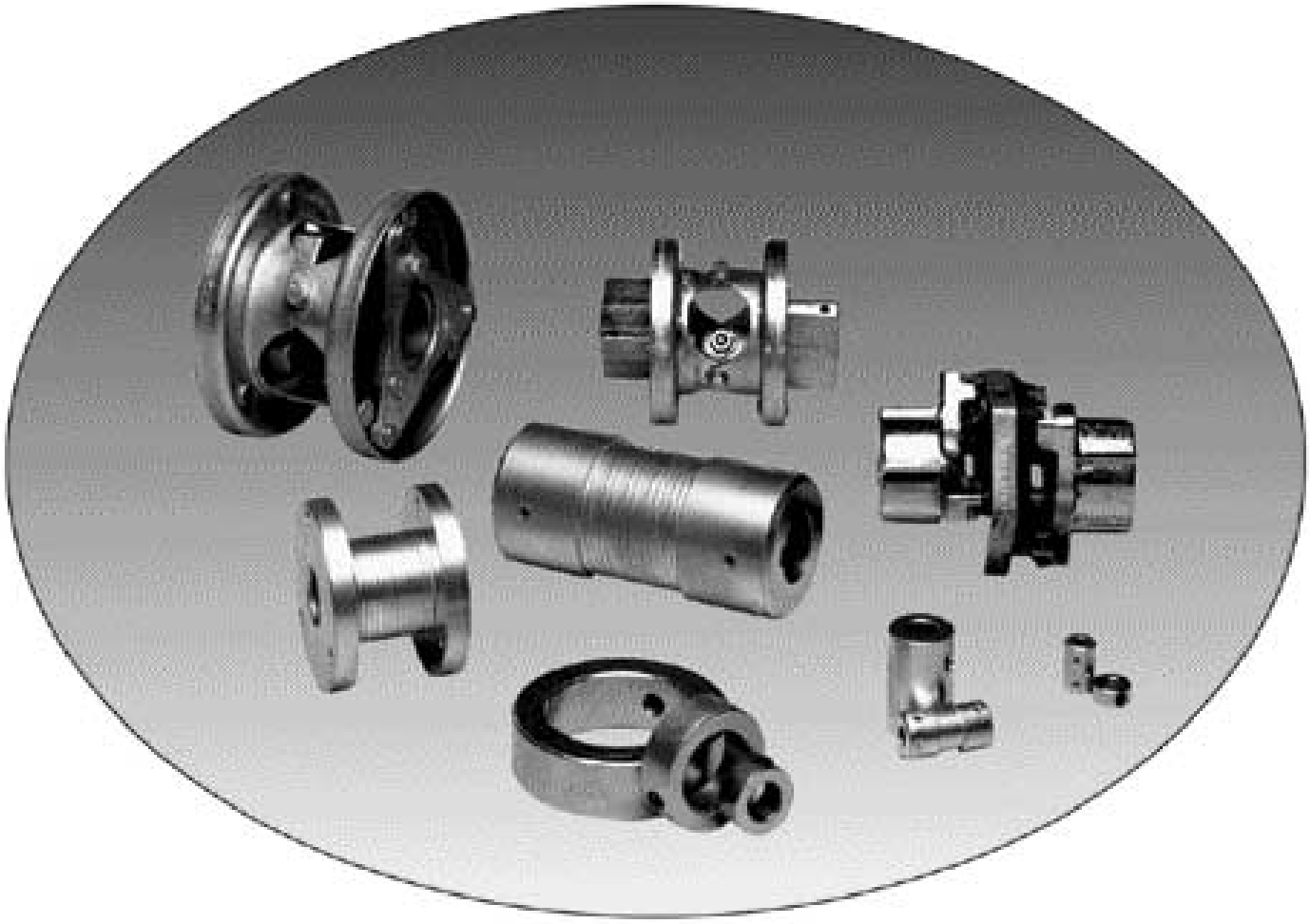
Specialty Couplings



Unique Coupling Families

Deltaflex

The patented Deltaflex series of couplings offer maximum misalignment capabilities with negligible reactionary load, for longer equipment life. This all-metal flex-link coupling requires no lubrication or other maintenance. Typical applications include: compressors, pumps, fans, positioning devices, indexing tables, mixers, papermill roll drives, drive line shafts, turbine drives, wind tunnels, cooling towers, and single bearing generator drives.

DELTAFLEX COUPLING

Uniflex

This single piece coupling series solves a variety of application concerns, including high misalignment, space limitations, high temperature and exceptionally low backlash/windup. Typical applications include textile equipment, printing and binding registration, robotics/positioning, conveyors, carton folding and gluing equipment, machine tools, centrifugal pumps, agricultural machinery, blowers, winding machines, and steering mechanisms.

UNIFLEX COUPLING

Saga

The Saga series of couplings offer lower torsional stiffness than any other rubber-in-compression coupling. There is no equal for high shock start/stop applications such as many piston-driven devices, compressors, violent pounding, or crushing units.

SAGA COUPLING

Shaft Collars

A shaft collar limits the range of travel allowed along the shaft by motor bases, machine tools, and other such items. The precision-machined collars offer ease of installation and the best possible holding strength.

SHAFT COLLARS

Rigid Sleeve

Our Rigid Sleeve couplings are suitable for use in joining any two shafts when flexibility is not required. Consisting of a one piece sleeve, the coupling slips onto the ends of the two shafts and is held in place by two set screws. This coupling is best suited for light- to medium-duty applications.

RIGID SLEEVE COUPLING

⚠ WARNING

You must refer to page iv for Important Safety Instructions and Precautions for the selection and use of these products. Failure to follow the instructions and precautions can result in severe injury or death.

Deltaflex Coupling Design

Lovejoy offers maximum misalignment capacity with the Deltaflex coupling!

The Deltaflex coupling is the real solution to installation, misalignment, and performance problems. Conventional couplings—even when carefully aligned to the manufacturer's specifications—cannot match the low level of vibration, moment of inertia, and additional cushion for future misalignment of a visually aligned Deltaflex coupling.

In addition, the Deltaflex coupling gives longer life to equipment shaft bearings. That means longer operating time and reduced maintenance cost. The Deltaflex can handle greater shaft misalignment without generating heavy reaction loads on the equipment shaft bearings.

A properly applied and installed Deltaflex coupling offers more equipment protection compared to conventional couplings. Other benefits of the Deltaflex coupling include:

- Maximum misalignment capabilities, with negligible reactionary load, for longer equipment bearing life. (see illustrations A, B and C).
- Operates as smoothly when misaligned as when perfectly aligned.
- No lubrication and no maintenance required.
- Equipment can be visually aligned. No special tools are required, which saves on installation time and cost.
- Eliminates premature equipment bearing and seal failure resulting from misalignment forces. This means greater equipment productivity.
- Torsionally stiff coupling with no backlash means it is capable of high speed applications, within catalog ratings.
- Provides long-term performance and economy.
- Available in 5 basic sizes, from 10HP to 900HP.
- Standard all-metal and stainless steel versions are both available from stock.
- Many configurations are available, including shaft-to-shaft, spacer, floating shaft, and special assemblies.

TYPE 1 DELTAFLEX COUPLING

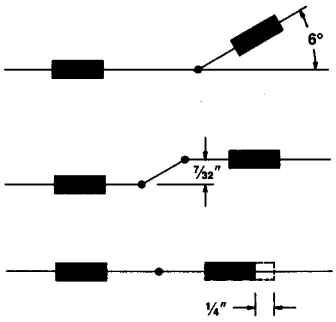


ILLUSTRATION A
MISALIGNMENT CAPABILITY (SIZE 60 ILLUSTRATED)

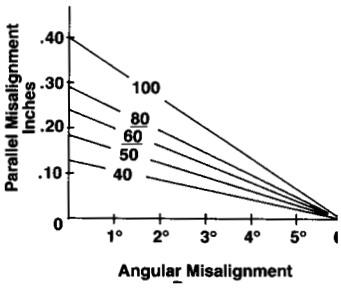


ILLUSTRATION B
STANDARD SERIES

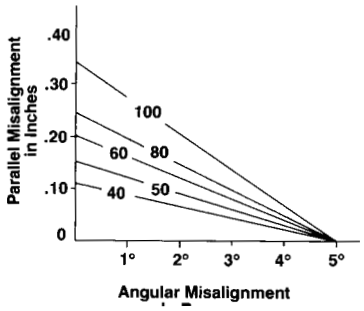


ILLUSTRATION C
HT SERIES

Note: **1.** Illustrations B and C assume no axial displacement.

SP

Deltaflex Coupling Design

As graphs A and B clearly illustrate, radial load placed on the shaft bearings of the connected equipment by conventional couplings can substantially reduce bearing life and induce detrimental vibration. If the misaligned coupling creates a radial load—as can be the case with conventional couplings—then nearly 75% of B-10 bearing design life is sacrificed. By using the Deltaflex coupling, B-10 life remains close to 100% of design life, even at maximum misalignment.

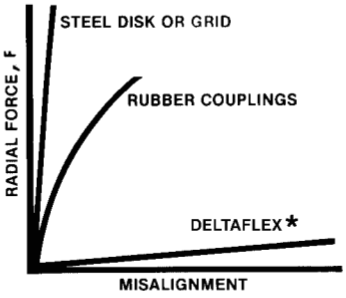
Because the Deltaflex coupling is designed for infinite fatigue life at maximum angular misalignment—at rated torque—inadvertent misalignment caused by temperature expansion, equipment frame flexing, foundation movement, environment, etc. will not shorten the life of the coupling or life of the connected equipment.

*Patented Design Concept****

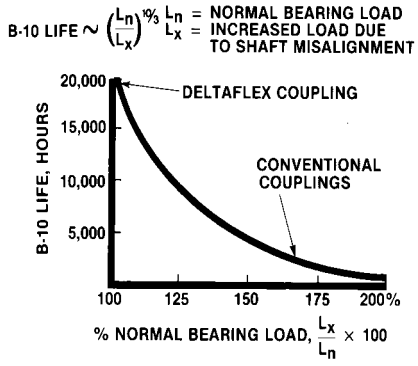
The concept of the Deltaflex coupling and its misalignment capabilities can be illustrated best when compared to conventional coupling design (see Graphs C and D). Most conventional couplings' torque and misalignment capabilities are dependent upon a single flexing member. Soft elastomers are limited by the compressive or tensile strengths of the material. Misalignment is a function and limitation of the material properties and method of connection to the hubs.

While other all-metal flexible couplings share the advantage of high torque transmission and better temperature and corrosion resistance, they are typically limited to less than $^1/_2$ degree angular with less than 0.005 inch parallel misalignment. Approaching or exceeding these limits will exert undesired radial loads and vibration on the connected equipment.

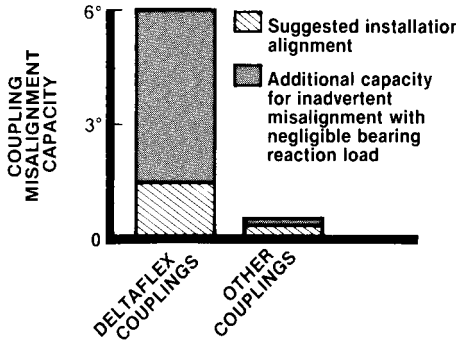
*** U.S. Patent Number: 4033144.



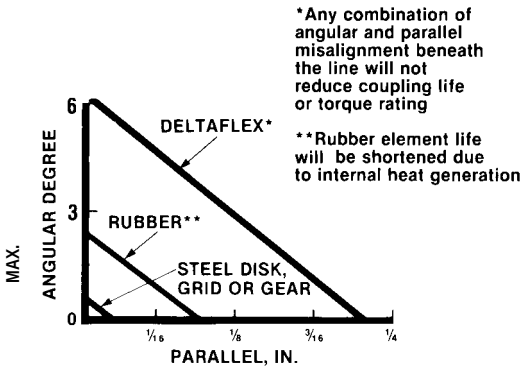
GRAPH A



GRAPH B



GRAPH C



(See illustrations B & C on the previous page for specific sizes)

GRAPH D

SP

Deltaflex Coupling Design

The Deltaflex Difference

In contrast to most conventional coupling designs (see illustration D), the patented Deltaflex coupling is typically arranged in this manner: a hub, a flex-link at each end of a torque sleeve, and a hub (see illustration E). While most conventional coupling designs use a central flexing element, the Deltaflex uses two, making it a double engaging coupling. The patented concept, along with the method of connecting the hubs to the flexible links, permits the tremendous misalignment capabilities without exerting harmful radial loads.

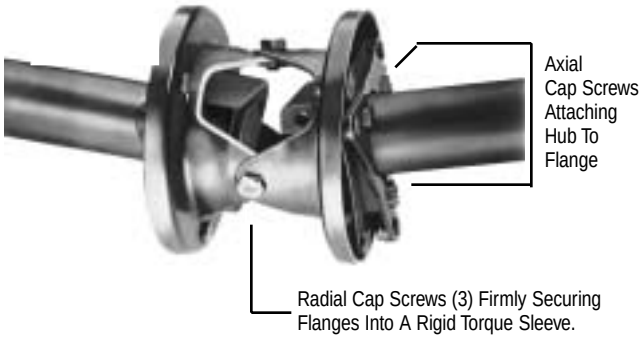
The Deltaflex coupling consists of four major components: two delta hubs, an inner flange, and an outer flange. The flex-links, as well as the delta mounting plates, are integral to each flange and are factory assembled. The hub is field-assembled to the flange with three axial cap screws. The two flanges are fastened together radially as the two coupling halves are joined to make a complete coupling.

In understanding the design of the Deltaflex it is important to note that the inner and outer flanges, once firmly fastened together with three cap screws, become a rigid "torque sleeve." The flex links at each end of the torque sleeve accommodate the misalignment generated by the equipment shaft hubs.

Typical Deltaflex Applications

Use Deltaflex couplings to simplify installation and minimize fabrication costs of structural frames. With the large misalignment capability of Deltaflex, extremely close tolerances will be unnecessary. Typical applications include: compressors, pumps, fans, mixers (vertical and horizontal), turbine drives, wind tunnels, and single bearing generator drives. Some other applications include:

1. Drive-Line—Connecting long shaft lines with Deltaflex takes advantage of angular and parallel misalignment capabilities. Permits ease of installation and reduces radial bearing loads to a minimum.
2. Indexing Table or Work Positioning Drive—Takes advantage of zero backlash, instant response and constant velocity. Coupling may be between drive motor and gear reduction or on output side of reducer.
3. Cooling Tower Drive—The Deltaflex floating shaft coupling permits greater ease of installation with its generous axial misalignment capabilities. Also available in stainless steel.



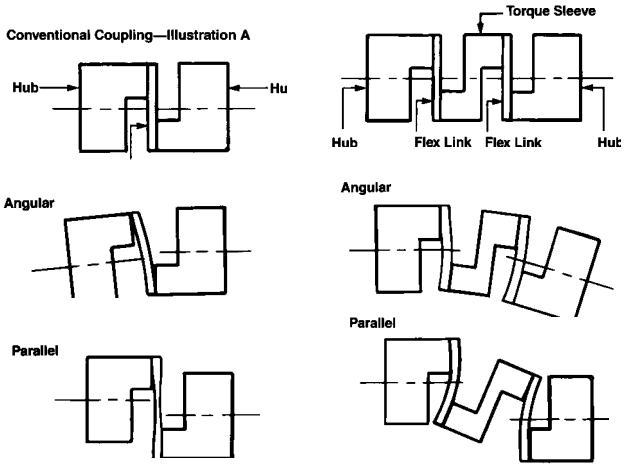
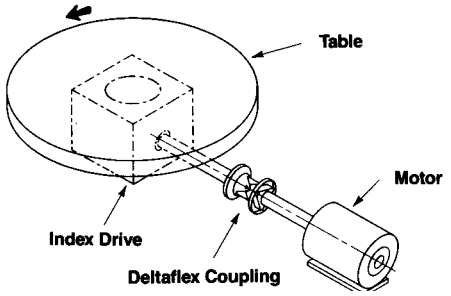
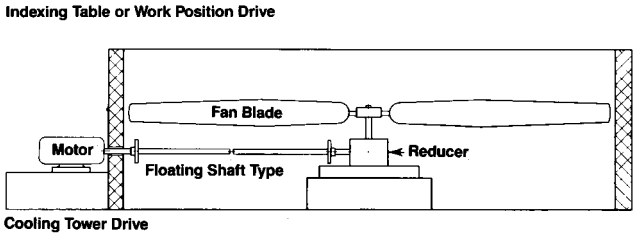


ILLUSTRATION D
CONVENTIONAL COUPLING

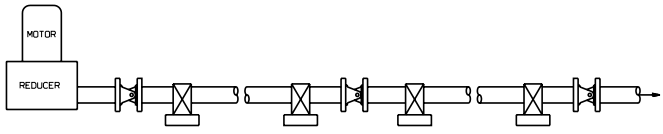
ILLUSTRATION E
DELTAFLEX COUPLING



INDEXING TABLE



COOLING TOWER DRIVE



DRIVE-LINE

SP

Deltaflex Coupling Types

The unique design, misalignment capability and simple installation methods make Deltaflex easily adaptable to special applications. Contact Lovejoy Engineering for assistance.

Type 1
Shaft to Shaft—Hubs Mounted Internally
This is the standard arrangement for most shaft to shaft applications. There are five basic coupling sizes in all types, each with a Standard and a High Torque (HT) Series. Both the Standard and the HT Series are dimensionally interchangeable.

TYPE 1 ARRANGEMENT

Type 2
Shaft to Shaft—Hubs Mounted Externally
This arrangement is similar to Type 1 in that all components are the same, except the delta hubs are mounted outside the flanges.

TYPE 2 ARRANGEMENT

Type 2A
Shaft to Shaft—One Hub Mounted Externally,
One Hub Mounted Internally
One hub mounted on the inside of the flange and one hub mounted on the outside.

TYPE 2A ARRANGEMENT

Type 3
Spacer Type
This arrangement is specifically designed for the pump industry. It is available in a variety of industry standard shaft separations. The shaft center spacer drops out to facilitate easier maintenance of pump parts without disturbing the alignment of pump and motor.

TYPE 3 ARRANGEMENT

Type 4
Floating Shaft Type
Type 4 coupling components are the same as Type 3, except that the floating shaft design uses a longer spacer tube to span distances up to 12 feet. Deltaflex floating shaft couplings are light weight, dynamically balanced (as required) and corrosion resistant, which makes them ideal for applications in cooling towers and petrochemical service.

TYPE 4 ARRANGEMENT

Deltaflex Coupling Selection

Step 1: Determine the proper service factor (SF) for the application. This may involve 2 steps:

A. Driven equipment service factor (SFa): Select the proper service factor from Chart 1 on page SP-8. If the application is not listed in Chart 1, use Chart 2.

B. When using Chart 1, add the following service factors (SFb) to the values in Chart 1 as required. Add 0.5 for above average torque load variations or start/stop conditions of not more than once per hour. Add 1.0 for reversing loads, start/stop conditions more than once per hour, severe torque load variations or high inertia starting conditions.

The additional service factor is added to the Chart 1 service factors to obtain the total service factor.

$$SF = SFa + SFb$$

Step 2: Calculate the equivalent HP/100 RPM.

$$HP/100\ RPM = \frac{HP^* \times 100 \times SF}{RPM^*}$$

***** HP and RPM of prime mover.

Step 3: Select the Deltaflex size.

***Method 1*:** From the coupling selection data (Chart 3 on page SP-9) select the smallest coupling which is rated equal to or higher than the calculated HP/100 RPM.

***Method 2*:** For couplings driven by standard electric motors, you can multiply the HP of the motor by the service factor (SF) and then refer to the electric motor driven chart for selection.

Step 4: Determine the type of Deltaflex needed, e.g., Type 1, Type 2, etc.

Step 5: Check limiting conditions.

A. Check to be sure that the coupling's Peak Overload Torque Rating is sufficient to accommodate the maximum torque to be transmitted, such as the starting and stall torques of the motor, braking torques and cyclic peak torques, if any. If starting or braking cycles are frequent, the brake torque should be checked against the maximum continuous torque rating of the coupling.

$$T = Tp \times SF$$

T = Maximum torque transmitted
Tp = Brake torque, starting torque or peak torque
SF = Service Factor (determined previously)

B. Check the maximum hub bore. If bore size is too large, the next larger size Deltaflex can be specified.

C. Check other dimensions such as the limits on shaft sep-aration, hub spacings, space required for the coupling, etc.

D. Check maximum speed. If operating speed exceeds 60% of listed maximum speed, the coupling should be dynamically balanced.

Step 6. Ordering Information

A. Quantity, size, style of couplings.

B. Bore and Keyway sizes.

C. Dynamic balancing specification, if required.

D. Additional non-standard data.

1) Custom mounting dimensions.

2) Between shaft ends (BE) dimension for spacer and floating shaft types.

3) Maximum operating speed for floating shaft couplings.

Selection Example:

A centrifugal fan requires 20 HP, 1,150 RPM motor, direct coupled from the motor to the fan. The motor frame is 286T (1.875" shaft) and the fan shaft is 1.625".

Step 1: Referring to Chart 1, the driven equipment service factor for a centrifugal fan is 1.5 = SFa. The load is uniform and the driver is smooth, therefore SFb is 0.

The total service factor SF is 1.5 + 0 = 1.5

Step 2:

$$HP/100\ RPM = \frac{20 \times 100 \times 1.5}{1{,}150} = 2.6\ HP/100\ RPM$$

Referring to Chart 3, under the column of HP/100RPM, the smallest coupling you can select is #50 which is rated for 3.0 HP/100 RPM.

NOTE: You can also find the coupling size by multiplying SF x 20:

SF x 20 = 1.5 x 20 = 30 HP

In Chart 3 for motor drives the coupling to select is, again, #50 under 1,150 RPM motors. The size is rated at 34 HP @ 1,150 RPM.

Step 3: In this case, the maximum bore for size #50 coupling is 1.875"; therefore, the selection size stands.

Step 4: Since this is a shaft-to-shaft application, you will be using the standard Deltaflex coupling Type 1. Determine if any other selection factors apply as described in steps 4 and 5 of the selection guide.

Floating Shaft Type Coupling Selection Example

Using the preceding data, assume that the shaft spacing from end of shaft to end of shaft is 36(. A floating shaft coupling is then required. The 36" is specified as BE (Between Ends) = 36".

Refer to the Type 3 and 4 Chart to find the overall length of the coupling; add dimension 2 x LTB to BE.

For a size #50 type 3, the overall length will be 36" + 2 x 1.69 = 39.38. Note that the length of the spacer tube assembly will be 36" - 2R = 36 - 1.62 = 34.38.

This is the amount of space, or dropout section, between the fixed portions of the coupling.

Deltaflex Coupling Service Factors

Chart 1 —Typical Service Factors Electric Motor and Turbine Driven Equipment

Agitators	
Liquids	2.0
Variable Density	3.0
Blowers	
Centrifugal	1.5
Lobe	2.0
Vane	2.0
Car Dumpers	3.0
Car Pullers	2.0
Clay Working Machinery	2.5
Compressors	
Centrifugal	1.5
Lobe, Vane, Screw	2.0
Reciprocating—	
Multi-cylinder	Not Recommended
Conveyors—Uniformly Loaded Or Fed	2.0
Conveyors—Heavy Duty	
Not Uniformly Fed	2.5
Conveyors—Vibratory	3.5
Cranes and Hoists	Not Recommended
Crushers	4.0
Extruders	
Plastic	2.0
Metal	2.5
Fans	
Centrifugal	1.5
Axial	1.5
Mine Ventilation	3.5
Cooling Towers	3.0
Light Duty Blowers & Fans	1.5
Feeders	
Light Duty	1.5
Heavy Duty	2.5
Food Industry	
Cereal Cooker	1.5
Dough Mixer	2.5
Meat Grinder	2.5
Can Filling Machine	1.5
Bottling	1.5
Generators	
Non-Welding	2.5
Welding	4.0
Hammer Mills	4.0
Lumber Industry	
Barkers—Drum Type	4.0
Edgar Feed	3.0
Live Rolls	3.0
Log Haul—Incline	3.0
Log Haul—Well Type	3.0
Planer Feed Chains	3.0
Planer Floor Chains	3.0
Planer Tilting Hoist	3.0
Slab Conveyor	2.5
Sorting Table	2.5
Trimmer Feed	3.0
Machine Tools	
Bending Roll	3.0
Punch Press—Gear Driven	3.0
Tapping Machines	4.0
Auxiliary Drives	2.5
Metal Mills	
Draw Bench—Carriage	3.5
Draw Bench—Main Drive	3.5
Forming Machines	3.5
Slitters	3.0
Table Conveyors	
Non-Reversing	3.5
Reversing	4.0
Wire Drawing & Flattening Machine	3.0
Wire Winding Machine	3.0
Mills, Rotary Type	
Ball	3.5
Cement Kilns	3.0
Dryers & Coolers	3.0
Kilns	3.0
Pebble	3.0
Rod	3.0
Tumbling Barrels	3.0
Mixers	
Concrete Mixers	3.0
Drum Type	3.0
Oil Industry	
Chillers	2.5
Oil Well Pumping	3.0
Rotary Kilns	3.0
Paper Mills	
Barker Auxiliaries, Hydraulic	4.0
Barker Mechanical	4.0
Barker Drum (Spur Gear Only)	4.0
Beater & Pulper	3.0
Bleacher	2.5
Calenders	3.0
Cylinders	3.0
Dryers	3.0
Jordans	3.0
Log Haul	3.0
Presses	3.0
Suction Roll	3.0
Washers and Thickeners	2.5
Winders	3.0
Printing Presses	2.5
Pumps	
Centrifugal	
General Duty (Liquid)	1.5
Boiler Feed	1.5
Slurry (Sewage, etc.)	2.5
Dredge	3.0
Reciprocating	
Double Acting	Not Recommended
Single Acting	Not Recommended
Rotary—Gear, Lobe, Vane	2.0
Rubber Industry	
Mixer—Banbury	4.0
Rubber Calender	3.0
Rubber Mill (2 or more)	3.5
Sheeter	3.0
Tire Building Machines	3.5
Tubers and Strainers	3.0
Screens	
Rotary—Stone or Gravel	2.5
Traveling Water Intake	2.5
Vibratory	3.5
Sewage Disposal Equipment	2.5
Textile Industry	
Batchers	2.5
Calenders	3.0
Card Machines	2.5
Dry Cans	3.0
Dryers	2.5
Dyeing Machinery	2.5
Looms	2.5
Mangles	2.5
Soapers	2.5
Spinners	2.5
Windlass	3.0

Chart 2—Service Factors for Driven Equipment Load Classifications

Load Characteristics	Service Factors
Relatively low inertia, smooth continuous torque load.	1.5
Torque load varies during operation of the equipment.	2.0
Above average torque load variations during operation of the equipment.	2.5
	3.0

Load Characteristics	Service Factors
Relatively low inertia, smooth continuous torque load.	4.0
Torque load varies during operation of the equipment.	
Above average torque load variations during operation of the equipment.	

*Torque load reversal can exist without reversing rotation and can be caused by overrunning the load with inertia or shifting of the load. Consult Lovejoy

Note: * indicates that torque load reversal can exist without reversing rotation and can be caused by overrunning the load with inertia or shifting of the load. Consult Lovejoy Engineering.

SP

Deltaflex Coupling Ratings

Chart 3—HP and Torque Ratings

Size	Maximum Bore Delta Hub inch	Maximum Bore Delta Hub mm	Maximum Bore Round Hub inch	Maximum Bore Round Hub mm	Maximum Continuous Torque in-lbs	Maximum Continuous Torque Nm	Peak Overload Torque in-lbs	Peak Overload Torque Nm	HP/100 RPM	HP Rating[1] @Standard Motor RPM 875	1,150	1,750	3,500
40	1.38	35	1.63	42	750	84	1,125	127	1.2	10.5	13.8	21.0	42
40HT	1.38	35	1.63	42	1,260	142	1,890	213	2.0	17.5	23.0	35.0	70
50	1.88	50	2.25	58	1,900	214	2,850	322	3.0	26.2	34.0	52.4	105
50HT	1.88	50	2.25	58	2,835	320	4,235	478	4.5	39.0	52.0	78.0	156
60	2.50	66	3.00	81	4,100	463	6,150	695	6.5	57.0	75.0	114.0	228
60HT	2.50	66	3.00	81	6,000	678	9,000	1,017	9.5	83.0	109.0	166.0	332
80	3.38	93	4.00	110	9,500	1,073	14,250	1,610	15.0	131.0	173.0	262.0	524
80HT	3.38	93	4.00	110	15,000	1,695	22,500	2,542	23.8	208.0	274.0	416.0	832
100	4.25	114	5.00	136	22,900	2,587	34,500	3,898	36.3	317.0	418.0	634.0	1,268
100HT	4.25	114	5.00	136	33,000	3,728	49,500	5,593	52.4	458.0	603.0	916.0	1,832

Note: **1.** The HP ratings listed are for drives with a Service Factor of 1.0 (refer to Chart 1 for Service Factors). Further, the ratings are based on prime movers such as electric motors or turbines.

$$HP/100RPM = \frac{HP \times 100}{RPM}$$

$$T(Torque) = \frac{HP \times 63{,}025}{RPM}$$

$$HP = \frac{T \times RPM}{63{,}025}$$

Internal Combustion Engines

Deltaflex couplings are not recommended for direct connection to internal combustion engine drives.

SP

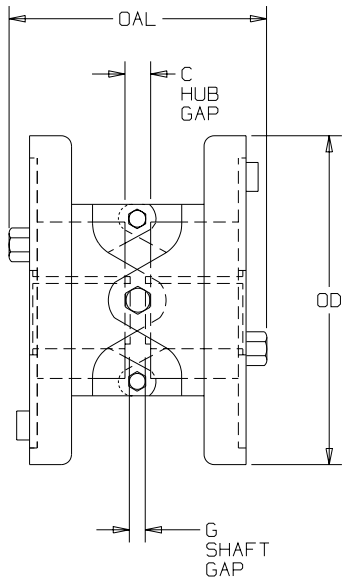
Deltaflex Coupling Data

Type 1

Shaft to Shaft—Hubs Mounted Internally

This is the standard arrangement for most shaft to shaft applications. There are five basic coupling sizes in all types, each with a Standard and a High Torque (HT) Series. Both the Standard and the HT Series are dimensionally interchangeable.

Type 1 features the standard inner and outer flanges and delta hubs, which are triangular in shape to accommodate the delta flex-link pattern. The standard flanges are stamped steel, while the flex links in all Deltaflex couplings are precipitation-hardened (PH 17-7) stainless steel. Delta hubs are ductile iron, zinc clear dichromate-plated and available from stock in a variety of bore sizes. Every Deltaflex hub is standard with two set screws at 120º. Hub to flange (axial) and flange to flange (radial) hardware is SAE Grade 5. Stainless steel flanges with standard ductile iron delta hubs are available from stock as an option. Delta style hubs are not available in stainless steel.



Type 1 Shaft to Shaft—Hubs Mounted Internally Dimensional Data

Size	Bores Max. inch	mm	Min. RSB[1] inch	mm	OD inch	OAL inch	C inch	G inch	HP/100 RPM	Max. Cont. Torque in-lbs	Nm	Peak Overload Torque[2] in-lbs	Nm	Angular[3]	Parallel[3]	Axial Freedom[4]	WR² lbs-in²	Max. RPM
40	1.375	35	.44	12	4.38	3.51	0.29	0.12	1.2	750	84	1,125	127	6º	0.12	0.09	5.4	8,000
40HT	1.375	35	.44	12	4.38	3.54	0.32	0.12	2.0	1,260	142	1,890	213	5º	0.12	0.09	5.4	8,000
50	1.875	49	.44	12	6.18	4.83	0.71	0.18	3.0	1,900	214	2,850	322	6º	0.18	0.12	30.1	6,000
50HT	1.875	49	.44	12	6.18	4.87	0.75	0.18	4.5	2,835	320	4,235	478	5º	0.15	0.12	30.1	6,000
60	2.500	65	.75	20	7.25	6.22	1.23	0.18	6.5	4,100	463	6,150	695	6º	0.24	0.15	64.3	5,000
60HT	2.500	65	.75	20	7.25	6.26	1.27	0.18	9.5	6,000	678	9,000	1,017	5º	0.21	0.15	64.3	5,000
80	3.375	90	1.38	35	9.62	7.52	1.02	0.25	15.0	9,500	1,073	14,250	1,610	6º	0.29	0.18	297.0	4,000
80HT	3.375	90	1.38	35	9.62	7.57	1.07	0.25	23.8	15,000	1,692	22,500	2,542	5º	0.25	0.18	297.0	4,000
100	4.250	112	1.75	45	12.75	9.74	0.58	0.31	36.3	22,900	2,587	34,500	3,898	6º	0.40	0.25	884.0	3,000
100HT	4.250	112	1.75	45	12.75	9.82	0.66	0.31	52.4	33,000	3,728	49,500	5,593	5º	0.35	0.25	884.0	3,000

SP

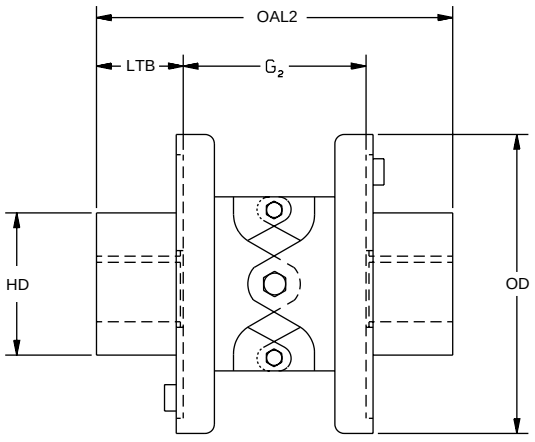
Notes:

1. RSB hubs are furnished with two set screws at 120º, no keyway.
2. Peak Overload Torque = Torque that can be applied for short periods, such as shock loads, start up, etc.
3. See illustrations B & C on page SP-3 for combined maximum misalignment.
4. Axial Freedom is provided only for the purpose of system expansion or due to temperature changes or shaft flotation (such as with sleeve bearing motors).
5. Balancing is not required below 60% of Maximum RPM.

Type 2

Shaft to Shaft—Hubs Mounted Externally

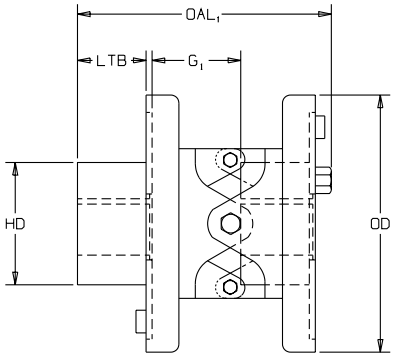
This arrangement is similar to Type 1 in that all components are the same, except the delta hubs are mounted outside the flanges. An optional version of the Type 2 uses round hubs mounted externally on both ends or on one end to accommodate larger bore requirements. Type 2 is available as a stock option with stainless steel flanges and stainless steel round hubs. Delta style hubs are not available in stainless steel.
See next page for dimensions.



Deltaflex Coupling Data

Type 2A
Shaft to Shaft—One Hub Mounted Externally, One Hub Mounted Internally

One hub is mounted on the inside of the flange and one hub is mounted on the outside. Round hubs cannot be mounted on the inside of the coupling. Type 2A is available as a stock option with stainless steel flanges. The internal hub would be ductile iron, while the external hub would be a stainless steel round hub. Delta hubs are not available in stainless steel.



Type 2 and 2A Shaft to Shaft—Hub(s) Mounted Externally Dimensional Data

Size	Max. Bore Delta Hub inch	Max. Bore Delta Hub mm	Max. Bore Round Hub inch	Max. Bore Round Hub mm	Min. Bore[1] Delta Hub inch	Min. Bore[1] Delta Hub mm	OD inch	OAL1[2] inch	OAL2[2] inch	G1[3] inch	G2[3] inch	HD inch	LTB inch	HP/100 RPM	Max. Cont. Torque in-lbs	Max. Cont. Torque Nm	Peak Overload Torque in-lbs	Peak Overload Torque Nm	Max. RPM
40	1.375	35	1.625	42	.44	12	4.38	4.51	5.51	1.67	3.05	2.56	1.23	1.2	750	84	1,125	127	8,000
40HT	1.375	35	1.625	42	.44	12	4.38	4.54	5.54	1.70	3.08	2.56	1.23	2.0	1,260	142	1,890	213	8,000
50	1.875	49	2.250	58	.44	12	6.18	6.10	7.37	2.47	4.23	3.56	1.57	3.0	1,900	214	2,850	322	6,000
50HT	1.875	49	2.250	58	.44	12	6.18	6.14	7.41	2.51	4.27	3.56	1.57	4.5	2,835	320	4,235	478	6,000
60	2.500	65	3.000	79	.75	20	7.25	7.77	9.33	3.38	5.53	4.50	1.90	6.5	4,100	463	6,250	695	5,000
60HT	2.500	65	3.000	79	.75	20	7.25	7.82	9.37	3.42	5.57	4.50	1.90	9.5	6,000	678	9,000	1,017	5,000
80	3.375	90	4.000	106	1.38	35	9.62	9.58	11.64	3.80	6.58	5.88	2.53	15.0	9,500	1,073	14,250	1,610	4,000
80HT	3.375	90	4.000	106	1.38	35	9.62	9.63	11.69	3.85	6.63	5.88	2.53	23.8	15,000	1,695	22,500	2,542	4,000
100	4.250	112	5.000	132	1.75	45	12.75	12.91	16.08	4.58	8.58	7.25	3.75	36.3	22,900	2,587	34,500	3,898	3,000
100HT	4.250	112	5.000	132	1.75	45	12.75	12.99	16.16	4.66	8.66	7.25	3.75	52.4	33,000	3,728	49,500	5,593	3,000

Notes:
1. Min. bore hubs are furnished with two set screws at 120º, no keyway.
2. OAL1 is overall length with one hub mounted externally; OAL2 is with both hubs mounted externally.
3. G1 is hub gap with one hub mounted externally; G2 is with both hubs mounted externally.
4. For misalignment capabilities, see illustrations B and C on page SP-3, or Type 1 data on previous page. See page SP-9 for Performance Data.

Type 3
Spacer Type

This arrangement is specifically designed for the pump industry and is available in a variety of industry standard shaft separations. The shaft center spacer drops out to facilitate easier maintenance of pump parts without disturbing the alignment of pump and motor. Spacer type couplings utilize either standard delta hubs or optional round hubs. The center member of the Deltaflex is captured by the construction of the spacer flanges for greater safety. Standard spacer drop out lengths are available to accommodate shaft separations of 3.50, 4.38, 5, 7, 10, 12 and 15 inches. Special spacer lengths and stainless steel spacer couplings are available as an option.

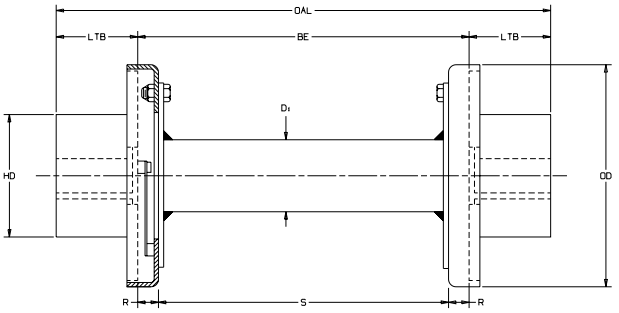
Type 4
Floating Shaft Type

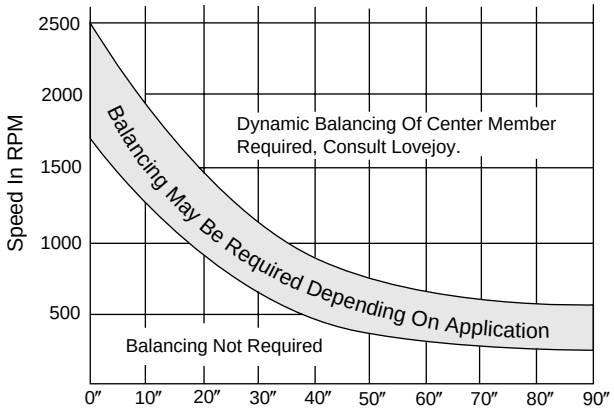
The Type 4 coupling components are identical to Type 3, except the floating shaft design uses a longer spacer tube to span distances up to 12 feet. Deltaflex floating shaft couplings are lightweight, dynamically balanced (as required) and corrosion resistant. The center member of the Deltaflex is captured by the construction of the spacer flanges for greater safety. Floating shaft couplings are also available in stainless steel.
See next page for dimensions.

Floating Shaft Coupling Maximum Parallel Misalignment

Size	Dimensions in Inches at Max. Span @ RPM 1,750
40	2.50
40HT	2.00
50	3.00
50HT	2.50
60	3.25
60HT	3.00
80	4.00
80HT	3.50
100	4.25
100HT	4.00

Deltaflex Coupling Data





Floating Shaft Couplings Balancing Requirements

Type 3 and 4—Spacer and Floating Shaft Dimensional Data

BE < 18" = Spacer coupling (Type 3); BE ≥ 18" = Floating Shaft coupling (Type 4)

Size	Max. Bore Delta Hub inch	mm	Round Hub inch	mm	Min. Bore[1] Delta Hub inch	mm	OD inch	HD inch	LTB[4] inch	D inch	R inch	S[3] inch	HP/100 RPM	Max. Cont Torque in-lbs	Nm	Peak Overload Torque in-lbs	Nm
40	1.375	35	1.625	42	.44	12	4.38	2.56	1.34	1.50	0.50	See	1.2	750	84	1,125	127
40HT	1.375	35	1.625	42	.44	12	4.38	2.56	1.34	1.50	0.50	Chart	2.0	1,260	142	1,890	213
50	1.875	49	2.250	58	.44	12	6.18	3.56	1.68	2.00	0.81	for	3.0	1,900	214	2,850	322
50HT	1.875	49	2.250	58	.44	12	6.18	3.56	1.68	2.00	0.81	Type 3	4.5	2,835	320	4,235	478
60	2.500	65	3.000	79	.75	20	7.25	4.50	2.03	2.62	0.94	Below	6.5	4,100	463	6,250	695
60HT	2.500	65	3.000	79	.75	20	7.25	4.50	2.03	2.62	0.94		9.5	6,000	678	9,000	1,017
80	3.375	90	4.000	106	1.38	35	9.62	5.88	2.66	3.50	1.00		15.0	9,500	1,073	14,250	1,610
80HT	3.375	90	4.000	106	1.38	35	9.62	5.88	2.66	3.50	1.00		23.8	15,000	1,695	22,500	2,542
100	4.250	112	5.000	132	1.75	45	12.75	7.25	3.88	4.38	1.25		36.3	22,900	2,587	34,500	3,898
100HT	4.250	112	5.000	132	1.75	45	12.75	7.25	3.88	4.38	1.25		52.4	33,000	3,728	49,500	5,593

Notes:
1. Minimum bore hubs are furnished with 2 set screws at 120º, no keyway.
2. BE is the distance between the ends of equipment shafts—please supply this dimension when placing orders, BE = OAL-2 (LTB), BE = S + 2 (R)
3. S is the Spacer drop out or floating shaft length, S = BE-2(R).
4. LTB is the length through the hub bore. OAL is the overall length, OAL = BE + 2(LTB)

SP

Type 3
Standard Spacer Drop Out Assemblies Dimensional Data

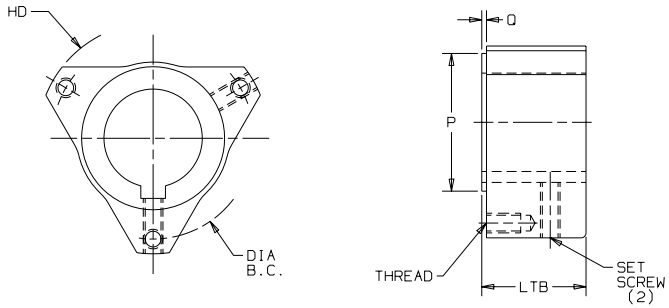
Size	BE inch	BE mm	S inch	S mm	OAL inch	OAL mm
40/40HT	3.50	88.90	2.50	63.50	6.16	156.37
	4.38	111.13	3.38	85.73	7.03	178.59
	5.00	127.00	4.00	101.60	7.66	194.47
50/50HT	4.38	111.13	2.75	69.85	7.72	196.06
	5.00	127.00	3.38	85.73	8.34	211.93
	7.00	177.80	5.38	136.52	10.34	262.73
60/60HT	5.00	127.00	3.12	81.66	9.06	230.19
	7.00	177.80	5.12	130.18	11.06	280.99
	10.00	254.00	8.12	206.25	14.06	357.19
80/80HT	10.00	254.00	8.16	207.17	15.31	388.94
	12.00	304.80	10.16	257.97	17.31	439.74
100/100HT	12.00	304.80	9.50	241.30	19.75	501.65
	15.00	381.00	12.50	317.50	22.75	577.85

Type 4
Floating Shaft Coupling Maximum Span – Inch

Size	Max. Span - BE 1,750 RPM	1,150 RPM	875 RPM
40/40HT	60	76	88
50/50HT	70	88	102
60/60HT	80	100	114
80/80HT	94	115	140
100/100HT	104	120	150

Note: Consult Lovejoy Engineering for other RPM/Span applications.

Deltaflex Coupling Data



DELTA HUB **ROUND HUB**

Delta Hub and Round Hub Dimensional Data

Size	Max. Bore Delta Hub inch	Max. Bore Delta Hub mm	Max. Bore Round Hub inch	Max. Bore Round Hub mm	Min. Bore Delta Hub inch	Min. Bore Delta Hub mm	HD inch	LTB inch	BC inch	Q inch	P inch	Axial Cap Screw Tap TH	Set Screw
40/40HT	1.375	35	1.625	42	0.4375	12	2.56	1.34	2.12	0.09	1.498/1.500	1/4-20 x .62	1/4-20
50/50HT	1.875	49	2.250	58	0.4375	12	3.56	1.68	3.08	0.09	1.998/2.000	5/16-18 x .75	1/4-20*
60/60HT	2.500	65	3.00	79	0.750	20	4.50	2.03	3.88	0.12	2.623/2.625	3/8-16 x .88	3/8-16
80/80HT	3.375	90	4.00	106	1.375	35	5.88	2.66	5.12	0.12	3.498/3.500	1/2-13 x 1.00	1/2-13
100/100HT	4.250	112	5.00	132	1.750	45	7.25	3.88	6.32	0.12	4.373/4.375	5/8-11 x 1.50	1/2-13

Notes: **1.** * indicates in some bore sizes the tap is 5/16-18.

2. Maximum Bores are provided with standard keyway. RSB hubs do not have a keyway. Both Delta hubs and Round hubs are provided with two set screws at 120º.

Deltaflex Standard Bore Availability Chart

Size	0.4375	0.625	0.750	0.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000
40/40HT	D	S	S	S	S	S	S	S	R	R	N/A	N/A	N/A
50/50HT	D	S	S	S	S	S	S	S	S	S	S	S	R
60/60HT	N/A	N/A	D	S	S	S	S	S	S	S	S	S	S
80/80HT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	N/A	S	S	S	S
100/100HT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	S	S

Size	2.125	2.250	2.375	2.500	2.625	2.750	2.875	3.000	3.125	3.250	3.375	3.500
40/40HT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50/50HT	R	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60/60HT	S	S	S	S	R	R	R	R	N/A	N/A	N/A	N/A
80/80HT	S	S	S	S	S	S	S	S	S	S	S	S
100/100HT	S	S	S	S	S	S	S	S	S	S	S	S

Size	3.625	3.750	3.875	4.000	4.125	4.250	4.375	4.500	4.625	4.750	4.875	5.000
40/40HT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50/50HT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
60/60HT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
80/80HT	R	R	R	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
100/100HT	S	S	S	S	S	S	R	R	R	R	R	R

Notes: **1.** S indicates Standard hub, finished bores available from stock, two set screws @ 120º and standard keyway.

2. R indicates Round hub, finished bores available from stock, two set screws @ 120º and standard keyway.

3. D indicates Delta hubs, rough stock bores available from stock, two set screws @ 120º, no keyway.

4. N/A indicates not available

Uniflex Coupling Design

Flexible Spring Type Coupling with Exclusive Triple Wound Spring Design

The Uniflex Coupling is an all steel, single piece coupling that solves a variety of application concerns including: high misalignment, space limitations, high temperature, and exceptionally low backlash/windup. The unique flexing center of the Uniflex consists of three opposingly wound square wire springs for forward or reverse operation. Two steel hubs are then brazed to the steel spring pack to create a durable one-piece flexible coupling. Benefits of this coupling include:

- This designed flexibility compensates for high degrees of shaft misalignment (up to 4.5º angular, up to .045" parallel).
- The one piece Uniflex is simple to install — nothing to replace, no wearing parts, and no lubrication needed.
- The compact design provides a coupling that is smaller and lighter than most couplings of comparable torque ratings. It is also well suited for applications with inaccessible mounting locations.
- All metal design means that the Uniflex can be used in applications where severe environmental concerns are a factor. Standard couplings withstand temperatures to +250º F (due to soldering); special designs to +600º F (stainless steel w/electron beam weld).
- The Uniflex is unaffected by oil, grease, dirt and most industrial chemicals.

UNIFLEX TRIPLE SPRING COUPLING

The Uniflex is designed for applications up to 30,000 RPM such as textile equipment, conveyors, machine tools, centrifugal pumps, blowers, winding machines, and steering mechanisms. In addition, most sizes can be supplied in stainless steel for applications requiring frequent washdowns (food processing), additional chemical resistance (salt water handling), non-magnetic properties (military), or sterile/vacuum usage (pharmaceutical).

Uniflex Coupling Types

Four styles of Uniflex couplings are available: shaft-to-shaft, drop out, flange-to-flange and flange-to-shaft.

U Type
This is a durable one-piece flexible coupling for general purpose shaft-to-shaft applications. It is the basis for all Uniflex coupling types.

RRU Type
This design offers “quick disconnect” for drop out requirements. It can also accomodate a slightly larger shaft diameter than the standard U type.

UF Type
This flange-to-flange type is designed to connect flange mounted equipment to another flange while compensating for misalignment. It is also the center drop out section of the RRU type.

UFH Type
A flange-to-shaft configuration, this couples flange mounted equipment to a shaft with all the benefits of Uniflex versatility. The stock flange plate is the same as used on the UF type.

U TYPE

RRU TYPE

UF TYPE

UFH TYPE

SP

Uniflex Coupling Selection

Once it is determined that the unique features of Uniflex meet your application, selection of the proper coupling depends on three factors: torque transmission, bore requirements, and RPM. When selecting a Uniflex coupling, the torque capability shown as maximum must not be exceeded. Nominal torque adjusted by an application service factor, start up torque, braking torque and any cyclic shock or peak torques inherent in the application must be considered.

Determine the correct Uniflex coupling size by working out the following calculations:

Step 1: Determine the Uniflex type or configuration from page SP-14.
Step 2: Calculate the nominal torque as T or nominal HP/100RPM

$$T\ (\text{in-lbs}) = \frac{(HP^* \times 63{,}025)}{RPM^*} \qquad HP/100RPM = \frac{HP^* \times 100}{RPM^*}$$

$$T\ (\text{Nm}) = \frac{(KW^* \times 9{,}550)}{RPM}$$

***** Usually HP (KW) & RPM of prime mover, if the coupling is to be attached to the prime mover or if no speed or torque devices are between the driver and driven equipment.

Step 3: Determine the application service factor from page JW-6. Multiply the nominal torque by the application service factor to determine the total required torque.
Step 4: Select the size.
Step 5: Check to be sure the peak torque or maximum torque from starting, braking or cyclic peaks does not exceed the coupling maximum capability. For applications involving frequent starts and stops, refer to Lovejoy Engineering. ***NOTE:*** Diesel and gasoline engine drives usually require special considerations. Refer to Lovejoy Engineering.
Step 6: **a.** Check the coupling maximum bore capability versus the shaft to be used. If necessary, pick a larger size coupling to get the needed bore capacity.
b. Check the maximum speed.
c. Check any limiting dimensions.

Selection Example

A rolling device operates at 6,000 RPM and requires 15 HP. The driving shaft is 1.250" diameter and the roll shaft is 1.125" diameter. Select the proper U type shaft-to-shaft coupling. Occasional emergency stops impose 675 in-lbs of torque, otherwise the operation has no cyclic loading. Start up torque is $^1/_3$ of emergency stopping torque. Rolls of various types typically have a 1.5 - 2.0 application service factor.
Determine the nominal torque or HP/100RPM:

Step 1:

$$T = \frac{15 \times 63{,}025}{6{,}000} = 158 \text{ in-lbs}$$

$$HP/100\ RPM = \frac{15 \times 100}{6{,}000} = 0.25\ HP/100\ RPM$$

Step 2: Determine the Total Rated Torque:

$$Tr = 158 \times 2.0 = 316 \text{ in-lbs}$$

Maximum stopping torque = 675 in-lbs
Start up torque = 225 in-lbs

The U-125 coupling meets all the above requirements with the key item as the maximum stopping torque.

Step 3: The U-125 has a maximum bore capability of 1.250", which covers the application driver shaft of the same size. The roll shaft is 1.125", which is less than maximum.

Note: Uniflex maximum bore sizes includes a standard keyway allowance.

SP

Uniflex Coupling Technical Data

Selection Chart

Size	Wind Up At Max. Torque[1]	Misalignment Capability								
		Maximum Angular Offset	Maximum Parallel Offset		Maximum Recommended End Play		Maximum Torque		HP	Maximum Speed
			in	mm	in	mm	in-lbs	Nm	100RPM	RPM
18 Reg.	1.80º	3.0º	0.008	0.20	0.010	0.25	18	2.0	0.03	30,000
25 Reg.	1.80º	4.5º	0.011	0.28	0.020	0.51	34	3.8	0.05	30,000
37 Reg.	1.78º	4.5º	0.014	0.36	0.020	0.51	39	4.4	0.06	30,000
50 Reg.	1.82º	4.5º	0.021	0.53	0.035	0.89	82	9.3	0.13	30,000
62 Reg.	0.85º	3.0º	0.019	0.48	0.035	0.89	126	14.2	0.20	20,000
75 Reg.	1.82º	4.5º	0.028	0.71	0.040	1.02	175	19.8	0.28	20,000
87 Reg.	1.68º	4.5º	0.035	0.89	0.040	1.02	346	39.1	0.55	10,000
100 Reg.	1.03º	3.0º	0.030	0.76	0.040	1.02	565	63.8	0.90	6,000
125 Reg.	1.85º	4.5º	0.044	1.12	0.040	1.02	755	85.3	1.21	6,000
137 Reg.	1.85º	3.0º	0.035	0.89	0.040	1.02	1,260	142.4	2.02	6,000
150 Reg.	0.85º	3.0º	0.041	1.04	0.040	1.02	1,890	213.5	3.02	3,000
25 Short	1.07º	3.0º	0.007	0.18	0.015	0.38	34	3.8	0.05	30,000
37 Short	1.09º	3.0º	0.009	0.23	0.015	0.38	39	4.4	0.06	30,000
50 Short	1.05º	3.0º	0.014	0.36	0.010	0.25	82	9.3	0.13	30,000
62 Short	0.85º	3.0º	0.019	0.48	0.020	0.51	126	14.2	0.20	20,000
75 Short	1.12º	3.0º	0.019	0.48	0.020	0.51	175	19.8	0.28	20,000
87 Short	1.17º	3.0º	0.024	0.61	0.020	0.51	346	39.1	0.55	10,000
100 Short	1.03º	3.0º	0.030	0.76	0.020	0.51	565	63.8	0.90	6,000
125 Short	1.22º	3.0º	0.030	0.76	0.020	0.51	755	85.3	1.21	6,000
137 Short	1.35º	3.0º	0.035	0.89	0.020	0.51	1,260	142.4	2.02	6,000
150 Short	0.85º	3.0º	0.041	1.04	0.020	0.51	1,890	213.5	3.02	3,000

Notes: **1.** Total backlash is approximately $^1/_3$ of windup at maximum torque—consult Lovejoy Engineering for more information.

2. See Lovejoy list pricebook for UPC numbers.

SP

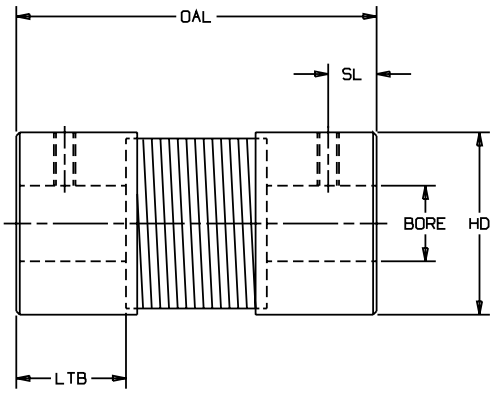
Uniflex Coupling Data

U Type — Shaft-to-Shaft

The U type is the basis for all Uniflex couplings. It is a shaft-to-shaft flexible coupling with a simple one piece design, making it ideal for indexing, robotic or positioning applications. The U type consists of a triple-wound flexible steel spring brazed to a steel hub at each end.
This all steel design ensures optimum equipment protection in severe environments and/or high temperature applications.

Regular and short versions are available for most sizes to accommodate different overall length requirements. Special hub or bore modifications are also possible. These units can be supplied with either pin holes or with keyways and set screws. Lovejoy does not recommend the reboring of uniflex couplings by customers due to potential damage to the brazed joint.

U TYPE



U Type Dimensional Data

Size	HD	Min. Bore		Max. Bore		LTB		OAL[1]		Pin Location (SL)		Pin Size	Set Screw Qty Per		Weight	
	in	in	mm	in	mm	Reg in	Short in	Reg in	Short in	Reg in	Short in	in	Hub	Size	lbs.	kg.
U-18	0.61	0.12	3	0.25	6	0.31	.....	1.00	.....	0.16	.....	3/32	1	6-32	0.09	0.04
U-25	0.73	0.12	3	0.31	8	0.38	0.32	1.50	1.00	0.16	0.16	3/32	1	6-32	0.10	0.05
U-37	0.86	0.25	6	0.38	9.5	0.52	0.52	2.06	1.65	0.25	0.25	3/32	1	10-24	0.27	0.12
U-50	1.04	0.31	8	0.50	12.5	0.64	0.50	2.50	1.82	0.31	0.31	1/8	1	1/4-20	0.36	0.16
U-62	1.42	0.31	8	0.62	16	0.84	0.62	2.72	2.28	0.38	0.38	1/8	1	1/4-20	0.78	0.35
U-75	1.42	0.38	10	0.75	19	0.84	0.84	3.31	2.72	0.41	0.41	1/8	1	1/4-20	0.82	0.37
U-87	1.73	0.44	11	0.88	22	0.84	0.84	3.50	2.91	0.44	0.44	3/16	1	1/4-20	1.40	0.63
U-100	2.11	0.44	11	1.00	25	1.29	1.00	4.12	3.56	0.56	0.56	5/16	1	1/4-20	2.60	1.18
U-125	2.17	0.62	16	1.25	31	1.28	1.10	4.88	3.75	0.62	0.62	5/16	1	3/8-16	2.74	1.24
U-137	2.54	0.62	16	1.38	35	1.58	1.01	5.25	4.12	0.69	0.69	3/8	1	3/8-16	4.00	1.81
U-150	2.98	0.75	19	1.50	38	1.88	1.72	6.28	5.00	0.81	0.81	3/8	1	3/8-16	8.00	3.63

Note: **1.** OAL Tolerance ± 1/8 inch.

Stainless Steel U Series Dimensional Data

Size	HD	Max. Bore		LTB		OAL[1]		Pin Location (SL)		Pin Size	Set Screw Qty Per		Weight	
		in	mm	Reg in	Short in	Reg in	Short in	Reg in	Short in	in	Hub	Size	lbs	kg.
U-18	0.60	0.25	6	0.31	.....	0.95	.....	0.16	.....	3/32	1	6-32	0.09	0.04
U-25	0.62	0.31	8	.....	0.41	.....	0.97	.....	0.16	3/32	1	6-32	0.10	0.05
U-37	0.75	0.31	8	.....	0.68	.....	1.68	.....	0.25	3/32	1	10-24	0.27	0.12
U-50	0.94	0.38	9.5	.....	0.58	.....	1.80	.....	0.31	1/8	1	1/4-20	0.36	0.16
U-62	1.25	0.50	12.5	0.96	0.77	2.65	2.27	0.38	0.38	1/8	1	1/4-20	0.78	0.35
U-75	1.25	0.50	12.5	.....	0.96	.....	2.65	.....	0.41	1/8	1	1/4-20	0.82	0.37
U-87	1.69	0.75	19	.....	0.99	.....	2.94	.....	0.44	3/16	1	1/4-20	1.40	0.63
U-100	1.94	1.00	25	1.41	1.13	4.09	3.55	0.56	0.56	5/16	1	1/4-20	2.60	1.18
U-125	1.97	1.00	25	.....	1.25	.....	3.99	.....	0.62	5/16	1	3/8-16	2.74	1.24

Note: **1.** OAL Tolerance ± 1/8 inch.

Uniflex Coupling Data

RRU Type — Dropout Style

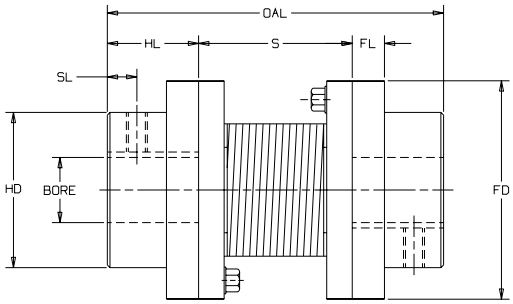
The RRU type Uniflex coupling is designed for fast, easy installation and removal without disrupting the connected shafts. This is ideal when servicing impellers, bearings and seals.

The design consists of two steel hubs fastened with cap screws to a Uniflex double flange coupling (UF type). The RRU is easily disassembled by simply removing the cap screws and sliding out the UF center spring section.

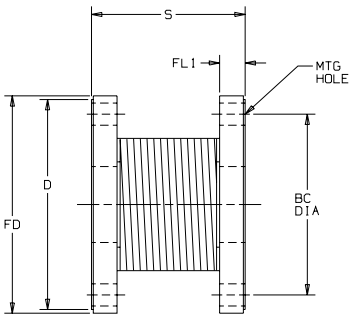
UF Type — Flange-to-Flange

This coupling is actually the center dropout section of the RRU type, but it can be purchased separately for direct flange-to-flange mounting of the driving unit to the driven. The UF type coupling compensates for high misalignment to protect connected equipment, yet it is also well-suited for applications which require negligible backlash or windup and reliability under high temperature conditions. Stock flange sizes are shown in the Dimensional Data table below, but other sizes can be provided to meet special mounting requirements.

RRU TYPE



UF TYPE



SP

RRU and UF Types Dimensional Data

Size	HD in	Min. Bore in.	Min. Bore mm	Max. Bore in.	Max. Bore mm	HL in	FL in	FL1 in	OAL[1] in	D in	FD in	Pin Loc. SL in	Pin Size in	S[2] in	BC in	Mtg. Screw[3] Qty.	Mtg. Screw[3] Size	Set Screw Qty.	Set Screw Size
RRU-50	2.00	0.38	10	1.00	25	1.00	.....	0.25	3.52	1.88	2.00	0.50	1/8	1.56	1.50	3	1/4-20	1	1/4-20
RRU-75	2.50	0.38	10	1.25	32	1.25	.....	0.38	4.27	2.38	2.50	0.62	1/8	1.81	2.00	3	1/4-20	1	1/4-20
RRU-87	2.87	0.44	11	1.38	35	1.38	.....	0.38	4.84	2.75	2.88	0.69	3/16	2.12	2.25	3	1/4-20	1	1/4-20
RRU-100	2.31	0.44	11	1.38	35	1.38	0.50	0.38	4.90	3.12	3.25	0.44	5/16	2.18	2.68	3	5/16-18	1	1/4-20
RRU-125	2.75	0.62	16	1.62	41	1.62	0.50	0.50	5.84	3.56	3.68	0.56	5/16	2.62	3.12	3	5/16-18	1	3/8-16
RRU-137	3.25	0.62	16	1.88	48	1.88	0.50	0.50	6.53	4.25	4.38	0.69	3/8	2.81	3.75	3	3/8-16	1	3/8-16
RRU-150	3.75	0.75	19	2.12	54	2.12	0.62	0.50	7.66	5.00	5.38	0.82	3/8	3.44	4.38	4	3/8-16	1	3/8-16

Notes:

1. OAL Tolerance ± .19 inch.
2. UF Center Drop out Length Tolerance ± .12 inch.
3. Screws not supplied for UF.
4. When ordering specify prefix RRU or UF; dimensions remain the same for either.
5. See page SP-16 for Performance Data.

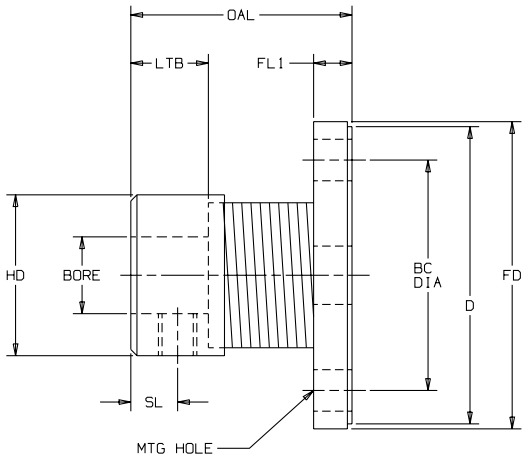
Uniflex Coupling Data

UFH Type — Flange-to-Shaft

The one-piece UFH type coupling is similar to the U type, except that one hub is replaced by a flange plate. Stock flange sizes are shown in the Dimensional Data table below but other sizes can be made to order. As with the other Uniflex styles, this coupling compensates for high degrees of angular and parallel misalignment with very little backlash or windup and is reliable in harsh or severe environments.

Regular and short versions are available for each size to accommodate different overall length requirements. For increased versatility, the hub can be modified with a tapered, spline, hex or square bore. The standard hub is furnished with either a pre-drilled pin hole or with a keyway and set screw. Specify when ordering.

UFH TYPE



UFH Series Dimensional Data

Size	HD	Min. Bore		Max. Bore		LTB		FL1	OAL[1]		FD	Pin Loc.		Pin Size	BC	Mtg. Screw[2]		Set Screw	
						Reg	Short		Reg	Short		D	SL			Qty.	Size	Qty.	Size
	in	in	mm	in	mm	in	in	in	in	in	in	in	in	in	in				
UFH-50	1.04	0.31	8	0.50	13	0.64	0.50	0.25	2.03	1.50	2.00	1.88	0.31	1/8	1.50	3	1/4-20	1	1/4-20
UFH-75	1.42	0.38	10	0.75	19	0.84	0.84	0.38	2.58	2.00	2.50	2.38	0.41	1/8	2.00	3	1/4-20	1	1/4-20
UFH-87	1.73	0.44	11	0.88	22	0.84	0.84	0.38	2.82	2.24	2.88	2.75	0.44	3/16	2.25	3	1/4-20	1	1/4-20
UFH-100	2.11	0.44	11	1.00	25	1.29	1.00	0.38	3.17	2.88	3.25	3.12	0.56	5/16	2.68	3	5/16-18	1	1/4-20
UFH-125	2.17	0.62	16	1.25	32	1.28	1.10	0.50	3.75	2.82	3.68	3.56	0.62	5/16	3.12	3	5/16-18	1	3/8-16
UFH-137	2.54	0.62	16	1.38	35	1.58	1.02	0.50	4.03	3.46	4.38	4.25	0.69	3/8	3.75	3	3/8-16	1	3/8-16
UFH-150	2.98	0.75	19	1.50	.....	1.88	1.72	0.63	4.86	3.75	5.38	5.00	0.81	3/8	4.38	4	3/8-16	1	3/8-16

Notes: **1.** OAL Tolerance ± .12 inch.

2. Screws not supplied.

3. See page SP-16 for Performance Data.

SP

Saga Coupling Design

Elastomeric Pre-compression Type

Saga is a general purpose, torsionally soft coupling with high tolerance to all forms of misalignment. The design features hexagonal or octagonal rubber donut-shaped elements with metal inserts positioned at each apex during the vulcanization process. These metal inserts carry actual bolts which fix the element to tines on cast, cylindrical hubs. Embedded inserts also have tines which connect with mating surfaces on hubs so that axial bolts can be easily torqued during assembly without twisting the rubber beyond the limits of its elasticity. The rubber between each apex is pre-compressed, so it is much more durable to the stresses arising from the various forms of misalignment and torsional vibrations.

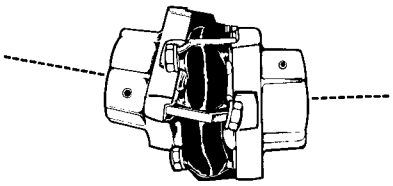
While the Saga coupling is normally associated with shaft-to-shaft applications, adaptations for flange and flywheel mountings can be made. In addition, a floating shaft version for use in lieu of a u-joint drive shaft with separate torsional coupling is available. Its elements can also be stacked in series for use in applications with extreme transient or permanent parallel misalignment, or where torsional dynamics demand an extremely soft element for proper damping and/or vibratory decoupling. The rubber's stiffness of 60 as measured against Shore A by durometer, covers the majority of such situations.

Performance benefits of this coupling include:

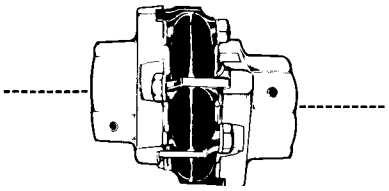
- No end thrust in misalignment position.
- Absorbs misalignment and shock.
- No axial reaction force to damage or accelerate wear in system bearings.
- Accepts constant angular misalignment of up to 3º
- Parallel tolerance of 0.060((1.5mm), while reaction force remains low.
- Lateral softness without complication, or sacrifice of performance or durability.
- Natural rubber can operate in temperatures from -60º to +200º F (-51º to 93º C).

Note: For applications requiring simultaneous angular and parallel misalignment, consult Lovejoy Engineering to ensure that heat generated from all three forms of stress do not exceed the coupling's ability to dissipate heat.

SAGA TYPE



ANGULAR OFFSET (EXAGGERATED)



PARALLEL OFFSET (EXAGGERATED)

Selection Process

Step 1: Establish torque or HP rating of the driver and operating and maximum RPM (for electric motors, these are essentially the same).

Step 2: Determine the horsepower 100RPM:

$$\frac{\text{HP} \times 100}{\text{RPM}} = \text{HP per 100 RPM}$$

or establish driver torque at operating RPM.

Step 3: Using the service factor selected from the table on JW-6, multiply torque or HP/100 RPM by the factor. Using the result, select a coupling from the Performance Data chart on the next page. The coupling's rating must be equal to or greater than adjusted HP/100RPM or torque.

Step 4: Compare the maximum driver RPM to the Performance Data chart on the next page to insure that the coupling's speed limit is not exceeded.

Step 5: Finally, determine shaft diameters of both driving and driven equipment and check them against maximum bore diameters from the Dimensional Data chart on the next page to ensure that these values are not exceeded.

Saga Coupling Data

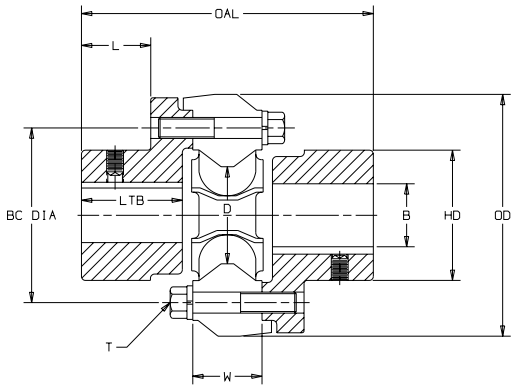
Performance Data

Size	HP/100 RPM for 1.0 service factor	Rated Torque for 1.0 S.F. in-lbs	Nm	Max. Shock Load in-lbs	Nm	Dynamic Torsional Stiffness in-lbs/Deg	in-lbs/Rad	Specific Torsional Stiffness	Max. Speed RPM[1]	Approx. Weight lbs	kg.	Moment of Inertia WR² lb in²
S-11	0.56	350	40	1,000	113	47	2,693	7.69	10,000	4.75	2.2	3.0
S-13	0.95	600	68	1,800	203	67	3,839	6.40	8,400	6.50	2.9	6.6
S-15	1.59	1,000	113	3,000	339	120	6,875	6.88	7,000	10	4.5	14.3
S-18	3.17	2,000	226	6,000	678	200	11,459	5.73	5,600	17	7.7	40.0
S-22	4.76	3,000	339	9,000	1017	400	22,918	7.64	5,000	31	14.1	102.0
S-26	7.93	5,000	565	15,000	1695	590	33,805	6.76	4,000	46	20.9	234.0
S-30	11.11	7,000	791	21,000	2373	800	45,837	6.55	3,500	64	29.0	384.0
S-34	19.04	12,000	1356	36,000	4067	2,000	114,592	9.55	2,800	122	55.3	832.0
S-40	31.73	20,000	2260	60,000	6779	3,500	200,535	10.03	2,200	175	79.4	1,200.0

Note: **1.** For higher speeds, balancing may be necessary.

Bolt Data

Size	Bolt Grade No. 5 T		Rec. Tightening Torque of Bolts			
			Wet		Dry	
	Qty.	Size	ft-lb	Nm	ft-lb	Nm
S-11	6	5⁄16 - 18 x 1¾	13	18	17	23
S-13	6	⅜ - 16 x 2	23	31	30	41
S-15	6	⅜ - 16 x 2 ½	23	31	30	41
S-18	6	½ - 13 x 3	55	75	75	102
S-22	6	⅝ - 11 x 3 ¼	110	149	150	203
S-26	6	¾ - 10 x 4	200	271	260	353
S-30	6	¾ - 10 x 4 - ½	200	271	260	353
S-34	8	¾ - 10 x 4- ½	200	271	260	353
S-40	8	1 -8 x 5 - ½	480	651	640	868



Dimensional Data

Size	Rough Stock Bore² B in	mm	Max Bore B in.	mm	OAL in	OD in	HD in	W in	LTB in	BC Dia. in	D in	L in
S-11	0.63	15.88	1.19	30.16	4.56	3.56	1.84	1.06	1.50	2.56	1.38	1.13
S-13	0.75	19.05	1.38	34.93	5.22	4.28	2.25	1.22	1.75	3.06	1.63	1.31
S-15	0.88	22.22	1.88	47.63	6.41	5.09	2.88	1.53	2.13	3.69	2.00	1.63
S-18	1.00	25.40	2.25	57.15	7.44	6.28	3.44	1.81	2.50	4.56	2.33	1.81
S-22	1.00	25.40	2.50	63.50	8.69	7.31	3.88	2.06	3.00	5.20	2.75	2.06
S-26	1.50	38.10	2.88	73.02	9.88	8.63	4.59	2.38	3.38	6.20	3.25	2.25
S-30	1.63	41.28	3.38	85.73	11.38	9.63	5.31	2.63	3.88	6.94	3.63	2.75
S-34	2.13	53.97	4.00	101.60	12.66	11.09	6.25	2.95	4.34	8.25	4.75	3.44
S-40	2.25	57.15	4.75	120.65	14.81	13.38	7.50	3.56	5.00	10.00	6.00	3.88

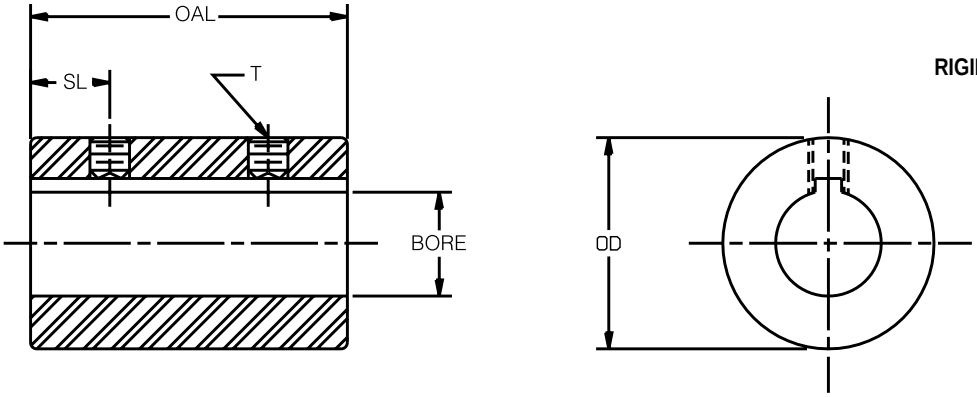
Note: **2.** Standard bores available by $^{1}/_{16}$″ increments. Some metric sizes also available as standard.

SP

Rigid Sleeve Couplings

Lovejoy Rigid Sleeve couplings fit the standards of the industry. These couplings, the simplest type, provide a fixed union between two shafts which are precisely aligned. They are suitable for use in joining any two shafts when flexibility is not required, shaft alignment is maintained and proper bearing support is provided. Bore tolerances are -.000/+.002.

RIGID SLEEVE COUPLING



Rigid Sleeve Couplings Dimensional Data

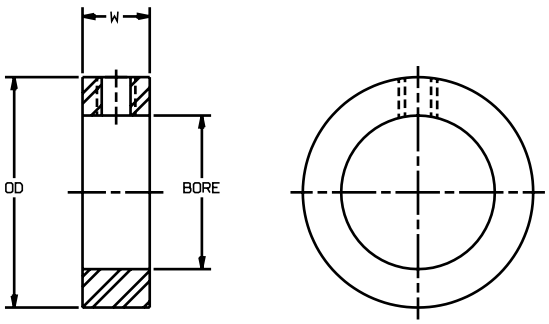
Size	Item (UPC) No.	OD in	OAL in	SL in	Set Screw T in	Bore in
SC-250	14322	0.50	0.75	0.19	8-32 x 1/8	0.25*
SC-312	14324	0.62	1.00	0.25	8-32 x 1/8	0.31*
SC-375	14326	0.75	1.00	0.25	10-24 x 3/16	0.38*
SC-500	14330	1.00	1.50	0.38	1/4-20 x 3/16	0.50
SC-625	14332	1.25	2.00	0.50	5/16-18 x 1/4	0.62
SC-750	14335	1.50	2.00	0.50	5/16-18 x 5/16	0.75
SC-875	14338	1.75	2.00	0.50	5/16-18 x 5/16	0.88
SC-1000	14343	2.00	3.00	0.75	3/8-16 x 3/8	1.00
SC-1125	14346	2.12	3.00	0.75	3/8-16 x 3/8	1.12
SC-1250	14349	2.25	4.00	1.00	3/8-16 x 3/8	1.25
SC-1375	14352	2.50	4.50	1.00	3/8-16 x 3/8	1.38

Note: * indicates that these sizes do not have keyways

Shaft Collars

Zinc Plated and Stainless Steel

Lovejoy shaft collars are precision machined for the best possible fit. Standard steel collars are made from highest quality cold finished steel bar stock and zinc plated for corrosion resistance and outstanding appearance. Stainless steel collars are made from type 303 stainless and include a stainless steel set screw. All Lovejoy shaft collars use socket cup point set screws for ease of installation and best possible holding strength. Made in USA.



Dimensional Data

Bore[2]	Size	Item (UPC) numbers Zinc Plated	Stainless	OD	W	Set Screw
1/8	LSC-2	17507	17557	0.38	0.25	6-32 x 1/8
3/16	LSC-3	17508	17559	0.44	0.25	8-32 x 1/8
1/4	LSC-4	17509	17561	0.50	0.31	10-24 x 1/8
5/16	LSC-5	17510	17563	0.62	0.31	10-32 x 3/16
3/8	LSC-6	17511	17565	0.75	0.38	1/4-20 x 3/16
7/16	LSC-7	17512	17567	0.88	0.44	1/4-20 x 1/4
1/2	LSC-8	17513	17569	1.00	0 44	1/4-20 x 1/4
9/16	LSC-9	17514	17571	1.00	0.44	1/4-20 x 1/4
5/8	LSC-10	17515	17573	1.12	0.50	5/16-18 x 1/4
11/16	LSC-11	17516	17575	1.25	0.56	5/16-18 x 1/4
3/4	LSC-12	17517	17577	1.25	0.56	5/16-18 x 1/4
13/16	LSC-13	17518	17579	1.25	0.56	5/16-18 x 1/4
7/8	LSC-14	17519	17581	1.50	0.56	5/16-18 x 5/16
15/16	LSC-15	17520	17583	1.50	0.56	5/16-24 x 1/4
1	LSC-16	17521	17585	1.50	0.62	5/16-24 x 1/4
1 1/16	LSC-17	17522	17587	1.75	0.62	5/16-18 x 5/16
1 1/8	LSC-18	17523	17589	1.75	0.62	5/16-18 x 5/16
1 3/16	LSC-19	17524	17591	2.00	0.69	3/8-16 x 3/8
1 1/4	LSC-20	17525	17593	2.00	0.69	3/8-16 x 3/8
1 5/16	LSC-21	17526	17595	2.12	0.69	3/8-16 x 3/8
1 3/8	LSC-22	17527	17597	2.12	0.75	3/8-16 x 3/8
1 7/16	LSC-23	17528	17599	2.25	0.75	3/8-16 x 3/8
1 1/2	LSC-24	17529	17601	2.25	0.75	3/8-16 x 3/8
1 9/16	LSC-25	17530	17603	2.50	0.81	3/8-16 x 3/8
1 5/8	LSC-26	17531	17605	2.50	0.81	3/8-16 x 3/8
1 11/16	LSC-27	17532	17607	2.50	0.81	3/8-16 x 3/8
1 3/4	LSC-28	17533	17609	2.63	0.88	1/2-13 x 1/2
1 13/16	LSC-29	17534	17611	2.75	0.88	1/2-13 x 1/2
1 7/8	LSC-30	17535	17613	2.75	0.88	1/2-13 x 1/2
1 15/16	LSC-31	17536	17615	3.00	0.88	1/2-13 x 1/2
2	LSC-32	17537	17617	3.00	0.88	1/2-13 x 1/2
2 1/16	LSC-33	17538	.....	3.00	0.88	1/2-13 x 1/2
2 1/8	LSC-34	17539	17621	3.00	0.88	1/2-13 x 1/2
2 3/16	LSC-35	17540	.....	3.25	0.94	1/2-13 x 1/2
2 1/4	LSC-36	17541	17625	3.25	0.94	1/2-13 x 1/2
2 5/16	LSC-37	17542	.....	3.25	0.94	1/2-13 x 1/2
2 3/8	LSC-38	17543	17629	3.25	0.94	1/2-13 x 1/2
2 7/16	LSC-39	17544	.....	3.50	1.00	1/2-13 x 1/2
2 1/2	LSC-40	17545	17633	3.50	1.00	1/2-13 x 1/2
2 9/16	LSC-41	17546	.....	3.75	1.00	1/2-13 x 1/2
2 5/8	LSC-42	17547	.....	4.00	1.12	1/2-13 x 1/2
2 11/16	LSC-43	17548	.....	4.00	1.12	1/2-13 x 1/2
2 3/4	LSC-44	17549	.....	4.00	1.12	1/2-13 x 1/2
2 13/16	LSC-45	17550	.....	4.00	1.12	1/2-13 x 1/2
2 7/8	LSC-46	17551	.....	4.00	1.12	1/2-13 x 1/2
2 15/16	LSC-47	17552	.....	4.00	1.12	1/2-13 x 1/2
3	LSC-48	17553	.....	4.00	1.12	1/2-13 x 1/2

Notes: **1.** When referencing the Lovejoy UPC number, include 685144 as a prefix to the number shown in the chart above.

2. Bore Tolerance LSC-2 through LSC-16,+.003-.000 Bore Tolerance LSC-17 through LSC-48,+.003-.001

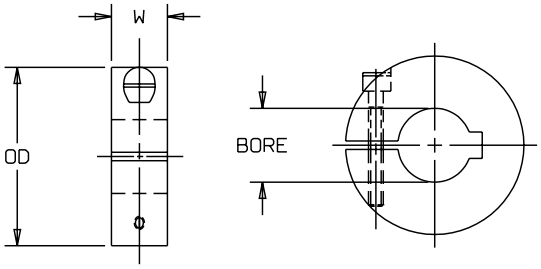
Shaft Collars

One-piece

Lovejoy one-piece split shaft collars are designed to fully engage the shaft without marring or causing other shaft damage. Collars are made from the highest quality bar stock steel and are black oxide finished for corrosion resistance and outstanding appearance. All Lovejoy shaft collars use socket cup point set screws for ease of installation and best possible holding strength.

Other features include:

- Equally effective on both hard and soft shafts.
- Made of 12L14 Mild Steel
- Hex Socket, Cup Point, 3A Thread Screws
- Made in the U.S.A.
- Tolerances:
  Bore Diameter - +.003, -.000 in
  Outside Diameter - +.000, -.015 in
  Width - ± .015 in



Dimensional Data

Collar Size	Bore in	Item (UPC) Number	OD in	Width in	Clamp Screw
SC1-2	1/8	63200	11/16	5/16	4-40 x .375
SC1-3	3/16	63201	11/16	5/16	4-40 x .375
SC1-4	1/4	63202	11/16	5/16	4-40 x .375
SC1-5	5/16	63203	11/16	5/16	4-40 x .375
SC1-6	3/8	63204	7/8	3/8	6-32 x .375
SC1-7	7/16	63205	15/16	3/8	6-32 x .375
SC1-8	1/2	63206	1 1/8	3/8	6-32 x .375
SC1-9	9/16	63207	1 5/16	13/32	8-32 x .500
SC1-10	5/8	63208	1 5/16	7/16	10-32 x .500
SC1-11	11/16	63209	1 1/2	1/2	10-32 x .500
SC1-12	3/4	63210	1 1/2	1/2	1/4-28 x .625
SC1-13	13/16	63211	1 5/8	1/2	1/4-28 x .625
SC1-14	7/8	63212	1 5/8	1/2	1/4-28 x .625
SC1-15	15/16	63213	1 3/4	1/2	1/4-28 x .625
SC1-16	1	63214	1 3/4	1/2	1/4-28 x .625
SC1-17	1 1/16	63215	1 7/8	1/2	1/4-28 x .625
SC1-18	1 1/8	63216	1 7/8	1/2	1/4-28 x .750
SC1-19	1 3/16	63217	2 1/16	1/2	1/4-28 x .750
SC1-20	1 1/4	63218	2 1/16	1/2	1/4-28 x .750
SC1-21	1 5/16	63219	2 1/4	9/16	1/4-28 x .750
SC1-22	1 3/8	63220	2 1/4	9/16	1/4-28 x .750
SC1-23	1 7/16	63221	2 1/4	9/16	1/4-28 x .750
SC1-24	1 1/2	63222	2 3/8	9/16	1/4-28 x .750
SC1-25	1 9/16	63223	2 3/8	9/16	1/4-28 x .750
SC1-26	1 5/8	63224	2 5/8	11/16	5/16-24 x 1.000
SC1-27	1 11/16	63225	2 3/4	11/16	5/16-24 x 1.000
SC1-28	1 3/4	63226	2 3/4	11/16	5/16-24 x 1.000
SC1-30	1 7/8	63227	2 7/8	11/16	5/16-24 x 1.000
SC1-31	1 15/16	63228	3	5/8	5/16-24 x 1.000
SC1-32	2	63229	3	11/16	5/16-24 x 1.000
SC1-34	2 1/8	63230	3 1/4	3/4	5/16-24 x 1.000
SC1-35	2 3/16	63231	3 1/4	3/4	5/16-24 x 1.000
SC1-36	2 1/4	63232	3 1/4	3/4	5/16-24 x 1.000
SC1-38	2 3/8	63233	3 1/2	3/4	5/16-24 x 1.000
SC1-39	2 7/16	63234	3 1/2	3/4	5/16-24 x 1.000
SC1-40	2 1/2	63235	3 3/4	7/8	3/8-24 x 1.250
SC1-42	2 5/8	63236	3 7/8	7/8	3/8-24 x 1.250
SC1-43	2 11/16	63237	4	7/8	3/8-24 x 1.250
SC1-44	2 3/4	63238	4	7/8	3/8-24 x 1.250
SC1-46	2 7/8	63239	4 1/4	7/8	3/8-24 x 1.250
SC1-47	2 15/16	63240	4 1/4	7/8	3/8-24 x 1.250
SC1-48	3	63241	4 1/4	7/8	3/8-24 x 1.250

Note: When referencing the Lovejoy item (UPC) number, include 685144 as a prefix to the number shown in the chart above.

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Shaft Collars

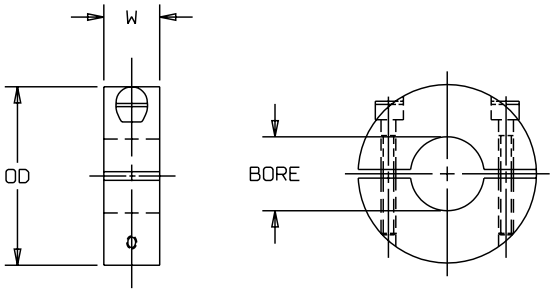
Two-piece

Lovejoy two-piece split shaft collars are designed to fully engage the shaft without marring or causing other shaft damage. Two piece collars are easily installed without the need for major disassembly, saving both man-hours and machine downtime.

Collars are made from the highest quality bar stock steel and black oxide finished for corrosion resistance and outstanding appearance. All Lovejoy shaft collars use socket cup point set screws for ease of installation and best possible holding strength. Contact customer service for price and availability.

Other features include:

- Equally effective on both hard and soft shafts.
- Made in the U.S.A.
- Made of 12L14 Mild Steel
- Hex Socket, Cup Point, 3A Thread Screws
- Tolerances:
  Bore Diameter - +.003, -.000 in
  Outside Diameter - +.000, -.015 in
  Width - ± .015 in



Dimensional Data

Collar Size	Bore in	Item (UPC) Number	OD in	Width in	Clamp Screw
SC2-2	1/8	63242	11/16	5/16	4-40 x .375
SC2-3	3/16	63243	11/16	5/16	4-40 x .375
SC2-4	1/4	63244	11/16	5/16	4-40 x .375
SC2-5	5/16	63245	11/16	5/16	4-40 x .375
SC2-6	3/8	63246	7/8	3/8	6-32 x .375
SC2-7	7/16	63247	15/16	3/8	6-32 x .375
SC2-8	1/2	63248	1 1/8	3/8	6-32 x .375
SC2-9	9/16	63249	1 5/16	13/32	8-32 x .500
SC2-10	5/8	63250	1 5/16	7/16	10-32 x .500
SC2-11	11/16	63251	1 1/2	1/2	10-32 x .500
SC2-12	3/4	63252	1 1/2	1/2	1/4-28 x .625
SC2-13	13/16	63253	1 5/8	1/2	1/4-28 x .625
SC2-14	7/8	63254	1 5/8	1/2	1/4-28 x .625
SC2-15	15/16	63255	1 3/4	1/2	1/4-28 x .625
SC2-16	1	63256	1 3/4	1/2	1/4-28 x .625
SC2-17	1 1/16	63257	1 7/8	1/2	1/4-28 x .625
SC2-18	1 1/8	63258	1 7/8	1/2	1/4-28 x .750
SC2-19	1 3/16	63259	2 1/16	1/2	1/4-28 x .750
SC2-20	1 1/4	63260	2 1/16	1/2	1/4-28 x .750
SC2-21	1 5/16	63261	2 1/4	9/16	1/4-28 x .750
SC2-22	1 3/8	63262	2 1/4	9/16	1/4-28 x .750
SC2-23	1 7/16	63263	2 1/4	9/16	1/4-28 x .750
SC2-24	1 1/2	63264	2 3/8	9/16	1/4-28 x .750
SC2-25	1 9/16	63265	2 3/8	9/16	1/4-28 x .750
SC2-26	1 5/8	63266	2 5/8	11/16	5/16-24 x 1.000
SC2-27	1 11/16	63267	2 3/4	11/16	5/16-24 x 1.000
SC2-28	1 3/4	63268	2 3/4	11/16	5/16-24 x 1.000
SC2-30	1 7/8	63269	2 7/8	11/16	5/16-24 x 1.000
SC2-31	1 15/16	63270	3	5/8	5/16-24 x 1.000
SC2-32	2	63271	3	11/16	5/16-24 x 1.000
SC2-34	2 1/8	63272	3 1/4	3/4	5/16-24 x 1.000
SC2-35	2 3/16	63273	3 1/4	3/4	5/16-24 x 1.000
SC2-36	2 1/4	63274	3 1/4	3/4	5/16-24 x 1.000
SC2-38	2 3/8	63275	3 1/2	3/4	5/16-24 x 1.000
SC2-39	2 7/16	63276	3 1/2	3/4	5/16-24 x 1.000
SC2-40	2 1/2	63277	3 3/4	7/8	3/8-24 x 1.250
SC2-42	2 5/8	63278	3 7/8	7/8	3/8-24 x 1.250
SC2-43	2 11/16	63279	4	7/8	3/8-24 x 1.250
SC2-44	2 3/4	63280	4	7/8	3/8-24 x 1.250
SC2-46	2 7/8	63281	4 1/4	7/8	3/8-24 x 1.250
SC2-47	2 15/16	63282	4 1/4	7/8	3/8-24 x 1.250
SC2-48	3	63283	4 1/4	7/8	3/8-24 x 1.250

Note: When referencing the Lovejoy item (UPC) number, include 685144 as a prefix to the number shown in the chart above.

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