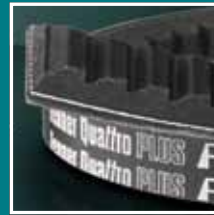


Section 3: Friction Belt Drives

Fenner friction belt drives have set the standard for over 150 years and will continue to do so with the recent addition to the range with the Fenner Ultra PLUS 150 high strength wedge belt.



- State-of-the-art design and manufacture reflected in optimised power ratings, for compact size, economy efficiency and extended life
- PB (Precision Built) construction allows 'one-shot tensioning' for fit and forget applications.
- Fulllest range of international standard belt lengths and pulleys available.
- All belts have superior anti-static, heat and oil resistant properties

Friction Belt Drives: Design Data Required

Type of prime mover, or driving machine	
Electric motor starting arrangement	
Rotational speed of prime mover	
Power rating of prime mover	
Type of driven machine	
Rotational speed of driven machine	
Power absorbed by driven machine	
Hours/day duty & start/stop frequency	
Both driven & driver machine shaft diameters	
Centre distance & space restraints:	<ul style="list-style-type: none"> > fixed centres? > adjustment?
Any environmental issues:	<ul style="list-style-type: none"> > ambient temperature > water, oil mist, solvents etc.

Friction Belt Drives	Page
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Visit www.fptgroup.com
for the Drive Design Assistant

Fenner® Ultra Plus 150

The new generation of heavy duty drive belt for the harshest of environments...



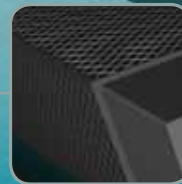
50% more power

High Tensile Aramid Cords transmit 50% more power than standard wrapped wedge belts.



Unsurpassed strength

Fibre reinforced polychloroprene rubber supports the cords and ensures unsurpassed rigidity when installed.



96% energy efficiency

A-symmetrical weave outer jacket produces belt length stability second to none, guaranteeing unbeatable efficiency.

Fenner's Ultra Plus 150 drive belts are specifically designed for applications where rugged durability is paramount, combining the highest level of performance with the longest service life possible.


Energy Efficient

State of the art, high efficiency drive belt engineering

 www.fptgroup.com

Ideal for heavy duty applications :

- > Waste compactors
- > Shredders
- > Crushers
- > Heavy duty conveyors
- > Bucket elevators
- > Woodworking machinery
- > Quarry plant
- > Saw mills
- > Calendars
- > Compressors



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Fenner®



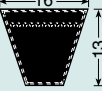
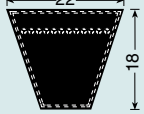
THE MARK OF ENGINEERING EXCELLENCE

Fenner Ultra PLUS & Ultra PLUS 150 PB Wedge Belts

ISO 4184 – DIN 7753 – BS 3790 - RMA IP22

In addition to their precision-built qualities, Fenner® Ultra PLUS **PA** wedge belts have superior anti-static and oil-resistant properties. All Fenner® Ultra PLUS and Ultra PLUS 150 wedge belts are static conductive to the ISO 1813 standard and conform to the anti-static

specifications of the American Petroleum Institute (API) for similar belts. They will not readily self-ignite under severe slip/stall conditions, subject to maximum surface temperature limitations.

											
Belt Designation		Belt Designation		Belt Designation		Belt Designation				Belt Designation	
SPZ				SPA		SPB		USB		SPC	USPC
Metric	Imperial 3V	Metric	Imperial 3V			Metric	Imperial 5V	Metric	Imperial 5V		
487	-	1400	-	732	1750	1250	-	1600	630	2000	2650
512	-	<i>1412</i>	-	757	1757	1260	5V500	1800	710	2120	2800
562	-	1420	560	782	<i>1782</i>	1320	-	1900	-	2240	3000
587	-	1437	-	800	1800	1340	530	2000	-	2360	3150
612	-	1462	-	<i>807</i>	1807	1400	-	2120	-	2500	3350
630	3V250	1470	580	825	1832	1410	560	2240	-	2650	3550
637	-	1487	-	832	1850	1500	-	2360	-	2800	3750
<i>662</i>	-	1500	-	850	1857	1550	-	2500	-	3000	4000
670	-	<i>1512</i>	-	<i>857</i>	1882	1600	630	2650	-	3150	4250
687	-	1520	600	875	1900	1670	-	2800	-	3350	4500
710	280	1537	-	882	1907	1700	-	3000	1180	3500	4750
722	-	1560	617	900	1932	1750	-	3150	-	3750	5000
737	-	1587	-	<i>907</i>	1950	1800	710	3350	-	4000	5300
750	-	1600	630	925	1957	1850	-	3550	-	4250	5600
760	300	1612	-	932	1982	1900	-	3750	1500	4500	6000
772	-	1637	-	950	2000	1950	-	4000	-	4750	6300
787	-	1650	650	957	2032	1980	-	4060	1600	5000	6700
800	315	1662	-	975	2057	2000	-	4250	-	5300	7100
812	-	1687	-	982	2060	2020	800	4310	1700	5600	7500
825	-	1700	670	1000	2082	2060	-	4500	-	6000	8000
837	-	1737	-	1007	2120	2120	-	4750	-	6300	8500
850	-	1762	-	1030	2132	2150	850	5000	-	6700	9000
862	-	1787	-	1060	2180	2240	-	5300	-	7100	9500
875	-	1800	710	1082	2207	2280	900	5600	-	7500	-
887	-	<i>1812</i>	-	1090	2232	2360	-	6000	2360	8000	-
900	355	1837	-	1107	2240	2410	950	6300	-	8500	-
912	-	1850	730	1120	2282	<i>2450</i>	-	6700	-	9000	-
925	-	1862	-	1132	2300	2500	-	7100	2800	9500	-
940	370	<i>1887</i>	-	1150	2307	2530	1000	7500	-	10000	-
950	-	1900	750	1157	2332	2580	-	8800	-	10600	-
962	-	1937	-	1180	2360	2650	-	-	-	11200	-
987	-	1987	800	1207	2382	2680	1060	-	-	11800	-
1000	-	2000	-	1220	2430	<i>2720</i>	-	-	-	12500	-
1010	400	2030	-	1232	<i>2482</i>	2800	-	-	-	-	-
1024	-	2037	-	1250	2500	2840	1120	-	-	-	-
1037	-	2120	-	1257	2532	2900	-	-	-	-	-
1047	-	<i>2137</i>	-	1272	2580	3000	1180	-	-	-	-
1060	-	2160	850	1280	2607	3150	-	-	-	-	-
1080	425	2187	-	1307	2632	3170	1250	-	-	-	-
1087	-	2240	-	1320	2650	3250	1320	-	-	-	-
1112	-	2262	-	1332	2682	3350	-	-	-	-	-
1120	-	2280	900	1357	2720	3450	1400	-	-	-	-
1140	450	<i>2287</i>	-	1360	2732	3550	-	-	-	-	-
1162	-	2360	-	1382	2782	3750	1500	-	-	-	-
1180	-	2410	950	1400	2800	3800	-	-	-	-	-
1187	-	2500	-	1407	2832	3870	-	-	-	-	-
1200	475	2540	1000	1432	<i>2847</i>	4000	-	-	-	-	-
1212	-	2650	-	1450	2882	4060	1600	-	-	-	-
1237	-	2690	1060	1457	2900	4250	-	-	-	-	-
1250	-	2800	-	1482	<i>2932</i>	4310	1700	-	-	-	-
1262	-	2840	1120	1500	2982	4500	-	-	-	-	-
1270	500	3000	1180	1507	3000	4560	1800	-	-	-	-
1287	-	3150	-	1532	<i>3032</i>	4750	-	-	-	-	-
1312	-	3170	1250	1550	3082	4820	1900	-	-	-	-
1320	-	3350	-	1557	3150	5000	-	-	-	-	-
1340	530	3550	1400	1582	3182	5070	2000	-	-	-	-
1347	-	-	-	1600	<i>3282</i>	5300	-	-	-	-	-
1362	-	-	-	1607	3350	5380	2120	-	-	-	-
1387	-	-	-	1632	3382	5600	-	-	-	-	-
				1650	3550	5680	2240	-	-	-	-
				1657	3750	6000	2360	-	-	-	-
				1682	4000	6300	-	-	-	-	-
				1700	4250	6340	2500	-	-	-	-
				1707	4500	6700	-	-	-	-	-
				1732	-	7100	2800	-	-	-	-
						7500	-	-	-	-	-
						9000	3150	-	-	-	-

Belt Designation	
8V	
Metric	Imperial 8V
2540	1000
2840	1120
3180	1250
3550	1400
3810	1500
4060	1600
4570	1800
5080	2000
5690	2240
6350	2500
7100	2800
8000	3150
9000	3550
10160	4000
11430	4500

Section dimensions in millimetres. Italic type denotes not held in stock at all locations. Bold type denotes standard sizes in ISO 4184.

Metric designations show pitch length in mm. Imperial designations show 'effective' length in 1/10 inches

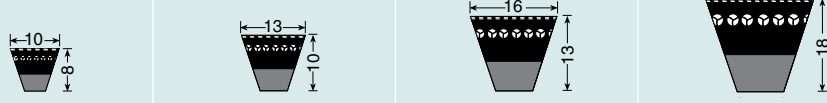
Note: The ISO 4184 standard now refers to 'datum' lengths, which are essentially the same as 'pitch' lengths.

Fenner CRE PLUS®, Quattro PLUS® CRE Wedge Belts

ISO 4184 – DIN 7753 – BS 3790

Fenner® cogged raw edge wedge belts are precision built for excellent length matching. They are manufactured from high quality polymer and textile materials for superior heat and oil resistance. All Fenner® CRE PLUS and Quattro PLUS cogged raw edge wedge belts are static conductive

to the ISO 1813 standard and conform to the anti-static specifications of the American Petroleum Institute (API) for similar belts. They will not ignite under severe slip/stall conditions, subject to maximum surface temperature limitations.



Belt Designation		Belt Designation		Belt Designation		Belt Designation	
XPZ	QXPZ	XPA	QXPA	XPB	QXPB	XPC	QXPC
630	630	800	800	1250	1250	2000	2000
670	670	850	850	1260		2120	2120
710	710	900	900	1320	1320	2240	2240
750	750	925		1340		2360	2360
760		950	950	1400	1400	2500	2500
800	800	1000	1000	1410		2650	2650
850	850		1030	1500	1500	2800	2800
900	900	1060	1060	1600	1600	3000	3000
937		1090		1700	1700	3150	3150
940		1120	1120	1800	1800	3350	3350
950	950	1180	1180	1900	1900	3550	3550
1000	1000	1207		2000	2000	3750	3750
1010		1250	1250	2020		4000	4000
1060	1060	1280		2120	2120	4060	4060
1077		1320	1320	2150		4250	4250
1080		1382		2240	2240	4310	4310
1120	1120	1400	1400	2280		4500	4500
1137		1450	1450	2360	2360	4750	4750
1140		1500	1500	2410		5000	5000
	1150	1532		2500	2500		
1180	1180	1550	1550	2530			
1200		1600	1600	2650	2650		
	1220	1650	1650	2680			
1250	1250	1700	1700	2800	2800		
1270		1750	1750	2840			
	1287	1800	1800	3000	3000		
1320	1320	1850	1850	3150	3150		
1337		1900	1900	3350	3350		
1340		1950	1950	3550	3550		
1360		2000	2000		3750		
1400	1400	2060	2060		4000		
1420		2120	2120		4060		
1450		2240	2240		4250		
1462		2360	2360		4310		
1470		2430			4500		
1500	1500	2500	2500				
1520		2650	2650				
	1537	2800	2800				
	1550	3000	3000				
1560		3150	3150				
1587		3350					
1600	1600	3550	3550				
1650			4000				
1700	1700						
1800	1800						
1850							
1900	1900						
2000	2000						
2040							
2120	2120						
2160							
2240	2240						
2280							
2360							
2410							
2500	2500						
2540							
2650							
2690							
2800	2800						
2840							
3000							
3150	3150						
3350							
3550	3550						

DATA FOR ALL WEDGE BELTS

Metric belt designation denotes pitch length in mm.

- SPZ: Lo = Lp + 13mm
- SPA: Lo = Lp + 18mm
- SPB: Lo = Lp + 22mm
- SPC: Lo = Lp + 30mm
- Lp = Pitch length
- Lo = Outside length

PITCH LENGTH Lp = Li + mm (Inside length)

Belt Section	Wrapped Belt	CRE Belt	Quattro PLUS	Ultra PLUS 150
SPZ	37	38	30	-
SPA	45	44	40	-
SPB	60	58	60	60
SPC	90	-	80	90
8V	120	-	-	-

MASS PER UNIT LENGTH kg/m

Belt Section	Wrapped Belt	CRE Belt	Quattro PLUS	Ultra PLUS 150
SPZ	0.07	0.06	0.07	-
SPA	0.12	0.11	0.12	-
SPB	0.19	0.18	0.19	0.23
SPC	0.32	-	0.36	0.38
8V	0.54	-	-	-

WORKING TEMPERATURES

Fenner Ultra PLUS and CRE PLUS wedge belts perform satisfactorily within the temperature range -40 to +70°C
 Quattro PLUS temperature range -40 to +80°C
 Ultra PLUS 150 temperature range -40° to +80°C

Metric designations are 'pitch' lengths in mm.
 Imperial belt designation denotes approximate 'effective' length in tenths of an inch in accordance with RMA standards.

Note: The ISO 4184 standard now refers to 'datum' lengths, which are essentially the same as 'pitch' lengths.

For similar cross sections, other designations include SPZ, Alpha, 3V & 9N
 SPB, Beta, 5V & 15N
 8V, Delta, & 25N

SPZ, SPA, SPB & SPC belt designations shown in heavier type identify standard sizes in ISO 4184. Belt lengths in italic type are available but not ex stock in all locations.

Consult your Authorised Distributor for non-listed belt lengths.

PRODUCT CODES

8 digit for standard vee-belts

Digits 1-3 Product Group	260 Ultra PLUS 267 CRE PLUS 268 Ultra PLUS 150 269 Quattro PLUS
Digit 4 Section Letter	(USP, SP, XP, QXP) Z, A, B, C, D (8V)
Digits 5 to 8: Length	0 then first three of 4-figure lengths or, first 4 of 5-figure lengths For example: Ultra PLUS SPB2800 is coded 260B0280 Quattro PLUS QXPZ 1250 is coded 269Z0125

Wedge Belt Drive Selection

SELECTION

(a) Service Factor

Calculate Speed Ratio by dividing the rev/min of the faster shaft by the rev/min of the slower shaft.

(b) Service Factor

From Table 3 (page 39), select the Service Factor which is applicable to the drive. If the drive is speed increasing, an additional factor may be required – refer to top of Table 3.

(c) Design Power

Multiply the normal running power or prime mover power by the Service Factor. This gives the Design Power which is used as the basis for selecting the drive.

(d) Belt Section & Type

Refer to Table 2 (opposite) and trace to the right along the horizontal axis to the rev/min of the faster shaft. Trace upwards along the vertical axis to the Design Power. Choose the belt section and type represented by the area in which the point of intersection falls.

(e) Minimum Pulley Diameter

Refer to Table 1 (below) and select the minimum recommended pulley, using the Design Power from step (c) and the faster shaft speed. This is a guide to the minimum pulley pitch diameter capable of transmitting the design power at the given speed, without generating excessive bearing loads.

(f) Pulley Pitch Diameters

Refer to the drive selection tables on pages 40 to 51 and for the belt section chosen read down the speed ratio column to the value nearest the calculated speed ratio. Use the Minimum Pulley Diameter from step (e) as a guide to the small pulley selection.

(g) Belt Length, Centre Distance and Correction Factor

The drive tables list ISO belt lengths.

Along the same line as the chosen Speed Ratio read across the table to find a suitable Centre Distance. The required Belt Length is given at the head of the column.

Note the Correction Factor by following the colour band in which the chosen centre distance falls, to the top of the table.

If the Centre Distance is not specified consider a drive with a centre distance approximately equal to the sum of the pulley pitch diameters.

When non-standard pulleys or belts are used the Centre Distance and Belt Length can be calculated using the formulae given on page iii of the technical information section. Interpolate from the tables for the Correction Factor.

(h) Basic Power per Belt

Refer to the power rating tables (pages 52 to 61) for the section and type of wedge belt chosen. In the left-hand column locate rev/min of the faster shaft, i.e. the one with the small pulley. Read across to the column headed by the pitch diameter of the small pulley and note the rated power.

For CRE Plus belts refer to page 56 for power ratings.

Note that Fenner pulleys are designed for belt speeds up to 40 m/s. If using non-Fenner pulleys seek manufacturer's approval at high speeds.

NB. The powers listed in the columns headed by the motor speeds in the Drive Tables (pages 40 to 51) give the power per belt including Speed Ratio Increment, step (j), for Ultra PLUS wedge belts. These powers require correcting for belt length and arc of contact correction factor (g) and should be used in conjunction with the appropriate Service Factor.

(j) Speed Ratio Power Increment

From the power rating tables (pages 52 to 59) note the additional power per belt for the Speed Ratio being used.

This value is the same for all types of belt of a given section.

(k) Corrected Power per Belt

Add the Speed Ratio Power increment (j) to the Basic Power per Belt (h) and multiply by the Correction Factor from step (g).

(l) Number of Belts required

Divide the Design Power from step (c) by the Corrected Power per Belt (k). The result gives the number of belts required. If the answer contains a fraction use the next whole number.

(m) Bore sizes

Check that the pulleys will fit shafts by referring to the pulley dimension tables (pages 62 to 69).

TABLE 2

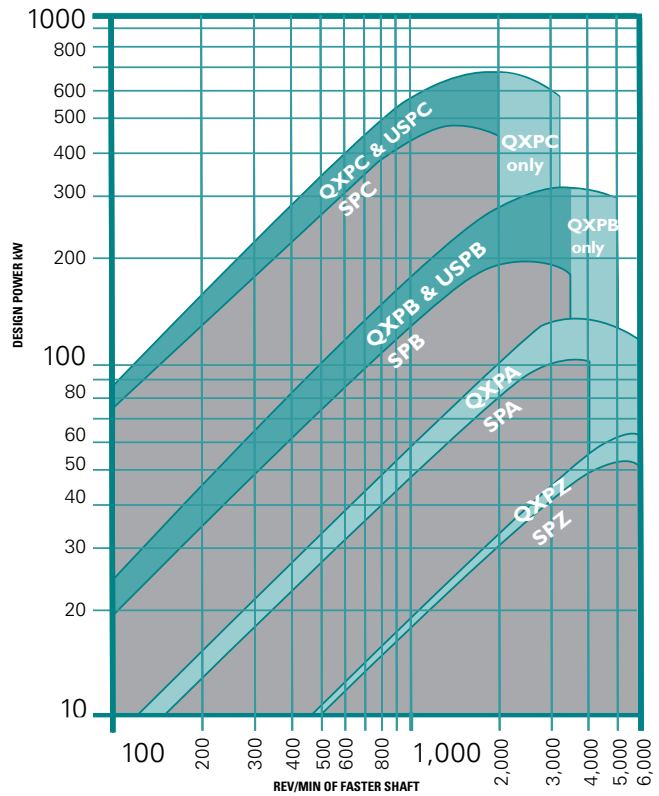


TABLE 1

Speed of faster shaft rev/min	*Minimum Pulley Diameter (mm) Design Power (kW)																			
	up to 1	3.0	4.0	5.0	7.5	10	15	20	25	30	40	50	60	75	90	110	130	150	200	250
500	56	90	100	112	125	140	180	200	212	236	250	280	280	315	375	400	450	475	500	560
600	56	85	90	100	112	125	140	180	200	212	224	250	265	280	300	335	375	400	475	500
720	56	80	85	90	100	106	132	150	160	170	200	236	250	265	280	300	335	375	450	500
960	56	75	80	85	95	100	112	132	150	180	180	200	224	250	280	280	300	335	400	450
1200	56	71	80	80	95	95	106	118	132	150	160	180	200	236	236	250	265	300	335	355
1440	56	63	75	80	85	85	100	112	125	140	160	170	190	212	236	236	250	280	315	335
1800	56	63	71	75	80	85	95	106	112	125	150	160	170	190	212	224	236	265	300	335
2880	56	60	67	67	80	80	85	90	100	112	125	140	160	170	180	212	224	236	–	–

* This table is intended as a guide to selection only. Bearing loads should be carefully considered when using small pulleys on electric motors. This is particularly important when using the small pulleys allowable with CRE PLUS or Quattro PLUS belts.

Wedge Belt Drive Selection

EXAMPLE

Design a wedge belt drive from a 50 kW 6 cylinder diesel engine which runs at 1050 rev/min to a reciprocating compressor running at 660 rev/min. The centre distance is to be approximately 1600 mm and the duty is 24 hours/day. The engine shaft is 70 mm diameter and the compressor shaft 80 mm diameter.

(a) Speed Ratio

$$\text{Speed ratio} = \frac{1050}{660} = 1.59:1$$

(b) Service Factor

From Table 3 the service factor is 1.4.

(c) Design Power

$$= 50 \times 1.4 = 70 \text{ kW}$$

(d) Belt Section

By referring to Table 2 (opposite) the intersection of design power and the speed of the faster shaft indicates SPB or QXPB section.

(e) Minimum Pulley

From Table 1 (page 38) the minimum recommended pulley is approximately 250 mm.

(f) Pulley Pitch Diameters

By referring to the centre distance tables relating to SPB section belts on page 47 the selection is a driving pulley of 315 mm pitch diameter and a driven pulley of 500 mm pitch diameter.

(g) Belt Length, Centre Distance and Correction Factor

Reading across the table, the nearest centre distance to the 1600 mm required is 1607 mm. The belt length at the head of the column is 4500. By following the colour shading to the top of the table, a correction factor of 1.05 is noted.

(h) Basic Power per Belt

From the power rating table (pages 52 & 61) by interpolation the rated power/belt for a 315 mm pitch diameter pulley at 1050 rev/min is 18.94kW for Ultra PLUS SPB (22.37 for Quattro PLUS QXPB)

(j) Speed Ratio Power Increment

The power increment (by interpolation) for a speed ratio of 1.59 at 1050 rev/min is 0.77 kW. (pages 58)

(k) Corrected Power per Belt

$$= (18.94 + 0.77) \times 1.05$$

$$= 20.7 \text{ kW per belt.} \quad (24.3 \text{ for QXPB})$$

(l) Number of Belts required

$$= \frac{70}{20.7} = 3.38 \text{ i.e use 4 SPB Ultra PLUS wedge belts.}$$

OR

$$= \frac{70}{24.3} = 2.88 \text{ i.e use 3 QXPB Quattro PLUS belts.}$$

(m) Bore Sizes

From pulley dimension tables, a 315mm x 4 SPB has a bush size 3525 with 100 mm max. bore (315 mm x 3 SPB has a bush size 3020 with 75 mm max. bore).

Either will fit the 70 mm dia. engine shaft.

500 mm x 3 or 4 SPB pulleys, both of which have a bush size 3525, will fit the 80 mm dia. compressor shaft.

DRIVE SPECIFICATION

	Ultra PLUS SPB	Quattro PLUS QXPB
Engine pulley	315 x 4SPB	315 x 3 SPB
Taper Lock bush	3525/70 mm	3020/70mm
Compressor pulley	500 x 4SPB	500 x 3SPB
Taper Lock bush	3525/80 mm	3525/80mm

4 x SPB 4500 wedge belts give 1607 mm centres.

3 x QXPB 4500 wedge belts give 1607 mm centres.

TABLE 3: SERVICE FACTORS

SPEED INCREASE RATIO		Types of Prime Mover					
		'Soft' Starts			'Heavy' Series		
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		Electric motors: AC - Star Delta start DC - Shunt wound Internal combustion engines with 4 or more cylinders Prime movers fitted with centrifugal clutches, dry or fluid couplings or electronic soft start devices			Electric motors: AC - Direct-on-line start DC - Series and component wound Internal combustion engines with less than 4 cylinders Prime movers not fitted with soft start devices		
TYPES OF DRIVEN MACHINE		Hours per day					
		10 and under	Over 10 to 16	Over 16	10 and under	Over 10 to 16	Over 16
Class 1 Light Duty	Agitators (uniform density), blowers, exhausters and fans up to 7.5kW, 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 and mixers (variable density), blowers, exhausters an fans (over 7.5kW). 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	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

Centre Distance SPZ, XPZ & QXPZ Wedge Belt Drives

Combined Arc and Belt Length Correction Factor

					0.80	0.85				0.90				0.95				1.00				1.05				1.10				1.15			
Speed Ratio	Pitch Diameter of Pulleys		Power per SPZ Belt (kW)		BELT LENGTH																				SPZ & QXPZ ONLY		Speed Ratio						
	Driver	Driven	1440 rev/min	2880 rev/min	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	3150	3550											
					630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	3150	3550											
1.43	<i>140</i>	<i>200</i>	4.57	8.08	–	–	–	–	231	291	357	432	532	632	732	852	983	1133	1308	1508	1.43												
1.44	<i>125</i>	<i>180</i>	3.95	7.01	–	–	–	209	259	319	384	460	560	660	760	880	1010	1160	1335	1535	1.44												
1.47	<i>85</i>	<i>125</i>	2.22	3.94	149	189	234	284	334	395	460	535	635	735	835	955	1085	1235	1410	1610	1.47												
1.47	<i>95</i>	<i>140</i>	2.66	4.73	–	169	214	264	315	375	440	515	615	715	815	935	1065	1215	1390	1590	1.47												
1.49	<i>67</i>	<i>100</i>	1.42	2.46	183	223	268	318	368	429	494	569	669	769	869	969	1119	1269	1444	1644	1.49												
1.49	<i>75</i>	<i>112</i>	1.78	3.13	167	207	252	303	353	413	478	553	653	753	853	973	1103	1253	1428	1628	1.49												
1.50	<i>60</i>	<i>90</i>	1.29	2.26	197	237	282	332	382	442	–	–	–	–	–	–	–	–	–	–	1.50												
1.51	<i>63</i>	<i>95</i>	1.24	2.13	190	230	275	326	376	436	501	576	676	776	876	996	1126	1276	1451	1651	1.51												
1.52	<i>56</i>	<i>85</i>	1.11	1.92	204	244	289	339	389	449	–	–	–	–	–	–	–	–	–	–	1.52												
1.56	<i>90</i>	<i>140</i>	2.44	4.34	–	173	218	268	318	379	444	519	619	719	819	939	1069	1219	1394	1594	1.56												
1.56	<i>80</i>	<i>125</i>	2.00	3.53	152	193	238	288	338	398	463	539	639	739	839	959	1089	1239	1414	1614	1.56												
1.58	<i>71</i>	<i>112</i>	1.62	2.84	170	210	255	306	356	416	481	556	656	756	856	976	1106	1256	1431	1631	1.58												
1.58	<i>60</i>	<i>95</i>	1.31	2.30	192	233	278	328	378	438	–	–	–	–	–	–	–	–	–	–	1.58												
1.59	<i>63</i>	<i>100</i>	1.26	2.17	186	226	271	321	372	432	497	572	672	772	872	992	1122	1272	1447	1647	1.59												
1.60	<i>100</i>	<i>160</i>	2.90	5.17	–	–	193	244	294	355	420	495	595	695	795	915	1045	1195	1370	1571	1.60												
1.60	<i>125</i>	<i>200</i>	3.97	7.05	–	–	–	191	242	302	368	443	543	644	744	864	994	1144	1319	1519	1.60												
1.61	<i>56</i>	<i>90</i>	1.13	1.96	200	240	285	335	385	445	–	–	–	–	–	–	–	–	–	–	1.61												
1.61	<i>112</i>	<i>180</i>	3.42	6.09	–	–	167	218	269	329	394	469	570	670	770	890	1020	1170	1345	1545	1.61												
1.65	<i>85</i>	<i>140</i>	2.24	3.98	135	176	222	272	322	382	447	523	623	723	823	943	1073	1223	1398	1598	1.65												
1.67	<i>60</i>	<i>100</i>	1.31	2.30	188	228	274	324	374	434	–	–	–	–	–	–	–	–	–	–	1.67												
1.67	<i>75</i>	<i>125</i>	1.80	3.17	156	196	242	292	342	402	467	542	642	742	843	963	1093	1243	1418	1618	1.67												
1.67	<i>67</i>	<i>112</i>	1.44	2.51	173	213	258	309	359	419	484	559	659	759	859	979	1109	1259	1434	1634	1.67												
1.68	<i>95</i>	<i>160</i>	2.68	4.78	–	151	197	248	298	358	423	499	599	699	799	919	1049	1199	1374	1574	1.68												
1.70	<i>56</i>	<i>95</i>	1.13	1.96	195	236	281	331	381	441	–	–	–	–	–	–	–	–	–	–	1.70												
1.75	<i>80</i>	<i>140</i>	2.02	3.58	139	180	225	276	326	386	451	526	626	727	827	947	1077	1227	1402	1602	1.75												
1.76	<i>71</i>	<i>125</i>	1.62	2.84	159	199	245	295	345	405	470	545	645	746	846	966	1096	1246	1421	1621	1.76												
1.78	<i>63</i>	<i>112</i>	1.26	2.17	176	216	261	312	362	422	487	562	662	762	862	982	1112	1262	1437	1637	1.78												
1.78	<i>90</i>	<i>160</i>	2.46	4.38	–	155	201	251	302	362	427	502	603	703	803	923	1053	1203	1378	1578	1.78												
1.79	<i>56</i>	<i>100</i>	1.13	1.96	191	231	277	327	377	437	–	–	–	–	–	–	–	–	–	–	1.79												
1.79	<i>112</i>	<i>200</i>	3.42	6.09	–	–	–	200	251	312	377	453	553	653	754	874	1004	1154	1329	1529	1.79												
1.79	<i>140</i>	<i>250</i>	4.60	8.12	–	–	–	–	248	314	390	491	591	692	812	942	1092	1268	1468	–	1.79												
1.80	<i>100</i>	<i>180</i>	2.90	5.17	–	–	176	227	277	338	403	478	579	679	779	899	1029	1179	1354	1555	1.80												
1.87	<i>67</i>	<i>125</i>	1.44	2.51	162	202	248	298	348	408	473	548	649	749	849	969	1099	1249	1424	1624	1.87												
1.87	<i>60</i>	<i>112</i>	1.31	2.30	178	218	264	314	364	424	–	–	–	–	–	–	–	–	–	–	1.87												
1.87	<i>75</i>	<i>140</i>	1.80	3.17	142	183	229	279	330	390	455	530	630	730	831	951	1081	1231	1406	1606	1.87												
1.88	<i>85</i>	<i>160</i>	2.24	3.98	–	158	204	255	305	366	431	506	606	707	807	927	1057	1207	1382	1582	1.88												
1.89	<i>95</i>	<i>180</i>	2.68	4.78	–	–	179	230	281	341	407	482	582	683	783	903	1033	1183	1358	1558	1.89												
1.97	<i>71</i>	<i>140</i>	1.64	2.88	145	186	232	282	332	393	458	533	633	733	834	954	1084	1234	1409	1609	1.97												
1.98	<i>63</i>	<i>125</i>	1.28	2.21	164	205	250	301	351	411	476	551	652	752	852	972	1102	1252	1427	1627	1.98												
2.00	<i>56</i>	<i>112</i>	1.15	2.00	181	221	267	317	367	427	–	–	–	–	–	–	–	–	–	–	2.00												
2.00	<i>80</i>	<i>160</i>	2.04	3.61	–	162	208	258	309	369	435	510	610	710	811	931	1061	1211	1386	1586	2.00												
2.00	<i>90</i>	<i>180</i>	2.48	4.42	–	–	182	234	284	345	410	486	586	686	787	907	1037	1187	1362	1562	2.00												
2.00	<i>100</i>	<i>200</i>	2.92	5.20	–	–	–	208	260	320	386	462	562	662	763	883	1013	1163	1338	1539	2.00												
2.00	<i>125</i>	<i>250</i>	3.99	7.09	–	–	–	–	258	324	401	502	602	703	823	953	1104	1279	1479	–	2.00												
2.08	<i>60</i>	<i>125</i>	1.33	2.34	167	207	253	303	353	413	–	–	–	–	–	–	–	–	–	–	2.08												
2.09	<i>67</i>	<i>140</i>	1.46	2.54	148	189	235	285	335	396	461	536	636	737	837	957	1087	1237	1412	1612	2.09												
2.11	<i>95</i>	<i>200</i>	2.70	4.81	–	–	–	212	263	324	390	465	566	666	767	887	1017	1167	1342	1542	2.11												
2.12	<i>85</i>	<i>180</i>	2.26	4.02	–	–	186	237	288	349	414	490	590	690	791	911	1041	1191	1366	1566	2.12												
2.13	<i>75</i>	<i>160</i>	1.82	3.21	–	165	211	262	313	373	438	514	614	714	814	934	1065	1215	1390	1590	2.13												
2.22	<i>63</i>	<i>140</i>	1.28	2.21	151	192	237	288	338	399	464	539	639	740	840	960	1090	1240	1415	1615	2.22												
2.22	<i>90</i>	<i>200</i>	2.48	4.42	–	–	–	215	267	328	393	469	570	670	770	891	1021	1171	1346	1546	2.22												
2.23	<i>56</i>	<i>125</i>	1.15	2.00	169	210	256	306	356	416	–	–	–	–	–	–	–	–	–	–	2.23												
2.23	<i>112</i>	<i>250</i>	3.43	6.12	–	–	–	–	204	267	334	410	511	612	712	833	963	1114	1289	1489	2.23												
2.25	<i>80</i>	<i>180</i>	2.04	3.61	–	–	189	241	292	352	418	493	594	694	794	914	1045	1195	1370	1570	2.25												
2.25	<i>140</i>	<i>315</i>	4.61	8.16	–	–	–	–	–	–	252	331	434	535	637	758	888	1039	1214	1415	2.25												
2.25	<i>71</i>	<i>160</i>	1.64	2.88	–	168	214	265	315	376	441	517	617	717	817	938	1068	1218	1393	1593	2.25												
2.33	<i>60</i>	<i>140</i>	1.33	2.34	153	194	240	290	341	401	–	–	–	–	–	–	–	–	–	–	2.33												
2.35	<i>85</i>	<i>200</i>	2.26	4.02	–	–	166	219	270	331	397	473	573	674	774	894	1025	1175	1350	1550	2.35												
2.39	<i>67</i>	<i>160</i>	1.46	2.54	–	170	217	268	318	379	444	520	620	720	820	941	1071	1221	1396	1596	2.39												
2.40	<i>75</i>	<i>180</i>	1.82	3.21	–	–	193	244	295	356	421	497	597	698	798	918	1048	1199	1374	1574	2.40												

Centre Distance SPZ, XPZ & QXPZ Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.75	0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15									
Speed Ratio	Pitch Diameter of Pulleys		Power per SPZ Belt (kW)		BELT LENGTH															SPZ & QXPZ ONLY		Speed Ratio
	Driver	Driven	1440 rev/min	2880 rev/min	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550		
2.86	140	400	4.61	8.16	–	–	–	–	–	–	–	–	352	457	561	684	816	967	1143	1345	2.86	
2.94	85	250	2.26	4.02	–	–	–	–	222	285	352	429	530	632	732	853	983	1134	1309	1510	2.94	
2.99	67	200	1.46	2.54	–	–	178	231	282	344	410	486	587	687	787	908	1038	1188	1364	1564	2.99	
3.00	<i>60</i>	<i>180</i>	1.33	2.34	–	155	203	254	306	367	–	–	–	–	–	–	–	–	–	–	3.00	
3.13	80	250	2.04	3.61	–	–	–	–	225	288	356	432	534	635	736	857	987	1138	1313	1513	3.13	
3.15	100	315	2.92	5.20	–	–	–	–	–	–	278	358	462	564	665	787	918	1069	1244	1445	3.15	
3.17	63	200	1.28	2.21	–	–	180	233	285	347	413	489	589	690	790	911	1041	1191	1367	1567	3.17	
3.20	125	400	3.99	7.09	–	–	–	–	–	–	–	–	362	467	571	694	826	978	1154	1356	3.20	
3.21	<i>56</i>	<i>180</i>	1.15	2.00	–	157	205	257	308	369	–	–	–	–	–	–	–	–	–	–	3.21	
3.32	95	315	2.70	4.81	–	–	–	–	–	–	281	361	465	567	669	790	921	1072	1248	1449	3.32	
3.33	<i>60</i>	<i>200</i>	1.33	2.34	–	–	182	235	287	349	–	–	–	–	–	–	–	–	–	–	3.33	
3.33	75	250	1.82	3.21	–	–	–	–	228	292	359	436	538	639	740	860	991	1141	1317	1517	3.33	
3.50	90	315	2.49	4.44	–	–	–	–	–	–	285	365	468	571	673	794	925	1076	1252	1453	3.50	
3.52	71	250	1.65	2.90	–	–	–	–	231	294	362	439	540	642	742	863	994	1144	1320	1520	3.52	
3.57	<i>56</i>	<i>200</i>	1.16	2.02	–	–	185	238	290	352	–	–	–	–	–	–	–	–	–	–	3.57	
3.57	112	400	3.45	6.15	–	–	–	–	–	–	–	–	370	476	580	703	835	987	1164	1365	3.57	
3.71	85	315	2.27	4.04	–	–	–	–	–	–	288	368	472	574	676	798	929	1080	1256	1456	3.71	
3.73	67	250	1.47	2.57	–	–	–	–	233	297	365	442	543	645	745	866	997	1147	1323	1523	3.73	
3.94	80	315	2.05	3.64	–	–	–	–	–	218	291	371	475	578	680	801	932	1083	1259	1460	3.94	
3.97	63	250	1.29	2.23	–	–	–	180	236	300	367	444	546	647	748	869	1000	1150	1326	1526	3.97	
4.00	100	400	2.93	5.23	–	–	–	–	–	–	–	–	377	484	588	711	844	996	1173	1374	4.00	
4.17	<i>60</i>	<i>250</i>	1.34	2.36	–	–	–	182	238	302	–	–	–	–	–	–	–	–	–	–	4.17	
4.20	75	315	1.83	3.23	–	–	–	–	–	221	294	374	479	581	683	805	936	1087	1263	1464	4.20	
4.21	95	400	2.71	4.84	–	–	–	–	–	–	–	268	381	487	592	715	848	1000	1176	1378	4.21	
4.44	71	315	1.65	2.90	–	–	–	–	–	224	297	377	481	584	686	808	939	1090	1266	1467	4.44	
4.44	90	400	2.49	4.44	–	–	–	–	–	–	–	271	384	491	595	718	851	1003	1180	1381	4.44	
4.46	<i>56</i>	<i>250</i>	1.16	2.02	–	–	–	184	240	304	–	–	–	–	–	–	–	–	–	–	4.46	
4.70	67	315	1.47	2.57	–	–	–	–	–	226	299	380	484	587	689	810	942	1093	1269	1470	4.70	
4.71	85	400	2.27	4.04	–	–	–	–	–	–	–	274	387	494	598	722	855	1007	1184	1385	4.71	
5.00	63	315	1.29	2.23	–	–	–	–	–	228	302	382	487	590	692	813	945	1096	1272	1473	5.00	
5.00	80	400	2.05	3.64	–	–	–	–	–	–	–	277	390	497	602	725	858	1010	1187	1389	5.00	
5.33	75	400	1.83	3.23	–	–	–	–	–	–	–	280	393	501	605	729	862	1014	1191	1392	5.33	
5.63	71	400	1.65	2.90	–	–	–	–	–	–	–	282	396	503	608	732	864	1017	1194	1395	5.63	
5.97	67	400	1.47	2.57	–	–	–	–	–	–	–	284	398	506	611	734	867	1020	1197	1398	5.97	

Pitch diameters in italic type indicates drives where the use of CRE PLUS or Quattro PLUS belts are recommended.
The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor. All dimensions in millimetres.

Centre Distance SPA, XPA & QXPA Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80	0.85	0.90	0.95	1.00	1.05	1.10											
Speed Ratio	Pitch Diameter of Pulleys		Power per SPA Belt (kW)		BELT LENGTH																Speed Ratio	
	Driver	Driven	1440 rev/min	2880 rev/min	SPA, QXPA ONLY																	SPA ONLY
					800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000	4500		
1.00	<i>80</i>	<i>80</i>	2.04	3.29	274	324	374	434	499	574	674	—	—	—	—	—	—	—	—	—	—	1.00
1.00	<i>85</i>	<i>85</i>	2.43	4.00	266	316	366	426	491	566	666	—	—	—	—	—	—	—	—	—	—	1.00
1.00	90	90	2.29	3.65	259	309	359	419	484	559	659	759	859	979	1109	1259	1434	1634	1859	2109	1.00	
1.00	95	95	2.68	4.35	251	301	351	411	476	551	651	751	851	971	1101	1251	1426	1626	1851	2101	1.00	
1.00	100	100	3.06	5.04	243	293	343	403	468	543	643	743	843	963	1093	1243	1418	1618	1843	2093	1.00	
1.00	106	106	3.52	5.85	233	283	333	393	458	533	633	733	833	953	1083	1233	1408	1608	1833	2083	1.00	
1.00	112	112	3.98	6.66	224	274	324	384	449	524	624	724	824	944	1074	1224	1399	1599	1824	2074	1.00	
1.00	118	118	4.43	7.45	215	265	315	375	440	515	615	715	815	935	1065	1215	1390	1590	1815	2065	1.00	
1.00	125	125	4.95	8.36	204	254	304	364	429	504	604	704	804	924	1054	1204	1379	1579	1804	2054	1.00	
1.00	132	132	5.47	9.26	193	243	293	353	418	493	593	693	793	913	1043	1193	1368	1568	1793	2043	1.00	
1.00	140	140	6.06	10.25	180	230	280	340	405	480	580	680	780	900	1030	1180	1355	1555	1780	2030	1.00	
1.00	150	150	6.79	11.47	—	214	264	324	389	464	564	664	764	884	1014	1164	1339	1539	1764	2014	1.00	
1.00	160	160	7.51	12.65	—	199	249	309	374	449	549	649	749	869	999	1149	1324	1524	1749	1999	1.00	
1.00	180	180	8.93	14.89	—	—	217	277	342	417	517	617	717	837	967	1117	1292	1492	1717	1967	1.00	
1.00	200	200	10.31	16.95	—	—	—	246	311	386	486	586	686	806	936	1086	1261	1461	1686	1936	1.00	
1.05	95	100	2.73	4.45	247	297	347	407	472	547	647	747	847	967	1097	1247	1422	1622	1847	2097	1.05	
1.05	112	118	4.03	6.76	219	269	319	379	444	519	619	719	819	939	1069	1219	1394	1594	1819	2069	1.05	
1.06	90	95	2.43	3.92	255	305	355	415	480	555	655	755	855	975	1105	1255	1430	1630	1855	2105	1.06	
1.06	125	132	5.09	8.63	198	248	298	358	423	498	598	698	798	918	1048	1198	1373	1573	1798	2048	1.06	
1.06	106	112	3.66	6.13	229	279	329	389	454	529	629	729	829	949	1079	1229	1404	1604	1829	2079	1.06	
1.06	85	90	2.57	4.27	263	313	363	423	488	563	663	—	—	—	—	—	—	—	—	—	1.06	
1.06	118	125	4.56	7.72	209	259	309	369	434	509	609	709	809	929	1059	1209	1384	1584	1809	2059	1.06	
1.06	100	106	3.20	5.31	238	288	338	398	463	538	638	738	838	958	1088	1238	1413	1613	1838	2088	1.06	
1.06	132	140	5.60	9.53	186	236	286	346	411	486	586	686	786	906	1036	1186	1361	1561	1786	2036	1.06	
1.06	80	85	2.18	3.56	270	320	370	430	495	570	670	—	—	—	—	—	—	—	—	—	1.06	
1.07	150	160	6.92	11.74	—	206	256	316	381	456	557	657	757	877	1007	1157	1332	1532	1757	2007	1.07	
1.07	140	150	6.19	10.53	172	222	272	332	397	472	572	672	772	892	1022	1172	1347	1547	1772	2022	1.07	
1.11	90	100	2.43	3.92	251	301	351	411	476	551	651	751	851	971	1101	1251	1426	1626	1851	2101	1.11	
1.11	180	200	9.06	15.17	—	—	—	261	326	401	501	601	701	821	951	1102	1277	1477	1702	1952	1.11	
1.11	106	118	3.66	6.13	224	274	324	384	449	524	624	724	824	944	1074	1224	1399	1599	1824	2074	1.11	
1.12	95	106	2.92	4.82	242	292	342	402	467	542	642	742	842	962	1092	1242	1417	1617	1842	2092	1.12	
1.12	112	125	4.21	7.13	214	264	314	374	439	514	614	714	814	934	1064	1214	1389	1589	1814	2064	1.12	
1.12	85	95	2.67	4.47	259	309	359	419	484	559	659	—	—	—	—	—	—	—	—	—	1.12	
1.12	118	132	4.66	7.93	204	254	304	364	429	504	604	704	804	924	1054	1204	1379	1579	1804	2054	1.12	
1.12	100	112	3.30	5.51	233	283	333	393	458	533	633	733	833	953	1083	1233	1408	1608	1833	2083	1.12	
1.12	125	140	5.19	8.84	192	242	292	352	417	492	592	692	792	912	1042	1192	1367	1567	1792	2042	1.12	
1.12	200	224	10.55	17.42	—	—	—	292	367	467	567	667	767	887	1017	1167	1342	1542	1767	1917	1.12	
1.13	80	90	2.28	3.76	266	316	366	426	491	566	666	—	—	—	—	—	—	—	—	—	1.13	
1.13	160	180	7.74	13.12	—	—	233	293	358	433	533	633	733	853	983	1133	1308	1508	1733	1983	1.13	
1.14	132	150	5.71	9.73	178	228	278	338	403	478	578	678	778	898	1028	1178	1353	1553	1778	2028	1.14	
1.14	140	160	6.29	10.73	—	214	264	324	389	464	564	664	764	884	1014	1164	1339	1539	1764	2014	1.14	
1.18	85	100	2.67	4.47	255	305	355	415	480	555	655	—	—	—	—	—	—	—	—	—	1.18	
1.18	90	106	2.53	4.12	246	296	346	406	471	546	646	746	846	966	1096	1246	1421	1621	1846	2096	1.18	
1.18	112	132	4.21	7.13	208	258	308	368	433	508	608	708	808	928	1058	1208	1383	1583	1808	2058	1.18	
1.18	95	112	2.92	4.82	237	287	337	397	462	537	637	737	837	957	1087	1237	1412	1612	1837	2087	1.18	
1.18	106	125	3.76	6.33	218	268	318	378	443	518	618	718	818	938	1068	1218	1393	1593	1818	2068	1.18	
1.18	100	118	3.39	5.68	229	279	329	389	454	529	629	729	829	949	1079	1229	1404	1604	1829	2079	1.18	
1.19	118	140	4.75	8.10	197	247	297	357	422	497	597	697	797	917	1047	1197	1372	1572	1797	2047	1.19	
1.19	80	95	2.37	3.93	262	312	362	422	487	562	662	—	—	—	—	—	—	—	—	—	1.19	
1.20	125	150	5.27	9.01	184	234	284	344	409	484	584	684	784	904	1034	1184	1359	1559	1784	2034	1.20	
1.20	150	180	7.11	12.12	—	190	240	300	366	441	541	641	741	861	991	1141	1316	1516	1741	1991	1.20	
1.21	132	160	5.79	9.90	170	220	270	330	395	470	570	671	771	891	1021	1171	1346	1546	1771	2021	1.20	
1.24	95	118	3.00	4.99	232	282	332	392	457	532	632	732	832	952	1082	1232	1407	1607	1832	2082	1.24	
1.24	90	112	2.62	4.29	241	291	341	401	466	541	641	741	841	961	1091	1241	1416	1616	1841	2091	1.24	
1.24	180	224	9.25	15.53	—	—	—	242	307	382	482	582	682	802	932	1082	1257	1457	1682	1932	1.24	
1.25	106	132	3.84	6.50	213	263	313	373	438	513	613	713	813	933	1063	1213	1388	1588	1813	2063	1.25	
1.25	85	106	2.76	4.65	250	300	350	410	475	550	650	—	—	—	—	—	—	—	—	—	1.25	
1.25	80	100	2.37	3.93	258	308	358	418	483	558	658	—	—	—	—	—	—	—	—	—	1.25	
1.25	100	125	3.39	5.69	223	273	323	383	448	523	623	723	823	943	1073	1223	1398	1598	1823	2073	1.25	
1.25	112	140	4.30	7.30	202	252	302	362	427	502	602	702	802	922	1052	1202	1377	1577	1802	2052	1.25	
1.25	160	200	7.83	13.29	—	—	216	277	342	417	517	617	717	837								

Centre Distance SPA, XPA & QXPA Wedge Belt Drives

Combined Arc and Belt Length Correction Factor					0.80	0.85		0.90		0.95		1.00		1.05		1.10		Speed Ratio			
Speed Ratio	Pitch Diameter of Pulleys		Power per SPA Belt (kW)		BELT LENGTH																
	Driver	Driven	1440 rev/min	2880 rev/min	SPA & QXPA ONLY																SPA ONLY
					800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000	4500	
1.39	85	118	2.89	4.92	240	290	340	400	465	540	640	—	—	—	—	—	—	—	—	—	1.39
1.39	90	125	2.75	4.56	230	281	331	391	456	531	631	731	831	951	1081	1231	1406	1606	1831	2081	1.39
1.39	180	250	9.38	15.80	—	—	—	—	285	361	461	561	661	781	912	1062	1237	1437	1662	1912	1.39
1.39	95	132	3.14	5.26	221	271	321	381	446	521	621	721	822	942	1072	1222	1397	1597	1822	2072	1.39
1.40	80	112	2.50	4.20	249	299	349	409	474	549	649	—	—	—	—	—	—	—	—	—	1.40
1.40	100	140	3.52	5.95	211	261	311	371	436	511	611	711	811	931	1061	1211	1386	1586	1811	2061	1.40
1.40	160	224	7.96	13.56	—	—	—	256	322	397	497	598	698	818	948	1098	1273	1473	1698	1948	1.40
1.40	200	280	10.77	17.87	—	—	—	—	—	321	421	521	622	742	872	1022	1197	1397	1623	1873	1.40
1.42	106	150	3.98	6.77	198	248	298	358	423	498	599	699	799	919	1049	1199	1374	1574	1799	2049	1.42
1.43	112	160	4.43	7.57	185	235	285	346	411	486	586	686	786	906	1036	1186	1361	1561	1786	2036	1.43
1.43	140	200	6.51	11.17	—	—	231	291	357	432	532	632	732	852	983	1133	1308	1508	1733	1983	1.43
1.44	125	180	5.41	9.28	—	209	259	319	384	460	560	660	760	880	1010	1160	1335	1535	1760	2010	1.44
1.47	90	132	2.75	4.56	225	275	325	385	450	525	625	725	825	945	1075	1225	1400	1601	1826	2076	1.47
1.47	85	125	2.89	4.92	234	284	334	395	460	535	635	—	—	—	—	—	—	—	—	—	1.47
1.47	95	140	3.14	5.26	214	264	315	375	440	515	615	715	815	935	1065	1215	1390	1590	1815	2065	1.47
1.47	80	118	2.50	4.20	244	294	344	404	469	544	644	—	—	—	—	—	—	—	—	—	1.47
1.49	150	224	7.24	12.39	—	—	264	329	405	505	605	705	825	956	1106	1281	1481	1706	1956	2206	1.49
1.50	100	150	3.52	5.95	202	252	303	363	428	503	603	703	803	923	1053	1203	1378	1578	1803	2053	1.50
1.51	106	160	3.98	6.77	189	240	290	350	415	490	590	691	791	911	1041	1191	1366	1566	1791	2041	1.51
1.52	132	200	5.93	10.17	—	186	237	297	363	438	538	638	738	859	989	1139	1314	1514	1739	1989	1.52
1.53	118	180	4.88	8.37	—	214	264	324	390	465	565	665	765	885	1015	1166	1341	1541	1766	2016	1.53
1.55	85	132	2.89	4.92	228	279	329	389	454	529	629	—	—	—	—	—	—	—	—	—	1.55
1.56	90	140	2.75	4.56	218	268	318	379	444	519	619	719	819	939	1069	1219	1394	1594	1819	2069	1.56
1.56	180	280	9.38	15.80	—	—	—	259	335	436	536	637	757	887	1037	1213	1413	1638	1888	2138	1.56
1.56	80	125	2.50	4.20	238	288	338	398	463	539	639	—	—	—	—	—	—	—	—	—	1.56
1.56	160	250	7.96	13.56	—	—	234	300	375	476	576	676	797	927	1077	1252	1452	1677	1927	2177	1.56
1.57	200	315	10.78	17.89	—	—	—	290	391	492	593	713	844	994	1169	1369	1594	1844	2114	2394	1.57
1.58	95	150	3.19	5.38	206	256	306	367	432	507	607	707	807	927	1057	1207	1382	1582	1807	2057	1.58
1.60	100	160	3.58	6.07	193	244	294	355	420	495	595	695	795	915	1045	1195	1370	1571	1796	2046	1.60
1.60	125	200	5.46	9.39	—	191	242	302	368	443	543	644	744	864	994	1144	1319	1519	1744	1994	1.60
1.60	140	224	6.57	11.28	—	—	210	271	336	412	512	613	713	833	963	1113	1288	1489	1714	1964	1.60
1.61	112	180	4.49	7.69	167	218	269	329	394	469	570	670	770	890	1020	1170	1345	1545	1770	2020	1.61
1.65	85	140	2.95	5.03	222	272	322	382	447	523	623	—	—	—	—	—	—	—	—	—	1.65
1.65	80	132	2.56	4.32	232	282	332	393	458	533	633	—	—	—	—	—	—	—	—	—	1.65
1.67	90	150	2.81	4.68	209	260	310	370	435	511	611	711	811	931	1061	1211	1386	1586	1811	2061	1.67
1.67	150	250	7.30	12.50	—	—	241	307	383	483	584	684	804	935	1085	1260	1460	1685	1935	2185	1.67
1.68	95	160	3.19	5.38	197	248	298	358	423	499	599	699	799	919	1049	1199	1374	1574	1799	2049	1.68
1.69	118	200	4.94	8.48	—	196	247	308	373	448	549	649	749	869	999	1150	1325	1525	1750	2000	1.69
1.70	132	224	5.98	10.28	—	—	215	277	342	418	518	619	719	839	969	1119	1295	1495	1720	1970	1.70
1.70	106	180	4.04	6.88	171	222	273	333	399	474	574	674	774	895	1025	1175	1350	1550	1775	2025	1.70
1.75	80	140	2.56	4.32	225	276	326	386	451	526	626	—	—	—	—	—	—	—	—	—	1.75
1.75	160	280	8.02	13.68	—	—	—	273	349	450	551	652	772	902	1053	1228	1428	1653	1903	2153	1.75
1.75	180	315	9.44	15.91	—	—	—	—	304	406	507	607	728	859	1009	1184	1385	1610	1860	2110	1.75
1.76	85	150	2.95	5.03	213	263	314	374	439	514	615	—	—	—	—	—	—	—	—	—	1.76
1.78	90	160	2.81	4.68	201	251	302	362	427	502	603	703	803	923	1053	1203	1378	1578	1803	2053	1.78
1.79	112	200	4.49	7.69	—	200	251	312	377	453	553	653	754	874	1004	1154	1329	1529	1754	2004	1.79
1.79	140	250	6.57	11.28	—	—	248	314	390	491	591	692	812	942	1092	1268	1468	1693	1943	2193	1.79
1.79	125	224	5.46	9.39	—	—	220	282	347	423	524	624	724	844	975	1125	1300	1500	1725	1975	1.79
1.80	100	180	3.58	6.07	176	227	277	338	403	478	579	679	779	899	1029	1179	1354	1555	1780	2030	1.80
1.87	150	280	7.30	12.50	—	—	—	280	356	458	558	659	780	910	1060	1236	1436	1661	1911	2161	1.87
1.88	80	150	2.56	4.32	217	267	317	378	443	518	618	—	—	—	—	—	—	—	—	—	1.88
1.88	85	160	2.95	5.03	204	255	305	366	431	506	606	—	—	—	—	—	—	—	—	—	1.88
1.89	106	200	4.04	6.88	—	204	255	316	382	457	558	658	758	878	1009	1159	1334	1534	1759	2009	1.89
1.89	132	250	5.98	10.28	—	—	—	253	320	396	496	597	697	818	948	1098	1274	1474	1699	1949	1.89
1.89	95	180	3.19	5.38	179	230	281	341	407	482	582	683	783	903	1033	1183	1358	1558	1784	2034	1.89
1.90	118	224	4.94	8.48	—	—	225	286	352	428	529	629	729	850	980	1130	1305	1505	1731	1981	1.90
1.97	160	315	8.07	13.77	—	—	—	—	317	420	521	622	743	873	1024	1199	1400	1625	1875	2125	1.97
2.00	80	160	2.60	4.41	208	258	309	369	435	510	610	—	—	—	—	—	—	—	—	—	2.00
2.00	90	180	2.85	4.77	182	234	284	345	410	486	586	686	787	907	1037	1187	1362	1562	1787	2037	2.00
2.00	100	200	3.62	6.16	—	208	260	320	386	462	562	662	763	883	1013	1163	1338	1539	1764	2014	2.00
2.00	112	224	4.54	7.78	—	—	229	291	357	432	533	634	734	854	985	1135	1310	1510	1735	1985	2.00
2.00	125	250	5.51	9.48	—	—	—	258	324	401											

Centre Distance SPB, XPB & QXPB, USPB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor

Table with columns for Speed Ratio, Pitch Diameter of Pulleys (Driver/Driven), Power per SPB Belt (kW) (1440 rev/min/960 rev/min), BELT LENGTH (1250-4000), SPB & QXPB & USPB ONLY (4500-5000), USPB & SPB ONLY (5600-8000), and Speed Ratio. Rows are organized by speed ratio from 1.00 to 1.29.

Pitch diameters in italic type indicates drives where the use of CRE PLUS or Quattro PLUS belts are recommended. The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor. All dimensions in millimetres.

Centre Distance SPB, XPB & QXPB, USB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor		0.80		0.85		0.90		0.95		1.00		1.05		1.10		1.15		Speed Ratio				
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH										SPB & QXPB & USB ONLY		USPB & SPB ONLY					
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600		6300	7100	8000	
1.31	180	236	11.89	8.52	297	372	573	673	797	923	1073	1248	1448	1673	1923	2173	2473	2823	3223	3673	1.31	
1.32	190	250	12.91	9.25	278	353	554	654	774	904	1054	1229	1429	1654	1904	2154	2454	2804	3204	3654	1.32	
1.32	170	224	10.86	7.78	314	390	590	690	810	940	1090	1265	1465	1690	1940	2190	2490	2840	3240	3690	1.32	
1.32	212	280	15.11	10.83	-	312	512	613	733	863	1013	1188	1388	1613	1863	2113	2413	2763	3163	3613	1.32	
1.32	160	212	9.81	7.04	332	407	607	707	828	957	1108	1283	1483	1708	1958	2208	2508	2858	3258	3708	1.32	
1.33	150	200	8.76	6.29	349	424	625	725	844	975	1125	1300	1500	1725	1975	2225	2525	2875	3275	3725	1.33	
1.33	236	315	17.44	12.53	-	424	466	566	686	816	966	1142	1342	1567	1817	2067	2367	2717	3117	3567	1.33	
1.34	112	150	5.62	4.06	419	494	694	794	-	-	-	-	-	-	-	-	-	-	-	-	1.34	
1.36	118	160	6.37	4.58	406	481	681	781	-	-	-	-	-	-	-	-	-	-	-	-	1.36	
1.36	140	190	7.69	5.54	365	440	640	740	861	991	1141	1316	1516	1741	1991	2241	2541	2891	3291	3741	1.36	
1.36	125	170	7.24	5.18	393	468	668	768	-	-	-	-	-	-	-	-	-	-	-	-	1.36	
1.36	132	180	8.10	5.78	379	454	655	755	-	-	-	-	-	-	-	-	-	-	-	-	1.36	
1.39	170	236	11.00	7.87	304	380	580	680	801	931	1081	1256	1456	1681	1931	2181	2481	2831	3231	3681	1.39	
1.39	180	250	12.03	8.61	285	361	561	661	782	912	1062	1237	1437	1662	1912	2162	2462	2812	3212	3662	1.39	
1.40	160	224	9.95	7.13	322	397	598	698	818	948	1098	1273	1473	1698	1948	2198	2498	2848	3248	3698	1.40	
1.40	200	280	14.06	10.06	-	321	521	622	742	872	1022	1197	1397	1623	1873	2123	2423	2773	3173	3623	1.40	
1.41	224	315	16.42	11.78	-	474	575	695	825	976	1151	1351	1576	1826	2076	2376	2726	3126	3576	1.41		
1.41	150	212	8.90	6.39	339	415	615	715	835	965	1115	1290	1490	1715	1965	2215	2515	2866	3266	3716	1.41	
1.42	250	355	18.90	13.60	-	422	522	643	773	923	1099	1299	1524	1774	2024	2324	2674	3074	3524	1.42		
1.43	112	160	5.76	4.15	411	486	686	786	-	-	-	-	-	-	-	-	-	-	-	-	1.43	
1.43	140	200	7.83	5.63	357	432	632	732	853	983	1133	1308	1508	1733	1983	2233	2533	2883	3283	3733	1.43	
1.43	280	400	21.65	15.67	-	361	462	583	713	864	1039	1239	1465	1715	1965	2265	2615	3015	3465	1.43		
1.44	132	190	8.24	5.88	371	446	646	747	-	-	-	-	-	-	-	-	-	-	-	-	1.44	
1.44	125	180	7.38	5.28	384	460	660	760	-	-	-	-	-	-	-	-	-	-	-	-	1.44	
1.44	118	170	6.51	4.67	398	473	673	773	-	-	-	-	-	-	-	-	-	-	-	-	1.44	
1.47	170	250	11.00	7.87	292	368	569	669	789	919	1069	1244	1445	1670	1920	2170	2470	2820	3220	3670	1.47	
1.47	190	280	13.05	9.34	-	328	529	629	750	880	1030	1205	1405	1630	1880	2130	2430	2780	3181	3631	1.47	
1.47	160	236	9.95	7.13	312	387	588	688	808	938	1088	1263	1463	1689	1939	2189	2489	2839	3239	3689	1.47	
1.49	212	315	15.25	10.93	-	483	584	704	835	985	1160	1360	1585	1835	2085	2386	2736	3136	3586	1.49		
1.49	150	224	8.90	6.39	329	405	605	705	826	956	1106	1281	1481	1706	1956	2206	2506	2856	3256	3706	1.49	
1.50	236	355	17.58	12.63	-	432	533	653	784	934	1109	1309	1535	1785	2035	2335	2685	3085	3535	1.50		
1.51	140	212	7.83	5.63	347	422	622	723	843	973	1123	1298	1498	1723	1973	2223	2523	2873	3273	3723	1.51	
1.52	132	200	8.24	5.88	363	438	638	738	-	-	-	-	-	-	-	-	-	-	-	-	1.52	
1.52	112	170	5.76	4.15	402	478	678	778	-	-	-	-	-	-	-	-	-	-	-	-	1.52	
1.52	125	190	7.38	5.28	376	451	651	752	-	-	-	-	-	-	-	-	-	-	-	-	1.52	
1.53	118	180	6.51	4.67	390	465	665	765	-	-	-	-	-	-	-	-	-	-	-	-	1.53	
1.56	180	280	12.03	8.61	259	335	536	637	757	887	1038	1213	1413	1638	1888	2138	2438	2788	3188	3638	1.56	
1.56	160	250	9.95	7.13	300	375	576	676	797	927	1077	1252	1452	1677	1927	2178	2478	2828	3228	3678	1.56	
1.57	150	236	8.89	6.37	319	394	595	696	816	946	1096	1271	1471	1696	1946	2196	2496	2847	3247	3697	1.57	
1.57	200	315	14.05	10.05	-	290	492	593	713	844	994	1169	1369	1594	1845	2095	2395	2745	3145	3595	1.57	
1.58	224	355	16.54	11.86	-	440	541	662	793	943	1118	1318	1544	1794	2044	2344	2694	3095	3545	1.58		
1.59	315	500	24.81	18.09	-	-	-	-	471	603	754	930	1131	1357	1607	1858	2158	2508	2908	3359	1.59	
1.60	125	200	7.49	5.35	368	443	644	744	-	-	-	-	-	-	-	-	-	-	-	-	1.60	
1.60	140	224	7.95	5.71	336	412	613	713	833	963	1113	1288	1489	1714	1964	2214	2514	2864	3264	3714	1.60	
1.60	250	400	19.02	13.68	-	382	484	605	736	886	1062	1262	1488	1738	1988	2288	2638	3039	3489	1.60		
1.61	132	212	8.36	5.95	353	428	629	729	-	-	-	-	-	-	-	-	-	-	-	-	1.61	
1.61	112	180	5.88	4.23	394	469	670	770	-	-	-	-	-	-	-	-	-	-	-	-	1.61	
1.61	118	190	6.63	4.75	381	457	657	757	-	-	-	-	-	-	-	-	-	-	-	-	1.61	
1.65	170	280	11.11	7.95	266	342	544	644	765	895	1045	1220	1421	1646	1896	2146	2446	2796	3196	3646	1.65	
1.66	190	315	13.17	9.42	-	297	499	600	721	851	1001	1177	1377	1602	1852	2102	2403	2753	3153	3603	1.66	
1.67	150	250	9.01	6.46	307	383	584	684	804	935	1085	1260	1460	1685	1935	2185	2485	2835	3235	3686	1.67	
1.67	212	355	15.37	11.00	-	449	550	671	801	952	1127	1328	1553	1803	2053	2353	2704	3104	3554	1.67		
1.69	140	236	7.95	5.71	326	402	603	703	823	953	1104	1279	1479	1704	1954	2204	2504	2854	3254	3704	1.69	
1.69	118	200	6.63	4.75	373	448	649	749	-	-	-	-	-	-	-	-	-	-	-	-	1.69	
1.69	236	400	17.70	12.71	-	392	494	615	746	897	1072	1273	1498	1749	1999	2299	2649	3049	3500	1.69		
1.70	125	212	7.49	5.35	358	433	634	734	-	-	-	-	-	-	-	-	-	-	-	-	1.70	
1.70	112	190	5.88	4.23	386	461	662	762	-	-	-	-	-	-	-	-	-	-	-	-	1.70	
1.70	132	224	8.36	5.95	342	418	619	719	-	-	-	-	-	-	-	-	-	-	-	-	1.70	
1.75	160	280	10.07	7.21	273	349	551	652	772	902	1053	1228	1428	1653	1903	2154	2454	2804	3204	3654	1.75	
1.75	180	315	12.15	8.69	-	304	507	607	728	859	1009	1184	1385	1610	1860	2110	2410	2760	3161	3611	1.75	
1.77	200	355	14.17	10.14	-	458	559	680	810	961	1136	1337	1562	1812	2063	2363	2713	3113	3563	1.77		
1.79	112	200	5.88	4.23	377	453	653	754	-	-	-	-	-	-	-	-	-	-	-	-	1.79	
1.79	140	250	7.95	5.71	314	390	591	692	812	942	1092	1268	1468	1693	1943	2193	2493	2843	3243	3693	1.79	
1.79	224	400	16.54	11.86	-	400	502	624	755	906	1081	1282	1507	1758	2008	2308	2658	3059	3509	1.79		
1.79	280	500	21.77	15.74	-	-	-	495	628	780	956	1157	1383	1634	1884	2185	2535	2935	3386	1.79		
1.79	132	236	8.36	5.95	332	408	609	709	-	-	-	-	-	-	-	-	-	-	-	-	1.79	
1.79	125	224	7.49	5.																		

Centre Distance SPB, XPB & QXPB, USPB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor			0.80	0.85	0.90	0.95	1.00	1.05	1.10	1.15											
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH										SPB & QXPB & USPB ONLY		Speed Ratio				
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	USPB & SPB ONLY					
1.90	<i>118</i>	<i>224</i>	6.63	4.75	352	428	629	729	—	—	—	—	—	—	—	—	—	—	—	—	1.90
1.97	<i>160</i>	<i>315</i>	10.17	7.28	—	317	521	622	743	873	1024	1199	1400	1625	1875	2126	2426	2776	3176	3626	1.97
1.97	<i>180</i>	<i>355</i>	12.24	8.75	—	—	472	573	695	825	976	1151	1352	1577	1828	2078	2378	2728	3129	3579	1.97
2.00	<i>112</i>	<i>224</i>	5.97	4.30	357	432	634	734	—	—	—	—	—	—	—	—	—	—	—	—	2.00
2.00	<i>118</i>	<i>236</i>	6.72	4.81	342	418	619	720	—	—	—	—	—	—	—	—	—	—	—	—	2.00
2.00	<i>125</i>	<i>250</i>	7.59	5.42	324	401	602	703	—	—	—	—	—	—	—	—	—	—	—	—	2.00
2.00	<i>140</i>	<i>280</i>	8.04	5.78	287	363	566	666	787	917	1068	1243	1443	1669	1919	2169	2469	2819	3219	3669	2.00
2.00	<i>200</i>	<i>400</i>	14.27	10.21	—	—	417	519	641	772	923	1099	1300	1525	1776	2026	2327	2677	3077	3527	2.00
2.00	<i>250</i>	<i>500</i>	19.12	13.75	—	—	—	—	516	649	801	978	1179	1405	1656	1907	2207	2558	2958	3409	2.00
2.00	<i>315</i>	<i>630</i>	24.91	18.15	—	—	—	—	—	—	638	818	1021	1248	1500	1751	2052	2403	2803	3254	2.00
2.09	<i>170</i>	<i>355</i>	11.21	8.02	—	—	479	580	702	833	983	1159	1360	1585	1835	2086	2386	2736	3136	3586	2.09
2.10	<i>150</i>	<i>315</i>	9.11	6.53	—	324	528	629	750	881	1031	1207	1407	1633	1883	2133	2433	2784	3184	3634	2.10
2.11	<i>190</i>	<i>400</i>	13.26	9.48	—	—	424	526	648	780	931	1107	1307	1533	1784	2034	2334	2685	3085	3535	2.11
2.11	<i>112</i>	<i>236</i>	5.97	4.30	346	422	624	724	—	—	—	—	—	—	—	—	—	—	—	—	2.11
2.12	<i>118</i>	<i>250</i>	6.72	4.81	429	406	607	708	—	—	—	—	—	—	—	—	—	—	—	—	2.12
2.12	<i>236</i>	<i>500</i>	17.79	12.77	—	—	—	400	526	659	811	988	1190	1416	1667	1917	2218	2569	2969	3419	2.12
2.12	<i>132</i>	<i>280</i>	8.45	6.02	292	369	572	672	—	—	—	—	—	—	—	—	—	—	—	—	2.12
2.22	<i>160</i>	<i>355</i>	10.17	7.28	—	278	486	587	709	840	991	1166	1367	1593	1843	2093	2394	2744	3144	3594	2.22
2.22	<i>180</i>	<i>400</i>	12.24	8.75	—	—	430	533	655	787	938	1114	1315	1541	1791	2042	2342	2692	3093	3543	2.22
2.23	<i>112</i>	<i>250</i>	5.97	4.30	334	410	612	712	—	—	—	—	—	—	—	—	—	—	—	—	2.23
2.23	<i>224</i>	<i>500</i>	16.64	11.92	—	—	—	408	534	667	820	997	1198	1425	1676	1926	2227	2578	2978	3429	2.23
2.24	<i>125</i>	<i>280</i>	7.59	5.42	297	374	577	677	—	—	—	—	—	—	—	—	—	—	—	—	2.24
2.25	<i>140</i>	<i>315</i>	8.04	5.78	252	331	535	637	758	888	1039	1214	1415	1640	1891	2141	2441	2791	3191	3642	2.25
2.25	<i>280</i>	<i>630</i>	21.87	15.81	—	—	—	364	505	662	842	1046	1273	1525	1777	2078	2429	2830	3281	3781	2.25
2.35	<i>170</i>	<i>400</i>	11.21	8.02	—	—	437	540	663	794	945	1121	1322	1548	1799	2049	2350	2700	3100	3550	2.35
2.36	<i>212</i>	<i>500</i>	15.46	11.07	—	—	—	416	542	675	828	1005	1207	1434	1685	1935	2236	2587	2987	3438	2.36
2.37	<i>150</i>	<i>355</i>	9.11	6.53	—	285	493	595	733	847	998	1174	1375	1600	1851	2101	2401	2751	3152	3602	2.37
2.37	<i>118</i>	<i>280</i>	6.72	4.81	302	379	582	683	—	—	—	—	—	—	—	—	—	—	—	—	2.37
2.39	<i>132</i>	<i>315</i>	8.45	6.02	258	336	541	642	—	—	—	—	—	—	—	—	—	—	—	—	2.39
2.50	<i>112</i>	<i>280</i>	5.97	4.30	306	383	586	687	—	—	—	—	—	—	—	—	—	—	—	—	2.50
2.50	<i>160</i>	<i>400</i>	10.17	7.28	—	—	444	547	670	801	953	1129	1330	1556	1806	2057	2357	2708	3108	3558	2.50
2.50	<i>200</i>	<i>500</i>	14.27	10.21	—	—	—	424	550	684	837	1014	1216	1442	1694	1944	2245	2596	2996	3447	2.50
2.52	<i>125</i>	<i>315</i>	7.59	5.42	262	341	546	647	—	—	—	—	—	—	—	—	—	—	—	—	2.52
2.52	<i>250</i>	<i>630</i>	19.12	13.75	—	—	—	382	524	682	863	1067	1295	1547	1799	2100	2451	2853	3303	3753	2.52
2.54	<i>140</i>	<i>355</i>	8.04	5.78	—	291	500	602	723	854	1005	1181	1382	1608	1858	2108	2409	2759	3159	3610	2.54
2.54	<i>315</i>	<i>800</i>	24.81	18.15	—	—	—	—	—	—	654	865	1097	1353	1606	1909	2261	2663	3115	3565	2.54
2.63	<i>190</i>	<i>500</i>	13.26	9.48	—	—	—	430	557	691	844	1021	1223	1450	1701	1952	2253	2603	3004	3455	2.63
2.67	<i>150</i>	<i>400</i>	9.11	6.53	—	—	451	554	677	808	960	1136	1337	1563	1814	2064	2365	2715	3116	3566	2.67
2.67	<i>118</i>	<i>315</i>	6.72	4.81	267	346	551	652	—	—	—	—	—	—	—	—	—	—	—	—	2.67
2.67	<i>236</i>	<i>630</i>	17.79	12.77	—	—	—	390	533	692	873	1077	1305	1557	1809	2111	2462	2863	3314	3764	2.67
2.69	<i>132</i>	<i>355</i>	8.45	6.02	—	297	505	607	—	—	—	—	—	—	—	—	—	—	—	—	2.69
2.78	<i>180</i>	<i>500</i>	12.24	8.75	—	—	437	563	698	851	1028	1231	1457	1708	1959	2260	2611	3012	3462	3912	2.78
2.81	<i>112</i>	<i>315</i>	5.97	4.30	271	350	555	657	—	—	—	—	—	—	—	—	—	—	—	—	2.81
2.81	<i>224</i>	<i>630</i>	16.64	11.92	—	—	—	398	541	700	881	1085	1314	1566	1818	2120	2471	2872	3323	3773	2.81
2.84	<i>125</i>	<i>355</i>	7.59	5.42	—	301	510	612	—	—	—	—	—	—	—	—	—	—	—	—	2.84
2.86	<i>140</i>	<i>400</i>	8.04	5.78	—	—	457	561	684	816	967	1143	1345	1571	1821	2072	2372	2723	3123	3574	2.86
2.86	<i>280</i>	<i>800</i>	21.87	15.81	—	—	—	—	—	—	677	889	1122	1377	1631	1934	2287	2689	3141	3591	2.86
2.94	<i>170</i>	<i>500</i>	11.21	8.02	—	—	—	443	570	704	858	1036	1238	1464	1716	1967	2268	2619	3019	3470	2.94
2.97	<i>212</i>	<i>630</i>	15.46	11.07	—	—	—	405	549	708	889	1094	1322	1575	1827	2128	2480	2881	3332	3782	2.97
3.01	<i>118</i>	<i>355</i>	6.72	4.81	—	306	515	617	—	—	—	—	—	—	—	—	—	—	—	—	3.01
3.03	<i>132</i>	<i>400</i>	8.45	6.02	—	—	463	566	—	—	—	—	—	—	—	—	—	—	—	—	3.03
3.13	<i>160</i>	<i>500</i>	10.17	7.28	—	—	—	449	577	711	865	1043	1245	1472	1723	1974	2275	2626	3027	3477	3.13
3.15	<i>200</i>	<i>630</i>	14.27	10.21	—	—	—	412	557	716	897	1102	1331	1584	1836	2137	2489	2890	3341	3791	3.15
3.17	<i>112</i>	<i>355</i>	5.97	4.30	—	309	519	621	—	—	—	—	—	—	—	—	—	—	—	—	3.17
3.17	<i>315</i>	<i>1000</i>	24.91	18.15	—	—	—	—	—	—	—	—	—	902	1167	1426	1733	2089	2494	2947	3.17
3.20	<i>125</i>	<i>400</i>	7.59	5.42	—	—	467	571	—	—	—	—	—	—	—	—	—	—	—	—	3.20
3.20	<i>250</i>	<i>800</i>	19.12	13.75	—	—	—	—	—	—	696	909	1142	1398	1652	1956	2309	2711	3163	3613	3.20
3.32	<i>190</i>	<i>630</i>	13.26	9.48	—	—	—	—	418	563	722	904	1109	1338	1591	1843	2145	2496	2898	3349	3.32
3.33	<i>150</i>	<i>500</i>	9.11	6.53	—	—	345	456	584	718	872	1050	1252	1479	1731	1982	2283	2634	3034	3485	3.33
3.39	<i>118</i>	<i>400</i>	6.79	4.86	—	—	472	576	—	—	—	—	—	—	—	—	—	—	—	—	3.39
3.39	<i>236</i>	<i>800</i>	17.86	12.82	—	—	—	—	—	—	705	918	1152	1408	1662	1966	2319	2722	3174	3624	3.39
3.50	<i>180</i>	<i>630</i>	12.31	8.80	—	—	—	425	569	729	911	1116	1345	1598	1850	2152	2504	2905	3356	3806	3.50
3.57	<i>112</i>	<i>400</i>	6.04	4.34	—	—	476	580	—	—	—	—	—	—	—	—	—	—	—	—	3.57
3.57	<i>140</i>	<i>500</i>	8.11	5.82	—	—	351	462	590	725											

Centre Distance SPB, XPB & QXPB, USPB Wedge Belt Drives

Combined Arc and Belt Length Correction Factor

				0.80			0.85			0.90			0.95			1.00			1.05			1.10		
Speed Ratio	Pitch Diameter of Pulleys		Power per SPB Belt (kW)		BELT LENGTH										SPB & QXPB & USPB ONLY		SPB ONLY						Speed Ratio	
	Driver	Driven	1440 rev/min	960 rev/min	1250	1400	1800	2000	2240	2500	2800	3150	3550	4000	4500	5000	5600	6300	7100	8000				
4.24	236	1000	17.86	12.82	-	-	-	-	-	-	-	-	700	953	1219	1480	1788	2145	2551	3005	4.24			
4.44	180	800	12.31	8.80	-	-	-	-	-	-	542	740	955	1190	1447	1702	2006	2360	2763	3215	4.44			
4.46	224	1000	16.71	11.97	-	-	-	-	-	-	-	-	707	960	1227	1488	1797	2154	2559	3014	4.46			
4.50	140	630	8.11	5.82	-	-	-	-	-	449	595	756	938	1144	1373	1627	1879	2181	2533	2935	3386	4.50		
4.71	170	800	11.28	8.06	-	-	-	-	-	-	-	548	747	962	1197	1454	1709	2014	2367	2770	3223	4.71		
4.72	212	1000	15.53	11.11	-	-	-	-	-	-	-	-	714	968	1235	1496	1805	2162	2568	3022	4.72			
5.00	160	800	10.23	7.32	-	-	-	-	-	-	-	554	753	968	1203	1461	1716	2021	2374	2778	3230	5.00		
5.00	200	1000	14.34	10.25	-	-	-	-	-	-	-	-	722	976	1243	1504	1813	2171	2576	3031	5.00			
5.26	190	1000	13.33	9.53	-	-	-	-	-	-	-	-	728	982	1250	1511	1820	2178	2584	3038	5.26			
5.33	150	800	9.18	6.57	-	-	-	-	-	-	-	-	759	975	1210	1468	1723	2028	2382	2785	3238	5.33		
5.56	180	1000	12.31	8.80	-	-	-	-	-	-	-	-	734	988	1256	1518	1827	2185	2591	3046	5.56			
5.71	140	800	8.11	5.82	-	-	-	-	-	-	-	-	766	981	1217	1475	1730	2035	2389	2792	3245	5.71		
5.88	170	1000	11.28	8.06	-	-	-	-	-	-	-	-	740	994	1263	1525	1834	2192	2598	3053	5.88			

The above drives are based on the ISO belt length designations, other belt lengths and pulley combinations are available - consult your local Authorised Distributor.

Power Ratings - USPB Ultra PLUS 150 Wedge Belts

Power Ratings - USPB Ultra PLUS 150 Wedge Belts

Rev/min of faster shaft	Rated Power (kW) per belt for small pulley pitch dia (mm)										Belt Speed (m/s)
	140	160	180	200	224	250	280	315	355	400	
50	0.66	0.83	0.99	1.15	1.35	1.55	1.79	2.06	2.38	2.72	30
100	1.23	1.54	1.86	2.17	2.53	2.93	3.38	3.91	4.51	5.17	
200	2.26	2.87	3.46	4.05	4.75	5.51	6.37	7.37	8.50	9.77	
350	3.68	4.69	5.69	6.69	7.86	9.13	10.58	12.24	14.13	16.22	
500	5.01	6.41	7.80	9.17	10.80	12.55	14.55	16.84	19.43	22.28	
700	6.66	8.56	10.45	12.31	14.51	16.87	19.54	22.61	26.03	29.79	
800	7.44	9.59	11.72	13.81	16.29	18.93	21.92	25.33	29.14	33.28	
950	8.58	11.09	13.55	15.98	18.85	21.90	25.33	29.23	33.53	38.17	
1200	10.37	13.44	16.45	19.40	22.87	26.52	30.60	35.16	40.11	45.30	
1450	12.03	15.63	19.14	22.56	26.55	30.70	35.28	40.31	45.62	50.96	
1600	12.97	16.86	20.65	24.33	28.58	32.99	37.79	42.99	48.35	53.57	
1800	14.14	18.41	22.54	26.51	31.08	35.75	40.75	46.03	51.26	56.01	
2000	15.24	19.85	24.28	28.51	33.32	38.16	43.24	48.42	53.25	57.16	
2500	17.59	22.91	27.91	32.56	37.64	42.48	47.12	51.12			
2850	18.89	24.57	29.79	34.52	39.47	43.87	47.58				
3500	20.47	26.45	31.63	35.93	39.80						
4000	20.86	26.70	31.38	34.77							
5000	19.14	23.58									

Additional Power Ratings - USPB

Rev/min of faster shaft	Additional Power (kW) per belt for speed ratio									
	1.00 to 1.01	1.02 to 1.05	1.06 to 1.11	1.12 to 1.18	1.19 to 1.26	1.27 to 1.38	1.30 to 1.57	1.58 to 1.94	1.95 to 3.38	3.39 and over
100	0.00	0.01	0.02	0.04	0.04	0.06	0.07	0.07	0.08	0.08
200	0.00	0.01	0.04	0.07	0.09	0.11	0.13	0.15	0.16	0.17
300	0.00	0.02	0.06	0.10	0.14	0.17	0.20	0.22	0.24	0.25
400	0.00	0.03	0.07	0.13	0.19	0.22	0.26	0.29	0.32	0.34
500	0.00	0.04	0.09	0.17	0.23	0.28	0.33	0.37	0.40	0.43
600	0.00	0.04	0.12	0.20	0.28	0.34	0.40	0.45	0.48	0.51
700	0.00	0.05	0.13	0.24	0.33	0.39	0.46	0.52	0.57	0.59
720	0.00	0.05	0.14	0.25	0.33	0.41	0.48	0.54	0.59	0.62
800	0.00	0.06	0.16	0.28	0.37	0.45	0.53	0.60	0.65	0.69
900	0.00	0.07	0.18	0.31	0.42	0.51	0.60	0.66	0.72	0.77
960	0.00	0.07	0.19	0.32	0.44	0.54	0.62	0.70	0.77	0.81
1000	0.00	0.07	0.19	0.34	0.46	0.56	0.66	0.74	0.81	0.86
1100	0.00	0.08	0.22	0.37	0.51	0.62	0.72	0.81	0.89	0.94
1200	0.00	0.09	0.23	0.41	0.56	0.68	0.79	0.89	0.97	1.03
1300	0.00	0.09	0.25	0.44	0.60	0.73	0.86	0.96	1.05	1.11
1400	0.00	0.10	0.28	0.48	0.65	0.79	0.93	1.04	1.13	1.20
1440	0.00	0.10	0.28	0.48	0.66	0.79	0.94	1.06	1.15	1.21
1500	0.00	0.10	0.29	0.51	0.69	0.84	0.99	1.11	1.21	1.28
1600	0.00	0.11	0.31	0.54	0.75	0.90	1.05	1.19	1.29	1.37
1700	0.00	0.12	0.34	0.58	0.79	0.95	1.12	1.26	1.37	1.45
1800	0.00	0.13	0.35	0.61	0.84	1.01	1.19	1.34	1.45	1.54
1900	0.00	0.13	0.37	0.65	0.88	1.07	1.25	1.41	1.54	1.63
2000	0.00	0.14	0.39	0.68	0.93	1.13	1.32	1.48	1.62	1.71
2100	0.00	0.15	0.41	0.72	0.98	1.18	1.39	1.56	1.69	1.79
2200	0.00	0.16	0.43	0.75	1.02	1.24	1.45	1.63	1.78	1.88
2300	0.00	0.16	0.45	0.78	1.07	1.29	1.51	1.71	1.86	1.97
2400	0.00	0.17	0.47	0.82	1.11	1.35	1.58	1.78	1.94	2.05
2500	0.00	0.18	0.49	0.85	1.16	1.41	1.65	1.86	2.02	2.14
2600	0.00	0.19	0.51	0.89	1.21	1.46	1.72	1.92	2.10	2.22
2700	0.00	0.19	0.53	0.92	1.25	1.52	1.78	1.99	2.18	2.31
2800	0.00	0.20	0.54	0.95	1.29	1.57	1.84	2.07	2.26	2.39
2880	0.00	0.20	0.56	0.97	1.32	1.60	1.88	2.11	2.31	2.44
2900	0.00	0.21	0.57	0.99	1.34	1.63	1.91	2.15	2.34	2.48
3000	0.00	0.22	0.59	1.02	1.39	1.69	1.98	2.23	2.42	2.57

Power Ratings - USPC Ultra PLUS 150 Wedge Belts

Power Ratings - USPC Ultra PLUS 150 Wedge Belts

Rev/min of faster shaft	Rated Power (kW) per belt for small pulley pitch dia (mm)										Belt Speed (m/s)
	224	250	280	315	355	400	450	500	560	630	
50	1.96	2.35	2.78	3.29	3.86	4.50	5.21	5.91	6.75	7.72	30
100	3.65	4.38	5.22	6.19	7.28	8.51	9.86	11.20	12.80	14.64	
200	6.74	8.14	9.73	11.58	13.67	16.00	18.57	21.11	24.12	27.61	
350	10.99	13.33	16.01	19.09	22.58	26.46	30.71	34.90	39.86	45.54	
500	14.94	18.17	21.86	26.11	30.90	36.20	41.98	47.64	54.27	61.78	
700	19.82	24.18	29.14	34.82	41.17	48.14	55.66	62.92	71.27	80.50	
800	22.12	27.01	32.56	38.89	45.95	53.65	61.88	69.76	78.71	88.41	
950	25.39	31.04	37.41	44.65	52.65	61.27	70.36	78.90	88.35	98.19	
1200	30.37	37.15	44.73	53.22	62.43	72.10	81.94	90.74	99.77	108.02	
1300	32.20	39.38	47.37	56.26	65.81	75.71	85.58	94.13	102.50	109.38	
1450	34.74	42.47	51.00	60.37	70.27	80.27	89.84	97.62	104.37		
1600	37.05	45.25	54.21	63.91	73.93	83.72	92.55	99.03			40
1700	38.46	46.93	56.10	65.93	75.90	85.35	93.44	98.71			
1800	39.74	48.44	57.78	67.66	77.47	86.43	93.53				
2000	41.96	50.99	60.49	70.21	79.32	86.77					
2500	45.18	54.25	62.99	70.61							
2850	45.23	53.54	60.61								
3500	39.74										

Additional Power Ratings - USPC

Rev/min of faster shaft	Additional Power (kW) per belt for speed ratio									
	1.00 to 1.01	1.02 to 1.05	1.06 to 1.11	1.12 to 1.18	1.19 to 1.26	1.27 to 1.38	1.30 to 1.57	1.58 to 1.94	1.95 to 3.38	3.39 and over
100	0.00	0.02	0.06	0.11	0.14	0.17	0.20	0.23	0.25	0.26
200	0.00	0.04	0.12	0.21	0.29	0.35	0.41	0.46	0.50	0.53
300	0.00	0.07	0.18	0.32	0.43	0.52	0.61	0.69	0.75	0.79
400	0.00	0.09	0.24	0.42	0.57	0.70	0.81	0.92	1.00	1.06
500	0.00	0.11	0.30	0.53	0.72	0.87	1.02	1.15	1.25	1.32
600	0.00	0.13	0.36	0.63	0.86	1.04	1.22	1.37	1.50	1.59
700	0.00	0.15	0.42	0.74	1.00	1.22	1.43	1.60	1.75	1.85
720	0.00	0.16	0.43	0.76	1.03	1.25	1.46	1.65	1.80	1.90
800	0.00	0.17	0.48	0.84	1.15	1.39	1.63	1.83	2.00	2.11
900	0.00	0.20	0.54	0.95	1.29	1.56	1.85	2.06	2.25	2.38
960	0.00	0.21	0.58	1.01	1.37	1.67	1.95	2.20	2.40	2.54
1000	0.00	0.22	0.60	1.05	1.43	1.74	2.04	2.29	2.50	2.64
1110	0.00	0.24	0.66	1.16	1.57	1.91	2.24	2.52	2.75	2.91
1200	0.00	0.26	0.72	1.26	1.72	2.09	2.44	2.75	3.00	3.17
1300	0.00	0.28	0.78	1.37	1.86	2.26	2.65	2.98	3.25	3.44
1400	0.00	0.31	0.84	1.47	2.00	2.43	2.85	3.21	3.50	3.70
1440	0.00	0.31	0.87	1.51	2.06	2.50	2.93	3.30	3.60	3.81
1500	0.00	0.33	0.90	1.58	2.15	2.61	3.05	3.44	3.75	3.96
1600	0.00	0.35	0.96	1.68	2.29	2.78	3.26	3.67	4.00	4.23
1700	0.00	0.37	1.02	1.79	2.43	2.96	3.46	3.90	4.25	4.49
1800	0.00	0.39	1.08	1.89	2.58	3.13	3.66	4.12	4.50	4.76
1900	0.00	0.42	1.14	2.00	2.72	3.30	3.87	4.35	4.75	5.02
2000	0.00	0.44	1.20	2.10	2.86	3.48	4.07	4.58	5.00	5.29
2100	0.00	0.46	1.26	2.21	3.00	3.65	4.27	4.81	5.25	5.55
2200	0.00	0.48	1.32	2.31	3.15	3.83	4.48	5.04	5.50	5.82
2300	0.00	0.51	1.38	2.42	3.29	4.00	4.68	5.27	5.75	6.08
2400	0.00	0.53	1.44	2.52	3.43	4.18	4.88	5.50	6.00	6.35
2500	0.00	0.55	1.50	2.63	3.58	4.35	5.09	5.73	6.25	6.61
2600	0.00	0.57	1.56	2.73	3.72	4.52	5.29	5.95	6.50	6.88
2700	0.00	0.59	1.62	2.84	3.86	4.70	5.49	6.18	6.75	7.14
2800	0.00	0.62	1.68	2.94	4.00	4.87	5.70	6.41	7.00	7.41
2880	0.00	0.64	1.74	3.05	4.15	5.05	5.90	6.64	7.25	7.67
3000	0.00	0.66	1.80	3.15	4.29	5.22	6.11	6.87	7.50	7.94
3100	0.00	0.68	1.86	3.26	4.43	5.39	6.31	7.10	7.75	8.20
3200	0.00	0.70	1.92	3.36	4.58	5.57	6.51	7.33	8.00	8.46
3300	0.00	0.73	1.98	3.47	4.72	5.74	6.72	7.56	8.25	8.73
3400	0.00	0.75	2.04	3.57	4.86	5.92	6.92	7.79	8.50	8.99
3500	0.00	0.77	2.10	3.68	5.01	6.09	7.12	8.02	8.75	9.26
3600	0.00	0.79	2.16	3.78	5.15	6.26	7.33	8.24	9.00	9.52

Power Ratings - QXPZ, QXPB Quattro PLUS Wedge Belts

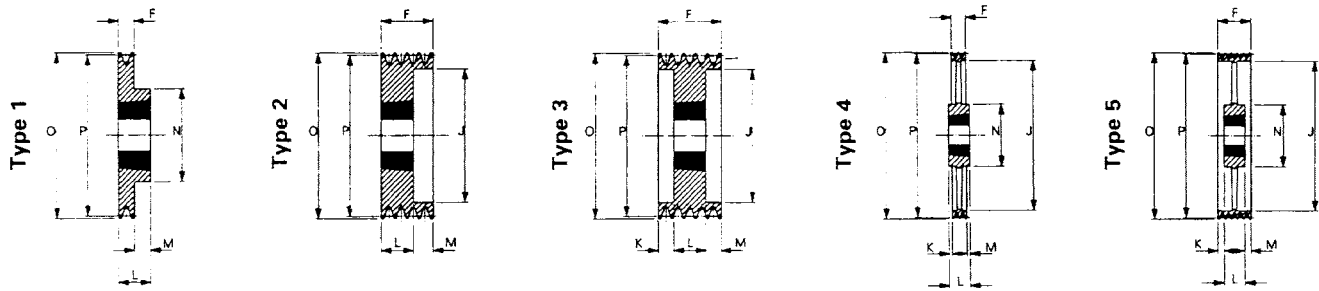
Power Ratings - QXPZ Quattro PLUS Wedge Belts

Table with columns: Rev/min of faster shaft, Rated Power (kW) Per Belt for Small Pulley Pitch Dia (mm) (56-150), and Belt Speed m/s. Rows represent different belt sizes from 100 to 6000.

Power Ratings - QXPB Quattro PLUS Wedge Belts

Table with columns: Rev/min of faster shaft, Rated Power (kW) Per Belt for Small Pulley Pitch Dia (mm) (112-315), and Belt Speed m/s. Rows represent different belt sizes from 100 to 5000.

Taper Lock Pulleys for Z, SPZ, XPZ & QXPZ Belts



Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031Z0041	56	1	1008	25	1	9	49	28	13	22	—	—	60
031Z0042	56	2	1108	28	1/8	9	49	35	27	22	—	—	60
031Z0051	60	1	1008	25	1	9	22	—	—	22	—	—	64
031Z0052	60	2	1108	28	1/8	9	28	36	27	22	—	—	64
031Z0061	63	1	1108	28	1/8	1	16	—	—	22	6	56	67
031Z0062	63	2	1108	28	1/8	2	28	40	—	22	6	—	67
031Z0063	63	3	1108	28	1/8	2	40	40	—	22	18	—	67
031Z0071	67	1	1108	28	1/8	1	16	—	—	22	6	60	71
031Z0072	67	2	1108	28	1/8	6	28	42	6	22	—	—	71
031Z0073	67	3	1108	28	1/8	6	40	42	18	22	—	—	71
031Z0081	71	1	1108	28	1/8	1	16	—	—	22	6	60	75
031Z0082	71	2	1108	28	1/8	6	28	42	6	22	—	—	75
031Z0083	71	3	1108	28	1/8	6	40	42	18	22	—	—	75
031Z0091	75	1	1108	28	1/8	1	16	—	—	22	6	60	79
031Z0092	75	2	1210	32	1/4	6	28	51	3	25	—	—	79
031Z0093	75	3	1210	32	1/4	6	40	51	15	25	—	—	79
031Z0101	80	1	1210	32	1/4	1	16	—	—	25	9	75	84
031Z0102	80	2	1210	32	1/4	6	28	51	3	25	—	—	84
031Z0103	80	3	1210	32	1/4	6	40	51	15	25	—	—	84
031Z0104	80	4	1210	32	1/4	6	52	51	27	25	—	—	84
031Z0111	85	1	1210	32	1/4	1	16	—	—	25	9	80	89
031Z0112	85	2	1610	42	15/8	6	28	60	3	25	—	—	89
031Z0113	85	3	1610	42	15/8	6	40	60	15	25	—	—	89
031Z0114	85	4	1610	42	15/8	6	52	60	27	25	—	—	89
031Z0115*	85	5	1610	42	15/8	6	64	60	39	25	—	—	89
031Z0121	90	1	1210	32	1/4	1	16	—	—	25	9	80	94
031Z0122	90	2	1610	42	15/8	6	28	61	3	25	—	—	94
031Z0123	90	3	1610	42	15/8	6	40	61	15	25	—	—	94
031Z0124	90	4	1610	42	15/8	6	52	61	27	25	—	—	94
031Z0125*	90	5	1610	42	15/8	6	64	61	39	25	—	—	94
031Z0131	95	1	1210	32	1/4	1	16	—	—	25	9	85	99
031Z0132	95	2	1610	42	15/8	6	28	66	3	25	—	—	99
031Z0133	95	3	1610	42	15/8	6	40	66	15	25	—	—	99
031Z0134	95	4	1610	42	15/8	6	52	66	27	25	—	—	99
031Z0135*	95	5	1610	42	15/8	6	64	66	39	25	—	—	99
031Z0141	100	1	1210	32	1/4	1	16	—	—	25	9	85	104
031Z0142	100	2	1610	42	15/8	6	28	71	3	25	—	—	104
031Z0143	100	3	1610	42	15/8	6	40	71	15	25	—	—	104
031Z0144	100	4	1610	42	15/8	6	52	71	27	25	—	—	104
031Z0145*	100	5	2012	50	2	6	64	71	32	32	—	—	104
031Z0151	106	1	1610	42	15/8	1	16	—	—	25	9	92	111
031Z0152	106	2	1610	42	15/8	6	28	76	3	25	—	—	111
031Z0153	106	3	1610	42	15/8	6	40	76	15	25	—	—	111
031Z0154	106	4	1610	42	15/8	6	52	76	27	25	—	—	111
031Z0155*	106	5	2012	50	2	6	64	76	32	32	—	—	111
031Z0161	112	1	1610	42	15/8	1	16	—	—	25	9	92	116
031Z0162	112	2	1610	42	15/8	6	28	83	3	25	—	—	116
031Z0163	112	3	2012	50	2	6	40	83	8	32	—	—	116
031Z0164	112	4	2012	50	2	6	52	83	20	32	—	—	116
031Z0165*	112	5	2012	50	2	6	64	83	32	32	—	—	116

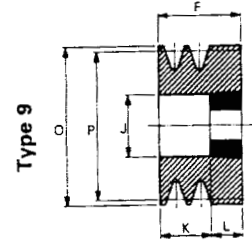
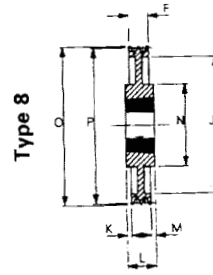
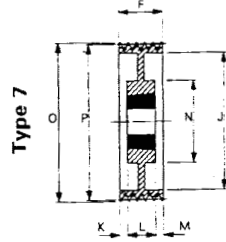
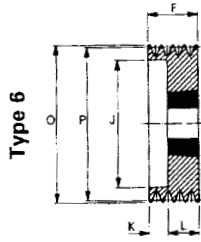
Type 6NR pulleys are made to catalogue dimensions, but modern manufacturing techniques result in there being no recess behind the Taper Lock bush, the J dimension is then approximately equal to the small diameter of the Taper Lock bush.

Dimensions in millimetres unless otherwise stated. *Non-preferred pulley sizes. Pitch diameters in italic type indicate pulleys to be used with Z V-belts, XPZ & QXPZ wedge belts only.

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.

These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Taper Lock Pulleys for Z, SPZ, XPZ & QXPZ Belts



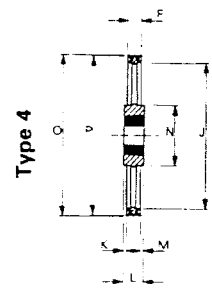
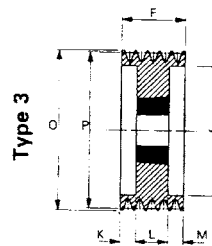
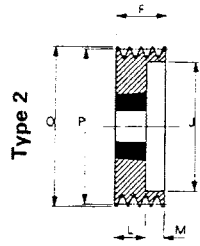
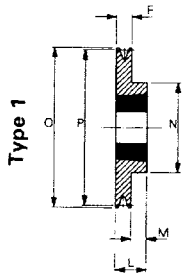
Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031Z0171	118	1	1610	42	1 9/8	1	16	-	-	25	9.0	92	123
031Z0172	118	2	1610	42	1 9/8	6	28	90	3.0	25	-	-	123
031Z0173	118	3	2012	50	2	6	40	90	8.0	32	-	-	123
031Z0174	118	4	2012	50	2	6	52	90	20.0	32	-	-	123
031Z0175*	118	5	2012	50	2	6	64	90	32.0	32	-	-	123
031Z0181	125	1	1610	42	1 9/8	1	16	-	-	25	9.0	92	129
031Z0182	125	2	1610	42	1 9/8	6	28	96	3.0	25	-	-	129
031Z0183	125	3	2012	50	2	2	40	96	-	32	8.0	-	129
031Z0184	125	4	2012	50	2	2	52	96	-	32	20.0	-	129
031Z0185*	125	5	2012	50	2	6	64	96	32.0	32	-	-	129
031Z0191	132	1	1610	42	1 9/8	1	16	-	-	25	9.0	92	137
031Z0192	132	2	1610	42	1 9/8	6	28	103	3.0	25	-	-	137
031Z0193	132	3	2012	50	2	2	40	103	-	32	8.0	-	137
031Z0194	132	4	2012	50	2	2	52	103	-	32	20.0	-	137
031Z0195*	132	5	2517	60	2 1/2	6	64	103	19.0	45	-	-	137
031Z0201	140	1	1610	42	1 9/8	1	16	-	-	25	9.0	92	144
031Z0202	140	2	1610	42	1 9/8	6	28	111	3.0	25	-	-	144
031Z0203	140	3	2012	50	2	2	40	111	-	32	8.0	-	144
031Z0204	140	4	2012	50	2	2	52	111	-	32	20.0	-	144
031Z0205*	140	5	2517	60	2 1/2	2	64	111	-	45	19.0	-	144
031Z0221	160	1	1610	42	1 9/8	1	16	-	-	25	9.0	92	164
031Z0222	160	2	2012	50	2	1	28	-	-	32	4.0	112	164
031Z0223	160	3	2012	50	2	2	40	131	-	32	8.0	-	164
031Z0224	160	4	2517	60	2 1/2	2	52	131	-	45	7.0	-	164
031Z0225*	160	5	2517	60	2 1/2	2	64	131	-	45	19.0	-	164
031Z0241	180	1	1610	42	1 9/8	1	16	-	-	25	9.0	92	184
031Z0242	180	2	2012	50	2	1	28	-	-	32	4.0	112	184
031Z0243	180	3	2012	50	2	2	40	151	-	32	8.0	-	184
031Z0244	180	4	2517	60	2 1/2	2	52	151	-	45	7.0	-	184
031Z0245*	180	5	2517	60	2 1/2	2	64	151	-	45	19.0	-	184
031Z0261	200	1	2012	50	2	8	16	171	-	32	16.0	112	204
031Z0262	200	2	2012	50	2	8	28	171	-	32	4.0	112	204
031Z0263	200	3	2012	50	2	7	40	171	4.0	32	4.0	112	204
031Z0264	200	4	2517	60	2 1/2	7	52	171	3.5	45	3.5	124	204
031Z0265*	200	5	2517	60	2 1/2	7	64	171	9.5	45	9.5	124	204
031Z0301	250	1	2012	50	2	4	16	221	8.0	32	8.0	112	254
031Z0302	250	2	2012	50	2	4	28	221	2.0	32	2.0	112	254
031Z0303	250	3	2012	50	2	5	40	221	4.0	32	4.0	112	254
031Z0304	250	4	2517	60	2 1/2	5	52	221	3.5	45	3.5	124	254
031Z0305*	250	5	2517	60	2 1/2	5	64	221	9.5	45	9.5	124	254
031Z0331	315	1	2012	50	2	4	16	286	8.0	32	8.0	112	319
031Z0332	315	2	2012	50	2	4	28	286	2.0	32	2.0	112	319
031Z0333	315	3	2517	60	2 1/2	4	40	286	2.5	45	2.5	124	319
031Z0334	315	4	2517	60	2 1/2	5	52	286	3.5	45	3.5	124	319
031Z0335*	315	5	2517	60	2 1/2	5	64	286	9.5	45	9.5	124	319
031Z0351	400	1	2012	50	2	4	16	371	8.0	32	8.0	112	404
031Z0352	400	2	2517	60	2 1/2	4	28	371	8.5	45	8.5	124	404
031Z0353	400	3	2517	60	2 1/2	4	40	371	2.5	45	2.5	124	404
031Z0354	400	4	2517	60	2 1/2	5	52	371	3.5	45	3.5	124	404
031Z0355*	400	5	3020	75	3	5	64	371	6.5	51	6.5	146	404
031Z0372*	500	2	2517	60	2 1/2	4	28	471	8.5	45	8.5	124	504
031Z0373*	500	3	2517	60	2 1/2	5	40	471	2.5	45	2.5	124	504
031Z0374*	500	4	3020	75	3	5	52	471	0.5	51	0.5	146	504
031Z0375*	500	5	3020	75	3	4	64	471	6.0	76	6.0	146	504
031Z0393*	630	3	2517	60	2 1/2	4	40	601	2.5	45	2.5	124	634
031Z0394*	630	4	3020	75	3	4	52	601	12.0	76	12.0	146	634
031Z0395*	630	5	3020	75	3	4	64	601	6.0	76	6.0	146	634

Dimensions in millimetres unless otherwise stated. * Non-preferred pulley sizes.

Intermediate diameters available on a non-stock basis, see page 70

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly. These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

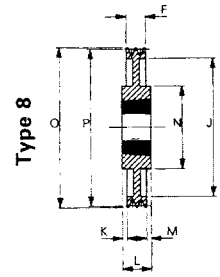
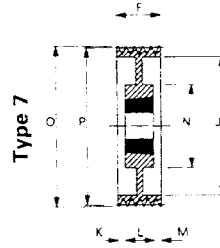
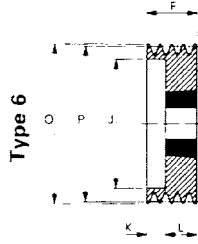
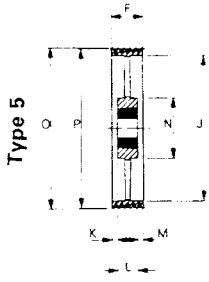
Taper Lock Pulleys for A, SPA, XPA & QXPA Belts



Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031A0101	80	1	1210	32	1 1/4	1	20	—	—	25	5.0	75	86
031A0102	80	2	1210	32	1 1/4	6	35	46	10.0	25	—	—	86
031A0103	80	3	1210	32	1 1/4	6	50	46	25.0	25	—	—	86
031A0111	85	1	1210	32	1 1/4	1	20	—	—	25	5.0	80	91
031A0112	85	2	1210	32	1 1/4	6	35	46	10.0	25	—	—	91
031A0113	85	3	1210	32	1 1/4	6	50	46	25.0	25	—	—	91
031A0121	90	1	1210	32	1 1/4	1	20	—	—	25	5.0	80	96
031A0122	90	2	1610	42	1 5/8	6	35	61	10.0	25	—	—	96
031A0123	90	3	1610	42	1 5/8	6	50	61	25.0	25	—	—	96
031A0124	90	4	1610	42	1 5/8	3	65	61	13.5	38	13.5	—	96
031A0131	95	1	1210	32	1 1/4	1	20	—	—	25	5.0	85	101
031A0132	95	2	1610	42	1 5/8	6	35	66	10.0	25	—	—	101
031A0133	95	3	1610	42	1 5/8	6	50	66	25.0	25	—	—	101
031A0134	95	4	1610	42	1 5/8	3	65	66	13.5	38	13.5	—	101
031A0141	100	1	1610	42	1 5/8	1	20	—	—	25	5.0	85	106
031A0142	100	2	1610	42	1 5/8	6	35	71	10.0	25	—	—	106
031A0143	100	3	1610	42	1 5/8	2	50	71	—	25	25.0	—	106
031A0144	100	4	1610	42	1 5/8	2	65	71	—	38	27.0	—	106
031A0145	100	5	1610	42	1 5/8	2	80	71	—	38	42.0	—	106
031A0146*	100	6	1610	42	1 5/8	3	95	71	28.5	38	28.5	—	106
031A0151	106	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	112
031A0152	106	2	1610	42	1 5/8	6	35	76	10.0	25	—	—	112
031A0153	106	3	1610	42	1 5/8	2	50	76	—	25	25.0	—	112
031A0154	106	4	2012	50	2	6	65	76	33.0	32	—	—	112
031A0155	106	5	2012	50	2	6	80	76	48.0	32	—	—	112
031A0156*	106	6	2012	50	2	6	95	76	63.0	32	—	—	112
031A0161	112	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	118
031A0162	112	2	1610	42	1 5/8	6	35	83	10.0	25	—	—	118
031A0163	112	3	2012	50	2	6	50	83	18.0	32	—	—	118
031A0164	112	4	2012	50	2	6	65	83	33.0	32	—	—	118
031A0165	112	5	2012	50	2	6	80	83	48.0	32	—	—	118
031A0166*	112	6	2012	50	2	6	95	83	63.0	32	—	—	118
031A0171	118	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	124
031A0172	118	2	1610	42	1 5/8	6	35	90	10.0	25	—	—	124
031A0173	118	3	2012	50	2	2	50	90	—	32	18.0	—	124
031A0174	118	4	2012	50	2	2	65	90	—	32	33.0	—	124
031A0175	118	5	2012	50	2	2	80	90	—	32	48.0	—	124
031A0176*	118	6	2012	50	2	6	95	90	63.0	32	—	—	124
031A0181	125	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	131
031A0182	125	2	1610	42	1 5/8	6	35	96	10.0	25	—	—	131
031A0183	125	3	2012	50	2	2	50	96	—	32	18.0	—	131
031A0184	125	4	2012	50	2	2	65	96	—	32	33.0	—	131
031A0185	125	5	2012	50	2	3	80	96	24.0	32	24.0	—	131
031A0186*	125	6	2012	50	2	3	95	96	31.5	32	31.5	—	131
031A0191	132	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	138
031A0192	132	2	2012	50	2	6	35	103	3.0	32	—	—	138
031A0193	132	3	2012	50	2	2	50	103	—	32	18.0	—	138
031A0194	132	4	2517	60	2 1/2	2	65	103	—	45	20.0	—	138
031A0195	132	5	2517	60	2 1/2	3	80	103	17.5	45	17.5	—	138
031A0196*	132	6	2517	60	2 1/2	3	95	103	25.0	45	25.0	—	138
031A0201	140	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	146
031A0202	140	2	2012	50	2	6	35	111	3.0	32	—	—	146
031A0203	140	3	2517	60	2 1/2	6	50	111	5.0	45	—	—	146
031A0204	140	4	2517	60	2 1/2	2	65	111	—	45	20.0	—	146
031A0205	140	5	2517	60	2 1/2	3	80	111	17.5	45	17.5	—	146
031A0206*	140	6	2517	60	2 1/2	3	95	111	25.0	45	25.0	—	146
031A0211	150	1	1610	42	1 5/8	1	20	—	—	25	5.0	92	156
031A0212	150	2	2012	50	2	6	35	121	3.0	32	—	—	156
031A0213	150	3	2517	60	2 1/2	6	50	121	5.0	45	—	—	156
031A0214	150	4	2517	60	2 1/2	2	65	121	—	45	20.0	—	156
031A0215	150	5	2517	60	2 1/2	3	80	121	17.5	45	17.5	—	156
031A0216*	150	6	2517	60	2 1/2	3	95	121	25.0	45	25.0	—	156

Dimensions in millimetres unless otherwise stated. *Non-preferred pulley sizes. Pitch diameters in italic type indicate pulleys to be used A V-belts, XPA & QXPA wedge belts only. All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly. These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Taper Lock Pulleys for A, SPA, XPA & QXPA Belts

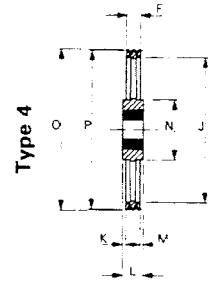
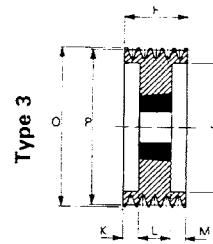
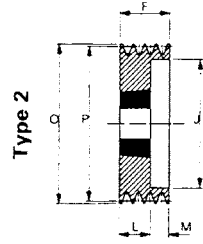
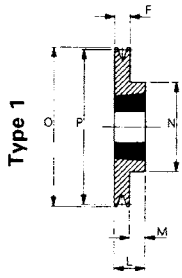


Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031A0221	160	1	1610	42	1 ⁵ / ₈	1	20	-	-	25	5.0	92	166
031A0222	160	2	2012	50	2	7	35	125	1.5	32	1.5	108	166
031A0223	160	3	2517	60	2 ¹ / ₂	6	50	128	5.0	45	-	-	166
031A0224	160	4	2517	60	2 ¹ / ₂	2	65	128	-	45	20.0	-	166
031A0225	160	5	2517	60	2 ¹ / ₂	3	80	128	17.5	45	17.5	-	166
031A0226*	160	6	2517	60	2 ¹ / ₂	3	95	128	25.0	45	25.0	-	166
031A0241	180	1	1610	42	1 ⁵ / ₈	1	20	-	-	25	5.0	92	186
031A0242	180	2	2012	50	2	7	35	148	1.5	32	1.5	108	186
031A0243	180	3	2517	60	2 ¹ / ₂	6	50	148	5.0	45	-	-	186
031A0244	180	4	2517	60	2 ¹ / ₂	2	65	148	-	45	20.0	-	186
031A0245	180	5	3020	75	3	3	80	148	14.5	51	14.5	-	186
031A0246*	180	6	3020	75	3	3	95	148	22.0	51	22.0	-	186
031A0261	200	1	2012	50	2	8	20	162	-	32	12.0	108	206
031A0262	200	2	2517	60	2 ¹ / ₂	8	35	162	5.0	45	5.0	123	206
031A0263	200	3	2517	60	2 ¹ / ₂	7	50	162	2.5	45	2.5	123	206
031A0264	200	4	3020	75	3	2	65	168	-	51	14.0	-	206
031A0265	200	5	3020	75	3	3	80	168	14.5	51	14.5	-	206
031A0266*	200	6	3020	75	3	3	95	168	22.0	51	22.0	-	206
031A0281	224	1	2012	50	2	8	20	189	-	32	12.0	112	230
031A0282	224	2	2517	60	2 ¹ / ₂	8	35	189	-	45	10.0	124	230
031A0283	224	3	2517	60	2 ¹ / ₂	7	50	189	2.5	45	2.5	124	230
031A0284	224	4	3020	75	3	2	65	189	-	51	14.0	-	230
031A0285	224	5	3020	75	3	2	80	189	-	51	29.0	-	230
031A0286*	224	6	3020	75	3	3	95	189	22.0	51	22.0	-	230
031A0301	250	1	2012	50	2	8	20	215	6.0	32	6.0	112	256
031A0302	250	2	2517	60	2 ¹ / ₂	8	35	215	5.0	45	5.0	124	256
031A0303	250	3	2517	60	2 ¹ / ₂	7	50	215	2.5	45	2.5	124	256
031A0304	250	4	3020	75	3	7	65	215	10.0	51	10.0	159	256
031A0305	250	5	3020	75	3	7	80	215	17.5	51	17.5	159	256
031A0306*	250	6	3020	75	3	7	95	215	22.0	51	22.0	159	256
031A0321	280	1	2012	50	2	8	20	245	-	32	12.0	112	286
031A0322	280	2	2517	60	2 ¹ / ₂	8	35	245	-	45	10.0	124	286
031A0323	280	3	2517	60	2 ¹ / ₂	7	50	245	2.5	45	2.5	124	286
031A0324	280	4	3020	75	3	7	65	245	7.0	51	7.0	159	286
031A0325	280	5	3525	100	4	7	80	245	4.5	89	4.5	178	286
031A0326*	280	6	3525	100	4	7	95	245	15.0	65	15.0	178	286
031A0331	315	1	2012	50	2	4	20	280	-	32	12.0	112	321
031A0332	315	2	2517	60	2 ¹ / ₂	4	35	280	-	45	10.0	124	321
031A0333	315	3	3020	75	3	8	50	280	0.5	51	0.5	159	321
031A0334	315	4	3020	75	3	7	65	280	8.0	51	8.0	159	321
031A0335	315	5	3525	100	4	8	80	283	7.5	65	7.5	178	321
031A0336*	315	6	3525	100	4	7	95	280	15.0	65	15.0	178	321
031A0351	400	1	2012	50	2	4	20	365	-	32	12.0	112	406
031A0352	400	2	2517	60	2 ¹ / ₂	4	35	365	-	45	10.0	124	406
031A0353	400	3	3020	75	3	4	50	365	0.5	51	0.5	159	406
031A0354	400	4	3020	75	3	5	65	365	7.0	51	7.0	159	406
031A0355	400	5	3525	100	4	4	80	365	7.5	65	7.5	178	406
031A0356*	400	6	3525	100	4	5	95	368	15.0	65	15	178	406
031A0372	500	2	2517	60	2 ¹ / ₂	4	35	465	-	45	10.0	124	506
031A0373	500	3	3020	75	3	4	50	465	0.5	51	0.5	159	506
031A0374	500	4	3020	75	3	5	65	465	7.0	51	7.0	159	506
031A0375	500	5	3525	100	4	4	80	465	7.5	65	7.5	178	506
031A0376*	500	6	3525	100	4	5	95	465	15.0	65	15.0	178	506
031A0392*	630	2	3020	75	3	4	35	595	-	45	16.0	159	636
031A0393	630	3	3020	75	3	4	50	595	0.5	89	0.5	178	636
031A0394	630	4	3525	100	4	4	65	595	12.0	89	12.0	178	636
031A0395	630	5	3525	100	4	4	80	595	7.5	65	7.5	178	636
031A0396	630	6	4030	115	4 ¹ / ₂	4	95	595	9.5	76	9.5	216	636
031A0413*	800	3	3525	100	4	4	50	765	7.5	65	7.5	178	806
031A0414*	800	4	3525	100	4	4	65	765	0.0	65	0.0	178	806
031A0415*	800	5	4030	115	4 ¹ / ₂	4	80	765	2.0	76	2.0	216	806
031A0416*	800	6	4030	115	4 ¹ / ₂	4	95	765	9.5	76	9.5	216	806

Dimensions in millimetres unless otherwise stated. * Non-preferred pulley sizes. Intermediate diameters available on a non-stock basis, see page 70

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly. These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Taper Lock Pulleys for B, SPB, XPB, QXPB & USPB Belts

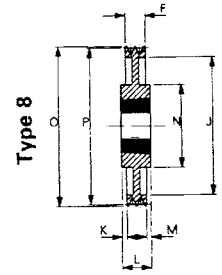
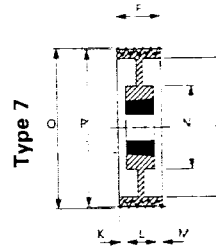
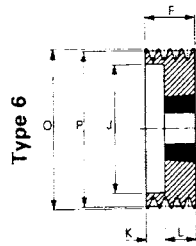
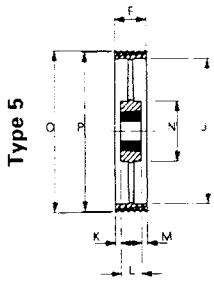


Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031B0162	112	2	2012	50	2	2	44	72	25	19.0	–	–	119
031B0163	112	3	2012	50	2	2	63	72	–	25	37.0	–	119
031B0172	118	2	2012	50	2	2	44	78	–	25	19.0	–	125
031B0173	118	3	2012	50	2	2	63	78	–	25	37.0	–	125
031B0182	125	2	2012	50	2	2	44	82	–	32	12.0	–	132
031B0183	125	3	2012	50	2	2	63	89	–	32	31.0	–	132
031B0184	125	4	2012	50	2	3	82	82	25.0	32	25.0	–	132
031B0185*	125	5	2012	50	2	6	101	87	69.0	32	–	–	132
031B0192	132	2	2012	50	2	2	44	89	–	32	12.0	–	139
031B0193	132	3	2012	50	2	2	63	89	–	32	31.0	–	139
031B0194	132	4	2012	50	2	3	82	89	25.0	32	25.0	–	139
031B0195*	132	5	2517	60	2 1/2	6	101	94	56.0	45	–	–	139
031B0202	140	2	2012	50	2	2	44	97	–	32	12.0	–	147
031B0203	140	3	2012	50	2	2	63	97	–	32	31.0	–	147
031B0204	140	4	2517	60	2 1/2	3	82	100	18.5	45	18.5	–	147
031B0205	140	5	2517	60	2 1/2	3	101	97	28.0	45	28.0	–	147
031B0206	140	6	2517	60	2 1/2	3	120	100	37.5	45	37.5	–	147
031B0212	150	2	2012	50	2	2	44	107	–	32	12.0	–	157
031B0213	150	3	2517	60	2 1/2	2	63	107	–	45	18.0	–	157
031B0214	150	4	2517	60	2 1/2	3	82	107	18.5	45	18.5	–	157
031B0215	150	5	2517	60	2 1/2	3	101	107	28.0	45	28.0	–	157
031B0216	150	6	2517	60	2 1/2	3	120	107	37.5	45	37.5	–	157
031B0222	160	2	2012	50	2	2	44	117	–	32	12.0	–	167
031B0223	160	3	2517	60	2 1/2	2	63	117	–	45	18.0	–	167
031B0224	160	4	2517	60	2 1/2	3	82	117	18.5	45	18.5	–	167
031B0225	160	5	2517	60	2 1/2	3	101	117	28.0	45	28.0	–	167
031B0226	160	6	3020	75	3	3	120	117	34.5	51	34.5	–	167
031B0232	170	2	2012	50	2	2	44	127	–	32	12.0	–	177
031B0233	170	3	2517	60	2 1/2	2	63	127	–	45	18.0	–	177
031B0234	170	4	2517	60	2 1/2	3	82	127	18.5	45	18.5	–	177
031B0235	170	5	3020	75	3	3	101	127	25.0	51	25.0	–	177
031B0236	170	6	3020	75	3	3	120	127	34.5	51	34.5	–	177
031B0242	180	2	2517	60	2 1/2	1	44	–	–	45	1.0	117	187
031B0243	180	3	2517	60	2 1/2	2	63	137	–	45	18.0	–	187
031B0244	180	4	2517	60	2 1/2	3	82	137	18.5	45	18.5	–	187
031B0245	180	5	3020	75	3	3	101	137	25.0	51	25.0	–	187
031B0246	180	6	3020	75	3	3	120	137	34.5	51	34.5	–	187
031B0248*	180	8	3020	75	3	3	158	137	53.5	51	53.5	–	187
031B0252	190	2	2517	60	2 1/2	1	44	–	–	45	1.0	117	197
031B0253	190	3	2517	60	2 1/2	2	63	147	–	45	18.0	–	197
031B0254	190	4	2517	60	2 1/2	3	82	147	18.5	45	18.5	–	197
031B0255	190	5	3020	75	3	3	101	147	25.0	51	25.0	–	197
031B0256	190	6	3020	75	3	3	120	147	34.5	51	34.5	–	197
031B0258*	190	8	3020	75	3	3	158	147	53.5	51	53.5	–	197
031B0262	200	2	2517	60	2 1/2	1	44	–	–	45	1.0	117	207
031B0263	200	3	2517	60	2 1/2	7	63	157	–	45	18.0	117	207
031B0264	200	4	3020	75	3	3	82	157	15.5	51	15.5	–	207
031B0265	200	5	3020	75	3	3	101	157	25.0	51	25.0	–	207
031B0266	200	6	3020	75	3	3	120	157	34.5	51	34.5	–	207
031B0268*	200	8	3525	100	4	3	158	157	46.5	65	46.5	–	207
031B0272	212	2	2517	60	2 1/2	1	44	–	–	45	1.0	117	219
031B0273	212	3	2517	60	2 1/2	7	63	169	–	45	18.0	117	219
031B0274	212	4	3020	75	3	3	82	169	15.5	51	15.5	–	219
031B0275	212	5	3020	75	3	3	101	169	25.0	51	25.0	–	219
031B0276	212	6	3525	100	4	3	120	169	28.0	65	28.0	–	219
031B0278*	212	8	3525	100	4	3	158	169	46.5	65	46.5	–	219
031B0282	224	2	2517	60	2 1/2	8	44	181	1.0	45	–	117	231
031B0283	224	3	2517	60	2 1/2	7	63	181	–	45	18.0	117	231
031B0284	224	4	3020	75	3	3	82	181	15.5	51	15.5	–	231
031B0285	224	5	3020	75	3	3	101	181	25.0	51	25.0	–	231
031B0286	224	6	3525	100	4	3	120	181	28.0	65	28.0	–	231
031B0288*	224	8	3525	100	4	3	158	181	46.5	65	46.5	–	231

Dimensions in millimetres unless otherwise stated. *Non-preferred pulley sizes. Pitch diameters in italic type indicate pulleys to be used with B V-belts, XPB & QXPB wedge belts only. All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.

Non-functional dimensions may vary slightly. These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

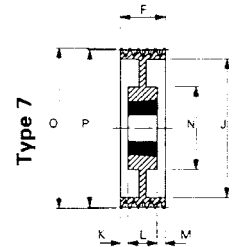
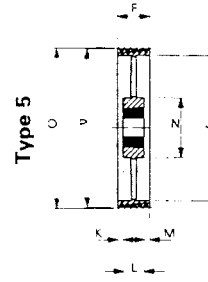
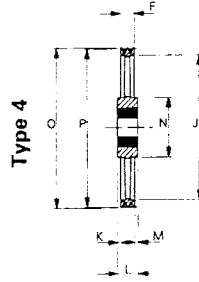
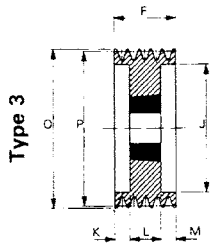
Taper Lock Pulleys for B, SPB, XPB, QXPB & USPB Belts



Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Pulley Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031B0292	236	2	2517	60	2 1/2	8	44	193	1.0	45	-	117	243
031B0293	236	3	2517	60	2 1/2	7	63	193	-	45	18.0	117	243
031B0294	236	4	3020	75	3	3	82	193	15.5	51	15.5	-	243
031B0295	236	5	3525	100	4	3	101	193	18.0	65	18.0	-	243
031B0296	236	6	3525	100	4	3	120	193	28.0	65	28.0	-	243
031B0298*	236	8	3525	100	4	3	158	193	46.5	65	46.5	-	243
031B0302	250	2	2517	60	2 1/2	8	44	207	1.0	45	1.0	117	257
031B0303	250	3	3020	75	3	7	63	207	-	51	12.0	144	257
031B0304	250	4	3020	75	3	7	82	207	15.5	51	15.5	144	257
031B0305	250	5	3525	100	4	3	101	207	18.0	65	18.0	-	257
031B0306	250	6	3525	100	4	3	120	207	28.0	65	28.0	-	257
031B0308*	250	8	3525	100	4	3	158	207	46.5	65	46.5	-	257
031B0322	280	2	2517	60	2 1/2	8	44	237	1.0	45	-	117	287
031B0323	280	3	3020	75	3	7	63	237	6.0	51	6.0	144	287
031B0324	280	4	3020	75	3	7	82	237	15.5	51	15.5	144	287
031B0325	280	5	3525	100	4	7	101	237	18.0	65	18.0	187	287
031B0326	280	6	3525	100	4	7	120	237	27.5	65	27.5	187	287
031B0328*	280	8	3525	100	4	7	158	237	46.5	65	46.5	187	287
031B0332	315	2	2517	60	2 1/2	8	44	272	1.0	45	-	117	322
031B0333	315	3	3020	75	3	7	63	272	6.0	51	6.0	144	322
031B0334	315	4	3525	100	4	7	82	272	3.5	65	3.5	187	322
031B0335	315	5	3525	100	4	7	101	272	18.0	65	18.0	187	322
031B0336	315	6	3525	100	4	7	120	272	27.5	65	27.5	187	322
031B0338*	315	8	3525	100	4	7	158	272	46.5	65	46.5	187	322
031B0342	355	2	3020	75	3	5	44	312	3.5	51	3.5	144	362
031B0343	355	3	3020	75	3	8	63	312	6.0	51	6.0	144	362
031B0344	355	4	3525	100	4	8	82	312	3.5	51	3.5	187	362
031B0345	355	5	3525	100	4	5	101	312	18.0	65	18.0	187	362
031B0346	355	6	3525	100	4	5	120	312	27.5	65	27.5	187	362
031B0348*	355	8	3525	100	4	7	158	312	46.5	65	46.5	187	362
031B0352	400	2	3020	75	3	4	44	357	3.5	51	3.5	144	407
031B0353	400	3	3525	100	4	8	63	357	1.0	65	1.0	187	407
031B0354	400	4	3525	100	4	4	82	357	8.5	65	8.5	187	407
031B0355	400	5	3525	100	4	7	101	357	18.0	65	18.0	187	407
031B0356	400	6	3525	100	4	5	120	357	27.5	65	27.5	187	407
031B0358*	400	8	3525	100	4	5	158	357	46.5	65	46.5	200	407
014B0362	450	2	3020	75	3	4	44	407	3.5	51	3.5	144	457
014B0363	450	3	3525	100	4	4	63	407	1.0	65	1.0	187	457
014B0364	450	4	3525	100	4	4	82	407	8.5	65	8.5	187	457
014B0365	450	5	3525	100	4	5	101	407	18.0	65	18.0	187	457
014B0366	450	6	3525	100	4	5	120	407	27.5	65	27.5	216	457
014B0368*	450	8	3525	100	4	5	158	407	46.5	65	46.5	216	457
031B0372	500	2	3020	75	3	4	44	457	3.5	51	3.5	144	507
031B0373	500	3	3525	100	4	4	63	457	1.0	65	1.0	187	507
031B0374	500	4	3525	100	4	4	82	457	8.5	65	8.5	187	507
031B0375	500	5	3525	100	4	5	101	457	18.0	65	18.0	187	507
031B0376	500	6	3525	100	4	5	120	457	27.5	65	27.5	216	507
031B0378*	500	8	3525	100	4	5	158	457	46.5	65	46.5	216	507
014B0382	560	2	3020	75	3	4	44	517	4.0	76	4.0	144	567
014B0383	560	3	3525	100	4	4	63	517	1.0	65	1.0	187	567
014B0384	560	4	3525	100	4	4	82	517	8.5	65	8.5	187	567
014B0385	560	5	3525	100	4	4	101	517	18.0	65	18.0	216	567
014B0386	560	6	3525	100	4	5	120	517	27.5	65	27.5	187	567
014B0388*	560	8	4030	115	4 1/2	5	158	517	41.0	76	41.0	242	567
031B0392	630	2	3020	75	3	4	44	587	3.5	51	3.5	144	637
031B0393	630	3	3525	100	4	4	63	587	1.0	65	1.0	187	637
031B0394	630	4	3525	100	4	4	82	587	8.5	65	8.5	187	637
031B0395	630	5	3525	100	4	4	101	587	18.0	65	18.0	216	637
031B0396	630	6	3525	100	4	5	120	587	27.5	65	27.5	216	637
031B0398*	630	8	4030	115	4 1/2	5	158	587	41.0	76	41.0	242	637
031B0413	800	3	3525	100	4	4	63	754	1.0	65	1.0	187	807
031B0414	800	4	4030	115	4 1/2	4	82	754	3.0	76	3.0	216	807
031B0415	800	5	4030	115	4 1/2	4	101	754	12.5	76	12.5	216	807
031B0416	800	6	4535	125	5	5	120	754	15.5	89	15.5	242	807
031B0418*	800	8	4535	125	5	5	158	754	34.5	89	34.5	242	807
031B0433*	1000	3	4030	115	4 1/2	4	63	954	6.5	76	6.5	216	1007
031B0434	1000	4	4030	115	4 1/2	4	82	954	3.0	76	3.0	216	1007
031B0435	1000	5	4535	125	5	4	101	954	6.0	89	6.0	242	1007
031B0436	1000	6	4535	125	5	5	120	954	15.5	89	15.5	242	1007
031B0438*	1000	8	4535	125	5	5	158	954	34.5	89	34.5	242	1007

Dimensions in millimetres unless otherwise stated. * Non-preferred pulley sizes. Intermediate diameters available on a non-stock basis, see page 70. All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly. These pulleys are designed to operate at rim speeds up to 40m/sec, for higher speeds contact your local authorised distributor.

Taper Lock Pulleys for C, SPC, XPC, QXPC & USPC Belts



Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031C0263	200	3	2517	60	2 1/2	3	85	144	20.0	45	20.0	—	210
031C0264	200	4	3020	75	3	3	111	144	30.0	51	30.0	—	210
031C0265	200	5	3525	100	4	3	136	144	35.5	65	35.5	—	210
031C0266	200	6	3525	100	4	3	162	144	48.5	65	48.5	—	210
031C0273	212	3	3020	75	3	3	85	156	17.0	51	17.0	—	222
031C0274	212	4	3020	75	3	3	111	156	30.0	51	30.0	—	222
031C0275	212	5	3525	100	4	3	136	156	35.5	65	35.5	—	222
031C0276	212	6	3525	100	4	3	162	156	48.5	65	48.5	—	222
031C0283	224	3	3020	75	3	3	85	168	17.0	51	17.0	—	234
031C0284	224	4	3525	100	4	3	111	168	23.0	65	23.0	—	234
031C0285	224	5	3525	100	4	3	136	168	35.5	65	35.5	—	234
031C0286	224	6	3525	100	4	3	162	168	48.5	65	48.5	—	234
031C0288	224	8	3525	100	4	3	213	168	74.0	65	74.0	—	234
031C0293	236	3	3020	75	3	3	85	180	17.0	51	17.0	—	246
031C0294	236	4	3525	100	4	3	111	180	23.0	65	23.0	—	246
031C0295	236	5	3525	100	4	3	136	180	35.5	65	35.5	—	246
031C0296	236	6	3525	100	4	3	162	180	48.5	65	48.5	—	246
031C0298	236	8	3525	100	4	3	213	180	74.0	65	74.0	—	246
031C0303	250	3	3020	75	3	3	85	194	17.0	51	17.0	—	260
031C0304	250	4	3525	100	4	3	111	194	23.0	65	23.0	—	260
031C0305	250	5	3525	100	4	3	136	194	35.5	65	35.5	—	260
031C0306	250	6	3525	100	4	3	162	194	48.5	65	48.5	—	260
031C0308	250	8	3525	100	4	3	213	194	74.0	65	74.0	—	260
031C0313	265	3	3525	100	4	1	85	209	10.0	65	10.0	179	275
031C0314	265	4	3525	100	4	3	111	209	23.0	65	23.0	—	275
031C0315	265	5	3525	100	4	3	136	209	35.5	65	35.5	—	275
031C0316	265	6	3525	100	4	3	162	209	48.5	65	48.5	—	275
031C0318	265	8	3525	100	4	3	213	209	74.0	65	74.0	—	275
031C0323	280	3	3525	100	4	1	85	224	10.0	65	10.0	187	290
031C0324	280	4	3525	100	4	3	111	224	23.0	65	23.0	—	290
031C0325	280	5	3525	100	4	3	136	224	35.5	65	35.5	—	290
031C0326	280	6	3525	100	4	3	162	224	48.5	65	48.5	170	290
031C0328	280	8	3525	100	4	3	213	224	74.0	65	74.0	—	290
031C0473	300	3	3525	100	4	8	85	244	10.0	65	10.0	187	310
031C0474	300	4	3525	100	4	7	111	244	23.0	65	23.0	187	310
031C0475	300	5	3525	100	4	7	136	244	35.5	65	35.5	187	310
031C0476	300	6	3525	100	4	7	162	244	48.5	65	48.5	187	310
031C0478	300	8	3525	100	4	7	213	244	74.0	65	74.0	216	310
031C0333	315	3	3525	100	4	8	85	259	10.0	65	10.0	187	325
031C0334	315	4	3525	100	4	7	111	259	23.0	65	23.0	187	325
031C0335	315	5	3525	100	4	7	136	259	35.5	65	35.5	187	325
031C0336	315	6	3525	100	4	7	162	259	48.5	65	48.5	187	325
031C0338	315	8	3525	100	4	7	213	259	74.0	65	74.0	216	325
031C0483	335	3	3525	100	4	8	85	279	10.0	65	10.0	187	345
031C0484	335	4	3525	100	4	7	111	279	23.0	65	23.0	187	345
031C0485	335	5	3525	100	4	7	136	279	35.5	65	35.5	187	345
031C0486	335	6	3525	100	4	7	162	279	48.5	65	48.5	187	345
031C0488	335	8	3525	100	4	7	213	279	74.0	65	74.0	216	345
031C0343	355	3	3525	100	4	8	85	299	10.0	65	10.0	187	365
031C0344	355	4	3525	100	4	7	111	299	23.0	65	23.0	187	365
031C0345	355	5	3525	100	4	7	136	299	35.5	65	35.5	187	365
031C0346	355	6	3525	100	4	7	162	299	48.5	65	48.5	187	365
031C0348	355	8	3525	100	4	7	213	299	74.0	65	74.0	216	365
031C0493	375	3	3525	100	4	8	85	319	10.0	65	10.0	187	385
031C0494	375	4	3525	100	4	7	111	319	23.0	65	23.0	187	385
031C0495	375	5	3525	100	4	7	136	319	35.5	65	35.5	187	385
031C0496	375	6	3525	100	4	7	162	319	48.5	65	48.5	216	385
031C0498	375	8	4030	115	4 1/2	7	213	319	68.5	76	68.5	242	385

Dimensions in millimetres unless otherwise stated. * Non-preferred pulley sizes.

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication.

Non-functional dimensions may vary slightly.

These pulleys are designed to operate at rim speeds upto 40m/sec, for higher speeds contact your local authorised distributor.

Pitch diameters in italic type indicate pulleys to be used with C V belts, XPC & QXPC wedge belts only.

Taper Lock Pulleys for C, SPC, XPC, QXPC & USPC Belts

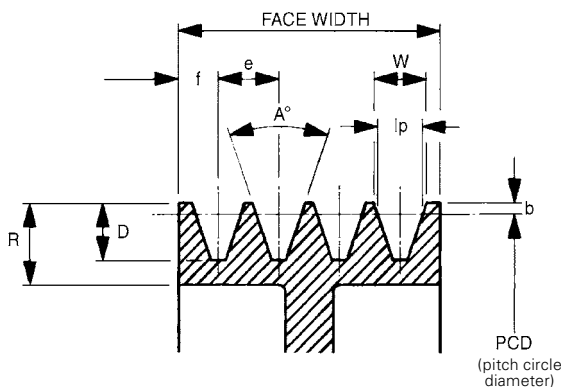
Catalogue Code	Pitch Dia (P)	No. of Grooves	Bush No.	Max. Bore		Type	F	J	K	L	M	N	Outside Dia (O)
				Metric	Inch								
031C0353	400	3	3525	100	4	4	85	344	10.0	65	10.0	187	410
031C0354	400	4	3525	100	4	5	111	344	23.0	65	23.0	187	410
031C0355	400	5	3525	100	4	5	136	344	35.5	65	35.5	187	410
031C0356	400	6	3525	100	4	7	162	344	48.5	65	48.5	216	410
031C0358	400	8	4030	115	4 1/2	7	213	344	68.5	76	68.5	242	410
031C0503	425	3	3525	100	4	4	85	369	10.0	65	10.0	187	435
031C0504	425	4	3525	100	4	5	111	369	23.0	65	23.0	187	435
031C0505	425	5	3525	100	4	5	136	369	35.5	65	35.5	216	435
031C0506	425	6	4535	125	5	7	162	369	36.5	89	36.5	242	435
031C0508	425	8	4535	125	5	7	213	369	62.0	89	62.0	267	435
031C0363	450	3	3525	100	4	4	85	394	10.0	65	10.0	187	460
031C0364	450	4	3525	100	4	5	111	394	23.0	65	23.0	187	460
031C0365	450	5	3525	100	4	5	136	394	35.5	65	35.5	216	460
031C0366	450	6	4535	125	5	7	162	394	36.5	89	36.5	242	460
031C0368	450	8	4535	125	5	7	213	394	62.0	89	62.0	267	460
031C0513	475	3	3525	100	4	4	85	419	10.0	65	10.0	187	485
031C0514	475	4	3525	100	4	5	111	419	23.0	65	23.0	187	485
031C0515	475	5	3525	100	4	5	136	419	35.5	65	35.5	216	485
031C0516	475	6	4535	125	5	7	162	419	36.5	89	36.5	242	485
031C0518	475	8	4535	125	5	7	213	419	62.0	89	62.0	267	485
031C0373	500	3	3525	100	4	4	85	444	10.0	65	10.0	187	510
031C0374	500	4	3525	100	4	5	111	444	23.0	65	23.0	187	510
031C0375	500	5	3525	100	4	5	136	444	35.5	65	35.5	216	510
031C0376	500	6	4535	125	5	5	162	444	36.5	89	36.5	242	510
031C0378	500	8	4535	125	5	7	213	444	62.0	89	62.0	267	510
031C0523	530	3	3525	100	4	4	85	474	10.0	65	10.0	187	540
031C0524	530	4	3525	100	4	5	111	474	23.0	65	23.0	187	540
031C0525	530	5	4535	125	5	5	136	474	23.5	89	23.5	216	540
031C0526	530	6	4535	125	5	5	162	474	36.5	89	36.5	242	540
031C0528	530	8	4535	125	5	7	213	474	62.0	89	62.0	267	540
031C0383	560	3	3525	100	4	4	85	504	10.0	65	10.0	216	570
031C0384	560	4	3525	100	4	5	111	504	23.0	65	23.0	216	570
031C0385	560	5	4535	125	5	5	136	504	23.5	89	23.5	242	570
031C0386	560	6	4535	125	5	5	162	504	36.5	89	36.5	267	570
031C0388	560	8	4535	125	5	5	213	504	62.0	89	62.0	267	570
031C0393	630	3	4030	115	4 1/2	4	85	574	4.5	76	4.5	246	640
031C0394	630	4	4030	115	4 1/2	4	111	574	17.5	76	17.5	242	640
031C0395	630	5	4535	125	5	5	136	574	23.5	89	23.5	267	640
031C0396	630	6	4535	125	5	5	162	574	36.5	89	36.5	267	640
031C0398	630	8	4535	125	5	5	213	574	62.0	89	62.0	267	640
031C0413	800	3	4535	125	5	4	85	737	2.0	89	2.5	242	810
031C0414	800	4	5040	125	5	4	111	737	4.5	102	4.5	267	810
031C0415	800	5	5040	125	5	5	136	737	17.0	102	17.0	267	810
031C0416	800	6	5040	125	5	5	162	737	30.0	102	30.0	267	810
031C0418	800	8	5040	125	5	5	213	737	55.5	102	55.5	267	810
031C0433	1000	3	5040	125	5	4	85	937	8.5	102	8.5	267	1010
031C0434	1000	4	5040	125	5	4	111	937	4.5	102	4.5	267	1010
031C0435	1000	5	5040	125	5	5	136	937	17.0	102	17.0	267	1010
031C0436	1000	6	5040	125	5	5	162	937	30.0	102	30.0	267	1010
031C0438	1000	8	5040	125	5	5	213	937	55.5	102	55.5	267	1010
031C0443	1250	3	5040	125	5	4	85	1187	8.5	102	8.5	267	1260
031C0444	1250	4	5040	125	5	4	111	1187	4.5	102	4.5	267	1260
031C0445	1250	5	5040	125	5	5	136	1187	17.0	102	17.0	267	1260
031C0446	1250	6	5040	125	5	5	162	1187	30.0	102	30.0	267	1260
031C0448	1250	8	5040	125	5	5	213	1187	55.5	102	55.5	267	1260

Dimensions in millimetres unless otherwise stated.

Intermediate diameters available on a non-stock basis, see page 69

All envelope, prime functional and Taper Lock bush dimensions are correct at the time of publication. Non-functional dimensions may vary slightly.

Pulley Groove Dimensions



Belt Section	Pulley PCD	A° ± 0.5°	D +0.03 -0.0	e* ± 0.15	f ± 0.3	b ± 0.13	Ip	W	R NOM
SPZ Dual Groove	Up to 80 Over 80	34 38	11.0	12	8	2.0	8.5	9.7 9.9	17.25
SPA Dual Groove	Up to 118 Over 118	34 38	13.75	15	10	2.75	11	12.7 12.9	21.25
SPB Dual Groove	Up to 190 Over 190	34 38	17.5	19	12.5	3.5	14	16.1 16.4	27.25
SPC Dual Groove	Up to 315 Over 315	34 38	23.8	25.5	17	4.8	19	21.9 22.3	37.25

*e dimension – the tolerance shown is between any two grooves.

Additional Taper Lock Pulley Sizes

Additional SPZ Pulley Sizes

Product Code	Description	Bush Size
031Z0064	SPZ 63 X 4	1108
031Z0074	SPZ 67 X 4	1108
031Z0084	SPZ 71 X 4	1108
031Z0094	SPZ 75 X 4	1210
031Z0126	SPZ 90 X 6	1610
031Z0136	SPZ 95 X 6	1610
031Z0146	SPZ 100 X 6	2012
031Z0156	SPZ 106 X 6	2012
031Z0166	SPZ 112 X 6	2012
031Z0176	SPZ 118 X 6	2517
031Z0186	SPZ 125 X 6	2517
031Z0196	SPZ 132 X 6	2517
031Z0206	SPZ 140 X 6	2517
031Z0211	SPZ 150 X 1	1610
031Z0212	SPZ 150 X 2	2012
031Z0213	SPZ 150 X 3	2012
031Z0214	SPZ 150 X 4	2517
031Z0215	SPZ 150 X 5	2517
031Z0216	SPZ 150 X 6	2517
031Z0226	SPZ 160 X 6	2517
031Z0231	SPZ 170 X 1	1610
031Z0232	SPZ 170 X 2	2012
031Z0233	SPZ 170 X 3	2012
031Z0234	SPZ 170 X 4	2517
031Z0235	SPZ 170 X 5	2517
031Z0236	SPZ 170 X 6	2517
031Z0246	SPZ 180 X 6	2517
031Z0251	SPZ 190 X 1	1610
031Z0252	SPZ 190 X 2	2012
031Z0253	SPZ 190 X 3	2012
031Z0254	SPZ 190 X 4	2012
031Z0255	SPZ 190 X 5	2517
031Z0256	SPZ 190 X 6	2517
031Z0266	SPZ 200 X 6	2517
031Z0281	SPZ 224 X 1	2012
031Z0282	SPZ 224 X 2	2012
031Z0283	SPZ 224 X 3	2012
031Z0284	SPZ 224 X 4	2517
031Z0285	SPZ 224 X 5	2517
031Z0286	SPZ 224 X 6	2517
031Z0306	SPZ 250 X 6	2517
031Z0321	SPZ 280 X 1	2012
031Z0322	SPZ 280 X 2	2012
031Z0323	SPZ 280 X 3	2517
031Z0324	SPZ 280 X 4	2517
031Z0325	SPZ 280 X 5	2517
031Z0326	SPZ 280 X 6	2517
031Z0336	SPZ 315 X 6	2517
031Z0341	SPZ 355 X 1	2012
031Z0342	SPZ 355 X 2	2012
031Z0343	SPZ 355 X 3	2517
031Z0344	SPZ 355 X 4	2517
031Z0345	SPZ 355 X 5	2517
031Z0346	SPZ 355 X 6	2517
031Z0356	SPZ 400 X 6	3020
031Z0361	SPZ 450 X 1	2517
031Z0362	SPZ 450 X 2	2517
031Z0363	SPZ 450 X 3	2517
031Z0364	SPZ 450 X 4	3020
031Z0365	SPZ 450 X 5	3020
031Z0366	SPZ 450 X 6	3020
031Z0371	SPZ 500 X 1	2517
031Z0376	SPZ 500 X 6	3020
031Z0392	SPZ 630 X 2	2517
031Z0396	SPZ 630 X 6	3525

Additional SPA Pulley Sizes

Product Code	Description	Bush Size
031A0081	SPA 71 X 1	1108
031A0082	SPA 71 X 2	1108
031A0083	SPA 71 X 3	1108
031A0091	SPA 75 X 1	1108
031A0092	SPA 75 X 2	1108
031A0093	SPA 75 X 3	1108
031A0104	SPA 80 X 4	1210
031A0114	SPA 85 X 4	1210
031A0231	SPA 170 X 1	1610
031A0232	SPA 170 X 2	2012
031A0233	SPA 170 X 3	2517
031A0234	SPA 170 X 4	2517
031A0235	SPA 170 X 5	3020
031A0236	SPA 170 X 6	3020
031A0251	SPA 190 X 1	2012
031A0252	SPA 190 X 2	2012
031A0253	SPA 190 X 3	2517
031A0254	SPA 190 X 4	3020
031A0255	SPA 190 X 5	3020
031A0256	SPA 190 X 6	3020
031A0271	SPA 212 X 1	2012
031A0272	SPA 212 X 2	2517
031A0273	SPA 212 X 3	2517
031A0274	SPA 212 X 4	3020
031A0275	SPA 212 X 5	3020
031A0276	SPA 212 X 6	3020
031A0291	SPA 236 X 1	2012
031A0292	SPA 236 X 2	2517
031A0293	SPA 236 X 3	2517
031A0294	SPA 236 X 4	3020
031A0295	SPA 236 X 5	3020
031A0296	SPA 236 X 6	3020
031A0311	SPA 265 X 1	2012
031A0312	SPA 265 X 2	2517
031A0313	SPA 265 X 3	2517
031A0314	SPA 265 X 4	3020
031A0315	SPA 265 X 5	3020
031A0316	SPA 265 X 6	3020
031A0472	SPA 300 X 2	2517
031A0473	SPA 300 X 3	3020
031A0474	SPA 300 X 4	3020
031A0475	SPA 300 X 5	3525
031A0476	SPA 300 X 6	3525
031A0481	SPA 335 X 1	2012
031A0482	SPA 335 X 2	2517
031A0483	SPA 335 X 3	3020
031A0484	SPA 335 X 4	3020
031A0485	SPA 335 X 5	3525
031A0486	SPA 335 X 6	3525
031A0341	SPA 355 X 1	2012
031A0342	SPA 355 X 2	2517
031A0343	SPA 355 X 3	3020
031A0344	SPA 355 X 4	3020
031A0345	SPA 355 X 5	3525
031A0346	SPA 355 X 6	3525
031A0361	SPA 450 X 1	2012
031A0362	SPA 450 X 2	2517
031A0363	SPA 450 X 3	3020
031A0364	SPA 450 X 4	3020
031A0365	SPA 450 X 5	3525
031A0366	SPA 450 X 6	3525
031A0371	SPA 500 X 1	2517
031A0381	SPA 560 X 1	2517
031A0382	SPA 560 X 2	3020
031A0383	SPA 560 X 3	3020
031A0384	SPA 560 X 4	3525
031A0385	SPA 560 X 5	3525
031A0386	SPA 560 X 6	3525
031A0391	SPA 630 X 1	2517
031A0412	SPA 800 X 2	3525
031A1433	SPA 1000 X 3	3535
031A1434	SPA 1000 X 4	4040
031A1435	SPA 1000 X 5	4545
031A1436	SPA 1000 X 6	4545

Additional Taper Lock Pulleys Sizes

Additional SPB Pulley Sizes

Product Code	Description	Bush Size
031B0141	SPB 100 X 1	1610
031B0142	SPB 100 X 2	1610
031B0143	SPB 100 X 3	1610
031B0144	SPB 100 X 4	1210
031B0151	SPB 106 X 1	1610
031B0152	SPB 106 X 2	1610
031B0153	SPB 106 X 3	1610
031B0154	SPB 106 X 4	1610
031B0161	SPB 112 X 1	1610
031B0164	SPB 112 X 4	1610
031B0171	SPB 118 X 1	1610
031B0174	SPB 118 X 4	1610
031B0181	SPB 125 X 1	1610
031B0186	SPB 125 X 6	2012
031B0191	SPB 132 X 1	1610
031B0196	SPB 132 X 6	2012
031B0201	SPB 140 X 1	1610
031B0211	SPB 150 X 1	1610
031B0221	SPB 160 X 1	1610
031B0228	SPB 160 X 8	3020
031B1228	SPB 160 X 8	3030
031B0231	SPB 170 X 1	1610
031B0238	SPB 170 X 8	3020
031B0241	SPB 180 X 1	1610
031B0251	SPB 190 X 1	2012
031B0261	SPB 200 X 1	2012
031B0271	SPB 212 X 1	2012
031B0281	SPB 224 X 1	2012
031B0291	SPB 236 X 1	2012
031B0301	SPB 250 X 1	2012
031B0312	SPB 265 X 2	2517
031B0313	SPB 265 X 3	3020
031B0314	SPB 265 X 4	3020
031B0315	SPB 265 X 5	3525
031B0316	SPB 265 X 6	3525
031B0318	SPB 265 X 8	3525
031B0321	SPB 280 X 1	2012
031B0331	SPB 315 X 1	2012
031B0403	SPB 710 X 3	3525
031B0404	SPB 710 X 4	3525
031B0405	SPB 710 X 5	4030
031B0406	SPB 710 X 6	4535
031B0408	SPB 710 X 8	4535
031B0412	SPB 800 X 2	3525
031B0423	SPB 900 X 3	3525
031B0424	SPB 900 X 4	4030
031B0425	SPB 900 X 5	4535
031B0426	SPB 900 X 6	4535
031B0428	SPB 900 X 8	4535
031B0443	SPB 1250 X 3	5040
031B0444	SPB 1250 X 4	5040
031B0445	SPB 1250 X 5	5040
031B0446	SPB 1250 X 6	5040
031B0448	SPB 1250 X 8	5040
031B0471	SPB 300 X 1	2012
031B0472	SPB 300 X 2	2517
031B0473	SPB 300 X 3	3020
031B0474	SPB 300 X 4	3525
031B0475	SPB 300 X 5	3525
031B0476	SPB 300 X 6	3252
031B0478	SPB 300 X 8	3525
031C1470	SPC 300 X 10	4040
031B0482	SPB 335 X 2	3020
031B0483	SPB 335 X 3	3020
031B0484	SPB 335 X 4	3525
031B0486	SPB 335 X 6	3525
031B0488	SPB 335 X 8	3525

Additional SPC Pulley Sizes

Product Code	Description	Bush Size
031C0268	SPC 200 X 8	3525
031C0278	SPC 212 X 8	3525
031C1280	SPC 224 X 10	4040
031C0290	SPC 236 X 10	4040
031C1300	SPC 250 X 10	4040
031C1310	SPC 265 X 10	4040
031C1320	SPC 280 X 10	4040
031C1470	SPC 300 X 10	4040
031C1330	SPC 315 X 10	4545
031C1480	SPC 335 X 10	4545
031C1340	SPC 355 X 10	4545
031C1490	SPC 375 X 10	4545
031C1350	SPC 400 X 10	5050
031C1500	SPC 425 X 10	5050
031C1360	SPC 450 X 10	5050
031C1510	SPC 475 X 10	5050
031C1370	SPC 500 X 10	5050
031C1520	SPC 530 X 10	5050
031C1380	SPC 560 X 10	5050
031C1390	SPC 630 X 10	5050
031C1400	SPC 710 X 10	5050
031C0403	SPC 710 X 3	4030
031C0404	SPC 710 X 4	4535
031C0405	SPC 710 X 5	5040
031C0406	SPC 710 X 6	5040
031C0408	SPC 710 X 8	5040
031C1410	SPC 800 X 10	5050
031C0423	SPC 900 X 3	5040
031C0424	SPC 900 X 4	5040
031C0425	SPC 900 X 5	5040
031C0426	SPC 900 X 6	5040
031C0428	SPC 900 X 8	5040
031C0420	SPC 900 X 10	5040
031C1430	SPC 1000 X 10	5050
031C1440	SPC 1250 X 10	5050

These additional sizes of Taper Lock® vee pulleys are readily available but are not stocked at all distribution outlets.

Sizes in bold type use long series Taper Lock® bushes.

10 groove SPB pulleys with long series Taper Lock® bushes are also available in diameters from 200mm to 1250mm.

PowerTwist PLUS® Belting

PowerTwist PLUS belting incorporates the most up-to-date materials available, giving it unique qualities of resistance to many of the adverse working conditions that belts are subject to, and properties that were deficient in earlier designs of link belts. These link belts are complementary to the range of Fenner wedge and Vee Belts and are extensively used in industrial, marine, agricultural and heating & ventilation applications.

Advantages of PowerTwist PLUS Link Belts

Adjustable to any length, adaptable to any drive

Fit the belts to the drive, not the drive to the belts.

Drive elements can be located most effectively and belts installed without removing bearings.

No Slippage

Quick, easy length adjustment minimises belt creep to guarantee full speed and full productivity of machines.

Minimum Inventory

Four boxes of link belting can replace hundreds of fixed length, endless V-Belts. Boxes can be stored easily, providing simplified visual control of inventory.

Vibration

Fenner link belts are manufactured to extremely close tolerances.

The design of the belt significantly reduces transmissible vibrations in some applications.

Long Lasting Construction

The extreme flexibility of these belts greatly reduces belt stress, heat build up and fatigue. The construction of the belts is designed to dissipate heat.

Maximum Power Delivery

On multiple belt drives it is easy to maintain correct tension on all belts. Each belt carries its required load, for maximum power delivery and longest life.

Temperature

Power Twist Plus will operate in temperatures from - 40 to 110°C.

Water, Chemical & Oil Resistance

This belt will not degrade if immersed in water or if in contact with oil, grease, agricultural chemicals and common solvents.

Economical Lengths

PowerTwist belting is also available in economical lengths.

Boxed in 10 metre lengths, ideal for display or mobile maintenance engineers.

Special Types

Double V Section

For use on serpentine drives with both sides of the belt engaging in V pulley grooves.

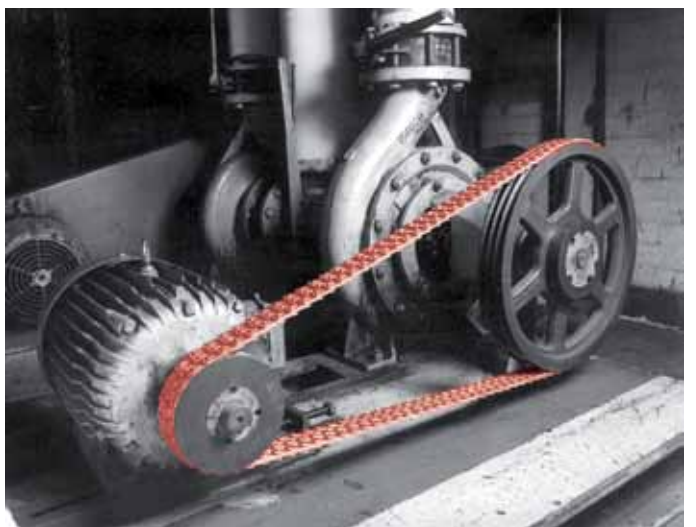
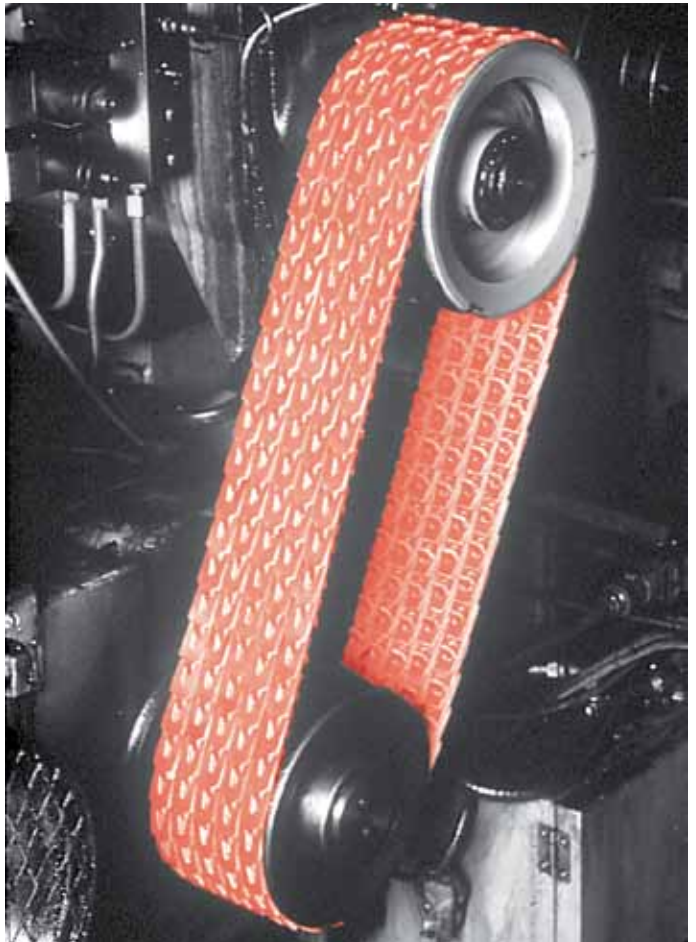
AA; BB & CC sections.

Ground Round

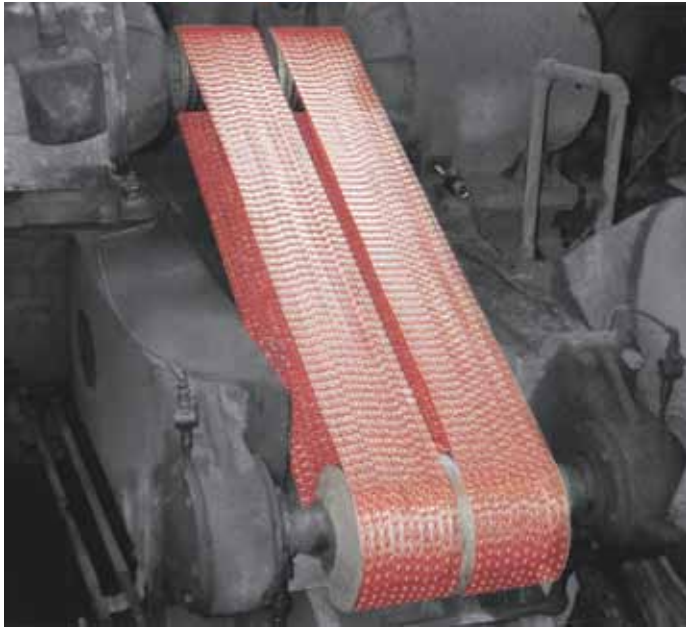
Designed specifically to replace round profile rubber or leather belts on "rope" drives.

8mm, 9.5mm, 12.5mm, 14mm & 19mm diameters.

High grip, or PTFE top layer coatings available for conveying applications.



PowerTwist PLUS® Belting



PowerTwist Plus link V-Belts are manufactured from an exclusive, high strength urethane/polyester composite. This makes PowerTwist Plus an incredibly strong, yet flexible belt that will take on the roughest of working conditions.

PowerTwist Plus V-Belt's unique cross-lock design gives a raw edge cog construction which provides excellent durability and performance, delivering higher power ratings than almost any other link type V-Belts on the market. When the tension is applied to the belt, the cross-link design locks tightly thus producing the lowest stretch of any link V-Belt.

PowerTwist Plus V-Belts save time on installation because no special tools are required, all that is needed is a quick twist both to couple or uncouple the belt and this is easily achieved in seconds.

Available from stock in Z, A, B and C sections, for use in standard dual groove pulleys. See pages 62-69.

Rev/min of faster shaft	Rated Power (kW) Per Belt for Small Pulley Pitch Diameter (mm)																
	Z Section			A Section					B Section				C Section				
	56	71	90	80	90	95	106	125	125	150	170	190	212	200	215	224	250
950	0.15	0.22	0.32	0.84	1.06	1.17	1.41	1.82	2.19	3.11	3.84	4.54	5.30	6.46	7.42	7.99	9.62
1450	0.21	0.32	0.45	1.15	1.46	1.63	1.97	2.55	2.94	4.24	5.25	6.23	7.26	8.41	9.72	10.48	12.61
2850	0.34	0.52	0.72	1.77	2.32	2.60	3.17	4.12	4.18	6.17	7.61						
600	0.10	0.16	0.22	0.59	0.74	0.81	0.98	1.25	1.55	2.17	2.66	3.15	3.66	4.63	5.29	5.69	6.82
800	0.13	0.19	0.28	0.74	0.93	1.03	1.23	1.58	1.93	2.73	3.36	3.97	4.63	5.73	6.56	7.07	8.49
1000	0.16	0.24	0.34	0.87	1.10	1.22	1.47	1.90	2.27	3.24	3.99	4.73	5.52	6.69	7.69	8.28	9.97
1200	0.18	0.28	0.39	1.00	1.27	1.41	1.70	2.20	2.59	3.71	4.58	5.43	6.34	7.53	8.68	9.36	11.27
1400	0.20	0.31	0.44	1.12	1.42	1.58	1.92	2.48	2.87	4.15	5.12	6.07	7.08	8.25	9.52	10.28	12.37
1600	0.22	0.34	0.48	1.22	1.57	1.74	2.12	2.75	3.13	4.53	5.62	6.66	7.76	8.85	10.23	11.04	13.27
1800	0.25	0.38	0.53	1.33	1.71	1.90	2.31	3.01	3.36	4.89	6.07	7.18	8.34	9.32	10.78	11.63	13.95
2000	0.27	0.41	0.57	1.42	1.84	2.05	2.50	3.24	3.58	5.22	6.47	7.65	8.87	9.66	11.19	12.06	
2200	0.28	0.44	0.61	1.51	1.97	2.19	2.67	3.47	3.76	5.50	6.82	8.05	9.30	9.87	11.42		
2400	0.31	0.46	0.65	1.60	2.08	2.33	2.83	3.68	3.92	5.76	7.13	8.39					
2600	0.32	0.49	0.69	1.68	2.19	2.45	2.99	3.89	4.06	5.97	7.37						
2800	0.34	0.51	0.72	1.75	2.30	2.57	3.13	4.07	4.16	6.14	7.57						
3000	0.35	0.54	0.74	1.82	2.39	2.68	3.27	4.25	4.24	6.27							
3200	0.37	0.56	0.76	1.89	2.48	2.77	3.39	4.41	4.30								
3400	0.37	0.57	0.78	1.94	2.56	2.87	3.51	4.55	4.33								
3600	0.69	0.59	0.80	1.99	2.63	2.95	3.62	4.68	4.32								
3800	0.40	0.60	0.81	2.04	2.70	3.03	3.71	4.79									
4000	0.40	0.61	0.81	2.08	2.76	3.10	3.80										

Selection

To design a Fenner Power Twist Plus drive simply refer to the wedge belt selection procedure (pages 38-39) utilising the power ratings given above. For applications that would benefit from the advantages of modern link belting, but require SP (wedge) type belt ratings, consult your local Authorised Distributor.

Installation

Please see page 78

Adjustable Pitch Pulleys and Bi-Loc Pulleys

General

The LP adjustable pulley is used in conjunction with standard Taper Lock dual groove pulleys, pages 62-69, and Fenner Classic V-belts to allow small adjustments to driven speed from fixed speed prime movers.

Construction

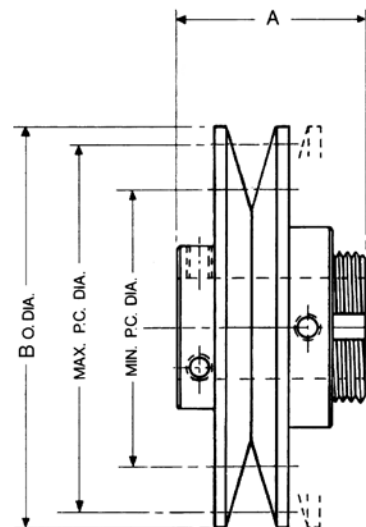
Made from grey cast iron, these pulleys have one fixed flank, and an opposite flank which can be adjusted by screw thread, with the drive stationary, and then fixed in position.

Installation and Use

Pulleys are supplied pilot bored for reboring/keywaying as appropriate.

Drive centre distance adjustment is used to maintain correct belt tension if pulley diameter is changed.

Note that the belt centre line shifts when diameter changes. Driven pulley may need realignment.



Catalogue Code	Pulley Designation	Belt Section	Max PCD	Min PCD	A	D	Min bore	Max bore
048A0000	LP80/93A	Z A	78 85	54 60	35	93	10	24
048B0000	LP95/108A	Z A	92 100	68 71	35	108	10	28
048C0000	LP112/120A	Z A	104 112	80 85	35	120	12	28
048D0000	LP132/138A	Z A	122 130	100 100	38	138	16	42
048E0000	LP160/180B	A B	158 170	128 132	45	180	18	48

Bores are to F7 limits. Dimensions in millimetres.

* Stock pulleys are minimum bore without shaft grub screw holes. They can be supplied bored to size with tapped holes on request.

Catalogue Code	Pulley Designation	Belt Section	960 rev/min		1440 rev/min		2880 rev/min	
			Max pcd	Min pcd	Max pcd	Min pcd	Max pcd	Min pcd
048A0000	LP80/93A	Z	0.89	0.43	1.21	0.54	1.96	0.74
		A	1.11	0.41	1.49	0.50	2.20	0.55
048B0000	LP95/108A	Z	1.18	0.67	1.63	0.92	2.74	1.49
		A	1.60	0.73	2.19	0.89	3.38	1.07
048C0000	LP112/120A	Z	1.14	0.93	1.95	1.29	2.70	2.11
		A	1.98	1.11	2.74	1.49	4.28	2.20
048D0000	LP132/138A	Z	1.65	1.34	2.35	1.88	3.77	3.10
		A	2.51	1.60	3.50	2.19	5.56	3.38
048E0000	LP160/180B	A	3.20	2.40	4.50	3.40	7.10	5.30
		B	4.71	2.88	6.42	3.86	8.91	5.29

For other than smooth load 10 hours per day applications, the above powers should be derated by 25%.

Bi-Loc Pulleys

The Fenner Bi-Loc system employs lightweight cast iron pulleys with 'Quadruple Duty' Grooves for A/SPA and B/SPB section belts. Twin-tapered steel bushes with metric and Imperial bores are used to mount single, double or different diameter pulleys on one shaft. A shrunk-on fit is achieved without keys or grub screws. Only a spanner is needed for fitting and removal.

- Mount single, double or different diameter pulleys on one bush.
- Use retainer and screws for single pulley assembly.
- Use bolts for double groove pulley assembly.



Pitch Diameter		Outside Dia. †	Bush No
A/SPA actual	B/SPB* nominal		
71	81	88	1 Bore range 10 - 28mm
75	85	92	
80	90	97	
85	95	102	
90	100	107	
95	105	112	
100	110	117	
106	116	123	
112	122	129	
118	128	135	
125	135	142	
132	142	149	
140	150	157	
150	160	167	
160	170	177	
180	190	197	
200	209	216	
224	233	240	
250	259	266	
280	289	296	
315	324	331	
355	364	371	
400	409	416	
450	459	466	

* for actual B/SPB pitch diameter deduct 0.25mm

† for actual outside diameter deduct 0.32mm

Urethane Belting

Urethane Belting

- Very high coefficient of friction.
- Reinforced urethanes with high load carrying capacity.
- High chemical resistance
 - Heat, moisture and ultra-violet light resistant.
- Wide range of sections and material types available.
- Useful for power transmission and conveyor applications.
- Customised design available in-house
- Most materials FDA/USDA approved
- Joined by butt or overlap welding or special metal fasteners.

The Range

Round Section 2 - 20mm diameter
 80, 85, 89, 90, 95 hardness grades
 Plain and textured surfaces
 'Quick Connect' hollow type
 with metal fasteners

Twisted O Rings Many colours and clear

Other Sections Trapezoidal 3L,Z, A, B, C, D, E
 sections
 Hexagonal AA, BB sections
 Crown top, ridge top, ribbed top,
 ribbed back etc,

Many colours
 Solid PU or textile reinforced

Butt Welding Kits

- Includes clamps, hot knife (240v - 110v available), flash cutter, shears - in a handy carrying case
- Overlap welding kit also available

NOTE: Quantity requirements can be supplied ready welded to size.



Applications

- Conveying light or delicate products
- Light power transmission
- Can-cable for canning lines
- Driving conveyor rolls
- Conveying abrasive materials



Fenner Wedge and Vee-Belt Tensioning Instructions

"One-Shot" Tensioning

Fenner **FB** belts are Precision Built to ensure inherent length stability and matching during storage and on the drive. Over many years, the principle of "one-shot" tensioning has been verified by successful drives the world over.

- Install the belts to be a snug fit around the pulleys.
- Spin the pulleys 3-4 revolutions to bed belts into the pulley grooves.
(Note: if done manually, beware of finger entrapment between belts and pulleys)
- Tension the belts to the 1.25x setting forces from the table.
- Run the drive under load for 15-20 minutes.
- Stop the drive, check tension & reset to the basic value (standard V and wedge belts) if necessary. CRE PLUS & Quattro PLUS belts should be reset to the 1.25x value.

With a drive that is properly designed for the application there should be no need for further attention during the life of the belts.

For short centre distance drives where the deflection of the belt is too small to measure accurately it is recommended that both deflection and setting force be doubled.

Method of belt tensioning using Fenner Belt Tension Indicator

- Calculate the deflection in mm on a basis of 16mm per metre of centre distance. Centre distance (metres) x 16 = deflection (mm).
- Set the lower marker ring at the deflection distance required in mm on the lower scale.
- Set the upper marker ring against the bottom edge of the top tube.
- Place the belt tension indicator on top of the belt at the centre of span, and apply a force at right angles to the belt, deflecting it to the point where the lower marker ring is level with the top of an adjacent belt.
- Read off the setting force value indicated by the top edge of the upper marker ring.
- Compare this force to the kgf value shown in the table.
- If a Fenner Belt Tension Indicator is not available, a spring balance and rule will suffice.

NOTES:

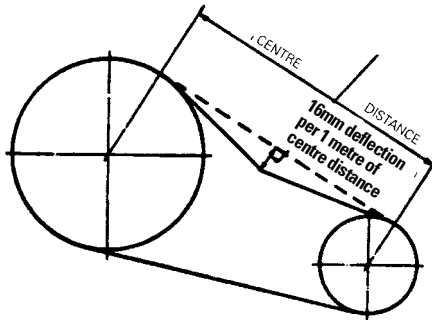
For single belt drives a straight edge should be placed across the two pulleys to act as a datum for measuring the amount of deflection.

If the measured force falls within the values given, the drive should be satisfactory. A measured force below the basic value indicates under-tensioning.

A new drive should be tensioned to the 1.25x value to allow for the normal drop in tension during the running-in period.

After the drive has been running for 15–20 minutes, under load the tension should be checked and re-adjusted, if necessary.

BELT TENSION INDICATOR APPLIES SETTING FORCE AT MID CENTRE DISTANCE



The setting forces below are designed to cover a wide range of drives. A precise setting force for individual applications can be calculated. Please consult your local Authorised Distributor or use the 'Fenner Select' design software at www.fptgroup.com

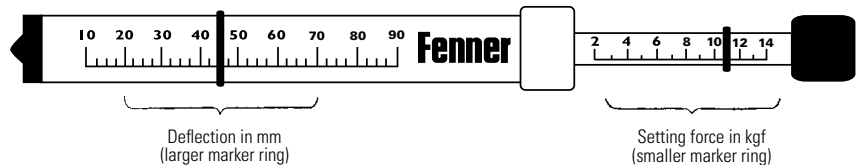
Setting Forces Ultra PLUS 150

Belt Section	Setting force to deflect belt 16 mm per metre of span		
	Small pulley diameter (mm)	Basic setting forces	
		Newtons (N)	kilograms (kgf)
USPB	112 to 160	44	4.5
	170 to 224	54	5.5
	236 to 355	64	6.5
	over 355	69	7.0
USPC	224 to 250	74	7.5
	265 to 355	93	9.5
	over 375	118	12.0

Setting Forces

Belt Section	Setting force to deflect belt 16 mm per metre of span				
	Small pulley diameter (mm)	Basic setting forces		1.25 x setting forces	
		Newtons (N)	kilograms (kgf)	Newtons (N)	kilograms (kgf)
SPZ XPZ & QXPZ	56 to 71	16	1.6	20	2.0
	75 to 90	18	1.8	22	2.2
	95 to 125	20	2.0	25	2.5
	over 125	22	2.2	28	2.8
SPA, XPA & QXPA	80 to 100	22	2.2	28	2.8
	106 to 140	30	3.0	38	3.9
	150 to 200	36	3.7	45	4.6
	over 200	40	4.0	50	5.1
SPB, XPB & QXPB	112 to 160	40	4.0	50	5.1
	170 to 224	50	5.1	62	6.3
	236 to 355	62	6.3	77	7.9
	over 355	65	6.6	81	8.3
SPC, & QXPC	224 to 250	70	7.1	87	8.9
	265 to 355	92	9.4	115	12.0
	over 375	115	12.0	144	15.0
gV	335 & above	150	15.0	190	19.0
Z	56 to 100	5 to 7.5	0.5 to 0.8		
A (& HA banded)	80 to 140	10 to 15	1.0 to 1.5		
B	125 to 200	20 to 30	2.0 to 3.1		
C	200 to 400	40 to 60	4.1 to 6.1		
D	355 to 600	70 to 105	7.1 to 10.7		

Fenner Belt Tension Indicator



Troubleshooting

Small radial cracks on belt side and base

Generally caused by slippage due to insufficient belt tension, but excessive heat and/or chemical fumes can also cause the same problem.

Belt swelling or softening

Caused by excessive contamination by oil, certain cutting fluids, water or rubber solvent.

Whip during running

Often caused by incorrect tensioning, particularly on long centre drives. If a slightly higher (or lower) tension does not cure the problem there may be a critical vibration frequency in the system which requires re-design or use of banded belts. Consult your local Authorised Distributor Technical Services.

Pulleys

Pulley groove wear can cause rapid belt failure. Check grooves for wear with a Fenner groove gauge.

Installation and Operation of Wedge and Vee-Belt Drives

Although comparatively old in principle today's belt drive is an extremely efficient method of transmitting power between prime mover and machinery.

It owes its present high performance standards to many years of research and development by engineers and technologists, leading to significant refinements in materials and processes.

To derive maximum benefit from such advances it is important that the simple installation and operation procedures set out here are closely followed. Making these routines standard practice will ensure optimum performance and long, trouble-free life from Fenner belt drives.

Installation

PULLEYS

Before assembling the drive, check the pulley grooves are free from scores or sharp edges, and all dimensions conform to the relevant standard.

Drive installation is straightforward with Taper Lock – but follow all steps on the installation leaflet provided with every Taper Lock bush.

ALIGNMENT

Good alignment of pulleys is important to avoid belt flank wear. The diagrams opposite show some of the common alignment faults.

Pulley misalignment should not exceed 1/2° angular and 10mm / metre drive centre distance, axial.

A laser alignment device is available, which facilitates quick, easy and accurate pulley alignment - consult your local Authorised Distributor.

BELT INSTALLATION

When the pulleys have been correctly positioned on the shafts, the belts can be installed to complete the drive.

The drive centre distance should be reduced prior to the installation of the belts so that they may be fitted without the use of force. Under no circumstances must belts be prised into the grooves. Belts and pulley grooves can easily be damaged by using sharp tools to stretch the belts over the pulley rim.

The installation allowance given in the table opposite is the minimum recommended reduction in centre distance for the various belt sections and lengths to allow for correct fitting.

The take-up allowance given in the same table should be added on to the calculated centre distance to allow for belt stretch/bedding in.

GUARDS

Where guards are necessary it is desirable to use mesh materials to permit adequate ventilation.

Guards should be generously sized to allow for incidental belt flap.

TENSIONING PULLEYS

If tensioning (jockey) pulleys are to be used on wedge belt drives, they must be grooved pulleys working on the inside of the drive, preferably on the slack side.

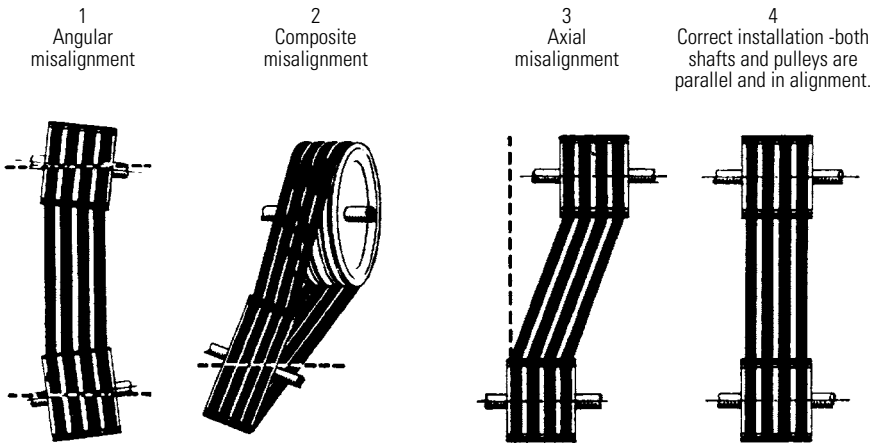
The pulley should be positioned as close as possible to the large pulley. Flat tensioning pulleys, bearing on the outside of the drive are permissible only with V and not with wedge belts. They should be positioned

within one third of the centre distance from the small pulley.

The tensioning pulley must have at least the same diameter as the small pulley of the drive.

Tensioning pulley movement must allow for passing the belts over the outside diameter of one of the drive pulleys on installation, and should also allow for belt stretch/bedding in.

The modern wedge belt drive is a highly efficient power transmission medium, but optimum performance will not be achieved without correct tension and alignment.



INSTALLATION AND TAKE-UP ALLOWANCE						
Belt Pitch Length (mm)	Installation Allowances					Take-up (mm)
	SPZ Z	SPA A	SPB B	SPC C	8V D	
410 to 530	20	25	30	50	65	5
530 to 840						10
850 to 1160						15
1170 to 1500						20
1510 to 1830						25
1840 to 2170						30
2180 to 2830						40
2840 to 3500						50
3520 to 4160						60
4170 to 5140						70
5220 to 6150	65	75	85	105	125	85
6180 to 7500						105
7600 to 8500						125
8880 to 10170						145
10600 to 12500						175

Taper Lock

All Fenner V and wedge belt pulleys use Taper Lock shaft fixing.

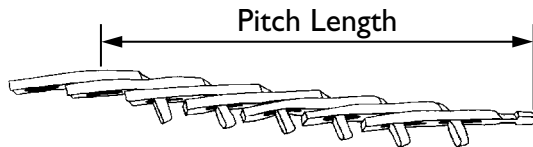
Detailed instructions for fitting and dismantling Taper Lock products are included with Taper Lock bushes.

Ultra PLUS 150

INSTALLATION AND TAKE-UP ALLOWANCE			
Belt Pitch Length (mm)	Installation Allowances		Take-up (mm)
	USPB	USPC	
2180 to 2830	30	50	20
2840 to 3500			25
3520 to 4160			30
4170 to 5140			35
5220 to 6150			45
6180 to 7500			55
7600 to 8500			65
8880 to 10170			75
10600 to 12500			90

PowerTwist PLUS Installation and Tensioning

1. How to Measure



Correct way to measure:

PowerTwist Plus – end of tab to first empty holes (right to left, above)

2. Assembly - PowerTwist PLUS



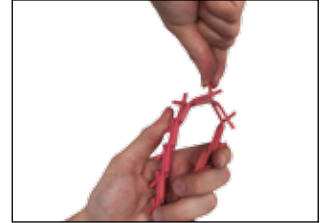
Always work with the belt inside out, tabs pointing outward



Place end tab through two links at once.



Flex belt further and insert second tab through end link by twisting tab with thumb.



Ensure tab returns to position across belt. Reverse belt so tabs run inside.

3. Installation

Make PowerTwist Plus belts to the correct pitch length and then install them as you would an endless belt.

1. Move motor to reduce centre distance.
2. Place all belts in correct position.

Where it is necessary to thread belts through confined spaces, or around shafts without moving bearings, it is possible to make the belts "in site". Some reduction in pulley centre distance is still necessary for ease of assembly.

3. Move motor back into position, applying correct tension.
4. Secure motor tightly.

Method of Belt tensioning using Fenner Belt Tension indicator

1. Calculate the deflection distance in mm on a basis of 16mm per metre of span.
Centre Distance (m) x 16 = Deflection (mm)
2. Set the lower marker ring at the deflection distance required in mm on the lower scale.
3. Set the upper marker ring against the bottom edge of the top tube.
4. Place the belt tension indicator on top of the belt at the centre of span, and apply a force at right angles to the belt deflecting it to the point where the lower marker ring is level with the top of an adjacent belt*.
5. Read off the force value indicated by the top edge of the upper marker ring.
6. Compare this force to the kgf value shown in the table opposite.
7. If a Fenner Belt Tension Indicator is not available, a spring balance and rule will suffice.

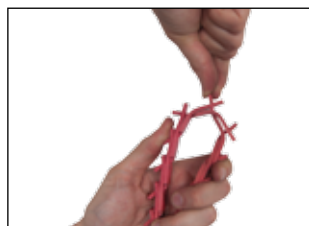
CAUTION

When properly installed, initial tension may appear excessive. Tension drops to normal when drive begins to run.

5. Disassembly - PowerTwist PLUS



Turn belt inside out with tabs pointing outwards. Bend back as far as possible; hold with one hand. Twist one tab 90° parallel with slot.



Pull end of link over tab.



Rotate belt end with tab at 90° to line of belt.



Pull belt end through two links.

Determine the required pitch length of the belt. Measure PowerTwist Plus from the second empty hole on the last link to the end tab. Subtract one link in every 24 for Z, A, B sections, one link in every 20 for C section. For multiple belt drives, count the number of links in the initial belt and make additional belts the same number of links. Lay the original belt on a table and lay the additional belts side by side to ensure the correct length and matched sets.

4. Retensioning

It is important to retension all drives after an initial run-in period. On fixed centre drives, it may be necessary to remove a link from each belt for proper retensioning.

Belt Section	Force required to deflect belt 16mm per metre of span		
	Small Pulley Diameter (mm)	Newton (N)	Kilogram-force (kgf)
Z	56 to 90	10 to 15	1.0 to 1.5
A	80 to 140	15 to 20	1.5 to 2.0
B	125 to 200	25 to 35	2.6 to 3.6
C	200 to 400	45 to 65	4.6 to 6.6

*NOTE: For single belt drives a straight edge should be placed across the two pulleys to act as a datum for measuring the amount of deflection.

If the measured force falls within the values given, the drive should be satisfactory. A measured force below the lower value indicates under-tensioning.

A new drive should be tensioned to the higher value to allow for the normal drop in tension during the running-in period.

After the drive has been running for 30 minutes, the tension should be checked and re-adjusted to the higher value, if necessary.

PolyDrive PLUS Ribbed Belts

Belt Dimensions & Physical Properties

Belt Section	PJ	PK	PL	PM
Rib pitch E (mm)	2.34	3.56	4.70	9.40
Belt thickness	3.50	5.00	7.00	12.00
Mass/unit length/rib (g/m/b)	8.20	19.50	32.00	110.00
Maximum belt* speed (m/sec)	60.00	55.00	40.00	35.00
Minimum pulley diameter (mm)	18.00	50.00	70.00	180.00

* Belt speeds above 40m/sec require special pulley materials – consult your local Authorised Distributor

Standard Effective Lengths (mm & inches)

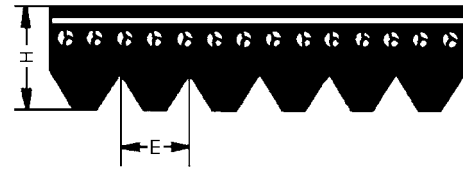
PJ		PK		PL		PM	
406	16.0	673	26.5	1075	42.5	2693	106.0
432	17.0	698	27.5	1270	50.0	2832	111.5
457	18.0	710	28.0	1333	52.5	2921	115.0
483	19.0	740	29.1	1371	54.0	3010	118.5
508	20.0	775	30.5	1397	55.0	3124	123.0
559	22.0	805	31.7	1422	56.0	3327	131.0
610	24.0	841	33.1	1562	61.5	3531	139.0
660	26.0	870	34.3	1613	63.5	3734	147.0
711	28.0	884	34.8	1664	65.5	4089	161.0
723	28.5	915	36.0	1715	67.5	4191	165.0
762	30.0	926	36.5	1764	69.5	4470	176.0
813	32.0	954	37.6	1803	71.0	4648	183.0
864	34.0	970	38.2	1841	72.5	5029	198.0
914	36.0	1015	40.0	1943	76.5	5410	213.0
960	38.0	1030	40.6	1981	78.0	6121	241.0
1016	40.0	1080	42.5	2020	79.5	6883	271.0
1092	43.0	1146	45.1	2070	81.5	7646	301.0
1105	43.5	1165	45.9	2096	82.5	8408	331.0
1123	44.0	1230	48.4	2134	84.0		
1130	44.5	1295	51.0	2197	86.5		
1150	45.0	1387	54.6	2235	88.0		
1168	46.0	1425	56.1	2324	91.5		
1200	47.0	1460	57.5	2362	93.0		
1244	49.0	1530	60.2	2476	97.5		
1270	50.0	1560	61.4	2515	99.0		
1280	50.5	1658	65.3	2705	106.5		
1321	52.0	1725	67.9	2743	108.0		
1355	53.0	1760	69.3	2845	112.0		
1397	55.0	1795	70.7	2895	114.0		
1428	56.0	1863	73.3	2921	115.0		
1473	58.0	1900	74.8	2997	116.0		
1549	61.0	1980	78.0	3086	121.5		
1600	63.0	2050	80.7	3124	123.0		
1651	65.0	2145	84.4	3289	129.5		
1663	65.5	2257	88.9	3327	131.0		
1752	69.0	2330	91.7	3492	137.5		
1854	73.0	2440	96.1	3696	145.5		
1910	75.0	2523	99.3	4051	159.5		
1956	77.0	2612	102.8				
1965	77.5	2680	105.5				
1992	78.5						
2083	82.0						
2210	87.0						

Effective belt lengths are used with pulley effective diameters in all centre distance calculations.

All the above belts can be supplied with rib numbers of at least 40.

Intermediate belt lengths are available - consult your local Authorised Distributor.

Belts may be designated by: number of ribs, section letters and effective length in mm (e.g. 16 PL 2235)



The geometry of each section complies with ISO 9982.

Ribbed belt codes

Digits	Reference	Code
1, 2 & 3	Product group	215
4	Belt section PJ,PK,PL,PM	J,K,L,M
5,6,7,8	Belt effective length mm e.g. 723mm=0723 1295mm=1295 for M section over 10000 use 1st 4 digits e.g. 12217mm =1221	0200 -9999

NOTE:

These 8 digit codes specify the section and effective length of a belt.

The number of ribs on any belt must be specified separately.

e.g. 16 PL 2235 = 215 L 2235, 16 ribs

PolyDrive PLUS Belt Selection

Necessary drive data: Driving/driven shaft speeds (rev/min), absorbed drive power and/or motor power (kW), type of prime mover (inc. electric motor starting arrangements) and driven machine, machine shaft diameters (mm or ins.), required drive centre distance (mm), any other dimensional constraints.

(a) Service Factor

Select the service factor applicable to the drive from table 1 below. For a speed increasing drive multiply the basic service factor by the special factor in the top left box to achieve the full service factor.

(b) Design Power

Multiply the normal running (absorbed) power of the drive, or if not known, the motor power, by the service factor (a), to give the design power which is used as the basis for drive selection. This power should be calculated in kW.

(c) Ribbed Belt Section

Refer to table 2, page 81 and find the point of intersection of the faster drive shaft speed in rev/min, and the design power

(b). This point will indicate required belt section and approximate small pulley diameters/rib numbers.

NOTE: PK section ribbed belts are normally used for automotive applications. For general industrial applications PJ, PL or PM section belts should be selected.

(d) Speed Ratio

Divide rev/min of faster shaft by that of the slower shaft to give required speed ratio.

(e) Minimum Small Pulley Diameter

Refer to table 5, page 81 to find the minimum recommended small pulley diameter, using design power (b) and the faster shaft speed.

(f) Pulley Effective* Diameters

Refer to table 6, page 82 to select pulley effective diameters giving close to the required speed ratio (d), using (e) as a guide to small pulley diameter.

Calculate the exact speed ratio and check acceptability

* Note: All pulley designations show effective (outside) diameters. Exact speed ratios are calculated using pitch diameters, – see under table 6, page 82.

(g) Belt Length and Centre Distance

Use the formulae below to establish which standard belt length (listed page 79) gives closest to the required drive centre distance.

(h) Combined Correction Factor

Refer to tables 3 & 4, page 81 to find power correction factors for belt length and for the arc of contact for the small pulley (the latter calculated using pulley diameters D & d, and centre distance C - all in mm).

Multiply these two factors together to give the combined correction factor.

(j) Basic/Additional Power per Rib

The main power rating tables on pages 82 & 83 show basic power per belt rib, in kW, at the intersection of faster shaft speed (LH column, in rev/min) with pulley diameter (across top, in mm). Additional power per rib due to speed ratio is shown in the smaller RH table. Values for shaft speeds not listed can be derived by interpolation.

(k) Corrected Power per Rib

Add the speed ratio increment to the basic power per rib (j) and multiply the resultant kW value by the combined correction factor (h) to give the full power per rib.

(l) Number of Ribs Required

Divide design power (b) by the full power per rib (k) to give the number of belt ribs required. Round up to an even number and check whether standard pulleys are available.

(m) Pulleys

When pulley specification is established, consult your local Authorised Distributor to check availability of pulleys with Taper Lock bush shaft fixing, and associated bore size capacity.

BELT LENGTH & CENTRE DISTANCE FORMULAE

To determine belt length (L mm) for a given centre distance (C mm) using pulleys with small/large effective diameters d/D mm:

$$L = 2C + \frac{(D-d)^2}{4C} + 1.57(D+d)$$

-select the standard belt length nearest to L as calculated.

To determine centre distance for given effective pulley diameters and actual belt length:

$$C = A + \sqrt{A^2 - B}$$

$$\text{where: } A = \frac{L}{4} - 0.3925(D + d) \quad \text{and} \quad B = \frac{(D-d)^2}{8}$$

SPEED INCREASE RATIO		Types of Prime Mover					
		'Soft' Starts			'Heavy' Series		
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		Electric motors: AC - Star Delta start DC - Shunt wound Internal combustion engines with 4 or more cylinders Prime movers fitted with centrifugal clutches, dry or fluid couplings or electronic soft start devices			Electric motors: AC - Direct-on-line start DC - Series and component wound Internal combustion engines with less than 4 cylinders Prime movers not fitted with soft start devices		
TYPES OF DRIVEN MACHINE		Hours per day					
		10 and under	Over 10 to 16	Over 16	10 and under	Over 10 to 16	Over 16
Class 1 Light Duty	Agitators (uniform density), blowers, exhausters and fans up to 7.5kW, 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 and mixers (variable density), blowers, exhausters and fans (over 7.5kW). Rotary compressors and pumps (other than centrifugal). Belt conveyors (not uniformly loaded), generators and exciters, 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	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

PolyDrive PLUS Belt Selection

TABLE 2

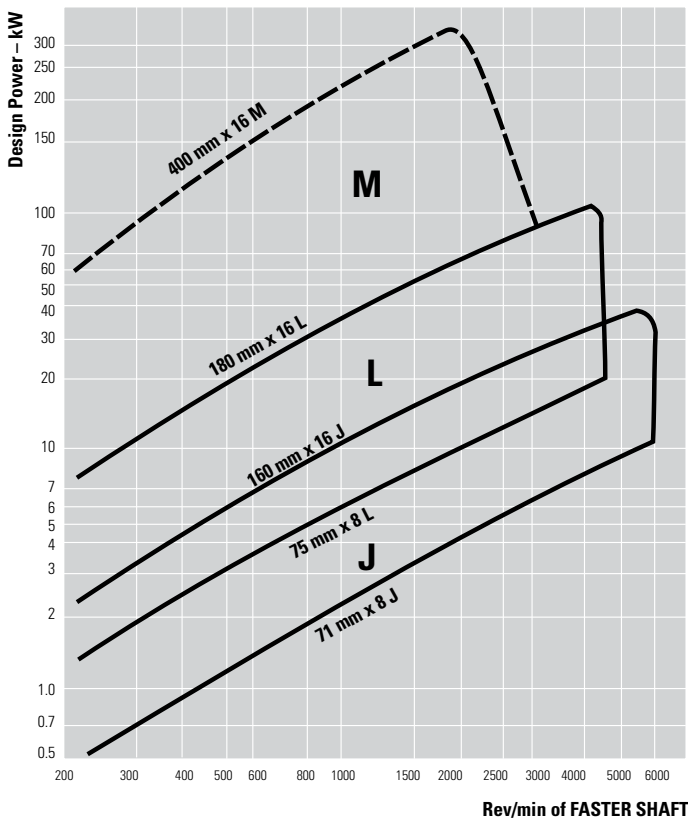


TABLE 3 BELT LENGTH CORRECTION FACTOR

Pitch Length		Cross Section		
mm	ins	PJ	PL	PM
610	24.0	0.89	—	—
660	26.0	0.90	—	—
711	28.0	0.92	—	—
762	30.0	0.93	—	—
813	32.0	0.95	—	—
864	34.0	0.97	—	—
914	36.0	0.98	—	—
965	38.0	0.99	—	—
1016	40.0	1.00	—	—
1092	43.0	1.01	—	—
1168	46.0	1.02	—	—
1270	50.0	1.05	0.89	—
1397	55.0	1.07	0.91	—
1550	61.0	1.09	—	—
1562	61.5	—	0.93	—
1664	65.0	—	0.94	—
1752	69.0	1.12	—	—
1765	69.5	—	0.96	—
1842	72.5	—	0.97	—
1956	77.0	1.15	—	—
1981	78.0	—	0.98	—
2134	84.0	—	1.01	—
2286	90.0	—	—	0.88
2324	91.5	—	1.02	—
2388	94.0	—	—	0.89
2515	99.0	—	1.04	0.90
2693	106.0	—	1.05	0.91
2921	115.0	—	1.07	0.93
3124	123.0	—	1.08	0.94
3327	131.0	—	1.10	0.96
3696	145.5	—	1.12	—
3734	147.0	—	—	0.98
4089	161.0	—	1.14	1.00
4191	165.0	—	1.14	1.00
4470	176.0	—	1.16	1.02
4648	183.0	—	—	1.03
5029	198.0	—	1.19	1.05
5385	212.0	—	1.20	—
5410	213.0	—	—	1.06
6121	241.0	—	—	1.09
6883	271.0	—	—	1.12
7646	301.0	—	—	1.14
8408	331.0	—	—	1.16
9169	361.0	—	—	1.18
9931	391.0	—	—	1.20

TABLE 4 ARC OF CONTACT CORRECTION FACTORS

$\frac{D-d}{C}$	Arc of contact (degrees)	Correction Factor	$\frac{D-d}{C}$	Arc of contact (degrees)	Factor
0.00	180	1.00	0.50	151	0.93
0.05	177	0.99	0.55	148	0.92
0.10	174	0.99	0.60	145	0.91
0.15	171	0.98	0.65	142	0.90
0.20	169	0.97	0.70	139	0.89
0.25	166	0.97	0.75	136	0.88
0.30	163	0.96	0.80	133	0.87
0.35	160	0.95	0.85	130	0.86
0.40	157	0.94	0.90	127	0.85
0.45	154	0.93	0.95	123	0.83

TABLE 5

Speed of motor shaft rev/min	Recommended Minimum Motor Pulley Diameter (mm)																					
	Design Power (kW)																					
	0.55	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5	11.0	15.0	18.5	22.0	30.0	37.0	45.0	55.0	75.0	93.0	112	130	150
720	50	50	67	70	75	85	95	106	118	132	150	160	165	180	190	200	224	250	280	315	315	315
960	45	50	56	63	70	75	85	90	100	118	125	132	150	165	180	190	212	224	250	280	315	315
1440	40	45	50	63	67	71	80	85	90	100	118	125	132	150	165	170	190	200	224	250	280	280
2880	40	45	50	56	63	67	71	75	80	90	95	100	118	125	132	150	160	165	180	190	200	224

PolyDrive PLUS Power Ratings

TABLE 6 SPEED RATIO CHART

Drive (motor) pulley eff. dia. mm	71	75	80	85	90	95	100	106	112	118	125	132	140	150	160	170	180
Driven pulley eff. dia. mm	71	75	80	85	90	95	100	106	112	118	125	132	140	150	160	170	180
71	1.00																
75	1.05	1.00															
80	1.12	1.06	1.00														
85	1.19	1.13	1.06	1.00													
90	1.26	1.19	1.12	1.06	1.00												
95	1.32	1.25	1.18	1.11	1.05	1.00											
100	1.39	1.32	1.24	1.17	1.11	1.05	1.00										
106	1.47	1.39	1.31	1.24	1.17	1.11	1.06	1.00									
112	1.55	1.47	1.38	1.31	1.24	1.17	1.12	1.05	1.00								
118	1.63	1.55	1.46	1.37	1.30	1.23	1.17	1.11	1.05	1.00							
125	1.72	1.64	1.54	1.45	1.37	1.30	1.24	1.17	1.11	1.06	1.00						
132	1.82	1.73	1.62	1.53	1.45	1.38	1.31	1.24	1.17	1.12	1.05	1.00					
140	1.93	1.83	1.72	1.62	1.53	1.46	1.39	1.31	1.24	1.18	1.12	1.06	1.00				
150	2.06	1.96	1.84	1.73	1.64	1.56	1.48	1.40	1.33	1.26	1.19	1.13	1.07	1.00			
160	2.19	2.08	1.96	1.85	1.75	1.66	1.58	1.49	1.42	1.35	1.27	1.21	1.14	1.07	1.00		
170	2.33	2.21	2.08	1.96	1.86	1.76	1.68	1.58	1.50	1.43	1.35	1.28	1.21	1.13	1.06	1.00	
180	2.46	2.34	2.20	2.07	1.96	1.86	1.77	1.68	1.59	1.51	1.43	1.35	1.28	1.20	1.12	1.06	1.00
190	2.60	2.46	2.32	2.19	2.07	1.96	1.87	1.77	1.68	1.59	1.51	1.43	1.35	1.26	1.18	1.12	1.05
200	2.73	2.59	2.44	2.30	2.18	2.07	1.97	1.86	1.76	1.67	1.58	1.50	1.42	1.33	1.24	1.17	1.11
212	2.89	2.75	2.58	2.44	2.30	2.19	2.08	1.97	1.87	1.77	1.68	1.59	1.50	1.40	1.32	1.24	1.17
224	3.05	2.90	2.72	2.57	2.43	2.31	2.20	2.08	1.97	1.87	1.77	1.68	1.59	1.48	1.39	1.31	1.24
236	3.21	3.05	2.87	2.71	2.56	2.43	2.31	2.19	2.07	1.97	1.86	1.77	1.67	1.56	1.46	1.38	1.31
250	3.40	3.23	3.04	2.86	2.71	2.57	2.45	2.32	2.19	2.09	1.97	1.87	1.77	1.65	1.55	1.46	1.38
280	3.81	3.61	3.40	3.20	3.03	2.88	2.74	2.59	2.45	2.33	2.21	2.09	1.98	1.85	1.73	1.63	1.54
315	4.28	4.06	3.81	3.60	3.41	3.23	3.08	2.91	2.76	2.62	2.48	2.35	2.22	2.07	1.95	1.84	1.74
355	4.81	4.57	4.29	4.05	3.83	3.64	3.46	3.27	3.10	2.95	2.79	2.65	2.50	2.34	2.19	2.07	1.95
400	5.42	5.14	4.83	4.56	4.32	4.10	3.90	3.68	3.49	3.32	3.14	2.98	2.81	2.63	2.47	2.33	2.20
450	6.09	5.78	5.43	5.12	4.85	4.60	4.38	4.14	3.93	3.73	3.53	3.35	3.16	2.95	2.77	2.61	2.47
500	6.26	6.41	6.03	5.69	5.39	5.11	4.86	4.60	4.36	4.14	3.92	3.72	3.51	3.28	3.08	2.90	2.74
630	8.50	8.07	7.59	7.16	6.78	6.43	6.12	5.79	5.48	5.21	4.93	4.68	4.41	4.13	3.87	3.65	3.45
800	10.79	10.24	9.62	9.08	8.59	8.16	7.76	7.34	6.96	6.61	6.25	5.93	5.60	5.23	4.91	4.63	4.38

The above chart gives approximate speed ratios between pulleys of the shown effective diameters. For exact drive ratio values, calculate the mathematical ratio between any 2 effective dias. (De) converted to pitch dias. (Dp) as follows: J section Dp = De + 2 mm
 L section Dp = De + 5mm

PJ Ribbed Belt Ratings

Rev/min faster Shaft	Basic power rating per rib (kW) for small pulley effective diameter (mm) PJ Section																				Additional power (kW) per rib due to speed ratio				
	20	25	40	50	60	67	71	75	80	85	90	95	100	112	125	140	160	180	200	250	1.00	1.05	1.20	1.50	3 and above
200	0.02	0.02	0.04	0.05	0.06	0.07	0.08	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.14	0.16	0.18	0.20	0.22	0.31	0.00	0.00	0.00	0.00	0.00
400	0.03	0.04	0.07	0.10	0.12	0.14	0.14	0.15	0.16	0.17	0.19	2.00	0.21	0.23	0.26	0.29	0.33	0.37	0.41	0.59	0.00	0.00	0.00	0.00	0.00
700	0.04	0.06	0.12	0.16	0.20	0.22	0.24	0.25	0.27	0.29	0.31	0.32	0.34	0.38	0.43	0.48	0.55	0.61	0.68	0.97	0.00	0.00	0.01	0.01	0.01
950	0.05	0.08	0.16	0.21	0.26	0.29	0.31	0.33	0.35	0.38	0.40	0.42	0.45	0.50	0.56	0.63	0.72	0.80	0.89	1.26	0.00	0.01	0.01	0.01	0.01
1200	0.07	0.10	0.19	0.26	0.32	0.36	0.38	0.41	0.43	0.46	0.49	0.52	0.55	0.62	0.69	0.77	0.88	0.99	1.09	1.54	0.00	0.00	0.00	0.00	0.01
1450	0.08	0.11	0.23	0.30	0.37	0.42	0.45	0.48	0.51	0.55	0.58	0.62	0.65	0.73	0.82	0.91	1.04	1.16	1.28	1.80	0.00	0.00	0.00	0.01	0.01
2000	0.10	0.15	0.30	0.40	0.49	0.56	0.60	0.63	0.68	0.73	0.77	0.82	0.86	0.97	1.08	1.20	1.36	1.52	1.67	2.31	0.00	0.00	0.01	0.01	0.02
2850	0.13	0.20	0.41	0.54	0.67	0.76	0.81	0.86	0.92	0.98	1.04	1.10	1.16	1.30	1.44	1.60	1.80	1.98	2.15	2.85	0.00	0.00	0.01	0.02	0.02
3500	0.15	0.23	0.48	0.64	0.80	0.90	0.96	1.02	1.09	1.17	1.24	1.30	1.37	1.53	1.69	1.86	2.07	2.25	2.41	3.03	0.00	0.00	0.01	0.02	0.03
5000	0.19	0.31	0.65	0.86	1.07	1.21	1.28	1.36	1.45	1.54	1.62	1.70	1.78	1.96	2.13	2.29	2.45	2.53			0.00	0.01	0.02	0.04	0.05
6000	0.21	0.35	0.75	1.00	1.23	1.38	1.47	1.55	1.65	1.74	1.83	1.91	1.99	2.16	2.30	2.41	2.46	2.38			0.00	0.01	0.02	0.05	0.06
7000	0.24	0.39	0.84	1.12	1.37	1.54	1.63	1.71	1.81	1.90	1.99	2.07	2.14	2.27	2.36	2.37	2.24				0.00	0.01	0.03	0.05	0.06
8000	0.26	0.43	0.93	1.23	1.50	1.67	1.76	1.84	1.94	2.02	2.10	2.16	2.21	2.29	2.28	2.15					0.00	0.01	0.04	0.06	0.07
9000	0.27	0.47	1.01	1.33	1.60	1.77	1.86	1.93	2.02	2.09	2.14	2.18	2.21	2.20							0.00	0.02	0.05	0.08	0.09
10000	0.29	0.50	1.08	1.41	1.69	1.85	1.92	1.99	2.05	2.10	2.13	2.13	2.12	1.98							0.00	0.02	0.05	0.08	0.10
Vmax M/S	60																								

PolyDrive PLUS Power Ratings

PL RIBBED BELT RATINGS

Basic power rating per rib (kW) for small pulley effective diameter (mm) PL Section																				
Rev/min faster Shaft	75	80	90	100	106	112	118	125	132	140	150	160	170	180	200	212	224	236	250	250
200	0.15	0.17	0.21	0.25	0.29	0.31	0.34	0.36	0.39	0.42	0.46	0.49	0.53	0.56	0.64	0.68	0.78	0.82	0.87	0.59
400	0.26	0.30	0.37	0.44	0.53	0.57	0.61	0.66	0.71	0.76	0.83	0.90	0.97	1.04	1.17	1.25	1.45	1.53	1.62	0.97
700	0.40	0.46	0.58	0.70	0.84	0.91	0.98	1.06	1.15	1.24	1.35	1.46	1.58	1.69	1.91	2.04	2.38	2.51	2.66	1.26
950	0.50	0.58	0.74	0.90	1.09	1.18	1.27	1.38	1.48	1.60	1.75	1.90	2.04	2.19	2.47	2.64	3.10	3.26	3.45	1.54
1200	0.60	0.70	0.89	1.08	1.32	1.43	1.54	1.67	1.80	1.95	2.13	2.31	2.49	2.66	3.00	3.21	3.77	3.96	4.19	1.80
1450	0.68	0.80	1.03	1.26	1.53	1.67	1.80	1.95	2.10	2.27	2.49	2.69	2.90	3.10	3.50	3.73	4.39	4.61	4.86	2.31
2000	0.85	1.00	1.30	1.60	1.97	2.15	2.32	2.51	2.71	2.92	3.19	3.45	3.71	3.95	4.43	4.70	5.56	5.81	6.08	2.85
2400	0.95	1.13	1.48	1.82	2.26	2.46	2.65	2.87	3.09	3.34	3.63	3.92	4.20	4.46	4.96	5.24	6.22	6.46	6.72	3.03
2850	1.04	1.25	1.65	2.03	2.54	2.76	2.98	3.23	3.47	3.73	4.05	4.35	4.64	4.91	5.40	5.66	6.74	6.94	7.13	
3200	1.11	1.33	1.76	2.18	2.74	2.97	3.20	3.46	3.71	3.99	4.31	4.62	4.90	5.16	5.60	5.82	6.95	7.09	7.19	
3500	1.15	1.39	1.84	2.28	2.88	3.13	3.37	3.63	3.89	4.16	4.49	4.78	5.05	5.29	5.67	5.83	6.99	7.05		
3800	1.18	1.43	1.91	2.37	3.01	3.26	3.50	3.77	4.03	4.30	4.61	4.89	5.13	5.34	5.63	5.72				
4000	1.20	1.46	1.95	2.42	3.08	3.34	3.58	3.85	4.10	4.37	4.67	4.93	5.15	5.33	5.54					
4300	1.22	1.49	2.00	2.48	3.18	3.43	3.67	3.94	4.18	4.43	4.71	4.94	5.11	5.23						
4600	1.23	1.51	2.03	2.51	3.24	3.50	3.74	3.99	4.22	4.45	4.69	4.87	4.99	5.05						
5000	1.23	1.51	2.05	2.53	3.30	3.54	3.77	4.00	4.21	4.40	4.57	4.68								
5500	1.20	1.49	2.03	2.50	3.30	3.53	3.73	3.92	4.07	4.19	4.26									
6000	1.13	1.43	1.96	2.41	3.23	3.42	3.58	3.72	3.80											
Vmax M/S	40																			

Additional power (kW) per rib due to speed ratio				
1.00	1.05	1.20	1.50	3 and above
0.00	0.01	0.01	0.02	0.03
0.00	0.01	0.02	0.03	0.04
0.00	0.02	0.03	0.07	0.08
0.00	0.02	0.06	0.09	0.12
0.00	0.02	0.07	0.11	0.14
0.00	0.03	0.09	0.14	0.17
0.00	0.04	0.12	0.19	0.23
0.00	0.05	0.15	0.23	0.28
0.00	0.06	0.18	0.27	0.34
0.00	0.06	0.19	0.30	0.37
0.00	0.07	0.22	0.33	0.41
0.00	0.08	0.24	0.36	0.45
0.00	0.09	0.25	0.38	0.47
0.00	0.09	0.27	0.41	0.49
0.00	0.10	0.29	0.43	0.54
0.00	0.10	0.31	0.47	0.58
0.00	0.11	0.34	0.52	0.64
0.00	0.13	0.38	0.57	0.71

PM RIBBED BELT RATINGS

Basic power rating per rib (kW) for small pulley effective diameter (mm) PM Section																
Rev/min faster Shaft	180	190	200	224	250	280	315	355	400	450	500	560	630	710	800	1000
50	0.35	0.38	0.41	0.60	0.69	0.79	0.91	1.05	1.20	1.37	1.53	1.90	2.15	2.43	2.75	3.44
100	0.63	0.68	0.74	1.08	1.25	1.45	1.68	1.93	2.22	2.53	2.84	3.53	4.00	4.53	5.11	6.40
200	1.12	1.22	1.32	1.96	2.28	2.65	3.07	3.55	4.08	4.67	5.25	6.53	7.39	8.37	9.45	11.78
300	1.57	1.71	1.86	2.76	3.22	3.75	4.36	5.05	5.82	6.66	7.48	9.30	10.52	11.89	13.40	16.59
400	1.98	2.17	2.36	3.51	4.11	4.80	5.59	6.47	7.45	8.52	9.57	11.88	13.42	15.13	16.97	20.77
700	3.10	3.41	3.72	5.57	6.55	7.65	8.91	10.31	11.84	13.47	15.04	18.49	20.62	22.82	24.99	28.47
950	3.92	4.32	4.72	7.09	8.33	9.73	11.31	13.03	14.87	16.78	18.53	22.45	24.51	26.34		
1200	4.65	5.13	5.61	8.43	9.90	11.53	13.34	15.26	17.24	19.19	20.84	24.65				
1450	5.28	5.84	6.39	9.59	11.24	13.03	14.96	16.93	18.85	20.54	21.74					
1600	5.62	6.21	6.79	10.19	11.92	13.76	15.71	17.63	19.39	20.77						
1800	6.01	6.65	7.27	10.88	12.67	14.53	16.42	18.17	19.57							
2000	6.34	7.01	7.66	11.43	13.23	15.05	16.79	18.23								
2200	6.60	7.29	7.95	11.82	13.59	15.29	16.77									
2400	6.78	7.48	8.15	12.05	13.72	15.23										
2850	6.89	7.57	8.20	11.90	13.14											
3200	6.67	7.29	7.83	11.09												
3600	6.04	6.53	6.91													
4000	4.98															
Vmax M/S	35															

Additional power (kW) per rib due to speed ratio				
1.00	1.05	1.20	1.50	3 and above
0.00	0.01	0.02	0.02	0.03
0.00	0.01	0.03	0.05	0.06
0.00	0.02	0.06	0.10	0.12
0.00	0.03	0.09	0.14	0.17
0.00	0.04	0.13	0.19	0.24
0.00	0.07	0.22	0.33	0.42
0.00	0.10	0.30	0.45	0.56
0.00	0.12	0.34	0.57	0.71
0.00	0.16	0.46	0.69	0.86
0.00	0.17	0.50	0.76	0.95
0.00	0.19	0.57	0.77	1.07
0.00	0.21	0.63	0.95	1.19
0.00	0.23	0.68	1.05	1.30
0.00	0.25	0.75	1.14	1.44
0.00	0.30	0.89	1.36	1.69
0.00	0.34	1.00	1.52	1.89
0.00	0.38	1.12	1.71	2.13
0.00	0.42	1.25	1.90	2.37

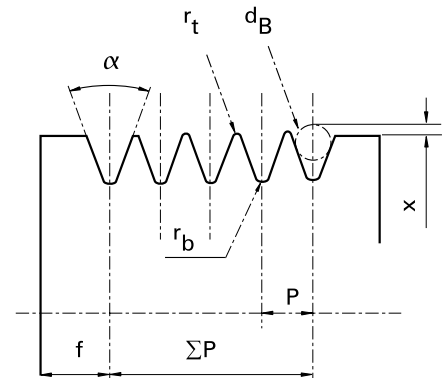
PolyDrive PLUS Installation and Tensioning

The following recommendations for installing a ribbed belt drive will help ensure correct working conditions and optimum service life.

RIBBED BELT PULLEY GROOVE DIMENSIONS

Pulleys are manufactured to ISO 9982 – Pulleys and V-Ribbed Belts for Industrial Applications

PULLEY SECTION		PJ	PK	PL	PM
α	(°)	40 ± 0.25	40 ± 0.25	40 ± 0.25	40 ± 0.25
P	(mm)	2.34 ± 0.03	3.56 ± 0.05	4.70 ± 0.05	9.40 ± 0.08
Tolerance for ΣP		± 0.3	± 0.3	± 0.3	± 0.3
rt min.	(mm)	0.20	0.25	0.40	0.75
rb max.	(mm)	0.40	0.50	0.40	0.75
f min.	(mm)	3.0	5.0	7.0	13.0
dB	(mm)	1.5 ± 0.01	2.5 ± 0.01	3.5 ± 0.01	7.0 ± 0.01
2X	(mm)	0.23	0.99	2.36	4.53



SHAFT ALIGNMENT

The maximum axial misalignment allowed is 3 mm per metre centre distance, to a maximum of 15 mm.

Make sure that angular misalignment is kept within 2°. With flat pulleys, acting as idlers for power take-off, do not exceed 1°.

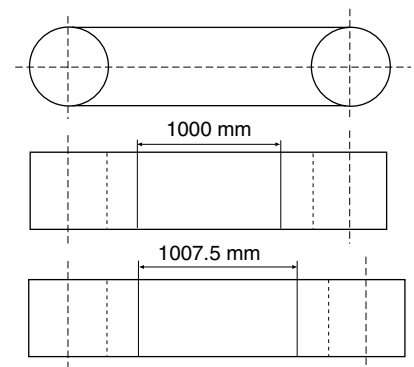
A laser alignment device is available, which facilitates quick, easy and accurate pulley alignment - consult your local Authorised Distributor.

TENSIONING THE BELT

Ribbed belts must be tensioned correctly and with great care. Under or over-tensioning can cause functional problems and lead to premature belt failure. We recommend the elongation method, which is simple and requires no special equipment, in most cases.

(For narrow belts - less than 40 mm wide - it is possible to use the Fenner Belt Tension Indicator).

1. Fit the belt on the pulleys with no tension,
2. Draw two lines perpendicularly across the belt back approx 80% of the belt span apart (or one metre apart for very long spans),
3. Increase the distance between the two lines by 0.5 to 0.75% i.e. by 5 to 7.5 mm for an initial spacing of 1000 mm.
4. Run the drive under load for about 10 minutes,
5. Check the tension of the belt (i.e. the spacing between the two lines) and readjust if necessary.



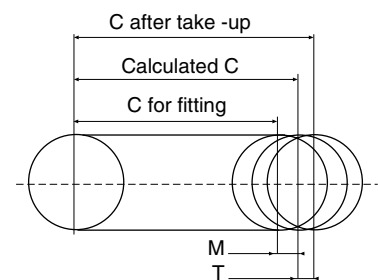
GENERAL

Pulleys should be mounted as close as possible to bearings, to reduce overhung load.

Pulley grooves should be in good condition, clean, and free from sharp edges.

Ensure that drive machinery is securely fastened after belt installation or adjustments.

Guards should be generously sized and well ventilated.



Belt Length (mm)	PJ		PK		PL		PM	
	M	T	M	T	M	T	M	T
> 750	-10	+10	-11	+13	-	-	-	-
750 to 1200	-10	+15	-12	+16	-15	+20	-	-
1200 to 2000	-15	+20	-16	+22	-20	+25	-	-
2000 to 3500	-20	+30	-23	+32	-30	+35	-40	+50
3500 to 6000	-	-	-	-	-40	+50	-50	+70
> 6000	-	-	-	-	-	-	-100	+130

TAPER LOCK

Ribbed belt pulleys are available using Taper Lock shaft fixing.

For detailed instructions on the fitting and dismantling of Taper Lock products see Shaft Fixings page 128-129

Accessories

The Fenner S.C.I.E.N.C.E. Explained

Did you know that 70% of friction drives are incorrectly installed?

That figure is quite astounding particularly when you consider how many applications are dependant on the efficiency and reliability of friction belt drives.

But don't panic, with a just a few simple steps and the assistance of your Local Authorised Fenner Distributor, we can ensure that your belt drives (and chain drives) achieve their optimum efficiency, full operating life and provide reliable performance.

With Fenner it's all about the **S.C.I.E.N.C.E. - Select Correctly, Install Effectively, Never Compromise Efficiency**, if you adhere to these simple rules you can be confident that your drive selection will perform.

Select Correctly

A correctly selected drive for your application will ensure the drive uses the fewest number of belts or the absolute minimum of belt width, which in turn.

- Reduces loading on the machines bearings increasing the life cycle of the machine, reducing downtime and the risk of mechanical failure
- Reduces the noise levels keeping noise pollution to a minimum at high speeds
- Reduces the amount of raw materials and resources used cutting down on waste an subsequent pollution

Install Effectively

Correct installation - once you have carefully selected your belt drive components - is paramount to the longevity and efficiency of your belt drive, by following the correct installation procedures to the letter and by using the right tools for the job, such as the Fenner laser alignment and tensioning devices, we can;

- Reduce the vibration to which the machine bearings are subjected, prolonging machine life, minimising downtime and reducing the risk of severe damage to the driven machine
- Ensure the drive operates and delivers its maximum rated power at its premium efficiency, reducing both waste and pollution
- Supply a drive which gives the maximum drive life available on the market using the minimum of resource to maintain

Never Compromise Efficiency

By including belt drives as an integral part of a planned maintenance schedule you can:

- Ensure the process up-time is at an absolute maximum giving the ultimate production output maximising operational efficiency
- Prolong the life of the drive and negate the need to waste costly resources on breakdowns and drive problems
- Extend drive, machine and bearing life to the maximum, using less raw materials and guarantee sustainability.

Remember your drive stands or falls by the accuracy of its installation, so take the time to get this right and you will reap the rewards. Use the S.C.I.E.N.C.E

Belt Tension Indicator

The Fenner Belt Tension Indicator is a simple tool that helps ensure accurate belt tension - a correctly tensioned drive avoids belt slippage which can reduce overall drive efficiency.

Product Ref: 230A0000



Fenner Drive Alignment Laser

The Fenner Drive Alignment Laser is the perfect tool for pulley and sprocket alignment. Applied magnetically in just a few seconds, the laser line projects onto targets allowing rapid adjustment for perfect alignment.



Product Ref: 230L0000

Pulley Groove Gauge

When installing new belts, the condition of the pulleys is often overlooked. 50% of new belts are fitted to worn pulleys, which can waste up to 10% of your energy input. The Fenner groove gauge can quickly help you assess the health of your pulleys.



Request your free pulley groove gauge from your Authorised Distributor.

Belt Efficiency Kit

Get the most from your wedge belt drives with the Fenner Belt Efficiency Kit. The kit contains all the tools necessary to help achieve optimum performance: Belt Tension Indicator, Pulley Groove Gauge and a simple guide to efficient wedge belt efficiency.

Product Ref: 230K0000



Product Ref: 230K0000

