QUICK FLEX®
Standard Coupling

Please complete the following steps to install QUICK FLEX couplings.

You should have the following pieces before starting the job:

- Two hubs
- One insert
- One cover with included hardware

Note: It is critical to identify what style cover you are using, as this will change the hardware included, as well as the installation procedure. A mismatch between the coupling and the application may result in less than optimal performance.

⚠ WARNING

Failure to observe the following warnings could cause the power transmission product to break and parts to be thrown with sufficient force to cause serious injury or death.

Contact with moving parts and/or rotating shafts poses a risk of serious injury. Proper guards in accordance with OSHA and American Society of Mechanical Engineers standards must be installed on all power transmission equipment. Power transmission equipment should not be started if proper guarding is not in place. Observe all required lock out/tag out procedures when servicing power transmission equipment.

Cover Identification

There are four types of covers (Figure 1):

High-speed cover: QF5 through QF175 use standard snap ring to secure cover in place. QF250 and larger use eight bolts with lock washers.

Low-speed split cover: This cover is free-floating and is located outside the shoulders of the two hubs. All sizes come with four bolts for securing the two halves together around the insert.

High-speed split cover: QF15 through QF250 use eight bolts around the rim to secure the two halves together, QF500 through QF1890 use 16 bolts, and QF3150 and larger use 20 bolts. QF250 and larger use eight bolts with lock washers to secure the cover to one of the hubs.

High-performance split cover: This cover is free-floating and is located on the insert with an internal radial groove. All sizes come with four socket-head cap screws for securing the two halves together around the insert.

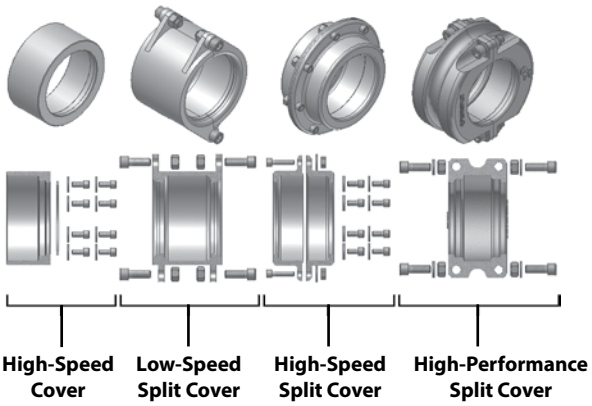

Figure 1 **QUICK FLEX cover types and included hardware.**

Installation & Alignment Instructions

1) Check the bore size of the coupling halves and the shafts. Ensure that they are the correct bore size to fit the application.

2) If the coupling does not fit easily, clean and deburr the shafts.

3) Identify cover style:

a. If using a high-speed cover, it should be placed on the driven shaft. If space does not permit, then it can be mounted on the drive shaft. If cover uses a snap ring, slide the snap ring down the shaft, then slide the cover onto shaft with the larger opening facing the shaft separation.

b. If using a low-speed or high-performance split cover, leave cover aside and continue to step 4.

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c. If using a high-speed split cover, QF250 and larger, use bolts and washers to secure in place. Slide one half down each shaft before installing hubs. Do not bolt into place until installation is complete.

4) Install the first hub. It should be mounted so the end of the shaft is flush with surface "A" as shown in Figure 2. It is acceptable for the shaft to extend past "A" as long as it is not past the teeth shown as "B."

5) Install the second hub with the insert in place. This will set the hubs at the minimum hub gap (GMin) dimension, ensuring proper clearance. For specific GMin and GMax dimensions see Table 2 (page 3).

6) Tighten both hubs securely to the shafts.

7) Check coupling for misalignment (Table 3, page 3) and align as necessary.

8) Install the cover:

a. High-speed cover: Slide the cover over the hub and insert until fully rested against the shoulder of the hub. QF5 through QF175 use standard snap rings to hold the cover in place. QF250 and larger couplings use eight bolts and washers. Use the included hardware to secure the cover.

Note: *Standard hubs are supplied with a clearance fit and should slide onto the shaft without excessive force. If the hubs have been ordered with interference fit, then industry standards suggest heating the coupling halves to approximately 300° C (572° F) before installing on shafts. If not heated properly, the couplings will not fit on the hub properly.*

b. Low-speed or high-performance split cover: Place each half over the insert and secure using the four bolt/washer/nut hardware combinations supplied. For the high-performance split cover bolt tightening torque ratings, see Table 1 (page 1).

c. High-speed split cover: Slide the two cover halves over the hub and insert until faces meet. Install the radial outer bolts used to secure the two halves together. Install the bolts to secure the cover to one hub.

d. If using high-speed split covers, QF250 and larger, use bolts and washers to secure in place. In some instances, one or both vertically split pieces cover halves will also be split horizontally. The horizontally split half should be placed on the spacer body side. If both halves are split, then splits should be aligned 90 degrees from each other when bolted together. Do not bolt to coupling hub until installation is complete.

Table 1

Cover Bolt Tightening Torque

Size	Standard High Speed Cover	Low Speed SP Cover	High Speed VSPCOVER	
	Cover Bolt & Torque (ft-lbs)	Cover Bolt & Torque (ft-lbs)	Cover Bolt & Torque (ft-lbs) (Cover to Cover)	Cover Side Bolt Torque (ft-lbs) (Cover to Hub)
QF5	Snap rings	–	–	–
QF15	Snap rings	25.5 (M8 x 25mm)	13.5 (M6 x 20mm)	Snap rings
QF25	Snap rings	50.3 (M10 x 35mm)	13.5 (M6 x 20mm)	Snap rings
QF50	Snap rings	85.2 (M12 x 35mm)	64.7 (M10 x 20mm)	Snap rings
QF100	Snap rings	85.2 (M12 x 40mm)	64.7 (M10 x 35mm)	Snap rings
QF175	Snap rings	213.2 (M16 x 50mm)	64.7 (M10 x 35mm)	Snap rings
QF250	64.7 (M10 x 35mm)	425.9 (M20 x 50mm)	64.7 (M10 x 35mm)	64.7 (M10 x 35mm)
QF500	64.7 (M10 x 35mm)	–	109.5 (M12 x 45mm)	64.7 (M10 x 35mm)
QF1000	64.7 (M10 x 35mm)	–	109.5 (M12 x 45mm)	64.7 (M10 x 35mm)
QF1890	109.5 (M12 x 40mm)	–	109.5 (M12 x 50mm)	109.5 (M12 x 40mm)
QF3150	547.6 (M20 x 45mm)	–	109.5 (M12 x 45mm)	547.6 (M20 x 45mm)
QF10260	109.5 (M12 x 40mm)	–	109.5 (M12 x 65mm)	109.5 (M12 x 40mm)

Revolutions Per Minute (RPM) and Balance

The QUICK FLEX coupling is machined on all surfaces and thus its dynamic balance is good. If the coupling is run at a high speed, it is important that the keys used to attach the hubs are the same length as the hub. The set screws should also be changed to full length to fill the hole. Please refer to Table 4 (page 4) for maximum RPM ratings.

Note: *Shaft should penetrate to base of teeth and hubs should be set at GMin. Otherwise, the coupling may not deliver maximum torque.*

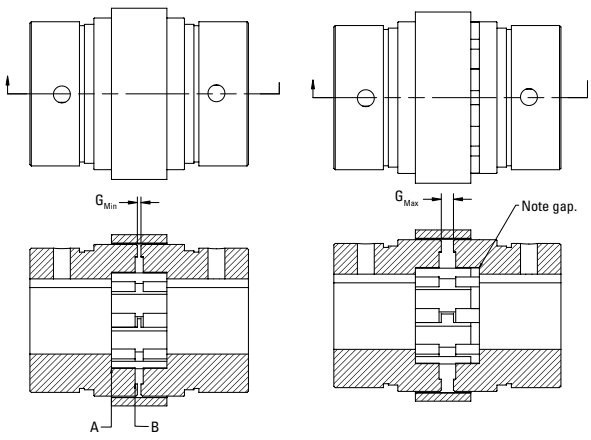

Figure 2 **Proper shaft-to-hub engagement.**

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QUICK FLEX® Standard Couplings

Table 2

QUICK FLEX STANDARD Coupling Hub Gap (G) Dimensions

Coupling Series	High-Speed Cover		Low-Speed Split Cover		High-Speed Split Cover		High-Performance Split Cover	
	G_{min}	G_{max}	G_{min}	G_{max}	G_{min}	G_{max}	G_{min}	G_{max}
	mm	**mm**	**mm**	**mm**	**mm**	**mm**	**mm**	**mm**
	in	in	in	in	in	in	in	in
QF5	**1.60**	**2.34**	N/A	N/A	N/A	N/A	N/A	N/A
	0.063	0.092						
QF15	**2.27**	**2.64**	**2.01**	**2.51**	**2.27**	**2.64**	**2.27**	**2.64**
	0.089	0.104	0.079	0.099	0.089	0.104	0.089	0.104
QF25	**2.54**	**3.30**	**2.54**	**2.90**	**2.54**	**3.30**	**2.54**	**3.30**
	0.100	0.130	0.100	0.114	0.100	0.130	0.100	0.130
QF50	**2.67**	**4.60**	**1.52**	**2.29**	**2.67**	**4.60**	**2.67**	**3.56**
	0.105	0.181	0.060	0.090	0.105	0.181	0.105	0.140
QF100	**4.57**	**5.36**	**5.62**	**8.13**	**5.62**	**8.13**	**5.62**	**8.13**
	0.180	0.211	0.221	0.320	0.221	0.320	0.221	0.320
QF175	**6.43**	**7.44**	**6.43**	**7.98**	**6.43**	**7.98**	**6.43**	**7.98**
	0.253	0.293	0.253	0.314	0.253	0.314	0.253	0.314
QF250	**4.32**	**5.31**	**4.32**	**5.31**	**4.32**	**5.31**	**4.32**	**5.31**
	0.170	0.209	0.170	0.209	0.170	0.209	0.170	0.209
QF500	**4.98**	**6.35**	N/A	N/A	**4.98**	**8.51**	**4.98**	**8.51**
	0.196	0.250			0.196	0.335	0.196	0.335
QF1000	**6.02**	**8.86**	N/A	N/A	**6.02**	**8.86**	N/A	N/A
	0.237	0.349			0.237	0.349		
QF1890	**6.35**	**8.81**	N/A	N/A	**7.32**	**10.08**	N/A	N/A
	0.250	0.347			0.288	0.397		
QF3150	**4.24**	**7.85**	N/A	N/A	**4.24**	**7.85**	N/A	N/A
	0.167	0.309			0.167	0.309		
QF10260	**5.99**	**10.77**	N/A	N/A	**5.99**	**10.77**	N/A	N/A
	0.236	0.424			0.236	0.424		

Table 3

QUICK FLEX Standard Coupling Misalignment Tolerances

Coupling Series	Radial Misalignment Tolerance		Axial Misalignment Tolerance		Angular Misalignment Tolerance
	mm	**in.**	**mm**	**in.**	
QF5	0.51	0.020	1.98	0.078	2°
QF15	0.99	0.039	2.95	0.116	2°
QF25	0.99	0.039	2.95	0.116	2°
QF50	0.97	0.038	2.95	0.116	2°
QF100	1.47	0.058	3.96	0.156	2°
QF175	1.47	0.058	4.45	0.175	1.3°
QF250	1.47	0.058	5.94	0.234	1.3°
QF500	1.47	0.058	5.94	0.234	1°
QF1000	1.47	0.058	5.94	0.234	1°
QF1890	1.47	0.058	7.92	0.312	1°
QF3150	1.98	0.078	7.92	0.312	1°
QF10260	1.98	0.078	7.92	0.312	1°

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QUICK FLEX Standard Coupling Maximum RPM Ratings (1)

Table 4

Coupling Series	High-Speed Cover	Low-Speed Split Cover	High-Speed Split Cover	High-Performance Split Cover
	RPM	RPM	RPM	RPM
QF5	12000	N/A	N/A	N/A
QF15	9000	400	9000	9000
QF25	7000	375	7000	7000
QF50	6000	350	6000	6000
QF100	4800	300	4800	4800
QF175	4200	250	4200	4200
QF250	3800	200	3800	3800
QF500	3400	N/A	3400	3400
QF1000	3000	N/A	3000	N/A
QF1890	2400	N/A	2400	N/A
QF3150	2000	N/A	2000	N/A
QF10260	1200	N/A	1200	N/A

(1) Maximum RPM ratings are for off-the-shelf QUICK FLEX couplings. If your application requires higher RPM ratings, the couplings should be dynamically balanced.

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