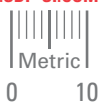


ZERO BACKLASH  
EASY INSTALLATION  
READILY REPOSITIONED

PHONE: 516.328.3300 • FAX: 516.326.8827 • WWW.SDP-SI.COM



► **MATERIAL:**

- Hubs** - Brass
- Bellows** - Phosphor Bronze
- Socket Head Screws** - 300 Series Stainless Steel
- Finish** - Tin Plate

► **MISALIGNMENT COMPENSATION:**

**Max. Lateral Offset:** ± 0.15 mm

► **FEATURES:**

- Absorbs end play in shafts
- Allows looser tolerances in mounting components
- Corrects for angular and parallel axis misalignment
- Constant angular velocity
- Dampens vibration and noise
- Fairloc® eliminates marred shafts

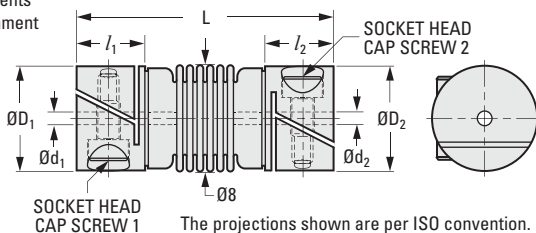
► **SPECIFICATION:**

**Bore Tolerance:** +0.016/0

Fairloc® hubs require controlled shaft tolerances.

Suggested tolerance according to g6, h6, h7.

Other bores, finishes available on special order.



**METRIC COMPONENT**

Catalog Number	d <sub>1</sub> Bore H8	d <sub>2</sub> Bore H8	D <sub>1</sub> Hub Dia. ± 0.15	D <sub>2</sub> Hub Dia. ± 0.15	l <sub>1</sub> ± 0.15	l <sub>2</sub> ± 0.15	L Overall Length ± 1.5	Cap Screw 1	Cap Screw 2
S50FP9MFB101008	1	1	8	8	6	6	21.5	M1.6	M1.6
S50FP9MFB101508		1.5							
S50FP9MFB102008		2							
S50FP9MFB103008		3							
S50FP9MFB151508	1.5	1.5	8	8	6	6	21.5	M1.6	M1.6
S50FP9MFB152008		2							
S50FP9MFB153008		3							
S50FP9MFB202008		2							
S50FP9MFB203008	2	2	8.5	8.5	7	7	21.5	M1.6	M1.6
S50FP9MFB203008		3							
S50FP9MFB203008	3	3	10	10	8	8	23	M1.6	M2
S50FP9MFB303008		3							

Catalog Number (Ref. Only)	Max. Torque N • m	Max. Angular Offset	Max. Axial Motion	Spring Rate for Axial Deflection (N/mm)	Torsional Deflection @ Max. Load
S50FP9MFB101008	0.11	3°	+0.25 / -0.5	26.6	0.1°
S50FP9MFB101508					
S50FP9MFB102008					
S50FP9MFB103008					
S50FP9MFB151508	0.21	3°	+0.25 / -0.5	26.6	0.2°
S50FP9MFB152008					
S50FP9MFB153008					
S50FP9MFB202008					
S50FP9MFB203008	0.32	3°	+0.25 / -0.5	26.6	0.3°
S50FP9MFB203008					
S50FP9MFB303008	0.42	3°	+0.25 / -0.5	26.6	0.4°

ZERO BACKLASH  
EASY INSTALLATION  
READILY REPOSITIONED

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**› MATERIAL:**

- Hubs** - Brass
- Bellows** - Phosphor Bronze
- Socket Head Screws** - 300 Series Stainless Steel
- Finish** - Tin Plate

**› MISALIGNMENT COMPENSATION:**

**Max. Lateral Offset:** 0.4

**› FEATURES:**

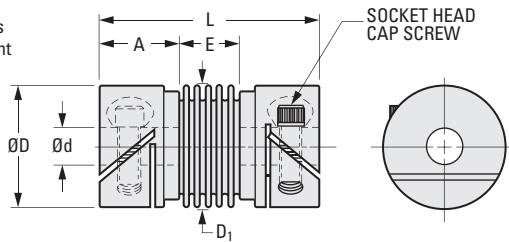
- Absorbs end play in shafts
- Allows looser tolerances in mounting components
- Corrects for angular and parallel axis misalignment
- Constant angular velocity
- Dampens vibration and noise
- Fairloc® eliminates marred shafts

**› SPECIFICATION:**

- Bore Tolerance:**
- 3 mm +0.014/0
  - 4, 5 & 6 mm +0.018/0
  - 8 & 10 mm +0.022/0
  - 12 mm +0.027/0

Fairloc® hubs require controlled shaft tolerances.  
Suggested tolerance according to g6, h6 or h7.

Other bores, finishes available on special order.



The projections shown are per ISO convention.

**METRIC COMPONENT**

Catalog Number	d Bore H8	D <sub>1</sub> Bellows Dia. ± 0.4	E Active Bellows Length Ref.	D Hub Dia. ± 0.25	A Hub Length	L Overall Length ± 1.5	Screw Size
S50FP9MFBC0312	3	11.9	6.4	11	8.5	23.4	M2
S50FP9MFBC0412	4	11.9	6.4	12.5	8.5	23.4	M2
S50FP9MFBC0517	5	16.7	8.5	16	10.5	29.5	M2.5
S50FP9MFBC0617	6	16.7	8.5	16	10.5	29.5	M2.5
S50FP9MFBC0821	8	21.4	9.3	22	12	33.3	M3
S50FP9MFBC1021	10	21.4	9.3	25	12	33.3	M3
S50FP9MFBC1221	12	21.4	9.3	25	12	33.3	M3

Catalog Number	Max. Torque N • m	Max. Angular Offset	Max. Axial Motion	Spring Rate For Axial Deflection N/mm	Torsional Deflection @ Max. Load Degrees
S50FP9MFBC0312	0.85	5°	+0.38/-0.75	25.4	1.2°
S50FP9MFBC0412	0.85	5°	+0.38/-0.75	25.4	1.2°
S50FP9MFBC0517	1.4	6°	+0.5 /-1	24.2	1.4°
S50FP9MFBC0617	1.4	6°	+0.5 /-1	24.2	1.4°
S50FP9MFBC0821	2.12	6°	+0.65/-1.25	24.2	1.5°
S50FP9MFBC1021	2.12	6°	+0.65/-1.25	24.2	1.5°
S50FP9MFBC1221	2.12	6°	+0.65/-1.25	24.2	1.5°

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STAINLESS STEEL  
ZERO BACKLASH  
MAINTENANCE-FREE

PHONE: 516.328.3300 • FAX: 516.326.8827 • WWW.SDP-SI.COM



**MATERIAL:**

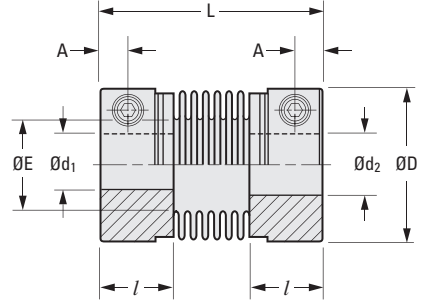
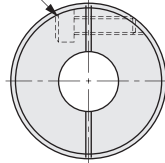
- Hubs** - Stainless Steel
- Bellows** - Stainless Steel
- Cap Screws** - Stainless Steel

**SPECIFICATION:**

- Recommended Shaft Tolerance (h7):  
 4, 5 & 6 mm 0/-0.012  
 8 & 10 mm 0/-0.015  
 12 & 14 mm 0/-0.018

Other bore sizes and combinations are available on special order.

CAP SCREW



The projections shown are per ISO convention.

**METRIC COMPONENT**

Catalog Number	d <sub>1</sub> Bore	d <sub>2</sub> Bore	D Dia.	l	L	E Bellows I.D.	A	Cap Screw	Max. Bore
S50FBMS12H04H04	4	4	12	7.5	23.5	7	2.25	M2	5
S50FBMS12H04H05	4	5	12	7.5	23.5	7	2.25	M2	5
S50FBMS12H05H05	5	5	12	7.5	23.5	7	2.25	M2	5
S50FBMS16H05H05	5	5	16	9	26.5	9.5	3	M2.5	6.35
S50FBMS16H05H06	5	6	16	9	26.5	9.5	3	M2.5	6.35
S50FBMS16H06H06	6	6	16	9	26.5	9.5	3	M2.5	6.35
S50FBMS20H06H06	6	6	20	10	32	12.5	3.5	M2.5	8
S50FBMS20H06H08	6	8	20	10	32	12.5	3.5	M2.5	8
S50FBMS20H08H08	8	8	20	10	32	12.5	3.5	M2.5	8
S50FBMS25H08H08	8	8	25	12	36.5	15	4.5	M3	10
S50FBMS25H08H10	8	10	25	12	36.5	15	4.5	M3	10
S50FBMS25H10H10	10	10	25	12	36.5	15	4.5	M3	10
S50FBMS32H08H08	8	8	32	13.5	42	21	5	M4	14
S50FBMS32H10H10	10	10	32	13.5	42	21	5	M4	14
S50FBMS32H10H14	10	14	32	13.5	42	21	5	M4	14
S50FBMS32H12H12	12	12	32	13.5	42	21	5	M4	14
S50FBMS32H14H14	14	14	32	13.5	42	21	5	M4	14

Coupling Series (Ref. Only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m <sup>2</sup>	Static Torsional Stiffness N • m/rad	Max. Parallel Offset mm	Max. Angular Offset deg	Max. Axial Play mm	Weight* grams
S50FBMS12__H__	0.5	1	13000	2.1 x 10 <sup>-7</sup>	100	0.1	1.5	+0.4/-1.2	9.2
S50FBMS16__H__	1	2	9500	8.1 x 10 <sup>-7</sup>	150	0.1	1.5	+0.4/-1.2	22
S50FBMS20__H__	1.5	3	7700	2.3 x 10 <sup>-6</sup>	220	0.15	2	+0.6/-1.8	38
S50FBMS25__H__	2	4	6100	6.9 x 10 <sup>-6</sup>	330	0.15	2	+0.6/-1.8	74
S50FBMS32__H__	3	6	4800	2.1 x 10 <sup>-5</sup>	490	0.2	2	+0.8/-2.5	130

\* Values with max. bore diameter.

# SPLIT HUB TYPE BELLOWS COUPLINGS

# SDP/SI

PHOSPHOR BRONZE BELLOWS  
ZERO BACKLASH  
MAINTENANCE-FREE

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### ► MATERIAL:

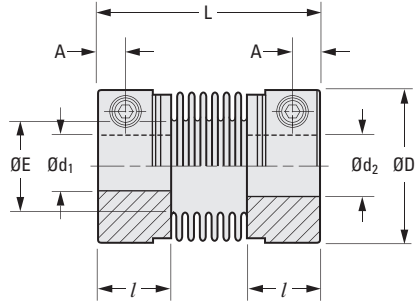
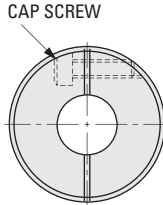
- Hubs** - Aluminum Alloy
- Bellows** - Phosphor Bronze
- Cap Screws** - Steel - Black Oxide Finish



### ► SPECIFICATION:

- Recommended Shaft Tolerance (h7):
- 4, 5 & 6 mm 0/-0.012
  - 8 & 10 mm 0/-0.015
  - 12 & 14 mm 0/-0.018

Other bore sizes and combinations are available on special order.



The projections shown are per ISO convention.

## METRIC COMPONENT

Catalog Number	d <sub>1</sub> Bore	d <sub>2</sub> Bore	D Dia.	l	L	E Bellows I.D.	A	Cap Screw	Max. Bore
S50MFBMA12H04H04	4	4	12	7.5	23.5	7	2.25	M2	5
S50MFBMA12H04H05	4	5	12	7.5	23.5	7	2.25	M2	5
S50MFBMA12H05H05	5	5	12	7.5	23.5	7	2.25	M2	5
S50MFBMA16H05H05	5	5	16	9	26.5	9.5	3	M2.5	6.35
S50MFBMA16H05H06	5	6	16	9	26.5	9.5	3	M2.5	6.35
S50MFBMA16H06H06	6	6	16	9	26.5	9.5	3	M2.5	6.35
S50MFBMA20H06H06	6	6	20	10	32	12.5	3.5	M2.5	8
S50MFBMA20H06H08	6	8	20	10	32	12.5	3.5	M2.5	8
S50MFBMA20H08H08	8	8	20	10	32	12.5	3.5	M2.5	8
S50MFBMA25H08H08	8	8	25	12	36.5	15	4.5	M3	10
S50MFBMA25H08H10	8	10	25	12	36.5	15	4.5	M3	10
S50MFBMA25H10H10	10	10	25	12	36.5	15	4.5	M3	10
S50MFBMA32H08H08	8	8	32	13.5	42	21	5	M4	14
S50MFBMA32H10H10	10	10	32	13.5	42	21	5	M4	14
S50MFBMA32H10H12	10	12	32	13.5	42	21	5	M4	14
S50MFBMA32H10H14	10	14	32	13.5	42	21	5	M4	14
S50MFBMA32H12H12	12	12	32	13.5	42	21	5	M4	14

Coupling Series (Ref. Only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m <sup>2</sup>	Static Torsional Stiffness N • m/rad	Max. Parallel Offset mm	Max. Angular Offset deg	Max. Axial Play mm	Weight* grams
S50MFBMA12_H_	0.3	0.6	13000	9.7 x 10 <sup>-8</sup>	82	0.1	1.5	+0.4/-1.2	3.8
S50MFBMA16_H_	0.5	1	9500	3.7 x 10 <sup>-7</sup>	110	0.1	1.5	+0.4/-1.2	9.8
S50MFBMA20_H_	0.8	1.6	7700	1 x 10 <sup>-6</sup>	180	0.15	2	+0.6/-1.8	16
S50MFBMA25_H_	1.3	2.6	6100	3.1 x 10 <sup>-6</sup>	240	0.15	2	+0.6/-1.8	32
S50MFBMA32_H_	2	4	4800	9.6 x 10 <sup>-6</sup>	330	0.2	2	+0.8/-2.5	58

\* Values with max. bore diameter.

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# SET SCREW TYPE BELLOWS COUPLINGS



STAINLESS STEEL  
ZERO BACKLASH  
MAINTENANCE-FREE

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### ► MATERIAL:

- Hubs** - Stainless Steel
- Bellows** - Stainless Steel
- Cap Screws** - Stainless Steel

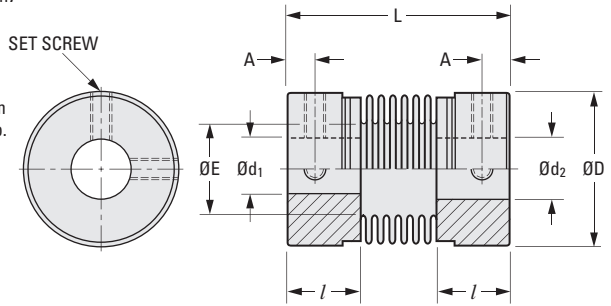
### ► SPECIFICATION:

- d<sub>1</sub>, d<sub>2</sub> Tolerance:  
3 mm +0.014/0
- 4, 5 & 6 mm +0.018/0
- 8 & 10 mm +0.022/0

Recommended Shaft Tolerances h6 or h7

Other bore sizes and combinations are available on special order.

Couplings with a bore diameter of 4 mm or less have one set screw in each hub.



The projections shown are per ISO convention.

## METRIC COMPONENT

Catalog Number	d <sub>1</sub> Bore H8	d <sub>2</sub> Bore H8	D Dia.	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMS12P03P03	3	3	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMS12P03P05	3	5	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMS12P04P04	4	4	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMS12P04P06	4	6	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMS12P05P06	5	6	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMS16P04P04	4	4	16	9	26.5	9.5	3	M3	8
S50MFBMS16P05P05	5	5	16	9	26.5	9.5	3	M3	8
S50MFBMS16P06P06	6	6	16	9	26.5	9.5	3	M3	8
S50MFBMS16P06P08	6	8	16	9	26.5	9.5	3	M3	8
S50MFBMS20P05P05	5	5	20	10	32	12.5	3.5	M3	10
S50MFBMS20P06P06	6	6	20	10	32	12.5	3.5	M3	10
S50MFBMS20P06P08	6	8	20	10	32	12.5	3.5	M3	10
S50MFBMS20P08P08	8	8	20	10	32	12.5	3.5	M3	10
S50MFBMS20P10P10	10	10	20	10	32	12.5	3.5	M3	10

Coupling Series (Ref. Only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m <sup>2</sup>	Static Torsional Stiffness N • m/rad	Max. Parallel Offset mm	Max. Angular Offset deg	Max. Axial Play mm	Weight* grams
S50MFBMS12_P__	0.5	1	32000	2.1 x 10 <sup>-7</sup>	100	0.1	1.5	+0.4/-1.2	9.1
S50MFBMS16_P__	1	2	24000	8 x 10 <sup>-7</sup>	150	0.1	1.5	+0.4/-1.2	20
S50MFBMS20_P__	1.5	3	19000	2.3 x 10 <sup>-6</sup>	220	0.15	2	+0.6/-1.8	37

\* Values with max. bore diameter.

Continued on the next page

STAINLESS STEEL  
ZERO BACKLASH  
MAINTENANCE-FREE

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**> MATERIAL:**

- Hubs** - Stainless Steel
- Bellows** - Stainless Steel
- Cap Screws** - Stainless Steel

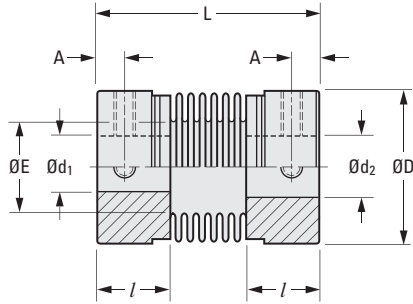
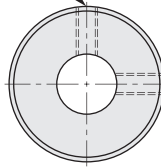
**> SPECIFICATION:**

- d<sub>1</sub>, d<sub>2</sub> Tolerance:
  - 6 mm +0.018/0
  - 8 & 10 mm +0.022/0
  - 12 & 14 mm +0.027/0

Recommended Shaft Tolerances h6 or h7

Other bore sizes and combinations are available on special order.

SET SCREW



The projections shown are per ISO convention.

**METRIC COMPONENT**

Catalog Number	d <sub>1</sub> Bore H8	d <sub>2</sub> Bore H8	D Dia.	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMS25P06P06	6	6	25	12	36.5	15	4.5	M4	12
S50MFBMS25P06P12	6	12	25	12	36.5	15	4.5	M4	12
S50MFBMS25P08P08	8	8	25	12	36.5	15	4.5	M4	12
S50MFBMS25P08P10	8	10	25	12	36.5	15	4.5	M4	12
S50MFBMS25P10P10	10	10	25	12	36.5	15	4.5	M4	12
S50MFBMS32P08P08	8	8	32	13.5	42	21	5.5	M4	16
S50MFBMS32P10P10	10	10	32	13.5	42	21	5.5	M4	16
S50MFBMS32P10P14	10	14	32	13.5	42	21	5.5	M4	16
S50MFBMS32P12P12	12	12	32	13.5	42	21	5.5	M4	16

Coupling Series (Ref. Only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m <sup>2</sup>	Static Torsional Stiffness N • m/rad	Max. Parallel Offset mm	Max. Angular Offset deg	Max. Axial Play mm	Weight* grams
S50MFBMS25_P__	2	4	15000	7 x 10 <sup>-6</sup>	330	0.15	2	+0.6/-1.8	73
S50MFBMS32_P__	3	6	12000	2.1 x 10 <sup>-5</sup>	490	0.2	2	+0.8/-2.5	130

\* Values with max. bore diameter.

Continued from the previous page

# SET SCREW TYPE BELLOWS COUPLINGS

**SDP/SI**

PHOSPHOR BRONZE BELLOWS  
ZERO BACKLASH  
MAINTENANCE-FREE

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**► MATERIAL:**

- Hubs** - Aluminum Alloy
- Bellows** - Phosphor Bronze
- Cap Screws** - Steel - Black Oxide Finish

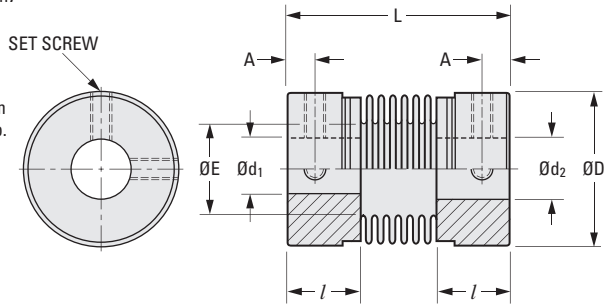
**► SPECIFICATION:**

- d<sub>1</sub>, d<sub>2</sub> Tolerance:  
3 mm +0.014/0
- 4, 5 & 6 mm +0.018/0
- 8 & 10 mm +0.022/0

Recommended Shaft Tolerances h6 or h7

Other bore sizes and combinations are available on special order.

Couplings with a bore diameter of 4 mm or less have one set screw in each hub.



The projections shown are per ISO convention.

**METRIC COMPONENT**

Catalog Number	d <sub>1</sub> Bore H8	d <sub>2</sub> Bore H8	D Dia.	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMA12P03P03	3	3	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMA12P04P05	4	5	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMA12P05P05	5	5	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMA12P05P06	5	6	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMA12P06P06	6	6	12	7.5	23.5	7	2.5	M2.5	6.35
S50MFBMA16P04P04	4	4	16	9	26.5	9.5	3	M3	8
S50MFBMA16P05P05	5	5	16	9	26.5	9.5	3	M3	8
S50MFBMA16P05P06	5	6	16	9	26.5	9.5	3	M3	8
S50MFBMA16P06P06	6	6	16	9	26.5	9.5	3	M3	8
S50MFBMA16P06P08	6	8	16	9	26.5	9.5	3	M3	8
S50MFBMA20P06P06	6	6	20	10	32	12.5	3.5	M3	10
S50MFBMA20P06P08	6	8	20	10	32	12.5	3.5	M3	10
S50MFBMA20P06P10	6	10	20	10	32	12.5	3.5	M3	10
S50MFBMA20P08P08	8	8	20	10	32	12.5	3.5	M3	10
S50MFBMA20P10P10	10	10	20	10	32	12.5	3.5	M3	10

Coupling Series (Ref. Only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m <sup>2</sup>	Static Torsional Stiffness N • m/rad	Max. Parallel Offset mm	Max. Angular Offset deg	Max. Axial Play mm	Weight* grams
S50MFBMA12_P__	0.3	0.6	32000	9 x 10 <sup>-8</sup>	82	0.1	1.5	+0.4/-1.2	4.1
S50MFBMA16_P__	0.5	1	24000	3.5 x 10 <sup>-7</sup>	110	0.1	1.5	+0.4/-1.2	9
S50MFBMA20_P__	0.8	1.6	19000	9.9 x 10 <sup>-7</sup>	180	0.15	2	+0.6/-1.8	16

\* Values with max. bore diameter.

Continued on the next page

PHOSPHOR BRONZE BELLOWS  
ZERO BACKLASH  
MAINTENANCE-FREE

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**> MATERIAL:**

- Hubs** - Aluminum Alloy
- Bellows** - Phosphor Bronze
- Cap Screws** - Steel - Black Oxide Finish



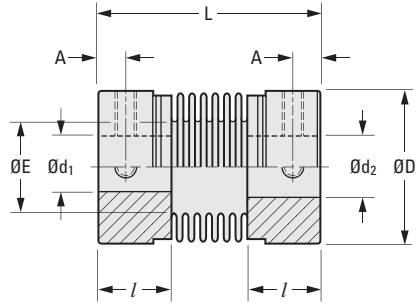
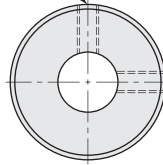
**> SPECIFICATION:**

- d<sub>1</sub>, d<sub>2</sub> Tolerance:  
6 mm +0.018/0
- 8 & 10 mm +0.022/0
- 12 & 14 mm +0.027/0

Recommended Shaft Tolerances h6 or h7

Other bore sizes and combinations are available on special order.

SET SCREW



The projections shown are per ISO convention.

**METRIC COMPONENT**

Catalog Number	d <sub>1</sub> Bore H8	d <sub>2</sub> Bore H8	D Dia.	l	L	E Bellows I.D.	A	Set Screw	Max. Bore
S50MFBMA25P06P06	6	6	25	12	36.5	15	4.5	M4	12
S50MFBMA25P08P08	8	8	25	12	36.5	15	4.5	M4	12
S50MFBMA25P10P10	10	10	25	12	36.5	15	4.5	M4	12
S50MFBMA25P10P12	10	12	25	12	36.5	15	4.5	M4	12
S50MFBMA25P12P12	12	12	25	12	36.5	15	4.5	M4	12
S50MFBMA32P08P08	8	8	32	13.5	42	21	5.5	M4	16
S50MFBMA32P08P14	8	14	32	13.5	42	21	5.5	M4	16
S50MFBMA32P10P10	10	10	32	13.5	42	21	5.5	M4	16
S50MFBMA32P12P12	12	12	32	13.5	42	21	5.5	M4	16

Coupling Series (Ref. Only)	Rated Torque N • m	Max. Torque N • m	Max. rpm	Moment of Inertia* kg • m <sup>2</sup>	Static Torsional Stiffness N • m/rad	Max. Parallel Offset mm	Max. Angular Offset deg	Max. Axial Play mm	Weight* grams
S50MFBMA25_P__	1.3	2.6	15000	3 x 10 <sup>-6</sup>	240	0.15	2	+0.6/-1.8	32
S50MFBMA32_P__	2	4	12000	9.2 x 10 <sup>-6</sup>	330	0.2	2	+0.8/-2.5	57

\*Values with max. bore diameter.

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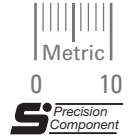


# SET SCREW TYPE HUB BELLOWS COUPLINGS

# SDP/SI

STANDARD DUTY  
HEAVY-DUTY

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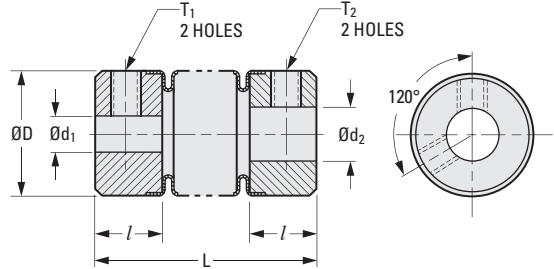


**> MATERIAL:**

- Hubs** - Brass
- Bellows** - Phosphor Bronze
- Set Screws** - Stainless Steel
- Finish** - Tin Plate

**> SPECIFICATION:**

- $d_1, d_2$  Tolerance:
- 3 mm +0.01/0
  - 4, 5 & 6 mm +0.012/0
  - 8 & 10 mm +0.015/0
  - 12 mm +0.018/0



### METRIC COMPONENT

Catalog Number		$d_1$ Bore H7	$d_2$ Bore H7	D Dia.	$T_1$	$T_2$	L	Max. Torque N • m
L = 19	L = 32							
<b>Standard Duty</b>								
S50BP9MP03P0319	S50BP9MP03P0332	3	3	12	M2	M2	6.5	1.06
S50BP9MP03P0419	S50BP9MP03P0432	3	4	12	M2	M3	6.5	1.06
S50BP9MP03P0519	S50BP9MP03P0532	3	5	12	M2	M3	6.5	1.06
S50BP9MP03P0619	S50BP9MP03P0632	3	6	12	M2	M3	6.5	1.06
S50BP9MP04P0419	S50BP9MP04P0432	4	4	12	M3	M3	6.5	1.06
S50BP9MP04P0519	S50BP9MP04P0532	4	5	12	M3	M3	6.5	1.06
S50BP9MP04P0619	S50BP9MP04P0632	4	6	12	M3	M3	6.5	1.06
S50BP9MP04P0819	S50BP9MP04P0832	4	8	12	M3	M3	6.5	1.06
S50BP9MP05P0519	S50BP9MP05P0532	5	5	12	M3	M3	6.5	1.06
S50BP9MP05P0619	S50BP9MP05P0632	5	6	12	M3	M3	6.5	1.06
S50BP9MP05P0819	S50BP9MP05P0832	5	8	12	M3	M3	6.5	1.06
S50BP9MP06P0619	S50BP9MP06P0632	6	6	12	M3	M3	6.5	1.06
S50BP9MP06P0819	S50BP9MP06P0832	6	8	12	M3	M3	6.5	1.06

Catalog Number	$d_1$ Bore H7	$d_2$ Bore H7	D Dia.	L	$T_1$	$T_2$	L	Max. Torque N • m
<b>Heavy-Duty</b>								
S50BPHMP05P0526	5	5	17	26.3	M3	M3	9	1.41
S50BPHMP05P0626	5	6	17	26.3	M3	M3	9	1.41
S50BPHMP06P0626	6	6	17	26.3	M3	M3	9	1.41
S50BPHMP08P0827	8	8	22	27	M4	M4	9	2.12
S50BPHMP10P1027	10	10	22	27	M4	M4	9	2.12
S50BPHMP12P1227	12	12	22	27	M4	M4	9	2.12

# INTEGRAL CLAMP HI-FLEX BELLOWS COUPLINGS

# SDP/SI

TORQUE RANGE FROM 7.1 TO 245.3 N • cm  
 ZERO BACKLASH  
 ZERO CYCLIC SPEED VARIATION DURING 360° ROTATION  
 VERY LOW TORSIONAL DEFLECTION

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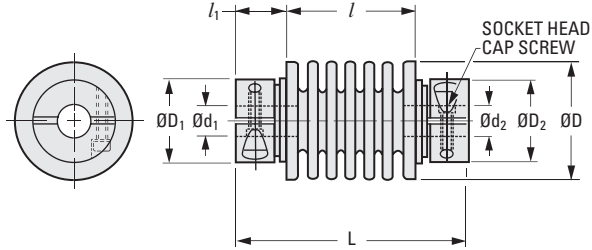
### ► MATERIAL:

- Hubs - Aluminum
- Bellows - Flexible Electrodeposited Nickel
- Cap Screws - Steel, Black Oxide

### ► FOR APPLICATIONS REQUIRING:

- Precise Adjustment
- Repositioning
- Reversal Torque Resistance
- Vibration Resistance
- Ability to Handle Large Shaft Misalignment

Other bores, finishes are available upon special order



### METRIC COMPONENT

Catalog Number	d <sub>1</sub> Bore H8	d <sub>2</sub> Bore H8	D <sub>1</sub> Hub Dia.	D <sub>2</sub> Hub Dia.	l Bellows Length	l <sub>1</sub> Hub Width	L Overall Length	D Bellows O.D.	Cap Screws
S9901YMG020223	2	2	10.5	10.5	11.43	5.7	22.83	9.5	M1.6
S9901YMG020323	2	3	10.5	10.5	11.43	5.7	22.83	9.5	M1.6
S9901YMG030323	3	3	10.5	10.5	11.43	5.7	22.83	9.5	M1.6
S9901YMG030423	3	4	10.5	10.5	11.43	5.7	22.83	9.5	M1.6
S9901YMG040423	4	4	10.5	10.5	11.43	5.7	22.83	9.5	M1.6
S9901YMG020226	2	2	12	12	13.06	6.5	26.06	11.1	M2
S9901YMG020326	2	3	12	12	13.06	6.5	26.06	11.1	M2
S9901YMG040426	4	4	12	12	13.06	6.5	26.06	11.1	M2
S9901YMG040626	4	6	12	14.5	13.06	6.5	26.06	11.1	M2
S9901YMG060626	6	6	14.5	14.5	13.06	6.5	26.06	11.1	M2
S9901YMG040428	4	4	12	12	14.76	6.5	27.76	16.3	M2
S9901YMG040628	4	6	12	14.5	14.76	6.5	27.76	16.3	M2
S9901YMG060628	6	6	14.5	14.5	14.76	6.5	27.76	16.3	M2
S9901YMG060630	6	6	15.5	15.5	15.75	7.2	30.15	19.1	M2.5
S9901YMG061030	6	10	15.5	22	15.75	7.2	30.15	19.1	M2.5
S9901YMG101030	10	10	22	22	15.75	7.2	30.15	19.1	M2.5
S9901YMG101035	10	10	22	22	20.55	7.2	34.95	25	M2.5
S9901YMG101235	10	12	22	22	20.55	7.2	34.95	25	M2.5
S9901YMG121235	12	12	22	22	20.55	7.2	34.95	25	M2.5

Coupling Series (Ref. Only)	Max. Rated Instantaneous Torque N • cm	Max. Misalignment		Max. Axial Extension	Max. Axial Compression	Side Force N/mm	Torsional Deflection Arc Sec./ N • cm	Spring Rate N/mm
		Angular Offset	Lateral Offset					
S9901YM...23	7.1	13°	0.4	1.3	1.7	6.3	94.7	3.1
S9901YM...26	9.6	14°	0.53	1.67	2.23	4.1	74.9	2.2
S9901YM...28	37.4	10°	0.42	1.71	2.28	12.1	20.2	4
S9901YM...30	131.4	8°	0.36	1.58	2.1	36.9	8.8	10.3
S9901YM...35	245.3	8°	0.46	2	2.66	38	4.5	11.2

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SET SCREW TYPE HUBS  
ZERO BACKLASH

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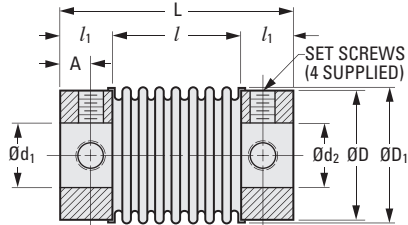
**> MATERIAL:**

**Bellows** - Flexible Electrodeposited Nickel  
**Hubs** - 303 Stainless Steel

**> SPECIFICATION:**

$d_1, d_2$  Tolerance (H7):  
3 mm +0.010/0  
4 mm +0.012/0

\*  $d_1, d_2$  Tolerance (H8):  
2 & 3 mm +0.014/0



### METRIC COMPONENT

Catalog Number	$d_1$ Bore	$d_2$ Bore	D Dia.	$l$	$l_1$	L	$D_1$ Bellows O.D.	A	Set Screw
S9901YM0202182*	2	2	7.01	6.2	6	18.2	6.4	2.2	M2.5
S9901YM0203182*	2	3	7.01	6.2	6	18.2	6.4	2.2	M2.5
S9901YM0202214*	2	2	10	9.4	6	21.4	9.5	2.2	M2.5
S9901YM0203214*	2	3	10	9.4	6	21.4	9.5	2.2	M2.5
S9901YM0303142	3	3	6.25	6.2	4	14.2	6.4	2	M2
S9901YM0303174	3	3	6.25	9.4	4	17.4	6.4	2	M2
S9901YM0303268	3	3	6.25	18.8	4	26.8	6.4	2	M2
S9901YM0304157	3	4	9.4	7.7	4	15.7	9.5	2	M2
S9901YM0304174	3	4	9.4	9.4	4	17.4	9.5	2	M2
S9901YM0304220	3	4	9.4	14	4	22	9.5	2	M2
S9901YM0304268	3	4	9.4	18.8	4	26.8	9.5	2	M2
S9901YM0404157	4	4	9.4	7.7	4	15.7	9.5	2	M2
S9901YM0404174	4	4	9.4	9.4	4	17.4	9.5	2	M2
S9901YM0404220	4	4	9.4	14	4	22	9.5	2	M2
S9901YM0404268	4	4	9.4	18.8	4	26.8	9.5	2	M2

Catalog Number (Ref.)	Torque N • cm	Windup arcsec/N • cm	Max. Axial Motion	Max. Angular Offset
S9901YM0202182*	3.5	286	0.18	9
S9901YM0203182*	3.5	286	0.18	9
S9901YM0202214*	7.1	95	0.41	13
S9901YM0203214*	7.1	95	0.41	13
S9901YM0303142	4.9	286	0.18	9
S9901YM0303174	3.5	433	0.43	15
S9901YM0303268	1.4	872	1.93	31
S9901YM0304157	13	78	0.25	10
S9901YM0304174	9.9	95	0.38	13
S9901YM0304220	6.4	140	0.91	20
S9901YM0304268	4.9	190	1.68	27
S9901YM0404157	13	78	0.25	10
S9901YM0404174	9.9	95	0.38	13
S9901YM0404220	6.4	140	0.91	20
S9901YM0404268	4.9	190	1.68	27

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SET SCREW TYPE HUBS  
ZERO BACKLASH

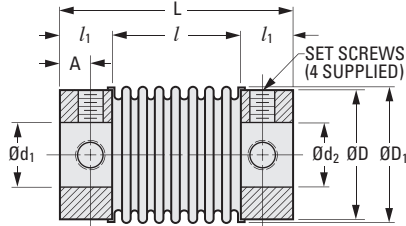
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**> MATERIAL:**

**Bellows** - Flexible Electrodeposited Nickel  
**Hubs** - 303 Stainless Steel

**> SPECIFICATION:**

$d_1, d_2$  Tolerance:  
3 mm +0.010/0  
4 & 6 mm +0.012/0  
8 mm +0.015/0



**METRIC COMPONENT**

Catalog Number	$d_1$ Bore H7	$d_2$ Bore H7	D Dia.	$l$	$l_1$	L	$D_1$ Bellows O.D.	A	Set Screw
S9901YM0603194	6	3	12.5	9.4	5	19.4	12.7	3	M3/M2
S9901YM0603224	6	3	12.5	12.4	5	22.4	12.7	3	M3/M2
S9901YM0603288	6	3	12.5	18.8	5	28.8	12.7	3	M3/M2
S9901YM0604194	6	4	12.5	9.4	5	19.4	12.7	3	M3
S9901YM0604224	6	4	12.5	12.4	5	22.4	12.7	3	M3
S9901YM0604288	6	4	12.5	18.8	5	28.8	12.7	3	M3
S9901YM0606194	6	6	12.5	9.4	5	19.4	12.7	3	M3
S9901YM0606224	6	6	12.5	12.4	5	22.4	12.7	3	M3
S9901YM0606288	6	6	12.5	18.8	5	28.8	12.7	3	M3
S9901YM0606237	6	6	12.5	13.7	5	23.7	19	3	M3
S9901YM0606285	6	6	12.5	18.5	5	28.5	19	3	M3
S9901YM0606349	6	6	12.5	24.9	5	34.9	19	3	M3
S9901YM0804305	8	4	16	18.5	6	30.5	25.4	3.5	M4/M3
S9901YM0804432	8	4	16	31.2	6	43.2	25.4	3.5	M4/M3
S9901YM0806305	8	6	16	18.5	6	30.5	25.4	3.5	M4
S9901YM0806432	8	6	16	31.2	6	43.2	25.4	3.5	M4
S9901YM0808305	8	8	16	18.5	6	30.5	25.4	3.5	M4
S9901YM0808432	8	8	16	31.2	6	43.2	25.4	3.5	M4

Catalog Number (Ref.)	Torque N • cm	Windup arcsec/N • cm	Max. Axial Motion	Max. Angular Offset
S9901YM0603194	46	25	0.25	9
S9901YM0603224	35	34	0.46	12
S9901YM0603288	23	52	1.12	18
S9901YM0604194	46	25	0.25	9
S9901YM0604224	35	34	0.46	12
S9901YM0604288	23	52	1.12	18
S9901YM0606194	46	25	0.25	9
S9901YM0606224	35	34	0.46	12
S9901YM0606288	23	52	1.12	18
S9901YM0606237	133	8.8	0.36	8
S9901YM0606285	99	12	0.66	11
S9901YM0606349	74	16	1.17	14
S9901YM0804305	198	4.4	0.51	9
S9901YM0804432	107	7.5	1.73	17
S9901YM0806305	198	4.4	0.51	9
S9901YM0806432	107	7.5	1.73	17
S9901YM0808305	198	4.4	0.51	9
S9901YM0808432	107	7.5	1.73	17

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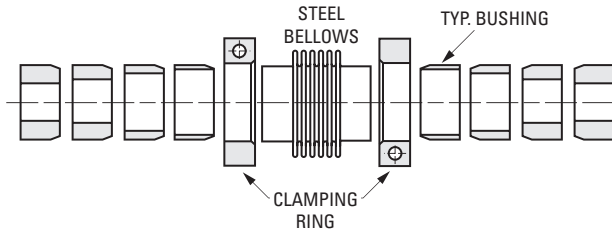
**> MISALIGNMENT COMPENSATION:**

Max. Angular Offset: 3°

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**> FEATURES:**

- Various shaft diameters are accommodated via prebored hub bushings
- Permits complete couplings to be quickly and easily assembled from stock components
- Time-saving installation with fast and easy shaft attachment
- Modular components provide immediate availability
- Low-restoring forces protects shaft bearings



**> COUPLING SELECTION:**

**Operating Torque:**

Establish the Maximum Operating Torque  
If the Temperature will exceed 50°C,  
multiply the Maximum Operating Torque  
by the Temperature Factor, as shown below:

Temperature °C	50	100	150	200	250
Temperature Factor	1	1.075	1.1	1.225	1.3

**Misalignment:**

Determine the various shaft misalignments possible (axial, angular and lateral) as a percentage of "permissible shaft misalignments" as shown in the technical data table for the preselected coupling size. Add each of the percentage values noting that the sum must be smaller than 100%. For example, 0.2 mm of axial misalignment corresponds to 25% of the permissible value of 0.8 mm for a size 2 coupling. Locate both the values for maximum operating torque in N • m and misalignment in % as ascertained above, on the corresponding axes of Diagram 1. The intersection of these two values must be below the characteristic curve of the preselected coupling size.

**Temperature Resistance:**

Up to 250°C

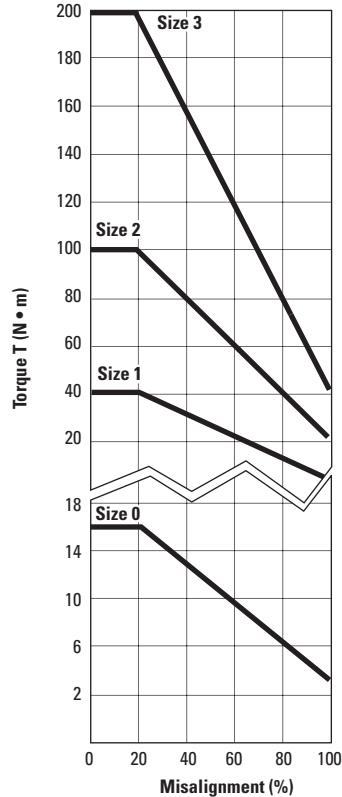
**Shaft/Hub Tolerances:**

- H7 Tolerance for bores of bushings
- h6 Tolerance recommended for shafts

**Important Installation Notes:**

- Bores must be cleaned and any corrosion prohibitive removed by washing with a suitable solvent
- Bores and shafts must not be oiled and greased in any way

Diagram 1



**> TECHNICAL DATA:**

SIZE	Max. Torque T N • m	Max. Speed rpm	Torsional Rigidity N • m/rad	Axial Rigidity N/mm	Max. Misalignments		Tight. Torque of Clamp Screw N • m	Inertia kg • m <sup>2</sup>
					Lateral Offset mm	Axial Motion mm		
0	16	10000	4000	50	0.3	0.4	10	2.9 x 10 <sup>-5</sup>
1	40	8000	9000	70	0.4	0.6	14	8.7 x 10 <sup>-5</sup>
2	100	6000	22000	90	0.5	0.8	17	2.6 x 10 <sup>-4</sup>
3	200	4000	50000	120	0.5	0.8	41	11.4 x 10 <sup>-4</sup>

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> **MATERIAL:**

- Bushing** - Aluminum
- Clamp** - Aluminum
- Bellows** - Stainless Steel

> **FEATURES:**

- Backlash-Free Torque Transmission
- High Torsional Rigidity
- High-Speed Torque Transmission
- Low-Mass Moment of Inertia

> **FOR COMPLETE COUPLING**

**METRIC COMPONENT CATALOG NUMBER**

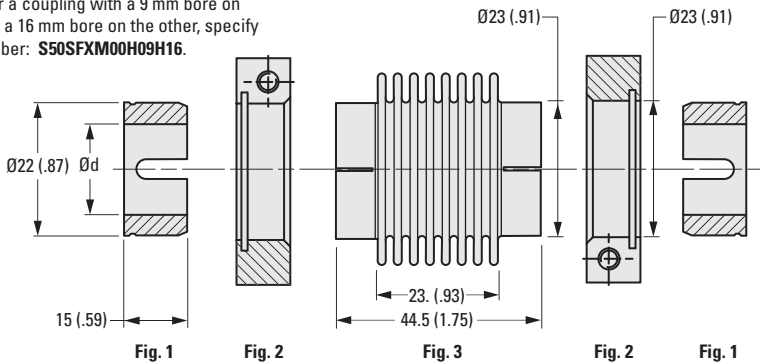
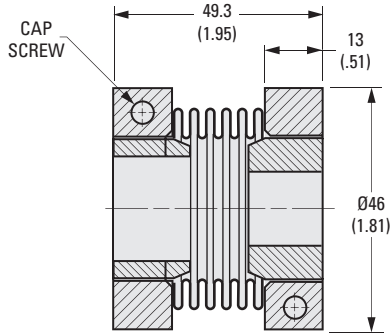
**S50SFXM00H**   **H**

Bore 1                      Bore 2

\*When creating a Catalog Number, **Bore 1** must be smaller than or equal to **Bore 2**.

Bore Code	Bore
09	9
12	12
16	16
19	19

Example: For a coupling with a 9 mm bore on one side and a 16 mm bore on the other, specify Catalog Number: **S50SFXM00H09H16**.



> **FOR INDIVIDUAL COMPONENTS**

**METRIC COMPONENT**

Catalog Number	Material	d Bore (H7)	Transmissible Torque N • m
<b>Fig. 1 Bushing</b>			
S50SFXM0009220	Aluminum	9	11
S50SFXM0012220	Aluminum	12	16
S50SFXM0016220	Aluminum	16	16
S50SFXM0019220	Aluminum	19	16
<b>Fig. 2 Clamp</b>			
S35SFXM0023043	Aluminum	-	-
<b>Fig. 3 Bellows</b>			
S60SFXM00445230	Stainless Steel	-	-

**NOTE:** Dimensions in ( ) are in ch.

› MATERIAL:

- Bushing - Aluminum
- Clamp - Aluminum
- Bellows - Stainless Steel

› FEATURES:

- Backlash-Free Torque Transmission
- High Torsional Rigidity
- High-Speed Torque Transmission
- Low-Mass Moment of Inertia

› FOR COMPLETE COUPLING

METRIC COMPONENT CATALOG NUMBER

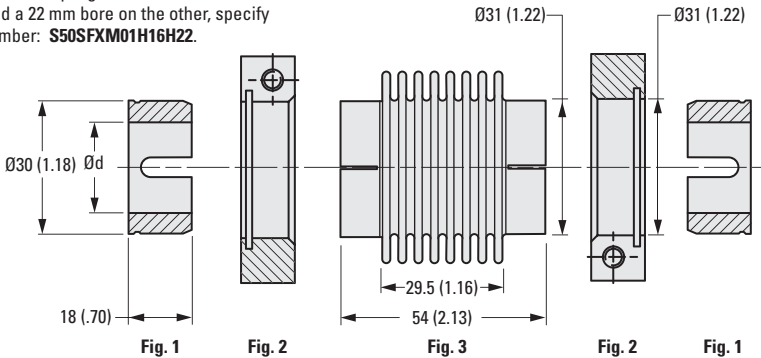
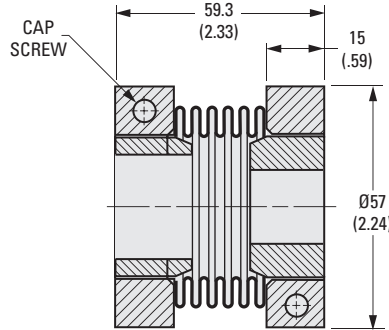
S50SFXM01H□□□

Bore 1 □ □ □ Bore 2

\*When creating a Catalog Number, Bore 1 must be smaller than or equal to Bore 2.

Bore Code	Bore
12	12
16	16
19	19
22	22

Example: For a coupling with a 16 mm bore on one side and a 22 mm bore on the other, specify Catalog Number: S50SFXM01H16H22.



› FOR INDIVIDUAL COMPONENTS

METRIC COMPONENT

Catalog Number	Material	d Bore (H7)	Transmissible Torque N • m
<b>Fig. 1 Bushing</b>			
S50SFXM0112300	Aluminum	12	26
S50SFXM0116300	Aluminum	16	35
S50SFXM0119300	Aluminum	19	40
S50SFXM0122300	Aluminum	22	40
<b>Fig. 2 Clamp</b>			
S35SFXM0131055	Aluminum	-	-
<b>Fig. 3 Bellows</b>			
S60SFXM01540310	Stainless Steel	-	-

NOTE: Dimensions in ( ) are inch.

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> MATERIAL:

- Bushing - Aluminum
- Clamp - Aluminum
- Bellows - Stainless Steel

> FEATURES:

- Backlash-Free Torque Transmission
- High Torsional Rigidity
- High-Speed Torque Transmission
- Low-Mass Moment of Inertia

> FOR COMPLETE COUPLING

METRIC COMPONENT CATALOG NUMBER

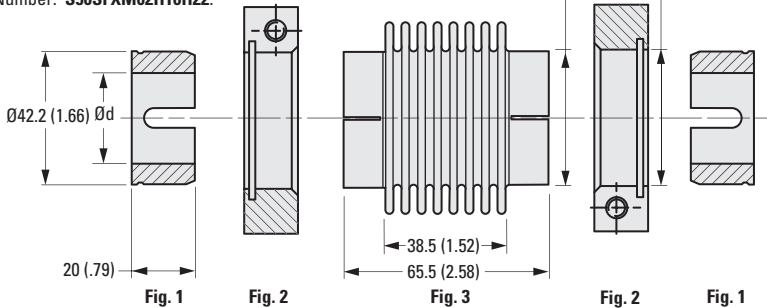
S50SFXM02H□□H□□

Bore 1                      Bore 2

\*When creating a Catalog Number, **Bore 1** must be smaller than or equal to **Bore 2**.

Bore Code	Bore
16	16
19	19
22	22
25	25
32	32

Example: For a coupling with a 16 mm bore on one side and a 22 mm bore on the other, specify Catalog Number: **S50SFXM02H16H22**.



> FOR INDIVIDUAL COMPONENTS

METRIC COMPONENT

Catalog Number	Material	d Bore (H7)	Transmissible Torque N • m
<b>Fig. 1 Bushing</b>			
S50SFXM0216422	Aluminum	16	60
S50SFXM0219422	Aluminum	19	72
S50SFXM0222422	Aluminum	22	84
S50SFXM0225422	Aluminum	25	100
S50SFXM0232422	Aluminum	32	100
<b>Fig. 2 Clamp</b>			
S35SFXM0243071	Aluminum	-	-
<b>Fig. 3 Bellows</b>			
S60SFXM02655430	Stainless Steel	-	-

NOTE: Dimensions in ( ) are inch.



> MATERIAL:

- Bushing - Aluminum
- Clamp - Aluminum
- Bellows - Stainless Steel

> FEATURES:

- Backlash-Free Torque Transmission
- High Torsional Rigidity
- High-Speed Torque Transmission
- Low-Mass Moment of Inertia

> FOR COMPLETE COUPLING

METRIC COMPONENT CATALOG NUMBER

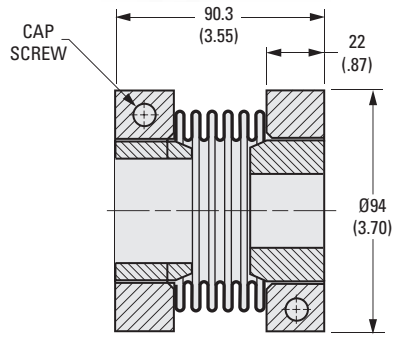
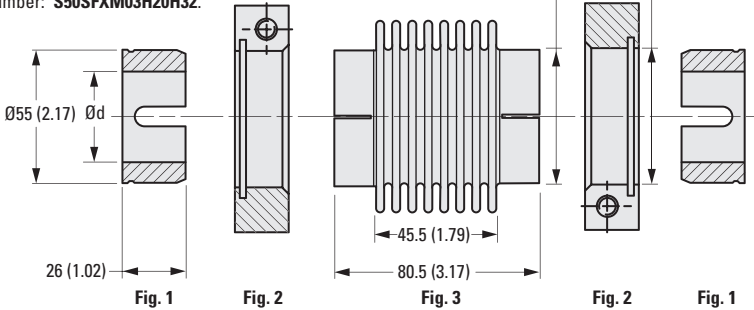
S50SFXM03H□□□

Bore 1                      Bore 2

\*When creating a Catalog Number, Bore 1 must be smaller than or equal to Bore 2.

Bore Code	Bore
20	20
22	22
25	25
32	32
38	38
45	45

Example: For a coupling with a 20 mm bore on one side and a 32 mm bore on the other, specify Catalog Number: **S50SFXM03H20H32**.



> FOR INDIVIDUAL COMPONENTS

METRIC COMPONENT

Catalog Number	Material	d Bore (H7)	Transmissible Torque N • m
<b>Fig. 1 Bushing</b>			
S50SFXM0320550	Aluminum	20	133
S50SFXM0322550	Aluminum	22	147
S50SFXM0325550	Aluminum	25	167
S50SFXM0332550	Aluminum	32	200
S50SFXM0338550	Aluminum	38	200
S50SFXM0345550	Aluminum	45	200
<b>Fig. 2 Clamp</b>			
S35SFXM0356592	Aluminum	-	-
<b>Fig. 3 Bellows</b>			
S60SFXM03805565	Stainless Steel	-	-

NOTE: Dimensions in ( ) are in ch.

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