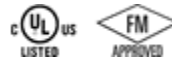


## C-7 OUTLET COUPLING



For pressure rating, listing, and approval information, refer to data sheet or visit SHURJOINT website [www.shurjoint.com](http://www.shurjoint.com) for details or contact your SHURJOINT representatives.

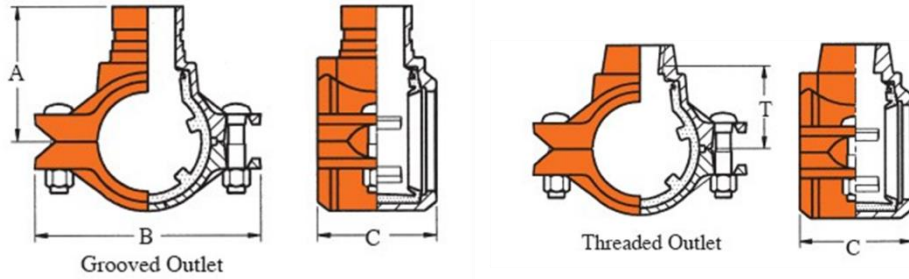
The Model C-7 Outlet Coupling combines the features of a coupling and a reducing outlet. The C-7 is a joining device with an integral reducing outlet, eliminating the need for a mechanical tee or a reducing tee and couplings. The C-7 is available with grooved, male threaded or female threaded outlets. The C-7 coupling is recommended for fire sprinkler services and other applications up to 300 psi (20 Bar) depending on the size and schedule of pipe being used. The C-7 can be used for dry pipe systems or vacuum services up to -10 inHg or 254 mmHg which may occur when the system is drained. All Model C-7 couplings are comprised of an upper and lower ductile iron housings segment, EPDM rubber gasket and plated track bolts & nuts. Housings segments are supplied with our standard painted finishes, i.e. orange or RAL3000 red. Optional finishes such as hot dipped zinc galvanized and custom epoxy coatings are available.



C-7 couplings should always be installed so that the coupling bolt pads make metal to metal contact.

### material specification

- **Housing:**  
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).
- **Surface Finish:**  
Standard painted finishes in orange or RAL3000 red.
  - Hot dip zinc galvanized (Option).
  - Epoxy Coatings in RAL3000 red or other colors (Option)
- **Rubber Gasket:**  
Grade "E" EPDM (Color code: Green stripe) Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine or chloramines, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.  
Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.  
Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)\*.  
\*EPDM gaskets for water services are not recommended for steam services unless couplings or components are accessible for frequent gasket replacement.
  - Other options: Grade "T" - Nitrile  
Grade "O" - Fluoroelastomer.  
Grade "L" - Silicone.
 For additional details contact Shurjoint.
- **Bolts & Nuts:**  
Heat treated carbon manganese steel track bolts to ASTM A449-83a (or A183 Gr. 2), minimum tensile strength 110,000 psi (758 MPa), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563.



Model C-7 Outlet Coupling

Run pipe	Normal Size		Max. Working Pressure (CWP)*	Axial Displacement†	Max. End Load (CWP)	Dimensions				Bolt Size	Weight
	outlet					T**	A	B	C		
in	in	in	psi	in	lbf	in	in	in	in	in	lbs
mm	mm	mm	bar	mm	kN	mm	mm	mm	mm	mm	kg
1½ 40	½	---	500	0.81-0.88	1050 4.7	2.06	---	4.50	2.75	¾ x 2½ M10 x 55	2.6
	15	---	35	20-22		52	---	114.3	70.0		1.2
	¾	---	500	0.81-0.88		2.06	---	4.50	2.75		2.6
	20	---	35	20-22		52	---	114.3	70.0		1.2
	1	---	500	0.81-0.88		1.94	---	4.50	2.75		2.9
	25	---	35	20-22	49	---	114.3	70.0	1.3		
2 50	½	---	500	0.81-0.88	2180 9.7	2.32	---	5.00	2.75	¾ x 2½ M10 x 55	3.1
	15	---	35	20-22		59	---	127.0	70.0		1.4
	¾	---	500	0.81-0.88		2.32	---	5.00	2.75		3.1
	20	---	35	20-22		59	---	127.0	70.0		1.4
	1	1	500	0.81-0.88		2.20	3.50	5.00	2.75		3.3
	25	33.4	35	20-22	56	89.0	127.0	70.0	1.5		
2½ 65	½	---	500	1.25-1.50	3200 14.2	2.20	---	6.33	3.25	½ x 2¾ M12 x 60	4.8
	15	---	35	32-38		56	---	161.0	83.0		2.2
	¾	---	500	1.25-1.50		2.56	---	6.33	3.25		4.6
	20	---	35	32-38		65	---	161.0	83.0		2.1
	1	---	500	1.25-1.50		2.44	---	6.33	3.25		4.4
	25	---	35	32-38		62	---	161.0	83.0		2.0
	1¼	1¼	500	1.25-1.50		2.36	3.70	6.33	3.25		5.1
	32	42.2	35	32-38		60	94.0	161.0	83.0		2.3
	---	1½	500	1.25-1.50	---	3.70	6.33	3.25	5.9		
	---	48.3	35	32-38	---	94.0	161.0	83.0	2.4		
3 80	¾	---	500	1.25-1.50	4750 21.0	2.83	---	6.87	3.25	½ x 3 M12 x 75	5.9
	20	---	35	32-38		72	---	175.0	83.0		2.7
	1	1	500	1.25-1.50		2.75	4.00	6.87	3.25		6.2
	25	33.4	35	32-38		70	102.0	175.0	83.0		2.8
	1¼	1¼	500	1.25-1.50		2.75	4.00	6.87	3.25		6.2
	32	42.2	35	32-38		70	102.0	175.0	83.0		2.8
	1½	1½	500	1.25-1.50		2.75	4.00	6.87	3.25		6.4
	40	48.3	35	32-38	70	102.0	175.0	83.0	2.9		

C-7 OUTLET COUPLING  
Rev.20220427

Model C-7 Outlet Coupling											
Run pipe	Normal Size outlet		Max. Working Pressure (CWP)*	Axial Displacement†	Max. End Load (CWP)	Dimensions				Bolt Size	Weight
	FPT	Gr/MPT				T**	A	B	C		
in	in	in	psi	in	lbf	in	in	in	in	in	lbs
mm	mm	mm	bar	mm	kN	mm	mm	mm	mm	mm	kg
4 100	¾	---	500	1.63-1.81	7840 34.9	3.70	---	8.31	3.66	5/8 x 3 1/2 M16 x 90	9.2
	20	---	35	41-46		94	---	211.0	93.0		4.2
	1	1	500	1.63-1.81		3.58	4.88	8.31	3.66		9.5
	25	33.4	35	41-46		91	124.0	211.0	93.0		4.3
	1 1/2	1 1/2	500	1.63-1.81		3.31	4.88	8.31	3.66		9.5
	40	48.3	35	41-46		84	124.0	211.0	93.0		4.3
	2	2	500	1.63-1.81		3.50	4.88	8.31	3.66		9.9
	50	60.3	35	41-46		89	124.0	211.0	93.0		4.5
6 150	¾	---	400	1.63-1.81	14000 62.3	4.76	---	10.86	3.70	5/8 x 3 1/2 M16 x 90	13.2
	20	---	28	41-46		121	---	276.0	94.0		6.0
	1	---	400	1.63-1.81		4.76	---	10.86	3.70		13.2
	25	---	28	41-46		121	---	276.0	94.0		6.0
	1 1/2	1 1/2	400	1.63-1.81		4.76	6.06	10.86	3.70		13.6
	40	48.3	28	41-46		121	154.0	276.0	94.0		6.2
	2	2	400	1.63-1.81		4.40	6.06	10.86	3.70		14.3
	50	60.3	28	41-46		111	154.0	276.0	94.0		6.5
---	2 1/2	400	1.63-1.81	---	6.00	11.04	4.09	18.7	3/4 x 4 3/4 M20 x 120		
---	76.1	28	41-46	---	152.5	280.5	104.0	8.5			

FPT: Female threaded outlet

Gr: Grooved outlet

MPT: Male threaded outlet.

\*\* T: Center of run pipe to end of outlet pipe (dimensions approximate). Female threaded outlet only.

\* Working pressure is based on roll grooved standard wall carbon steel pipe.

**Flow Data - C<sub>v</sub> Values**

Values for flow of water at +60°F (+16°C).

$$C_v = \frac{Q}{\sqrt{\Delta P}}$$

Where: C<sub>v</sub> = Flow coefficient  
 Q = Flow (GPM)  
 ΔP = Pressure dropped (psi)

**Flow Characteristics**

Nominal Size	Grooved Outlet	Threaded Outlet
In	C <sub>v</sub> Values	C <sub>v</sub> Values
mm		
½	--	--
15		
¾	--	15
20		
1	25	25
25		
1¼	42	40
32		
1½	53	60
40		
2	88	--
50		
2½	125	--
65		

Nominal Size	Grooved Outlet	Threaded Outlet
	Equivalent Length	Equivalent Length
In	feet	feet
mm	m	m
½	--	2.6
15		0.8
¾	--	3.9
20		1.2
1	3.0	3.0
25	0.9	0.9
1¼	6.2	6.2
32	1.9	1.9
1½	5.6	5.6
40	1.7	1.7
2	7.9	--
50	2.4	--
2½	8.9	--
65	2.7	

**General note**

- Maximum Working Pressure (CWP) listed is the maximum cold water pressure for general piping services tested to ASTM F1476 and or AWWA C606 methods. Figures listed are based on roll- or cut-grooved standard wall carbon steel pipe. For other pipe schedules or pipe materials, contact Shurjoint for additional information.
- Max. End Load is calculated based on the maximum working pressure (CWP).
- Listed and or Approved Pressures are pressure ratings for fire protection systems, tested and approved by various approval bodies. Please always refer to the latest approval data posted on the Shurjoint website.
- Field Joint Test: For one time only, the system may be tested hydrostatically at 1½ times the maximum working pressure listed (AWWA C606 5.2.3).
- Warning: Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- The 10 Year Limited Warranty applies to manufacturing defects only and does not cover severe service/temperature applications or wear parts.
- Shurjoint reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.