



BERKEH
Pumps

Berkeh Flexible Metallic Coupling

BFC Series Coupling

For Oil, Gas & Petrochemical Industry and Power Plant



Overview

Berkeh® BFC Series Couplings incorporate scalloped, stainless steel, flexible discs. This design gives the most flexible solution for high torque and misalignment conditions. This range of couplings has been specifically fabricated to meet the exacting standards of API 610 (ISO13709).

The coupling incorporates many features listed as standard, to ensure safe and trouble free operation.

- ✓ Easy to fit
- ✓ Meets API 610 (ISO13709). Can be supplied to API 671.
- ✓ Ideally suited to pump applications and electric motor drives in critical process industry, marine and power generation applications
- ✓ Coated carbon steel for corrosion protection
- ✓ Choice of hub configuration to suit shaft diameters
- ✓ Choice of hub configuration to suit shaft diameters



Berkeh Pumps Co.

Tel : 021-56546894-7

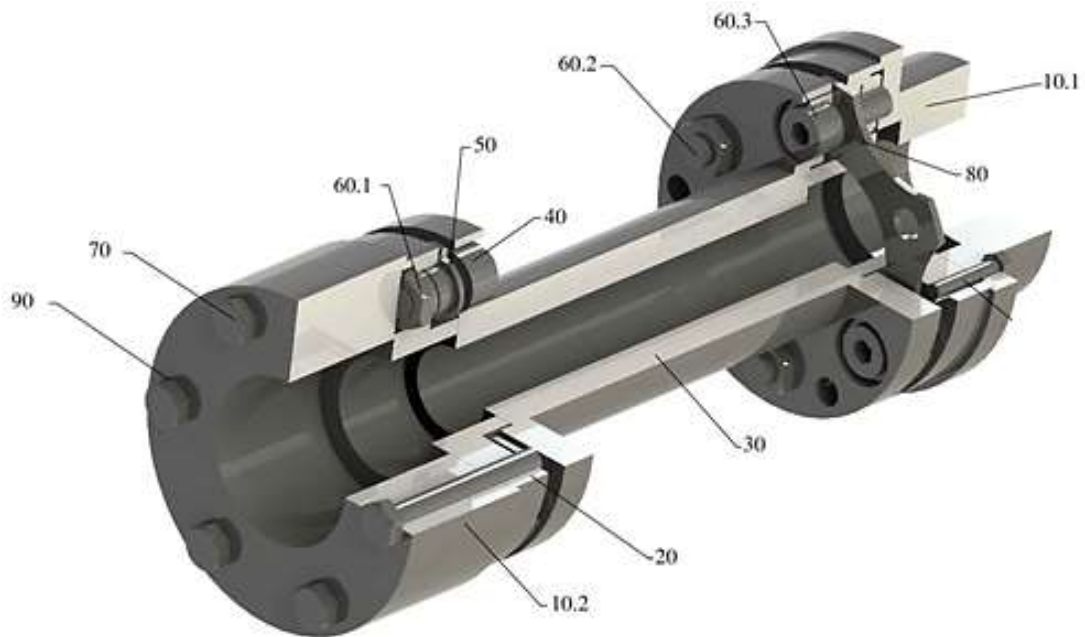
Fax : 021-56546894-7

Tehran Industrial Zone, Qom old-
Road, Tehran, Iran

www.berkeh.com

Info@berkeh.com

Overview



10.1	Standard Hub
10.2	Large Hub
20	Anti-Fly Hub
30	Spacer
40	Over Load Washer(Collar)
50	Bush
60.1	Luck Nut
60.2	Socket Head Cap Screw
60.3	Socket Head Cap Screw
70	Hexagon Head Cap Screw
80	Membranes
90	Spring Lock Washer

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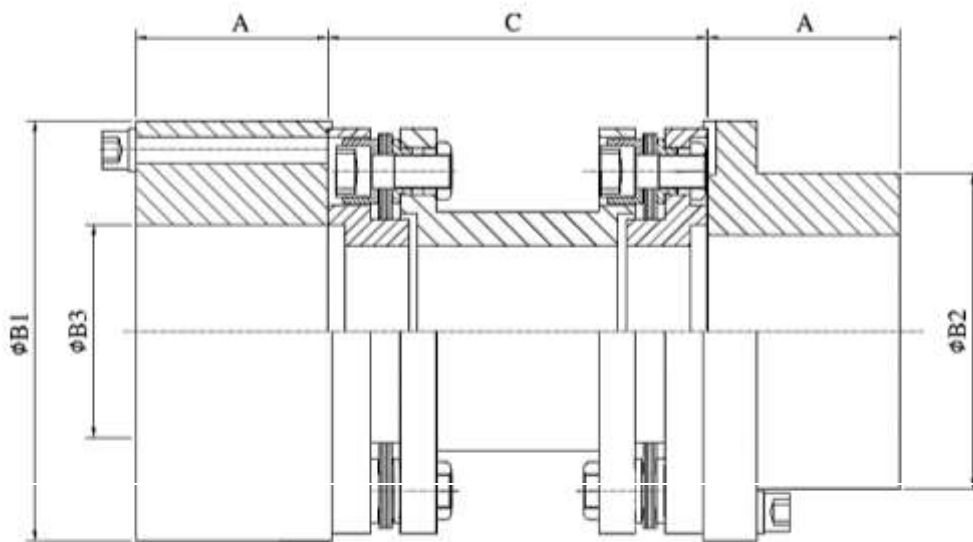
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Dimensional Data

Table 1:

DIMENSIONAL DATA (mm)



*Distance Between Shaft End

Coupling Size	A	ØB1	ØB2	C (Min DBSE*)	ØB3 (Max Bore)	Preferred DBSE* (mm)					
						70	100	125	140	180	250
BFC 0013	40	86	54	70	50	●	●	●	●	●	●
BFC 0033	45	106	70	85	65		●	●	●	●	●
BFC 0075	55	135	90	105	85			●	●	●	●
BFC 0135	63	160	115	130	95				●	●	●
BFC 0230	78	180	130	150	115					●	●
BFC 0350	92	197	150	150	120					●	●
BFC 0500	100	230	180	150	135					●	●
BFC 0740	115	255	200	160	148					●	●
BFC 0930	118	280	220	170	163					●	●
BFC 1400	135	300	245	190	175					●	●

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Technical Data and Misalignment

Table 2:

Correct Installation and alignment of couplings is Essential for reliable machinery performance. The angular and axial restoring forces in the table below are given at maximum deflections. The chart can be used to determine forces across the full deflection range. The nonlinear characteristics can detune a system to prevent high amplitude axial vibration.



** Meet NEMA end float specifications without modification.

MISALIGNMENT					
Coupling Size	Max. Axial +/- mm	Equivalent Thrust KN	** Max. Angular Degrees	Restoring Moment at Max. Angle Nm	Max. Parallel +/- mm
BFC 0013	1	0.2	0.5	4	0.3
BFC 0033	1.25	0.3	0.5	6	0.35
BFC 0075	1.5	0.4	0.5	9	0.45
BFC 0135	2	0.6	0.5	12	0.55
BFC 0230	2.5	0.7	0.5	15	0.6
BFC 0350	2.8	0.8	0.5	34	0.65
BFC 0500	3.25	1.1	0.5	40	0.65
BFC 0740	3.75	1.3	0.5	48	0.7
BFC 0930	4.3	1.5	0.5	54	0.7
BFC 1400	5	2.7	0.5	60	0.8

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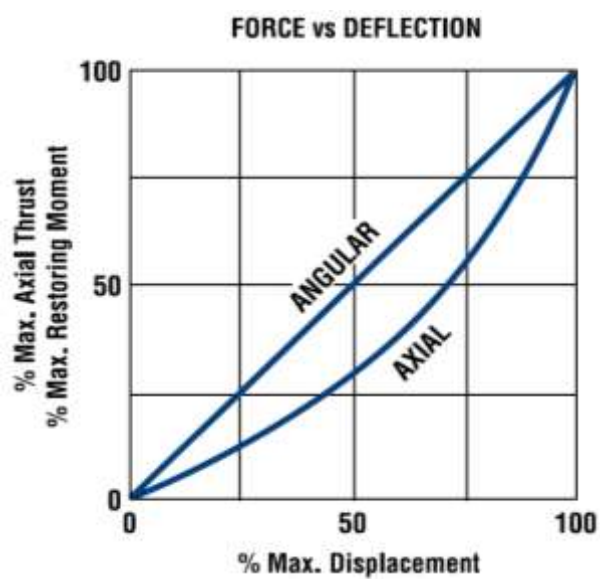
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Technical Data and Misalignment

Table 3:

TECHNICAL DATA				
Coupling Size	RATING (kW/1000RPM)	MAX CONTINUOUS TORQUE (Nm)	PEAK TORQUE (Nm)	MAX SPEED(RPM)
BFC 0013	13	125	310	8000
BFC 0033	35	315	790	8000
BFC 0075	75	715	1,800	7000
BFC 0135	135	1,290	3,200	7000
BFC 0230	230	2,200	5,500	6000
BFC 0350	350	3,350	8,400	6000
BFC 0500	500	4,780	12,000	5000
BFC 0740	740	7,070	17,700	5000
BFC 0930	930	8,880	22,200	4000
BFC 1400	1400	13,370	33,400	3000



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Selection Procedure

Table 4:

SERVICE FACTOR	
SERVICE FACTOR	EQUIPMENT
1.0	Centrifugal Pump
	Centrifugal Compressor
	Axial Compressor
1.5	Screw Compressor
	Gear , Lobe and Van Pumps
	Forced Draft Fan
	Medium Duty Mixer
	Electrometer Drives Through a Gearbox
2	Reciprocating Pumps
	Heavy Duty Mixers
	Induced Draft Fans

SELECTION PROCEDURE

1-Select Service Factor (Table4)

2-Calculate Coupling Rating R From

$$R=(Kw \times 1000 \times SF) / N$$

Where :

Kw : Driver Rated Power

N : Speed(RPM)

SF : Service Factor

3-Select a Coupling With The Same Or Higher Rating.

4-Check That The Hub Bore Capacity Is Suitable.

5-Check Peak Torque Capacity Is Suitable For Application.

6-Check Speed Capacity.

7-Specify Distance Between Shaft Ends (DBSE)

8-Specify Required Dynamic Balance

-Standard Balance G6.3

-Other By Request

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