

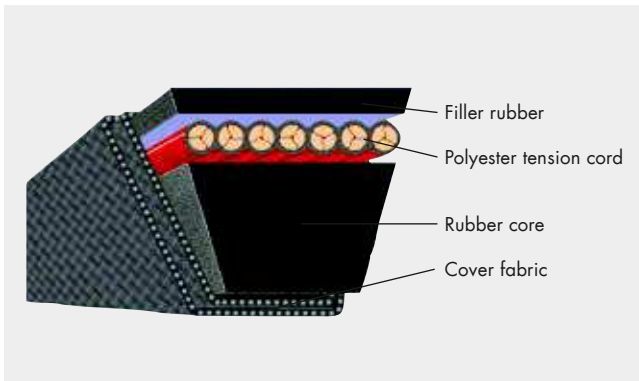
# PRODUCT DESCRIPTION

## optibelt **VB** CLASSIC V-BELTS

### DIN 2215 / ISO 4184

#### Structure/Properties

optibelt VB classic V-belts are manufactured using the same production processes as those for optibelt SK high performance wedge belts.



The components used are perfectly suited to the power ratings  $P_N$ . These values are far above those given by DIN 2218. Thus the operational safety in existing drives is increased and overloading is avoided.

- optibelt VB classic V-belts have a height-width ratio of 1:1.6.
- The maximum belt speed  $v_{max} = 30$  m/s should not be exceeded.
- The allowed flexibility rate is far below that of wedge belts. It is  $f_{B, max} = 80$  s<sup>-1</sup>.

#### Application areas

optibelt VB classic V-belts are mainly employed as replacement parts for industrial drives. For new drives, the use of high performance wedge belts is almost always recommended due to reasons of space and cost. However, special drives such as V-flat drives can often only be operated with classic V-belts. In special constructions, optibelt VB classic V-belts tackle difficult drives in the gardening sector and in agricultural machinery.

For these applications special belt constructions and calculation methods are required which are not included in this manual. In these cases we ask you to give us the according drive data.

#### Standardisation/Dimensions

optibelt VB classic V-belts in the profiles Y/6, Z/10, A/13, B/17, C/22, D/32 and E/40 are standardised according to DIN 2215 and ISO 4184.

Further, non-standardised ISO profiles 5, 8, 20 and 25 are available. These profiles should however not be used due to reasons of exchangeability and rationalisation.

**The ISO standard 4184 specifies the datum length for measuring the belt length. The former belt designation of the inside length  $L_i$  is replaced by the datum length  $L_d$ . For the conversion factors from pitch to inside length, please see page 161.**

**Note:** Electrically conductive according to ISO 1813.

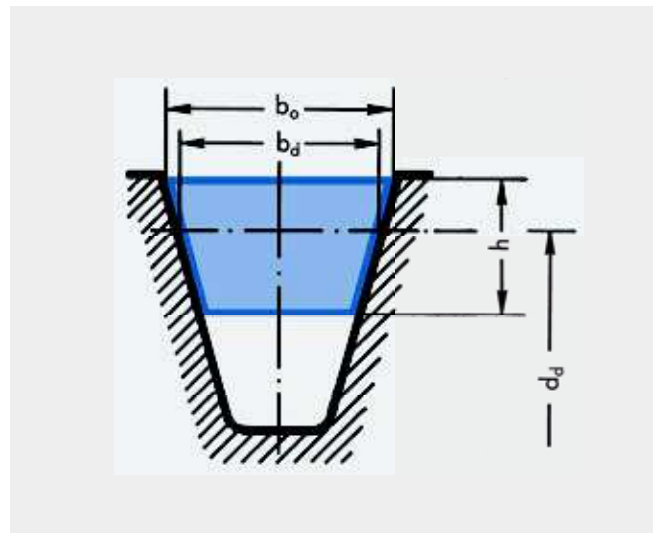


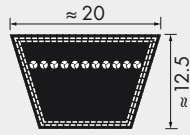
Table 7

Profile	DIN 2215	(5)	6	(8)	10	13	17	(20)	22	(25)	32	40
	ISO 4184	-	Y	-	Z	A	B	-	C	-	D	E
Belt top width	$b_o \approx$	5	6	8	10	13	17	20	22	25	32	40
Datum width	$b_d$	4.2	5.3	6.7	8.5	11	14	17	19	21	27	32
Belt height	$h \approx$	3	4	5	6	8	11	12.5	14	16	20	25
Recommended minimum pulley outside diameter	$d_{d, min}$	20	28	40	50	75	125	160	200	250	355	500
Belt weight (kg/m)	$\approx$	0.018	0.026	0.042	0.064	0.109	0.190	0.266	0.324	0.420	0.690	0.958
Flex rate (s <sup>-1</sup> )	$f_{B, max} \approx$						80					
Belt speed (m/s)	$v_{max} \approx$						30					

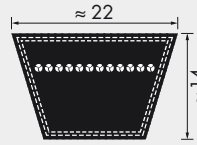
# STANDARD RANGE

## optibelt **VB** CLASSIC V-BELTS

### DIN 2215 / ISO 4184



20



C/22

Profile 20			Profile C/22							
Datum length ISO $L_d$ [mm]	Inside length $L_i$ [mm]	Belt no.	Datum length ISO $L_d$ [mm]	Inside length $L_i$ [mm]	Belt no.	Datum length ISO $L_d$ [mm]	Inside length $L_i$ [mm]	Belt no.	Datum length ISO $L_d$ [mm]	Inside length $L_i$ [mm]
950	900	C 43	1148	1090	C 84	2192	2134	C 134	3462	3404
1050	1000	C 47	1258	1200	C 85	2217	2159	C 136	3508	3450
1170	1120	C 48	1273	1215	C 86	2242	2184	C 138	3563	3505
1230	1180	C 49	1308	1250	C 87	2268	2210	C 140	3608	3550
1300	1250	C 51	1353	1295	C 88	2298	2240	C 142	3665	3607
1370	1320	C 52	1378	1320	C 89	2319	2261	C 144	3716	3658
1450	1400	C 53	1408	1350	C 90	2344	2286	C 146	3758	3700
1550	1500	C 54	1433	1375	C 92	2395	2337	C 148	3808	3750
1650	1600	C 55	1458	1400	C 93	2418	2360	C 150	3868	3810
1750	1700	C 56	1483	1425	C 94	2446	2388	C 158	4058	4000
1850	1800	C 57	1508	1450	C 95	2471	2413	C 162	4158	4100
1950	1900	C 58	1533	1475	C 96	2496	2438	C 166	4274	4216
2050	2000	C 59	1558	1500	C 96 <sup>1/2</sup>	2508	2450	C 167	4308	4250
2170	2120	C 60	1582	1524	C 97	2522	2464	C 168	4325	4267
2290	2240	C 61	1608	1550	C 98	2558	2500	C 170	4376	4318
2410	2360	C 62	1632	1574	C 99	2583	2525	C 173	4452	4394
2550	2500	C 63	1658	1600	C 100	2598	2540	C 175	4503	4445
2700	2650	C 65	1708	1650	C 101	2618	2560	C 177	4558	4500
2850	2800	C 66	1734	1676	C 102	2649	2591	C 180	4630	4572
3050	3000	C 67	1758	1700	C 104	2700	2642	C 187	4808	4750
3200	3150	C 68	1785	1727	C 105	2725	2667	C 190	4884	4826
3400	3350	C 69	1808	1750	C 106	2750	2692	C 195	5011	4953
3600	3550	C 70	1836	1778	C 108	2808	2750	C 197	5058	5000
3800	3750	C 71	1858	1800	C 110	2858	2800	C 208	5358	5300
4050	4000	C 72	1887	1829	C 112	2903	2845	C 210	5392	5334
4550	4500	C 73	1912	1854	C 114	2954	2896	C 220	5658	5600
5050	5000	C 74	1938	1880	C 115	2979	2921	C 225	5773	5715
6050	6000	C 75	1958	1900	C 116	3008	2950	C 236	6058	6000
		C 76	1988	1930	C 117	3023	2965	C 240	6154	6096
		C 77	2014	1956	C 118	3058	3000	C 248	6358	6300
		C 78	2039	1981	C 120	3106	3048	C 264	6758	6700
		C 79	2058	2000	C 122	3157	3099	C 270	6916	6858
		C 80	2090	2032	C 124	3208	3150	C 280	7158	7100
		C 81	2118	2060	C 126	3258	3200	C 295	7558	7500
		C 82	2141	2083	C 128	3308	3250	C 300	7678	7620
		C 83	2166	2108	C 130	3360	3302	C 315	8058	8000
		C 83 <sup>1/2</sup>	2178	2120	C 132	3408	3350			

Maximum production length:  
10000 mm  $L_i$   
Minimum order quantity:  
Over 1800 mm =  
18 pieces for non-standard  
length ranges  
54 pieces for special  
constructions  
Weight:  $\approx 0.266$  kg/m

Maximum standard production length: 21 000 mm  $L_i$   
Over 18000 to 21 000 mm on request  
Minimum order quantity:  
Over 1800 mm =  
16 pieces for non-standard length ranges  
48 pieces for special constructions  
Weight:  $\approx 0.324$  kg/m

Datum length  $L_d \triangleq$  Pitch length  $L_w/L_p$  Further sizes on request

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