

Hydraulic Hose Fittings

 FCTECH

for NO-SKIVE SOLUTION & 410 BAR HEAVY DUTY



 Manufactured by Korea

| GREETINGS |

According to the move fast development and increasing demand of indispensable machinery, automobiles and heavy industry for the civilized world, the technology to connect organs of them safely and to transmit powers efficiently becomes very important.

Hansoltech is dedicated to developing new products and improving quality so that those civilized devices would interact each other more safely and more efficiently with human beings.

The result of those efforts enabled Hansoltech to succeed in opening business with Tokai Rubber industries, Ltd in Japanese market in 2004 and to supply products to Hyundai, one of the leading heavy industry companies in 2007.

If you want to prepare for the ceaselessly advancing technology and the daily intensifying competition, we recommend you shake hands with those of us who are working enthusiastically and challengingly to satisfy the needs of customer and market.

Opening business with Hansoltech assures your success, your success in return will become our success.

Thank you very much!

| HISTORY |

- May. 2001 Company Founded, Starting with 7 CNC
- Nov. 2002 Moved company to 499-4, Gachon-Ri, Mulgeum-Eup, Yangsan-Si, Kyounghnam, Korea
- Nov. 2004 Opened business with **Tokai Rubber industries, Ltd** in Japanese market
- Dec. 2004 Acquired ISO 9001
- Mar. 2005 Mover company to current location #53-6, Gyo-Dong, Yangsan-Si, Kyounghnam, Korea
Added 7 CNC M/C
- Jan. 2007 Started to supply products to **Hyundai**, one of the leading heavy industry companies.
- Feb. 2007 Opened assembly factory
(2 Crimping Machines, 1 Bending Machine)



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FITTING NOMENCLATURE

C / 1 / G2 / 13 - 16 - 16 S100

1.Type 2.Shape 3.Head Configuration 4.Hose Series 5.Connect Size 6.Hose Size 7.Material 8.Option
 Example Description : Crimp Type, Straight, SAE Flange 62 Code, SAE 100R13 Hose, Connection Size 1",
 Hose Size 1", Stainless Steel, Special Drop Length 100mm

1.Type

C : Crimping/Permanent Type with No-Skive Hose
 S : Crimping Type with Skive Hose
 NS : No-Skive Type Shell
 SS : Skive Type Shell

2.Shape

Straight : 1 22.5° Elbow : 2 30° Elbow : 3
 45° Elbow : 4 60° Elbow : 6 67.5° Elbow : 7
 90° Elbow : 9

3. Head Configuration or Connection Type

C : JIS B8363 60° Cone with PF Thread Nut
 F : JIS B8363 30° Flare with PF Thread Nut
 M : JIS B8363 30° Flare with Metric Thread Nut
 X : SAE J516 37° Flare (74° Cone) with UN(F) Thread
 Y : Male JIC 37°
 R : SAE J516 O-ring Face Seal with UN(F) Thread
 L : SAE J516 Long O-ring Face Seal with UN(F) Thread
 G1 : SAE J518 Flange 61 Code
 G2 : SAE J518 Flange 62 Code
 P : PT Male Pipe Taper Thread
 N : NPTF Male Pipe Taper Thread
 U : PF Male Thread

4. Hose Series

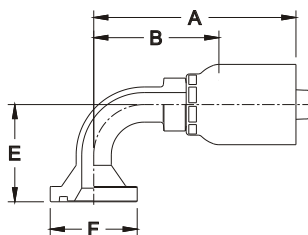
09 : SAE 100R1,2,3,9, EN853 1SN, 2SN
 12 : SAE 100R12
 13 : SAE 100R13
 CT : Pilot Hose Fittings
 CA : for 420Bar(Ultra Heavy Duty)

7. Material

Blank : Steel
 B : Brass
 S : Stainless Steel

8. Option

Drop Length : Actual Drop Length Ex) D100,D125



B : Cut-Off Allowance, F : Flange Dia., E : Drop Length

6. Hose Size		5. Connect Size		5. Connect Size		5. Connect Size	
Dash Size	Hose Inner Dia.	Dash Size	JIS B8363 PT/PF Th.d	Dash Size	NPT(F) Thread	Dash Size	SAE J514 37° Flare UNF
-2	1/8"	-2	1/8-28	-2	1/8-27	-2	5/16-24
-3	3/16"	-4	1/4-19	-4	1/4-18	-3	3/8-24
-4	1/4"	-6	3/8-19	-6	3/8-18	-4	7/16-20
-5	5/16"	-8	1/2-14	-8	1/2-14	-5	1/2-20
-6	3/8"	-12	3/4-14	-12	3/4-14	-6	9/16-18
-8	1/2"	-16	1-11	-16	1-11.5	-8	3/4-16
-10	5/8"	-20	1-1/4-11	-20	1-1/4-11.5	-10	7/8-14
-12	3/4"	-24	1-1/2-11	-24	1-1/2-11.5	-12	1-1/16-12
-14	7/8"	-32	2-11	-32	2-11.5	-14	1-3/16-12
-16	1"					-16	1-5/16-12
-20	1-1/4"					-20	1-5/8-12
-24	1-1/2"					-24	1-7/8-12
-32	2"					-32	2-1/2-12

5. Connect Size		5. Connect Size		5. Connect Size		5. Connect Size	
Dash Size	SAE J1453 ORFS	Tube Size	DIN 2353 24° Cone Heavy	Tube Size	DIN 2353 24° Cone Light	Dash Size	SAE Flange Dia. 61(62)
-2		6	M14X1.5	6	M12X1.5	-8	30.2(31.8)
-3		8	M16X1.5	8	M14X1.5	-12	38.1(41.3)
-4	9/16-18	10	M18X1.5	10	M16X1.5	-16	44.5(47.6)
-5		12	M20X1.5	12	M18X1.5	-20	50.8(54.0)
-6	11-16-16	14	M22X1.5	15	M22X1.5	-24	60.3(63.5)
-8	13/16-16	16	M24X1.5	18	M26X1.5	-32	71.4(79.4)
-10	1-14	20	M30X2.0	22	M30X2.0	Dash Size	JIS B8363 Metric Th.d
-12	1-3/16-12	25	M36X2.0	28	M36X2.0	-4	M14X1.5
-14		30	M42X2.0	35	M42X2.0	-6	M18X1.5
-16	1-7/16-12	38	M52X2.0	42	M52X2.0	-8	M22X1.5
-20	1-11/16-12					-12	M27X2.0
-24	2-12					-16	M33X2.0
-32						-20	M42X2.0

FITTING SELECTION CHART

09 SERIES

Spec.	Shape	Code	Description	Thread	Straight	22.5°	30°	45°	60°	67.5°	90°
SAE		N	Male NPTF	NPTF	C1N09						
		Y	Male JIC 37°	UN	C1Y09						
		X	Female JIC 37° Swivel	UN	C1X09			C4X09			C9X09
		R	Female "SEAL-LOK" Swivel O-Ring Face Seal	UN	C1R09			C4R09			C9R09 C9R09D
		L	Female "SEAL-LOK" Swivel (Long) O-Ring Face Seal	UN	C1L09						
SAE JIS		G1	SAE Code 61 Flange		C1G109			C4G109			C9G109
		G2	SAE Code 62 Flange		C1G209			C4G209			C9G209
JIS		P	Male JIS/BSP Taper Pipe Rigid Straight	PT	C1P09						
		U	Male JIS/BSP Parallel Pipe Rigid Straight (30° Flare)	PF	C1U09						
		M	Female JIS/Metric Swivel(30° Flare)	METRIC	C1M09						
		C	Female JIS/BSP Parallel Pipe Swivel(60° Cone)	PF	C1C09			C4C09			C9C09
		F	Female JIS/BSP Parallel Pipe Swivel(30° Flare)	PF	C1F09						

Application Hose : SAE 100R1,2,3,9, EN853,1SN,2SN








12 SERIES

Spec.	Shape	Code	Description	Thread	Straight	22.5°	30°	45°	60°	67.5°	90°
SAE		N	Male NPTF	NPTF	C1N12						
		Y	Male JIC 37°	UN	C1Y12						
		X	Female JIC 37° Swivel	UN	C1X12			C4X12			C9X12
		R	Female "SEAL-LOK" Swivel O-Ring Face Seal	UN	C1R12			C4R12			C9R12 C9R12D
		L	Female "SEAL-LOK" Swivel (Long) O-Ring Face Seal	UN	C1L12						

Application Hose : SAE 100R12










FITTING SELECTION CHART

12 SERIES

Spec.	Shape	Code	Description	Thread	Straight	22.5°	30°	45°	60°	67.5°	90°
SAE JIS		G1	SAE Code 61 Flange		C1G112	C2G112	C3G112	C4G112	C6G112	C7G112	C9G112
		G2	SAE Code 62 Flange		C1G212			C4G212			C9G212
JIS		P	Male JIS/BSP Taper Pipe Rigid Straight	PT	C1P12						
		U	Male JIS/BSP Parallel Pipe Rigid Straight (30° Flare)	PF	C1U12						
		M	Female JIS/Metric Swivel(30° Flare)	METRIC	C1M12						
		C	Female JIS/BSP Parallel Pipe Swivel(60° Cone)	PF	C1C12			C4C12			C9C12
		F	Female JIS/BSP Parallel Pipe Swivel(30° Flare)	PF	C1F12						

Application Hose : SAE 100R12


13 SERIES

Spec.	Shape	Code	Description	Thread	Straight	22.5°	30°	45°	60°	67.5°	90°
SAE		Y	Male JIC 37°	UN	C1Y13						
		X	Female JIC 37° Swivel	UN	C1X13						
		R	Female "SEAL-LOK" Swivel O-Ring Face Seal	UN	C1R13			C4R13			C9R13
SAE JIS		G1	SAE Code 61 Flange		C1G113	C2G113	C3G113	C4G113	C6G113	C7G113	C9G113
		G2	SAE Code 62 Flange		C1G213			C4G213			C9G213
JIS		P	Male JIS/BSP Taper Pipe Rigid Straight	PT	C1P13						
		C	Female JIS/BSP Parallel Pipe Swivel(60° Cone)	PF	C1C13			C4C13			C9C13
		F	Female JIS/BSP Parallel Pipe Swivel(30° Flare)	PF	C1F13						
		U	Male JIS/BSP Parallel Pipe Rigid Straight (30° Flare)	PF	C1U13						

Application Hose : SAE 100R13


FITTING SELECTION CHART

CT SERIES

Spec.	Shape	Code	Description	Thread	Straight	22.5°	30°	45°	60°	67.5°	90°
SAE		R	Female "SEAL-LOK" Swivel O-Ring Face Seal		C1RCT			C4RCT			C9RCT

Application Hose : Pilot Hose

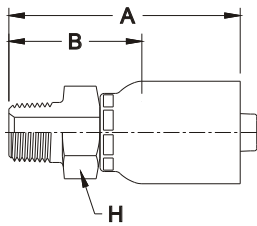
CA SERIES

Spec.	Shape	Code	Description	Thread	Straight	22.5°	30°	45°	60°	67.5°	90°
SAE		CA	SAE Code 61 Flange		C1CA13	C2CA13	C3CA13	C4CA13	C6CA13	C7CA13	C9CA13

Application Hose : 420Bar Heavy Duty

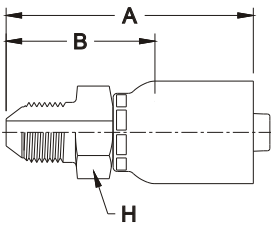
09 SERIES FITTING

C1N09 | Male NPTF



Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	NPTF		inch	mm		inch	mm
C1N09-2-4	1/8X27	1/4	1.79	45	9/16	1.04	26
C1N09-4-4	1/4X18	1/4	2.01	51	9/16	1.26	32
C1N09-6-4	3/8X18	1/4	1.86	47	11/16	1.11	28
C1N09-6-6	3/8X18	3/8	2.37	60	3/4	1.34	34
C1N09-8-6	1/2X14	3/8	2.39	61	7/8	1.36	35
C1N09-8-8	1/2X14	1/2	2.84	72	7/8	1.58	40
C1N09-12-8	3/4X14	1/2	2.68	68	1-1/16	1.42	36
C1N09-12-10	3/4X14	5/8	2.87	73	1-1/16	1.43	36
C1N09-12-12	3/4X14	3/4	3.09	78	1-1/16	1.65	42
C1N09-16-12	1X11-1/2	3/4	3.09	78	1-3/8	1.65	42
C1N09-16-16	1X11-1/2	1	3.59	91	1-3/8	1.97	50
C1N09-20-20	1-1/4X11-1/2	1 1/4	4.08	104	1-3/4	2.39	61
C1N09-24-24	1-1/2X11-1/2	1 1/2	3.50	89	2	2.13	54
C1N09-32-32	2X11-1/2	2	4.05	103	2-1/2	2.27	58

C1Y09 | Male SAE 37°

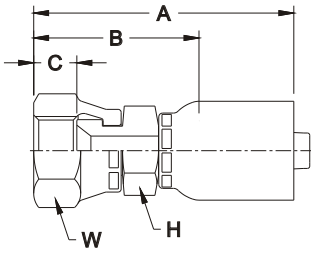


Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	UN		inch	mm		inch	mm
C1Y09-4-4	7/16X20	1/4	1.99	51	9/16	1.24	31
C1Y09-5-4	1/2X20	1/4	1.83	47	9/16	1.08	27
C1Y09-5-5	1/2X20	5/16	1.91	49	9/16	1.16	29
C1Y09-6-4	9/16X18	4/16	1.84	47	11/16	1.09	28
C1Y09-6-6	9/16X18	3/8	2.36	60	3/4	1.33	34
C1Y09-8-6	3/4X16	3/8	2.30	58	7/8	1.27	32
C1Y09-8-8	3/4X16	1/2	2.68	68	7/8	1.42	36
C1Y09-10-8	7/8X14	1/2	2.62	66	15/16	1.36	35
C1Y09-10-10	7/8X14	5/8	3.03	77	15/16	1.59	40
C1Y09-12-12	1-1/16X12	3/4	3.19	81	1-1/8	1.75	44
C1Y09-16-16	1-5/16X12	1	3.63	92	1-3/8	2.01	51
C1Y09-20-20	1-5/8X12	1 1/4	3.96	101	1-7/8	2.27	58
C1Y09-24-24	1-7/8X12	1 1/2	3.34	85	2	1.97	50



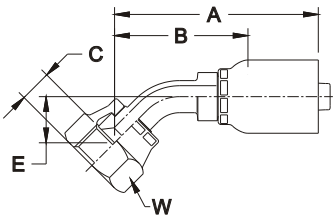
09 SERIES FITTING

C1X09 | Female SAE 37° Swivel



Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN		inch	mm			inch	mm	inch	mm
C1X09-4-4	7/16X20	1/4	1.93	49	9/16	9/16	1.18	30	0.34	8.6
C1X09-5-4	1/2X20	1/4	2.02	51	9/16	5/8	1.27	32	0.37	9.4
C1X09-5-5	1/2X20	5/16	2.07	53	11/16	5/8	1.32	33	0.37	9.4
C1X09-6-4	9/16X18	1/4	2.04	52	9/16	11/16	1.29	33	0.37	9.4
C1X09-6-5	9/16X18	5/16	2.09	53	11/16	11/16	1.34	34	0.37	9.4
C1X09-6-6	9/16X18	3/8	2.28	58	11/16	11/16	1.25	32	0.37	9.4
C1X09-8-6	3/4X16	3/8	2.39	61	11/16	7/8	1.36	35	0.42	10.7
C1X09-8-8	3/4X16	1/2	2.61	66	13/16	7/8	1.35	34	0.42	10.7
C1X09-10-6	7/8X14	3/8	2.49	63	7/8	1	1.46	37	0.49	12.4
C1X09-10-8	7/8X14	1/2	2.83	72	7/8	1	1.57	40	0.49	12.4
C1X09-10-10	7/8X14	5/8	2.91	74	15/16	1	1.47	37	0.49	12.4
C1X09-12-8	1-1/16X12	1/2	2.77	70	1-1/16	1-1/4	1.51	38	0.56	14.2
C1X09-12-10	1-1/16X12	5/8	3.09	79	1-1/16	1-1/4	1.65	42	0.56	14.2
C1X09-12-12	1-1/16X12	3/4	3.16	80	1-1/16	1-1/4	1.72	44	0.56	14.2
C1X09-12-16	1-1/16X12	1	3.48	88	1-3/8	1-1/4	1.86	47	0.56	14.2
C1X09-16-12	1-5/16X12	3/4	3.30	84	1-1/4	1-1/2	1.86	47	0.60	15.2
C1X09-16-16	1-5/16X12	1	3.61	92	1-3/8	1-1/2	1.99	51	0.60	15.2
C1X09-20-16	1-5/8X12	1	3.79	96	1-5/8	2	2.17	55	0.62	15.7
C1X09-20-20	1-5/8X12	1 1/4	3.92	100	1-7/8	2	2.23	57	0.62	15.7
C1X09-24-20	1-7/8X12	1 1/4	4.12	105	2-1/8	2-1/4	2.43	62	0.74	18.8
C1X09-24-24	1-7/8-12	1 1/2	3.83	97	2-1/8	2-1/4	2.46	62	0.74	18.8
C1X09-32-32	2-1/2X12	2	4.71	120	2-1/2	2-7/8	2.93	74	0.93	23.6

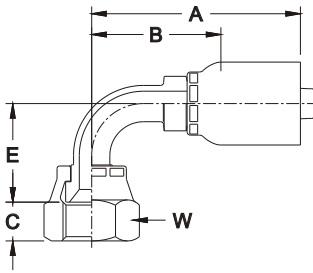
C4X09 | Female SAE 37° Swivel-45° Elbow



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN		inch	inch		mm	inch	mm	inch	mm	inch
C4X09-4-4	7/16X20	1/4	1.97	50	9/16	1.22	31	0.39	10	0.34	8.6
C4X09-5-4	1/2X20	1/4	1.97	50	5/8	1.22	31	0.39	10	0.37	9.4
C4X09-6-4	9/16X18	1/4	2.00	51	11/16	1.25	32	0.43	11	0.37	9.4
C4X09-6-6	9/16X18	3/8	2.34	59	11/16	1.31	33	0.43	11	0.37	9.4
C4X09-8-6	3/4X16	3/8	2.46	63	7/8	1.44	36	0.55	14	0.42	10.7
C4X09-8-8	3/4X16	1/2	2.82	72	7/8	1.57	40	0.59	15	0.42	10.7
C4X09-10-8	7/8X14	1/2	2.86	73	1	1.61	41	0.59	15	0.49	12.4
C4X09-10-10	7/8X14	5/8	3.17	80	1	1.72	44	0.63	16	0.49	12.4
C4X09-12-10	1-1/16X12	5/8	3.63	92	1-1/4	2.19	56	0.83	21	0.56	14.2
C4X09-12-12	1-1/16X12	3/4	3.91	99	1-1/4	2.47	63	1.06	27	0.56	14.2
C4X09-16-12	1-5/16X12	3/4	3.75	95	1-1/2	2.32	59	0.94	24	0.60	15.2
C4X09-16-16	1-5/16X12	1	4.76	121	1-1/2	3.14	80	1.30	33	0.60	15.2
C4X09-20-20	1-5/8X12	1 1/4	5.84	148	2	4.15	105	1.77	45	0.62	15.7

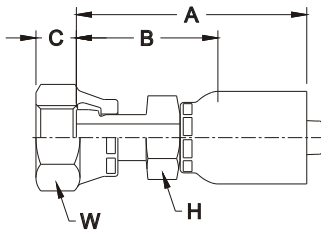
09 SERIES FITTING

C9X09 | Female SAE 37° Swivel-90° Elbow



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN		inch	mm		inch	mm	inch	mm	inch	mm
C9X09-4-4	7/16X20	1/4	1.79	45	9/16	1.04	26	0.83	21	0.34	8.6
C9X09-5-4	1/2X20	1/4	1.79	45	5/8	1.03	26	0.83	21	0.37	9.4
C9X09-6-4	9/16X18	1/4	1.78	45	11/16	1.02	26	0.87	22	0.37	9.4
C9X09-6-6	9/16X18	6/16	2.21	56	11/16	1.18	30	0.91	23	0.37	9.4
C9X09-8-6	3/4X16	3/8	2.21	56	7/8	1.18	30	1.10	28	0.42	10.7
C9X09-8-8	3/4X16	1/2	2.58	66	7/8	1.32	34	1.22	31	0.42	10.7
C9X09-10-8	7/8X14	1/2	2.58	66	1	1.32	34	1.22	31	0.49	12.4
C9X09-10-10	7/8X14	5/8	2.97	76	1	1.53	39	1.34	34	0.49	12.4
C9X09-12-10	1-1/16X12	5/8	2.98	76	1-1/4	1.53	39	1.89	48	0.56	14.2
C9X09-12-12	1-1/16X12	3/4	3.49	89	1-1/4	2.05	52	2.09	53	0.56	14.2
C9X09-16-12	1-5/16X12	3/4	3.49	89	1-1/2	2.05	52	2.20	56	0.60	15.2
C9X09-16-16	1-5/16X12	1	4.31	109	1-1/2	2.69	68	2.91	74	0.60	15.2
C9X09-20-16	1-5/8X12	1	4.37	111	2	2.75	70	3.07	78	0.62	15.7
C9X09-20-20	1-5/8X12	1 1/4	5.10	129	2	3.41	87	3.35	85	0.62	15.7
C9X09-24-24	1-7/8X12	1 1/2	5.64	143	2-1/4	4.27	109	4.33	110	0.74	18.8

C1L09 | Female "SEAL-LOK" Swivel Straight (Long) O-Ring Face Seal

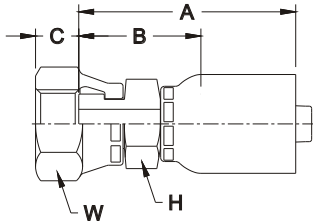


Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN		inch	mm			inch	mm	inch	mm
C1L09-4-4	9/16X18	1/4	2.07	53	9/16	11/16	1.32	33	0.30	7.6
C1L09-6-4	11/16X16	1/4	2.14	54	11/16	13/16	1.39	35	0.33	8.4
C1L09-6-6	11/16X16	3/8	2.28	58	11/16	13/16	1.25	32	0.33	8.4
C1L09-8-6	13/16X16	3/8	2.53	64	13/16	15/16	1.50	38	0.42	10.7
C1L09-8-8	13/16X16	1/2	2.65	67	13/16	15/16	1.39	35	0.42	10.7
C1L09-8-10	13/16X16	5/8	2.82	72	15/16	15/16	1.38	35	0.42	10.7
C1L09-10-10	1X14	5/8	3.09	79	15/16	1-1/8	1.65	42	0.46	11.7
C1L09-12-12	1-3/16X12	3/4	3.31	84	1-1/8	1-3/8	1.87	48	0.54	13.7
C1L09-16-16	1-7/16X12	1	3.62	92	1-3/8	1-5/8	2.00	51	0.55	14.0



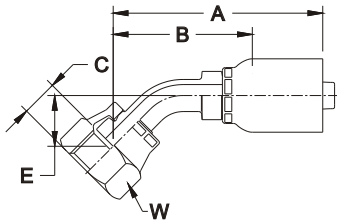
09 SERIES FITTING

C1R09 | Female "SEAL-LOK" Swivel Straight O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN		inch	mm			inch	mm	inch	mm
C1R09-4-4	9/16X18	1/4	1.63	41	9/16	11/16	0.88	22	0.30	7.6
C1R09-4-4M	9/16X18	1/4	1.63	41	17	17	0.88	22	0.30	7.6
C1R09-4-6	9/16X18	3/8	1.90	48	11/16	11/16	0.87	22	0.30	7.6
C1R09-6-4	11/16X16	1/4	1.67	42	11/16	13/16	0.92	23	0.33	8.4
C1R09-6-4M	11/16X16	1/4	1.67	42	17	22	0.92	23	0.33	8.4
C1R09-6-5	11/16X16	5/16	1.75	44	11/16	13/16	1.00	25	0.33	8.4
C1R09-6-6	11/16X16	6/16	1.94	49	11/16	13/16	0.91	23	0.33	8.4
C1R09-6-6M	11/16X16	3/8	1.94	49	19	22	0.91	23	0.33	8.4
C1R09-6-8	11/16X16	1/2	2.16	55	13/16	13/16	0.90	23	0.33	8.4
C1R09-8-6	13/16X16	3/8	2.00	51	13/16	15/16	0.97	25	0.42	10.7
C1R09-8-6M	13/16X16	3/8	2.00	51	19	24	0.97	25	0.42	10.7
C1R09-8-8	13/16X16	1/2	2.22	56	13/16	15/16	0.96	24	0.42	10.7
C1R09-8-8M	13/16X16	1/2	2.22	56	22	24	0.96	24	0.42	10.7
C1R09-8-10M	13/16X16	5/8	2.39	61	22	24	0.95	24	0.42	10.7
C1R09-8-12	13/16X16	3/4	2.54	65	1-1/8	15/16	1.10	28	0.42	10.7
C1R09-10-8	1X14	1/2	2.30	58	15/16	1-1/8	1.04	26	0.46	11.7
C1R09-10-8M	1X14	1/2	2.30	58	24	30	1.04	26	0.46	11.7
C1R09-10-10	1X14	5/8	2.49	63	15/16	1-1/8	1.05	27	0.46	11.7
C1R09-10-10M	1X14	5/8	2.49	63	24	30	1.05	27	0.46	11.7
C1R09-12-8	1-3/16X12	1/2	2.48	63	1-1/8	1-3/8	1.22	31	0.54	13.7
C1R09-12-8M	1-3/16X12	1/2	2.48	63	32	36	1.22	31	0.54	13.7
C1R09-12-10	1-3/16X12	5/8	2.67	68	1-1/8	1-3/8	1.23	31	0.54	13.7
C1R09-12-10M	1-3/16X12	5/8	2.67	68	32	36	1.23	31	0.54	13.7
C1R09-12-12	1-3/16X12	3/4	2.68	68	1-1/8	1-3/8	1.24	31	0.54	13.7
C1R09-12-12M	1-3/16X12	3/4	2.68	68	32	36	1.24	32	0.54	13.7
C1R09-12-16	1-3/16X12	1	2.99	76	1-5/16	1-3/8	1.37	35	0.54	13.7
C1R09-16-12	1-7/16X12	3/4	2.83	72	1-3/8	1-5/8	1.39	35	0.55	14.0
C1R09-16-12M	1-7/16X12	3/4	2.83	72	36	41	1.39	35	0.55	14.0
C1R09-16-16	1-7/16X12	1	3.14	80	1-3/8	1-5/8	1.52	39	0.55	14.0
C1R09-16-16M	1-7/16X12	1	3.14	80	36	41	1.52	39	0.55	14.0
C1R09-20-16	1-11/16X12	1	3.08	78	1-5/8	1-7/8	1.46	37	0.57	14.5
C1R09-20-16M	1-11/16X12	1	3.08	78	41	50	1.46	37	0.57	14.5
C1R09-20-20	1-11/16X12	1 1/4	3.27	83	1-7/8	1-7/8	1.58	40	0.57	14.5
C1R09-20-20M	1-11/16X12	1 1/4	3.27	83	50	50	1.58	40	0.57	14.5

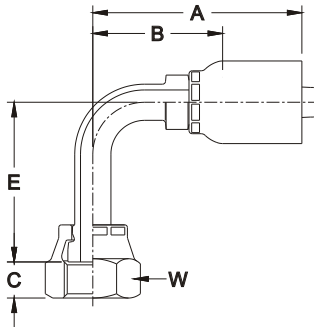
C4R09 | Female "SEAL-LOK" Swivel 45° Elbow O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN		inch	mm		inch	mm	inch	mm	inch	mm
C4R09-4-4	9/16X18	1/4	1.97	50	11/16	1.21	31	0.39	10	0.30	7.6
C4R09-6-4	11/16X16	1/4	2.00	51	13/16	1.24	32	0.43	11	0.33	8.4
C4R09-6-6	11/16X16	3/8	2.34	59	13/16	1.31	33	0.43	11	0.33	8.4
C4R09-6-6M	11/16X16	3/8	2.61	66	22	1.58	40	0.71	18	0.33	8.4
C4R09-8-6	13/16X16	3/8	2.53	64	15/16	1.50	38	0.59	15	0.42	10.7
C4R09-8-8	13/16X16	1/2	2.82	72	15/16	1.57	40	0.59	15	0.42	10.7
C4R09-8-8M	13/16X16	1/2	2.82	72	24	1.57	40	0.59	15	0.42	10.7
C4R09-10-8	1X14	1/2	2.93	74	1-1/8	1.67	42	0.63	16	0.46	11.7
C4R09-10-10	1X14	5/8	3.18	81	1-1/8	1.73	44	0.63	16	0.46	11.7
C4R09-12-12	1-3/16X12	3/4	3.63	92	1-3/8	2.19	56	0.83	21	0.54	13.7
C4R09-12-12M	1-3/16X12	3/4	3.63	92	36	2.19	56	0.83	21	0.54	13.7
C4R09-16-12	1-7/16X12	3/4	3.75	95	1-5/8	2.32	59	0.94	24	0.55	14.0
C4R09-16-16	1-7/16X12	1	4.38	111	1-5/8	2.76	70	0.94	24	0.55	14.0
C4R09-16-16M	1-7/16X12	1	4.38	111	41	2.76	70	0.94	24	0.55	14.0
C4R09-20-20	1-11/16X12	1 1/4	5.70	145	1-7/8	4.02	102	1.61	41	0.57	14.5
C4R09-24-24	2X12	1 1/2	6.14	156	2-1/4	4.77	121	1.89	48	0.60	15.2

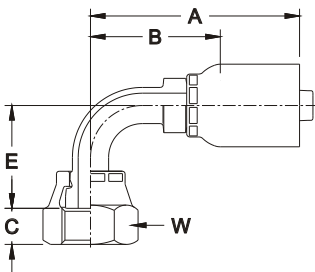
09 SERIES FITTING

C9R09D | Female "SEAL-LOK" Swivel 90° Elbow(Long) O-Ring Face Seal



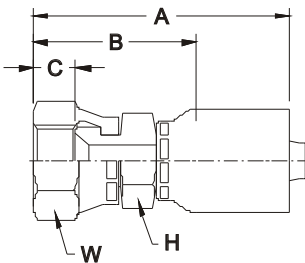
Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN	inch	inch	mm		inch	mm	inch	mm	inch	mm
C9R09-4-4D	9/16X18	1/4	1.87	47	11/16	1.11	28	1.81	46	0.30	7.6
C9R09-6-6D	11/16X16	3/8	2.39	61	13/16	1.36	35	2.13	54	0.33	8.4
C9R09-8-8D	13/16X16	1/2	2.58	66	15/16	1.32	34	2.51	64	0.42	10.7
C9R09-10-10D	1X14	5/8	3.19	81	1-1/8	1.74	44	2.76	70	0.46	11.7
C9R09-12-12D	1-3/16X12	3/4	3.49	89	1-3/8	2.05	52	3.78	96	0.54	13.7
C9R09-12-12DM	1-3/16X12	3/4	3.49	89	36	2.05	52	3.78	96	0.54	13.7

C9R09 | Female "SEAL-LOK" Swivel 90° Elbow(Short) O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN	inch	inch	mm		inch	mm	inch	mm	inch	mm
C9R09-4-4	9/16X18	1/4	1.78	45	11/16	1.02	26	0.83	21	0.30	7.6
C9R09-4-4M	9/16X18	1/4	1.78	45	17	1.02	26	0.83	21	0.30	7.6
C9R09-6-4	11/16X16	1/4	1.81	46	13/16	1.06	27	0.91	23	0.33	8.4
C9R09-6-6	11/16X16	3/8	2.20	56	13/16	1.18	30	0.91	23	0.33	8.4
C9R09-6-6M	11/16X16	3/8	2.20	56	22	1.18	30	0.91	23	0.33	8.4
C9R09-8-6	13/16X16	3/8	2.28	58	15/16	1.25	32	1.14	29	0.42	10.7
C9R09-8-8	13/16X16	1/2	2.58	66	15/16	1.32	34	1.14	29	0.42	10.7
C9R09-8-8M	13/16X16	1/2	2.58	66	24	1.32	34	1.14	29	0.42	10.7
C9R09-10-8	1X14	1/2	2.74	70	1-1/8	1.48	38	1.26	32	0.46	11.7
C9R09-10-10	1X14	5/8	2.97	76	1-1/8	1.53	39	1.26	32	0.46	11.7
C9R09-12-10	1-3/16X12	5/8	3.20	81	1-3/8	1.75	45	1.89	48	0.54	13.7
C9R09-12-12	1-3/16X12	3/4	3.49	89	1-3/8	2.05	52	1.89	48	0.54	13.7
C9R09-12-12M	1-3/16X12	3/4	3.49	89	36	2.05	52	1.89	48	0.54	13.7
C9R09-16-16	1-7/16X12	1	4.31	110	1-5/8	2.69	68	2.20	56	0.55	14.0
C9R09-16-16M	1-7/16X12	1	4.31	110	41	2.69	68	2.20	56	0.55	14.0
C9R09-20-20	1-11/16X12	1 1/4	5.10	129	1-7/8	3.41	87	3.23	82	0.57	14.5
C9R09-24-24	2X12	1 1/2	5.52	140	2-1/4	4.15	105	3.96	101	0.60	15.2

C1F09 | Female JIS/BSP Parallel Pipe Swivel Straight(30° Flare)

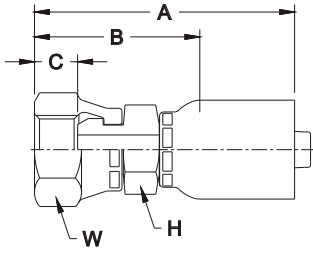


Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	PF	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1F09-4-4	1/4X19	1/4	2.01	51	19	19	1.26	32	0.35	8.9
C1F09-6-4	3/8X19	1/4	2.16	55	24	22	1.41	36	0.39	9.9
C1F09-6-6	3/8X19	3/8	2.43	62	24	22	1.40	36	0.39	9.9
C1F09-8-8	1/2X14	1/2	2.78	71	27	27	1.52	39	0.47	11.9
C1F09-12-10	3/4X14	5/8	3.16	80	36	36	1.72	44	0.50	12.7
C1F09-12-12	3/4X14	3/4	3.17	80	36	36	1.73	44	0.50	12.7
C1F09-16-16	1X11	1	3.64	92	41	41	2.02	51	0.58	14.7
C1F09-20-20	1-1/4X11	1 1/4	3.98	101	50	50	2.29	58	0.60	15.2



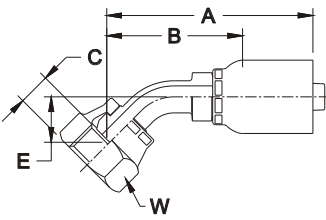
09 SERIES FITTING

C1C09 | Female JIS/BSP Parallel Pipe Swivel Straight(60° Cone)



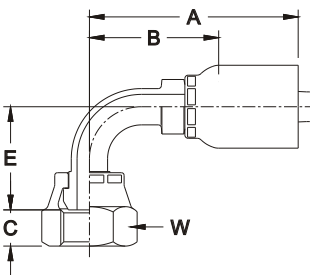
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	PF	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1C09-4-4	1/4X19	1/4	2.07	53	19	19	1.32	33	0.23	5.8
C1C09-6-4	3/8X19	1/4	2.17	55	22	22	1.42	36	0.27	6.9
C1C09-6-5	3/8X19	5/16	2.25	57	22	22	1.49	38	0.27	6.9
C1C09-6-6	3/8X19	3/8	2.44	62	22	22	1.41	36	0.27	6.9
C1C09-8-6	1/2X14	3/8	2.57	65	27	27	1.54	39	0.35	8.9
C1C09-8-8	1/2X14	1/2	2.79	71	27	27	1.54	39	0.35	8.9
C1C09-12-8	3/4X14	1/2	3.02	77	36	36	1.77	45	0.38	9.7
C1C09-12-10	3/4X14	5/8	3.22	82	36	36	1.78	45	0.38	9.7
C1C09-12-12	3/4X14	3/4	3.22	82	36	36	1.79	45	0.38	9.7
C1C09-16-12	1X11	3/4	3.42	87	41	41	1.98	50	0.46	11.7
C1C09-16-16	1X11	1	3.73	95	41	41	2.11	54	0.46	11.7
C1C09-20-20	1-1/4X11	1 1/4	4.05	103	50	50	2.36	60	0.48	12.2
C1C09-24-24	1-1/2X11	1 1/2	3.91	99	60	60	2.54	65	0.48	12.2
C1C09-32-24	2X11	1 1/2	4.09	104	70	70	2.72	69	0.58	14.7
C1C09-32-32	2X11	2	4.49	114	70	70	2.71	69	0.58	14.7

C4C09 | Female JIS/BSP Parallel Pipe Swivel 45° Elbow(60° Cone)



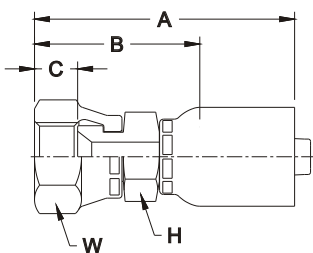
Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	PF	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C4C09-4-4	1/4X19	1/4	2.20	56	19	1.45	37	0.63	16	0.23	5.8
C4C09-6-6	3/8X19	3/8	2.57	65	22	1.55	39	0.67	17	0.27	6.9
C4C09-8-8	1/2X14	1/2	3.06	78	27	1.80	46	0.83	21	0.35	8.9
C4C09-12-12	3/4X14	3/4	3.82	97	36	2.38	61	1.02	26	0.38	9.7
C4C09-16-16	1X11	1	4.80	122	41	3.18	81	1.30	33	0.46	11.7
C4C09-20-20	1-1/4X11	1 1/4	5.86	149	50	4.17	106	1.81	46	0.48	12.2
C4C09-24-24	1-1/2X11	1 1/2	6.33	161	60	4.96	126	2.09	53	0.48	12.2

C9C09 | Female JIS/BSP Parallel Pipe Swivel 90° Elbow(60° Cone)



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	PF	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C9C09-4-4	1/4X19	1/4	1.78	45	19	1.03	26	1.14	29	0.23	5.8
C9C09-6-6	3/8X19	3/8	2.20	56	22	1.18	30	1.30	33	0.27	6.9
C9C09-8-6	1/2X14	3/8	2.45	62	27	1.42	36	1.61	41	0.35	8.9
C9C09-8-8	1/2X14	1/2	2.70	69	27	1.44	37	1.61	41	0.35	8.9
C9C09-12-12	3/4X14	3/4	3.49	89	36	2.05	52	2.17	55	0.38	9.7
C9C09-16-16	1X11	1	4.70	119	41	3.08	78	2.89	74	0.46	11.7
C9C09-20-20	1-1/4X11	1 1/4	5.10	129	50	3.41	87	3.48	89	0.48	12.2
C9C09-24-24	1-1/2X11	1 1/2	5.57	141	60	4.20	107	4.33	110	0.48	12.2

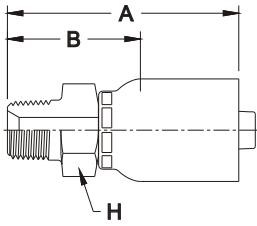
C1M09 | Female JIS/Metric Swivel Straight(30° Flare)



Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	Metric	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1M09-4-4	M14X1.5	1/4	2.06	52	19	19	1.31	33	0.40	10.2
C1M09-6-4	M18X1.5	1/4	2.17	55	24	24	1.42	36	0.40	10.2
C1M09-6-6	M18X1.5	3/8	2.44	62	24	24	1.41	36	0.40	10.2
C1M09-8-8	M22X1.5	1/2	2.82	72	27	27	1.56	40	0.51	13.0
C1M09-12-12	M27X2	3/4	3.16	80	36	36	1.72	44	0.49	12.4
C1M09-16-16	M33X2	1	3.57	91	41	41	1.95	50	0.51	13.0
C1M09-20-20	M42X2	1 1/4	3.95	100	50	50	2.26	57	0.57	14.5

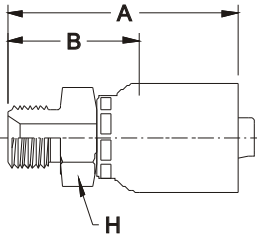
09 SERIES FITTING

C1P09 | Male JIS/BSP Taper Pipe-Rigid Straight



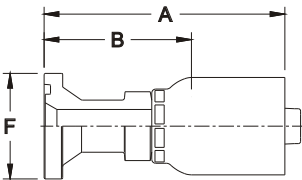
Part No	Thread Size	Hose Size	A		HEX H mm	Cut-Off Allowance B	
	PT		inch	mm		inch	mm
C1P09-4-4	1/4X19	1/4	1.92	49	19	1.17	30
C1P09-6-4	3/8X19	1/4	1.98	50	22	1.23	31
C1P09-6-6	3/8X19	3/8	2.24	57	22	1.22	31
C1P09-8-8	1/2X14	1/2	2.68	68	27	1.42	36
C1P09-12-12	3/4X14	3/4	2.98	76	36	1.54	39
C1P09-16-16	1X11	1	3.48	88	41	1.86	47
C1P09-20-20	1-1/4X11	1 1/4	3.79	96	50	2.10	53
C1P09-24-24	1-1/2X11	1 1/2	3.43	87	60	2.06	52
C1P09-32-32	2-11	2	4.20	107	70	2.42	61

C1U09 | Male JIS/BSP Parallel Pipe-Rigid Straight (30° Flare)



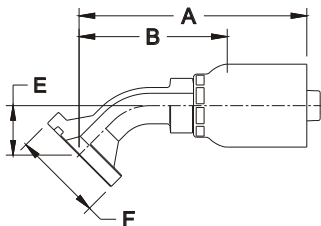
Part No	Thread Size	Hose Size	A		HEX H mm	Cut-Off Allowance B	
	PF		inch	mm		inch	mm
C1U09-4-4	1/4X19	1/4	1.93	49	19	1.18	30
C1U09-6-6	3/8X19	3/8	2.29	58	22	1.26	32
C1U09-8-8	1/2X14	1/2	2.65	67	27	1.39	35
C1U09-12-12	3/4X14	3/4	3.02	77	36	1.58	40
C1U09-16-16	1X11	1	3.45	88	41	1.83	46
C1U09-20-20	1-1/4X11	1 1/4	3.77	96	50	2.08	53
C1U09-24-24	1-1/2X11	1 1/2	3.58	91	60	2.21	56

C1G109 | SAE Code 61 Flange Straight



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
			inch	mm	inch	mm	inch	mm
C1G109-8-8	1/2	1/2	3.48	88	2.22	56	1.19	30.2
C1G109-12-12	3/4	3/4	3.86	98	2.42	61	1.50	38.1
C1G109-12-8	3/4	1/2	2.46	62	1.20	31	1.50	38.1
C1G109-16-12	1	3/4	2.74	70	1.31	33	1.75	44.5
C1G109-16-16	1	1	4.25	108	2.63	67	1.75	44.5
C1G109-20-16	1 1/4	1	3.20	81	1.58	40	2.00	50.8
C1G109-20-20	1 1/4	1 1/4	4.70	119	3.01	76	2.00	50.8
C1G109-24-20	1 1/2	1 1/4	3.22	82	1.54	39	2.38	60.3
C1G109-24-24	1 1/2	1 1/2	4.59	117	3.22	82	2.38	60.3
C1G109-32-24	2	1 1/2	3.14	80	1.77	45	2.81	71.4
C1G109-32-32	2	2	4.99	127	3.21	82	2.81	71.4

C4G109 | SAE Code 61 Flange 45° Elbow

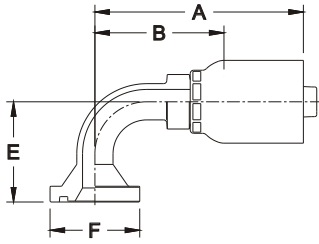


Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C4G109-12-12	3/4	3/4	3.85	98	2.41	61	1.50	38.1	1.02	26
C4G109-16-12	1	3/4	3.85	98	2.41	61	1.75	44.5	1.10	28
C4G109-16-16	1	1	4.76	121	3.14	80	1.75	44.5	1.26	32
C4G109-20-16	1 1/4	1	4.76	121	3.14	80	2.00	50.8	1.26	32
C4G109-20-20	1 1/4	1 1/4	5.61	142	3.92	100	2.00	50.8	1.50	38
C4G109-24-20	1 1/2	1 1/4	5.72	145	4.03	102	2.38	60.3	1.69	43
C4G109-24-24	1 1/2	1 1/2	5.84	148	4.47	114	2.38	60.3	1.61	41
C4G109-32-32	2	2	7.19	183	5.41	138	2.81	71.4	1.97	50



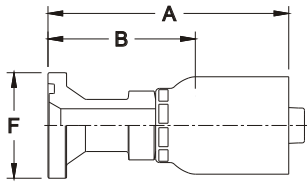
09 SERIES FITTING

C9G109 | SAE Code 61 Flange 90° Elbow



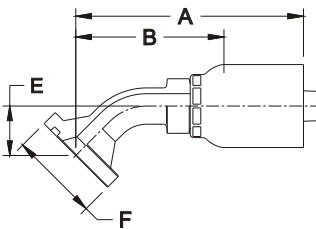
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9G109-12-12	3/4	3/4	3.51	89	2.07	53	1.50	38.1	2.28	58
C9G109-16-12	1	3/4	3.52	89	2.08	53	1.75	44.5	2.28	58
C9G109-16-16	1	1	4.28	109	2.66	68	1.75	44.5	2.76	70
C9G109-20-16	1 1/4	1	4.28	109	2.66	68	2.00	50.8	2.76	70
C9G109-20-20	1 1/4	1 1/4	5.39	137	3.70	94	2.00	50.8	3.54	90
C9G109-24-20	1 1/2	1 1/4	5.09	129	3.41	86	2.38	60.3	3.54	90
C9G109-24-24	1 1/2	1 1/2	5.55	141	4.18	106	2.38	60.3	4.09	104
C9G109-32-32	2	2	7.11	181	5.33	135	2.81	71.4	4.72	120

C1G209 | SAE Code 62 Flange Straight



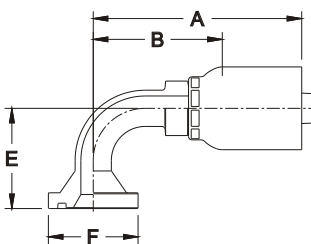
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
			inch	mm	inch	mm	inch	mm
C1G209-12-12	3/4	3/4	4.12	105	2.68	68	1.63	41.3
C1G209-16-16	1	1	4.81	122	3.19	81	1.88	47.6
C1G209-20-20	1 1/4	1 1/4	5.01	127	3.32	84	2.13	54.0
C1G209-24-24	1 1/2	1 1/2	4.28	109	2.91	74	2.50	63.5
C1G209-32-32	2	2	4.66	118	2.88	73	3.13	79.4

C4G209 | SAE Code 62 Flange 45° Elbow



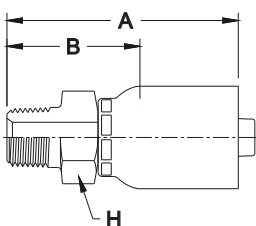
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C4G209-12-12	3/4	3/4	3.89	99	2.45	62	1.63	41.3	1.06	27
C4G209-16-16	1	1	4.76	121	3.14	80	1.88	47.6	1.26	32
C4G209-20-20	1 1/4	1 1/4	5.61	142	3.92	100	2.13	54.0	1.50	38
C4G209-24-24	1 1/2	1 1/2	5.92	150	4.55	115	2.50	63.5	1.73	44

C9G209 | SAE Code 62 Flange 90° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9G209-12-12	3/4	3/4	3.51	89	2.07	53	1.63	41.3	2.28	58
C9G209-16-12	1	3/4	3.52	89	2.08	53	1.88	47.6	2.28	58
C9G209-16-16	1	1	4.28	109	2.66	67	1.88	47.6	2.76	70
C9G209-20-20	1 1/4	1 1/4	5.18	132	3.50	89	2.13	54.0	3.54	90
C9G209-24-24	1 1/2	1 1/2	5.44	138	4.07	103	2.50	63.5	4.09	104
C9G209-32-32	2	2	7.11	181	5.33	135	3.13	79.4	4.88	124

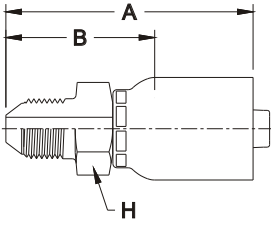
C1N12 | Male NPTF



Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
			inch	mm		inch	mm
C1N12-12	3/4X14	3/4	3.09	78	1-1/16	1.71	43
C1N12-16-16	1X11-1/2	1	3.67	93	1-3/8	1.89	48
C1N12-20-20	1-1/4X11-1/2	1 1/4	4.08	104	1-3/4	2.39	61
C1N12-24-24	1-1/2X11-1/2	1 1/2	4.38	111	2	2.19	56
C1N12-32-32	2X11-1/2	2	4.72	120	2-1/2	2.52	64

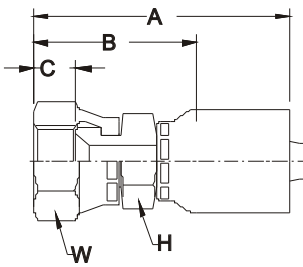
12 SERIES FITTING

C1Y12 | Male SAE 37°



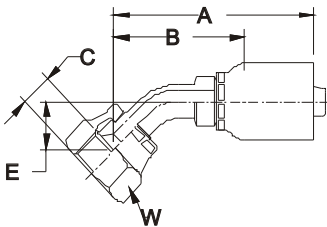
Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	UN	inch	inch	mm		inch	mm
C1Y12-12-12	1-1/16X12	3/4	3.19	81	1-1/8	1.81	46
C1Y12-16-16	1-5/16X12	1	3.71	94	1-3/8	1.93	49
C1Y12-20-20	1-5/8X12	1 1/4	3.96	101	1-7/8	2.27	58
C1Y12-24-24	1-7/8X12	1 1/2	4.30	109	2	2.11	54
C1Y12-32-32	2-1/2X12	2	4.96	126	2-5/8	2.76	70

C1X12 | Female SAE 37° Swivel



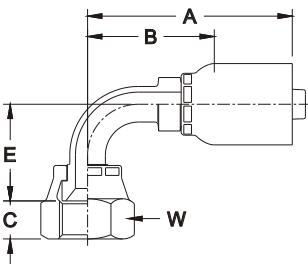
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN	inch	inch	mm			inch	mm	inch	mm
C1X12-10-10	7/8X14	5/8	2.82	72	15/16	1	1.57	40	0.49	12.4
C1X12-12-10	1-1/16X12	5/8	3.00	76	1-1/16	1-1/4	1.75	44	0.56	14.2
C1X12-12-12	1-1/16X12	3/4	3.16	80	1-1/16	1-1/4	1.78	45	0.56	14.2
C1X12-16-12	1-5/16X12	3/4	3.30	84	1-1/4	1-1/2	1.92	49	0.60	15.2
C1X12-16-16	1-5/16X12	1	3.69	94	1-3/8	1-1/2	1.91	48	0.60	15.2
C1X12-20-16	1-5/8X12	1	3.87	98	1-5/8	2	2.09	53	0.62	15.7
C1X12-20-20	1-5/8X12	1 1/4	3.92	100	1-7/8	2	2.23	57	0.62	15.7
C1X12-24-20	1-7/8X12	1 1/4	4.12	105	2-1/8	2-1/4	2.43	62	0.74	18.8
C1X12-24-24	1-7/8X12	1 1/2	4.71	120	2-1/8	2-1/4	2.52	64	0.74	18.8
C1X12-32-32	2-1/2X12	2	5.38	137	2-1/2	2-7/8	3.18	81	0.93	23.6

C4X12 | Female SAE 37° Swivel-45° Elbow



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN	inch	inch	mm		inch	mm	inch	mm	inch	mm
C4X12-12-10	1-1/16X12	5/8	3.54	90	1-1/4	2.29	58	0.83	21	0.56	14.2
C4X12-12-12	1-1/16X12	3/4	3.91	99	1-1/4	2.53	64	1.06	27	0.56	14.2
C4X12-16-12	1-5/16X12	3/4	3.75	95	1-1/2	2.38	60	0.94	24	0.60	15.2
C4X12-16-16	1-5/16X12	1	4.84	123	1-1/2	3.06	78	1.30	33	0.60	15.2
C4X12-20-20	1-5/8X12	1 1/4	5.84	148	2	4.15	105	1.77	45	0.62	15.7
C4X12-24-24	1-7/8X12	1 1/2	7.25	184	2-1/4	5.06	128	2.05	52	0.74	18.8

C9X12 | Female SAE 37° Swivel-90° Elbow

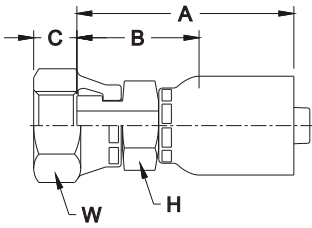


Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN	inch	inch	mm		inch	mm	inch	mm	inch	mm
C9X12-12-12	1-1/16X12	3/4	3.49	89	1-1/4	2.11	54	2.09	53	0.56	14.2
C9X12-16-12	1-5/16X12	3/4	3.49	89	1-1/2	2.11	54	2.20	56	0.60	15.2
C9X12-16-16	1-5/16X12	1	4.39	111	1-1/2	2.61	66	2.91	74	0.60	15.2
C9X12-20-20	1-5/8X12	1 1/4	5.10	129	2	3.41	87	3.35	85	0.62	15.7
C9X12-24-24	1-7/8X12	1 1/2	6.44	163	2-1/4	4.24	108	4.21	107	0.74	18.8



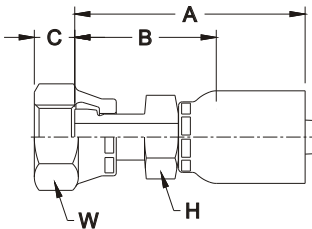
12 SERIES FITTING

C1R12 | Female "SEAL-LOK" Swivel Straight O-Ring Face Seal



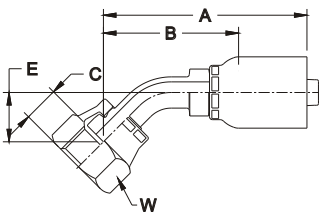
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN		inch	mm			inch	mm	inch	mm
C1R12-12-12	1-3/16X12	3/4	2.68	68	1-1/8	1-3/8	1.30	33	0.54	13.7
C1R12-12-12M	1-3/16X12	3/4	2.68	68	32	36	1.30	33	0.54	13.7
C1R12-16-12M	1-7/16X12	3/4	2.83	72	36	41	1.45	37	0.55	14.0
C1R12-16-16	1-7/16X12	1	3.22	82	1-3/8	1-5/8	1.44	37	0.55	14.0
C1R12-16-16M	1-7/16X12	1	3.22	82	36	41	1.44	37	0.55	14.0
C1R12-20-16M	1-11/16X12	1	3.16	80	41	50	1.38	35	0.57	14.5
C1R12-20-20	1-11/16X12	1 1/4	3.27	83	1-7/8	1-7/8	1.58	40	0.57	14.5
C1R12-20-20M	1-11/16X12	1 1/4	3.27	83	50	50	1.58	40	0.57	14.5
C1R12-24-24	2X12	1 1/2	3.86	98	2	2-1/4	1.67	42	0.60	15.2

C1L12 | Female "SEAL-LOK" Swivel Straight (Long) O-Ring Face Seal



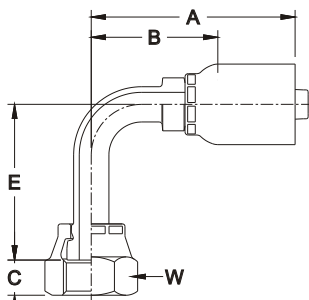
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN		inch	mm			inch	mm	inch	mm
C1L12-10-10	1X14	5/8	3.00	76	15/16	1-1/8	1.75	45	0.46	11.7
C1L12-12-12	1-3/16X12	3/4	3.31	84	1-1/8	1-3/8	1.93	49	0.54	13.7
C1L12-16-16	1-7/16X12	1	3.70	94	1-3/8	1-5/8	1.92	49	0.55	14.0
C1L12-20-20	1-11/16X12	1 1/4	3.77	96	1-3/4	1-7/8	2.08	53	0.57	14.5
C1L12-24-24	2X12	1 1/2	4.75	121	2	2-1/4	2.56	65	0.60	15.2

C4R12 | Female "SEAL-LOK" Swivel 45° Elbow O-Ring Face Seal



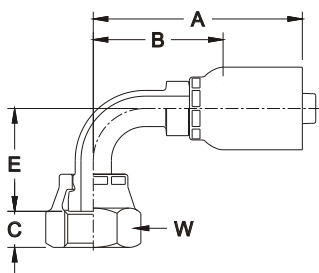
Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN		inch	mm		inch	mm	inch	mm	inch	mm
C4R12-12-12	1-3/16X12	3/4	3.63	92	1-3/8	2.25	57	0.83	21	0.54	13.7
C4R12-16-12	1-7/16X12	3/4	3.75	95	1-5/8	2.38	60	0.94	24	0.55	14.0
C4R12-16-16	1-7/16X12	1	4.46	113	1-5/8	2.68	68	0.94	24	0.55	14.0
C4R12-20-20	1-11/16X12	1 1/4	5.70	145	1-7/8	4.02	102	1.61	41	0.57	14.5

C9R12 | Female "SEAL-LOK" Swivel 90° Elbow (Long) O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN		inch	mm		inch	mm	inch	mm	inch	mm
C9R12-12-12D	1-3/16X12	3/4	3.49	89	1-3/8	2.11	54	3.78	96	0.54	13.7
C9R12-12-12D	1-3/16X12	3/4	3.49	89	36	2.11	54	3.78	96	0.54	13.7

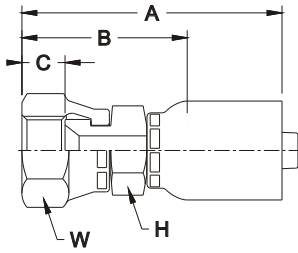
C9R12D | Female "SEAL-LOK" Swivel 90° Elbow (Short) O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN		inch	mm		inch	mm	inch	mm	inch	mm
C9R12-10-10	1X14	5/8	2.88	73	1-1/8	1.63	41	1.26	32	0.46	11.7
C9R12-12-12	1-3/16X12	3/4	3.49	89	1-3/8	2.11	54	1.89	48	0.54	13.7
C9R12-16-12	1-7/16X12	3/4	3.49	89	1-5/8	2.11	54	2.20	56	0.55	14.0
C9R12-16-16	1-7/16X12	1	4.39	111	1-5/8	2.61	66	2.20	56	0.55	14.0
C9R12-20-16	1-11/16X12	1	4.76	121	1-7/8	2.98	76	2.52	64	0.57	14.5
C9R12-20-20	1-11/16X12	1 1/4	5.10	129	1-7/8	3.41	87	3.23	82	0.57	14.5

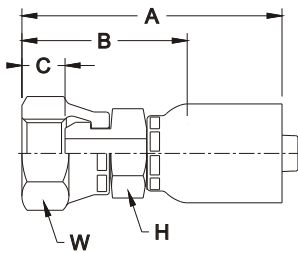
12 SERIES FITTING

C1F12 | Female JIS/BSP Parallel Pipe Swivel Straight (30° Flare)



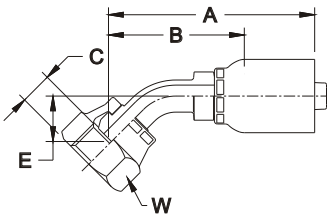
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	PF	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1F12-12-12	3/4X14	3/4	3.17	80	36	36	1.79	45	0.50	12.7
C1F12-16-16	1X11	1	3.72	94	41	41	1.94	49	0.58	14.7
C1F12-20-20	1-1/4X11	1 1/4	3.98	101	50	50	2.29	58	0.60	15.2
C1F12-24-24	1-1/2X11	1 1/2	4.78	121	60	60	2.59	66	0.64	16.3
C1F12-32-32	2X11	2	5.11	130	70	70	2.91	74	0.69	17.5

C1C12 | Female JIS/BSP Parallel Pipe Swivel Straight (60° Cone)



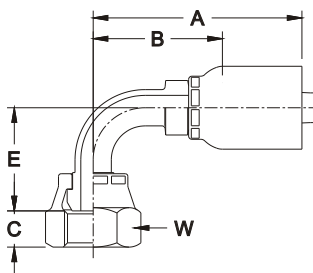
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	PF	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1C12-12-10	3/4X14	5/8	3.12	79	36	36	1.88	48	0.38	9.7
C1C12-12-12	3/4X14	3/4	3.22	82	36	36	1.85	47	0.38	9.7
C1C12-16-12	1X11	3/4	3.42	87	41	41	2.04	52	0.46	11.7
C1C12-16-16	1X11	1	3.80	97	41	41	2.03	51	0.46	11.7
C1C12-20-20	1-1/4X11	1 1/4	4.05	103	50	50	2.36	60	0.48	12.2
C1C12-24-24	1-1/2X11	1 1/2	4.80	122	60	60	2.61	66	0.48	12.2
C1C12-32-32	2X11	2	5.15	131	70	70	2.95	75	0.58	14.7

C4C12 | Female JIS/BSP Parallel Pipe Swivel 45° Elbow (60° Cone)



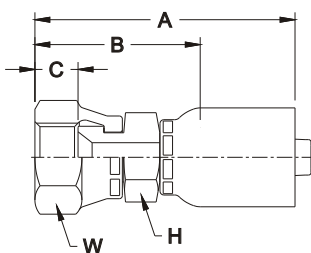
Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	PF	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C4C12-12-12	3/4X14	3/4	3.82	97	36	2.44	62	1.02	26	0.38	9.7
C4C12-16-16	1X11	1	4.88	124	41	3.10	79	1.30	33	0.46	11.7
C4C12-20-20	1-1/4X11	1 1/4	5.86	149	50	4.17	106	1.81	46	0.48	12.2

C9C12 | Female JIS/BSP Parallel Pipe Swivel 90° Elbow (60° Cone)



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	PF	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C9C12-12-12	3/4X14	3/4	3.49	89	36	2.11	54	2.17	55	0.38	9.7
C9C12-16-16	1X11	1	4.78	121	41	3.00	76	2.89	74	0.46	11.7
C9C12-20-20	1-1/4X11	1 1/4	5.10	129	50	3.41	87	3.48	89	0.48	12.2
C9C12-24-24	1-1/2X11	1 1/2	6.45	164	60	4.26	108	4.33	110	0.48	12.2

C1M12 | Female JIS/Metric Swivel Straight (30° Flare)

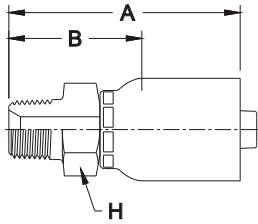


Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	Metric	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1M12-12-12	M27X2	3/4	3.16	80	36	36	1.78	45	0.49	12.4
C1M12-16-16	M33X2	1	3.65	93	41	41	1.87	47	0.51	13.0
C1M12-20-20	M42X2	1 1/4	3.95	100	50	50	2.26	57	0.57	14.5



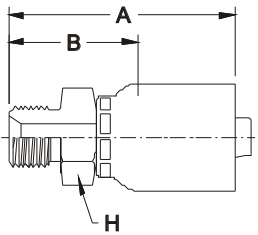
12 SERIES FITTING

C1P12 | Male JIS/BSP Taper Pipe-Rigid Straight



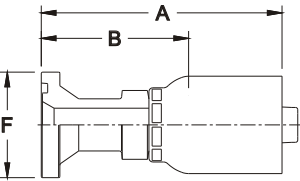
Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	PT		inch	mm		inch	mm
C1P12-12-12	3/4X14	3/4	2.98	76	36	1.60	41
C1P12-16-16	1X11	1	3.56	90	41	1.78	45
C1P12-20-20	1-1/4X11	1 1/4	3.79	96	50	2.10	53
C1P12-24-24	1-1/2X11	1 1/2	4.46	113	60	2.27	58
C1P12-32-32	2X11	2	4.95	126	70	2.75	70

C1U12 | Male JIS/BSP Parallel Pipe-Rigid Straight (30° Flare)



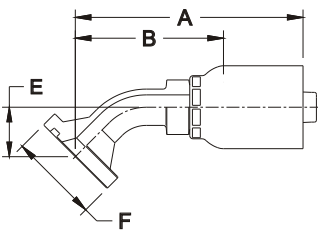
Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	PF		inch	mm		inch	mm
C1U12-12-12	3/4X14	3/4	3.02	77	36	1.64	42
C1U12-16-16	1X11	1	3.53	90	41	1.75	44
C1U12-20-20	1-1/4X11	1 1/4	3.77	96	50	2.08	53
C1U12-24-24	1-1/2X11	1 1/2	4.40	112	60	2.21	56

C1G112 | SAE Code 61 Flange Straight



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
			inch	mm	inch	mm	inch	mm
C1G112-12-12	3/4	3/4	3.86	98	2.48	63	1.50	38.1
C1G112-16-12	1	3/4	2.74	70	1.36	35	1.75	44.5
C1G112-16-16	1	1	4.32	110	2.55	65	1.75	44.5
C1G112-20-16	1 1/4	1	3.27	83	1.50	38	2.00	50.8
C1G112-20-20	1 1/4	1 1/4	4.70	119	3.01	76	2.00	50.8
C1G112-24-20	1 1/2	1 1/4	3.22	82	1.54	39	2.38	60.3
C1G112-24-24	1 1/2	1 1/2	5.47	139	3.28	83	2.38	60.3
C1G112-32-24	2	1 1/2	4.01	102	1.82	46	2.81	71.4
C1G112-32-32	2	2	5.65	143	3.45	88	2.81	71.4

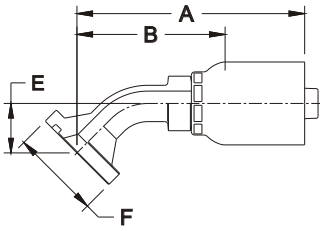
C2G112 | SAE Code 61 Flange 22.5° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C2G112-12-12	3/4	3/4	4.13	105.0	2.68	68.0	1.50	38.1	0.71	18.0
C2G112-16-16	1	1	7.09	180.0	5.12	130.0	1.75	44.5	3.31	84.0
C2G112-20-20	1 1/4	1 1/4	5.90	150.0	4.13	105.0	2.00	50.8	1.10	28.0
C2G112-24-24	1 1/2	1 1/2	7.12	180.8	4.85	123.1	2.38	60.3	1.15	29.1
C2G112-32-32	2	2	7.96	202.1	5.55	140.9	2.81	71.4	1.22	31.0

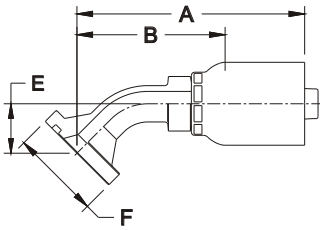
12 SERIES FITTING

C3G112 | SAE Code 61 Flange 30° Elbow



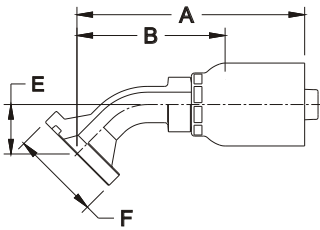
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C3G112-12-12	3/4	3/4	3.94	100.0	2.56	65.0	1.50	38.1	0.91	23.0
C3G112-16-16	1	1	4.96	126.0	3.50	89.0	1.75	44.5	0.98	25.0
C3G112-20-20	1 1/4	1 1/4	5.79	147.0	4.04	102.5	2.00	50.8	1.26	32.0
C3G112-24-24	1 1/2	1 1/2	7.07	179.5	4.02	102.0	2.38	60.3	1.52	38.5
C3G112-32-32	2	2	7.73	196.3	5.43	137.8	2.81	71.4	1.64	41.7

C4G112 | SAE Code 61 Flange 45° Elbow



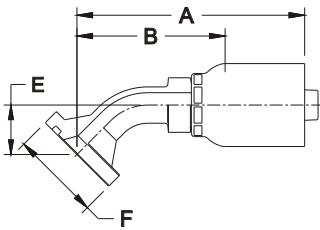
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C4G112-12-12	3/4	3/4	3.85	98	2.47	63	1.50	38.1	1.02	26
C4G112-16-12	1	3/4	3.85	98	2.47	63	1.75	44.5	1.10	28
C4G112-16-16	1	1	4.83	123	3.05	78	1.75	44.5	1.26	32
C4G112-20-16	1 1/4	1	4.83	123	3.06	78	2.00	50.8	1.26	32
C4G112-20-20	1 1/4	1 1/4	5.61	142	3.92	100	2.00	50.8	1.50	38
C4G112-24-20	1 1/2	1 1/4	5.72	145	4.03	102	2.38	60.3	1.69	43
C4G112-24-24	1 1/2	1 1/2	6.72	171	4.53	115	2.38	60.3	1.61	41
C4G112-32-24	2	1 1/2	7.10	180	4.91	125	2.81	71.4	1.97	50
C4G112-32-32	2	2	7.86	200	5.66	144	2.81	71.4	1.93	49

C6G112 | SAE Code 61 Flange 60° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C6G112-12-12	3/4	3/4	4.25	108.0	2.68	68.0	1.50	38.1	2.17	55.0
C6G112-16-16	1	1	5.20	132.0	3.74	95.0	1.75	44.5	2.48	63.0
C6G112-20-20	1 1/4	1 1/4	6.23	159.0	4.49	114.0	2.00	50.8	3.19	81.0
C6G112-24-24	1 1/2	1 1/2	8.15	207.0	5.71	145.1	2.38	60.3	4.63	117.6
C6G112-32-32	2	2	9.08	230.6	6.59	167.5	2.81	71.4	4.26	108.1

C7G112 | SAE Code 61 Flange 67.5° Elbow

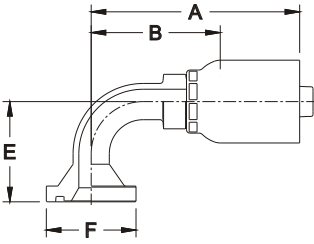


Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C7G112-12-12	3/4	3/4	4.09	104.0	2.52	64.0	1.50	38.1	2.20	56.0
C7G112-16-16	1	1	4.84	123.0	3.39	86.0	1.75	44.5	2.80	71.0
C7G112-20-20	1 1/4	1 1/4	5.98	152.0	4.21	107.0	2.00	50.8	3.35	85.0
C7G112-24-24	1 1/2	1 1/2	7.75	196.8	5.10	129.6	2.38	60.3	4.09	103.8
C7G112-32-32	2	2	8.98	228.0	6.28	159.4	2.81	71.4	4.55	115.6



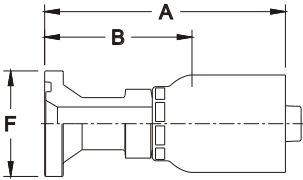
12 SERIES FITTING

C9G112 | SAE Code 61 Flange 90° Elbow



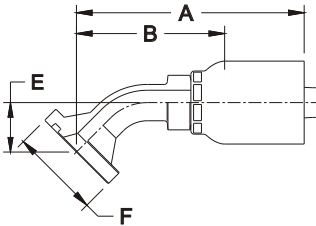
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9G112-12-12	3/4	3/4	3.51	89	2.13	54	1.50	38.1	2.28	58
C9G112-12-12130	3/4	3/4	3.53	90	2.16	55	1.50	38.1	5.12	130
C9G112-16-12	1	3/4	3.52	89	2.14	54	1.75	44.5	2.28	58
C9G112-16-12130	1	3/4	3.52	89	2.14	54	1.75	44.5	5.12	130
C9G112-16-16	1	1	4.36	111	2.58	66	1.75	44.5	2.76	70
C9G112-16-16130	1	1	4.36	111	2.58	66	1.75	44.5	5.12	130
C9G112-20-16	1 1/4	1	4.36	111	2.58	66	2.00	50.8	2.76	70
C9G112-20-16100	1 1/4	1	4.36	111	2.58	66	2.00	50.8	3.94	100
C9G112-20-20	1 1/4	1 1/4	5.39	137	3.70	94	2.00	50.8	3.54	90
C9G112-20-20100	1 1/4	1 1/4	5.39	137	3.70	94	2.00	50.8	3.94	100
C9G112-20-20130	1 1/4	1 1/4	5.39	137	3.70	94	2.00	50.8	5.12	130
C9G112-24-20	1 1/2	1 1/4	5.09	129	3.41	86	2.38	60.3	3.54	90
C9G112-24-24	1 1/2	1 1/2	6.42	163	4.23	107	2.38	60.3	4.09	104
C9G112-32-32	2	2	7.78	198	5.58	142	2.81	71.4	4.72	120

C1G212 | SAE Code 62 Flange Straight



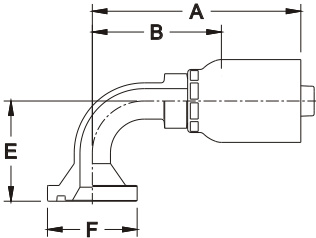
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
			inch	mm	inch	mm	inch	mm
C1G212-12-12	3/4	3/4	4.12	105	2.74	70	1.63	41.3
C1G212-16-12	1	3/4	3.10	79	1.72	44	1.88	47.6
C1G212-16-16	1	1	4.89	124	3.11	79	1.88	47.6
C1G212-20-16	1 1/4	1	3.68	93	1.90	48	2.13	54.0
C1G212-20-20	1 1/4	1 1/4	5.01	127	3.32	84	2.13	54.0
C1G212-24-24	1 1/2	1 1/2	6.34	161	4.15	105	2.50	63.5
C1G212-32-32	2	2	7.16	182	4.96	126	3.13	79.4

C4G212 | SAE Code 62 Flange 45° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C4G212-12-12	3/4	3/4	3.89	99	2.51	64	1.63	41.3	1.06	27
C4G212-16-12	1	3/4	4.69	119	3.31	84	1.88	47.6	1.22	31
C4G212-16-16	1	1	4.83	123	3.05	78	1.88	47.6	1.26	32
C4G212-20-16	1 1/4	1	4.83	123	3.06	78	2.13	54.0	1.26	32
C4G212-20-20	1 1/4	1 1/4	5.61	142	3.92	100	2.13	54.0	1.50	38
C4G212-24-24	1 1/2	1 1/2	6.80	173	4.61	117	2.50	63.5	1.73	44

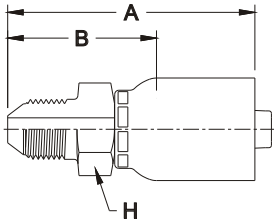
C9G212 | SAE Code 62 Flange 90° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9G212-12-12	3/4	3/4	3.51	89	2.13	54	1.63	41.3	2.28	58
C9G212-12-12100	3/4	3/4	3.51	89	2.13	54	1.63	41.3	3.94	100
C9G212-16-12	1	3/4	3.52	89	2.14	54	1.88	47.6	2.28	58
C9G212-16-1290	1	3/4	3.52	89	2.14	54	1.88	47.6	3.54	90
C9G212-16-16	1	1	4.35	110	2.57	65	1.88	47.6	2.76	70
C9G212-16-16130	1	1	4.35	110	2.57	65	1.88	47.6	5.12	130
C9G212-20-16	1 1/4	1	4.36	111	2.58	66	2.13	54.0	2.76	70
C9G212-20-20	1 1/4	1 1/4	5.18	132	3.50	89	2.13	54.0	3.54	90
C9G212-20-20130	1 1/4	1 1/4	5.39	137	3.70	94	2.13	54.0	4.72	120
C9G212-24-24	1 1/2	1 1/2	6.32	161	4.13	105	2.50	63.5	4.09	104
C9G212-32-32	2	2	7.78	198	5.58	142	3.13	79.4	4.88	124

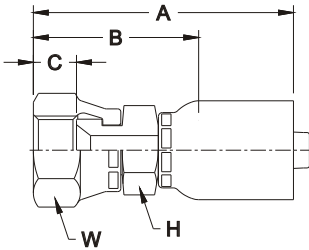
13 SERIES FITTING

C1Y13 | Male SAE 37°



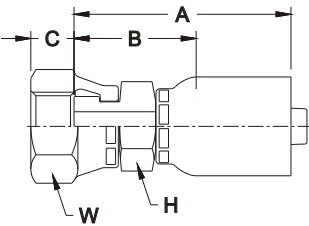
Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	NPTF	inch	inch	mm	inch	inch	mm
C1Y13-16-16	1-5/16X12	1	3.81	97	1-3/8	1.96	50

C1X13 | Female SAE 37° Swivel



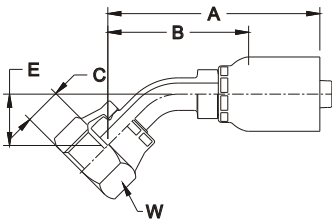
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN	inch	inch	mm	inch	inch	inch	mm	inch	mm
C1X13-12-12	1-1/16X12	3/4	3.65	93	1-1/8	1-1/4	1.89	48	0.56	14.2
C1X13-16-16	1-5/16X12	1	4.02	102	1-3/8	1-1/2	2.17	55	0.60	15.2
C1X13-20-20	1-5/8X12	1 1/4	4.91	125	1-3/4	2	2.52	64	0.62	15.7
C1X13-24-24	1-7/8X12	1 1/2	5.03	128	2	2-1/4	2.82	72	0.74	18.8
C1X13-32-32	2-1/2X12	2	5.89	150	2-1/2	2-7/8	3.32	84	0.93	23.6

C1R13 | Female "SEAL-LOK" Swivel Straight O-Ring Face Seal



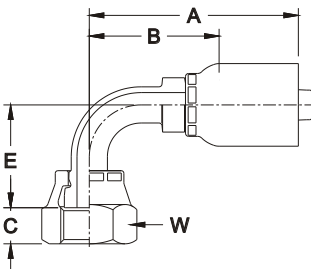
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN	inch	inch	mm	inch	inch	inch	mm	inch	mm
C1R13-12-12	1-3/16X12	3/4	3.17	81	1-1/8	1-3/8	1.41	36	0.54	13.7
C1R13-12-12	1-3/16X12	3/4	3.17	81	1-1/8	1-3/8	1.41	36	0.54	13.7
C1R13-12-12M	1-3/16X12	3/4	3.17	81	32	36	1.41	36	0.54	13.7

C4R13 | Female "SEAL-LOK" Swivel 45° Elbow O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		ROP E		NUT C	
	UN	inch	inch	mm	inch	inch	mm	inch	mm	inch	mm
C4R13-12-12	1-3/16X12	3/4	4.11	104	1-3/8	2.35	60	0.83	21	0.54	13.7
C4R13-12-12M	1-3/16X12	3/4	4.11	104	36	2.35	60	0.83	21	0.54	13.7
C4R13-16-16	1-7/16X12	1	4.69	119	1-5/8	2.84	72	0.94	24	0.55	14.0
C4R13-16-16M	1-7/16X12	1	4.69	119	41	2.84	72	0.94	24	0.55	14.0

C9R13 | Female "SEAL-LOK" Swivel 90° Elbow (Short) O-Ring Face Seal

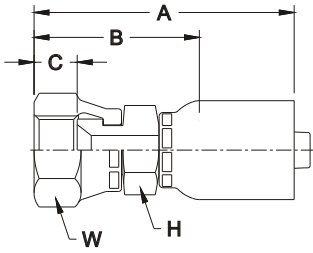


Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		ROP E		NUT C	
	UN	inch	inch	mm	inch	inch	mm	inch	mm	inch	mm
C9R13-12-12	1-3/16X12	3/4	3.97	101	1-3/8	2.21	56	1.93	49	0.54	13.7
C9R13-12-12M	1-3/16X12	3/4	3.97	101	36	2.21	56	1.93	49	0.54	13.7
C9R13-16-16	1-7/16X12	1	4.62	117	1-5/8	2.77	70	2.20	56	0.55	14.0
C9R13-16-16M	1-7/16X12	1	4.62	117	41	2.77	70	2.20	56	0.55	14.0
C9R13-16-16100	1-7/16X12	1	4.71	120	1-5/8	2.86	73	3.94	100	0.55	14.0



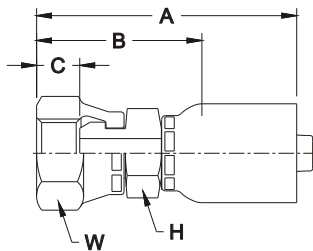
13 SERIES FITTING

C1F13 | Female JIS/BSP Parallel Pipe Swivel Straight(30°Flare)



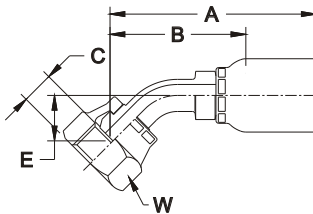
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	PF	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1F13-12-12	3/4X14	3/4	3.65	93	36	36	1.89	48	0.50	12.7
C1F13-16-16	1X11	1	3.99	101	41	41	2.14	54	0.58	14.7
C1F13-20-20	1-1/4X11	1 1/4	4.82	122	50	50	2.43	62	0.60	15.2
C1F13-32-32	2X11	2	5.69	145	70	70	3.12	79	0.69	17.5

C1C13 | Female JIS/BSP Parallel Pipe Swivel Straight(60°Cone)



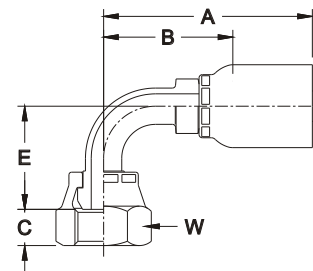
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	PF	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1C13-12-12	3/4X14	3/4	3.75	95	36	36	1.99	51	0.38	9.7
C1C13-16-16	1X11	1	4.13	105	41	41	2.28	58	0.46	11.7
C1C13-20-20	1-1/4X11	1 1/4	4.95	126	50	50	2.56	65	0.48	12.2
C1C13-24-24	1-1/2X11	1 1/2	5.33	135	60	60	3.12	79	0.48	12.2
C1C13-32-32	2X11	2	5.57	142	70	70	3.00	76	0.58	14.7

C4C13 | Female JIS/BSP Parallel Pipe Swivel 45°Elbow(60°Cone)



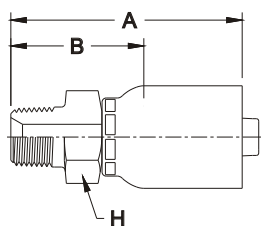
Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		ROP E		NUT C	
	PF	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C4C13-12-12	3/4X14	3/4	4.99	127	36	3.23	82	1.14	29	0.38	9.7
C4C13-16-16	1X11	1	5.15	131	41	3.30	84	1.30	33	0.46	11.7

C9C13 | Female JIS/BSP Parallel Pipe Swivel 90°Elbow(60°Cone)



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		ROP E		NUT C	
	PF	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C9C13-12-12	3/4X14	3/4	4.01	102	36	2.25	57	2.17	55	0.38	9.7
C9C13-16-16	1X11	1	4.68	119	41	2.83	72	2.83	72	0.46	11.7

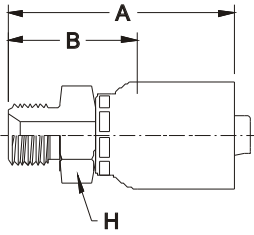
C1P13 | Male JIS/BSP Taper Pipe-Rigi Straight



Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	PT	inch	inch	mm	mm	inch	mm
C1P13-12-12	3/4X14	3/4	3.42	87	36	1.66	42
C1P13-16-16	1X11	1	3.77	96	41	1.92	49
C1P13-20-20	1-1/4X11	1 1/4	4.63	118	50	2.24	57
C1P13-24-24	1-1/2X11	1 1/2	4.54	115	60	2.33	59

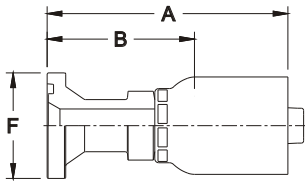
13 SERIES FITTING

C1U13 | Male JIS/BSP Parallel Pipe-Rigid Straight (30° Flare)



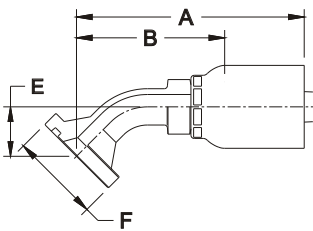
Part No	Thread Size	Hose Size	A		HEX H	Cut-Off Allowance B	
	PF	inch	inch	mm	mm	inch	mm
C1U12-12-12	3/4X14	3/4	3.02	77	36	1.64	42
C1U12-16-16	1X11	1	3.53	90	41	1.75	44
C1U12-20-20	1-1/4X11	1 1/4	3.77	96	50	2.08	53
C1U12-24-24	1-1/2X11	1 1/2	4.40	112	60	2.21	56

C1G113 | SAE Coe 61 Flange Straight



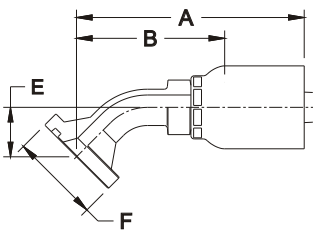
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
		inch	inch	mm	inch	mm	inch	mm
C1G113-12-12	3/4	3/4	4.34	110	2.58	66	1.50	38.1
C1G113-16-16	1	1	4.59	117	2.74	70	1.75	44.5
C1G113-20-20	1 1/4	1 1/4	5.53	140	3.14	80	2.00	50.8
C1G113-24-24	1 1/2	1 1/2	5.16	131	2.95	75	2.38	60.3
C1G113-32-32	2	2	6.12	155	3.55	90	2.81	71.4

C2G113 | SAE Coe 61 Flange 22.5° Elbow



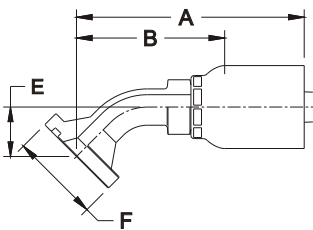
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
		inch	inch	mm	inch	mm	inch	mm	inch	mm
C2G113-12-12	3/4	3/4	4.65	118.0	2.80	71.0	1.50	38.1	0.71	18.0
C2G113-16-16	1	1	7.40	188.0	5.35	136.0	1.75	44.5	3.31	84.0
C2G113-20-20	1 1/4	1 1/4	6.81	173.0	4.33	110.0	2.00	50.8	1.10	28.0
C2G113-24-24	1 1/2	1 1/2	7.28	185.0	5.00	127.1	2.37	60.3	1.15	29.1
C2G113-32-32	2	2	8.23	209.1	5.78	146.9	2.81	71.4	1.22	31.0

C3G113 | SAE Coe 61 Flange 30° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
		inch	inch	mm	inch	mm	inch	mm	inch	mm
C3G113-12-12	3/4	3/4	4.45	113.0	2.68	68.0	1.50	38.1	0.91	23.0
C3G113-16-16	1	1	5.28	134.0	3.74	95.0	1.75	44.5	0.98	25.0
C3G113-20-20	1 1/4	1 1/4	6.69	170.0	4.23	107.5	2.00	50.8	1.26	32.0
C3G113-24-24	1 1/2	1 1/2	7.26	184.5	4.17	106.0	2.37	60.3	1.52	38.5
C3G113-32-32	2	2	8.00	203.3	5.66	143.8	2.81	71.4	1.64	41.7

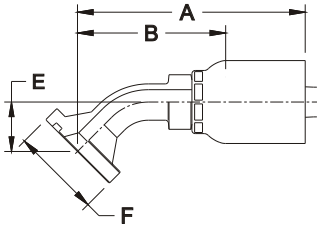
C4G113 | SAE Coe 61 Flange 45° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		ROP E	
		inch	inch	mm	inch	mm	inch	mm	inch	mm
C4G113-12-12	3/4	3/4	4.31	110	2.55	65	1.50	38.1	1.02	26
C4G113-16-16	1	1	5.01	127	3.16	80	1.75	44.5	1.26	32
C4G113-20-20	1 1/4	1 1/4	6.34	161	3.95	100	2.00	50.8	1.38	35
C4G113-24-24	1 1/2	1 1/2	7.01	178	4.80	122	2.38	60.3	1.69	43

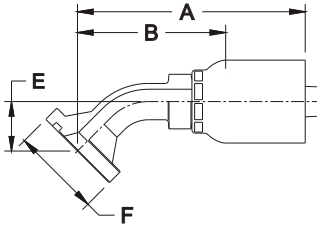
13 SERIES FITTING

C6G113 | SAE Coe 61 Flange 60° Elbow



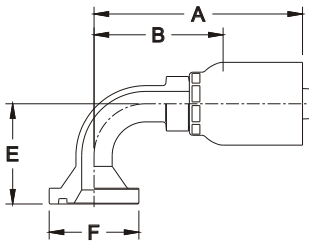
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C6G113-12-12	3/4	3/4	4.76	121.0	2.80	71.0	1.50	38.1	2.17	55.0
C6G113-16-16	1	1	5.51	140.0	3.98	101.0	1.75	44.5	2.48	63.0
C6G113-20-20	1 1/4	1 1/4	7.17	182.0	4.69	119.0	2.00	50.8	3.19	81.0
C6G113-24-24	1 1/2	1 1/2	8.35	212.0	5.87	149.1	2.37	60.3	4.63	117.6
C6G113-32-32	2	2	9.35	237.6	6.83	173.5	2.81	71.4	4.26	108.1

C7G113 | SAE Coe 61 Flange 67.5° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C7G113-12-12	3/4	3/4	4.61	117.0	2.64	67.0	1.50	38.1	2.20	56.0
C7G113-16-16	1	1	5.16	131.0	6.62	92.0	1.75	44.5	6.19	81.0
C7G113-20-20	1 1/4	1 1/4	6.89	175.0	4.41	112.0	2.00	50.8	3.35	85.0
C7G113-24-24	1 1/2	1 1/2	7.94	201.8	5.26	133.6	2.37	60.3	4.09	103.8
C7G113-32-32	2	2	9.25	235.0	6.51	165.4	2.81	71.4	4.55	115.6

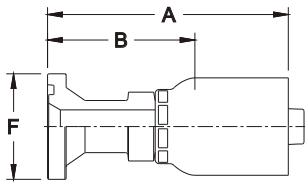
C9G113 | SAE Coe 61 Flange 90° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		ROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9G113-12-12	3/4	3/4	4.02	102	2.26	57	1.50	38.1	2.28	58
C9G113-12-1290	3/4	3/4	4.02	102	2.26	57	1.50	38.1	3.54	90
C9G113-12-12130	3/4	3/4	4.02	102	2.26	57	1.50	38.1	5.12	130
C9G113-16-12	1	3/4	4.03	102	2.27	58	1.75	44.5	2.28	58
C9G113-16-1280	1	3/4	4.07	103	2.31	59	1.75	44.5	3.15	80
C9G113-16-12130	1	3/4	4.07	103	2.31	59	1.75	44.5	5.12	130
C9G113-16-16	1	1	4.67	118	2.82	72	1.75	44.5	2.76	70
C9G113-16-16130	1	1	4.67	118	2.82	72	1.75	44.5	5.12	130
C9G113-20-20	1 1/4	1 1/4	6.77	172	4.38	111	2.00	50.8	2.99	76
C9G113-24-20	1 1/2	1 1/4	7.17	182	4.78	122	2.38	60.3	3.94	100
C9G113-24-24	1 1/2	1 1/2	6.52	166	4.30	109	2.38	60.3	4.09	104
C9G113-32-32	2	2	8.25	210	5.68	144	2.81	71.4	4.72	120

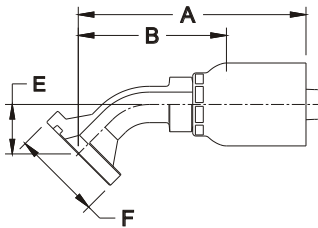
13 SERIES FITTING

C1G213 | SAE Coe 62 Flange Straight



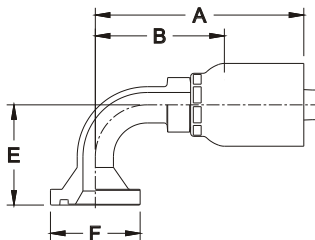
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
			inch	mm	inch	mm	inch	mm
C1G213-12-12	3/4	3/4	4.60	117	2.84	72	1.63	41.3
C1G213-16-12	1	3/4	3.58	91	1.82	46	1.88	47.6
C1G213-16-16	1	1	5.16	131	3.31	84	1.88	47.6
C1G213-20-16	1 1/4	1	3.95	100	2.10	53	2.13	54.0
C1G213-20-20	1 1/4	1 1/4	5.85	149	3.46	88	2.13	54.0
C1G213-24-20	1 1/2	1 1/4	4.77	121	2.38	60	2.50	63.5
C1G213-24-24	1 1/2	1 1/2	6.54	166	4.33	110	2.50	63.5
C1G213-32-32	2	2	7.63	194	5.06	128	3.13	79.4

C4G213 | SAE Coe 62 Flange 45° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		ROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C4G213-12-12	3/4	3/4	4.31	110	2.55	65	1.63	41.3	1.02	26
C4G213-16-12	1	3/4	4.33	110	2.57	65	1.88	47.6	1.02	26
C4G213-16-16	1	1	5.01	127	3.16	80	1.88	47.6	1.26	32
C4G213-20-16	1 1/4	1	5.56	141	3.71	94	2.13	54.0	1.26	32
C4G213-20-20	1 1/4	1 1/4	6.40	163	4.01	102	2.13	54.0	1.50	38
C4G213-24-24	1 1/2	1 1/2	6.99	178	4.78	121	2.50	63.5	1.73	44
C4G213-32-32	2	2	8.41	214	5.84	148	3.13	79.4	2.20	56

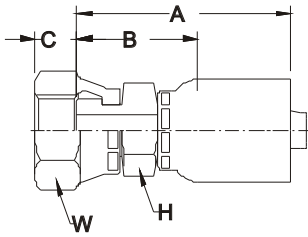
C9G213 | SAE Coe 62 Flange 90° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		ROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9G213-12-12	3/4	3/4	4.00	102	2.24	57	1.63	41.3	2.28	58
C9G213-12-1280	3/4	3/4	4.00	102	2.24	57	1.63	41.3	3.15	80
C9G213-12-12130	3/4	3/4	4.02	102	2.26	57	1.63	41.3	5.12	130
C9G213-16-12	1	3/4	4.00	102	2.24	57	1.88	47.6	2.28	58
C9G213-16-1290	1	3/4	4.06	103	2.30	58	1.88	47.6	3.54	90
C9G213-16-16	1	1	4.63	118	2.78	71	1.88	47.6	2.76	70
C9G213-16-16130	1	1	4.70	119	2.85	72	1.88	47.6	5.12	130
C9G213-20-16	1 1/4	1	4.64	118	2.79	71	2.13	54.0	2.76	70
C9G213-20-16130	1 1/4	1	4.71	120	2.86	73	2.13	54.0	5.12	130
C9G213-20-20	1 1/4	1 1/4	6.09	155	3.70	94	2.13	54.0	3.54	90
C9G213-20-20147	1 1/4	1 1/4	6.09	155	3.70	94	2.13	54.0	5.79	147
C9G213-24-20	1 1/2	1 1/4	7.09	180	4.70	119	2.50	63.5	4.35	111
C9G213-24-24	1 1/2	1 1/2	6.52	166	4.30	109	2.50	63.5	4.09	104
C9G213-24-24140	1 1/2	1 1/2	6.54	166	4.33	110	2.50	63.5	5.51	140
C9G213-32-32	2	2	7.99	203	5.42	138	3.13	79.4	5.43	138

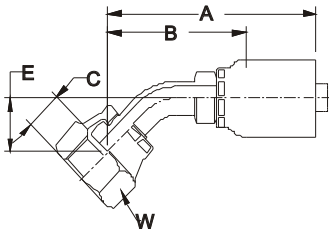
CT SERIES FITTING

C1RCT | Female "SEAL-LOK" Swivel O-Ring Face Seal



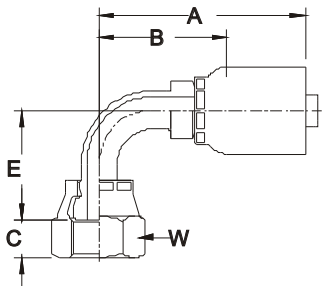
Part No	Thread Size	Hose Size	A		HEX H	HEX W	Cut-Off Allowance B		NUT C	
	UN	inch	inch	mm	mm	mm	inch	mm	inch	mm
C1RCT-04-04	9/16X18	1/4	1.58	40.1	17	19	1.10	28	0.32	8.1
C1RCT-06-06	11/16X16	3/8	1.64	41.7	19	22	0.80	20.3	0.38	9.7
C1RCT-08-08	13/16X16	1/2	1.80	45.6	22	24	1.02	26	0.43	10.9

C4RCT | Female "SEAL-LOK" Swivel 45° Elbow O-Ring Face Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C4RCT-04-04	9/16X18	1/4	2.20	56	19	1.31	33.3	0.39	10	0.32	8.1
C4RCT-06-06	11/16X16	3/8	2.42	61.5	22	1.81	30	0.43	11	0.38	9.7
C4RCT-08-08	13/16X16	1/2	2.80	71.0	24	1.46	37	0.59	15	0.43	10.9

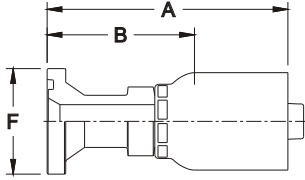
C9RCT | Female "SEAL-LOK" Swivel 90° Elbow (Short) O-Ring Seal



Part No	Thread Size	Hose Size	A		HEX W	Cut-Off Allowance B		DROP E		NUT C	
	UN	inch	inch	mm	mm	inch	mm	inch	mm	inch	mm
C9RCT-04-04	9/16X18	1/4	1.81	46	19	0.95	24	0.83	21	0.32	8.1
C9RCT-06-06	11/16X16	3/8	1.97	50	22	1.06	27	0.91	23	0.38	9.7
C9RCT-08-08	13/16X16	1/2	2.25	57.2	24	1.23	31.2	1.14	29	0.43	10.9

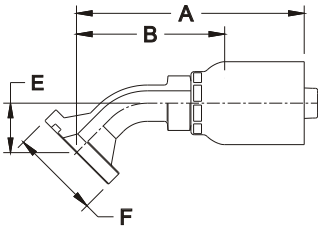
CA SERIES FITTING (420Bar Heavy Duty)

C1CA13 | SAE Coe 61 Flange Straight



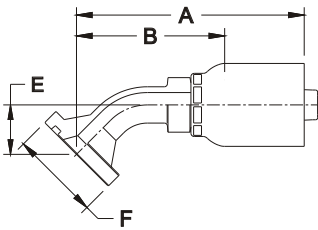
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F	
			inch	mm	inch	mm	inch	mm
C1CA13-12-12	3/4	3/4	4.34	110	2.58	66	1.50	38.1
C1CA13-16-16	1	1	4.59	117	2.74	70	1.75	44.5
C1CA13-20-20	1 1/4	1 1/4	5.53	140	3.14	80	2.00	50.8
C1CA13-24-24	1 1/2	1 1/2	5.16	131	2.95	75	2.38	60.3
C1CA13-32-32	2	2	6.12	155	3.55	90	2.81	71.4

C2CA13 | SAE Coe 61 Flange 22.5° Elbow



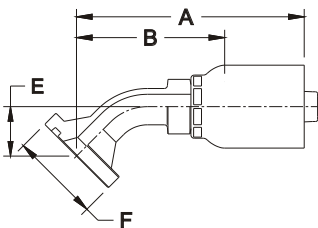
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C2CA13-12-12	3/4	3/4	4.65	118.0	2.80	71.0	1.50	38.1	0.71	18.0
C2CA13-16-16	1	1	7.40	188.0	5.35	136.0	1.75	44.5	3.31	84.0
C2CA13-20-20	1 1/4	1 1/4	6.81	173.0	4.33	110.0	2.00	50.8	1.10	28.0
C2CA13-24-24	1 1/2	1 1/2	7.28	185.0	5.00	127.1	2.37	60.3	1.15	29.1
C2CA13-32-32	2	2	8.23	209.1	5.78	146.9	2.81	71.4	1.22	31.0

C3CA13 | SAE Coe 61 Flange 30° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C3CA13-12-12	3/4	3/4	4.45	113.0	2.68	68.0	1.50	38.1	0.91	23.0
C3CA13-16-16	1	1	5.28	134.0	3.74	95.0	1.75	44.5	0.98	25.0
C3CA13-20-20	1 1/4	1 1/4	6.69	170.0	4.23	107.5	2.00	50.8	1.26	32.0
C3CA13-24-24	1 1/2	1 1/2	7.26	184.5	4.17	106.0	2.37	60.3	1.52	38.5
C3CA13-32-32	2	2	8.00	203.3	5.66	143.8	2.81	71.4	1.64	41.7

C4CA13 | SAE Coe 61 Flange 45° Elbow

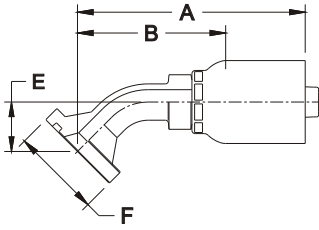


Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		ROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C4CA13-12-12	3/4	3/4	4.31	110	2.55	65	1.50	38.1	1.02	26
C4CA13-16-16	1	1	5.01	127	3.16	80	1.75	44.5	1.26	32
C4CA13-20-20	1 1/4	1 1/4	6.34	161	3.95	100	2.00	50.8	1.38	35
C4CA13-24-24	1 1/2	1 1/2	7.01	178	4.80	122	2.38	60.3	1.69	43



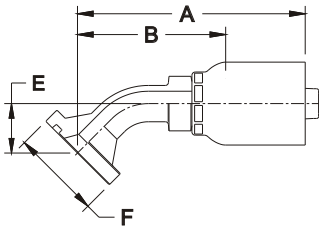
CA SERIES FITTING (420 Bar Heavy Duty)

C6CA13 | SAE Coe 61 Flange 60° Elbow



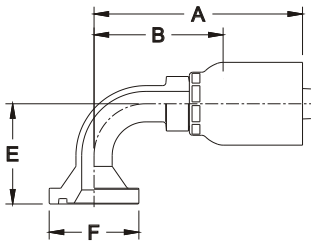
Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C6CA13-12-12	3/4	3/4	4.76	121.0	2.80	71.0	1.50	38.1	2.17	55.0
C6CA13-16-16	1	1	5.51	140.0	3.98	101.0	1.75	44.5	2.48	63.0
C6CA13-20-20	1 1/4	1 1/4	7.17	182.0	4.69	119.0	2.00	50.8	3.19	81.0
C6CA13-24-24	1 1/2	1 1/2	8.35	212.0	5.87	149.1	2.37	60.3	4.63	117.6
C6CA13-32-32	2	2	9.35	237.6	6.83	173.5	2.81	71.4	4.26	108.1

C7CA13 | SAE Coe 61 Flange 67.5° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		DROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C7CA13-12-12	3/4	3/4	4.61	117.0	2.64	67.0	1.50	38.1	2.20	56.0
C7CA13-16-16	1	1	5.16	131.0	6.62	92.0	1.75	44.5	6.19	81.0
C7CA13-20-20	1 1/4	1 1/4	6.89	175.0	4.41	112.0	2.00	50.8	3.35	85.0
C7CA13-24-24	1 1/2	1 1/2	7.94	201.8	5.26	133.6	2.37	60.3	4.09	103.8
C7CA13-32-32	2	2	9.25	235.0	6.51	165.4	2.81	71.4	4.55	115.6

C9CA13 | SAE Coe 61 Flange 90° Elbow



Part No	Flange Size	Hose Size	A		Cut-Off Allowance B		Flange Dia. F		ROP E	
			inch	mm	inch	mm	inch	mm	inch	mm
C9CA13-12-12	3/4	3/4	4.02	102	2.26	57	1.50	38.1	2.28	58
C9CA13-12-1290	3/4	3/4	4.02	102	2.26	57	1.50	38.1	3.54	90
C9CA13-12-12130	3/4	3/4	4.02	102	2.26	57	1.50	38.1	5.12	130
C9CA13-16-12	1	3/4	4.03	102	2.27	58	1.75	44.5	2.28	58
C9CA13-16-1280	1	3/4	4.07	103	2.31	59	1.75	44.5	3.15	80
C9CA13-16-12130	1	3/4	4.07	103	2.31	59	1.75	44.5	5.12	130
C9CA13-16-16	1	1	4.67	118	2.82	72	1.75	44.5	2.76	70
C9CA13-16-16130	1	1	4.67	118	2.82	72	1.75	44.5	5.12	130
C9CA13-20-20	1 1/4	1 1/4	6.77	172	4.38	111	2.00	50.8	2.99	76
C9CA13-24-20	1 1/2	1 1/4	7.17	182	4.78	122	2.38	60.3	3.94	100
C9CA13-24-24	1 1/2	1 1/2	6.52	166	4.30	109	2.38	60.3	4.09	104
C9CA13-32-32	2	2	8.25	210	5.68	144	2.81	71.4	4.72	120

MEMO

