

# Backstop Clutches

## HFB/VFB

### Backstopping

#### Ball Bearing Supported, Sprag Clutches

#### Horizontal Fan Backstop/Vertical Fan Backstop



**HFB**  
(Horizontal  
Shafts)

**VFB**  
(Vertical  
Shafts)

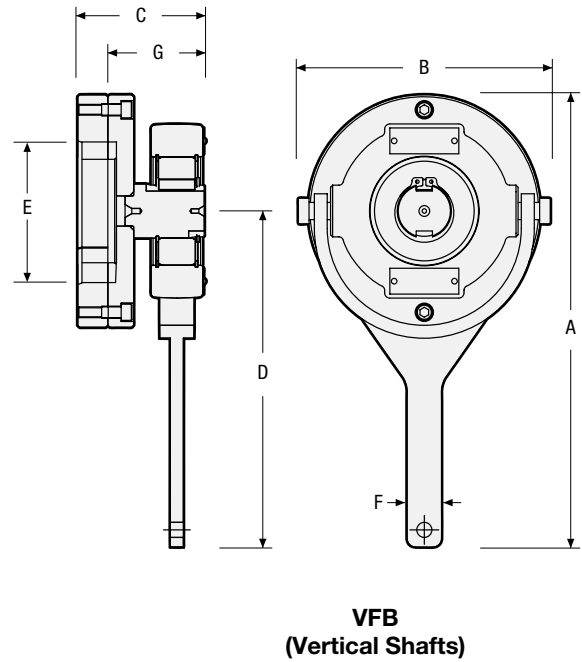
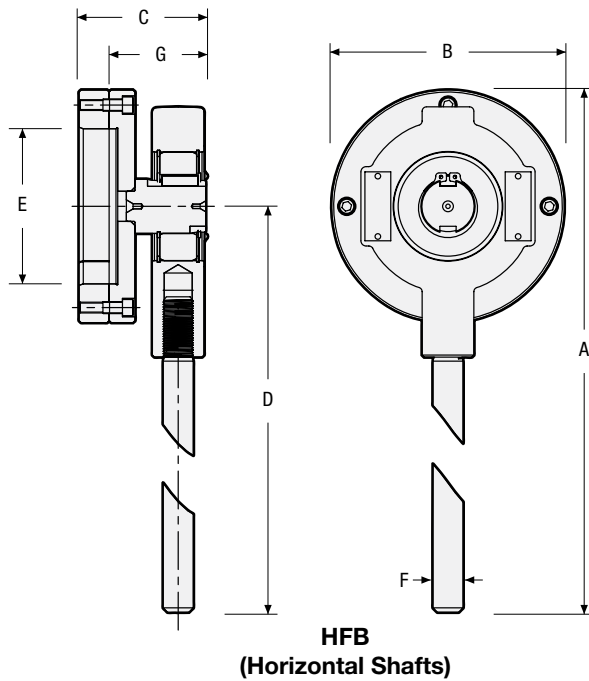
Models HFB and VFB are backstopping clutching designed to prevent reverse rotation of shafts in applications that have large shaft diameters of up to 6.0 inches and low backstopping torque requirements. HFB & VFB backstops have Sprag clutch technology with high inner race overrunning speed, are ball bearing supported and protected with integral lip seals. The clutch housing is prevented from rotating with a torque arm and is mounted on a stub shaft with a locking ring for easy mounting. Clutches are selected by shaft size and torque requirement.

### Features:

#### Specifications

Size	Torque Capacity lb.ft. (Nm)	Overrunning Speed Max. RPM	Resistance after run-in lb.in. (Ncm)	Maximum Bore in. (mm)	Shipping Weight lb. (kg)	
					HFB	VFB
100	284 (385)	2,000	0.88 (10)	3.00 (76.2)	22 (10)	20 (9)
350	284 (385)	2,000	0.88 (10)	4.50 (114.3)	27 (12.2)	23 (10.3)
450	483 (656)	1,800	1.76 (20)	6.00 (152.4)	30 (13.6)	—

- Wide speed range of 0 to 2,000 RPM
- Wide bore range of 1.0 to 6.0 inches
- Wide torque range of 248 to 483 lb.ft. (337 to 656 Nm)
- Low drag torque of less than 1.8 lb.in. (20 Ncm)
- Easy to install, requiring only 1.125 inches of shaft engagement
- Lubricated for life – No regular maintenance required
- Rough bore kits in stock
- Stops wind milling automatically
- Improves both motor and belt life
- Compact design with less than 2.0 inches beyond the shaft end
- Lip sealed backstop for longer life in adverse atmospheres
- Wide temperature operating range of -4°F (-20°C) to 212°F (+100°C)
- Self Actuated – No power or utility required to operate
- Shaft mounting design tested to over 200%
- Patent Pending
- Removable torque arm
- Optional coating available
- No shaft keyseat required for mounting
- Easy installation with a (2) clamping bolt design



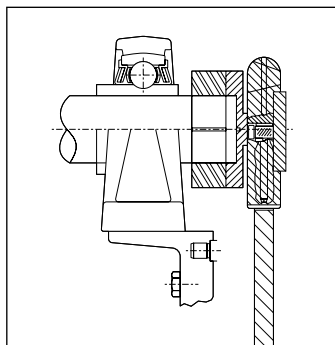
### Dimensions inches (mm)

Model	A	B	C	D	E	F	G
HFB-100	19.25 (488.9)	5.25 (133.4)	4.29 (108)	16.63 (422.4)	1.0/3.0 (25/76)	0.88 (22.2)	2.29 (58.2)
HFB-350	20.00 (508)	6.75 (171.4)	4.29 (108)	16.63 (422.4)	3.0/4.5 (76/114)	0.88 (22.2)	2.29 (58.2)
HFB-450	20.75 (526.4)	8.25 (209.6)	5.20 (132)	16.63 (422.4)	4.5/6.0 (114/152)	0.88 (22.2)	3.20 (80)
VFB-100	12.4 (314.5)	7.3 (185.7)	3.7 (94.0)	9.8 (248.9)	1.0/3.0 (25.4/76.2)	1.0 (25.4)	2.6 (64.8)
VFB-350	13.1 (333.5)	7.3 (185.7)	3.7 (94.0)	9.8 (248.9)	3.0/4.5 (76.2/114.3)	1.0 (25.4)	2.6 (64.8)

### Bore Ranges

Size	in.	(mm)
100	1.0 – 3.0	(25 – 75)
350	3.0 – 4.5	(75 – 114)
450	4.5 – 6.0	(115 – 152)

### Typical Mounting Arrangement



The model VFB & HFB can be secured to a smooth end of shaft without the use of a key using an equine clamping ring design providing a simple and economical solution to wind milling in existing fan applications.