



Drive Couplings

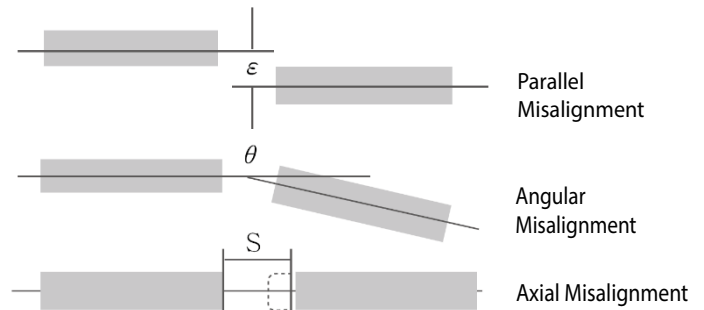
Overview

Rotating shaft-driven mechanical components are commonly used in all forms of machinery that perform the various processes and functions of modern industry. Perfect alignment of shafts and rotating components is desired, but it is nearly impossible to build a real-world machine in which adjacent shaft ends align perfectly. Adjacent shafts can be misaligned in 3 orientations, angular, parallel and axial, see figure below. Misalignment will place stresses on shafts and related parts of the assembly such as bearings, which can result in early failure of both.

Drive couplings can be used to compensate for shaft misalignment, whether the misalignment is an intentional or an unintentional part of the design. When designing or modifying a system, there are essential factors to consider for choosing the correct couplings for the application.



Some degree of Parallel, Angular, or Axial misalignment between shafts is almost unavoidable. Compensation for Shaft Misalignment is the most important feature of Couplings.



(Refer to the specification tables herein for the particular specifications of each type of drive coupling.)

- **RPM:** For higher rpm applications, choose Jaw/Sleeve, High Gain, or Radial Beam-Style Servo couplings. For lower rpm, consider Oldham couplings.
- **Torque:** Consider the torque requirements of the application, and the torque specifications of the different drive coupling types. Peak torque generally occurs at start-up, operating torque at steady-state operation, and reversing or braking torque during rapid acceleration or deceleration or direction changes.
- **Backlash:** Backlash is a measurement of the positional accuracy of the coupling, which is important for reversing and/or motion control applications. Zero backlash is ultimately desirable, but more expensive than necessary for low-precision applications.
- **Precision:** for high-precision applications, choose High Gain or Radial Beam- Style Servo. For applications requiring less precision, consider Jaw/Sleeve couplings.

Coupling Type Comparisons				
Coupling Type	SJC Series Jaw / Spider	SOH Series Oldham Hub/Disc	SRB Series Radial Beam	SHR Series High Gain
Representative Photo				
Mounting Method	Clamp	Clamp	Clamp	Clamp
Backlash Free	Good	Yes	Yes	Yes
Electrical Isolation	Good	Good	No	No
Vibration Absorption	Good	Good	No	Excellent
Jaw/Hub/Body Material	High Strength Aluminum Alloy with Anodized Finish	High Strength Aluminum Alloy with Anodized Finish	Aluminum 7075-T6 with Anodized Finish	High Strength Aluminum Alloy with Anodized Finish
Spider/Disc/Core Material	TPU (Thermoplastic Polyurethane) or Hytrel ®	POM (Polyacetal)	Aluminum 7075-T6	HNBR (Hydrogenated acrylonitrile butadiene rubber)
Permissible Operating Temperature	-20°C to 120°C	-20°C to 80°C	-30°C to 100°C	-20°C to 80°C



Drive Couplings

SRB Series Radial Beam Clamp-Style Coupling



Features

- Zero backlash
- Clamp Style Hub
- Wide bore selection
- Wide Torque Range
- Cost effective
- Material of Construction: 7075-T6 aluminum alloy
- Wide operating temperature range (-30°C to 100°C)
- No Temperature Correction Factor required

Applications

- Servo, stepping, and encoder Applications
- High Speed Applications

To create a coupling to meet your specific needs:

- Select Radial Beam Coupling with desired Bore sizes, B1 and B2

SRB Series Radial Beam Coupling														
Part Number	Price	Size	Bore, B1 x B2	Max RPM	Torque (N·m)		Torsional Stiffness (N·m/rad)	Max Misalignment			Drawing Links			
					*Rated	*Max		Parallel (mm)	Axial (mm)	Angular				
SRB-16C-4-4	\$25.00	16	4 x 4mm	27,000	0.4 N·m	0.8	75	0.150	± 0.3	2.5°	PDF			
SRB-16C-4-5			4 x 5mm								PDF			
SRB-16C-4-6			4 x 6mm								PDF			
SRB-16C-5-5			5 x 5mm								PDF			
SRB-16C-5-6			5 x 6mm								PDF			
SRB-16C-6-6			6 x 6mm								PDF			
SRB-19C-5-5		19	20,000	5 x 5mm	0.6 N·m	1.2	150				0.150	± 0.3	2.5°	PDF
SRB-19C-5-6				5 x 6mm										PDF
SRB-19C-5-6.35				5 x 6.35mm (1/4in)										PDF
SRB-19C-5-8				5 x 8mm										PDF
SRB-19C-6-6				6 x 6mm										PDF
SRB-19C-6-6.35				6 x 6.35mm (1/4in)										PDF
SRB-19C-6-8				6 x 8mm										PDF
SRB-19C-6.35-6.35				6.35 (1/4in) x 6.35mm (1/4in)										PDF
SRB-19C-6.35-8		6.35 (1/4in) x 8mm	PDF											
SRB-19C-8-8		8 x 8mm	PDF											
SRB-22C-5-5	\$27.00	22	5 x 5mm	18,000	1 N·m	2.0	200	± 0.4		PDF				
SRB-22C-5-6			5 x 6mm							PDF				
SRB-22C-5-6.35			5 x 6.35mm (1/4in)							PDF				
SRB-22C-5-8			5 x 8mm							PDF				
SRB-22C-5-9.525			5 x 9.525mm (3/8in)							PDF				
SRB-22C-5-10			5 x 10mm							PDF				
SRB-22C-6-6			6 x 6mm							PDF				
SRB-22C-6-6.35			6 x 6.35mm (1/4in)							PDF				
SRB-22C-6-8	6 x 8mm	PDF												

*Rated & Max Torque based on maximum Bore sizes B1 & B2.



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SRB Series Radial Beam Clamp-Style Coupling

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Part Number	Price	Size	Bore, B1 x B2	Max RPM	Torque (N·m)		Torsional Stiffness (N·m/rad)	Max Misalignment			Drawing Links
					*Rated	*Max		Parallel (mm)	Axial (mm)	Angular	
SRB-22C-6-9.525	\$27.00	22	6 x 9.525mm (3/8in)	18,000	1 N·m	2.0	200	0.150			PDF
SRB-22C-6-10			6 x 10mm								PDF
SRB-22C-6.35-6.35			6.35 (1/4in) x 6.35mm (1/4in)								PDF
SRB-22C-6.35-8			6.35 (1/4in) x 8mm								PDF
SRB-22C-6.35-9.525			6.35 (1/4in) x 9.525mm (3/8in)								PDF
SRB-22C-6.35-10			6.35 (1/4in) x 10mm								PDF
SRB-22C-8-8			8 x 8mm								PDF
SRB-22C-8-9.525			8 x 9.525mm (3/8in)								PDF
SRB-22C-8-10			8 x 10mm								PDF
SRB-22C-9.525-9.525			9.525 (3/8in) x 9.525mm (3/8in)								PDF
SRB-22C-9.525-10			9.525 (3/8in) x 10mm								PDF
SRB-22C-10-10			10 x 10mm								PDF
SRB-26C-6-6			\$32.00								26
SRB-26C-6-6.35	6 x 6.35mm (1/4in)	PDF									
SRB-26C-6-8	6 x 8mm	PDF									
SRB-26C-6-9.525	6 x 9.525mm (3/8in)	PDF									
SRB-26C-6-10	6 x 10mm	PDF									
SRB-26C-6-12	6 x 12mm	PDF									
SRB-26C-6.35-6.35	6.35 (1/4in) x 6.35mm (1/4in)	PDF									
SRB-26C-6.35-8	6.35 (1/4in) x 8mm	PDF									
SRB-26C-6.35-9.525	6.35 (1/4in) x 9.525mm (3/8in)	PDF									
SRB-26C-6.35-10	6.35 (1/4in) x 10mm	PDF									
SRB-26C-6.35-12	6.35 (1/4in) x 12mm	PDF									
SRB-26C-8-8	8 x 8mm	PDF									
SRB-26C-8-9.525	8 x 9.525mm (3/8in)	PDF									
SRB-26C-8-10	8 x 10mm	PDF									
SRB-26C-8-12	8 x 12mm	PDF									
SRB-26C-9.525-9.525	9.525 (3/8in) x 9.525mm (3/8in)	PDF									
SRB-26C-9.525-10	9.525 (3/8in) x 10mm	PDF									
SRB-26C-9.525-12	9.525 (3/8in) x 12mm	PDF									
SRB-26C-10-10	10 x 10mm	PDF									
SRB-26C-10-12	10 x 12mm	PDF									
SRB-26C-12-12	12 x 12mm	PDF									

*Rated & Max Torque based on maximum Bore sizes B1 & B2.



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Part Number	Price	Size	Bore, B1 x B2	Max RPM	Torque (N·m)		Torsional Stiffness (N·m/rad)	Max Misalignment			Drawing Links
					*Rated	*Max		Parallel (mm)	Axial (mm)	Angular	
SRBA-32C-8-8	\$38.50	32	8 x 8mm	14,000	3.8 N·m	7.6	450	0.200	± 0.4	2.5°	PDF
SRBA-32C-8-9.525			8 x 9.525mm (3/8in)								PDF
SRBA-32C-8-10			8 x 10mm								PDF
SRBA-32C-8-12			8 x 12mm								PDF
SRBA-32C-8-14			8 x 14mm								PDF
SRBA-32C-9.525-9.525			9.525 (3/8in) x 9.525mm (3/8in)								PDF
SRBA-32C-9.525-10			9.525 (3/8in) x 10mm								PDF
SRBA-32C-9.525-12			9.525 (3/8in) x 12mm								PDF
SRBA-32C-9.525-14			9.525 (3/8in) x 14mm								PDF
SRBA-32C-10-10			10 x 10mm								PDF
SRBA-32C-10-12			10 x 12mm								PDF
SRBA-32C-10-14			10 x 14mm								PDF
SRBA-39C-10-10			\$68.00								39
SRBA-39C-10-12	10 x 12mm	PDF									
SRBA-39C-10-14	10 x 14mm	PDF									
SRBA-39C-10-16	10 x 16mm	PDF									
SRBA-39C-10-18	10 x 18mm	PDF									
SRBA-39C-10-19	10 x 19mm	PDF									

**Rated & Max Torque based on maximum Bore sizes B1 & B2.



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					*Rated	*Max		Parallel (mm)	Axial (mm)	Angular	
SRBA-39C-12-12	\$68.00	39	12 x 12mm	10,000	7 N·m	14.0	640	0.250	± 0.4	2.5°	PDF
SRBA-39C-12-14			12 x 14mm								PDF
SRBA-39C-12-16			12 x 16mm								PDF
SRBA-39C-12-18			12 x 18mm								PDF
SRBA-39C-12-19			12 x 19mm								PDF
SRBA-39C-14-14			14 x 14mm								PDF
SRBA-39C-14-16			14 x 16mm								PDF
SRBA-39C-14-18			14 x 18mm								PDF
SRBA-39C-14-19			14 x 19mm								PDF
SRBA-39C-16-16			16 x 16mm								PDF
SRBA-39C-16-18			16 x 18mm								PDF
SRBA-39C-16-19			16 x 19mm								PDF
SRBA-39C-18-18			18 x 18mm								PDF
SRBA-39C-18-19			18 x 19mm								PDF
SRBA-39C-19-19			19 x 19mm								PDF
SRBA-49C-12-12			\$113.00								49
SRBA-49C-12-14	12 x 14mm	PDF									
SRBA-49C-12-16	12 x 16mm	PDF									
SRBA-49C-12-18	12 x 18mm	PDF									
SRBA-49C-12-19	12 x 19mm	PDF									
SRBA-49C-12-20	12 x 20mm	PDF									
SRBA-49C-14-14	14 x 14mm	PDF									
SRBA-49C-14-16	14 x 16mm	PDF									
SRBA-49C-14-18	14 x 18mm	PDF									
SRBA-49C-14-19	14 x 19mm	PDF									
SRBA-49C-14-20	14 x 20mm	PDF									
SRBA-49C-16-16	16 x 16mm	PDF									
SRBA-49C-16-18	16 x 18mm	PDF									
SRBA-49C-16-19	16 x 19mm	PDF									
SRBA-49C-16-20	16 x 20mm	PDF									
SRBA-49C-18-18	18 x 18mm	PDF									
SRBA-49C-18-19	18 x 19mm	PDF									
SRBA-49C-18-20	18 x 20mm	PDF									
SRBA-49C-19-19	19 x 19mm	PDF									
SRBA-49C-19-20	19 x 20mm	PDF									
SRBA-49C-20-20	20 x 20mm	PDF									

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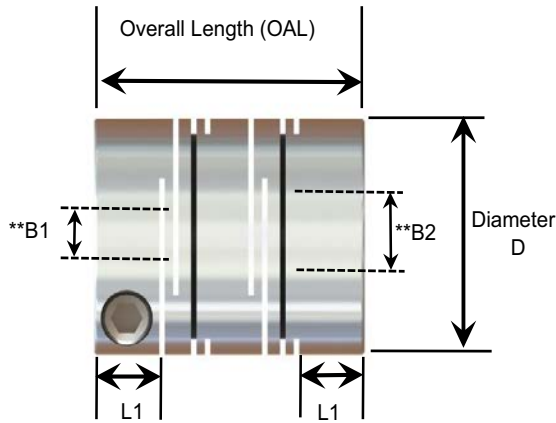
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Part Number	Price	Size	Bore, B1 x B2	Max RPM	Torque (N-m)		Torsional Stiffness (N-m/rad)	Max Misalignment			Drawing Links
					*Rated	*Max		Parallel (mm)	Axial (mm)	Angular	
SRBA-60C-16-16	\$135.00	60	16 x 16mm	7,000	30 N-m	60.0	2500	0.250	±0.5	2.5°	PDF
SRBA-60C-16-18			16 x 18mm								PDF
SRBA-60C-16-19			16 x 19mm								PDF
SRBA-60C-16-20			16 x 20mm								PDF
SRBA-60C-16-22			16 x 22mm								PDF
SRBA-60C-16-24			16 x 24mm								PDF
SRBA-60C-18-18			18 x 18mm								PDF
SRBA-60C-18-19			18 x 19mm								PDF
SRBA-60C-18-20			18 x 20mm								PDF
SRBA-60C-18-22			18 x 22mm								PDF
SRBA-60C-18-24			18 x 24mm								PDF
SRBA-60C-19-19			19 x 19mm								PDF
SRBA-60C-19-20			19 x 20mm								PDF
SRBA-60C-19-22			19 x 22mm								PDF
SRBA-60C-19-24			19 x 24mm								PDF
SRBA-60C-20-20			20 x 20mm								PDF
SRBA-60C-20-22			20 x 22mm								PDF
SRBA-60C-20-24			20 x 24mm								PDF
SRBA-60C-22-22			22 x 22mm								PDF
SRBA-60C-22-24			22 x 24mm								PDF
SRBA-60C-24-24			24 x 24mm								PDF

*Rated & Max Torque based on maximum Bore sizes B1 & B2.



Drive Couplings

SRB Series Radial Beam Clamp-Style Coupling



SRB Series Dimensions and Mass

Size	Diameter, D (mm)	Overall Length OAL, (mm)	***L1 (mm)	*Mass (g)	*Moment of Inertia (kg-m ²)	Clamp Screw	
						Type	Fastening Torque (N-m)
16	16	21.5	6.1	8.2	3.10E-07	SHCS M2.6-0.45 x 8mm	1.0
19	19.1	23	6.2	12	6.40E-07		
22	22.2	26.5	7.2	17.9	1.40E-06	SHCS M3-0.5 x 10mm	1.7
26	26.2	31.5	7.5	29.9	3.20E-06		
32	31.8	39	9.4	54.9	8.60E-06	SHCS M4-0.7 x 12mm	3.5
39	39	43	10.7	87.8	2.10E-05	SHCS M5-0.8 x 16mm	8.0
49	49	63.5	15.1	236	8.40E-05	SHCS M6-1.0 x 20mm	13.0
60	60	76.2	19	407	2.20E-04	SHCS M8-1.25 x 25mm	30.0

* Mass & Moment of inertia based on complete assembly with max bore B1 & B2.

**B1 & B2 are the Bore sizes for the selected SRB Coupling.

***L1 is the mounting distance from the shaft END.