



# Fenner® Couplings & Shaft Fixings



# Fenner®

Reliable | Trusted | Connected



Reliable | Trusted | Connected



## 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

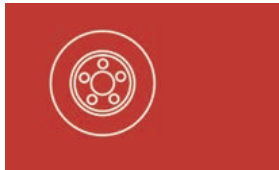
All products in this manual are available for purchase subject to our standard conditions of sale. To the best of our knowledge the representations concerning performance of any items contained in this manual are, at date of publication, accurate within normally accepted tolerances. We shall not, however, 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.

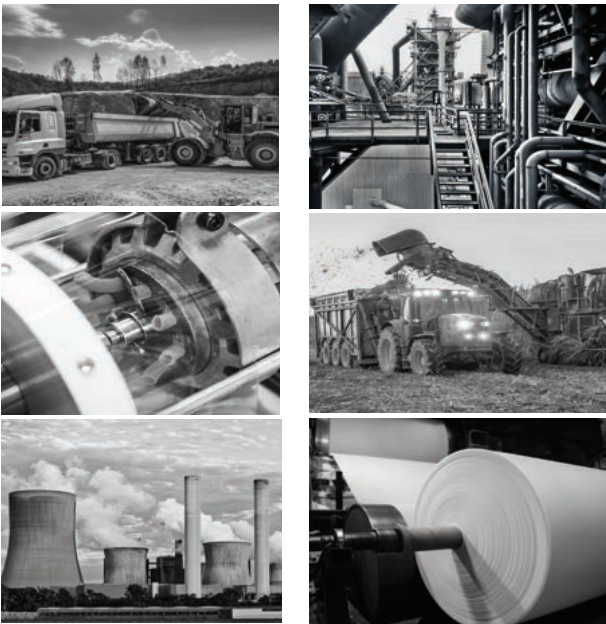
The information contained herein is subject to alteration without notice, and accordingly, we shall not be bound to the contents of the terms hereof.

### 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.

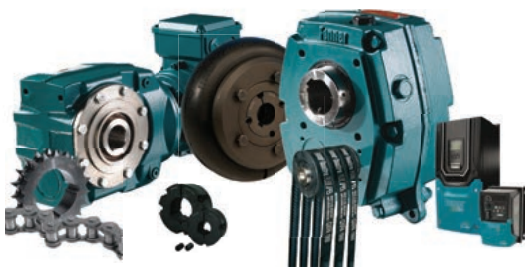


Reliable.  
Trusted.  
Connected.



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.



## Table of Contents

Items	Page
Fenaflex Coupling	1
Fenaflex Spacer Coupling	2
Fenaflex Flywheel Coupling	2
HRC Coupling	3
Jaw Coupling	4
Rigid Coupling	5
Triflex Coupling	6
Fenner Grid Coupling	7
FenLock Cone Clamping Elements	8
Taper Lock Bushes	9
Trantorque GTR	10





## Fenaflex™ Coupling

### Flexible Coupling

Fenaflex™ Tyre Couplings are highly elastic, lubrication free couplings that tolerate large amounts of misalignment in all planes as well as offering simple installation and inspection without disrupting the drive. The Fenaflex™ coupling also has excellent shock absorbing properties while reducing vibration and torsional oscillations.

#### Benefits

- > Simple time saving installation - motor and machine remains undisturbed whilst tyre is changed
- > Large misalignment capability, 4° angular, up to 6mm parallel and 8mm axial
- > Internal load carrying cords are wound in both directions, so there is no problem on reversing drives
- > Tyres are available in standard and FRAS (Fire Resistant Anti Static) construction. ATEX approved
- > Simple visual inspection to aid maintenance
- > Lubrication free
- > Taper Lock® and pilot bore flanges
- > Pump spacer and flywheel fixing variants available

#### Fenaflex Tyres

Fenaflex tyres are available in natural rubber compounds for use in ambient temperatures between -50°C and +50°C. Chloroprene rubber compounds are available for use in adverse operating conditions (e.g. oil or grease contamination) and can be used in temperatures of -15°C to +70°C.

The chloroprene compound should also be used when fire-resistance and anti-static (FRAS) properties are required, and it is this tyre material that is used with specific flange modifications in the ATEX (Ex) approved variant.



Pioneered by Fenner

Size reference	Maximum bore size in mm	
	Taper lock bush	Bore and keyed
F40	25	32
F50	38	32
F60	45	42
F70	50	50
F80	60	60
F90	70	60
F100	80	75
F110	90	75
F120	100	100
F140	130	100
F160	140	115
F180	150	125
F200	150	125
F220	160	125
F250	190	N/A

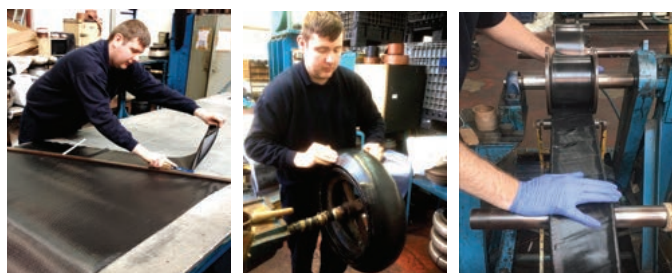
#### Construction

Internal load carrying cords are wound in both directions, so there is no problem on reversing drives

Tyres are available in standard and FRAS (Fire Resistant Anti Static) construction. ATEX approved

Pump spacer and flywheel fixing variants available

Taper Lock® and pilot bore flanges





## Fenaflex Coupling Selection

### (a) Service Factor

Determine the required Service Factor from table below.

### (b) Design Power

Multiply the normal running power by the service factor. This gives the design power which is used as a basis for selecting the coupling.

### (c) Coupling Size

Refer to Power Ratings table (page 114) and from the appropriate speed read across until a power greater than that required in step (b) is found.

The size of Fenaflex coupling required is given at the head of that column.

### (d) Bore Size

Check from Dimensions table (page 115) that chosen flanges can accommodate required bores.

### EXAMPLE

A Fenaflex coupling is required to transmit 45kW from an A.C. electric motor which runs at 1440 rev/min to a rotary screen for 12 hours per day. The motor shaft is 60mm diameter and the screen shaft is 55mm diameter. Taper Lock is required.

### (a) Service Factor

The appropriate service factor is 1.4

### (b) Design Power

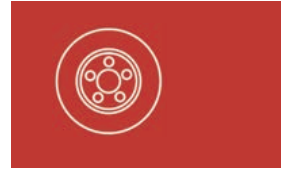
Design power = 45 x 1.4 = 63kW

## Service Factors

SPECIAL CASES For applications where substantial shock, vibration and torque fluctuations occur, and for reciprocating machines (e.g. internal combustion engines, piston pumps and compressors) refer to your local Authorised Distributor with full machine details for analysis.	Type of Driving Unit					
	Electric motors Steam turbines			Internal combustion engines† Steam engines Water turbines		
	Hours per day duty					
Type of Driven Machine	10 and under	Over 10 to 16 incl.	Over 16	10 and under	Over 10 to 16 incl.	Over 16
<b>CLASS 1</b> Agitators, Brewing machinery, Centrifugal compressors and pumps. Belt conveyors, Dynamometers, Lineshafts, Fans up to 7.5kW. Blowers and exhausters (except positive displacement), Generators.	0.8	0.9	1.0	1.3	1.4	1.5
<b>CLASS 2*</b> Clay working machinery, General machine tools, paper mill beaters and winders, Rotary pumps, Rubber extruders, Rotary screens, Textile machinery, Marine propellers and Fans over 7.5kw.	1.3	1.4	1.5	1.8	1.9	2.0
<b>CLASS 3*</b> Bucket elevators, Cooling tower fans, Piston compressors and pumps, Foundry machinery, Metal presses, Paper mill calendars, Hammer mills, Presses and pulp grinders, Rubber calendars, Pulverisers and Positive displacement blowers.	1.8	1.9	2.0	2.3	2.4	2.5
<b>CLASS 4*</b> Reciprocating conveyors, Gyrotory crushers, Mills (ball, pebble and rod), Rubber machinery (Banbury mixers and mills) and Vibratory screens.	2.3	2.4	2.5	2.8	2.9	3.0

\* It is recommended that keys (with top clearance if in Taper Lock bushes) are fitted on applications where load fluctuation is expected.

† Couplings for use with internal combustion engines may require special consideration, refer to pages 117.



## Power Ratings (kw)

Speed rev/min	Couplings Size														
	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180	F200	F220	F250
100	0.25	0.69	1.33	2.62	3.93	5.24	7.07	9.16	13.9	24.3	39.5	65.7	97.6	121.0	154.0
200	0.50	1.38	2.66	5.24	7.85	10.50	14.10	18.30	27.9	48.7	79.0	131.0	195.0	243.0	307.0
300	0.75	2.07	3.99	7.85	11.80	15.70	21.20	27.50	41.8	73.0	118.0	197.0	293.0	364.0	461.0
400	1.01	2.76	5.32	10.50	15.70	20.90	28.30	36.60	55.7	97.4	158.0	263.0	391.0	486.0	615.0
500	1.26	3.46	6.65	13.10	19.60	26.20	35.30	45.80	69.6	122.0	197.0	328.0	488.0	607.0	768.0
600	1.51	4.15	7.98	15.70	23.60	31.40	42.40	55.00	83.6	146.0	237.0	394.0	586.0	729.0	922.0
700	1.76	4.84	9.31	18.30	27.50	36.60	49.50	64.10	97.5	170.0	276.0	460.0	684.0	850.0	1076.0
<b>720</b>	<b>1.81</b>	<b>4.98</b>	<b>9.57</b>	<b>18.80</b>	<b>28.30</b>	<b>37.70</b>	<b>50.90</b>	<b>66.00</b>	<b>100.0</b>	<b>175.0</b>	<b>284.0</b>	<b>473.0</b>	<b>703.0</b>	<b>875.0</b>	<b>1106.0</b>
800	2.01	5.53	10.60	20.90	31.40	41.90	56.50	73.30	111.0	195.0	316.0	525.0	781.0	972.0	1229.0
900	2.26	6.22	12.00	23.60	35.30	47.10	63.60	82.50	125.0	219.0	355.0	591.0	879.0	1093.0	1383.0
<b>960</b>	<b>2.41</b>	<b>6.63</b>	<b>12.80</b>	<b>25.10</b>	<b>37.70</b>	<b>50.30</b>	<b>67.90</b>	<b>88.00</b>	<b>134.0</b>	<b>234.0</b>	<b>379.0</b>	<b>630.0</b>	<b>937.0</b>	<b>1166.0</b>	<b>1475.0</b>
1000	2.51	6.91	13.30	26.20	39.30	52.40	70.70	91.60	139.0	243.0	395.0	657.0	976.0	1215.0	1537.0
1200	3.02	8.29	16.00	31.40	47.10	62.80	84.80	110.00	167.0	292.0	474.0	788.0	1172.0		
1400	3.52	9.68	18.60	36.60	55.00	73.30	99.00	128.00	195.0	341.0	553.0	919.0			
<b>1440</b>	<b>3.62</b>	<b>9.95</b>	<b>19.10</b>	<b>37.70</b>	<b>56.50</b>	<b>75.40</b>	<b>102.00</b>	<b>132.00</b>	<b>201.0</b>	<b>351.0</b>	<b>568.0</b>	<b>945.0</b>			
1600	4.02	11.10	21.30	41.90	62.80	83.80	113.00	147.00	223.0	390.0	632.0				
1800	4.52	12.40	23.90	47.10	70.70	94.20	127.00	165.00	251.0	438.0					
2000	5.03	13.80	26.60	52.40	78.50	105.50	141.00	183.00	279.0						
2200	5.53	15.20	29.30	57.60	86.40	115.00	155.00	202.00							
2400	6.03	16.60	31.90	62.80	94.20	126.00	170.00								
2600	6.53	18.00	34.60	68.10	102.00	136.00	184.00								
2800	7.04	19.40	37.20	73.30	110.00	147.00									
<b>2880</b>	<b>7.24</b>	<b>19.90</b>	<b>38.30</b>	<b>75.40</b>	<b>113.00</b>	<b>151.00</b>									
3000	7.54	20.70	39.90	78.50	118.00	157.00									
3600	9.05	24.90	47.90	94.20											

The figures in heavier type are for standard motor speeds. All these power ratings are calculated at constant torque. **For speeds below 100 rev/min and intermediate speeds use nominal torque ratings.**

## Physical Characteristics - Flexible Tyres


Characteristics	Coupling Size														
	F40	F50	F60	F70	F80	F90	F100	F110	F120	F140	F160	F180	F200	F220	F250
Maximum speed rev/min	4,500	4,500	4,000	3,600	3,100	3,000	2,600	2,300	2,050	1,800	1,600	1,500	1,300	1,100	1,000
<b>Nominal Torque Nm T<sub>KN</sub></b>	<b>24</b>	<b>66</b>	<b>127</b>	<b>250</b>	<b>375</b>	<b>500</b>	<b>675</b>	<b>875</b>	<b>1,330</b>	<b>2,325</b>	<b>3,770</b>	<b>6,270</b>	<b>9,325</b>	<b>11,600</b>	<b>14,675</b>
Maximum Torque Nm T <sub>K,MAX</sub>	64	160	318	487	759	1,096	1,517	2,137	3,547	5,642	9,339	16,455	23,508	33,125	42,740
Torsional Stiffness Nm/°	5	13	26	41	63	91	126	178	296	470	778	1,371	1,959	2,760	3,562
Max. parallel misalignment mm	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.7	4.2	4.8	5.3	5.8	6.6
Maximum end float mm ±	1.3	1.7	2.0	2.3	2.6	3.0	3.3	3.7	4.0	4.6	5.3	6.0	6.6	7.3	8.2
Approximate mass. kg	0.1	0.3	0.5	0.7	1.0	1.1	1.1	1.4	2.3	2.6	3.4	7.7	8.0	10.0	15.0
Alternating Torque ± Nm @ 10Hz T <sub>KW</sub>	11	26	53	81	127	183	252	356	591	940	1,556	2,742	3,918	5,521	7,124
Resonance Factor V <sub>R</sub>	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Damping Coefficient Ψ	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Maximum torque figures should be regarded as short duration overload ratings for use in such circumstances as direct-on-line motor starting. All Fenaflex tyre couplings have an angular misalignment capacity up to 4°.

### Fenaflex Tyres

Unless otherwise specified Fenaflex flexible tyres will be supplied in a natural rubber compound which is suitable for operation in temperatures -50°C to +50°C. A chloroprene compound is available which is Fire Resistant and Anti-Static (FRAS) and has greater resistance to heat and oil.

This is suitable for operation in temperatures -15°C to +70°C. For temperatures outside these ranges – consult your local Authorised Distributor.

The FRAS tyre variant is used with specifically modified metal flanges to create the  ATEX approved variant.

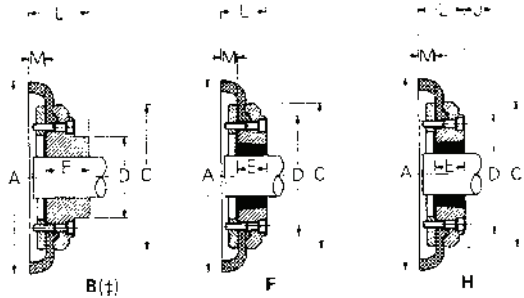
Size	Natural	FRAS	Coupling Size	M Dimension (mm)	Gap Between Tyre Ends (mm)	Clamping Screw Torque (Nm)	Screw Size
F40	033A0048	033A0068	F40*	22	2	15	M6
F50	033B0048	033B0068	F50*	25	2	15	M6
F60	033C0048	033C0068	F60*	33	2	15	M6
F70	033D0048	033D0068	F70	23	3	24	M8
F80	033E0048	033E0068	F80	25	3	24	M8
F90	033F0048	033F0068	F90	27	3	40	M10
F100	033G0048	033G0068	F100	27	3	40	M10
F110	033H0048	033H0068	F110	25	3	40	M10
F120	033J0048	033J0068	F120	29	3	50	M12
F140	033K0048	033K0068	F140	32	5	55	M12
F160	033L0048	033L0068	F160	30	5	80	M16
F180	033Q0048	033Q0068	F180	46	6	105	M16
F200	033M0048	033M0068	F200	45	6	120	M16
F220	033N0048	033N0068	F220	55	6	165	M20
F250	033P0048	033P0068	F250	59	6	165	M20

\*Hexagonal socket caphead clamping screws on these sizes.

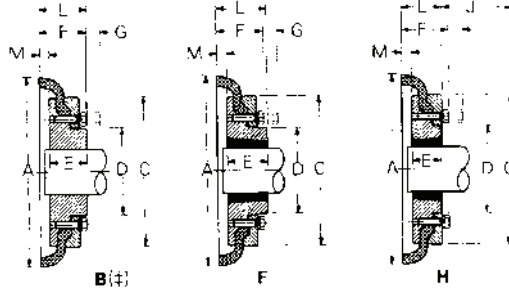


## Flanges

SIZES F40-60



SIZES F70-250



DIMENSIONS OF FENAFLEX FLANGES TYPES B, F & H

Catalogue Code ‡	Size	Type	Bush No. #	Max Bore		Types F & H			Type B		Screw Over Key	A	C	D	F	G §	M ¶	Mass* (kg)	Inertia* (kgm²)
				Metric	Inch	L	E	J †	L	E									
033A0501	F40	B	—	32	—	—	—	29	33.0	22	M5	104	82	—	—	—	11.0	0.8	0.00074
033A0502	F40	F	1008	25	1"	33.0	22	29	—	—	—	104	82	—	—	—	11.0	0.8	0.00074
033A0503	F40	H	1008	25	1"	33.0	22	29	—	—	—	104	82	—	—	—	11.0	0.8	0.00074
033B0501	F50	B	—	38	—	—	—	38	45.0	32	M5	133	100	79	—	—	12.5	1.2	0.00115
033B0502	F50	F	1210	32	1 1/4"	38.0	25	38	—	—	—	133	100	79	—	—	12.5	1.2	0.00115
033B0503	F50	H	1210	32	1 1/4"	38.0	25	38	—	—	—	133	100	79	—	—	12.5	1.2	0.00115
033C0501	F60	B	—	45	—	—	—	38	55.0	38	M6	165	125	70	—	—	16.5	2.0	0.0052
033C0502	F60	F	1610	42	1 5/8"	42.0	25	38	—	—	—	165	125	103	—	—	16.5	2.0	0.0052
033C0503	F60	H	1610	42	1 5/8"	42.0	25	38	—	—	—	165	125	103	—	—	16.5	2.0	0.0052
033D0301	F70	B	—	50	—	—	—	—	47.0	35	M10	187	144	80	50	13	11.5	3.1	0.009
033D0302	F70	F	2012	50	2"	44.0	32	42	—	—	—	187	144	80	50	13	11.5	3.1	0.009
033D0303	F70	H	1610	42	1 5/8"	42.0	25	38	—	—	—	187	144	80	50	13	11.5	3.0	0.009
033E0301	F80	B	—	60	—	—	—	—	55.0	42	M10	211	167	98	54	16	12.5	4.9	0.018
033E0302	F80	F	2517	60	2 1/2"	58.0	45	48	—	—	—	211	167	97	54	16	12.5	4.9	0.018
033E0303	F80	H	2012	50	2"	45.0	32	42	—	—	—	211	167	98	54	16	12.5	4.6	0.017
033F0301	F90	B	—	70	—	—	—	—	63.5	49	M12	235	188	112	60	16	13.5	7.1	0.032
033F0302	F90	F	2517	60	2 1/2"	59.5	45	48	—	—	—	235	188	108	60	16	13.5	7.0	0.031
033F0303	F90	H	2517	60	2 1/2"	59.5	45	48	—	—	—	235	188	108	60	16	13.5	7.0	0.031
033G0301	F100	B	—	80	—	—	—	—	70.5	56	M12	254	216	125	62	16	13.5	9.9	0.055
033G0302	F100	F	3020	75	3"	65.5	51	55	—	—	—	254	216	120	62	16	13.5	9.9	0.055
033G0303	F100	H	2517	60	2 1/2"	59.5	45	48	—	—	—	254	216	113	62	16	13.5	9.4	0.054
033H0301	F110	B	—	90	—	—	—	—	75.5	63	M12	279	233	128	62	16	12.5	12.5	0.081
033H0302	F110	F	3020	75	3"	63.5	51	55	—	—	—	279	233	134	62	16	12.5	11.7	0.078
033H0303	F110	H	3020	75	3"	63.5	51	55	—	—	—	279	233	134	62	16	12.5	11.7	0.078
033J0301	F120	B	—	100	—	—	—	—	84.5	70	M16	314	264	143	67	16	14.5	16.9	0.137
033J0302	F120	F	3525	100	4"	79.5	65	67	—	—	—	314	264	140	67	16	14.5	16.5	0.137
033J0303	F120	H	3020	75	3"	65.5	51	55	—	—	—	314	264	140	67	16	14.5	15.9	0.130
033K0301	F140	B	—	130	—	—	—	—	110.5	94	M20	359	311	178	73	17	16.0	22.2	0.254
033K0302	F140	F	3525	100	4"	81.5	65	67	—	—	—	359	311	178	73	17	16.0	22.3	0.255
033K0303	F140	H	3525	100	4"	81.5	65	67	—	—	—	359	311	178	73	17	16.0	22.3	0.255
033L0301	F160	B	—	140	—	—	—	—	117	102	M20	402	345	187	78	19	15.0	35.8	0.469
033L0302	F160	F	4030	115	4 1/2"	92.0	77	80	—	—	—	402	345	197	78	19	15.0	32.5	0.380
033L0303	F160	H	4030	115	4 1/2"	92.0	77	80	—	—	—	402	345	197	78	19	15.0	32.5	0.380
033Q0301	F180	B	—	150	—	—	—	—	137	114	M20	470	398	200	94	19	23.0	49.1	0.871
033Q0302	F180	F	4535	125	5"	112.0	89	89	—	—	—	470	398	205	94	19	23.0	42.2	0.847
033Q0303	F180	H	4535	125	5"	112.0	89	89	—	—	—	470	398	205	94	19	23.0	42.2	0.847
033M0301	F200	B	—	150	—	—	—	—	138	114	M20	508	429	200	103	19	24.0	58.2	1.301
033M0302	F200	F	4535	125	5"	113.0	89	89	—	—	—	508	429	205	103	19	24.0	53.6	1.281
033M0303	F200	H	4535	125	5"	113.0	89	89	—	—	—	508	429	205	103	19	24.0	53.6	1.281
033N0301	F220	B	—	160	—	—	—	—	154.5	127	M20	562	474	218	118	20	27.5	79.6	2.142
033N0302	F220	F	5040	125	5"	129.5	102	92	—	—	—	562	474	223	118	20	27.5	72.0	2.104
033N0303	F220	H	5040	125	5"	129.5	102	92	—	—	—	562	474	223	118	20	27.5	72.0	2.104
033P0301	F250	B	—	190	—	—	—	—	161.5	132	M20	628	532	254	125	25	29.5	104.0	3.505

Dimensions in millimetres unless otherwise stated.

§ G is the amount by which clamping screws need to be withdrawn to release tyre.

† J is the wrench clearance to allow for tightening/loosening the bush on the shaft and the clamp ring screws on sizes F40, F50 and F60. The use of a shortened wrench will allow this dimension to be reduced.

¶ M is half the distance between flanges. Shaft ends, although normally located twice M apart, can project beyond the flanges as shown. In this event allow sufficient space between shaft ends for end float and misalignment.

\* Mass and inertia figures are for single flange with mid range bore and include clamping ring, screws and washers and half tyre.

‡ For pilot bore 'B' flange code as listed. Flanges are also available finish bored with keyway if required. Bore must be specified on order.

# Note: On sizes F70, 80, 100 and 120 the 'F' direction bush is larger than that in the 'H' direction.

Note: Flange assemblies comprise hub, clamp ring and clamp ring screws/washers.



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## Fenaflex™ Spacer Coupling

Fenaflex spacer couplings consist of a Fenaflex tyre coupling (size F40–F140) plus a spacer flange assembly.

They are designed for use on applications where it is an advantage to be able to move either shaft axially without disturbing the driving or driven machine (e.g. centrifugal pump rotors), Fenaflex spacer couplings are primarily designed for standard distance between shaft end dimensions of 80, 100, 140 and 180mm.



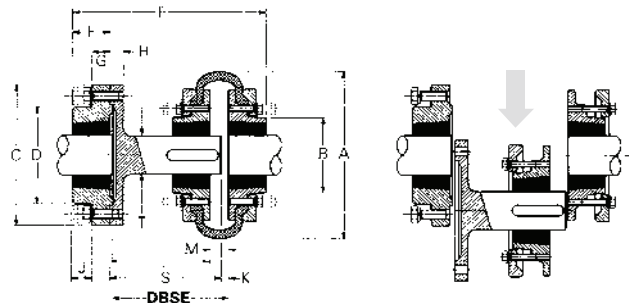
### DISTANCE BETWEEN SHAFT ENDS

Size	Distance between Shaft Ends (mm)																			
	SM12		SM16				SM25				SM30				SM35					
	80 (100)		100	113	140	150	100	140	180	140	180	140	180	140	180					
F40	80	100	100	113	140	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F50	-	-	100	116	140	156	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F60	-	-	100	124	140	164	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F70	-	-	-	-	-	-	100	114	140	154	180	194	-	-	-	-	-	-	-	-
F80	-	-	-	-	-	-	100	117	140	157	180	197	-	-	-	-	-	-	-	-
F90	-	-	-	-	-	-	-	-	140	158	180	198	-	-	-	-	-	-	-	-
F100	-	-	-	-	-	-	-	-	-	-	-	-	140	158	180	198	-	-	-	-
F110	-	-	-	-	-	-	-	-	-	-	-	-	140	156	180	196	-	-	-	-
F120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	160	180	200
F140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	163	180	203

Note: Alternative distances between shaft ends may be accommodated. Consult your local Authorised Distributor

### SELECTION

- Select a suitable size of Fenaflex coupling using the method shown on page 113. Read down the first column in table below and locate the size of coupling selected.
- Read across until the required distance between shaft ends can be accommodated.
- Note the required spacer coupling designation at head of column.
- Check from the Spacer Coupling Dimensions table below that the selected spacer/coupling combination can accommodate the machine shaft size.



**Note.** A full specification comprises:

- 1 x Spacer assembly
- 3 x Taper Lock bushes
- 2 x Fenaflex flanges
- 1 x Fenaflex tyre

Spacer	Nom DBSE	Fenaflex	Spacer Code	Spacer Bush Size	Max Bore		Fenaflex Bush Size	Max Bore		A	B	C	D	E	F	G	H	J	K	L	M	S	T	Asmy wt. kgf
					mm	Inch		mm	Inch															
SM12	80	F40	033S1200	1210	32	1 1/4"	1008	25	1"	104	82	118	83	134	25	14	15	14	6	65	22	77	25	2.53
SM12	100	F40	033S1200	1210	32	1 1/4"	1008	25	1"	104	82	118	83	140	25	14	15	14	22	77	22	77	25	
SM16	100	F40*	033T1600	1610	42	1 3/8"	1008	25	1"	104	82	127	80	157	25	18	15	14	9	88	22	94	32	3.11
SM16	140	F40*	033V1600	1610	42	1 3/8"	1008	25	1"	104	82	127	80	187	25	18	15	14	9	128	22	134	32	3.29
SM16	100	F50	033T1600	1610	42	1 5/8"	1210	32	1 1/4"	133	79	127	80	160	25	18	15	14	9	85	25	94	32	3.11
SM16	140	F50	033V1600	1610	42	1 5/8"	1210	32	1 1/4"	133	79	127	80	200	25	18	15	14	9	125	25	134	32	3.29
SM16	100	F60	033T1600	1610	42	1 5/8"	1610	42	1 5/8"	165	70	127	80	161	25	18	15	14	9	78	33	94	32	3.11
SM16	140	F60	033V1600	1610	42	1 5/8"	1610	42	1 5/8"	165	70	127	80	201	25	18	15	14	9	118	33	134	32	3.29
SM25	100	F70†	033T2500	2517	60	2 1/2"	2012	50	2"	187	80	178	123	180	45	22	16	14	9	80	23	94	48	7.06
SM25	140	F70†	033V2500	2517	60	2 1/2"	2012	50	2"	187	80	178	123	220	45	22	16	14	9	120	23	134	48	8.19
SM25	180	F70†	033W2500	2517	60	2 1/2"	2012	50	2"	187	80	178	123	260	45	22	16	14	9	160	23	174	48	8.60
SM25	100	F80	033T2500	2517	60	2 1/2"	2517	60	2 1/2"	211	95	178	123	193	45	22	16	14	9	78	25	94	48	7.06
SM25	140	F80	033V2500	2517	60	2 1/2"	2517	60	2 1/2"	211	95	178	123	233	45	22	16	14	9	118	25	134	48	8.19
SM25	180	F80	033W2500	2517	60	2 1/2"	2517	60	2 1/2"	211	95	178	123	273	45	22	16	14	9	158	25	174	48	8.60
SM25	140	F90	033V2500	2517	60	2 1/2"	2517	60	2 1/2"	235	108	178	123	233	45	22	16	14	9	116	27	134	48	8.19
SM25	180	F90	033W2500	2517	60	2 1/2"	2517	60	2 1/2"	235	108	178	123	273	45	22	16	14	9	156	27	174	48	8.60
SM30	140	F100	033V3000	3020	75	3"	3020	75	3"	254	120	216	146	245	51	29	20	17	9	116	27	134	60	13.98
SM30	180	F100	033W3000	3020	75	3"	3020	75	3"	279	134	216	146	285	51	29	20	17	9	156	27	174	60	15.30
SM30	140	F110	033V3000	3020	75	3"	3020	75	3"	279	134	216	146	245	51	29	20	17	9	118	25	134	60	13.58
SM30	180	F110	033W3000	3020	75	3"	3020	75	3"	279	134	216	146	285	51	29	20	17	9	158	25	174	60	15.30
SM35	140	F120†	033V3500	3525	100	4"	3525	100	4"	314	140	248	178	272	63	34	20	17	9	114	29	134	80	21.94
SM35	180	F120†	033W3500	3525	100	4"	3525	100	4"	314	140	248	178	312	63	34	20	17	9	154	29	174	80	23.34
SM35	140	F140	033V3500	3525	100	4"	3525	100	4"	359	178	248	178	271	63	34	20	17	9	111	32	134	80	21.94
SM35	180	F140	033W3500	3525	100	4"	3525	100	4"	359	178	248	178	312	63	34	20	17	9	151	32	174	80	23.34





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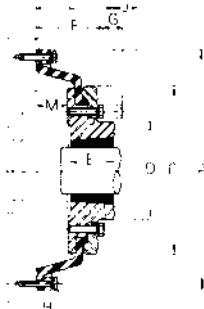
## Fenaflex™ Flywheel Coupling

Designed to fit standard SAE and other popular flywheel configurations, these couplings use chloroprene flexible elements and employ standard B, F or H type driven flanges.

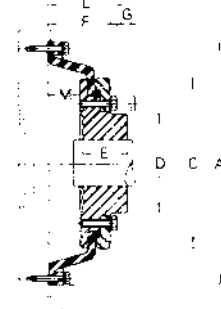
Fenaflex flywheel style elements can be deployed to couple a balanced disc with Taper Lock weld-on-hub shaft fixing (effectively replacing the flywheel in the designs illustrated above) to a standard Fenaflex flange, for use at higher rotational speeds. Consult your local Authorised Distributor for details.



ASSEMBLY WF



ASSEMBLY WH



ASSEMBLY WwB

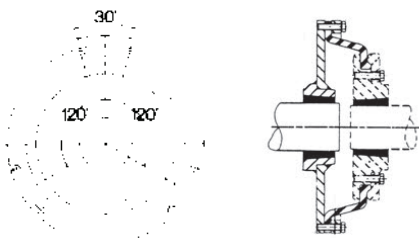
Driving Flange - W (Bolt ring)								Driven Flanges - Through Bore and Taper Lock - F & H																
Code No	Size	PCD	Bolts		A	H	Mass (kg)	Inertia (kgm <sup>2</sup> )	Code No	Size	Type	Bush	Max Bore	C	D	E	F	G	J††	L	M	Screw Over Key	Mass (kg)	Inertia (kgm <sup>2</sup> )
			8 off	Flywheel Fixing Screws *																				
033D0010	87	8.750"	8 off	M8 x 30 lg	240	26	1.41	0.016	033D0301	F70	B	-	50	144	80	35	73	13	-	70	35	M10	3.1	0.009
			8 off	3/16" UNC x 1 1/8" lg					033D0302	F70	F	50	144	80	32	73	13	42	67	35	-	3.1	0.009	
									033D0303	F70	H	1610	42	144	80	30	73	13	38	65	-	3.0	0.009	
033E0010	96	9.625"	6 off	M10 x 35 lg	262	30	1.87	0.025	033E0301	F80	B	-	60	167	97	42	81	16	-	85	40	M10	4.9	0.018
			6 off	3/8" UNC x 1 3/8" lg					033E0302	F80	F	2517	60	167	95	45	81	16	48	85	40	-	4.9	0.018
									033E0303	F80	H	2012	50	167	95	32	81	16	42	72	40	-	4.6	0.017
033R0010	112	11.250"	8 off	7/16" UNF x 1 1/2" lg	305	32	2.49	0.048	033G0301	F100	B	-	80	216	125	48	89	16	-	86	41	M12	9.9	0.055
									033G0302	F100	F	3020	75	216	120	51	89	16	55	89	41	-	7.0	0.031
									033G0303	F100	H	2517	60	216	113	45	89	16	48	83	41	-	7.0	0.031
033G0010	116	8 off M10 x 35 lg 1.625" 8 off 3/8" UNC x 1 3/8" lg 8 off 3/8" BSF x 1 3/8" lg			313	30	2.51	0.051	033G0301	F100	B	-	80	216	125	48	89	16	-	89	41	M12	9.9	0.055
									033G0302	F100	F	3020	75	216	120	51	89	16	55	92	41	-	9.9	0.055
									033G0303	F100	H	2517	60	216	113	45	89	16	48	86	41	-	9.4	0.054
033H0010	131	13.125"	8 off	M10 x 45 lg	351	39	3.71	0.094	033H0301	F110	B	-	90	233	128	63	102	16	-	118	55	M12	12.5	0.081
			8 off	3/8" UNC x 1 3/4" lg					033H0302	F110	F	3020	75	233	134	51	102	16	55	106	55	-	11.7	0.078
									033H0303	F110	H	3020	75	233	134	51	102	16	55	106	55	-	11.7	0.078
033S0010	135	13.500"	6 off	3/8" UNC x 1 3/4" lg	364	37	4.16	0.113	033H0301	F110	B	-	90	233	128	63	102	16	-	120	57	M12	12.5	0.081
									033H0302	F110	F	3020	75	233	134	51	106	16	55	108	57	-	11.7	0.078
									033H0303	F110	H	3020	75	233	134	51	106	16	55	108	57	-	11.7	0.078
033K0010	172	17.250"	8 off	M12 x 50 lg	465	41	7.10	0.320	033K0301	F140	B	-	130	311	178	94	121	17	-	162	68	M20	22.2	0.254
			8 off	1/2" UNC x 2" lg					033K0302	F140	F	3525	100	311	178	65	121	17	67	133	68	-	22.3	0.254
									033K0303	F140	H	3525	100	311	178	65	121	17	67	133	68	-	22.3	0.255

All dimensions in millimetres unless otherwise stated.

Driving flange mass & inertia given are for the bolt ring, bolts and half of the element. Driven flange mass & inertia given are for an assembled flange having a mid range bore or bush and half the element.

†† J is the wrench clearance to allow for tightening/loosening the bush. A shortened wrench will allow this dimension to be reduced.

\* Flywheel fixing screws are not a stock component but should be sourced to the above dimensions, according to thread type used in the flywheel concerned. They should be used with rectangular / square section split washers, respectively.



### FENAFLEX HIGH SPEED COUPLINGS

Fenaflex flywheel style elements can be deployed to couple a balanced disc with Taper Lock weld-on-hub shaft fixing (effectively replacing the flywheel in the designs illustrated above) to a standard Fenaflex flange, for use at higher rotational speeds.

Consult your local Authorised Distributor for details.



## Fenaflex™ Elements - Physical Characteristics and Power Ratings

Coupling Size	Element Part No.	Normal Torque (Nm) T <sub>KN</sub>	Maximum Torque (Nm) T <sub>KMAX</sub>	Maximum Alternating Torque (Nm) ± T <sub>KW</sub>	Resonance Factor V <sub>R</sub>	Damping Energy Ratio ψ	Dynamic Stiffness (Nm/rad) C <sub>Tdyn</sub>	Power at * 1500 rev/min (kW)	Power at * 1800 rev/min (kW)
<b>87</b> (SAE 7½)	033D0100	239	717	155	7.0	0.9	6847	37	45
	033D0101	478	956	238	7.0	0.9	13695	75	90
	033D0102	239	717	120	7.0	0.9	3427	37	45
	033D0105	239	717	64	7.0	0.9	1369	37	45
<b>96</b> (SAE 8)	033E0100	325	975	211	7.0	0.9	9311	51	61
	033E0101	650	1300	324	7.0	0.9	18623	102	122
	033E0102	325	975	163	7.0	0.9	4653	51	61
	033E0105	325	975	87	7.0	0.9	1862	51	61
<b>112</b>	033R0100	592	1776	385	7.0	0.9	16959	93	111
	033R0101	1184	2368	590	7.0	0.9	33922	186	223
	033R0105	592	1776	158	7.0	0.9	3392	93	111
<b>116</b> (SAE 10)	033G0100	592	1776	385	7.0	0.9	16961	93	111
	033G0101	1184	2368	590	7.0	0.9	33922	186	223
	033G0102	592	1776	296	7.0	0.9	8480	93	111
	033G0105	592	1776	158	7.0	0.9	3392	93	111
<b>131</b> (SAE 11½)	033H0100	754	2262	490	7.0	0.9	21602	118	142
	033H0101	1508	3016	751	7.0	0.9	43204	237	284
	033H0102	754	2262	377	7.0	0.9	10801	118	142
	033H0105	754	2262	201	7.0	0.9	4320	118	142
<b>135</b>	033S0101	1508	3016	751	7.0	0.9	43204	237	284
	033S0105	754	2262	201	7.0	0.9	4320	118	142
<b>172</b> (SAE 14)	033K0100	1919	5757	1247	7.0	0.9	54979	301	362
	033K0101	3838	7676	1912	7.0	0.9	109959	602	723
	033K0102	1919	5757	960	7.0	0.9	27492	301	362
	033K0105	1919	5757	511	7.0	0.9	10996	301	362

Selection of Fenaflex flywheel couplings should take account of design power (using Service Factors on page 107 and speed, and also the torsional characteristics of the coupled machines – consult your local Authorised Distributor.

\* Power ratings at other speeds directly proportional to these values.

## All Fenaflex™ Couplings - Ordering Instructions

### SHAFT TO SHAFT COUPLINGS USING FLEXIBLE TYRE

Consists of:  
2–Flanges  
T/L bushes for F and H flanges only  
1–Flexible tyre

#### EXAMPLE ORDER

Fenaflex coupling F90BH comprising:  
1–F90B flange bored 70mm (coded at time of order)  
1–F90H flange code 033F0303  
1–2517 T/L bush (bore 35mm) code 029M0035  
1–F90 Flexible tyre (Natural) code 033F0048

### FENAFLEX SPACER COUPLING

Consists of:  
1–standard Fenaflex coupling using B, F or H flanges as desired (2 flanges, 2 T/L Bush, 1 Flexible Tyre)  
1– Spacer flange  
1– Taper Lock bushes

#### EXAMPLE ORDER

Fenaflex spacer assembly F110FF–SM30/140 comprising:  
2–F110F flanges – 033H0302  
1–F110 flexible tyre – 033H0048  
1–SM30 x 140mm spacer flange –033V3000  
1–3020 T/L bush to suit motor shaft –029P00  
1–3020 x 60mm T/L bush to suit dimension 'T' - 029P0060  
1–3030 T/L bush to suit driven shaft –029Q00

### FENAFLEX FLYWHEEL COUPLING

Consists of:  
1–Driving (W) flange  
1–Flexible element (above)  
1–Driven flange  
1–T/L bush to suit driven shaft (F & H driven flanges only)

#### EXAMPLE ORDER

Fenaflex 114 flywheel coupling comprising  
1–116W flange 033G0010  
1–Bolt pack 033X0203  
1–Standard element 033G0100  
1–F100 F flange 033G0302  
1–3020 T/L bush 60mm bore 029P0060

Bolts for flywheel fixing can be supplied but are not a stock component.



## HRC Coupling

### Semi-elastic General Purpose Coupling

Permitting quick and easy installation by means of Taper Lock® bushes, and offering quick alignment, the semi-elastic general purpose HRC coupling is ideal for use with electric motors.

#### Benefits

- > Offers the simplest, most straightforward fitting available
- > Ease of alignment and fitting using straight edge and machined outside diameters
- > Fail-safe design due to interacting dog design
- > Accommodates incidental misalignment
- > Exceptional performance at low cost
- > Power ratings are matched to standard motor sizes
- > Standard and FRAS elements available
- > Flywheel fixing variant available



#### Size Reference

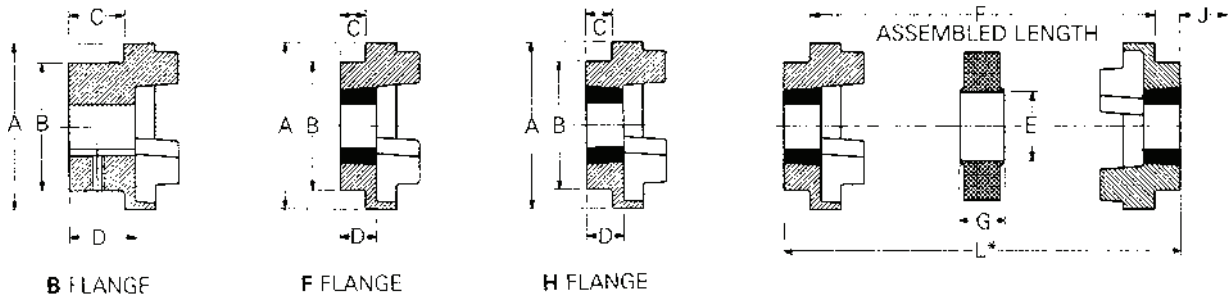
Size reference	Maximum bore size in mm	
	Taper lock bush	Bore and keyed
70	25	32
90	28	42
110	42	55
130	42	60
150	50	70
180	60	80
230	75	100
280	100	115

#### Construction





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## PHYSICAL DIMENSIONS AND CHARACTERISTICS

Size	Common Dimensions					Bush size	Type F & H					Type B				
	A	B	E	F <sub>†</sub>	G		Max Bore		C	D	J <sub>†</sub>	Bore Dia's		Screw Over Key	C	D
							mm	ins.				Max.	Pilot H9			
70	69	60	31	25.0	18.0	1008	25	1"	20.0	23.5	29	32	8	M 6	20	23.5
90	85	70	32	30.5	22.5	1108	28	1 1/8	19.5	23.5	29	42	10	M 6	26	30.0
110	112	100	45	45.0	29.0	1610	42	1 5/8	18.5	26.5	38	55	10	M10	37	45.0
130	130	105	50	53.0	36.0	1610	42	1 5/8	18.0	26.5	38	60	15	M10	39	47.5
150	150	115	62	60.0	40.0	2012	50	2	23.5	33.5	42	70	20	M10	46	56.0
180	180	125	77	73.0	49.0	2517	60	2 1/2	34.5	46.5	48	80	25	M10	58	70.0
230	225	155	99	85.5	59.5	3020	75	3	39.5	52.5	55	100	25	M12	77	90.0
280	275	206	119	105.5	74.5	3525	100	4	51.0	66.5	67	115	30	M16	90	105.5

† 'J' is the wrench clearance required for tightening/loosening the bush on the shaft. A shortened wrench will allow this dimension to be reduced.

‡ F<sub>†</sub> refers to combinations of flanges: FF, FH, HH, FB, HB, BB.

Bore limits H7 unless otherwise specified.

## PHYSICAL DIMENSIONS AND CHARACTERISTICS

Size	Assembled Length (L*) Comprising Flange Types			Mass (kg)	Inertia Mr <sup>2</sup> (kgm <sup>2</sup> )	Dynamic Stiffness (Nm/°)	Maximum Misalignment		Nominal Torque (Nm)
	FF, FH, HH	FB, HB	BB				Parallel	Axial	
70	65.0	65.0	65.0	1.00	0.00085	—	0.3	+0.2	31
90	69.5	76.0	82.5	1.78	0.00115	—	0.3	+0.5	80
110	82.0	100.5	119.0	5.00	0.00400	65	0.3	+0.6	160
130	89.0	110.0	131.0	5.46	0.00780	130	0.4	+0.8	315
150	107.0	129.5	152.0	7.11	0.01810	175	0.4	+0.9	600
180	142.0	165.5	189.0	16.60	0.04340	229	0.4	+1.1	950
230	164.5	202.0	239.5	26.00	0.12068	587	0.5	+1.3	2000
280	207.5	246.5	285.5	50.00	0.44653	1025	0.5	+1.7	3150

All dimensions in millimetres unless otherwise stated.

**All HRC couplings have an angular misalignment capacity of up to 1°.**

Mass is for an FF, FH or HH coupling with mid range Taper Lock Bushes.

## ORDERING CODES

Size	Type F	Type H	Type B Unbored	Standard Element Tempr. -40°C/+100°C	FRAS Element Tempr. -20°C/+80°C
70	045L0002	045L0003	045L0004	045L0009	045L0006
90	045M0002	045M0003	045M0004	045M0009	045M0006
110	045N0012	045N0013	045N0004	045N0009	045N0006
130	045P0002	045P0003	045P0004	045P0009	045P0006
150	045R0002	045R0003	045R0004	045R0009	045R0006
180	045S0002	045S0003	045S0004	045S0009	045S0006
230	045T0002	045T0003	045T0001	045T0009	045T0006
280	045U0002	045U0003	045U0001	045U0009	045U0006

Note: For details of HRC couplings suitable for application to drives involving SAE engine flywheels, consult your local Authorised Distributor.

Type B flanges can be supplied finished bored to H7 tolerance with keyway, if required.

Hub material: GG25 grey cast iron.





## Jaw Coupling

**Flexible solutions providing exceptional performance and value.**

Absorbing incidental misalignment, shock loads and small amplitude vibrations, Fenner® Jaw couplings offer a low cost flexible solution for most applications.

### Benefits

- > Ease of alignment
- > Fail-safe shaft connection
- > Range of element materials available including nitrile, urethane and Hytrel
- > Pump spacer variant available (100mm or 140mm length)
- > Quick-fit wrap around element available
- > Design powers up to 42.2kW available at 1440rpm
- > Ambient operating temperature range -50°C to +120°C
- > Pilot bore design also available



### Size Reference

Maximum bore size in mm	
Size reference	Bore and keyed
035	9
050	14
070	19
075	24
090	24
095	28
100	35
110	42
150	48
190	55
225	60

## Assembly Variants

### SX

Simple coupling of two close-coupled shafts using 2 x SX hubs + a spider shaped element. The element petals are connected by an inner ring to maintain location between the 'jaws' on the hubs. Urethane and Hytrel® spider elements are available to enhance the coupling power rating.

### QF

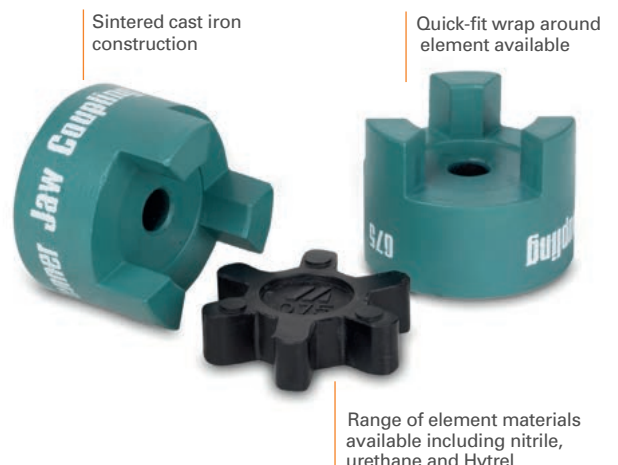
On sizes 095 and above, the SX hubs are drilled/tapped for fixing a pressed steel 'ring' or sleeve. The ring retains a QF type nitrile rubber element on which the petals are joined by an outer band. Unscrewing and withdrawing the ring allows the element to be removed for replacement without disturbing the hubs. The retaining ring and element are supplied together as a 'ring kit'.

### QFS

Used when the machine shafts to be coupled are set apart by a DBSE (distance between shaft ends) of 100 or 140mm. This arrangement is common with centrifugal pump applications.

A QF coupling is used with a light alloy spacer, which is supplied complete with a second ring kit, to create a spacer coupling which is easily disassembled by removing the two elements.

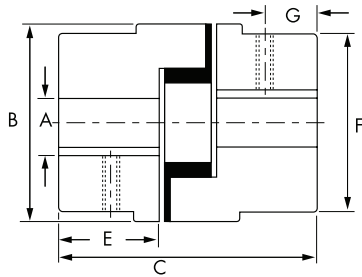
### Construction



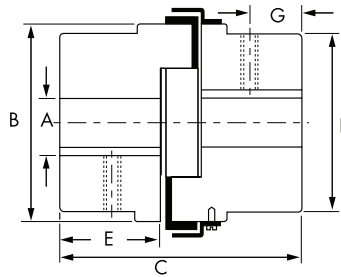


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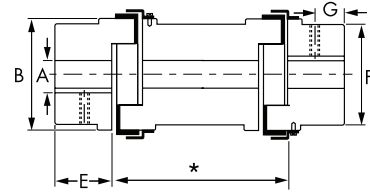
## HUBS & SPACERS



**SX** (2 hubs plus spider element)



**QF** (2 hubs plus QF ring kit)



**QFS** (2 hubs plus QF ring kit plus QFS spacer kit)  
\*DBSE - 100mm or 140 mm

## DIMENSIONS: SX, QF AND QFS

Pilot Bore Hub Code*	Size	A		B		C	E	F	G	Set Screw	Approx mass (kg)	Max. speed (rev/min)
		Pilot	Max	SX	QF							
968G0099	<b>035</b>	3	9	16.0	—	27	13	16.0	3.0	M3	0.03	31000
968A0099	<b>050</b>	6	14	27.5	—	44	16	27.5	6.5	M6	0.10	18000
968B0099	<b>070</b>	9	19	35.0	—	51	19	35.0	9.5	M6	0.25	14000
968C0099	<b>075</b>	9	24	44.5	—	54	21	44.5	8.0	M6	0.45	11000
968H0099	<b>090</b>	9	24	54.0	—	54	21	54.0	8.7	M6	0.55	9000
968D0099	<b>095</b>	9	28	54.0	64	64	25	54.0	11.5	M6	0.65	9000
968E0099	<b>100</b>	12	35	65.0	77	89	35	65.0	12.5	M8	1.55	7000
968F0099	<b>110</b>	15	42	84.0	97	108	43	84.0	20.5	M10	3.00	5000
968J0099	<b>150</b>	15	48	96.0	112	115	45	96.0	22.5	M10	4.85	4000
968K0099	<b>190</b>	19	55	115.0	130	133	54	102.0	22.5	M12	7.00	3600
968L0099	<b>225</b>	19	60	127.0	143	153	64	108.0	25.5	M12	9.00	3600

All dimensions in millimetres unless otherwise stated

Hub material is high grade cast iron. Spacer material is aluminium

DBSE = distance between shaft ends

† Mass of complete SX or QF type with pilot bore hubs

\* Bored or bored and keywayed hubs can be supplied.



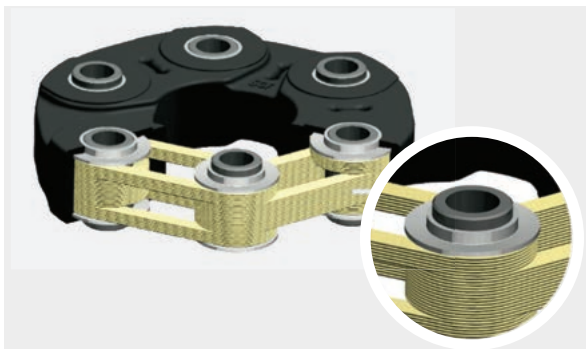
## Triflex Coupling

### Triflex Cord Reinforced Flexible Coupling

Utilising the tension force principle, Fenner® TriFlex couplings offer an efficient and cost effective alternative to traditional compression couplings. They are highly compact, lightweight and low maintenance.

#### Benefits

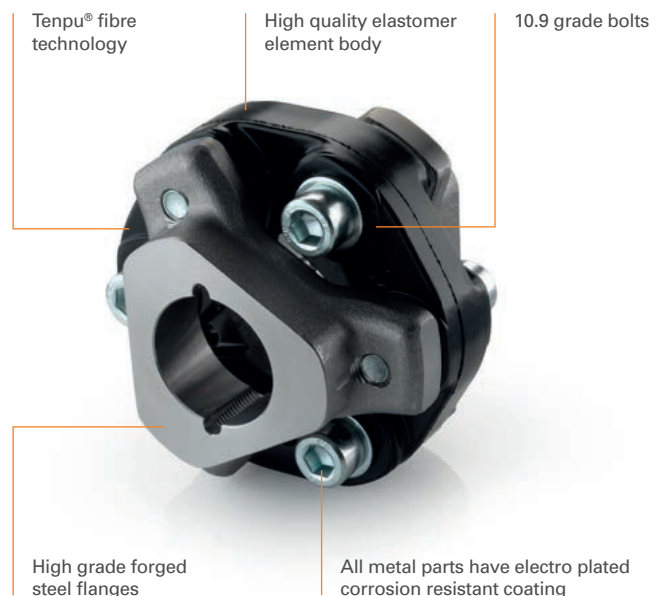
- > Fenner® TriFlex Couplings are lightweight and compact – typically one third of the weight of a traditional compression coupling
- > Individual elements of the coupling can be replaced quickly without the need to move the motor or driven load
- > Drive train torque peaks can be effectively dampened
- > Precise oscillatory tuning of the whole drive train can be achieved with ease
- > For special projects the stiffness of the reinforced cords in Fenner® TriFlex couplings can be individually adjusted in all directions to compensate for radial, axial and angular misalignment
- > Ideal for fans, pumps, compressors and mixers and agricultural machinery as a flexible connecting element
- > ATEX certified
- > Corrosion resistant



#### Size Reference

Size reference	Maximum bore size in mm	
	Taper lock bush	Bore and keyed
3FD-075	28	42
3FD-096	42	60
3FD-120	50	70
3FD-140	60	80
3FD-180	75	102
3FD-220	100	127

#### Construction





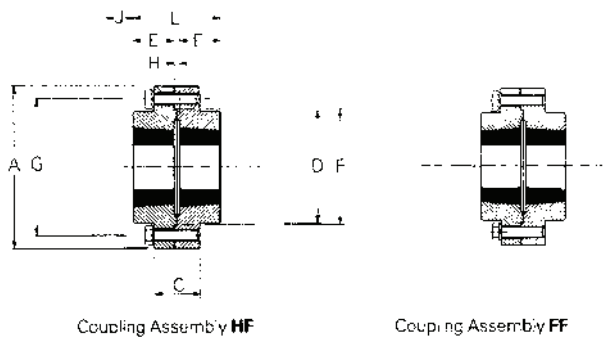
## Rigid Coupling

The vital link between motor and machine

Taper Lock® Rigid Couplings provide a convenient method of rigidly connecting the ends of shafts. Taper Lock® bushes permit easier and quicker fixing to the shafts with the firmness of a shrunk-on-fit.

### Benefits

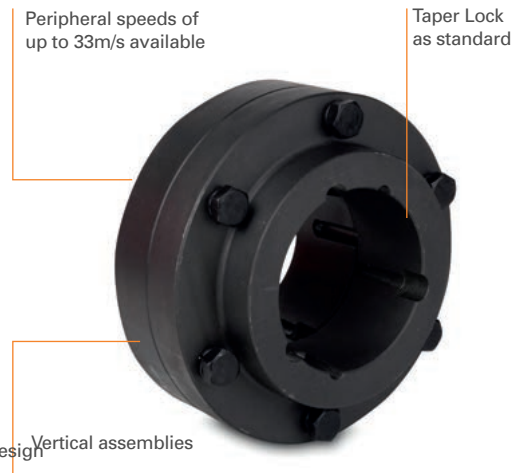
- > Ease of alignment
- > Fail-safe shaft connection
- > Range of element materials available including nitrile, urethane and Hytrel
- > Pump spacer variant available (100mm or 140mm length)
- > Quick-fit wrap around element available
- > Design powers up to 42.2kW available at 1440rpm
- > Ambient operating temperature range -50°C to +120°C
- > Pilot bore design also available



### Size Reference

Size reference	Maximum bore size in mm	
	Taper lock bush	
RM12	32	
RM16	42	
RM25	60	
RM30	75	
RM35	100	
RM40	110	
RM45	125	
RM50	125	

### Construction



### CODE NUMBERS

Size	Catalogue Code HF	Catalogue Code FF
RM12	039A0501	039A0502
RM16	039B0501N	039B0502N
RM25	039C0501	039C0502
RM30	039D0501N	039D0502N
RM35	039E0501N	039E0502N
RM40	039F0501N	039F0502N
RM45	039G0501N	039G0502N
RM50	039H0501N	039H0502N





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# Fenner® Grid

## Protection Against Shaft Misalignment, Shock and Vibratory Load

Fenner® Grid Couplings are shaft-to-shaft couplings that are of compact size, yet can handle torque capacity due to their high strength hardened alloy steel construction.

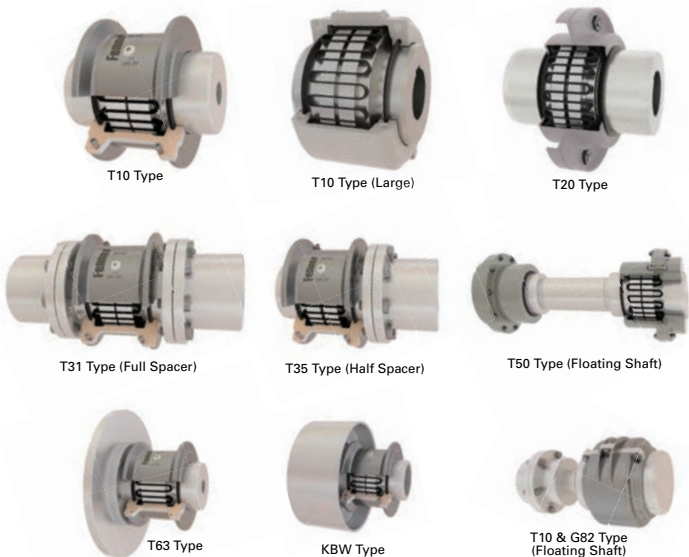
The tapered grids are designed with a trapezoidal cross section and are tempered for spring hardness. Through a high-precision operation called shot peening, the surface molecules are compressed by high-velocity steel micro beads.

The compression of the molecules results in dramatic increase in strength rating and provides reserve strength for a longer part life.

Due to their compact size, the tapered grids can simply be placed directly in the slots of the hub. The practical split cover can be placed using standard tools.

### Benefits

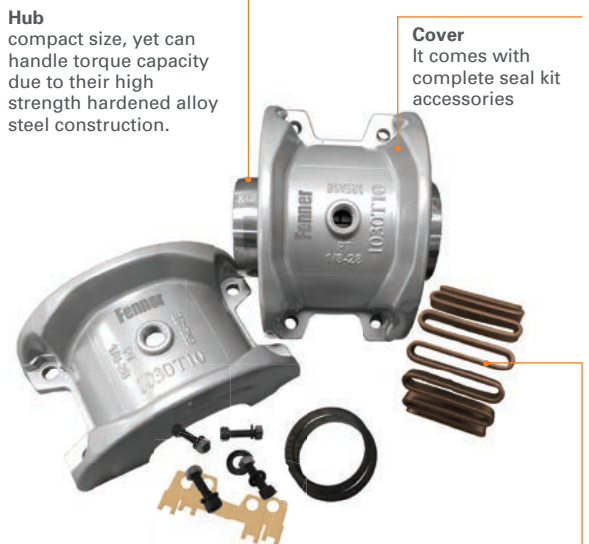
- > Protection against shaft misalignment
- > Provides generous capacity for misalignment without producing the detrimental side loads on the bearings that are often created when couplings are misaligned
- > Protection against shock and vibratory loads
- > Able to deflect torsionally when subject to normal or vibratory loads



### Size Reference

Type	Size
T10 Type	1020 - 1170
T10 Large	1020 - 1170
T20 Type	1020 - 1170
T31 Full Spacer	1020 - 1170
T35 Half Spacer	1020 - 1170
T50 Floating Shaft	1020 - 1170
T63 Type	1020 - 1170
KBW Type	1020 - 1170
T10 & G82 Type (Floating Shaft)	1020 - 1170

### Construction



**Hub**  
compact size, yet can handle torque capacity due to their high strength hardened alloy steel construction.

**Cover**  
It comes with complete seal kit accessories

**Tapered Grids**  
Accessible through the unit's removable cover. It is extremely easy to fit the trapezoidal grids into the slots of the hub, compared to fitting rectangular grids.



## FenLock Cone Clamping Elements

### Extreme Duty, High Torque Solution

FenLock cone-clamping elements provide a wide range of keyless shaft/hub fixing assemblies offering simple installation, increased shaft strength and high torque transmission capacity.



#### Benefits

- > Wide range of standard designs, solutions for all applications
- > Eliminates the cost and complexity of keyways.
- > Also allow the use of smaller shafts, as keyway does not weaken the shaft
- > Extensive bore range from 20mm up to 900mm
- > Allows for axial and angular adjustment of mounted components
- > Excels at transmitting high torques
- > Good resistance to alternating torques
- > Simple installation and disassembly
- > Eliminates fretting corrosion
- > Easy selection based on torque and shaft diameter
- > Includes shrink disks

#### Size Reference

#### Bore size in mm

<b>FLK200</b>	20mm to 900mm
<b>FLK132 + FLK133</b>	20mm to 200mm
<b>FLK130 + FLK131</b>	20mm to 180mm
<b>FLK300</b>	6mm to 540mm
<b>FLK250</b>	14mm to 60mm
<b>FLK110</b>	6mm to 130mm
<b>FLK603</b>	14mm to 105mm

#### Construction

Simple installation and disassembly

Keyless bore

Axial and angular adjustment capability





## Taper Lock® Bushes

### Taper Lock® Four Hole Bush Simple, Universal Solution

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.

#### Benefits

- > Ease of installation and removal
- > 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
- > Standard range fits up to 125mm/5" shafts
- > Special 4-hole feature for balanced assemblies
- > Complete short reach range available, for compact lightweight assemblies
- > High grade, close grain iron (GG25) material
- > Spheroidal Graphite (S.G.) iron construction on some sizes to give increase maximum bores

#### Weld on Hubs

- > Manufactured from steel to provide convenient means to secure fan rotors, steel pulleys, plate sprockets, impellers etc. to a shaft.
- > Shouldered outer diameter allows for easy location
- > Taper bored to receive 4 hole Taper Lock® bush sizes 1210 to 5040

#### Bolt on Hubs

- > A convenient means to secure fan rotors, steel pulleys, plate sprockets, impellers etc to a shaft
- > Welding not necessary
- > Taper bored to receive 4 hole Taper Lock® bush sizes 1210 to 3040

#### Hub Adaptors

- > For use with parallel bore eliminating the cost of drilling, tapping and taper boring
- > Keyed version also available for heavy duty applications
- > Taper bored to receive 4 hole Taper Lock® bush sizes 1008 to 4040



Size Reference	Bore Sizes in mm
1008 to 5040	9 to 125

#### Construction





## Trantorque GTR

### High Power, Critical Timing Solution

Trantorque GTR keyless bushing is the ideal solution for high power or critical timing applications. It offers a mechanical shrink-fit eliminating the problems of fretting corrosion, backlash and key wallowing.

#### Benefits

- > Locks and unlocks with the twist of just one nut
- > Precise radial and axial adjustment on shaft.
- > Ideal for timing components
- > Trantorque GTR is “self-centering” unlike other cone clamping units. It needs no location diameter in components to retain concentricity
- > Repair of damaged keyways, just slip Trantorque GTR over the damaged keyway to effect repair
- > Eliminates keyways thereby reducing shaft costs.
- > Also allows smaller shaft as the keyway does not weaken the shaft
- > Ambient operating temperature -34°C to +204°C



#### Size Reference

#### Bore Size in mm

184A0105 to 184P0175

5mm to 75mm

#### Construction

Locks and unlocks with the twist of just one nut

Self centering single nut design



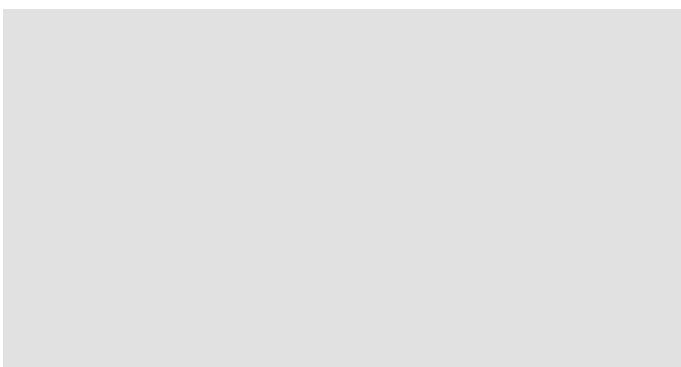
Keyless bore



# 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®

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