PRODUCT DESCRIPTION

optibelt SUPER X-POWER M=S

RAW EDGE, MOULDED COGGED – DIN/ISO, RMA/MPTA

Advantages

SUPER X-POWER M=S wedge belts are perfectly suited for applications with

- extremely small pulley diameters
- high rotational speeds
- high and low ambient temperatures

SUPER X-POWER M=S wedge belts offer

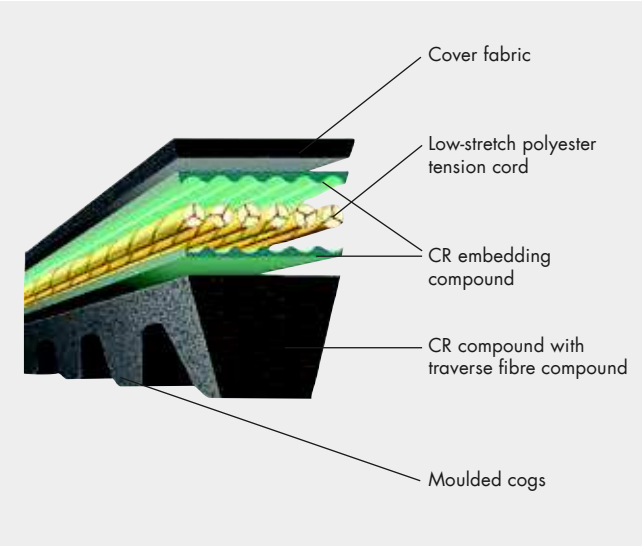
- high power transmission
- extremely low stretch
- improved maintenance intervals – low maintenance
- optimised running characteristics – smooth running
- excellent heat and oil resistance
- M=S, for set matching
- electrically conductive according to ISO 1813

Drive ratios i = 1:12 are possible with optibelt SUPER X-POWER.

Multi-stage drives can be eliminated.
optibelt SUPER X-POWER M=S wedge belts in profiles XPZ, XPA, XPB, XPC, 3VX/9NX and 5VX/15NX, offer the best technical and economic solutions due to their harmonised premium materials.

Structure/Properties

optibelt SUPER X-POWER M=S consist of:



1. The special polyester tension cord of SUPER X-POWER M=S is extremely low-stretch and allows for maintenance-free drives.
The number of re-tensioning processes is reduced and the drive becomes less expensive in the long term.
2. The structure of the cover fabric supports the tension cord and this is how the SUPER X-POWER M=S achieves its high level of flexibility.
3. The belt base structure consists of a high performance chloroprene compound, reinforced with a traverse fibre compound.

The special tension cord and the optimum tooth shape allow for higher dynamic power transmissions, improved bending stress and a higher temperature resistance.

optibelt SUPER X-POWER M=S

As high power transmission is possible, even with small pulley diameters and high engine speed, weight and space can be reduced thus also substantially reducing costs.

Application areas

Machines:

- compressors
- fans
- compactors
- pumps
- wood working machines
- high performance saws
- special machines

Machine tools:

- lathes and drilling machines
- grinding machines

optibelt SUPER X-POWER M=S V-belts are recommended for mechanical engineering applications wherever wrapped V-belts are likely to reach their performance limits.

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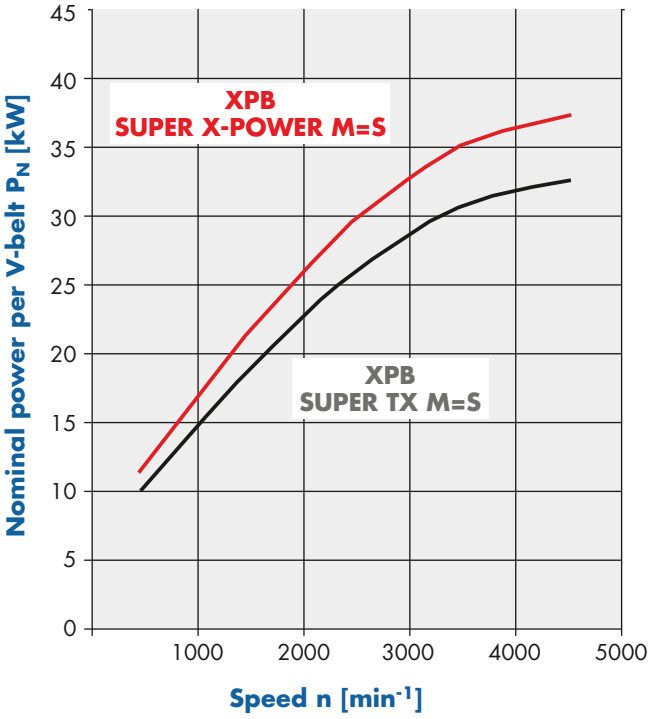


Belt tension / Static shaft load

Belt tension and static shaft load are calculated in the same way as for wrapped belts. When dealing with the same geometric ratios, the shaft load does not exceed that of wrapped belts although the quantity of the belts is often less. Therefore, only the individual V-belt requires higher tension than wrapped belts.
The precise edges of the optibelt SUPER X-POWER M=S V-belt ensure uniform seating in the pulley grooves, resulting in smoother running.

Drive calculation

Drive design using optibelt SUPER X-POWER M=S belts should be carried out according to the examples given on pages 85 to 87. The higher power ratings given in the relevant tables, apply. These are based on a theoretical laboratory running time of 25,000 hours.

Standardisation/Dimensions

The cross sections and dimensions of optibelt SUPER X-POWER M=S V-belts are in accordance with DIN 7753 Part 1, DIN 2215, ISO 4184 and RMA/MPTA.
The basis for the length measurement is the datum length (L_d) to DIN/ISO.

Table 8

Profile	Top belt width $b_o \approx$	Datum width b_d	Belt height $h \approx$	Meter weight [kg/m] ≈
XPZ	9.7	8.5	8	0.065
XPA	12.7	11.0	10	0.105
XPB	16.3	14.0	13	0.183
XPC	22.0	19.0	18	0.340
3VX/9NX	9.0	–	8	0.065
5VX/15NX	15.0	–	13	0.183

V-grooved pulleys

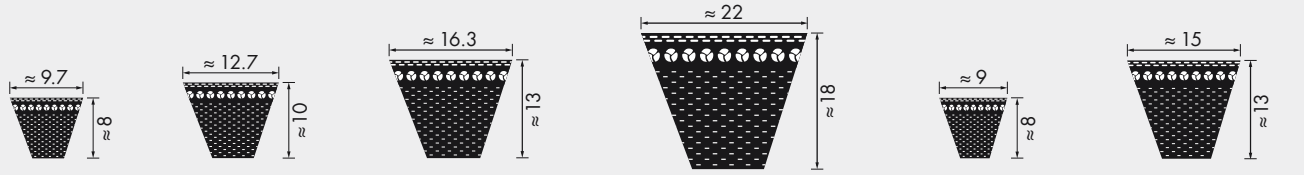
optibelt SUPER X-POWER M=S are used with pulleys according to DIN 2211, DIN 2217, ISO 4183 and RMA/MPTA. Considerably smaller minimum pulley datum diameters are allowed.

Table 9

Recommended minimum pulley diameter [mm] wedge belt			
Profile	Raw edge, moulded cogged	Profile	Wrapped
XPZ	56	SPZ	63
XPA	71	SPA	90
XPB	112	SPB	140
XPC	180	SPC	224
3VX/9NX	56	3V/9N	67
5VX/15NX	112	5V/15N	151

STANDARD RANGE

optibelt SUPER X-POWER M=S WEDGE BELTS – RAW EDGE, MOULDED COGGED DIN 7753 PART 1 / ISO 4184 AND RMA/MPTA



XPZ XPA XPB XPC 3VX/9NX 5VX/15NX

Profile XPZ	Profile XPA	Profile XPB	Profile XPC	Profile 3VX/9NX		Profile 5VX/15NX	
Datum length ISO L_d [mm]	Datum length ISO L_d [mm]	Datum length ISO L_d [mm]	Datum length ISO L_d [mm]	Belt designation Profile, length code	Belt designation Profile, outside length, L_a [mm]	Belt designation Profile, length code	Belt designation Profile, outside length, L_a [mm]
587	707	1250	2000	**3VX 250**	9NX 635	**5VX 500**	15NX 1270
612	732	1320	2120	**3VX 265**	9NX 673	**5VX 530**	15NX 1346
630	757	1400	2240	**3VX 280**	9NX 711	**5VX 560**	15NX 1422
637	782	1500	2360	**3VX 300**	9NX 762	**5VX 600**	15NX 1524
662	800	1600	2500	**3VX 315**	9NX 800	**5VX 630**	15NX 1600
670	807	1700	2650	**3VX 335**	9NX 851	**5VX 670**	15NX 1702
687	832	1750	2800	**3VX 355**	9NX 902	**5VX 710**	15NX 1803
710	850	1800	3000	**3VX 375**	9NX 952	**5VX 750**	15NX 1905
730	857	1850	3150	**3VX 400**	9NX 1016	**5VX 800**	15NX 2032
737	882	1900	3350	**3VX 425**	9NX 1079	**5VX 850**	15NX 2159
750	900	2000	3550	**3VX 450**	9NX 1143	**5VX 900**	15NX 2286
762	907	2020		**3VX 475**	9NX 1206	**5VX 950**	15NX 2413
772	932	2120		**3VX 500**	9NX 1270	**5VX 1000**	15NX 2540
787	950	2150		**3VX 530**	9NX 1346	**5VX 1060**	15NX 2692
800	957	2240		**3VX 560**	9NX 1422	**5VX 1120**	15NX 2845
812	982	2280		**3VX 600**	9NX 1524	**5VX 1180**	15NX 2997
825	1000	2360		**3VX 630**	9NX 1600	**5VX 1250**	15NX 3175
837	1007	2400		**3VX 670**	9NX 1702	**5VX 1320**	15NX 3353
850	1030	2500		**3VX 710**	9NX 1803	**5VX 1400**	15NX 3556
862	1060	2650		**3VX 750**	9NX 1905		
875	1082	2680		**3VX 800**	9NX 2032		
887	1107	2800		**3VX 850**	9NX 2159		
900	1120	2840		**3VX 900**	9NX 2286		
912	1132	3000		**3VX 950**	9NX 2413		
925	1157	3150		**3VX 1000**	9NX 2540		
937	1180	3350		**3VX 1060**	9NX 2692		
950	1207	3550		**3VX 1120**	9NX 2845		
962	1232			**3VX 1180**	9NX 2997		
987	1250			**3VX 1250**	9NX 3175		
1000	1257			**3VX 1320**	9NX 3353		
1012	1272			**3VX 1400**	9NX 3556		
1037	1282						
1060	1307						
1077	1320						
1087	1332						
	1357						
	1382						
	1400						
Weight: ≈ 0.065 kg/m	Weight: ≈ 0.096 kg/m	Weight: ≈ 0.183 kg/m	Weight: ≈ 0.340 kg/m	Weight: ≈ 0.065 kg/m		Weight: ≈ 0.183 kg/m	

Datum length L_d ≙ Pitch length L_w/L_p Further sizes on request

