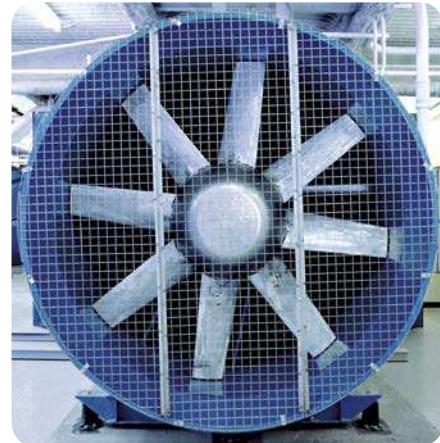


SKF Xtra Power Belts



V-belts designed for maximum performance





SKF Xtra Power Belts

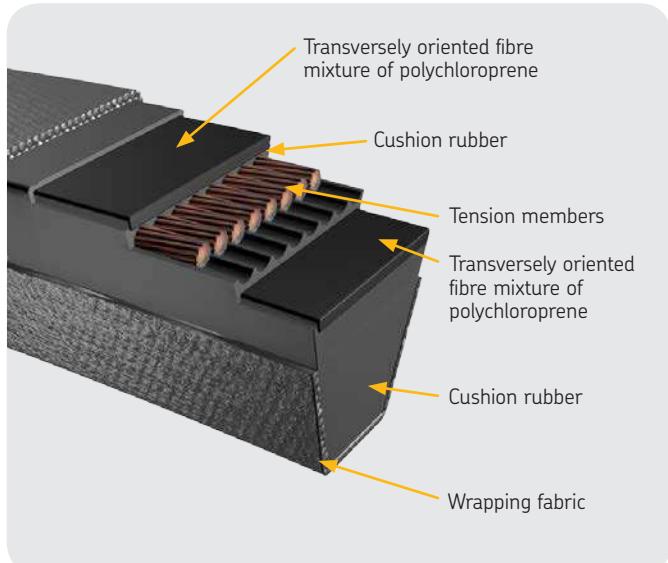
SKF Xtra Power Belts have been designed to deliver up to 40% more power than standard wrapped belts. In addition, these belts will extend the service life of your application, thus reducing costs. When replacing existing belts with SKF Xtra Power Belts, you can potentially increase your service life by up to 40%. Increased service life = less downtime = less maintenance = **less cost**.

Advantages

- Homogeneous, coordinated integration of the belt, flank and the pulley groove
- Reduced pulley groove wear due to optimized cover fabric
- Up to 97% drive efficiency
- Oil and heat resistant, antistatic cover
- One-shot tensioning, no need to retension the belts after the initial run-in period
- Improved smooth running behaviour and low vibration levels
- Good resistance to shock loads

Available profiles

SPZ, SPA, SPB, SPC ISO wedge standard 3V, 5V, 8V RMA standard narrow wedge.



Construction details

Tension members for SKF Xtra Power Belts are made of polyester, to accommodate heavy tension loads with minimal elongation. A fibre filled compound that encases the tension cords enables the belts to accommodate higher dynamic loads without compromising flexibility. The cover fabric provides excellent wear and abrasion resistance while providing excellent bending strength.

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SKF – the knowledge engineering company

From one simple but inspired solution to a misalignment problem in a textile mill in Sweden, and fifteen employees in 1907, SKF has grown to become a global industrial knowledge leader.

Over the years, we have built on our expertise in bearings, extending it to seals, mechatronics, services and lubrication systems. Our knowledge network includes 46 000 employees, 15 000 distributor partners, offices in more than 130 countries, and a growing number of SKF Solution Factory sites around the world.

Research and development

We have hands-on experience in over forty industries based on our employees' knowledge of real life conditions. In addition, our world-leading experts and university partners pioneer advanced theoretical research and development in areas including tribology, condition monitoring, asset management and bearing life theory. Our ongoing commitment to research and development helps us keep our customers at the forefront of their industries.



Meeting the toughest challenges

Our network of knowledge and experience, along with our understanding of how our core technologies can be combined, helps us create innovative solutions that meet the toughest of challenges. We work closely with our customers throughout the asset life cycle, helping them to profitably and responsibly grow their businesses.

Working for a sustainable future

Since 2005, SKF has worked to reduce the negative environmental impact from our operations and those of our suppliers. Our continuing technology development resulted in the introduction of the SKF BeyondZero portfolio of products and services which improve efficiency and reduce energy losses, as well as enable new technologies harnessing wind, solar and ocean power. This combined approach helps reduce the environmental impact both in our operations and our customers' operations.

SKF Solution Factory makes SKF knowledge and manufacturing expertise available locally to provide unique solutions and services to our customers.

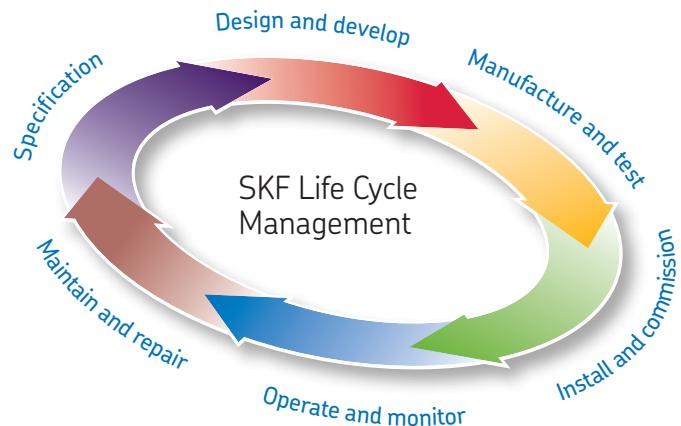


Working with SKF IT and logistics systems and application experts, SKF Authorized Distributors deliver a valuable mix of product and application knowledge to customers worldwide.



Our knowledge – your success

SKF Life Cycle Management is how we combine our technology platforms and advanced services, and apply them at each stage of the asset life cycle, to help our customers to be more successful, sustainable and profitable.



Working closely with you

Our objective is to help our customers improve productivity, minimize maintenance, achieve higher energy and resource efficiency, and optimize designs for long service life and reliability.



Bearings

SKF is the world leader in the design, development and manufacture of high performance rolling bearings, plain bearings, bearing units and housings.

Innovative solutions

Whether the application is linear or rotary or a combination, SKF engineers can work with you at each stage of the asset life cycle to improve machine performance by looking at the entire application. This approach doesn't just focus on individual components like bearings or seals. It looks at the whole application to see how each component interacts with each other.



Machinery maintenance

Condition monitoring technologies and maintenance services from SKF can help minimize unplanned downtime, improve operational efficiency and reduce maintenance costs.



Sealing solutions

SKF offers standard seals and custom engineered sealing solutions to increase uptime, improve machine reliability, reduce friction and power losses, and extend lubricant life.



Mechatronics

SKF fly-by-wire systems for aircraft and drive-by-wire systems for off-road, agricultural and forklift applications replace heavy, grease or oil consuming mechanical and hydraulic systems.



Lubrication solutions

From specialized lubricants to state-of-the-art lubrication systems and lubrication management services, lubrication solutions from SKF can help to reduce lubrication related downtime and lubricant consumption.



Actuation and motion control

With a wide assortment of products – from actuators and ball screws to profile rail guides – SKF can work with you to solve your most pressing linear system challenges.

Selection guide for SKF Xtra Power Belts

Selection procedure and formulae

Example:

Driver: Electrical motor 45 kW,
1 450 r/min, direct online start.

Driven: Fan, 550 r/min

Service: 8–10 h/day

Approximate center distance is 900 mm

1 Service factor (C_2)

Service factors describe the severity of drive conditions. Refer to **tables 2 and 3 on page 5**.

Example: Medium duty class,
heavy start

$$C_2 = 1,2$$

Note:

For speed increasing drives use correction factors in **table 1 on page 5**.

2 Design power (P_d)

Multiply drive power and service factor C_2 to get the design power.

$$P_d = P C_2$$

Where:

P_d = design power [kW]

P = motor rated power or power absorbed by the load [kW]

C_2 = service factor

Example:

$$P_d = 45 \times 1,2 = 54 \text{ kW}$$

3 Belt cross section

Refer to **diagrams 1 and 2 on page 6** for the appropriate belt cross section based on speed and design power.

Example:

Selected cross section SPB-XP

4 Required speed ratio (I_r)

Divide speed of faster shaft by speed of slower shaft to get the required pulley speed ratio.

$$I_r = \frac{\text{r/min (faster shaft)}}{\text{r/min (slower shaft)}}$$

Example:

$$I_r = \frac{1\,450}{550} = 2,6$$

5 Belt Length determination (L_d)

(a) To calculate belt length

Calculate theoretical belt length allowed by the pulley size selected and the allowable minimum and maximum center distances (CCp) offered by the application.

$$L_d = 2 \times CC_p + 1,57 \times (D + d) + \frac{(D - d)^2}{4 \times CC_p}$$

Where:

L_d = belt length (mm)

CC_p = preliminary center distance between pulleys (mm)

D = large pulley diameter (mm)

d = small pulley diameter (mm)

(b) To calculate actual centres

Calculate actual center distance based on selected belt length.

$$CC = \frac{a + \sqrt{a^2 - 8(D - d)^2}}{8}$$

Where:

$$a = 2(L_d) - 3,14(D - d)$$

L_d = selected belt length

D = large pulley diameter

d = small pulley diameter

Example:

Speed ratio = 2,63

Pulley D = 500 mm

Pulley d = 190 mm

CC distance = 945 mm

Belt length = 3 000 mm

6 Belt basic power rating (P_b)

Refer to power rating tables for selected belts on **pages 8 to 14** to get the power rating values. The total belt basic power rating consists of basic power rating + power rating based on speed ratio.

Example:

$$P_b = 13,50 + 1,21 = 14,7 \text{ kW}$$

7 Belt power rating (P_r)

Multiply belt basic power rating with C_1 and C_3 to get actual belt power rating. Refer to **tables 4 and 5 on page 7**.

$$P_r = P_b C_3 C_1$$

Example:

$$P_r = 14,7 \times 0,95 \times 0,98 = 13,68$$

8 Number of belts (N)

Divide drive power (design power) by power rating of selected belt to get the required number of belts.

$$N = \frac{P_d}{P_r}$$

Round up to first integer.

Example:

$$N = \frac{54}{13,68} = 3,95 \rightarrow 4$$

4 PHG SPB3000XP belts are needed.

The resulting power that the belts in the above example would give is 54,7 kW which will provide an actual service factor of 1,22.

Service factors

Table 1

Types of prime mover

For speed increasing drives of

- Speed ratio 1,00–1,24 multiply service factor by 1,00
- Speed ratio 1,25–1,74 multiply service factor by 1,05
- Speed ratio 1,75–2,49 multiply service factor by 1,11
- Speed ratio 2,50–3,49 multiply service factor by 1,18
- Speed ratio 3,50 and over multiply service factor by 1,25

Table 2

Speed increase ratio

Soft starts

Electric motors

Heavy starts

Electric motors

AC-Star delta start

AC-Direct-online start

DC-Shunt wound

DC-Series & compound wound

Internal combustion engines with 4 or more cylinders

Internal combustion engines with less than 4 cylinders

Prime movers fitted with centrifugal clutches, dry or fluid couplings or electronic soft start devices

Prime movers not fitted with soft start devices

Table 3

Types of driven machine

Soft starts

Duty time
h/day

10 and
under
Over 10
to 16
Over 16

Duty time
h/day

10 and
under
Over 10
to 16
Over 16

"Class 1 Light duty"	Blowers, exhausters and fans (up to 7,5 kW), centrifugal compressors and pumps. Belt conveyors (uniformly loaded).	1,0	1,1	1,2	1,1	1,2	1,3
"Class 2 Medium duty"	Agitators (uniform density), blowers, exhausters and fans (over 7,5 kW). Rotary compressors and pumps (other than centrifugal). Belt conveyors (not uniformly loaded), generators and excitors, laundry machinery, lineshafts, machine tools, printing machinery, sawmill and woodworking machinery, screens (rotary).	1,1	1,2	1,3	1,2	1,3	1,4
"Class 3 Heavy duty"	Agitators and mixers (variable density), brick machinery, bucket elevators, compressors and pumps (reciprocating), conveyors (heavy duty). Hoists, mills (hammer), pulverisers, punches, presses, shears, quarry plant, rubber machinery, screens (vibrating), textile machinery.	1,2	1,3	1,4	1,4	1,5	1,6
"Class 4 Extra heavy duty"	Crushers (gyratory-jaw roll), mills (ball-rod-tube).	1,3	1,4	1,5	1,5	1,6	1,8

Belt cross section

Diagram 1

SKF Xtra Power wrapped wedge belts

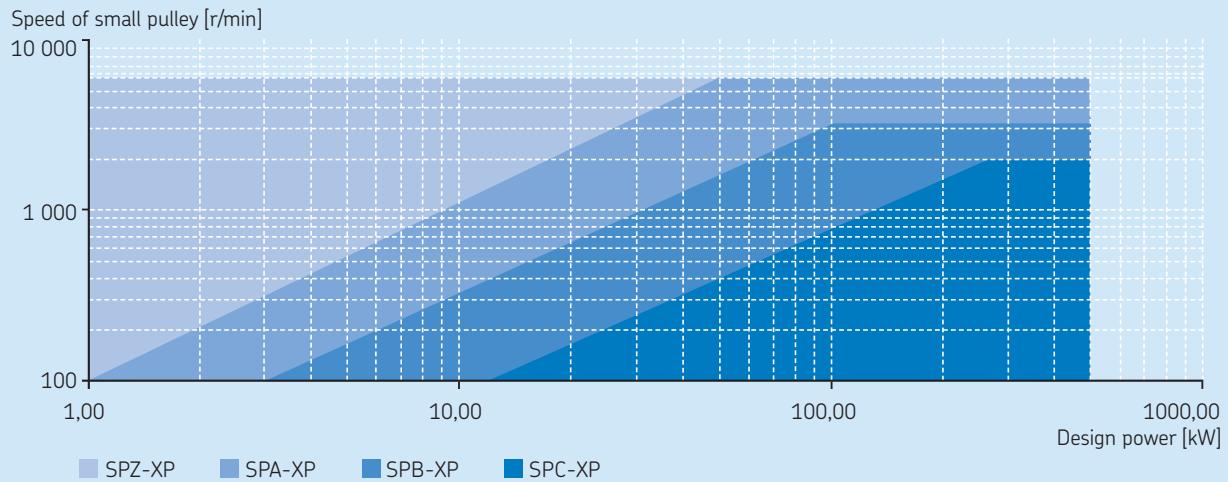
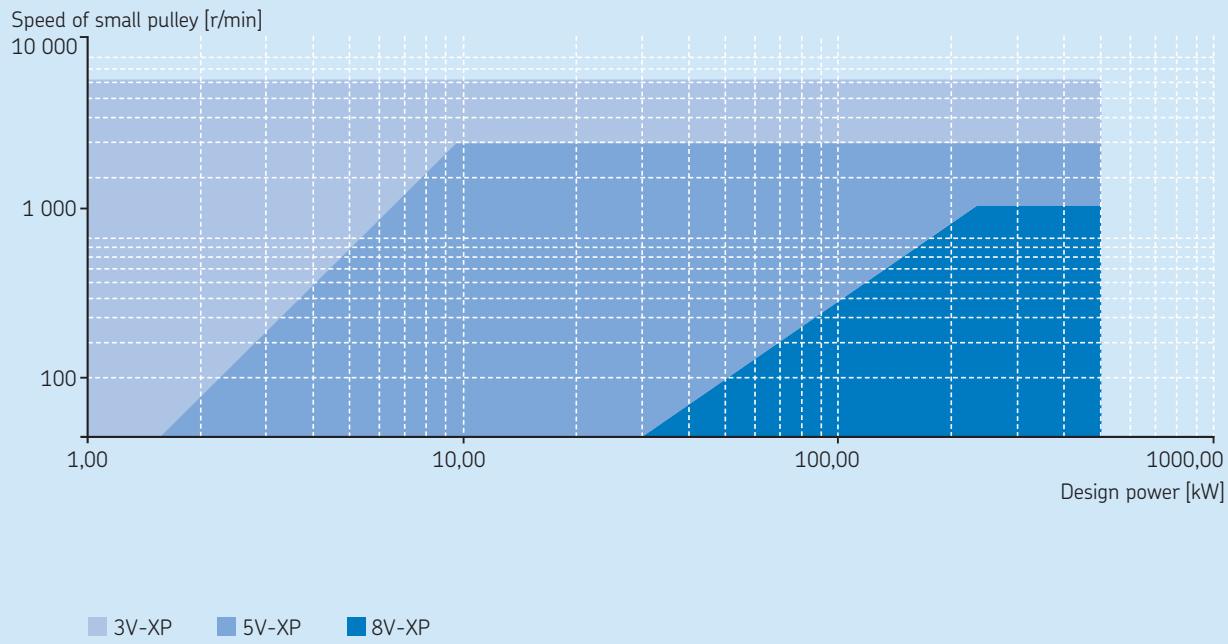


Diagram 2

SKF Xtra Power wrapped narrow wedge belts



Correction factors

Table 4

Arc of contact power correction factor C_3

$\frac{D-d}{CC} *$	Arc of contact on small pulley	Arc of contact correction factor C_3
mm	°	-
0,00	180	1,00
0,05	177	0,99
0,10	174	0,99
0,15	171	0,98
0,20	169	0,97
0,25	166	0,97
0,30	163	0,96
0,35	160	0,95
0,40	157	0,94
0,45	154	0,93
0,50	151	0,93
0,55	148	0,92
0,60	145	0,91
0,65	142	0,90
0,70	139	0,89
0,75	136	0,88
0,80	133	0,87
0,85	130	0,86
0,90	127	0,85
0,95	123	0,83
1,00	120	0,82
1,05	117	0,81
1,10	113	0,80
1,15	100	0,78
1,20	107	0,77
1,25	104	0,75
1,30	101	0,73
1,35	97	0,72
1,40	93	0,70

* D large pulley diameter
d small pulley diameter
CC center to center distance

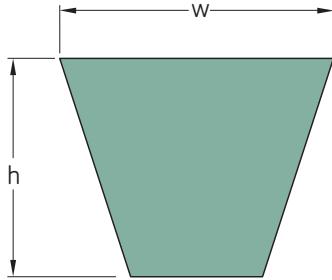
Table 5

Belt length correction factor C_1

Belt length	Correction factor (ISO, DIN)			SPC	8V
mm	SPZ 3V	SPA	SPB 5V		
400	0,50				
475	0,65				
530	0,74				
630	0,82	0,77			
710	0,84	0,79			
900	0,88	0,83	0,76		
1 000	0,90	0,85	0,78		
1 120	0,93	0,87	0,80		
1 250	0,95	0,89	0,82		
1 400	0,96	0,91	0,84	0,70	
1 600	1,00	0,93	0,86	0,74	
1 800	1,01	0,95	0,88	0,77	
2 000	1,02	0,96	0,90	0,80	0,78
2 240	1,05	0,98	0,92	0,83	0,80
2 500	1,07	1,00	0,94	0,86	0,80
2 800	1,09	1,02	0,96	0,88	0,82
3 150	1,11	1,04	0,98	0,90	0,84
3 550	1,13	1,06	1,00	0,92	0,86
4 000	1,13	1,08	1,02	0,94	0,89
4 500	1,13	1,09	1,04	0,96	0,91
5 000		1,09	1,06	0,98	0,94
5 600		1,09	1,08	1,00	0,96
6 300			1,10	1,02	0,99
7 100			1,12	1,04	1,02
8 000			1,14	1,06	1,04
9 000			1,14	1,08	1,07
10 000			1,14	1,10	1,09
11 200				1,12	1,12
12 500				1,14	1,15

SKF Xtra Power wrapped wedge belts

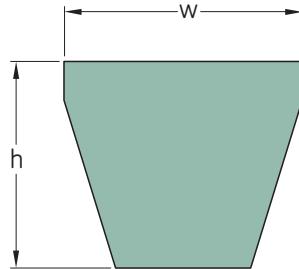
Section SPZ-XP | SPA-XP



Section	Dimensions Pitch length	w	h	Designation	Section	Dimensions Pitch length	w	h	Designation
-	mm	-	-	-	-	mm	-	-	-
SPZ	875	9,7	8	PHG SPZ875XP	SPA	1 207	12,7	10	PHG SPA1207XP
	1 202	9,7	8	PHG SPZ1202XP		1 232	12,7	10	PHG SPA1232XP
	1 212	9,7	8	PHG SPZ1212XP		1 250	12,7	10	PHG SPA1250XP
	1 237	9,7	8	PHG SPZ1237XP		1 257	12,7	10	PHG SPA1257XP
	1 250	9,7	8	PHG SPZ1250XP		1 282	12,7	10	PHG SPA1282XP
	1 262	9,7	8	PHG SPZ1262XP		1 307	12,7	10	PHG SPA1307XP
	1 287	9,7	8	PHG SPZ1287XP		1 320	12,7	10	PHG SPA1320XP
	1 312	9,7	8	PHG SPZ1312XP		1 332	12,7	10	PHG SPA1332XP
	1 320	9,7	8	PHG SPZ1320XP		1 357	12,7	10	PHG SPA1357XP
	1 337	9,7	8	PHG SPZ1337XP		1 382	12,7	10	PHG SPA1382XP
	1 362	9,7	8	PHG SPZ1362XP		1 400	12,7	10	PHG SPA1400XP
	1 387	9,7	8	PHG SPZ1387XP		1 407	12,7	10	PHG SPA1407XP
	1 400	9,7	8	PHG SPZ1400XP		1 432	12,7	10	PHG SPA1432XP
	1 412	9,7	8	PHG SPZ1412XP		1 457	12,7	10	PHG SPA1457XP
	1 437	9,7	8	PHG SPZ1437XP		1 482	12,7	10	PHG SPA1482XP
	1 462	9,7	8	PHG SPZ1462XP		1 500	12,7	10	PHG SPA1500XP
	1 487	9,7	8	PHG SPZ1487XP		1 507	12,7	10	PHG SPA1507XP
	1 500	9,7	8	PHG SPZ1500XP		1 532	12,7	10	PHG SPA1532XP
	1 512	9,7	8	PHG SPZ1512XP		1 557	12,7	10	PHG SPA1557XP
	1 537	9,7	8	PHG SPZ1537XP		1 582	12,7	10	PHG SPA1582XP
	1 562	9,7	8	PHG SPZ1562XP		1 600	12,7	10	PHG SPA1600XP
	1 587	9,7	8	PHG SPZ1587XP		1 607	12,7	10	PHG SPA1607XP
	1 600	9,7	8	PHG SPZ1600XP		1 632	12,7	10	PHG SPA1632XP
	1 612	9,7	8	PHG SPZ1612XP		1 657	12,7	10	PHG SPA1657XP
	1 637	9,7	8	PHG SPZ1637XP		1 682	12,7	10	PHG SPA1682XP
	1 650	9,7	8	PHG SPZ1650XP		1 700	12,7	10	PHG SPA1700XP
	1 662	9,7	8	PHG SPZ1662XP		1 707	12,7	10	PHG SPA1707XP
	1 687	9,7	8	PHG SPZ1687XP		1 732	12,7	10	PHG SPA1732XP
	1 700	9,7	8	PHG SPZ1700XP		1 757	12,7	10	PHG SPA1757XP
	1 737	9,7	8	PHG SPZ1737XP		1 782	12,7	10	PHG SPA1782XP
	1 762	9,7	8	PHG SPZ1762XP		1 800	12,7	10	PHG SPA1800XP
	1 787	9,7	8	PHG SPZ1787XP		1 807	12,7	10	PHG SPA1807XP
	1 800	9,7	8	PHG SPZ1800XP		1 832	12,7	10	PHG SPA1832XP
	1 837	9,7	8	PHG SPZ1837XP		1 857	12,7	10	PHG SPA1857XP
	1 862	9,7	8	PHG SPZ1862XP		1 882	12,7	10	PHG SPA1882XP
	1 887	9,7	8	PHG SPZ1887XP		1 900	12,7	10	PHG SPA1900XP
	1 900	9,7	8	PHG SPZ1900XP		1 907	12,7	10	PHG SPA1907XP
	1 937	9,7	8	PHG SPZ1937XP		1 932	12,7	10	PHG SPA1932XP
	1 987	9,7	8	PHG SPZ1987XP		1 957	12,7	10	PHG SPA1957XP
	2 000	9,7	8	PHG SPZ2000XP		1 982	12,7	10	PHG SPA1982XP
	2 037	9,7	8	PHG SPZ2037XP		2 000	12,7	10	PHG SPA2000XP
	2 120	9,7	8	PHG SPZ2120XP		2 032	12,7	10	PHG SPA2032XP
	2 137	9,7	8	PHG SPZ2137XP		2 057	12,7	10	PHG SPA2057XP
	2 187	9,7	8	PHG SPZ2187XP		2 082	12,7	10	PHG SPA2082XP
	2 240	9,7	8	PHG SPZ2240XP		2 120	12,7	10	PHG SPA2120XP
	2 287	9,7	8	PHG SPZ2287XP		2 132	12,7	10	PHG SPA2132XP
	2 360	9,7	8	PHG SPZ2360XP		2 182	12,7	10	PHG SPA2182XP
	2 500	9,7	8	PHG SPZ2500XP		2 207	12,7	10	PHG SPA2207XP
	2 650	9,7	8	PHG SPZ2650XP		2 232	12,7	10	PHG SPA2232XP
	2 800	9,7	8	PHG SPZ2800XP		2 240	12,7	10	PHG SPA2240XP
	3 000	9,7	8	PHG SPZ3000XP		2 282	12,7	10	PHG SPA2282XP
	3 150	9,7	8	PHG SPZ3150XP		2 300	12,7	10	PHG SPA2300XP
	3 350	9,7	8	PHG SPZ3350XP		2 307	12,7	10	PHG SPA2307XP
	3 550	9,7	8	PHG SPZ3550XP		2 332	12,7	10	PHG SPA2332XP
						2 360	12,7	10	PHG SPA2360XP
						2 382	12,7	10	PHG SPA2382XP

SKF Xtra Power wrapped narrow wedge belts

3V-XP | 5V-XP | 8V-XP



Section	Dimensions Outside length	w	h	Designation	Section	Dimensions Outside length	w	h	Designation		
	mm	inch	-	-		mm	inch	-	-		
3V	1 080	42.5	9	8	PHG 3V425XP	8V	2 540	100.0	25	23	PHG 8V1000XP
	1 207	47.5	9	8	PHG 3V475XP		2 692	106.0	25	23	PHG 8V1060XP
	1 270	50.0	9	8	PHG 3V500XP		2 845	112.0	25	23	PHG 8V1120XP
	1 346	53.0	9	8	PHG 3V530XP		2 997	118.0	25	23	PHG 8V1180XP
	1 422	56.0	9	8	PHG 3V560XP		3 175	125.0	25	23	PHG 8V1250XP
	1 524	60.0	9	8	PHG 3V600XP		3 353	132.0	25	23	PHG 8V1320XP
	1 600	63.0	9	8	PHG 3V630XP		3 556	140.0	25	23	PHG 8V1400XP
	1 702	67.0	9	8	PHG 3V670XP		3 810	150.0	25	23	PHG 8V1500XP
	1 803	71.0	9	8	PHG 3V710XP		4 064	160.0	25	23	PHG 8V1600XP
	1 905	75.0	9	8	PHG 3V750XP		4 318	170.0	25	23	PHG 8V1700XP
	2 032	80.0	9	8	PHG 3V800XP		4 572	180.0	25	23	PHG 8V1800XP
	2 159	85.0	9	8	PHG 3V850XP		4 826	190.0	25	23	PHG 8V1900XP
	2 286	90.0	9	8	PHG 3V900XP		5 080	200.0	25	23	PHG 8V2000XP
	2 413	95.0	9	8	PHG 3V950XP		5 385	212.0	25	23	PHG 8V2120XP
	2 540	100.0	9	8	PHG 3V1000XP		5 690	224.0	25	23	PHG 8V2240XP
	2 692	106.0	9	8	PHG 3V1060XP		5 994	236.0	25	23	PHG 8V2360XP
	2 845	112.0	9	8	PHG 3V1120XP		6 350	250.0	25	23	PHG 8V2500XP
	2 997	118.0	9	8	PHG 3V1180XP		6 731	265.0	25	23	PHG 8V2650XP
	3 175	125.0	9	8	PHG 3V1250XP		7 112	280.0	25	23	PHG 8V2800XP
	3 353	132.0	9	8	PHG 3V1320XP		7 620	300.0	25	23	PHG 8V3000XP
	3 556	140.0	9	8	PHG 3V1400XP		8 001	315.0	25	23	PHG 8V3150XP
	3 810	150.0	9	8	PHG 3V1500XP		8 509	335.0	25	23	PHG 8V3350XP
5V	1 346	53.0	15	13	PHG 5V530XP		9 017	355.0	25	23	PHG 8V3550XP
	1 422	56.0	15	13	PHG 5V560XP		9 525	375.0	25	23	PHG 8V3750XP
	1 524	60.0	15	13	PHG 5V600XP		10 160	400.0	25	23	PHG 8V4000XP
	1 600	63.0	15	13	PHG 5V630XP		10 795	425.0	25	23	PHG 8V4250XP
	1 702	67.0	15	13	PHG 5V670XP		11 430	450.0	25	23	PHG 8V4500XP
	1 803	71.0	15	13	PHG 5V710XP		12 065	475.0	25	23	PHG 8V4750XP
	1 905	75.0	15	13	PHG 5V750XP		12 700	500.0	25	23	PHG 8V5000XP
	2 032	80.0	15	13	PHG 5V800XP		13 081	515.0	25	23	PHG 8V5150XP
	2 159	85.0	15	13	PHG 5V850XP		13 462	530.0	25	23	PHG 8V5300XP
	2 286	90.0	15	13	PHG 5V900XP						
	2 413	95.0	15	13	PHG 5V950XP						
	2 540	100.0	15	13	PHG 5V1000XP						
	2 692	106.0	15	13	PHG 5V1060XP						
	2 845	112.0	15	13	PHG 5V1120XP						
	2 997	118.0	15	13	PHG 5V1180XP						
	3 175	125.0	15	13	PHG 5V1250XP						
	3 353	132.0	15	13	PHG 5V1320XP						
	3 556	140.0	15	13	PHG 5V1400XP						
	3 810	150.0	15	13	PHG 5V1500XP						
	4 064	160.0	15	13	PHG 5V1600XP						
	4 318	170.0	15	13	PHG 5V1700XP						
	4 572	180.0	15	13	PHG 5V1800XP						
	4 826	190.0	15	13	PHG 5V1900XP						
	5 080	200.0	15	13	PHG 5V2000XP						
	5 385	212.0	15	13	PHG 5V2120XP						
	5 690	224.0	15	13	PHG 5V2240XP						
	5 994	236.0	15	13	PHG 5V2360XP						
	6 350	250.0	15	13	PHG 5V2500XP						
	6 731	265.0	15	13	PHG 5V2650XP						
	7 112	280.0	15	13	PHG 5V2800XP						
	7 620	300.0	15	13	PHG 5V3000XP						
	8 001	315.0	15	13	PHG 5V3150XP						

Design optimization

Belt drive calculation program

SKF has a calculation tool to help optimize your belt drive system. Using your data, the program will select the most efficient and economical solution for your application. The program can be found at www.skfptp.com, under belt drives.

Step 1. Choose your preferred belt type out of a comprehensive list of belt profiles to start the calculation.

Step 2. Fill in basic application data, such as:

- Power and drive conditions
- Pulleys and speeds
- Belt and center distance

Based on your input, the system will provide recommendations for your application.

The program will provide a full report about your selection, that you can print and save as documentation.

Product solutions for belt drives

Users of power transmission components have access to a single product supply source. SKF has introduced a comprehensive range of power transmission products under its own recognized world brand. As these products need to work in harmony with bearing components and systems, the SKF product range has been designed specifically for products to be compatible with each other. This means that end users have global access to both bearings and power transmission components offering cost and time savings as well as improved solutions and service.

Pulleys

SKF Xtra Power Belts represent a new generation of belts to further extend the power transmission product assortment. Both pulleys and belts are used in belt drive applications where the design of the pulley needs to match the design of the belt. SKF offers a wide range of standard pulleys as well as special variants. They are manufactured according to the highest industry standards to meet your requirements.

- Pulleys are all statically balanced to provide true running tolerances at higher speeds.
- Dynamic balancing is available on request.
- Pulleys with an outside diameter less or equal 300 mm are boxed. Pulleys with an outside diameter greater than 300 mm or over 30 kg are on a wooden pallet.

Bushings

In addition to belts and pulleys, SKF also offers various bushings and hubs to supply a complete belt drive solution without compromises. Bushings and hubs are used to secure components such as pulleys, sprockets or couplings onto a shaft. SKF offers tapered, QD and FX keyless bushings as well as weld-on and bolt-on hubs.

Tapered bushings, the most common bushing type, are designed for quick, easy mounting and dismounting with basic (hand) tools. This results in minimum downtime every time they are fitted. The wide range of metric and imperial bore sizes enable you to eliminate time consuming machining of products.

Supported by the advanced logistics of the SKF supply chain, your solution can be delivered on time, every time.

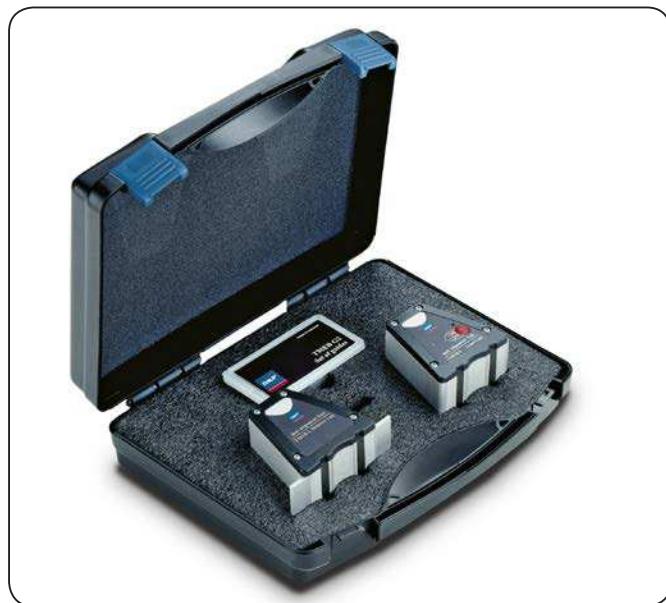
For additional information about the complete SKF Power transmission product line, refer to our online catalogue at www.skfptp.com or contact SKF for a copy of our printed catalogue.



Belt tools



SKF Belt Frequency Meter PHL FM 10/400



SKF Belt Alignment Tool TMEB 2

SKF Belt Frequency Meter PHL FM 10/400

The most accurate belt tension measurement method

Correct belt tension is crucial for the whole drive system, its service life and the service life of associated components such as bearings and seals. Therefore, it is important to get accurate and reliable results when measuring belt tension.

The SKF Belt Frequency Meter is one of the most accurate tools available for measuring belt tension. Readings are quick, reliable and, most importantly, repeatable. The tool is extremely easy to use and minimizes the risk of errors.

Wide range of applications

The SKF Belt Frequency Meter consists of a hand-held meter and an optical sensor, to provide contact-free belt tension measurements for most of the following belt types, even in a noisy environment:

- V-belts (wrapped, cogged raw edge, ribbed)
- Banded V-belts
- Timing belts

The SKF Belt Frequency Meter is capable of measuring belt vibration frequencies from 10 to 400 Hz. Based upon the measured belt frequency, the SKF Belt Frequency Meter calculates belt tensions up to 9 900 N (2 200 lbs.).

Easy and quick to use

- Simply key-in the span length and mass data. Data can also be saved and recalled for repeated use, if necessary.
- Aim sensor at centre of selected belt span and pluck or tap the belt.
- The display will show the measured frequency which can be toggled to either newton or pound force values.
- Readjust the belt tension, if necessary, and take another measurement.

SKF Belt Alignment Tool TMEB 2

Belt-driven machinery downtime caused by misalignment is a problem of the past

The SKF Belt Alignment Tool, TMEB2, aligns the pulleys where it counts most – in the grooves. V-guides and powerful magnets allow the TMEB 2 to be fitted in the grooves of the pulley. With only two components, a laser-emitting unit and a receiver unit, the TMEB 2 is easy and fast to attach. The three-dimensional target area on the receiver unit allows the easy detection of misalignment as well as its nature; whether it is horizontal, vertical, parallel or a combination of all three. Armed with this precise information, the operator can easily make the appropriate adjustments so that the laser line matches the reference line on the receiver unit.

Versatile and user-friendly

- Powerful magnets allow fast and easy attachment
- Easy-to-use, requires no special training to operate
- Three-dimensional target area simplifies the alignment process
- Facilitates simultaneous adjustment of tension and alignment

- V-guides facilitate the alignment of a wide range of V-belt pulleys
- Special side adaptor allowing alignment of multi-ribbed and timing belt pulleys as well as chain sprockets is available as an accessory
- A maximum operating distance of 6 meters (20 ft) makes it suitable for use in various applications
- Sturdy aluminum housings provide great assembly stability and accuracy

Various benefits for the belt drive are achieved

- Alignment is necessary only once, independent of the number of belt replacements
- Safe, simple and fast belt replacement
- Less time-consuming and costly breakdowns of the whole system
- Less vibration improves system efficiency
- Quick and reliable tension checks
- Easy preventive maintenance
- Repeatable maintenance quality
- Reduced costs due to prolonged belt life

SKF Belt Tension System

High quality belt drive maintenance – reduces time and effort

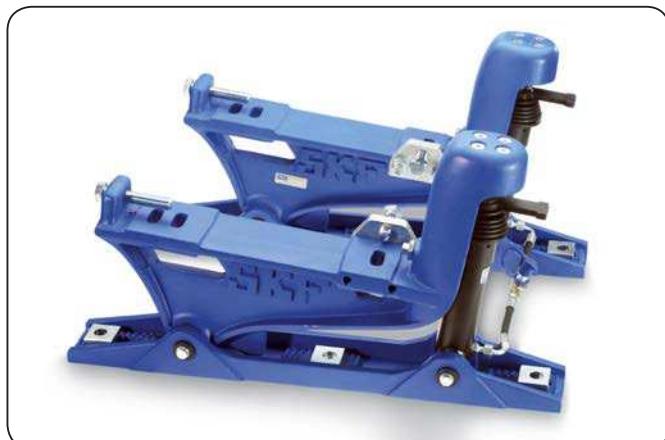
The SKF Belt Tension System is a motor base for electric motors. Due to its hydraulic cylinders, belt maintenance becomes an easy task. The SKF Belt Tension System allows quick belt replacement and tensioning, while keeping the initial alignment. By connecting a hand-held hydraulic pump, the cylinders of the SKF Belt Tension System can be moved up and down. This enables a controlled moving of the motor axis which is directly related to the belt tension and the pressure in the cylinders. This unique function allows for quick and easy belt tension checks as well as belt replacements.

Selection guide for the SKF Belt Tension System

Designation	IEC Motor class
PHL 160/180 H1	160 and 180
PHL 200/225 H1	200 and 225
PHL 250/280 H1	250 and 280
PHL 315 H1	315
PHL 355 H1	355
PHL 400 H1	400

In addition several NEMA standard motors can be mounted on the SKF Belt Tension System. For additional information, contact SKF.

SKF Belt Tension System with 2 cylinders



SKF Belt Tension System operating in a belt drive



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