blue	1/2	60	Blue	Medium/low	60	25	Plant	No	Packaging, transport of sensitive parts
Supergrip petrol	4,5	45	Petrol	Medium/low	60	40 mm	No	No	Packaging, transport, wetness, wood, paper
Supergrip green	4	50	Green	Medium/low	60	40 mm	No	No	Packaging, transport, wetness, wood, paper
Supergrip white	3,5	50	White	Medium/low	60	40 mm	Plant	Yes	Food, wood, wetness
Grip petrol	1,5	60	Petrol	Medium	60	40 mm	No	No	Packaging, plaster board, glass
Nubbed white	1,5	65	White	Low	60	30 mm	Plant	Yes	Food, packaging, slight dirt
Nubbed blue	1,5	65	Light blue	Low	60	30 mm	Plant	Yes	Food, packaging, slight dirt
Longitudinal groove petrol	1,5	60	Petrol	Medium	60	40 mm	No	No	Wet transport, high clinging, dirt
Waffle white	1	70	White	Medium	60	40 mm	Plant	Yes	Food, pasta, packaging
Waffle blue	1	70	Blue	Medium	60	40 mm	Plant	Yes	Food, pasta, packaging
Saw tooth white	3	65	White	Medium	60	50 mm	Plant	Yes	Food, packaging, wood
Transverse groove white	2	65	White	Medium	60	45 mm	Plant	Yes	Food, pasta, packaging
Fishbone white	3,5	70	White	Medium	60	70 mm	Plant	Yes	Food, wood, wetness, frozen goods
Big grip blue	5,5	60	Blue	Medium	60	50 mm	No	No	Metal, wood, stones, wetness
PU coatings									
PU transparent 80	1/2/3/4	85	Transparent	High	80	30	Yes	No	Glass, wood, sheet metal, plastic, stone
PU transparent 65	2	65	Transparent	High	80	30	Yes	Yes	Food, packaging, glass
PU white FDA	1/2	90	White	High	70	35	Yes	Yes	Food, packaging
PU blue FDA	1/2	85	Light blue	High	70	30	Yes	Yes	Food, packaging
Vulkollan D15	1-15	70/82	Transp.-yellow	Very high	80	30	Yes	No	Accumulation mode, glass, wood, metal, plastic
Polythane D44	1-15	72	Brown	High	60	30	Yes	No	Accumulation mode, glass, wood, metal, plastic
PP blue FDA	3	85	Blue	High	70	80 mm	Yes	Yes	Food, meat, sausage processing
SP blue FDA	3	85	Blue	High	70	50 mm	Yes	Yes	Food, meat, sausage processing
SP white FDA	3	85	White	High	70	50 mm	Yes	Yes	Food, meat, sausage processing
PU Longitudinal groove transp.	2	80	Transparent	High	70	50 mm	Yes	No	Oily, moist metals, glass, bricks
PU Nubbed transparent	3	80	Transparent	High	70	70 mm	Yes	No	Oily, moist metals, glass, bricks
PU Waffle white	3	80	White	High	70	90 mm	Yes	Yes	Wood, bricks, food
PU Grip white	1,5	80	White	High	70	50 mm	Yes	Yes	Food, packaging
Celloflex	1-10	RG400	Yellow-brown	Medium	60	30	Limited	No	Cardboard articles, accumulation, pcbs, textile
PU yellow (gray)	2-10	50	Yellow (gray)	Medium	60	25	Yes	No	Packaging, vacuum, textile, glass, wood
Sylomer blue	2-25	RG220	Blue	Low	60	20	Limited	No	Guiding, centering, pressing on, labels
Sylomer green	2-25	RG300	Green	Low	60	25	Limited	No	Guiding, centering, pressing on, labels
Sylomer brown	2-25	RG400	Brown	Low	60	30	Limited	No	Guiding, centering, pressing on
Sylomer yellow	2-25	RG150	Yellow	Low	60	15	Limited	No	Guiding, centering, pressing on

Material	Thickness in mm (approx.)	Shore A kg/m³	Color	Abrasion resistance	Max. Temp. in °C	Thickness factor min.	Resistance to simple oils/grease	FDA	Examples / fields of application
Elastomer coatings									
Linatex	1,5/2,4/3,2/4,8/6,4/7,9/9,6	40	Red	Medium/high	70	25	No	No	High adhesive, sensitive parts
Linaplus	2,4/3/6	40	White	Medium/high	70	25	Plant	Yes	High adhesive, sensitive parts
Linard	3/5	60	Red	Medium/high	70	25	No	No	High adhesive, sensitive parts
Linatril	3,2/5/6,4/8	50	Orange	Medium/high	110	25	Yes	No	Taking down textile, waxy substances
FDA rubber light	1,5/2/5/10	70	White/beige	Medium	60	35	Limited	Yes	Food, transport
EPDM Heat	2/3/4/5/6/8/10	50	Black	Medium	150	30	No	No	High temperatures, metal, glass
Viton	2/3/4/5/6/8/10	75	Black	Low	250	30	Yes	No	High temperatures, metal, glass
EPDM	2/3/6	65	Black	Medium	80	30	No	No	Action of light and ozone
Elastomer light green	1	60	Light Green	Medium	100	25	Limited	No	High adhesive, sensitive parts
Elastomer green	2	70	Green	Medium	100	25	Yes	No	High adhesive, sensitive parts
Correx	4/6/8/10	35	Beige	Medium	60	30	No	No	Sheet metal, pipes, cardboard articles
RP430	2/3/4/5/6	50	Yellow	Medium	60	20	No	No	Glass, steel
Supergrip rubber	3,5	60	Black	Medium	60	40 mm	Limited	No	Cardboard articles, sensitive parts
Supergrip rubber	3,5	60	Beige	Medium	60	40 mm	Yes	No	Cardboard articles, sensitive parts, oily sheet metal
Porol NE	1/2/3/4/5/6/7/8/10	220	Black	Low	60	20	No	No	Press-on belts, labels, paper, cardboard
Foam rubber	1/2/3/4/5/6/7/8/10	RG350	Black	Low	60	20	No	No	Press-on belts, labels, cardboard articles
Latex foam	3	35	Gray	Low	100	30	Yes	No	Press-on belts, labels, cardboard articles
Sponge rubber	5/10/12/15/20	RG150-350	Orange	Low	60	15-25	No	No	Porcelain, soaps
Other coatings									
PA fabric	0,3/0,55		Green	Medium/high	60	40 mm	No	No	Accumulation operation
PA fabric antistatic	0,65		Dark gray	Medium/high	60	40 mm	No	No	Accumulation operation, antistatic
Teflon/PTFE	0,25		Brown	Low	60	60 mm	Limited	Yes	Adhesive repellent
Felt	1-3	50	White	Medium	60	80 mm	Limited	No	Baked goods
PES beige	1,2-2,5	70	Beige	Medium	60	50 mm	No	No	Transporting sensitive parts
PES gray	2	70	Gray	Medium	60	50 mm	No	No	Transporting sensitive parts
Plush wool	3		Green	Low	100	30	No	No	Transporting sensitive parts
Chrome leather	2/3	65	Gray	High	70	30 mm	Yes	No	Transporting bricks/stones, accumulation operation
Silicon Transparent	1-5	40	Trans-parent	Low	120	20 mm	No	Yes	Adhesive repellent, non-adhesive, vacuum
Silicon Blue	1-5	40	Blue	Low	120	20 mm	No	Yes	Adhesive repellent, non-adhesive, vacuum

Profiles / Cleats

Many special, innovative tasks in the flow of material, such as clocking, separating or positioning, can be solved by mounting profiles and/or cleats as well as pushing elements. Profiles and pushing features, made of high-quality polyurethane (just like our timing belts), are processed as sheet ware or injection molded to obtain the required shape. The products are available in various mixtures and grades of hardness, with glass-fiber reinforcement and in matching colors. The profiles and/or cleats are homogeneously welded onto or glued to the timing belt. Given our production methods, the shape of the cleat can be designed freely.

**Welding on cleats**

The flexibility of the timing belt is affected when cleats are welded onto it. As a rule, the cleat thickness should be as low as possible. If possible, the cleats should be welded onto the belt opposite the tooth. The distance between the cleats is optimal when a multiple of the belt pitch is selected. The table below shows the recommended maximum cleat thickness (in mm) in relation to the selected number of pulley teeth. The positioning accuracy is +/- 0.3mm for the center distance between cleats.

Maximum cleat thickness in mm when cleats are welded onto belt opposite the tooth.

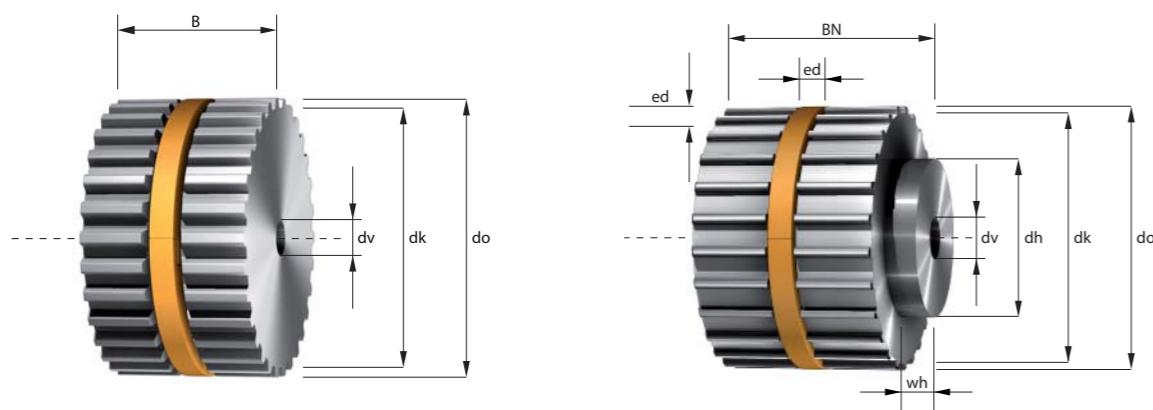
Type / no. of teeth	20	25	30	40	50	60	100
T5	5	6	6	8	9	10	12
T10	8	9	10	12	14	15	20
T20	12	13	15	18	20	23	30
AT3	4	5	6	8	9	10	12
AT5	5	6	6	8	9	10	12
AT10	8	9	10	12	14	15	20
AT20	12	13	15	18	20	23	30
XL	5	6	6	8	9	10	12
L	6	7	8	10	12	13	16
H	8	9	10	12	14	15	20
XH	13	14	15	18	20	23	30
HTD5	4	5	6	8	10	11	13
HTD8	6	8	9	10	12	14	15
HTD14	-	10	12	13	15	18	20

Maximum cleat thickness in mm when cleats are welded onto belt opposite the tooth space.

Type / no. of teeth	20	25	30	40	50	60	100
T5	2	2	3	4	6	8	10
T10	3	4	4	6	9	12	20
T20	5	5	6	8	12	20	30
AT3	-	2	2	3	4	6	8
AT5	2	2	3	4	6	8	10
AT10	3	4	4	6	9	12	20
AT20	5	5	6	6	12	20	30
XL	2	2	3	4	6	8	10
L	3	3	4	5	7	10	16
H	4	5	6	7	10	12	20
XH	5	5	6	8	12	20	30
HTD5	2	2	3	4	6	8	10
HTD8	3	3	4	5	6	9	12
HTD14	-	5	6	6	7	10	13

All measurements and tolerances are based on experience and provided without guarantee.

Synchronising pulleys easy drive® T-profile



T 2,5	Belt width = b (mm)	16	20	25	32	50
	Total width = B (mm)	18	22	27	34	52
	Total width with hub = BN (mm)	24	28	33	40	58

Starting from z = 27

Min. diameter of the tension rollers without contra-flexure 15 mm, with contra-flexure 18 mm.

T 5	Belt width = b (mm)	16	20	25	32	50	75	100	150
	Total width = B (mm)	18	22	27	34	52	77	102	152
	Total width with hub = BN (mm)	24	28	33	40	58	83	108	158

Starting from z = 14

Min. diameter of the tension rollers without contra-flexure 30 mm, with contra-flexure 30 mm.

T 10	Belt width = b (mm)	16	25	32	50	75	100	150
	Total width = B (mm)	18	27	34	52	77	102	152
	Total width with hub = BN (mm)	28	37	44	62	87	112	162

Starting from z = 12

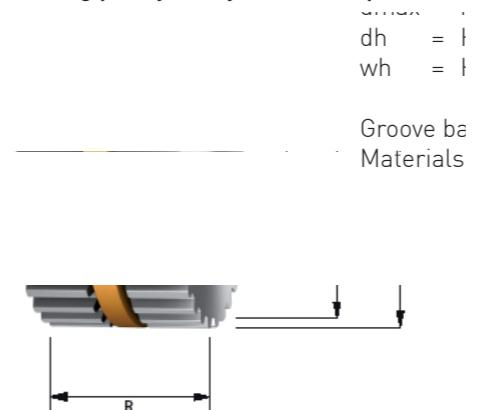
Min. diameter of the tension rollers without contra-flexure 60 mm, with contra-flexure 60 mm.

T 20	Belt width = b (mm)	16	25	32	50	75	100	125	150
	Total width = B (mm)	18	27	34	52	77	102	127	152
	Total width with hub = BN (mm)	28	37	44	62	87	112	137	162

Starting from z = 15

Min. diameter of the tension rollers without contra-flexure 120 mm, with contra-flexure 120 mm.

Synchronising pulleys easy drive® AT-profile



dh = l
wh = l

Groove ba
Materials

AT 3	Belt width = b (mm)	16	25	32	50
	Total width = B (mm)	18	27	34	52
	Total width with hub = BN (mm)	24	33	40	58

Starting from z = 22

Min. diameter of the tension rollers without contra-flexure 15 mm, with contra-flexure 20 mm.

AT 5	Belt width = b (mm)	16	20	25	32	50	75	100	150
	Total width = B (mm)	18	22	27	34	52	77	102	152
	Total width with hub = BN (mm)	24	28	33	40	58	83	108	158

Starting from z = 14

Min. diameter of the tension rollers without contra-flexure 18 mm, with contra-flexure 50 mm.

AT 10	Belt width = b (mm)	16	25	32	50	75	100	150
	Total width = B (mm)	18	27	34	52	77	102	152
	Total width with hub = BN (mm)	28	37	44	62	87	112	162

Starting from z = 12

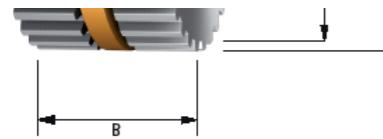
Min. diameter of the tension rollers without contra-flexure 50 mm, with contra-flexure 120 mm.

AT 20	Belt width = b (mm)	16	25	32	50	75	100	125	150
	Total width = B (mm)	18	27	34	52	77	102	127	152
	Total width with hub = BN (mm)	28	37	44	62	87	112	137	162

Starting from z = 18

Min. diameter of the tension rollers without contra-flexure 120mm, with contra-flexure 180 mm.

Synchronising pulleys easy drive® HTD-profile



HTD 3	Belt width = b (mm)	15	20	25	30	50	
	Total width = B (mm)	17	22	27	32	52	
	Total width with hub = BN (mm)	B + 6,5/10,0 mm					

Starting from z = 23

Min. diameter of the tension rollers without contra-flexure 20 mm, with contra-flexure 20 mm.

HTD 5	Belt width = b (mm)	15	20	25	30	50	75	100	150
	Total width = B (mm)	17	22	27	32	52	77	102	152
	Total width with hub = BN (mm)	B + 5,5/7,5/9,5 mm							

Starting from z = 14

Min. diameter of the tension rollers without contra-flexure 30 mm, with contra-flexure 60 mm.

HTD 8	Belt width = b (mm)	20	25	30	50	85	115	150	
	Total width = B (mm)	22	27	32	52	87	117	152	
	Total width with hub = BN (mm)	32	37	42	62	97	127	162	

Starting from z = 20

Min. diameter of the tension rollers without contra-flexure 60 mm, with contra-flexure 120 mm.

HTD 14	Belt width = b (mm)	40	55	85	115	170		
	Total width = B (mm)	42	57	87	117	172		
	Total width with hub = BN (mm)	57	72	102	132	187		

Starting from z = 28

Min. diameter of the tension rollers without contra-flexure 180 mm, with contra-flexure 200 mm.

Synchronising pulleys easy drive® Imperial-profile

Starting from z = 14

Min. diameter of the tension rollers without contra-flexure 15 mm, with contra-flexure 18 mm.

MXL T 1/8"	Imperial code	075	100	150	200		
	Belt width = b (mm)	19,1	25,4	38,1	50,8		
	Total width = B (mm)	21,1	27,4	40,1	52,8		
	Total width with hub = BN (mm)	27,1	33,4	46,1	58,8		

Starting from z = 33

Min. diameter of the tension rollers without contra-flexure 15 mm, with contra-flexure 18 mm.

XL T 1/5"	Imperial code	075	100	150	200	300	400	
	Belt width = b (mm)	19,1	25,4	38,1	50,8	76,2	101,6	
	Total width = B (mm)	21,1	27,4	40,1	52,8	78,2	103,6	
	Total width with hub = BN (mm)	B + 5,3/8,1/12,1 mm						

Starting from z = 14

Min. diameter of the tension rollers without contra-flexure 30 mm, with contra-flexure 30 mm.

L T 3/8"	Imperial code	075	100	150	200	300	400	600
	Belt width = b (mm)	19,1	25,4	38,1	50,8	76,2	101,6	152,4
	Total width = B (mm)	21,1	27,4	40,1	52,8	78,2	103,6	154,4
	Total width with hub = BN (mm)	B + 7 / 9 mm						

Starting from z = 10

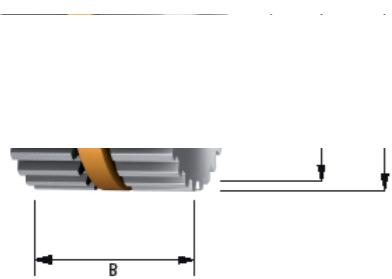
Min. diameter of the tension rollers without contra-flexure 60 mm, with contra-flexure 120 mm.

H T 1/2"	Imperial code	075	100	150	200	300	400	600
	Belt width = b (mm)	19,1	25,4	38,1	50,8	76,2	101,6	152,4
	Total width = B (mm)	21,1	27,4	40,1	52,8	78,2	103,6	154,4
	Total width with hub = BN (mm)	B + 10 / 8 / 11 / 16 mm						

Starting from z = 14

Min. diameter of the tension rollers without contra-flexure 60 mm, with contra-flexure 80 mm.

Synchronising pulleys easy drive® for cylindrical bore T-profile



Belt width = b (mm)	16	20	25	32	50
Total width = B (mm)	18	22	27	34	52
Total width with hub = BN (mm)	24	28	33	40	58

Other widths and larger sizes are available.

T 2,5

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
29	22,55	23,08	6 x 4	4H7	7	14 x 6
30	23,35	23,87	6 x 4	4H7	8	16 x 6
31	24,15	24,67	6 x 4	4H7	8	16 x 6
32	24,95	25,46	6 x 4	4H7	8	16 x 6
33	25,75	26,26	6 x 4	4H7	9	16 x 6
34	26,55	27,06	6 x 4	6H7	9	16 x 6
35	27,35	27,85	6 x 4	6H7	11	16 x 6
36	28,15	28,65	6 x 4	6H7	12	20 x 6
37	28,90	29,44	6 x 4	6H7	12	20 x 6
38	29,70	30,24	6 x 4	6H7	14	20 x 6
39	30,50	31,04	6 x 5	6H7	10	20 x 6
40	31,30	31,83	6 x 5	6H7	10	22 x 6
41	32,10	32,63	6 x 5	6H7	12	22 x 6
42	32,90	33,42	6 x 5	6H7	12	22 x 6
43	33,70	34,22	6 x 5	6H7	13	22 x 6

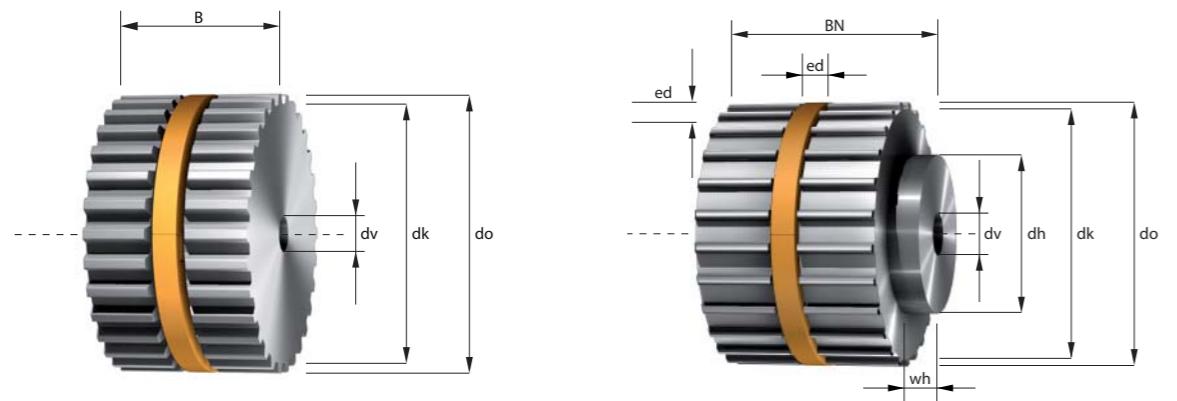
= Standard stock sizes

T 2,5

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
59	46,45	46,95	6 x 5	6H7	26	26 x 6
60	47,25	47,75	6 x 5	8H7	27	34 x 6
61	48,05	48,54	6 x 5	8H7	28	34 x 6
62	48,80	49,34	6 x 5	8H7	28	34 x 6
63	49,60	50,13	6 x 5	8H7	28	34 x 6
64	50,40	50,93	6 x 5	8H7	28	34 x 6
65	51,20	51,73	6 x 5	8H7	30	34 x 6
66	52,00	52,52	6 x 5	8H7	30	34 x 6
67	52,80	53,32	6 x 5	8H7	30	34 x 6
68	53,60	54,11	6 x 5	8H7	32	34 x 6
69	54,40	54,91	6 x 5	8H7	32	34 x 6
70	55,20	55,70	6 x 5	8H7	32	34 x 6
71	56,00	56,50	6 x 5	8H7	34	34 x 6
72	56,80	57,30	6 x 5	8H7	34	34 x 6
73	57,60	58,09	6 x 5	8H7	35	38 x 6
74	58,35	58,89	6 x 5	8H7	35	38 x 6
75	59,15	59,68	6 x 5	8H7	37	38 x 6
76	59,95	60,48	6 x 5	8H7	37	38 x 6
77	60,75	61,27	6 x 5	8H7	38	38 x 6
78	61,55	62,07	6 x 5	8H7	38	38 x 6
79	62,35	62,87	6 x 5	8H7	40	38 x 6
80	63,15	63,66	6 x 5	8H7	40	38 x 6
81	63,95	64,46	6 x 5	8H7	40	38 x 6
82	64,75	65,25	6 x 5	8H7	40	38 x 6
83	65,55	66,05	6 x 5	8H7	40	38 x 6
84	66,35	66,85	6 x 5	8H7	42	38 x 6
85	67,15	67,64	6 x 5	8H7	42	38 x 6
86	67,95	68,44	6 x 5	8H7	42	38 x 6
87	68,70	69,23	6 x 5	8H7	44	38 x 6
88	69,50	70,03	6 x 5	8H7	44	38 x 6
89	70,30	70,82	6 x 5	8H7	44	38 x 6
90	71,10	71,62	6 x 5	8H7	45	38 x 6
91	71,90	72,42	6 x 5	10H7	45	40 x 6
92	72,70	73,21	6 x 5	10H7	45	40 x 6
93	73,50	74,01	6 x 5	10H7	46	40 x 6
94	74,30	74,80	6 x 5	10H7	46	40 x 6
95	75,10	75,60	6 x 5	10H7	46	40 x 6
96	75,90	76,39	6 x 5	10H7	46	40 x 6
97	76,70	77,19	6 x 5	10H7	48	40 x 6
98	77,50	77,99	6 x 5	10H7	48	40 x 6
99	78,25	78,78	6 x 5	10H7	48	40 x 6
100	79,05	79,58	6 x 5	10H7	50	40 x 6
101	79,85	80,37	6 x 5	10H7	50	50 x 6
102	80,65	81,17	6 x 5	10H7	50	50 x 6
103	81,45	81,96	6 x 5	10H7	50	50 x 6

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
104	82,25	82,76	6 x 5	10H7	52	50 x 6
105	83,05	83,56	6 x 5	10H7	52	50 x 6
106	83,85	84,35	6 x 5	10H7	54	50 x 6
107	84,65	85,15	6 x 5	10H7	54	50 x 6
108	85,45	85,94	6 x 5	10H7	55	50 x 6
109	86,25	86,74	6 x 5	10H7	55	50 x 6
110	87,05	87,54	6 x 5	10H7	56	50 x 6
111	87,85	88,33	6 x 5	10H7	56	50 x 6
112	88,60	89,13	6 x 5	10H7	58	50 x 6
113	89,40	89,92	6 x 5	10H7	58	50 x 6
114	90,20	90,72	6 x 5	10H7	60	50 x 6

Synchronising pulleys easy drive® for cylindrical bore AT-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 15 mm, with contra-flexure 20 mm.

Belt width	= b (mm)	16	25	32	50
Total width	= B (mm)	18	27	34	52
Total width with hub	= BN (mm)	24	33	40	58

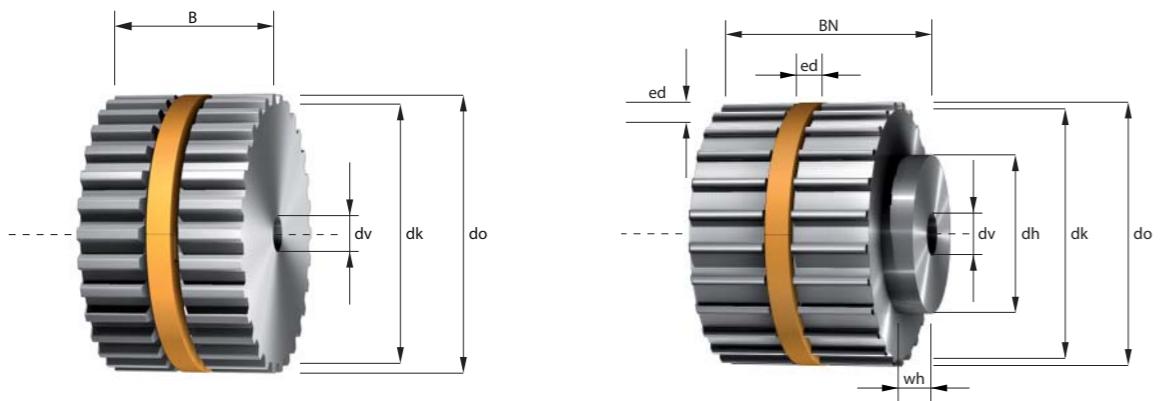
Other widths and larger sizes are available.

AT 3

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
22	20,60	21,01	6 x 4	6H7	5	14 x 6
23	21,55	21,96	6 x 4	6H7	6	14 x 6
24	22,51	22,92	6 x 4	6H7	7	14 x 6
25	23,46	23,87	6 x 4	6H7	8	16 x 6
26	24,42	24,83	6 x 4	6H7	9	16 x 6
27	25,37	25,78	6 x 4	6H7	10	16 x 6
28	26,33	26,74	6 x 4	6H7	10	16 x 6
29	27,28	27,69	6 x 4	6H7	12	16 x 6
30	28,24	28,65	6 x 4	6H7	12	20 x 6
31	29,19	29,60	6 x 4	6H7	14	20 x 6
32	30,15	30,56	6 x 5	6H7	10	20 x 6
33	31,10	31,51	6 x 5	6H7	11	20 x 6
34	32,06	32,47	6 x 5	6H7	12	20 x 6
35	33,01	33,42	6 x 5	6H7	13	20 x 6
36	33,97	34,38	6 x 5	6H7	14	22 x 6

= Standard stock sizes

Synchronising pulleys easy drive® for cylindrical bore AT-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 18 mm, with contra-flexure 50 mm.

Belt width = b (mm)	16	20	25	32	50	75	100	150
Total width = B (mm)	18	22	27	34	52	77	102	152
Total width with hub = BN (mm)	24	28	33	40	58	83	108	158

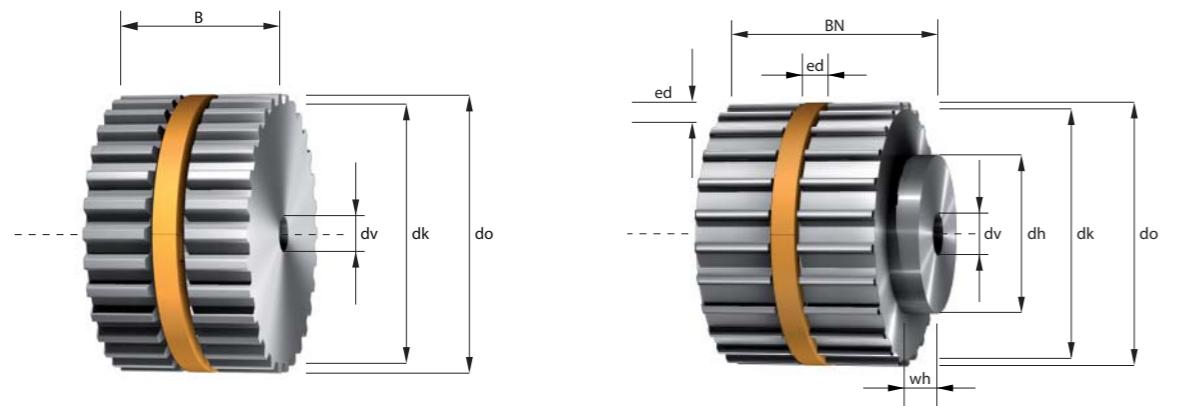
Other widths and larger sizes are available.

AT 5

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
14	21,05	22,23	6 x 4	6H7	6	14 x 6
15	22,65	23,87	6 x 4	6H7	7	16 x 6
16	24,24	25,46	6 x 4	6H7	9	18 x 6
17	25,84	27,06	6 x 4	6H7	10	18 x 6
18	27,43	28,65	6 x 4	6H7	12	20 x 6
19	29,02	30,24	6 x 4	6H7	14	22 x 6
20	30,60	31,83	6 x 5	6H7	10	24 x 6
21	32,20	33,42	6 x 5	6H7	12	24 x 6
22	33,79	35,01	6 x 5	6H7	13	24 x 6
23	35,39	36,61	6 x 5	8H7	15	24 x 6
24	36,98	38,20	6 x 5	8H7	16	26 x 6
25	38,57	39,79	6 x 5	6H7	19	26 x 6
26	40,16	41,38	6 x 5	8H7	20	26 x 6
27	41,75	42,97	6 x 5	8H7	22	30 x 6
28	43,34	44,56	6 x 5	8H7	23	32 x 6

= Standard stock sizes

Synchronising pulleys easy drive® for cylindrical bore AT-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 50 mm, with contra-flexure 120 mm.

Belt width	= b (mm)	16	25	32	50	75	100	150
Total width	= B (mm)	18	27	34	52	77	102	152
Total width with hub	= BN (mm)	28	37	44	62	87	112	162

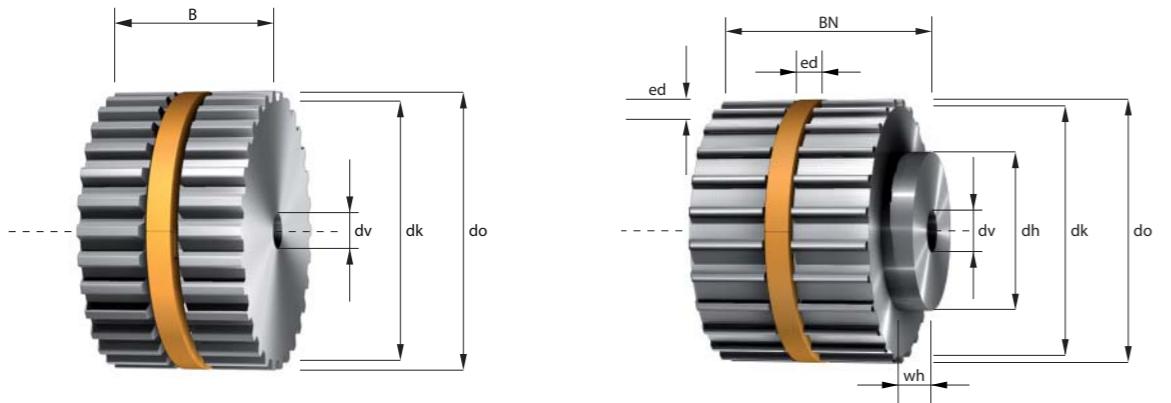
Other widths and larger sizes are available.

AT 10

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
12	36,35	38,35	6 x 5	6H7	14	28 x 10
13	39,55	41,38	6 x 5	8H7	15	32 x 10
14	42,70	44,70	6 x 5	8H7	17	32 x 10
15	45,93	47,75	6 x 5	8H7	20	32 x 10
16	49,11	50,93	6 x 5	8H7	23	35 x 10
17	52,29	54,11	6 x 5	8H7	26	40 x 10
18	55,48	57,30	6 x 5	8/10H7	27	40 x 10
19	58,66	60,48	6 x 5	8/10H7	29	44 x 10
20	61,84	63,66	6 x 5	12H7	36	46 x 10
21	65,03	66,85	6 x 5	12H7	39	46 x 10
22	68,21	70,03	6 x 5	12H7	42	50 x 10
23	71,39	73,21	6 x 5	12H7	45	50 x 10
24	74,57	76,39	6 x 5	12H7	49	58 x 10
25	77,77	79,58	6 x 5	12H7	52	60 x 10
26	80,94	82,76	6 x 5	12H7	55	60 x 10

= Standard stock sizes

Synchronising pulleys easy drive® for cylindrical bore HTD-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 30 mm, with contra-flexure 60 mm.

Belt width = b (mm)	15	20	25	30	50	75	100	150
Total width = B (mm)	17	22	27	32	52	77	102	152
Total width with hub = BN (mm)	B + 5,5/7,5/9,5 mm							

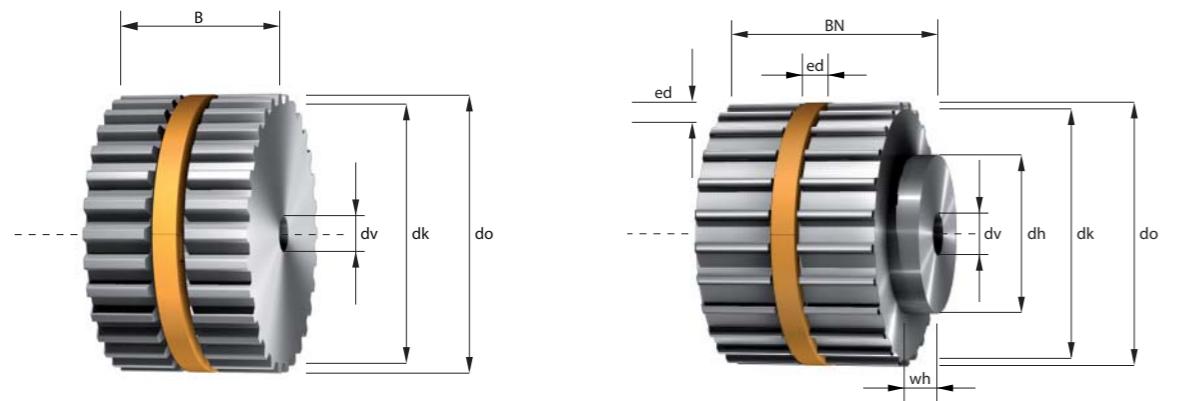
Other widths and larger sizes are available.

HTD5M

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
14	21,14	22,28	6 x 4	6	6	13 x 5,5
15	22,73	23,87	6 x 4	6	7	16 x 5,5
16	24,32	25,46	6 x 4	6	9	16,5 x 5,5
17	25,92	27,05	6 x 4	6	10	20 x 5,5
18	27,51	28,65	6 x 4	6	12	20 x 5,5
19	29,10	30,24	6 x 4	6	13	20 x 5,5
20	30,69	31,83	6 x 5	6	10	23 x 5,5
21	32,28	33,42	6 x 5	6	12	24 x 5,5
22	33,87	35,01	6 x 5	6	13	25,5 x 5,5
23	35,47	36,61	6 x 5	6	15	25,5 x 5,5
24	37,06	38,20	6 x 5	6	17	27 x 7,5
25	38,65	39,79	6 x 5	6	18	27 x 7,5
26	40,24	41,38	6 x 5	6	20	30 x 7,5
27	41,83	42,97	6 x 5	6	21	30 x 7,5
28	43,42	44,56	6 x 5	6	22	30,5 x 7,5

= Standard stock sizes

Synchronising pulleys easy drive® for cylindrical bore HTD-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 60 mm, with contra-flexure 120 mm.

Belt width = b (mm)	20	25	30	50	85	115	150
Total width = B (mm)	22	27	32	52	87	117	152
Total width with hub = BN (mm)	32	37	42	62	97	127	162

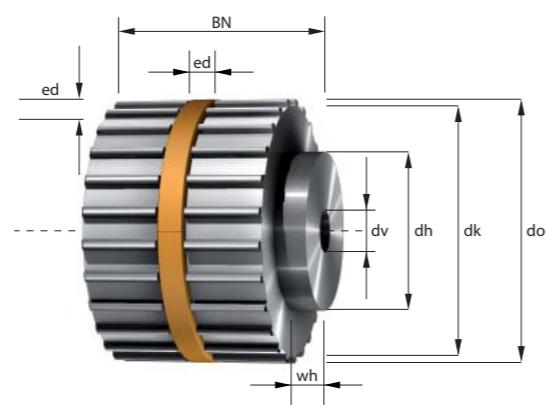
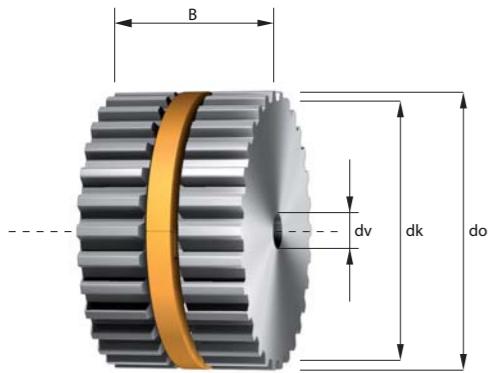
Other widths and larger sizes are available.

HTD8M

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
20	49,56	50,93	6 x 5	12	26	40 x 10
21	52,10	53,48	6 x 5	12	29	40 x 10
22	54,65	56,02	6 x 5	12	31	43 x 10
23	57,20	58,57	6 x 5	12	34	43 x 10
24	59,75	61,12	6 x 5	12	36	45 x 10
25	62,29	63,66	6 x 5	12	38	45 x 10
26	64,84	66,21	6 x 5	12	40	48 x 10
27	67,38	68,75	6 x 5	12	43	48 x 10
28	69,93	71,30	6 x 5	15	45	50 x 10
29	72,48	73,85	6 x 5	15	48	50 x 10
30	75,02	76,39	6 x 5	15	51	55 x 10
31	77,57	78,94	6 x 5	15	53	55 x 10
32	80,12	81,49	6 x 5	15	56	60 x 10
33	82,66	84,03	6 x 5	15	58	60 x 10
34	85,21	86,58	6 x 5	15	51	70 x 10

= Standard stock sizes

Synchronising pulleys easy drive® for cylindrical bore HTD-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 180 mm, with contra-flexure 200 mm.

Belt width = b (mm)	40	55	85	115	170
Total width = B (mm)	42	57	87	117	172
Total width with hub = BN (mm)	57	72	102	132	187

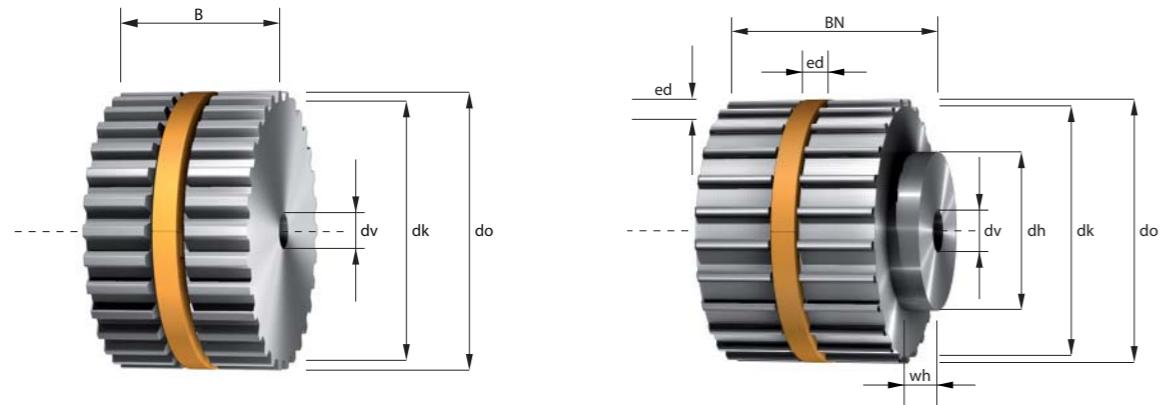
Other widths and larger sizes are available.

HTD14M

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
28	122,12	124,78	*	24	82	100 x 15
29	126,57	129,23	*	24	87	100 x 15
30	130,98	133,69	*	24	91	100 x 15
31	135,46	138,15	*	24	95	100 x 15
32	139,88	142,60	*	24	100	100 x 15
33	144,35	147,06	*	24	104	100 x 15
34	148,79	151,51	*	24	109	100 x 15
35	153,24	155,98	*	24	113	100 x 15
36	157,68	160,43	*	24	118	100 x 15
37	162,13	164,88	*	24	122	100 x 15
38	166,59	169,34	*	24	127	120 x 15
39	171,00	173,80	*	24	131	120 x 15
40	175,49	178,25	*	24	135	120 x 15
41	179,92	182,71	*	24	140	120 x 15
42	184,37	187,17	*	24	144	120 x 15
43	188,83	191,62	*	24	149	120 x 15
44	193,28	196,08	*	24	153	120 x 15
45	197,74	200,53	*	24	158	120 x 15
46	202,30	204,99	*	24	162	120 x 15
47	206,65	209,45	*	24	167	120 x 15
48	211,11	213,90	*	24	171	135 x 15
49	215,57	218,36	*	24	176	135 x 15
50	220,02	222,82	*	24	180	135 x 15
51	224,48	227,27	*	24	184	135 x 15
52	228,94	231,73	*	24	189	135 x 15
53	233,39	236,19	*	24	193	135 x 15
54	237,85	240,64	*	24	198	135 x 15
55	242,30	245,10	*	24	202	135 x 15
56	246,76	249,55	*	28	207	135 x 15
57	251,22	254,01	*	28	211	135 x 15

* On request

Synchronising pulleys easy drive® for cylindrical bore Imperial-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 15 mm, with contra-flexure 18 mm.

Imperial code	075	100	150	200
Belt width = b (mm)	19,1	25,4	38,1	50,8
Total width = B (mm)	21,1	27,4	40,1	52,8
Total width with hub = BN (mm)	27,1	33,4	46,1	58,8

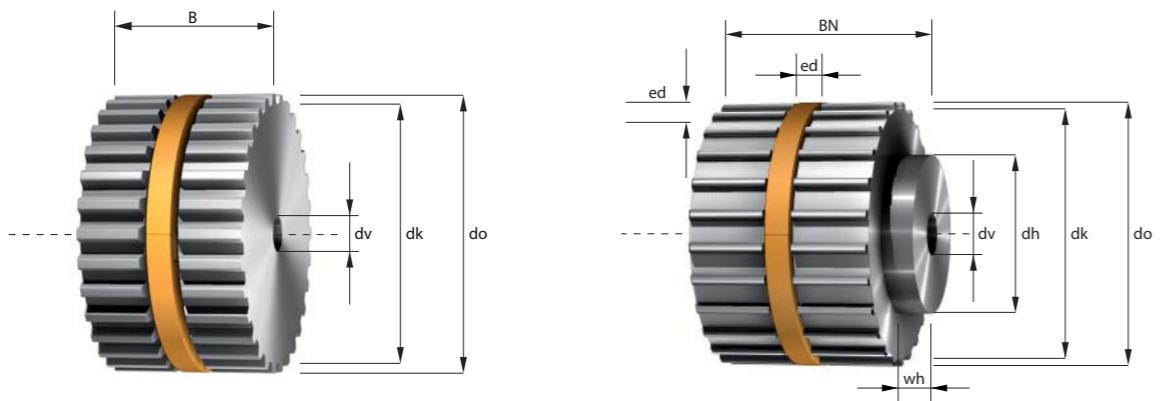
Other widths and larger sizes are available.

MXL (T1/8")

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
34	21,48	21,99	6 x 4	3H7	6	14 x 6
35	22,13	22,64	6 x 4	3H7	7	14 x 6
36	22,78	23,29	6 x 4	3H7	8	14 x 6
37	23,42	23,93	6 x 4	3H7	8	14 x 6
38	24,07	24,58	6 x 4	3H7	9	14 x 6
39	24,72	25,23	6 x 4	3H7	9	14 x 6
40	25,36	25,87	6 x 4	3H7	10	14 x 6
41	26,01	26,52	6 x 4	3H7	10	14 x 6
42	26,66	27,17	6 x 4	3H7	10	14 x 6
43	27,30	27,81	6 x 4	3H7	11	14 x 6
44	27,95	28,46	6 x 4	3H7	12	14 x 6
45	28,60	29,11	6 x 4	3H7	12	14 x 6
46	29,24	29,75	6 x 4	3H7	13	14 x 6
47	29,89	30,40	6 x 4	3H7	14	14 x 6
48	30,54	31,05	6 x 5	4H7	10	20 x 6

= Standard stock sizes

Synchronising pulleys easy drive® for cylindrical bore Imperial-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 30 mm, with contra-flexure 30 mm.

Imperial code	075	100	150	200	300	400
Belt width = b (mm)	19,1	25,4	38,1	50,8	76,2	101,6
Total width = B (mm)	21,1	27,4	40,1	52,8	78,2	103,6
Total width with hub = BN (mm)	B + 5,3/8,1/12,1 mm					

Other widths and larger sizes are available.

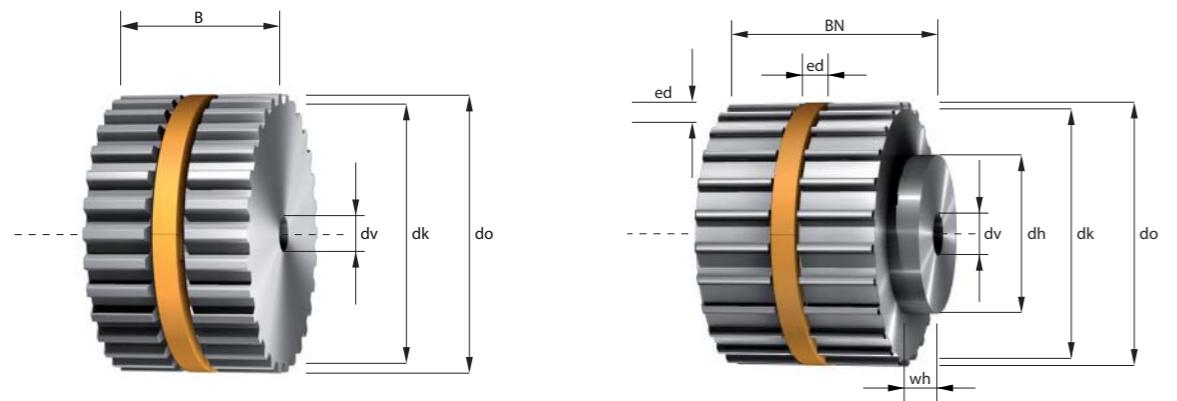
XL (T1/5")

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
14	22,13	22,64	6 x 4	6H7	7	14,3 x 5,3
15	23,75	24,26	6 x 4	6H7	8	15,9 x 5,3
16	25,36	25,87	6 x 4	6H7	10	17,5 x 5,3
17	26,98	27,49	6 x 4	6H7	12	20,6 x 5,3
18	28,60	29,11	6 x 4	6H7	12	20,6 x 5,3
19	30,21	30,72	6 x 5	6H7	10	23,8 x 8,1
20	31,83	32,34	6 x 5	6H7	12	23,8 x 8,1
21	33,45	33,96	6 x 5	6H7	13	23,8 x 8,1
22	35,07	35,57	6 x 5	6H7	15	25,4 x 8,1
23	36,86	37,19	6 x 5	6H7	17	27 x 8,1
24	38,30	38,81	6 x 5	6H7	18	27 x 8,1
25	39,92	40,43	6 x 5	6H7	20	30 x 8,1
26	41,53	42,04	6 x 5	6H7	22	30 x 8,1
27	43,15	43,66	6 x 5	6H7	23	30 x 8,1
28	44,77	45,28	6 x 5	6H7	25	30 x 8,1

= Standard stock sizes

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
29	46,38	46,89	6 x 5	6H7	26	34 x 8,1
30	48,00	48,51	6 x 5	6H7	28	34 x 8,1
31	49,62	50,13	6 x 5	8H7	30	38 x 12,1
32	51,24	51,74	6 x 5	8H7	31	38 x 12,1
33	52,85	53,36	6 x 5	8H7	33	38 x 12,1
34	54,47	54,98	6 x 5	8H7	34	38 x 12,1
35	56,09	56,60	6 x 5	8H7	36	38 x 12,1
36	57,70	58,21	6 x 5	8H7	38	38 x 12,1
37	59,32	59,83	6 x 5	8H7	39	38 x 12,1
38	60,94	61,45	6 x 5	8H7	41	38 x 12,1
39	62,55	63,06	6 x 5	8H7	43	38 x 12,1
40	64,17	64,68	6 x 5	8H7	44	38 x 12,1
41	65,79	66,30	6 x 5	8H7	46	38 x 12,1
42	67,40	67,91	6 x 5	8H7	47	38 x 12,1
43	69,02	69,53	6 x 5	8H7	49	38 x 12,1

Synchronising pulleys easy drive® for cylindrical bore Imperial-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 60 mm, with contra-flexure 80 mm.

Imperial code	075	100	150	200	300	400	600
Belt width = b (mm)	19,1	25,4	38,1	50,8	76,2	101,6	152,4
Total width = B (mm)	21,1	27,4	40,1	52,8	78,2	103,6	154,4
Total width with hub = BN (mm)	B + 10 / 8 / 11 / 16 mm						

Other widths and larger sizes are available.

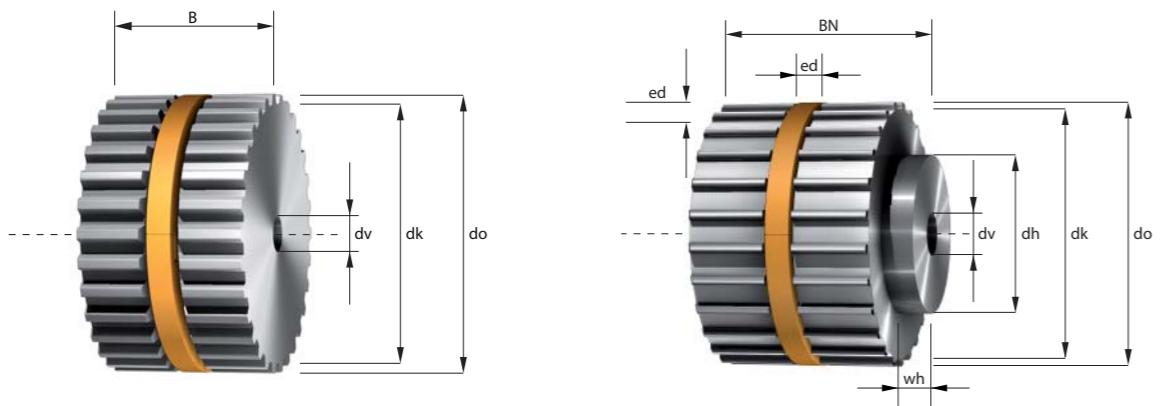
H (T1/2")

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
14	55,23	56,60	6 x 5	12H7	30	40 x 10
15	59,27	60,64	6 x 5	15H7	34	46 x 10
16	63,31	64,68	6 x 5	15H7	38	46 x 10
17	67,35	68,72	6 x 5	15H7	42	54 x 10
18	71,39	72,77	6 x 5	15H7	46	54 x 10
19	75,44	76,81	6 x 5	15H7	50	58 x 10
20	79,48	80,85	6 x 5	15H7	54	62 x 10
21	83,52	84,89	6 x 5	15H7	59	67 x 10
22	87,56	88,94	6 x 5	15H7	63	70 x 10
23	91,61	92,98	6 x 5	15H7	67	75 x 10
24	95,65	97,02	6 x 5	15H7	70	75 x 10
25	99,69	101,06	6 x 5	15H7	70	55 x 8
26	103,73	105,11	6 x 5	15H7	74	55 x 8
27	107,78	109,15	6 x 5	15H7	78	60 x 8
28	111,82	113,19	6 x 5	15H7	82	60 x 8

= Standard stock sizes

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
29	115,86	117,23	6 x 5	15H7	86	60 x 8
30	119,90	121,28	6 x 5	15H7	90	70 x 8
31	123,95	125,32	6 x 5	20H7	94	70 x 8
32	127,99	129,36	6 x 5	20H7	98	70 x 8
33	132,03	133,40	6 x 5	20H7	102	80 x 8
34	136,08	137,45	6 x 5	20H7	106	80 x 8
35	140,12	141,49	6 x 5	20H7	110	80 x 8
36	144,16	145,53	6 x 5	20H7	114	80 x 8
37	148,20	149,57	6 x 5	20H7	118	80 x 8
38	152,25	153,62	6 x 5	20H7	122	80 x 8
39	156,29	157,66	6 x 5	20H7	125	80 x 8
40	160,33	161,70	6 x 5	20H7	125	80 x 8
41	164,37	165,74	6 x 5	20H7	129	80 x 8
42	168,42	169,79	6 x 5	20H7	133	80 x 8
43	172,46	173,83	6 x 5	20H7	137	80 x 8

Synchronising pulleys easy drive® for cylindrical bore Imperial-profile



z = Number of teeth
 dk = Outside diameter
 do = Pitch diameter
 ed = easy drive® groove
 dv = Diameter of pre-bore
 dmax = max. bore diameter without feather key groove
 dh = Hub diameter
 wh = Hub width

Min. diameter of the tension rollers without contra-flexure 150 mm, with contra-flexure 180 mm.

Imperial code	100	150	200	300	400	600	600
Belt width = b (mm)	25,4	38,1	50,8	76,2	101,6	152,4	152,4
Total width = B (mm)	27,4	40,1	52,8	78,2	103,6	154,4	154,4
Total width with hub = BN (mm)				B + 18 / 15 mm			

Other widths and larger sizes are available.

XH (T7/8")

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
18	124,55	127,34	*	20H7	95	85 x 18
19	131,62	134,41	*	20H7	102	95 x 18
20	138,69	141,49	*	20H7	109	95 x 18
21	145,77	148,56	*	20H7	116	110 x 18
22	152,84	155,64	*	20H7	123	110 x 18
23	159,92	162,71	*	20H7	130	125 x 18
24	166,99	169,79	*	25H7	137	125 x 18
25	174,07	176,86	*	25H7	144	140 x 18
26	181,14	183,94	*	25H7	151	140 x 18
27	188,22	191,01	*	25H7	158	120 x 18
28	195,29	198,08	*	25H7	168	120 x 18
29	202,37	205,16	*	25H7	172	120 x 18
30	209,44	212,23	*	25H7	179	120 x 18
31	216,52	219,31	*	25H7	187	130 x 18
32	223,59	226,38	*	25H7	194	130 x 18

z	dk (mm)	d0 (mm)	ed (BxH) (mm)	dv (mm)	dmax (mm)	Hub (BxH) (mm)
33	230,67	233,46	*	25H7	201	140 x 18
34	237,74	240,53	*	25H7	208	140 x 18
35	244,81	247,61	*	25H7	215	140 x 18
36	251,89	254,68	*	25H7	222	140 x 18
37	258,96	261,75	*	25H7	229	140 x 18
38	266,04	268,83	*	25H7	236	140 x 18
39	273,11	275,90	*	25H7	243	140 x 18
40	280,18	282,98	*	25H7	250	140 x 18
41	287,26	290,05	*	30H7	257	150 x 15
42	294,34	297,13	*	30H7	264	150 x 15
43	301,41	304,20	*	30H7	271	150 x 15
44	308,48	311,28	*	30H7	278	150 x 15
45	315,56	318,35	*	30H7	286	150 x 15
46	322,63	325,42	*	30H7	293	150 x 15
47	329,71	332,50	*	30H7	300	150 x 15

* On request

Materials



Description	Material no.	Properties	Tensile strength (N/mm ²)	Yield strength (N/mm ²)
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Non-ferrous metals (Al)

AlCuMgPb AlCuMgPbMgMn	3.1645 2007	Good machinability	ca. 350	ca. 230
AlMgSi1 AlSiMgMn	3.2315 6082	Corrosion-resistant, salt-water resistant, weldable, good for anodizing	ca. 280	ca. 230
AlZnMgCu1,5 AlZn5,5MgCu	3.4365 7075	Extremely high strength, good for anodizing	ca. 510	ca. 440
AlSiMgBi	6026	salt-water resistant, RoHs conform, good for anodizing	ca. 310	ca. 240

Steel (St)

C45	1.0503	Standard	590 - 740	ca. 350
9 SMnPb28 (11Sn30) (bis 100 mm)	1.0718	Good machinability, hardenable to a limited extent	ca. 350	ca. 205
X10CrNiS18 9	1.4305	Rust-resistant, good machinability	500 - 700	

Grey cast iron

GG25	EN-JL 1040	Corrosion-resistant	250 - 350	165
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Description	Trade name	Properties	Tensile strength (N/mm ²)
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Plastics

PA6 (polyamide)	Ultramid, Rilsan	high stiffness, chemical resistant	50 - 84
PA12C (cast polyamide)	Lauramid, Hawamid	wear-resistant, hydrolysis resistant	60
POM (polyoxymethylene)	Delrin, Hostaform	Good machinability	55 - 62

Surface treatment / finishing of pulleys

Description	Layer thickness in µm (10-3 mm)	Tolerance in µm	
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Metal coatings

Electro-galvanize	20	+/- 10	Steel
Nickel-plating chemical	10-30	+/- 3	AL/Steel
Plating takes place in heated acid electrolytes. Good protection against corrosion only with an absolutely impenetrable coating having a thickness of min. 25 µm on iron. Good hard surface.			
Nickel-plating galvanic	10-30	+/- 10	AL/Steel
Plating takes place in heated acid electrolytes. Good protection against corrosion only with an absolutely impenetrable coating having a thickness of min. 25 µm on iron. Good hard surface.			
Chromating, blue galvanic			Steel
Subsequent treatment of electro-galvanized coating by dipping in solutions of sodium chromate and sulphuric acid 1/7 µm, e.g. when there is saltwater contact.			

Hard chromium plating	up to 100	+/- 5	Steel
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Non-metal coatings

Bronzing	1 - 2		Steel
Iron is dipped into heated sodium hydrate, alkaline or sulphate lye; afterwards, the product is repeatedly rubbed with oil or wax. Low corrosion resistance.			

Phosphatizing	5 - 12	+/- 3	Steel
Phosphate layers are created by dipping the workpiece into phosphoric acid solutions of heavy or alkali metals (see also bonderizing).			

Anodizing	10 - 25		AL
An oxide layer is created by electric oxidation on Al, Mg, Zn or alloy.			

Hard anodizing	30 - 40	+/- 5	AL
Hard coating	<40 >40	+/- 5 +/- 10	



Taperlock clampings are the standardized, commercially available machine parts for creating non-positive shaft-to-hub connections with a pulley. The conically slotted bushing with feather key groove according to DIN 6885 serves to fasten pulleys to shafts or journals.

Taperlock clampings are available in different outside dimensions. A large number of bore sizes are available for each outside dimension, i.e. for the corresponding shaft diameter. The 4-digit number refers to the outside dimension, the 2-digit number indicates the bore size.

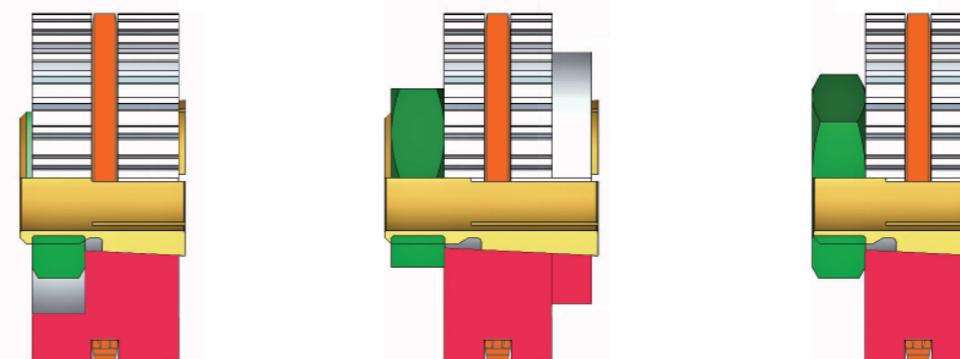
Taperlock bushing, material EN-GJL 200 – DIN EN 1561																
	1008	1108	1210	1215	1310	1610	1615	2012	2517	3020	3030	3525	3535	4040	4545	5050
Ø bore mm	10	10	11	11	14	14	14	14	16	25	35	35	35	40	55	70
	11	11	12	12	16	16	16	16	18	28	38	38	38	42	60	75
	12	12	14	14	18	18	18	18	19	30	40	40	40	45	65	80
	14	14	16	16	19	19	19	19	20	32	42	42	42	48	70	85
	16	16	18	18	20	20	20	20	22	35	45	45	45	50	75	90
	18	18	19	19	22	22	22	22	24	38	48	48	48	55	80	95
	19	19	20	20	24	24	24	24	25	40	50	50	50	60	85	100
	20	20	22	22	25	25	25	25	28	42	55	55	55	65	90	105
	22	22	24	24	28	28	28	28	30	45	60	60	60	70	95	110
	24*	24	25	25	30	30	30	30	32	48	65	65	65	75	100	115
	25*	25	28	28	32	32	32	32	35	50	70	70	70	80	105	120
		28*	30	30	35	35	35	35	38	55	75	75	75	85	110	125
			32	32		38	38	38	40	60		80	80	90		
					40	40	40	42	45		85	85	95			
					42*	42*	42	45	70		90	90	100			
							45	48	75							
							48	50								
							50	55								
								60								

Hexagon socket screw (inch)	1/4 x 1/2	1/4 x 1/2	3/8 x 5/8	7/16 x 7/8	1/2 x 1	5/8 x 11/4	5/8 x 11/4	1/2 x 11/2	1/2 x 11/2	5/8 x 13/4	3/4 x 2	7/8 x 21/4				
Tightening (Nm)	5,7	5,7	20	20	20	20	20	31	49	92	92	115	115	172	195	275
Bushing length (mm)	22,3	22,3	25,4	38,1	25,4	25,4	38,1	31,8	44,5	50,8	76,2	63,5	88,9	101,6	114,3	127,0
Weight for d2 min.	0,12	0,16	0,28	0,39	0,32	0,41	0,60	0,75	1,06	2,50	3,75	3,90	5,13	7,68	12,70	15,17

* This bore has a flat groove.



Pulleys can be fastened to cylindrical shafts or journals safely, flexibly and, above all, economically with BOQA clamping bushings.



Shaft-to-hub connections with BOQA fastening elements are:

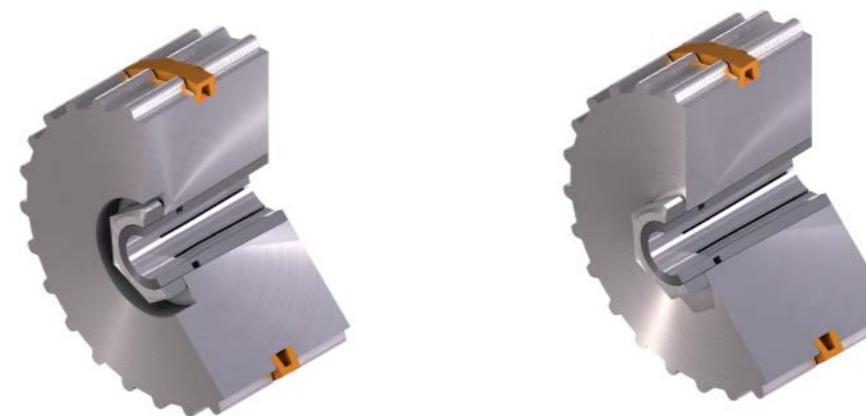
SAFE
FAST
FLEXIBLE
ECONOMICAL
SPACE-SAVING
NON-CORROSIVE

- non-positive, backlash-free and highly precise fastening of pulleys
- marked gain in time needed for assembly
- wide range of applicability, high delivery standard
- reduction in costs
- extremely compact, no overhang
- made predominantly of stainless steel

Shaft-to-hub connections with BOQA fastening elements are insensitive to extreme load alternations. They can be easily adjusted axially and radially, are easy to mount and dismount. Any additional forming of the shaft or other adjustment work will not be necessary.

BOQA fastening elements can be delivered starting from a shaft diameter of 2.00 mm – also in inches. In view of the large standard product range, BOQA fastening elements also can be adapted to fulfill your requirements.

Simply the better solution.



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