

TRANSMISSION BELTS



Fenner® Belt Drives



Fenner®

Reliable | Trusted | Connected



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Exceptional Performance

Fenner power transmission products are world renowned for delivering the ultimate combination of rugged construction, reliable and efficient performance and value for money - proven in the harshest environments, guaranteed to perform in yours!

All power transmission products are manufactured to exacting specifications in line with international standards, and are backed-up by a product development programme designed to keep them at the cutting edge.

Over 150 Years of Engineering Heritage

Fenner has been a leading name in power transmission for over 150 years and generations of professional engineers have placed their trust in these products.

Founded in 1861 by Joseph Henry Fenner, the company started as a manufacturer of horse hair and leather power transmission belts. In 1921, woven textile belts were developed and the company began to produce some of the finest transmission belting in the market. Today, Fenner product range include transmission belts, pulleys, chains, sprockets, couplings, taper lock bushes, shaft fixings, gearboxes, motors and inverters.

Our success in the market means that today the Fenner mark is widely recognised as synonymous with exceptional products for everyday use - a fitting tribute to the designers and engineers who proudly continue to oversee these ever-improving fundamentals of power transmission.



Fenner Guarantee



Products are guaranteed in terms of the manufacturer's Standard Conditions of Business only if all components of an assembly (excluding belts) are of genuine manufacture

All products in this manual are available for purchase subject to our standard conditions of sale. To the best of our knowledge the representations concerning performance of any items contained in this manual are, at date of publication, accurate within normally accepted tolerances. We shall not, however, be liable for consequences arising from inaccuracies in drawings, specification or other information based on specifications, dimensions, calculations or information of whatsoever nature obtained from this manual nor be bounded thereto.

All products covered by this manual are manufactured to standards and or specifications adequate for the purpose for which they have been designed. We will repair, or at our discretion, replace, free of charge at point of delivery, any item or part thereof which may prove, within three months after delivery, to be defective due to faulty workmanship or material, save as aforesaid, no warranty or misrepresentation of any nature is or shall be taken to be given by us or is or can be implied.

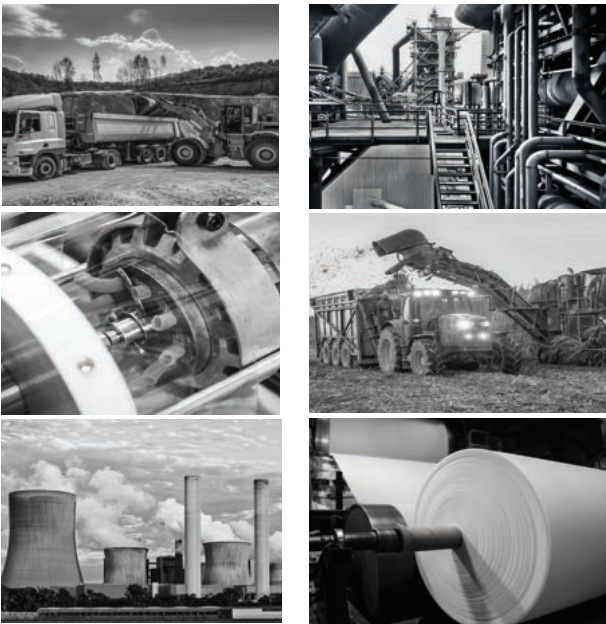
The information contained herein is subject to alteration without notice, and accordingly, we shall not be bound to the contents of the terms hereof.

IMPORTANT NOTE:

All products listed in this manual are not approved for use in aviation industries. This comprehensive range is suitable for general industrial purposes.

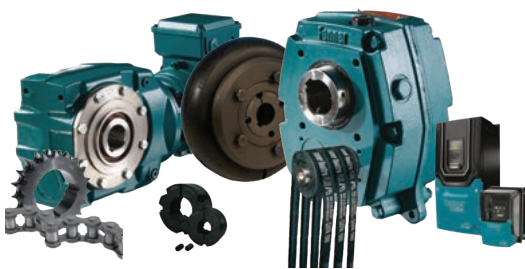


Reliable.
Trusted.
Connected.



Fenner's worldwide commitment to quality is a guarantee that wherever the project or customer is located, the Fenner products supplied will always meet the most exacting standards.

Complete Drive Solution for You



The complete drive solution from prime mover to driven machine in one range with one result - driven performance.



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Classic V

Light Duty, Wrapped V-belt
Relative Power \uparrow 75

Ideal for high ratio or small pulley drives, the Fenner® Classic V belt has a specially treated jacket to give superior anti-static, heat and oil resistant properties which exceeds the new industry anti-ignition standards. It conforms to DIN 2215 (German Institute for Standardization) and RMA IP20.

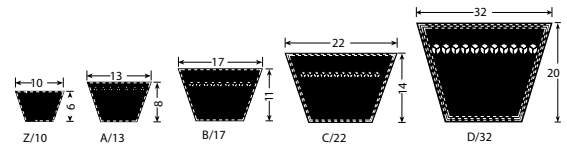
Benefits

- > Accuracy and stability of length
- > One-shot tensioning for fit-and-forget reliability
- > Extended temperature range -40°C to +70°C



Sections and Size Range

Profile	Z	A	B	C	D
Imperial Length Range (inch)		A20 - A154	B26 - B238	C49 - C444	D105 - D538
Metric Length Range (mm)	370 - 1750	540 - 3950	700 - 6070	1300 - 11330	2740 - 13700



Power PLUS

Trusted. Precision
Relative Power \uparrow 100

Built using advanced technology, Fenner Power PLUS transmission belts achieve economic performance by use of low elongation polyester cords and abrasion resistant impregnated jacket fabric. It conforms to DIN 7753(German Institute for Standardization) and RMA IP22.

Benefits

- > Ideal for use in single or multi-belt drives
- > Accuracy and stability of length
- > One-shot tensioning for fit-and-forget reliability
- > Extended temperature range -40°C to +70°C
- > Heat and Oil Resistant



Power PLUS K

Power PLUS

Power PLUS Belt Sections and Size Range

Profile	SPZ/3V	SPA	SPB/5V	SPC	8V / DELTA
Metric Length Range (mm)	487 - 3550	732 - 4500	1250 - 8000	2000 - 12500	2540 - 11430

Power PLUS K Belt Sections and Size Range

Profile	SPBK/5VK	SPCK	8VK
Metric Length Range (mm)	1250 - 8000	2000 - 12500	2540 - 11430

Power PLUS K

HIGH PERFORMANCE 


Greater Strength. More Power
Relative Power \uparrow 125

Built using advanced technology, Fenner Power PLUS K transmission belts achieve great performance by the use of high strength aramid cords and abrasion resistant impregnated jacket fabric.

Benefits

- > 25% more powerful than standard belts due to its aramid cords
- > Accuracy and stability of length
- > One-shot tensioning for fit-and-forget reliability
- > Extended temperature range -40°C to +70°C
- > Heat and Oil Resistant

NOTE:

All Fenner Classic V-Belts, Power PLUS and Power PLUS K are Precision Belt  eliminating the need for matching. They are fully approved by all International Standards:

- ISO 4184 (International Standards Organisation)
- BS 3790 (British Standard)
- Static conductive in accordance with ISO 1813
- Conforms to American Petroleum Institute specifications



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CRE PLUS

HIGH PERFORMANCE

The driving force for high ratio applications
Relative Power \uparrow 125

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

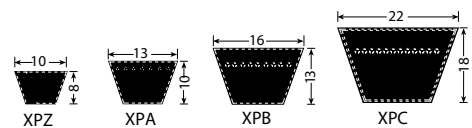
Benefits

- > Higher running efficiency than wrapped belts
- > 'One Shot' tensioning - no matching required
- > Heat and conditionally oil resistant
- > PB® (Precision Build) technology
- > Accuracy and stability of length
- > Heat and oil resistant



Size Reference

Profile	XPZ	XPA	XPB	XPC
Metric Length Range (mm)	630 - 3550	800 - 3550	1250 - 3550	2000 - 5000



Quattro PLUS CRE

HIGH PERFORMANCE

Heavy Duty, Cogged Raw Edge EPDM Wedge Belt
Relative Power \uparrow 150

The Fenner® Quattro PLUS CRE is a step forward in belt technology. It's high performance unique polyester tension member and EPDM contact section allows it to transmit 26% more power than traditional CRE range and offers up to 15% longer service life.

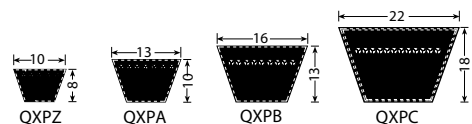
Benefits

- > Synthetic rubber EPDM heavy duty wedge belt
- > Embedding compound for stable power transfer
- > Enhanced tooth profile improves belt flexibility, reducing bending resistance and increasing efficiency and life
- > Unique construction of the polyester tension member improves accuracy and stability of belt length
- > Reduced belt weight lowers inertia and reduces vibration allowing smoother running
- > Lower pre-tensioning force allows longer bearing life and extends



Sections and Size Range

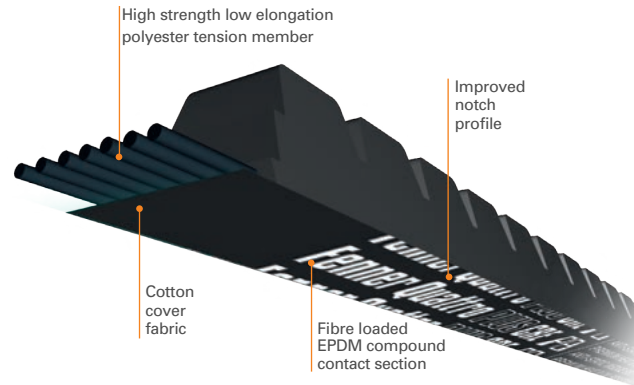
Profile	QXPZ	QXPA	QXPB	QXPC
Length Range (mm)	630 - 3550	800 - 4000	1250 - 4500	2000 - 5000





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- > Abrasion resistant compound for enhanced durability
- > Extended temperature range -40°C to +130°C
- > PB® (Precision Build) technology, eliminating the need for matching
- > Conditionally oil resistant
- > Fully approved by all international standards
 - > BS 3790 (British Standard)
 - > ISO 4184 (International Standards Organisation)
 - > DIN 7753 (German Institute for Standardization)
 - > Electrically conductive in accordance with ISO 1813
 - > Conforms to American Petroleum Institute specifications



Quattro PLUS TW

HIGH PERFORMANCE

Heavy Duty, Twin Wrapped Wedge Belt Relative Power +130

The Fenner® Quattro PLUS TW is a wrapped belt that has been specifically designed with a 2 ply outer jacket to reduce belt elongation and improve stability. Suitable for a wide range of industries and uses, this maintenance free belt transmits 30% more power than traditional wrapped wedge belts.

Benefits

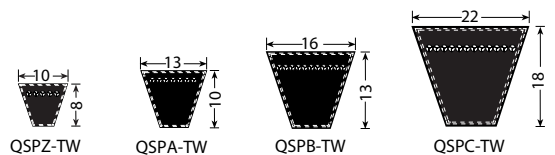
- > State-of-the art wrapped chloroprene rubber construction
- > Higher modulus polyester cord reduces belt elongation
- > 2-ply outer jacket improves belt length stability and improves abrasion resistance
- > Suitable for counterbending/back-tensioners
- > Suitable for clutches
- > Extended temperature range -30°C to +80°C
- > PB® (Precision Build) technology, eliminating the need for matching
- > Conditionally oil resistant
- > Fully approved by all international standards
 - > BS 3790 (British Standard)
 - > ISO 4184 (International Standards Organisation)
 - > DIN 7753 (German Institute for Standardization)
 - > Electrically conductive in accordance with ISO 1813
 - > Conforms to American Petroleum Institute specifications



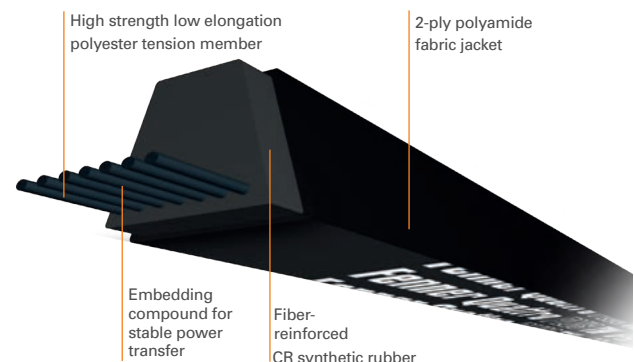
η > 96%
Energy Efficient

Sections and Size Range

Profile	QSPZ-TW	QSPA-TW	QSPB-TW	QSPC-TW
Length Range (mm)	1202-3550	590-2932	1250-9000	2000-9500



Construction





PolyDrive PLUS

Ribbed Belt for High Transmission Ratios

Fenner PolyDrive PLUS ribbed belts are an ideal solution for compact drives in household appliances and heavy machinery. The ribbed belts enable economic solutions even under difficult drive conditions, such as large transmission ratios, high belt speeds, small pulley diameters and back idler pulleys.

Benefits

- > High belt speeds up to 60m/s (belt speeds above 40m/s require special pulley materials)
- > High power output
- > Low vibration, efficient belt
- > Long service life
- > Fully approved by all international standards
- > Geometry of each section complies to ISO 9982
- > Static conductive to ISO 1813



Size Reference

Profile	PJ	PK	PL	PM
Metric Length Range (mm)	406 - 2210	673 - 2680	1075 - 4051	2693 - 8408



Ribbed Belt

Concord PLUS

BANDED



Fenner® Wedge Belts combined with a Neoprene/Fabric Band to form a Single Belt

The advantages of Fenner® wedge belts are combined with a neoprene/fabric band to form a single belt. Ideal for applications where pulsating or shock loads cause instability in matched sets of wedge or V belts, Fenner® Concord PLUS banded belts can provide the ideal solution by providing sufficient lateral rigidity to eliminate such problems.

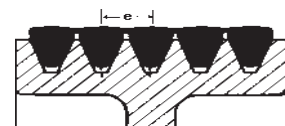
Benefits

- > Eliminates belt whip, belt twist and belt turnover
- > Ideal for drives with pulsating loads
- > Heat and conditionally oil resistant
- > Supplied to suit either Fenner® ISO standard Taper Lock® pulleys or RMA standard pulleys
- > Fully approved by all international standards BS 3790 (British Standard)
- > Static conductive in accordance with ISO 1813



Size Reference

Profile	SPZ	SPA	SPB	SPC
Metric Length Range (mm)	1270 - 4000	1000 - 4500	1410 - 8000	2650 - 12500



Banded Belt



QuickFix

Emergency Belt Solution

In a breakdown situation, the Fenner QuickFix belt provides you with a fast and reliable solution to get your plant up and running - with minimum downtime and fuss - whilst a replacement belt is on order.

Benefits

- > Can be made to any length in seconds
- > Easy to install, rivet-less construction, no tools necessary
- > Dual groove profile, means one belt fits both V and wedge belts
- > Jointed belting ensures minimum strip down when installing



Size Reference

Available in standard Z, A, B, C, SPZ, SPA, SPB and SPC.
Comes in 5m/box in wedge belt and V belt combined

PowerTwist PLUS®

State-of-the-art Link Belting

PowerTwist PLUS belts are complementary to the range of Fenner Wedge and V-belts and are extensively used in industrial, marine, agricultural, heating, ventilation applications and fitment into inaccessible locations. They are manufactured from high strength urethane / polyester composite, ensuring the finished product is incredibly strong, yet flexible enough to work in the roughest of conditions.

Benefits

- > Can be made to any length in seconds
- > Highly resistant to heat, water, oil, chemicals etc.
- > Use with Fenner® ISO standard Taper Lock® pulleys, optionally with RMA pulleys
- > Easy to install, rivet-less construction, no tools necessary
- > Reduces transmissible vibrations in some applications
- > Designed to dissipate heat.
- > Standard or optional soft back, for conveying applications
- > -40°C to +110°C temperature range



Size Reference

Available in standard Z, A, B, C, 3V, 5V, SPZ, SPA and SPB
Comes in 5m / box, 20m / box, 100 ft / box & 25ft / box

SuperTLink Belt

Longer Lasting Belt

SuperTLink Detachable V-Belts are made from a polyester/polyurethane composite. This combination ensures a longer belt life even in the harshest conditions - up to 20 times longer in some applications.

Benefits

- > High resistance to extreme temperatures (-40° to +116°C)
- > High resistance to abrasive materials
- > High resistance to water, steam, oil and most chemicals
- > Longer belt life in harsh operating conditions
- > Can be fitted easily and quickly even without dismantling the drive
- > Can be made to any length in seconds
- > Reduce transmitted vibration and belt noise by up to 50%



Size Reference

Available in standard SPZ, SPA, SPB, SPC, 3V and 5V.
Comes in 5m / box and 20m / box



Friction Pulleys

Taper Lock® and Pilot Bore Relative Power ↑ 100%

Fenner friction pulleys are manufactured from high grade iron (GG25), tolerate shock loading and achieve rim speeds of up to 40m/s. Available with pilot bore fixings or using the Taper Lock® shaft fixing system for ultimate versatility.



Benefits

- > Incorporate universal dual duty grooves (ISO 4183) and accept both V and wedge belts
- > Statically balanced to exceed grade G6.3 (ISO 1940)
- > Rim speeds up to a maximum of 40m/s
- > Blackened to reduce corrosion, acts as an ideal primer and removes the need for cleaning coating agents prior to installation
- > Consistent and high grade of accuracy e.g. groove wobble tolerance exceeds DIN 2211 part 1 requirements
- > Taper Lock® mounting for quick and simple installation
- > Special designs and sizes available

Sections and Size Range

Profile	SPZ	SPA	SPB	SPC
Sizes (mm)	56 to 630	80 to 800	112 to 1000	200 to 1250

Construction

Statically balanced to exceed grade G6.3 (ISO 1940)

Manufactured using high grade cast iron GG25



Rim speeds up to a maximum of 40m/s

Taper Lock®

Easy-on, Easy-off.

Fenner pioneered product since 1960's

Machined to exacting tolerances in cast iron and steel, the Fenner® Taper Lock® four hole bush has been tried and tested in over 50 million applications. It is the most successful shaft fixing in the market place today with a full range of both metric and imperial sizes as well as a full range of weld-on hubs, bolt-on hubs and hub adaptors.

- > Equivalent to a shrink-on fit on uniform load applications and thus eliminating the cost of a key
- > No costly re-boring: full range of both metric and imperial available
- > Special 4-hole feature for balanced assemblies
- > High grade, close grain iron material



Sections and Size Range

Code	1008	1108	1210	1610	1615	2012	2517	3020	3030
Bore Dia (mm)	9 - 25	9 - 28	11 - 32	14 - 42	14 - 42	14 - 50	16 - 60	25 - 75	35 - 75
Code	3525	3535	4030	4040	4535	4545	5040	5050	
Bore Dia (mm)	35 - 100	35 - 90	40 - 115	40 - 100	55 - 125	55 - 110	70 - 125	70 - 125	



Classical Timing Belt

Classical Timing Belt
Relative Power +65%

Fenner Classic Timing Belts are squared toothed belts. In conjunction with their associated pulleys, classical belts provide an economic solutions for light drive applications.

Benefits

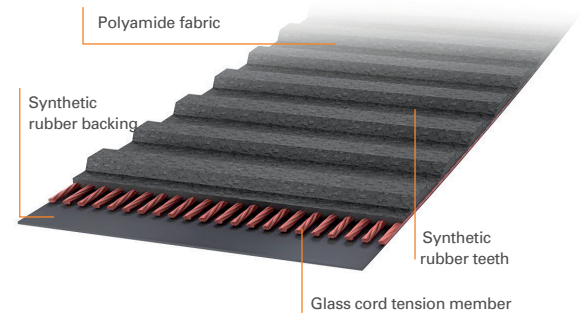
- > Classical profile imperial pitch belts
- > Efficient and economical
- > Ambient operating temperature -20°C to +100°C
- > Ozone resistant
- > Fully approved by all international standards
 - > ISO 5296 (International Standards Organisation)
 - > BS 4548 (British Standard)



Size Reference

XL	60 to 260 mm	H	240 to 1700 mm
L	124 to 600 mm	XH	507 to 1750 mm

Construction



HiTD High Torque Drive Belt

HiTD Synchronous Belt
Relative Power +100%

Fenner HiTD Timing Belts are the first generation of HTD metric curvilinear tooth form synchronous belts for high torque drives.

Benefits

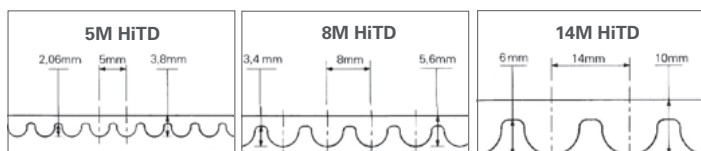
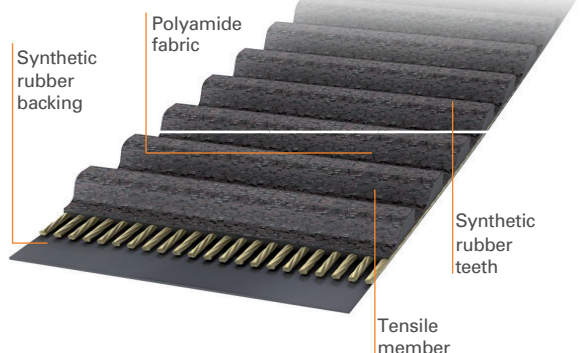
- > Curvilinear tooth improves stress distribution for higher tooth strength
- > Offers a more compact drive than classical timing belt drives
- > Fully approved by all international standards
- > ISO 13050 (International Standards Organisation)
- > Ambient operating temperature -20°C to +100°C
- > Ozone-resistant



Size Reference

5M HiTD	305 to 2525 mm	8M HiTD	480 to 2800 mm
14M HiTD	966 to 4578 mm		

Construction





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Torque Drive PLUS 3

HTD Synchronous Drive PLUS 3 Belt
Relative Power +150%

The state-of-the-art Fenner® Torque Drive PLUS 3 (TDP3) works with standard HTD pulleys to provide the ultimate combination of power capacity, low noise and high accuracy in a belt drive. Manufactured using the latest materials and production technology, Fenner® Torque Drive PLUS 3 continues to push the boundaries of belt engineering.

Benefits

- > The highest power rating for rubber/glassfibre belts
- > Enhanced compounding and glassfibre cord excel in highly dynamic applications
- > Minimum backlash for precise positioning
- > Ultra compact and cost effective drives
- > Polyamide facing layer reduces noise and belt tooth wear
- > Runs optimally on standard HTD pulleys
- > Fully approved by all international standards
- > AH category 2 according to 2014 AfPSS:01 PAK
- > ISO 13050 (International Standards Organisation)
- > Anti-static as standard to ISO 9563 (1990)
- > Ambient operating temperature -25°C to +100°C



Size Reference

8MGT	480 to 2800 mm	14MGT	966 to 4578 mm
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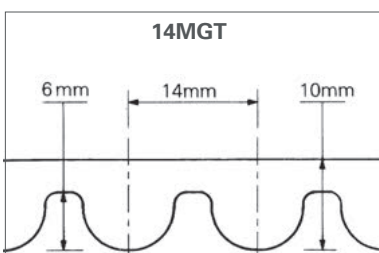
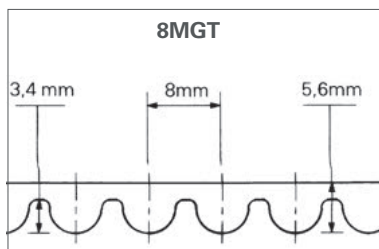
Construction

Belt teeth are precisely formed and accurately spaced to ensure quiet, efficient engagement with pulley grooves.

Low friction woven nylon facing protects tooth surfaces from wear and aids quiet, efficient running

Helically wound glass-fibre tensile member gives high tensile modulus and excellent fatigue life

Flexible, durable chloroprene backing polymer encapsulates the tensile cords and protects them from containments and mechanical damage





Synchronous Pulleys

Synchronous Pulleys Relative Power +100%

Fenner® synchronous pulleys are manufactured from high grade iron (GG25), tolerate shock loading and achieve rim speeds of up to 40 m/s.

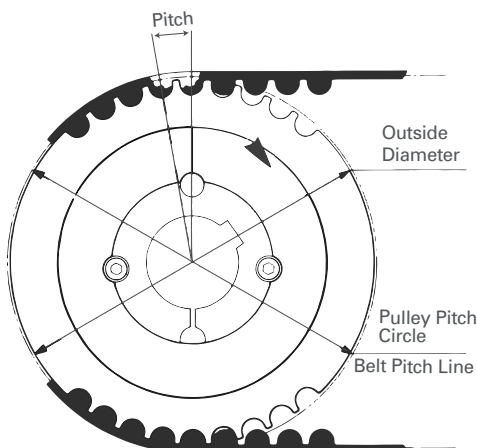
Benefits

- > Available in both classical Timing and HTD profiles
- > Statically balanced to exceed grade G 6.3 (ISO 1940)
- > Rim speeds up to a maximum of 40m/s
- > Blackened to reduce corrosion, acts as an ideal primer and removes the need for cleaning coating agents prior to installation
- > Precision machined grooves to protect and maximise belt life whilst reducing noise
- > Taper Lock® mounting, for quick and simple installation
- > Special designs and sizes available



Size Reference

5mm	28T to 136T	8mm	22T to 192T
14mm	28T to 192T		



Pulleys

The three principal dimensions of a pulley are **number of grooves, pitch and width** and are used in this order as a designation e.g. 72-8M-50.

On the pulley, pitch is the distance between groove centres and is measured on the pulley pitch circle. The Pitch Circle of the pulley coincides with the pitch line of the belt running in it. The pulley pitch diameter is always greater than its outer diameter.

Construction

Rim speeds up to a maximum of 40 m/s

High grade iron (GG 25)

Balanced to exceed grade G6.3 (ISO 1940)





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.

S C

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

I E

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

N C E

Never Compromise Efficiency

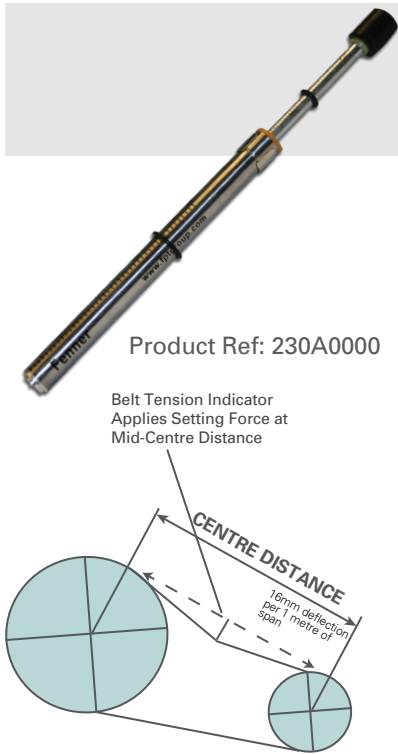
By including belt drives as an integral part of a planned maintenance schedule you can:

- > 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 rawv 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



Fenner Accessories



Product Ref: 230A0000

Belt Tension Indicator
Applies Setting Force at
Mid-Centre Distance

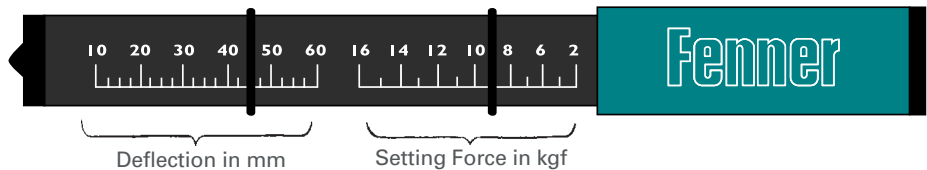
Belt Tension Indicator

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.

Belt Section	Setting Force to Deflect Belt 16mm per metre of span				
	Small pulley diameter (mm)	Basic setting forces		1.25 x Setting Forces	
		Newton (kg)	Kilograms (kgf)	Newton (kg)	Kilograms (kgf)
SPZ	56 to 71	16	1.6	20	2.0
XPZ	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	56 to 71	22	2.2	28
XPA	75 to 90	30	3.0	38	3.9
	95 to 125	36	3.7	45	4.6
	over 125	40	4.0	50	5.1
SPB	56 to 71	40	4.0	50	5.1
XPB	75 to 90	50	5.1	62	6.3
	95 to 125	62	6.3	77	7.9
	over 125	65	6.6	81	8.3
	SPC	56 to 71	70	7.1	87
XPC	75 to 90	92	9.4	115	12
	95 to 125	115	12	144	15
	over 125	150	15	190	19
Z	335 & above	5 to 7.5	0.5 to 0.8		
A & HA banded	56 to 100	10 to 15	1.0 to 1.5		
B	80 to 140	20 to 30	2.0 to 3.1		
C	125 to 200	40 to 60	4.1 to 6.1		
D	200 to 400	70 to 105	7.1 to 10.7		

The setting forces opposite are designed to cover a wide range of drives. A precise setting force for individual applications can be calculated. Please consult FPT Technical Services, or use the 'Fenner Select' design software.

Fenner Belt Tension Indicator

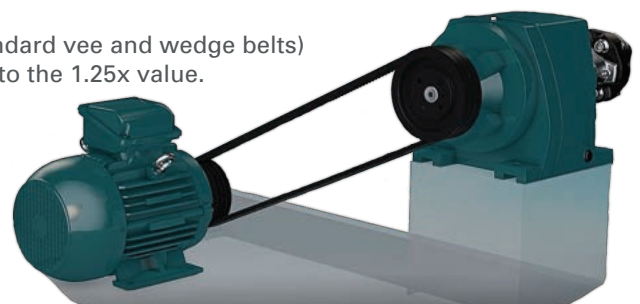


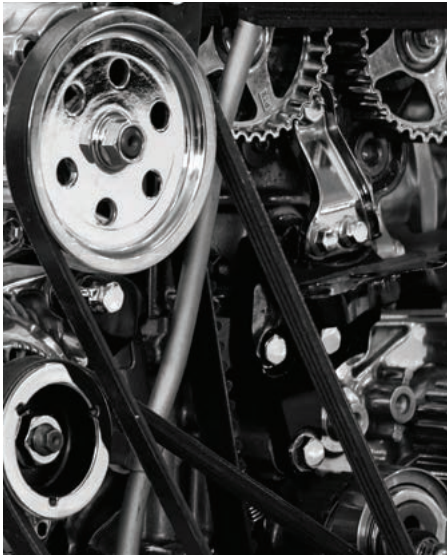
"ONE SHOT" TENSIONING

Fenner Belts are built to ensure precise inherent length and to stay matched during storage and on the drive. Over many years, the principle of "oneshot" 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 1.25 x 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 vee 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.



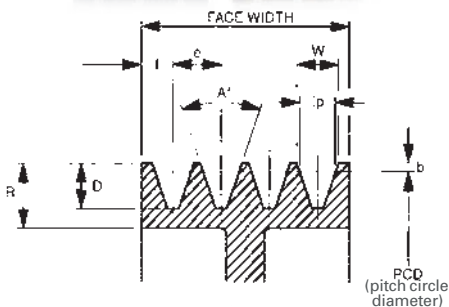
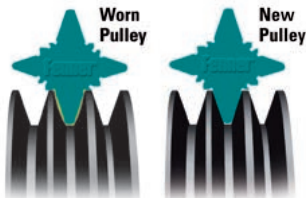


Method of belt tensioning using Fenner Belt Tension Indicator

- 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.
- With banded belts use a bar across the band width to ensure even distribution of the force and divide the force measured by the number of belts in the band for comparison with the values in the table above.

Fenner Drive Alignment Laser Product Ref: 230L0000

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.



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.



Pulley Groove Dimensions

Belt Section	Pulley PCD	A ^g ± 0,5°	D + 0,03 - 0,0	e* ± 0,15	f ± 0,3	b ± 0,13	lp	W	R NOM
SPZ	Up to 80	34		12				9,7	
Dual Groove	Over 80	38	11,0		8	2,0	8,5	9,9	17,25
SPA	Up to 118	34		15	10	2,75		12,7	
Dual Groove	Over 118	38	13,75				11	12,9	21,25
SPB	Up to 190	34		19	12,5	3,5		16,1	
Dual Groove	Over 190	38	17,5				14	16,4	27,25
SPC	Up to 315	34		25,5	17	4,8		21,9	
Dual Groove	Over 315	38	23,8				19	22,3	37,25

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



Belt Efficiency Kit Product Ref: 230K0000

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.



Fenner Wedge Belts Chart



SPZ / 3V / XPZ / QXPZ

Pitch Length mm	3V 1/10"	SPZ	XPZ	QXPZ	Pitch Length mm	3V 1/10"	SPZ	XPZ	QXPZ	Pitch Length mm	3V 1/10"	SPZ	XPZ	QXPZ
487	-	✓	-	-	1162	-	✓	-	-	1862	-	✓	-	-
512	-	✓	-	-	1180	-	✓	✓	✓	1887	-	✓	-	-
562	-	✓	-	-	1187	-	✓	-	-	1900	750	✓	✓	✓
587	-	✓	-	-	1200	475	✓	✓	-	1937	-	✓	-	-
612	-	✓	-	-	1212	-	✓	-	-	1987	800	✓	-	-
630	250	✓	✓	✓	1220	-	-	-	✓	2000	-	✓	✓	✓
637	-	✓	-	-	1237	-	✓	-	-	2030	-	✓	-	-
662	-	✓	-	-	1250	-	✓	✓	✓	2037	-	✓	-	-
670	-	✓	✓	✓	1262	-	✓	-	-	2040	-	-	✓	-
687	-	✓	-	-	1270	500	✓	✓	-	2120	-	✓	✓	✓
710	280	✓	✓	✓	1287	-	✓	-	✓	2137	-	✓	-	-
722	-	✓	-	-	1312	-	✓	-	-	2160	850	✓	✓	-
737	-	✓	-	-	1320	-	✓	✓	✓	2187	-	✓	-	-
750	-	✓	✓	✓	1337	-	-	✓	-	2240	-	✓	✓	✓
760	300	✓	-	-	1340	530	✓	✓	-	2262	-	✓	-	-
772	-	✓	✓	✓	1347	-	✓	-	-	2280	900	✓	✓	-
787	-	✓	-	-	1360	-	-	✓	-	2287	-	✓	-	-
800	315	✓	✓	✓	1362	-	✓	-	-	2360	-	✓	✓	-
812	-	✓	-	-	1387	-	✓	-	-	2410	950	✓	✓	-
825	-	✓	-	-	1400	-	✓	✓	✓	2500	-	✓	✓	✓
837	-	✓	-	-	1412	-	✓	-	-	2540	1000	✓	✓	-
850	-	✓	✓	✓	1420	560	✓	✓	-	2650	-	✓	✓	-
862	-	✓	-	-	1437	-	✓	-	-	2690	1060	✓	✓	-
875	-	✓	-	-	1450	-	-	-	✓	2800	-	✓	✓	✓
887	-	✓	-	-	1462	-	✓	✓	-	2840	1120	✓	✓	-
900	355	✓	✓	✓	1470	580	✓	✓	-	3000	1180	✓	✓	-
912	-	✓	-	-	1487	-	✓	-	-	3150	-	✓	✓	✓
925	-	✓	-	-	1500	-	✓	✓	✓	3170	1250	✓	-	-
937	370	-	✓	-	1512	-	✓	-	-	3350	-	✓	✓	-
940	-	✓	✓	-	1520	600	✓	✓	-	3550	1400	✓	✓	✓
950	-	✓	✓	✓	1537	-	✓	-	✓	Mass/Unit Length Section kg/m XP kg/m QXP kg/m SPZ 0.07 0.06 0.07 SPA 0.12 0.11 0.12 SPB 0.19 0.18 0.19 SPC 0.32 - 0.36 8V 0.54 - -				
962	-	✓	-	-	1560	617	✓	✓	-					
987	-	✓	-	-	1587	-	✓	✓	-					
1000	-	✓	✓	✓	1600	630	✓	✓	✓					
1010	400	✓	✓	-	1612	-	✓	-	-					
1024	-	✓	-	-	1637	-	✓	-	-					
1037	-	✓	-	-	1650	650	✓	✓	-					
1047	-	✓	-	-	1662	-	✓	-	-					
1060	-	✓	✓	✓	1687	-	✓	-	-					
1077	-	-	✓	-	1700	670	✓	✓	✓					
1080	425	✓	-	-	1737	-	✓	-	-					
1087	-	✓	-	-	1762	-	✓	-	-					
1112	-	✓	-	-	1787	-	✓	-	-					
1120	-	✓	✓	✓	1800	710	✓	✓	✓					
1137	-	-	✓	-	1812	-	✓	-	-					
1140	450	✓	✓	-	1837	-	✓	-	-					
1150	-	-	-	✓	1850	730	✓	✓	-					

Note: Dimensions in millimeters unless otherwise stated.



Fenner Wedge Belts Chart



SPA / XPA / QXPA

Pitch Length mm	SPA	XPA	QXPA	Pitch Length mm	SPA	XPA	QXPA	Pitch Length mm	SPA	XPA	QXPA
732	✓	-	-	1457	✓	-	-	2500	✓	✓	✓
757	✓	-	-	1482	✓	-	-	2532	✓	-	-
800	✓	✓	✓	1500	✓	✓	✓	2580	✓	-	-
807	✓	-	-	1507	✓	-	-	2607	✓	-	-
825	✓	-	-	1532	✓	✓	-	2632	✓	-	-
832	✓	-	-	1550	✓	✓	✓	2650	✓	✓	✓
850	✓	✓	✓	1557	✓	-	-	2682	✓	-	-
857	✓	-	-	1582	✓	-	-	2720	✓	-	-
875	✓	-	-	1600	✓	✓	✓	2732	✓	-	-
882	✓	-	-	1607	✓	-	-	2782	✓	-	-
900	✓	✓	✓	1632	✓	-	-	2800	✓	✓	✓
907	✓	-	-	1650	✓	✓	✓	2832	✓	-	-
925	✓	✓	-	1657	✓	-	-	2847	✓	-	-
932	✓	-	-	1682	✓	-	-	2882	✓	-	-
950	✓	✓	✓	1700	✓	✓	✓	2900	✓	-	-
957	✓	-	-	1707	✓	-	-	2932	✓	-	-
975	✓	-	-	1732	✓	-	-	2982	✓	-	-
983	✓	-	-	1750	✓	✓	✓	3000	✓	✓	✓
1000	✓	✓	✓	1757	✓	-	-	3032	✓	-	-
1007	✓	-	-	1782	✓	-	-	3082	✓	-	-
1030	✓	-	✓	1800	✓	✓	✓	3150	✓	✓	✓
1060	✓	✓	✓	1807	✓	-	-	3182	✓	-	-
1082	✓	-	-	1832	✓	-	-	3282	✓	-	-
1090	✓	✓	-	1850	✓	✓	✓	3350	✓	✓	-
1107	✓	-	-	1857	✓	-	-	3382	✓	-	-
1120	✓	✓	✓	1882	✓	-	-	3550	✓	✓	✓
1132	✓	-	-	1900	✓	✓	✓	3750	✓	-	-
1150	✓	-	-	1907	✓	-	-	4000	✓	-	✓
1157	✓	-	-	1932	✓	-	-	4250	✓	-	-
1180	✓	✓	✓	1950	✓	✓	✓	4500	✓	-	-
1207	✓	✓	-	1957	✓	-	-				
1220	✓	-	-	1982	✓	-	-				
1232	✓	-	-	2000	✓	✓	✓				
1250	✓	✓	✓	2032	✓	-	-				
1257	✓	-	-	2057	✓	-	-				
1272	✓	-	-	2060	✓	✓	✓				
1280	✓	✓	-	2082	✓	-	-				
1307	✓	-	-	2120	✓	✓	✓				
1320	✓	✓	✓	2132	✓	-	-				
1332	✓	-	-	2180	✓	-	-				
1357	✓	-	-	2207	✓	-	-				
1360	✓	-	-	2232	✓	-	-				
1382	✓	✓	-	2240	-	✓	✓				
1400	✓	✓	✓	2360	✓	✓	✓				
1407	✓	-	-	2382	✓	-	-				
1432	✓	-	-	2430	✓	✓	-				
1450	✓	✓	✓	2482	✓	-	-				

Pitch/Inner Lengths			
Section	Lp-Li (mm)	Section	Lp-Li (mm)
SPZ	37	XPA	44
SPA	45	XPB	58
SPB	60	QXPZ	30
SPC	90	QXPA	40
8V	120	QXPB	60
XPZ	38	QXPC	80

Pitch/Inner Lengths			
Section	Lp-Lo (mm)	Section	Lp-Lo (mm)
SPZ	13	SPB	22
SPA	18	SPC	30

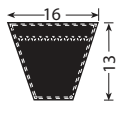
Note: Dimensions in millimeters unless otherwise stated.

Lp = Pitch Length Lo = Outside Length Li = Inner Length



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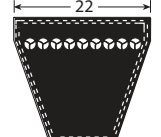
Fenner Wedge Belts Chart



SPB / 5V
XPB / QXPB

Pitch Length mm	5V 1/10"	SPB	XPB	QXPB
1250	-	✓	✓	✓
1260	500	✓	✓	-
1320	-	✓	✓	✓
1340	530	✓	✓	-
1400	-	✓	✓	✓
1410	560	✓	✓	-
1500	-	✓	✓	✓
1550	-	✓	-	-
1600	630	✓	✓	✓
1670	-	✓	-	-
1700	-	✓	✓	✓
1750	-	✓	-	-
1800	710	✓	✓	✓
1850	-	✓	-	-
1900	-	✓	✓	✓
1950	-	✓	-	-
2000	-	✓	✓	✓
2020	800	✓	✓	-
2060	-	✓	-	-
2120	-	✓	✓	✓
2150	850	✓	✓	-
2240	-	✓	✓	✓
2280	900	✓	✓	✓
2360	-	✓	✓	✓
2410	950	✓	✓	-
2450	-	✓	-	-
2500	-	✓	✓	✓
2530	1000	✓	✓	-
2580	-	✓	-	-
2650	-	✓	✓	✓
2680	1060	✓	✓	-
2720	-	✓	-	-
2800	-	✓	✓	✓
2840	1120	✓	✓	-
2900	-	✓	-	-
3000	1180	✓	✓	✓
3150	-	✓	✓	✓
3170	1250	✓	-	-
3250	1320	✓	-	-
3350	-	✓	✓	✓
3450	1400	✓	-	-

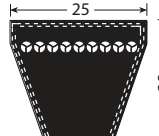
Pitch Length mm	5V 1/10"	SPB	XPB	QXPB
3550	-	✓	✓	✓
3750	1500	✓	-	✓
3800	-	✓	-	-
3870	-	✓	-	-
4000	-	✓	-	✓
4060	1600	✓	-	✓
4250	-	✓	-	✓
4310	1700	✓	-	✓
4500	-	✓	-	✓
4560	1800	✓	-	-
4750	-	✓	-	-
4820	1900	✓	-	-
5000	-	✓	-	-
5070	2000	✓	-	-
5300	-	✓	-	-
5380	2120	✓	-	-
5600	-	✓	-	-
5680	2240	✓	-	-
6000	2360	✓	-	-
6300	-	✓	-	-
6340	2500	✓	-	-
6700	-	✓	-	-
7100	2800	✓	-	-
7500	-	✓	-	-
8000	3150	✓	-	-



SPC / QXPC

Pitch Length mm	SPC	QXPC
2000	✓	✓
2120	✓	✓
2240	✓	✓
2360	✓	✓
2500	✓	✓
2650	✓	✓
2800	✓	✓
3000	✓	✓
3150	✓	✓
3350	✓	✓
3550	✓	✓
3750	✓	✓

Pitch Length mm	SPC	QXPC
4000	✓	✓
4060	-	✓
4250	✓	✓
4310	✓	✓
4500	✓	✓
4750	✓	✓
5000	✓	✓
5300	✓	-
5600	✓	-
6000	✓	-
6300	✓	-
6700	✓	-
7100	✓	-
7500	✓	-
8000	✓	-
8500	✓	-
9000	✓	-
9500	✓	-
10000	✓	-
10600	✓	-
11200	✓	-
11800	✓	-
12500	✓	-



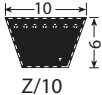
8V

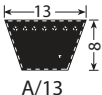
Metric	8V 1/10"
2540	1000
2840	1120
3180	1250
3550	1400
3810	1500
4060	1600
4570	1800
5080	2000
5690	2240
6350	2500
7100	2800
8000	3150
9000	3550
10160	4000
11430	4500

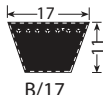
Note: Dimensions in millimeters unless otherwise stated.
Additional sizes available upon request.




Fenner Classic V Belts Chart

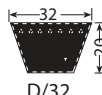
 Z Section Pitch Length			
Z370	Z570	Z840	Z1015
Z395	Z600	Z850	Z1035
Z410	Z610	Z860	Z1055
Z420	Z620	Z875	Z1080
Z445	Z630	Z890	Z1105
Z470	Z650	Z900	Z1130
Z480	Z660	Z920	Z1155
Z495	Z700	Z930	Z1205
Z510	Z725	Z940	Z1270
Z520	Z750	Z950	Z1330
Z530	Z780	Z965	Z1380
Z545	Z800	Z980	Z1420
Z560	Z820	Z990	Z1750

 A Section Pitch Length			
A540	A1150	A1790	A2420
A570	A1180	A1810	A2450
A590	A1200	A1840	A2480
A620	A1230	A1860	A2500
A640	A1250	A1890	A2570
A670	A1280	A1920	A2630
A700	A1300	A1940	A2650
A720	A1330	A1960	A2680
A740	A1360	A1990	A2700
A770	A1380	A2020	A2750
A790	A1410	A2050	A2780
A820	A1430	A2070	A2830
A850	A1460	A2090	A2880
A870	A1480	A2120	A2910
A890	A1510	A2140	A2960
A920	A1530	A2170	A2980
A930	A1550	A2200	A3080
A950	A1580	A2220	A3190
A970	A1610	A2240	A3290
A990	A1640	A2270	A3440
A1020	A1660	A2300	A3490
A1050	A1690	A2320	A3540
A1070	A1710	A2350	A3690
A1100	A1740	A2370	A3950
A1130	A1760	A2400	

 B Section Pitch Length			
B700	B1460	B2180	B3140
B750	B1490	B2200	B3090
B800	B1510	B2230	B3200
B830	B1540	B2250	B3240
B860	B1560	B2280	B3290
B880	B1590	B2300	B3350
B910	B1620	B2330	B3400
B930	B1640	B2350	B3450
B960	B1670	B2380	B3500
B980	B1690	B2400	B3550
B1000	B1720	B2420	B3600
B1030	B1740	B2450	B3700
B1060	B1760	B2480	B3800
B1080	B1800	B2500	B3850
B1100	B1820	B2530	B3870
B1130	B1850	B2580	B3900
B1160	B1870	B2630	B3950
B1180	B1900	B2660	B4060
B1210	B1920	B2680	B4160
B1240	B1950	B2700	B4310
B1260	B1970	B2740	B4430
B1290	B2000	B2790	B4610
B1310	B2020	B2840	B4740
B1340	B2050	B2870	B5000
B1370	B2070	B2890	B5220
B1390	B2100	B2940	B5370
B1410	B2130	B2990	B5580
B1440	B2150	B3040	B5630
			B6070

 C Section Pitch Length			
C1300	C1860	C2420	C2900
C1350	C1880	C2440	C2950
C1450	C1950	C2490	C3000
C1480	C2010	C2520	C3080
C1530	C2040	C2550	C3100
C1560	C2090	C2600	C3210
C1580	C2110	C2650	C3310
C1650	C2160	C2700	C3360
C1700	C2190	C2720	C3460
C1760	C2200	C2800	C3520
C1780	C2270	C2850	C3560
C1830	C2340	C2880	C3610

C3660	C4500	C5720	C7600
C3710	C4600	C5850	C7620
C3760	C4630	C6100	C8030
C3870	C4750	C6150	C8390
C3920	C4780	C6360	C9100
C3970	C4880	C6610	C9150
C4060	C5010	C6660	C9760
C4170	C5140	C6860	C10670
C4220	C5240	C6910	C10700
C4320	C5380	C7120	C11330
C4450	C5640		

 D Section Pitch Length			
D2740	D4650	D6170	D8410
D3130	D5030	D6840	D9140
D3330	D5260	D6890	D9170
D3730	D5400	D6940	D9830
D4080	D5790	D7620	D9980
D4190	D5870	D7650	D10700
D4470	D6100	D7700	D12200
D4620	D6120	D8050	D13700

Mass/Unit Length mm		Pitch/Inside Lengths mm	
Section	kg/m	Section	Lp - L1 (mm)
Z	0,055	Z	26
A	0,094	A	34
B	0,163	B	45
C	0,284	C	58
D	0,560	D	85

Working Temps -40 to +70°C

Note:
 C Section: Pitch lengths > 6910
 D Section: Pitch lengths > 7650
 The above may not be available ex-stock.
 Consult your local distributor for availability.

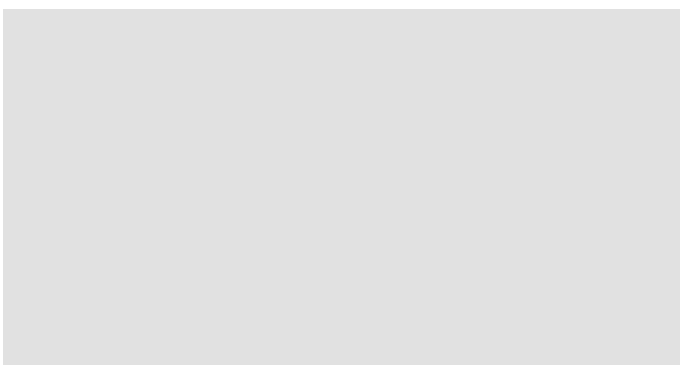
Note: Dimensions in millimeters unless otherwise stated.

Lp = Pitch Length Lo = Outside Length Li = Inner Length

Our Presence in Asia Pacific



Fenner® products conform to international standards, as such, we can advise that all Fenner® products comply with appropriate national and international standards in terms of design, performance and safety / environmental requirements. Where appropriate international standards (ISO) exist, these take priority over national standards. In respect of some operational safety and environmental requirements, some European standards (EN) are considered definitive worldwide.



Fenner®

FPT Far East Pte. Ltd

📍 29 Changi South Avenue 2 #04-00, ABV Building, Singapore 486444

☎ (65) 6545 6630 📠 (65) 6545 7730 / 7720

✉ sales@fpt.com.sg

📘 @fennerSEA

📷 @fennerseasia

🌐 @fptfareast

🌐 www.fpt.com.sg



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