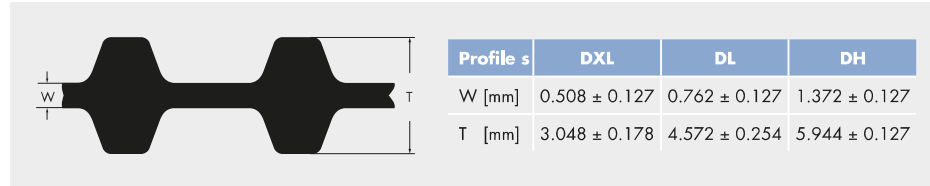


**PRODUCT DESCRIPTION**  
**optibelt ZR DOUBLE-SIDED TIMING BELTS**  
**ISO 5296**  
**STANDARD PRODUCT RANGE**



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	Standard width	Width code	Standard width	Width code
19.1 mm	075	50.8 mm	200	50.8 mm	200
25.4 mm	100	76.2 mm	300	76.2 mm	300
38.1 mm	150	101.6 mm	400	101.6 mm	400
50.8 mm	200	127.0 mm	500	127.0 mm	500
76.2 mm	300				

Further sizes on request.

**DRIVE DESIGN**  
**TIMING BELTS IN optibelt OMEGA PROFILE**  
**EXPLANATION OF SYMBOLS**



- $\alpha$  = Drive centre [mm]
- $\alpha_{nom}$  = Drive centre distance with standard belt length [mm]
- $c_0$  = Basic load factor
- $c_1$  = Teeth in mesh factor
- $c_2$  = Overall load factor
- $c_3$  = Speed ratio correction factor
- $c_6$  = Fatigue correction factor
- $c_7$  = Belt length correction factor
- $d_a$  = Outside diameter of pulley [mm]
- $d_w$  = Pitch diameter of pulley [mm]
- $d_{wg}$  = Pitch diameter of large pulley [mm]
- $d_{wk}$  = Pitch diameter of small pulley [mm]
- $d_{w1}$  = Pitch diameter of driving pulley [mm]
- $d_{w2}$  = Pitch diameter of driven pulley [mm]
- $E_o$  = Belt deflection for given span length [mm]
- $F$  = Force to create deflection [N]
- $f$  = Frequency [Hz]
- $i$  = Speed ratio
- $L$  = Drive span length [mm]
- $L_{wSt}$  = Standard pitch length of timing belt [mm]
- $L_{wth}$  = Calculated pitch length of timing belt [mm]
- $n_1$  = Speed of driving pulley [ $min^{-1}$ ]
- $n_2$  = Speed of driven pulley [ $min^{-1}$ ]
- $P$  = Power to be transmitted by timing belt drive [kW]
- $P_B$  = Design power [kW]
- $P_N$  = Rated power [kW]
- $P_{\dot{U}}$  = Transmissible power for standard belt width [ $P_N \cdot c_1 \cdot c_7$ ] [kW]
- $S_a$  = Minimum static shaft force when stationary [N]
- $S_{n\ zul}$  = Maximum allowed circumferential force [N]
- $S_{n3}$  = Circumferential force to be effectively transmitted [N]
- $S_n$  = Effective circumferential force to be transmitted incl. actual centrifugal force [N]
- $t$  = Tooth pitch [mm]
- $v$  = Belt speed [m/s]
- $x$  = Minimum adjustment of drive centre distance  $\alpha_{nom}$  for tensioning timing belt [mm]
- $y$  = Minimum adjustment of drive centre distance  $\alpha_{nom}$  for installation [mm]
- $z_e$  = Number of teeth in mesh of small pulley
- $z_g$  = Number of teeth on large pulley
- $z_k$  = Number of teeth on small pulley
- $z_r$  = Number of teeth on timing belt
- $z_1$  = Number of teeth on driving pulley
- $z_2$  = Number of teeth on driven pulley

