

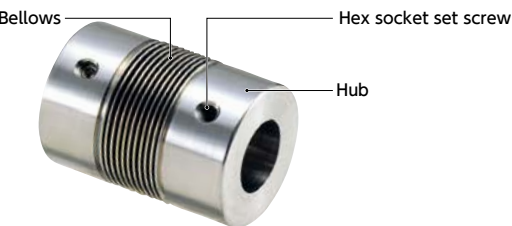
# MWBS Flexible Couplings - Bellows Type (High Precision Welding)

Zero Backlash High Allowable Misalignment SUS Stainless steel

## Structure

### Set Screw Type

MWBS → P.xxxx



### Property

	MWBS
Zero Backlash	○
Allowable Misalignment	○
Corrosion Resistance (All S.S.)	○

○: Excellent ○: Very good

- This is a bellows type flexible coupling.
- The crest and root of the bellows are bonded by special high precision welding.
- Thin metal plate molded with high precision allows higher misalignment to be accepted.
- Even if there is misalignment, the constant revolution is performed.

### Application

Measurement equipment / Control device / Encoder

### Material/Finish

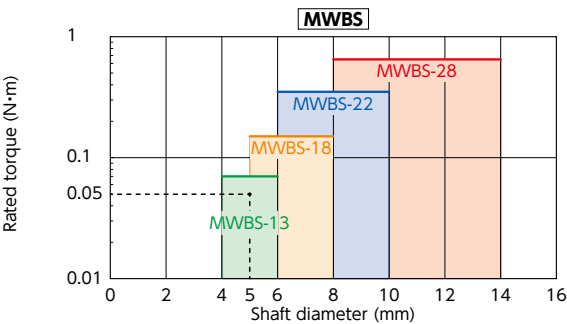


	MWBS
Hub	SUS304
Bellows	SUS316L
Hex Socket Set Screw	SUSXM7

## Selection

### Selection Based on Shaft Diameter and Rated Torque

The area bounded by the shaft diameter and rated torque indicates the selection size.



### Selection Example

In case of selected parameters of shaft diameter of  $\phi 5$  and load torque of  $0.05 \text{ N} \cdot \text{m}$ , the selection size for MWBS is MWBS-13.

### Part number specification

MWBS-22-6-8

Product Code Size Bore Diameter

### Related Products

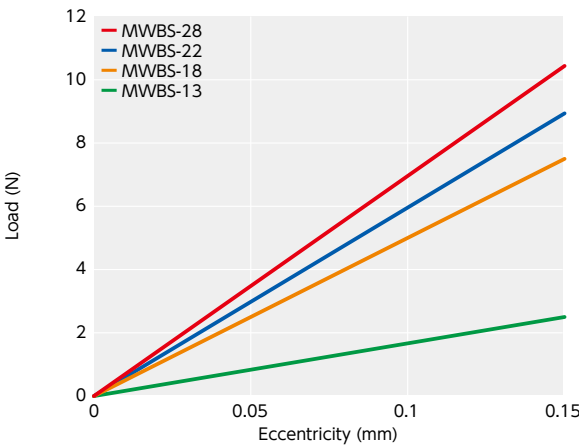
Completely custom-made super bellows coupling with high precision welded bellows can be manufactured.

→ P.xxxx

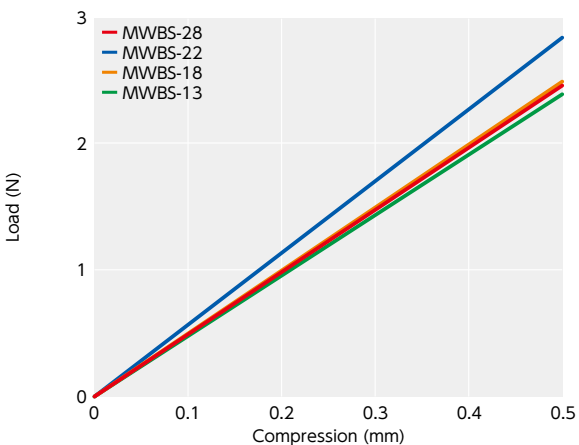


### Technical Information

#### Eccentric Reaction Force



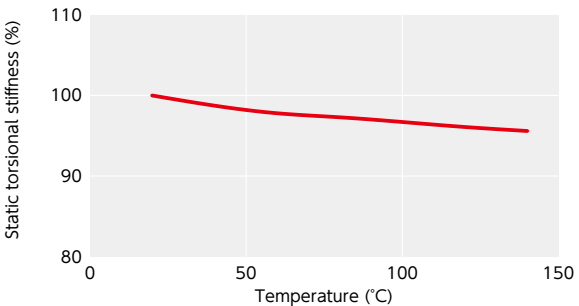
#### Thrust reaction force



#### Change in static torsional stiffness due to temperature

This is a value under the condition where the static torsional stiffness at 20°C is 100%.

The change of MWBS in torsional stiffness due to temperature is small and the change in responsiveness is extremely small. If the unit is used under higher temperature, be careful about misalignment due to elongation or deflection of the shaft associated with thermal expansion.

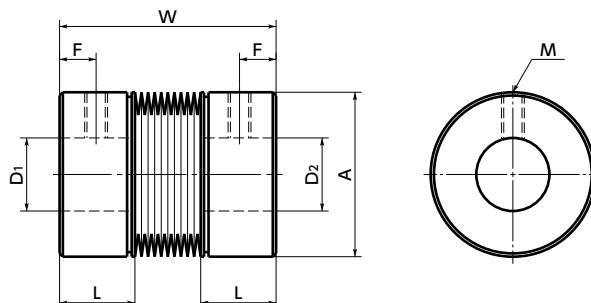


Additional Keyway at Shaft Hole → P.xxxx Cleanroom Wash & Packaging → P.xxxx SUS Change to Stainless Steel Screw → P.xxxx  
Please feel free to contact us Available / Add'l charge Changed to the S.S. screw

# MWBS Flexible Couplings - Bellows Type (High Precision Welding)

Zero Backlash High Allowable Misalignment SUS Stainless steel

**MWBS** Made of all stainless steel



## Dimensions

Unit : mm

Part Number	A	L	W	F	M	Screw Tightening Torque (N·m)	Standard Bore Diameter (Dimensional Allowance H8)							
							D1/D2							
							4	5	6	8	10	11	12	14
<b>MWBS-13</b>	13	6	16.5	3	M2	0.5	●	●	●					
<b>MWBS-18</b>	18	8	22	4	M2.5	1		●	●	●				
<b>MWBS-22</b>	22	10	27	5	M3	1.5			●	●	●			
<b>MWBS-28</b>	28	14	37	7	M4	2.5				●	●	●	●	●

- All products are provided with hex socket set screws.
- Recommended tolerance for shaft diameters is h6 and h7.
- For the shaft insertion amount to the coupling, see Mounting/maintenance.

## Performance

Part Number	Max. Bore Diameter (mm)	Rated Torque *1 (N·m)	Max. Rotational Frequency (min <sup>-1</sup> )	Moment*2 of Inertia (kg·m <sup>2</sup> )	Static Torsional Stiffness (N·m/rad)	Max. Lateral Misalignment (mm)	Max. Angular Misalignment (°)	Max. Axial Misalignment (mm)	Mass *2 (g)
<b>MWBS-13</b>	6	0.07	10000	$2.5 \times 10^{-7}$	30	0.15	3.5	0.5	9.8
<b>MWBS-18</b>	8	0.15	10000	$1.2 \times 10^{-6}$	40	0.15	5	0.5	25
<b>MWBS-22</b>	10	0.35	10000	$3.4 \times 10^{-6}$	200	0.15	4	0.5	48
<b>MWBS-28</b>	14	0.65	10000	$1.4 \times 10^{-5}$	900	0.15	4.5	0.5	110

\*1 : Correction of rated torque due to load fluctuation is not required.

\*2 : These are values with max. bore diameter.



- Part number specification

**MWBS-22-6-8**

Product Code

1 2

Additional Keyway at Shaft Hole → P.0000

Cleanroom Wash & Packaging → P.0000

SUS Change to Stainless Steel Screw → P.0000

Please feel free to contact us

Available / Add'l charge

Changed to the S.S. screw