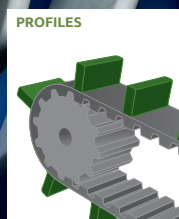
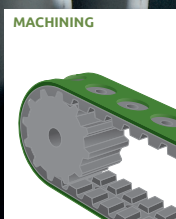
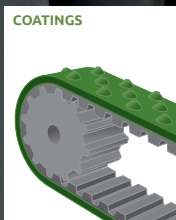




# COATINGS, MACHINING AND PROFILES





**Coatings and machining**

The best solution when viewed from above. Unlimited application possibilities are made possible by coating and processing timing belts and conveyor belts.

By combining suitable finishing methods, KEIPER attains the special properties needed for the diverse tasks involved in proper material flow.

**Profiles and cleats**

Optimal material flow with no standstill. Positioning, pacing or separating – special tasks can be realised without any problems because of the application-oriented design and finishing of the timing belts.

Permanent, homogenous connections between the timing belt and the polyurethane cast profiles and cleats are ensured by means of welding, gluing or screwing.

When the elements are adapted to the product that is to be transported, pushing elements of almost any shape can be made – in different colours and degrees of hardness as well.



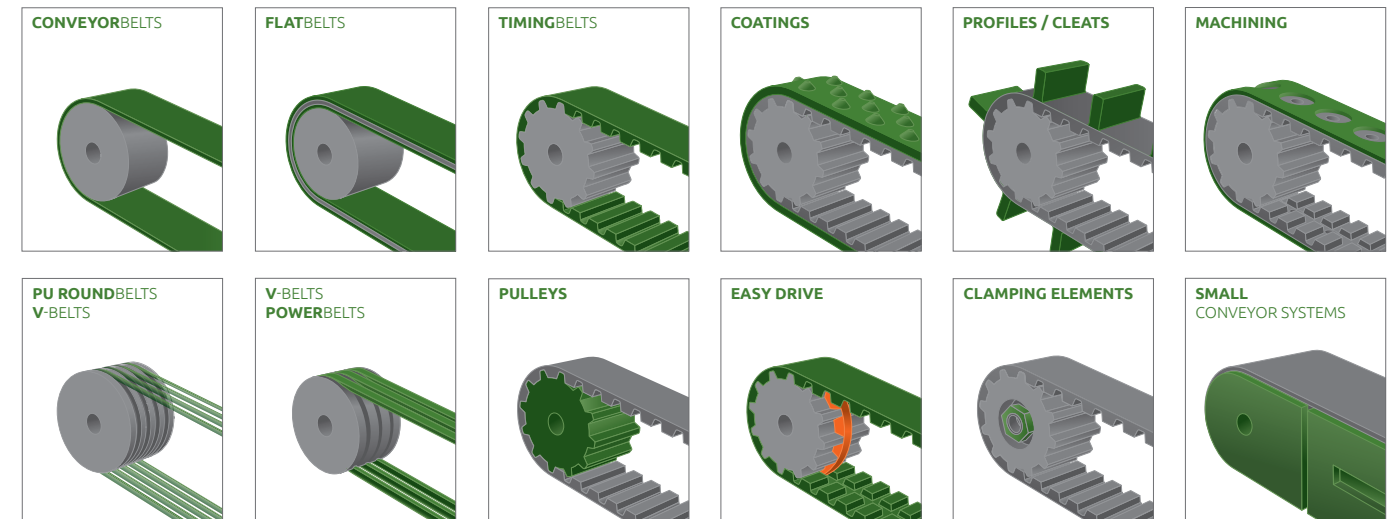
**Welcome to KEIPER!**

For more than 95 years we have been supplying reliable power transmission and conveyor technology for industrial, commercial and trade purposes. Dependable and fast. KEIPER in Fellbach near Stuttgart stands for many decades of engineering competence, experience and innovation. Our customers' requirements always are the focus of our work.

As a modern full-service partner, we deliver thought-out solutions for the diverse and continuously changing requirements in power transmission and conveyor systems. Our customers appreciate our personal support and cooperation, the diversity of our product range and our high flexibility.

**Sound solutions for all sectors:**

Close cooperation with our distribution partners enables us to produce the best possible products, and this is true also for custom-made products. Our development, design and production know-how is rounded off by meticulous quality control. High-grade raw materials and continuous product development are the foundation of the high quality of all KEIPER products.



**Practical relevance day after day:** Based on our expert knowledge of the special characteristics of certain products, many years of experience in myriad sectors and constant communication with users, we are able to develop highly effective product solutions every day. Our extensive engineering skills and our team of experienced specialists ensure perfect power transmission and conveyor technology.

**Certification:** Our products and solutions as well as our daily work processes comply with the most stringent quality standards. KEIPER has ISO 9001:2015 Certification.

**KEIPER the licensing partner of easy drive®:**

The new standard in timing belt engineering – easy drive® – is distributed by KEIPER GmbH & Co. KG, the official licensing partner. [www.easydrive.info](http://www.easydrive.info)



**Individuality and myriad applications**

Timing belts can be coated with many different materials so as to be optimally suited for the product that is to be conveyed and the specific function as required in the material flow.

KEIPER offers numerous coatings made of polyurethane, PVC, elastomers, PTFE, silicone and fabrics as well as special materials. Each material meets the requested properties and is adapted to the specific conveying task.





Material	Thick-ness in mm (approx.)	Shore A kg/m <sup>3</sup>	Color	Abrasion resistance	Max. Temp. in °C	Thick-ness factor min.	Resistance to simple oils/grease	FDA	Examples / fields of application
PVC coatings									
PVC transparent	1/2/3/4	80	Transpa-rent	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 (petrol)	1/2	60	Blue	Medium/low	60	25	No	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, light dirt
Nubbed blue	1.5	65	Light blue	Low	60	30 mm	Plant	Yes	Food, packaging, light dirt
Linear groove petrol	1.5	60	Petrol	Medium	60	40 mm	No	No	Conveying, 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
Toothgrip white	3	65	White	Medium	60	50 mm	Plant	Yes	Food, packaging, wood
Fishbone white	3.5	70	White	Medium	60	70 mm	Plant	Yes	Food, wood, wetness, frozen goods
Biggrip 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	Transpa-rent	High	80	30	Yes	No	Glass, wood, sheet metal, plastic, stone
PU transparent 60	2	60	Transpa-rent	High	80	30	Yes	Yes	Food, packaging, glass
PU white FDA	1/2	90	White	High	70	50	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	30/50	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 Linear groove, transp.	2	80	Transpa-rent	High	70	50 mm	Yes	No	Oily, moist metals, glass, bricks
PU Nubbed transparent	3	80	Transpa-rent	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 goods, 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

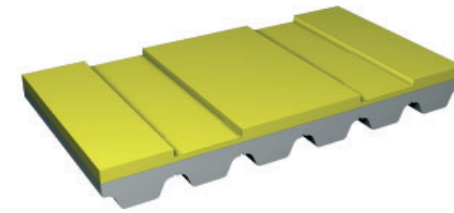
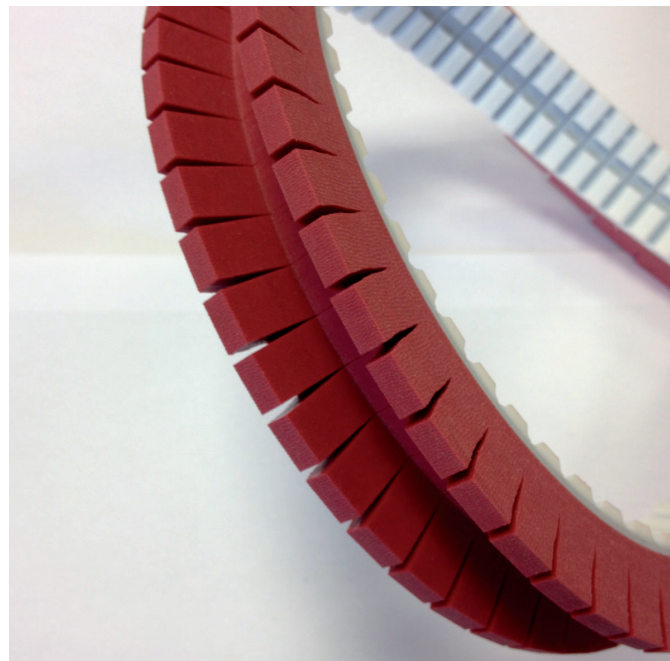
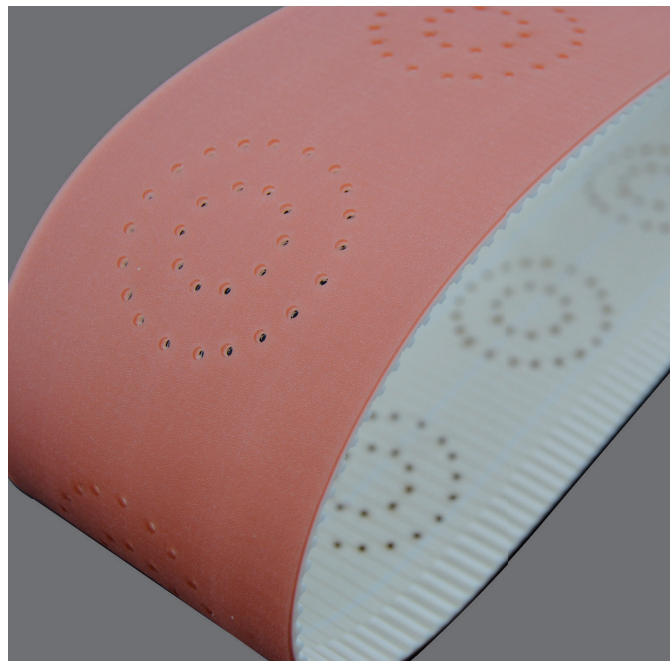
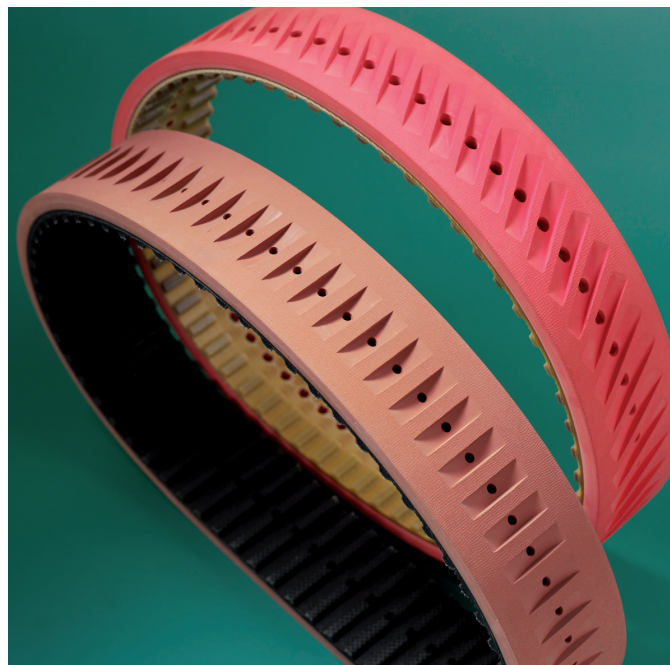
Material	Thickness in mm (approx.)	Shore A kg/m <sup>3</sup>	Color	Abrasion resistance	Max. Temp. in °C	Thick-ness factor min.	Resistance to simple oils/grease	FDA	Examples / fields of application
Elastomer coatings									
Linatex	1.5/2.4/3.2/4.8/6.4/7.9/9.6	40	Red	Medium/high	70	25	No	No	High adhesive, sensitive parts
Linaplast	2.4/3/6	40	White	Medium/high	70	25	Plant	Yes	High adhesive, sensitive parts
Linard	3/5	60	Red	Medium/high	70	30	No	No	High adhesive, sensitive parts
Linatril	3/5/6/8	50	Orange	Medium/high	100	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	RG220	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, soap
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	Conveying sensitive parts
PES gray	2	70	Gray	Medium	60	50 mm	No	No	Conveying sensitive parts
Wool plush	3		Green	Low	100	30	No	No	Conveying sensitive parts
Chrome leather	2/3	65	Gray	High	70	30 mm	Yes	No	Conveying bricks/stones, accumulation operation
Silicon transparent	1-5	30	Transpa-rent	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

**Coatings for motion.**

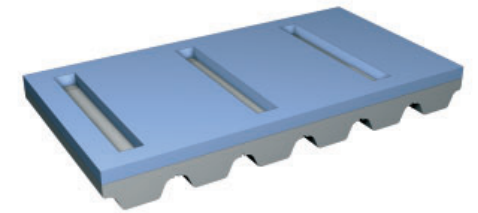
More than ever before, the effectiveness of state-of-the-art production plants calls for a high degree of specialisation and products of the highest possible quality.

The requirements posed with respect to moving components are increasing steadily, just as the performance and calculation of the running time. KEIPER belts are finished with high-quality coatings and additional mechanical processing so that they will fulfil the technical requirements safely and precisely. Numerous processing methods are possible: milling in all directions, contours, perforations for vacuum applications. Finally, the processing of the components can be rounded off by means of polishing the edges and surfaces.

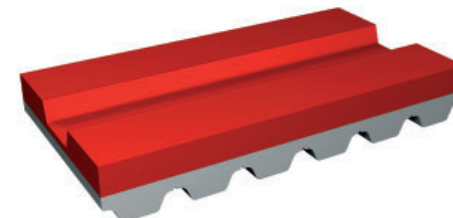
Our profound know-how regarding what coating and processing methods can be optimally combined gets straight to the point of specific designs.



Transverse grooves



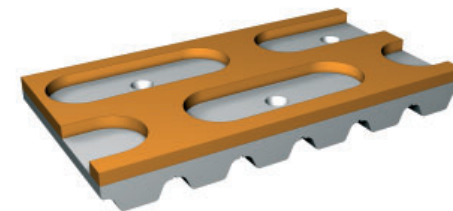
Surface grooves



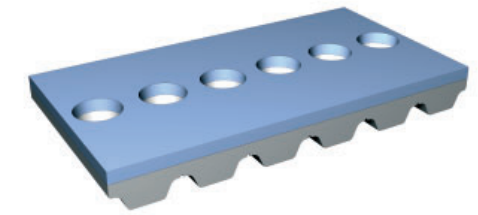
Longitudinal groove



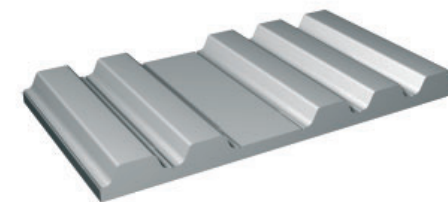
Tothing grooves



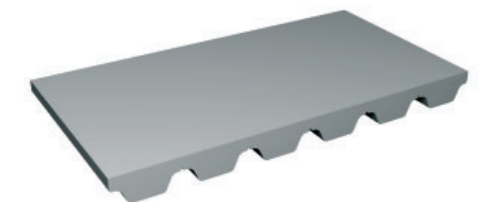
Pockets



Holes



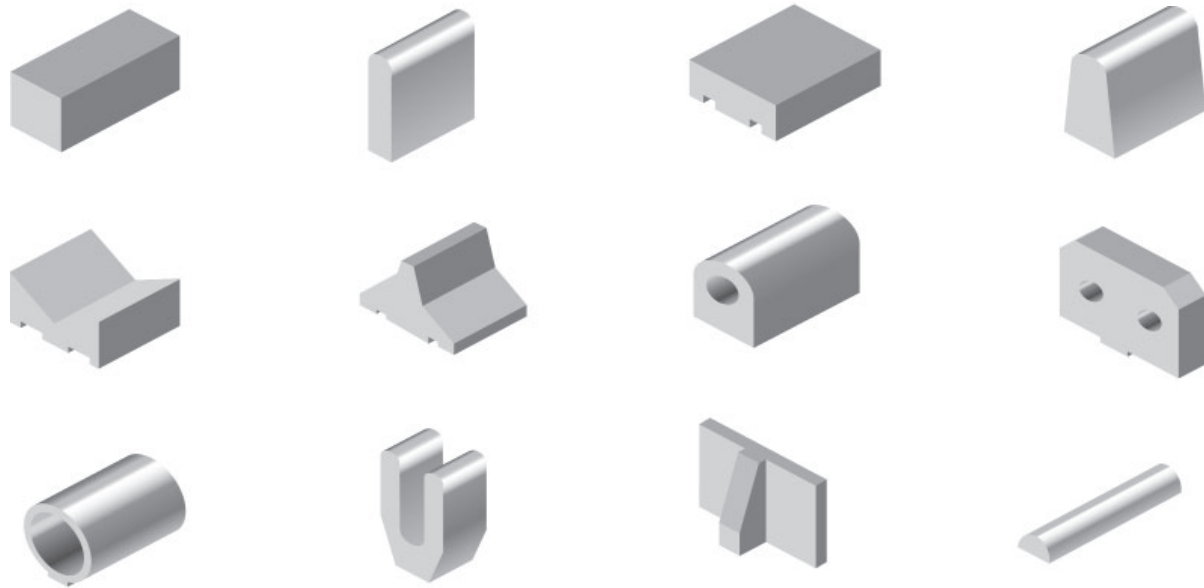
Removing individual teeth



Grinding edges and surfaces

**Profiles / cleats**

Many special, innovative tasks required in the material flow, such as pacing, separating or positioning, can be realized by adding profiles/cleats and entraining elements to the belts. Profiles and entraining elements are made of the same high-quality polyurethane as our timing belts, are machined as sheets or injection molded. They are available in different blends and degrees of hardness, with glass-fiber reinforcement and in matching colors. The profiles and entraining elements are homogeneously fastened to the belt by welding or bonding. In view of our production methods, the cleats can be formed into any shape.



**Welding on cleats**

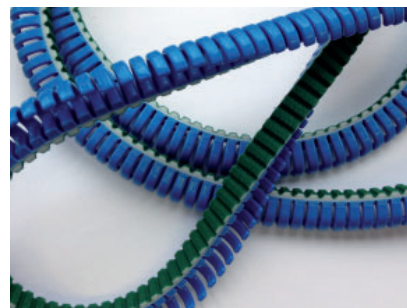
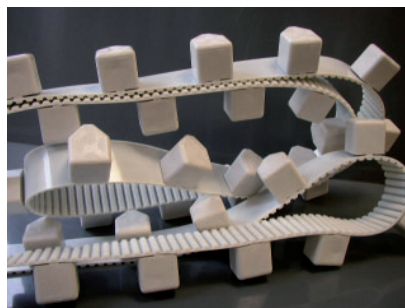
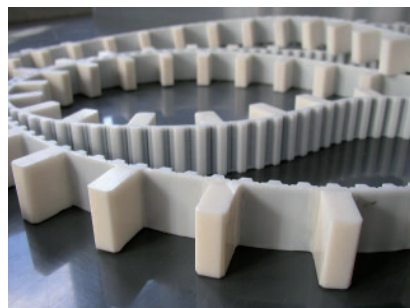
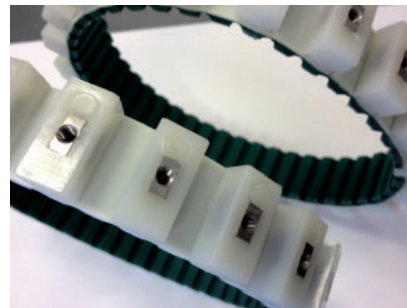
The flexibility of the timing belt is affected when cleats are welded onto it. As a rule, the thickness of the cleat should be as low as possible. If possible, the cleat should be welded onto the belt opposite from the tooth. The distance between the cleats is optimal when a multiple of the timing belt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

Maximum thickness of cleat in mm when welded into position opposite from the tooth.

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

Maximum thickness of cleat in mm when welded into position opposite from 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	8	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





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