

## SLIP TYPE COUPLING (FLEXIBLE TYPE) - 2 LOCKS



Slip Type Coupling 2~4 Locks are composed of two, three, or four pieces of casing and a lock part at each end. They have better tightening capabilities and a wider coupling range. They are easy to install even on large diameter pipes. Slip Type Couplings have no axial resistance and function only to seal the space between pipes. Pipes should be fixed adequately to avoid fall-out caused by axial force. (3&4 locks on page 14)

### ■ MJD 13A~1000A / MJDL 15A~1000A

Item No.	Pipe OD			D (mm)	Coupling Range (mm)	Thick. (mm)	Working Pressure (bar)		MJD				MJDL			
	ND	inch	actual (mm)				Ship	Ind.	Length (mm)		Torque (Nm)	Bolt (M)	Length (mm)		Torque (Nm)	Bolt (M)
									L	l			L	l		
U2	13A		15.8	28.9	14.0 ~ 17.0	0.8	16	32	60	28	10	6	-	-	-	-
02	15A	1/2	20.0	33.1	19.5 ~ 21.3	0.8	16	32	60	28	10	6	100	68	10	6
01			21.7	34.8	21.0 ~ 23.0	0.8	16	32	60	28	10	6	100	68	10	6
05	20A	3/4	25.0	38.1	24.0 ~ 26.5	0.8	16	32	60	28	10	6	100	68	10	6
04			27.2	40.3	26.0 ~ 29.0	0.8	16	32	60	28	10	6	100	68	10	6
06	25A	1	28.2	41.3	26.4 ~ 29.5	0.8	16	32	60	28	10	6	100	68	10	6
08			30.0	43.1	29.0 ~ 31.5	0.8	16	32	60	28	10	6	100	68	10	6
09	32A	1 1/4	32.0	45.1	31.0 ~ 33.5	0.8	16	32	60	28	10	6	100	68	10	6
07			34.0	47.1	33.0 ~ 35.5	0.8	16	32	60	28	10	6	100	68	10	6
10	40A	1 1/2	38.0	51.1	37.0 ~ 39.5	0.8	16	32	60	28	10	6	100	68	10	6
13			40.0	54.0	39.5 ~ 41.8	0.8	16	32	60	28	10	6	100	68	10	6
11	50A	2	42.7	55.8	41.0 ~ 44.5	0.8	16	32	60	28	10	6	100	68	10	6
12			44.5	57.6	44.0 ~ 46.5	0.8	16	32	60	28	10	6	100	68	10	6
15	65A	2 1/2	48.6	61.7	47.5 ~ 50.5	0.8	16	32	60	28	10	6	100	68	10	6
17			50.8	63.9	48.6 ~ 51.5	0.8	16	32	60	28	10	6	100	68	10	6
18	80A	3	54.0	70.0	53.0 ~ 56.0	1.0	16	32	80	44	15	8	150	110	15	8
19			57.0	73.0	56.0 ~ 59.0	1.0	16	32	80	44	15	8	150	110	15	8
20	90A	3 1/2	60.5	76.5	59.0 ~ 62.0	1.0	16	32	80	44	15	8	150	110	15	8
21			63.0	79.0	62.0 ~ 65.0	1.0	16	32	80	44	15	8	150	110	15	8
26	100A	4	66.7	82.7	64.4 ~ 69.0	1.0	14	28	80	44	15	8	150	110	15	8
25			69.0	85.0	67.5 ~ 72.0	1.0	14	28	80	44	15	8	150	110	15	8
23	125A	5	73.0	89.0	71.5 ~ 76.5	1.0	14	28	80	44	15	8	150	110	15	8
24			76.3	92.3	75.0 ~ 79.0	1.0	14	28	80	44	15	8	150	110	15	8
30	100A	4	79.9	99.9	77.0 ~ 83.0	1.0	14	28	110	59	20	12	200	150	20	12
27			84.0	104.0	81.0 ~ 86.0	1.0	14	28	110	59	20	12	200	150	20	12
28	100A	4	89.1	109.1	86.0 ~ 92.0	1.0	14	28	110	59	20	12	200	150	20	12
32			101.6	121.6	100.0 ~ 104.0	1.0	14	28	110	59	20	12	200	150	20	12
34	100A	4	104.0	124.0	102.0 ~ 106.0	1.0	14	28	110	59	20	12	200	150	20	12
37			106.3	126.3	105.0 ~ 108.5	1.0	14	28	110	59	20	12	200	150	20	12
35	100A	4	108.0	128.0	106.0 ~ 110.0	1.0	14	28	110	59	20	12	200	150	20	12
38			110.0	130.0	108.5 ~ 113.5	1.0	14	28	110	59	20	12	200	150	20	12
36	100A	4	114.3	134.3	113.0 ~ 118.0	1.0	14	28	110	59	20	12	200	150	20	12
Q2			125.0	146.5	123.0 ~ 126.5	1.5	14	28	111	59	30	12	201	150	30	12
42	125A	5	127.0	148.5	125.0 ~ 129.5	1.5	14	28	111	59	30	12	201	150	30	12
43			129.0	150.5	127.5 ~ 131.0	1.5	14	28	111	59	30	12	201	150	30	12
S4	125A	5	130.2	151.7	128.2 ~ 132.7	1.5	14	28	111	59	30	12	201	150	30	12
39			133.0	154.5	131.0 ~ 135.5	1.5	14	28	111	59	30	12	201	150	30	12
40	125A	5	139.8	161.3	138.0 ~ 142.5	1.5	14	28	111	59	30	12	201	150	30	12
41			141.3	162.8	139.5 ~ 144.0	1.5	14	28	111	59	30	12	201	150	30	12

Item No.	Pipe OD			D (mm)	Coupling Range (mm)	Thick. (mm)	Working Pressure (bar)		MJD				MJD L			
	ND	inch	actual (mm)				Ship	Ind.	Length (mm)		Torque (Nm)	Bolt (M)	Length (mm)		Torque (Nm)	Bolt (M)
									L	l			L	l		
49	150A	6	150.0	171.5	146.8 ~ 152.5	1.5	12	24	111	59	30	12	201	150	30	12
44			154.0	175.5	151.5 ~ 156.0	1.5	12	24	111	59	30	12	201	150	30	12
45			159.0	180.5	156.0 ~ 161.0	1.5	12	24	111	59	30	12	201	150	30	12
46			<b>165.2</b>	186.7	164.0 ~ 168.5	1.5	12	24	111	59	30	12	201	150	30	12
47			168.3	189.8	166.0 ~ 170.5	1.5	12	24	111	59	30	12	201	150	30	12
Q6	175A	7	180.0	201.5	178.0 ~ 183.0	1.5	10	20	111	59	40	12	-	-	-	-
54	200A	8	200.0	224.5	198.0 ~ 203.5	2.0	8	16	150	89	55	14	250	158	55	16
55			204.0	228.5	202.0 ~ 206.5	2.0	8	16	150	89	55	14	250	158	55	16
51			<b>216.3</b>	240.8	214.0 ~ 219.0	2.0	8	16	150	89	55	14	250	158	55	16
52			219.1	243.6	216.5 ~ 222.0	2.0	8	16	150	89	55	14	250	158	55	16
59	250A	10	254.0	278.5	251.0 ~ 257.0	2.0	8	16	150	89	55	14	250	158	55	16
56			<b>267.4</b>	291.9	262.0 ~ 270.0	2.0	8	16	150	89	55	14	250	158	55	16
57			273.1	297.6	270.0 ~ 277.0	2.0	8	16	150	89	55	14	250	158	55	16
66	300A	12	304.0	328.5	301.5 ~ 309.0	2.0	7	14	150	89	85	14	250	158	85	16
61			<b>318.5</b>	343.0	316.0 ~ 323.0	2.0	7	14	150	89	85	14	250	158	85	16
64			323.9	348.4	322.0 ~ 329.0	2.0	7	14	150	89	85	14	250	158	85	16
67	350A	14	<b>355.6</b>	380.1	352.0 ~ 361.0	2.0	7	14	150	89	85	14	250	158	85	16
71	400A	16	<b>406.4</b>	430.9	402.0 ~ 411.0	2.0	6	12	150	89	85	14	250	158	85	16
74	450A	18	<b>457.2</b>	481.7	453.0 ~ 462.0	2.0	6	12	150	89	100	14	250	158	100	16
77	500A	20	<b>508.0</b>	532.5	504.0 ~ 513.0	2.0	5	10	150	89	100	14	250	158	100	16
80	550A	22	<b>558.8</b>	583.3	554.0 ~ 564.0	2.0	4.6	9.2	150	89	100	14	250	158	100	16
83	600A	24	<b>609.6</b>	634.1	605.0 ~ 615.0	2.0	4.2	8.4	150	89	100	14	250	158	100	16
86	650A	26	660.4	684.9	654.0 ~ 666.0	2.0	4.0	8.0	150	89	100	14	250	158	100	16
88	700A	28	711.2	735.7	705.0 ~ 717.0	2.0	3.7	7.4	150	89	100	14	250	158	100	16
91	750A	30	762.0	786.5	756.0 ~ 768.0	2.0	3.6	7.2	150	89	100	14	250	158	100	16
93	800A	32	812.8	837.3	806.0 ~ 818.0	2.0	3.4	6.8	150	89	100	14	250	158	100	16
96	850A	34	863.6	888.1	857.0 ~ 869.0	2.0	3.2	6.4	150	89	100	14	250	158	100	16
98	900A	36	914.4	938.9	908.0 ~ 920.0	2.0	3.0	6.0	150	89	100	14	250	158	100	16
L1	1000A	40	1016.0	1040.5	1010.0 ~ 1022.0	2.0	2.7	5.4	150	89	100	14	250	158	100	16

[Remarks]

D value varies depending on how much bolts are tightened.

Burst pressure  $\geq$  working pressure for ship x safety factor (4)

Burst pressure  $\geq$  working pressure for industry x safety factor (2)

Coupling length(L) 300mm and 400mm are available for ND200 and above.

MJT, MJTL, MJF, MJFL (Slip Type 3&4 Locks) for over ND1000 (page 14).

Slip Type 2~4 Locks can be used for both connection and leakage repair. Gasket is circular for connection, while it is cut for leakage repair (page 22~24).

Maximum axial movement for slip type (W)	
15A~175A	5mm
200A~500A	10mm
550A~	15mm

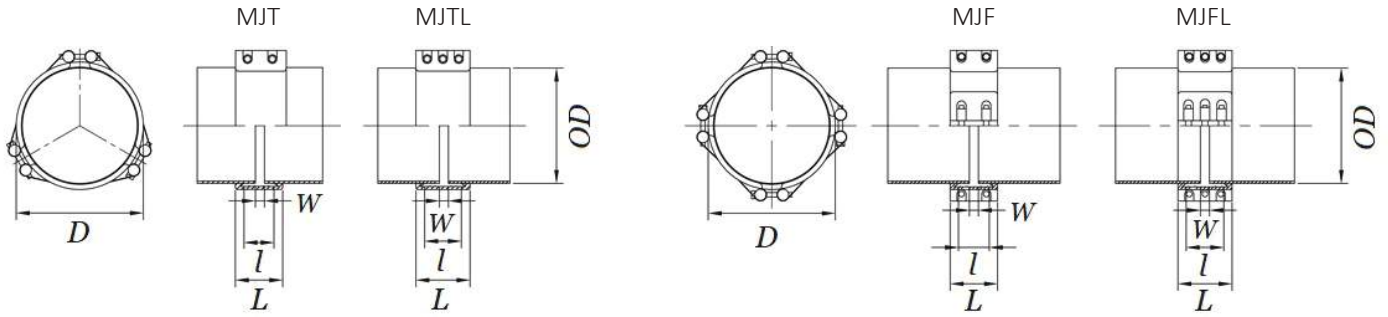
## ■ MJDF / MJDFL 65A~1000A

MJDF/MJDFL with a thicker casing can withstand higher pressure. (working pressure for general industry)

ND	MJDF / MJDFL	MJD / MJDL	ND	MJDF / MJDFL	MJD / MJDL	ND	MJDF / MJDFL	MJD / MJDL
65A~125A	<b>32bar</b>	28bar	400A	<b>20bar</b>	12bar	700A	<b>11bar</b>	7.4bar
150A	<b>32bar</b>	24bar	450A	<b>19bar</b>	12bar	750A	<b>10.5bar</b>	7.2bar
175A	<b>28bar</b>	20bar	500A	<b>14bar</b>	10bar	800A	<b>10.0bar</b>	6.8bar
200A	<b>24bar</b>	16bar	550A	<b>14bar</b>	9.2bar	850A	<b>9.3bar</b>	6.4bar
250A	<b>20bar</b>	16bar	600A	<b>12bar</b>	8.4bar	900A	<b>8.8bar</b>	6.0bar
300A~350A	<b>20bar</b>	14bar	650A	<b>12bar</b>	8.0bar	1000A	<b>8.0bar</b>	5.4bar

[Remarks] Burst pressure  $\geq$  working pressure for industry x safety factor (2)

## SLIP TYPE COUPLING (FLEXIBLE TYPE) - 3&4 LOCKS



### ■ MJT / MJTL 1100A~1500A

Item No.	Pipe OD			D (mm)	Coupling Range (mm)	Thick. (mm)	Pressure (bar)		MJT				MJTL			
	ND	inch	actual (mm)				Working	Max.	Length (mm)		Torque (Nm)	Bolt (M)	Length (mm)		Torque (Nm)	Bolt (M)
									L	l			L	l		
L6	1100A	44	1117.6	1142.1	1111.0 ~ 1123.0	2.0	5.0	10.0	150	89	100	14	250	158	100	16
L8	1200A	48	1219.2	1243.7	1213.0 ~ 1225.0	2.0	4.6	9.2	150	89	100	14	250	158	100	16
M1	1300A	52	1320.8	1345.3	1316.0 ~ 1325.0	2.0	4.2	8.4	150	89	100	14	250	158	100	16
L0	1350A	54	1371.6	1396.1	1365.0 ~ 1377.0	2.0	4.0	8.0	150	89	100	14	250	158	100	16
T9	1400A	56	1422.4	1446.9	1418.0 ~ 1427.0	2.0	3.8	7.6	150	89	100	14	250	158	100	16
M2	1500A	60	1524.0	1548.5	1518.0 ~ 1530.0	2.0	3.6	7.2	150	89	100	14	250	158	100	16

### ■ MJF / MJFL 1600A~4000A

Item No.	Pipe OD			D (mm)	Coupling Range (mm)	Thick. (mm)	Pressure (bar)		MJF				MJFL			
	ND	inch	actual (mm)				Working	Max.	Length (mm)		Torque (Nm)	Bolt (M)	Length (mm)		Torque (Nm)	Bolt (M)
									L	l			L	l		
M5	1600A	64	1625.6	1650.1	1621.0 ~ 1631.0	2.0	3.4	6.8	150	89	100	14	250	158	100	16
M7	1650A	66	1676.4	1700.9	1672.0 ~ 1682.0	2.0	3.2	6.4	150	89	100	14	250	158	100	16
M8	1700A	68	1727.2	1751.7	1722.0 ~ 1732.0	2.0	3.2	6.4	150	89	100	14	250	158	100	16
M9	1800A	72	1828.8	1853.3	1822.0 ~ 1834.0	2.0	3.0	6.0	150	89	100	14	250	158	100	16
N1	1900A	76	1930.4	1954.9	1924.0 ~ 1936.0	2.0	2.8	5.6	150	89	100	14	250	158	100	16
N3	2000A	80	2032.0	2056.5	2026.0 ~ 2038.0	2.0	2.6	5.2	150	89	100	14	250	158	100	16

[Remarks]

D value varies depending on how much bolts are tightened.

Burst pressure  $\geq$  working pressure x safety factor (2)

Coupling length(L) 300mm and 400mm are available.

Big-size couplings up to ND4000 are available.

Maximum axial movement for slip type (W)	
15A~175A	5mm
200A~500A	10mm
550A~	15mm

### ■ MJTF / MJTFL 1100A~1500A

ND	MJTF / MJTFL	MJT / MJTL
1100A	7.2bar	5.0bar
1200A	6.8bar	4.6bar
1300A	6.2bar	4.2bar
1350A	6.0bar	4.0bar
1400A	5.8bar	3.8bar
1500A	5.4bar	3.6bar

### ■ MJFF / MJFFL 1600A~4000A

ND	MJFF / MJFFL	MJF / MJFL
1600A	5.0bar	3.4bar
1650A	4.8bar	3.2bar
1700A	4.6bar	3.2bar
1800A	4.4bar	3.0bar
1900A	4.2bar	2.8bar
2000A	4.0bar	2.6bar

MJTF/MJTFL, MJFF/MJFFL with a thicker casing can withstand higher pressure. (working pressure)

[Remarks]

Burst pressure  $\geq$  working pressure x safety factor (2)

Big-size couplings up to ND4000 are available.