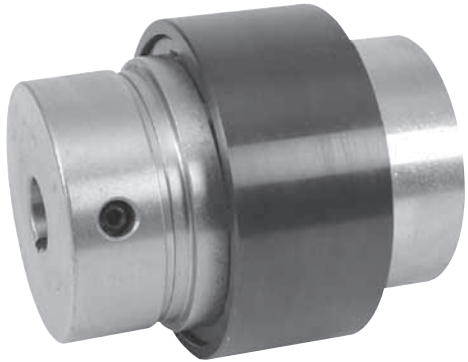
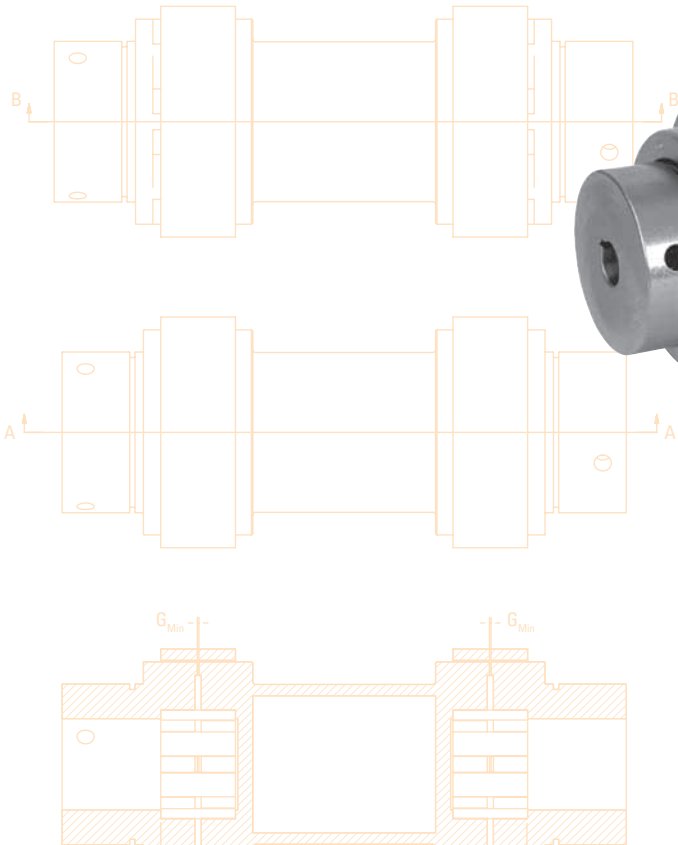
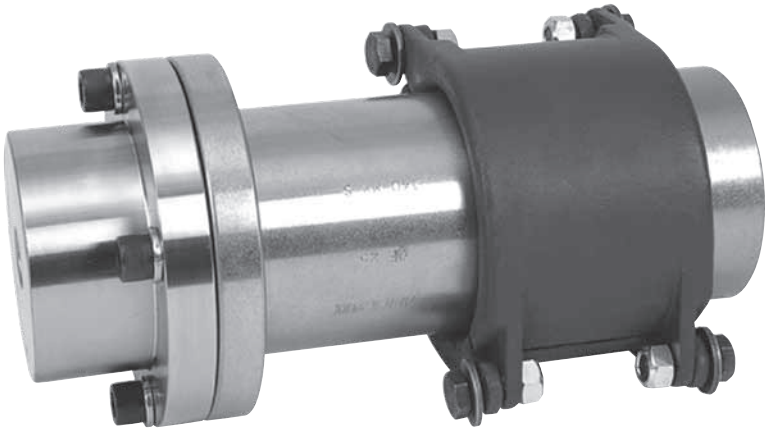
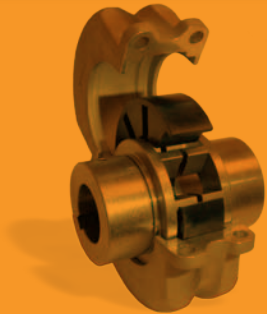
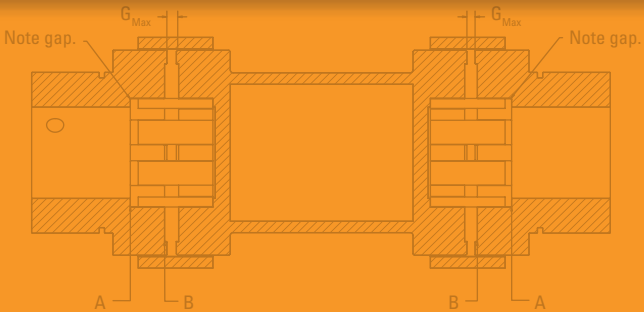


# TIMKEN



## TIMKEN QUICK-FLEX® COUPLING CATALOG





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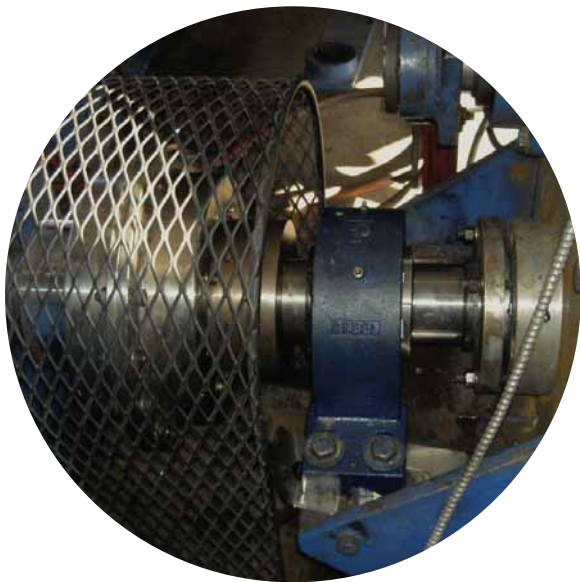


## ***CHOOSE TIMKEN STRENGTH***

You can count on the strength of Timken expertise and quality products to help you increase your productivity and gain a competitive edge in your industry.

When you choose Timken, you receive more than high-quality products and services. You acquire a worldwide team of highly trained and experienced associates, eager to help you keep production rates high and downtime low.

Whether it is a wheel assembly for a family vehicle, bearings outfitted for a deep-sea oil drilling rig, repair services for rail bearings or steel for an aircraft engine shaft, we supply the products and services you need to help keep the world turning.

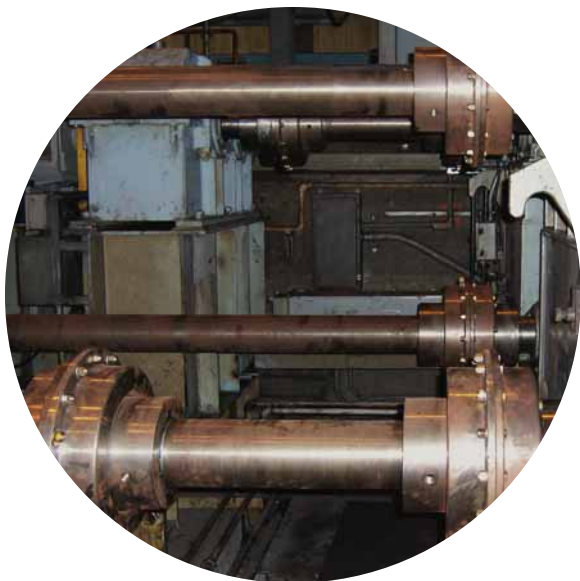


## ***FRICITION MANAGEMENT SOLUTIONS – A TOTAL SYSTEMS APPROACH***

Your industry is ever-changing, from the evolution of advanced motion-control systems to the demands from your customers. Turn to us to stay ahead of the curve.

We use our friction-management know-how to offer solutions that may maximize performance, fuel-efficiency and equipment life. We also offer integrated services and products that extend well beyond bearings, including condition monitoring systems and services, encoders and sensors, seals, premium lubricants and lubricators.

Our wide range of Timken friction management solutions can include evaluations of your entire system – not just individual components. This provides cost-effective solutions to help you reach specific application goals. Working together, we help you meet these demands and ensure all your systems run smoothly.



## TECHNOLOGY THAT MOVES YOU

Innovation is one of our core values, and we're known for our ability to solve engineering challenges.

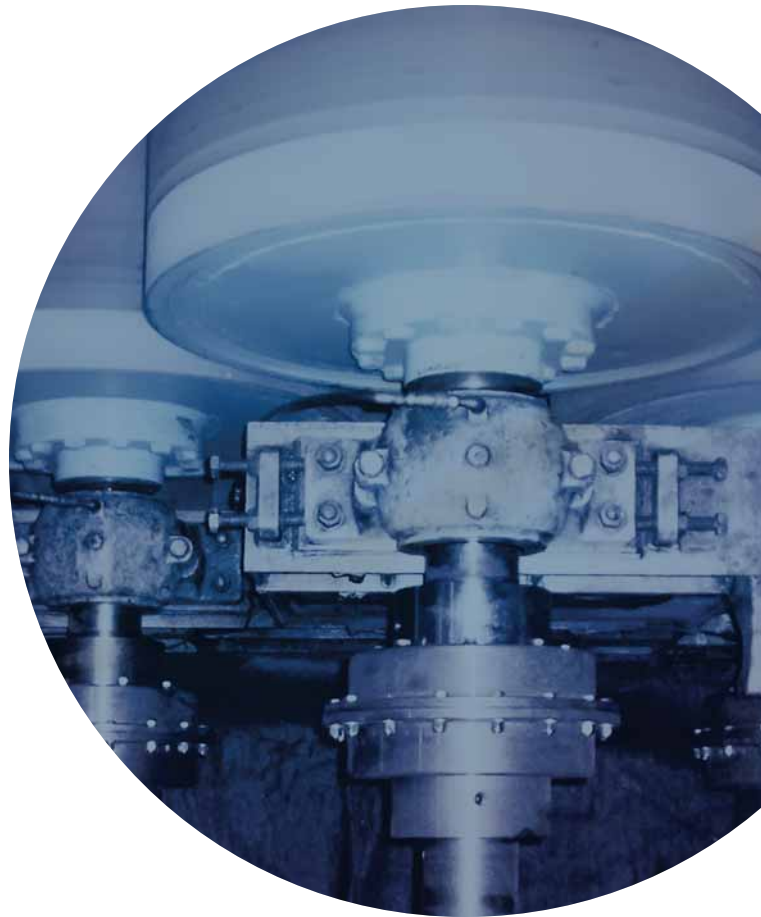
We focus on improving performance in the most difficult applications, and we're passionate about creating technical solutions and services that help your equipment perform faster, harder, smoother and more efficiently.

To do this, we invest in:

- **People**, attracting and hiring scholars, engineers and specialists from across the globe who are experts in mechanical power transmission, antifriction bearing design, tribology, metallurgy, clean steel production, precision manufacturing, metrology, and engineered surfaces and coatings.
- **Tools**, including state-of-the-art laboratories, computers and manufacturing equipment.
- **The Future**, identifying new concepts that help make you a standout in your industry for years to come. Our ongoing investment in research and development activities allows us to grow our capabilities, expand our product and service portfolio, and deliver value over the long term.

We're committed to finding new avenues for system sustainability. In the area of power density, we're creating systems where we replace larger, more cumbersome components with smaller, more efficient ones to help improve systems' performance.

Wherever you're located, you can count on us at our global technology centers, our manufacturing facilities and field offices on six continents to develop ideas and resources to transform your concepts into reality.





## ***A BRAND YOU CAN TRUST***

The Timken brand stands for quality, innovation and dependability.

We take pride in the quality of our work, and you gain the peace-of-mind of knowing that each box contains an industry-trusted product. As our founder, Henry Timken, said, "Don't set your name to anything you will ever have cause to be ashamed of."

We continue this mindset through the Timken Quality Management System (TQMS). With TQMS, we promote continuous quality improvements in our products and services to our global operations and supply chain networks. It helps us ensure we're consistently applying demanding quality management practices throughout the company. We also register each of our production facilities and distribution centers to the appropriate quality system standards for the industries they serve.

## ***ABOUT THE TIMKEN COMPANY***

The Timken Company keeps the world turning with innovative friction management and power transmission products and services that are critical to help hard-working machinery perform efficiently and reliably. In 2011, Timken achieved sales of \$5.2 billion from operations in 30 countries with approximately 20,000 people.



## ABOUT THIS CATALOG

Timken offers an extensive range of couplings and accessories in both imperial and metric sizes. For your convenience, size ranges are indicated in millimeters and inches. Contact your Timken engineer to learn more about our complete line for the special needs of your application.

## USING THIS CATALOG

We are committed to providing our customers with maximum service and quality. This publication contains dimensions, tolerances and torque ratings, as well as an engineering section describing fitting practices for shafts, materials and other coupling features. It can provide valuable assistance in the initial consideration of the type and characteristics of the coupling that may best suit your particular needs.

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

Timken products are sold subject to Timken terms and conditions of sale, including its limited warranty and remedy. See [www.timken.com/en-us/purchase/Pages/TermsandConditionsofSale.aspx](http://www.timken.com/en-us/purchase/Pages/TermsandConditionsofSale.aspx). Please contact your Timken sales engineer with questions.

## CATALOG FEATURES

ISO and ANSI, as used in this publication, refer to the International Organization for Standardization and the American National Standards Institute.

Warnings for this product line are included in this catalog and will be posted on [www.timken.com/warnings](http://www.timken.com/warnings).



## DISCLAIMER

**Product performance is affected by many factors beyond the control of Timken. Therefore, the suitability and feasibility of all designs and product selection should be validated by you. This catalog is provided solely to give you, a customer of Timken or its parent or affiliates, analysis tools and data to assist you in your design. No warranty, expressed or implied, including any warranty of fitness for a particular purpose, is made by Timken. Timken products and services are sold subject to a Limited Warranty.**

**You may see your Timken engineer for more information.**

## ***STORAGE OF COMPONENTS***

Timken suggests the following storage guidelines for its coupling components (hereinafter referred to as “products”):

- Unless directed otherwise by Timken, products should be kept in their original packaging until they are ready to be placed into service.
- Do not remove or alter any labels or stencil markings on the packaging.
- Products should be stored in such a way that the packaging is not pierced, crushed or otherwise damaged.
- After a product is removed from its packaging, it should be placed into service as soon as possible.
- When removing a product that is not individually packaged from a bulk pack container, the container should be resealed immediately after the product is removed.
- The relative humidity should be maintained below 60 percent and the surfaces should be dry.
- The storage area should be kept free from airborne contaminants such as, but not limited to, dust, dirt, harmful vapors, etc.
- Extreme conditions of any kind should be avoided.

Inasmuch as Timken is not familiar with a customer’s particular storage conditions, these guidelines are strongly suggested. However, the customer may very well be required by circumstance or applicable government requirements to adhere to stricter storage requirements.

Upon receipt of a product shipment, ensure that the product is not removed from its packaging until it is ready for mounting so that it does not become corroded or contaminated. Product should be stored in an appropriate atmosphere in order that it remains protected for the intended period.

Any questions concerning storage should be directed to your local sales office.



## TIMKEN QUICK-FLEX® COUPLINGS – DURABILITY FOR THE LONG HAUL

When your equipment operates in harsh environments, you need products you can count on, like Timken Quick-Flex® elastomeric couplings. They are durable enough to face extreme challenges, yet need minimal maintenance. They are also easy to install and require no lubrication. With a lifespan that may last as long as your equipment, overall cost of ownership remains low.

### PIONEERING DESIGN

Timken Quick-Flex couplings' innovative design features two steel hubs, a polyurethane insert and a cover.

Our styles include:

- Standard couplings.
- Single-ended spacer couplings.
- Double-ended spacer couplings.

Whatever your application, you'll find a Timken coupling to suit your needs:

- Twelve families with bore ranges from 10 mm (0.37 in.) to 285 mm (11.25 in.).
- Continuous torque handling from 0.043 kNm (377 in.-lbs.) to 188.8 kNm (1,670,826 in.-lbs.).
- Able to handle temperatures from -51° C to 176° C (-60° F to 350° F).

### PRODUCT ADVANTAGES

#### MORE UPTIME

Your hubs and shafts may remain intact when you use Timken Quick-Flex couplings. Our design helps eliminate mechanical interference between coupling hubs that can damage your equipment. As needed, you can replace the urethane insert quickly and easily without removing the hubs.

#### DURABILITY

There's no metal-to-metal contact between opposing hubs with Timken Quick-Flex couplings, so you'll save money not replacing hubs or other metal components since they do not wear. For harsh environments, including wash-downs for food processing, we offer a stainless-steel version of each coupling.

#### REDUCED INVENTORY

The versatility of the Timken Quick-Flex design promotes component standardization across your plant, reducing the need to stock multiple coupling styles and configurations.

#### PRODUCT FEATURES

- Solid and split covers handle high speeds and torque.
- Design dampens torsional vibration and shock.
- Accepts shaft misalignment up to 2 degrees.
- Eliminates the need to move or disassemble the driving or driven equipment to replace the coupling insert.
- Versatility of design makes it a great tool for plant standardization.
- Accepts shaft sizes from 10 mm (0.37 in.) to 285 mm (11.25 in.).
- Peak handling torque from 0.085 kNm (754 in.-lbs.) to 377.5 kNm (3,341,562 in.-lbs.).
- Standard and double-ended spacer couplings available for shaft separations of 25.4 mm to 3,048 mm (1 in. to 120 in.), for increased application acceptance.
- Four bore options available to meet customers' needs; 1) Bored, keyed and set screws style – clearance and interference fit; 2) Bushing style; 3) Splined style; and 4) Mill-motor style.
- Stainless-steel versions available for corrosive environments.
- Four insert choices for varying torque needs and temperature ranges, up to 177° C (350° F).
- Replaces many common gear, grid and elastomeric couplings used in high- and low-torque applications to reduce plant complexity.
- Inherently balanced from precision machining for high-speed applications.
- Split-cover options help resist axial separating force under high torque.

## COMPETITIVE ADVANTAGE

Quick-Flex Comparison	Timken Quick-Flex	Jaw Coupling	Grid Coupling	Gear Coupling	Chain Coupling	Tire Coupling
Easy to replace without moving hubs	✓		✓		✓	✓
High- and low-torque ratings	✓			✓		
High-speed capability	✓			✓		
Low lifetime cost	✓					
Hubs not damaged when urethane insert needs replaced	✓					✓
No lubrication needed	✓	✓				✓
No hub teeth wear	✓					
Cushioned shock	✓	✓	✓			✓
Compact design	✓			✓	✓	

## PRODUCT OFFERING

Timken Quick-Flex couplings stand up to harsh environments and operate efficiently in applications including:

- Motor to gearbox (low torque/high speed).
- Gearbox to driven equipment (high torque/low speed).
- Motors to pumps.
- Any drive shaft to a driven shaft.

## QUALITY SOLUTIONS

As the only premium bearing and coupling manufacturer to also make super-clean, high-alloy bearing steels, we understand the critical quality link between materials and product performance.

We also strictly adhere to the Timken Quality Management System in every plant worldwide, so each product meets the same high quality standards – no matter where in the world it is manufactured.

## DEPENDABLE SERVICE

Every Timken Quick-Flex elastomeric coupling is backed by the service of our industry-leading experts, who are ready to assist you with product design, application knowledge and engineering support – anything you need to help improve uptime and maximize equipment performance.

Updates are made periodically to this catalog. Visit [www.timken.com](http://www.timken.com) for the most recent version of the Quick-Flex Coupling Catalog.



Fig. 1. Standard coupling shown with high-speed cover



Fig. 2. Single-ended spacer coupling shown with low-speed split cover



Fig. 3. Double-ended spacer coupling shown with high-speed split covers

## **ENGINEERING**

The following topics are covered within this engineering section:

Quick-Flex Standard Bore Sizes .....	10
Quick-Flex Bore Tolerances and Keyway Sizes .....	12
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## QUICK-FLEX STANDARD BORE SIZES

The following tables list, by bore size in inch and metric dimensions, couplings that are commonly stocked.

**TABLE 1. STANDARD BORE SIZES – CLEARANCE FIT**

Coupling Series	Pilot Bore	½	⅝	¾	⅞	1	1 ⅛	1 ⅜	1 ¼	1 ⅝	1 ⅞	1 ½	1 ⅝	1 ¾
		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
QF5	x	x	x	x	x	x	x	x	x					
QF15	x		x	x	x	x	x	x	x	x	x	x	x	
QF25	x			x	x	x	x	x	x	x	x	x	x	x
QF50	x				x	x	x	x	x	x	x	x	x	x
QF100	x											x	x	x
QF175	x													
QF250	x													
QF500	x													
QF1000	x													
QF1890	x													
QF3150	x													
QF10260	x													

**TABLE 2. STANDARD BORE SIZES – CLEARANCE FIT**

Coupling Series	Pilot Bore	11	12	14	15	16	18	19	20	22	24	25	28	30
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
QF5	x	x	x	x	x	x	x	x	x	x	x	x		
QF15	x							x	x	x	x	x	x	x
QF25	x							x	x	x	x	x	x	x
QF50	x													x
QF100	x													
QF175	x													
QF250	x													
QF500	x													
QF1000	x													
QF1890	x													
QF3150	x													
QF10260	x													

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1 7/8	1 15/16	2	2 1/8	2 3/16	2 1/4	2 3/8	2 7/16	2 1/2	2 5/8	2 3/4	2 7/8	2 15/16	3	Coupling Series
in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
														QF5
														QF15
x	x	x	x											QF25
x	x	x	x	x	x	x								QF50
x	x	x	x	x	x	x	x	x	x	x	x	x	x	QF100
														QF175
														QF250
														QF500
														QF1000
														QF1890
														QF3150
														QF10260

32	34	35	38	40	42	45	48	50	55	60	65	70	75	Coupling Series
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
														QF5
x	x	x	x	x										QF15
x	x	x	x	x	x	x	x	x						QF25
x	x	x	x	x	x	x	x	x	x	x				QF50
								x	x	x	x	x	x	QF100
														QF175
														QF250
														QF500
														QF1000
														QF1890
														QF3150
														QF10260

# QUICK-FLEX BORE TOLERANCES AND KEYWAY SIZES

TABLE 3. BORE TOLERANCES AND KEYWAY SIZES (IMPERIAL)

Nominal Shaft Diameter Range		Nominal Key Size		Nominal Keyway Size		Bore Tolerance for Class 1 Fit				Set Screw Size (2 @ 120°)
Over	Up to and Including	Width	Depth	Width	Depth	Clearance Fit Over Nominal		Interference Fit Under Nominal		
in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
½	⅝	⅛	⅛	⅛	⅛	+0.0010	-0.0000	-0.0005	-0.0010	⅝
⅝	⅞	⅜	⅜	⅜	⅜	+0.0010	-0.0000	-0.0005	-0.0010	⅝
⅞	1 ¼	¼	¼	¼	¼	+0.0010	-0.0000	-0.0005	-0.0010	⅝
1 ¼	1 ⅜	⅝	⅝	⅝	⅝	+0.0010	-0.0000	-0.0005	-0.0010	⅝
1 ⅜	1 ¾	⅝	⅝	⅝	⅝	+0.0010	-0.0000	-0.0005	-0.0015	⅝
1 ¾	2 ¼	½	½	½	¼	+0.0015	-0.0000	-0.0005	-0.0015	⅝
2 ¼	2 ⅜	⅝	⅝	⅝	⅝	+0.0015	-0.0000	-0.0010	-0.0020	½
2 ⅜	3 ¼	¾	¾	¾	¾	+0.0015	-0.0000	-0.0010	-0.0020	⅝
3 ¼	3 ⅝	⅞	⅞	⅞	⅞	+0.0015	-0.0000	-0.0015	-0.0025	⅝
3 ⅝	4 ½	1	1	1	½	+0.0020	-0.0000	-0.0025	-0.0035	⅝
4 ½	5 ½	1 ¼	1 ¼	1 ¼	⅝	+0.0020	-0.0000	-0.0030	-0.0040	⅞
5 ½	6 ½	1 ½	1 ½	1 ½	¾	+0.0020	-0.0000	-0.0035	-0.0045	⅞
6 ½	7 ½	1 ¾	1 ½	1 ¾	¾	+0.0025	-0.0000	-0.0040	-0.0050	1
7 ½	9	2	1 ½	2	¾	+0.0025	-0.0000	-0.0040	-0.0050	1 ¼
9	11	2 ½	1 ¾	2 ½	⅞	+0.0030	-0.0000	-0.0050	-0.0060	1 ¼

TABLE 4. BORE TOLERANCES AND KEYWAY SIZES (METRIC)

Nominal Shaft Diameter Range		Nominal Key Size		Nominal Keyway Size		Bore Tolerance for Class 1 Fit				Set Screw Size (2 @ 120°)
Over	Up to and Including	Width	Depth	Width	Depth	Clearance Fit Over Nominal		Interference Fit Under Nominal		
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
6	8	2	2	2	1	+0.015	-0.000	-0.013	-0.025	6 x 6
8	10	3	3	3	1.4	+0.015	-0.000	-0.013	-0.025	6 x 6
10	12	4	4	4	1.8	+0.015	-0.000	-0.013	-0.025	6 x 6
12	17	5	5	5	2.3	+0.025	-0.000	-0.013	-0.025	6 x 6
17	22	6	6	6	2.8	+0.025	-0.000	-0.013	-0.025	8 x 8
22	30	8	7	8	3.3	+0.025	-0.000	-0.013	-0.025	8 x 8
30	38	10	8	10	3.3	+0.025	-0.000	-0.013	-0.038	10 x 10
38	44	12	8	12	3.3	+0.025	-0.000	-0.013	-0.038	10 x 10
44	50	14	9	14	3.8	+0.038	-0.000	-0.013	-0.038	12 x 12
50	58	16	10	16	4.3	+0.038	-0.000	-0.025	-0.051	12 x 12
58	65	18	11	18	4.4	+0.038	-0.000	-0.025	-0.051	12 x 12
65	75	20	12	20	4.9	+0.038	-0.000	-0.025	-0.051	16 x 16
75	85	22	14	22	5.4	+0.038	-0.000	-0.025	-0.051	16 x 16
85	95	25	14	25	5.4	+0.038	-0.000	-0.038	-0.064	16 x 16
95	110	28	16	28	6.4	+0.051	-0.000	-0.064	-0.089	16 x 16
110	130	32	18	32	7.4	+0.051	-0.000	-0.076	-0.102	20 x 20
130	150	36	20	36	8.4	+0.051	-0.000	-0.089	-0.114	20 x 20
150	170	40	22	40	9.4	+0.051	-0.000	-0.089	-0.114	20 x 20



## TORQUE CALCULATION

### SELECTING QUICK-FLEX COUPLINGS

#### QUICK-FLEX COUPLING SELECTION USING INCH-POUND TORQUE RATINGS

To select the correct Quick-Flex coupling for your application, use the formulas below, the torque ratings on pages 14-17 and the maximum bore sizes and speed ratings on pages 41-57. If you need further assistance, please contact your Timken engineer or visit [www.timken.com](http://www.timken.com).

**Design Torque** (in.-lbs.) =

Actual torque (in.-lbs.) x service factor  
(See pages 19-21.)

$$\text{Actual Torque (in.-lbs.)} = \frac{63025 \times \text{HP}}{\text{RPM}}$$

where:

HP = Drive horsepower

RPM = Drive shaft revolutions per minute

#### QUICK-FLEX COUPLING SELECTION USING NEWTON METER TORQUE RATINGS

To select the correct Quick-Flex coupling for your application, use the formulas below, the torque ratings on page 14-17 and maximum bore sizes and speed ratings on pages 41-57 to determine which Quick-Flex coupling meets the design torque, maximum shaft size and speed rating of your application. If you need further assistance, please contact your Timken engineer or visit [www.timken.com](http://www.timken.com).

**Design Torque** (Nm) =

Actual torque (Nm) x service factor  
(See pages 19-21.)

$$\text{Actual Torque (Nm)} = \frac{9550 \times \text{kW}}{\text{RPM}}$$

where:

kW = Drive kilowatts

RPM = Drive shaft revolutions per minute

#### HELPFUL CONVERSION FORMULAS

(Nm ↔ in.-lbs.) → 1 Nm = 8.85 in.-lbs.

(kW ↔ HP) → 1 Kw = 1.341 HP

#### Go Online

Timken now has an Interactive Coupling Wizard to help you select the proper coupling. Just input your known specifications and Timken will help you pick the Quick-Flex coupling to suit your application. Visit <http://cad.timken.com/configurator/quick-flex-elastomeric-couplings>.

# TORQUE RATINGS AND MISALIGNMENT TOLERANCES

TABLE 5. QUICK-FLEX COUPLING TORQUE RATINGS WITH HIGH-SPEED COVER (IN.-LBS.)

Coupling Series	Insert Part No.	Insert Color	Continuous Torque	HP Ratings @ Various RPM (Service Factor = 1)									
				50	100	300	600	900	1200	1750	2400	3600	5000
			in.-lbs.										
QF5	QF5INSERT	Red	377	0.3	0.6	1.8	3.6	5.4	7.2	10.5	14.4	21.5	29.9
	QF5HINSERT	White	819	0.6	1.3	3.9	7.8	11.7	15.6	22.7	31.2	46.8	65.0
	QF5BINSERT	Blue	819	0.6	1.3	3.9	7.8	11.7	15.6	22.7	31.2	46.8	65.0
QF15	QF15INSERT	Red	1059	0.8	1.7	5.0	10.1	15.1	20.2	29.4	40.3	60.5	84.0
	QF15HINSERT	White	2075	1.6	3.3	9.9	19.8	29.6	39.5	57.6	79.0	118.5	164.6
	QF15BINSERT	Blue	2075	1.6	3.3	9.9	19.8	29.6	39.5	57.6	79.0	118.5	164.6
QF25	QF25INSERT	Red	3426	2.7	5.4	16.3	32.6	48.9	65.2	95.1	130.5	195.7	271.8
	QF25HINSERT	White	6461	5.1	10.3	30.8	61.5	92.3	123.0	179.4	246.0	369.1	512.6
	QF25BINSERT	Blue	6461	5.1	10.3	30.8	61.5	92.3	123.0	179.4	246.0	369.1	512.6
QF50	QF50INSERT	Red	7066	5.6	11.2	33.6	67.3	100.9	134.5	196.2	269.1	403.6	560.6
	QF50HINSERT	White	14002	11.1	22.2	66.6	133.3	199.9	266.6	388.8	533.2	799.8	1110.8
	QF50BINSERT	Blue	14002	11.1	22.2	66.6	133.3	199.9	266.6	388.8	533.2	799.8	1110.8
QF100	QF100INSERT	Red	14178	11.2	22.5	67.5	135.0	202.5	270.0	393.7	539.9	809.9	1124.8
	QF100HINSERT	White	28115	22.3	44.6	133.8	267.7	401.5	535.3	780.7	1070.6	1605.9	2230.5
	QF100BINSERT	Blue	28115	22.3	44.6	133.8	267.7	401.5	535.3	780.7	1070.6	1605.9	2230.5
QF175	QF175INSERT	Red	24602	19.5	39.0	117.1	234.2	351.3	468.4	683.1	936.8	1405.3	1951.8
	QF175HINSERT	White	47123	37.4	74.8	224.3	448.6	672.9	897.2	1308.5	1794.4	2691.7	3738.4
	QF175BINSERT	Blue	47123	37.4	74.8	224.3	448.6	672.9	897.2	1308.5	1794.4	2691.7	3738.4
QF250	QF250INSERT	Red	31091	24.7	49.3	148.0	296.0	444.0	592.0	863.3	1183.9	1775.9	2466.6
	QF250HINSERT	White	61726	49.0	97.9	293.8	587.6	881.5	1175.3	1713.9	2350.5	3525.8	4896.9
	QF250BINSERT	Blue	61726	49.0	97.9	293.8	587.6	881.5	1175.3	1713.9	2350.5	3525.8	4896.9
QF500	QF500INSERT	Red	60091	47.7	95.3	286.0	572.1	858.1	1144.1	1668.5	2288.3	3432.4	4767.2
	QF500HINSERT	White	115497	91.6	183.3	549.8	1099.5	1649.3	2199.1	3207.0	4398.1	6597.2	9162.8
	QF500BINSERT	Blue	115497	91.6	183.3	549.8	1099.5	1649.3	2199.1	3207.0	4398.1	6597.2	9162.8
QF1000	QF1000INSERT	Red	84966	67.4	134.8	404.4	808.9	1213.3	1617.8	2359.2	3235.5		
	QF1000HINSERT	White	162997	129.3	258.6	775.9	1551.7	2327.6	3103.5	4525.9	6206.9		
	QF1000BINSERT	Blue	162997	129.3	258.6	775.9	1551.7	2327.6	3103.5	4525.9	6206.9		
QF1890	QF1890INSERT	Red	84966	67.4	134.8	404.4	808.9	1213.3	1617.8	2359.2	3235.5		
	QF1890HINSERT	White	162997	129.3	258.6	775.9	1551.7	2327.6	3103.5	4525.9	6206.9		
	QF1890BINSERT	Blue	162997	129.3	258.6	775.9	1551.7	2327.6	3103.5	4525.9	6206.9		
QF3150	QF3150INSERT	Red	105135	83.4	166.8	500.4	1000.9	1501.3	2001.8	2919.3			
	QF3150HINSERT	White	198252	157.3	314.6	943.7	1887.4	2831.0	3774.7	5504.8			
	QF3150BINSERT	Blue	198252	157.3	314.6	943.7	1887.4	2831.0	3774.7	5504.8			
QF10260	QF10260INSERT	Red	210173	166.7	333.5	1000.4	2000.9	3001.3	4001.7				
	QF10260HINSERT	White	395913	314.1	628.2	1884.6	3769.1	5653.7	7538.2				
	QF10260BINSERT	Blue	395913	314.1	628.2	1884.6	3769.1	5653.7	7538.2				

NOTE: Quick-Flex flexible couplings can sustain momentary peak torque loads up to 200 percent of their maximum continuous torque rating.

TABLE 6. QUICK-FLEX COUPLING TORQUE RATINGS WITH HIGH-SPEED COVER (METRIC)

Coupling Series	Insert Part No.	Insert Color	Continuous Torque	kW Ratings @ Various RPM (Service Factor = 1)									
				50	100	300	600	900	1200	1750	2400	3600	5000
				Nm									
QF5	QF5INSERT	Red	43	0.2	0.4	1.3	2.7	4.0	5.4	7.8	10.7	16.1	22.3
	QF5HINSERT	White	93	0.5	1.0	2.9	5.8	8.7	11.6	17.0	23.3	34.9	48.5
	QF5BINSERT	Blue	93	0.5	1.0	2.9	5.8	8.7	11.6	17.0	23.3	34.9	48.5
QF15	QF15INSERT	Red	120	0.6	1.3	3.8	7.5	11.3	15.0	21.9	30.1	45.1	62.6
	QF15HINSERT	White	234	1.2	2.5	7.4	14.7	22.1	29.5	43.0	58.9	88.4	122.8
	QF15BINSERT	Blue	234	1.2	2.5	7.4	14.7	22.1	29.5	43.0	58.9	88.4	122.8
QF25	QF25INSERT	Red	387	2.0	4.1	12.2	24.3	36.5	48.6	70.9	97.3	145.9	202.7
	QF25HINSERT	White	730	3.8	7.6	22.9	45.9	68.8	91.7	133.8	183.5	275.2	382.2
	QF25BINSERT	Blue	730	3.8	7.6	22.9	45.9	68.8	91.7	133.8	183.5	275.2	382.2
QF50	QF50INSERT	Red	798	4.2	8.4	25.1	50.2	75.2	100.3	146.3	200.6	301.0	418.0
	QF50HINSERT	White	1582	8.3	16.6	49.7	99.4	149.1	198.8	289.9	397.6	596.4	828.3
	QF50BINSERT	Blue	1582	8.3	16.6	49.7	99.4	149.1	198.8	289.9	397.6	596.4	828.3
QF100	QF100INSERT	Red	1602	8.4	16.8	50.3	100.7	151.0	201.3	293.6	402.6	603.9	838.8
	QF100HINSERT	White	3177	16.6	33.3	99.8	199.6	299.4	399.2	582.1	798.4	1197.6	1663.3
	QF100BINSERT	Blue	3177	16.6	33.3	99.8	199.6	299.4	399.2	582.1	798.4	1197.6	1663.3
QF175	QF175INSERT	Red	2780	14.6	29.1	87.3	174.7	262.0	349.3	509.4	698.6	1047.9	1455.4
	QF175HINSERT	White	5325	27.9	55.8	167.3	334.5	501.8	669.1	975.7	1338.1	2007.2	2787.8
	QF175BINSERT	Blue	5325	27.9	55.8	167.3	334.5	501.8	669.1	975.7	1338.1	2007.2	2787.8
QF250	QF250INSERT	Red	3513	18.4	36.8	110.4	220.7	331.1	441.4	643.8	882.9	1324.3	1839.3
	QF250HINSERT	White	6975	36.5	73.0	219.1	438.2	657.3	876.4	1278.1	1752.8	2629.2	3651.7
	QF250BINSERT	Blue	6975	36.5	73.0	219.1	438.2	657.3	876.4	1278.1	1752.8	2629.2	3651.7
QF500	QF500INSERT	Red	6790	35.5	71.1	213.3	426.6	639.9	853.2	1244.2	1706.4	2559.6	3554.9
	QF500HINSERT	White	13051	68.3	136.7	410.0	819.9	1229.9	1639.9	2391.5	3279.7	4919.6	6832.7
	QF500BINSERT	Blue	13051	68.3	136.7	410.0	819.9	1229.9	1639.9	2391.5	3279.7	4919.6	6832.7
QF1000	QF1000INSERT	RED	9601	50.3	100.5	301.6	603.2	904.8	1206.4	1759.3	2412.7		
	QF1000HINSERT	WHITE	18418	96.4	192.9	578.6	1157.1	1735.7	2314.3	3375.0	4628.5		
	QF1000BINSERT	BLUE	18418	96.4	192.9	578.6	1157.1	1735.7	2314.3	3375.0	4628.5		
QF1890	QF1890INSERT	RED	9601	50.3	100.5	301.6	603.2	904.8	1206.4	1759.3	2412.7		
	QF1890HINSERT	WHITE	18418	96.4	192.9	578.6	1157.1	1735.7	2314.3	3375.0	4628.5		
	QF1890BINSERT	BLUE	18418	96.4	192.9	578.6	1157.1	1735.7	2314.3	3375.0	4628.5		
QF3150	QF3150INSERT	RED	11880	62.2	124.4	373.2	746.4	1119.5	1492.7	2176.9			
	QF3150HINSERT	WHITE	22401	117.3	234.6	703.7	1407.4	2111.1	2814.8	4105.0			
	QF3150BINSERT	BLUE	22401	117.3	234.6	703.7	1407.4	2111.1	2814.8	4105.0			
QF10260	QF10260INSERT	RED	23748	124.3	248.7	746.0	1492.0	2238.1	2984.1				
	QF10260HINSERT	WHITE	44736	234.2	468.4	1405.3	2810.6	4216.0	5621.3				
	QF10260BINSERT	BLUE	44736	234.2	468.4	1405.3	2810.6	4216.0	5621.3				

NOTE: Quick-Flex flexible couplings can sustain momentary peak torque loads up to 200 percent of their maximum continuous torque rating.

**TORQUE RATINGS AND MISALIGNMENT TOLERANCES** – *continued*

**TABLE 7. QUICK-FLEX COUPLING TORQUE RATINGS WITH SPLIT COVERS (IN.-LBS.)**

Coupling Series	Insert Part No.	Insert Color	Continuous Torque	HP Ratings @ Various RPM (Service Factor = 1)									
				50	100	300	600	900	1200	1750	2400	3600	5000
			in.-lbs.										
QF15	QF15INSERT	Red	1324	1.1	2.1	6.3	12.6	18.9	25.2	36.8	50.4	75.6	105.0
	QF15HINSERT	White	2594	2.1	4.1	12.3	24.7	37.0	49.4	72.0	98.8	148.2	205.8
	QF15BINSERT	Blue	2594	2.1	4.1	12.3	24.7	37.0	49.4	72.0	98.8	148.2	205.8
	QF15TINSERT	Black	4001	3.2	6.3	19.0	38.1	57.1	76.2	111.1	152.4	228.5	317.4
QF25	QF25INSERT	Red	4283	3.4	6.8	20.4	40.8	61.2	81.5	118.9	163.1	244.6	339.8
	QF25HINSERT	White	8077	6.4	12.8	38.4	76.9	115.3	153.8	224.3	307.6	461.4	640.8
	QF25BINSERT	Blue	8077	6.4	12.8	38.4	76.9	115.3	153.8	224.3	307.6	461.4	640.8
	QF25TINSERT	Black	12449	9.9	19.8	59.3	118.5	177.8	237.0	345.7	474.1	711.1	987.6
QF50	QF50INSERT	Red	8833	7.0	14.0	42.0	84.1	126.1	168.2	245.3	336.4	504.5	700.8
	QF50HINSERT	White	17502	13.9	27.8	83.3	166.6	249.9	333.2	486.0	666.5	999.7	1388.5
	QF50BINSERT	Blue	17502	13.9	27.8	83.3	166.6	249.9	333.2	486.0	666.5	999.7	1388.5
	QF50TINSERT	Black	26479	21.0	42.0	126.0	252.1	378.1	504.2	735.2	1008.3	1512.5	2100.7
QF100	QF100INSERT	Red	17723	14.1	28.1	84.4	168.7	253.1	337.4	492.1	674.9	1012.3	1406.0
	QF100HINSERT	White	35144	27.9	55.8	167.3	334.6	501.9	669.1	975.8	1338.3	2007.4	2788.1
	QF100BINSERT	Blue	35144	27.9	55.8	167.3	334.6	501.9	669.1	975.8	1338.3	2007.4	2788.1
	QF100TINSERT	Black	53642	42.6	85.1	255.3	510.7	766.0	1021.3	1489.5	2042.7	3064.0	4255.6
QF175	QF175INSERT	Red	30753	24.4	48.8	146.4	292.8	439.2	585.5	853.9	1171.1	1756.6	2439.7
	QF175HINSERT	White	58903	46.7	93.5	280.4	560.8	841.1	1121.5	1635.5	2243.0	3364.6	4673.0
	QF175BINSERT	Blue	58903	46.7	93.5	280.4	560.8	841.1	1121.5	1635.5	2243.0	3364.6	4673.0
	QF175TINSERT	Black	88257	70.0	140.0	420.1	840.2	1260.3	1680.4	2450.6	3360.8	5041.3	7001.7
QF250	QF250INSERT	Red	38864	30.8	61.7	185.0	370.0	555.0	740.0	1079.1	1479.9	2219.9	3083.2
	QF250HINSERT	White	77158	61.2	122.4	367.3	734.5	1101.8	1469.1	2142.4	2938.2	4407.3	6121.2
	QF250BINSERT	Blue	77158	61.2	122.4	367.3	734.5	1101.8	1469.1	2142.4	2938.2	4407.3	6121.2
	QF250TINSERT	Black	118930	94.4	188.7	566.1	1132.2	1698.3	2264.4	3302.3	4528.9	6793.3	9435.1
QF500	QF500INSERT	Red	75114	59.6	119.2	357.5	715.1	1072.6	1430.2	2085.7	2860.4	4290.5	5959.1
	QF500HINSERT	White	144372	114.5	229.1	687.2	1374.4	2061.6	2748.9	4008.7	5497.7	8246.6	11453.6
	QF500BINSERT	Blue	144372	114.5	229.1	687.2	1374.4	2061.6	2748.9	4008.7	5497.7	8246.6	11453.6
	QF500TINSERT	Black	219429	174.1	348.2	1044.5	2089.0	3133.5	4177.9	6092.8	8355.9	12533.8	17408.1
QF1000	QF1000INSERT	Red	106208	84.3	168.5	505.6	1011.1	1516.7	2022.2	2949.1	4044.4	6066.6	
	QF1000HINSERT	White	203746	161.6	323.3	969.8	1939.7	2909.5	3879.3	5657.4	7758.7	11638.0	
	QF1000BINSERT	Blue	203746	161.6	323.3	969.8	1939.7	2909.5	3879.3	5657.4	7758.7	11638.0	
	QF1000TINSERT	Black	310466	246.3	492.6	1477.8	2955.6	4433.5	5911.3	8620.6	11822.6	17733.9	
QF1890	QF1890INSERT	Red	175840	139.5	279.0	837.0	1674.0	2511.0	3348.0	4882.5			
	QF1890HINSERT	White	344594	273.4	546.8	1640.3	3280.5	4920.8	6561.1	9568.3			
	QF1890BINSERT	Blue	344594	273.4	546.8	1640.3	3280.5	4920.8	6561.1	9568.3			
	QF1890TINSERT	Black	553982	439.5	879.0	2637.0	5273.9	7910.9	10547.9	15382.3			
QF3150	QF3150INSERT	Red	300387	238.3	476.6	1429.8	2859.7	4289.5	5719.4	8340.8			
	QF3150HINSERT	White	566434	449.4	898.7	2696.2	5392.5	8088.7	10784.9	15728.0			
	QF3150BINSERT	Blue	566434	449.4	898.7	2696.2	5392.5	8088.7	10784.9	15728.0			
	QF3150TINSERT	Black	871139	691.1	1382.2	4146.6	8293.3	12439.9	16586.5	24188.7			
QF10260	QF10260INSERT	Red	600494	476.4	952.8	2858.4	5716.7	8575.1	11433.4	16673.8			
	QF10260HINSERT	White	1131179	897.4	1794.8	5384.4	10768.9	16153.3	21537.7	31409.2			
	QF10260BINSERT	Blue	1131179	897.4	1794.8	5384.4	10768.9	16153.3	21537.7	31409.2			
	QF10260TINSERT	Black	1670826	1325.5	2651.1	7953.2	15906.3	23859.5	31812.6	46393.4			

NOTE: Quick-Flex flexible couplings can sustain momentary peak torque loads up to 200 percent of their maximum continuous torque rating.

TABLE 8. QUICK-FLEX COUPLING TORQUE RATINGS WITH SPLIT COVERS (METRIC)

Coupling Series	Insert Part No.	Insert Color	Continuous Torque	kW Ratings @ Various RPM (Service Factor = 1)									
				50	100	300	600	900	1200	1750	2400	3600	5000
				Nm									
QF15	QF15INSERT	Red	150	0.8	1.6	4.7	9.4	14.1	18.8	27.4	37.6	56.4	78.3
	QF15HINSERT	White	293	1.5	3.1	9.2	18.4	27.6	36.8	53.7	73.7	110.5	153.5
	QF15BINSERT	Blue	293	1.5	3.1	9.2	18.4	27.6	36.8	53.7	73.7	110.5	153.5
	QF15TINSERT	Black	452	2.4	4.7	14.2	28.4	42.6	56.8	82.8	113.6	170.4	236.7
QF25	QF25INSERT	Red	484	2.5	5.1	15.2	30.4	45.6	60.8	88.7	121.6	182.4	253.4
	QF25HINSERT	White	913	4.8	9.6	28.7	57.3	86.0	114.7	167.2	229.4	344.0	477.8
	QF25BINSERT	Blue	913	4.8	9.6	28.7	57.3	86.0	114.7	167.2	229.4	344.0	477.8
	QF25TINSERT	Black	1407	7.4	14.7	44.2	88.4	132.6	176.8	257.8	353.5	530.3	736.5
QF50	QF50INSERT	Red	998	5.2	10.5	31.4	62.7	94.1	125.4	182.9	250.8	376.2	522.6
	QF50HINSERT	White	1978	10.4	20.7	62.1	124.2	186.4	248.5	362.4	497.0	745.5	1035.4
	QF50BINSERT	Blue	1978	10.4	20.7	62.1	124.2	186.4	248.5	362.4	497.0	745.5	1035.4
	QF50TINSERT	Black	2992	15.7	31.3	94.0	188.0	282.0	376.0	548.3	751.9	1127.9	1566.5
QF100	QF100INSERT	Red	2003	10.5	21.0	62.9	125.8	188.7	251.6	367.0	503.3	754.9	1048.5
	QF100HINSERT	White	3971	20.8	41.6	124.7	249.5	374.2	499.0	727.7	998.0	1496.9	2079.1
	QF100BINSERT	Blue	3971	20.8	41.6	124.7	249.5	374.2	499.0	727.7	998.0	1496.9	2079.1
	QF100TINSERT	Black	6061	31.7	63.5	190.4	380.8	571.2	761.6	1110.7	1523.2	2284.9	3173.4
QF175	QF175INSERT	Red	3475	18.2	36.4	109.2	218.3	327.5	436.6	636.8	873.3	1309.9	1819.3
	QF175HINSERT	White	6656	34.8	69.7	209.1	418.2	627.2	836.3	1219.6	1672.6	2509.0	3484.7
	QF175BINSERT	Blue	6656	34.8	69.7	209.1	418.2	627.2	836.3	1219.6	1672.6	2509.0	3484.7
	QF175TINSERT	Black	9973	52.2	104.4	313.3	626.5	939.8	1253.1	1827.4	2506.2	3759.3	5221.2
QF250	QF250INSERT	Red	4391	23.0	46.0	138.0	275.9	413.9	551.8	804.7	1103.6	1655.4	2299.2
	QF250HINSERT	White	8718	45.6	91.3	273.9	547.8	821.6	1095.5	1597.6	2191.0	3286.5	4564.6
	QF250BINSERT	Blue	8718	45.6	91.3	273.9	547.8	821.6	1095.5	1597.6	2191.0	3286.5	4564.6
	QF250TINSERT	Black	13438	70.4	140.7	422.1	844.3	1266.4	1688.6	2462.5	3377.2	5065.8	7035.8
QF500	QF500INSERT	Red	8487	44.4	88.9	266.6	533.2	799.9	1066.5	1555.3	2133.0	3199.5	4443.7
	QF500HINSERT	White	16313	85.4	170.8	512.5	1024.9	1537.4	2049.8	2989.3	4099.7	6149.5	8541.0
	QF500BINSERT	Blue	16313	85.4	170.8	512.5	1024.9	1537.4	2049.8	2989.3	4099.7	6149.5	8541.0
	QF500TINSERT	Black	24794	129.8	259.6	778.9	1557.8	2336.6	3115.5	4543.4	6231.0	9346.5	12981.3
QF1000	QF1000INSERT	Red	12001	62.8	125.7	377.0	754.0	1131.0	1508.0	2199.1	3015.9	4523.9	
	QF1000HINSERT	White	23022	120.5	241.1	723.2	1446.4	2169.6	2892.8	4218.7	5785.7	8678.5	
	QF1000BINSERT	Blue	23022	120.5	241.1	723.2	1446.4	2169.6	2892.8	4218.7	5785.7	8678.5	
	QF1000TINSERT	Black	35081	183.7	367.3	1102.0	2204.0	3306.1	4408.1	6428.4	8816.1	13224.2	
QF1890	QF1890INSERT	Red	19869	104.0	208.1	624.2	1248.3	1872.5	2496.6	3640.9			
	QF1890HINSERT	White	38937	203.9	407.7	1223.2	2446.3	3669.5	4892.6	7135.1			
	QF1890BINSERT	Blue	38937	203.9	407.7	1223.2	2446.3	3669.5	4892.6	7135.1			
	QF1890TINSERT	Black	62597	327.7	655.5	1966.4	3932.8	5899.2	7865.6	11470.6			
QF3150	QF3150INSERT	Red	33942	177.7	355.4	1066.2	2132.5	3198.7	4265.0	6219.7			
	QF3150HINSERT	White	64004	335.1	670.2	2010.6	4021.2	6031.8	8042.4	11728.5			
	QF3150BINSERT	Blue	64004	335.1	670.2	2010.6	4021.2	6031.8	8042.4	11728.5			
	QF3150TINSERT	Black	98434	515.4	1030.7	3092.2	6184.3	9276.5	12368.6	18037.6			
QF10260	QF10260INSERT	Red	67852	355.2	710.5	2131.5	4263.0	6394.5	8526.0	12433.7			
	QF10260HINSERT	White	127817	669.2	1338.4	4015.2	8030.4	12045.6	16060.8	23421.9			
	QF10260BINSERT	Blue	127817	669.2	1338.4	4015.2	8030.4	12045.6	16060.8	23421.9			
	QF10260TINSERT	Black	188794	988.4	1976.9	5930.7	11861.4	17792.1	23722.8	34595.7			

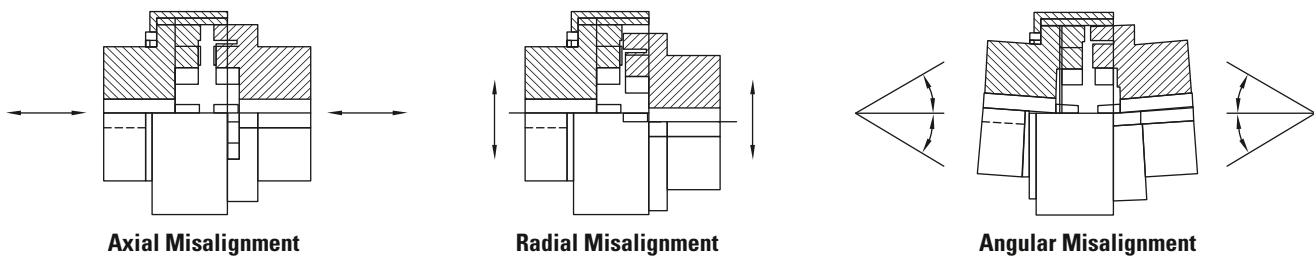
NOTE: Quick-Flex flexible couplings can sustain momentary peak torque loads up to 200 percent of their maximum continuous torque rating.

**TORQUE RATINGS AND MISALIGNMENT TOLERANCES** – continued

**TABLE 9. QUICK-FLEX 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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**Fig. 4. Types of misalignment.**



## QUICK-FLEX COUPLING SERVICE FACTORS FOR APPLICATIONS

Suggested service factors listed are typical values based on normal operation of the mechanical power transmission system.

Application	Service Factor	Application	Service Factor
<b>Aerators</b>	2.5	<b>Conveyors</b>	
<b>Aggregate Processing, Cement, Mining Kilns</b>		Apron, Assembly, Belt, Chain, Flight, Screw	1.75
Direct or on Line Shaft of Reducer		Bucket	1.75
With Final Drive Machined Spur Gears	2.25	Live Roll, Shaker and Reciprocating	3.0
With Single Helical or Herringbone Gears	2.0	Bridge, Travel or Trolley	2.50
Crushers, Ore or Stone	2.75	<b>Dredgers</b>	
Dryer, Rotary	2.0	Cable Reel	2.0
Grizzly	2.25	Conveyors	1.50
Hammermill or Hog	2.0	Cutter Head, Jig Drive	2.5
Tumbling Mill or Barrel	2.0	Maneuvering Winch	1.75
<b>Agitators (also see Mixers)</b>		Pumps (Uniform Load)	1.75
Vertical, Horizontal, Screw, Propeller, Paddle	1.25	Screen Drive, Stacker	2.0
<b>Barge Haul Puller</b>	1.75	Utility Winch	2.0
<b>Blowers</b>		<b>Dynamometer</b>	1.5
Centrifugal	1.5	<b>Elevators: Bucket, Centrifugal Discharge</b>	1.75
Lobe or Vane	1.5	<b>Exciter, Generator</b>	1.5
<b>Brewing and Distilling</b>		<b>Extruder, Plastic</b>	1.5
Bottle- and Can-Filling Machines	1.5	<b>Fans</b>	
Brew Kettle	1.25	Centrifugal	1.25
Cookers, Continuous Duty	1.5	Cooling Tower	2.0
Lauter Tub	1.75	Forced Draft-Across the Line Start	1.75
Mash Tub	1.5	<b>Feeders</b>	
Scale Hopper, Frequent Peaks	2.0	Apron, Belt, Disc, Screw	1.25
<b>Clarifier or Classifier</b>	1.25	Reciprocating	2.5
<b>Clay-Working Industry</b>		<b>Food Industry</b>	
Brick Press, Briquette Machine, Clay-Working Machine, Pug Mill	2.0	Beet Slicer	2.0
<b>Compressors</b>		Bottle- and Can-Filling Machine	1.5
Centrifugal	1.25	Cereal Cooker	1.5
Rotary, Lobe or Vane	1.5	Dough Mixer, Meat Grinder	2.0
Rotary, Screw	1.5	Forced-Draft Motor Driven through Fluid or Electro-Slip Clutch	1.25
Reciprocating		Gas Recirculating	1.50
Direct Connected	Refer to Equipment OEM	Induced Draft with Damper Control or Blade Cleaner	1.50
Without Flywheels	Refer to Equipment OEM	Induced Draft without Controls	2.0
With Flywheel and Gear between Compressor and Prime Monitor		<b>Generators</b>	
One Cylinder, Single Acting	3.0	Even Load	1.25
One Cylinder, Double Acting	3.0	Hoist or Railway Service	1.75
Two Cylinders, Single Acting	3.0	Welder Load	2.0
Two Cylinders, Double Acting	3.0	<b>Hammermill</b>	1.75
Three Cylinders, Single Acting	3.0	<b>Laundry Washer or Tumbler</b>	2.0
Three Cylinders, Double Acting	2.0	<b>Line Shafts, Any Processing Machinery</b>	1.5
Four or More Cyl., Single Acting	2.5		
Four or More Cyl., Double Acting	2.5		

Continued on next page.

**QUICK-FLEX COUPLING SERVICE FACTORS FOR APPLICATIONS** – continued

Application	Service Factor
<b>Lumber</b>	
Band Resaw	2.0
Circular Resaw, Cutoff	2.0
Edger, Head Rig, Hog	2.5
Gang Saw (Reciprocating)	3.0
Log Haul	2.5
Planer	2.0
Rolls, Non-Reversing	1.5
Rolls, Reversing	2.5
Sawdust Conveyor	1.5
Slab Conveyor	2.0
Sorting Table	1.75
Trimmer	2.0
<b>Machine Tools</b>	
Auxiliary and Traverse Drive	1.0
Bending Roll, Notching Press, Punch, Press, Planer, Plate-Reversing	1.75
Main Drive	1.5
<b>Metal Rolling Mills</b>	
Coilers (Up or Down) Cold Mill Only	1.75
Coilers (Up or Down) Hot Mill Only	2.25
Coke Plants	
Pusher Ram Drive	2.75
Door Opener	2.25
Pusher or Larry Car Traction Drive	3.25
Continuous Caster	2.0
Cold Mills	
Strip Mills	Refer to Equipment OEM
Temper Mills	Refer to Equipment OEM
Cooling Beds	1.75
Drawbench	2.25
Feed Rolls: Blooming Mills	3.25
Furnace Pushers	2.25
Hot and Cold Saws	2.25
Hot Mills	
Strip or Sheet Mills	Refer to Equipment OEM
Reversing Blooming	Refer to Equipment OEM
Slabbing Mills	Refer to Equipment OEM
Edger Drives	Refer to Equipment OEM
Ingot Cars	2.25
Manipulators	3.25
Merchant Mills	Refer to Equipment OEM

Application	Service Factor
Mill Tables	
Roughing Breakdown Mills	3.25
Hot Bed or Transfer (Non-Reversing)	1.75
Runout (Reversing)	3.25
Runout (Non-Reversing, Non-Plugging)	2.25
Reel Drives	2.0
Rod Mills	Refer to Equipment OEM
Screwdown	2.25
Seamless-Tube Mills	
Piercer	3.25
Thrust Block	2.25
Tube-Conveyor Rolls	2.25
Reeler	2.25
Kick Out	2.25
Shear, Croppers	Refer to Equipment OEM
Sideguards	3.25
Skelp Mills	Refer to Equipment OEM
Slitters (Steel Mill Only)	2.0
Soaking Pit Cover Drives	
Lift	1.25
Travel	2.25
Straighteners	2.25
Unscramblers (Billet Bundle Busters)	2.25
Wire-Drawing Machinery	2.0
<b>Mixers (also see Agitators)</b>	
Concrete	1.75
Muller	1.5
<b>Oil Industry</b>	
Chiller	1.50
Oilwell Pumping (Not Over 150 Percent Peak Torque)	2.5
Paraffin Filter Press	1.75
Rotary Kiln	2.5
<b>Paper Mills</b>	
Barker, Auxiliary, Hydraulic	2.5
Barker, Mechanical	2.5
Barker, Drum L.S. Shaft of Reducer with Final Drive	
Helical or Herringbone Gear	2.5
Machined Spur Gear	3.0
Cast Tooth Spur Gear	3.0
Beater and Pulper	2.0
Bleachers, Coaters	1.5
Calendar and Super Calendar	2.0
Chipper	3.0
Converting Machine	1.50
Couch	2.00
Cutter, Felt Whipper	2.25

Continued on next page.

Application	Service Factor
Cylinder, Dryer	2.00
Felt Stretcher	1.75
Fourdrinier	2.00
Jordan	2.5
Log Haul	2.5
Line Shaft	1.75
Press	2.0
Pulp Grinder	2.0
Reel, Rewinder, Winder	2.0
Stock Chest, Washer, Thickener	1.75
Stock Pumps, Centrifugal	
Constant Speed	1.25
Frequent Speed Changes Under Load	1.5
Suction Roll	2.0
<b>Press, Printing</b>	1.5
<b>Pug Mill</b>	1.75
<b>Pulverizers</b>	
Hammermill and Hog	1.75
Roller	1.5
<b>Pumps: Centrifugal</b>	
Constant Speed	1.0
Frequent Speed Changes Under Load	1.75
Descaling, with Accumulators	1.75
Gear, Rotary or Vane	1.75
<b>Pumps: Reciprocating</b>	
One Cylinder, Single or Double Acting	3.0
Two Cylinder, Single Acting	2.5
Two Cylinder, Double Acting	2.0
Three or More Cylinders	2.0
<b>Rubber Industry</b>	
Calendar	2.25
Cracker, Plasticolour	2.5
Extruder	2.0
Tire and Tube-Press Opener (Peak Torque)	1.5
Warming Mill	
One or Two Mills in Line	2.0
Three or More Mills in Line	2.50
Washer	2.75
<b>Screens</b>	
Air Washing	1.5
Grizzly	2.5
Rotary Coal or Sand	2.0
Vibrating	2.5
Water	1.5
<b>Sewage-Disposal Equipment</b>	
Bar Screen, Chemical Feeders, Collectors, Dewatering Screen, Grit Collector	1.5
Mill Stands, Turbine Driven with all Helical or Herringbone Gears	1.75

Application	Service Factor
Electric-Drive or Steam-Engine Drive with Helical or Herringbone	2.0
<b>Stoker</b>	1.0
<b>Sugar Industry</b>	
Cone Carrier and Leveler	2.25
Cane Knife and Crusher	2.5
Mill Stands, Turbine Driver with all Helical or Herringbone Gears	1.75
Electric-Drive or Steam-Engine Drive with Helical, Herringbone or Spur Gears with any Prime Mover	2.0
<b>Textile Industry</b>	
Batcher	1.5
Calendar, Card Machine	1.75
Cloth-Finishing Machine	1.75
Dry Can, Loom	1.75
Dyeing Machinery	1.5
Knitting Machine	Refer to Equipment OEM
Mangle, Napper, Soaper	1.5
Spinner, Tenter Frame, Winder	1.75
<b>Tumbling Barrel</b>	2.0
<b>Winch, Maneuvering: Dredge, Marine</b>	1.5
<b>Windlass</b>	1.5

**ENGINE DRIVE SERVICE FACTORS**

Service factors for engine drives are those required for applications where good flywheel regulation prevents torque fluctuation greater than 20 percent. For drives where torque fluctuations are greater or where the operation is near a serious critical or torsional vibration, a mass elastic study is necessary.

To determine an engine drive service factor, first determine the application service factor for motors. Then, use that to find the correct engine service factor in the table below. When the application service factor for motors is greater than 2.0 or where one-, two- or three-cylinder engines are involved, please contact your Timken engineer with complete application details for an engineering review.

**TABLE 10. ENGINE SERVICE FACTOR**

Application Service Factor	Engine Service Factor	
	4 to 5 Cylinders	6+ Cylinders
1.00	2.00	1.50
1.25	2.25	1.75
1.50	2.50	2.00
1.75	2.75	2.25
2.00	3.00	2.50

**QUICK-FLEX COUPLING INSERT CHEMICAL COMPATIBILITY**

A – Little to no effect B – Minor to moderate effect C – Severe effect to destruction N – No data. Test prior to use.	Urethane	A – Little to no effect B – Minor to moderate effect C – Severe effect to destruction N – No data. Test prior to use.	Urethane	A – Little to no effect B – Minor to moderate effect C – Severe effect to destruction N – No data. Test prior to use.	Urethane
Acetaldehyde	C	Barium Carbonate	B	Dibutyl Phthalate	C
Acetamide	N	Barium Hydroxide	A	Dichlorobenzene	C
Acetic Acid	C	Beer	A	Diesel Fuel	B
Acetic Anhydride	C	Benzaldehyde	B	Diester Oil	B
Acetone	C	Benzene	C	Dimethyl Acetamide	C
Acetyl Bromide	C	Benzoic Acid	B	Dimethyl Formamide	C
Acetyl Chloride	C	Black Sulphate Liquors	N	Dodecyl Mercaptan	B
Acetylene	C	Bleach Solutions	N	DTE Oil	B
Adipic Acid	A	Boric Acid	A	Dibutyl Ether	B
Aero Shell Grease	B	Brake Fluid	N	EP Lubes	A
Aero Lubriplate	A	Bromine	B	Esso #90 Lube Oil	A
Aero Safe 2300	N	Bunker Oil	A	Ether	B
Aerozene 50	N	Butane	A	Ethyl Acetate	C
Aluminum Acetate	N	Butyl Acetate	C	Ethyl Alcohol (Ethanol)	C
Aluminum Bromide	N	Butyl Alcohol	B	Formic Acid	C
Aluminum Chloride	B	Calcium Carbonate	B	Freon, 12 or 113	A
Aluminum Sulfate	B	Calcium Chloride	A	Fuel Oil	B
Ammonia	B	Calcium Hydroxide	A	Gasoline	B
Ammonium Carbonate	B	Calcium Nitrate	B	Glucose	A
Ammonium Chloride	N	Calcium Sulfate	B	Glue	N
Ammonium Hydroxide	B	Carbon Dioxide	A	Glycerin	A
Ammonium Nitrate	B	Carbon Disulfide	B	Heptane	A
Ammonium Persulfate	B	Carbon Monoxide	A	Hexane	A
Ammonium Sulfate	B	Carbon Tetrachloride	C	Hydrazine	C
Ammonium Sulfide	B	Chlorine	N	Hydrobromic Acid	B
Ammonium Thiocyanate	B	Chloroacetic Acid	C	Hydrocarbon Oil	A
Amonnium Acetate	C	Chloroform	C	Hydrochloric Acid	B
Amyl Acetate	C	Chromic Acid	C	Hydrofluoric Acid	B
Amyl Alcohol	C	Chromium Potassium Sulfate	B	Hydrogen	A
Aniline	C	Citric Acid	B	Hydrogen Peroxide	B
Aniline Hydrochloride	C	Corn Oil	A	Hydrogen Sulfide	C
Animal Fats and Oils	B	Cottonseed Oil	A	Hydrologic Acid	B
Antimony Salts	B	Cresol	C	Iodine	A
Aqua Regia	C	Crude Oil	B	Isobutyl Alcohol	N
Arsenic Salts	B	Cupric Chloride	A	Isopropyl Chloride	N
ASTM Oil #1	A	Cupric Nitrate	B	Isopropyl Ether	B
ASTM Oil #2	B	Cupric Sulfate	B	Isopropyl Alcohol (Propanol)	B
ASTM Oil #3	B	Cutting Oil	B	JP4 Oil	B
ASTM Reference Fuel A	A	Cyclohexane	B	JP5 and 6 Oil	C
ASTM Reference Fuel B	B	Cyclohexanone	C	Kerosene	B
Atlantic Oil	A				

Continued on next page.

<b>A</b> – Little to no effect <b>B</b> – Minor to moderate effect <b>C</b> – Severe effect to destruction <b>N</b> – No data. Test prior to use.	Urethane
Lactic Acid	B
Lead Acetate	B
Linseed Oil	B
Liquefied Petroleum Gas	A
Lubrication Oil	B
Lye	N
Magnesium Chloride	N
Magnesium Hydroxide	A
Magnesium Salts	B
Malaic Acid	C
Mercury	B
Methyl Alcohol (Methanol)	A
Methyl Ethyl Ketone	C
Methylene Chloride	C
MIL-D-5606 Oil	C
MIL-L-7808 Oil	B
Mineral Oil	A
Mineral Spirits	N
Naphthalene	B
Natural Gas	B
Nickel Salts	C
Oxygen	A
Ozone	A
Palmitic Acid	A
Paint Thinner	B
Peanut Oil	A
Perchloric Acid	C
Perchloroethylene	C
Petroleum	B
Phenol (Carbolic Acid)	C
Phosphoric Acid	C
Potassium Cyanide	A
Potassium Salts	B
Propane	B
Propyl Alcohol	B
Propylene Glycol	B
Pydraul Oil	C

<b>A</b> – Little to no effect <b>B</b> – Minor to moderate effect <b>C</b> – Severe effect to destruction <b>N</b> – No data. Test prior to use.	Urethane
SAE #10 Oil	A
Seawater	A
Silicic Acid	B
Silver Nitrate	B
Skydrol Oil	C
Soap	B
Sodium Acetate	A
Sodium Bicarbonate	B
Sodium Borate	B
Sodium Carbonate	B
Sodium Chloride	B
Sodium Cyanide	B
Sodium Hydrosulfite	B
Sodium Hydroxide	B
Sodium Hypochlorite	C
Sodium Nitrate	B
Sodium Silicate	A
Sodium Sulfate	B
Sodium Sulfide	B
Steam	C
Styrene	B
Sulfur Dioxide	B
Sulfuric Acid	C
Tannic Acid	A
Tartaric Acid	A
Toluene	C
Transformer Oil	B
Turpentine	C
Urea	B
Varnish	B
Water	B

# INSTALLATION GUIDES

## STANDARD COUPLING INSTALLATION

Please complete the following steps to install Timken 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.*

There are four types of covers (fig. 5):

- **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.

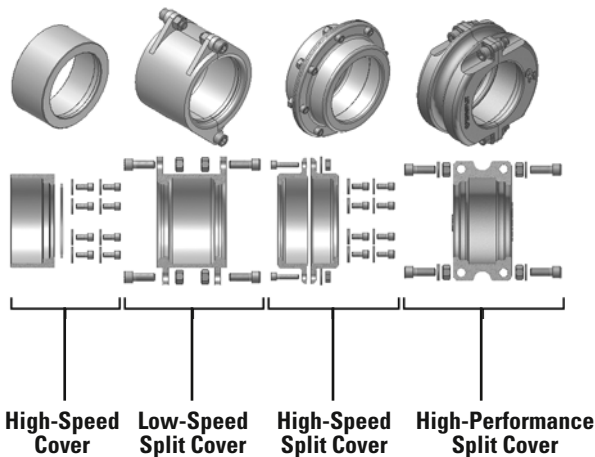


Fig. 5. Quick-Flex cover types and included hardware.

## INSTALLATION

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.
  - 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.

### 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.*

### ⚠ WARNING

**Failure to observe the following warnings could create a risk of death or serious injury.**

For all power transmission products, you must install suitable guards in accordance with OSHA and the American Society of Mechanical Engineers Standards. Do not start power transmission product before suitable guards are in place. Failure to properly guard these products may result in severe injury or death from personnel contacting moving parts or from parts being thrown from assembly in the event the power transmission product fails.



4. Install the first hub. It should be mounted so the end of the shaft is flush with surface "A" as shown in fig. 6. 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 ( $G_{Min}$ ) dimension, ensuring proper clearance. For specific  $G_{Min}$  and  $G_{Max}$  dimensions see table 12.
6. Tighten both hubs securely to the shafts.
7. Check coupling for misalignment (table 13) 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.
  - 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 11.
  - 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.

**TABLE 11. HIGH-PERFORMANCE SPLIT COVER TIGHTENING TORQUE**

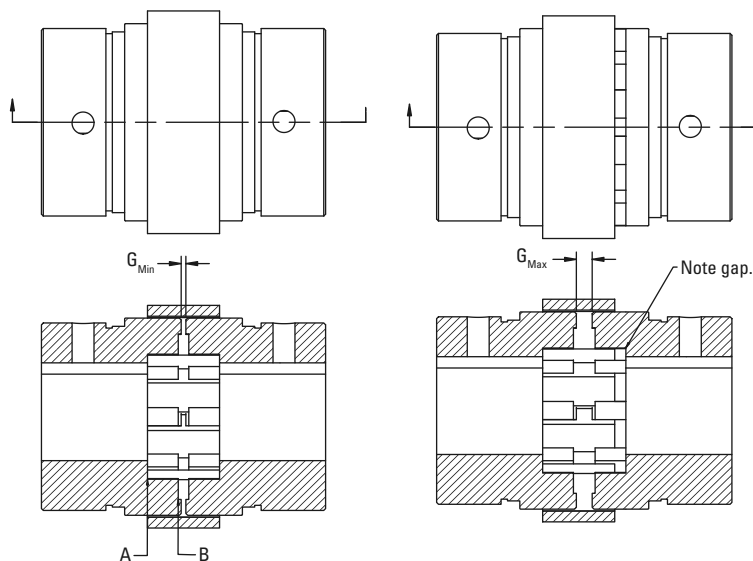
Coupling Series	Bolts	Tightening Torque
	in.	Nm ft.-lbs.
QF15HPCOVER	(4) 1/4 nc x 7/8	<b>10.8</b> 8
QF25HPCOVER	(4) 3/8 nc x 1 1/4	<b>40.7</b> 30
QF50HPCOVER	(4) 1/2 nc x 1 3/4	<b>101.7</b> 75
QF100HPCOVER	(4) 1/2 nc x 2 1/4	<b>101.7</b> 75
QF175HPCOVER	(4) 5/8 nc x 2 1/2	<b>169.5</b> 125
QF250HPCOVER	(4) 3/4 nc x 2 1/4	<b>203.4</b> 150
QF500HPCOVER	(4) 3/4 nc x 2 1/4	<b>203.4</b> 150

**REVOLUTIONS PER MINUTE (RPM) AND BALANCE**

The Timken 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 14 for maximum RPM ratings.

**NOTE**

*Shaft should penetrate to base of teeth and hubs should be set at  $G_{Min}$ . Otherwise, the coupling may not deliver maximum torque.*



**Fig. 6. Proper shaft-to-hub engagement.**

**STANDARD COUPLING INSTALLATION** – *continued*

**TABLE 12. 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 <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>
	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QF5	<b>1.60</b> 0.063	<b>2.34</b> 0.092	N/A	N/A	N/A	N/A	N/A	N/A
QF15	<b>0.91</b> 0.036	<b>2.79</b> 0.110	<b>0.91</b> 0.036	<b>2.52</b> 0.099	<b>0.91</b> 0.036	<b>3.20</b> 0.126	<b>0.91</b> 0.036	<b>5.59</b> 0.220
QF25	<b>2.03</b> 0.080	<b>5.21</b> 0.205	<b>2.03</b> 0.080	<b>3.39</b> 0.133	<b>2.03</b> 0.080	<b>3.56</b> 0.140	<b>2.03</b> 0.080	<b>4.06</b> 0.160
QF50	<b>0.89</b> 0.035	<b>5.28</b> 0.208	<b>0.89</b> 0.035	<b>2.57</b> 0.101	<b>0.89</b> 0.035	<b>5.59</b> 0.220	<b>0.89</b> 0.035	<b>4.06</b> 0.160
QF100	<b>3.56</b> 0.140	<b>7.37</b> 0.290	<b>3.56</b> 0.140	<b>9.65</b> 0.380	<b>3.56</b> 0.140	<b>9.65</b> 0.380	<b>3.56</b> 0.140	<b>9.40</b> 0.370
QF175	<b>4.78</b> 0.188	<b>5.28</b> 0.208	<b>4.78</b> 0.188	<b>9.53</b> 0.375	<b>4.78</b> 0.188	<b>8.84</b> 0.348	<b>4.57</b> 0.180	<b>9.35</b> 0.368
QF250	<b>2.54</b> 0.100	<b>5.84</b> 0.230	<b>2.54</b> 0.100	<b>9.27</b> 0.365	<b>2.54</b> 0.100	<b>6.35</b> 0.250	<b>2.54</b> 0.100	<b>8.08</b> 0.318
QF500	<b>3.18</b> 0.125	<b>6.35</b> 0.250	N/A	N/A	<b>3.18</b> 0.125	<b>9.53</b> 0.375	<b>3.18</b> 0.125	<b>9.53</b> 0.375
QF1000	<b>4.06</b> 0.160	<b>9.86</b> 0.388	N/A	N/A	<b>4.06</b> 0.160	<b>10.41</b> 0.410	N/A	N/A
QF1890	<b>5.12</b> 0.202	<b>7.06</b> 0.278	N/A	N/A	<b>5.13</b> 0.202	<b>11.53</b> 0.454	N/A	N/A
QF3150	<b>1.78</b> 0.070	<b>7.75</b> 0.305	N/A	N/A	<b>1.78</b> 0.070	<b>9.65</b> 0.380	N/A	N/A
QF10260	<b>3.23</b> 0.127	<b>12.83</b> 0.505	N/A	N/A	<b>3.23</b> 0.127	<b>12.50</b> 0.492	N/A	N/A

TABLE 13. 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°

TABLE 14. QUICK-FLEX STANDARD COUPLING MAXIMUM RPM RATINGS<sup>(1)</sup>

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

<sup>(1)</sup>Maximum RPM ratings are for off-the-shelf Quick-Flex couplings. If your application requires higher RPM ratings, the couplings should be dynamically balanced.

## SINGLE-ENDED SPACER COUPLING INSTALLATION

Please complete the following steps to install Timken Quick-Flex single-ended spacer couplings.

You should have the following pieces before starting the job:

- One coupling hub
- One flanged hub
- One spacer body
- 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.*

There are four types of covers (fig. 7):

- **High-speed cover:** QF5 through QF175 use a 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:** This cover will be supplied in four pieces to fit over the spacer body. 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 the hub.
- **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.

### INSTALLATION

1. The Timken Quick-Flex single-ended spacer coupling should be oriented with the flanged hub on the drive shaft and the coupling hub with insert on the driven shaft (fig. 8).
2. Check the bore size of the coupling hub and flanged hub to the shafts. Ensure that they are the correct bore size to fit the application.
3. If the coupling does not fit easily, clean and deburr the shafts.
4. Identify cover style:
  - a. **If using a high-speed cover**, it should be placed on one of the shafts. 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 5.
  - c. **If using a high-speed split cover, 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.
5. Install the coupling hub. It should be mounted so the end of the shaft is flush with surface "A" as shown in fig. 8. It is acceptable for the shaft to extend past "A" as long as it is not past the teeth shown as "B."
6. Install the flanged hub using the spacer body and insert to locate the flanged hub on the drive shaft. This will set the hubs at the minimum hub gap ( $G_{Min}$ ) dimension when the insert is tight between the coupling hub and spacer body, ensuring proper clearance. For specific  $G_{Min}$  and  $G_{Max}$  dimensions see table 16.

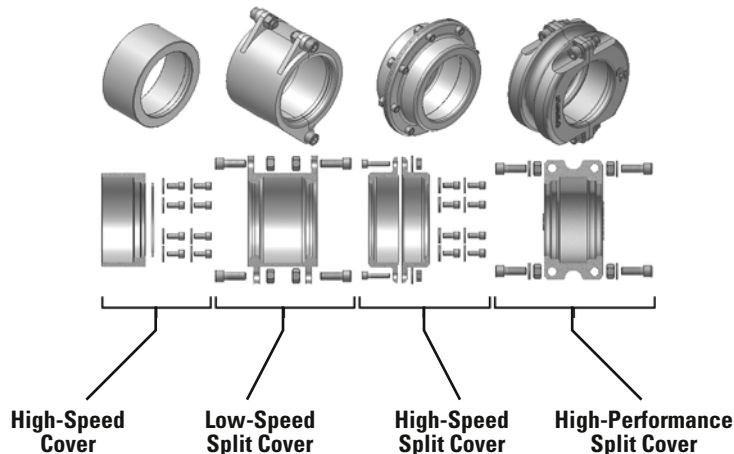


Fig. 7. Quick-Flex cover types and included hardware.

7. Tighten the flanged hub and coupling hub securely to the shafts using the set screws.
8. Check coupling for misalignment (table 17) and align as necessary.
9. Install the cover:
  - a. **High-speed cover:** Slide the cover over the coupling hub and insert until fully rested against the shoulder of the coupling 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.
  - 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 15.
  - c. **High-speed split cover:** Match the four pieces into two complete cover halves using the flange face detail to distinguish the two halves. For QF250 and larger, make sure the cover half with the eight holes for mounting to the coupling hub is on the coupling hub side, not the spacer side. Bolt the four pieces together using the supplied hardware, ensuring the splits in each half are rotated 90 degrees relative to each other. Install the bolts to secure the cover to the coupling hub.
10. Ensure the four spacer body bolts through the flange are tight along with all other bolts and set screws.

**TABLE 15. HIGH-PERFORMANCE SPLIT COVER TIGHTENING TORQUE**

Coupling Series	Bolts	Tightening Torque
	in.	Nm ft.-lbs.
QF15HPCOVER	(4) 1/4 nc x 7/8	<b>10.8</b> 8
QF25HPCOVER	(4) 3/8 nc x 1 1/4	<b>40.7</b> 30
QF50HPCOVER	(4) 1/2 nc x 1 3/4	<b>101.7</b> 75
QF100HPCOVER	(4) 1/2 nc x 2 1/4	<b>101.7</b> 75
QF175HPCOVER	(4) 5/8 nc x 2 1/2	<b>169.5</b> 125
QF250HPCOVER	(4) 3/4 nc x 2 1/4	<b>203.4</b> 150
QF500HPCOVER	(4) 3/4 nc x 2 1/4	<b>203.4</b> 150

### REVOLUTIONS PER MINUTE (RPM) AND BALANCE

The Timken 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 key used to attach the coupling hubs is the same length as the coupling hub. The set screws should also be changed to full length to fill the hole. Please refer to table 18 for maximum RPM ratings.

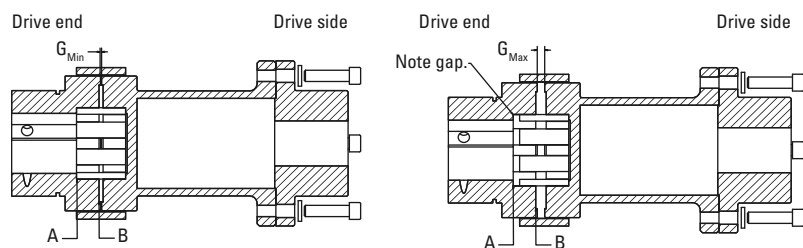
#### NOTE

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 heat 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.

#### ⚠ WARNING

**Failure to observe the following warnings could create a risk of death or serious injury.**

For all power transmission products, you must install suitable guards in accordance with OSHA and the American Society of Mechanical Engineers Standards. Do not start power transmission product before suitable guards are in place. Failure to properly guard these products may result in severe injury or death from personnel contacting moving parts or from parts being thrown from assembly in the event the power transmission product fails.



**Fig. 8. Proper shaft-to-hub engagement.**

#### NOTE

Shaft should penetrate to base of teeth and hubs should be set at  $G_{Min}$ . Otherwise, the coupling may not deliver maximum torque.

**SINGLE-ENDED SPACER COUPLING INSTALLATION** – *continued*

**TABLE 16. QUICK-FLEX SINGLE-ENDED SPACER COUPLING HUB GAP (G) DIMENSIONS**

Coupling Series	High-Speed Cover		Low-Speed Split Cover		High-Speed Split Cover		High-Performance Split Cover	
	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>
	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QF5	1.60 0.063	2.34 0.092	N/A	N/A	N/A	N/A	N/A	N/A
QF15	0.91 0.036	2.79 0.110	0.91 0.036	2.52 0.099	0.91 0.036	3.20 0.126	0.91 0.036	5.59 0.220
QF25	2.03 0.080	5.21 0.205	2.03 0.080	3.38 0.133	2.03 0.080	3.56 0.140	2.03 0.080	4.06 0.160
QF50	0.89 0.035	5.28 0.208	0.89 0.035	2.57 0.101	0.89 0.035	5.59 0.220	0.89 0.035	4.06 0.160
QF100	3.57 0.140	7.37 0.290	3.57 0.140	9.65 0.380	3.56 0.140	9.65 0.380	3.57 0.140	9.40 0.370
QF175	4.78 0.188	5.28 0.208	4.78 0.188	9.53 0.375	4.78 0.188	8.84 0.348	4.57 0.180	9.35 0.368
QF250	2.54 0.100	5.84 0.230	2.54 0.100	9.27 0.365	2.54 0.100	6.35 0.250	2.54 0.100	8.08 0.318
QF500	3.18 0.125	6.35 0.250	N/A	N/A	3.18 0.125	9.53 0.375	3.18 0.125	9.53 0.375
QF1000	4.06 0.160	9.86 0.388	N/A	N/A	4.06 0.160	10.41 0.410	N/A	N/A
QF1890	5.13 0.202	7.06 0.278	N/A	N/A	5.13 0.202	11.53 0.454	N/A	N/A
QF3150	1.79 0.070	7.75 0.305	N/A	N/A	1.78 0.070	9.65 0.380	N/A	N/A
QF10260	3.23 0.127	12.83 0.505	N/A	N/A	3.23 0.127	12.50 0.492	N/A	N/A

TABLE 17. QUICK-FLEX SINGLE-ENDED SPACER 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°

TABLE 18. QUICK-FLEX SINGLE-ENDED SPACER COUPLING MAXIMUM RPM RATINGS<sup>(1)</sup>

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	3000
QF1890	2400	N/A	2400	2400
QF3150	2000	N/A	2000	2000
QF10260	1200	N/A	1200	1200

<sup>(1)</sup>Maximum RPM ratings are for off-the-shelf Quick-Flex couplings. If your application requires higher RPM ratings, the couplings should be dynamically balanced.

## DOUBLE-ENDED SPACER COUPLING INSTALLATION

Please complete the following steps to install Timken Quick-Flex double-ended spacer couplings.

You should have the following pieces before starting the job:

- Two hubs
- One spacer body
- Two inserts
- Two covers 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.*

There are four types of covers (fig. 9):

- **High-speed cover:** QF5 through QF175 use a 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:** This cover will be supplied in four pieces to fit over the spacer body. 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 each hub.
- **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.

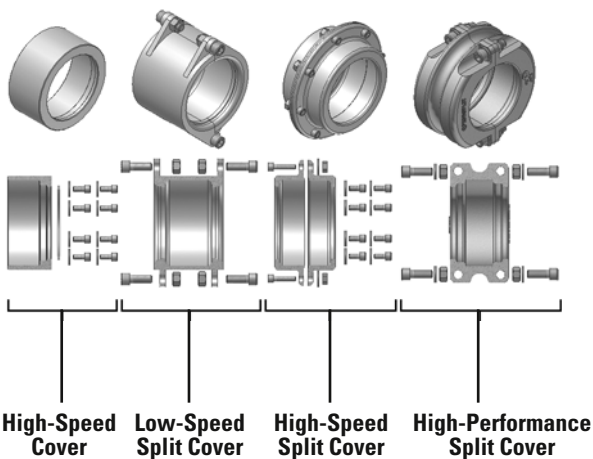


Fig. 9. Quick-Flex cover types and included hardware.

## INSTALLATION

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 high-speed covers QF5 through QF175,** slide one snap ring down each shaft, then slide one cover onto each shaft with the larger opening facing the shaft separation. For QF250 and larger, slide one cover onto each shaft with the larger opening facing the shaft separation.
  - b. **If using low-speed or high-performance split covers,** leave covers aside and continue to step 4.
  - c. **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.

### 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 heat 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.*

### ⚠ WARNING

**Failure to observe the following warnings could create a risk of death or serious injury.**

For all power transmission products, you must install suitable guards in accordance with OSHA and the American Society of Mechanical Engineers Standards. Do not start power transmission product before suitable guards are in place. Failure to properly guard these products may result in severe injury or death from personnel contacting moving parts or from parts being thrown from assembly in the event the power transmission product fails.



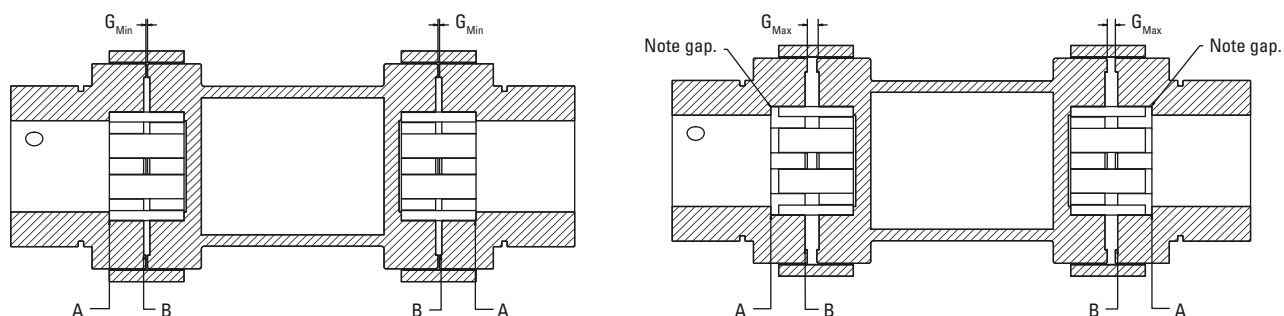
4. Install the hubs. They should be mounted so the end of the shaft is flush with surface "A" as shown in fig. 10.
5. Install the spacer body and inserts. Slide all three components (spacer body and two inserts) tight to one side and check the gap from the insert face to hub flange face shown as surface "A" in fig. 10. This should not exceed  $[(2 \times G_{Max}) - (2 \times G_{Min})]$  using the appropriate minimum hub gap ( $G_{Min}$ ) and the maximum hub gap ( $G_{Max}$ ) from table 20. If this gap exceeds your calculation, adjust one or both hubs to set within specs, paying attention not to have the shaft end extend past surface "B" as shown in fig. 10.
6. Tighten both hubs securely to the shafts using the set screws.
7. Check coupling for misalignment (table 21) and align as necessary.
8. Install the cover:
  - a. **High-speed cover:** Slide the cover over the coupling hub and insert until fully rested against the shoulder of the coupling hub. Use the included hardware to secure the cover.
  - 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 19.
  - c. **High-speed split cover:** Match the four pieces into two complete cover halves using the flange face detail to distinguish the two halves. For QF250 and larger, make sure the cover half with the eight holes for mounting to the coupling hub is on the coupling hub side, not the spacer side. Bolt the four pieces together using the supplied hardware, ensuring the splits in each half are rotated 90 degrees relative to each other. Install bolts to secure the cover to the coupling hub.

**TABLE 19. HIGH-PERFORMANCE SPLIT COVER TIGHTENING TORQUE**

Coupling Series	Bolts	Tightening Torque
	in.	Nm ft.-lbs.
QF15HPCOVER	(4) 1/4 nc x 7/8	<b>10.8</b> 8
QF25HPCOVER	(4) 3/8 nc x 1 1/4	<b>40.7</b> 30
QF50HPCOVER	(4) 1/2 nc x 1 3/4	<b>101.7</b> 75
QF100HPCOVER	(4) 1/2 nc x 2 1/4	<b>101.7</b> 75
QF175HPCOVER	(4) 5/8 nc x 2 1/2	<b>169.5</b> 125
QF250HPCOVER	(4) 3/4 nc x 2 1/4	<b>203.4</b> 150
QF500HPCOVER	(4) 3/4 nc x 2 1/4	<b>203.4</b> 150

## REVOLUTIONS PER MINUTE (RPM) AND BALANCE

The Timken 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 key used to attach the coupling hubs is the same length as the coupling hub. The set screws should also be changed to full length to fill the hole. Please refer to table 22 for maximum RPM ratings.



**Fig. 10. Proper shaft-to-hub engagement.**

DOUBLE-ENDED SPACER COUPLING INSTALLATION – continued

TABLE 20. QUICK-FLEX DOUBLE-ENDED SPACER COUPLING HUB GAP (G) DIMENSIONS

Coupling Series	High-Speed Cover		Low-Speed Split Cover		High-Speed Split Cover		High-Performance Split Cover	
	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>	G <sub>Min</sub>	G <sub>Max</sub>
	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QF5	1.60 0.063	2.34 0.092	N/A	N/A	N/A	N/A	N/A	N/A
QF15	0.91 0.036	2.79 0.110	0.91 0.036	2.52 0.099	0.91 0.036	3.20 0.126	0.91 0.036	5.59 0.22
QF25	2.03 0.080	5.21 0.205	2.03 0.080	3.38 0.133	2.03 0.080	3.57 0.140	2.03 0.080	4.06 0.16
QF50	0.89 0.035	5.28 0.208	0.89 0.035	2.57 0.101	0.89 0.035	5.59 0.220	0.89 0.035	4.06 0.16
QF100	3.56 0.140	7.37 0.290	3.56 0.140	9.65 0.380	3.56 0.140	9.65 0.380	3.56 0.140	9.40 0.37
QF175	4.78 0.188	5.28 0.208	4.78 0.188	9.53 0.375	4.78 0.188	8.84 0.348	4.57 0.180	9.35 0.368
QF250	2.54 0.100	5.84 0.230	2.54 0.100	9.27 0.365	2.54 0.100	6.35 0.250	2.54 0.100	8.08 0.318
QF500	3.18 0.125	6.35 0.250	N/A	N/A	3.18 0.125	9.53 0.375	3.18 0.125	9.53 0.375
QF1000	4.06 0.160	9.86 0.388	N/A	N/A	4.06 0.160	10.41 0.410	N/A	N/A
QF1890	5.13 0.202	7.06 0.278	N/A	N/A	5.13 0.202	11.53 0.454	N/A	N/A
QF3150	1.78 0.070	7.75 0.305	N/A	N/A	1.78 0.070	9.65 0.380	N/A	N/A
QF10260	3.23 0.127	12.83 0.505	N/A	N/A	3.23 0.127	12.50 0.492	N/A	N/A

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TABLE 21. QUICK-FLEX DOUBLE-ENDED SPACER COUPLING MISALIGNMENT TOLERANCES

Coupling Series	Radial Misalignment Tolerance		Axial Misalignment Tolerance		Angular Misalignment Tolerance
	mm	in.	mm	in.	
QF5	1.02	0.040	3.96	0.156	4°
QF15	1.98	0.078	5.89	0.232	4°
QF25	1.98	0.078	5.89	0.232	4°
QF50	2.95	0.116	5.89	0.232	4°
QF100	2.95	0.116	7.93	0.312	4°
QF175	2.95	0.116	8.89	0.350	2.6°
QF250	2.95	0.116	11.89	0.468	2.6°
QF500	2.95	0.116	11.89	0.468	2°
QF1000	2.95	0.116	11.89	0.468	2°
QF1890	2.95	0.116	15.85	0.624	2°
QF3150	3.96	0.156	15.85	0.624	2°
QF10260	3.96	0.156	15.85	0.624	2°

TABLE 22. QUICK-FLEX DOUBLE-ENDED SPACER MAXIMUM RPM RATINGS<sup>(1)</sup>

Coupling Series	High-Speed Cover	Low-Speed Split Cover	High-Speed Split Cover	High-Performance Split Cover
	RPM	RPM	RPM	RPM
QF5	N/A	N/A	N/A	N/A
QF15	4500	400	4500	4500
QF25	4500	375	4500	4500
QF50	4500	350	4500	4500
QF100	4500	300	4500	4500
QF175	3600	250	3600	3600
QF250	3200	200	3200	3200
QF500	3000	N/A	3000	3000
QF1000	2500	N/A	2500	2500
QF1890	2100	N/A	2100	2100
QF3150	1800	N/A	1800	1800
QF10260	1000	N/A	1100	1000

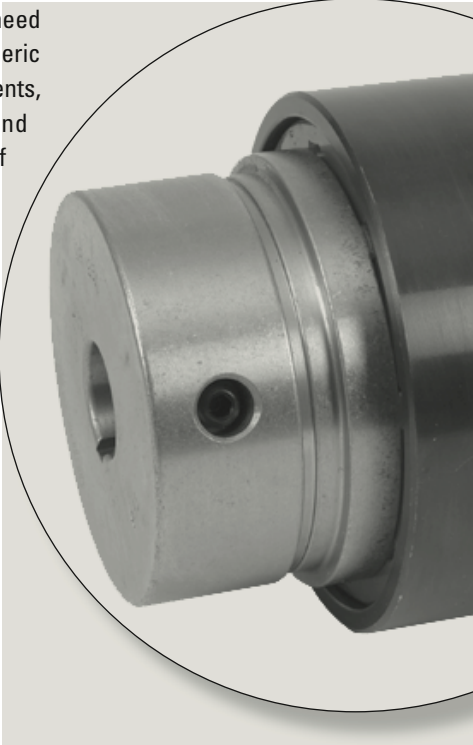
<sup>(1)</sup>Maximum RPM ratings are for off-the-shelf Quick-Flex couplings. If your application requires higher RPM ratings, the couplings should be dynamically balanced.



**QUICK-FLEX COUPLINGS**

When your equipment operates in harsh environments, you need coupling products you can count on. Timken Quick-Flex elastomeric couplings are durable enough to stand up under harsh environments, yet need minimal maintenance. They are easy-to-install and require no lubrication. With a lifespan that can match that of your equipment, you will keep your overall cost of ownership competitively low.

- Nomenclature..... 38
- Inserts and Covers..... 40
- Standard Couplings..... 44
- Single-Ended Spacer Couplings..... 48
- Double-Ended Spacer Couplings..... 51
- Bushing-Style Interchange Couplings..... 55
- Splined-Hub Couplings..... 58
- Mill-Motor Couplings..... 60



# NOMENCLATURE

## STANDARD COUPLING NOMENCLATURE

A complete standard coupling unit consists of:

- Two hubs.
- One insert (see page 40).
- One cover (see pages 41-43).

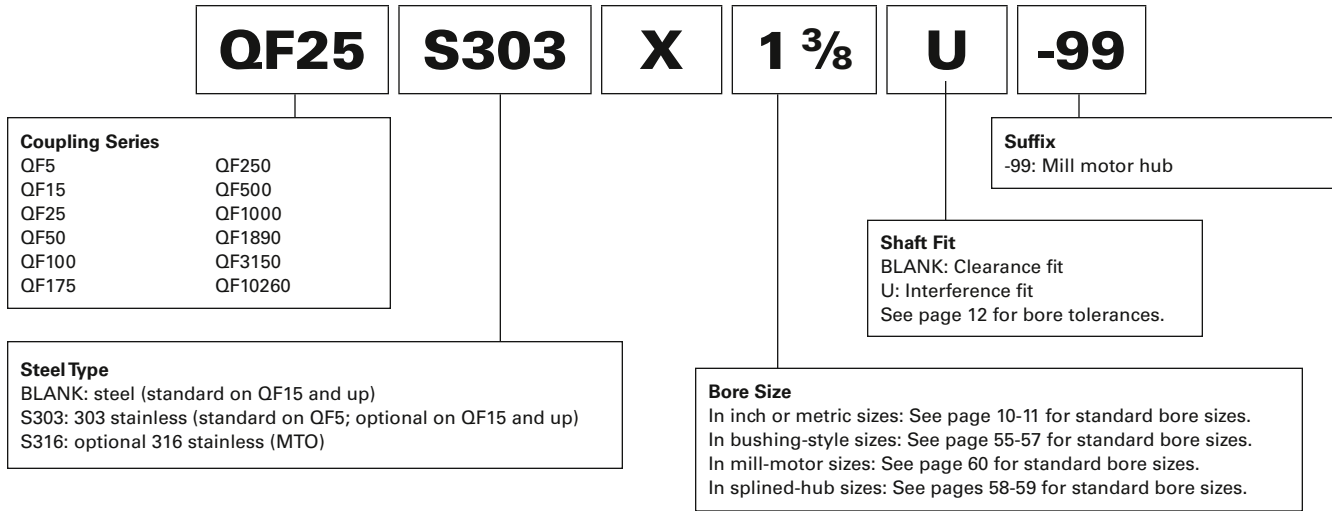


Fig. 11. Hubs.

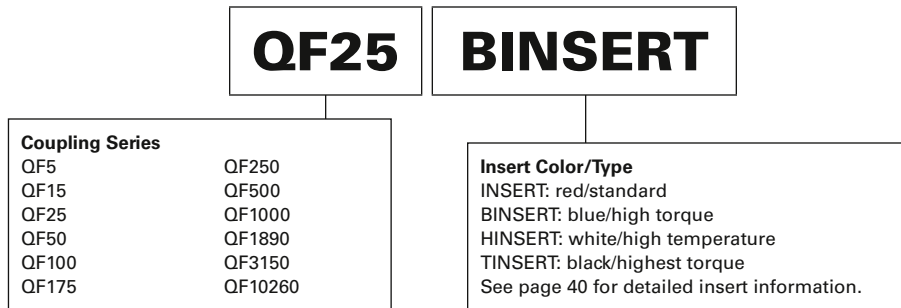


Fig.12. Inserts.

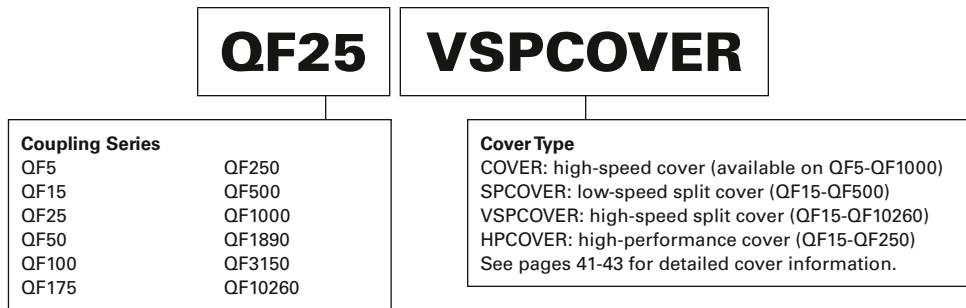


Fig. 13. Covers.

## SPACER COUPLING NOMENCLATURE

A complete *single-ended* spacer coupling unit consists of:

- One standard hub (see page 38).
- One flanged spacer hub.
- One single-ended spacer body.
- One insert (see page 40).
- One cover (see pages 41-43).

A complete *double-ended* spacer coupling unit consists of:

- Two standard hubs (see page 38).
- One double-ended spacer body.
- Two inserts (see page 40).
- Two covers (see pages 41-43).

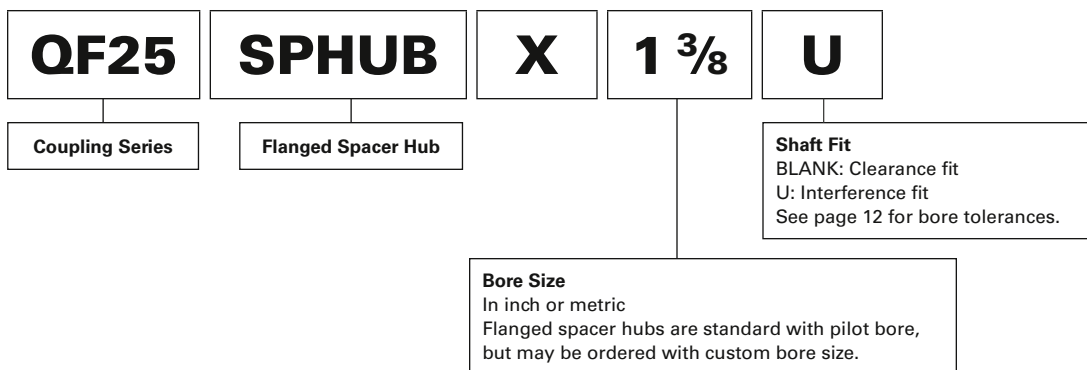


Fig. 14. Flanged spacer hubs.

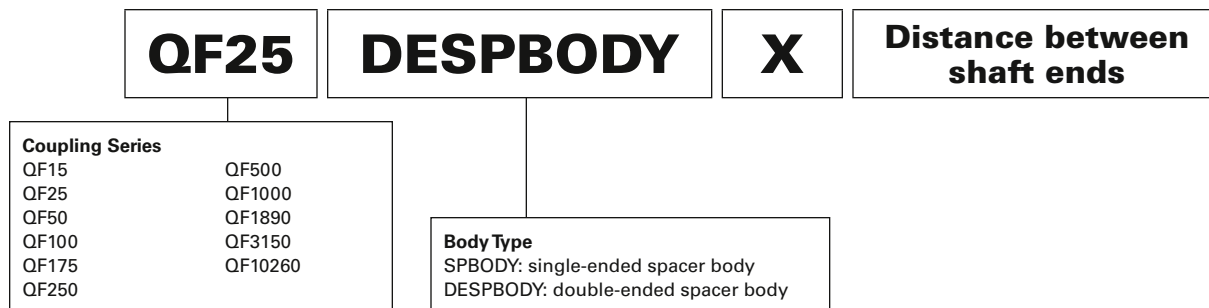


Fig. 15. Flanged spacer bodies.

## INSERTS AND COVERS

### QUICK-FLEX COUPLING INSERTS

Quick-Flex flexible urethane coupling inserts are resistant to most chemicals (see page 22-23) and available in four materials for varying temperature and torque needs:

#### QUICK-FLEX RED INSERT (STANDARD)

The standard Quick-Flex red insert is made from a relatively soft urethane compound. This insert is well suited for a wide range of applications. The standard insert excels in vibration dampening and cushioning of shock loads and is best for reversing applications or applications with quick starting and stopping of high-inertial loads. This insert offers an operational temperature range of -50° C to 100° C (-60° F to 212° F).

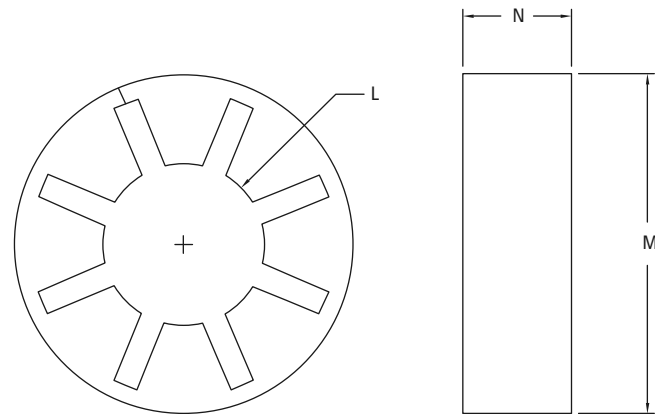


Fig. 16. Quick-Flex insert.

#### QUICK-FLEX BLUE INSERT (HIGH TORQUE)

The Quick-Flex blue insert is made from a relatively stiff urethane compound. This insert is well suited for applications with moderate to high torque. Quick-Flex couplings with the blue insert deliver high torque while maintaining a degree of torsional softness and the ability to dampen vibration. They are excellent replacements for gear, grid or chain-style couplings. This insert offers an operational temperature range of -50° C to 100° C (-60° F to 212° F).

#### QUICK-FLEX BLACK INSERT (HIGHEST TORQUE)

The Quick-Flex black insert offers the highest torque ratings of any of our inserts. This insert is well suited for very high torque applications, and Quick-Flex couplings with a black insert are excellent replacements for gear-style couplings. This insert offers an operational temperature range of -50° C to 100° C (-60° F to 212° F). When using a high-speed cover, the use of a black insert is not recommended. In an application where high torque is present, use a split-cover option.

#### QUICK-FLEX WHITE INSERT (HIGH TEMPERATURE)

The Quick-Flex white insert is made of a heat-resistant urethane compound for use in applications where heat is a concern. This insert can handle temperatures up to 177° C (350° F) and provides torque capabilities equal to our blue insert.

TABLE 23. QUICK-FLEX INSERT DIMENSIONS

Coupling Series	L	M	N	Wt.
	mm in.	mm in.	mm in.	kg lbs.
QF5	31.2 1.23	56.6 2.23	16.0 0.63	0.1 0.2
QF15	42.2 1.66	72.6 2.86	21.6 0.85	0.1 0.2
QF25	54.9 2.16	96.5 3.80	31.2 1.23	0.1 0.2
QF50	61.2 2.41	128.3 5.05	41.7 1.64	0.4 0.9
QF100	77.5 3.05	163.6 6.44	51.3 2.02	0.7 1.5
QF175	99.1 3.90	187.2 7.37	59.7 2.35	0.9 2.0
QF250	104.9 4.13	208.3 8.20	58.9 2.32	1.4 3.0
QF500	114.6 4.51	253.5 9.98	66.8 2.63	2.3 5.0
QF1000	157.2 6.19	287.0 11.30	75.2 2.96	2.7 6.0
QF1890	193.0 7.60	345.7 13.61	82.3 3.24	4.1 9.0
QF3150	232.4 9.15	404.6 15.93	93.2 3.67	5.9 13.0
QF10260	285.8 11.25	483.6 19.04	137.9 5.43	14.1 31.1



## QUICK-FLEX COUPLING COVERS

### QUICK-FLEX HIGH-SPEED COVER

Quick-Flex high-speed covers are designed for applications where low torque and/or high speed is present.

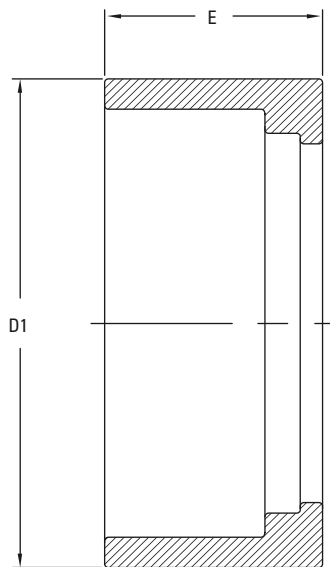


Fig. 17. High-speed cover.

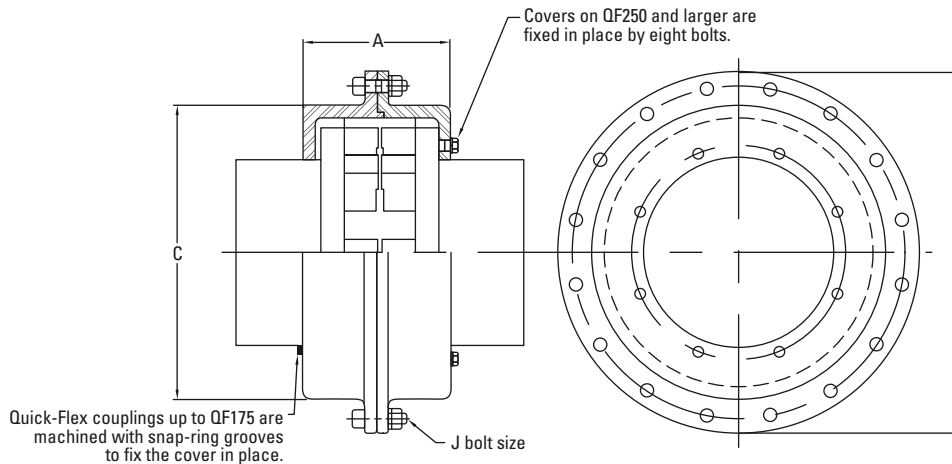
TABLE 24. QUICK-FLEX HIGH-SPEED COVER DIMENSIONS

Cover Part No.	Maximum RPM	D1		E	
		mm	in.	mm	in.
QF5COVER	12000	63.2	2.49	24.1	0.95
QF15COVER	9000	80.3	3.16	34.3	1.35
QF25COVER	7000	106.9	4.21	49.5	1.95
QF50COVER	6000	139.2	5.48	60.5	2.38
QF100COVER	4800	177.8	7.00	75.2	2.96
QF175COVER	4200	203.2	8.00	83.1	3.27
QF250COVER	3800	225.6	8.88	88.9	3.50
QF500COVER	3400	273.6	10.77	102.9	4.05
QF1000COVER	3000	308.1	12.13	124.0	4.88
QF1890COVER	2400	365.3	14.38	127.0	5.00
QF3150COVER	2000	425.5	16.75	139.7	5.50
QF10260COVER	1800	510.5	20.10	201.7	7.94

**QUICK-FLEX COUPLING COVERS** – *continued*

**QUICK-FLEX HIGH-SPEED SPLIT COVER**

Quick-Flex high-speed split covers are ideal in applications where high torque is combined with higher speeds while minimizing axial loading.<sup>(1)</sup>



**Fig. 18. High-speed split cover.**

**TABLE 25. QUICK-FLEX HIGH-SPEED SPLIT-COVER DIMENSIONS**

Cover Part No.	Maximum RPM	A		B		C		J	
		mm	in.	mm	in.	mm	in.	in.	
QF15VSPCOVER	9000	45.2	1.78	119.4	4.70	85.9	3.38	(8) ¼ nc x ¾	
QF25VSPCOVER	7000	63.5	2.50	142.7	5.62	107.7	4.24	(8) ¼ nc x ¾	
QF50VSPCOVER	6000	87.9	3.46	193.6	7.62	141.7	5.58	(8) ⅜ nc x 1	
QF100VSPCOVER	4800	118.4	4.66	227.3	8.95	181.9	7.16	(8) ⅜ nc x 1 ¼	
QF175VSPCOVER	4200	124.0	4.88	250.2	9.85	204.2	8.04	(8) ⅜ nc x 1 ¼	
QF250VSPCOVER	3800	118.6	4.67	266.7	10.50	225.0	8.86	(8) ⅜ nc x 1 ¼	
QF500VSPCOVER	3400	149.4	5.88	342.9	13.50	273.1	10.75	(12) ½ nc x 1 ¾	
QF1000VSPCOVER	3000	157.7	6.21	387.4	15.25	314.5	12.38	(16) ½ nc x 1 ¾	
QF1890VSPCOVER	2800	185.9	7.32	450.9	17.75	374.7	14.75	(16) ½ nc x 2	
QF3150VSPCOVER	2000	188.5	7.42	497.6	19.59	431.3	16.98	(20) ½ nc x 2	
QF10260VSPCOVER	1200	275.6	10.85	619.3	24.38	523.2	20.60	(20) ½ nc x 2	

<sup>(1)</sup>Available split horizontally upon request (will result in reduced torque capacity).

### QUICK-FLEX ALUMINUM HIGH-PERFORMANCE (HP) COVER

Quick-Flex aluminum high-performance covers are designed to minimize axial loading in all applications including high or low torque and high or low speed.

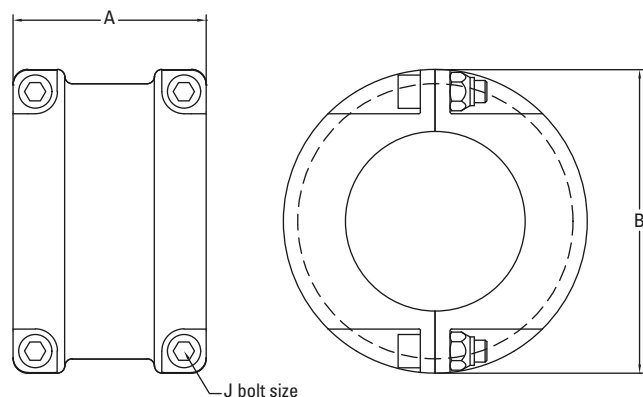


Fig. 19. Aluminum high-performance cover.

TABLE 26. QUICK-FLEX ALUMINUM HIGH-PERFORMANCE (HP) COVER DIMENSIONS

Cover Part No.	Maximum RPM	A	B	J
		mm in.	mm in.	in.
QF15HPCOVER	9000	49.0 1.93	101.3 3.99	(4) ¼ nc x ⅜
QF25HPCOVER	7000	66.3 2.61	135.6 5.32	(4) ⅜ nc x 1 ¼
QF50HPCOVER	6000	76.7 3.02	185.0 7.28	(4) ½ nc x 1 ¾
QF100HPCOVER	4800	151.4 5.96	197.1 7.76	(4) ½ nc x 2 ¼
QF175HPCOVER	4200	156.7 6.17	216.4 8.52	(4) ⅝ nc x 2 ½
QF250HPCOVER	3800	166.1 6.54	261.4 10.29	(4) ¾ nc x 2 ¼
QF500HPCOVER	3400	201.2 7.92	305.3 12.02	(4) ¾ nc x 2 ¼

### QUICK-FLEX LOW-SPEED SPLIT COVER

By minimizing axial loading, Quick-Flex low-speed split covers excel in applications where there is a high amount of torque and low speeds.

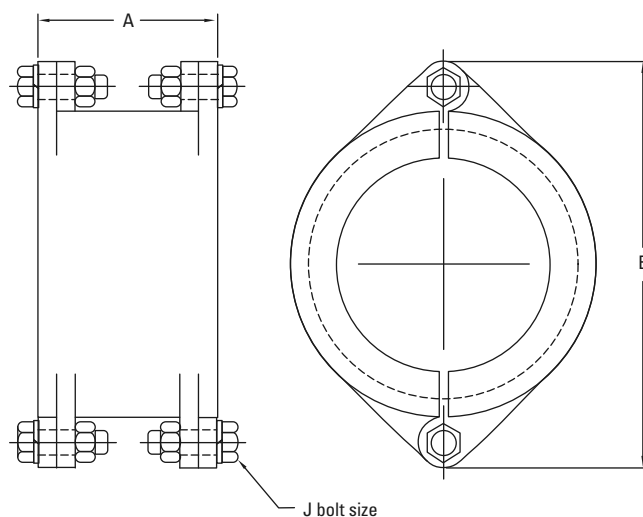


Fig. 20. Low-speed split cover.

TABLE 27. QUICK-FLEX LOW-SPEED SPLIT-COVER DIMENSIONS

Cover Part No.	Maximum RPM	A	B	J
		mm in.	mm in.	in.
QF15SPCOVER	400	50.8 2.00	124.2 4.89	(4) ⅜ nc x 1
QF25SPCOVER	375	78.0 3.07	145.0 5.71	(4) ⅝ nc x 1 ¼
QF50SPCOVER	350	87.9 3.46	192.5 7.58	(4) ⅝ nc x 1
QF100SPCOVER	300	118.4 4.66	231.9 9.13	(4) ⅝ nc x 1 ¼
QF175SPCOVER	250	124.0 4.88	282.4 11.12	(4) ½ nc x 1 ¼
QF250SPCOVER	200	130.3 5.13	304.8 12.00	(4) ¾ nc x 2

# STANDARD COUPLINGS

## STANDARD COUPLING WITH HIGH-SPEED COVER

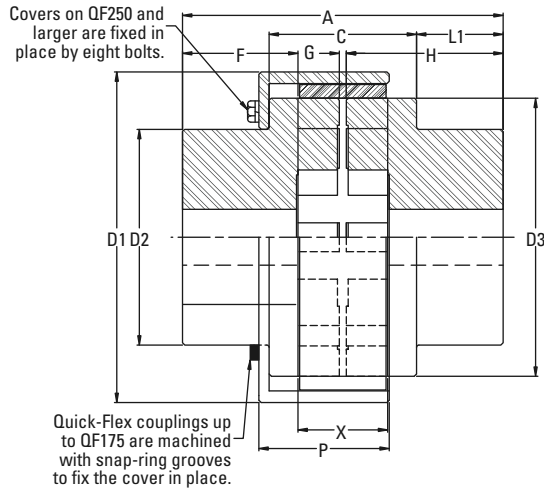


Fig. 21. Standard coupling with high-speed cover.

TABLE 28. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black <sup>(1)</sup>
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF5	43 377	93 819	93 819	N/A
QF15	120 1059	234 2075	234 2075	N/A
QF25	387 3426	730 6461	730 6461	N/A
QF50	798 7066	1582 14002	1582 14002	N/A
QF100	1602 14178	3177 28115	3177 28115	N/A
QF175	2780 24602	5325 47123	5325 47123	N/A
QF250	3513 31091	6975 61726	6975 61726	N/A
QF500	6790 60091	13051 115497	13051 115497	N/A
QF1000	9601 84966	18418 162997	18418 162997	N/A
QF1890	9601 84966	18418 162997	18418 162997	N/A
QF3150	11880 105135	22401 198252	22401 198252	N/A
QF10260	23748 210173	44736 395913	44736 395913	N/A

<sup>(1)</sup>When using a high-speed cover, the use of a black insert is not recommended. In an application where high torque is present, use a split-cover option. Contact your Timken application engineer for maximum shaft distance.

TABLE 29. QUICK-FLEX STANDARD COUPLING WITH HIGH-SPEED COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size		Maximum RPM	Maximum Torque <sup>(1)</sup>	A	C	D1	D2	D3	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	X	Wt. <sup>(2)</sup>
		Square Key	Shallow Key															
		in.	mm in.															
QF5	1 <sup>9</sup> / <sub>64</sub>	25 1 1/4	—	12000	93 819	71.1 2.80	26.2 1.03	63.2 2.49	50.8 2.00	52.6 2.07	27.4 1.08	1.60 0.062	2.30 0.092	34.8 1.37	22.4 0.88	24.1 0.95	16.8 0.66	1.8 4
QF15	1 <sup>7</sup> / <sub>32</sub>	40 1 5/8	—	9000	234 2075	89.9 3.54	32.5 1.28	80.3 3.16	58.7 2.31	64.5 2.55	34.0 1.34	0.90 0.036	2.80 0.110	44.5 1.75	29.0 1.14	34.3 1.35	22.4 0.88	2.3 5
QF25	5/8	50 2 1/8	—	7000	730 6461	123.4 4.86	50.8 2.00	106.9 4.21	81.0 3.19	85.6 3.37	46.0 1.81	2.00 0.080	5.20 0.205	60.7 2.39	36.1 1.42	49.5 1.95	30.7 1.21	5.0 11
QF50	2 <sup>3</sup> / <sub>32</sub>	60 2 3/8	—	6000	1582 14002	151.4 5.96	61.5 2.42	139.2 5.48	89.4 3.52	114.0 4.49	54.9 2.16	0.90 0.035	5.30 0.208	75.2 2.96	45.2 1.78	60.5 2.38	42.2 1.66	6.8 15
QF100	1 <sup>5</sup> / <sub>16</sub>	75 3	—	4800	3177 28115	179.6 7.07	88.4 3.48	177.8 7.00	108.0 4.25	150.4 5.92	62.5 2.46	3.60 0.140	7.40 0.290	86.4 3.40	44.7 1.76	75.2 2.96	55.6 2.19	16.8 37
QF175	1	95 3 3/8	—	4200	5325 47123	195.3 7.69	93.2 3.67	203.2 8.00	139.7 5.50	171.5 6.75	67.8 2.67	4.80 0.188	5.30 0.208	95.3 3.75	50.8 2.00	83.1 3.27	65.2 2.45	25.9 57
QF250	1 1/2	105 4 1/8	—	3800	6975 61726	216.2 8.51	100.6 3.96	225.6 8.88	147.1 5.79	190.0 7.48	78.7 3.10	2.50 0.100	5.80 0.228	107.1 4.21	59.2 2.33	88.9 3.50	63.2 2.49	32.3 71
QF500	1 3/8	115 4 1/2	—	3400	13051 115497	257.3 10.13	118.6 4.67	273.6 10.77	177.8 7.00	235.0 9.25	95.3 3.75	3.20 0.125	6.40 0.252	127.0 5.00	69.9 2.75	102.9 4.05	69.9 2.75	57.3 126
QF1000	1 7/8	140 5 1/2	6 3/16	3000	18418 162997	309.6 12.19	126.7 4.99	308.1 12.13	198.4 7.81	266.7 10.50	116.8 4.60	4.10 0.160	9.86 0.388	152.4 6.00	91.4 3.60	124.0 4.88	77.2 3.04	98.2 216
QF1890	2 1/2	175 7	7 1/2	2400	18418 162997	373.4 14.70	150.1 5.91	365.3 14.38	241.3 9.50	325.1 12.80	145.8 5.74	5.10 0.202	7.06 0.278	184.4 7.26	113.0 4.45	127.0 5.00	85.1 3.35	181.8 400
QF3150	2 1/2	205 8	9	2000	22401 198252	408.4 16.08	159.8 6.29	425.5 16.75	279.4 11.00	383.3 15.09	157.0 6.18	1.80 0.070	7.75 0.305	202.7 7.98	127.0 5.00	139.7 5.50	101.3 3.99	241.8 532
QF10260	2 1/2	280 11	11 1/4	1800	44736 395913	508.3 20.01	231.1 9.10	510.5 20.10	381.0 15.00	450.9 17.75	183.4 7.22	3.20 0.127	12.83 0.505	251.0 9.88	138.4 5.45	201.7 7.94	144.3 5.68	507.3 1116

<sup>(1)</sup>When used with blue insert (see pages 14-15 for complete torque ratings).

<sup>(2)</sup>Weights shown are approximate weights of complete coupling assemblies including two pilot-bore hubs, cover and insert.

## STANDARD COUPLING WITH HIGH-SPEED SPLIT COVER

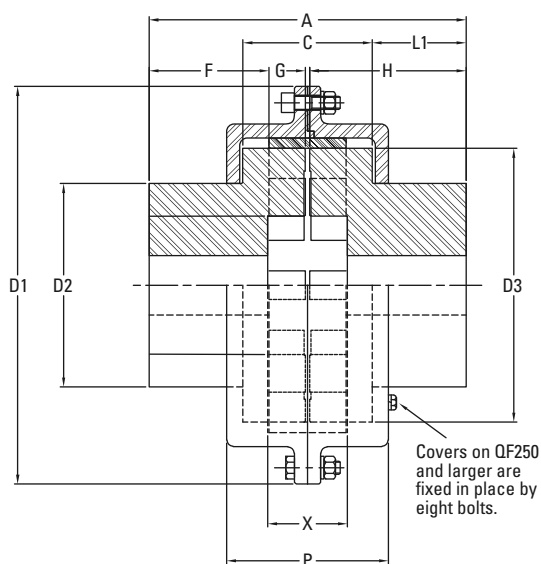


Fig. 22. Standard coupling with high-speed split cover.

TABLE 30. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930
QF500	8487 75114	16313 144372	16313 144372	24794 219429
QF1000	12001 106208	23022 203746	23022 203746	35081 310466
QF1890	19869 175840	38937 344594	38937 344594	62597 553982
QF3150	33942 300387	64004 566434	64004 566434	98434 871139
QF10260	67852 600494	127817 1131179	127817 1131179	188794 1670826

TABLE 31. QUICK-FLEX STANDARD COUPLING WITH HIGH-SPEED SPLIT-COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size		Max. RPM	Max. Torque <sup>(1)</sup>	A	C	D1	D2	D3	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	X	Wt. <sup>(2)</sup>
		Square Key	Shallow Key															
	in.	mm in.	mm in.		Nm in.-lbs.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QF15	17/32	40 1 5/8	—	9000	452 4001	89.9 3.54	32.5 1.28	119.4 4.70	58.7 2.31	64.8 2.55	34.0 1.34	0.90 0.036	3.20 0.126	44.5 1.75	29.0 1.14	45.2 1.78	22.4 0.88	3.2 7
QF25	5/8	50 2 1/8	—	7000	1407 12449	123.4 4.86	50.8 2.00	142.7 5.62	81.0 3.19	85.6 3.37	46.0 1.81	2.00 0.080	3.60 0.140	60.7 2.39	36.1 1.42	63.5 2.5	30.7 1.21	5.9 13
QF50	23/32	60 2 3/8	—	6000	2992 26479	151.4 5.96	61.5 2.42	193.5 7.62	89.4 3.52	114.0 4.49	54.9 2.16	0.90 0.035	5.60 0.220	75.2 2.96	45.2 1.78	87.9 3.46	42.2 1.66	9.1 20
QF100	15/16	75 3	—	4800	6061 53642	179.6 7.07	88.4 3.48	227.3 8.95	108.0 4.25	150.4 5.92	62.5 2.46	3.60 0.140	9.70 0.380	86.4 3.40	44.7 1.76	118.4 4.66	55.6 2.19	21.3 47
QF175	1	95 3 7/8	—	4200	9973 88257	195.3 7.69	93.2 3.67	250.2 9.85	139.7 5.50	171.5 6.75	67.8 2.67	4.80 0.188	8.80 0.348	95.3 3.75	50.8 2.00	124.0 4.88	62.2 2.45	29.5 65
QF250	1 1/2	105 4 1/8	—	3800	13438 118930	216.2 8.51	100.6 3.96	266.7 10.50	147.1 5.79	190.0 7.48	78.7 3.10	2.50 0.100	6.60 0.258	106.9 4.21	59.2 2.33	118.6 4.67	63.2 2.49	36.7 80
QF500	1 7/8	115 4 1/2	—	3400	24794 219429	257.3 10.13	118.6 4.67	342.9 13.50	177.8 7.00	235.0 9.25	95.3 3.75	3.20 0.125	9.50 0.375	127.0 5.00	69.9 2.75	201.2 7.92	69.9 2.75	61.8 136
QF1000	1 7/8	140 5 1/2	6 3/16	3000	35081 310466	309.6 12.19	126.7 4.99	387.4 15.25	198.4 7.81	266.7 10.50	116.8 4.60	4.10 0.160	10.40 0.410	152.4 6.00	91.4 3.60	157.7 6.21	77.2 3.04	102.5 226
QF1890	2 1/2	175 7	7 1/2	2400	62597 553982	373.4 14.70	150.1 5.91	450.9 17.75	241.3 9.50	325.1 12.80	145.8 5.74	5.10 0.202	11.50 0.454	184.4 7.26	113.0 4.45	185.9 7.32	85.1 3.35	186.0 410
QF3150	2 1/2	205 8	9	2000	98434 871139	408.4 16.08	159.8 6.29	497.6 19.56	279.4 11.00	383.3 15.09	157.0 6.18	1.80 0.070	9.652 0.380	202.7 7.98	127.0 5.00	188.5 7.42	101.3 3.99	245.9 542
QF10260	2 1/2	280 11	11 1/4	1200	188794 1670826	508.3 20.01	231.1 9.10	619.3 24.38	381.0 15.00	450.9 17.75	183.4 7.22	3.20 0.127	12.50 0.492	251.0 9.88	138.4 5.45	275.6 10.85	144.3 5.68	515.3 1136

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Weights shown are approximate weights of complete coupling assemblies including two pilot-bore hubs, cover and insert.

# STANDARD COUPLING WITH ALUMINUM HIGH-PERFORMANCE (HP) COVER

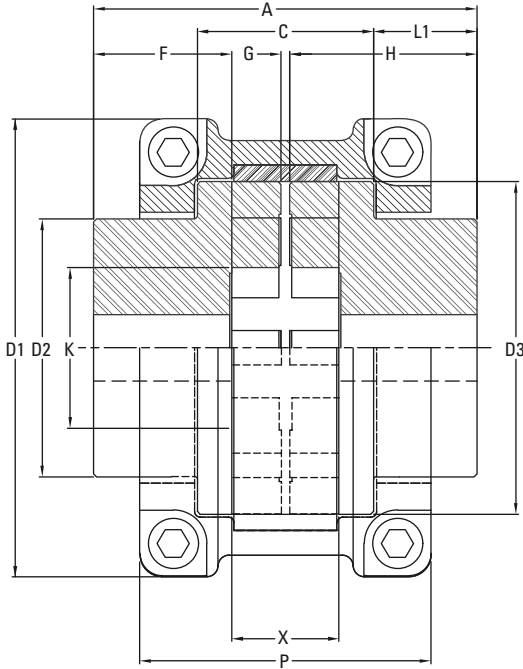


Fig. 23. Standard coupling with aluminum high-performance cover.

TABLE 32. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930
QF500	8487 75114	16313 144372	16313 144372	24794 219429

Coupling Catalog • 11-02-12

TABLE 33. QUICK-FLEX STANDARD COUPLING WITH ALUMINUM HIGH-PERFORMANCE (HP) COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size	Max. RPM	Max. Torque <sup>(1)</sup>	A	C	D1	D2	D3	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	X	Wt. <sup>(2)</sup>
		Square Key															
	in.	mm in.		Nm in.-lbs.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QF15	1/32	40 1 5/8	9000	452 4001	89.9 3.54	32.5 1.28	101.3 3.99	58.7 2.31	64.8 2.55	34.0 1.34	0.90 0.036	5.60 0.220	44.5 1.75	29.0 1.14	49.0 1.93	22.4 0.88	2.3 5
QF25	5/8	50 2 3/8	7000	1407 12449	123.4 4.86	50.8 2.00	135.6 5.34	81.0 3.19	85.6 3.37	46.0 1.81	2.00 0.080	4.10 0.160	60.7 2.39	36.1 1.42	66.3 2.61	30.7 1.21	5.4 12
QF50	23/32	60 2 3/8	6000	2992 26479	151.4 5.96	61.5 2.42	184.9 7.28	89.4 3.52	114.0 4.49	54.9 2.16	0.90 0.035	4.10 0.160	75.2 2.96	45.2 1.78	76.7 3.02	42.2 1.66	7.7 17
QF100	15/16	75 3	4800	6061 53642	179.6 7.07	88.4 3.48	197.1 7.76	108.0 4.25	150.4 5.92	62.5 2.46	3.60 0.140	9.40 0.370	86.4 3.40	44.7 1.76	151.4 5.96	55.6 2.19	18.1 40
QF175	1	95 3 7/8	4200	9973 88257	195.3 7.69	93.2 3.67	216.4 8.52	139.7 5.50	171.5 6.75	67.8 2.67	4.80 0.188	9.30 0.368	95.3 3.75	50.8 2.00	156.7 6.17	62.2 2.45	26.8 59
QF250	1 1/2	105 4 1/8	3800	13438 118930	216.2 8.51	100.6 3.96	261.4 10.29	147.1 5.79	190.0 7.48	78.7 3.10	2.50 0.100	8.10 0.318	106.9 4.21	59.2 2.33	166.1 6.54	63.2 2.49	36.7 81
QF500	1 7/8	115 4 1/2	3400	24794 219429	257.3 10.13	118.6 4.67	305.3 12.02	177.8 7.00	235.0 9.25	95.3 3.75	3.18 0.125	9.53 0.375	127.0 5.00	69.9 2.75	201.2 7.92	69.9 2.75	61.8 136

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Weights shown are approximate weights of complete coupling assemblies including two pilot-bore hubs, cover and insert.

## STANDARD COUPLING WITH LOW-SPEED SPLIT COVER

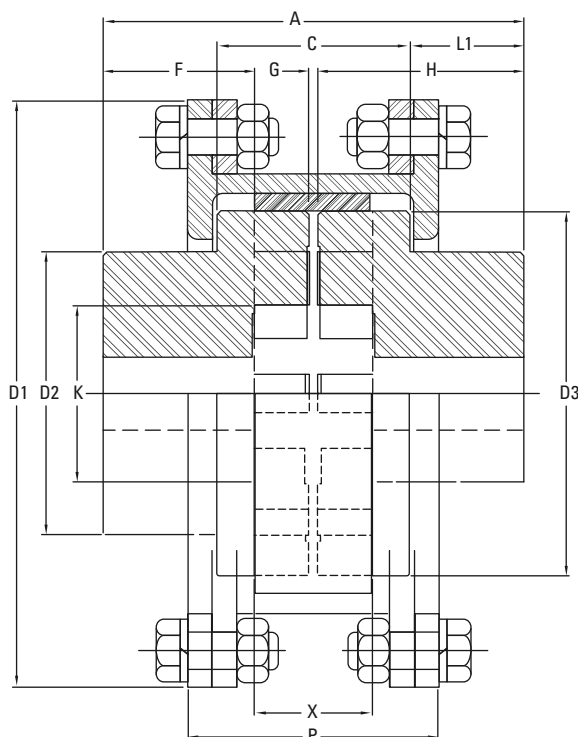


Fig. 24. Standard coupling with low-speed split cover.

### NOTE

When using low-speed split cover, please refer to maximum RPM column in the table at the bottom of this page for allowable speed ratings.

TABLE 34. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930

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TABLE 35. QUICK-FLEX STANDARD COUPLING WITH LOW-SPEED SPLIT-COVER DIMENSIONS

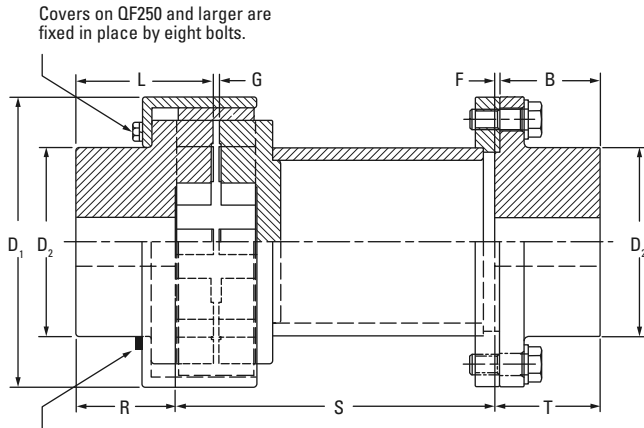
Coupling Series	Pilot-Bore Diameter	Maximum Bore Size	Maximum RPM	Maximum Torque <sup>(1)</sup>	A	C	D1	D2	D3	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	X	Wt. <sup>(2)</sup>
	in.	mm in.		Nm in.-lbs.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QF15	17/32	40 1 5/8	400	452 4001	89.9 3.54	32.5 1.28	124.2 4.89	58.7 2.31	64.8 2.55	34.0 1.34	0.90 0.036	2.50 0.099	44.5 1.75	29.0 1.14	50.8 2.00	22.4 0.88	2.7 6
QF25	5/8	50 2 1/8	375	1407 12449	123.4 4.86	50.8 2.00	145.0 5.71	81.0 3.19	85.6 3.37	46.0 1.81	2.0 0.080	3.40 0.133	60.7 2.39	36.1 1.42	78.0 3.07	30.7 1.21	5.9 13
QF50	23/32	60 2 3/8	350	2992 26479	151.4 5.96	61.5 2.42	192.5 7.58	89.4 3.52	114.0 4.49	54.9 2.16	0.90 0.035	2.60 0.101	75.2 2.96	45.2 1.78	87.9 3.46	42.2 1.66	8.6 19
QF100	15/16	75 3	300	6061 53642	179.6 7.07	88.4 3.48	231.9 9.13	108.0 4.25	150.4 5.92	62.5 2.46	3.60 0.140	9.70 0.380	86.4 3.40	44.7 1.76	118.4 4.66	55.6 2.19	20.0 44
QF175	1	95 3 7/8	250	9973 88257	195.3 7.69	93.2 3.67	282.4 11.12	139.7 5.50	171.5 6.75	67.8 2.67	4.80 0.188	9.50 0.375	95.3 3.75	50.8 2.00	124.0 4.88	62.2 2.45	32.7 72
QF250	1 1/2	105 4 1/8	200	13438 118930	216.2 8.51	10.6 3.96	304.8 12.00	147.1 5.79	190.0 7.48	78.7 3.10	2.50 0.100	9.30 0.365	106.9 4.21	59.2 2.33	130.3 5.13	63.2 2.49	39.5 87

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Weights shown are approximate weights of complete coupling assemblies including two pilot-bore hubs, cover and insert.

# SINGLE-ENDED SPACER COUPLINGS

## SINGLE-ENDED SPACER COUPLING WITH HIGH-SPEED COVER



Covers on QF250 and larger are fixed in place by eight bolts.

Quick-Flex couplings up to QF175 are machined with snap ring grooves to fix the cover in place.

Fig. 25. Single-ended spacer coupling with high-speed cover.

TABLE 36. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black <sup>(1)</sup>
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF5	43 377	93 819	93 819	N/A
QF15	120 1059	234 2075	234 2075	N/A
QF25	387 3426	730 6461	730 6461	N/A
QF50	798 7066	1582 14002	1582 14002	N/A
QF100	1602 14178	3177 28115	3177 28115	N/A
QF175	2780 24602	5325 47123	5325 47123	N/A
QF250	3513 31091	6975 61726	6975 61726	N/A
QF500	6790 60091	13051 115497	13051 115497	N/A
QF1000	9601 84966	18418 162997	18418 162997	N/A
QF1890	9601 84966	18418 162997	18418 162997	N/A
QF3150	11880 105135	22401 198252	22401 198252	N/A
QF10260	23748 210173	44736 395913	44736 395913	N/A

<sup>(1)</sup>When using a high-speed cover, the use of a black insert is not recommended. In an application where high torque is present, use a split-cover option. Contact your Timken application engineer for maximum shaft distance.

TABLE 37. QUICK-FLEX SINGLE-ENDED SPACER COUPLING WITH HIGH-SPEED COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size		Maximum Torque <sup>(1)</sup>	B	D1	D2	F	G <sub>Min</sub>	G <sub>Max</sub>	L	R	S <sub>Max</sub> <sup>(2)</sup>	T
		Square Key	Shallow Key											
		mm in.	mm in.											
QF15	1 1/32	40 1 5/8	—	234 2075	38.1 1.50	80.3 3.16	58.7 2.31	1.0 0.04	0.90 0.036	2.80 0.110	44.5 1.75	34.0 1.34	255 10	39.1 1.54
QF25	5/8	50 2 1/8	—	730 6461	51.1 2.01	106.9 4.21	81.0 3.19	1.0 0.04	2.00 0.080	5.20 0.205	60.7 2.39	46.0 1.81	305 12	52.1 2.05
QF50	2 3/32	60 2 3/8	—	1582 14002	61.2 2.41	139.2 5.48	89.4 3.52	1.0 0.04	0.90 0.035	5.30 0.208	75.2 2.96	54.9 2.16	355 14	62.2 2.45
QF100	1 5/16	75 3	—	3177 28115	60.5 2.38	177.8 7.00	108.0 4.25	3.8 0.15	3.60 0.140	7.40 0.290	86.4 3.40	61.0 2.40	405 16	64.3 2.53
QF175	1	95 3 7/8	—	5325 47123	72.4 2.85	203.2 8.00	139.7 5.50	3.8 0.15	4.80 0.188	5.30 0.208	95.3 3.75	66.5 2.62	455 18	76.2 3.00
QF250	1 1/2	105 4 1/8	—	6975 61726	78.2 3.08	225.6 8.88	147.1 5.79	3.8 0.15	2.50 0.100	5.80 0.230	106.9 4.21	77.7 3.06	505 20	82.0 3.23
QF500	1 7/8	115 4 1/2	—	13051 115497	78.2 3.08	273.6 10.77	177.8 7.00	3.8 0.15	3.20 0.125	6.40 0.250	127.0 5.00	94.5 3.72	610 24	94.5 3.72
QF1000	1 7/8	140 5 1/2	—	18418 162997	83.1 3.27	308.1 12.13	198.4 7.81	3.8 0.15	4.10 0.160	9.86 0.388	152.4 6.00	116.8 4.60	760 30	166.8 4.60
QF1890	2 1/2	175 7	—	18418 162997	87.6 3.45	365.3 14.38	241.3 9.50	3.8 0.15	5.10 0.202	7.06 0.278	184.4 7.26	145.8 5.74	760 30	145.8 5.74
QF3150	2 1/2	205 8	—	22401 198252	111.3 4.38	425.5 16.75	279.4 11.00	5.1 0.20	1.80 0.070	7.75 0.305	202.7 7.98	157.0 6.18	915 36	157.0 6.18
QF10260	2 1/2	280 11	—	44736 395913	172.7 6.80	510.5 20.10	381.0 15.00	5.1 0.20	3.20 0.127	12.83 0.505	251.0 9.88	183.4 7.22	915 36	183.4 7.22

<sup>(1)</sup>When used with blue insert (see pages 14-15 for complete torque ratings).

<sup>(2)</sup>Dimension shown is maximum distance between shafts. Please provide S dimension when ordering.



# SINGLE-ENDED SPACER COUPLING WITH HIGH-SPEED SPLIT COVER

Covers on QF250 and larger are fixed in place by eight bolts.

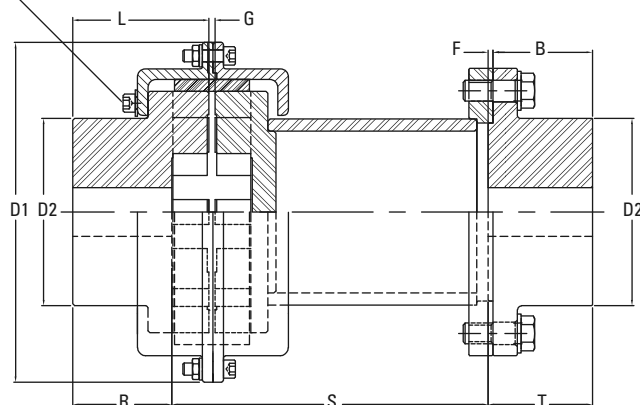


Fig. 26. Single-ended spacer coupling with high-speed split cover.

TABLE 38. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930
QF500	8487 75114	16313 144372	16313 144372	24794 219429
QF1000	12001 106208	23022 203746	23022 203746	35081 310466
QF1890	19869 175840	38937 344594	38937 344594	62597 553982
QF3150	33942 300387	64004 566434	64004 566434	98434 871139
QF10260	67852 600494	127817 1131179	127817 1131179	188794 1670826

TABLE 39. QUICK-FLEX SINGLE-ENDED SPACER COUPLING WITH HIGH-SPEED SPLIT-COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size		Maximum Torque <sup>(1)</sup>	B	D1	D2	F	G <sub>Min</sub>	G <sub>Max</sub>	L	R	S <sub>Max</sub> <sup>(2)</sup>	T
		Square Key	Shallow Key											
		in.	mm in.											
QF15	17/32	40 1 5/8	—	452 4001	38.1 1.50	119.4 4.70	58.7 2.31	1.0 0.04	0.90 0.036	3.20 0.126	44.5 1.75	34.0 1.34	255 10	39.1 1.54
QF25	5/8	50 2 1/8	—	1407 12449	51.1 2.01	142.6 5.62	81.0 3.19	1.0 0.04	2.00 0.080	3.60 0.140	60.7 2.39	46.0 1.81	305 12	52.1 2.05
QF50	23/32	60 2 3/8	—	2992 26479	61.2 2.41	193.5 7.62	89.4 3.52	1.0 0.04	0.90 0.035	5.60 0.220	75.2 2.96	54.9 2.16	355 14	62.2 2.45
QF100	15/16	75 3	—	6061 53642	60.5 2.38	227.3 8.95	108.0 4.25	3.8 0.15	3.550 0.140	9.70 0.380	86.4 3.40	61.0 2.40	405 16	64.3 2.53
QF175	1	95 3 7/8	—	9973 88257	72.4 2.85	250.2 9.85	139.7 5.50	3.8 0.15	4.80 0.188	8.80 0.348	95.3 3.75	66.5 2.62	455 18	76.2 3.00
QF250	1 1/2	105 4 1/8	—	13438 118930	78.2 3.08	266.7 10.50	147.1 5.79	3.8 0.15	2.50 0.100	6.60 0.258	106.9 4.21	77.7 3.06	505 20	82.0 3.23
QF500	1 7/8	115 4 1/2	—	24794 219429	78.2 3.08	342.9 13.50	177.8 7.00	3.8 0.15	3.20 0.125	9.50 0.375	127.0 5.00	94.5 3.72	610 24	94.5 3.72
QF1000	1 7/8	140 5 1/2	6 3/16	35081 310466	83.1 3.27	387.4 15.25	198.4 7.81	3.8 0.15	4.10 0.160	10.40 0.410	152.4 6.00	116.8 4.60	760 30	166.8 4.60
QF1890	2 1/2	175 7	— 7 1/2	62597 553982	87.6 3.45	450.9 17.75	241.3 9.50	3.8 0.15	5.10 0.202	11.50 0.454	184.4 7.26	145.8 5.74	760 30	145.8 5.74
QF3150	2 1/2	205 8	— 9	98434 871139	111.3 4.38	497.6 19.59	279.4 11.00	5.1 0.20	1.80 0.070	9.652 0.380	202.7 7.98	157.0 6.18	915 36	157.0 6.18
QF10260	2 1/2	280 11	— 11 1/4	188794 1670826	172.7 6.80	619.3 24.38	381.0 15.00	5.1 0.20	3.20 0.127	12.50 0.492	251.0 9.88	183.4 7.22	915 36	183.4 7.22

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Dimension shown is maximum distance between shafts. Please provide S dimension when ordering.

# SINGLE-ENDED SPACER COUPLING WITH ALUMINUM HIGH-PERFORMANCE (HP) COVER

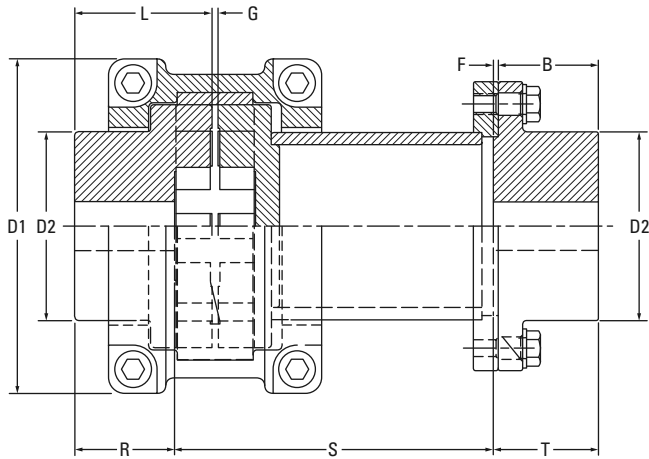


Fig. 27. Single-ended spacer coupling with aluminum high-performance cover.

TABLE 40. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930
QF500	8487 75114	16313 144372	16313 144372	24794 219429

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TABLE 41. QUICK-FLEX SINGLE-ENDED SPACER COUPLING WITH ALUMINUM HIGH-PERFORMANCE (HP) COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size	Maximum Torque <sup>(1)</sup>	B	D1	D2	F	G <sub>Min</sub>	G <sub>Max</sub>	L	R	S <sub>Max</sub> <sup>(2)</sup>	T
		Square Key											
	in.	mm in.	Nm in.-lbs.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QF15	1/32	40 1 5/8	452 4001	38.1 1.50	101.3 3.99	58.7 2.31	1.0 0.04	0.90 0.036	5.60 0.220	44.5 1.75	34.0 1.34	255 10	39.1 1.54
QF25	5/8	50 2 1/8	1407 12449	51.1 2.01	135.6 5.34	81.0 3.19	1.0 0.04	2.0 0.080	4.10 0.160	44.5 2.39	46.0 1.81	305 12	52.1 2.05
QF50	23/32	60 2 3/8	2992 26479	61.2 2.41	184.9 7.28	89.4 3.52	1.0 0.04	0.90 0.035	4.10 0.160	75.2 2.96	54.9 2.16	355 14	62.2 2.45
QF100	15/16	75 3	6061 53642	60.5 2.38	197.1 7.76	108.0 4.25	3.8 0.15	3.60 0.140	9.40 0.370	86.4 3.4	61.0 2.40	405 16	64.3 2.53
QF175	1	95 3 7/8	9973 88257	72.4 2.85	216.4 8.52	139.7 5.50	3.8 0.15	4.80 0.188	9.30 0.368	95.3 3.75	66.4 2.62	455 18	76.2 3.00
QF250	1 1/2	105 4 1/8	13438 118930	78.2 3.08	261.4 10.29	147.1 5.79	3.8 0.15	2.50 0.100	8.10 0.318	106.9 4.21	77.7 3.06	510 20	82.0 3.23
QF500	1 7/8	115 4 1/2	24794 219429	78.2 3.08	305.3 12.02	177.8 7.00	3.8 0.15	3.18 0.125	9.53 0.375	127.0 5.00	94.5 3.72	610 24	94.5 3.72

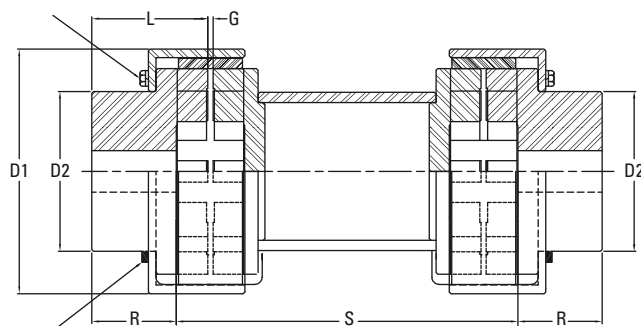
<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Dimension shown is maximum distance between shafts. Please provide S dimension when ordering.

# DOUBLE-ENDED SPACER COUPLINGS

## DOUBLE-ENDED SPACER COUPLING WITH HIGH-SPEED COVERS

Covers on QF250 and larger are fixed in place by eight bolts.



Quick-Flex couplings up to QF175 are machined with snap-ring grooves to fix the cover in place.

**Fig. 28. Double-ended spacer coupling with high-speed covers.**

**TABLE 42. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS**

Coupling Series	Red	Blue	White	Black <sup>(1)</sup>
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF5	43 377	93 819	93 819	N/A
QF15	120 1059	234 2075	234 2075	N/A
QF25	387 3426	730 6461	730 6461	N/A
QF50	798 7066	1582 14002	1582 14002	N/A
QF100	1602 14178	3177 28115	3177 28115	N/A
QF175	2780 24602	5325 47123	5325 47123	N/A
QF250	3513 31091	6975 61726	6975 61726	N/A
QF500	6790 60091	13051 115497	13051 115497	N/A
QF1000	9601 84966	18418 162997	18418 162997	N/A

<sup>(1)</sup>When using a high-speed cover, the use of a black insert is not recommended. In an application where high torque is present, use a split-cover option. Contact your Timken application engineer for maximum shaft distance.

**TABLE 43. QUICK-FLEX DOUBLE-ENDED SPACER COUPLING WITH HIGH-SPEED COVERS DIMENSIONS**

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size		Maximum Torque <sup>(1)</sup>	D1	D2	G <sub>Min</sub>	G <sub>Max</sub>	L	R	S
		Square Key	Shallow Key								
		in.	mm in.								
QF15	17/32	40 1 5/8	— —	234 2075	80.3 3.16	58.7 2.31	1.600 0.062	2.800 0.110	44.5 1.75	34.0 1.34	(2)
QF25	5/8	50 2 1/8	— —	730 6461	106.9 4.21	81.0 3.19	1.600 0.062	5.200 0.205	60.7 2.39	46.0 1.81	(2)
QF50	23/32	60 2 3/8	— —	1582 14002	139.2 5.48	89.4 3.52	1.600 0.062	5.300 0.208	75.2 2.96	54.9 2.16	(2)
QF100	15/16	75 3	— —	3177 28115	177.8 7.00	108.0 4.25	4.800 0.188	7.400 0.290	86.4 3.40	61.0 2.40	(2)
QF175	1	95 3 7/8	— —	5325 47123	203.2 8.00	139.7 5.50	4.800 0.188	5.300 0.208	95.3 3.75	66.5 2.62	(2)
QF250	1 1/2	105 4 1/8	— —	6975 61726	225.6 8.88	147.1 5.79	4.800 0.188	5.800 0.230	106.9 4.21	77.7 3.06	(2)
QF500	1 7/8	115 4 1/2	— —	13051 115497	273.6 10.77	177.8 7.00	4.800 0.188	6.400 0.250	127.0 5.00	94.5 3.72	(2)
QF1000	1 7/8	140 5 1/2	— 6 3/16	18418 162997	308.1 12.13	198.4 7.81	152.4 6.00	4.10 0.160	9.86 0.388	116.8 4.60	(2)

<sup>(1)</sup>When used with blue insert (see pages 14-15 for complete torque ratings).

<sup>(2)</sup>Customer to provide S dimension when ordering.

# DOUBLE-ENDED SPACER COUPLING WITH HIGH-SPEED SPLIT COVERS

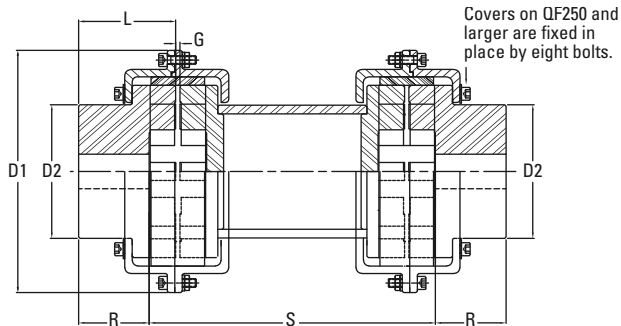


Fig. 29. Double-ended spacer coupling with high-speed split covers.

TABLE 44. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930
QF500	8487 75114	16313 144372	16313 144372	24794 219429
QF1000	12001 106208	23022 203746	23022 203746	35081 310466
QF1890	19869 175840	38937 344594	38937 344594	62597 553982
QF3150	33942 300387	64004 566434	64004 566434	98434 871139
QF10260	67852 600494	127817 1131179	127817 1131179	188794 1670826

TABLE 45. QUICK-FLEX DOUBLE-ENDED SPACER COUPLING WITH HIGH-SPEED SPLIT-COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size		Maximum Torque <sup>(1)</sup>	D1	D2	G <sub>Min</sub>	G <sub>Max</sub>	L	R	S
		Square Key	Shallow Key								
		in.	mm in.								
QF15	17/32	40 1 5/8	—	452 4001	119.4 4.70	58.7 2.31	0.90 0.036	3.20 0.126	44.5 1.75	34.0 1.34	(2)
QF25	5/8	50 2 1/8	—	1407 12449	142.7 5.62	81.0 3.19	2.00 0.080	3.60 0.140	60.7 2.39	46.0 1.81	(2)
QF50	23/32	60 2 3/8	—	2992 26479	193.5 7.62	89.4 3.52	0.90 0.035	5.60 0.220	75.2 2.96	54.9 2.16	(2)
QF100	15/16	75 3	—	6061 53642	227.3 8.95	108.0 4.25	3.60 0.140	9.70 0.380	86.4 3.40	61.0 2.40	(2)
QF175	1	95 3 7/8	—	9973 88257	250.2 9.85	139.7 5.50	4.80 0.188	8.80 0.348	95.3 3.75	66.5 2.62	(2)
QF250	1 1/2	105 4 1/8	—	13438 118930	266.7 10.50	147.1 5.79	2.50 0.100	6.60 0.258	106.9 4.21	77.7 3.06	(2)
QF500	1 7/8	115 4 1/2	—	24794 219429	3.42.9 13.5	177.8 7.00	3.20 0.125	9.50 0.375	127.0 5.00	94.5 3.72	(2)
QF1000	1 3/4	140 5 1/2	6 3/16	35081 310466	387.4 15.25	198.4 7.81	4.10 0.160	10.40 0.410	152.4 6.00	116.8 4.60	(2)
QF1890	2 1/2	175 7	—	62597 553982	450.9 17.75	241.3 9.50	5.10 0.202	11.50 0.454	184.4 7.26	145.8 5.74	(2)
QF3150	2 1/2	205 8	9	98434 871139	497.6 19.59	279.4 11.00	1.80 0.070	9.652 0.380	202.7 7.98	157.0 6.18	(2)
QF10260	2 1/2	280 11	11 1/4	188794 1670826	619.3 24.38	381.0 15.00	3.20 0.127	12.50 0.492	251.0 9.88	183.4 7.22	(2)

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Customer to provide S dimension when ordering.

## DOUBLE-ENDED SPACER COUPLING WITH ALUMINUM HIGH-PERFORMANCE (HP) COVERS

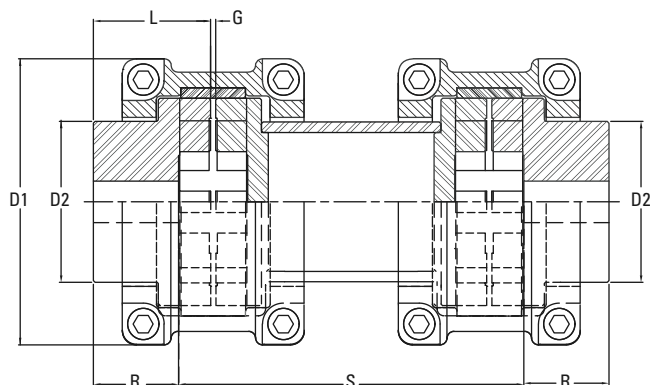


Fig. 30. Double-ended spacer coupling with aluminum high-performance covers.

TABLE 46. QUICK-FLEX INSERT MAXIMUM TORQUE RATINGS

Coupling Series	Red	Blue	White	Black
	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.	Nm in.-lbs.
QF15	150 1324	293 2594	293 2594	452 4001
QF25	484 4283	913 8077	913 8077	1407 12449
QF50	998 8833	1978 17502	1978 17502	2992 26479
QF100	2003 17723	3971 35144	3971 35144	6061 53642
QF175	3475 30753	6656 58903	6656 58903	9973 88257
QF250	4391 38864	8718 77158	8718 77158	13438 118930
QF500	8487 75114	16313 144372	16313 144372	24794 219429

TABLE 47. QUICK-FLEX DOUBLE-ENDED SPACER COUPLING WITH ALUMINUM HIGH-PERFORMANCE (HP) COVER DIMENSIONS

Coupling Series	Pilot-Bore Diameter	Maximum Bore Size	Maximum Torque <sup>(1)</sup>	D1	D2	G <sub>Min</sub>	G <sub>Max</sub>	L	R	S
		Square Key								
	in.	mm in.	Nm in.-lbs.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.
QF15	17/32	40 1 5/8	452 4001	101.3 3.99	58.7 2.31	0.90 0.036	5.60 0.220	44.5 1.75	34.0 1.34	(2)
QF25	5/8	50 2 1/8	1407 12449	135.6 5.34	81.0 3.19	2.00 0.080	4.00 0.160	60.7 2.39	46.0 1.81	(2)
QF50	23/32	60 2 3/8	2992 26479	184.9 7.28	89.4 3.52	0.90 0.035	4.00 0.160	75.2 2.96	54.9 2.16	(2)
QF100	15/16	75 3	6061 53642	197.1 7.76	108.0 4.25	3.60 0.140	9.40 0.370	86.4 3.40	61.0 2.40	(2)
QF175	1	95 3 7/8	9973 88257	216.4 8.52	139.7 5.50	4.60 0.180	9.30 0.368	95.3 3.75	66.5 2.62	(2)
QF250	1 1/2	105 4 1/8	13438 118930	261.4 10.29	147.1 5.79	2.540 0.100	8.10 0.318	106.9 4.21	77.7 3.06	(2)
QF500	1 7/8	115 4 1/2	24794 219429	305.31 12.02	177.8 7.00	3.18 0.125	9.53 0.375	127.0 5.00	94.49 3.72	(2)

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Customer to provide S dimension when ordering.

# DOUBLE-ENDED SPACER FLANGE COUPLING WITH HIGH-SPEED SPLIT COVERS

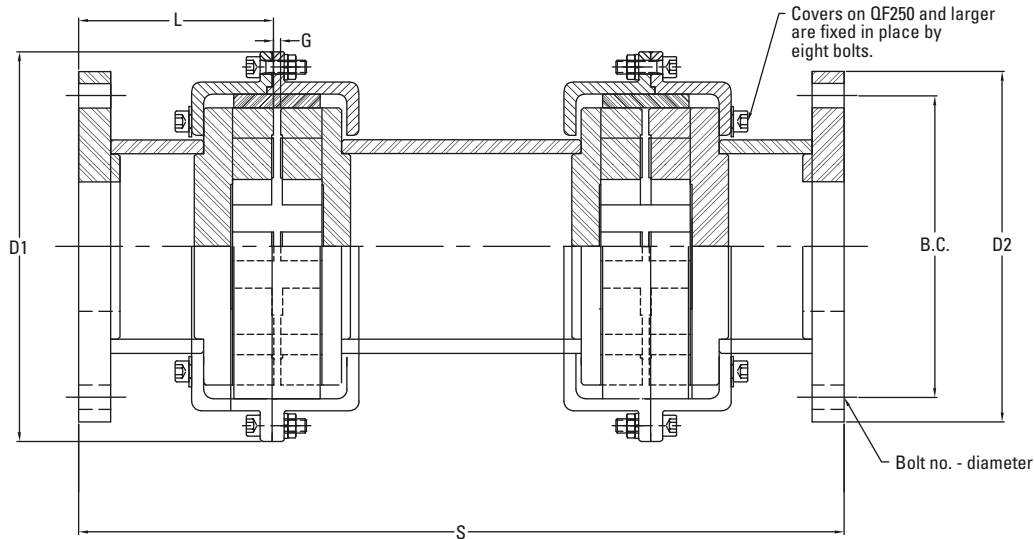


Fig. 31. Double-ended spacer flange coupling with high-speed split covers.

TABLE 48. QUICK-FLEX DOUBLE-ENDED SPACER FLANGE COUPLING WITH HIGH-SPEED SPLIT-COVER DIMENSIONS

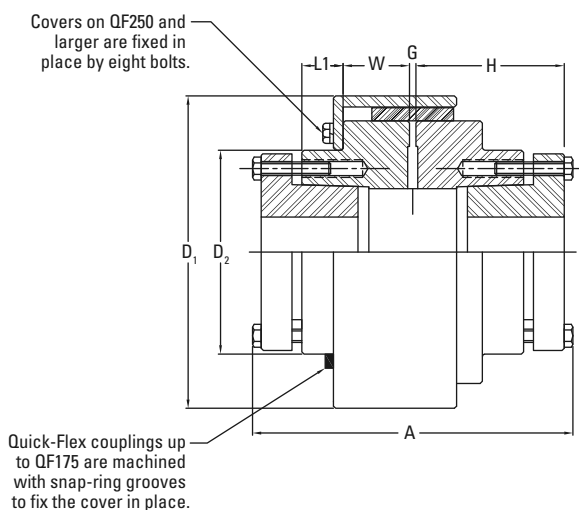
Coupling Series	G52 Gear Coupling	Maximum Torque <sup>(1)</sup>	B.C.	D1	D2	G <sub>Min</sub>	G <sub>Max</sub>	L	S	S <sub>Min</sub>
		Nm in.-lbs.								
QF25	1010G52	1407	95.3	147.8	115.9	2.03	3.56	59.2	(2)	198.1
		12449	3.75	5.62	4.56	0.080	0.140	2.33		7.80
QF50	1015G52	2992	122.2	193.5	152.4	0.89	5.59	78.2	(2)	263.7
		26479	4.81	7.62	6.00	0.035	0.220	3.08		10.38
QF100	1020G52	6061	149.2	227.3	177.8	3.56	9.65	100.1	(2)	345.4
		53642	5.88	8.95	7.00	0.140	0.380	3.94		13.60
QF175	1025G52	9973	181.0	250.2	212.7	4.78	8.84	112.5	(2)	374.7
		88257	7.13	9.85	8.38	0.188	0.348	4.43		14.75
QF250	1030G52	13438	206.4	266.7	239.7	2.54	6.55	154.2	(2)	451.4
		118930	8.13	10.50	9.44	0.100	0.258	6.07		17.77
QF500	1035G52	24794	241.3	342.9	279.4	3.18	9.53	188.2	(2)	563.9
		219429	9.50	13.50	11.00	0.125	0.375	7.41		22.20
QF500	1040G52	24794	279.4	312.2	317.5	3.18	9.53	188.2	(2)	563.9
		219429	11.00	12.29	12.50	0.125	0.375	7.41		22.20
QF1000	1045G52	35081	304.8	387.4	346.1	4.06	10.41	192.0	(2)	580.1
		310466	12.00	15.25	13.63	0.160	0.410	7.56		22.84
QF1890	1050G52	62597	342.9	450.9	389.0	5.13	11.53	219.7	(2)	673.1
		553982	13.50	17.75	15.31	0.202	0.454	8.65		26.50
QF1890	1055G52	62597	368.3	450.9	425.4	5.13	11.53	219.7	(2)	673.1
		553982	14.50	17.75	16.75	0.202	0.454	8.65		26.50
QF3150	1060G52	98434	400.1	497.6	457.2	1.78	11.56	209.0	(2)	644.7
		871138	15.75	19.59	18.00	0.070	0.455	8.23		25.38
QF10260	1070G52	188794	469.9	619.3	527.1	3.23	12.50	258.6	(2)	850.9
		1670826	18.50	24.38	20.75	0.127	0.492	10.18		33.50
QF10260	1080G52	188794	527.1	619.3	603.3	3.23	12.50	266.5	(2)	866.1
		1670826	20.75	24.38	23.75	0.127	0.492	10.49		34.10
QF10260	1090G52	188794	590.6	619.3	660.4	3.23	12.50	276.6	(2)	886.0
		1670826	23.25	24.38	26.00	0.127	0.492	10.89		34.88

<sup>(1)</sup>When used with black insert (see pages 16-17 for complete torque ratings).

<sup>(2)</sup>Customer to provide S dimension when ordering.

# BUSHING-STYLE INTERCHANGE COUPLINGS

## QUICK-FLEX BROWNING® STYLE HUBS



### NOTE

Bushing-style couplings are available with all cover and insert options. Bushings are not supplied with Quick-Flex bushing-style interchange coupling hubs.

Fig. 32. Quick-Flex Browning® style hubs.

TABLE 49. QUICK-FLEX BROWNING® STYLE HUB DIMENSIONS

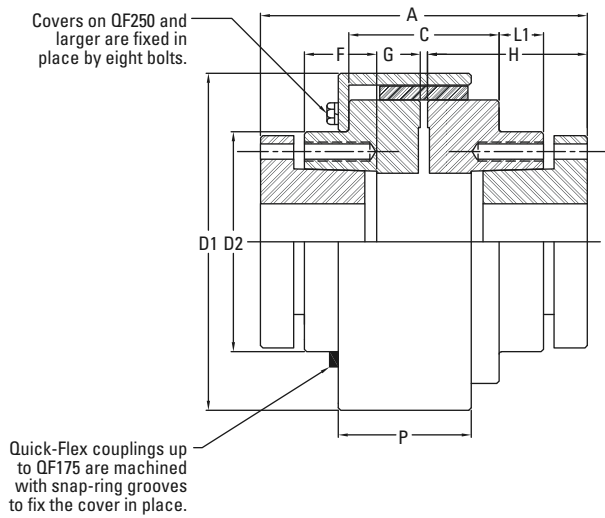
Coupling Series	Bushing Part No.	Bushing Torque Ratings		Bore Range	A	D1	D2	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	W	Wt.
		Nm	in.-lbs.										
QF5	G	203	1800	10 - 25	69.9	63.2	50.8	1.60	2.30	23.1	11.4	12.7	0.9
				½ - 1	2.75	2.49	2.00	0.062	0.092	0.91	0.45	0.50	2
QF15 <sup>(1)</sup>	H	421	3730	10 - 38	77.7	80.3	58.7	0.90	2.50	33.3	17.8	15.5	2.3
				¾ - 1 ½	3.06	3.16	2.31	0.036	0.099	1.31	0.70	0.61	5
QF25	P1	1069	9460	14 - 42	141.7	106.9	81.0	2.00	5.20	70.1	23.4	24.4	3.6
				½ - 1 ¾	5.58	4.21	3.19	0.08	0.205	2.76	0.92	0.96	8
QF50	P1	1164	10300	14 - 42	153.2	139.7	89.4	0.90	5.30	75.7	23.6	30.0	5.9
				½ - 1 ¾	6.03	5.50	3.52	0.035	0.208	2.98	0.93	1.18	13
QF100	Q1	2316	20500	18 - 65	193.8	108.0	108.0	3.60	7.40	94.5	26.4	41.7	10.9
				¾ - 2 11/16	7.63	4.25	4.25	0.140	0.290	3.72	1.04	1.64	24
QF175	R1	4621	40900	28 - 95	220.0	203.2	139.7	4.80	5.30	100.6	33.8	44.5	15.4
				1 ½ - 3 ¾	8.66	8.00	5.50	0.188	0.208	3.96	1.33	1.75	34
QF250	R1	4621	40900	28 - 95	221.5	225.3	147.1	2.50	5.80	108.2	31.0	47.8	20.4
				1 ½ - 3 ¾	8.72	8.87	5.79	0.100	0.230	4.26	1.22	1.88	45
QF500	S1	5876	52000	42 - 100	309.4	273.6	177.8	3.20	6.40	152.4	58.7	57.2	43.5
				1 11/16 - 4 ¼	12.18	10.77	7.00	0.125	0.250	6.00	2.31	2.25	96

<sup>(1)</sup>Available with low-speed split cover only.

NOTE: Bushing limits torque rating and speed rating.

NOTE: Timken is not affiliated with EPT®, owner of the Browning® trademark.

## QUICK-FLEX QD® STYLE HUBS



### NOTE

Bushings are not supplied with Quick-Flex bushing-style interchange coupling hubs. Bushing-style couplings are available with all cover and insert options.

Fig. 33. Quick-Flex QD® style hubs.

TABLE 50. QUICK-FLEX QD® STYLE HUB DIMENSIONS

Coupling Series	Bushing Type	Bushing Torque Rating	Bore Range	A	C	D1	D2	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	Wt.
		Nm in.-lbs.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QF15 <sup>(1)</sup>	JA	113 1000	24 - 28 ½ - 1¼	90.4 3.56	32.5 1.28	80.3 3.16	58.7 2.31	21.3 0.84	0.90 0.036	2.50 0.099	44.5 1.75	16.3 0.64	33.8 1.33	2.3 5
QF25	SD	395 3500	24 - 42 ½ - 1¾	122.7 4.83	50.5 1.99	106.9 4.21	81.0 3.19	29.2 1.15	2.00 0.080	5.20 0.205	60.7 2.39	19.3 0.76	49.0 1.93	4.1 9
QF50	SD	565 5000	24 - 42 ½ - 2	151.9 5.98	61.5 2.42	139.7 5.50	89.4 3.52	38.1 1.50	0.90 0.035	5.30 0.208	75.2 2.96	28.4 1.12	45.7 1.80	6.8 15
QF100	SK	791 7000	24 - 55 ½ - 2 ½	177.5 6.99	88.4 3.48	177.8 7.00	108.0 4.25	42.7 1.68	3.60 0.140	7.40 0.290	86.4 3.40	24.6 0.97	75.2 2.96	11.3 25
QF175	SF	1243 11000	28 - 60 ½ - 2 15/16	194.8 7.67	93.2 3.67	203.2 8.00	139.7 5.50	46.5 1.83	4.80 0.188	5.30 0.208	95.3 3.75	29.5 1.16	83.1 3.27	15.9 35
QF250	SF	1243 11000	28 - 60 ½ - 2 15/16	218.7 8.61	100.6 3.96	225.6 8.88	147.1 5.79	57.4 2.26	2.50 0.100	5.80 0.230	107.0 4.21	37.6 1.48	90.0 3.50	21.3 47
QF500	F	3390 30000	45 - 90 1 - 4	270.0 10.63	119.1 4.69	273.6 10.77	177.8 7.00	66.8 2.63	3.20 0.125	6.40 0.250	132.6 5.22	41.4 1.63	102.3 4.05	44.9 99

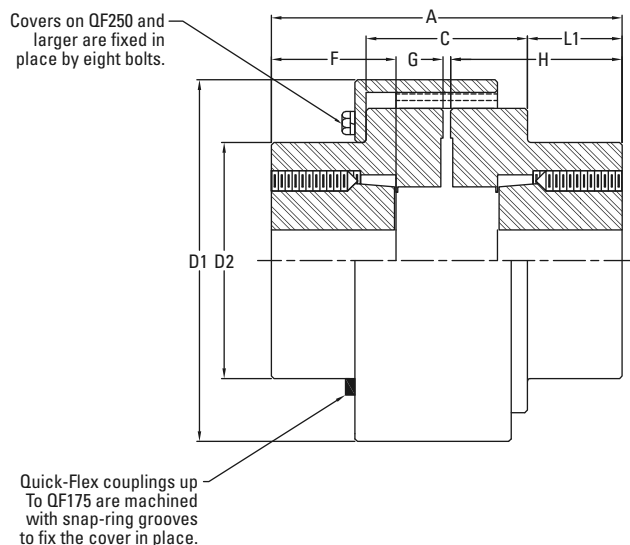
<sup>(1)</sup>Available with low-speed split cover only.

NOTE: Bushing limits torque rating and speed rating.

NOTE: Timken is not affiliated with Baldor, owner of the QD® trademark.



## QUICK-FLEX TAPER-LOCK® STYLE HUBS



### NOTE

Bushings are not supplied with Quick-Flex bushing-style interchange coupling hubs. Bushing-style couplings are available with all cover and insert options.

Fig. 34. Quick-Flex Taper-Lock® style hubs.

TABLE 51. QUICK-FLEX TAPER-LOCK® STYLE HUB DIMENSIONS

Coupling Series	Bushing Type	Bushing Torque Rating	Bore Range	Maximum RPM	A	C	D1	D2	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	Wt.
		Nm in.-lbs.	mm in.		mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
QF5	1108	136 1200	14 - 25 ½ - 1 ½	5000	62.2 2.45	26.2 1.03	63.2 2.49	50.8 2.00	22.6 0.89	1.60 0.062	2.30 0.092	30.0 1.18	17.8 0.70	1.8 4
QF25	1610	486 4300	14 - 40 ½ - 1 ¾	4500	92.5 3.64	50.8 2.00	106.9 4.21	81.0 3.19	26.2 1.03	2.00 0.080	5.20 0.205	43.4 1.71	18.8 0.74	3.6 8
QF50	2012	808 7150	14 - 48 ½ - 1 ¾	4000	108.2 4.26	61.5 2.42	139.7 5.50	89.4 3.52	38.4 1.51	0.90 0.035	5.30 0.208	53.3 2.10	31.5 1.24	6.4 14
QF100	2517	1311 11600	14 - 65 ¾ - 2 1/16	3200	172.2 6.78	88.4 3.48	177.8 7.00	108.0 4.25	75.7 2.98	3.60 0.140	7.40 0.290	83.8 3.30	41.9 1.65	11.3 25
QF175	3020	2712 24000	24 - 75 1 ½ - 3 ¼	2800	196.9 7.75	93.2 3.67	203.2 8.00	139.7 5.50	79.2 3.12	4.80 0.188	5.30 0.208	96.0 3.78	51.8 2.04	15.4 34
QF250	3020	2712 24000	24 - 75 1 ½ - 3 ¼	2500	202.9 7.99	100.6 3.96	225.3 8.87	147.1 5.79	83.6 3.29	2.50 0.100	5.80 0.230	99.1 3.90	53.3 2.10	20.9 46

NOTE: Bushing limits torque rating and speed rating.

NOTE: Timken is not affiliated with Reliance Electric Industrial Company, owner of the TAPER-LOCK® trademark.

## SPLINED-HUB COUPLINGS

### QUICK-FLEX SPLINED HUBS

All of our splined-hub couplings come standard with blind set screws. Since the set screws never touch the shaft, there is never any damage to the splined shaft, all the while spreading the pressure over a larger area for a tighter compression.

#### NOTE

*Splined-hub couplings are available with all cover and insert options.*

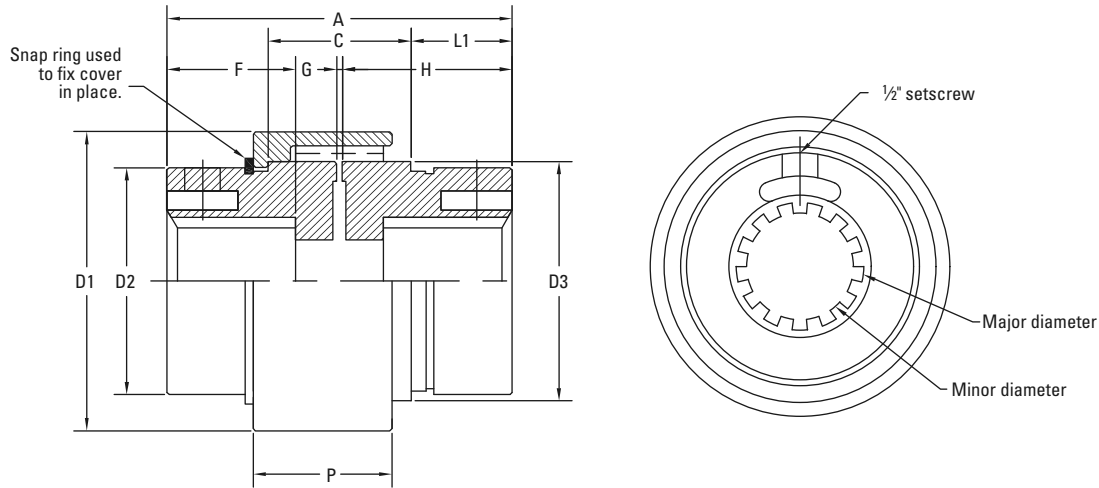


Fig. 35. Quick-Flex splined hubs.

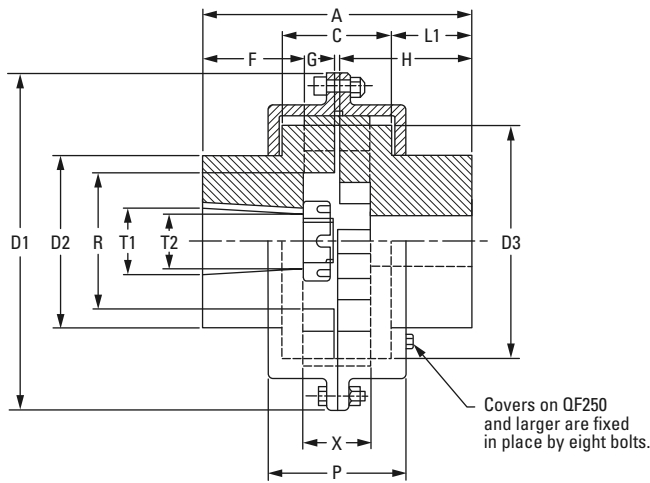
TABLE 52. QUICK-FLEX SPLINED-HUB DIMENSIONS

Part Number	Coupling Series	Spline Form					A
		No. of Teeth	Diametrel Pitch	Pitch Diameter	Major Diameter	Minor Diameter	
			in.	in.	in.	in.	mm in.
QF25SPL13T16/32	QF25	13	$\frac{16}{32}$	0.813	0.897	0.750	123.4 4.86
QF25SPL13T8/16	QF25	13	$\frac{8}{16}$	1.625	1.794	1.500	123.4 4.86
QF25SPL14T12/24	QF25	14	$\frac{12}{24}$	1.167	1.283	1.087	123.4 4.86
QF50SPL13T16/32	QF50	13	$\frac{16}{32}$	0.813	0.897	0.750	151.4 5.96
QF50SPL13T8/16	QF50	13	$\frac{8}{16}$	1.625	1.794	1.500	151.4 5.96
QF50SPL14T12/24	QF50	14	$\frac{12}{24}$	1.167	1.283	1.087	151.4 5.96

C	D1	D2	D3	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	Wt.
mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.
<b>50.8</b> 2.00	<b>106.9</b> 4.21	<b>81.0</b> 3.19	<b>85.6</b> 3.37	<b>46.0</b> 1.81	<b>2.00</b> 0.080	<b>5.30</b> 0.210	<b>60.7</b> 2.39	<b>36.1</b> 1.42	<b>49.5</b> 1.95	<b>4.5</b> 10
<b>50.8</b> 2.00	<b>106.9</b> 4.21	<b>81.0</b> 3.19	<b>85.6</b> 3.37	<b>46.0</b> 1.81	<b>2.00</b> 0.080	<b>5.30</b> 0.210	<b>60.7</b> 2.39	<b>36.1</b> 1.42	<b>49.5</b> 1.95	<b>4.5</b> 10
<b>50.8</b> 2.00	<b>106.9</b> 4.21	<b>81.0</b> 3.19	<b>85.6</b> 3.37	<b>46.0</b> 1.81	<b>2.00</b> 0.080	<b>5.30</b> 0.210	<b>60.7</b> 2.39	<b>36.1</b> 1.42	<b>49.5</b> 1.95	<b>4.5</b> 10
<b>61.5</b> 2.42	<b>139.2</b> 5.48	<b>89.4</b> 3.52	<b>114.0</b> 4.49	<b>54.9</b> 2.16	<b>1.00</b> 0.040	<b>5.30</b> 0.210	<b>75.2</b> 2.96	<b>45.2</b> 1.78	<b>60.5</b> 2.38	<b>7.7</b> 17
<b>61.5</b> 2.42	<b>139.2</b> 5.48	<b>89.4</b> 3.52	<b>114.0</b> 4.49	<b>54.9</b> 2.16	<b>1.00</b> 0.040	<b>5.30</b> 0.210	<b>75.2</b> 2.96	<b>45.2</b> 1.78	<b>60.5</b> 2.38	<b>7.7</b> 17
<b>61.5</b> 2.42	<b>139.2</b> 5.48	<b>89.4</b> 3.52	<b>114.0</b> 4.49	<b>54.9</b> 2.16	<b>1.00</b> 0.040	<b>5.30</b> 0.210	<b>75.2</b> 2.96	<b>45.2</b> 1.78	<b>60.5</b> 2.38	<b>7.7</b> 17

# MILL-MOTOR COUPLINGS

## QUICK-FLEX MILL-MOTOR STYLE HUBS



NOTE

Mill-motor style couplings are available with all cover and insert options.

Fig. 36. Quick-Flex mill-motor style hubs.

TABLE 53. QUICK-FLEX MILL-MOTOR HUB DIMENSIONS

Motor Frame Sizes			Timken Coupling	A	C	D1	D2	D3	F	G <sub>Min</sub>	G <sub>Max</sub>	H	L1	P	R	T1 <sup>(1)</sup>	T2 <sup>(1)</sup>	X	Wt.
600 Series	800 Series	AC Series																	
2 602	802 A, B, C	AC 1, 2, 4	QF100 <sup>(2)</sup>	179.6 7.07	88.4 3.48	227.3 8.95	108.0 4.25	150.4 5.92	62.5 2.46	3.60 0.140	9.70 0.380	86.4 3.40	44.7 1.76	118.4 4.66	77.5 3.05	43.00 1.694	36.50 1.438	55.6 2.19	21.3 47
			QF250	213.6 8.41	100.6 3.96	266.7 10.50	147.1 5.79	190.0 7.48	76.2 3.00	2.50 0.100	6.60 0.258	106.9 4.21	59.2 2.33	118.6 4.67	104.9 4.13	44.50 1.751	36.50 1.438	63.2 2.49	36.7 81
603 604	803 804		QF250	216.2 8.51	100.6 3.96	266.7 10.50	147.1 5.79	190.0 7.48	78.7 3.10	2.50 0.100	6.60 0.258	106.9 4.21	59.2 2.33	118.6 4.67	104.9 4.13	49.70 1.958	41.50 1.635	63.2 2.49	36.7 81
			QF500	251.0 9.88	118.6 4.67	342.9 13.50	177.8 7.00	235.0 9.25	88.9 3.50	3.20 0.125	9.50 0.375	127.0 5.00	69.9 2.75	149.4 5.88	110.2 4.34	50.80 2.000	41.50 1.635	69.9 2.75	67.6 149
606	806	AC 8,12	QF250 <sup>(2)</sup>	216.2 8.51	100.6 3.96	266.7 10.50	147.1 5.79	190.0 7.48	78.7 3.10	2.50 0.100	6.60 0.258	106.9 4.21	59.2 2.33	118.6 4.67	104.9 4.13	61.10 2.406	52.90 2.083	63.2 2.49	36.7 81
			QF500	257.3 10.13	118.6 4.67	342.9 13.50	177.8 7.00	235.0 9.25	95.3 3.75	3.20 0.125	9.50 0.375	127.0 5.00	69.9 2.75	149.4 5.88	110.2 4.34	62.80 2.474	52.90 2.083	69.9 2.75	67.6 149
			QF1000	294.4 11.59	126.7 4.99	387.4 15.25	198.4 7.81	266.7 10.50	101.6 4.00	4.10 0.160	10.40 0.410	152.4 6.00	91.4 3.60	157.7 6.21	157.2 6.19	63.50 2.500	52.90 2.083	77.2 3.04	102.5 226
608	808	-	QF500 <sup>(2)</sup>	257.3 10.13	118.6 4.67	342.9 13.50	177.8 7.00	235.0 9.25	95.3 3.75	3.20 0.125	9.50 0.375	127.0 5.00	69.9 2.75	149.4 5.88	110.2 4.34	74.20 2.922	64.30 2.531	69.9 2.75	67.6 149
			QF1000	307.10 12.09	126.7 4.99	387.4 15.25	198.4 7.81	266.7 10.50	114.3 4.50	4.10 0.160	10.40 0.410	152.4 6.00	91.4 3.60	157.7 6.21	157.2 6.19	76.20 3.000	64.30 2.531	77.2 3.04	102.5 226
			QF1890	341.9 13.46	150.1 5.91	450.9 17.75	241.3 9.50	325.1 12.80	114.3 4.50	5.10 0.202	11.50 0.454	184.4 7.26	113.0 4.45	185.9 7.32	193.0 7.60	76.20 3.000	64.30 2.531	85.1 3.35	186.0 410
610	810	AC 18	QF1000	307.1 12.09	126.7 4.99	387.4 15.25	198.4 7.81	266.7 10.50	114.3 4.50	4.10 0.160	10.40 0.410	152.4 6.00	91.4 3.60	157.7 6.21	155.4 6.12	82.60 3.250	70.60 2.781	77.2 3.04	102.5 226
			QF1890	341.9 13.46	150.1 5.91	450.9 17.75	241.3 9.50	325.1 12.80	114.3 4.50	5.10 0.202	11.53 0.454	184.4 7.26	113.0 4.45	185.9 7.32	193.0 7.60	82.60 3.250	70.60 2.781	85.1 3.35	186.0 410
612	812	AC 25,30	QF1000	309.6 12.19	126.7 4.99	387.4 15.25	198.4 7.81	266.7 10.50	116.8 4.60	4.10 0.160	10.41 0.410	152.4 6.00	91.4 3.60	157.7 6.21	157.2 6.19	91.00 3.583	78.80 3.104	77.2 3.04	102.5 226
			QF1890	354.6 13.96	150.1 5.91	450.9 17.75	241.3 9.50	325.1 12.80	127.0 5.00	5.10 0.202	11.53 0.454	184.4 7.26	113.0 4.45	185.9 7.32	193.0 7.60	92.10 3.625	78.80 3.104	85.1 3.35	186.0 410
614	814	AC 40,50	QF1890	354.6 13.96	150.1 5.91	450.9 17.75	241.3 9.50	325.1 12.80	127.0 5.00	5.10 0.202	11.53 0.454	184.4 7.26	113.0 4.45	185.9 7.32	193.0 7.60	108.00 4.250	94.70 3.729	85.1 3.35	186.0 410

<sup>(1)</sup>Standard mill-motor taper (1.25 in. per foot)

<sup>(2)</sup>May need to use standard socket to tighten mill motor nut. Impact socket may not fit.



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