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## Copper Axial Expansion Joint



### Specification

FlexEJ Small bore Copper ended axial expansion joints are made from stainless steel convoluted bellows for use in heating circuits. Designed to EJMA\*.

### Materials

Bellows: 316 Stainless Steel  
 Copper Ends: BS EN1057 Table 'X'

### Operating Conditions

Max Working Pressure: 6 Bar  
 Testing Pressure: 9 Bar  
 Max Working Temp: 90°C

Part No.	DN	Supplied Length	Axial Move't (comp)	Spring Rate	Effective Area	Force to Compress	Pressure Rating	Pressure Thrust (6 Bar)
		mm	mm	N/mm	cm <sup>2</sup>	KgF	Bar g	KgF
MRCA12X200X6X25	15	200	25	19.1	5.2	49	6	31
MRCA20X210X6X25	20	210	25	19.1	5.2	49	6	31
MRCA25X215X6X25	25	215	25	26.2	8.2	67	6	50
MRCA32X225X6X25	32	225	25	28.5	13.7	73	6	82
MRCA40X230X6X25	40	230	25	35.2	20.4	90	6	123
MRCA50X230X6X25	50	230	25	59.8	32.1	153	6	193

### Application

FlexEJ Small bore Copper ended expansion joints are used in small bore pipe work systems to absorb thermal movement in the axial direction.

### Performance

Movements and pressure ratings apply for temperatures up to 90°C. Copper pipe ended units should not be used above this temperature.

### Installation

Take care when installing the bellow to ensure no torsion is applied. The unit is supplied at extended length so no cold pull is required. The bellow can be installed in any flow direction. These expansion joints require the pipe work to be suitably anchored and guided for correct installation. Take care when soldering or brazing to ensure no soldering flux comes into contact with the bellow convolutions. Doing so could cause a corrosive chemical reaction and premature failure. DO NOT USE BELLOWS TO CORRECT FOR MISALIGNMENT OF PIPING. Refer FlexEJ bellows installation manual for further details.

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## Union Ended Axial Expansion Joint



### Specification

FlexEJ Union end axial movement expansion joints come with a BSP union swivel at both ends complete with fibre washer and steel convoluted bellows. Designed to EJMA\*.

### Materials

Bellows: 316 Stainless Steel  
 Union Ends: EN 10242 Female Union Black

### Operating Conditions

Max Working Pressure: 6 Bar  
 Testing Pressure: 9 Bar  
 Max Working Temp: 150°C

Part No.	DN	Supplied Length	Axial Move't (comp)	Spring Rate	Effective Area	Force to Compress	Pressure Rating	Pressure Thrust (6 Bar)
		mm	mm	N/mm	cm <sup>2</sup>	KgF	Bar g	KgF
MRUA12X181X6X25	15	181	25	19.1	5.2	49	6	31
MRUA20X187X6X25	20	187	25	19.1	5.2	49	6	31
MRUA25X191X6X25	25	191	25	26.2	8.2	67	6	50
MRUA32X207X6X25	32	207	25	28.5	13.7	73	6	82
MRUA40X215X6X25	40	215	25	35.2	20.4	90	6	123
MRUA50X229X6X25	50	229	25	59.8	32.1	153	6	193

### Application

FlexEJ Union Ended expansion joints are used in small bore pipe work heating systems to absorb thermal movement, in the axial direction. Malleable iron union ends allow the expansion joint to be installed quickly and easily.

### Performance

Movements and pressure ratings apply for temperatures up to 150°C

### Installation

Take care when installing the bellow to ensure no torsion is applied. The unit is supplied at extended length so no cold pull is required. The bellow can be installed in any flow direction. These expansion joints require the pipe work to be suitably anchored and guided for correct installation. **DO NOT USE BELLOWS TO CORRECT FOR MISALIGNMENT OF PIPING.** Refer FlexEJ bellows installation manual for further details.

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## Flanged Axial Expansion Joint



### Specification

FlexEJ flanged axial movement expansion joint with fixed carbon steel raised face flanges drilled to EN1092-1 PN16, multi-ply stainless steel convoluted bellows. Designed to EJMA\*.

### Materials

Bellow: 316 Stainless Steel  
Sleeve: 316 Stainless Steel  
Flange: EN 1092-1 PN16

### Operating Conditions

Max Working Pressure: 16 Bar  
Test Pressure: 24 Bar  
Max Working Temperature: 300°C

### Application

FlexEJ Flanged expansion joints are used in steel pipe work systems to absorb thermal movement, in the axial direction. It also reduces noise and vibrations from pumps and reciprocating machinery.

### Performance

Pressure de-rating factors apply at elevated temperature.

### Installation

Take care when installing the bellow to ensure no torsion is applied. The orientation of the bolt holes must be aligned with mating pipe work flanges so that torsion is not introduced. The correct length of bolts is essential to ensure they do not come into contact with the bellow convolutions. Take care not to cause damage to the bellow convolutions when tightening the bolts. The bellow is provided with an internal flow liner so note the direction of flow when installing. The unit is supplied at extended length so no cold pull is required. These expansion joints require the pipe work to be suitably anchored and guided for correct installation. DO NOT USE BELLOWS TO CORRECT FOR MISALIGNMENT OF PIPING. Refer FlexEJ bellows installation manual for further details.

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## Flanged Axial Expansion Joint

### Technical Data

Size DN	Part No.	Supplied Length	Axial Movement	Spring Rating	Effective Area	Force to Compress	Pressure Rating	Pressure Thrust
		mm	+/- mm	N/mm	cm <sup>2</sup>	KgF	Bar g	16 Bar KgF
32	MRFA32X180X16X25	180	12.5	26.8	13.7	34.2	16	219.2
40	MRFA40X180X16X25	180	12.5	32.4	20.4	41.3	16	326.4
50	MRFA50X180X16X25	180	12.5	55	32.1	70.1	16	513.6
65	MRFA65X180X16X30	180	15				16	
80	MRFA80X180X16X30	180	15				16	
100	MRFA100X180X16X30	180	15				16	
125	MRFA125X180X16X30	180	15				16	
150	MRFA150X180X16X30	180	15				16	

Size DN	Part No.	Supplied Length	Axial Movement	Spring Rating	Effective Area	Force to Compress	Pressure Rating	Pressure Thrust
		mm	+/- mm	N/mm	cm <sup>2</sup>	KgF	Bar g	16 Bar KgF
32	MRFA32X325X16X50	325	25	26.8	13.7	68.4	16	219.2
40	MRFA40X325X16X50	325	25	32.4	20.4	82.5	16	326.4
50	MRFA50X310X16X50	310	25	55	32.1	140.1	16	513.6
65	MRFA65X210X16X50	210	25				16	
80	MRFA80X210X16X50	210	25				16	
100	MRFA100X210X16X50	210	25				16	
125	MRFA125X210X16X70	210	35				16	
150	MRFA150X210X16X80	210	40				16	

Size DN	Part No.	Supplied Length	Axial Movement	Spring Rating	Effective Area	Force to Compress	Pressure Rating	Pressure Thrust
		mm	+/- mm	N/mm	cm <sup>2</sup>	KgF	Bar g	16 Bar KgF
32	MRFA32X340X16X80	340	40	26.8	13.7	109.5	16	219.2
40	MRFA40X340X16X80	340	40	32.4	20.4	132.1	16	326.4
50	MRFA50X340X16X80	340	40	55	32.1	224.2	16	513.6
65	MRFA65X390X16X80	390	40				16	
80	MRFA80X390X16X100	390	50				16	
100	MRFA100X460X16X100	460	50				16	
125	MRFA125X460X16X100	460	50				16	
150	MRFA150X460X16X100	460	50				16	