



FBA Flywheel Couplings





FBA Flywheel Coupling

The FBA (Flywheel–Blind Assembly) coupling is a torsionally soft engine drive that has dampening characteristics.

Flywheel flanges are available in SAE sizes 6–1/2 thru 14 from stock, with many metric options available.

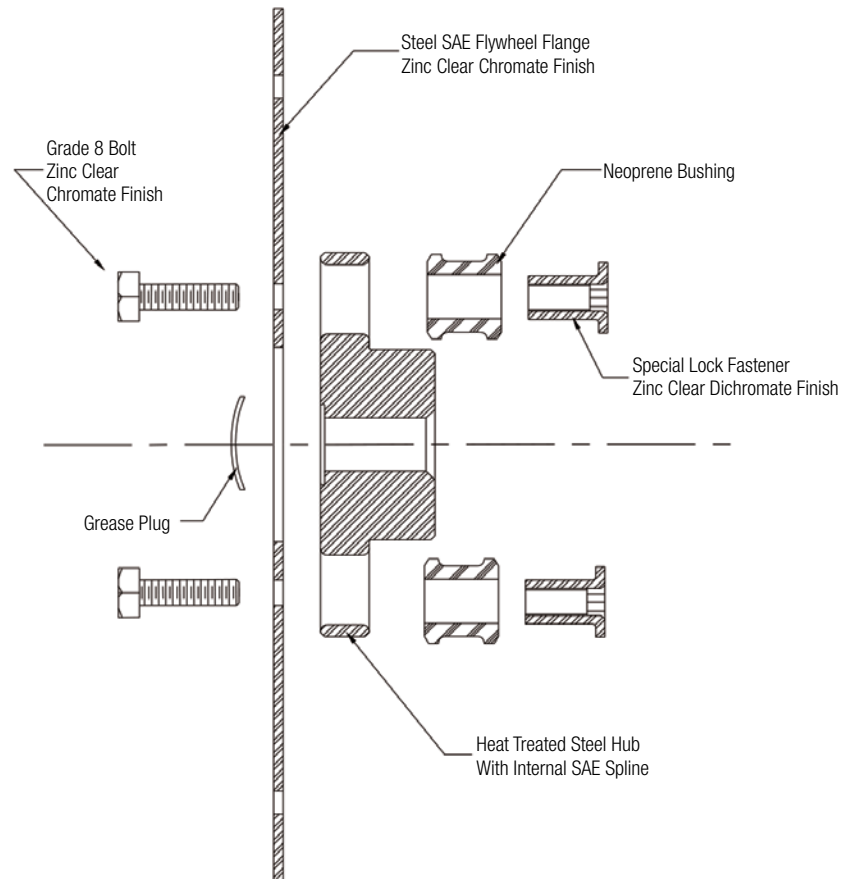
The FBA coupling is used worldwide in gas/ diesel engine applications including; aerial lifts, skid steer loaders, excavators, and low mass compressors.

Withstands temperatures up to 212°F.



TECHNICAL DATA

The FBA (flywheel-blind assembly) was designed in response to the demand for a torsionally soft drive system with “plug-in” capability. This flywheel coupling consists of a steel flywheel flange, splined steel hub, rubber vibration damper, and specially designed fasteners.



Coupling Assembly	Nominal Torque Rating*
SAE 6.5	1,950 in-lbs
SAE 7.5	1,950 in-lbs
SAE 8	3,655 in-lbs
SAE 10	4,640 in-lbs
SAE 11.5	7,500 in-lbs
SAE 14	12,190 in-lbs

* All values are based on Guardian standard product offering. Please consult Guardian Industries for non-standard configurations.

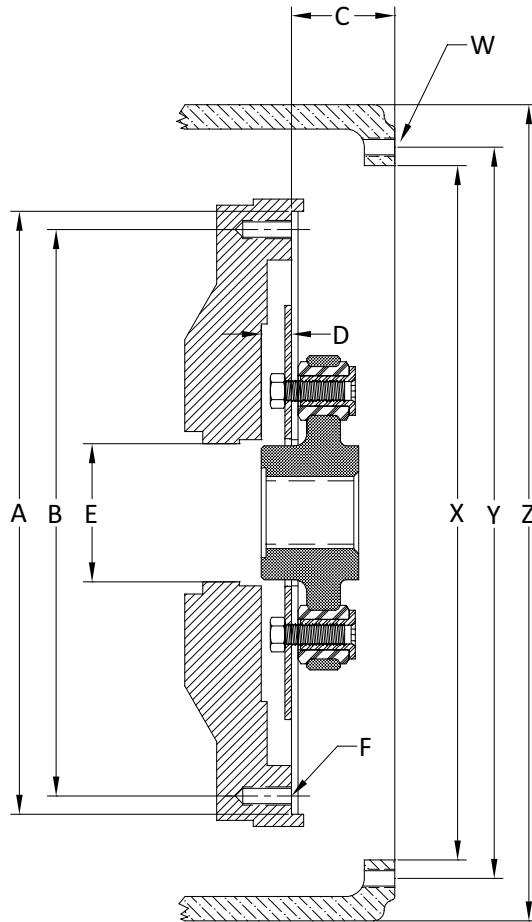
Misalignment Capability

Angular = 1°
Parallel = .015"

Note

The end user is required to use a lithium-based grease on the pump spline and coupling at installation such as Shell Alvania CG or equivalent.

SAE FLYWHEEL & HOUSING DATA



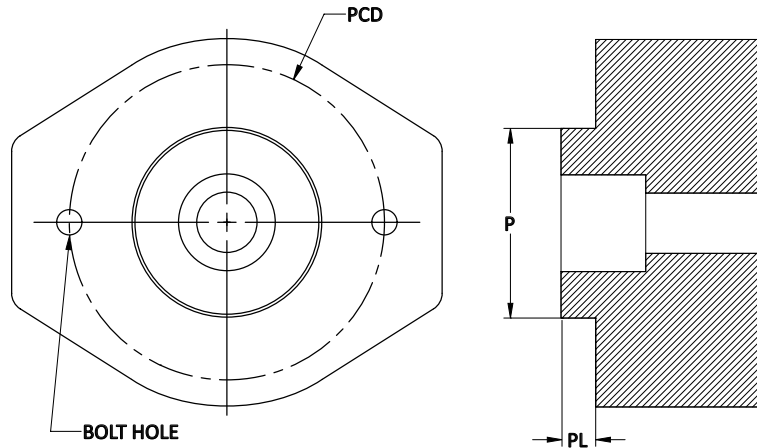
SAE Flywheel Standard Dimensions

Flywheel SAE No.	A inch	B inch	C inch	D inch	E inch	F	
						No.	Size
6 1/2	8.500	7.875	1.190	0.500	2.047	6	5/16" - 8
7 1/2	9.500	8.750	1.190	0.500	2.047	8	5/16" - 18
8	10.375	9.625	2.440	0.500	2.441	6	3/8" - 16
10	12.375	11.625	2.120	0.620	2.834	8	3/8" - 16
11 1/2	13.875	13.125	1.560	1.120	2.834	8	3/8" - 16
14	18.375	17.250	1.000	1.120	3.149	8	1/2" - 13

SAE Housing Standard Dimensions

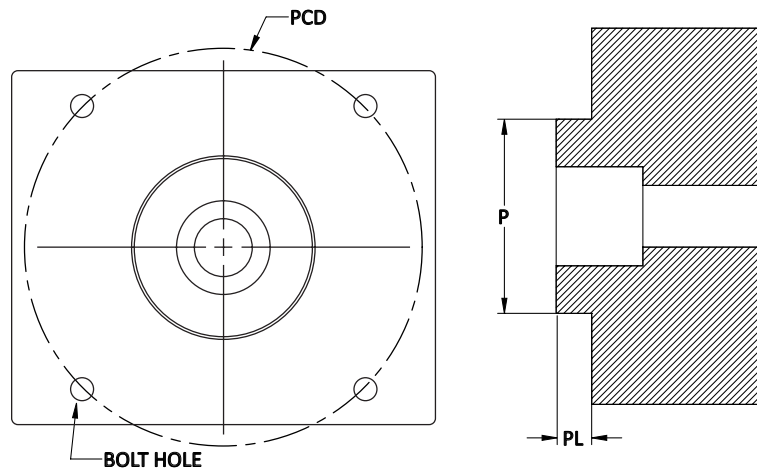
Flywheel SAE No.	X inch	Y inch	Z inch	F	
				No.	Size
6	10.500	11.250	12.120	8	3/8" - 16
5	12.375	13.125	14.000	8	3/8" - 16
4	14.250	15.000	15.880	12	3/8" - 16
3	16.125	16.875	17.750	12	3/8" - 16
2	17.625	18.375	19.250	12	3/8" - 16
1	20.125	20.875	21.750	12	7/16" - 14

SAE PUMP DATA



SAE 2-Bolt Mounting Flange

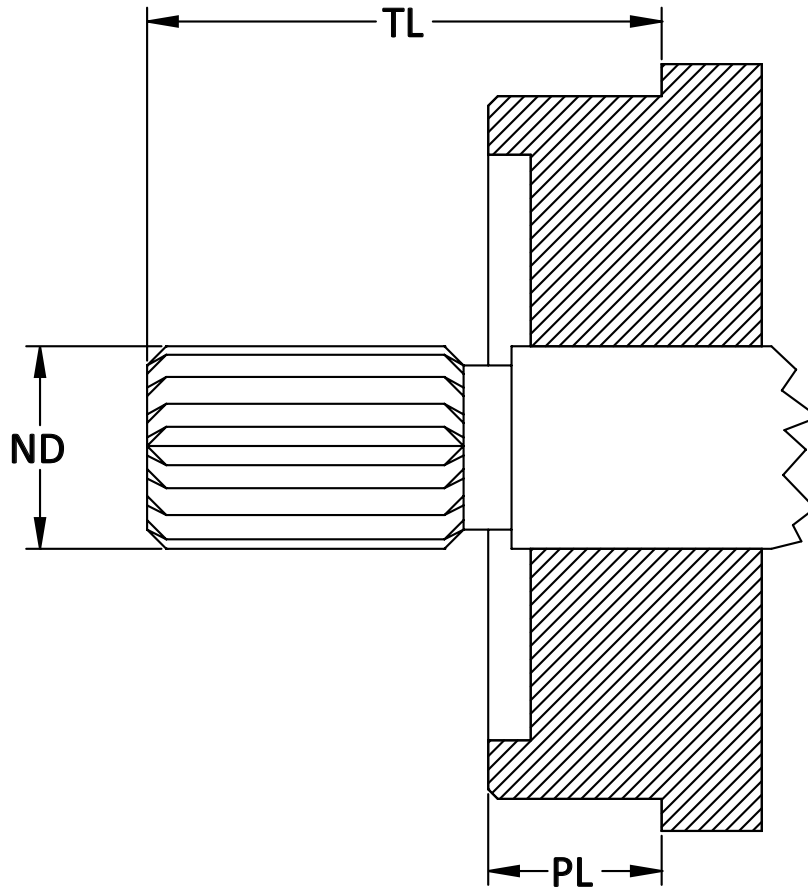
Mounting Flange SAE	Pilot Dimensions P	Flange Dimensions		Pilot Length PL	Bolts
		PCD	Bolt Hole		
AA	2.000	3.250	0.406	0.250	5/16-18
A	3.250	4.187	0.438	0.250	3/8-16
B	4.000	5.750	0.562	0.375	1/2-3
C	5.000	7.125	0.687	0.500	5/8-11
D	6.000	9.000	0.812	0.500	3/4-10
E	6.500	12.500	1.062	0.625	1-8
F	7.000	13.781	1.062	0.625	1-8



SAE 4-Bolt Mounting Flange

Mounting Flange SAE	Pilot Dimensions P	Flange Dimensions		Pilot Length PL	Bolts
		PCD	Bolt Hole		
AA (4F17)	1.781	2.838	0.325	0.250	5/16-18
A	3.250	4.125	0.438	0.250	3/8-16
B	4.000	5.000	0.562	0.375	1/2-13
C	5.000	6.375	0.562	0.500	1/2-13
D	6.000	9.000	0.812	0.500	3/4-10
E	6.500	12.500	0.812	0.625	3/4-10
F	7.000	13.781	1.062	0.625	1-8

SAE PUMP DATA



SAE Involute Splined Pump Shafts

SAE	# of Teeth	Pitch Dia.	Pressure Angle	Major Dia. ND	Minor Dia.	Nominal Dia.	TL
AA	9	20/40	30°	0.625	0.509	1/2	1.062
A	9	16/32	30°	0.625	0.509	5/8	1.250
AH	11	16/32	30°	0.750	0.631	3/4	1.250
B	13	16/32	30°	0.875	0.754	7/8	1.625
BB	15	16/32	30°	1.000	0.877	1	1.812
C	14	12/24	30°	1.250	1.087	1 1/4	2.187
CS	21	16/32	30°	1.380	1.250	1 3/8	2.187
CC	17	12/24	30°	1.500	1.334	1 1/2	2.437
D & E	13	8/16	30°	1.750	1.506	1 3/4	2.937
F	15	8/16	30°	2.000	1.753	2	3.437



COMPLIMENTARY GUARDIAN PRODUCTS: FOR MOUNTING DRIVEN COMPONENTS



Pump Plates

- Manufactured from steel
- SAE Sizes 1 thru 6 from stock
- Plain and zinc finish from stock
- E-Coat, black oxide & powder coat available upon request



Engine Housings

- Manufactured from aluminum & cast iron
- Fits a variety of non-standard SAE option engines
- E-Coat & powder coat available for cast iron designs

See Engine Housing and Pump Mounting Plate literature for complete listings.



OTHER GUARDIAN PRODUCTS:



FL Flywheel Couplings

- Torsionally stiff
- Reinforced nylon flange
- Steel Hub
- No lubrication
- Accepts splines & straight bores/keyways shafts



FH Flywheel Couplings

- Fail-safe couplings
- Torsionally soft for vibration dampening
- Cast iron hubs/flanges
- Variable durometer elements
- Accepts splines & straight bores/keyways shafts



Delta Flywheel Couplings

- Torsionally soft for vibration dampening
- Reinforced nylon flange
- Accepts splines & straight bores/keyways shafts
- No clamping required
- Lubrication required



NV Flywheel Couplings

- Torsionally soft for vibration dampening
- Rubber "fuse" link
- Accepts spline shafts
- No lubrication required
- No clamping required

Guardian Couplings Facilities

North America

USA

300 Indiana Highway 212
Michigan City, IN 46360
219-874-5248

Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings

Europe

United Kingdom

Merchant Drive, Hertford
Hertfordshire SG13 7BL - England
+44(0)1992 501900

Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings

The Brands of Altra Motion

Couplings

Ameridrives
www.ameridrives.com

Bibby Turboflex
www.bibbyturboflex.com

Guardian Couplings
www.guardiancouplings.com

Huco
www.huco.com

Lamiflex Couplings
www.lamiflexcouplings.com

Stromag
www.stromag.com

TB Wood's
www.tbwoods.com

Linear Systems

Thomson
www.thomsonlinear.com

Warner Linear
www.warnerlinear.com

Geared Cam Limit Switches

Stromag
www.stromag.com

Engineered Bearing Assemblies

Kilian
www.kilianbearings.com

Electric Clutches & Brakes

Matrix
www.matrix-international.com

Stromag
www.stromag.com

Warner Electric
www.warnerelectric.com

Deltran
www.thomsonlinear.com

Belted Drives

TB Wood's
www.tbwoods.com

Heavy Duty Clutches & Brakes

Twiflex
www.twiflex.com

Stromag
www.stromag.com

Svendborg Brakes
www.svendborg-brakes.com

Wichita Clutch
www.wichitaclutch.com

Gearing & Specialty Components

Bauer Gear Motor
www.bauergears.com

Boston Gear
www.bostongear.com

Delevan
www.delevan.com

Delroyd Worm Gear
www.delroyd.com

Nuttall Gear
www.nuttallgear.com

Engine Braking Systems

Jacobs Vehicle Systems
www.jacobsvehiclesystems.com

Precision Motors, Drives & Controls

Kollmorgen
www.kollmorgen.com

Miniature Motors

Portescap
www.portescap.com

Overrunning Clutches

Formsprag Clutch
www.formsprag.com

Marland Clutch
www.marland.com

Stieber
www.stieberclutch.com

Neither the accuracy nor completeness of the information contained in this publication is guaranteed by the company and may be subject to change in its sole discretion. The operating and performance characteristics of these products may vary depending on the application, installation, operating conditions and environmental factors. The company's terms and conditions of sale can be viewed at <http://www.altramotion.com/terms-and-conditions/sales-terms-and-conditions>. These terms and conditions apply to any person who may buy, acquire or use a product referred to herein, including any person who buys from a licensed distributor of these branded products.

©2018 by Guardian Couplings LLC. All rights reserved. All trademarks in this publication are the sole and exclusive property of Guardian Couplings LLC or one of its affiliated companies.

