

PRODUCT DESCRIPTION

TIMING BELTS IN optibelt OMEGA PROFILE

STANDARD PROPERTIES



All optibelt OMEGA timing belts have inherent resistance to oil, heat, cold, ozone and tropical conditions. Special labelling is not required.

Oil resistance

The limited oil resistance prevents the damaging effects of mineral oils and greases, as long as these substances are not in permanent contact with the timing belt and/or are not present in large quantities. With increased demands for resistance, e.g. to mineral oils, the performance of the optibelt OMEGA timing belts can be improved by using special belt constructions. Please contact the optibelt Application Engineering Department.

Temperature resistance

The timing belt can withstand ambient temperatures from $\approx -30\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$. Temperatures outside this range lead to premature ageing and embrittlement of the timing belts and thus to their premature failure. The temperature resistance of optibelt OMEGA timing belts can be extended using special belt constructions, e.g. up to $+140\text{ }^{\circ}\text{C}$. Please contact the OPTIBELT Application Engineering Department.

Antistatic properties

Antistatic properties enable the safe discharge of electrostatic charges. This charging can have such a strong impact on timing belts with insufficient electrical conductivity that there is the danger of ignition due to sparks. The use of antistatic timing belts requires that the properties be checked in accordance with ISO 9563, and is confirmed by the issue of an inspection certificate. OMEGA HP and OMEGA HL timing belts in profiles 8M and 14M as well as OMEGA FAN POWER are antistatic according to ISO 9563 by standard and are thus labelled accordingly.

Noise emission

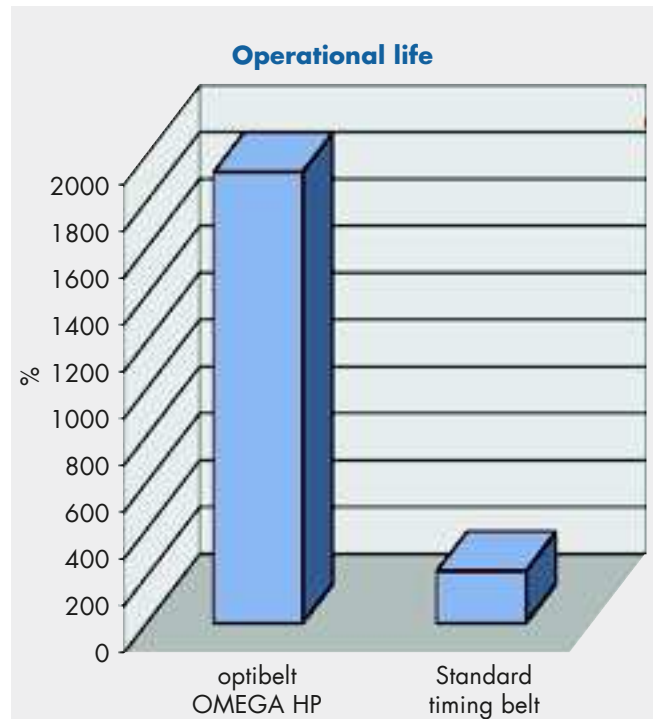
The optimized tooth shape and the indent in the tooth tip of the optibelt OMEGA promote a significantly lower noise level. In combination with the newly developed materials, the noise level is further reduced, even at high speeds and with high belt tensions.

Operational life

Belt designs with increased capacity can exceed the potential operational life of standard designs many times over, particularly for highly loaded or overloaded drives. Example: Dynamic tests with optibelt OMEGA HP show that the running times, compared to standard timing belts, are up to 18 times higher.

Efficiency

The specially developed tooth fabric and the flexible belt design make possible a virtually frictionless drive with an efficiency of up to 98%.



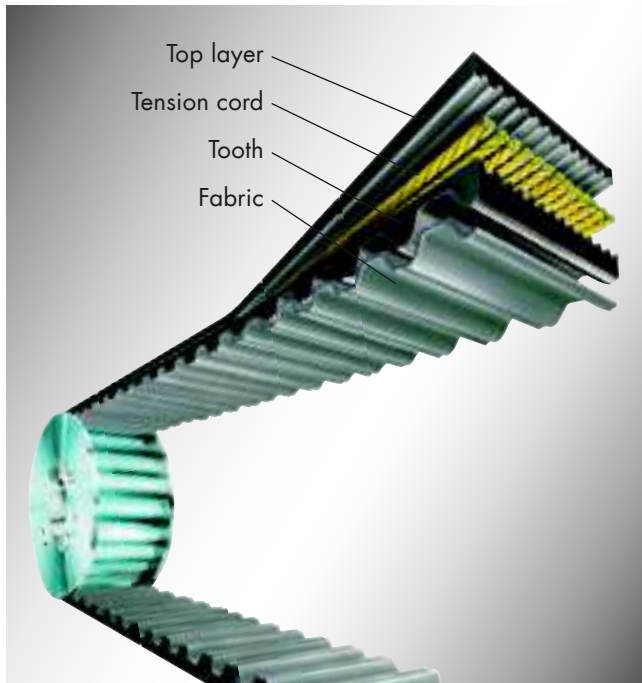
Application example: roller path

PRODUCT DESCRIPTION

optibelt OMEGA TIMING BELTS



Structure



Top layer

The belt top layer consists of a flexible polychloroprene compound which protects the tension cord from external influences. In addition, it offers limited resistance to mineral oils and humidity as well as protection from frictional wear and tear.

Tension cord

The tension member is composed of a pair of counter twisted glass fibre cords. These tension cords have high tensile strength, very high flexibility and very low stretch.

Teeth

Just like the belt top layer, the teeth consist of a polychloroprene compound guaranteeing high shear strength. The dimples in the teeth promote quiet running.

Fabric

The polyamide fabric protects the teeth from premature wear and tooth root cracking. At the same time, the low coefficient of friction lowers the operating temperature and helps to reduce the running noise.

High performance optibelt OMEGA timing belts are the result of a continuing development process. Operational experience with optibelt ZR and optibelt HTD® has been applied to this belt generation. Endless optibelt OMEGA timing belts set the standard for synchronous performance and for positioning drives.

The geometry of the optibelt OMEGA tooth profile has been developed to run in the established, curvilinear timing belt pulleys. optibelt OMEGA timing belts can be used in 3M, 5M, 8M and 14M HTD® pulley profiles. optibelt ZRS HTD® timing belt pulleys are standard items in our range with pilot bores or bored for optibelt TB taper bushes. In addition, all OMEGA timing belts can also be used in RPP® timing belt pulleys. Special timing belt pulleys for optibelt OMEGA timing belts are not required.



Application example: lawn mowers

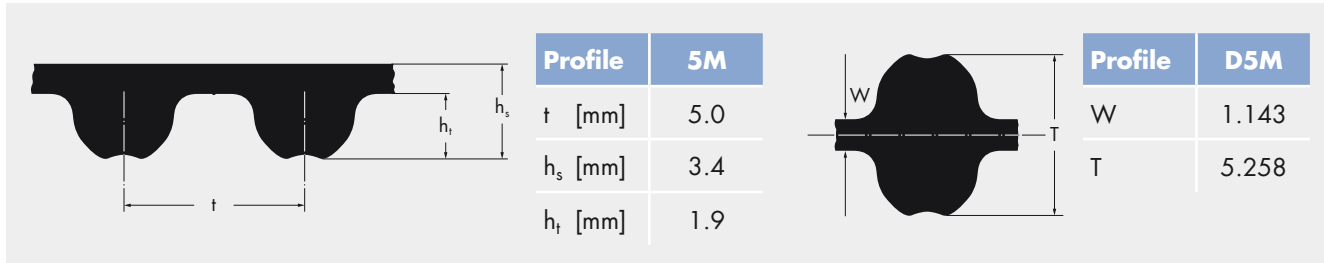
Overview of the advantages and characteristics

- synchronous speed
- highest precision
- perceptibly lower noise level due to the OMEGA tooth profile
- use in standard HTD® and RPP® timing belt pulleys
- maintenance-free
- temperature resistant from -30 °C to +100 °C
- efficiency of up to 98 %

PRODUCT DESCRIPTION

optibelt **OMEGA** TIMING BELTS

STANDARD PRODUCT RANGE



optibelt OMEGA 5M					
Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth
120 5M (HTD)	120.00	24	560 5M	560.00	112
180 5M	180.00	36	565 5M▲	565.00	113
225 5M	225.00	45	575 5M	575.00	115
255 5M	255.00	51	580 5M	580.00	116
265 5M	265.00	53	600 5M▲	600.00	120
270 5M	270.00	54	610 5M	610.00	122
275 5M	275.00	55	615 5M▲	615.00	123
280 5M	280.00	56	620 5M	620.00	124
295 5M	295.00	59	625 5M	625.00	125
300 5M	300.00	60	630 5M▲	630.00	126
305 5M	305.00	61	635 5M▲	635.00	127
325 5M	325.00	65	640 5M	640.00	128
330 5M	330.00	66	645 5M	645.00	129
340 5M	340.00	68	650 5M	650.00	130
345 5M (HTD)	345.00	69	655 5M	655.00	131
350 5M	350.00	70	665 5M▲	665.00	133
360 5M	360.00	72	670 5M	670.00	134
365 5M	365.00	73	700 5M▲	700.00	140
370 5M	370.00	74	710 5M▲	710.00	142
375 5M	375.00	75	720 5M	720.00	144
385 5M	385.00	77	740 5M▲	740.00	148
400 5M	400.00	80	745 5M•	745.00	149
415 5M	415.00	83	750 5M	750.00	150
420 5M	420.00	84	755 5M▲	755.00	151
425 5M	425.00	85	775 5M	775.00	155
450 5M	450.00	90	790 5M	790.00	158
460 5M	460.00	92	800 5M▲	800.00	160
475 5M	475.00	95	810 5M•	810.00	162
490 5M	490.00	98	825 5M	825.00	165
500 5M	500.00	100	830 5M	830.00	166
520 5M	520.00	104	835 5M▲	835.00	167
525 5M	525.00	105	845 5M•	845.00	169
535 5M	535.00	107	850 5M	850.00	170
540 5M	540.00	108	860 5M	860.00	172
550 5M	550.00	110	870 5M•	870.00	174

Standard width: 9 mm, 15 mm, 25 mm
 • Not available ex stock
 ▲ Double-sided available in HTD®

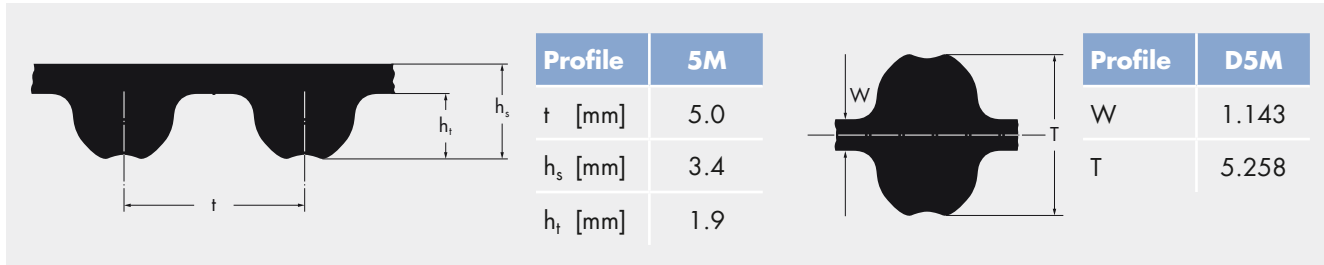
Order example: 1200 = 1200 mm pitch length
 5M = profile
 15 = 15 mm belt width

TIMING BELTS: optibelt OMEGA 1200 5M 15

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STANDARD PRODUCT RANGE



optibelt OMEGA 5M					
Belt designation	Pitch length [mm]	Number of teeth	Belt designation	Pitch length [mm]	Number of teeth
890 5M▲	890.00	178	2250 5M	2250.00	450
900 5M▲	900.00	180	2350 5M	2350.00	470
920 5M●	920.00	184	2525 5M	2525.00	505
925 5M	925.00	185			
935 5M	935.00	187			
940 5M	940.00	188			
950 5M	950.00	190			
960 5M●	960.00	192			
965 5M	965.00	193			
975 5M	975.00	195			
980 5M	980.00	196			
985 5M●	985.00	197			
1000 5M▲	1000.00	200			
1025 5M	1025.00	205			
1035 5M	1035.00	207			
1050 5M▲	1050.00	210			
1100 5M	1100.00	220			
1125 5M▲	1125.00	225			
1135 5M	1135.00	227			
1200 5M▲	1200.00	240			
1270 5M	1270.00	254			
1350 5M●	1350.00	270			
1380 5M	1380.00	276			
1400 5M	1400.00	280			
1420 5M	1420.00	284			
1425 5M	1425.00	285			
1500 5M	1500.00	300			
1595 5M	1595.00	319			
1690 5M	1690.00	338			
1790 5M	1790.00	358			
1800 5M	1800.00	360			
1870 5M	1870.00	374			
1895 5M	1895.00	379			
2000 5M	2000.00	400			
2110 5M	2110.00	422			

Standard width: 9 mm, 15 mm, 25 mm
 • Not available ex stock
 ▲ Double-sided available in HTD®

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 5M = profile
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TIMING BELTS: optibelt OMEGA 1200 5M 15