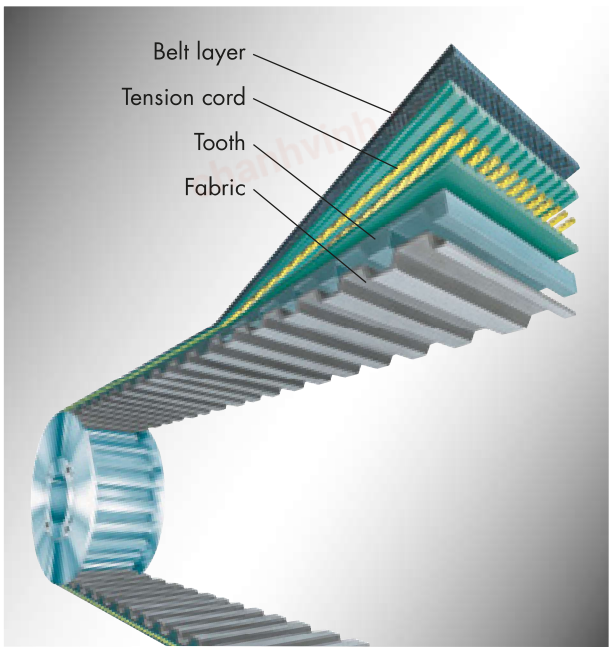
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PRODUCT DESCRIPTION
optibelt ZR TIMING BELTS
ISO 5296

Structure



Top layer
A flexible belt backing embeds the tension element and supports it against the reverse idlers. The top layer consists of a flexible high quality chloroprene compound. This protects the tension cord from oil, humidity, friction and wear and tear.
This top layer has some inherent resistance to mineral oils, but not to vegetable oils and water soluble cooling and cutting oils.

Tension cord
The tension cord is a continuous, spirally wound glass fibre. This material has a high tensile strength and is extremely flexible. The low-stretch properties of the tension cord ensure that the pitch of the belt corresponds to the pitch of the pulley – even when under strain.

Teeth
The teeth are made of a shear and wear resistant rubber compound vulcanised to form a unit with the belt back. The shape and arrangement of the teeth are such that the pulley engages the belt teeth precisely and with minimum friction. As long as six teeth or more are in mesh on the small pulley, the complete capacity of the timing belt can be used without any deduction.

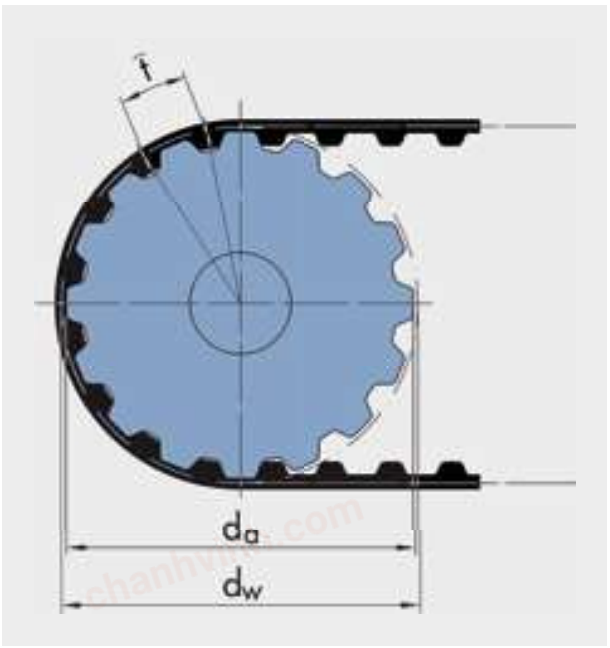
Fabric
In order to obtain a low level of wear on the running surfaces as well as achieving a high level of tooth shear strength, a tough, wear resistant fabric is applied to the outer tooth surface.

Tooth pitch, designations
optibelt ZR timing belts are manufactured according to ISO 5296, timing belt pulleys according to ISO 5294. Both come in six standard profiles.
Due to the American origin of the timing belt profile, the length unit is "in" for inch. The width/length codes have thus been derived from the imperial (inch) measurements of widths and lengths.

Table 1: Belt profiles and tooth pitch

Profile	Tooth pitch t	
	[mm]	[inches]
MXL	2.032	0.080 or $^{2}/_{25}$
XL	5.080	0.200 or $^{1}/_{5}$
L	9.525	0.375 or $^{3}/_{8}$
H	12.700	0.500 or $^{1}/_{2}$
XH	22.225	0.875 or $^{7}/_{8}$
XXH	31.750	1.250 or $1^{1}/_{4}$

Tooth pitch is the distance from the centre of one tooth to the centre of the next measured at the pitch line, which corresponds with the level of the tension cord. The pitch or datum diameter of the pulley is a theoretical dimension which lies outside the outer diameter.



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PRODUCT DESCRIPTION

optibelt ZR TIMING BELTS

ISO 5296

STANDARD PRODUCT RANGE



Profile	MXL	XL	L	H	XH	XXH
h_s [mm]	1.2	2.3	3.6	4.3	11.2	15.7
t [mm]	2.032	5.08	9.525	12.7	22.225	31.75

Profile XL						Profile L					
Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth
156 XL	396.24	78	286 XL•	726.44	143	109 L	276.23	29	439 L	1114.43	117
160 XL▲	406.40	80	290 XL	736.60	145	124 L	314.33	33	450 L▲	1143.00	120
162 XL•	411.48	81	296 XL•	751.84	148	150 L	381.00	40	454 L	1152.53	121
166 XL	421.64	83	300 XL▲	762.00	150	165 L	419.10	44	480 L▲	1219.20	128
168 XL•	426.72	84	306 XL•	777.24	153	169 L	428.63	45	510 L▲	1295.40	136
170 XL▲	431.80	85	310 XL▲	787.40	155	173 L	438.15	46	525 L	1333.50	140
174 XL•	441.96	87	316 XL	802.64	158	187 L▲	476.25	50	540 L▲	1371.60	144
176 XL	447.04	88	320 XL	812.80	160	202 L	514.35	54	600 L▲	1524.00	160
178 XL•	452.12	89	322 XL	817.88	161	210 L▲	533.40	56	630 L	1600.20	168
180 XL▲	457.20	90	330 XL	838.20	165	225 L▲	571.50	60	660 L	1676.40	176
182 XL	462.28	91	340 XL•	863.60	170	232 L	590.55	62	817 L	2075.18	218
184 XL•	467.36	92	344 XL•	873.76	172	236 L	600.08	63			
188 XL•	477.52	94	350 XL•	889.00	175	240 L▲	609.60	64			
190 XL▲	482.60	95	360 XL	914.40	180	255 L▲	647.70	68			
192 XL•	487.68	96	380 XL	965.20	190	259 L•	657.23	69			
194 XL	492.76	97	382 XL•	970.28	191	263 L•	666.75	70			
196 XL	497.84	98	388 XL•	985.52	194	270 L▲	685.80	72			
200 XL▲	508.00	100	390 XL	990.60	195	285 L▲	723.90	76			
210 XL▲	533.40	105	392 XL•	995.68	196	300 L▲	762.00	80			
220 XL▲	558.80	110	412 XL	1046.48	206	322 L▲	819.15	86			
230 XL▲	584.20	115	414 XL	1051.56	207	345 L▲	876.30	92			
240 XL▲	609.60	120	432 XL	1097.28	216	360 L	914.40	96			
244 XL•	619.76	122	434 XL	1102.36	217	367 L▲	933.45	98			
248 XL•	629.92	124	438 XL•	1112.52	219	375 L	952.50	100			
250 XL▲	635.00	125	460 XL	1168.40	230	390 L▲	990.60	104			
260 XL▲	660.40	130	498 XL•	1264.92	249	405 L	1028.70	108			
270 XL	685.80	135	506 XL•	1285.24	253	420 L▲	1066.80	112			
272 XL•	690.88	136	514 XL	1305.56	257	424 L•	1076.33	113			
274 XL•	695.96	137	580 XL•	1473.20	290	427 L•	1085.85	114			
280 XL▲	711.20	140	630 XL•	1600.20	315	435 L	1104.90	116			

The sizes marked ▲ are also available as double-sided timing belts.
Profiles and dimensions see page 34.

Standard width	Width code
6.4 mm	025
7.9 mm	031
9.5 mm	037
12.7 mm	050
19.1 mm	075
25.4 mm	100

Standard width	Width code
12.7 mm	050
19.1 mm	075
25.4 mm	100
38.1 mm	150
50.8 mm	200
76.2 mm	300

• Not available ex stock Further sizes on request

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PRODUCT DESCRIPTION

optibelt ZR DOUBLE-SIDED TIMING BELTS

ISO 5296

STANDARD PRODUCT RANGE



Profile s	DXL	DL	DH
W [mm]	0.508 ± 0.127	0.762 ± 0.127	1.372 ± 0.127
T [mm]	3.048 ± 0.178	4.572 ± 0.254	5.944 ± 0.127

Profile H						Profile XH			Profile XXH		
Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth
230 H	584.20	46	570 H▲	1447.80	114	507 XH	1289.05	58	700 XXH	1778.00	56
240 H▲	609.60	48	580 H	1473.20	116	560 XH	1422.40	64	800 XXH	2032.00	64
255 H	647.70	51	600 H▲	1524.00	120	630 XH	1600.20	72	900 XXH	2286.00	72
270 H▲	685.80	54	630 H▲	1600.20	126	700 XH	1778.00	80	1000 XXH	2540.00	80
280 H	711.20	56	650 H	1651.00	130	770 XH	1955.80	88	1200 XXH	3048.00	96
300 H▲	762.00	60	660 H▲	1676.40	132	840 XH	2133.60	96	1400 XXH	3556.00	112
310 H	787.40	62	670 H	1701.80	134	980 XH	2489.20	112	1600 XXH	4064.00	128
315 H	800.10	63	680 H	1727.20	136	1120 XH	2844.80	128	1800 XXH	4572.00	144
320 H	812.80	64	700 H▲	1778.00	140	1260 XH	3200.40	144			
330 H▲	838.20	66	720 H	1828.80	144	1400 XH	3556.00	160			
335 H	850.90	67	730 H	1854.20	146	1540 XH	3911.60	176			
340 H	863.60	68	750 H▲	1905.00	150	1750 XH	4445.00	200			
350 H	889.00	70	770 H	1955.80	154						
360 H▲	914.40	72	800 H▲	2032.00	160						
370 H	939.80	74	810 H	2057.40	162						
375 H	952.50	75	820 H	2082.80	164						
390 H▲	990.60	78	850 H▲	2159.00	170						
400 H	1016.00	80	860 H	2184.40	172						
410 H	1041.40	82	900 H▲	2286.00	180						
420 H▲	1066.80	84	950 H	2413.00	190						
430 H	1092.20	86	1000 H▲	2540.00	200						
450 H▲	1143.00	90	1100 H▲	2794.00	220						
465 H	1181.10	93	1120 H	2844.80	224						
480 H▲	1219.20	96	1140 H	2895.60	228						
490 H	1244.60	98	1150 H	2921.00	230						
510 H▲	1295.40	102	1250 H▲	3175.00	250						
520 H	1320.80	104	1400 H▲	3556.00	280						
530 H	1346.20	106	1700 H▲	4318.00	340						
540 H▲	1371.60	108									
560 H	1422.40	112									

The sizes marked ▲ are also available as double-sided timing belts.

Standard width	Width code
19.1 mm	075
25.4 mm	100
38.1 mm	150
50.8 mm	200
76.2 mm	300

Standard width	Width code
50.8 mm	200
76.2 mm	300
101.6 mm	400
127.0 mm	500

Standard width	Width code
50.8 mm	200
76.2 mm	300
101.6 mm	400
127.0 mm	500

Further sizes on request.

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