

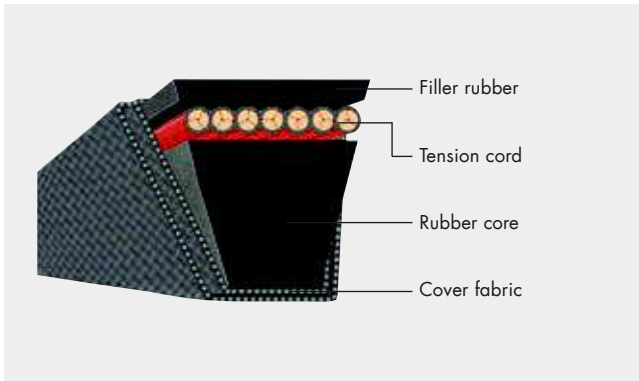
PRODUCT DESCRIPTION

optibelt SK HIGH PERFORMANCE WEDGE BELTS

DIN 7753 PART 1 / ISO 4184

Structure

optibelt SK wedge belts consist of:



The polyester tension cord is standard for all profiles and cross sections, with cord constructions matching the requirements of each profile. The cord is specially impregnated and then embedded in a special rubber compound homogeneously bonding with the base and the core.

Due to special processing, the optibelt SK wedge belt is extremely low-stretch. Thus we were able to reduce our recommendation values for minimum axial distance significantly – even dropping below the DIN/ISO requirements. The fabric cover is treated with a wear-resistant rubber compound. This makes the belt resistant to oil, hot and cold temperatures and to the effects of dust.

Properties

The use of the best materials and the most advanced production methods result in this high performance drive element, the optibelt SK wedge belt. The production processes are continuously monitored using state-of-the-art static and dynamic testing devices.

optibelt SK high power wedge belts exceed classic V-belts according to DIN 2215 thanks to the following characteristics:

- Substantially lower width compared to classic V-belt drives that have the same power rating (height to width ratio of approximately 1:1.2). Due to the available space gained by this, the costs for a complete drive with optibelt SK high performance wedge belts are lower than a design with DIN 2215 V-belts.
- Bigger friction surface lowers the centrifugal force and permits belt speeds of up to 42 m/sec.
- Much more elastic, therefore bigger flex rate allowed.
- Little deformation of the belt cross-section when running in grooves, therefore balanced pressure on the belt edges.

These characteristics allow for a significantly better performance than V-belts DIN 2212 with approximately the same top widths. Therefore, we recommend equipping all new drives with optibelt SK wedge belts.

Applications

optibelt SK wedge belts in the profiles SPZ, SPA, SPB and SPC were specially developed for all industrial applications from lightly loaded drives, such as those for pumps, up to heavily loaded mills and even stone crusher drives.

Standardisation/Dimensions

optibelt SK wedge belts SPZ, SPA, SPB and SPC comply with the standards of DIN 7753 and ISO 4184.

The ISO standards specify the datum width as a basis for the standardisation of V-belts and grooves.

The staggering of the datum lengths is implemented according to DIN 7753 Part 1 corresponding to the standard number sequence R 40. In exceptional cases also corresponding to standard number sequence R 20.

For many years, our product range has comprised serial production datum lengths of standard number sequence R 40 and beyond.

Note: Electrically conductive according to ISO 1813.

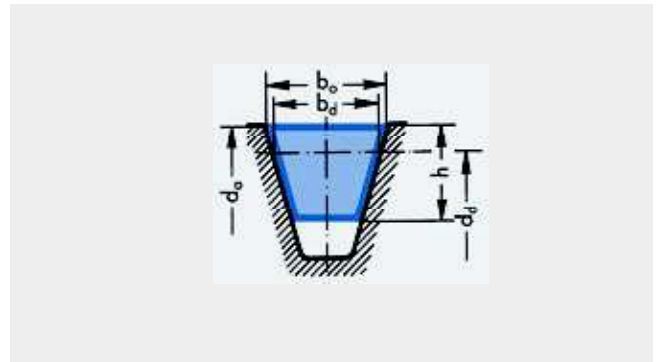


Table 5

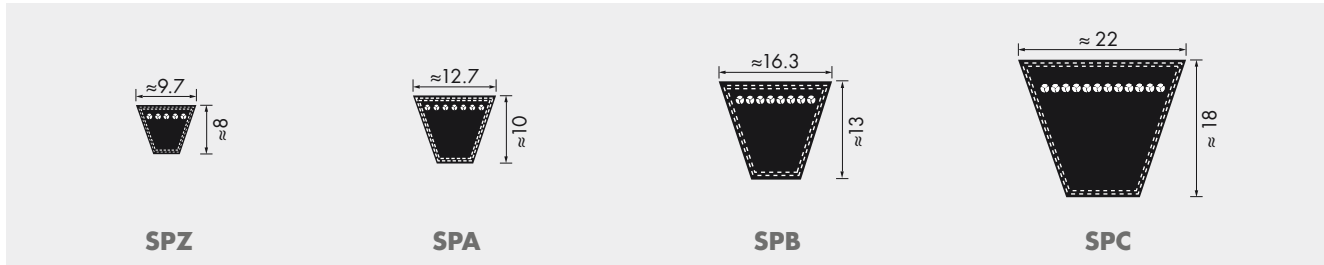
Profile		SPZ	SPA	SPB	SPC
Belt top width	$b_o \approx$	9.7	12.7	16.3	22
Datum width	$b_d \approx$	8.5	11	14	19
Belt height	$h \approx$	8	10	13	18
Recommended minimum datum pulley diameter	d_{dmin}	63	90	140	224
Weight per meter (kg/m)	\approx	0.074	0.123	0.195	0.377
Flex rate (s ⁻¹)	$f_{Bmax} \approx$		100		
Belt speed (m/s)	$v_{max} \approx$		42*		

* $v > 42$ m/s. Please consult our Application Engineering Department.

STANDARD RANGE

optibelt **SK** HIGH PERFORMANCE WEDGE BELTS

DIN 7753 PART 1 / ISO 4184



Profile SPZ			Profile SPA				Profile SPB		Profile SPC
Datum length ISO L_d [mm]			Datum length ISO L_d [mm]				Datum length ISO L_d [mm]		Datum length ISO L_d [mm]
487	1047	1662	732	1382	2120	3350	1250	3650	2000
512	1060	1687	757	1400	2132	3382	1320	3750	2120
562	1077	1700	782	1407	2182	3550	1400	3800•	2240
587	1087	1737	800	1432	2207	3750	1450	4000	2360
612	1112	1762	807	1457	2232	4000	1500	4050•	2500
630	1120	1787	832	1482	2240	4250	1600	4250	2650
637	1137	1800	850	1500	2282	4500	1700	4300•	2800
662	1162	1812	857	1507	2300		1750	4500	3000
670	1180	1837	882	1532	2307		1800	4560•	3150
687	1187	1850	900	1557	2332		1850	4750	3350
710	1202	1862	907	1582	2360		1900	4820•	3550
722	1212	1887	932	1600	2382		2000	5000	3750
737	1237	1900	950	1607	2432		2020•	5070•	4000
750	1250	1937	957	1632	2482		2060	5300	4250
762	1262	1987	982	1657	2500		2120	5600	4500
772	1287	2000	1000	1682	2532		2150•	6000	4750
787	1312	2037	1007	1700	2582		2180	6300	5000
800	1320	2120	1032	1707	2607		2240	6700	5300
812	1337	2137	1060	1732	2632		2280•	7100	5600
825	1347	2150•	1082	1757	2650		2360	7500	6000
837	1362	2187	1107	1782	2682		2391	8000	6300
850	1387	2240	1120	1800	2732		2400•		6700
862	1400	2287	1132	1807	2782		2500		7100
875	1412	2360	1157	1832	2800		2650		7500
887	1437	2500	1180	1857	2832		2680•		8000
900	1462	2540•	1207	1882	2847		2800		8500
912	1487	2650	1232	1900	2882		2840•		9000
925	1500	2690•	1250	1907	2932		2850		9500
937	1512	2800	1257	1932	2982		2900		10000
950	1537	2840•	1272	1957	3000		3000		10600
962	1562	3000	1282	1982	3032		3150		11200
987	1587	3150	1307	2000	3082		3250		12500
1000	1600	3350	1320	2032	3150		3350		
1012	1612	3550	1332	2057	3182		3450		
1024	1637		1357	2082	3282		3550		
1037	1650								
Maximum production length: 4500 mm L_d Minimum order quantity: Over 1800 mm = 20 pieces for non-standard length ranges 60 pieces for special constructions Weight: ≈ 0.074 kg/m			Maximum production length: 4500 mm L_d Minimum order quantity: Over 1800 mm = 31 pieces for non-standard length ranges 93 pieces for special constructions Weight: ≈ 0.123 kg/m				Maximum production length: 18000 mm L_d Minimum order quantity: Over 1800 mm = 25 pieces for non-standard length ranges 75 pieces for special constructions Weight: ≈ 0.195 kg/m		Maximum production length: 21000 mm L_d Minimum order quantity: Over 2000 mm = 16 pieces for non-standard length ranges 48 pieces for special constructions Weight: ≈ 0.377 kg/m
Datum length $L_d \triangleq$ Pitch length L_w/L_p			• Non stock items						

Lengths in **bold** type are in S=C plus (SetConstant).