

Expansion Joints

METAFLEX PRODUCTS

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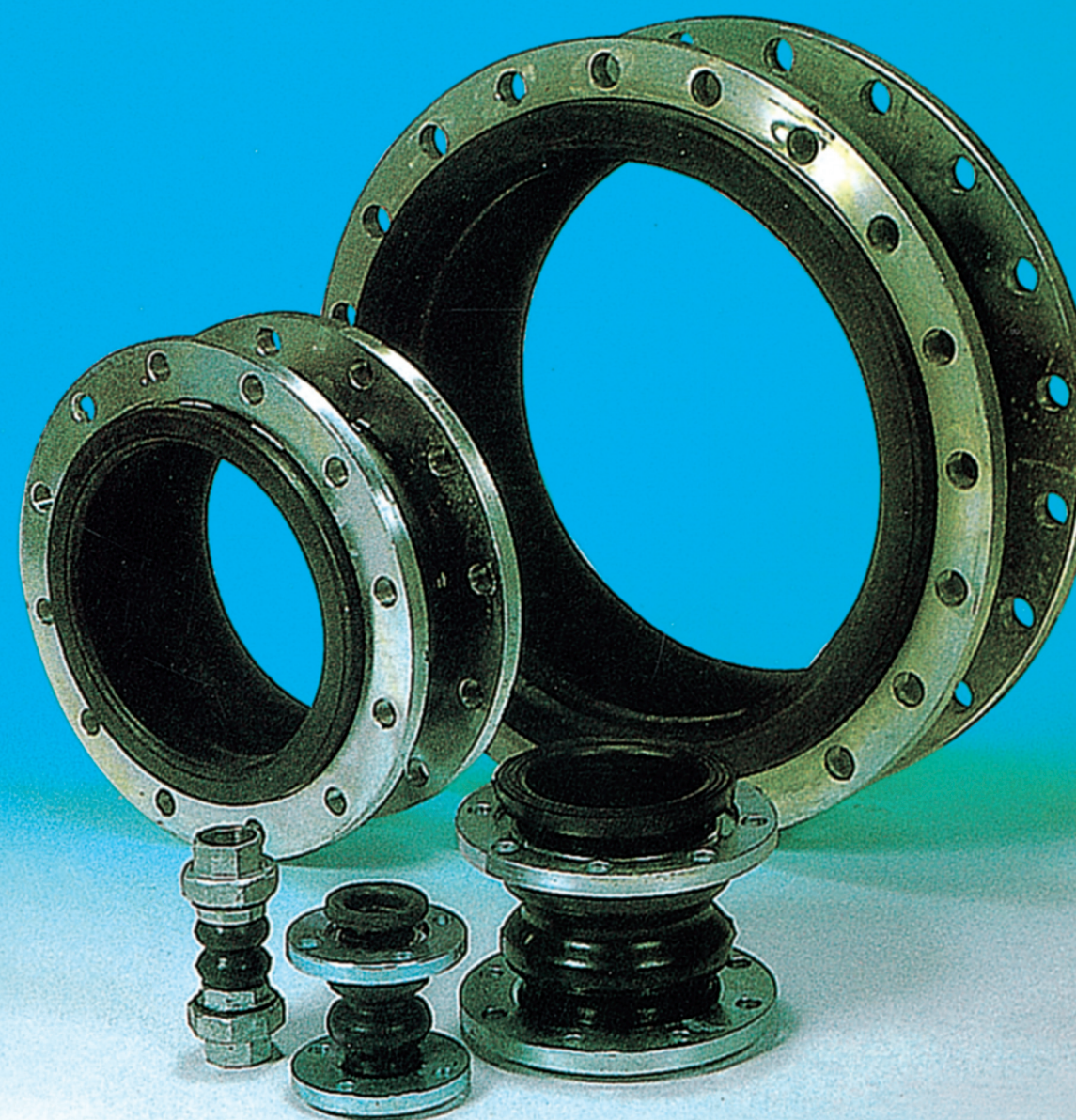
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 **METAFLEX**



TEN ADVANTAGEOUS FEATURES OF USING METAFLEX FLEXIBLE RUBBER JOINTS

1. ABSORBS VIBRATION, NOISE AND SHOCK

Sound, traveling axially through METAFLEX Joints, is stopped at once. Water hammer, pumping impulses and water born noises are absorbed by the molded light-weight thin-wall structure.

2. EASY TO INSTALL, EASY TO REMOVE

Loose flanges, no need of gasket or packing and elastic spherical body make the joint easy to install or remove.

3. SECURITY ASSURED IN USAGE

Special spherical carcass enables its body, when subjected to high pressure and expansion, not contacting with the connecting bolt head. Thus, the joint may be used in a sense of damage proof and full security.

4. HIGHER BURST STRENGTH

Spherical shape is stronger than cylindrical shape or other configuration. Thus under pressure, METAFLEX Joint is 4 times as strong as a cylindrical joint. Additionally, our products are made of best suitable material, and hence their burst pressure is much higher than those of other makes.

5. SUITABLE FOR SUCTION AND DELIVERY (DISCHARGE)

Owing to its excellent molding technique with its tough chemical fiber, METAFLEX Joint can satisfactorily withstand the suction and discharge. Vacuum rating can stand up to 750mm Hg.

6. HIGH EFFICIENCY

METAFLEX Joints has streamlined, flowing arch to reduce turbulence, sediment build-up, thrust area and the effects of thrust on the piping system equipment.

7. LOW DEFORMATION UNDER PRESSURE

Internal pressure is exerted in all directions distributing forces evenly over a large area. Hence, the deformation of METAFLEX Joint due to pressure is much lower than that of other makers.

8. LIGHT AND COMPACT

The space required for the installation of METAFLEX Joint is about half of the requirement of cylindrical. Weight is about one third.

9. GREATER MOVEMENTS ARE AVAILABLE

Axial compression and elongation, deflection and angular movements will be greater.

10. WIDE SERVICE RANGE

Made with chemical resistant elastomers such as Neoprene, Nitrile, Hypalon, EPDM: insures a product compatible with the fluid being pumped or piped. Operate up to 16KG and -20°C to 100°C.

STANDARD WARRANTY

All merchandise sold by us is subject to this Standard Warranty. Our products are warranted for one year to be free from defects in material or workmanship. Our liability for breach of any and all warranties, expressed or implied, is limited to refunding our invoice price of the product, or at our option, to replacement of the product.

USE IN:

- Air conditioning systems
- Air ducts
- Chemical lines
- Circulating water lines
- Compressor lines
- Paper stock lines
- Pump-suction and discharge
- Refrigeration lines
- Turbine to condenser

MARINE INSTALLATIONS

- Air intake on Diesel engines
- Ballast
- Between scoop and condenser
- Circulating lines to condenser
- Fog foam lines
- Fire and bilge pump lines
- Forced draft
- Overboard discharge
- Sanitary system
- Ventilation lines

- Applicable fluids

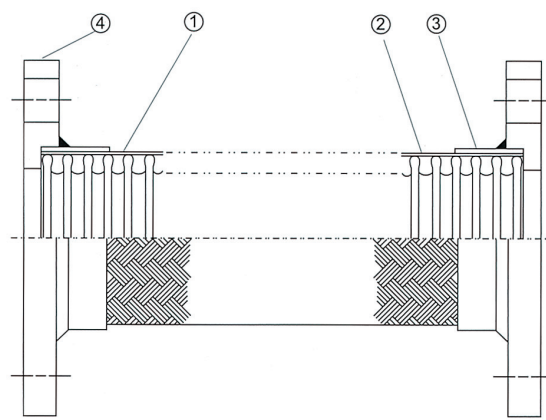
Water, warm water, seawater, weak, acids, alkalies, compressed air, etc.

Remarks: For the other kinds of fluids, to which this connector become applicable by changing the composition of its constituent rubber, please consult the manufacturer.



STAINLESS STEEL EXPANSION JOINT

JF-600 (FLEXIBLE JOINT)




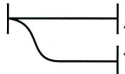
Use in large offset.

CONSTRUCTION

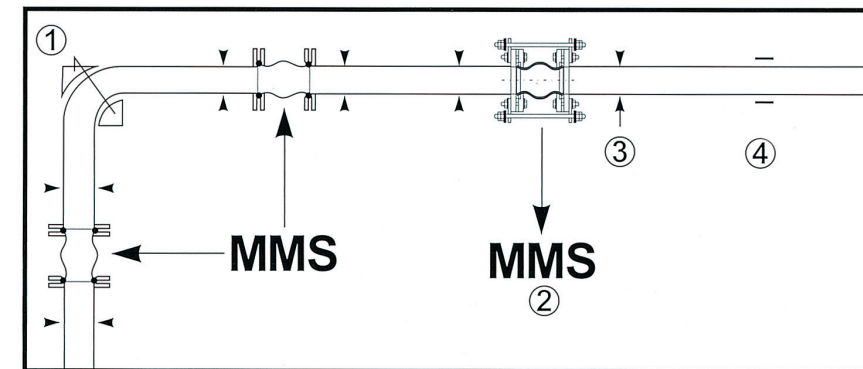
ITEM	PAPTS	MATERIAL	PRMARK
1	BELLOWS	SUS304	SUS316
2	WIRE BRAIDS	SUS304	
3	SEAL RING	SUS304	SUS316
4	FLANGE	SS-41	SUS304/SUS316

※ Flange with ANSI, JIS, DIN B. S. Standard.

JF-600 [SPECIFICATION]

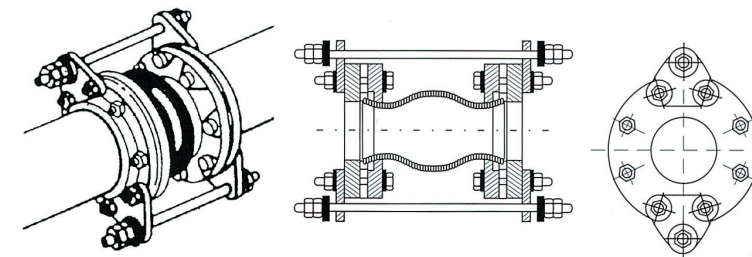
Nominal Bore		Total Length		Bellows		Offset		Working Pressure
				O.D.	T			
mm	Ins	mm	Ins					kg/cm ²
15	1/2	200	8	30.5	0.3	40	26	20
20	3/4	200	8	30.5	0.3	40	26	20
25	1	200	8	38.0	0.3	38	24	20
32	1-1/4	200	8	46.0	0.3	36	21	20
40	1-1/2	200	8	56.0	0.4	33	16	20
50	2	230	9	73.6	0.4	28	15	20
65	2-1/2	230	9	88.0	0.4	24	13	16
80	3	230	9	102.0	0.4	20	11	16
100	4	230	9	128.0	0.4	18	9	13
125	5	280	11	155.0	0.5	23	14	10
150	6	280	11	185.0	0.5	20	12	10
200	8	300	12	235.0	0.6	20	8	10
250	10	330	13	286.0	0.6	17	8	10
300	12	350	14	340.0	0.7	15	7	10

CONTROL RODS-CONTROL OF EXTENSION



INSTALLMENT SCHEME

- 1) anchor
- 2) with control rods
- 3) fixation points
- 4) guiding points



APPLICATIONS

It is used to prevent an excessive extension the control rod or compression (cf. Rating table) which could damage the expansion joint: in general when there are high pressure risks (starting a pump...) or when wide temperature fluctuations occur.

CONTROL ROD UNIT MUST BE INSTALLED WHEN PRESSURE [TEST SURGE, OPERATING] EXCEEDS THE RATING BELOW.

JOINTS SIZE	MMS(P SIG)	MMT(P SIG)
1~4"	150	150
5"~10"	135	135
12"~14"	90	90
16"~28"	45	45

MOUNTING INSTRUCTIONS

- 1) The alignment of the piping system should be adjusted and secured with fixation points as close as possible on each side of the expansion joints at a distance less than 3 times the pipes nominal diameter.
- 2) These fixation points must be installed when mounting an expansion joint with control rods or in a case of an elbow pipe. If there is a considerable distance between 2 fixation points, guiding points can be installed in order to support and guide the pipe (cf. installation scheme)
- 3) When installing take care the rubber expansion joint don't support compression or extension due to the weight of the upstream or downstream pipe.
- 4) Verify that the upstream and downstream pipe alignment does not deviate more than 1/8"(3mm) and that the expansion joint does not support heavy weight.
- 5) Verify that the surfaces coming on contact with the joint are perfectly clean and without cutting edges (pipe) thus avoiding damage to the joint surface.
- 6) Insert the bolts on the arch side of the joint, thus avoiding direct contact with the rubber.
- 7) If welding is carried out within close range, cover or dismount the expansion joint.
- 8) Do not paint or coat the joint with insulation.
- 9) During installation, the precompression should not exceed 5mm.
- 10) Store the joint in flat position avoiding humidity and extreme temperatures.

Mounting order:

- 1-Upstream pipe: anchor
- 2-Downstream pipe: anchor
- 3-Expansion joint.

- 3.b) When installing the rubber expansion joint take care (specially for type MMU) that it must not be twisted in any case.

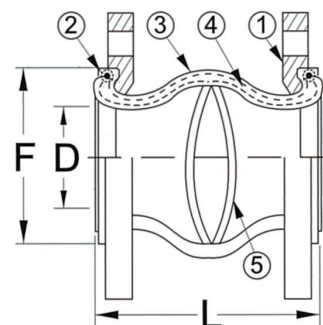
NOTE:
Bolt tightness should be checked daily within the first month (one week) after services and checked periodically thereafter.



MMS SERIES

SINGLE-SPHERE CONNECTORS

With Floating Flanges



SYMBOL	PART	ENGINEERING MATERIAL
1	FLANGES	SS41(CHANGEABLE)
2	WIRE	CARBON STEEL WIRES STRAND
3	ELASTOMER	SPECIAL SYNTHETIC RUBBER
4	REINFORCING FABRIC	SYNTHETIC FIBER
5	VACUUM RING	SUS304

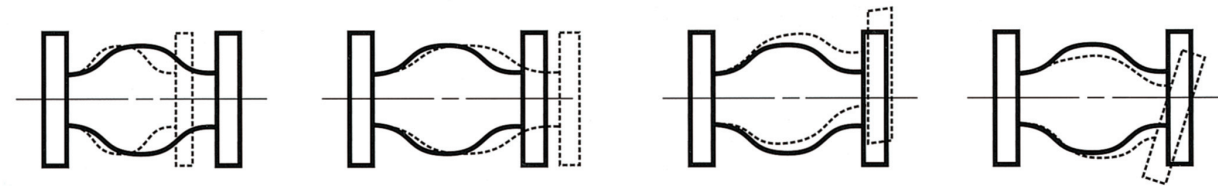
ALLOWABLE MOVEMENTS

1.AXIAL COMPRESSION

2.AXIAL ELONGATION

3.TRANSVERSE MOVEMENT

4.ANGULAR DEFLECTION



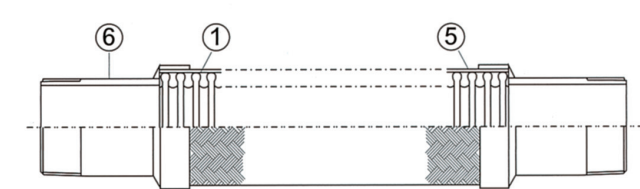
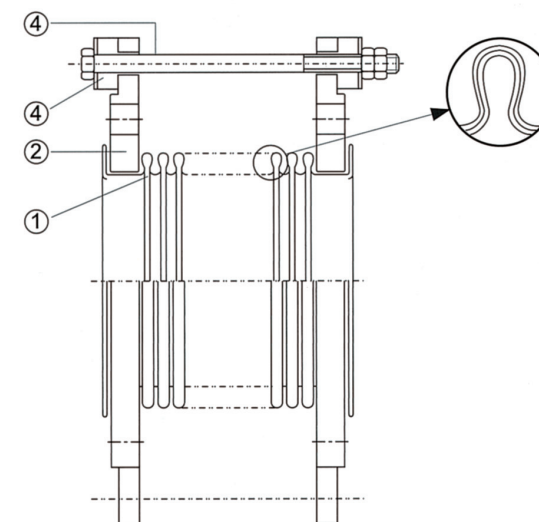
DIMENSION [mm]

ITEM NO.	SIZE I.D.	L	D ϕ	F ϕ	Allowable Movements in Operation			
					Axial Compression	Axial Elongation	Transverse Movement	Angular Deflection
MMS-101	1"	95	25	60	8 mm	4 mm	8 mm	15°
MMS-101Q	1-1/4"	95	40	69	8	4	8	15°
MMS-101H	1-1/2"	95	40	69	8	4	8	15°
MMS-102	2"	105	52	86	8	5	8	15°
MMS-102H	2-1/2"	115	68	106	12	6	10	15°
MMS-103	3"	130	76	116	12	6	10	15°
MMS-104	4"	135	103	150	18	10	12	15°
MMS-105	5"	170	128	180	18	10	12	15°
MMS-106	6"	180	152	209	18	10	12	15°
MMS-108	8"	205	194	260	25	14	22	15°
MMS-110	10"	240	250	320	25	14	22	15°
MMS-112	12"	260	300	367	25	14	22	15°
MMS-114	14"	265	320	408	25	16	22	15°
MMS-116	16"	265	372	472	25	16	22	15°
MMS-118	18"	265	415	522	25	16	22	15°
MMS-120	20"	265	454	570	25	16	22	15°
MMS-124	24"	254	580	690	19	13	19	15°
MMS-128	28"	254	680	800	19	13	19	15°

STAINLESS STEEL EXPANSION JOINT

JF500/500H SIZE:2"~12"

JF500T SIZE: $\frac{1}{2}$ "~2"



CONSTRUCTION

ITEM	PAPTS	MATERIAL	PRMARK
1	BELLOWS	SUS304	SUS316 (OPTION)
2	FLANGE	FCD-40	SUS304 (OPTION)
3	TIE RODS	S25C	
4	GASKET	RUBBER	
5	BRAIDS	SUS304	
6	TUBE END	SUS304	PT. OR NPT

JF-500 [SPECIFICATION]

TYPE	Nominal Bore		Total Length		Bellows		Max offset	Working pressure	
	Ins	mm	Ins	mm	O.D.	Corr's No.		PSI	kg/cm ²
JF500T	$\frac{1}{2}$	15	10	250	30.5		20	300	20
JF500T	$\frac{3}{4}$	20	10	250	30.5		20	300	20
JF500T	1	25	10	250	38		20	300	20
JF500T	1 $\frac{1}{4}$	32	10	250	46		18	300	20
JF500T	1 $\frac{1}{2}$	40	12	300	56		16	300	20
JF500T	2	50	12	300	70		15	300	20
JF500H			6	150		20		300	20
JF500	2 $\frac{1}{2}$	65	6	150	86.5	19	14	150	10
JF500H						17		300	20
JF500	3	80	6	150	101.5	18	12	150	10
JF500H						16		300	20
JF500	4	100	6	150	128	14	10	150	10
JF500H								300	20
JF500	5	125	6	150	156.5	12	8	150	10
JF500H								300	20
JF500	6	150	6	150	183.5	11	6	150	10
JF500H								300	20
JF500	8	200	8	200	234	15	8	150	10
JF500H								300	20
JF500	10	250	8	200	289	13	6	150	10
JF500H								300	20
JF500	12	300	8	200	341	12	5	150	10
JF500H								300	20

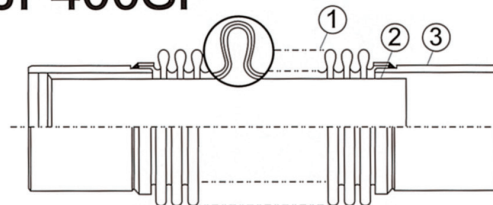


STAINLESS STEEL EXPANSION JOINT

JF-400 EXPANSION JOINT

JF-400 Expansion Joint is made by SUS321 material, multiplies bellows. When used in high temperature and high pressure fluid, it can make a long service life in piping system.

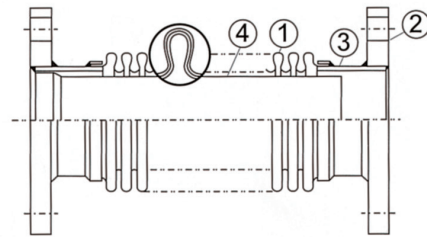
JF400SP



CONSTRUCTION

ITEM	PAPTS	MATERIAL	PRMARK
1	BELLOWS	SUS321	SUS304/316
2	FLANGE	SS-41	SUS304 (OPTION)
3	TUBE END	STPG-38	SUS304 (OPTION)
4	INTERNAL SLEEVE	SUS304	
※	TIE RODS	S25C	

JF400



※ JF400 SG (WITH TIE RODS)

※ Flange with ANSI, JIS, DIN, BS. Standard

JF-400 (SPECIFICATION)

Nominal Bore		Total Length	Bellows			Force To	Effective	Axial Movement		Working pressure
mm	Ins	mm	O.D.	Corr's No.	Ply	kg	cm ²	mm		kg/cm ²
40	1 1/2	350	58	32	2	75	17.6	+10	-40	25
50	2	350	76	24	2	110	30.4	+10	-40	25
65	2 1/2	350	92	20	2	261	43.8	+10	-40	25
80	3	350	106	20	2	205	62.8	+10	-40	25
100	4	350	133	16	2	303	107.7	+10	-40	25
125	5	350	163	15	2	630	162.9	+10	-40	25
150	6	350	190	14	2	1154	227.5	+10	-40	25
200	8	350	252	13	3	1905	385.3	+10	-40	25
250	10	350	315	12	3	1932	670.1	+10	-40	25
300	12	350	366	12	3	2353	923.5	+10	-40	25
350	14	350	395.9	11	2	1096	1102	+10	-40	10
350	14	350	398.1	9	4	2192	1102	+10	-40	25
400	16	350	460.0	9	2	1345	1464	+10	-40	10
400	16	350	462.8	9	4	2689	1464	+10	-40	25
500	20	350	561.6	9	2	1661	2235	+10	-40	10
500	20	350	564.0	9	4	3322	2235	+10	-40	25
600	24	350	663.2	9	2	1978	3167	+10	-40	10
600	24	350	666.0	9	4	3956	3167	+10	-40	25

DIMENSION [mm]

ITEM NO.	SIZE I.D.	L	D ϕ	F ϕ	Allowable Movements in Operation			
					Axial Compression	Axial Elongation	Transverse Movement	Angular Deflection
MMS-201	1"	6"	25	60	1/2"	3/8"	1/2"	15°
MMS-201Q	1-1/4"	6"	40	69	1/2"	3/8"	1/2"	15°
MMS-201H	1-1/2"	6"	40	69	1/2"	3/8"	1/2"	15°
MMS-202	2"	6"	52	86	1/2"	3/8"	1/2"	15°
MMS-202H	2-1/2"	6"	68	106	1/2"	3/8"	1/2"	15°
MMS-203	3"	6"	76	116	1/2"	3/8"	1/2"	15°
MMS-204	4"	6"	103	150	5/8"	3/8"	1/2"	15°
MMS-205	5"	6"	128	180	5/8"	3/8"	1/2"	15°
MMS-206	6"	6"	152	209	5/8"	3/8"	1/2"	15°
MMS-208	8"	6"	194	260	5/8"	3/8"	1/2"	15°
MMS-210	10"	8"	250	320	5/8"	3/8"	1/2"	15°
MMS-212	12"	8"	300	367	3/4"	1/2"	3/4"	15°
MMS-214	14"	8"	320	408	3/4"	1/2"	3/4"	15°
MMS-216	16"	8"	372	472	3/4"	1/2"	3/4"	15°
MMS-218	18"	8"	415	522	3/4"	1/2"	3/4"	15°
MMS-220	20"	8"	454	570	3/4"	1/2"	3/4"	15°
MMS-224	24"	10"	580	690	3/4"	1/2"	3/4"	15°
MMS-228	28"	10"	680	800	3/4"	1/2"	3/4"	15°

ITEM NO.	SIZE I.D.	L	D ϕ	F ϕ	Allowable Movements in Operation			
					Axial Compression	Axial Elongation	Transverse Movement	Angular Deflection
MMS-301	1"	130	25	60	12	9	12	15°
MMS-301Q	1-1/4"	130	40	69	12	9	12	15°
MMS-301H	1-1/2"	130	40	69	12	9	12	15°
MMS-302	2"	130	52	86	12	9	12	15°
MMS-302H	2-1/2"	130	68	106	12	9	12	15°
MMS-303	3"	130	76	116	12	9	12	15°
MMS-304	4"	130	103	150	14	9	14	15°
MMS-305	5"	130	128	180	14	9	14	15°
MMS-306	6"	130	152	209	14	9	14	15°
MMS-308	8"	130	194	260	14	9	14	15°
MMS-310	10"	130	250	320	14	9	14	15°
MMS-312	12"	130	300	367	16	9	16	15°

OPERATING CONDITIONS

MMS

(1"-12") (14"-28")

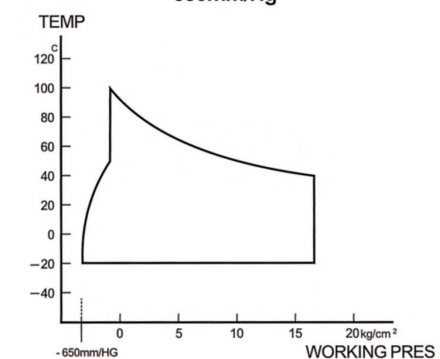
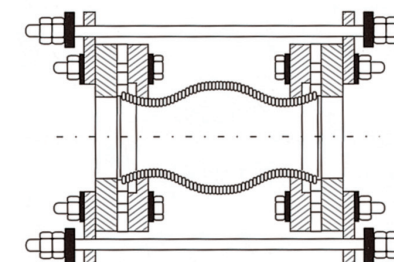
- Operating Pressure
- Burst Pressure
- Vacuum Rating
- Temperature

16 kg/cm²
60 kg/cm²
650mm/Hg

MMSH

(1"-12") (14"-28")

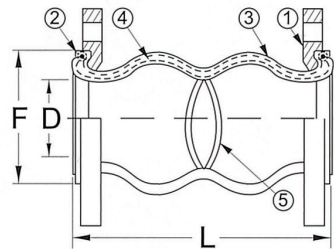
25 kg/cm²
75 kg/cm²
650mm/Hg





MMT SERIES

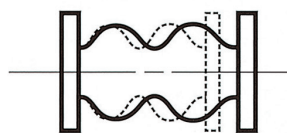
TWIN-SPHERE CONNECTORS With Floating Flanges



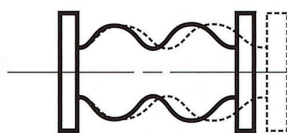
SYMBOL	PART	ENGINEERING MATERIAL
1	FLANGES	SS41(CHANGEABLE)
2	WIRE	CARBON STEEL WIRES STRAND
3	ELASTOMER	SPECIAL SYNTHETIC RUBBER
4	REINFORCING FABRIC	SYNTHETIC FIBER
5	VACUUM RING	SUS 304

ALLOWABLE MOVEMENTS

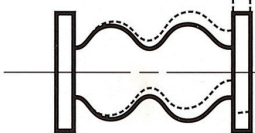
1.AXIAL COMPRESSION



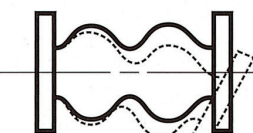
2.AXIAL ELONGATION



3.TRANVERSE MOVEMENT



4.ANGULAR DEFLECTION



DIMENSION (mm)

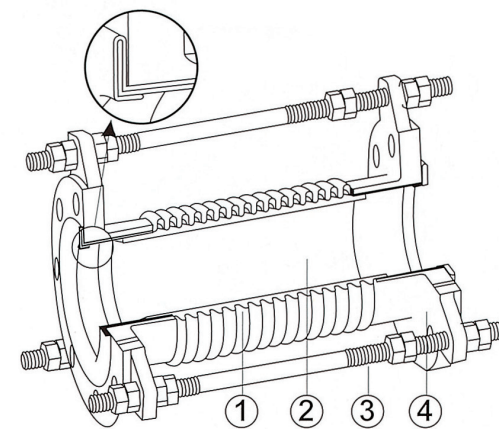
ITEM NO.	SIZE I.D.	L	D \varnothing	F \varnothing	Allowable Movements in Operation			
					Axial Compression	Axial Elongation	Transverse Movement	Angular Deflection
MMT-101H	1-1/2"	175	40	69	50	30	45	35°
MMT-102	2"	175	52	86	50	30	45	35°
MMT-102H	2-1/2"	175	68	106	50	30	45	35°
MMT-103	3"	175	76	116	50	35	45	35°
MMT-104	4"	225	103	150	50	35	40	35°
MMT-105	5"	225	128	180	50	35	40	35°
MMT-106	6"	225	152	209	50	35	40	35°
MMT-108	8"	325	194	260	60	35	35	30°
MMT-110	10"	325	250	320	60	35	35	30°
MMT-112	12"	325	300	367	60	35	35	30°
MMT-114	14"	350	320	408	40	30	30	20°
MMT-116	16"	350	372	472	40	30	30	20°
MMT-118	18"	350	415	522	40	30	30	20°
MMT-120	20"	350	454	570	40	30	30	20°
MMT-124	24"	350	580	690	40	30	30	20°

DIMENSION (mm)

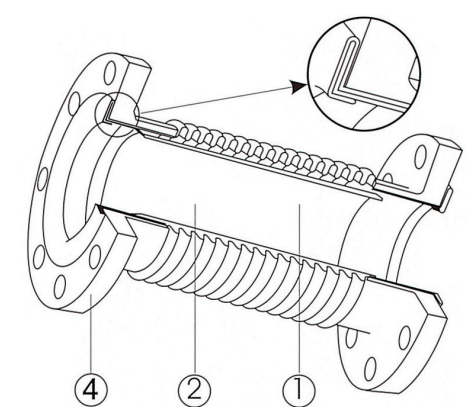
ITEM NO.	SIZE I.D.	L	D \varnothing	F \varnothing	Allowable Movements in Operation			
					Axial Compression	Axial Elongation	Transverse Movement	Angular Deflection
MMT-201H	1-1/2"	7"	40	69	50	30	45	35°
MMT-201	2"	7"	52	86	50	30	45	35°
MMT-202H	2-1/2"	7"	68	106	50	30	45	35°
MMT-203	3"	7"	76	116	50	35	45	35°
MMT-204	4"	9"	103	150	50	35	40	35°
MMT-205	5"	9"	128	180	50	35	40	30°
MMT-206	6"	9"	152	209	50	35	40	30°
MMT-208	8"	13"	194	260	60	35	35	30°
MMT-210	10"	13"	250	320	60	35	35	30°
MMT-212	12"	13"	300	367	60	35	35	20°

STAINLESS STEEL EXPANSION JOINT

JF-150 With internal Sleeve



JF-150 SG With internal Sleeve And Tie Rods.



Item	Parts Name	Naterial	Option
1	Bellows	SUS-304	SUS-316
2	Internal Sleeve	SUS304	SUS-316
3	Tie Rods	S25C	SUS-304
4	Flange	FCD-40	SUS-304/SUS-316

150SG	150S

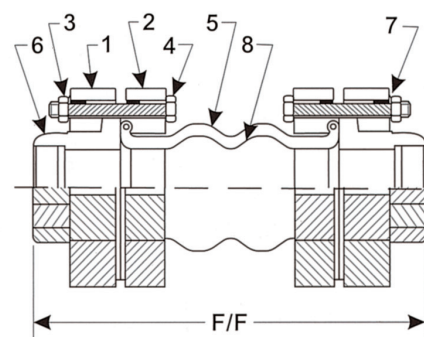
JF-150 [SPECIFICATION] Working pressure :10kg/cm² (150PSI)

Nominal Bore		Total Length	Bellows		Axial movement		Force to compress	Effective Area
mm	Ins		mm	O.D.	Corr's No.	mm		
40	1-1/2	300	60	32	+10	-40	150	22.2
50	2	300	78	24	+10	-40	180	34.5
65	2-1/2	300	92	20	+10	-40	280	52.5
80	3	300	108	20	+10	-40	260	71.2
100	4	300	132	16	+10	-40	280	110.5
125	5	300	163	15	+10	-40	400	168.7
150	6	300	190	14	+10	-40	530	233.9
200	8	300	243	13	+10	-40	650	389.1
250	10	300	295	12	+10	-40	750	592.2
300	12	300	345	12	+10	-40	850	829.7

* "+"Means: Extended "-"Means: Compressed



MMTU THREADED UNION



MATERIALS

Part	Part Description	Material
1	Flanges	Ductile Iron
2	Flanges	Ductile Iron
3	Nuts	Zinc Plated Carbon Steel
4	Nuts	Zinc Plated Carbon Steel
5	Tube	Synthetic Rubber
6	Threaded Union	Ductile Iron
7	Bolts	Zinc Plated Carbon Steel
8	Reinforcing Cord/Wire	Synthetic Fiber/Mild Steel

Dimension and Allowable Movements(MM)

Nominal Size	F/F Dimension	Allowable Movements In Operation			
		T.M.	A.F.	A.C.	A.M.
1/2"	180	15	10	15	15°
3/4"	180	15	10	15	15°
1"	180	15	10	15	15°
1-1/4"	245	20	10	15	15°
1-1/2"	245	20	10	15	15°
2"	255	20	10	15	15°

T.M.=Transverse Movement A.E.=Axial Elongation A.C.=Axial Compression A.M.=Angular Movement

Operating Conditions:

- *Operating Pressure: 10Kg pumps
- *Normal Operation Temp: -10° to 70°C
- *Vacuum Rating: 26"Hg
- *Burst Pressure: 50Kg

Features of MMTU:

- *Efficient noise and vibration isolation.
- *Ability to absorb large displacement due to eccentric, axial, and angular movement.
- *Applicable for both suction and discharge.
- *Easy installation

Application:

- *Vibration isolation for small pump and circular
- *Sewage disposal purifier line
- *Vibration isolation for air-condition and pipes

OPERATING CONDITIONS

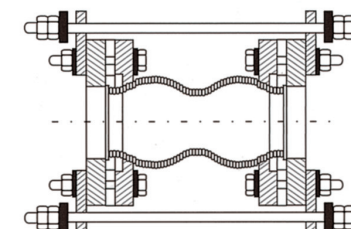
- Operating Pressure
- Burst Pressure
- Vacuum Rating
- Temperature

MMT

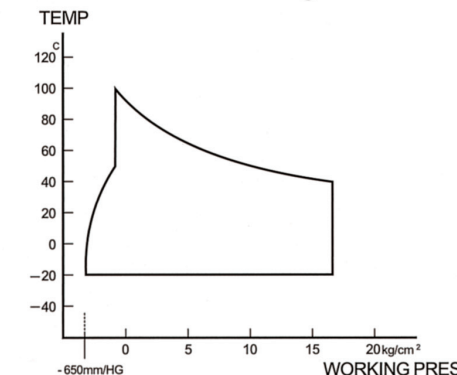
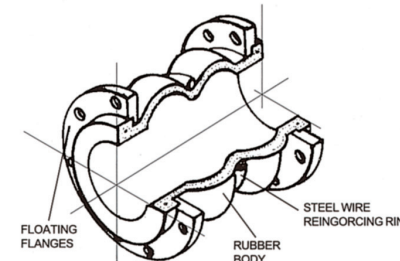
(1-1/2" -12")	(14" -24")
16 kg/cm ²	8 kg/cm ²
60 kg/cm ²	24 kg/cm ²
650 mm/Hg	

MMTH

(1~12")	(14" -24")
25 kg/cm ²	16 kg/cm ²
75 kg/cm ²	48 kg/cm ²
650 mm/Hg	



MMT WITH ROOT RING



ROOT RING MUST BE INSTALLED WHEN PRESSURE(TEST SURGE. OPERATING) EXCEEDS THE RATING BELOW:

5"	(125MM) THRU	10" (250MM) - 135 PSIG
12"	(300MM) THRU	14" (350MM) - 91 PSIG
16"	(400MM) THRU	24" (600MM) - 45 PSIG

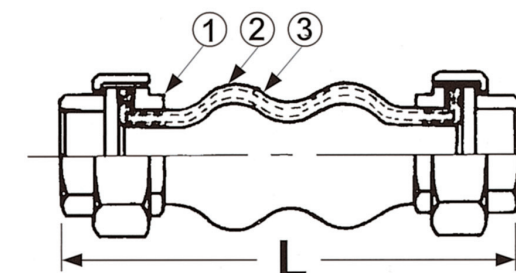
MMU SERIES

TWIN-SPHERE CONNECTORS

With Union Threads

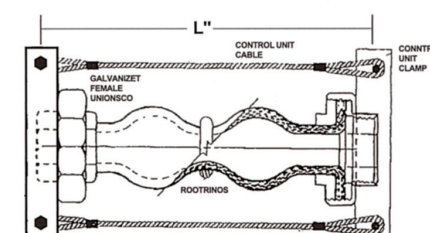
SYMBOL	PART	ENGINEERING MATERIAL
1	UNION	Fb32
2	REINFORCING CLOTH	NYLON FABRIC
3	ELASTOMER	SYNTHETIC RUBBER

STANDARD ITEM EMPLOYS BS UNION. MAY BE REPLACED WITH ANSI, DIN, AND OTHER STANDARD.



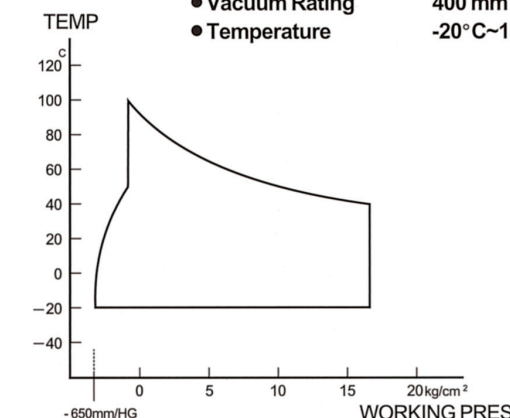
DIMENSION [mm]

SIZE I.D.	L	Allowable Movements In Operation			
		Axial compression	Axial elongation	Transverse movement	Angular deflection
15(1/2")	203mm	22mm	6mm	22mm	30°
20(3/4")	203	22	6	22	30°
25(1")	203	22	6	22	25°
32(1-1/4")	203	22	6	22	25°
40(1-1/2")	203	22	6	22	20°
50(2")	203	22	6	22	15°
65(2-1/2")	225	22	6	22	12°
80(3")	225	22	6	22	10°



OPERATING CONDITIONS

- Operating Pressure 10 kg/cm²
- Burst Pressure 50 kg/cm²
- Vacuum Rating 400 mm HG
- Temperature -20°C~100°C





WIDE-ARCH EXPANSION JOINT



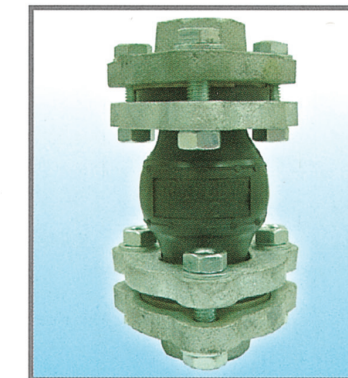
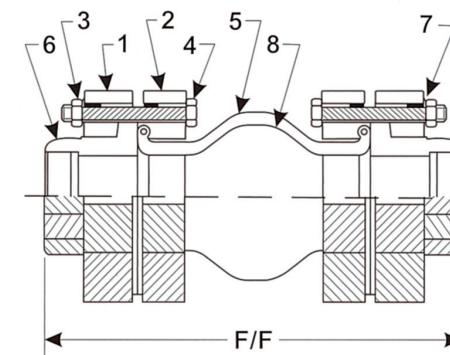
- Mold Wide Arch Design
- Greater Motion Capability From Wilder Arch
- Loss Force To Compress
- ASA150LB, DIN PN16 Flange Drilling
- Standard Face To Face Dimension
- Vacuum 26"Hg

ITEM	SIZE (IN)	F/F (IN)	PRESSURE P.S.I.G	MOVEMENT CAPACITY			
				AXIAL		DEFLECTION	
				COMP	ELONG	LATERAL	ANGULAR
MMS-602	2	6	250	1-3/4	3/4	3/4	35
MMS-602H	2-1/2	6	250	1-3/4	3/4	3/4	30
MMS-603	3	6	250	1-3/4	3/4	3/4	30
MMS-604	4	6	250	1-3/4	3/4	3/4	25
MMS-605	5	6	250	1-3/4	3/4	3/4	25
MMS-606	6	6	250	1-3/4	3/4	1	20
MMS-608	8	6	250	1-3/4	3/4	1	20
MMS-610	10	8	250	1-3/4	3/4	1	25
MMS-612	12	8	250	1-3/4	3/4	1	25
MMS-614	14	8	250	1-3/4	3/4	1	25
MMS-616	16	8	250	1-3/4	3/4	1	25

APPLICATION:

- Control pipe movements and stress
- Reduce system noise
- Isolate mechanical vibration
- Compensate alignment/offset
- Eliminate electrolysis
- Protect against start-up surge force
- Absorption machine
- Chiller
- Cooling towers
- Compressors
- Blowers
- Fan

MMSU THREADED UNION



MATERIALS

Part	Part Description	Material
1	Flanges	Ductile Iron
2	Flanges	Ductile Iron
3	Nuts	Zinc Plated Carbon Steel
4	Nuts	Zinc Plated Carbon Steel
5	Tube	Synthetic Rubber
6	Threaded Union	Ductile Iron
7	Bolts	Zinc Plated Carbon Steel
8	Reinforcing Cord/Wire	Synthetic Fiber/Mild Steel

Dimension and Allowable Movements(MM)

Nominal Size	F/F Dimension	Allowable Movements In Operation			
		T.M.	A.E.	A.C.	A.M.
1/2"	155	8	4	8	15°
3/4"	155	8	4	8	15°
1"	155	8	4	8	15°
1-1/4"	165	8	4	8	15°
1-1/2"	165	8	4	8	15°
2"	185	8	4	8	15°

T.M.=Transverse Movement A.E.=Axial Elongation A.C.=Axial Compression A.M.=Angular Movement

Operating Conditions:

- *Operating Pressure: 10Kg pumps
- *Normal Operation Temp: -10° to 70°C
- *Vacuum Rating: 26"Hg
- *Burst Pressure: 50Kg

Features of MMSU:

- *Efficient noise and vibration isolation.
- *Ability to absorb large displacement due to eccentric, axial, and angular movement.
- *Applicable for both suction and discharge.

Application:

- *Vibration isolation for small pump and circular
- *Sewage disposal purifier line
- *Vibration isolation for air-condition and pipes