		SECTION 1 STRAIGHT CONNECTORS		PAGE
A	BSPP x BSPT	M / M	2	
B	BSPP BULKHEAD	M / M	4	
C	BSPP x JIC	M / M	5	
D	BSPT x BSPT	M / M	6	
F	BSPT x JIC	M / M	7	
H	UNO x BSPT	M / M	11	
HN	UNO x NPT	M / M	11	
J	UNO x JIC	M / M	18	
K	UNO x JIC EXT.	M / M	13	
L	METRIC x JIC	M / M	15	
M	NPT x JIC	M / M	13	
P	JIC x JIC	M / M	18	
R	JIC BULKHEAD	M / M	19	
AH	BSPP x BSPP	M / M	2	
AM	BSPP x JIS BSPP	M / M	3	
AN / ANHD	NPT x NPT	M / M	4	
KA	JIS METRIC x BSPP	M / M	14	
KF	JIS METRIC x BSPT	M / M	14	
KP	JIS METRIC x JIS METRIC	M / M	14	
PS	SAE INVERTED x JIC	M / M	18	
FF1201	ORFS x BSPP	M / M	8	
FF1202	ORFS x NPT	M / M	8	
FF1204	ORFS x ORFS	M / M	9	
FF1231	ORFS x UNO	M / M	9	
FF1260LN	ORFS BULKHEAD	M / M	10	



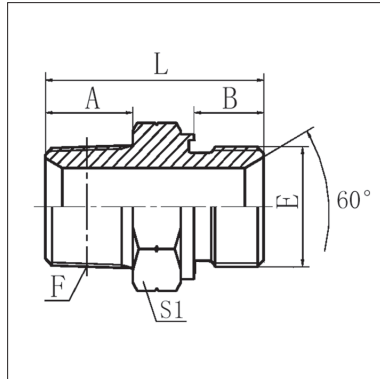
WARNING: This product may contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information please visit: www.p65warnings.ca.gov

STRAIGHT CONNECTORS



A SERIES

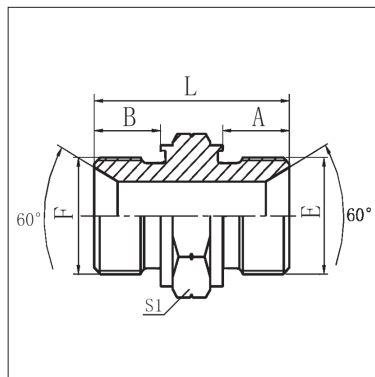
BSPP MALE x BSPT MALE



Product Code	Thread		Dimensions mm			
	E (BSPP)	F (BSPT)	A	B	L	S1
A-04-02	1/4" - 19	1/8" - 28	10	12	30	19
A-04-04	1/4" - 19	1/4" - 19	14.5	12	34.5	19
A-04-06	1/4" - 19	3/8" - 19	15	12	35	19
A-04-08	1/4" - 19	1/2" - 14	20	12	42	22
A-06-04	3/8" - 19	1/4" - 19	14.5	12	37	22
A-06-06	3/8" - 19	3/8" - 19	15	12	37.5	22
A-06-08	3/8" - 19	1/2" - 14	20	12	42.5	24
A-06-12	3/8" - 19	3/4" - 14	20	12	44.5	30
A-08-04	1/2" - 14	1/4" - 19	14.5	14	41.5	27
A-08-06	1/2" - 14	3/8" - 19	15	14	42	27
A-08-08	1/2" - 14	1/2" - 14	15	16	35	27
A-08-12	1/2" - 14	3/4" - 14	20	14	47	30
A-12-06	3/4" - 14	3/8" - 19	15	16	45	32
A-12-08	3/4" - 14	1/2" - 14	20	16	50	32
A-12-12	3/4" - 14	3/4" - 14	20	16	50	32
A-12-16	3/4" - 14	1" - 11	25.5	16	55.5	36
A-16-08	1" - 11	1/2" - 14	20.5	18	54	41
A-16-12	1" - 11	3/4" - 14	20.5	18	54	41
A-16-16	1" - 11	1" - 11	25.5	18	59.5	41
A-16-20	1" - 11	1.1/4" - 11	26.5	18	60.5	46
A-20-16	1.1/4" - 11	1" - 11				
A-20-20	1.1/4" - 11	1.1/4" - 11	26.5	20	64.5	50
A-20-24	1.1/4" - 11	1.1/2" - 11				
A-24-20	1.1/2" - 11	1.1/4" - 11	26.5	22	66.5	55
A-24-24	1.1/2" - 11	1.1/2" - 11	-	-	-	-
A-32-32	2" - 11	2" - 11	-	-	-	-

AH SERIES

BSPP MALE x BSPP MALE

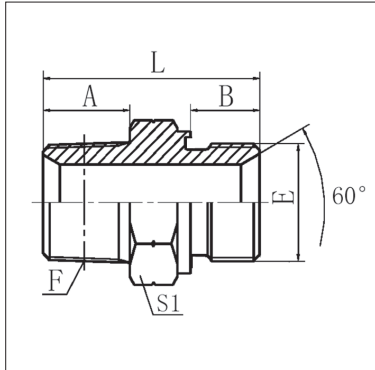


Product Code	Thread		Dimensions mm			
	E (BSPP)	F (BSPP)	A	B	L	S1
AH-02-02	1/8" - 28	1/8" - 28	7.8	7.8	25.5	14
AH-04-04	1/4" - 19	1/4" - 19	12	12	34	19
AH-06-04	3/8" - 19	1/4" - 19	12	12	34.5	22
AH-06-06	3/8" - 19	3/8" - 19	12	12	37	22
AH-08-04	1/2" - 14	1/4" - 19	14	12	39	27
AH-08-06	1/2" - 14	3/8" - 19	14	13.5	40.5	27
AH-08-08	1/2" - 14	1/2" - 14	14	14	44	27
AH-12-08	3/4" - 14	1/2" - 14	16	16	46	32
AH-12-12	3/4" - 14	3/4" - 14	16	16	47	32
AH-16-12	1" - 11	3/4" - 14	18	18.5	52.5	41
AH-16-16	1" - 11	1" - 11	18	18	55	41
AH-20-16	1.1/4" - 11	1" - 11	20.5	20	58.5	50
AH-20-20	1.1/4" - 11	1.1/4" - 11	20	20	61	50
AH-24-20	1.1/2" - 11	1.1/4" - 11	22	20.5	60.5	55
AH-24-24	1.1/2" - 11	1.1/2" - 11	22	22	65	55
AH-32-24	2" - 11	1.1/2" - 11	22	20	66	75
AH-32-32	2" - 11	2" - 11	20	20	65	75

STRAIGHT CONNECTORS

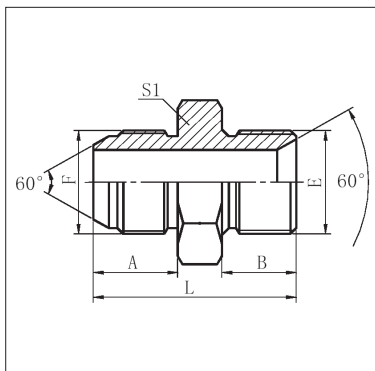


AHN SERIES NPT MALE x BSPP MALE



Product Code	Thread		Dimensions mm			
	E (BSPP)	F (NPT)	A	B	L	S1
AHN-04-02	1/4" - 19	1/8" - 27	10	12	30	19
AHN-04-04	1/4" - 19	1/4" - 18	14.5	12	34.5	19
AHN-04-06	1/4" - 19	3/8" - 18	15	12	35	19
AHN-04-08	1/4" - 19	1/2" - 14	20	12	42	22
AHN-06-04	3/8" - 19	1/4" - 18	14.5	12	37	22
AHN-06-06	3/8" - 19	3/8" - 18	15	12	37.5	22
AHN-06-08	3/8" - 19	1/2" - 14	20	12	42.5	24
AHN-06-12	3/8" - 19	3/4" - 14	20	12	44.5	30
AHN-08-04	1/2" - 14	1/4" - 18	14.5	14	41.5	27
AHN-08-06	1/2" - 14	3/8" - 18	15	14	42	27
AHN-08-08	1/2" - 14	1/2" - 14	15	16	35	27
AHN-08-12	1/2" - 14	3/4" - 14	20	14	47	30
AHN-12-06	3/4" - 14	3/8" - 18	15	16	45	32
AHN-12-08	3/4" - 14	1/2" - 14	20	16	50	32
AHN-12-12	3/4" - 14	3/4" - 14	20	16	50	32
AHN-12-16	3/4" - 14	1" - 11.1/2	25.5	16	55.5	36
AHN-16-08	1" - 11	1/2" - 14	20.5	18	54	41
AHN-16-12	1" - 11	3/4" - 14	20.5	18	54	41
AHN-16-16	1" - 11	1" - 11.1/2	25.5	18	59.5	41
AHN-16-20	1" - 11	1.1/4" - 11.1/2	26.5	18	60.5	46
AHN-20-16	1.1/4" - 11	1" - 11.1/2				
AHN-20-20	1.1/4" - 11	1.1/4" - 11.1/2	26.5	20	64.5	50
AHN-20-24	1.1/4" - 11	1.1/2" - 11.1/2				
AHN-24-20	1.1/2" - 11	1.1/4" - 11.1/2	26.5	22	66.5	55
AHN-24-24	1.1/2" - 11	1.1/2" - 11.1/2	-	-	-	-
AHN-32-32	2" - 11	2" - 11.1/2	-	-	-	-

AM SERIES BSPP MALE x JIS (BSPP) MALE



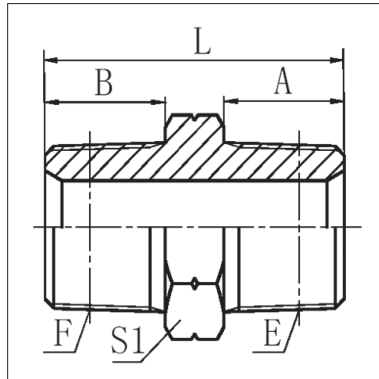
Product Code	Thread		Dimensions mm			
	E (BSPP)	F (JIS BSPP)	A	B	L	S1
AM-04-04	1/4" x 19	1/4" x 19	16	12	34	19
AM-06-06	3/8" x 19	3/8" x 19	18	13.5	39.5	22
AM-08-08	1/2" x 14	1/2" x 14	20	16	46	27
AM-12-12	3/4" - 14	3/4" - 14	22	18	51.5	32
AM-16-16	1" x 11	1" x 11	24	20.5	57.5	41

STRAIGHT CONNECTORS



AN / ANHD SERIES

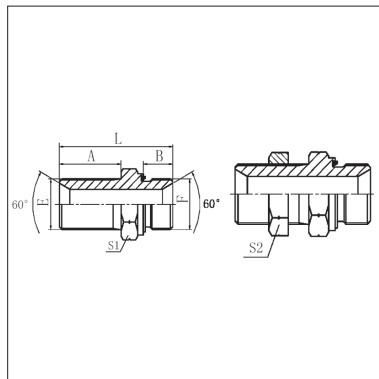
NPT MALE x NPT MALE



Product Code	Thread		Dimensions mm			
	E (NPT)	F (NPT)	A	B	L	S1
AN-02-02	1/8" - 27	1/8" - 27	10.5	10.5	27	12
AN-04-02	1/4" - 18	1/8" - 27	15	10.5	31	17
AN-04-04	1/4" - 18	1/4" - 18	15	15	36	17
AN-06-04	3/8" - 18	1/4" - 18	16	15	37	19
AN-06-06	3/8" - 18	3/8" - 18	16	16	38	19
AN-08-04	1/2" - 14	1/4" - 18	19.5	15	41.5	22
AN-08-06	1/2" - 14	3/8" - 18	19.5	16	43.5	22
AN-08-08	1/2" - 14	1/2" - 14	19.5	19.5	47	22
AN-12-04	3/4" - 14	1/4" - 18	19.5	15	43.5	30
AN-12-06	3/4" - 14	3/8" - 18	19.5	16	45.5	30
AN-12-08	3/4" - 14	1/2" - 14	19.5	19.5	49	30
AN-12-12	3/4" - 14	3/4" - 14	19.5	19.5	49	30
AN-16-08	1" - 11.5	1/2" - 14	25.5	19.5	56	36
AN-16-12	1" - 11.5	3/4" - 14	25.5	19.5	55	36
AN-16-16	1" - 11.5	1" - 11.5	25.5	25.5	62	36
AN-20-16	1.1/4" - 11.5	1" - 11.5	26.5	25.5	64	46
AN-20-20	1.1/4" - 11.5	1.1/4" - 11.5	26.5	26.5	66	46
AN-24-16	1.1/2" - 11.5	1" - 11.5				
AN-24-20	1.1/2" - 11.5	1.1/4" - 11.5	27.5	26.5	69	50
AN-24-24	1.1/2" - 11.5	1.1/2" - 11.5	27.5	27.5	70	50
AN-32-24	2" - 11.5	1.1/2" - 11.5	27.5	27.5	72	65
AN-32-32	2" - 11.5	2" - 11.5	27.5	27.5	72	65
HEAVY DUTY 10,000 PSI (700 BAR) HIGH PRESSURE SERIES						
ANHD-04-04	1/4" - 18	1/4" - 18	15	15	38	16
ANHD-06-06	3/8" - 18	3/8" - 18	15	15	38	19

B SERIES

BSPP MALE BULKHEAD



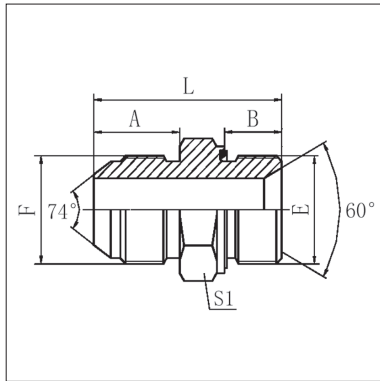
Product Code	Thread		Dimensions mm				
	E (BSPP)	F (BSPP)	A	B	L	S1	S2
B-04-04	1/4" - 19	1/4" - 19	35	12	55	19	19
B-06-06	3/8" - 19	3/8" - 19	35	12	57.5	22	22
B-08-08	1/2" - 14	1/2" - 14	39	14	66	27	27
B-12-12	3/4" - 14	3/4" - 14	42	16	72	32	32
B-16-16	1" - 11	1" - 11	50	18	84	41	41
B-20-20	1.1/4" - 11	1.1/4" - 11	52	20	90	50	50
B-24-24	1.1/2" - 11	1.1/2" - 11	56	22	96	55	55
B-32-32	2" - 11	2" - 11	48	25	102	70	70

STRAIGHT CONNECTORS



C SERIES

BSPP MALE x JIC MALE



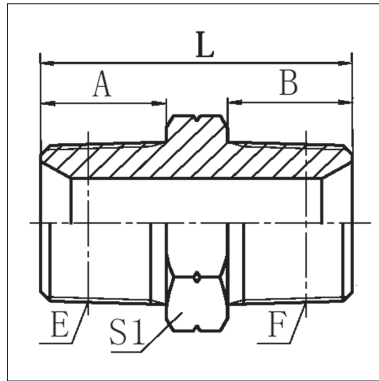
Product Code	Thread		Dimensions mm			
	E (BSPP)	F (JIC)	A	B	L	S1
C-02-04	1/8" - 28	7/16" - 20	14	8	29.5	14
C-02-06	1/8" - 28	9/16" - 18	14.1	8	29.5	17
C-04-04	1/4" - 19	7/16" - 20	14	12	34	19
C-04-06	1/4" - 19	9/16" - 18	14.1	12	34	19
C-04-08	1/4" - 19	3/4" - 16	16.7	12	37	22
C-06-04	3/8" - 19	7/16" - 20	14	12	34.5	22
C-06-06	3/8" - 19	9/16" - 18	14.1	12	34.5	22
C-06-08	3/8" - 19	3/4" - 16	16.7	12	37.5	22
C-06-10	3/8" - 19	7/8" - 14	19.3	12	41.5	24
C-06-12	3/8" - 19	1.1/16" - 12				
C-08-06	1/2" - 14	9/16" - 18	14.1	14	41	27
C-08-08	1/2" - 14	3/4" - 16	16.7	14	43.5	27
C-08-10	1/2" - 14	7/8" - 14	19.3	14	46.5	27
C-08-12	1/2" - 14	1.1/16" - 12	21.9	14	48.5	30
C-12-06	3/4" - 14	9/16" - 18				
C-12-08	3/4" - 14	3/4" - 16	16.7	16	45	32
C-12-10	3/4" - 14	7/8" - 14	19.3	16	47.5	32
C-12-12	3/4" - 14	1.1/16" - 12	21.9	16	50	32
C-12-14	3/4" - 14	1.3/16" - 12				
C-12-16	3/4" - 14	1.5/16" - 12	23.1	16	53	36
C-16-12	1" - 11	1.1/16" - 12	21.9	18	56	41
C-16-16	1" - 11	1.5/16" - 12	23.1	18	57	41
C-16-20	1" - 11	1.5/8" - 12	24.3	18	58	46
C-20-12	1.1/4" - 11	1.1/16" - 12	21.9	20	60	50
C-20-16	1.1/4" - 11	1.5/16" - 12	23.1	20	61	50
C-20-20	1.1/4" - 11	1.5/8" - 12	24.3	20	62	50
C-20-24	1.1/4" - 11	1.7/8" - 12	27.5	20	65.5	50
C-24-20	1.1/2" - 11	1.5/8" - 12	24.3	22	64	55
C-24-24	1.1/2" - 11	1.7/8" - 12	27.5	22	64	55
C-32-32	2" - 11	2.1/2" - 12	34	20	73	75

STRAIGHT CONNECTORS



D SERIES

BSPT MALE x BSPT MALE

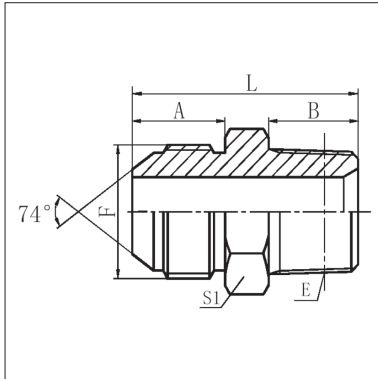


Product Code	Thread		Dimensions mm			
	E (BSPT)	F (BSPT)	A	B	L	S1
D-02-02	1/8" - 28	1/8" - 28	10	10	26	12
D-04-02	1/4" - 19	1/8" - 28	14.5	10	30.5	17
D-04-04	1/4" - 19	1/4" - 19	14.5	14.5	34	17
D-06-02	3/8" - 19	1/8" - 28	15	10	31	19
D-06-04	3/8" - 19	1/4" - 19	15	14.5	35	19
D-06-06	3/8" - 19	3/8" - 19	15	15	36	19
D-08-04	1/2" - 14	1/4" - 19	20	15	43	22
D-08-06	1/2" - 14	3/8" - 19	20	15	43	22
D-08-08	1/2" - 14	1/2" - 14	20	20	46	22
D-10-08	5/8" - 14	1/2" - 14				
D-10-10	5/8" - 14	5/8" - 14	19	19	46	24
D-12-04	3/4" - 14	1/4" - 19	20	15	45	30
D-12-06	3/4" - 14	3/8" - 19	20	15	44.5	30
D-12-08	3/4" - 14	1/2" - 14	20	20	48	30
D-12-10	3/4" - 14	5/8" - 14				
D-12-12	3/4" - 14	3/4" - 14	20	20	48	30
D-16-06	1" - 11	3/8" - 19	25.5	16	51.5	36
D-16-08	1" - 11	1/2" - 14	25.5	20	56.5	36
D-16-12	1" - 11	3/4" - 14	25.5	20	55.5	36
D-16-16	1" - 11	1" - 11	25.5	25.5	61	36
D-20-12	1.1/4" - 11	3/4" - 14	26.5	20	58.5	46
D-20-16	1.1/4" - 11	1" - 11	26.5	26.5	64.5	46
D-20-20	1.1/4" - 11	1.1/4" - 11	26.5	26.5	65.5	46
D-24-16	1.1/2" - 11	1" - 11	26.5	25.5	66	50
D-24-20	1.1/2" - 11	1.1/4" - 11	26.5	26.5	67	50
D-24-24	1.1/2" - 11	1.1/2" - 11	26.5	26.5	67	50
D-32-24	2" - 11	1.1/2" - 11	30	26.5	71.5	65
D-32-32	2" - 11	2" - 11	30	30	75	65

STRAIGHT CONNECTORS



F SERIES BSPT MALE x JIC MALE



Product Code	Thread		Dimensions mm			
	E (BSPT)	F (JIC)	A	B	L	S1
F-02-04	1/8" - 28	7/16" - 20	14	10	30	12
F-02-05	1/8" - 28	1/2" - 20	14	10	31	14
F-02-06	1/8" - 28	9/16" - 18	14.1	10.5	30.5	17
F-04-04	1/4" - 19	7/16" - 20	14	14.5	34.5	17
F-04-05	1/4" - 19	1/2" - 20	14	14.5	34	17
F-04-06	1/4" - 19	9/16" - 18	14.1	14.5	34	17
F-04-S06 †	1/4" - 19	5/8" - 18 †				
F-04-08	1/4" - 19	3/4" - 16	16.7	14.5	39	22
F-06-04	3/8" - 19	7/16" - 20	14	15	35	19
F-06-05	3/8" - 19	1/2" - 20	14	15	35	19
F-06-06	3/8" - 19	9/16" - 18	14.1	15	34	19
F-06-S06 †	3/8" - 19	5/8" - 18 †				
F-06-08	3/8" - 19	3/4" - 16	16.7	15	39	22
F-06-10	3/8" - 19	7/8" - 14	19.3	15	42.5	24
F-06-12	3/8" - 19	1.1/16" - 12	21.9	15.5	47	30
F-08-04	1/2" - 14	7/16" - 20	14	20	41	24
F-08-06	1/2" - 14	9/16" - 18	14.1	20	41	22
F-08-S06 †	1/2" - 14	5/8" - 18 †				
F-08-08	1/2" - 14	3/4" - 16	16.7	20	44.5	22
F-08-10	1/2" - 14	7/8" - 14	19.3	20	46.5	24
F-08-12	1/2" - 14	1.1/16" - 12	21.9	20	51	30
F-12-06	3/4" - 14	9/16" - 18	14.1	20	43.5	30
F-12-08	3/4" - 14	3/4" - 16	16.7	20	46	30
F-12-10	3/4" - 14	7/8" - 14	19.3	20	48.5	30
F-12-12	3/4" - 14	1.1/16" - 12	21.9	20	51	30
F-12-14	3/4" - 14	1.3/16" - 12	22.6	20	52.5	32
F-12-16	3/4" - 14	1.5/16" - 12	23.1	20	53	36
F-16-08	1" - 11	3/4" - 16	16.7	25.5	52	36
F-16-10	1" - 11	7/8" - 14	19.3	25.5	54.5	36
F-16-12	1" - 11	1.1/16" - 12	21.9	25.5	57.5	36
F-16-14	1" - 11	1.3/16" - 12	22.6	25.5	58.5	36
F-16-16	1" - 11	1.5/16" - 12	23.1	25.5	59	36
F-16-20	1" - 11	1.5/8" - 12	24.3	25.5	62.5	46
F-20-12	1.1/4" - 11	1.1/16" - 12	21.9	26.5	61.5	46
F-20-16	1.1/4" - 11	1.5/16" - 12	23.1	26.5	61.5	46
F-20-20	1.1/4" - 11	1.5/8" - 12	24.3	26.5	63	46
F-20-24	1.1/4" - 11	1.7/8" - 12	27.5	26.5	67.5	50
F-24-16	1.1/2" - 11	1.5/16" - 12	23.1	26.5	64.5	50
F-24-20	1.1/2" - 11	1.5/8" - 12	24.3	26.5	66.5	50
F-24-24	1.1/2" - 11	1.7/8" - 12	27.5	26.5	69.5	50
F-24-32	1.1/2" - 11	2.1/2" - 12	33.9	26.5	77.5	65
F-32-24	2" - 11	1.7/8" - 12	27.5	30	74.5	65
F-32-32	2" - 11	2.1/2" - 12	33.9	30	80	65

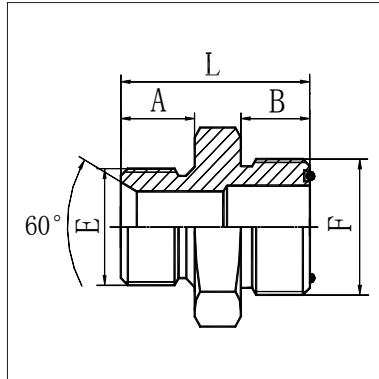
† SAE Thread Form

STRAIGHT CONNECTORS



FF1201 SERIES

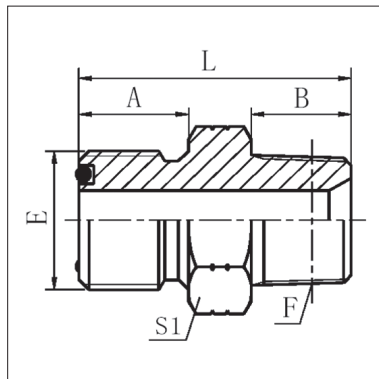
BSPP MALE x ORFS MALE



Product Code	Thread		Dimensions mm		
	E (BSPP)	F (ORFS)	A	B	L
FF1201-0204	1/8" - 19	9/16" - 18	8	26	26
FF1201-0404	1/4" - 19	9/16" - 18	12	10	31
FF1201-0406	1/4" - 19	11/16" - 16	12	11	32
FF1201-0408	1/4" - 19	13/16" - 16	12	13	37
FF1201-0604	3/8" - 19	9/16" - 18	12	10	31.5
FF1201-0606	3/8" - 19	11/16" - 16	12	11	33.5
FF1201-0608	3/8" - 19	13/16" - 16	12	13	34.5
FF1201-0806	1/2" - 14	11/16" - 16	14	11	38.5
FF1201-0808	1/2" - 14	13/16" - 16	14	13	40
FF1201-0810	1/2" - 14	1" - 14	14	15.5	41
FF1201-0812	1/2" - 14	1.3/16" - 12	14	17	48.5
FF1201-1010	5/8" - 14	1" - 14	15	15.5	42.5
FF1201-1210	3/4" - 14	1" - 14	16	15.5	44.5
FF1201-1212	3/4" - 14	1.3/16" - 12	16	17	46
FF1201-1616	1" - 11	1.7/16" - 12	18	17.5	50
FF1201-2020	1.1/4" - 11	1.11/16" - 12	20	17.5	54
FF1201-2424	1.1/2" - 11	2" - 12	22	17.5	57.5

FF1202 SERIES

ORFS MALE x NPT MALE

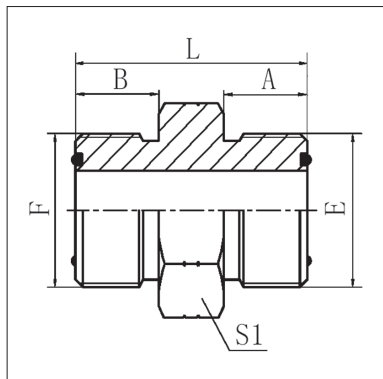


Product Code	Thread		Dimensions mm			
	E (ORFS)	F (NPT)	A	B	L	S1
FF1202-0402	9/16" - 18	1/8" - 27	9.8	10.5	26.5	17
FF1202-0404	9/16" - 18	1/4" - 18	9.8	15	30.5	17
FF1202-0406	9/16" - 18	3/8" - 18	9.8	16	30.5	19
FF1202-0602	11/16" - 16	1/8" - 27				
FF1202-0604	11/16" - 16	1/4" - 18	11.2	15	32	19
FF1202-0606	11/16" - 16	3/8" - 18	11.2	16	33.5	19
FF1202-0608	11/16" - 16	1/2" - 14	11.2	19.5	39	24
FF1202-0804	13/16" - 16	1/4" - 18	12.8	15	36	22
FF1202-0806	13/16" - 16	3/8" - 18	12.8	16	36.5	22
FF1202-0808	13/16" - 16	1/2" - 14	12.8	19.5	40	24
FF1202-0812	13/16" - 16	3/4" - 14	12.8	19.5	40	24
FF1202-1008	1" - 14	1/2" - 14	15.5	19.5	45	27
FF1202-1012	1" - 14	3/4" - 14	15.5	19.5	45	30
FF1202-1208	1.3/16" - 12	1/2" - 14	17	19.5	46.5	32
FF1202-1212	1.3/16" - 12	3/4" - 14	17	19.5	46.5	32
FF1202-1216	1.3/16" - 12	1" - 11.5	17	25.5	53.5	38
FF1202-1612	1.7/16" - 12	3/4" - 14	17.5	19.5	48	38
FF1202-1616	1.7/16" - 12	1" - 11.5	17.5	25.5	53.5	36
FF1202-1620	1.7/16" - 12	1.1/4" - 11.5	17.5	26.5	56.5	46
FF1202-2020	1.11/16" - 12	1.1/4" - 11.5	17.5	27.5	59.5	50
FF1202-2424	2" - 12	1.1/2" - 11.5	17.5	27.5	59.5	55

STRAIGHT CONNECTORS

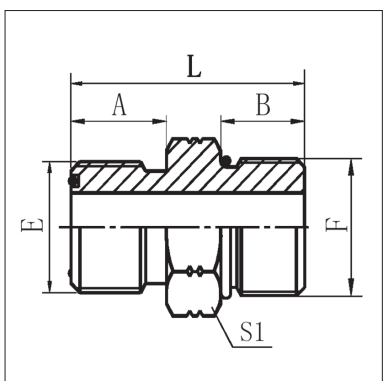


FF1204 SERIES ORFS MALE x ORFS MALE



Product Code	Thread		Dimensions mm			
	E (ORFS)	F (ORFS)	A	B	L	S1
FF1204-0404	9/16" - 18	9/16" - 18	9.8	9.8	27.5	17
FF1204-0604	11/16" - 16	9/16" - 18	11.2	9.8	29.7	19
FF1204-0606	11/16" - 16	11/16" - 16	11.2	11.2	31.1	19
FF1204-0806	13/16" - 16	11/16" - 16	11.2	12.8	33.8	22
FF1204-0808	13/16" - 16	13/16" - 16	12.8	12.8	35.4	22
FF1204-1008	1" - 14	13/16" - 16	15.5	12.8	40	27
FF1204-1010	1" - 14	1" - 14	15.5	15.5	42.5	27
FF1204-1210	1.3/16" - 12	1" - 14	17	15.5	45.5	32
FF1204-1212	1.3/16" - 12	1.3/16" - 12	17	17	47.1	32
FF1204-1612	1.7/16" - 12	1.3/16" - 12	17.5	17	45.5	38
FF1204-1616	1.7/16" - 12	1.7/16" - 12	17.5	17.5	49.3	38
FF1204-2020	1.11/16" - 12	1.11/16" - 12	17.5	17.5	51.3	46
FF1204-2424	2" - 12	2" - 12	17.5	17.5	53	55

FF1231 SERIES ORFS MALE x UNO MALE



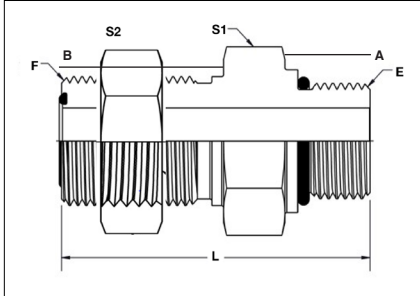
Product Code	Thread		Dimensions mm			
	E (ORFS)	F (UNO)	A	B	L	S1
FF1231-0404	9/16" - 18	7/16" - 20	9.8	11	28.7	17
FF1231-0405	9/16" - 18	1/2" - 20	9.8	11	28.7	17
FF1231-0406	9/16" - 18	9/16" - 18	9.8	12	29.5	17
FF1231-0408	9/16" - 18	3/4" - 16	9.8	14	33.5	22
FF1231-0604	11/16" - 16	7/16" - 20	11.2	11	31	19
FF1231-0605	11/16" - 16	1/2" - 20	11.2	11	30.9	19
FF1231-0606	11/16" - 16	9/16" - 18	11.2	12	31.9	19
FF1231-0608	11/16" - 16	3/4" - 16	11.2	14	35	22
FF1231-0610	11/16" - 16	7/8" - 14	11.2	16	38.5	27
FF1231-0806	13/16" - 16	9/16" - 18	12.8	12	34.5	22
FF1231-0808	13/16" - 16	3/4" - 16	12.8	14	36.6	22
FF1231-0810	13/16" - 16	7/8" - 14	12.8	16	40.5	27
FF1231-0812	13/16" - 16	1.1/16" - 12	12.8	18.5	44.5	32
FF1231-0816	13/16" - 16	1.5/16" - 12	12.8	18.5	44.5	38
FF1231-1008	1" - 14	3/4" - 16	15.5	14	41	27
FF1231-1010	1" - 14	7/8" - 14	15.5	16	43.1	27
FF1231-1012	1" - 14	1.1/16" - 12	15.5	18.5	47	32
FF1231-1208	1.3/16" - 12	3/4" - 16	17	14	44	32
FF1231-1210	1.3/16" - 12	7/8" - 14	17	16	46	32
FF1231-1212	1.3/16" - 12	1.1/16" - 12	17	18.5	48.6	32
FF1231-1216	1.3/16" - 12	1.5/16" - 12	17	18.5	49.8	38
FF1231-1612	1.7/16" - 12	1.1/16" - 12	17.5	18.5	50	38
FF1231-1616	1.7/16" - 12	1.5/16" - 12	17.5	18.5	50.3	38
FF1231-1620	1.7/16" - 12	1.5/8" - 12	17.5	18.5	52	50
FF1231-2016	1.11/16" - 12	1.5/16" - 12	17.5	18.5	52.3	50
FF1231-2020	1.11/16" - 12	1.5/8" - 12	17.5	18.5	52.3	50
FF1231-2024	1.11/16" - 12	1.7/8" - 12	17.5	18.5	52	55
FF1231-2420	2" - 12	1.5/8" - 12	17.5	18.5	54.1	55
FF1231-2424	2" - 12	1.7/8" - 12	17.5	18.5	54.1	55

STRAIGHT CONNECTORS



FF1259LN SERIES

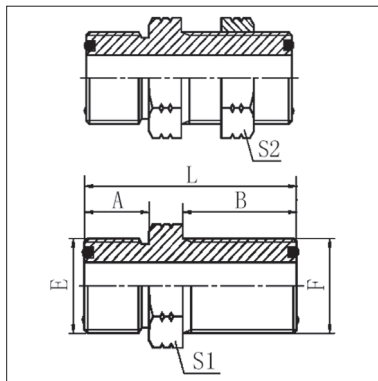
UNO MALE x ORFS MALE BULKHEAD



Product Code	Thread		Dimensions mm				
	E (UN'0')	F (ORFS)	A	B	L	S1	S2
FF1259LN-0404	7/16" - 20	9/16" - 18	27.2	31.5	58.7	20.6	20.6
FF1259LN-0606	9/16" - 18	11/16" - 16	16.1	35.3	59.2	25.5	25.2
FF1259LN-0808	3/4" - 16	13/16" - 16	23.1	36.6	59.7	28.7	28.7
FF1259LN-1010	7/8" - 14	1" - 14	21.4	41.1	75.1	33	33.1
FF1259LN-1212	1.1/16" - 12	1.3/16" - 12	18.7	43.6	69.2	38	37.8
FF1259LN-1616	1.5/16" - 12	1.7/16" - 12	18.8	44	81.9	45	44.4

FF1260LN SERIES

ORFS MALE x ORFS MALE BULKHEAD



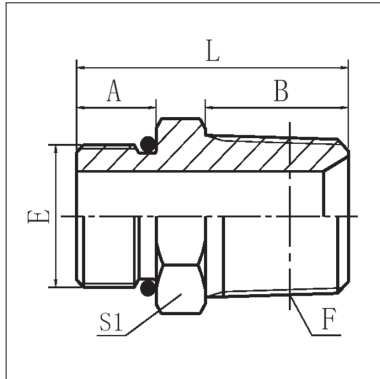
Product Code	Thread		Dimensions mm				
	E (ORFS)	F (ORFS)	A	B	L	S1	S2
FF1260LN-0404	9/16" - 18	9/16" - 18	9.8	31.5	48.2	22	22
FF1260LN-0606	11/16" - 16	11/16" - 16	11.2	34	53.2	27	27
FF1260LN-0808	13/16" - 16	13/16" - 16	12.8	36.5	58.3	30	30
FF1260LN-1010	1" - 14	1" - 14	15.5	40.6	66.6	36	36
FF1260LN-1212	1.3/16" - 12	1.3/16" - 12	17	41.7	69.2	38	38
FF1260LN-1616	1.7/16" - 12	1.7/16" - 12	17.5	42.2	70.2	46	46
FF1260LN-2020	1.11/16" - 12	1.11/16" - 12	17.5	42.2	70.2	50	50
FF1260LN-2424	2" - 12	2" - 12	17.5	42.2	70.2	60	60

STRAIGHT CONNECTORS



H SERIES

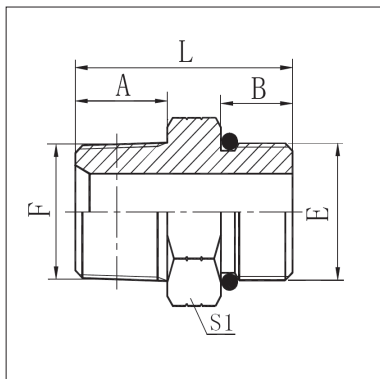
UNO MALE x BSPT MALE



Product Code	Thread		Dimensions mm			
	E (UNO)	F (BSPT)	A	B	L	S1
H-06-04	9/16" - 18	1/4" - 19	9.93	14.5	30	19
H-06-06	9/16" - 18	3/8" - 19	9.93	15	30.5	19
H-06-08	9/16" - 18	1/2" - 20	9.93	20	34	22
H-08-04	3/4" - 16	1/4" - 19	11.13	14.5	33.5	22
H-08-06	3/4" - 16	3/8" - 19	11.13	15	34	22
H-08-08	3/4" - 16	1/2" - 20	11.13	20	38	22
H-10-04	7/8" - 14	1/4" - 19	12.7	14.5	35	27
H-10-06	7/8" - 14	3/8" - 19	12.7	15	37.5	27
H-10-08	7/8" - 14	1/2" - 14	12.7	20	42.5	27
H-12-08	1.1/16" - 12	1/2" - 14	15.09	20	46	32
H-12-12	1.1/16" - 12	3/4" - 14	15.09	20	46	32
H-12-16	1.1/16" - 12	1" - 11	15.09	25.5	51	32
H-16-08	1.5/16" - 12	1/2" - 14	15.09	20	46	32
H-16-12	1.5/16" - 12	3/4" - 14	15.09	20	46	38
H-16-16	1.5/16" - 12	1" - 11	15.09	25.5	51	38
H-20-16	1.5/8" - 12	1" - 11	15.09	25.5	55.5	50

HN SERIES

UNO MALE x NPT MALE



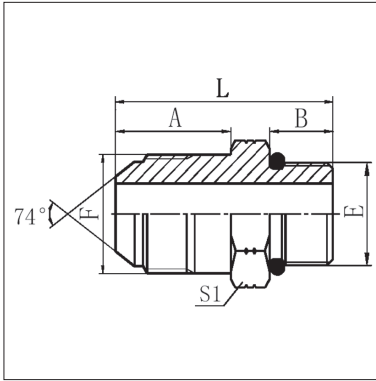
Product Code	Thread		Dimensions mm			
	E (UNO)	F (NPT)	A	B	L	S1
HN-04-02	7/16" - 20	1/8" - 27	10.5	9.1	27.5	14
HN-08-04	3/4" - 16	1/4" - 18	14.5	11.5	34	22
HN-12-16	1.1/16" - 12	1" - 11	24.7	15.3	54.2	35
HN-16-16	1.5/16" - 12	1" - 11	25.5	15.1	52.8	38

STRAIGHT CONNECTORS



J SERIES

UNO MALE x JIC MALE



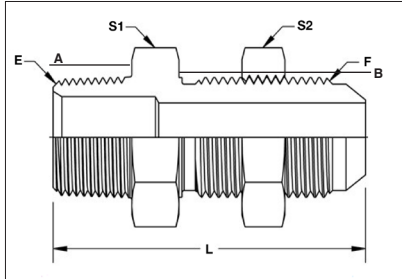
Product Code	Thread		Dimensions mm			
	E (UNO)	F (JIC)	A	B	L	S1
J-04-04	7/16" - 20	7/16" - 20	14	9.14	29	14
J-04-05	7/16" - 20	1/2" - 20	14	9.14	29	14
J-04-06	7/16" - 20	9/16" - 18	14.1	9.14	29	17
J-05-05	1/2" - 20	7/16" - 20	14	9.14	29	17
J-05-05	1/2" - 20	1/2" - 20	14	9.14	29	17
J-05-06	1/2" - 20	9/16" - 18	14.1	9.14	29.5	17
J-06-04	9/16" - 18	7/16" - 20	14	9.93	30	17
J-06-05	9/16" - 18	1/2" - 20	14	9.93	30	17
J-06-06	9/16" - 18	9/16" - 18	14.1	9.93	30	17
J-08-08	9/16" - 18	3/4" - 16	16.7	9.93	35	22
J-06-10	9/16" - 18	7/8" - 14	19.3	9.93	37	24
J-08-04	3/4" - 16	7/16" - 20	14	11.13	33	22
J-08-05	3/4" - 16	1/2" - 20	14	11.13	33	22
J-08-06	3/4" - 16	9/16" - 18	14.1	11.13	33	22
J-08-08	3/4" - 16	3/4" - 16	16.7	11.13	36	22
J-08-10	3/4" - 16	7/8" - 14	19.3	11.13	39	24
J-08-12	3/4" - 16	1.1/16" - 12	21.9	11.13	43	30
J-10-06	7/8" - 14	9/16" - 18	14.1	12.7	37	27
J-10-08	7/8" - 14	3/4" - 16	16.7	12.7	40	27
J-10-10	7/8" - 14	7/8" - 14	19.3	12.7	42.5	27
J-10-12	7/8" - 14	1.1/16" - 12	21.9	12.7	45	30
J-12-04	1.1/16" - 12	7/16" - 20	14	15.09	40	32
J-12-06	1.1/16" - 12	9/16" - 18	14.1	15.09	40	32
J-12-12	1.1/16" - 12	3/4" - 16	16.7	15.09	43	32
J-12-10	1.1/16" - 12	7/8" - 14	19.3	11.13	39	24
J-12-12	1.1/16" - 12	1.1/16" - 12	21.9	15.09	48	32
J-12-14	1.1/16" - 12	1.3/16" - 12	22.6	15.09	48.5	32
J-12-16	1.1/16" - 12	1.5/16" - 12	21.9	15.09	48	38
J-14-08	1.3/16" - 12	3/4" - 16	16.7	15.09	43	36
J-14-10	1.3/16" - 12	7/8" - 14	19.3	15.09	45.5	36
J-14-12	1.3/16" - 12	1.1/16" - 12	21.9	15.09	48	36
J-14-14	1.3/16" - 12	1.3/16" - 12	22.6	15.09	48.5	36
J-14-16	1.3/16" - 12	1.5/16" - 12	22.6	15.09	50.5	38
J-16-08	1.5/16" - 12	3/4" - 16	16.7	15.09	42.5	38
J-16-10	1.5/16" - 12	7/8" - 14	19.3	15.09	45.5	38
J-16-12	1.5/16" - 12	1.1/16" - 12	21.9	15.09	48	38
J-16-14	1.5/16" - 12	1.3/16" - 12	22.6	15.09	50.5	38
J-16-16	1.5/16" - 12	1.5/16" - 12	23.1	15.09	49	38
J-16-20	1.5/16" - 12	1.5/8" - 12	24.3	15.09	52.5	46
J-20-12	1.5/8" - 12	1.1/16" - 12	21.9	15.09	52	50
J-20-16	1.5/8" - 12	1.5/16" - 12	23.1	15.09	53	50
J-20-20	1.5/8" - 12	1.5/8" - 12	24.3	15.09	54.5	50
J-20-24	1.5/8" - 12	1.7/8" - 12	27.5	15.09	57.5	50
J-24-20	1.7/8" - 12	1.5/8" - 12	24.3	15.09	54.5	55
J-24-24	1.7/8" - 12	1.7/8" - 12	27.5	15.09	57.5	55
J-32-32	2.1/2"-12	2.1/2"-12	14.3	33.6	70.6	70

STRAIGHT CONNECTORS



JNB SERIES

NPT MALE x JIC MALE



Product Code	Thread		Dimensions mm				
	E (NPT)	F (JIC)	A	B	L	S1	S2
JNB-04-04	7/16" - 20	7/16" - 20	14.8	31.2	52.8	17.5	17.5
JNB-06-06	9/16" - 18	9/16" - 18	15	33.2	55.5	20.7	20.7
JNB-08-08	3/4" - 16	3/4" - 16	19.8	37.4	65.1	25.4	25.4
JNB-12-12	1.1/16" - 12	1.1/16" - 12	19.8	45.2	75.6	34.9	34.9
JNB-16-16	1.5/16" - 12	1.5/16" - 12	24.5	45.2	80.5	41.3	41.3

JC SERIES

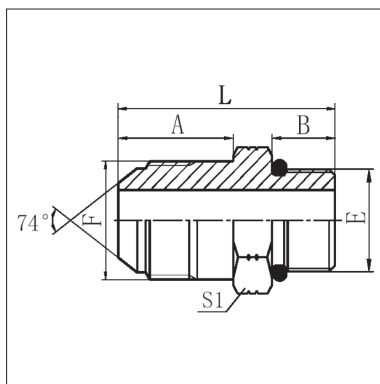
30° DUAL JIS SEALING SEAT



Product Code	Dimensions mm	
	A (oal)	B (half)
JC-04	10.1	5.05
JC-06	10.6	5.3
JC-08	12.4	6.2
JC-12	12	6
JC-16	11.9	5.95

K SERIES

UNO MALE x JIC MALE EXT.



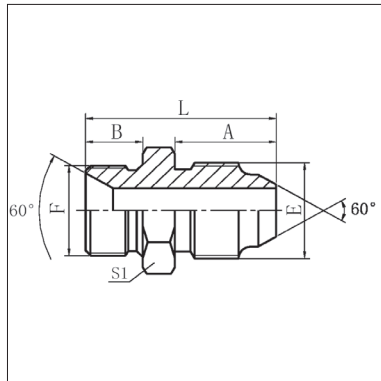
Product Code	Thread		Dimensions mm				
	E (UNO)	F (JIC)	A	B	L	S1	
K-04-04	7/16" - 20	7/16" - 20	35	9.1	50.5	14	
K-05-05	1/2" - 20	1/2" - 20					
K-06-06	9/16" - 18	9/16" - 18	39	9.9	55	17	
K-08-06	3/4" - 16	9/16" - 18	39	11.1	58	22	
K-08-08	3/4" - 16	3/4" - 16	48	11.1	67.5	22	
K-12-08	7/8" - 14	3/4" - 16	48	12.7	71	27	
K-10-10	7/8" - 14	7/8" - 14	53	12.7	76	27	
K-12-10	1.1/16" - 12	7/8" - 14					
K-12-12	1.1/16" - 12	1.1/16" - 12	63	15.1	89	32	
K-12-16	1.1/16" - 12	1.5/16" - 12	72	15.1	100	38	
K-16-12	1.5/16" - 12	1.1/16" - 12					
K-16-16	1.5/16" - 12	1.5/16" - 12	72	15.1	100	38	

STRAIGHT CONNECTORS



KA SERIES KOMATSU®

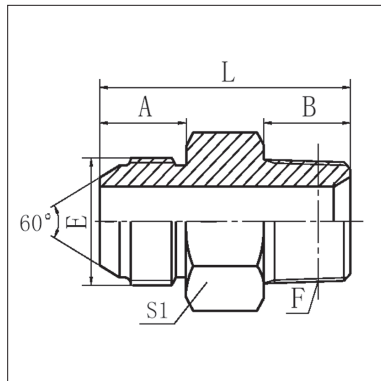
JIS (METRIC) MALE x BSPP MALE



Product Code	Thread		Dimensions mm			
	E (METRIC)	F (BSPP)	A	B	L	S1
KA-14-04	M14 - 1.5	1/4" - 19	15.5	12	33.5	19
KA-18-06	M18 - 1.5	3/8" - 19	18	13.5	39.5	22
KA-22-06	M22 - 1.5	3/8" - 19	20	13.5	41.5	24
KA-22-08	M22 - 1.5	1/2" - 14	20	16	46	27
KA-24-08	M24 - 1.5	1/2" - 14	22	16	48	27
KA-24-12	M24 - 1.5	3/4" - 14	22	18.5	51.5	32

KF SERIES KOMATSU®

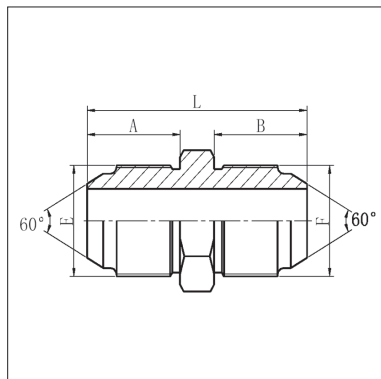
JIS METRIC MALE x BSPT MALE



Product Code	Thread		Dimensions mm			
	E (METRIC)	F (BSPT)	A	B	L	S1
KF-14-04	M14 - 1.5	1/4" - 19	17	14.5	37.5	17
KF-14-06	M14 - 1.5	3/8" - 19	17	15	38	19
KF-16-06	M16 - 1.5	3/8" - 19	18	15	38	19
KF-18-06	M18 - 1.5	3/8" - 19	18	15	38	19
KF-20-06	M20 - 1.5	3/8" - 19	20	15	43	22
KF-22-06	M22 - 1.5	3/8" - 19	20	15	43	24
KF-22-08	M22 - 1.5	1/2" - 14	20	20	48	24
KF-24-08	M24 - 1.5	1/2" - 14	21.5	20	51.5	27
KF-24-12	M24 - 1.5	3/4" - 14	21.5	20	51.5	30
KF-30-12	M30 - 1.5	3/4" - 14	26	20	57	32
KF-33-16	M33 - 1.5	1" - 11	30	25.5	66.5	36

KP SERIES KOMATSU®

JIS METRIC MALE x JIS METRIC MALE

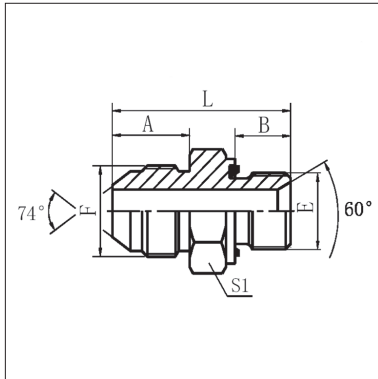


Product Code	Thread		Dimensions mm			
	E (METRIC)	F (METRIC)	A	B	L	S1
KP-14-14	M14 - 1.5	M14 - 1.5	17	17	40	17
KP-16-16	M16 - 1.5	M16 - 1.5	18	18	42	19
KP-18-18	M18 - 1.5	M18 - 1.5	18	18	42	19
KP-20-20	M20 - 1.5	M20 - 1.5	20	20	48	22
KP-22-22	M22 - 1.5	M22 - 1.5	20	20	48	24
KP-24-24	M24 - 1.5	M24 - 1.5	21.5	21.5	53	27
KP-30-30	M30 - 1.5	M30 - 1.5	26	26	63	32
KP-33-33	M33 - 1.5	M33 - 1.5	30	30	71	36

STRAIGHT CONNECTORS



L SERIES METRIC MALE x JIC MALE



Product Code	Thread		Dimensions mm			
	E (METRIC)	F (JIC)	A	B	L	S1
L-10X1.0-04 ‡	M10 - 1	7/16" - 20	14	8	29.5	17
L-10X1.5-04	M10 - 1.5	7/16" - 20	14	8	29.5	17
L-12-04	M12 - 1.5	7/16" - 20	14	10	31	17
L-12-06	M12 - 1.5	9/16" - 18	14	12	33.5	17
L-14-06	M14 - 1.5	9/16" - 18	14	12	34	19
L-14-08	M14 - 1.5	3/4" - 16	16.7	12	38.5	22
L-16-06	M16 - 1.5	9/16" - 18	14	12	36	22
L-16-08	M16 - 1.5	3/4" - 16	16.7	12	38.5	22
L-18-06	M18 - 1.5	9/16" - 18	14.1	12	36.5	24
L-18-08	M18 - 1.5	3/4" - 16	16.7	12	39	24
L-18-10	M18 - 1.5	7/8" - 14	19.3	12	41.5	24
L-18-12 †	M18 - 1.5	1.1/16" - 12	21.9	12	46.5	30
L-20-06	M20 - 1.5	9/16" - 18	14.1	14	40.5	27
L-20-08	M20 - 1.5	3/4" - 16	16.7	14	43	27
L-20-10	M20 - 1.5	7/8" - 14	19.3	14	45.5	27
L-22-08	M22 - 1.5	3/4" - 16	16.7	14	43.5	27
L-22-10	M22 - 1.5	7/8" - 14	19.3	14	46	27
L-22-12	M22 - 1.5	1.1/16" - 12	21.9	14	48.5	30
L-26-12	M26 - 1.5	1.1/16" - 12	21.9	16	52	32
L-26-16 †	M26 - 1.5	1.5/16" - 12	23.1	16	53	36
L-27-12 ‡	M27 - 2	1.1/16" - 12	21.9	16	52	32
L-33-12	M33 - 2	1.1/16" - 12	21.9	18	52	38
L-33-16	M33 - 2	1.5/16" - 12	23.1	18	57	41
L-33-20	M33 - 2	1.5/8" - 12	24.3	18	58.2	46
L-42-20	M42 - 2	1.5/8" - 12	24.3	20	62	50
L-42-24	M42 - 2	1.7/8" - 12	27.5	20	64	50
L-48-20	M48 - 2	1.5/8" - 12	24.3	22	67.5	55
L-48-24	M48 - 2	1.7/8" - 12	27.5	22	67.5	55

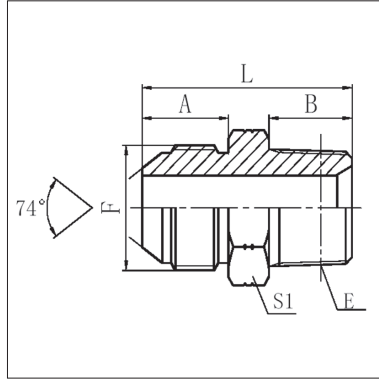
† Captive Seal
‡ Washer O-Ring

STRAIGHT CONNECTORS



M SERIES

NPT MALE x JIC MALE



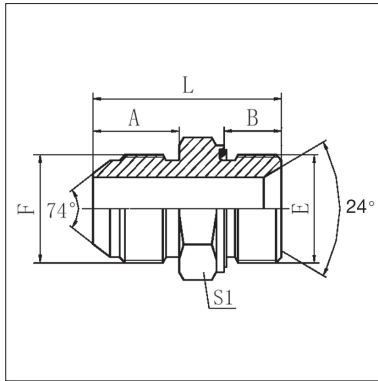
Product Code	Thread		Dimensions mm			
	E (NPT)	F (JIC)	A	B	L	S1
M-02-04	1/8" - 27	7/16" - 20	14	10	30.5	12
M-02-05	1/8" - 27	1/2" - 20	14	10.5	30.5	14
M-02-06	1/8" - 27	9/16" - 18	14.1	10.5	30.5	17
M-04-04	1/4" - 18	7/16" - 20	14	15	35	17
M-04-05	1/4" - 18	1/2" - 20	14	15	35	17
M-04-05	1/4" - 18	9/16" - 18	14.1	15	34.5	17
M-04-S06 †	1/4" - 18	5/8" - 18 †	15.7	14.9	37.7	17.5
M-04-08	1/4" - 18	3/4" - 16	16.7	15	39	22
M-06-04	3/8" - 18	7/16" - 20	14	15	36	19
M-06-05	3/8" - 18	1/2" - 20	14	15	35	19
M-06-06	3/8" - 18	9/16" - 18	14.1	16	36	19
M-06-S06 †	3/8" - 18	5/8" - 18 †	15.6	13.9	37.6	17.4
M-06-08	3/8" - 18	3/4" - 16	16.7	16	40	22
M-06-10	3/8" - 18	7/8" - 14	19.3	16	43.5	24
M-06-12	3/8" - 18	1.1/16" - 12	21.9	16	48	30
M-08-04	1/2" - 14	7/16" - 20	14	19.5	40	22
M-08-06	1/2" - 14	9/16" - 18	14.1	19.5	41.5	22
M-08-S06 †	1/2" - 14	5/8" - 18 †				
M-08-08	1/2" - 14	3/4" - 16	16.7	19.5	44	24
M-08-10	1/2" - 14	7/8" - 14	19.3	19.5	47	24
M-08-12	1/2" - 14	1.1/16" - 12	21.9	19.5	51	30
M-12-06	3/4" - 14	9/16" - 18	15	19.5	44.5	30
M-12-08	3/4" - 14	3/4" - 16	16.7	19.5	46.5	30
M-12-10	3/4" - 14	7/8" - 14	19.3	19.5	49	30
M-12-12	3/4" - 14	1.1/16" - 12	21.9	19.5	51.5	30
M-12-14	3/4" - 14	1.3/16" - 12	22.6	19.5	53	32
M-12-16	3/4" - 14	1.5/16" - 12	23.1	19.5	53.5	36
M-16-12	1" - 11.5	1.1/16" - 12	21.9	25.5	58.5	36
M-16-14	1" - 11.5	1.3/16" - 12				
M-16-16	1" - 11.5	1.5/16" - 12	23.1	25.5	58.5	36
M-16-20	1" - 11.5	1.5/8" - 12	24.3	25.5	63	46
M-20-16	1.1/4" - 11.5	1.5/16" - 12	23.1	26.5	62.5	46
M-20-20	1.1/4" - 11.5	1.5/8" - 12	24.3	26.5	63.5	46
M-20-24	1.1/4" - 11.5	1.7/8" - 12	27.5	26.5	69	50
M-24-20	1.1/2" - 11.5	1.5/8" - 12	24.3	27.5	67	50
M-24-24	1.1/2" - 11.5	1.7/8" - 12	27.5	27.5	70	50
M-24-32	1.1/2" - 11.5	2.1/2" - 12	33.9	27.5	78.5	65
M-32-24	2" - 11.5	1.7/8" - 12	27.5	27.5	78.5	65
M-32-32	2" - 11.5	2.1/2" - 12	33.9	27.5	80	65

† SAE Thread Form

STRAIGHT CONNECTORS



MJM SERIES DUAL PURPOSE METRIC MALE x MALE JIC MALE



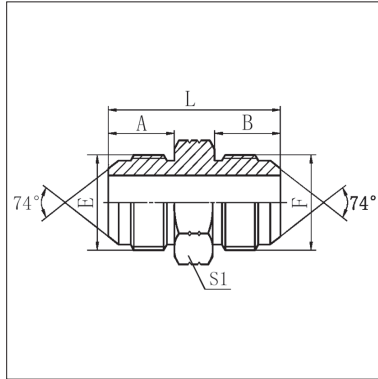
Product Code	Thread			Dimensions mm			
	E (METRIC)	Ø m	F (JIC)	A	B	L	S1
MJM-04-06L	M12 x 1.5	6	7/16" - 20	13.8	11.9	32.9	18.9
MJM-04-06S	M14 x 1.5	6	7/16" - 20	13.8	11.9	32.9	18.9
MJM-04-08L	M14 x 1.5	8	7/16" - 20	14.3	10.2	30.9	16.9
MJM-04-08S	M16 x 1.5	8	7/16" - 20	14	11.1	36	21.8
MJM-04-10L	M16 x 1.5	10	7/16" - 20	14	9.8	32	21.8
MJM-04-10S	M18 x 1.5	10	7/16" - 20	14	12	39.1	21.8
MJM-06-08L	M14 x 1.5	8	9/16" - 18	14.2	10	30.9	16.9
MJM-06-08S	M16 x 1.5	8	9/16" - 18	14.1	12.2	34	17.1
MJM-06-10L	M16 x 1.5	10	9/16" - 18	13.6	11.5	35.7	22
MJM-06-10S	M18 x 1.5	10	9/16" - 18	14	11.9	34	18.9
MJM-06-12L	M18 x 1.5	12	9/16" - 18	13.8	11	31.8	19
MJM-06-12S	M20 x 1.5	12	9/16" - 18	13.9	12.2	35.9	21.9
MJM-08-12L	M18 x 1.5	12	3/4" - 16	16.6	10.9	38.9	23.9
MJM-08-12S	M20 x 1.5	12	3/4" - 16	16.6	12	38.9	21.8
MJM-08-15L	M22 x 1.5	15	3/4" - 16	16.6	11.8	38.9	26.8
MJM-08-16S	M24 x 1.5	16	3/4" - 16	16.6	14.2	42.1	29.9
MJM-08-18L	M26 x 1.5	18	3/4" - 16	16.6	11.7	40.9	31.9
MJM-10-16S	M24 x 1.5	16	7/8" - 14	19.5	14.2	42.1	29.9
MJM-12-20S	M30 x 2.0	20	1.1/16" - 12	21.9	16.1	52.3	35.9

STRAIGHT CONNECTORS



P SERIES

JIC MALE x JIC MALE

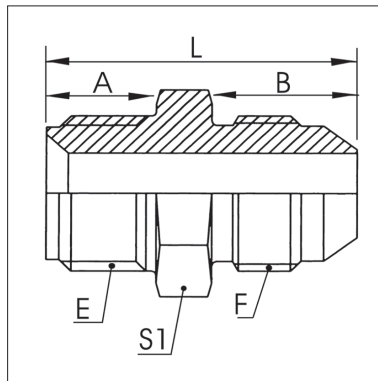


Product Code	Thread		Dimensions mm			
	E (JIC)	F (JIC)	A	B	L	S1
P-04-04	7/16" - 20	7/16" - 20	14	14	34	12
P-05-05	1/2" - 20	1/2" - 20	14	14	34	14
P-06-04	9/16" - 18	7/16" - 20	14.1	14	34.1	17
P-06-06	9/16" - 18	9/16" - 18	14.4	14.1	34.2	17
P-S06-S06 †	5/8" - 18	5/8" - 18 †	15.7	15.7	38.2	17.5
P-08-04	3/4" - 16	7/16" - 20	16.7	14	38.5	22
P-08-06	3/4" - 16	9/16" - 18	16.7	14.1	38.5	22
P-08-08	3/4" - 16	3/4" - 16	16.7	16.7	42	22
P-10-06	7/8" - 14	9/16" - 18	19.3	14.1	41.5	24
P-10-08	7/8" - 14	3/4" - 16	19.3	16.7	44	24
P-10-10	7/8" - 14	7/8" - 18	19.3	19.3	46.5	24
P-12-06	1.1/16" - 12	9/16" - 18	21.9	14.1	46	30
P-12-08	1.1/16" - 12	3/4" - 16	21.9	16.7	48.5	30
P-12-10	1.1/16" - 12	7/8" - 14	21.9	19.3	51	30
P-12-12	1.1/16" - 12	1.1/16" - 12	21.9	21.9	54	30
P-14-14	1.3/16" - 12	1.3/16" - 12	22.6	22.6	56	32
P-16-10	1.5/16" - 12	7/8" - 14	23.1	19.3	53.5	36
P-16-12	1.5/16" - 12	1.1/16" - 12	23.1	21.9	56	36
P-16-14	1.5/16" - 12	1.3/16" - 12	23.1	22.6	56.5	36
P-16-16	1.5/16" - 12	1.5/16" - 12	23.1	23.1	57	36
P-20-16	1.5/8" - 12	1.5/16" - 12	24.3	23.1	60.5	46
P-20-20	1.5/8" - 12	1.5/8" - 12	24.3	24.3	62	46
P-24-24	1.7/8" - 12	1.7/8" - 12	27.5	27.5	70	50
P-32-32	2.1/2" - 12	2.1/2" - 12	33.9	33.9	85	65

† SAE Thread Form

PS SERIES

SAE INVERTED FLARE x JIC MALE



Product Code	Thread		Dimensions mm			
	E (SAE Flare)	F (JIC)	A	B	L	S1
PS-03-04	3/8" - 24	7/16" - 20	8.7	14	29.2	12.7
PS-04-04	7/16" - 24	7/16" - 20	9.6	14.2	29.8	12
PS-05-05	1/2" - 20	1/2" - 20	9.7	13.4	30.1	14.3
PS-05-06	1/2" - 20	9/16" - 18	9.9	13.9	31.7	16.1
PS-05-S06 †	1/2" - 20	5/8" - 18 †	9.5	15.3	31.7	17.5
PS-06-06	5/8" - 18	9/16" - 18	10.3	14	31.9	17.5
PS-06-S06 †	5/8" - 18	5/8" - 18 †	10.4	16	32.7	17.5
PS-06-08	5/8" - 18	3/4" - 16	10.5	16.2	34.6	20.6
PS-07-08	11/16" - 18	3/4" - 16	12.7	16.4	37.4	20.6
PS-08-08	3/4" - 18	3/4" - 16	12.2	16.3	37.1	20.6

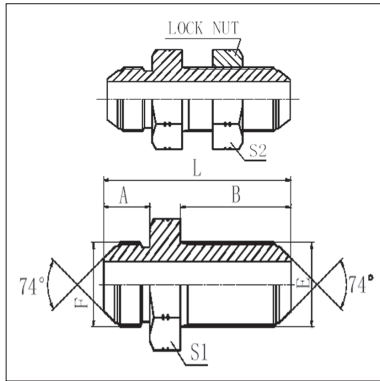
† SAE Thread Form

STRAIGHT CONNECTORS



R SERIES

JIC MALE x JIC MALE BULKHEAD



Product Code	Thread		Dimensions mm				
	E (JIC)	F (JIC)	A	B	L	S1	S2
R-04-04	7/16" - 20	7/16" - 20	14	32.5	52.5	17	17
R-06-06	9/16" - 18	9/16" - 18	14.1	32.5	54.5	22	22
R-S06-S06 †	5/8" - 18	5/8" - 18	15.7	36.0	60	24	24
R-08-08	3/4" - 16	3/4" - 16	16.7	36.5	61.5	24	24
R-10-10	7/8" - 14	7/8" - 14	19.3	40	69.5	30	30
R-12-12	1.1/16" - 12	1.1/16" - 12	21.9	44.5	78.5	36	36
R-14-14	1.3/16" - 12	1.3/16" - 12	22.6	44.5	79.2	38	38
R-16-16	1.5/16" - 12	1.5/16" - 12	23.1	44.5	79.8	41	41
R-20-20	1.5/8" - 12	1.5/8" - 12	24.3	45.7	84	50	50
R-24-24	1.7/8" - 12	1.7/8" - 12	27.5	46	89.5	55	55

† SAE Thread Form



SECTION 2 TEES / CROSSES

PAGE

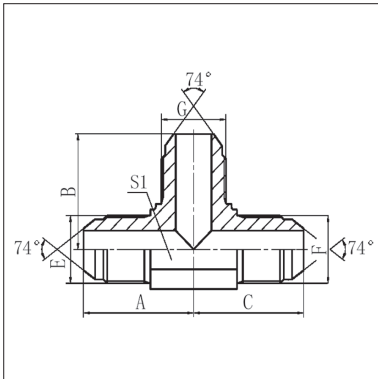
			PAGE
CBA	JIC x JIC x JIC	M / M / M	21
CBB / CBBI	JIC x JIC x JIC	M / M / F	21
CBH	JIC x JIC x JIC BULKHEAD	M / M / M	22
CBJ	JIC x JIC x BSPT	M / M / M	22
CBJN	JIC x JIC x NPT	M / M / M	22
CBM	JIC x JIC x UNO	M / M / M	23
CMA / CMAI	JIC x JIC x JIC	M / F / M	23
CXA	JIC x JIC BULKHEAD X JIC	M / M / M	23
CTA	JIC x BSPT x JIC	M / M / M	24
CTAN	JIC x NPT x JIC	M / M / M	24
CTP	JIC x BSPP x JIC	M / M / M	24
CYA	JIC x UNO x JIC	M / M / M	25
EPD / EPDP	BSP x BSPP x BSP	M / F / M	25
EPF	BSPT x BSPT x BSPT	F / F / F	25
EPFFM	BSPP x BSPP x BSPT	F _{sw} / F _{sw} / M	26
EPFLF	BSPT x BSPT x BSPT	F / M / F	26
EPJ	BSPT x BSPT x BSPT	M / M / M	26
EPK / EPKHD	NPT x NPT x NPT	F / F / F	27
EPKKL	NPT / NPT / NPT	F / F / M	27
EPKLK	NPT x NPT x NPT	F / M / F	27
EPP	BSPT x BSPP x BSPT	M / M / M	28
EPS	BSPT x BSPT x BSPP	M / M / F	28
FF1220	ORFS x ORFS x ORFS	M / M / M	28
FF1221	ORFS x ORFS x NPT	M / M / M	29
FF1265	ORFS x ORFS x UNO	M / M / M	29
FF1266	ORFS x UNO x ORFS	M / M / M	29
FF1248	ORFS x ORFS x ORFS	M / F / M	30
FF1227	ORFS x ORFS x ORFS	M / M / F	30
KMA	JIS MET x JIS MET x JIS MET	M / F / M	30
KYA	JIS MET x JIS MET 'O' x JIS MET	M / M / M	31
FF1229	ORFS CROSS	M/M/M/M	31

TEES



CBA SERIES

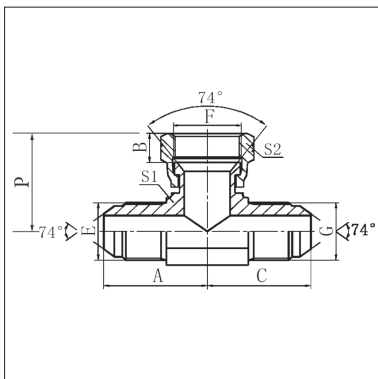
JIC MALE x JIC MALE x JIC MALE



Product Code	Thread			Dimensions mm			
	E (JIC)	F (JIC)	G (JIC)	A	B	C	S1
CBA-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	24.5	24.5	24.5	11
CBA-05-05-05	1/2" - 20	1/2" - 20	1/2" - 20	26	26	26	14
CBA-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	26.9	26.9	26.9	14
CBA-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	32	32	32	19
CBA-08-08-12	3/4" - 16	3/4" - 16	1.1/16" - 12	38	38	44.2	27
CBA-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	37.8	37.8	37.8	22
CBA-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	44.2	44.2	44.2	27
CBA-12-12-16	1.1/16" - 12	1.1/16" - 12	1.5/16" - 12	46	46.5	46	33
CBA-16-12-12	1.5/16" - 12	1.1/16" - 12	1.1/16" - 12	46	46	46	33
CBA-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	49	49	49	33
CBA-20-20-20	1.5/8" - 12	1.5/8" - 12	1.5/8" - 12	56.5	56.5	56.5	41
CBA-24-24-24	1.7/8" - 12	1.7/8" - 12	1.7/8" - 12	63	63	63	48

CBB SERIES

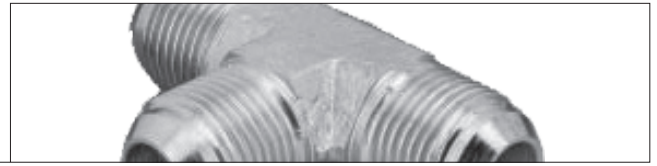
JIC MALE x JIC MALE x JIC FEMALE



Product Code	Thread			Dimensions mm					
	E (JIC)	F (JIC)	G (JIC)	A	B	C	S1	S2	P
CBB-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	22.5	9	22.5	11	15	25.5
CBB-05-05-05	1/2" - 20	1/2" - 20	1/2" - 20	24	9.5	24	14	17	27
CBB-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	27	10.5	27	14	19	32
CBB-S06-S06-S06 †	5/8" x 18	5/8" x 18	5/8" x 18	30	11.3	30	16	22	
CBB-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	31.5	11	31.5	19	24	35
CBB-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	36.5	14	36.5	22	27	41
CBB-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	42	15	42	27	32	44.5
CBB-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	46	16	46	33	41	51
CBB-20-20-20	1.5/8" - 12	1.5/8" - 12	1.5/8" - 12	52	17	52	41	50	59
CBB-24-24-24	1.7/8" - 12	1.7/8" - 12	1.7/8" - 12	59	20	59	48	55	66

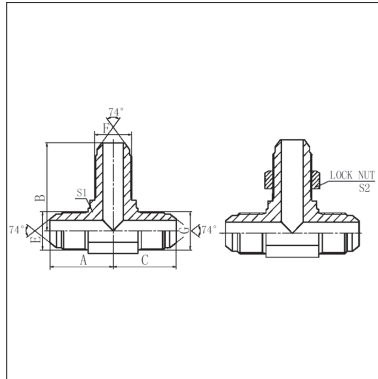
† SAE Thread Form

TEES



CBH SERIES

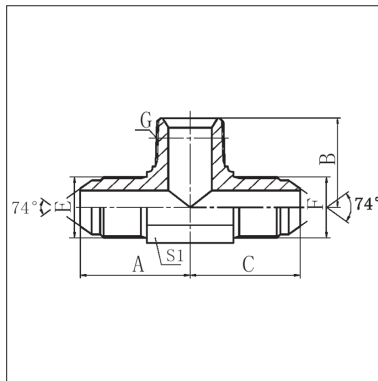
JIC MALE x JIC MALE x JIC MALE BULKHEAD



Product Code	Thread			Dimensions mm				
	E (JIC)	F (JIC)	G (JIC)	A	B	C	S1	S2
CBH-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	24.5	40.4	24.5	11	17
CBH-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	26.9	46	26.9	14	22
CBH-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	32	53.5	32	19	24
CBH-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	37.8	60.7	37.8	22	30
CBH-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	44.2	67.8	44.2	27	36
CBH-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	49	71	49	33	41

CBJ SERIES

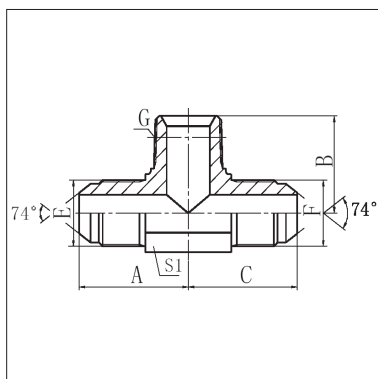
JIC MALE x JIC MALE x BSPT MALE



Product Code	Thread			Dimensions mm			
	E (JIC)	F (JIC)	G (BSPT)	A	B	C	S1
CBJ-04-04-02	7/16" - 20	7/16" - 20	1/8" - 28	24.5	21	24.5	11
CBJ-04-04-04	7/16" - 20	7/16" - 20	1/4" - 19	26.5	25.5	26.5	14
CBJ-06-06-04	9/16" - 18	9/16" - 18	1/4" - 19	26.9	25.5	26.9	14
CBJ-06-06-06	9/16" - 18	9/16" - 18	3/8" - 19	28.5	28.5	28.5	16
CBJ-08-08-06	3/4" - 16	3/4" - 16	3/8" - 19	32	30.5	32	19
CBJ-08-08-08	3/4" - 16	3/4" - 16	1/2" - 14	34.8	36	34.8	22
CBJ-10-10-08	7/8" - 14	7/8" - 14	1/2" - 14	37.8	36	37.8	22
CBJ-12-12-12	1.1/16" - 12	1.1/16" - 12	3/4" - 14	44.2	43.5	44.2	27
CBJ-16-16-16	1.5/16" - 12	1.5/16" - 12	1" - 11	49	50	49	33
CBJ-20-20-20	1.5/8" - 12	1.5/8" - 12	1.1/4" - 11	55.5	56.5	55.5	41

CBJN SERIES

JIC MALE x JIC MALE x NPT MALE



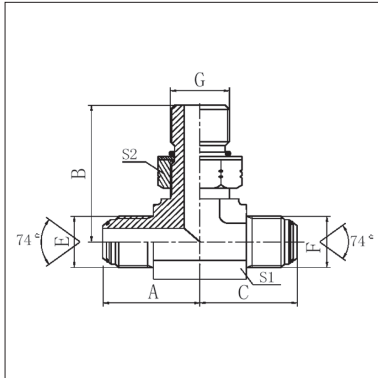
Product Code	Thread			Dimensions mm			
	E (JIC)	F (JIC)	G (NPT)	A	B	C	S1
CBJN-04-04-02	7/16" - 20	7/16" - 20	1/8" - 27	24.5	21	24.5	11
CBJN-04-04-04	7/16" - 20	7/16" - 20	1/4" - 18	26.6	25.5	26.6	14
CBJN-06-06-04	9/16" - 18	9/16" - 18	1/4" - 18	26.9	25.5	26.9	14
CBJN-06-06-06	9/16" - 18	9/16" - 18	3/8" - 18	30	31	30	19
CBJN-08-08-06	3/4" - 16	3/4" - 16	3/8" - 18	32	31	32	19
CBJN-08-08-08	3/4" - 16	3/4" - 16	1/2" - 14	34.8	37.3	34.8	22
CBJN-10-10-08	7/8" - 14	7/8" - 14	1/2" - 14	37.8	36.7	37.8	22
CBJN-12-12-12	1.1/16" - 12	1.1/16" - 12	3/4" - 14	44.2	44	44.2	27
CBJN-16-16-16	1.5/16" - 12	1.5/16" - 12	1" - 11.5	49	50	49	33

TEES



CBM SERIES

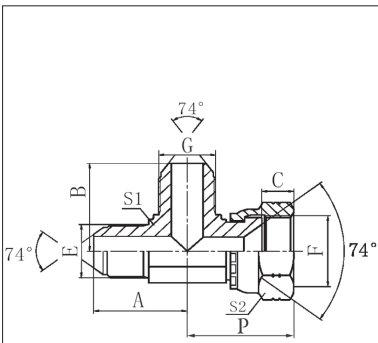
JIC MALE x JIC MALE x UNO MALE



Product Code	Thread			Dimensions mm				
	E (JIC)	F (JIC)	G (UNO)	A	B	C	S1	S2
CBM-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	24.5	27.2	24.5	11	17
CBM-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	26.9	31.8	26.9	14	19
CBM-08-08-06	3/4" - 16	3/4" - 16	9/16" - 18	-	-	-	-	-
CBM-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	33	36.8	33	19	24
CBM-10-10-10	3/4" - 16	3/4" - 16	7/8" - 14	34.5	43	34.5	22	26
CBM-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	37.8	44	37.8	22	27
CBM-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	44.2	51	44.2	27	32
CBM-16-16-12	1.5/16" - 12	1.5/16" - 12	1.1/16" - 12	-	-	-	-	-
CBM-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	48.8	54.5	48.8	33	41
CBM-20-20-20	1.5/8" - 12	1.5/8" - 12	1.5/8" - 12	55.3	59	55.3	41	50
CBM-24-24-24	1.7/8" - 12	1.7/8" - 12	1.7/8" - 12	62.5	63	62.5	48	55

CMA SERIES

JIC MALE x JIC FEMALE x JIC MALE

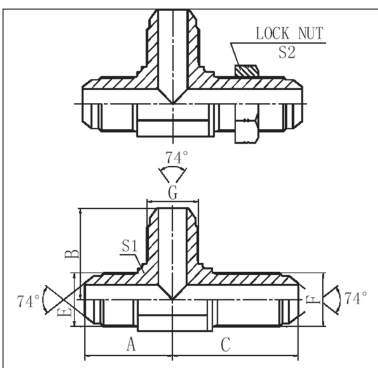


Product Code	Thread			Dimensions mm					
	E (JIC)	F (JIC)	G (JIC)	A	B	C	S1	S2	P
CMA-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	22.5	22.5	9	11	15	25.5
CMA-05-05-05	1/2" - 20	1/2" - 20	1/2" - 20	24	24	9.5	14	17	27
CMA-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	27	27	10.5	14	19	32
CMA-S06-S06-S06 †	5/8" - 18	5/8" - 18	5/8" - 18	30	30	11.3	16	22	-
CMA-08-08-06	3/4" - 16	3/4" - 16	9/16" - 18	-	-	-	-	-	-
CMA-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	31.5	31.5	9.5	19	24	35
CMA-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	36.5	36.5	13	22	27	41
CMA-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	42	42	15	27	32	44.5
CMA-16-12-16	1.5/16" - 12	1.1/16" - 12	1.5/16" - 12	-	-	-	-	-	-
CMA-16-16-12	1.5/16" - 12	1.5/16" - 12	1.1/16" - 12	-	-	-	-	-	-
CMA-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	46	46	16	33	41	51
CMA-20-20-20	1.5/8" - 12	1.5/8" - 12	1.5/8" - 12	52	52	17	41	50	59
CMA-24-24-24	1.7/8" - 12	1.7/8" - 12	1.7/8" - 12	59	59	20	48	55	66

† SAE Thread Form

CXA SERIES

JIC MALE x JIC MALE BULKHEAD x JIC MALE

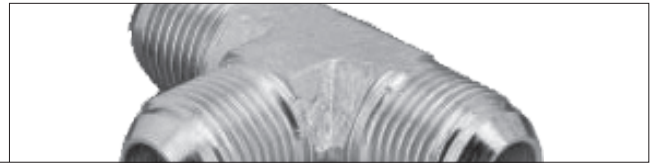


Product Code	Thread			Dimensions mm				
	E (JIC)	F (JIC)	G (JIC)	A	B	C	S1	S2
CXA-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	24.5	24.5	40.4	11	17
CXA-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	26.9	26.9	46	14	22
CXA-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	32	32	53.5	19	24
CXA-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	37.8	37.8	60.7	22	30
CXA-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	44.2	44.2	67.8	27	36
CXA-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	49	49	71	33	41



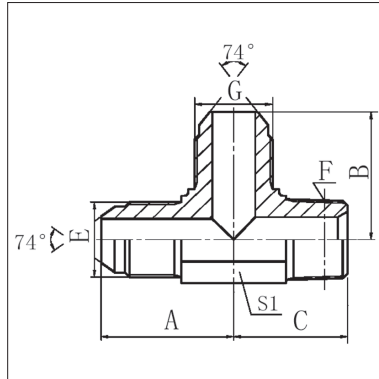
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CTA SERIES

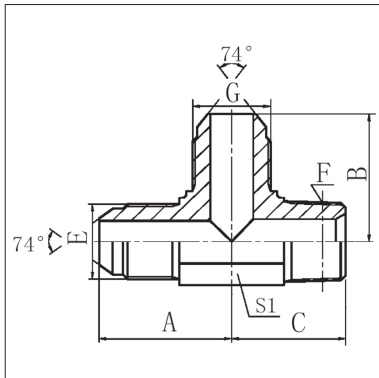
JIC MALE x BSPT MALE x JIC MALE



Product Code	Thread			Dimensions mm			
	E (JIC)	F (BSPT)	G (JIC)	A	B	C	S1
CTA-04-02-04	7/16" - 20	1/8" - 28	7/16" - 20	24.5	24.5	21	11
CTA-04-04-04	7/16" - 20	1/4" - 19	7/16" - 20	26.6	26.6	25.5	14
CTA-06-04-06	9/16" - 18	1/4" - 19	9/16" - 18	26.9	26.9	25.5	14
CTA-06-06-06	9/16" - 18	3/8" - 19	9/16" - 18	28.5	28.5	28.5	16
CTA-08-06-08	3/4" - 16	3/8" - 19	3/4" - 16	32	32	30.5	19
CTA-08-08-08	3/4" - 16	1/2" - 14	3/4" - 16	34.8	34.8	36	22
CTA-10-08-10	7/8" - 14	1/2" - 14	7/8" - 14	37.8	37.8	36	22
CTA-12-12-12	1.1/16" - 12	3/4" - 14	1.1/16" - 12	44.2	44.2	43.5	27
CTA-16-16-16	1.5/16" - 12	1" - 11	1.5/16" - 12	49	49	50	33
CTA-20-20-20	1.5/8" - 12	1.1/4" - 11	1.5/8" - 12	55.5	55.5	56.5	41

CTAN SERIES

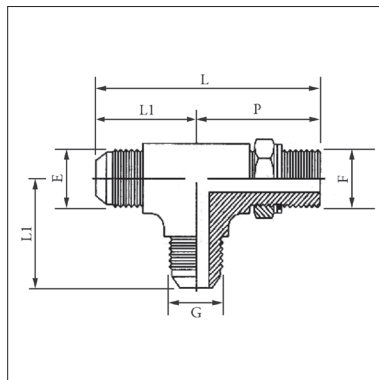
JIC MALE x NPT MALE x JIC MALE



Product Code	Thread			Dimensions mm			
	E (JIC)	F (NPT)	G (JIC)	A	B	C	S1
CTAN-04-02-07	7/16" - 20	1/8" - 27	7/16" - 20	24.5	24.5	21	11
CTAN-06-04-06	9/16" - 18	1/4" - 18	9/16" - 18	26.9	26.9	25.5	14
CTAN-08-06-08	3/4" - 16	3/8" - 18	3/4" - 16	32	32	31	19
CTAN-08-08-08	3/4" - 16	1/2" - 14	3/4" - 16	34.8	34.8	36.7	22
CTAN-12-12-12	1.1/16" - 12	3/4" - 14	1.1/16" - 12	44.2	44.2	44	27
CTAN-16-16-16	1.5/16" - 12	1" - 11.5	1.5/16" - 12	49	49	50	33

CTP SERIES

JIC MALE x BSPP MALE x JIC MALE



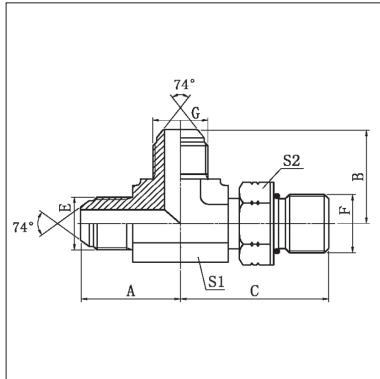
Product Code	Thread			Dimensions mm		
	E (JIC)	F (BSPP)	G (JIC)	L	L1	P
CTP-04-04-04	7/16" - 20	1/4" - 19	7/16" - 20	54	27	31.5
CTP-06-06-06	9/16" - 18	3/8" - 19	9/16" - 18	57	28.5	36.5
CTP-08-08-08	3/4" - 16	1/2" - 14	3/4" - 16	68	34	43
CTP-12-12-12	1.1/16" - 12	3/4" - 14	1.1/16" - 12	84	42	49
CTP-16-16-16	1.5/16" - 12	1" - 11½	1.5/16" - 12	92	46	52

TEES



CYA SERIES

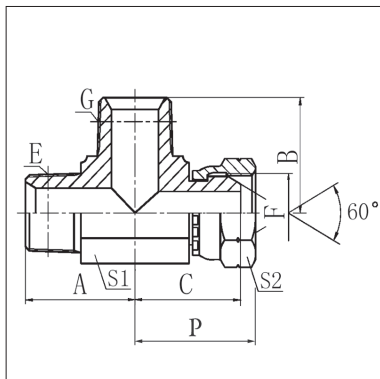
JIC MALE x UNO MALE x JIC MALE



Product Code	Thread			Dimensions mm				
	E (JIC)	F (UNO)	G (JIC)	A	B	C	S1	S2
CYA-04-04-04	7/16" - 20	7/16" - 20	7/16" - 20	24.5	24.5	27.2	11	17
CYA-05-05-05	1/2" - 20	1/2" - 20	1/2" - 20	26.6	26.6	29	14	17
CYA-06-06-06	9/16" - 18	9/16" - 18	9/16" - 18	26.9	26.9	31.8	14	19
CYA-08-08-08	3/4" - 16	3/4" - 16	3/4" - 16	33	33	36.8	19	24
CYA-10-10-10	7/8" - 14	7/8" - 14	7/8" - 14	37.8	37.8	44	22	27
CYA-12-12-12	1.1/16" - 12	1.1/16" - 12	1.1/16" - 12	44.2	44.2	51	27	32
CYA-16-16-16	1.5/16" - 12	1.5/16" - 12	1.5/16" - 12	48.8	48.8	54.5	33	41
CYA-20-20-20	1.5/8" - 12	1.5/8" - 12	1.5/8" - 12	55.3	55.3	59	41	50
CYA-24-24-24	1.7/8" - 12	1.7/8" - 12	1.7/8" - 12	62.5	62.5	63	48	55

EPD / EPDP SERIES

BSP MALE x BSPP FEMALE x BSP MALE

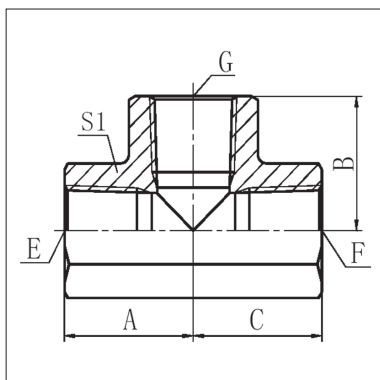


Product Code	Thread			Dimensions mm					
	E (BSPT)	F (BSPP)	G (BSPT)	A	B	C	S1	S2	P
EPD-02-02-02	1/8" - 28	1/8" - 28	1/8" - 28	22.5	22.5	-	-	-	32
EPD-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	27	27	28.5	14	14	34
EPDP-04-04-04 †	1/4" - 19	1/4" - 19	1/4" - 19	27	27	28.5	14	14	34
EPD-06-06-06	3/8" - 19	3/8" - 19	3/8" - 19	29	29	30.7	16	16	37
EPD-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	34	34	36.5	22	22	44
EPD-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	41	41	44.1	27	27	55
EPD-16-16-16	1" - 11	1" - 11	1" - 11	46	46	49.3	33	33	61
EPD-20-20-20	1.1/4" - 11	1.1/4" - 11	1.1/4" - 11	51	51	-	-	-	66

† All threads are BSPP for this adapter

EPF SERIES

BSPT FEMALE x BSPT FEMALE x BSPT FEMALE

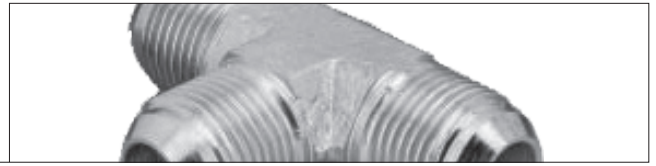


Product Code	Thread			Dimensions mm			
	E (BSPT)	F (BSPT)	G (BSPT)	A	B	C	S1
EPF-02-02-02	1/8" - 28	1/8" - 28	1/8" - 28	20	20	20	16
EPF-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	22.5	22.5	22.5	19
EPF-06-06-06	3/8" - 19	3/8" - 19	3/8" - 19	26	26	26	24
EPF-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	31	31	31	27
EPF-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	34	34	34	33
EPF-16-16-16	1" - 11	1" - 11	1" - 11	42	42	42	41
EPF-20-20-20	1.1/4" - 11	1.1/4" - 11	1.1/4" - 11	48	48	48	50
EPF-24-24-24	1.1/2" - 11	1.1/2" - 11	1.1/2" - 11	53	53	53	60
EPF-32-32-32	2" - 11	2" - 11	2" - 11	62	62	62	70



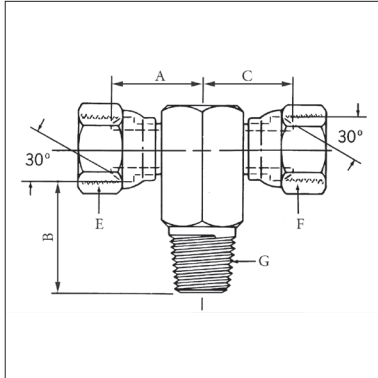
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TEES



EPFFM SERIES

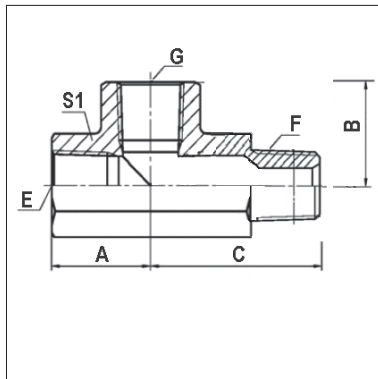
BSPP FEMALE x BSPP FEMALE x BSPT MALE



Product Code	Thread			Dimensions mm		
	E (BSPP)	F (BSPP)	G (BSPT)	A	B	C
EPFFM-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	23.1	31.2	23.1
EPFFM-06-06-06	3/8" - 19	3/8" - 19	3/8" - 19	27.7	38.9	27.7
EPFFM-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	25.4	46	25.4
EPFFM-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	34.5	51.6	34.5
EPFFM-16-16-16	1" - 11	1" - 11	1" - 11	34	60.5	34

EPFLF SERIES

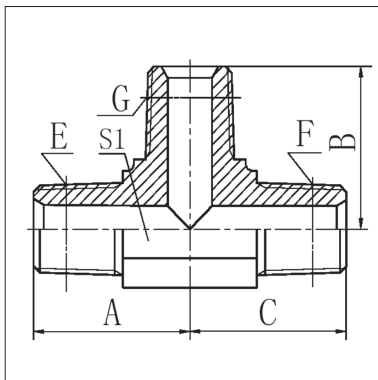
BSPT FEMALE x BSPT MALE x BSPT FEMALE



Product Code	Thread			Dimensions mm			
	E (BSPT)	F (BSPT)	G (BSPT)	A	B	C	S1
EPFLF-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	22	22	29	19
EPFLF-06-06-06	3/8" - 19	3/8" - 19	3/8" - 19	26	26	31.5	22
EPFLF-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	31	31	38	27

EPJ SERIES

BSPT MALE x BSPT MALE x BSPT MALE

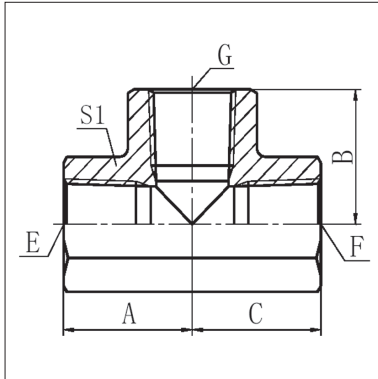


Product Code	Thread			Dimensions mm			
	E (BSPT)	F (BSPT)	G (BSPT)	A	B	C	S1
EPJ-02-02-02	1/8" - 28	1/8" - 28	1/8" - 28	21	21	21	11
EPJ-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	25.5	25.5	25.5	14
EPJ-06-06-06	3/8" - 19	3/8" - 19	3/8" - 19	28.5	28.5	28.5	16
EPJ-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	36	36	36	22
EPJ-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	43.5	43.5	43.5	27
EPJ-16-16-16	1" - 11	1" - 11	1" - 11	50	50	50	33
EPJ-20-20-20	1.1/4" - 11	1.1/4" - 11	1.1/4" - 11	57.5	57.5	57.5	41
EPJ-24-24-24	1.1/2" - 11	1.1/2" - 11	1.1/2" - 11	62.5	62.5	62.5	48
EPJ-32-32-32	2" - 11	2" - 11	2" - 11	75	75	75	63



EPK / EPKHD SERIES

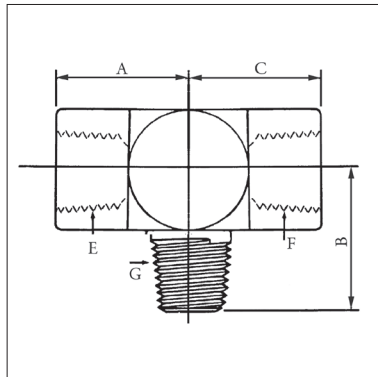
NPT FEMALE x NPT FEMALE x NPT FEMALE



Product Code	Thread			Dimensions mm			
	E (NPT)	F (NPT)	G (NPT)	A	B	C	S1
EPK-02-02-02	1/8" - 27	1/8" - 27	1/8" - 27	20	20	20	16
EPK-04-04-04	1/4" - 18	1/4" - 18	1/4" - 18	22.5	22.5	22.5	19
EPK-06-06-06	3/8" - 18	3/8" - 18	3/8" - 18	26	26	26	24
EPK-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	31	31	31	27
EPK-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	34	34	34	33
EPK-16-16-16	1" - 11½	1" - 11½	1" - 11½	42	42	42	41
EPK-20-20-20	1.1/4" - 11½	1.1/4" - 11½	1.1/4" - 11½	-	-	-	-
HEAVY DUTY 10,000 PSI (700 BAR) HIGH PRESSURE SERIES							
EPKHD-04-04-04	1/4" - 18	1/4" - 18	1/4" - 18	22.5	22.5	22.5	24
EPKHD-06-06-06	3/8" - 18	3/8" - 18	3/8" - 18	22.5	22.5	22.5	27

EPKKL SERIES

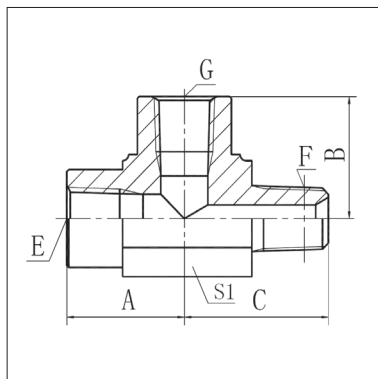
NPT FEMALE x NPT FEMALE x NPT MALE



Product Code	Thread			Dimensions mm		
	E (NPT)	F (NPT)	G (NPT)	A	B	C
EPKKL-04-04-04	1/4" - 18	1/4" - 18	1/4" - 18	22.4	27.7	22.4

EPKLK SERIES

NPT FEMALE x NPT MALE x NPT FEMALE



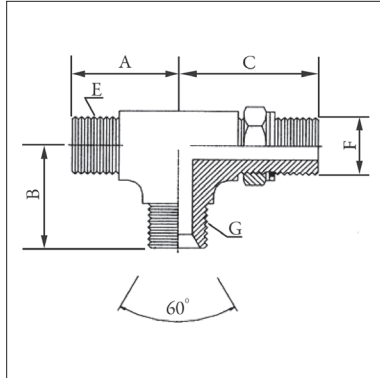
Product Code	Thread			Dimensions mm			
	E (NPT)	F (NPT)	G (NPT)	A	B	C	S1
EPKLK-02-02-02	1/8" - 27	1/8" - 27	1/8" - 27	20	20	24.5	16
EPKLK-04-04-04	1/4" - 18	1/4" - 18	1/4" - 18	25	25	28.5	19
EPKLK-06-06-06	3/8" - 18	3/8" - 18	3/8" - 18	27	27	33.5	24
EPKLK-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	35	35	42.5	30
EPKLK-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	37	37	45.2	33
EPKLK-16-16-16	1" - 11½	1" - 11½	1" - 11½	41	44	54.7	41
EPKLK-20-20-20	1.1/4" - 11½	1.1/4" - 11½	1.1/4" - 11½	48	48	58.5	48

TEES



EPP SERIES

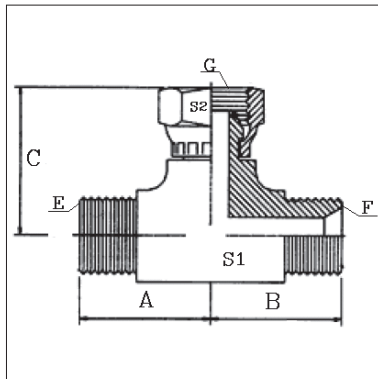
BSPT MALE x BSPP MALE x BSPT MALE



Product Code	Thread			Dimensions mm		
	E (BSPT)	F (BSPP)	G (BSPT)	A	B	C
EPP-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	27	27	31.5

EPS SERIES

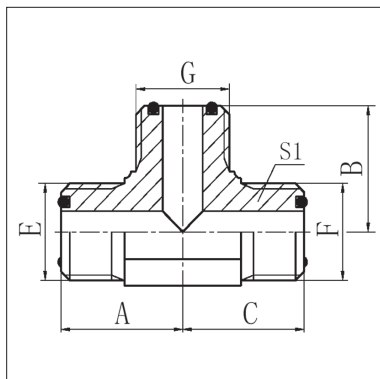
BSPT MALE x BSPT MALE x BSPP FEMALE SWIVEL



Product Code	Thread			Dimensions mm				
	E (BSPT)	F (BSPT)	G (BSPP)	A	B	C	S1	S2
EPS-02-02-02	1/8" - 28	1/8" - 28	1/8" - 28	21	21	24.5	11	14
EPS-04-04-04	1/4" - 19	1/4" - 19	1/4" - 19	27	27	28	14	19
EPS-06-06-06	3/8" - 19	3/8" - 19	3/8" - 19	29	29	33	19	22
EPS-08-08-08	1/2" - 14	1/2" - 14	1/2" - 14	35	35	40	22	27
EPS-12-12-12	3/4" - 14	3/4" - 14	3/4" - 14	42	42	47	27	32
EPS-16-16-16	1" - 11	1" - 11	1" - 11	49	49	55	33	41

FF1220 SERIES

ORFS MALE x ORFS MALE x ORFS MALE



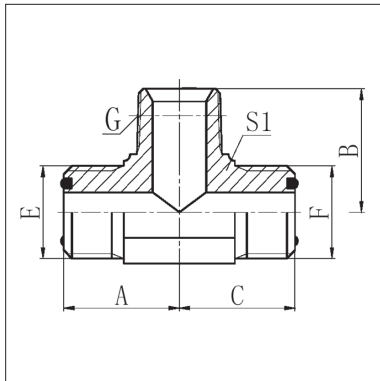
Product Code	Thread			Dimensions mm			
	E (ORFS)	F (ORFS)	G (ORFS)	A	B	C	S1
FF1220-040404	9/16" - 18	9/16" - 18	9/16" - 18	23	23	23	14
FF1220-060606	11/16" - 16	11/16" - 16	11/16" - 16	27	27	27	19
FF1220-080808	13/16" - 16	13/16" - 16	13/16" - 16	31	31	31	22
FF1220-101010	1" - 14	1" - 14	1" - 14	36.5	36.5	36.5	27
FF1220-121212	1.3/16" - 12	1.3/16" - 12	1.3/16" - 12	40.3	40.3	40.3	30
FF1220-161616	1.7/16" - 12	1.7/16" - 12	1.7/16" - 12	44.5	44.5	44.5	36
FF1220-202020	1.11/16" - 12	1.11/16" - 12	1.11/16" - 12	47.5	47.5	47.5	41
FF1220-242424	2" - 12	2" - 12	2" - 12	53.5	53.5	53.5	50

TEES



FF1221 SERIES

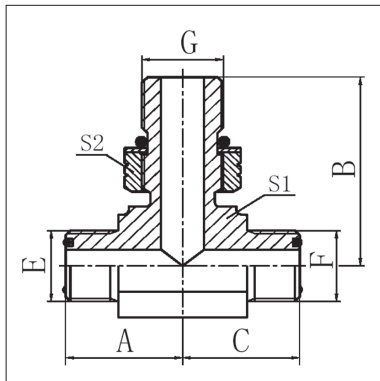
ORFS MALE x ORFS MALE x NPT MALE



Product Code	Thread			Dimensions mm			
	E (ORFS)	F (ORFS)	G (NPT)	A	B	C	S1
FF1221-040404	9/16" - 18	9/16" - 18	1/4" - 18	23	25.5	23	14
FF1221-060606	11/16" - 16	11/16" - 16	3/8" - 18	27	31	27	19
FF1221-080808	13/16" - 16	13/16" - 16	3/8" - 18	31	33.5	31	22
FF1221-101008	1" - 14	1" - 14	1/2" - 14	36.5	40	36.5	27
FF1221-242424	2" - 12	2" - 12	1.1/2" - 11.5	53.5	64.5	53.5	50

FF1265 SERIES

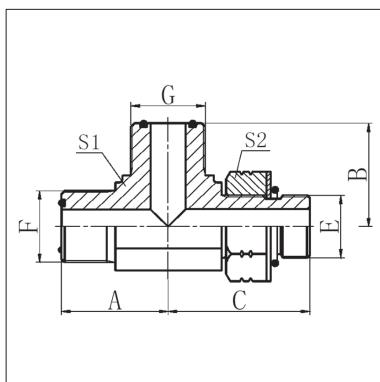
ORFS MALE x ORFS MALE x UNO MALE



Product Code	Thread			Dimensions mm				
	E (ORFS)	F (ORFS)	G (UNO)	A	B	C	S1	S2
FF1265-040404	9/16" - 18	9/16" - 18	7/16" - 20	23	30.3	23	14	17
FF1265-060606	11/16" - 16	11/16" - 16	9/16" - 18	27.5	35.5	27.5	19	19
FF1265-080808	13/16" - 16	13/16" - 16	3/4" - 16	31	40.5	31	22	24
FF1265-101010	1" - 14	1" - 14	7/8" - 14	36.5	50.8	36.5	27	27
FF1265-121212	1.3/16" - 12	1.3/16" - 12	1.1/16" - 12	40.3	55.3	40.3	30	32
FF1265-161616	1.7/16" - 12	1.7/16" - 12	1.5/16" - 12	44.5	59.3	44.5	36	41

FF1266 SERIES

ORFS MALE x UNO MALE x ORFS MALE



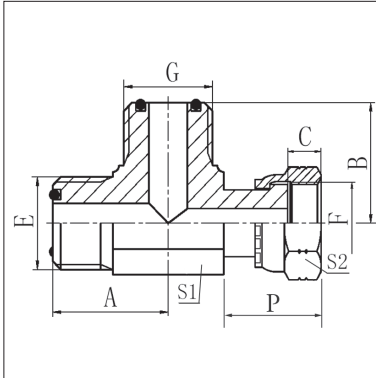
Product Code	Thread			Dimensions mm				
	E (UNO)	F (ORFS)	G (ORFS)	A	B	C	S1	S2
FF1266-040404	7/16" - 20	9/16" - 18	9/16" - 18	23	23	30	14	17
FF1266-060606	9/16" - 18	11/16" - 16	11/16" - 16	27.5	27.5	35.5	19	19
FF1266-080808	3/4" - 16	13/16" - 16	13/16" - 16	31	31	40.5	22	24
FF1266-101010	7/8" - 14	1" - 14	1" - 14	36.5	36.5	50.8	27	27
FF1266-121212	1.1/16" - 12	1.3/16" - 12	1.3/16" - 12	40.3	40.3	55.3	30	32
FF1266-161616	1.5/16" - 12	1.7/16" - 12	1.7/16" - 12	44.5	44.5	59.3	36	41

TEES



FF1248 SERIES

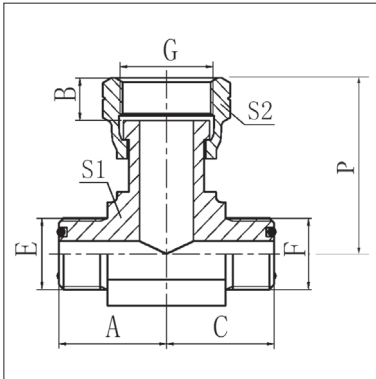
ORFS MALE x ORFS FEMALE x ORFS MALE



Product Code	Thread			Dimensions mm					
	E (ORFS)	F (ORFS)	G (ORFS)	A	B	C	S1	S2	P
FF1248-040404	9/16" - 18	9/16" - 18	9/16" - 18	23	23	8.5	14	19	37
FF1248-060606	11/16" - 16	11/16" - 16	11/16" - 16	27.5	27.5	10	19	22	42
FF1248-080808	13/16" - 16	13/16" - 16	13/16" - 16	31	31	11	22	27	54
FF1248-101010	1" - 14	1" - 14	1" - 14	36.5	36.5	13.5	27	30	59
FF1248-121212	1.3/16" - 12	1.3/16" - 12	1.3/16" - 12	40.3	40.3	15	30	36	66
FF1248-161616	1.7/16" - 12	1.7/16" - 12	1.7/16" - 12	44.5	44.5	15	36	41	74
FF1248-202020	1.11/16" - 12	1.11/16" - 12	1.11/16" - 12	47.5	47.5	15	41	50	79
FF1248-242424	2" - 12	2" - 12	2" - 12	53.5	53.5	15	50	60	83

FF1227 SERIES

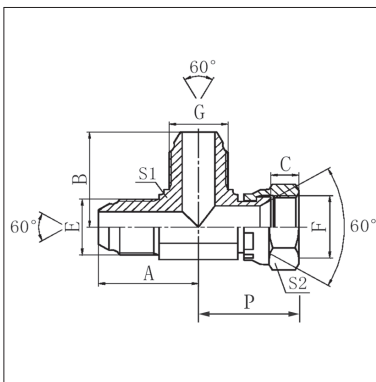
ORFS MALE x ORFS MALE x ORFS FEMALE



Product Code	Thread			Dimensions mm					
	E (ORFS)	F (ORFS)	G (ORFS)	A	B	C	S1	S2	P
FF1227-040404	9/16" - 18	9/16" - 18	9/16" - 18	23	8.5	23	14	19	37
FF1227-060606	11/16" - 16	11/16" - 16	11/16" - 16	27.5	10	27.5	19	22	42
FF1227-080808	13/16" - 16	13/16" - 16	13/16" - 16	31	11	31	22	27	54
FF1227-101010	1" - 14	1" - 14	1" - 14	36.5	13.5	36.5	27	30	59
FF1227-121212	1.3/16" - 12	1.3/16" - 12	1.3/16" - 12	40.3	15	40.3	30	36	66
FF1227-161616	1.7/16" - 12	1.7/16" - 12	1.7/16" - 12	44.5	15	44.5	36	41	74
FF1227-202020	1.11/16" - 12	1.11/16" - 12	1.11/16" - 12	47.5	15	47.5	41	50	79
FF1227-242424	2" - 12	2" - 12	2" - 12	53.5	15	53.5	50	60	83

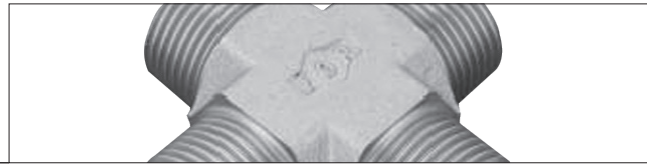
KMA SERIES

METRIC JIS MALE x JIS FEMALE x JIS MALE



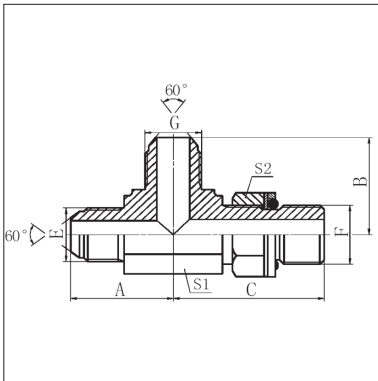
Product Code	Thread			Dimensions mm					
	E (JIS Met)	F (JIS Met)	G (JIS Met)	A	B	C	S1	S2	P
KMA-14-14-14	M14 -1.5	M14 -1.5	M14 -1.5	26.5	26.5	10.5	14	19	32
KMA-16-16-16	M16 -1.5	M16 -1.5	M16 -1.5	29.5	29.5	10	16	22	33
KMA-18-18-18	M18 -1.5	M18 -1.5	M18 -1.5	30.8	30.8	11.5	19	24	35
KMA-22-22-22	M22 -1.5	M22 -1.5	M22 -1.5	35.5	35.5	14	22	27	41
KMA-24-24-24	M24 -1.5	M24 -1.5	M24 -1.5	37	37	15	22	32	42
KMA-30-30-30	M30 -1.5	M30 -1.5	M30 -1.5	45.5	45.5	18.3	30	36	51
KMA-33-33-33	M33 -1.5	M33 -1.5	M33 -1.5	50	50	21.3	30	41	57

CROSSES



KYA SERIES

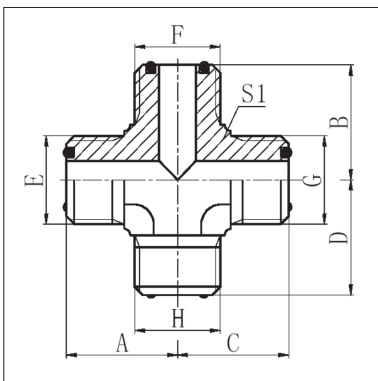
METRIC JIS MALE x METRIC O-RING MALE x JIS MALE



Product Code	Thread			Dimensions mm				
	E (JIS Met)	F (METRIC)	G (JIS Met)	A	B	C	S1	S2
KYA-14-14-20	M14 -1.5	M14 -1.5	M20 -1.5	30	30	37	19	27
KYA-18-18-14	M18 -1.5	M18 -1.5	M14 -1.5	30.5	30.5	35.5	19	19
KYA-22-22-20	M22 -1.5	M22 -1.5	M20 -1.5	45.5		40	22	27
KYA-22-22-22	M22 -1.5	M22 -1.5	M22 -1.5	45.5	45.5	40	22	27

FF1229 SERIES

4-WAY EQUAL ORFS MALE



Product Code	Thread	Dimensions mm				
	E, F, G, H (ORFS)	A	B	C	D	S1
FF1229-04040404	9/16" - 18	23	23	23	23	14
FF1229-06060606	11/16" - 16	27	27	27	27	19
FF1229-08080808	13/16" - 16	31	31	31	31	22
FF1229-10101010	1" - 14	36.5	36.5	36.5	36.5	27
FF1229-12121212	1.3/16" - 12	40.3	40.3	40.3	40.3	30
FF1229-16161616	1.7/16" - 12	44.5	44.5	44.5	44.5	36

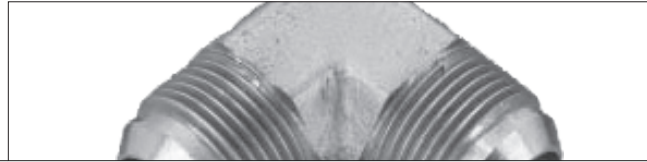


SECTION 3 90° ELBOWS

PAGE

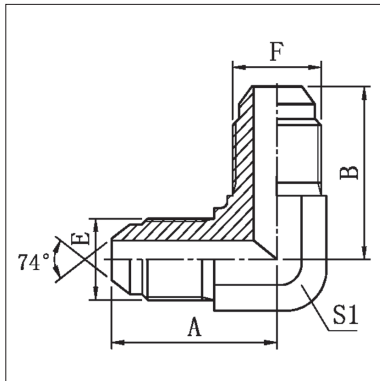
			PAGE
CAA	JIC x JIC	M / M	33
CAB / CABI	JIC x JIC	M / F	33
CAH	JIC BULKHEAD	M / M	34
CEA	UNO x JIC	M / M	34
CED	UNO x BSPP	M / F	35
CEPN	UNO x NPT FIXED	M / F	35
CEJ	UNO x BSPT	M / M	36
CFA	BSPP x JIC	M / M	36
CFAE	BSPP EXTENDED x JIC	M / M	37
CFJ	BSPP x BSPT	M / M	37
CLA	BSPT FIXED x JIC	F / M	37
CLAN	NPT FIXED x JIC	F / M	38
CLF	NPT x NPT LOW PROFILE	M / F	38
CLJ	BSPT x BSPT FIXED	M / F	38
CLJN	NPT x NPT FIXED	M / F	39
CLP	BSPT FIXED x BSPT FIXED	F / F	39
CLPN	NPT FIXED x NPT FIXED	F / F	39
CSA	UNO EXTENDED x JIC	M / M	40
CVA	BSPT x JIC	M / M	40
CVAN	NPT x JIC	M / M	41
CVANE / CVANEL	NPT EXTENDED x JIC	M / M	42
CVD	BSPT x BSPP	M / F	42
CVDN	NPT x NPSM	M / F	43
CVDPA	BSPP x BSPP	M / F	43
CVE	BSPT x SAE	M / M	43
CVF	BSPT x JIC	M / F	44
CVJ / CVJN	BSPT x BSPT / NPT x NPT	M / M	44
FF1208	ORFS x NPT	M / M	45
FF1234	ORFS x ORFS	M / M	45
FF1236	ORFS x ORFS	M / F	45
FF1238	ORFS x UNO	M / M	46
FF1239	UNO x ORFS	M / F	46
FF1262LN	ORFS x ORFS BULKHEAD	M / M	47
FF1291	BSPP x ORFS	M / M	47
KAB	JIS METRIC x JIS METRIC	M / F	47
KEA	JIS METRIC x JIS METRIC 'O' RING	M / M	48
KFA	JIS METRIC x BSPP	M / M	48
KVA	JIS METRIC x BSPT	M / M	48

90° ELBOWS



CAA SERIES

JIC MALE x JIC MALE

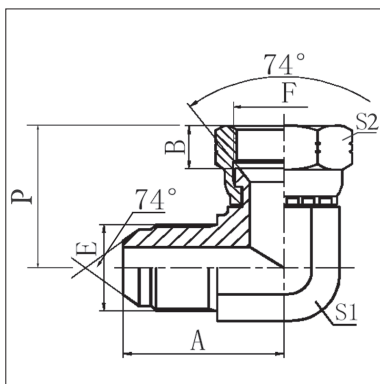


Product Code	Thread		Dimensions mm		
	E (JIC)	F (JIC)	A	B	S1
CAA-04-04	7/16" - 20	7/16" - 20	24.5	24.5	11
CAA-05-05	1/2" - 20	1/2" - 20	26.6	26.6	14
CAA-06-06	9/16" - 18	9/16" - 18	26.9	26.9	14
CAA-S06-S06 †	5/8" - 18	5/8" - 18	-	-	-
CAA-08-08	3/4" - 16	3/4" - 16	32	32	19
CAA-10-08	7/8" - 14	3/4" - 16	37.8	34.8	22
CAA-10-10	7/8" - 14	7/8" - 14	37.8	37.8	22
CAA-12-10	1.1/16" - 12	7/8" - 14	44.2	41	27
CAA-12-12	1.1/16" - 12	1.1/16" - 12	44.2	44.2	27
CAA-16-12	1.5/16" - 12	1.1/16" - 12	49	44.2	33
CAA-16-16	1.5/16" - 12	1.5/16" - 12	49	49	33
CAA-20-20	1.5/8" - 12	1.5/8" - 12	55.5	55.5	41
CAA-24-24	1.7/8" - 12	1.7/8" - 12	62.5	62.5	48

† SAE Thread Form

CAB SERIES

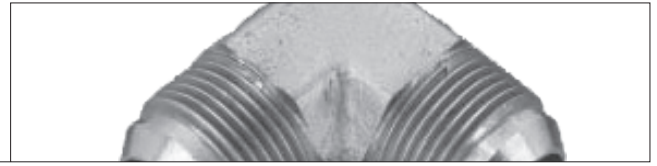
JIC MALE x JIC FEMALE



Product Code	Thread		Dimensions mm				
	E (JIC)	F (JIC)	A	B	S1	S2	P
CAB-04-04	7/16" - 20	7/16" - 20	22.5	9	11	15	25.5
CAB-05-05	1/2" - 20	1/2" - 20	24	9.5	14	17	27
CAB-06-06	9/16" - 18	9/16" - 18	27	10.5	14	19	32
CAB-S06-S06 †	5/8" - 18	5/8" - 18	30	11.3	16	22	
CAB-08-08	3/4" - 16	3/4" - 16	31.5	11	19	24	35
CAB-10-10	7/8" - 14	7/8" - 14	36.5	13	22	27	41
CAB-12-10	1.1/16" - 12	7/8" - 14	43	12.5	27	27	42
CAB-12-12	1.1/16" - 12	1.1/16" - 12	42	15	27	32	44.5
CAB-14-14	1.3/16" - 12	1.3/16" - 12	44	15	30	36	48
CAB-16-16	1.5/16" - 12	1.5/16" - 12	46	16	33	41	51
CAB-20-20	1.5/8" - 12	1.5/8" - 12	52	17	41	50	59
CAB-24-24	1.7/8" - 12	1.7/8" - 12	59	20	48	55	66

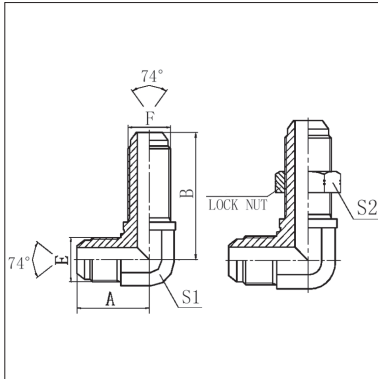
† SAE Thread Form

90° ELBOWS



CAH SERIES

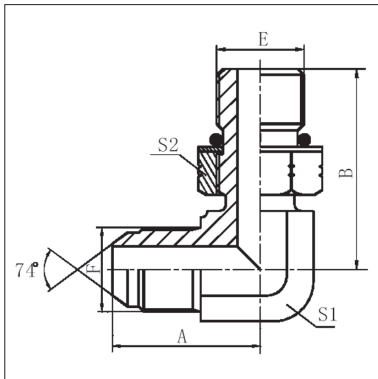
JIC MALE x JIC MALE BULKHEAD



Product Code	Thread		Dimensions mm			
	E (JIC)	F (JIC)	A	B	S1	S2
CAH-04-04	7/16" - 20	7/16" - 20	24.5	40.4	11	17
CAH-06-06	9/16" - 18	9/16" - 18	27.7	46	14	22
CAH-S06-S06 †	5/8" - 18	5/8" - 18	30.5	54.5	19	24
CAH-08-08	3/4" - 16	3/4" - 16	34.5	53.5	19	24
CAH-10-10	7/8" - 14	5/8" - 18	39.6	60.7	22	30
CAH-12-12	1.1/16" - 12	9/16" - 18	45.2	67.8	27	36
CAH-16-16	1.5/16" - 12	1.5/16" - 12	50	71	33	41

CEA SERIES

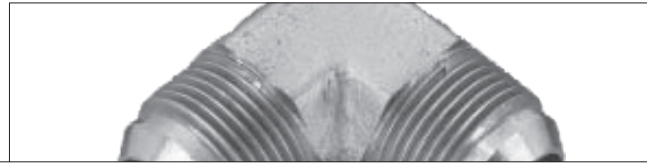
UNO MALE x JIC MALE



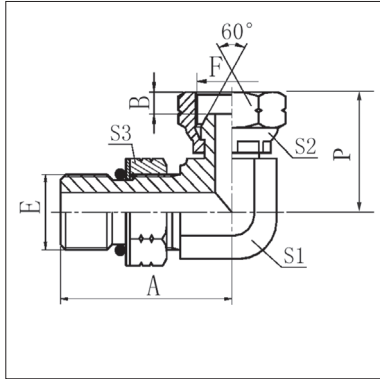
Product Code	Thread		Dimensions mm			
	E (UNO)	F (JIC)	A	B	S1	S2
CEA-04-04	7/16" - 20	7/16" - 20	24.5	27.2	11	17
CEA-04-06	7/16" - 20	9/16" - 18	26.9	30	14	17
CEA-05-05	1/2" - 20	1/2" - 20	26.6	29	14	17
CEA-05-06	1/2" - 20	9/16" - 18	26.9	29.9	14	17
CEA-06-04	9/16" - 18	7/16" - 20	26.6	31.8	14	19
CEA-06-06	9/16" - 18	9/16" - 18	26.9	31.8	14	19
CEA-06-S06 †	9/16" - 18	5/8" - 18 †	-	-	-	-
CEA-06-08	9/16" - 18	3/4" - 16	33	33.5	19	19
CEA-08-06	3/4" - 16	9/16" - 18	30	36.8	19	24
CEA-08-08	3/4" - 16	3/4" - 16	33	36.8	19	24
CEA-08-10	3/4" - 16	7/8" - 14	38	40	22	27
CEA-08-12	3/4" - 16	1.1/16" - 12	45	44	27	24
CEA-10-06	7/8" - 14	9/16" - 18	32	44	22	27
CEA-10-08	7/8" - 14	3/4" - 16	34.8	44	22	27
CEA-10-10	7/8" - 14	7/8" - 14	37.8	44	22	27
CEA-10-12	7/8" - 14	1.1/16" - 12	44.2	47	27	27
CEA-12-08	1.1/16" - 12	3/4" - 16	37.9	51	27	32
CEA-12-10	1.1/16" - 12	7/8" - 14	41	51	27	32
CEA-12-12	1.1/16" - 12	1.1/16" - 12	44.2	51	27	32
CEA-12-14	1.1/16" - 12	1.3/16" - 12	-	-	-	-
CEA-12-16	1.1/16" - 12	1.5/16" - 12	48.8	54.5	33	32
CEA-14-14	1.3/16" - 12	1.3/16" - 12	47.5	53	30	36
CEA-16-12	1.5/16" - 12	1.1/16" - 12	47.8	54.5	33	41
CEA-16-16	1.5/16" - 12	1.5/16" - 12	48.8	54.5	33	41
CEA-16-20	1.5/16" - 12	1.5/8" - 12	55.5	59.5	41	41
CEA-20-16	1.5/8" - 12	1.5/16" - 12	53.8	59	41	50
CEA-20-20	1.5/8" - 12	1.5/8" - 12	55.3	59	41	50
CEA-24-24	1.7/8" - 12	1.7/8" - 12	62.5	63	48	55
CEA-32-32	2.1/2" - 12	2.1/2" - 12	77.2	45.2	63.5	69.4

† SAE Thread Form

90° ELBOWS

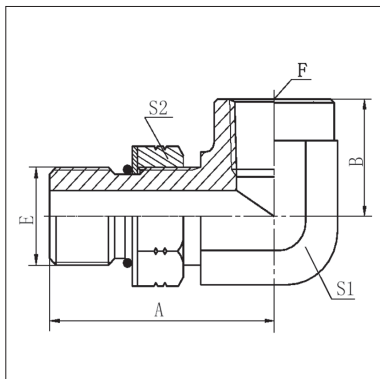


CED SERIES UNO MALE x BSPP FEMALE



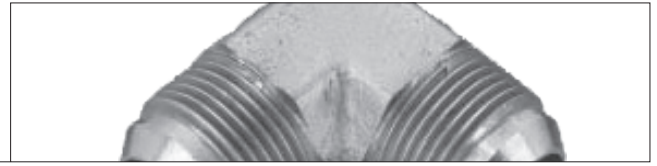
Product Code	Thread		Dimensions mm					
	E (UNO)	F (BSPP)	A	B	S1	S2	S3	P
CED-06-04	9/16" - 18	1/4" - 19	31.8	5.5	14	19	19	33
CED-06-06	9/16" - 18	3/8" - 19	33.3	6.3	16	19	22	36
CED-08-06	3/4" - 16	3/8" - 19	36.8	6.3	19	24	22	36
CED-08-08	3/4" - 16	1/2" - 14	36.8	7.5	19	24	27	42
CED-10-08	7/8" - 14	1/2" - 14	44	7.5	22	27	27	42
CED-12-12	1.1/16" - 12	3/4" - 14	51	10.9	27	32	32	50
CED-16-16	1.5/16" - 12	1" - 11	54.5	11.7	33	41	41	59

CEPN SERIES UNO MALE x NPT FIXED FEMALE



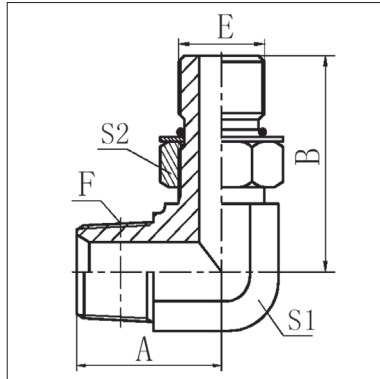
Product Code	Thread		Dimensions mm			
	E (UNO)	F (NPT)	A	B	S1	S2
CEPN-08-06	3/4" - 16	3/8" - 19	40	26.5	22	24
CEPN-08-08	3/4" - 16	1/2" - 14	43	31.2	27	24
CEPN-08-12	3/4" - 16	3/4" - 14	-	-	-	24
CEPN-10-08	7/8" - 14	1/2" - 14	48	31.2	27	27
CEPN-12-08	1.1/16" - 12	1/2" - 14	51	31.2	27	32
CEPN-12-12	1.1/16" - 12	3/4" - 14	55	34.5	33	32

90° ELBOWS



CEJ SERIES

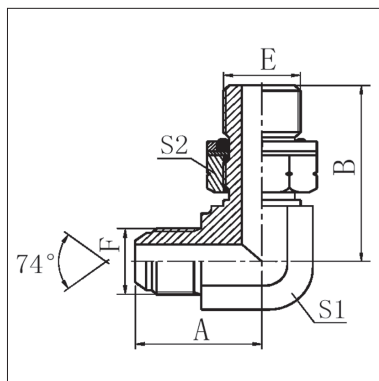
UNO MALE x BSPT MALE



Product Code	Thread		Dimensions mm			
	E (UNO)	F (BSPT)	A	B	S1	S2
CEJ-04-02	7/16" - 20	1/8" - 28	-	-	-	-
CEJ-04-04	7/16" - 20	1/4" - 19	26	31	14	17
CEJ-06-04	9/16" - 18	1/4" - 19	26	31.8	14	19
CEJ-06-06	9/16" - 18	3/8" - 19	28.5	33.3	16	19
CEJ-08-06	3/4" - 16	3/8" - 19	31	37	19	24
CEJ-08-08	3/4" - 16	1/2" - 20	37	40.5	22	24
CEJ-10-06	7/8" - 14	3/8" - 19	33.5	44	22	27
CEJ-10-08	7/8" - 14	1/2" - 14	38	44	22	27
CEJ-10-12	7/8" - 14	3/4" - 14	43	47	27	27
CEJ-12-08	1.1/16" - 12	1/2" - 14	41	51	27	32
CEJ-12-12	1.1/16" - 12	3/4" - 14	43.5	51	27	32
CEJ-12-16	1.1/16" - 12	1" - 11	-	-	-	-
CEJ-16-12	1.5/16" - 12	3/4" - 14	47.5	54.5	33	41
CEJ-16-16	1.5/16" - 12	1" - 11	-	-	-	-
CEJ-20-16	1.5/8" - 12	1" - 11	55.5	59	41	50
CEJ-20-20	1.5/8" - 12	1.1/4" - 11	56.5	59.5	41	50
CEJ-24-24	1.7/8" - 12	1.1/2" - 11	-	-	-	-

CFA SERIES

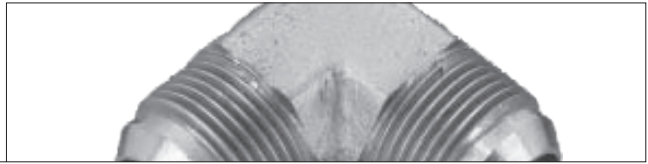
BSPP MALE x JIC MALE



See page D90 for replacement retaining ring and O-Ring for the BSPP thread
(Product Codes RRB and RROB)

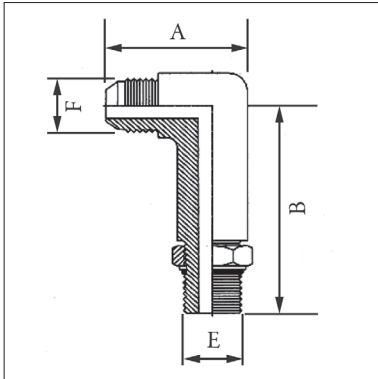
Product Code	Thread		Dimensions mm			
	E (BSPP)	F (JIC)	A	B	S1	S2
CFA-02-04	1/8" - 28	7/16" - 20	24.5	26.2	11	14
CFA-04-04	1/4" - 19	7/16" - 20	26.6	31.3	14	19
CFA-04-06	1/4" - 19	9/16" - 18	26.9	31.3	14	19
CFA-04-08	1/4" - 19	3/4" - 16	32	31.3	19	19
CFA-06-04	3/8" - 19	7/16" - 20	28.5	36.5	-	-
CFA-06-06	3/8" - 19	9/16" - 18	28.5	35.8	16	22
CFA-06-08	3/8" - 19	3/4" - 16	32	36.8	19	22
CFA-06-10	3/8" - 19	7/8" - 14	-	-	-	-
CFA-08-06	1/2" - 14	9/16" - 18	32.5	43.2	22	27
CFA-08-08	1/2" - 14	3/4" - 16	34.8	43.2	22	27
CFA-08-10	1/2" - 14	7/8" - 14	37.8	43.2	22	27
CFA-08-12	1/2" - 14	1.1/16" - 12	44.2	46.5	27	27
CFA-12-08	3/4" - 14	3/4" - 16	37.9	49.3	27	32
CFA-12-10	3/4" - 14	7/8" - 14	41	49.3	27	32
CFA-12-12	3/4" - 14	1.1/16" - 12	44.2	49.3	27	32
CFA-12-16	3/4" - 14	1.5/16" - 12	49	53	33	32
CFA-16-12	1" - 11	1.1/16" - 12	48	53	33	41
CFA-16-16	1" - 11	1.5/16" - 12	49	53	33	41
CFA-16-20	1" - 11	1.5/8" - 12	55.5	58	41	41
CFA-20-16	1.1/4" - 11	1.5/16" - 12	53.8	58	41	50
CFA-20-20	1.1/4" - 11	1.5/8" - 12	55.5	58	41	50
CFA-24-24	1.1/2" - 11	1.7/8" - 12	62.5	63	48	55

90° ELBOWS



CFAE SERIES

BSPP EXTENDED MALE x JIC MALE

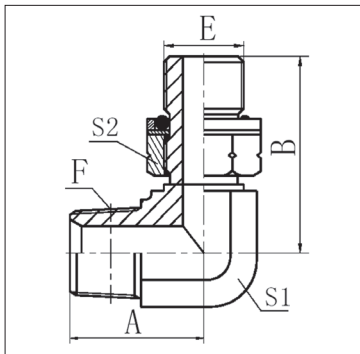


Product Code	Thread		Dimensions mm	
	E (BSPP)	F (JIC)	A	B
CFAE-06-06	3/8" - 19	9/16" - 18	34	67
CFAE-08-08	1/2" - 14	3/4" - 16	37	78

See page D90 for replacement retaining ring and O-Ring for the BSPP thread
(Product Codes **RRB** and **RROB**)

CFJ SERIES

BSPP MALE x BSPT MALE

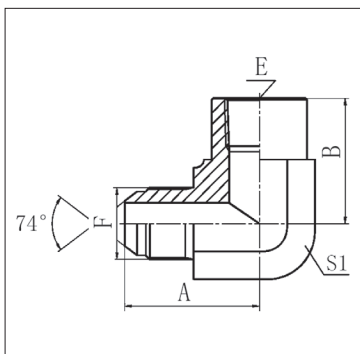


See page D90 for replacement retaining ring and O-Ring for the BSPP thread
(Product Codes **RRB** and **RROB**)

Product Code	Thread		Dimensions mm			
	E (BSPP)	F (BSPT)	A	B	S1	S2
CFJ-02-02	1/8" - 28	1/8" - 28				
CFJ-04-04	1/4" - 19	1/4" - 19	25.5	31.3	14	19
CFJ-06-04	3/8" - 19	1/4" - 19	26.5	35.8	16	22
CFJ-06-06	3/8" - 19	3/8" - 19	27.5	36.8	16	22
CFJ-06-08	3/8" - 19	1/2" - 14				
CFJ-08-06	1/2" - 14	3/8" - 19	32.5	43.2	22	27
CFJ-08-08	1/2" - 14	1/2" - 14	37	43.2	22	27
CFJ-12-08	3/4" - 14	1/2" - 14	39.5	49.3	27	32
CFJ-12-12	3/4" - 14	3/4" - 14	43	49.3	27	32
CFJ-12-16	3/4" - 14	1" - 11	50	53	33	27
CFJ-16-12	1" - 11	3/4" - 14	48	53	33	41
CFJ-16-16	1" - 11	1" - 11	50	53	33	41
CFJ-20-16	1.1/4" - 11	1" - 11	55.5	58	41	50
CFJ-20-20	1.1/4" - 11	1.1/4" - 11	57	58	41	50
CFJ-24-24	1.1/2" - 11	1.1/2" - 11	62.5	63	48	55

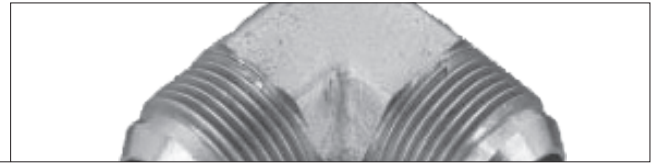
CLA SERIES

BSPT FIXED FEMALE x JIC MALE



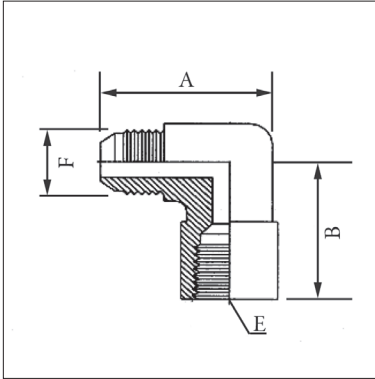
Product Code	Thread		Dimensions mm		
	E (BSPT)	F (JIC)	A	B	S1
CLA-02-04	1/8" - 28	7/16" - 20	27.5	20	16
CLA-04-06	1/4" - 19	9/16" - 18	30.5	25	19
CLA-06-08	3/8" - 19	3/4" - 16	36	27	24
CLA-08-08	1/2" - 14	3/4" - 16	39.5	31.5	30
CLA-08-10	1/2" - 14	7/8" - 14	42.5	31.5	30
CLA-12-12	3/4" - 14	1.1/16" - 12	48	37	33
CLA-16-16	1" - 11	1.5/16" - 12	53	43	41

90° ELBOWS



CLAN SERIES

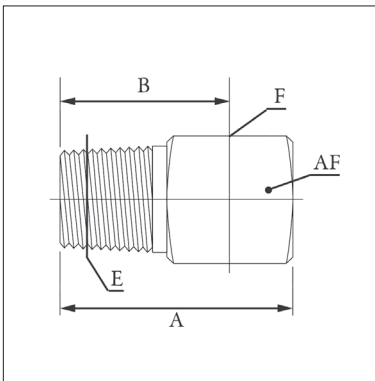
NPT FIXED FEMALE x JIC MALE



Product Code	Thread		Dimensions mm	
	E (NPT)	F (JIC)	A	B
CLAN-04-04	1/4" - 19	7/16" - 20	31	22.5
CLAN-08-08	1/2" - 14	3/4" - 16	39	31
CLAN-08-12	1/2" - 14	1.1/16" - 12	42	31
CLAN-16-16	1" - 11½	1.5/16" - 12	55	41

CLF SERIES

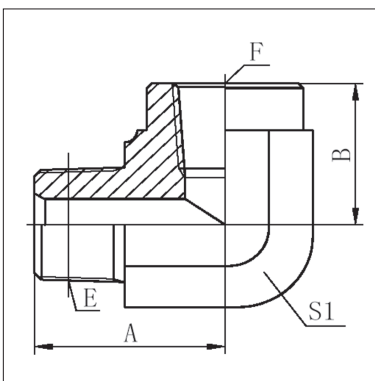
NPT MALE x NPT FEMALE LOW PROFILE



Product Code	Thread		Dimensions mm		
	E (NPT)	F (NPT)	A	B	AF
CLF-02-02	1/8" - 27	1/8" - 27	25.9	19.1	12.7
CLF-04-04	1/4" - 18	1/4" - 18	51	39.9	22.2

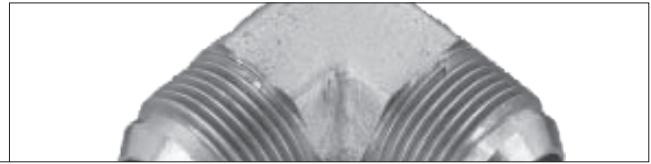
CLJ SERIES

BSPT MALE x BSPT FIXED FEMALE



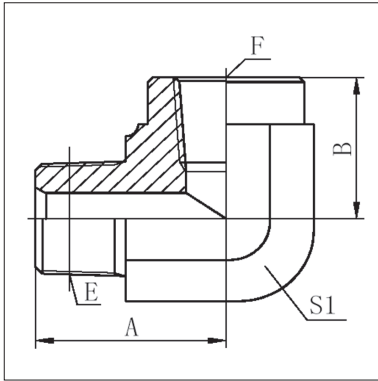
Product Code	Thread		Dimensions mm		
	E (BSPT)	F (BSPT)	A	B	S1
CLJ-02-02	1/8" - 28	1/8" - 28	24.5	23	16
CLJ-04-04	1/4" - 19	1/4" - 19	28.5	25	19
CLJ-06-06	3/8" - 19	3/8" - 19	33.5	25	24
CLJ-08-06	1/2" - 14	3/8" - 19	40.8	25	30
CLJ-08-08	1/2" - 14	1/2" - 14	40.8	31.5	30
CLJ-12-12	3/4" - 14	3/4" - 14	47.5	37	33
CLJ-16-16	1" - 11	1" - 11	56.5	43	41
CLJ-20-20	1.1/4" - 11	1.1/4" - 11	61	50	48

90° ELBOWS



CLJN SERIES

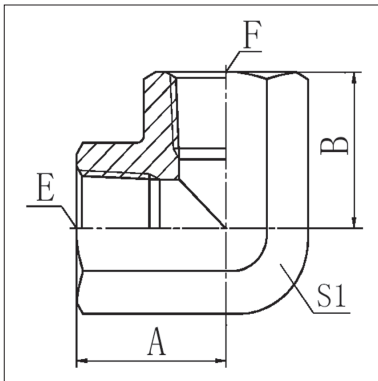
NPT MALE x NPT FIXED FEMALE



Product Code	Thread		Dimensions mm		
	E (NPT)	F (NPT)	A	B	S1
CLJN-04-04	1/4" - 18	1/4" - 18	28	22.4	19
CLJN-06-06	3/8" - 18	3/8" - 18	33.5	25	24
CLJN-08-08	1/2" - 14	1/2" - 14	41.2	31.2	30
CLJN-12-12	3/4" - 14	3/4" - 14	45.2	34.5	33
CLJN-16-16	1" - 11½	1" - 11½	54.5	41.1	41
CLJN-20-20	1.1/4" - 11½	1.1/4" - 11½	63	43.2	48
CLJN-24-24	1.1/2" - 11½	1.1/2" - 11½	71.5	52.8	63

CLP SERIES

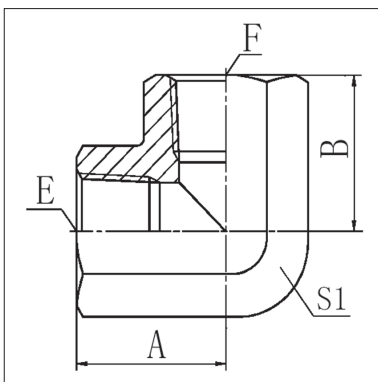
BSPT FIXED FEMALE x BSPT FIXED FEMALE



Product Code	Thread		Dimensions mm		
	E (BSPT)	F (BSPT)	A	B	S1
CLP-02-02	1/8" - 28	1/8" - 28	20	20	16
CLP-04-04	1/4" - 19	1/4" - 19	22.5	22.5	19
CLP-06-06	3/8" - 19	3/8" - 19	26	26	24
CLP-08-08	1/2" - 14	1/2" - 14	31	31	27
CLP-12-12	3/4" - 14	3/4" - 14	34	34	33
CLP-16-16	1" - 11	1" - 11	42	42	41
CLP-20-20	1.1/4" - 11	1.1/4" - 11	48	48	50
CLP-24-24	1.1/2" - 11	1.1/2" - 11	53	53	60
CLP-32-32	2" - 11	2" - 11	62	62	70

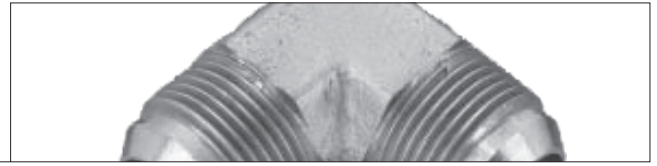
CLPN SERIES

NPT FIXED FEMALE x NPT FIXED FEMALE



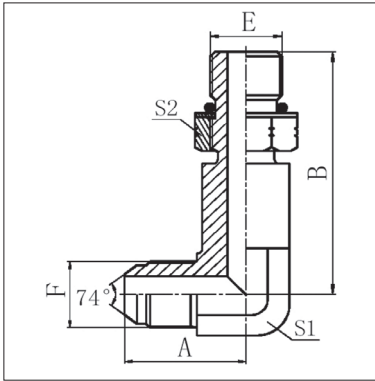
Product Code	Thread		Dimensions mm		
	E (NPT)	F (NPT)	A	B	S1
CLPN-02-02	1/8" - 28	1/8" - 28	20	20	16
CLPN-04-04	1/4" - 18	1/4" - 18	22.5	22.5	19
CLPN-06-06	3/8" - 18	3/8" - 18	26	26	24
CLPN-08-08	1/2" - 14	1/2" - 14	31	31	27
CLPN-12-12	3/4" - 14	3/4" - 14	34	34	33
CLPN-16-16	1" - 11½	1" - 11½	42	42	41
CLPN-20-20	1.1/4" - 11½	1.1/4" - 11½	48	48	50

90° ELBOWS



CSA SERIES

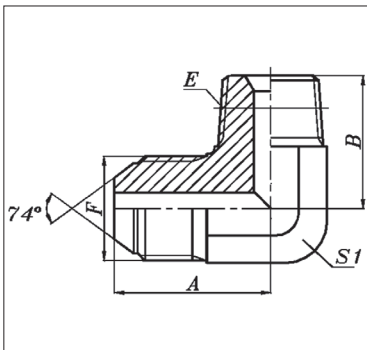
UNO EXTENDED MALE x JIC MALE



Product Code	Thread		Dimensions mm			
	E (UNO)	F (JIC)	A	B	S1	S2
CSA-04-04	7/16" - 20	7/16" - 20	24.5	44	11	17
CSA-06-06	9/16" - 18	9/16" - 18	26.9	52.8	14	19
CSA-08-08	3/4" - 16	3/4" - 16	33	63.5	19	24
CSA-10-08	7/8" - 14	3/4" - 16	33	73.4	22	24
CSA-10-10	7/8" - 14	7/8" - 14	37.8	73.4	22	27
CSA-10-12	7/8" - 14	1.1/16" - 12	44.2	73.4	27	27
CSA-12-12	1.1/16" - 12	1.1/16" - 12	44.2	84.8	27	32
CSA-16-16	1.5/16" - 12	1.5/16" - 12	48.8	94.5	33	41

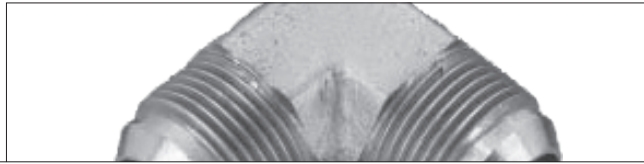
CVA SERIES

BSPT MALE x JIC MALE

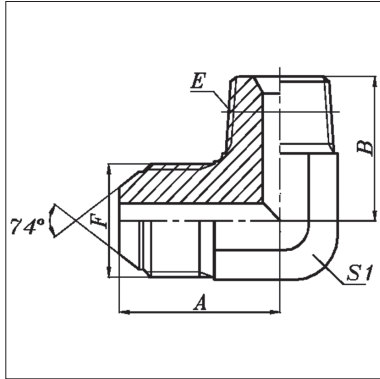


Product Code	Thread		Dimensions mm		
	E (BSPT)	F (JIC)	A	B	S1
CVA-02-04	1/8" - 28	7/16" - 20	24.5	21	11
CVA-02-05	1/8" - 28	1/2" - 20	26.6	23.5	14
CVA-02-08	1/8" - 28	9/16" - 18	26.9	23.5	14
CVA-04-04	1/4" - 19	7/16" - 20	26.6	25.5	14
CVA-04-05	1/4" - 19	1/2" - 20	26.6	25.5	14
CVA-04-06	1/4" - 19	9/16" - 18	26.9	25.5	14
CVA-04-S06 †	1/4" - 19	5/8" - 18 †	-	-	-
CVA-04-08	1/4" - 19	3/4" - 16	32	28	19
CVA-06-04	3/8" - 19	7/16" - 20	27.5	28	16
CVA-06-05	3/8" - 19	1/2" - 20	27.5	28	16
CVA-06-08	3/8" - 19	9/16" - 18	28.5	28.5	16
CVA-06-S06 †	3/8" - 19	5/8" - 18 †	-	-	-
CVA-06-08	3/8" - 19	3/4" - 16	32	30.5	19
CVA-06-10	3/8" - 19	7/8" - 14	38	32	22
CVA-08-04	1/2" - 14	7/16" - 20	31.5	36	22
CVA-08-06	1/2" - 14	9/16" - 18	32	36	22
CVA-08-S06 †	1/2" - 14	5/8" - 18 †	-	-	-
CVA-08-08	1/2" - 14	3/4" - 16	34.8	36	22
CVA-08-10	1/2" - 14	7/8" - 14	37.8	36	22
CVA-08-12	1/2" - 14	1.1/16" - 12	44.2	40	27
CVA-12-08	3/4" - 14	3/4" - 16	37.9	43.5	27
CVA-12-10	3/4" - 14	7/8" - 14	41	43.5	27
CVA-12-12	3/4" - 14	1.1/16" - 12	44.2	43.5	27
CVA-12-14	3/4" - 14	1.3/16" - 12	-	-	-
CVA-12-16	3/4" - 14	1.5/16" - 12	49	47.5	33
CVA-16-08	1" - 11	3/4" - 16	41.5	50	33
CVA-16-10	1" - 11	7/8" - 14	46	50	33
CVA-16-12	1" - 11	1.1/16" - 12	47.8	50	33
CVA-16-16	1" - 11	1.5/16" - 12	49	50	33
CVA-16-20	1" - 11	1.5/8" - 12	55.5	56.5	41
CVA-20-16	1.1/4" - 11	1.5/16" - 12	54	56.5	41
CVA-20-20	1.1/4" - 11	1.5/8" - 12	55.5	56.5	41
CVA-20-24	1.1/4" - 11	1.7/8" - 12	-	-	-
CVA-24-24	1.1/2" - 11	1.7/8" - 12	62.5	62.5	48
CVA-32-32	2" - 11	2.1/2" - 12	75.4	67	63

90° ELBOWS



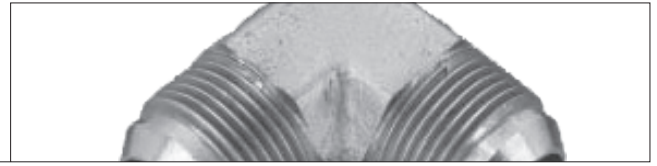
CVAN SERIES NPT MALE x JIC MALE



Product Code	Thread		Dimensions mm		
	E (NPT)	F (JIC)	A	B	S1
CVAN-02-04	1/8" - 27	7/16" - 20	24.5	21	11
CVAN-02-05	1/8" - 27	1/2" - 20	26.6	23.5	14
CVAN-02-06	1/8" - 27	9/16" - 18	26.9	23.5	14
CVAN-04-04	1/4" - 18	7/16" - 20	26.6	25.5	14
CVAN-04-05	1/4" - 18	1/2" - 20	26.6	25.5	14
CVAN-04-06	1/4" - 18	9/16" - 18	26.9	25.5	14
CVAN-04-S06 †	1/4" - 18	5/8" - 18 †	30	25.6	19
CVAN-04-08	1/4" - 18	3/4" - 16	32	28.5	19
CVAN-06-04	3/8" - 18	7/16" - 20	29.5	31	19
CVAN-06-05	3/8" - 18	1/2" - 20	29.5	31	19
CVAN-06-06	3/8" - 18	9/16" - 18	30	31	19
CVAN-06-S06 †	3/8" - 18	5/8" - 18 †	29.3	28.1	19
CVAN-06-08	3/8" - 18	3/4" - 16	32	31	19
CVAN-06-10	3/8" - 18	7/8" - 14	37.8	32.5	22
CVAN-08-04	1/2" - 14	7/16" - 20	33.5	37.3	22
CVAN-08-06	1/2" - 14	9/16" - 18	32	36.7	22
CVAN-08-S06 †	1/2" - 14	5/8" - 18 †			
CVAN-08-08	1/2" - 14	3/4" - 16	34.8	37.3	22
CVAN-08-10	1/2" - 14	7/8" - 14	37.8	37.3	22
CVAN-08-12	1/2" - 14	1.1/16" - 12	44.2	40	27
CVAN-12-08	3/4" - 14	3/4" - 16	37.9	44	27
CVAN-12-10	3/4" - 14	7/8" - 14	41	44	27
CVAN-12-12	3/4" - 14	1.1/16" - 12	44.2	44	27
CVAN-12-14	3/4" - 14	1.3/16" - 12	47.5	45	30
CVAN-12-16	3/4" - 14	1.5/16" - 12	49	45.2	33
CVAN-16-08	1" - 11.5	3/4" - 16	41.5	50	33
CVAN-16-10	1" - 11.5	7/8" - 14	44.5	50	33
CVAN-16-12	1" - 11.5	1.1/16" - 12	49	50	33
CVAN-16-16	1" - 11.5	1.5/16" - 12	49	50	33
CVAN-16-20	1" - 11.5	1.5/8" - 12	55.5	59.6	41
CVAN-20-16	1.1/4" - 11.5	1.5/16" - 12	54	60.5	41
CVAN-20-20	1.1/4" - 11.5	1.5/8" - 12	55.5	54.5	41
CVAN-20-24	1.1/4" - 11.5	1.7/8" - 12	62.5	63	48
CVAN-24-24	1.1/2" - 11.5	1.7/8" - 12	75.4	70	63
CVAN-32-32	2" - 11.5	2.1/2" - 12	75.4	67.5	63

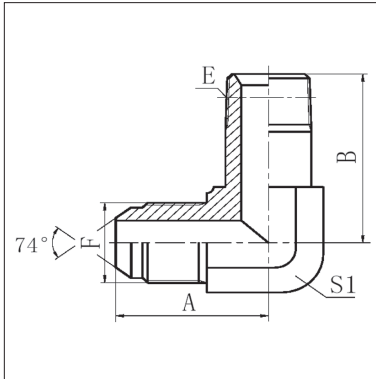
† SAE Thread Form

90° ELBOWS



CVAN-L SERIES

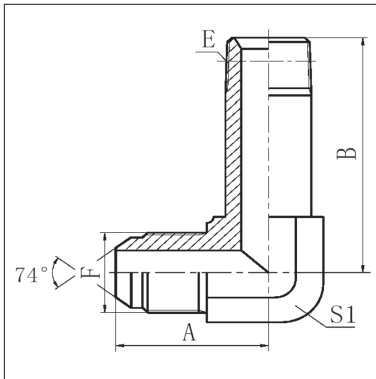
NPT MALE EXTENDED x JIC MALE



Product Code	Thread		Dimensions mm		
	E (NPT)	F (JIC)	A	B	S1
CVAN-L-02-04	1/8" - 27	7/16" - 20	24.5	30	11
CVAN-L-04-04	1/4" - 18	7/16" - 20	26.6	40.1	14
CVAN-L-04-06	1/4" - 18	9/16" - 18	26.9	40.1	14
CVAN-L-06-06	3/8" - 18	3/4" - 16	32	46.2	19
CVAN-L-06-08	3/8" - 18	3/4" - 16	31.7	46.2	18.8
CVAN-L-08-06	1/2" - 14	9/16" - 18	30.3	55.3	22
CVAN-L-08-08	1/2" - 14	3/4" - 16	34.8	55.1	22
CVAN-L-12-12	3/4" - 14	1.1/16" - 12	44.2	62	27
CVAN-L-16-16	1" - 11.1/2	1.5/16" - 12	44.9	76	32.9

CVAN-LL / CVANEEL SERIES

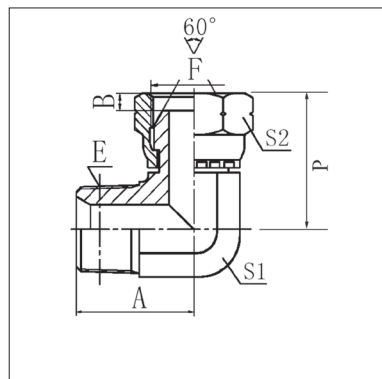
NPT MALE EXTRA LONG x JIC MALE



Product Code	Thread		Dimensions mm	
	E (NPT)	F (JIC)	A	B
CVAN-LL-02-04	1/8" - 27	7/16" - 20	22.5	39.5
CVAN-LL-02-04	1/8" - 27	7/16" - 20	22.5	58.0
CVAN-LL-04-04	1/4" - 18	7/16" - 20	27	52.5
CVAN-LL-04-06	1/4" - 18	9/16" - 18	27	52.5

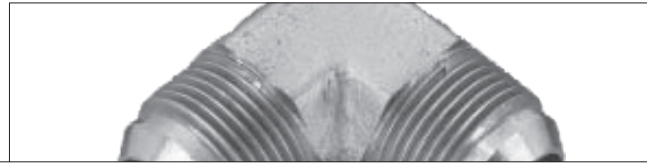
CVD SERIES

BSPT MALE x BSPP FEMALE

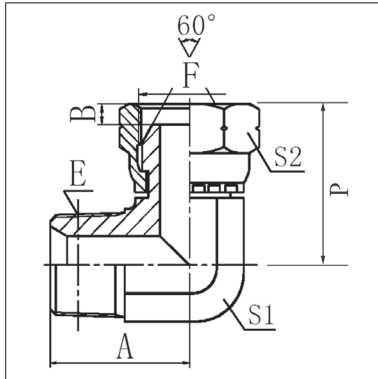


Product Code	Thread		Dimensions mm				
	E (BSPT)	F (BSPP)	A	B	S1	S2	P
CVD-02-02	1/8" - 28	1/8" - 28	21	5.5	11	14	30
CVD-04-04	1/4" - 19	1/4" - 19	25.5	5.5	14	19	33
CVD-06-04	3/8" - 19	1/4" - 19	28.5	5.5	16	19	33
CVD-06-06	3/8" - 19	3/8" - 19	28.5	6.3	16	22	36
CVD-06-08	3/8" - 19	1/2" - 14	30.5	7.5	19	27	36
CVD-08-06	1/2" - 14	3/8" - 19	36	6.3	22	22	42
CVD-08-08	1/2" - 14	1/2" - 14	36	7.5	22	27	42
CVD-12-12	3/4" - 14	3/4" - 14	43.5	10.9	27	32	50
CVD-16-16	1" - 11	1" - 11	50	11.7	33	41	59
CVD-20-20	1.1/4" - 11	1.1/4" - 11	58	11	41	50	62
CVD-24-24	1.1/2" - 11	1.1/2" - 11	62.5	13	48	55	72

90° ELBOWS

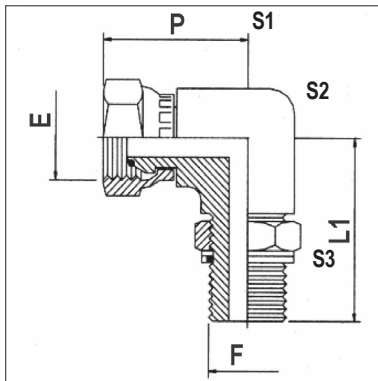


CVDN SERIES NPT MALE x NPSM FEMALE



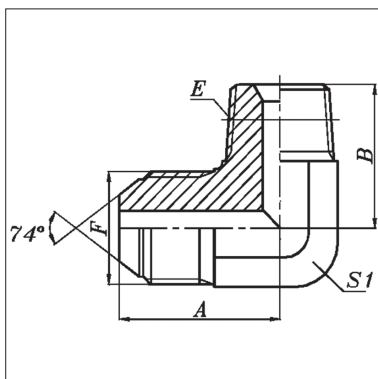
Product Code	Thread		Dimensions mm				
	E (NPT)	F (NPSM)	A	B	S1	S2	P
CVDN-02-02	1/8" - 27	1/8" - 27	21	3.5	11	15	30
CVDN-04-04	1/4" - 18	1/4" - 18	25.5	4.6	14	19	33
CVDN-06-06	3/8" - 18	3/8" - 18	31	6	19	22	36
CVDN-08-08	3/8" - 18	1/2" - 14	31	7.5	19	27	36
CVDN-08-08	1/2" - 14	1/2" - 14	37.3	7.5	22	27	42
CVDN-12-12	3/4" - 14	3/4" - 14	43.5	8.9	27	32	50
CVDN-16-16	1" - 11.5	1" - 11.5	50	10.5	33	41	59
CVDN-20-20	1.1/4" - 11.5	1.1/4" - 11.5	54.5	11.2	41	50	62
CVDN-24-24	1.1/2" - 11.5	1.1/2" - 11.5	59	11.2	48	55	72
CVDN-32-32	2" - 11.5	2" - 11.5	73.5	11.2	63	70	87

CVDP / CVDPA SERIES BSPP MALE x BSPP FEMALE



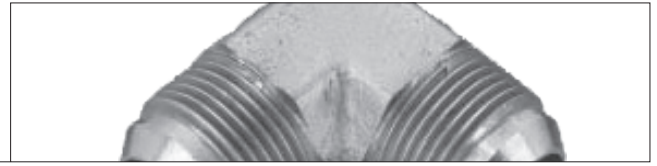
Product Code	Thread		Dimensions mm				
	E (BSPP)	F (BSPP)	L1	P	S1	S2	S3
Non-Adjustable							
CVDP-04-04	1/4" - 28	1/4" - 28	27	28	14	19	-
CVDP-06-06	3/8" - 19	3/8" - 19	28	29	16	22	-
CVDP-08-08	1/2" - 14	1/2" - 14	35	36	22	27	-
Adjustable Style							
CVDPA-04-04	1/4" - 28	1/4" - 28	31.5	28	14	19	19
CVDPA-06-06	3/8" - 19	3/8" - 19	37	29	16	22	22
CVDPA-08-08	1/2" - 14	1/2" - 14	43	36	22	27	27
CVDPA-12-12	3/4" - 14	3/4" - 14	50	44	27	32	32

CVE SERIES BSPT MALE x SAE MALE



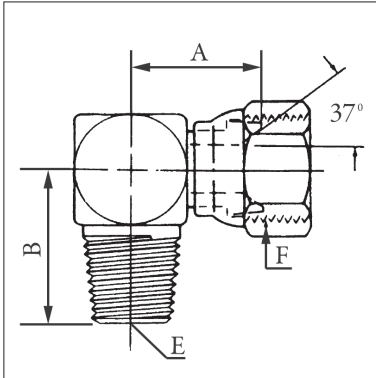
Product Code	Thread	
	E (BSPT)	F (SAE)
CVE-12-12	3/4" - 16	1.1/16" - 14

90° ELBOWS



CVF SERIES

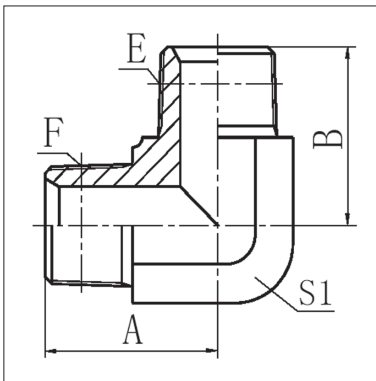
BSPT MALE x JIC FEMALE



Product Code	Thread		Dimensions mm	
	E (BSPT)	F (JIC)	A	B
CVF-06-09	3/8" - 19	9/16" - 18	21.6	31
CVF-12-17	3/4" - 16	1.1/16" - 14	30.2	40.4

CVJ SERIES

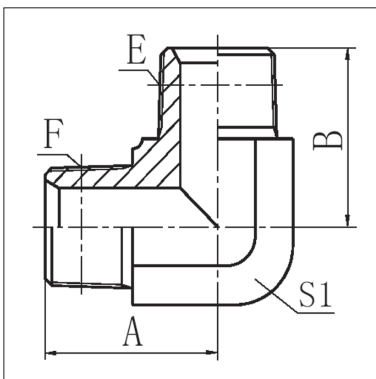
BSPT MALE x BSPT MALE



Product Code	Thread		Dimensions mm		
	E (BSPT)	F (BSPT)	A	B	S1
CVJ-02-02	1/8" - 28	1/8" - 28	21	21	11
CVJ-04-02	1/4" - 19	1/8" - 28	23.5	25.5	14
CVJ-04-04	1/4" - 19	1/4" - 19	25.5	25.5	14
CVJ-06-04	3/8" - 19	1/4" - 19	26.5	28.5	16
CVJ-06-06	3/8" - 19	3/8" - 19	28.5	28.5	16
CVJ-08-04	1/2" - 14	1/4" - 19	30.5	36	22
CVJ-08-06	1/2" - 14	3/8" - 19	32.5	36	22
CVJ-08-08	1/2" - 14	1/2" - 14	36	36	22
CVJ-12-08	3/4" - 14	1/2" - 14	39.5	43.5	27
CVJ-12-12	3/4" - 14	3/4" - 14	43.5	43.5	27
CVJ-16-12	1" - 11	3/4" - 14	48	50	33
CVJ-16-16	1" - 11	1" - 11	50	50	33
CVJ-20-16	1.1/4" - 11	1" - 11	56.5	57.5	41
CVJ-20-20	1.1/4" - 11	1.1/4" - 11	56.5	56.5	41
CVJ-24-24	1.1/2" - 11	1.1/2" - 11	62.5	62.5	48
CVJ-32-32	2" - 11	2" - 11	68	75	63

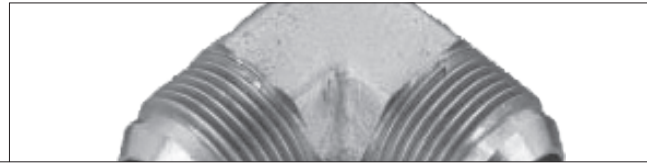
CVJN SERIES

NPT MALE x NPT MALE

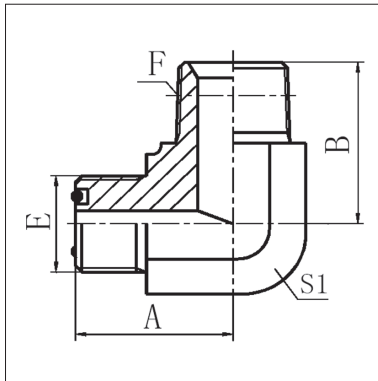


Product Code	Thread		Dimensions mm		
	E (NPT)	F (NPT)	A	B	S1
CVJN-16-16	1" - 11½	1" - 11½	50	50	33

90° ELBOWS

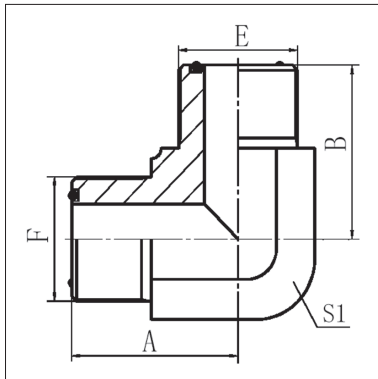


FF1208 SERIES ORFS MALE x NPT MALE



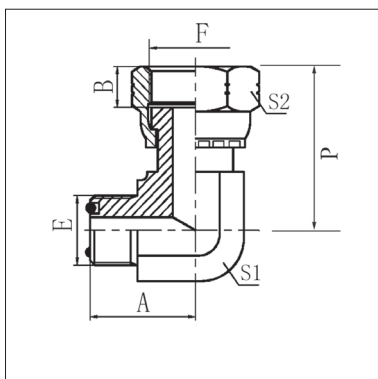
Product Code	Thread		Dimensions mm		
	E (ORFS)	F (NPT)	A	B	S1
FF1208-0402	9/16" - 18	1/8" - 27	23	24	14
FF1208-0404	9/16" - 18	1/4" - 18	23	25.5	14
FF1208-0604	11/16" - 16	1/4" - 18	27	28.5	19
FF1208-0606	11/16" - 16	3/8" - 18	27.5	31	19
FF1208-0806	13/16" - 16	3/8" - 18	31	33.5	22
FF1208-0808	13/16" - 16	1/2" - 14	31	37.3	22
FF1208-0812	13/16" - 16	3/4" - 14	34.5	44	27
FF1208-1008	1" - 14	1/2" - 14	36.5	40	27
FF1208-1012	1" - 14	3/4" - 14	36.5	44	27
FF1208-1208	1.3/16" - 12	1/2" - 14	41	41.2	30
FF1208-1212	1.3/16" - 12	3/4" - 14	41	45.5	30
FF1208-1612	1.7/16" - 12	3/4" - 14	44.5	49	36
FF1208-1616	1.7/16" - 12	1" - 11.5	44.5	51.5	36
FF1208-2020	1.11/16" - 12	1.1/4" - 11.5	47.5	54.5	41
FF1208-2424	2" - 12	1.1/2" - 11.5	53.5	61	50

FF1234 SERIES ORFS MALE x ORFS MALE



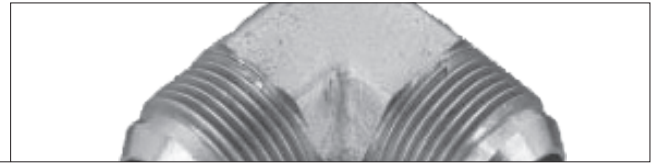
Product Code	Thread		Dimensions mm		
	E (ORFS)	F (ORFS)	A	B	S1
FF1234-0404	9/16" - 18	9/16" - 18	23	23	14
FF1234-0604	11/16" - 16	9/16" - 18	25.5	27	19
FF1234-0606	11/16" - 16	11/16" - 16	27.5	27.5	19
FF1234-0806	13/16" - 16	11/16" - 16	29	31	22
FF1234-0808	13/16" - 16	13/16" - 16	31	31	22
FF1234-1010	1" - 14	1" - 14	36.5	36.5	27
FF1234-1212	1.3/16" - 12	1.3/16" - 12	41	41	30
FF1234-1616	1.7/16" - 12	1.7/16" - 12	36.5	36.5	27
FF1234-2020	1.11/16" - 12	1.11/16" - 12	47.5	47.5	41
FF1234-2424	2" - 12	2" - 12	53.5	53.5	50

FF1236 SERIES ORFS MALE x ORFS FEMALE



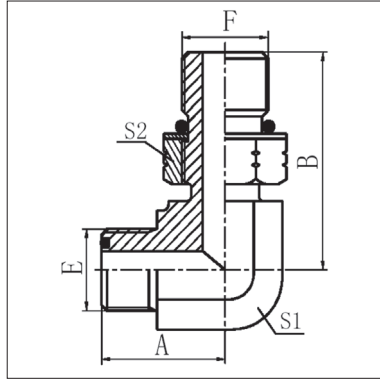
Product Code	Thread		Dimensions mm				
	E (ORFS)	F (ORFS')	A	B	S1	S2	P
FF1236-0404	9/16" - 18	9/16" - 18	23	8.5	14	19	37
FF1236-0606	11/16" - 16	11/16" - 16	27.5	10	19	22	42
FF1236-0808	13/16" - 16	13/16" - 16	31	11	22	27	54
FF1236-1010	1" - 14	1" - 14	36.5	15	27	30	59
FF1236-1212	1.3/16" - 12	1.3/16" - 12	41	15	30	36	66
FF1236-1616	1.7/16" - 12	1.7/16" - 12	48	15	41	41	74
FF1236-2020	1.11/16" - 12	1.11/16" - 12	47.5	15	41	50	79
FF1236-2424	2" - 12	2" - 12	57	66	55	60	83

90° ELBOWS



FF1238 SERIES

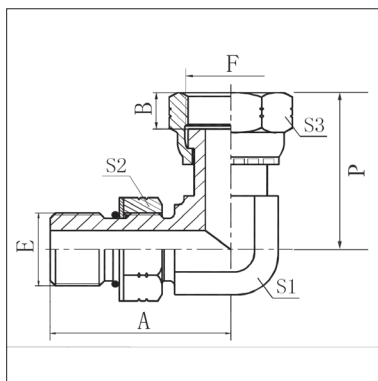
ORFS MALE x UNO MALE



Product Code	Thread		Dimensions mm			
	E (ORFS)	F (UNO)	A	B	S1	S2
FF1238-0404	9/16" - 18	7/16" - 20	23	30.3	14	17
FF1238-0406	9/16" - 18	9/16" - 18	23	32	14	19
FF1238-0408	9/16" - 18	3/4" - 16	25.5	38	19	24
FF1238-0604	11/16" - 16	7/16" - 20	27.5	33.5	19	17
FF1238-0606	11/16" - 16	9/16" - 18	27.5	34.5	19	19
FF1238-0608	11/16" - 16	3/4" - 16	27.5	38	19	24
FF1238-0806	13/16" - 16	9/16" - 18	31	37	22	19
FF1238-0808	13/16" - 16	3/4" - 16	31	40.5	22	24
FF1238-0810	13/16" - 16	7/8" - 14	31	45.3	22	27
FF1238-0812	13/16" - 16	1.1/16" - 12	34.5	52	27	32
FF1238-1010	1" - 14	7/8" - 14	36.5	50.8	27	27
FF1238-1012	1" - 14	1.1/16" - 12	36.5	52	27	32
FF1238-1210	1.3/16" - 12	7/8" - 14	41	52.8	30	27
FF1238-1212	1.3/16" - 12	1.1/16" - 12	41	54	30	32
FF1238-1214	1.3/16" - 12	1.3/16" - 12				
FF1238-1216	1.3/16" - 12	1.5/16" - 12	43	55.5	33	41
FF1238-1612	1.7/16" - 12	1.1/16" - 12	48	60	41	32
FF1238-1616	1.7/16" - 12	1.5/16" - 12	48	60	41	41
FF1238-2020	1.11/16" - 12	1.5/8" - 12	47.5	60.5	41	50
FF1238-2424	2" - 12	1.7/8" - 12	53.5	67.5	50	55

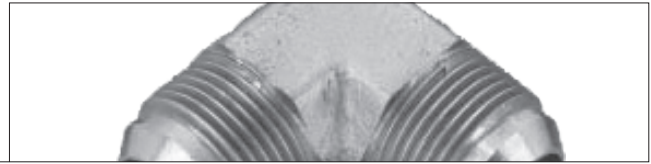
FF1239 SERIES

UNO MALE x ORFS FEMALE



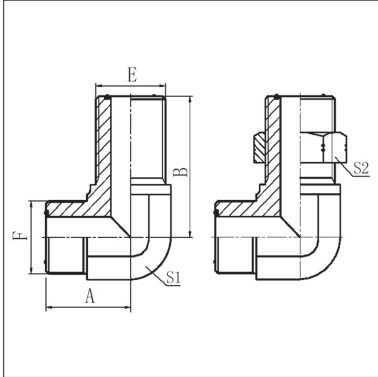
Product Code	Thread		Dimensions mm				
	E (UNO)	F (ORFS)	A	B	S1	S2	P
FF1239-0404	7/16" - 20	9/16" - 18	30	8.5	14	19	34
FF1239-0606	9/16" - 18	11/16" - 16	34.5	10	16	22	39
FF1239-0808	3/4" - 16	13/16" - 16	37.5	11	19	27	48
FF1239-1010	7/8" - 14	1" - 14	45.2	13.5	22	30	54.5
FF1239-1212	1.1/16" - 12	1.3/16" - 12	52	15	27	36	60.5
FF1239-1616	1.5/16" - 12	1.7/16" - 12	56	15	33	41	68.5
FF1239-2020	1.5/8" - 12	1.11/16" - 12	59	15	41	50	73
FF1239-2424	1.7/8" - 12	2" - 12	63	16	48	55	76

90° ELBOWS



FF1262LN SERIES

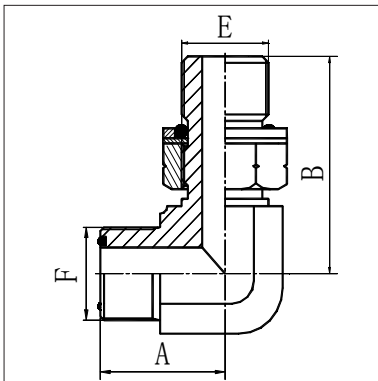
ORFS MALE x ORFS MALE 90° BULKHEAD



Product Code	Thread		Dimensions mm			
	E (ORFS)	F (ORFS)	A	B	S1	S2
FF1262LN-0404	9/16" - 18	9/16" - 18	23	47	14	22
FF1262LN-1616	1.7/16" - 12	1.7/16" - 12	44.5	71.2	36	46

FF1291 SERIES

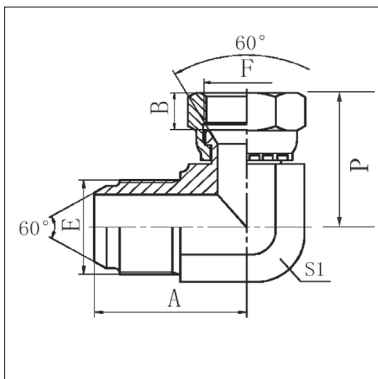
BSPF MALE x ORFS MALE 90° ELBOW



Product Code	Thread		Dimensions mm	
	E (BSPF)	F (ORFS)	A	B
FF1291-0204	1/8" - 28	9/16" - 18	21.5	30
FF1291-0404	1/4" - 19	9/16" - 18	23.5	35
FF1291-0406	1/4" - 19	11/16" - 16	25	36
FF1291-0408	1/4" - 19	13/16" - 16	28	35
FF1291-0604	3/8" - 19	9/16" - 18	25	38
FF1291-0606	3/8" - 19	11/16" - 16	28	38
FF1291-0608	3/8" - 19	13/16" - 16	28	43
FF1291-0806	1/2" - 14	11/16" - 16	29.5	48
FF1291-0808	1/2" - 14	13/16" - 16	31	48
FF1291-0810	1/2" - 14	1" - 14	33.5	48
FF1291-0812	1/2" - 14	1.3/16" - 12	37.5	49
FF1291-1212	3/4" - 14	1.3/16" - 12	37.5	51.5

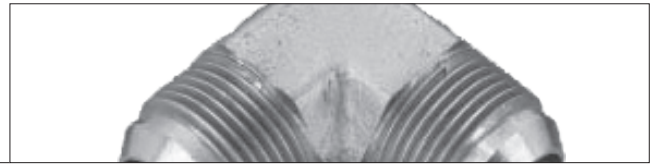
KAB SERIES KOMATSU®

JIS METRIC MALE x JIS METRIC FEMALE



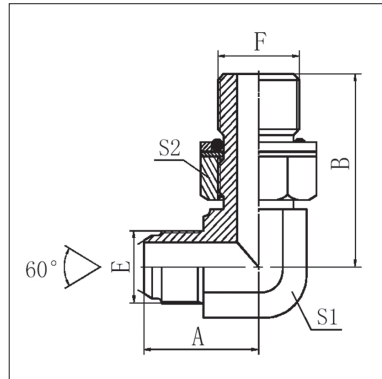
Product Code	Thread		Dimensions mm				
	E (JIS Met.)	F (JIS Met.)	A	B	S1	NUT	P
KAB-14-14	M14 - 1.5	M14 - 1.5	28.5	10.5	14	19	32
KAB-16-16	M16 - 1.5	M16 - 1.5	31.5	10	16	22	35
KAB-18-18	M18 - 1.5	M18 - 1.5	33.8	11.5	19	24	37
KAB-22-22	M22 - 1.5	M22 - 1.5	38	14	22	27	42
KAB-24-24	M24 - 1.5	M24 - 1.5	41.2	15	24	30	44.5
KAB-30-24	M30 - 1.5	M24 - 1.5	47.5	15	30	30	51
KAB-30-30	M30 - 1.5	M30 - 1.5	48	18.3	30	36	54
KAB-33-33	M33 - 1.5	M33 - 1.5	55	21.3	33	41	64

90° ELBOWS



KEA SERIES KOMATSU®

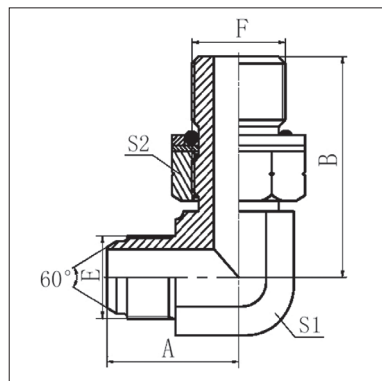
JIS METRIC MALE x JIS METRIC O-RING MALE



Product Code	Thread		Dimensions mm			
	E (JIS Met.)	F (JIS Met.)	A	B	S1	S2
KEA-14-12	M14 - 1.5	M12 - 1.5	25.5	31.5	14	17
KEA-16-14	M16 - 1.5	M14 - 1.5	30.5	34	16	19
KEA-18-14	M18 - 1.5	M14 - 1.5	30.8	35.5	19	19
KEA-18-16	M18 - 1.5	M16 - 1.5	33.8	36	19	22
KEA-18-20	M18 - 1.5	M20 - 1.5	30.8	37	19	27
KEA-20-18	M20 - 1.5	M18 - 1.5	36	37	19	24
KEA-22-20	M22 - 1.5	M20 - 1.5	25	40	22	27
KEA-30-20	M30 - 1.5	M20 - 1.5	47.5	45	30	27
KEA-30-24	M30 - 1.5	M24 - 1.5	47.5	49	30	30

KFA SERIES KOMATSU®

JIS METRIC MALE x BSPP O-RING MALE

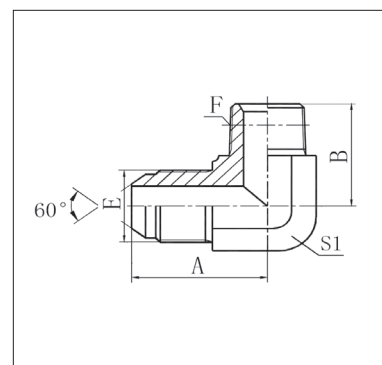


Product Code	Thread		Dimensions mm			
	E (JIS Met.)	F (BSPP)	A	B	S1	S2
KFA-14-04	M14 - 1.5	1/4" - 19	26.6	31.3	14	19
KFA-14-06	M14 - 1.5	3/8" - 19	31	35.8	16	22
KFA-16-06	M16 - 1.5	3/8" - 19	28	35.8	16	22
KFA-18-06	M18 - 1.5	3/8" - 19	30.8	37	19	22
KFA-20-06	M20 - 1.5	3/8" - 19	36	36.8	19	22
KFA-20-08	M20 - 1.5	1/2" - 14	38	43.2	22	27
KFA-22-08	M22 - 1.5	1/2" - 14	35.5	43.2	22	27
KFA-30-12	M30 - 1.5	3/4" - 14	47.5	53	33	32
KFA-30-16	M30 - 1.5	1" - 11	-	-	-	-
KFA-33-20	M33 - 1.5	1.1/4" - 11	56	58	41	50

See page D90 for replacement retaining ring and O-Ring for the BSPP thread (Product Codes RRB and RROB)



KVA SERIES KOMATSU®

JIS METRIC MALE x BSPT MALE

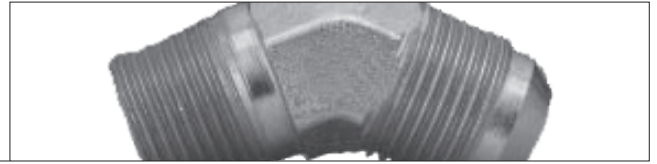


Product Code	Thread		Dimensions mm		
	E (JIS Met.)	F (BSPT)	A	B	S1
KVA-14-02	M14 - 1.5	1/8" - 28	28.5	22	14
KVA-14-04	M14 - 1.5	1/4" - 19	29	25.5	14
KVA-14-06	M14 - 1.5	3/8" - 19	31	28.5	16
KVA-16-06	M16 - 1.5	3/8" - 19	31.5	28.5	16
KVA-18-06	M18 - 1.5	3/8" - 19	33.8	29.5	19
KVA-20-06	M20 - 1.5	3/8" - 19	36	30.5	19
KVA-22-06	M22 - 1.5	3/8" - 19	38	32.5	22
KVA-22-08	M22 - 1.5	1/2" - 14	38	36	22
KVA-24-08	M24 - 1.5	1/2" - 14	43.5	39.5	27
KVA-24-12	M24 - 1.5	3/4" - 14	43	43.5	27
KVA-30-12	M30 - 1.5	3/4" - 14	48	45.3	30

This page is part of a complete catalog containing technical and safety data. All data must be reviewed when selecting a product. PIRTEK reserves the right to change technical specifications without notice.

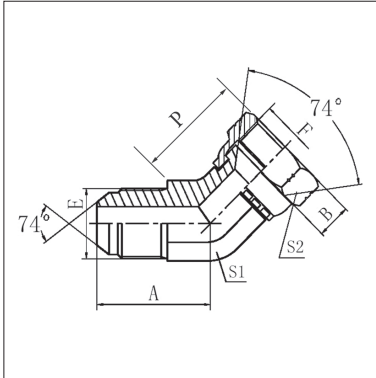
		SECTION 4 45° ELBOW		PAGE
CGB	JIC x JIC	M / F	50	
CJA	BSPT x JIC	M / M	50	
CJAN	NPT x JIC	M / M	51	
CJD	BSPT x BSPP	M / F	51	
CJDN	NPT x NPSM	M / F	52	
CJJ	BSPT x BSPT	M / M	52	
CJPN	NPT x NPT FIXED	M / F	53	
CKA	UNO x JIC	M / M	53	
FF1206	NPT x ORFS	M / M	54	
FF1240	ORFS x UNO	M / M	54	
KJA	JIS METRIC x BSPT	M / M	55	
KKA	JIS METRIC x JIS METRIC 'O' RING	M / M	55	
		SECTION 5 TUBE WELD		
BG	CODE 61 FLANGE x STD TUBE	-	56	
BH	CODE 62 FLANGE x STD TUBE	-	56	
BM	BSPT x STD TUBE	M / -	57	
BP	BSPP x STD TUBE	M / -		
BJ	BSPP x STP TUBE	F / -	57	
BC	JIC x STD TUBE	M / -	58	
BD	JIC x STD TUBE 90° ELBOW	M / -	58	
BF	JIC x STD TUBE	F / -	58	
FF3020	ORFS x STD TUBE Socket Weld	M / -	59	
FF3031	ORFS SHOULDER x STD TUBE Int.	F / -	59	
FF3032	ORFS SHOULDER x STD TUBE Ext.	F / -	60	
FF3021	ORFS x ORFS x STD TUBE	M / M / -	61	

45° ELBOWS



CGB SERIES

JIC MALE x JIC FEMALE

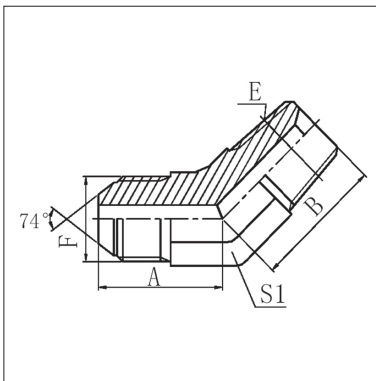


Product Code	Thread		Dimensions mm				
	E (JIC)	F (JIC)	A	B	L	S2	P
CGB-04-04	7/16" - 20	7/16" - 20	18	9	11	15	24
CGB-05-05	1/2" - 20	1/2" - 20	19.5	9.5	14	17	25.5
CGB-06-06	9/16" - 18	9/16" - 18	21	10.5	14	19	28.5
CGB-S06-S06 †	5/8" - 18	5/8" - 18	-	-	-	-	-
CGB-08-08	3/4" - 16	3/4" - 16	25	11	19	24	32.5
CGB-10-10	7/8" - 14	7/8" - 14	28	13	22	27	36.5
CGB-12-12	1.1/16" - 12	1.1/16" - 12	32.5	15	27	32	38
CGB-14-14	1.3/16" - 12	1.3/16" - 12	35	15	30	36	41
CGB-16-16	1.5/16" - 12	1.5/16" - 12	37	16	33	41	44.5
CGB-20-20	1.5/8" - 12	1.5/8" - 12	40.5	17	41	50	51.5
CGB-24-24	1.7/8" - 12	1.7/8" - 12	45	20	48	55	57

† SAE Thread Form

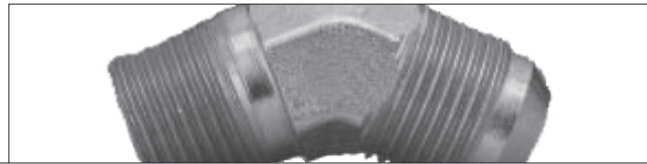
CJA SERIES

BSPT MALE x JIC MALE

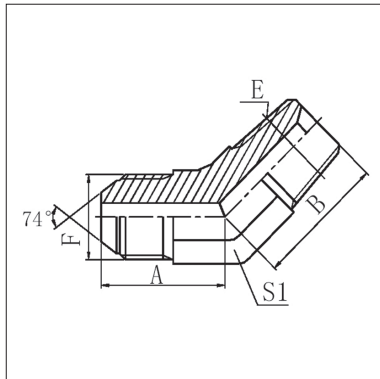


Product Code	Thread		Dimensions mm		
	E (BSPT)	F (JIC)	A	B	S1
CJA-02-04	1/8" - 28	7/16" - 20	21.5	17	11
CJA-02-05	1/8" - 28	1/2" - 20	21.5	17.5	14
CJA-02-06	1/8" - 28	9/16" - 18	22.8	18.2	14
CJA-04-04	1/4" - 19	7/16" - 20	22.3	21	14
CJA-04-05	1/4" - 19	1/2" - 20	22.3	21	14
CJA-04-05	1/4" - 19	9/16" - 18	22.8	21	14
CJA-04-S06 †	1/4" - 19	5/8" - 18 †	25	21	16
CJA-04-08	1/4" - 19	3/4" - 16	26.8	22	19
CJA-06-06	3/8" - 19	9/16" - 18	22	23	16
CJA-06-S06 †	3/8" - 19	5/8" - 18 †	25	23	16
CJA-06-08	3/8" - 19	3/4" - 16	26.8	24	19
CJA-06-10	3/8" - 19	7/8" - 14	31	25	22
CJA-08-06	1/2" - 14	9/16" - 18	25	29.5	22
CJA-08-08	1/2" - 14	3/4" - 16	28	29.5	22
CJA-08-10	1/2" - 14	7/8" - 14	31	29.5	22
CJA-08-12	1/2" - 14	1.1/16" - 12	35.5	30	27
CJA-12-08	3/4" - 14	3/4" - 16	29	30.5	27
CJA-12-10	3/4" - 14	7/8" - 14	32	30.5	27
CJA-12-12	3/4" - 14	1.1/16" - 12	35.5	30.5	27
CJA-12-16	3/4" - 14	1.5/16" - 12	38.5	32.5	33
CJA-16-16	1" - 11	1.5/16" - 12	38.5	38	33
CJA-20-20	1.1/4" - 11	1.5/8" - 12	43	43	41
CJA-24-24	1.1/2" - 11	1.7/8" - 12	49	47.5	48

45° ELBOWS

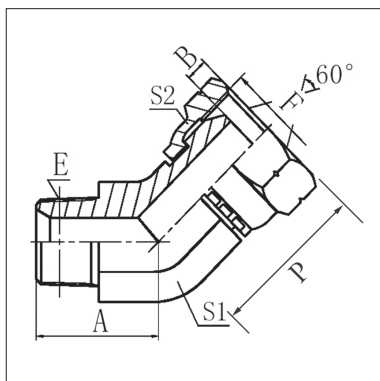


CJAN SERIES NPT MALE x JIC MALE



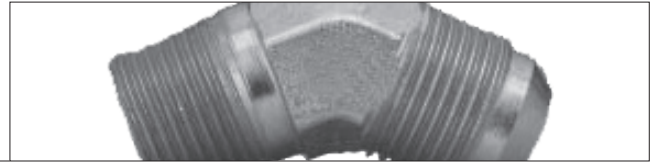
Product Code	Thread		Dimensions mm		
	E (NPT)	F (JIC)	A	B	S1
CJAN-02-04	1/8" - 27	7/16" - 20	21.5	17	11
CJAN-02-05	1/8" - 27	1/2" - 20	22.3	18	14
CJAN-04-04	1/4" - 18	7/16" - 20	22.3	21	14
CJAN-04-05	1/4" - 18	1/2" - 20	22.3	21	14
CJAN-04-06	1/4" - 18	9/16" - 18	22.8	21	14
CJAN-04-S06 †	1/4" - 18	5/8" - 18 †	25	21	16
CJAN-04-08	1/4" - 18	3/4" - 16	26.8	22	19
CJAN-06-06	3/8" - 18	9/16" - 18	24	24	19
CJAN-06-08	3/8" - 18	3/4" - 16	26.8	24	19
CJAN-06-10	3/8" - 18	7/8" - 14	31	26	22
CJAN-08-06	1/2" - 14	9/16" - 18	25	29.5	22
CJAN-08-08	1/2" - 14	3/4" - 16	28	29.5	22
CJAN-08-10	1/2" - 14	7/8" - 14	31	29.5	22
CJAN-12-08	3/4" - 14	3/4" - 16	29	35	27
CJAN-12-10	3/4" - 14	7/8" - 14	32	35	27
CJAN-12-12	3/4" - 14	1.1/16" - 12	35.5	35	27
CJAN-16-12	1" - 11.5	1.1/16" - 12	-	-	-
CJAN-16-16	1" - 11.5	1.5/16" - 12	38.5	39	33
CJAN-20-20	1.1/4" - 11.5	1.5/8" - 12	43	42	41
CJAN-24-24	1.1/2" - 11.5	1.7/8" - 12	49	47.5	48

CJD SERIES BSPT MALE x BSPP FEMALE



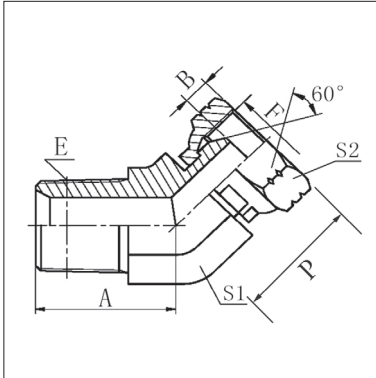
Product Code	Thread		Dimensions mm				
	E (BSPT)	F (BSPP)	A	B	S1	S2	P
CJD-02-02	1/8" - 28	1/8" - 28	17	5.5	11	14	25
CJD-04-04	1/4" - 19	1/4" - 19	21	5.5	14	19	27
CJD-06-06	3/8" - 19	3/8" - 19	23	6.3	16	22	30
CJD-08-08	1/2" - 14	1/2" - 14	29.5	7.5	22	27	33
CJD-12-12	3/4" - 14	3/4" - 14	30.5	10.9	27	32	41
CJD-16-16	1" - 11	1" - 11	38	11.7	33	41	46
CJD-20-20	1.1/4" - 11	1.1/4" - 11	43	11	41	50	48
CJD-24-24	1.1/2" - 11	1.1/2" - 11	47.5	13	48	55	56

45° ELBOWS



CJDN SERIES

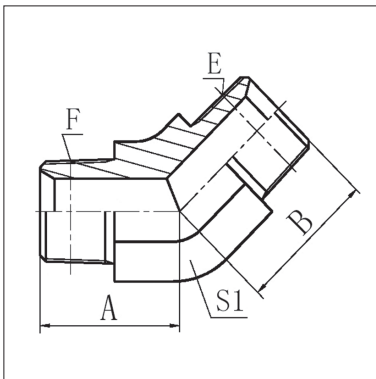
NPT MALE x NPSM FEMALE



Product Code	Thread		Dimensions mm				
	E (NPT)	F (NPSM)	A	B	S1	S2	P
CJDN-02-02	1/8" - 27	1/8" - 27	17	3.5	11	15	25
CJDN-04-04	1/4" - 18	1/4" - 18	21	4.6	14	19	27
CJDN-06-06	3/8" - 18	3/8" - 18	24	6	19	22	30
CJDN-08-08	1/2" - 14	1/2" - 14	29.5	7.5	22	27	33
CJDN-12-12	3/4" - 14	3/4" - 14	35	8.9	27	32	41
CJDN-16-16	1" - 11.5	1" - 11.5	39	10.5	33	41	46
CJDN-20-20	1.1/4" - 11.5	1.1/4" - 11.5	42.5	11.2	41	50	48
CJDN-24-24	1.1/2" - 11.5	1.1/2" - 11.5	45	11.2	48	55	56
CJDN-32-32	2" - 11.5	2" - 11.5	52.5	11.2	63	70	60

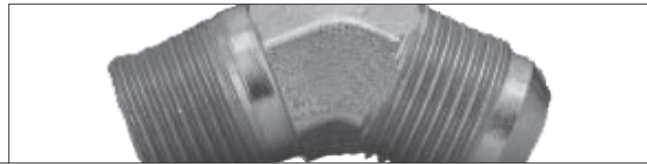
CJJ SERIES

BSPT MALE x BSPT MALE

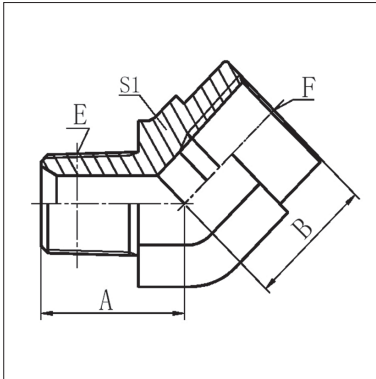


Product Code	Thread		Dimensions mm		
	E (BSPT)	F (BSPT)	A	B	S1
CJJ-02-02	1/8" - 28	1/8" - 28	17	17	11
CJJ-04-04	1/4" - 19	1/4" - 19	21	21	14
CJJ-06-04	3/8" - 19	1/4" - 19	21	23	16
CJJ-06-06	3/8" - 19	3/8" - 19	23	23	16
CJJ-08-06	1/2" - 14	3/8" - 19	25	29.5	22
CJJ-08-08	1/2" - 14	1/2" - 14	29.5	29.5	22
CJJ-12-08	3/4" - 14	1/2" - 14	30	30.5	27
CJJ-12-12	3/4" - 14	3/4" - 14	30.5	30.5	27
CJJ-16-12	1" - 11	3/4" - 14	32.5	38	33
CJJ-16-16	1" - 11	1" - 11	38	38	33

45° ELBOWS

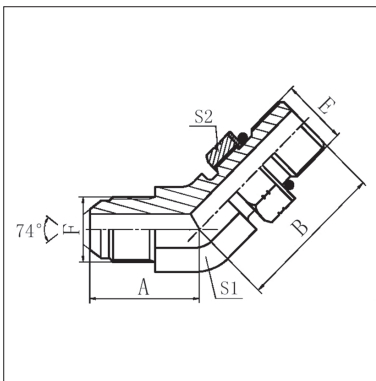


CJPN SERIES NPT MALE x NPT FIXED FEMALE



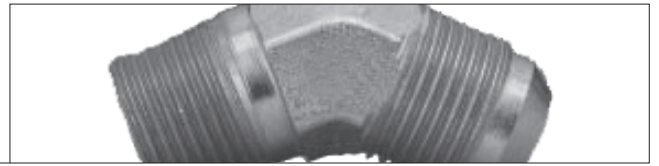
Product Code	Thread		Dimensions mm		
	E (NPT)	F (NPT)	A	B	S1
CJPN-02-02	1/8" - 27	1/8" - 27	19	17	16
CJPN-04-04	1/4" - 18	1/4" - 18	22	20	19
CJPN-06-06	3/8" - 18	3/8" - 18	27	19	24
CJPN-08-08	1/2" - 14	1/2" - 14	31.7	28	30
CJPN-12-12	3/4" - 14	3/4" - 14	36.5	30	33

CKA SERIES UNO MALE x JIC MALE



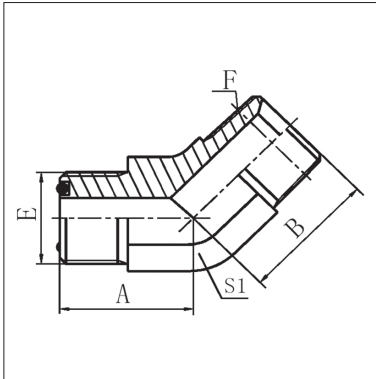
Product Code	Thread		Dimensions mm			
	E (UNO)	F (JIC)	A	B	S1	S2
CKA-04-04	7/16" - 20	7/16" - 20	21	24	11	17
CKA-05-05	1/2" - 20	1/2" - 20	22	26.7	14	17
CKA-06-04	9/16" - 18	7/16" - 20	22.3	27.5	14	19
CKA-06-06	9/16" - 18	9/16" - 18	23.5	28	14	19
CKA-06-08	9/16" - 18	3/4" - 16	25.8	30	19	19
CKA-08-06	3/4" - 16	9/16" - 18	25.8	30	19	19
CKA-08-08	3/4" - 16	3/4" - 16	25.8	32.5	19	24
CKA-08-10	3/4" - 16	7/8" - 14	29.5	33	22	27
CKA-10-08	7/8" - 14	3/4" - 16	28	38.7	22	27
CKA-10-10	7/8" - 14	7/8" - 14	29.5	38.7	22	27
CKA-10-12	7/8" - 14	1.1/16" - 12	34	42	27	27
CKA-12-10	1.1/16" - 12	3/4" - 16	30	43.9	27	32
CKA-12-10	1.1/16" - 12	7/8" - 14	33	43.9	27	32
CKA-12-12	1.1/16" - 12	1.1/16" - 12	34	43.5	27	32
CKA-12-16	1.1/16" - 12	1.5/16" - 12	38	45	33	32
CKA-16-12	1.5/16" - 12	1.1/16" - 12	37	45.5	33	41
CKA-16-16	1.5/16" - 12	1.5/16" - 12	38	45.5	33	41
CKA-20-16	1.5/8" - 12	1.5/16" - 12	40.5	47	41	50
CKA-20-20	1.5/8" - 12	1.5/8" - 12	42	48.5	41	50
CKA-24-24	1.7/8" - 12	1.7/8" - 12	48	50	48	55

45° ELBOWS



FF1206 SERIES

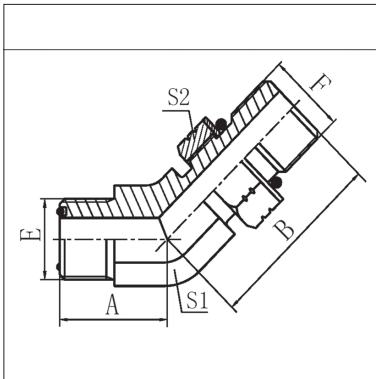
ORFS MALE x NPT MALE



Product Code	Thread		Dimensions mm		
	E (ORFS)	F (NPT)	A	B	S1
FF1206-0402	9/16" - 18	1/8" - 27	18.3	18	14
FF1206-0404	9/16" - 18	1/4" - 18	18.3	21	14
FF1206-0604	11/16" - 16	1/4" - 18	20.5	22	19
FF1206-0606	11/16" - 16	3/8" - 18	20.5	24	19
FF1206-0808	13/16" - 16	1/2" - 14	24	29.5	22

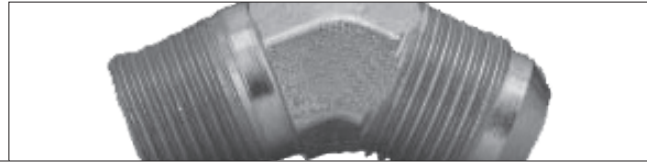
FF1240 SERIES

ORFS MALE x UNO MALE

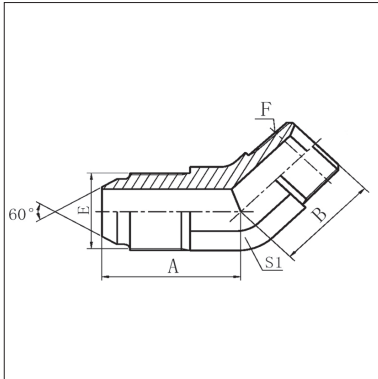


Product Code	Thread		Dimensions mm			
	E (ORFS)	F (UNO)	A	B	L	S1
FF1240-0404	9/16" - 18	7/16" - 20	18.3	26	14	17
FF1240-0406	9/16" - 18	9/16" - 18	18.3	23	14	19
FF1240-0604	11/16" - 16	7/16" - 20	20.5	27.3	19	17
FF1240-0606	11/16" - 16	9/16" - 18	20.5	29.5	19	19
FF1240-0608	11/16" - 16	3/4" - 16	20.5	32.5	19	24
FF1240-0808	13/16" - 16	3/4" - 16	24	34	22	24
FF1240-0810	13/16" - 16	7/8" - 14	24	39.5	22	27
FF1240-1008	1" - 14	3/4" - 16	28	34	27	24
FF1240-1010	1" - 14	7/8" - 14	28	39.5	27	27
FF1240-1012	1" - 14	1.1/16" - 12	28	44	27	32
FF1240-1210	1.3/16" - 12	7/8" - 14	31.5	43.3	33	27
FF1240-1212	1.3/16" - 12	1.1/16" - 12	31.5	46	33	32
FF1240-1216	1.3/16" - 12	1.5/16" - 12	32.5	47.9	36	41
FF1240-1612	1.7/16" - 12	1.1/16" - 12	33	47.9	36	32
FF1240-1616	1.7/16" - 12	1.5/16" - 12	33	47.9	36	41
FF1240-1620	1.7/16" - 12	1.5/8" - 12	33	47.9	36	32
FF1240-2020	1.11/16" - 12	1.5/8" - 12	35.5	50.5	41	50
FF1240-2424	2" - 12	1.7/8" - 12	39	53.5	50	55

45° ELBOWS

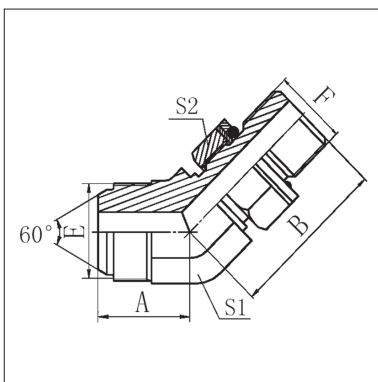


KJA SERIES KOMATSU® JIS METRIC MALE x BSPT FIXED MALE



Product Code	Thread		Dimensions mm		
	E (JIS Met.)	F (BSPT)	A	B	S1
KJA-14-04	M14 - 1.5	1/4" - 19	25	21	14
KJA-14-06	M14 - 1.5	3/8" - 19	25.5	23	16
KJA-16-06	M16 - 1.5	3/8" - 19	26	23	16
KJA-18-06	M18 - 1.5	3/8" - 19	28	24	19
KJA-20-06	M20 - 1.5	3/8" - 19	30	24	19
KJA-22-06	M22 - 1.5	3/8" - 19	31	25	22
KJA-22-08	M22 - 1.5	1/2" - 14	31	30	22
KJA-24-08	M24 - 1.5	1/2" - 14	33	29.5	22

KKA SERIES KOMATSU® JIS METRIC MALE x JIS O-RING MALE



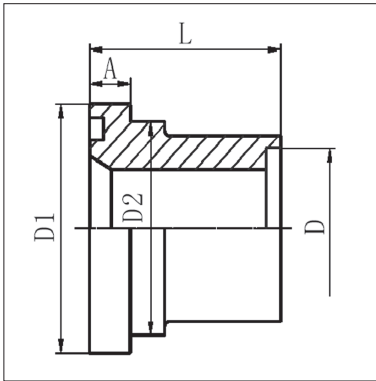
Product Code	Thread		Dimensions mm			
	E (JIS Met.)	F (JIS O-Ring)	A	B	S1	S2
KKA-14-12	M14 - 1.5	M12 - 1.5	23.5	28.3	14	17
KKA-16-14	M16 - 1.5	M14 - 1.5	25	28.5	16	19
KKA-18-16	M18 - 1.5	M16 - 1.5	28	30	19	22
KKA-18-20	M18 - 1.5	M20 - 1.5	26	32	19	27
KKA-20-18	M20 - 1.5	M18 - 1.5	30	31	19	24
KKA-22-20	M22 - 1.5	M20 - 1.5	30.5	33	22	27

TUBE WELD



BG SERIES

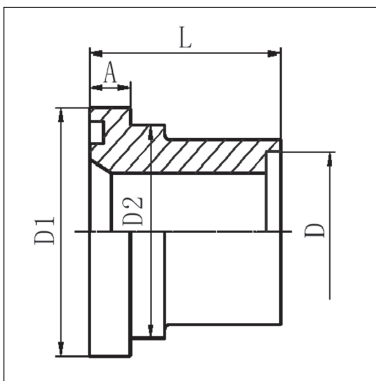
CODE 61 FLANGE x STANDARD TUBE



Product Code	Flange Size	Tube Recess	Max. Work. Pressure	Dimensions (mm)			
	ins.	øD mm		A	D1	D2	L
BG-08-08	1/2"	12.7	345	7	30.2	23.9	26
BG-10-10	5/8"	16.0	345				
BG-12-08	3/4"	12.7	345	7	38.1	31.7	28
BG-12-12	3/4"	19.0	345	6.73	38.1	32	30
BG-16-12	1"	19.0	345	8	44.4	38	30
BG-16-16	1"	25.4	345	8	44.4	38	32
BG-20-16	1.1/4"	25.4	276	8	50.8	43	32
BG-20-20	1.1/4"	31.8	276	8.2	50.8	43.2	35
BG-24-16	1.1/2"	25.4	207	8.2	60.3	50.3	30.7
BG-24-20	1.1/2"	31.8	207	8.2	60.3	50.3	37
BG-24-24	1.1/2"	38.1	207	8.2	60.3	50.3	40
BG-32-20	2"	31.8	207	9.8	71.4	62.2	37
BG-32-24	2"	38.1	207	9.8	71.4	62.2	40
BG-32-32	2"	50.8	207	9.8	71.4	62.2	40

BH SERIES

CODE 62 FLANGE x STANDARD TUBE



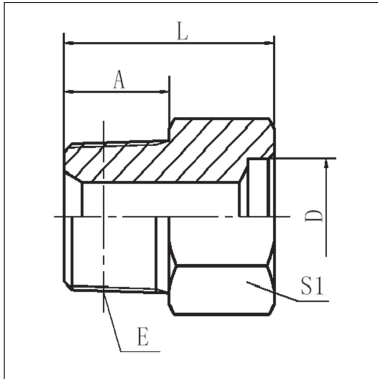
Product Code	Flange Size	Tube Recess	Max. Work. Pressure	Dimensions (mm)			
	ins.	øD mm		A	D1	D2	L
BH-12-12	3/4"	19.0	414	8.9	41.3	31.7	33
BH-16-16	1"	25.4	414	9.6	47.6	38	37
BH-20-20	1.1/4"	31.8	414	10.4	54	43.6	42
BH-24-24	1.1/2"	38.1	414	12.7	63.5	50.8	45
BH-32-32	2"	50.8	414	12.7	79.4	66.5	45

TUBE WELD



BM SERIES

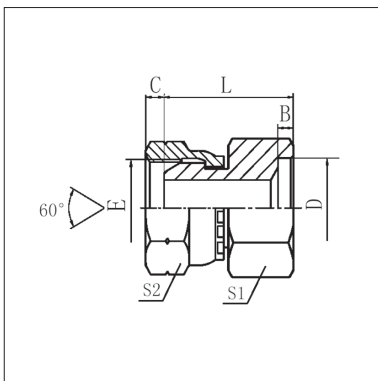
BSPT MALE x STANDARD TUBE



Product Code	BSPT Thread	Tube Recess	Dimensions (mm)		
	ins.	øD mm	A	L	S1
BM-04-04	1/4" - 19	6.25	14.5	23.5	14
BM-04-06	1/4" - 19	9.6	14.5	24.5	14
BM-04-08	1/4" - 19	12.7	14.5	24.5	17
BM-06-06	3/8" - 19	9.6	15	25	19
BM-06-08	3/8" - 19	12.7	15	25	19
BM-08-08	1/2" - 14	12.7	20	32	22
BM-08-10	1/2" - 14	16.0	20	33	22
BM-08-12	1/2" - 14	19.0	20	36	24
BM-12-12	3/4" - 14	19.0	20	36	30
BM-12-16	3/4" - 14	25.4	20	37	32
BM-16-16	1" - 11	25.4	25.5	42.5	36
BM-16-20	1" - 11	31.8	25.5	44.2	38
BM-20-20	1.1/4" - 11	31.8	26.5	45.5	46
BM-20-24	1.1/4" - 11	38.1	26.5	47.5	46
BM-24-24	1.1/2" - 11	38.1	26.5	47.5	50

BJ SERIES

BSPP FEMALE x STANDARD TUBE



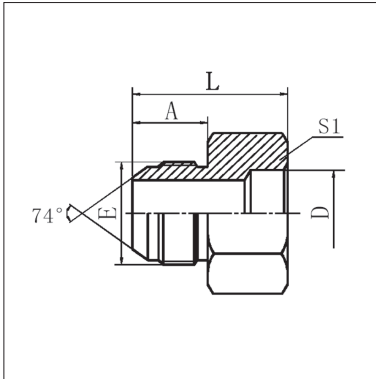
Product Code	Flange Size	Tube Recess	Dimensions (mm)				
	ins.	øD mm	B	C	L	S1	S2
BJ-04-04	1/4" - 19	6.25	3	5.5	20	12	19
BJ-06-06	3/8" - 19	9.6	4	6.3	22	17	22
BJ-08-08	1/2" - 14	12.7	4	7.5	24	19	27
BJ-12-12	3/4" - 14	19.0	5	10.9	31	27	32
BJ-16-16	1" - 11	25.4	6	11.7	33	32	41
BJ-20-20	1.1/4" - 11	31.8	6	11	37.5	41	50
BJ-24-24	1.1/2" - 11	38.1	6	13	40	50	55

TUBE WELD



BC SERIES

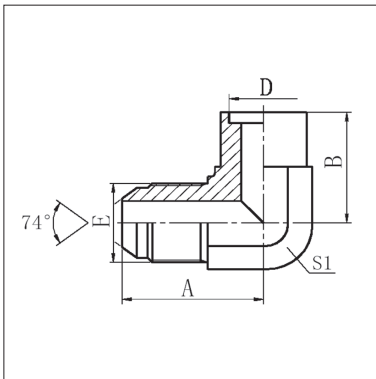
JIC MALE x STANDARD / METRIC TUBE



Product Code	JIC Thread Size	Tube Recess	Dimensions (mm)		
	ins.	øD mm	A	L	S1
TO SUIT STANDARD TUBE					
BC-04-04	7/16" - 20	6.25	14	23	14
BC-06-06	9/16" - 18	9.6	14.1	24	17
BC-08-08	3/4" - 16	12.7	16.7	29.5	22
BC-10-10	7/8" - 14	16.0	19.3	32	24
BC-12-12	1.1/16" - 12	19.0	22	38	30
BC-16-16	1.5/16" - 12	25.4	23	40	36
BC-20-20	1.5/8" - 12	31.8	24.3	43	46
BC-24-24	1.7/8" - 12	38.1	27.5	48.5	50

BD SERIES

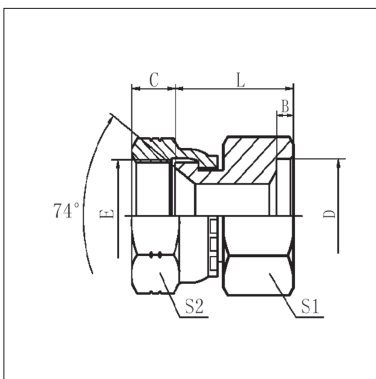
JIC MALE x STANDARD TUBE 90° ELBOW



Product Code	JIC Thread	Tube Recess	Dimensions (mm)		
	ins.	øD mm	A	B	S1
BD-06-06	9/16" - 18	9.6	26.9	22.5	14
BD-08-08	3/4" - 16	12.7	32	26	19
BD-10-10	7/8" - 14	16.0	37.8	31	22
BD-12-12	1.1/16" - 12	19.0	46	34.5	30
BD-16-16	1.5/16" - 12	25.4	51	41	36

BF SERIES

JIC FEMALE x STANDARD TUBE

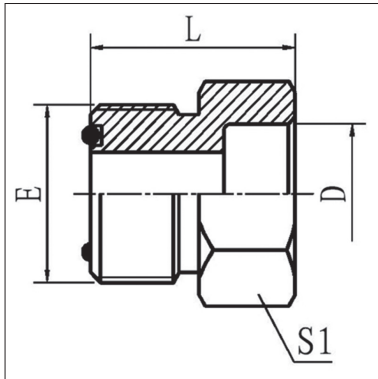


Product Code	JIC Thread	Tube Recess	Dimensions (mm)				
	ins.	øD mm	B	C	L	S1	S2
BF-04-04	7/16" - 20	6.25	3	9	17	12	15
BF-06-06	9/16" - 18	9.6	4	10.5	18.5	14	19
BF-08-08	3/4" - 16	12.7	4	11	20.5	19	24
BF-10-10	7/8" - 14	16.0	5	13	22	22	27
BF-12-12	1.1/16" - 12	19.0	5	15	28.5	27	32
BF-16-16	1.5/16" - 12	25.4	6	16	29.5	32	41
BF-20-20	1.5/8" - 12	31.8	6	17	33	41	50
BF-24-24	1.7/8" - 12	38.1	6	20	35.5	50	55

TUBE WELD

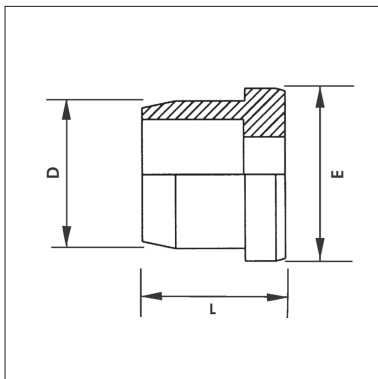


FF3020 SERIES ORFS MALE x SOCKET WELD



Product Code	Tube Size	Tube Recess	ORFS Thread	ORFS Size	Dimensions (mm)			
	ins.	øD ins	ins	Dash	D	E	L	S1
FF3020-0404	04	1/4"	9/16" - 18	04	6.25	14.22	18	17
FF3020-0606	06	3/8"	11/16" - 16	06	9.6	17.52	20	19
FF3020-0808	08	1/2"	13/16" - 16	08	12.7	20.82	22.6	22
FF3020-1010	10	5/8"	1" - 14	10	16.0	25.4	27	27
FF3020-1212	12	3/4"	1.3/16" - 12	12	19.0	30.22	30	32
FF3020-1616	16	1"	1.7/16" - 12	16	25.4	36.57	31.8	38
FF3020-2020	20	1.1/4"	1.11/16" - 12	20	31.8	42.92	34	46
FF3020-2424	24	1.1/2"	2" - 12	24	38.1	50.8	35.5	55

FF3031 SERIES ORFS SHOULDER x STANDARD TUBE INTERNAL BRAZE



NOTE: Use in conjunction with ORFS Tube Nut FF1311 (see Page D 65)

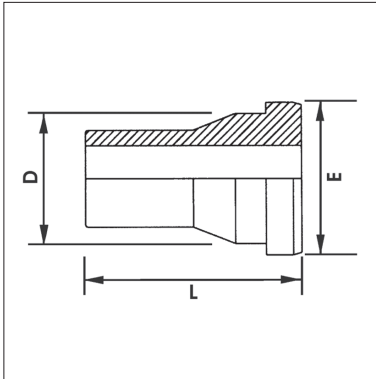
Product Code	Tube Size	Tube Recess	ORFS Thread	ORFS Size	Dimensions (mm)	
	ins.	øD ins	ins	Dash	E	L
FF3031-0404	04	6.25	9/16" - 18	04	12.5	9.5
FF3031-0604	06	9.6	9/16" - 18	04	12.5	10.5
FF3031-0606	06	9.6	11/16" - 16	06	15.5	9.5
FF3031-0806	08	12.7	11/16" - 16	06	15.5	12
FF3031-0808	08	12.7	13/16" - 16	08	18.6	9.5
FF3031-1008	10	16.0	13/16" - 16	08	18.6	-
FF3031-1010	10	16.0	1" - 14	10	23.1	10.5
FF3031-1208	12	19.0	13/16" - 16	08	18.6	-
FF3031-1210	12	19.0	1" - 14	10	23.1	14.5
FF3031-1212	12	19.0	1.3/16" - 12	12	27.6	14
FF3031-1612	16	25.4	1.3/16" - 12	12	27.6	17
FF3031-1614	16	25.4	-	14	-	-
FF3031-1616	16	25.4	1.7/16" - 12	16	33.9	15.5
FF3031-2016	20	31.8	1.7/16" - 12	16	33.9	15.5
FF3031-2020	20	31.8	1.11/16" - 12	20	40.3	15.5
FF3031-2420	24	38.1	1.11/16" - 12	20	40.3	15.5
FF3031-2424	24	38.1	2" - 12	24	48.2	15.5

TUBE WELD



FF3032 SERIES

ORFS SHOULDER x STANDARD TUBE EXTERNAL BRAZE



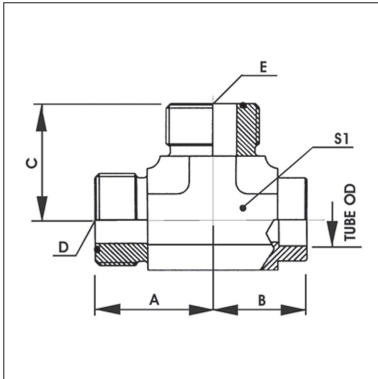
NOTE: Use in conjunction with ORFS Tube Nut FF1311 (see Page D 65)

Product Code	Tube Size	Tube Recess	ORFS	ORFS Size
	ins.	øD ins	Thread	Dash
FF3032-0404	04	6.25	9/16" - 18	04
FF3032-0606	06	9.6	11/16" - 16	06
FF3032-0808	08	12.7	13/16" - 16	08
FF3032-1010	10	16.0	1" - 14	10
FF3032-1212	12	19.0	1.3/16" - 12	12
FF3032-1616	16	25.4	1.7/16" - 12	16
FF3032-2020	20	31.8	1.11/16" - 12	20
FF3032-2424	24	38.1	2" - 12	24




TUBE WELD



FF3021 SERIES ORFS x ORFS x BRAZE PORT TEE



Product Code	Tube Size	Tube Recess	ORFS Thread	ORFS Size
	Dash	øD ins	D & E	Dash
FF3021-0404	04	6.25	9/16" - 18	04
FF3021-0604	06	9.6	9/16" - 18	04
FF3021-0606	06	9.6	11/16" - 16	06
FF3021-0806	08	12.7	11/16" - 16	06
FF3021-0808	08	12.7	13/16" - 16	08
FF3021-1008	10	16.0	13/16" - 16	08
FF3021-1010	10	16.0	1" - 14	10
FF3021-1208	12	19.0	13/16" - 16	08
FF3021-1210	12	19.0	1" - 14	10
FF3021-1212	12	19.0	1.3/16" - 12	12
FF3021-1612	16	25.4	1.3/16" - 12	12
FF3021-1614	16	25.4		14
FF3021-1616	16	25.4	1.7/16" - 12	16
FF3021-2016	20	31.8	1.7/16" - 12	16
FF3021-2020	20	31.8	1.11/16" - 12	20
FF3021-2420	24	38.1	1.11/16" - 12	20
FF3021-2424	24	38.1	2" - 12	24

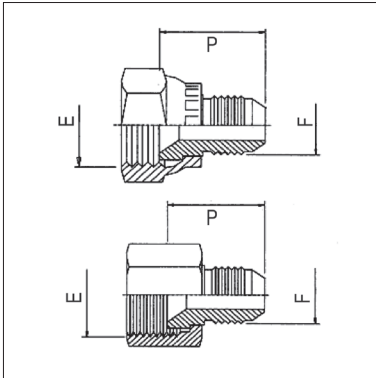
	SECTION 6 TUBE FITTINGS		PAGE
BB / BBI	JIC x JIC REDUCER	M / F	63
BAN	JIC FLARED NUT	F	64
BAS	FLARED STD TUBE SLEEVE	-	64
CAL	JIC SWEPT ELBOW (EXTENDED)	M / F	64
CAS	JIC SWEPT ELBOW (COMPACT)	M / F	65
FF1311	ORFS TUBE NUT	F	65
FF3018	ORFS x ORFS REDUCING INSERT	M / F	65
	SECTION 7 PLUGS		
AP	BSPP	M	66
AS	BSPT PLUG	M	66
AT / ATH	NPT (ATH WITH HOLLOW HEX)	M	66 / 67
AU / UCAP	JIC PLUG	M	67
AV / AVH	UNO (AVH WITH HOLLOW HEX)	M	67 / 68
FF1254	ORFS PLUG	M	68
KU	JIS METRIC (KOMATSU®)	M	69
	SECTION 8 CAPS		
AW / AWI	JIC	F	70
AX	BSPP	F	70
FF1255	ORFS CAP	F	70
KW / UCAP	JIS METRIC (KOMATSU®)	F	71

TUBE FITTINGS



BB SERIES

JIC MALE x JIC FIXED FEMALE TUBE REDUCER & *EXPANDERS



Product Code	JIC Size E		JIC Size F		Dimensions mm	
	Thread	Dash	Thread	Dash	P	Hex
BB-03-04 *	3/8" - 24	03	7/16" - 20	04	22.1	12.7
BB-04-06 *	7/16" - 20	04	9/16" - 18	06	20.8	15.8
BB-06-04	9/16" - 18	06	7/16" - 20	04	24.5	17.5
BB-06-08 *	9/16" - 18	06	3/4" - 16	08	24	20.6
BB-08-04	3/4" - 16	08	7/16" - 20	04	25.5	22.2
BB-08-06	3/4" - 16	08	9/16" - 18	06	25.5	22.2
BB-08-10 *	3/4" - 16	08	7/8" - 14	10	28.6	23.8
BB-08-12 *	3/4" - 16	08	1.1/16" - 12	12	31.6	28.6
BB-08-16 *	3/4" - 16	08	1.5/16" - 12	16	32.7	34.5
BB-10-04	7/8" - 14	10	7/16" - 20	04	26	25.4
BB-10-06	7/8" - 14	10	9/16" - 18	06	26	25.4
BB-10-08	7/8" - 14	10	3/4" - 16	08	29	25.4
BB-10-12 *	7/8" - 14	10	1.1/16" - 12	12	33.4	34.6
BB-12-04	1.1/16" - 12	12	7/16" - 20	04	27.5	31.7
BB-12-06	1.1/16" - 12	12	9/16" - 18	06	27.5	31.7
BB-12-08	1.1/16" - 12	12	3/4" - 16	08	30.5	31.7
BB-12-10	1.1/16" - 12	12	7/8" - 14	10	31	31.7
BB-12-16 *	1.1/16" - 12	12	1.5/16" - 12	16	35.9	42.6
BB-12-20 *	1.1/16" - 12	12	1.5/8" - 12	20	34.7	42.6
BB-16-08	1.5/16" - 12	16	3/4" - 16	08	30	38.1
BB-16-10	1.5/16" - 12	16	7/8" - 14	10	30.5	38.1
BB-16-12	1.5/16" - 12	16	1.1/16" - 12	12	37.5	38.1
BB-16-20 *	1.5/16" - 12	16	1.5/8" - 12	20	36.4	42.9
BB-16-24 *	1.5/16" - 12	16	1.5/8" - 12	24	40	50.8
BB-20-16	1.5/8" - 12	20	1.5/16" - 12	16	40	50.8
BB-20-24 *	1.5/8" - 12	20	1.7/8" - 12	24	40.6	50.8
BB-24-20	1.7/8" - 12	24	1.5/8" - 12	20	43	57.1

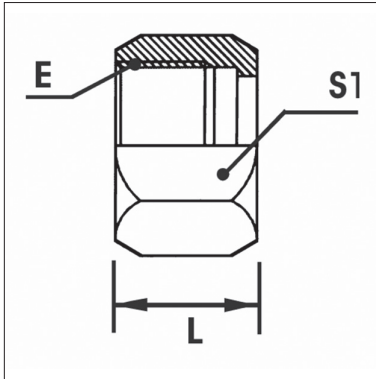
* Tube Expander

TUBE FITTINGS



BAN SERIES

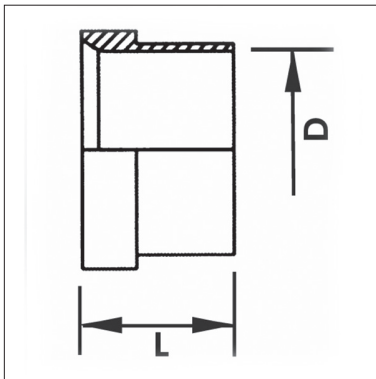
JIC FLARED TUBE NUT FEMALE



Product Code	Use with Sleeve	JIC Size E		Dimensions (mm)	
		Thread	Dash	L	S1
BAN-04	BAS-04	7/16" - 20	04	15.5	14
BAN-05	BAS-05	1/2" - 20	05	17	16
BAN-06	BAS-06	9/16" - 18	06	18.5	17
BAN-08	BAS-08	3/4" - 16	08	21.5	22
BAN-10	BAS-10	7/8" - 14	10	24.5	27
BAN-12	BAS-12	1.1/16" - 12	12	26	32
BAN-16	BAS-16	1.5/16" - 12	16	28.5	38
BAN-20	BAS-20	1.5/8" - 12	20	31	50
BAN-24	BAS-24	1.7/8" - 12	24	36	57

BAS SERIES

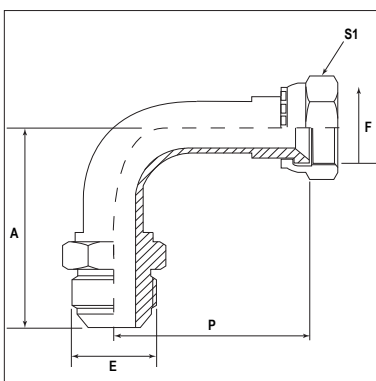
FLARED SLEEVE FOR STANDARD TUBE



Product Code	Use with Nut	Tube øD		Dimensions (mm)	
		Tube	Dash	L	D
BAS-04	BAN-04	6.25	04	10.5	6.27
BAS-05	BAN-05	8.00	05	11.5	8
BAS-06	BAN-06	9.6	06	12.5	9.55
BAS-08	BAN-08	12.7	08	14.5	12.75
BAS-10	BAN-10	16.0	10	16.5	15.9
BAS-12	BAN-14	19.0	12	17	19.1
BAS-16	BAN-16	25.4	16	19.5	25.55
BAS-20	BAN-20	31.8	20	23	31.8
BAS-24	BAN-24	38.1	24	28.5	38.15

CAL SERIES

JIC MALE x JIC FEMALE SWEPT ELBOWS (EXTENDED)



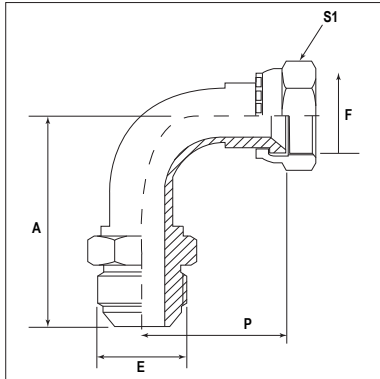
Product Code	Thread		Dimensions mm		
	E (JIC)	F (JIC)	A	S1	P
CAL-04-04	7/16" - 20	7/16" - 20	35	14	44
CAL-06-06	9/16" - 18	9/16" - 18	37	18	56
CAL-08-08	3/4" - 16	3/4" - 16	44.5	22	59
CAL-10-10	7/8" - 14	7/8" - 14	53	26	65
CAL-10-10	1.1/16" - 12	1.1/16" - 12	67	32	92
CAL-16-16	1.5/16" - 12	1.5/16" - 12	79	38	108

TUBE FITTINGS



CAS SERIES

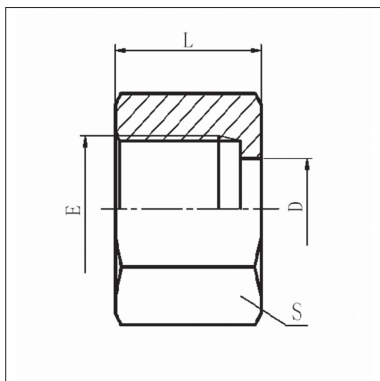
JIC MALE x JIC FEMALE SWEPT ELBOWS (COMPACT)



Product Code	Thread		Dimensions mm		
	E (JIC)	F (JIC)	A	S1	P
CAS-04-04	7/16" - 20	7/16" - 20	39	15	21.5
CAS-06-06	9/16" - 18	9/16" - 18	40	18	24.5
CAS-08-08	3/4" - 16	3/4" - 16	47	22	30
CAS-10-10	7/8" - 14	7/8" - 14	54.5	26	33
CAS-12-12	1.1/16" - 12	1.1/16" - 12	67	32	53.5
CAS-16-16	1.5/16" - 12	1.5/16" - 12	80	38	72.5
CAS-20-20	1.5/8" - 12	1.5/8" - 12	85	51	86.5

FF1311 SERIES

ORFS TUBE NUT

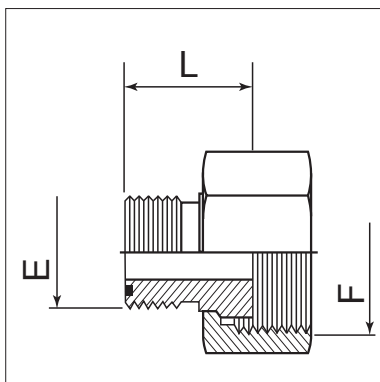


NOTE: Use in conjunction with ORFS Tube Weld insert FF3031, (see Page D 60)

Product Code	ORFS Size E		Dimensions (mm)		
	Thread	Dash	øD	L	S
FF1311-04	9/16" - 18	04	10.5	14.7	19
FF1311-06	11/16" - 16	06	13.5	17	22
FF1311-08	13/16" - 16	08	16.5	21	27
FF1311-10	1" - 14	10	21	23.5	30
FF1311-12	1.3/16" - 12	12	24.1	26	36
FF1311-16	1.7/16" - 12	16	29	27.8	41
FF1311-20	1.11/16" - 12	20	36	27.8	50
FF1311-24	2" - 12	24	44	27.8	60

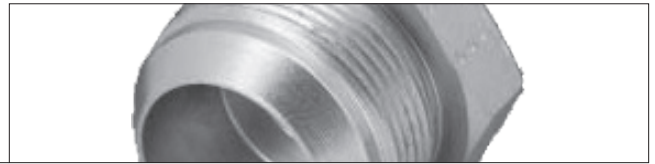
FF3018 SERIES

ORFS MALE x ORFS FEMALE REDUCING INSERT



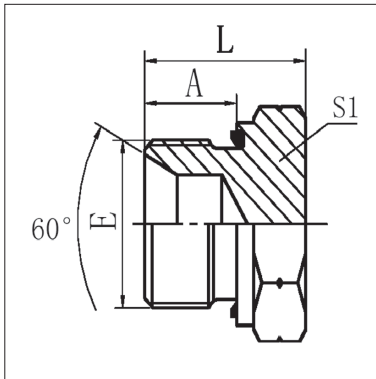
Product Code	ORFS Size E		ORFS Size F		Dimensions (mm)
	Thread	Dash	Thread	Dash	L
FF3018-0410	9/16" - 18	04	1" - 14	10	23
FF3018-0412	9/16" - 18	04	1.3/16" - 12	12	26
FF3018-0810	13/16" - 16	08	1" - 14	10	26
FF3018-0812	13/16" - 16	08	1.3/16" - 12	12	28
FF3018-0816	13/16" - 16	08	1.7/16" - 12	16	29.5

PLUGS



AP SERIES

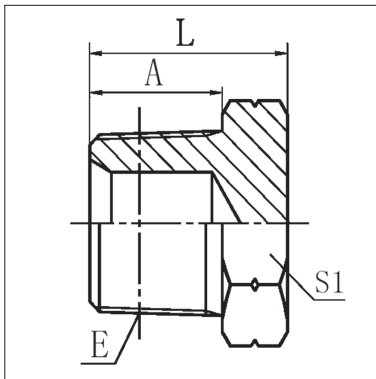
BSPP MALE PLUG WITH CAPTIVE SEAL



Product Code	BSPP Thread E		Dimensions (mm)		
	Thread	Dash	A	L	S1
AP-02	1/8" - 28	02	8	15.5	14
AP-04	1/4" - 19	04	12	20	19
AP-06	3/8" - 19	06	12	22	22
AP-08	1/2" - 14	08	14	26	27
AP-12	3/4" - 14	12	16	29	32
AP-16	1" - 11	16	18	35	41
AP-20	1.1/4" - 11	20	20	37	50
AP-24	1.1/2" - 11	24	22	39	55
AP-32	2" - 11	32	20	40	75

AS SERIES

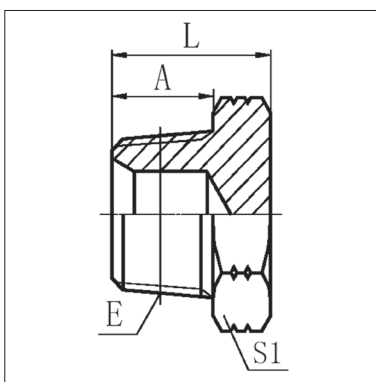
BSPT MALE PLUG



Product Code	BSPT Thread E		Dimensions (mm)		
	Thread	Dash	A	L	S1
AS-02	1/8" - 28	02	10	16	12
AS-04	1/4" - 19	04	14.5	20	17
AS-06	3/8" - 19	06	15	21	19
AS-08	1/2" - 14	08	20	27	22
AS-12	3/4" - 14	12	20	29	30
AS-16	1" - 11	16	25	36.5	36
AS-20	1.1/4" - 11	20	26.5	38.5	46
AS-24	1.1/2" - 11	24	26.5	42	50
AS-32	2" - 11	32	30	46	65

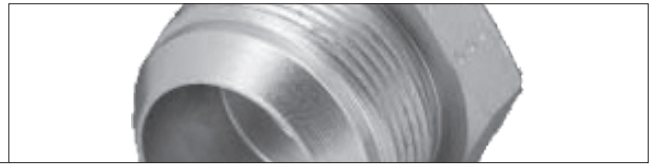
AT SERIES

NPT MALE PLUG



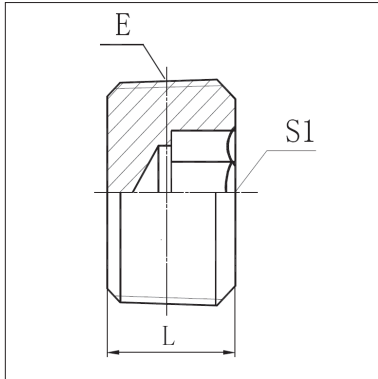
Product Code	NPT Thread E		Dimensions (mm)		
	Thread	Dash	A	L	S1
AT-02	1/8" - 27	02	10.5	16	12
AT-04	1/4" - 18	04	15	20	17
AT-06	3/8" - 18	06	16	21	19
AT-08	1/2" - 14	08	19.5	27	22
AT-12	3/4" - 14	12	19.5	29.5	30
AT-16	1" - 11.5	16	25.5	36.5	36
AT-20	1.1/4" - 11.5	20	26.5	38.5	46
AT-24	1.1/2" - 11.5	24	27.5	43	50
AT-32	2" - 11.5	32	27.5	43.5	65

PLUGS



ATH SERIES

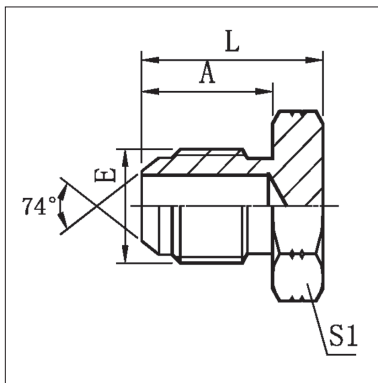
NPT MALE PLUG HOLLOW HEX



Product Code	NPT Thread E		Dimensions (mm)	
	Thread	Dash	L	S1
ATH-02	1/8" - 27	02	8	5
ATH-04	1/4" - 18	04	10	6
ATH-06	3/8" - 18	06	12	8
ATH-08	1/2" - 14	08	15	10
ATH-12	3/4" - 14	12	16	12
ATH-16	1" - 11.5	16	18	17
ATH-20	1.1/4" - 11.5	20	-	-

AU SERIES (SEE ALSO UC-P PAGE 71)

JIC MALE PLUG

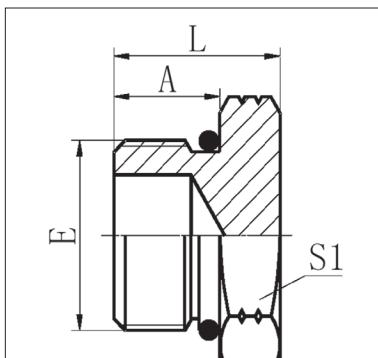


Product Code	JIC Size E		Dimensions (mm)		
	Thread	Dash	A	L	S1
AU-04	7/16" - 20	04	14	20	12
AU-05	1/2" - 20	05	14	20	14
AU-06	9/16" - 18	06	14.1	20	17
AU-S06 †	5/8" - 18	S06	16	22.7	17.4
AU-08	3/4" - 16	08	16.7	25	22
AU-10	7/8" - 14	10	19.3	27.5	24
AU-12	1.1/16" - 12	12	21.9	32	30
AU-14	1.3/16" - 12	14	22.6	33.5	32
AU-16	1.5/16" - 12	16	23.1	34	36
AU-20	1.5/8" - 12	20	24.3	38	46
AU-24	1.7/8" - 12	24	27.5	44.5	50

† SAE Thread Form

AV SERIES

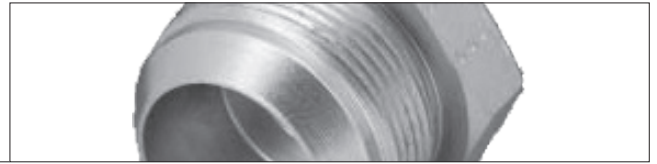
UNO MALE PLUG



Product Code	UNO Size E		Dimensions (mm)		
	Thread	Dash	A	L	S1
AV-04	7/16" - 20	04	9.1	16	14
AV-05	1/2" - 20	05	9.1	16	17
AV-06	9/16" - 18	06	9.9	17.5	17
AV-S06 †	5/8" - 18	S06	-	-	-
AV-08	3/4" - 16	08	11.1	19.5	22
AV-10	7/8" - 14	10	12.7	23	27
AV-12	1.1/16" - 12	12	15.1	26.5	32
AV-14	1.3/16" - 12	14	15.1	27	36
AV-16	1.5/16" - 12	16	15.1	27.5	38
AV-20	1.5/8" - 12	20	15.1	30	50
AV-24	1.7/8" - 12	24	15.1	30	55

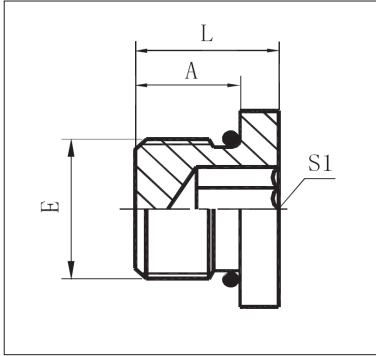
† SAE Thread Form

PLUGS



AVH SERIES

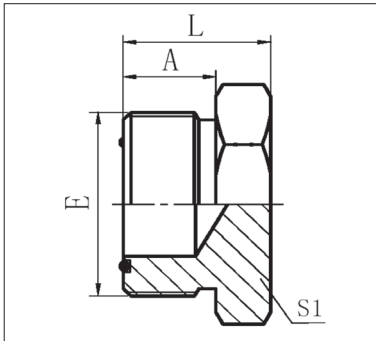
UNO MALE PLUG HOLLOW HEX



Product Code	UNO Size E		Dimensions (mm)		
	Thread	Dash	A	L	S1
AVH-05	5/16" - 24	05	7.5	10	3
AVH-07	7/16" - 20	07	9.1	11.5	5
AVH-08	1/2" - 20	08	9.5	12	5
AVH-09	9/16" - 18	09	9.9	12.2	6
AVH-12	3/4" - 16	12	11.1	14.3	8
AVH-14	7/8" - 14	14	13	17	9.5
AVH-17	1.1/16" - 12	17	15.1	19	14

FF1254 SERIES

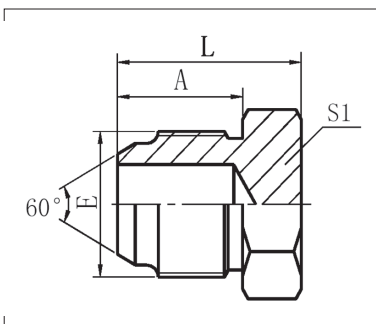
ORFS MALE PLUG



Product Code	ORFS Size E		Dimensions (mm)		
	Thread	Dash	A	L	S1
FF1254-04	9/16" - 18	04	9.8	16.8	17
FF1254-06	11/16" - 16	06	11.2	19.2	19
FF1254-08	13/16" - 16	08	12.8	21.8	22
FF1254-10	1" - 14	10	15.5	25.9	27
FF1254-12	1.316" - 12	12	17	27.4	32
FF1254-16	1.7/16" - 12	16	17.5	27.9	38
FF1254-20	1.11/16" - 12	20	17.5	27.9	46
FF1254-24	2" - 12	24	17.5	27.9	55

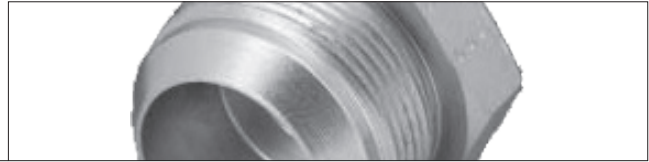
JU SERIES

JIS BSPP PLUG

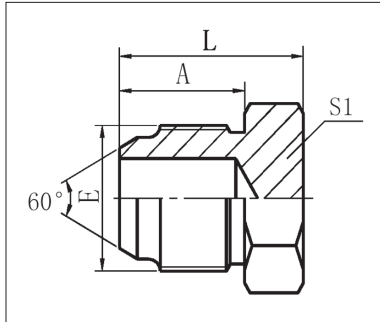


Product Code	BSPP Male 60° Cone Thread E		Dimensions (mm)		
	Thread	Dash	A	L	S1
JU-04	1/4" - 19	04	16	24	17
JU-06	3/8" - 19	06	18	24	19
JU-08	1/2" - 14	08	20	28	22
JU-12	3/4" - 14	12	22	33.5	30
JU-16	1" - 11	16	24	35	36

PLUGS

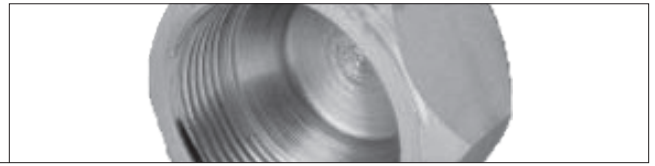


KU SERIES JIS METRIC (KOMATSU®) PLUG



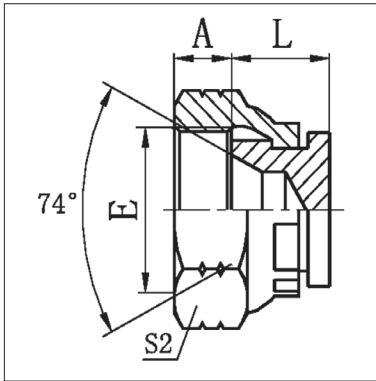
Product Code	JIS Met. Thread E		Dimensions (mm)		
	Thread	Dash	A	L	S1
KU-14	M14 x 1.5	14	17	23	19
KU-16	M16 x 1.5	16	18	24	19
KU-18	M18 x 1.5	18	18	26	22
KU-20	M20 x 1.5	20	20	28	24
KU-22	M22 x 1.5	22	20	30	27
KU-24	M24 x 1.5	24	21.5	32.5	32
KU-30	M30 x 1.5	30	26	37	36
KU-33	M33 x 1.5	33	30	41	41

CAPS



AW SERIES

JIC FEMALE CAP

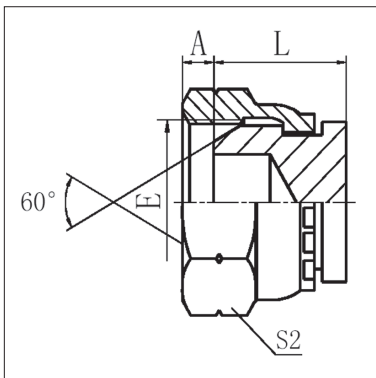


Product Code	JIC Size E		Dimensions (mm)		
	Thread	Dash	A	L	S2
AW-04	7/16" - 20	04	9	10.5	15
AW-05	1/2" - 20	05	9.5	11	17
AW-06	9/16" - 18	06	10.5	11	19
AU-S06 †	5/8" - 18	S06	6.8	10.7	19
AW-08	3/4" - 16	08	11	13	24
AW-10	7/8" - 14	10	13	14	27
AW-12	1.1/16" - 12	12	15	15.5	32
AW-14	1.3/16" - 12	14	15	16	36
AW-16	1.5/16" - 12	16	16	17	41
AW-20	1.5/8" - 12	20	17	19	50
AW-24	1.7/8" - 12	24	20	21	55
AW-32	2.1/2" - 12	32	18.5	18	72.5

† SAE Thread Form

AX SERIES

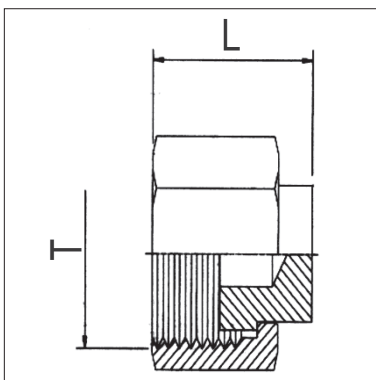
BSPP FEMALE CAP



Product Code	BSPP Size E		Dimensions (mm)		
	Thread	Dash	A	L	S2
AX-02	1/8" - 28	02	5.5	12	14
AX-04	1/4" - 19	04	5.5	14	19
AX-06	3/8" - 19	06	6.3	15.5	22
AX-08	1/2" - 14	08	7.5	17.5	27
AX-12	3/4" - 14	12	10.9	18.5	32
AX-16	1" - 11	16	11.7	20	41
AX-20	1.1/4" - 11	20	11	23	50
AX-24	1.1/2" - 11	24	13	25	55
AX-32	2" - 11	32	16	26	70

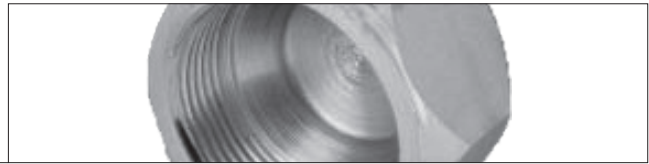
FF1255 SERIES

ORFS CAP



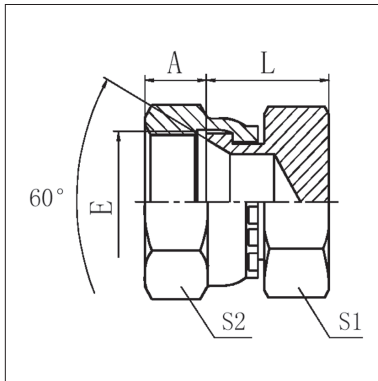
Product Code	ORFS Thread		Suits Tube Size		Dimensions (mm)
	Thread T	Dash	mm	ins	L
FF1255-04	9/16" - 18	04	6	1/4"	16
FF1255-06	11/16" - 16	06	8-10	5/16"-3/8"	18
FF1255-08	13/16" - 16	08	12	1/2"	22
FF1255-10	1" - 14	10	14-16	5/8"	25.5
FF1255-12	1.3/16" - 12	12	18-20	3/4"	27
FF1255-16	1.7/16" - 12	16	22-25	7/8"-1"	29
FF1255-20	1.11/16" - 12	20	28-32	1.1/4"	29
FF1255-24	2" - 12	24	35-38	1.1/2"	29

CAPS



KW SERIES

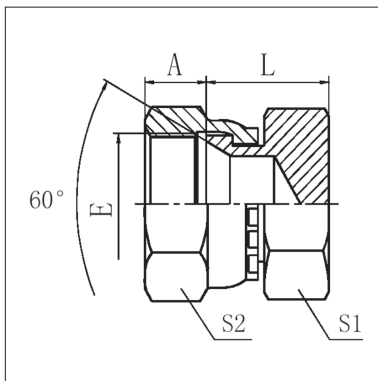
JIS METRIC (KOMATSU®) CAP



Product Code	JIS Met. Thread E		Dimensions (mm)			
	Thread	Dash	A	L	S1	S2
KW-14	M14 x 1.5	14	10.5	15	19	19
KW-16	M16 x 1.5	16	9.3	17.5	22	22
KW-18	M18 x 1.5	18	11.5	18.5	24	24
KW-22	M22 x 1.5	22	14	21	27	27
KW-24	M24 x 1.5	24	15.1	22.5	32	32
KW-30	M30 x 1.5	30	18.3	25	36	36
KW-33	M33 x 1.5	33	21.3	25.5	41	41

JW SERIES

JIS BSPP CAP



Product Code	BSPP Female 60° Cone Thread E		Dimensions (mm)			
	Thread	Dash	A	L	S1	S2
JW-04	1/4" - 19	04	8	15	17	19
JW-06	3/8" - 19	06	9	16	19	22
JW-08	1/2" - 14	08	12.5	19	22	27
JW-12	3/4" - 14	12	13.5	23.5	32	32
JW-16	1" - 11	16	15.5	25	36	41



SECTION 9 ADAPTER UNIONS

PAGE

AAB / AABI	BSPT x JIC	M / F	73
AABN	NPT x JIC	M / F	73
AABP	BSPP x JIC	M / F	73
AAM	BSPT x BSPP	M / F	74
AAMG / AAMGT	BSP GAUGE ADAPTERS	M / F	74
AAMN	NPT x NPSM	M / F	75
AAMP	BSPP x BSPP	M / F	75
AAP	UNO x BSPP	M / F	76
AAU	UNO x JIC	M / F	77 / 78



SECTION 10 ADAPTERS FIXED

AA	BSPT x BSPT STUD ADAPTER	M / F	78
AB	BSPT x JIC	F / M	
ABN	NPT x JIC	F / M	78
ANN	NPT x NPT	M / F	79
ANU	NPT x UNO	F / M	79
AUU	UNO x UNO	F / M	79



SECTION 11 REDUCING BUSHES

AQ	BSPT x BSPT	M / F	80
AR	NPT x NPT	M / F	80
RI	BSPP x BSPP STUD (SOFT SEAL)	M / F	81



SECTION 12 SOCKETS

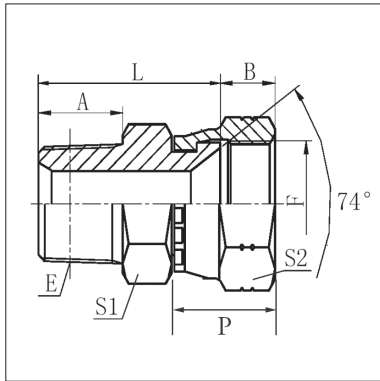
W	BSPT x BSPT	F / F	82
W (P)	BSPP x BSPP	F / F	82
V / VHD	NPT x NPT	F / F	82

ADAPTER UNIONS



AAB SERIES

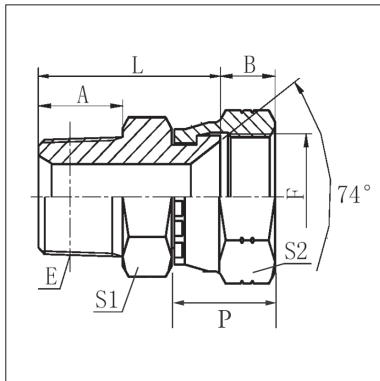
BSPT MALE x JIC FEMALE STRAIGHT UNION



Product Code	Thread		Dimensions mm					
	E (BSPT)	F (JIC)	A	B	L	S1	S2	P
AAB-02-04	1/8" - 28	7/16" - 20	10	9	24	12	17	18.5
AAB-04-06	1/4" - 19	9/16" - 18	14	10.5	28.5	14	19	21.5
AAB-06-06	3/8" - 19	9/16" - 18	15	10.5	29.5	17	19	21.5
AAB-06-08	3/8" - 19	3/4" - 16	15	10.5	31.5	19	24	23
AAB-08-08	1/2" - 14	3/4" - 16	19	10.5	37.5	24	24	23
AAB-08-10	1/2" - 14	7/8" - 14	19	12	38	24	27	26
AAB-12-12	3/4" - 14	1.1/16" - 12	19	15	41.5	30	32	27.5
AAB-16-16	1" - 11	1.5/16" - 12	24	16	47.5	36	41	30
AAB-20-20	1.1/4" - 11	1.5/8" - 12	25	17	52	46	50	33

AABN SERIES

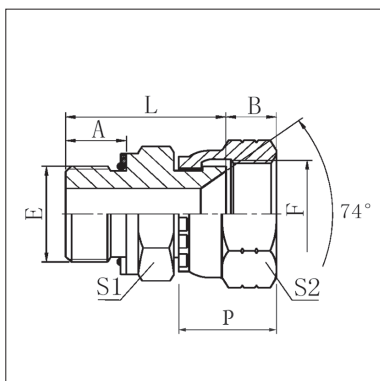
NPT MALE x JIC FEMALE STRAIGHT UNION



Product Code	Thread		Dimensions mm					
	E (NPT)	F (JIC)	A	B	L	S1	S2	P
AABN-02-04	1/8" - 27	7/16" - 20	10.5	9	24.5	12	17	18.5
AABN-04-06	1/4" - 18	9/16" - 18	15	10.5	29.5	17	19	21.5
AABN-06-08	3/8" - 18	3/4" - 16	16	10.5	32.5	19	24	23
AABN-06-10	3/8" - 18	7/8" - 14	16	13	35.5	22	27	23
AABN-08-08	1/2" - 14	3/4" - 16	19.5	10.5	37.5	22	24	23
AABN-08-10	1/2" - 14	7/8" - 14	19.5	13	38.5	22	27	23
AABN-12-12	3/4" - 14	1.1/16" - 12	19.5	15	42	30	32	27.5
AABN-16-16	1" - 11½	1.5/16" - 12	25.5	16	48	36	41	30
AABN-20-20	1.1/4" - 11½	1.5/8" - 12	26	15.3	41.5	43	51	32
AABN-32-32	2" - 11½	2.1/2" - 12	27.3	23.9	63.5	66.7	73	44.8

AABP SERIES

BSPM MALE x JIC FEMALE STRAIGHT UNION



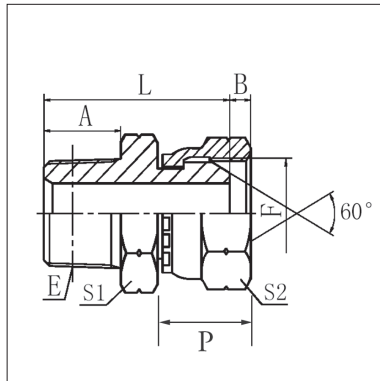
Product Code	Thread		Dimensions mm					
	E (BSPM)	F (JIC)	A	B	L	S1	S2	P
AABP-04-04	1/4" - 19	7/16" - 20	10	9	30	19	15	18.5
AABP-04-06	1/4" - 19	9/16" - 18	10	10.5	31.5	19	19	21.5
AABP-06-06	3/8" - 19	9/16" - 18	10	10.5	31.5	22	19	21.5
AABP-06-08	3/8" - 19	3/4" - 16	10	10.5	33	22	24	23
AABP-06-10	3/8" - 19	7/8" - 14	10	12	35	22	27	26
AABP-08-08	1/2" - 14	3/4" - 16	12	10.5	36.5	27	24	23
AABP-08-10	1/2" - 14	7/8" - 14	12	12	38	27	27	26
AABP-12-12	3/4" - 14	1.1/16" - 12	14	15	40.5	32	32	27.5
AABP-16-16	1" - 11	1.5/16" - 12	15.5	16	44.5	41	41	30

ADAPTER UNIONS



AAM SERIES

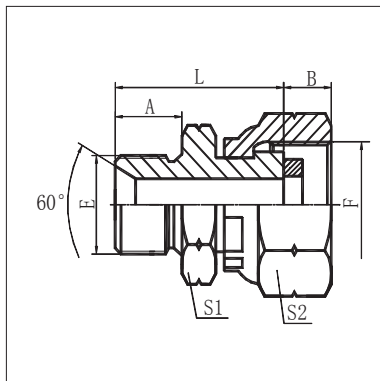
BSPT MALE x BSPP FEMALE STRAIGHT UNION



Product Code	Thread		Dimensions mm					
	E (BSPT)	F (BSPP)	A	B	L	S1	S2	P
AAM-02-02	1/8" - 28	1/8" - 28	10	5.5	25	12	14	16
AAM-02-04	1/8" - 28	1/4" - 19	10	5.5	27	12	19	17
AAM-04-02	1/4" - 19	1/8" - 28	14.5	5.5	29.5	17	14	16
AAM-04-04	1/4" - 19	1/4" - 19	14.5	5.5	31.5	17	19	17
AAM-04-06	1/4" - 19	3/8" - 19	11	6.3	30.7	19	22	19
AAM-06-04	3/8" - 19	1/4" - 19	15	5.5	32	19	19	17
AAM-06-06	3/8" - 19	3/8" - 19	15	6.3	33	19	22	19
AAM-06-08	3/8" - 19	1/2" - 14	15	7.5	35	19	27	22
AAM-08-06	1/2" - 14	3/8" - 19	20	6.3	40	22	22	19
AAM-08-08	1/2" - 14	1/2" - 14	20	7.5	42	22	27	22
AAM-08-12	1/2" - 14	3/4" - 14	20	10.9	45	27	32	25
AAM-12-12	3/4" - 14	3/4" - 14	20	10.9	45	30	32	25
AAM-12-16	3/4" - 14	1" - 11	20	11.7	46	32	41	32
AAM-16-16	1" - 11	1" - 11	25.5	11.7	52.5	36	41	32
AAM-20-12	1.1/4" - 11	3/4" - 14	26.5	10.9	54.5	46	32	25
AAM-20-16	1.1/4" - 11	1" - 11	26.5	11.7	55.5	46	41	32
AAM-20-20	1.1/4" - 11	1.1/4" - 11	26.5	11	58	46	50	33

AAMG / T SERIES

BSP MALE x BSPP FEMALE GAUGE ADAPTER



Product Code	Thread		Dimensions mm				
	E (BSPP)	F (BSPP)	A	B	L	S1	S2
AAMG-04-04**	1/4" - 19	1/4" - 19	12	14.5	26.5	19	19
AAMG-04-08*	1/4" - 19	1/2" - 14	-	-	-	-	-
AAMG-06-08*	3/8" - 18	1/2" - 14	-	-	-	-	-
AAMG-08-08*	1/2" - 14	1/2" - 14	-	-	-	-	-
	E (BSPT)	F (BSPP)	-	-	-	-	-
AAMGT-02-04*	1/8" - 27	1/4" - 19	-	-	-	-	-
AAMGT-04-04**	1/4" - 19	1/4" - 19	-	-	-	-	-
AAMGT-04-08**	1/4" - 19	1/2" - 14	-	-	-	-	-
AAMGT-04-08*	3/8" - 19	1/2" - 14	-	-	-	-	-

*NOTE: The above adapters are supplied with a sealing o-ring mounted internally.

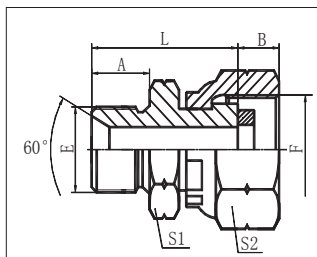
**NOTE: The above adapters are supplied with a sealing washer mounted internally.

Copper Seal PGS-04P is available separately as a spare part for the 1/4" gauge stem if needed.
Dimensions: 9.3mm x 5.4mm x 3.2mm



AAMGN SERIES

NPT MALE x BSPP FEMALE GAUGE ADAPTER



Product Code	Thread		Dimensions mm				
	E (NPT)	F (NPSM)	A	B	L	S1	S2
AAMGN-04-04*	1/4" - 18	1/4" - 19	12	14.5	26.5	19	19

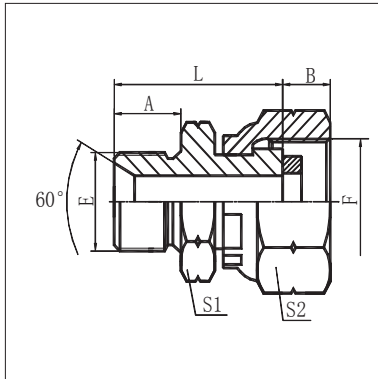
*NOTE: The above adapter is supplied with a sealing o-ring mounted internally.

ADAPTER UNIONS



AAMGJ SERIES

JIC MALE x BSPP FEMALE GAUGE ADAPTER

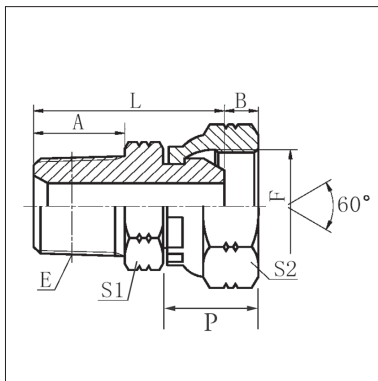


Product Code	Thread		Dimensions mm				
	E (JIC)	F (BSPP)	A	B	L	S1	S2
AAMGJ-04-04*	7/16" - 20	1/4" - 19	12	14.5	26.5	19	19
AAMGJ-06-04*	9/16" - 18	1/4" - 19	-	-	-	-	-
AAMGJ-06-08*	9/16" - 18	1/2" - 14	-	-	-	-	-

*NOTE: All the above adapters are supplied with a sealing o-ring mounted internally.

AAMN SERIES

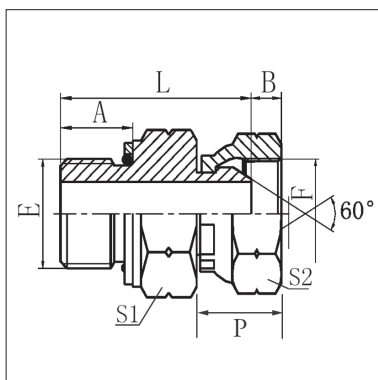
NPT MALE x NPSM FEMALE STRAIGHT UNION



Product Code	Thread		Dimensions mm					
	E (NPT)	F (NPSM)	A	B	L	S1	S2	P
AAMN-02-02	1/8" - 27	1/8" - 27	10.5	3.5	25.5	12	15	16
AAMN-02-04	1/8" - 27	1/4" - 18	10.5	4.6	27	14	19	17
AAMN-04-04	1/4" - 18	1/4" - 18	15	4.6	31	17	19	17
AAMN-04-06	1/4" - 18	3/8" - 18	15	6	32.5	17	22	19
AAMN-06-04	3/8" - 18	1/4" - 18	16	4.6	33	19	19	17
AAMN-06-06	3/8" - 18	3/8" - 18	16	6	33.5	19	22	19
AAMN-06-08	3/8" - 18	1/2" - 14	16	7.5	36	19	27	22
AAMN-08-04	1/2" - 14	1/4" - 18	19.5	4.6	38.5	22	19	17
AAMN-08-06	1/2" - 14	3/8" - 18	19.5	6	39.5	22	22	19
AAMN-08-08	1/2" - 14	1/2" - 14	19.5	7.5	41	22	27	22
AAMN-08-12	1/2" - 14	3/4" - 14	19.5	8.9	44.5	27	32	25
AAMN-12-12	3/4" - 14	3/4" - 14	19.5	8.9	44.5	30	32	25
AAMN-16-16	1" - 11.5	1" - 11.5	25.5	10.5	52.5	36	41	32
AAMN-20-20	1.1/4" - 11.5	1.1/4" - 11.5	26.5	11.2	60.4	46	50	33
AAMN-24-24	1.1/2" - 11.5	1.1/2" - 11.5	27.5	11.2	62	50	55	37
AAMN-32-32	2" - 11.5	2" - 11.5	27.5	11.2	65.4	65	70	42

AAMP SERIES

BSPP MALE x BSPP FEMALE STRAIGHT UNION



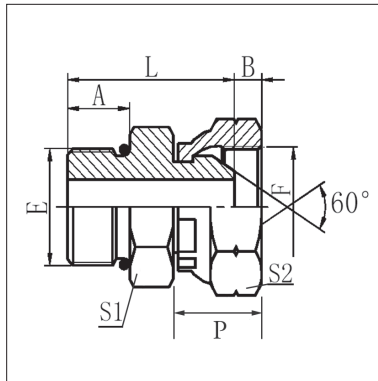
Product Code	Thread		Dimensions mm					
	E (BSPP)	F (BSPP)	A	B	L	S1	S2	P
AAMP-04-04	1/4" - 19	1/4" - 19	10.5	5.5	28.5	19	19	17
AAMP-06-06	3/8" - 19	3/8" - 19	11.5	6.3	32	22	22	19
AAMP-06-08	3/8" - 19	1/2" - 14	11.5	7.5	34	22	27	22
AAMP-08-08	1/2" - 14	1/2" - 14	14	7.5	38	27	27	22
AAMP-12-12	3/4" - 14	3/4" - 14	15.5	10.9	41.5	32	32	25
AAMP-16-16	1" - 11	1" - 11	18	11.7	48	41	41	32
AAMP-20-20	1.1/4" - 11	1.1/4" - 11	20	11	53.5	50	50	33

ADAPTER UNIONS



AAP SERIES

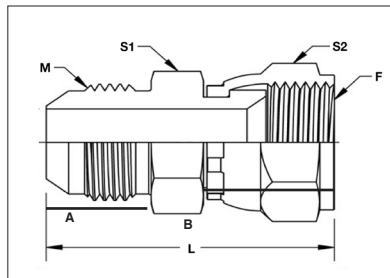
UNO MALE x BSPP FEMALE STRAIGHT UNION



Product Code	Thread		Dimensions mm				
	E (UNO)	F (BSPP)	A	B	S1	S2	P
AAP-06-04	9/16" - 18	1/4" - 19	9.9	5.5	27	17	19
AAP-06-06	9/16" - 18	3/8" - 19	9.9	6.3	28	17	22
AAP-08-06	3/4" - 16	3/8" - 19	11.1	6.3	31	22	22
AAP-08-08	3/4" - 16	1/2" - 14	11.1	7.5	33	22	27
AAP-10-06	7/8" - 14	3/8" - 19	12.7	6.3	35	27	22
AAP-10-08	7/8" - 14	1/2" - 14	12.7	7.5	36.5	27	27
AAP-12-12	1.1/16" - 12	3/4" - 14	15.1	10.9	41	32	32
AAP-16-16	1.5/16" - 12	1" - 11	15.1	11.7	42	38	41

AAPJ SERIES

JIC MALE X JIC FEMALE STRAIGHT UNION



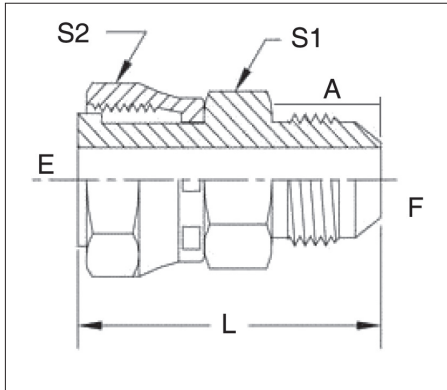
Product Code	Thread		Dimensions mm				
	M (JIC)	F (JIC)	A	B	L	S1	S2
AAPJ-04-04	7/16" - 20	7/16" - 20	14	9	30.1	12.7	14.1
AAPJ-04-06	7/16" - 20	9/16" - 18	14.2	9.9	30	15.7	17.2
AAPJ-04-08	7/16" - 20	3/4" - 16	14.2	11.2	32.4	20.1	22
AAPJ-06-04	9/16" - 16	7/16" - 20	14.1	9.2	28.1	15.1	14.3
AAPJ-06-06	9/16" - 18	9/16" - 18	14.3	9.8	30.5	15.8	17.4
AAPJ-06-08	9/16" - 16	3/4" - 16	13.8	10.7	32.8	20.5	12.9
AAPJ-08-06	3/4" - 14	9/16" - 16	16.8	9	32.3	20.5	17.3
AAPJ-08-08	3/4" - 16	3/4" - 16	16.5	11	33.9	20.6	22.2
AAPJ-08-10	3/4" - 16	7/8" - 14	16.8	12.8	36.4	20.5	25.2
AAPJ-08-12	3/4" - 16	1.1/16" - 12	16.8	14.5	40.5	28.3	31.4
AAPJ-10-08	7/8" - 14	3/4" - 16	19.8	11.4	38.3	23.7	22.2
AAPJ-10-10	7/8" - 14	7/8" - 14	19.5	12.8	40.6	23.8	25.2
AAPJ-12-08	1.1/16" - 12	3/4" - 16	22.6	10.5	42.5	28.3	22.2
AAPJ-12-12	1.1/16" - 12	1.1/16" - 12	22.6	15	45.8	28.6	31.4
AAPJ-16-16	1.5/16" - 12	1.5/16" - 12	23.4	15.2	47.8	34.7	37.8
AAPJ-20-20	1.5/8" - 12	1.5/8" - 12	24.9	15.8	51.5	42.7	50.3

ADAPTER UNIONS



FF1296 SERIES

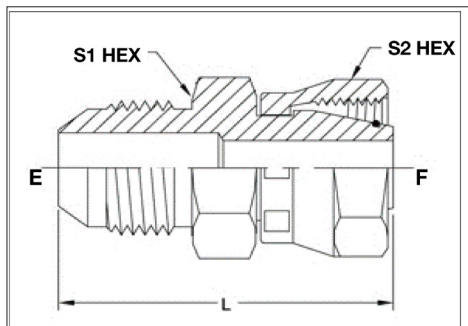
ORFS FEMALE x JIC MALE STRAIGHT UNION



Product Code	Thread		Dimensions mm			
	E (ORFS)	F (JIC)	A	L	S1	S2
FF1296-04-04	9/16" - 18	7/16" - 20	14.0	48.0	15.8	17.1
FF1296-06-06	11/16" - 16	9/16" - 18	14.1	52.8	18.9	20.5
FF1296-08-08	13/16" - 16	3/4" - 16	16.9	63.2	21.9	23.6
FF1296-10-10	1" - 14	7/8" - 14	19.6	71.5	26.7	28.4
FF1296-12-12	1.3/16" - 12	1.1/16" - 12	22.1	78.6	31.5	34.7
FF1296-16-16	1.7/16" - 12	1.5/16" - 12	23.0	87.3	37.8	41.1

MJF SERIES

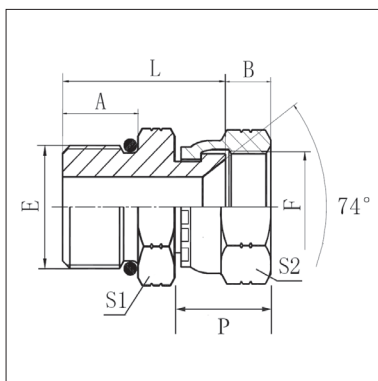
METRIC FEMALE x MALE JIC MALE



Product Code	Thread			Dimensions mm			
	E (METRIC)	Ø m	F (JIC)	A	L	S1	S2
MJF-04-06L	M12 x 1.5	6	7/16" - 20	14	38	13.8	18.6
MJF-04-06S	M14 x 1.5	6	7/16" - 20	14	38	13.8	18.8
MJF-04-08L	M14 x 1.5	8	7/16" - 20	14	37.8	13.9	18.8
MJF-06-06S	M14 x 1.5	6	9/16" - 18	14	39.4	15.7	18.8
MJF-06-08S	M16 x 1.5	8	9/16" - 18	14	39.8	16.9	18.8
MJF-06-10S	M18 x 1.5	10	9/16" - 18	14	41	16.9	21.9
MJF-06-12S	M20 x 1.5	12	9/16" - 18	16	50.5	19	27
MJF-08-16S	M24 x 1.5	16	3/4" - 16	16.7	53.6	22.2	29.9
MJF-12-16S	M24 x 1.5	16	1.1/16" - 12	21.7	60.6	30	30
MJF-12-20S	M30 x 2.0	20	1.1/16" - 12	22.2	57.8	29.8	35.8
MJF-12-25S	M36 x 2.0	25	1.1/16" - 12	22	66.4	36	40.9

OJF SERIES

UNO MALE x JIC FEMALE STRAIGHT UNION



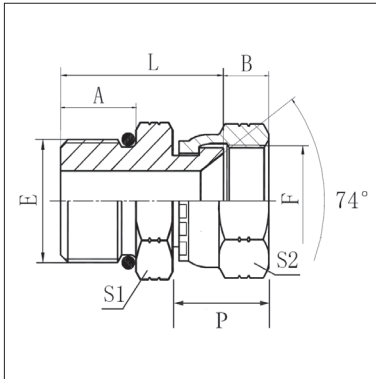
Product Code	Thread		Dimensions mm					
	E (UNO)	F (JIC)	A	B	L	S1	S2	P
OJF-04-04	7/16" - 20	7/16" - 20	9.1	9	23	14	15	18.5
OJF-04-06	7/16" - 20	9/16" - 18	9.3	9.9	26.9	14.1	17.3	20.2
OJF-06-04	9/16" - 18	7/16" - 20	9.9	8	26.8	17.3	14.1	16.3
OJF-06-06	9/16" - 18	9/16" - 18	9.9	10.5	24.5	17	19	21.5
OJF-06-08	9/16" - 18	3/4" - 16	9.8	11	29	20.5	21.9	22.1
OJF-08-08	3/4" - 16	3/4" - 16	11.1	10.5	29.5	22	24	23
OJF-10-08	7/8" - 14	3/4" - 16	13	11.4	34.9	25.3	21.9	22.9
OJF-10-10	7/8" - 14	7/8" - 14	12.8	13	35.6	25.1	25.3	25.1
OJF-12-12	1.1/16" - 12	1.1/16" - 12	15.1	15	38.5	32	32	27.5
OJF-16-16	1.5/16" - 12	1.5/16" - 12	15	16.1	42.2	37.9	37.8	30
OJF-20-20	1.5/8" - 12	1.5/8" - 12	15.3	15.9	45.7	47.4	50.8	31.9

ADAPTERS FIXED



AAU SERIES

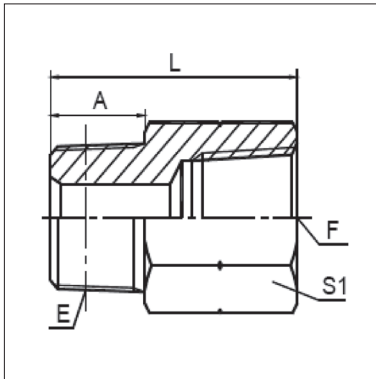
UNO MALE x JIC FEMALE STRAIGHT UNION



Product Code	Thread		Dimensions mm					
	E (UNO)	F (JIC)	A	B	L	S1	S2	P
AAU-04-04	7/16" - 20	7/16" - 20	9.1	9	23	14	15	18.5
AAU-06-06	9/16" - 18	9/16" - 18	9.9	10.5	24.5	17	19	21.5
AAU-08-08	3/4" - 16	3/4" - 16	11.1	10.5	29.5	22	24	23
AAU-12-12	1.1/16" - 12	1.1/16" - 12	15.1	15	38.5	32	32	27.5
AAU-16-16	1.5/16" - 12	1.5/16" - 12	15.1	16	38.5	38	41	30

AA SERIES

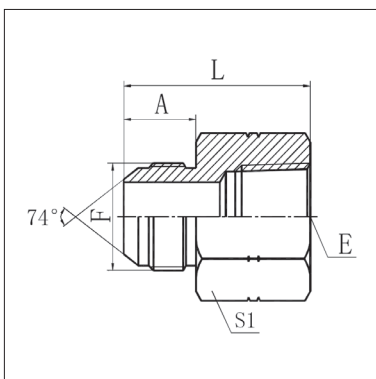
BSPT MALE x BSPT STUD ADAPTER



Product Code	BSPT Thread E	BSPT Thread F	Dimensions (mm)		
			A	L	S1
AA-02-02	1/8" - 28	1/8" - 28	11.5	27.5	14
AA-02-04	1/8" - 28	1/4" - 19	10	31	17
AA-04-06	1/4" - 19	3/8" - 19	14	37	22
AA-06-08	3/8" - 19	1/2" - 14	15	43	27
AA-08-12	1/2" - 14	3/4" - 14	19	50	32

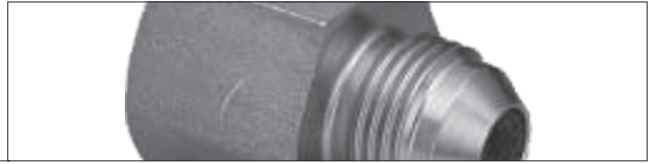
ABN SERIES

NPT FEMALE x JIC MALE STRAIGHT



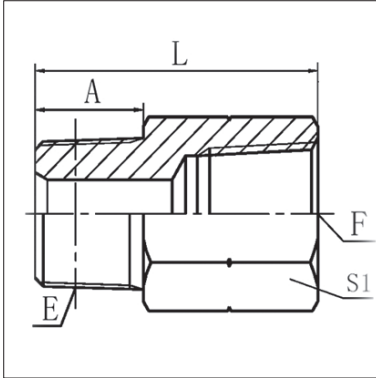
Product Code	Thread		Dimensions mm		
	E (NPT)	F (JIC)	A	L	S1
ABN-02-04	1/8" - 28	7/16" - 20	14	30.2	14
ABN-04-04	1/4" - 19	7/16" - 20	14	35.3	19
ABN-04-06	1/4" - 19	9/16" - 18	14.1	35.6	19
ABN-06-06	3/8" - 19	9/16" - 18	14.1	37.1	22
ABN-06-08	3/8" - 19	3/4" - 16	16.7	39.6	22
ABN-08-06	1/2" - 14	9/16" - 18	14.5	43	26
ABN-08-08	1/2" - 14	3/4" - 16	16.7	45.6	30
ABN-08-10	1/2" - 14	7/8" - 14	19.5	48	29
ABN-12-12	3/4" - 14	1.1/16" - 12	21.9	52.3	36
ABN-16-16	1" - 11	1.5/16" - 12	23.1	59.7	41

ADAPTERS FIXED



ANN SERIES

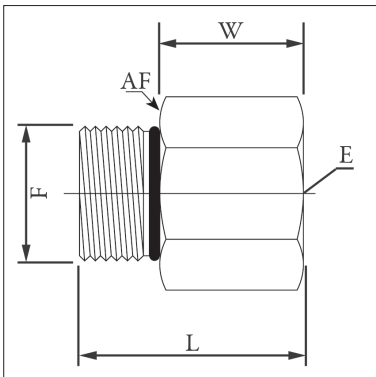
NPT MALE x NPT FEMALE REDUCER



Product Code	NPT Thread E	NPT Thread F	Dimensions (mm)		
			A	L	S1
ANN-02-02	1/2" - 27	1/8" - 27	10.5	25.5	17
ANN-02-04	1/8" - 27	1/4" - 18	10.5	31	19
ANN-04-04	1/4" - 18	1/4" - 18	15	35.3	19

ANU SERIES

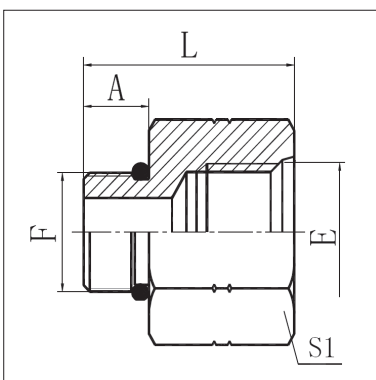
NPT FEMALE x UNO MALE STRAIGHT



Product Code	Thread		Dimensions mm		
	E (NPT)	F (UNO)	W	L	AF
ANU-04-06	1/4" - 18	9/16" - 18	22.6	29.2	19.1
ANU-08-10	1/2" - 14	7/8" - 14	23.4	39.3	28.6
ANU-12-10	3/4" - 19	7/8" - 14	25.7	42.2	34.9

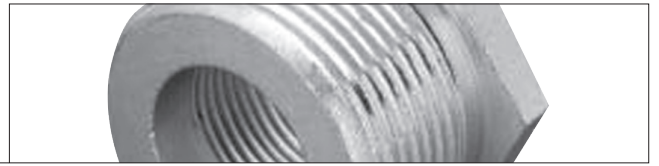
AAU SERIES

UNO FEMALE x UNO MALE STRAIGHT UNION



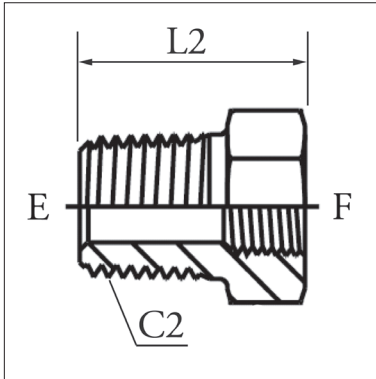
Product Code	Thread		Dimensions mm		
	E (UNO)	F (UNO)	A	L	S1
AAU-08-12	3/4" - 16	1.1/16" - 12	15.09	26	32
AAU-16-20	1.5/16" - 12	1.5/8" - 12	15.1	40	50

REDUCING BUSHES



AQ SERIES

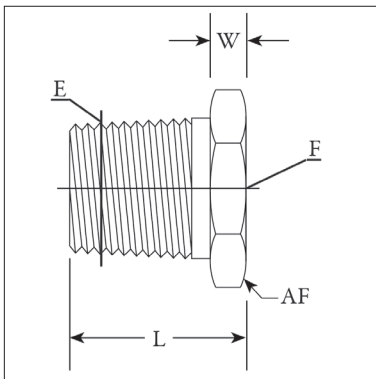
BSPT MALE x BSPT FEMALE REDUCER



Product Code	Thread		Dimensions mm	
	E (BSPT)	F (BSPT)	C2	L2
AQ-04-02	1/4" - 19	1/8" - 28	14	20.5
AQ-06-02	3/8" - 19	1/8" - 28	19	21.6
AQ-06-04	3/8" - 19	1/4" - 19	19	21.6
AQ-08-04	1/2" - 14	1/4" - 19	22	28
AQ-08-06	1/2" - 14	3/8" - 19	22	28
AQ-12-04	3/4" - 14	1/4" - 19	29	29
AQ-12-06	3/4" - 14	3/8" - 19	29	29
AQ-12-08	3/4" - 14	1/2" - 14	29	29
AQ-16-06	1" - 11	3/8" - 19	35	34
AQ-16-08	1" - 11	1/2" - 14	35	34
AQ-16-12	1" - 11	3/4" - 14	35	34
AQ-20-08	1.1/4" - 11	1/2" - 14	45	36.6
AQ-20-12	1.1/4" - 11	3/4" - 14	45	37.6
AQ-20-16	1.1/4" - 11	1" - 11	45	37.6
AQ-24-12	1.1/2" - 11	3/4" - 14	50	39.6
AQ-24-16	1.1/2" - 11	1" - 11	50	39.6
AQ-24-20	1.1/2" - 11	1.1/4" - 11	50	39.6
AQ-32-16	2" - 11	1" - 11	65	45
AQ-32-20	2" - 11	1.1/4" - 11	65	45
AQ-32-24	2" - 11	1.1/2" - 11	65	45

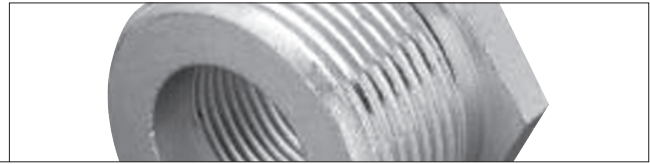
AR SERIES

NPT MALE x NPT FEMALE REDUCER

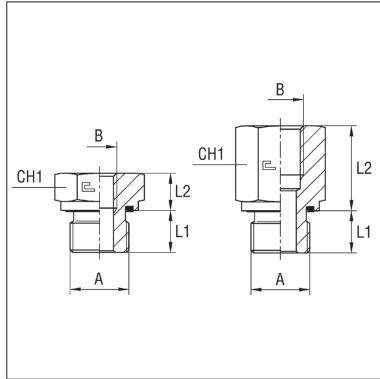


Product Code	Thread		Dimensions mm		
	E (NPT)	F (NPT)	L	W	AF
AR-04-02	1/4" - 18	1/8" - 27	21.8	6.4	15.9
AR-06-02	3/8" - 18	1/8" - 27	21.8	6.4	19.1
AR-06-04	3/8" - 18	1/4" - 17	21.8	6.4	19.1
AR-08-02	1/2" - 14	1/8" - 27	28.2	7.9	22.2
AR-08-04	1/2" - 14	1/4" - 18	28.2	7.9	22.2
AR-08-06	1/2" - 14	3/8" - 18	28.2	7.9	22.2
AR-12-04	3/4" - 14	1/4" - 18	29.7	9.7	28.6
AR-12-06	3/4" - 14	3/8" - 18	29.7	9.7	28.6
AR-12-08	3/4" - 14	1/2" - 14	29.7	9.7	28.6
AR-16-06	1" - 11.5	3/8" - 18	34.5	9.7	34.9
AR-16-08	1" - 11.5	1/2" - 14	34.5	9.7	34.9
AR-16-12	1" - 11.5	3/4" - 14	34.5	9.7	34.9
AR-20-08	1.1/4" - 11.5	1/2" - 14	37.3	11.7	44.5
AR-20-12	1.1/4" - 11.5	3/4" - 14	37.3	11.7	44.5
AR-20-16	1.1/4" - 11.5	1" - 11.5	37.3	11.7	44.5
AR-24-16	1.1/2" - 11.5	1" - 11.5	39.9	13.5	50.8
AR-24-20	1.1/2" - 11.5	1.1/4" - 11.5	39.9	13.5	50.8
AR-32-16	2" - 11.5	1" - 11.5	44.5	17.3	63.5
AR-32-20	2" - 11.5	1.1/4" - 11.5	44.5	17.3	63.5
AR-32-24	2" - 11.5	1.1/2" - 11.5	44.5	17.3	63.5

REDUCING BUSHES



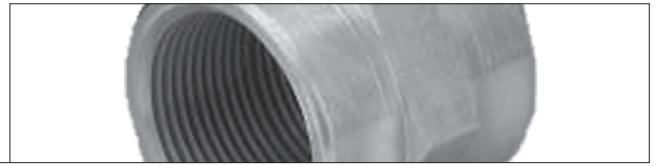
RI SERIES BSPP REDUCING ADAPTER ELASTOMERIC SEAL



Series	Max. W.P. bar	Product Code	A	B	L1	L2	CH1
L / S	630	RI-02-04	1/8	1/4	8	23	19
		RI-02-06 †	1/8	3/8	8	24	24
		RI-04-02	1/4	1/8	12	16	19
		RI-04-06	1/4	3/8	12	24	24
		RI-04-08	1/4	1/2	12	28	30
		RI-04-12	1/4	3/4	12	31	36
		RI-06-02 †	3/8	1/8	12	10.5	22
		RI-06-04	3/8	1/4	12	24	22
	400	RI-06-08	3/8	1/2	12	29	30
		RI-06-12	3/8	3/4	12	32	36
	630	RI-08-02 †	1/2	1/8	14	10	27
		RI-08-04 †	1/2	1/4	14	10	27
		RI-08-06	1/2	3/8	14	22	27
	400	RI-08-12	1/2	3/4	14	32	36
		RI-08-16	1/2	1	14	35	41
		RI-08-20	1/2	1.1/4	14	39	55
		RI-12-04 †	3/4	1/4	16	10	32
		RI-12-06 †	3/4	3/8	16	10	32
		RI-12-08	3/4	1/2	16	26	32
	315	RI-12-16	3/4	1	16	35	41
		RI-12-20	3/4	1.1/4	16	39	55
		RI-12-24	3/4	1/1/2	16	41	60
		400	RI-16-04 †	1	1/4	18	11
	RI-16-06 †		1	3/8	18	11	41
	RI-16-08 †		1	1/2	18	11	41
	RI-16-12		1	3/4	18	29	41
	RI-16-20		1	1.1/4	18	39	55
	315	RI-16-24	1	1.1/2	18	41	60
400	RI-20-08 †	1.1/4	1/2	20	12	50	
	RI-20-12 †	1.1/4	3/4	20	12	50	
	RI-20-16	1.1/4	1	20	31	50	
315	RI-20-24	1.1/4	1.1/2	20	40	60	
	RI-24-08 †	1.1/2	1/2	22	14	55	
	RI-24-12 †	1.1/2	3/4	22	14	55	
	RI-24-16 †	1.1/2	1	22	14	55	
	RI-24-20	1.1/2	1.1/4	22	46	50	

† Limited stock available

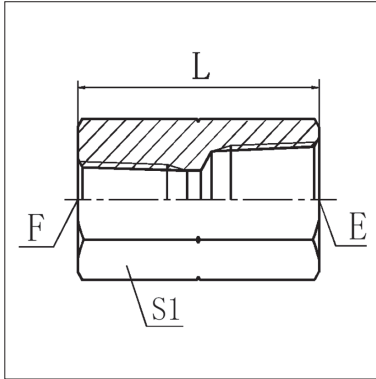
SOCKETS



W SERIES

BSPT FEMALE x BSPT FEMALE

† BSPP FEMALE x BSPP FEMALE

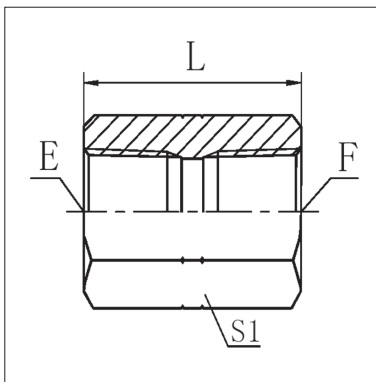


Product Code	Thread		Dimensions mm	
	E (BSPT)	F (BSPT)	L	S1
W-02-02	1/8" - 28	1/8" - 28	20	14
W-04-02	1/4" - 19	1/8" - 28	30	19
W-04-04	1/4" - 19	1/4" - 19	30	19
W-04-04P †	1/4" - 19	1/4" - 19	30	19
W-06-04	3/8" - 19	1/4" - 19	30	22
W-06-06	3/8" - 19	3/8" - 19	30	22
W-06-06P †	3/8" - 19	3/8" - 19	30	22
W-08-06	1/2" - 14	3/8" - 19	40	27
W-08-08	1/2" - 14	1/2" - 14	40	27
W-08-08P †	1/2" - 14	1/2" - 14	40	27
W-12-08	3/4" - 14	1/2" - 14	42	36
W-12-12	3/4" - 14	3/4" - 14	42	36
W-12-12P †	3/4" - 14	3/4" - 14	42	36
W-16-12	1" - 11	3/4" - 14	50	41
W-16-16	1" - 11	1" - 11	50	41
W-16-16P †	1" - 11	1" - 11	50	41
W-20-16	1.1/4" - 11	1" - 11	52	50
W-20-20	1.1/4" - 11	1.1/4" - 11	55	50
W-24-24	1.1/2" - 11	1.1/2" - 11	55	55
W-32-32	2" - 11	2" - 11	65	70


† BSPP threads at both ends

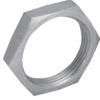
V / VHD SERIES

NPT FEMALE x NPT FEMALE

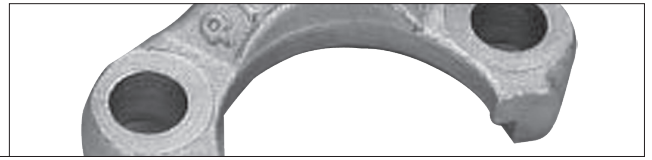


Product Code	Thread		Dimensions mm	
	E (NPT)	F (NPT)	L	S1
V-02-02	1/8" - 27	1/8" - 27	24	17
V-04-04	1/4" - 18	1/4" - 18	29	19
V-06-06	3/8" - 18	3/8" - 18	29	22
V-08-08	1/2" - 14	1/2" - 14	38	30
V-12-12	3/4" - 14	3/4" - 14	39	36
V-16-16	1" - 11.5	1" - 11.5	48	41
V-20-20	1.1/4" - 11.5	1.1/4" - 11.5	49	50
V-24-24	1.1/2" - 11.5	1.1/2" - 11.5	49	60
V-32-32	2" - 11.5	2" - 11.5	50	70
V-02-02	1/8" - 27	1/8" - 27	24	17
V-04-04	1/4" - 18	1/4" - 18	29	19
V-06-06	3/8" - 18	3/8" - 18	29	22
V-08-08	1/2" - 14	1/2" - 14	38	30
V-12-12	3/4" - 14	3/4" - 14	39	36
V-16-16	1" - 11.5	1" - 11.5	48	41
V-20-20	1.1/4" - 11.5	1.1/4" - 11.5	49	50
V-24-24	1.1/2" - 11.5	1.1/2" - 11.5	49	60
V-32-32	2" - 11.5	2" - 11.5	50	70
HEAVY DUTY 10,000 PSI (700 BAR) HIGH PRESSURE SERIES				
VHD-04-04	1/4" - 18	1/4" - 18	29	19
VHD-06-04	3/8" - 18	1/4" - 18	29	24
VHD-06-06	3/8" - 18	3/8" - 18	29	24

SECTION 13 FLANGE FITTINGS		PAGE	
			
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AXP3/AXP6	CODE 61 & 62 BLANKING PLUGS	-	84 / 85
AX3	CODE 61 'BLIND' FLANGES	-	85
AX6	CODE 62 'BLIND' FLANGES	-	85
AZ3	CODE 61 SPLIT FLANGE CLAMPS	-	85
AZ6	CODE 62 SPLIT FLANGE CLAMPS	-	86
NFS	CODE 61 FLANGE THREADED NPT	- / F	86
NFH	CODE 62 FLANGE THREADED NPT	- / F	86
C611JM-C629JM	CODE FLANGES x JIC MALE	- / M	87
C62JM9	CODE 62 x JIC MALE 90° FORGED	- / M	88

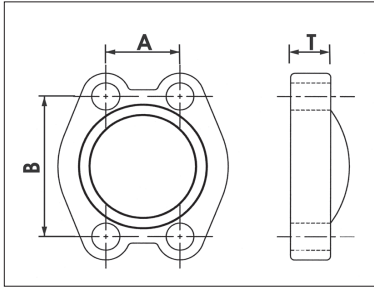
SECTION 14 SEALS & ACCESSORIES			
			
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Y / YD / YEH	O-RINGS - SAE FLANGE (NITRILE)	-	92
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RROB	O-RING SUIT RRB RETAINING RING	-	95

FLANGE FITTINGS



AF3 SERIES

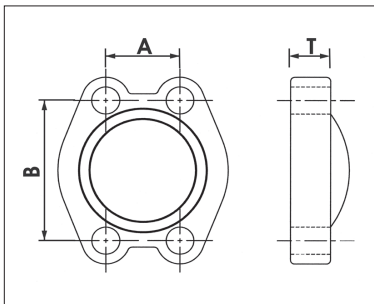
CODE 61 UN CUT FLANGE CLAMP (3,000 PSI)



Product Code	Flange Size	Maximum W.P. bar	Dimensions mm			Screws	
			A	B	T	Metric	UNC
AF3-12	3/4"	345	22.23	47.63	14	M10 - 35	3/8" - 1.5
AF3-16	1"	345	26.19	52.37	16	M10 - 35	3/8" - 1.5
AF3-20	1.1/4"	276	30.18	58.72	14	M10 - 35	7/16" - 1.75
AF3-24	1.1/2"	207	35.71	69.85	16	M12 - 35	1/2" - 1.75
AF3-32	2"	207	42.88	77.77	16	M12 - 35	1/2" - 1.75
AF3-40	2.1/2"	172	50.8	88.90	19	M12 - 40	1/2" - 1.75
AF3-48	3"	138	61.93	106.4	22	M16 - 50	5/8" - 2

AF6 SERIES & AFBS6

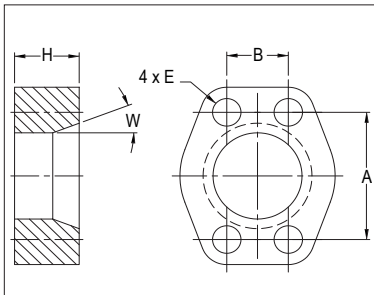
CODE 62 UN CUT FLANGE CLAMP (6,000 PSI)



Product Code	Flange Size	Maximum W.P. bar	Dimensions mm			Screws	
			A	B	T	Metric	UNC
AF6-12	3/4"	420	23.80	50.80	19	M10 - 35	3/8" - 1.5
AF6-16	1"	420	27.76	57.15	24	M12 - 45	7/16" - 1.75
AF6-20	1.1/4"	420	31.75	66.68	27	M14 - 45	1/2" - 1.75
AF6-24	1.1/2"	420	36.50	79.38	30	M16 - 50	5/8" - 2
AF6-32	2"	420	44.45	96.82	37	M20 - 70	3/4" - 2.5
AFBS6-32	2"	420	44.45	96.82	37	M20 - 70	3/4" - 2.5

AFTF6 SERIES

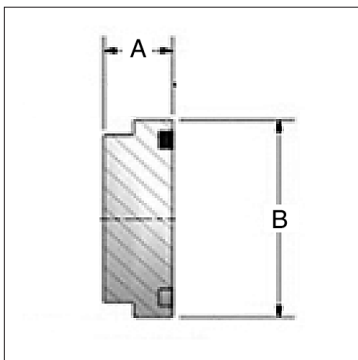
CODE 62 UN CUT TAPERED FLANGE CLAMP (6,000 PSI)



Product Code	Flange Size	Maximum W.P. bar	Dimensions mm			Screws E	
			A	B	H	Metric	UNC
AFTF6-32	2"	420	44.45	96.82	50	M20 - 100	3/4" - 4"

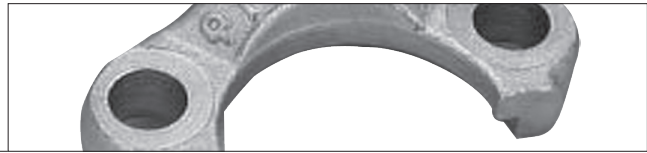
APX3 SERIES

CODE 61 FLANGE BLANKING PLUG (3,000 PSI)



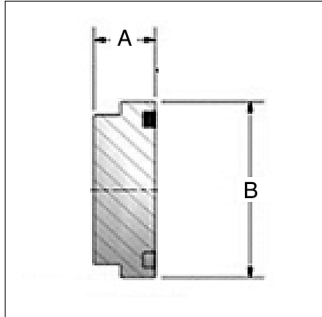
Product Code	Flange Size	Maximum W.P. Bar	Dimensions mm	
			A (Height)	B (Diameter)
AXP3-08	1/2"	345	12.7	30.18
AXP3-12	3/4"	345	14.3	38.10
AXP3-16	1"	345	14.3	44.45
AXP3-20	1 1/4"	276	14.3	50.80
AXP3-24	1 1/2"	207	15.8	60.33
AXP3-32	2"	207	15.8	71.42
AXP3-40	2 1/2"	172	17.3	84.12
AXP3-48	3"	138	19.1	101.60

FLANGE FITTINGS



APX6 SERIES

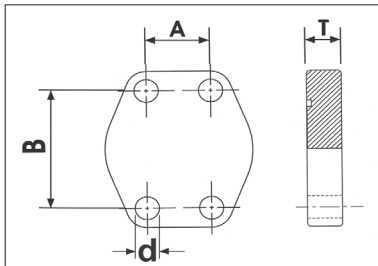
CODE 62 FLANGE BLANKING PLUG (6,000 PSI)



Product Code	Flange Size	Maximum W.P. Bar	Dimensions mm	
			A (Height)	B (Diameter)
AXP6-12	3/4"	414	17.52	41.28
AXP6-16	1"	414	20.57	47.63
AXP6-20	1.1/4"	414	25.40	53.98
AXP6-24	1.1/2"	414	30.22	63.50
AXP6-32	2"	414	38.10	79.38

AX3 SERIES

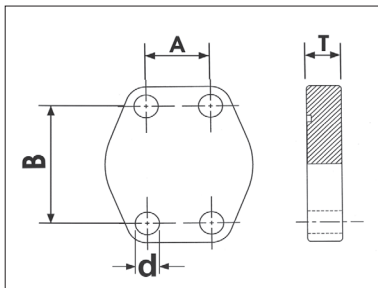
CODE 61 'BLIND' FLANGE (3,000 PSI)



Product Code	Flange Size	Maximum W.P. bar	Dimensions mm				Screws	
			A	B	d	T	Metric	UNC
AX3-12	3/4"	345	22.23	47.63	11	14	M10 - 30	3/8" - 16
AX3-16	1"	345	26.19	52.37	11	16	M10 - 30	3/8" - 16
AX3-20	1.1/4"	276	30.18	58.72	12	14	M10 - 30	7/16" - 14
AX3-24	1.1/2"	207	35.71	69.85	13.5	16	M12 - 35	1/2" - 13
AX3-32	2"	207	42.88	77.77	13.5	16	M12 - 35	1/2" - 13
AX3-40	2.1/2"	172	50.8	88.90	13.5	19	M12 - 40	1/2" - 13
AX3-48	3"	138	61.93	106.4	17.5	22	M16 - 50	5/8" - 11

AX6 SERIES

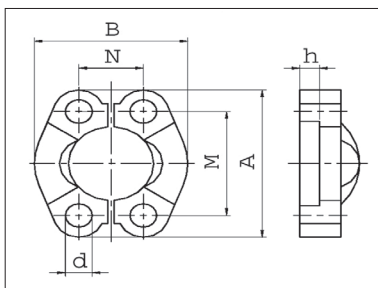
CODE 62 'BLIND' FLANGE (6,000 PSI)



Product Code	Flange Size	Maximum W.P. bar	Dimensions mm				Screws	
			A	B	d	T	Metric	UNC
AX6-12	3/4"	414	23.80	50.80	11	19	M10 - 35	3/8" - 16
AX6-16	1"	414	27.76	57.15	13	24	M12 - 45	7/16" - 14
AX6-20	1.1/4"	414	31.75	66.68	15	27	M14 - 50	1/2" - 13
AX6-24	1.1/2"	414	36.50	79.38	17	30	M16 - 55	5/8" - 11
AX6-32	2"	414	44.45	96.82	21	37	M20 - 70	3/4" - 10

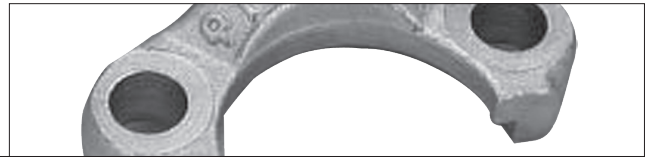
AZ3 SERIES

CODE 61 SPLIT FLANGE (3,000 PSI)



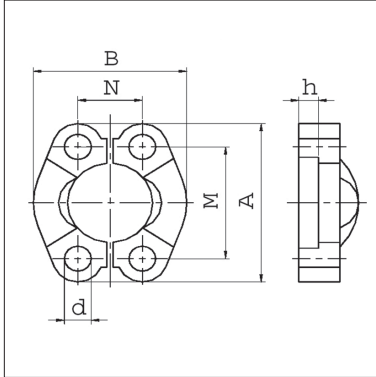
Product Code	Flange Size	Maximum W.P. bar	Dimensions mm						Screws	
			A	B	M	N	h	d	Metric	UNC
AZ3-08	1/2"	345	53.8	46.1	38.1	17.5	6.2	9	M8 - 25	5/16" - 18
AZ3-10	5/8"	345			42.9	19.8	6.2	9	M8 x 1.25	5/16" - 18
AZ3-12	3/4"	345	65	52.4	47.6	22.2	6.2	11	M10 - 30	3/8" - 16
AZ3-16	1"	345	69.9	58.7	52.4	26.2	7.5	11	M10 - 30	3/8" - 16
AZ3-20	1.1/4"	276	79.2	73	58.7	30.2	7.5	12	M10 - 30	7/16" - 14
AZ3-24	1.1/2"	207	93.7	82.6	69.9	35.7	7.5	13.5	M12 - 35	1/2" - 13
AZ3-32	2"	207	101.6	96.8	77.8	42.9	9	13.5	M12 - 35	1/2" - 13
AZ3-40	2.1/2"	172	114	108	88.9	50.8	9	13.5	M12 - 40	1/2" - 13
AZ3-48	3"	138	135	130.6	106.4	61.9	9	17.5	M16 - 50	5/8" - 11

FLANGE FITTINGS



AZ6 SERIES

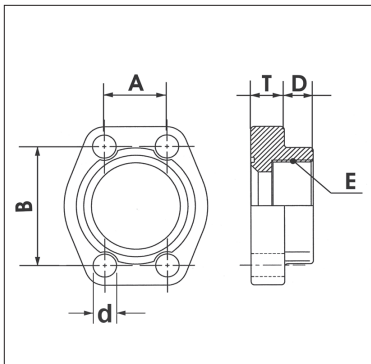
CODE 62 SPLIT FLANGE (6,000 PSI)



Product Code	Flange Size	Maximum W.P. bar	Dimensions mm						Screws	
			A	B	M	N	h	d	Metric	UNC
AZ6-08	1/2"	414	56.3	49.2	40.5	18.2	7.2	9	M8 - 30	5/16" - 18
AZ6-12	3/4"	414	71.4	61.8	50.8	23.8	8.3	11	M10 - 35	3/8" - 16
AZ6-16	1"	414	81	71.4	57.2	27.8	9	13	M12 - 45	7/16" - 14
AZ6-20M	1.1/4"	414	95.3	79.2	66.6	31.8	9.8	15	M14 - 50	-
AZ6-20S	1.1/4"	414	95.3	79.7	66.6	31.8	9.8	13.3	-	1/2" - 13
AZ6-24	1.1/2"	414	112.8	96.8	79.3	36.6	12	17	M16 - 55	5/8" - 11
AZ6-32	2"	414	133.4	115.6	96.8	44.4	12	21	M20 - 70	3/4" - 10

NFS SERIES

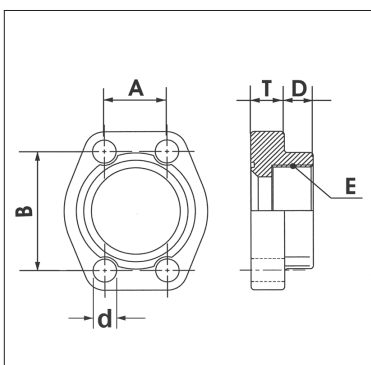
CODE 61 NPT THREADED FLANGE (3,000 PSI)



Product Code	Nominal Flange Size	Thread 'E' NPT	Maximum W.P. psi	Dimensions mm					UNC	O-Ring
				A	B	d	T	D		
NFS-08	1/2"	1/2" - 14	5000	17.48	38.1	9	16	20	5/16" - 18 x 1.25	Y-08
NFS-12	3/4"	3/4" - 14	5000	22.23	47.63	11	18	18	3/8" - 16 x 1.50	Y-12
NFS-16	1"	1" - 11.5	5000	26.19	52.37	11	18	20	3/8" - 16 x 1.50	Y-16
NFS-20	1.1/4"	1.1/4" - 11.5	4000	30.18	58.72	12	21	20	7/16" - 14 x 1.75	Y-20
NFS-24	1.1/2"	1.1/2" - 11.5	3000	35.71	69.85	13.5	25	20	1/2" - 13 x 1.75	Y-24
NFS-32	2"	2" - 11.5	3000	42.88	77.77	13.5	25	20	1/2" - 13 x 1.75	Y-32

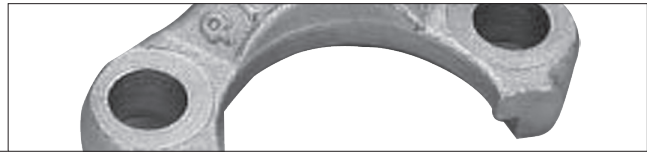
NFH SERIES

CODE 62 NPT THREADED FLANGE (6,000 PSI)



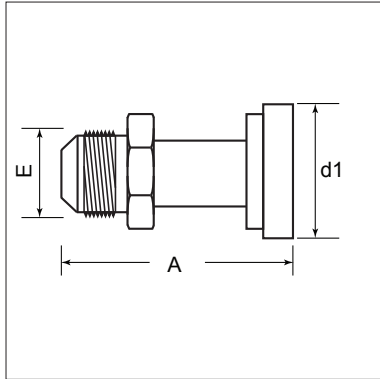
Product Code	Nominal Flange Size	Thread 'E' NPT	Maximum W.P. psi	Dimensions mm					UNC	O-Ring
				A	B	d	T	D		
NFH-12	3/4"	3/4" - 14	6000	23.80	50.80	11	21	14	3/8" - 16 x 1.50	Y-12
NFH-16	1"	1" - 11.5	6000	27.76	57.15	13	25	17	7/16" - 14 x 1.75	Y-16
NFH-20	1.1/4"	1.1/4" - 11.5	6000	31.75	66.68	15	27	18	1/2" - 13 x 1.75	Y-20
NFH-24	1.1/2"	1.1/2" - 11.5	6000	36.50	79.38	17	30	20	5/8" - 11 x 2.25	Y-24
NFH-32	2"	2" - 11.5	6000	44.45	96.82	21	37	28	3/4" - 10 x 2.75	Y-32

FLANGE FITTINGS



C611MJ SERIES

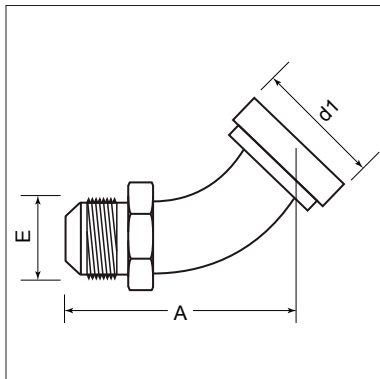
CODE 61 FLANGE x JIC MALE STRAIGHT ADAPTER



Product Code	Flange Size	JIC Thread E	Dimensions mm	
			A	d1
C611MJ-08-08	1/2"	3/4" - 16	66.0	30.2
C611MJ-12-12	3/4"	1.1/16" - 12	70.0	38.1
C611MJ-12-16	1"	1.1/16" - 12	71.1	44.5
C611MJ-16-12	3/4"	1.5/16" - 12	71.7	38.1
C611MJ-16-16	1"	1.5/16" - 12	71.7	44.5
C611MJ-16-20	1.1/4"	1.5/16" - 12	-	50.8
C611MJ-20-16	1"	1.5/8" - 12	72.0	44.5
C611MJ-20-20	1.1/4"	1.5/8" - 12	71.0	50.8
C611MJ-24-24	1.1/2"	1.7/8" - 12	88.9	60.4
C611MJ-32-32	2"	2.1/2" - 12	101.1	71.4

C614MJ SERIES

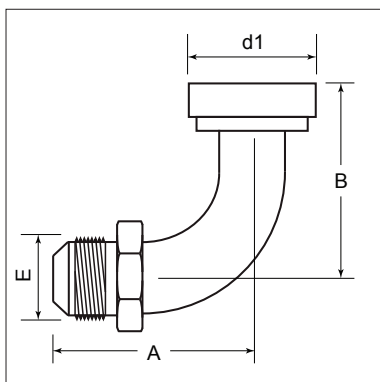
CODE 61 FLANGE x JIC MALE 45° ADAPTER



Product Code	Flange Size	JIC Thread E	Dimensions mm	
			A	d1
C614MJ-12-12	3/4"	1.1/16" - 12	76.7	38.1
C614MJ-16-12	3/4"	1.5/16" - 12	76.8	38.1
C614MJ-16-16	1"	1.5/16" - 12	90.2	44.5
C614MJ-20-16	1"	1.5/8" - 12	91.5	44.5
C614MJ-20-20	1.1/4"	1.5/8" - 12	105.8	50.8
C614MJ-24-24	1.1/2"	1.7/8" - 12	125.4	60.4
C614MJ-32-32	2"	2.1/2" - 12	158.0	71.4

C619MJ SERIES

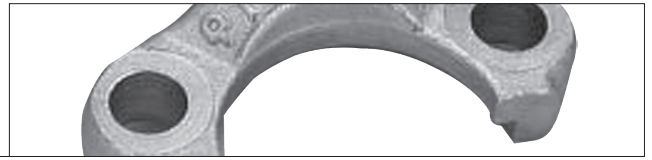
CODE 61 FLANGE x JIC MALE 90° ADAPTER



Product Code	Flange Size	JIC Thread E	Dimensions mm		
			A	d1	B
C619MJ-08-08	1/2"	3/4" - 16"	37.1	30.2	54.1
C619JM-12-12	3/4"	1.1/16" - 12	76.4	38.1	47.7
C619JM-16-12	3/4"	1.5/16" - 12	72.1	38.1	47.5
C619JM-16-16	1"	1.5/16" - 12	80.5	44.5	61.9
C619JM-20-16	1"	1.5/8" - 12	86.7	44.5	64.8
C619JM-20-20	1.1/4"	1.5/8" - 12	97.5	50.8	70.3
C619JM-24-16	1"	1.7/8" - 12	89.4	44.5	65.9
C619MJ-24-24	1.1/2"	1.7/8" - 12	59.2	60.4	80.0
C619MJ-32-32	2"	2.1/2" - 12	77.7	71.4	108

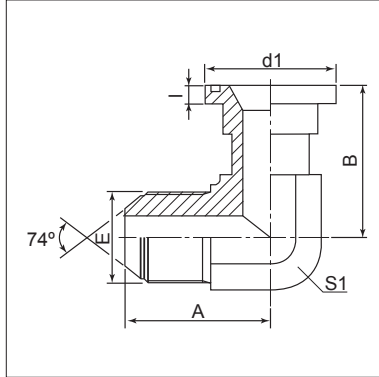


FLANGE FITTINGS



C62JM9 SERIES

CODE 62 FLANGE x JIC MALE 90° FORGED BODY

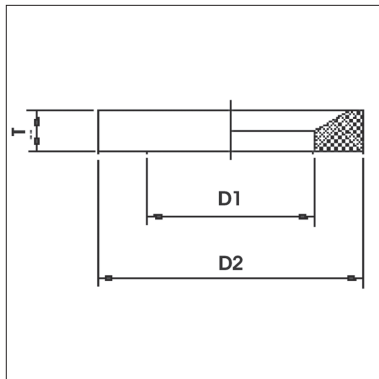


Product Code	Flange Size	JIC Thread	Dimensions mm					W.P. psi
			A	B	I	d1	S1	
C62JM9-1616	1"	1.5/16" - 12	49	60.2	9.53	47.6	33	6000

ED SERIES

PERFLEX SEAL FOR ENCAPSULATED BSPP / METRIC

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F

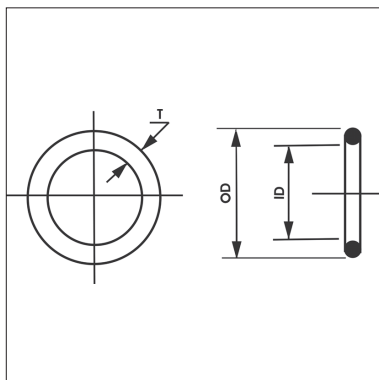


Product Code	Suit BSPP	Suit Metric	Dimensions mm		
			D1	D2	T
ED-02/10M	1/8" - 28	M10	8.4	11.9	1.0
ED-12M	-	M12	9.8	14.4	1.5
ED-04/14M	1/4" - 19	M14	11.6	16.5	1.5
ED-16M	-	M16	13.8	18.9	1.5
ED-06	3/8" - 19	-	14.7	18.9	1.5
ED-18M	-	M18	15.7	20.9	1.5
ED-20M	-	M20	17.8	22.9	1.5
ED-08	1/2" - 14	-	18.5	23.9	1.5
ED-22M	-	M22	19.6	24.3	1.5
ED-12/26M/27M	3/4" - 14	M26, M27	23.9	29.2	1.5
ED-16/33M	1" - 11	M33	29.7	35.7	2.0
ED-20/42M	1.1/4" - 11	M42	38.8	45.8	2.0
ED-24/48M	1.1/2" - 11	M48	44.7	50.7	2.0

FF3030 SERIES

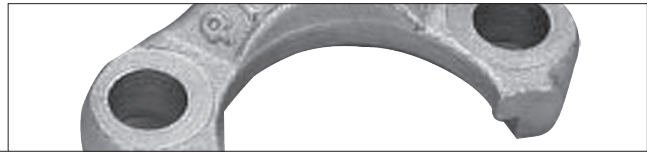
O-RINGS TO SUIT ORFS ADAPTERS

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F



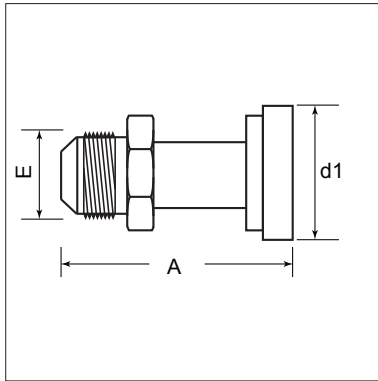
Product Code	Dash Size	Suit ORFS	Dimensions mm		
			OD	ID	T
FF3030-04	04	9/16" - 18	11.20	7.65	1.78
FF3030-06	06	11/16" - 16	12.80	9.25	1.78
FF3030-08	08	13/16" - 16	15.98	12.42	1.78
FF3030-10	10	1" - 14	19.16	15.60	1.78
FF3030-12	12	1.3/16" - 12	22.33	18.77	1.78
FF3030-16	16	1.7/16" - 12	27.08	23.52	1.78
FF3030-20	20	1.11/16" - 12	33.43	29.87	1.78
FF3030-24	24	2" - 12	41.38	37.82	1.78

FLANGE FITTINGS



C621MJ SERIES

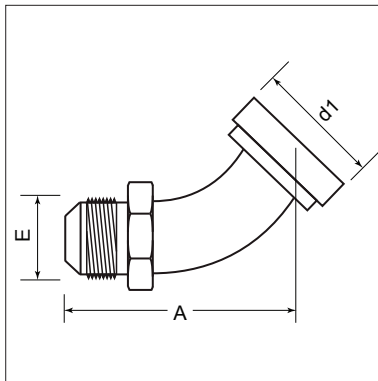
CODE 62 FLANGE x JIC MALE STRAIGHT ADAPTER



Product Code	Flange Size	JIC Thread E	Dimensions mm	
			A	d1
C621MJ-08-08	1/2"	3/4" - 16	66.3	31.7
C621MJ-12-12	3/4"	1.1/16" - 12	69.6	41.3
C621MJ-12-16	1"	1.1/16" - 12	71.1	47.6
C621MJ-16-12	3/4"	1.5/16" - 12	71.7	41.3
C621MJ-16-16	1"	1.5/16" - 12	72.0	47.6
C621MJ-16-20	1.1/4"	1.5/16" - 12	77.5	53.9
C621MJ-20-16	1"	1.5/8" - 12	78.2	47.6
C621MJ-20-20	1.1/4"	1.5/8" - 12	77.1	53.9
C621MJ-24-24	1.1/2"	1.7/8" - 12	88.9	63.5
C621MJ-32-32	2"	2.1/2" - 12	107.5	79.4

C624MJ SERIES

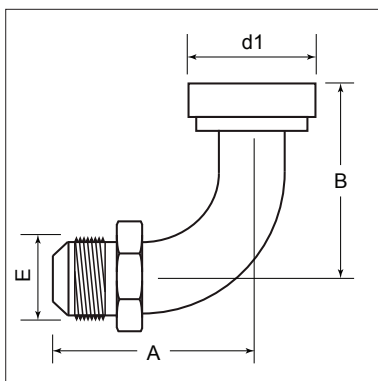
CODE 62 FLANGE x JIC MALE 45° ADAPTER



Product Code	Flange Size	JIC Thread E	Dimensions mm	
			A	d1
C624MJ-12-12	3/4"	1.1/16" - 12	76.3	41.3
C624MJ-16-12	3/4"	1.5/16" - 12	75.6	41.3
C624MJ-16-16	1"	1.5/16" - 12	83.8	47.6
C624MJ-20-16	1"	1.5/8" - 12	93.0	47.6
C624MJ-20-20	1.1/4"	1.5/8" - 12	117.3	53.9
C624MJ-24-24	1.1/2"	1.7/8" - 12	131.1	63.5
C624MJ-32-32	2"	2.1/2" - 12	166.1	79.4

C629MJ SERIES

CODE 62 FLANGE x JIC MALE 90° ADAPTER



Product Code	Flange Size	JIC Thread E	Dimensions mm		
			A	d1	B
C629MJ-08-08	1/2"	3/4" - 16	59.3	31.7	47.0
C629MJ-12-12	3/4"	1.1/16" - 12	67.5	41.3	54.2
C629MJ-12-16	1"	1.1/16" - 12	84.3	47.6	64.2
C629MJ-16-12	3/4"	1.5/16" - 12	71.6	41.3	60.1
C629MJ-16-16	1"	1.5/16" - 12	45.9	47.6	60.2
C629MJ-16-20	1.1/4"	1.5/16" - 12	82.0	47.8	70.0
C629MJ-20-16	1"	1.5/8" - 12	84.2	47.6	71.9
C629MJ-20-20	1.1/4"	1.5/8" - 12	101.0	53.9	88.0
C629MJ-24-24	1.1/2"	1.7/8" - 12	116.1	63.5	102.1
C629MJ-32-32	2"	2.1/2" - 12	147.1	79.4	134.8

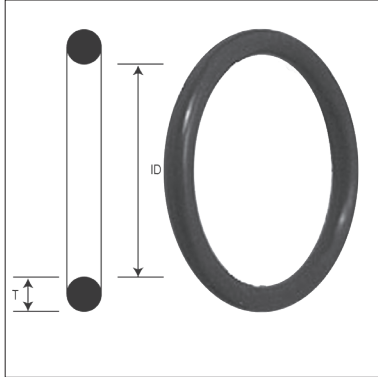
ACCESSORIES



DKOR LIGHT SERIES

O-RINGS TO SUIT LIGHT SERIES METRIC HOSE TAILS

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F

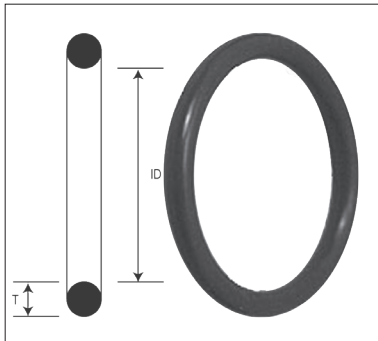


O-Ring Details for Light Series Hose tails				
Product Code	Hose Tail Series	Metric Thread Size	Tube O.D. (mm)	O-Ring (mm)
				I.D. x Thickness
DKOR 06-L/S	DLF1 DLF4 DLF9	M12x1.5	6	4x1.5
DKOR 08-L/S		M14x1.5	8	6x1.5
DKOR 10-L/S		M16x1.5	10	7.5x1.5
DKOR 12-L/S		M18x1.5	12	9x1.5
DKOR 15-L		M22x1.5	15	12x2
DKOR 18-L		M26x1.5	18	15x2
DKOR 22-L		M30x2	22	20x2
DKOR 28-L		M36x2	28	26x2
DKOR 35-L		M45x2	35	32x2.5
DKOR 42-L		M52x2	42	38x2.5

DKOR HEAVY SERIES

O-RINGS TO SUIT HEAVY SERIES METRIC HOSE TAILS

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F



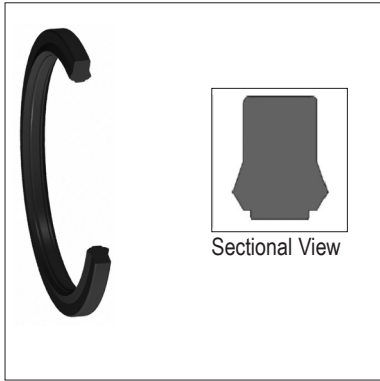
O-Ring Details for Heavy Series Hose tails				
Product Code	Hose Tail Series	Metric Thread Size	Tube O.D. (mm)	O-Ring (mm)
				I.D. x Thickness
DKOR 06-L/S	DSF1 DSF4 DSF9	M14x1.5	6	4x1.5
DKOR 08-L/S		M16x1.5	8	6x1.5
DKOR 10-L/S		M18x1.5	10	7.5x1.5
DKOR 12-L/S		M20x1.5	12	9x1.5
DKOR 14-S		M22x1.5	14	10x2
DKOR 16-S		M24x1.5	16	12x2
DKOR 20-S		M30x2	20	16.3x2.4
DKOR 25-S		M36x2	25	20.3x2.4
DKOR 30-S		M42x2	30	25.3x2.4
DKOR 38-S		M52x2	38	33.3x2.4



OKS SERIES

HIGH PERFORMANCE SEALS TO SUIT SAE FLANGE FITTINGS

Material: Blue 93 Duro Polyester Polyurethane (AU) Temperature range -22°F to 212°F



Product Code	Dash Size	Dimensions mm		
		OD	ID	T
OKS-12	12	31.75	23.37	3.50
OKS-16	16	39.62	31.24	3.50
OKS-20	20	44.45	36.07	3.50
OKS-24	24	53.98	45.34	3.50
OKS-32	32	63.5	54.86	3.50

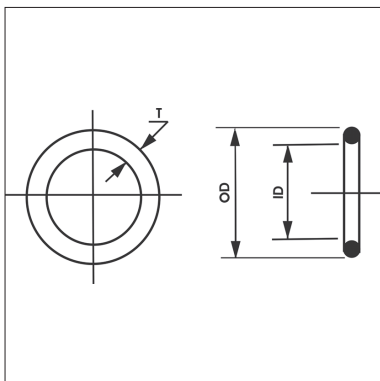
FEATURES:

- A general purpose compound suitable for applications requiring resistance to high temperatures and compression set
- Recommended for use in SAE flanges (especially Code 62) where elevated temperatures and arduous conditions are expected
- Special square section profile prevents seal 'pumping' to provide reliable flange sealing
- Outstanding resistance to blended aromatic fuels and straight aromatics as well as halogenated hydrocarbons
- 8702 psi maximum working pressure
- Good resistance to strong acids and steam

KY SERIES

O-RINGS TO SUIT KOMATSU® FLANGES

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F



Product Code	Dash Size	BS Number		
			ID	T
KY-08	1/2"	HNBR-90	20.80	2.40
KY-10 †	5/8"	HNBR-90	21.70	3.50
KY-12	3/4"	HNBR-90	24.70	3.50
KY-16	1"	HNBR-90	31.70	3.50
KY-20	1.1/4"	HNBR-90	37.70	3.50
KY-24	1.1/2"	HNBR-90	47.70	3.50
KY-32	2"	HNBR-90	59.40	3.10

IMPORTANT NOTE:

These O-Rings incorporate metric dimensions and are specifically for use in conjunction with Komatsu® flanges only (ie K Prefix PIRTEK Flanges).

The SAE Standard is not applicable.

DO NOT use these O-Rings in conjunction with SAE Standard flanges.

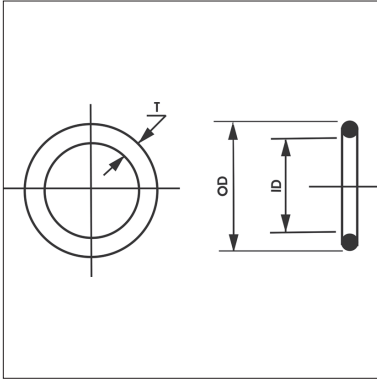
ACCESSORIES



X SERIES

O-RINGS TO SUIT UNO RING ADAPTERS

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F



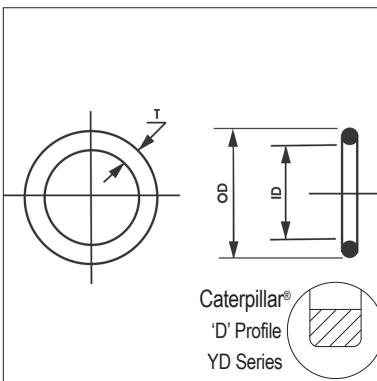
Product Code	Dash Size	BS Number	Dimensions mm		
			OD	ID	T
X-07	7/16" - 20	BS904	12.57	8.92	1.83
X-08	1/2" - 20	BS905	14.18	10.52	1.83
X-09	9/16" - 18	BS906	15.85	11.89	1.98
X-10	5/8" - 18	BS907	17.46	13.46	2.08
X-12	3/4" - 16	BS908	20.78	16.36	2.21
X-14	7/8" - 14	BS910	24.10	19.18	2.46
X-17	1.1/16" - 12	BS912	29.37	23.47	2.95
X-19	1.3/16" - 12	BS914	32.51	26.61	2.95
X-21	1.5/16" - 12	BS916	35.64	29.74	2.95
X-26	1.5/8" - 12	BS920	43.47	37.47	3.00
X-30	1.7/8" - 12	BS924	49.69	43.69	3.00
X-40	2.1/2" - 12	BS932	65.36	59.36	3.00

Y / YD* SERIES

O-RINGS TO SUIT SAE FLANGE FITTINGS

*YD SERIES O-RINGS ARE FOR GENUINE CATERPILLAR® XT FITTINGS ONLY

Material: 90 Durometer Buna N Temperature Range: -29°F to +248°F



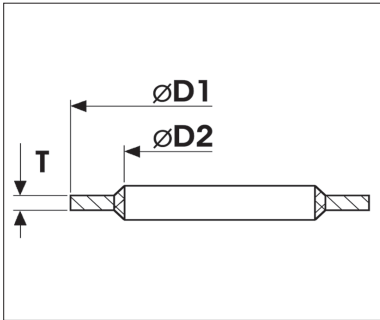
For arduous conditions, please consider the use of OKS O-Rings as an alternative

Product Code	Dash Size	BS	Dimensions mm		
			OD	ID	T
Y-08	1/2"	210	25.7	18.64	3.53
Y-10 †	5/8"		29.0	21.82	3.57
Y-12	3/4"	214	32.05	24.99	3.53
Y-16	1"	219	39.98	32.92	3.53
Y-20	1.1/4"	222	44.75	37.69	3.53
Y-24	1.1/2"	225	54.28	47.22	3.53
Y-32	2"	228	63.8	56.74	3.53
Y-40	2.1/2"	232	76.5	69.44	3.53
Y-48	3"	237	92.38	85.32	3.53
'D' PROFILE O-RINGS - CATERPILLAR® SPECIFICATION					
YD-12	3/4"			25.4	5
YD-16	1"			31.9	5
YD-20	1.1/4"			38.2	5
YD-24	1.1/2"			44.7	5
YD-32	2"			63.9	5

† SAE Standard not applicable on this size (Komatsu specific) See KY-10 for stock and for ordering.

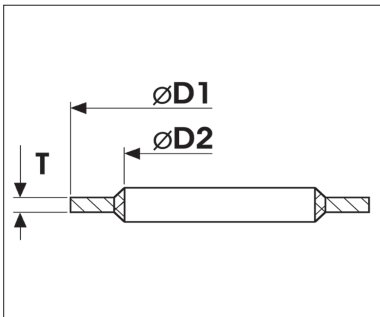


Q SERIES METRIC BONDED SEAL



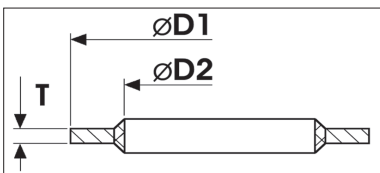
Product Code	Dash Size	BS Number	Dimensions mm		
			OD	ID	T
Q-10	M10	217	18	10.7	1.5
Q-12	M12	222	18	12.7	1.5
Q-14	M14	227	22	14.7	1.5
Q-16	M16	229	24	16.7	1.5
Q-18	M18	232	26	18.7	1.5
Q-20	M20	233	28	20.7	1.5
Q-22	M22	236	30	22.7	2.0
Q-26	M26	239-26mm	35	26.7	2.0
Q-27	M27	240	36	27.2	2.0
Q-30	M30	242-30mm	39	30.7	2.0

Z SERIES BSPB BONDED SEAL - Mild Steel



Product Code	Dash Size	BS Number	Dimensions mm		
			OD	ID	T
Z-02	1/8" - 28	45A	15.9	10.4	2.0
Z-04	1/4" - 19	45B	20.6	13.8	2.0
Z-06	3/8" - 19	45C	23.8	17.3	2.0
Z-08	1/2" - 14	45D	28.6	21.6	2.0
Z-10	5/8" - 14	45E	31.8	23.5	2.5
Z-12	3/4" - 14	45F	34.9	27.1	2.0
Z-16	1" - 11	45H	42.8	33.9	2.5
Z-20	1.1/4" - 11	45J	52.4	42.9	2.5
Z-24	1.1/2" - 11	45K	58.6	48.5	3.4
Z-32	2" - 11	45M	73.1	60.6	3.4

SSZ SERIES BSPB BONDED SEAL - 304 Stainless Steel



Product Code	Dash Size	BS Number	Dimensions mm		
			OD	ID	T
SSZ-04	1/4" - 19	45B	20.6	13.8	2.0
SSZ-06	3/8" - 19	45C	23.8	17.3	2.0
SSZ-08	1/2" - 14	45D	28.6	21.6	2.0
SSZ-12	3/4" - 14	45F	34.9	27.1	2.0
SSZ-16	1" - 11	45H	42.8	33.9	2.5

Bonded Dowty Washers

Two versions: Mild steel zinc plated and 304 Stainless Steel

Steel BS1449 Part 1: 1983 CS4 BRH 5

Tensile strength of steel 540 MN/m² min.

Zinc plated to DEF STAN 03-20/1

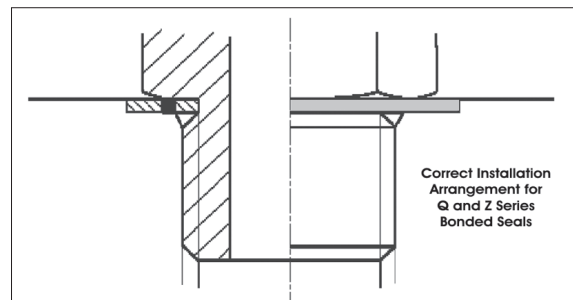
Colour passivated to DEF 03-33

Rubber: NBR nitrile

A rectangular section, metal washer, with a trapezoidal shaped ring of vulcanised nitrile rubber bonded to the inside.

The seal is for use in high pressure environments where copper washers are unsuitable.

Sometimes equipped with a thin additional membrane to assist in self centralising the seal over the BSPB thread during installation.

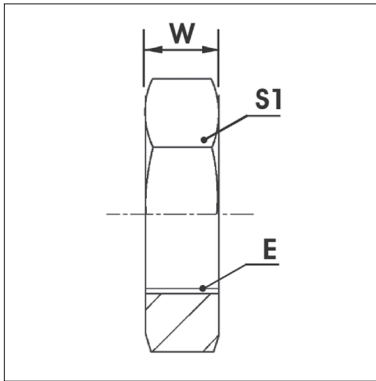


Correct Installation Arrangement for Q and Z Series Bonded Seals



FF1332 SERIES

LOCK NUT FOR ORFS ADAPTERS

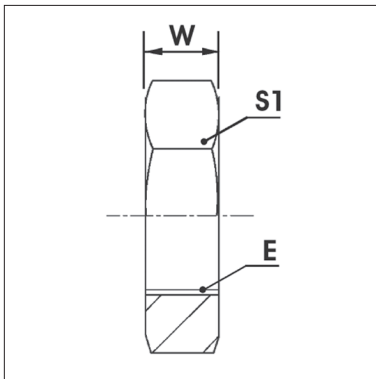


Product Code	Dash Size	ORFS Thread
FF1332-04	04	9/16" - 18
FF1332-06	06	11/16" - 16
FF1332-08	08	13/16" - 16
FF1332-10	10	1" - 14
FF1332-12	12	1.3/16" - 12
FF1332-16	16	1.7/16" - 12
FF1332-20	20	1.11/16" - 12
FF1332-24	24	2" - 12

LJN SERIES

LOCKING NUT JIC

Suits adjustable elbows and Bulkheads using a JIC / UNO thread

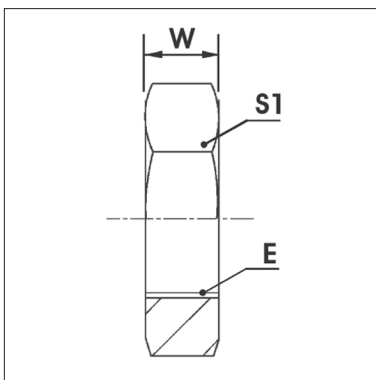


Product Code	Dash Size	Suits JIC Thread
LJN-04	04	7/16" - 28
LJN-06	06	9/16" - 18
LJN-08	08	3/4" - 16
LJN-10	10	7/8" - 14
LJN-12	12	1.1/16" - 12
LJN-16	16	1.5/16" - 12

LNB SERIES

LOCKING NUT BSPP

Suits adjustable elbows and Bulkheads using a BSPP thread



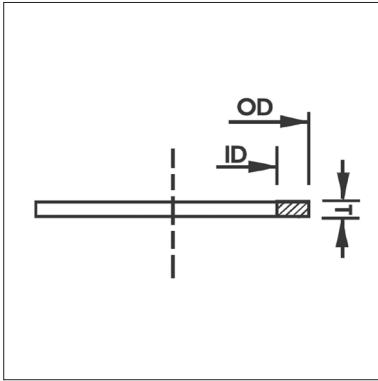
Product Code	Dash Size	Suits BSPP Thread
LNB-02	02	1/8" - 28
LNB-04	04	1/4" - 19
LNB-06	06	3/8" - 19
LNB-08	08	1/2" - 14
LNB-12	12	3/4" - 14
LNB-16	16	1" - 11



RRB SERIES

RETAINING RING BSPP - STEEL

Suits adjustable elbows using a BSPP adjustable thread

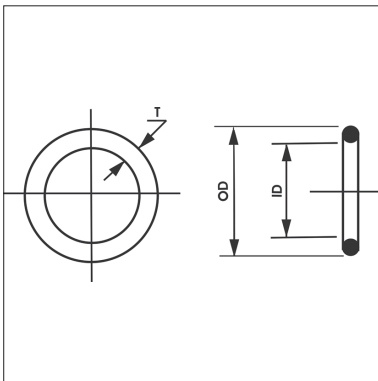


Product Code	Dash Size	Suits BSPP Thread	Dimensions mm		
			OD	ID	T
RRB-02	02	1/8" - 28	15.0	12.0	1.4
RRB-04	04	1/4" - 19	19.5	15.8	1.9
RRB-06	06	3/8" - 19	23.5	19.4	1.9
RRB-08	08	1/2" - 14	28.5	23.0	1.9
RRB-12	12	3/4" - 14	34.5	28.5	1.9
RRB-16	16	1" - 11	43.5	36.4	2.6
RRB-20	20	1.1/4" - 11	52.5	45.2	2.6
RRB-24	24	1.1/2" - 11	60.0	50.7	2.6

RROB SERIES

O-RING TO SUIT BSPP

Suits adjustable elbows using a BSPP adjustable thread - NBR - 90 Duro



Product Code	Dash Size	Suits BSPP Size	BS Number	Dimensions mm		
				OD	ID	T
RROB-02	02	1/8" - 28	BS011	11.21	7.65	1.78
RROB-04	04	1/4" - 19	BS111	16.00	10.77	2.62
RROB-06	06	3/8" - 19	BS113	19.19	13.95	2.62
RROB-08	08	1/2" - 14	BS115	22.36	17.142	2.62
RROB-12	12	3/4" - 14	BS119	28.71	23.47	2.62
RROB-16	16	1" - 11	BS217	36.80	29.74	3.53
RROB-20	20	1.1/4" - 11	BS222	44.75	37.69	3.53
RROB-24	24	1.1/2" - 11	BS224	51.15	44.09	3.53

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