



# 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.

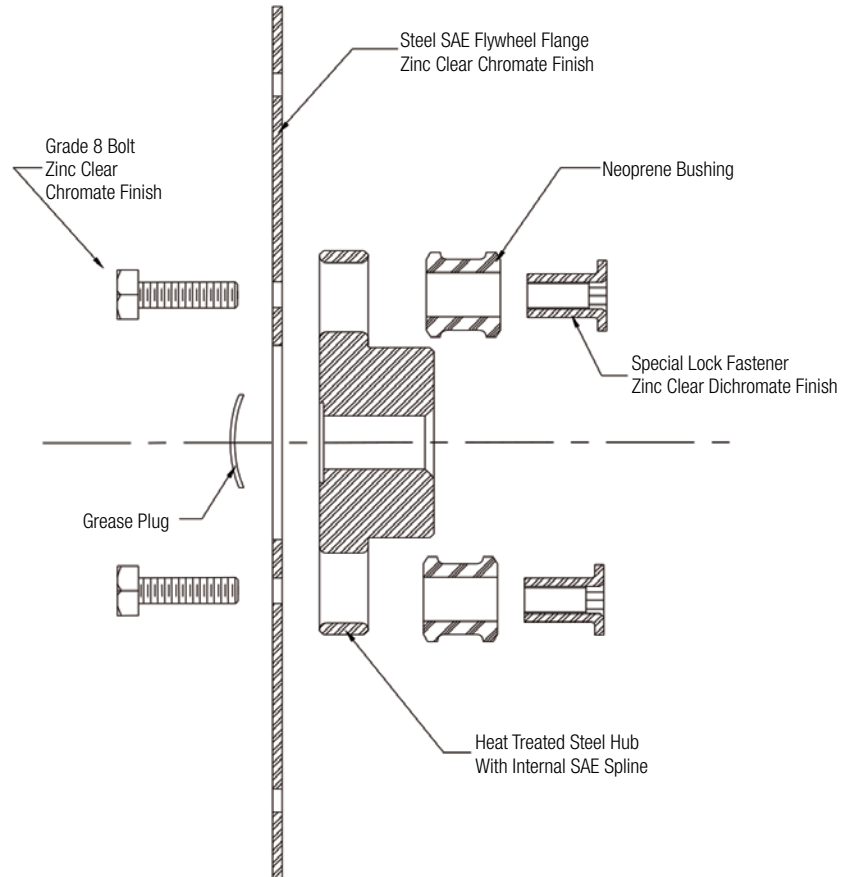
The FBA coupling is used worldwide in gas/ diesel engine applications including; aerial lifts, skid steer loaders, excavators, and low mass compressors.

Withstands temperatures up to 212°F.

**GUARDIAN COUPLINGS™**  
A REGAL REYNOLD BRAND

## 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.

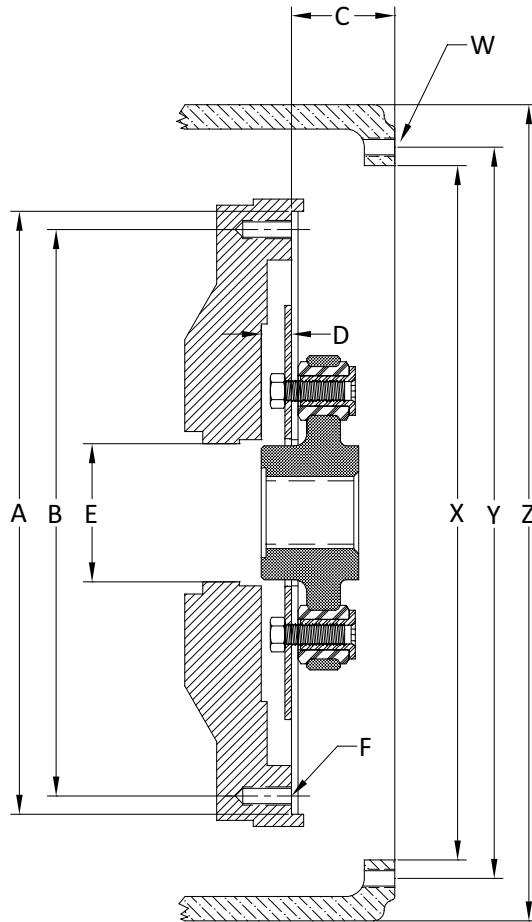
### Misalignment Capability

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



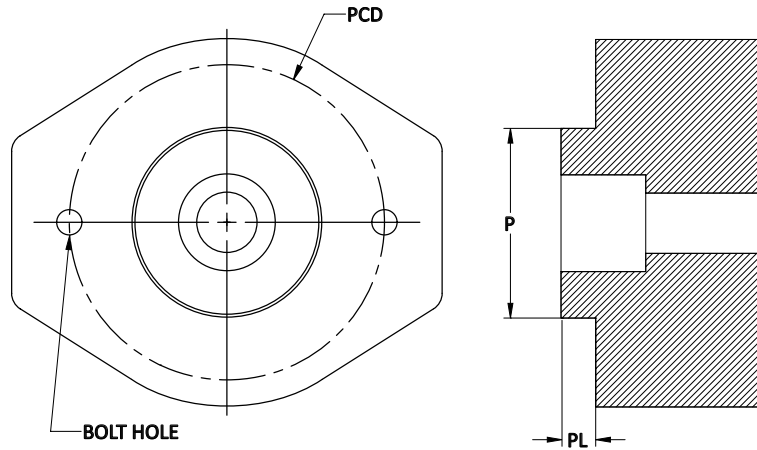
### SAE Flywheel Standard Dimensions

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

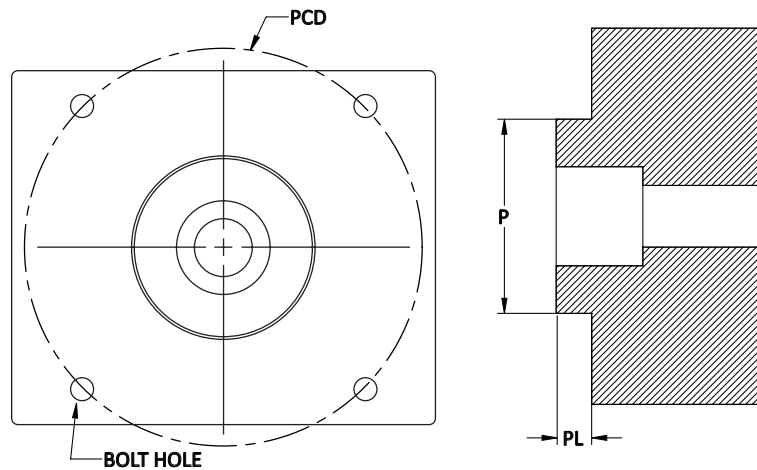
Flywheel SAE No.	X inch	Y inch	Z inch	F	
				No.	Size
6	10.500	11.250	12.120	8	3/8" - 16
5	12.375	13.125	14.000	8	3/8" - 16
4	14.250	15.000	15.880	12	3/8" - 16
3	16.125	16.875	17.750	12	3/8" - 16
2	17.625	18.375	19.250	12	3/8" - 16
1	20.125	20.875	21.750	12	7/16" - 14

## SAE PUMP DATA



### SAE 2-Bolt Mounting Flange

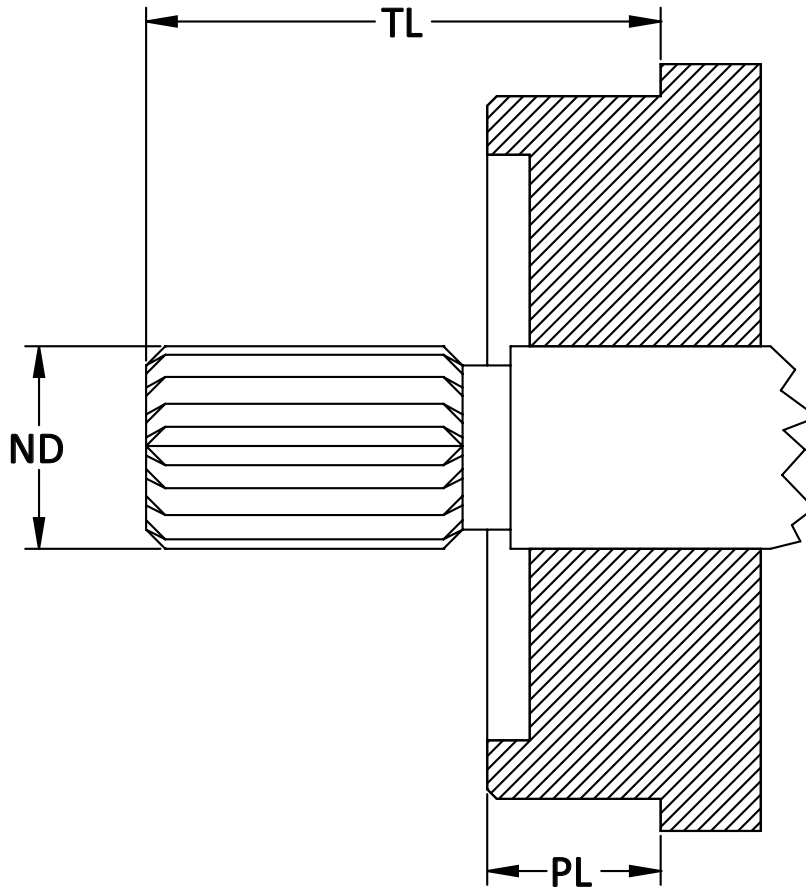
Mounting Flange SAE	Pilot Dimensions P	Flange Dimensions		Pilot Length PL	Bolts
		PCD	Bolt Hole		
AA	2.000	3.250	0.406	0.250	5/16-18
A	3.250	4.187	0.438	0.250	3/8-16
B	4.000	5.750	0.562	0.375	1/2-3
C	5.000	7.125	0.687	0.500	5/8-11
D	6.000	9.000	0.812	0.500	3/4-10
E	6.500	12.500	1.062	0.625	1-8
F	7.000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



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