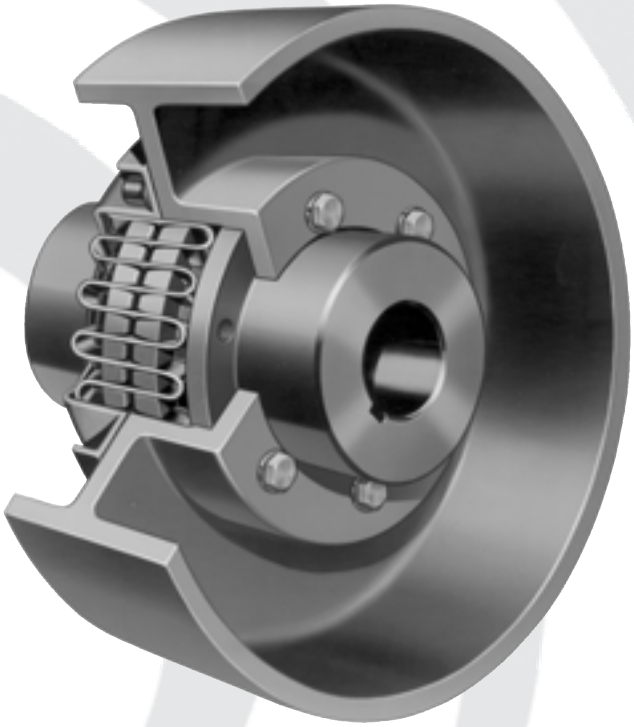
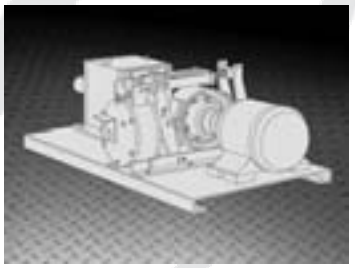
FALK™ STEELFLEX BRAKEWHEEL COUPLINGS | SELECTION GUIDE





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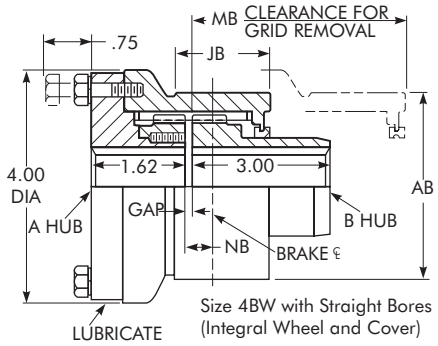
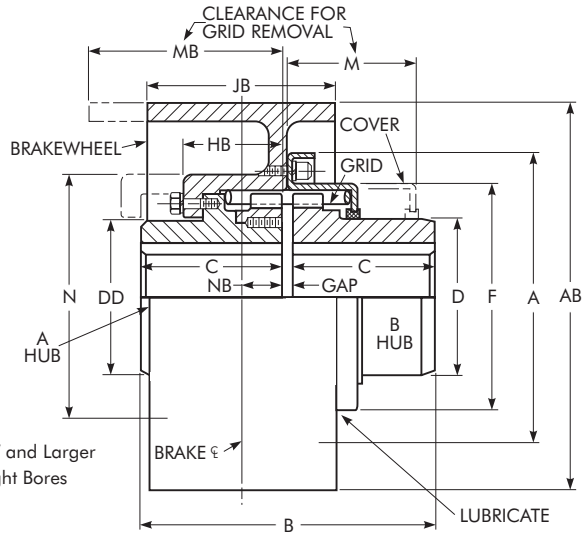


Size 4BW with Straight Bores (Integral Wheel and Cover)



Sizes 5BW and Larger with Straight Bores

Brakewheel Coupling Dimensions

CPLG SIZE ★	A Hub ‡		B Hub ‡		Cplg Wt No Bore Less Wheel-lb	Lube Wt lb	Cplg Brake Rating lb-ft	DIMENSIONS – INCHES									
	Max Bore (Sq Key)	Min Bore	Max Bore (Sq Key)	Min Bore				A	B	C	D	DD	F	HB	M	N	Gap
4BW	1.250	.438	1.312	.438	6	.09	25	← See 4BW Detail Above →									.125
5BW	1.250	.750	1.312	.438	7	.12	35	4.47	4.37	2.12	2.12	1.81	3.34	1.88	2.50	3.75	.125
6BW	1.562	.750	1.812	.438	10	.19	45	4.97	4.37	2.12	2.59	2.31	3.84	1.88	2.50	4.38	.125
7BW	2.000	.750	2.125	.438	13	.19	90	5.61	4.37	2.12	2.94	2.84	4.47	1.88	2.50	5.00	.125
8BW	2.312	.750	2.625	.500	26	.31	180	7.30	6.12	3.00	3.62	3.38	5.28	2.50	3.50	5.75	.125
9BW	2.500	.938	2.812	1.250	34	.38	275	7.80	6.62	3.25	3.81	3.88	5.81	2.50	3.75	6.25	.125
10BW	3.125	1.000	3.250	1.500	48	.38	360	8.24	7.69	3.75	4.50	4.50	6.37	2.81	4.25	7.00	.188
11BW	3.375	1.000	3.562	1.500	59	.50	525	8.90	7.69	3.75	4.94	4.75	7.02	3.12	4.31	7.62	.188
12BW	3.750	1.000	3.875	2.000	74	.62	750	9.68	7.95	3.88	5.38	5.38	7.80	3.12	4.44	8.50	.188
13BW	4.250	1.000	4.250	2.000	101	.75	1000	10.94	7.95	3.88	6.12	6.62	9.06	3.12	4.00	9.75	.188
14BW	4.625	1.562	4.625	2.500	148	1.5	1500	11.88	10.00	4.88	6.75	7.00	9.81	3.88	5.44	10.75	.250
15BW	4.875	1.562	5.000	2.500	165	1.5	2200	13.75	10.25	5.00	7.25	7.25	10.09	3.88	5.56	11.00	.250
16BW	5.875	2.312	5.500	2.500	221	2.0	3000	15.25	10.25	5.00	8.25	8.44	11.59	3.88	5.56	12.62	.250
17BW	6.625 ●	2.312	6.000	3.000	291	2.7	4000	16.75	10.50	5.12	9.31	9.81	13.09	4.12	5.69	14.12	.250
18BW	7.500 ●	2.312	7.000 ●	3.000	379	3.3	5000	18.75	11.25	5.50	10.69	11.31	14.59	4.12	6.06	15.62	.250
190BW	7.500 ●	3.000	8.000 ●	4.000	634	8.0	7000	21.48	15.25	7.50	12.00	11.19	16.25	6.38	8.19	18.00	.250
200BW	8.750 ●	4.062	8.750 ●	4.000	1017	10.0	10900	23.62	17.75	8.75	13.25	13.25	19.54	6.38	8.25	21.25	.250
210BW	9.875 ●	4.500	9.250 ●	4.500	1257	13.0	14800	26.09	18.25	9.00	14.00	15.00	21.58	6.38	8.56	23.25	.250

★ Brakewheel must be balanced if peripheral speed exceeds 6000 fpm.
‡ Hubs are bored for INTERFERENCE FIT without setscrew unless otherwise specified.
● Maximum bore with keyway for rectangular key.

Drawing is representative of this series of couplings and may not agree in exact detail for all sizes.
Dimensions are for reference only and are subject to change without notice unless certified.

How to Select

The coupling brake rating must equal or exceed the application requirements. Determine the required coupling size by comparing the application loads to the coupling brake rating. Use the highest torque value of the following conditions to determine the coupling size.

A. For the selected brake, use the maximum brake torque in lb-ft.

B. For normal service applications, use the application torque in

$$\text{lb - ft.} = \frac{5250 \times \text{Transmitted hp}}{\text{rpm}}$$

C. For repetitive high peak load applications, use the system peak torque in lb-ft.

NOTE: Not approved for applications used to lift or transport people, such as elevators, escalators, hoists, lifts, etc.

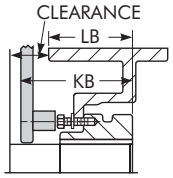
Check MB, LB and KB dimensions against usable shaft lengths.

Check maximum bores for A and B hubs. It is preferred to have the A hub mounted on the driven equipment.

Check maximum speed. Speeds listed in table are based on a maximum rim velocity of 6,000 feet per minute. The formula for checking rim speed is: .262 x brakewheel dia. x rpm. For rim velocities above 6,000 to 12,000 fpm, the brakewheel must be balanced. Consult the local Sales Office.

Installation

Clearance required for inserting cap screws and torque wrench.

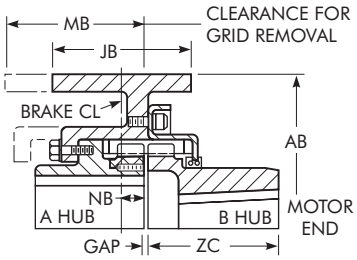


NOTE: Long brakewheel A-Hubs are available. Long hub lengths are the same dimension as the "KB" minimum.

Brakewheel Coupling Manufacturer's Brakes

Brakewheel Dia x Face Dimensions AB x JB ‡	Cplg Size ★	Allow. Speed rpm	Cplg Wt No Bore with Brakewheel-lb	Brake Manufacturer and Catalog Number					DIMENSIONS — INCHES				Wheel Drawing Number
				Clark Co.	C-H Co.	Square D	G. E.	Westinghouse	KB Min	MB	NB	LB	
3.00 x 1.62	**4BW**	6000	8	...	...	...	...	...	4.12	4.12	1.12	...	268276 ●
3.22 x 1.75	**4BW**	6000	9	...	...	...	460/160	...	4.12	4.31	1.31	...	268277 ●
4.00 x 2.75	**4BW**	5730	12	...	S-4	...	...	...	4.12	3.81	.31	...	268262 ●
4.50 x 2.38	**4BW**	5100	13	...	...	...	...	CB15	4.12	3.44	.12	...	268313 ●
4.50 x 3.12	**5BW**	5100	15	...	...	...	461/161	...	4.62	3.75	.31	1.88	268328 ●
5.50 x 3.25	**5BW**	4170	19	...	S-5.50	...	...	CB35	4.62	4.25	1.53	3.16	268284
8.00 x 2.50	**6BW**	2870	36	...	...	...	...	...	4.62	2.94	.62	1.88	268286
5.75 x 3.00	**7BW**	4000	23	...	...	...	462	...	4.69	3.62	.38	1.88	268329 ●
6.00 x 3.12	**7BW**	3820	23	...	...	...	...	...	4.69	4.09	1.47	3.03	268289
7.00 x 4.25	**7BW**	3270	32	...	S-7	...	...	CB75	4.69	4.25	.06 ♦	2.06	268285
8.00 x 2.50	**7BW**	2870	36	...	...	...	...	...	4.69	2.94	.62	1.88	268344
8.00 x 3.25	**8BW**	2870	52	8B	GH8	F08	A100	TM83	5.44	4.56	.06 ♦	1.56	268321
8.00 x 3.50	**8BW**	2870	53	...	...	...	463	...	5.44	4.00	.75	2.50	268291
8.50 x 4.25	**8BW**	2690	49	...	S-8.50	...	...	...	5.44	4.88	0	2.12	344070
9.50 x 3.75	**8BW**	2400	52	...	...	...	...	...	5.44	4.50	1.12	3.00	268301
10.00 x 4.25	**8BW**	2300	52	10B	S-10	...	...	CB160	5.44	4.00	.38	2.50	1203407 ✱
10.00 x 3.75	**9BW**	2300	63	...	GH10	F10	A101	TM1035	5.44	4.12	.25	2.12	1203406 ✱
10.00 x 4.25	**9BW**	2300	63	...	...	...	...	...	5.44	4.25	.69	2.81	1203405 ✱
...	**10BW**	...	...	...	...	...	...	...	...	...	...	...	...
10.00 x 5.25	**11BW**	2300	106	...	...	...	...	...	6.31	6.19	1.12	3.75	1203404 ✱
11.00 x 5.00	**11BW**	2080	101	...	...	...	464	...	6.31	5.44	.62	3.12	1203403 ✱
13.00 x 5.50	**12BW**	1770	130	...	...	...	...	...	6.31	5.31	.75	3.50	1203402 ✱
13.00 x 5.75	**12BW**	1770	134	13B	GH13	F13	A102	TM1355	6.31	6.44	.56 ♦	2.31	268341 ✱
13.00 x 5.75	**12BW**	1770	134	13B	GH13	F13	A102	TM1355	6.31	5.38	.38	3.25	1203401 ✱
13.25 x 4.50	**12BW**	1730	132	...	...	...	...	...	6.31	4.94	.88	3.12	268324
14.00 x 6.50	**13BW**	1640	169	...	...	...	465	...	6.31	6.25	.12	3.38	268302
17.00 x 6.50	**13BW**	1350	189	...	...	...	...	...	6.31	5.56	.38	3.62	268325
16.00 x 6.75	**14BW**	1430	250	16B	GH16	F16	A103	TM1665	8.44	6.88	.38	3.75	288275 ✱
16.00 x 8.25	**14BW**	1430	264	...	...	...	...	...	8.44	7.81	.75	4.88	326256
19.00 x 8.25	**15BW**	1200	314	...	...	...	466	...	8.44	7.25	.62	4.75	268294
19.00 x 8.75	**15BW**	1200	319	19B	GH19	F19	A104	TM1985	8.44	7.38	0	4.38	268333
20.00 x 8.25	**15BW**	1145	318	...	...	...	...	...	8.44	6.94	.50	4.62	268292
23.00 x 8.25	**15BW**	1000	359	...	...	...	...	...	8.44	6.94	.50	4.62	268326
...	**16BW**	...	...	...	...	...	...	...	...	...	...	...	...
23.00 x 9.25	**17BW**	1000	540	23B	...	...	...	...	8.94	7.12	.12 ♦	4.50	268288
23.00 x 11.25	**17BW**	1000	573	...	GH23	F23	A105	TM2311	8.94	9.62	.75	6.38	268320
24.00 x 10.00	**17BW**	955	544	...	...	...	467	...	8.94	7.44	.12	5.12	268295
25.00 x 10.25	**17BW**	915	563	...	...	...	...	...	8.94	7.44	0	5.12	268293
26.00 x 10.25	**17BW**	882	579	...	...	...	...	...	8.94	7.31	.12 ♦	5.00	268296
...	**18BW**	...	...	...	...	...	...	...	...	...	...	...	...
28.00 x 11.25	**190BW**	820	1069	...	...	...	...	...	12.00	9.81	.75	6.38	326254
30.00 x 12.75	**190BW**	765	1136	...	...	...	...	...	12.00	10.06	.25	6.62	326257
36.00 x 12.50	**190BW**	637	1267	...	...	...	...	...	12.00	9.81	.12	6.38	326255
30.00 x 14.25	**200BW**	765	1636	...	GH30	F30	...	...	12.00	14.12	0	7.12	332067
...	**210BW**	...	...	...	...	...	...	...	...	...	...	...	...

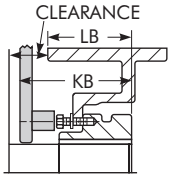
★ Brakewheel must be balanced if peripheral speed exceeds 6000 fpm.
♦ Dimension shown is to the RIGHT of the "A Hub" face at the gap end.
‡ Dimensions AB and JB satisfy the brakewheel size requirements for the manufacturers' brakes shown.
✱ These are cast iron wheels.
● These sizes have integral wheel and cover.



Sizes 8BW and Larger
with Taper Bore in "B" Hub
(See Page 2 for other dimensions)

Installation

Clearance required for inserting cap screws and torque wrench.



NOTE: Long brakewheel A-Hubs are available. Long hub lengths are the same dimension as the "KB" minimum.

Brakewheel Couplings for Mill Motors using Heavy Duty AISE Brakes

Brakewheel Dia x Face / Dimensions AB x JB ★	Cplg Size	Allow. Speed rpm †	Cplg Wt No Bore with Brakewheel lb	Brake Rating lb-ft	Mill Motor Size	Brake Manufacturer and Catalog Number				DIMENSIONS — INCHES						Assembly Drawing Number
						C-H Co	Square D	G. E.	Westinghouse	KB Min	MB	NB	ZC	LB	Gap	
8.00 x 3.25	**8BW**	2870	55	100	2&602	GH8	T-08	A100	TM83	5.44	4.44	.06 ‡	3.94	1.56	.125	1112656
10.00 x 3.75	**9BW**	2300	57	200	603&4	GH10	T-10	A101	TM1035	5.44	4.75	.38 ‡	4.50	1.50	.125	1112657
13.00 x 5.75	**12BW**	1770	140	550	606	GH13	T-13	A102	TM1355	6.31	6.12	.56 ‡	5.12	2.31	.188	1112658
13.00 x 5.75	**12BW**	1770	140	550	608	GH13	T-13	A102	TM1355	6.31	6.12	.56 ‡	5.75	2.31	.188	1112659
16.00 x 6.75	**14BW**	1430	261	1000	610	GH16	T-16	A103	TM1665	8.44	6.88	.38	5.88	3.75	.250	1112660
19.00 x 8.75	**15BW**	1200	333	2000	612	GH19	T-19	A104	TM1985	8.44	7.38	.62	6.62	5.00	.250	1112661
19.00 x 8.75	**15BW**	1200	338	2000	614	GH19	T-19	A104	TM1985	8.44	7.38	.62	6.62	5.00	.250	1112662
23.00 x 11.25	**17BW**	1000	614	4000	616	GH23	T-23	A105	TM2311	8.94	9.62	.75	7.25	6.38	.250	1112663
23.00 x 11.25	**17BW**	1000	614	4000	618	GH23	T-23	A105	TM2311	8.94	9.62	.75	7.25	6.38	.250	1112664

★ Dimensions AB and JB satisfy the brakewheel size requirements for the manufacturer's brakes shown. Brakes listed meet AISE standards for mill drives, bridges, material handlings, and marine service.
† Allowable speed is based on maximum wheel rim velocity of 6000 fpm. For rim velocities above 6000 to 12,000 fpm, brakewheel must be balanced; consult the Factory.
‡ Dimension shown is to the RIGHT of the "A Hub" face at the gap end. Couplings are furnished for INTERFERENCE FIT without setscrew unless otherwise specified. Dimensions are for reference only and subject to change without notice unless certified.

Recommended Key for Bores with One Key

Shaft Diameters Over	Shaft Diameters Thru	Key	Shaft Diameters Over	Shaft Diameters Thru	Key	Shaft Diameters Over	Shaft Diameters Thru	Key	Shaft Diameters Over	Shaft Diameters Thru	Key
.438	.562	0.125 x 0.125	1.375	1.750	0.375 x 0.375	3.250	3.750	0.875 x 0.875	6.500	7.500	1.750 x 1.500
.562	.875	0.188 x 0.188	1.750	2.250	0.500 x 0.500	3.750	4.500	1.000 x 1.000	7.500	9.000	2.000 x 1.500
.875	1.250	0.250 x 0.250	2.250	2.750	0.625 x 0.625	4.500	5.500	1.250 x 1.250	9.000	11.000	2.500 x 1.750
1.250	1.375	0.312 x 0.312	2.750	3.250	0.750 x 0.750	5.500	6.500	1.500 x 1.500	11.000	13.000	3.000 x 2.000

It is general practice in industry to supply coupling hubs without fillet radii in the keyway corners to permit the use of standard commercial keys without chamfered edges. Rexnord will cut filleted keyways per the established standards shown in Engineering Sheet 427-109.

Keyway Tolerances: Refer to Engineering Sheet 427-108.

Compare Benefits

Saves Space — Brake centerline is at or near the center of the coupling, eliminating the need for long usable shafts on connecting equipment.

Saves Dollars — The wearing element (Grid) is easily replaced without moving equipment, eliminating expensive downtime.

Saves Connecting Equipment — The grid acts like a shock absorber and allows for parallel and angular misalignment, as well as allowing for end float.

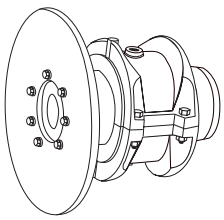
Maintenance Free — Using FALK LONG TERM GREASE (LTG) eliminates the need to relube.

One Installation Serves Two Purposes — Falk BW brakewheel couplings not only connect the equipment shafts, they provide a braking surface for shoe type brakes. Placed between the motor and driven equipment, they eliminate the need for a longer more expensive double ended motor or separate coupling and brake components.

Install and operate Rexnord products in conformance with applicable local and national safety codes and per Rexnord installation manuals which are available upon request. Suitable guards for rotating members may be purchased from the Factory as optional accessories. Contact the Factory for complete details.

CAUTION: Lock out power source and remove all external loads from the system before attempting to service any component in the system. Locking out the power source and removing the load will reduce the possibility of an unexpected motion or reaction in the system.

Rexnord Industries, LLC, Coupling Group,
5555 S. Moorland Rd., New Berlin, WI 53151-7953 USA Phone: 262-796-4060
Fax: 262-796-4064e-mail: info@rexnord.com web: www.rexnord.com



Also available Type T63 Disc Brake Coupling.

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