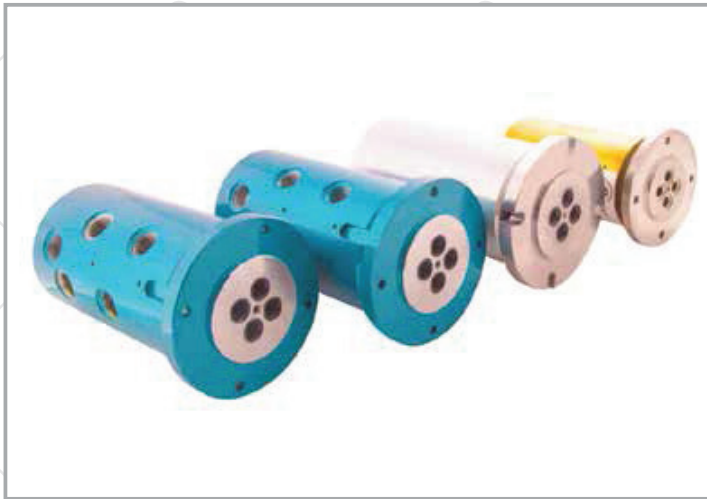


M SERIES MULTIPOINT JOINTS



WATER, AIR, HYDRAULIC OIL, CHEMICAL, GAS (non-inflammable)

- Multi passage design
- Self supported design
- Dynamic carbon teflon sealing
- Special sealing parts for different fluids
- Flanged shaft
- Hardened sealing surface
- Brass body for water
- Aluminium body for air,
- Carbon steel body for hydraulic oil
- Custom connections types are available

*** Please ask to our sales team for custom models, dimensions and connections.

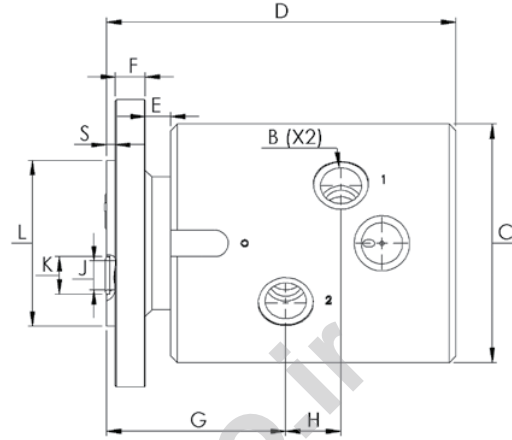
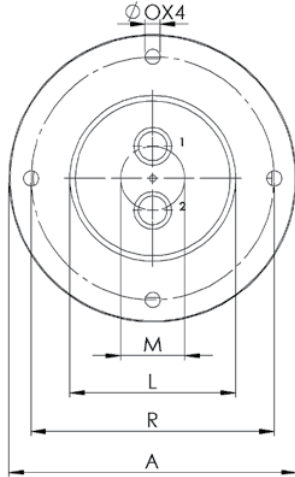
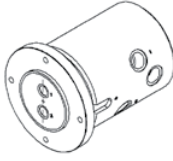
Working Conditions

Max. Air Pressure	: 10 bar	150 psi
Max. Vacuum Pressure	: 6,7 KpA	2" Hg
Max. Hydraulic Pressure	: 200 bar	2900 psi (10 rpm)
Max. Hydraulic Pressure	: 60 bar	870 psi (250 rpm)
Max. Speed	: 250 rpm	250 min ⁻¹
Max. Temperature	: 120 °C	250 °F

** Do not use max. speed and max. pressure at the same time!



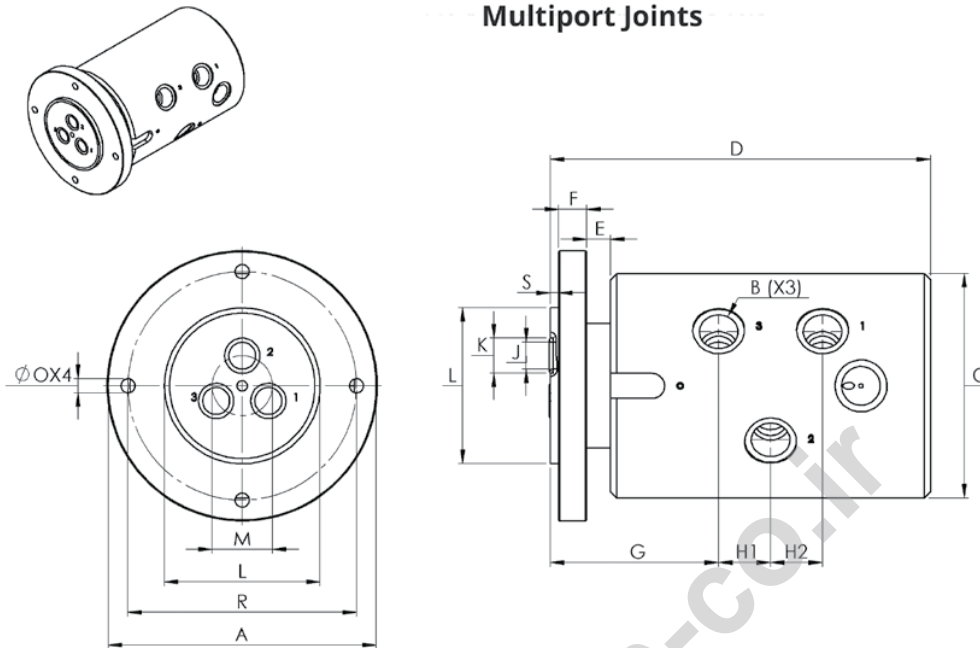
M Series 2 x 1/4" (DN08) - 2 x 3/4" (DN20) Multiport Joints



M SERIES MULTIPORT (2 PORTS)

	B Inlet		Thread	Code	A(Ø)	C(Ø)	D	E	F	G	H	J(Ø)	K(Ø)	L(Ø)	M (Ø)	NxO (Ø)	R(Ø)	S	Kg
Carbon Steel Body & Shaft	2x1/4"	2xDN08	NPT	M-12084-000	95	78	140	14	10,50	66	15	6	10	50	22	4x7	80	4	5,30
			BSP	M-12085-000															
	2x3/8"	2xDN10	NPT	M-12104-000	110	88	144	14	10,50	76	20	10	14	60	24,40	4x7	90	4	5,75
			BSP	M-12105-000															
2x1/2"	2xDN15	NPT	M-12154-000	129	108	158	11,50	13,50	81	25	13	17	75	29	4x7	110	4	9,70	
		BSP	M-12155-000																
2x3/4"	2xDN20	NPT	M-12204-000	135	135	172	25	15	110	45	18	26	70	38	4x7	108	5	16,80	
		BSP	M-12205-000																
Stainless Steel Body & Shaft	2x1/4"	2xDN08	NPT	M-22084-000	95	78	140	14	10,50	66	15	6	10	50	22	4x7	80	4	5,40
			BSP	M-22085-000															
	2x3/8"	2xDN10	NPT	M-22104-000	110	88	144	14	10,50	76	20	10	14	60	24,40	4x7	90	4	5,85
			BSP	M-22105-000															
2x1/2"	2xDN15	NPT	M-22154-000	129	108	158	11,50	13,50	81	25	13	17	75	29	4x7	110	4	9,85	
		BSP	M-22155-000																
2x3/4"	2xDN20	NPT	M-22204-000	135	135	172	25	15	110	45	18	26	70	38	4x7	108	5	17,00	
		BSP	M-22205-000																
Aluminium Body & Steel Shaft	2x1/4"	2xDN08	NPT	M-32084-000	95	78	140	14	10,50	66	15	6	10	50	22	4x7	80	4	3,40
			BSP	M-32085-000															
	2x3/8"	2xDN10	NPT	M-32104-000	110	88	144	14	10,50	76	20	10	14	60	24,40	4x7	90	4	3,70
			BSP	M-32105-000															
2x1/2"	2xDN15	NPT	M-32154-000	129	108	158	11,50	13,50	81	25	13	17	75	29	4x7	110	4	6,20	
		BSP	M-32155-000																
2x3/4"	2xDN20	NPT	M-32204-000	135	135	172	25	15	110	45	18	26	70	38	4x7	108	5	10,50	
		BSP	M-32205-000																
Brass Body & Steel Shaft	2x1/4"	2xDN08	NPT	M-42084-000	95	78	140	14	10,50	66	15	6	10	50	22	4x7	80	4	5,80
			BSP	M-42085-000															
	2x3/8"	2xDN10	NPT	M-42104-000	110	88	144	14	10,50	76	20	10	14	60	24,40	4x7	90	4	6,20
			BSP	M-42105-000															
2x1/2"	2xDN15	NPT	M-42154-000	129	108	158	11,50	13,50	81	25	13	17	75	29	4x7	110	4	10,20	
		BSP	M-42155-000																
2x3/4"	2xDN20	NPT	M-42204-000	135	135	172	25	15	110	45	18	26	70	38	4x7	108	5	17,20	
		BSP	M-42205-000																

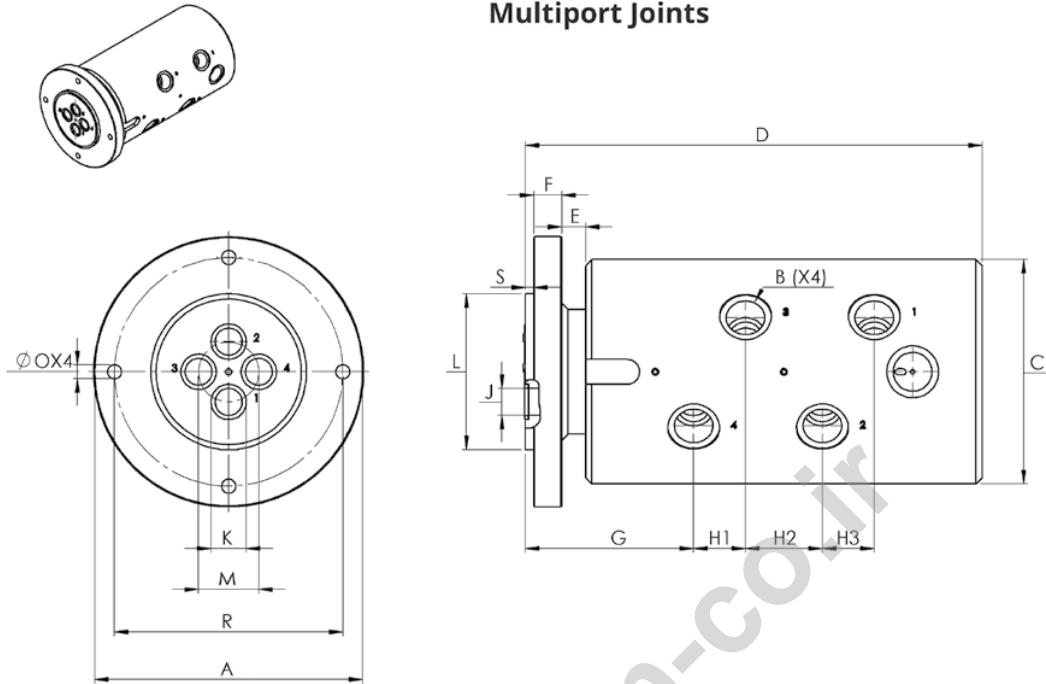
M Series 3 x 1/4" (DN08) - 3 x 3/4" (DN20) Multiport Joints



M SERIES MULTIPORT (3 PORTS)

	B Inlet		Thread	Code	A (Ø)	C(Ø)	D	E	F	G	H1	H2	J(Ø)	K(Ø)	L(Ø)	M (Ø)	NxO (Ø)	R(Ø)	S	Kg
Carbon Steel Body & Shaft	3x1/4"	3xDN08	NPT	M-13084-000	95	78	145	14	10,50	66	15	22	6	10	50	22	4x7	80	4	5,90
			BSP	M-13085-000																
	3x3/8"	3xDN10	NPT	M-13104-000	110	88	163	14	10,50	76	20	20	10	14	60	24,40	4x7	90	4	6,50
			BSP	M-13105-000																
3x1/2"	3xDN15	NPT	M-13154-000	129	108	183	11,50	13,50	81	25	25	13	17	75	29	4x7	110	4	11,50	
		BSP	M-13155-000																	
3x3/4"	3xDN20	NPT	M-13204-000	135	135	189	25	15	110	45	45	18	26	70	38	4x7	108	5	22,30	
		BSP	M-13205-000																	
Stainless Steel Body & Shaft	3x1/4"	3xDN08	NPT	M-23084-000	95	78	145	14	10,50	66	15	22	6	10	50	22	4x7	80	4	6,00
			BSP	M-23085-000																
	3x3/8"	3xDN10	NPT	M-23104-000	110	88	163	14	10,50	76	20	20	10	14	60	24,40	4x7	90	4	6,60
			BSP	M-23105-000																
3x1/2"	3xDN15	NPT	M-23154-000	129	108	183	11,50	13,50	81	25	25	13	17	75	29	4x7	110	4	11,30	
		BSP	M-23155-000																	
3x3/4"	3xDN20	NPT	M-23204-000	135	135	189	25	15	110	45	45	18	26	70	38	4x7	108	5	21,95	
		BSP	M-23205-000																	
Aluminium Body & Steel Shaft	3x1/4"	3xDN08	NPT	M-33084-000	95	78	145	14	10,50	66	15	22	6	10	50	22	4x7	80	4	3,80
			BSP	M-33085-000																
	3x3/8"	3xDN10	NPT	M-33104-000	110	88	163	14	10,50	76	20	20	10	14	60	24,40	4x7	90	4	4,00
			BSP	M-33105-000																
3x1/2"	3xDN15	NPT	M-33154-000	129	108	183	11,50	13,50	81	25	25	13	17	75	29	4x7	110	4	6,80	
		BSP	M-33155-000																	
3x3/4"	3xDN20	NPT	M-33204-000	135	135	189	25	15	110	45	45	18	26	70	38	4x7	108	5	14,20	
		BSP	M-33205-000																	
Brass Body & Steel Shaft	3x1/4"	3xDN08	NPT	M-43084-000	95	78	145	14	10,50	66	15	22	6	10	50	22	4x7	80	4	6,20
			BSP	M-43085-000																
	3x3/8"	3xDN10	NPT	M-43104-000	110	88	163	14	10,50	76	20	20	10	14	60	24,40	4x7	90	4	6,90
			BSP	M-43105-000																
3x1/2"	3xDN15	NPT	M-43154-000	129	108	183	11,50	13,50	81	25	25	13	17	75	29	4x7	110	4	11,70	
		BSP	M-43155-000																	
3x3/4"	3xDN20	NPT	M-43204-000	135	135	189	25	15	110	45	45	18	26	70	38	4x7	108	5	26,30	
		BSP	M-43205-000																	

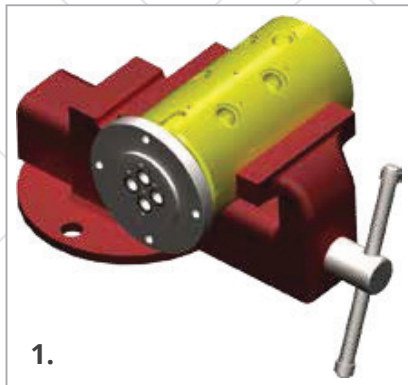
M Series 4 x 1/4" (DN08) - 4 x 3/4" (DN20) Multiport Joints



M SERIES MULTIPORT (4 PORTS)

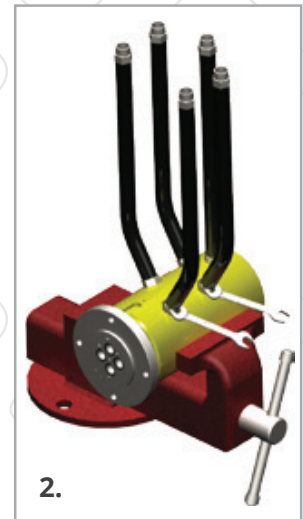
	B Inlet		Thread	Code	A (Ø)	C (Ø)	D	E	F	G	H1	H2	H3	J(Ø)	K (Ø)	L (Ø)	M (Ø)	NxO (Ø)	R (Ø)	S	Kg
Carbon Steel Body & Shaft	4x1/4"	4xDN08	NPT	M-14084-000	95	78	150	14	10,50	66	15	22	15	6	10	50	22	4x7	80	4	7,25
			BSP	M-14085-000																	
	4x3/8"	4xDN10	NPT	M-14104-000	110	88	195	14	10,50	76	20	32	20	10	14	60	24,40	4x7	90	4	7,75
			BSP	M-14105-000																	
4x1/2"	4xDN15	NPT	M-14154-000	129	108	220	11,50	13,50	81	25	37	25	13	17	75	29	4x7	110	4	13,40	
		BSP	M-14155-000																		
4x3/4"	4xDN20	NPT	M-14204-000	135	135	308	25	15	110	45	45	45	18	26	70	38	4x7	108	5	26,75	
		BSP	M-14205-000																		
Stainless Steel Body & Shaft	4x1/4"	4xDN08	NPT	M-24084-000	95	78	150	14	10,50	66	15	22	15	6	10	50	22	4x7	80	4	7,10
			BSP	M-24085-000																	
	4x3/8"	4xDN10	NPT	M-24104-000	110	88	195	14	10,50	76	20	32	20	10	14	60	24,40	4x7	90	4	7,90
			BSP	M-24105-000																	
4x1/2"	4xDN15	NPT	M-24154-000	129	108	220	11,50	13,50	81	25	37	25	13	17	75	29	4x7	110	4	13,60	
		BSP	M-24155-000																		
4x3/4"	4xDN20	NPT	M-24204-000	135	135	308	25	15	110	45	45	45	18	26	70	38	4x7	108	5	27,15	
		BSP	M-24205-000																		
Aluminium Body & Steel Shaft	4x1/4"	4xDN08	NPT	M-34084-000	95	78	150	14	10,50	66	15	22	15	6	10	50	22	4x7	80	4	4,45
			BSP	M-34085-000																	
	4x3/8"	4xDN10	NPT	M-34104-000	110	88	195	14	10,50	76	20	32	20	10	14	60	24,40	4x7	90	4	4,60
			BSP	M-34105-000																	
4x1/2"	4xDN15	NPT	M-34154-000	129	108	220	11,50	13,50	81	25	37	25	13	17	75	29	4x7	110	4	7,85	
		BSP	M-34155-000																		
4x3/4"	4xDN20	NPT	M-34204-000	135	135	308	25	15	110	45	45	45	18	26	70	38	4x7	108	5	15,90	
		BSP	M-34205-000																		
Brass Body & Steel Shaft	4x1/4"	4xDN08	NPT	M-44084-000	95	78	150	14	10,50	66	15	22	15	6	10	50	22	4x7	80	4	7,95
			BSP	M-44085-000																	
	4x3/8"	4xDN10	NPT	M-44104-000	110	88	195	14	10,50	76	20	32	20	10	14	60	24,40	4x7	90	4	8,20
			BSP	M-44105-000																	
4x1/2"	4xDN15	NPT	M-44154-000	129	108	220	11,50	13,50	81	25	37	25	13	17	75	29	4x7	110	4	14,10	
		BSP	M-44155-000																		
4x3/4"	4xDN20	NPT	M-44204-000	135	135	308	25	15	110	45	45	45	18	26	70	38	4x7	108	5	28,25	
		BSP	M-44205-000																		

M SERIES MULTIPOINT JOINTS INSTALLATION INSTRUCTION



1.

1. First hold the rear of the joint with a bench vise.
2. Assemble the inlet and outlet hoses.
3. Clean the multiport joint flange face and machine mounting surface before assembling. Pay attention not to leave any dirt, burr, etc.
4. Multiport joint flange pilot bore must be concentric to the centerline of the machine mounting bore.



2.

5. Install o-rings onto the grooves of the shaft flange. Grease can be used to fix the o-rings in the grooves.
6. Be sure that the multiport joint flange pilot bore and flow channels are aligned with the channels on the machine when assembling. Fix the shaft flange to the machine with appropriate bolts.



6.

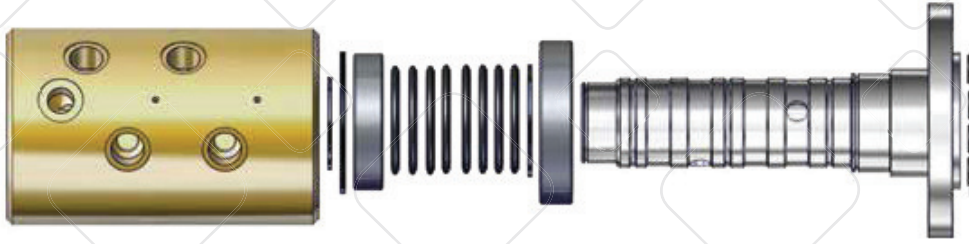
7. Connect supply and return lines to the hoses. Control the flexibility of the hoses. Be sure that the hoses are flexible and will be flexible under the pressure and temperature of the medium. Never install the joint directly to the supply and return pipes.
8. After assembling, check if running is smooth. If not, disassemble the joint from the machine and assemble it again.



7.

M SERIES MULTIPOINT JOINTS HOSE INSTALLATION

1. Do not anchor multiport joint. Multiport joints are designed to float with the flexible hoses.
2. Do not pipe directly. Always use flexible hoses.
3. For air and hydraulic use rubber or steel flexible hoses.
4. Install hose with curve in direction of rotation.
5. Flexible hoses must not be twisted during operation. Twisted hoses lose flexibility. Use pipe fittings for proper installation.
6. If multiport joint and pipe axis are not on the same axis, hose must be installed with a smooth curve.



M SERIES MULTIPOINT JOINT DISASSEMBLY AND MAINTENANCE INSTRUCTIONS

1. Close inlet valves and wait for all the medium in the system to be drained completely.
2. First of all, disconnect the inlet hoses from the pipe or valve without applying force on the housing.
3. Disassemble bolts that connects the flange of the shaft to the machine and take out the multipoint joint.
4. Hold the rear of the multipoint joint with a bench vise.
5. Disconnect the inlet hoses from the multipoint joints.
6. Place the multipoint joints on to the flange of the shaft and take out the bottom internal and bottom external retaining ring.
7. With an appropriate tool, take out the shaft from the housing slightly.
8. Take out bottom ball bearing from the housing.
9. Be careful not to damage the internal of housing while taking out the o-rings and back-ups from the channels inside the housing.
10. Disassemble the front internal retaining ring and take out the front ball bearing.
11. Inspect the shaft and the bearings. If they show excessive wear, than change them with the new ones.
12. Clean the internal part of the housing with a clean material. Pay attention not to leave any dirt, burr, etc. inside the housing. If they show excessive wear or corrosion, than replace them with the new ones.
13. Place new o-rings inside the channels of the housing.
14. Lubricate back-ups with the system oil and place them inside the channels under the o-rings.
15. Lubricate the internal of the housing.
16. Place the front ball bearing on the shaft and assemble the external retaining ring.
17. Place the shaft inside the housing carefully.
18. Push while rotating the shaft inside the housing and be careful not to damage the o-rings and back-ups when assembling the shaft inside the housing.
19. Push until the front bearing fit the socket of the housing and turn the joint upside down.
20. Place the bottom bearing between the housing and the shaft.
21. Assemble the bottom external retaining ring and then internal retaining ring.
22. Control the smoothness of the rotation by holding the housing and rotating the shaft. If there seems to be problem, disassemble the joint, control internal parts and assemble again.
23. Hold the rear of the housing with a bench vise and connect the inlet hoses.
24. Assemble the multipoint joint to the machine with appropriate bolts.
25. Now joint is ready to be placed back in service.