



MASON SUPER-FLEX

EXPANSION JOINTS & CONNECTORS



Super-Flex
MFNC

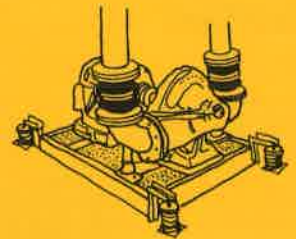
The Super-Flex MFNC is one of the shortest Face to Face Designs in the World. Tough and Economical, it is a real Space Saver.



Super-Flex
MFTNC

The Super-Flex MFTNC features a Molded-In Ductile Iron Reinforcing Ring Between the Two Spheres to maintain the Two Spherical Shapes at Maximum Pressures. MFTNC has Excellent Movement, Vibration Control and Sound Absorption Capabilities.

Super-Flex expansion joint connectors were designed after years of application experience with other similar products for identical applications. Our new technology using thermostatically controlled electrically heated hydraulic presses and redesigned molds has resulted in higher operating pressures with greater safety factors than ever before. Nylon tire cord provides excellent carcass reinforcement and the DuPont Nordel (EPDM) cover and liner, magnificent aging and temperature resistance. The shorter face to face dimensions solve many tight fit problems.

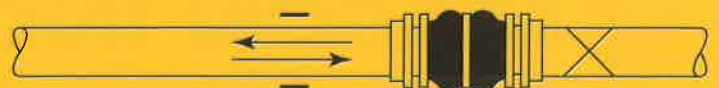
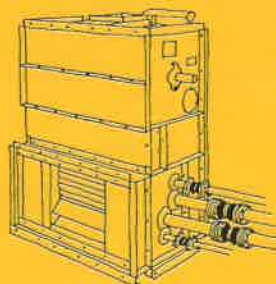


SUPER-FLEX CONNECTORS

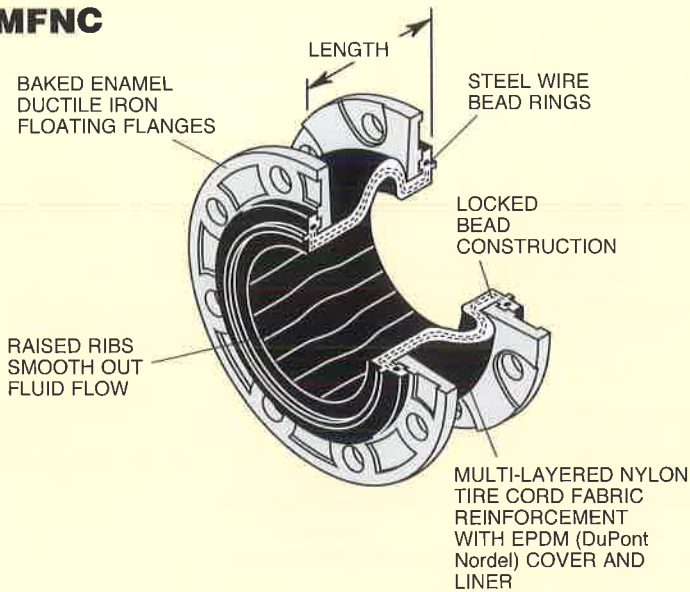
- Are recommended for Expansion and Contraction
- Save the Expense of costly Expansion Loops
- Compensate for Misalignment and Offset
- Protect against harmful "Start-up" and Surge Forces
- Guard against Vibration that could result in Damaged Piping and Noisy Installations
- Have Molded Liner Ribs to smooth out Water Flow
- Pay for Themselves by Eliminating Gaskets, Alignment Costs and making Final Connections Quick and Easy

WE OFFER:

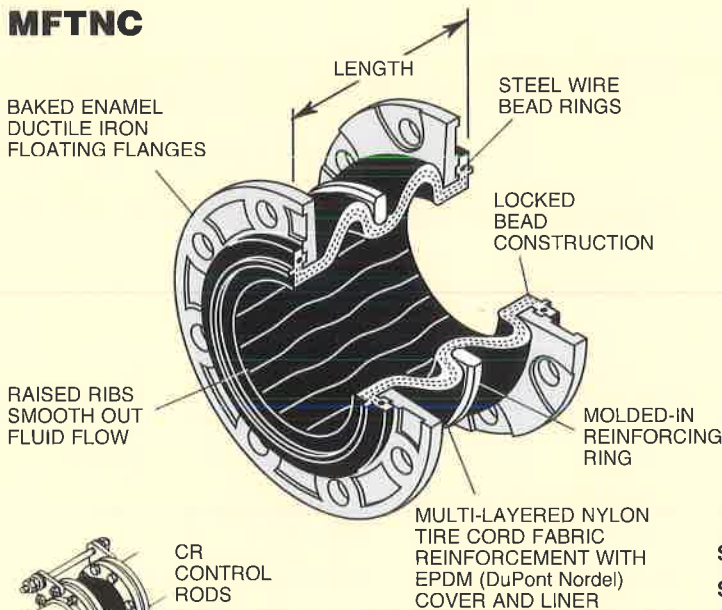
- Ductile iron floating flanges finished in red baked enamel. Sizes range 11/2" to 12" (40mm to 300mm) diameter to match ASA, DIN, PN, JIN and British Standards.
- Other elastomers such as Neoprene, Hypalon, Buna-N, SBR, Chloro-Butyl, Natural Rubber, etc. for special applications.
- Single sphere MFNC for minimum space requirements and economy.
- Double sphere MFTNC for maximum motion and acoustical performances.
- Control Rods and Control Cables.
- Duplex Assemblies for extreme motion.



MFNC



MFTNC



MFNC and MFTNC Connectors Installed in Piping Systems that are Anchored on Both Sides of the Connectors Need No Control Rods and Cables. Piping Movements must be within the Tabulated Allowables.

MFNC Connectors Installed in Unanchored Piping or Connected to Isolated Equipment Must Have Control Cables or Rods when the Pressure is Higher than—

MFTNC Connectors Installed in Unanchored Piping or Connected to Isolated Equipment Must Have Control Cables or Rods when the Pressure is Higher than—

SUPER-FLEX MFNC Dimensions and Allowable Movements

Super-Flex MFNC Size	Length Face to Face	Allowable Movements								
		Axial Compression		Axial Elongation		Transverse Movement		Angular Movement		
in	mm	in	mm	in	mm	±in	±mm	(degree)		
1 1/2	40	4	100	5/8	16	3/8	10	3/8	10	20°
2	50	4	100	5/8	16	3/8	10	3/8	10	20°
2 1/2	65	4	100	5/8	16	3/8	10	3/8	10	20°
3	75	4	100	5/8	16	3/8	10	3/8	10	18°
4	100	4	100	7/8	22	3/8	10	3/8	10	17°
5	125	4	100	7/8	22	3/8	10	3/8	10	14°
6	150	4	100	7/8	22	3/8	10	3/8	10	12°
8	200	6	150	1	25	1/2	13	1/2	13	11°
10	250	6	150	1	25	1/2	13	5/8	16	9°
12	300	6	150	1	25	1/2	13	5/8	16	7°

For sizes larger than 12" 300mm, refer to Mason-Flex Connector MFNC

SUPER-FLEX MFTNC Dimensions and Allowable Movements

Super-Flex MFTNC Size	Length Face to Face	Allowable Movements								
		Axial Compression		Axial Elongation		Transverse Movement		Angular Movement		
in	mm	in	mm	in	mm	±in	±mm	(degree)		
1 1/2	40	7	180	1 1/2	38	1/2	13	5/8	16	30°
2	50	7	180	1 1/2	38	1/2	13	5/8	16	30°
2 1/2	65	7	180	1 1/2	38	1/2	13	7/8	22	30°
3	75	7	180	1 1/2	38	3/4	19	7/8	22	30°
4	100	7	180	1 1/2	38	3/4	19	7/8	22	29°
5	125	7	180	1 1/2	38	3/4	19	7/8	22	24°
6	150	7	180	1 1/2	38	3/4	19	7/8	22	20°
8	200	8	200	1 1/2	38	3/4	19	7/8	22	15°
10	250	8	200	1 1/2	38	7/8	22	1 1/4	32	13°
12	300	8	200	1 1/2	38	7/8	22	1 1/4	32	11°

EPDM Characteristics

Resistance to	EPDM	NEOPRENE	Natural Rubber
Abrasion	Excellent	Excellent	Excellent
Water Absorption	Very Good	Good	Very Good
Oxidation	Excellent	Excellent	Good
Ozone	Outstanding	Excellent	Fair
Sunlight Aging	Outstanding	Very Good	Poor
Heat Aging	Excellent	Excellent	Good
Heat	Excellent	Very Good	Good
	275°F 135°C	190°F 87°C	180°F 82°C
Cold	Excellent	Good	Very Good
	-60°F -51°C	-10°F -23°F	-20°F -28°C

SUPER-FLEX MFNC and MFTNC PRESSURE - TEMPERATURE RATINGS

Standard Full Vacuum

250 psi - 17.5 kg/cm² 250°F - 121°C with pressure correction

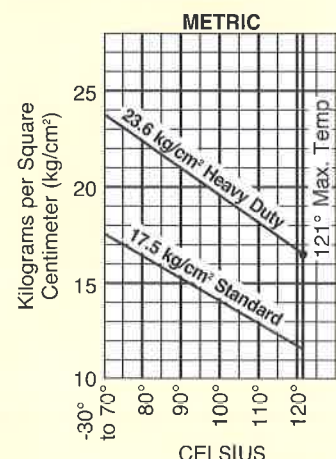
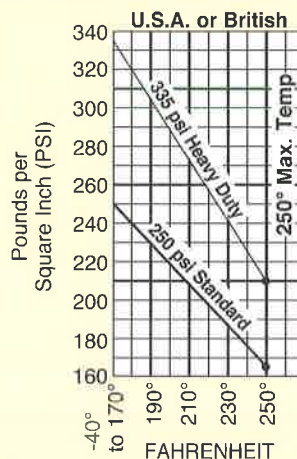
Heavy Duty Full Vacuum

335 psi - 23.6 kg/cm² 250°F - 121°C with pressure correction

Minimum Burst Pressures

Standard 1000 psi - 70 kg/cm² Heavy Duty 1350 psi - 94.5 kg/cm²

Note: Flange leakage may occur at 1000 psi - 70 kg/cm²



U.S.A. & BRITISH		METRIC	
Pipe Size (in)	Pressure (psi)	Pipe Size (mm)	Pressure (kg/cm ²)
1 1/2-4	250	40-100	17.5
5-6	175	125-150	12.3
8-12	150	200-300	10.5

U.S.A. & BRITISH		METRIC	
Pipe Size (in)	Pressure (psi)	Pipe Size (mm)	Pressure (kg/cm ²)
1 1/2-8	250	40-200	17.5
10-12	175	250-300	12.3



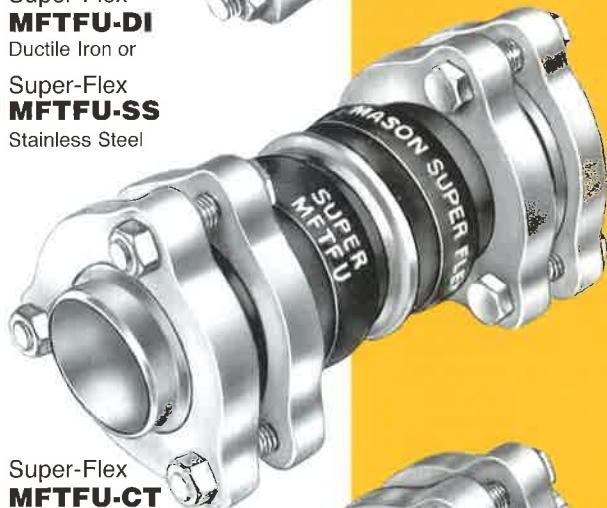
MASON SUPER-FLEX

EXPANSION JOINTS & CONNECTORS



Super-Flex
MFTFU-DI
Ductile Iron or

Super-Flex
MFTFU-SS
Stainless Steel



Super-Flex
MFTFU-CT
for Copper Tubing or

Super-Flex
MFTFU-BT
Brass Threaded
End



Super-Flex
MFTFU-PC
PVC Cement End or

Super-Flex
MFTFU-PT
PVC Threaded End

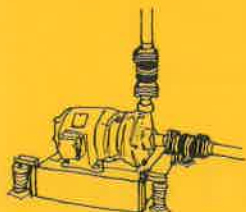
The Super-Flex MFTFU is an expanded line of reliable small sized twin-sphere expansion joints and connectors. Virtually all competitive units are limited to two-ply construction. Our superior design using nylon tire cord reinforcement and the DuPont Nordel (EPDM) cover and liner places these small sizes in the same temperature and pressure class as their bigger brothers. The molded-in ductile reinforcing ring between the two spheres maintains the two spherical shapes at maximum pressures. The MFTFU has excellent expansion and contraction, misalignment and sound absorption capabilities. Six types of fittings make these units extremely versatile.

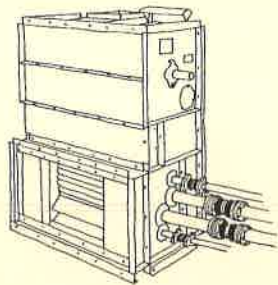
SUPER-FLEX CONNECTORS

- Are recommended for Expansion and Contraction
- Compensate for Misalignment and Offset
- Protect against harmful "Start-up" and Surge Forces
- Save the Expense of costly Expansion Loops
- Guard against Vibration that could result in Damaged Piping and Noisy Installations
- Have Molded Liner Ribs to smooth out Water Flow
- Pay for Themselves by Eliminating Alignment Costs and making Final Connections Quick and Easy

WE OFFER:

- Ductile iron threaded floating flanges finished in red baked enamel in NPT, British or Metric Standards. Sizes 3/4" to 2" (20mm to 50mm)
- 304 stainless steel threaded floating flanges finished in red baked enamel in NPT, British or Metric Standards. Sizes 3/4" to 2" (20mm to 50mm)
- Sweat Ends for cooper piping or Brass Threaded End for brass pipe. Sizes 3/4" to 2" (20mm to 50mm)
- PVC Threaded Unions sizes in NPT, British or Metric Standards. Sizes 3/4" to 2" (20mm to 50mm)
- PVC Slip-on Cemented Unions. Sizes 3/4" to 2" (20mm to 50mm)
- Other Elastomer such as Neoprene, Hypalon, Buna-N, SBR, Chloro-Butyl, Natural Rubber, etc. for special applications.



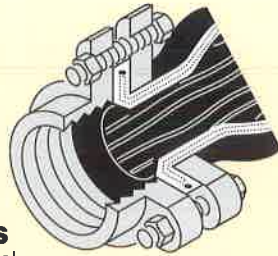


SUPER-FLEX MFTFU Dimensions and Allowable Movements

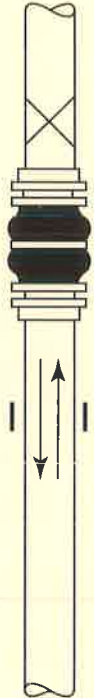
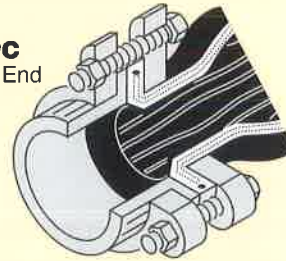
MFTFU Pipe Size	Overall Length End to End		Allowable Movements			
	in	mm	Axial Compression	Axial Elongation	Transverse Movement	Angular Movement
	in	mm	in	mm	±in ±mm	(degree)
3/4	20	7 180	3/4 19	1/4 6	5/8 16	25°
1	25	7 180	3/4 19	1/4 6	5/8 16	20°
1 1/4	30	7 180	3/4 19	1/4 6	5/8 16	20°
1 1/2	40	7 180	3/4 19	1/4 6	5/8 16	20°
2	50	7 180	3/4 19	1/4 6	5/8 16	20°

NOTE: Fittings do not change Dimensions or Movements

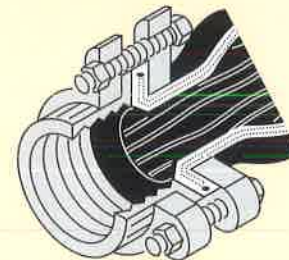
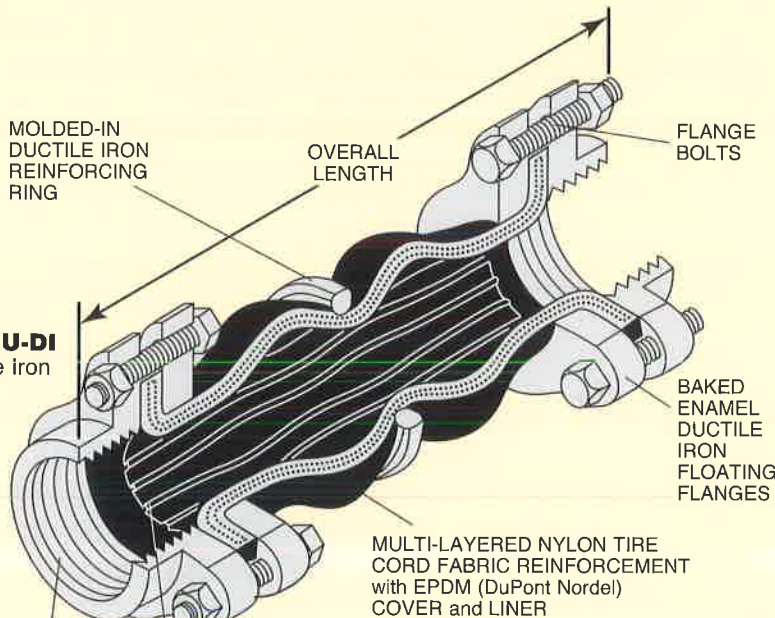
MFTFU-SS
Stainless Steel



MFTFU-PC
PVC Cement End



MFTFU-DI
Ductile Iron

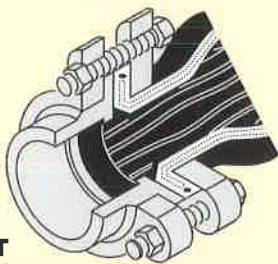


MFTFU-PT
PVC Threaded End or
MFTFU-BT
Brass Threaded End

EPDM Characteristics

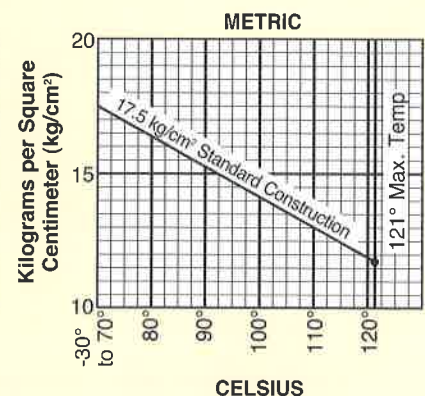
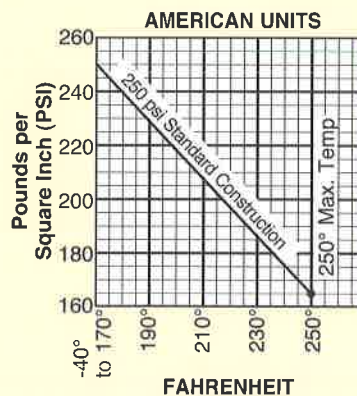
Resistance to	EPDM	NEOPRENE	NATURAL RUBBER
Abrasion	Excellent	Excellent	Excellent
Water Absorption	Very Good	Good	Very Good
Oxidation	Excellent	Excellent	Good
Ozone	Outstanding	Excellent	Fair
Sunlight Aging	Outstanding	Very Good	Poor
Heat Aging	Excellent	Excellent	Good
Heat	Excellent	Very Good	Good
	275°F 135°C	190°F 87°C	180°F 82°C
Cold	Excellent	Good	Very Good
	-60°F -51°C	-10°F -23°F	-20°F -28°C

MFTFU-CT
for Copper Tubing



SUPER-FLEX MFTFU PRESSURE - TEMPERATURE RATINGS

Nominal Pressure 250 psi - 17.5 kg/cm²
250°F - 121°C with pressure correction
MFTFU Recommended for Full Vacuum
Minimum Burst Pressure 1000 psi - 70 kg/cm²
Note: Flange leakage may occur at 750 psi - 52.5 kg/cm²



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