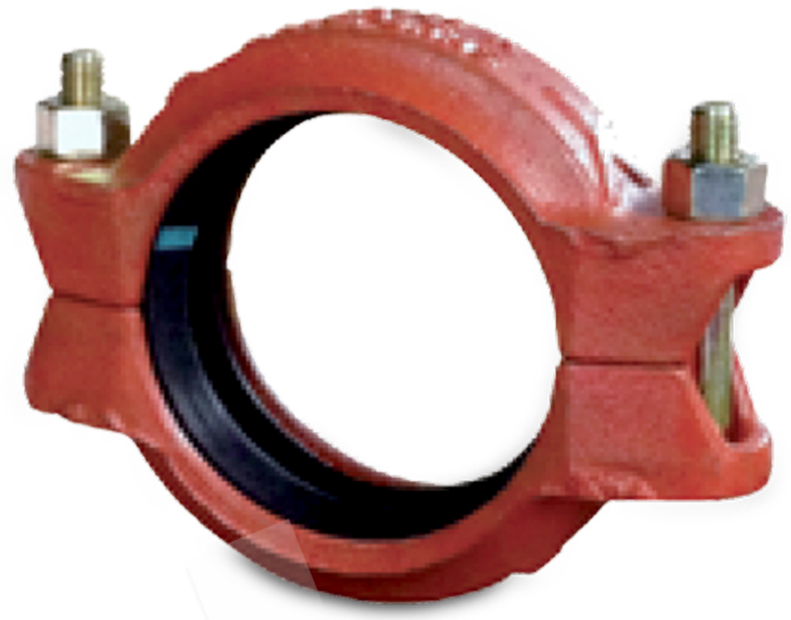
SHURJOINT®

MODEL K-9 RIGID COUPLING

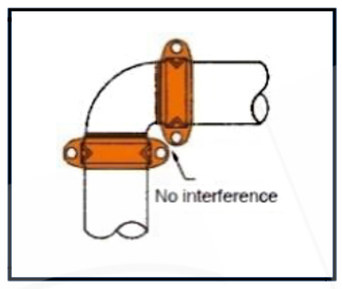
- T&G Design -

The ***Shurjoint*** Model K-9 is a T&G (tongue & groove) design coupling for moderate pressure applications where rigidity is required including valve connections, mechanical rooms, fire mains and long straight runs. The built-in teeth and T&G mechanism firmly grasp the pipe ends to eliminate undesired flex. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

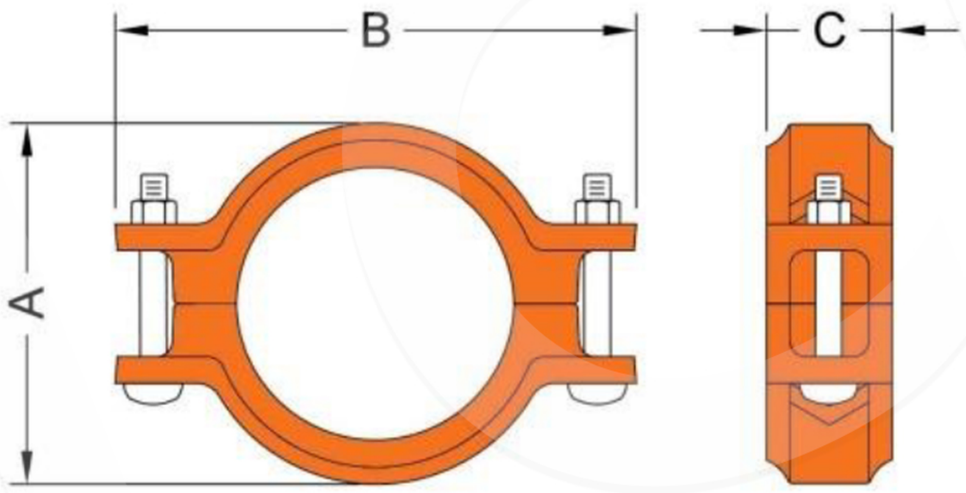


The Model K-9 couplings are comprised of two identical housing segments, EPDM rubber gasket and plated track bolts and nuts. Housing segments are supplied with our standard painted finishes, i.e. orange or RAL3000 red. Optional finishes such as hot dipped zinc galvanized and custom epoxy coatings are available.

K-9 couplings should always be installed so that the coupling bolt pads make metal to metal contact.



No need to worry about bold pad interference as the Model K-9 works well with both regular and short radius elbows and tees.



10 YEAR LIMITED WARRANTY

Full warranty terms can be found on www.shurjoint.com

Model K-9 Rigid Coupling

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max End Load (CWP)	Axial Displacement	Dimension A	Dimension B	Dimension C	Bolt Size	Weight
in *mm*	in *mm*	PSI *Bar*	Lbs *kN*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	Lbs *Kgs*
1¼ *32*	1.660 *42.2*	500 *35*	1080 *4.82*	0~0.06 *0~1.6*	2.56 *65*	4.33 *110*	1.73 *44*	⅜ x 1¾ *M10 x 45*	1.3 *0.6*
1½ *40*	1.900 *48.3*	500 *35*	1410 *6.32*	0~0.06 *0~1.6*	2.80 *71*	4.45 *113*	1.73 *44*	⅜ x 2⅛ *M10 x 55*	1.3 *0.6*
2 *50*	2.375 *60.3*	500 *35*	2210 *9.85*	0~0.06 *0~1.6*	3.27 *83*	4.88 *124*	1.73 *44*	⅜ x 2⅛ *M10 x 55*	1.5 *0.7*
2½ *65*	2.875 *73.0*	500 *35*	3240 *14.43*	0~0.06 *0~1.6*	3.86 *98*	5.39 *137*	1.73 *44*	⅜ x 2⅛ *M10 x 55*	1.8 *0.8*
76.1 mm	3.000 *76.1*	500 *35*	3530 *15.68*	0~0.06 *0~1.6*	4.00 *102*	5.51 *140*	1.73 *44*	⅜ x 2⅛ *M10 x 55*	1.8 *0.8*
3 *80*	3.500 *88.9*	500 *35*	4800 *21.40*	0~0.06 *0~1.6*	4.50 *114*	5.94 *151*	1.73 *44*	⅜ x 2¾ *M10 x 70*	2.6 *1.2*
4 *100*	4.500 *114.3*	500 *35*	5560 *24.72*	0~0.13 *0~3.2*	5.63 *143*	7.48 *190*	1.97 *50*	⅜ x 2¾ *M10 x 70*	3.6 *1.7*
139.7 mm	5.500 *139.7*	450 *31*	8310 *36.92*	0~0.13 *0~3.2*	6.77 *172*	9.21 *234*	2.00 *51*	½ x 3 *M12 x 75*	4.6 *2.1*
5 *125*	5.563 *141.3*	450 *31*	8500 *37.77*	0~0.13 *0~3.2*	6.89 *175*	8.98 *228*	1.97 *50*	½ x 3 *M12 x 75*	4.6 *2.1*
165.1 mm	6.500 *165.1*	450 *31*	11600 *51.57*	0~0.13 *0~3.2*	7.75 *197*	9.92 *252*	2.09 *53*	½ x 3 *M12 x 75*	5.3 *2.4*
6 *150*	6.625 *168.3*	450 *31*	12050 *53.59*	0~0.13 *0~3.2*	7.87 *200*	10.04 *255*	2.09 *53*	½ x 3 *M12 x 75*	5.9 *2.7*
8 *200*	8.625 *219.1*	350 *24*	20430 *90.82*	0~0.13 *0~3.2*	10.16 *258*	13.15 *334*	2.44 *62*	⅝ x 3½ *M16 x 90*	9.7 *4.4*

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

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MODEL K-9H RIGID COUPLING

Model K-9H Rigid Coupling									
Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max End Load (CWP)	Axial Displacement	Dimension A	Dimension B	Dimension C	Bolt Size	Weight
in *mm*	in *mm*	PSI *Bar*	Lbs *kN*	in *mm*	in *mm*	in *mm*	in *mm*	in *mm*	Lbs *Kgs*
8 *200*	8.625 *219.1*	350 *24*	20430 *90.82*	0~0.13 *0~3.2*	10.29 *261*	13.08 *332*	2.44 *62*	¾ x 4¾ *M20 x 120*	15.8 *7.2*

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

Performance Data

The following tables show the maximum working pressures (CWP) of ***Shurjoint*** Model K-9/K-9H Rigid Coupling used on both carbon steel and stainless steel pipes. ***Shurjoint*** ductile iron couplings can be used in conjunction with stainless steel pipe in non-corrosive environment as the flow media does not come in direct contact with the coupling housings but rather only the gasket.

Model K-9 on Carbon Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
in / *mm*	XS PSI / *Bar*	STD PSI / *Bar*	STD PSI / *Bar*	Sch. 10 PSI / *Bar*	Sch. 7 PSI / *Bar*
1¼ *32*	600 *42*	600 *42*	500 *35*	400 *28*	300 *20*
1½ *40*	600 *42*	600 *42*	500 *35*	400 *28*	300 *20*
2 *50*	600 *42*	600 *42*	500 *35*	400 *28*	300 *20*
2½ *65*	600 *42*	600 *42*	500 *35*	400 *28*	300 *20*
3 *80*	600 *42*	600 *42*	500 *35*	400 *28*	300 *20*
4 *100*	600 *42*	600 *42*	500 *35*	400 *28*	300 *20*
5 *125*	450 *31*	450 *31*	450 *31*	350 *24*	250 *17*
6 *150*	450 *31*	450 *31*	450 *31*	350 *24*	250 *17*
8 *200*	450 *31*	450 *31*	350 *24*	250 *17*	200 *14*
8 (K-9H) *200*	450 *31*	450 *31*	350 *24*	250 *17*	200 *14*

Model K-9 on Stainless Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
in / *mm*	Sch. 80S PSI / *Bar*	Sch. 40S PSI / *Bar*	Sch. 40S PSI / *Bar*	Sch. 10S PSI / *Bar*	Sch. 5S PSI / *Bar*
1¼ *32*	600 *42*	600 *42*	450 *31*	300 *20*	250 *17*
1½ *40*	600 *42*	600 *42*	450 *31*	300 *20*	250 *17*
2 *50*	600 *42*	600 *42*	450 *31*	300 *20*	250 *17*
2½ *65*	600 *42*	600 *42*	450 *31*	300 *20*	250 *17*
3 *80*	600 *42*	600 *42*	450 *31*	300 *20*	250 *17*
4 *100*	600 *42*	600 *42*	450 *31*	300 *20*	*200* *14*
5 *125*	450 *31*	450 *31*	300 *20*	200 *14*	NR
6 *150*	450 *31*	450 *31*	300 *20*	125 *9*	NR
8 *200*	450 *31*	450 *31*	300 *20*	100 *7*	NR
8 (K-9H) *200*	450 *31*	450 *31*	300 *20*	100 *7*	NR

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MATERIAL SPECIFICATIONS

• Housing:

Ductile Iron to ASTM A536, Gr. 65-45-12 and or ASTM A395, Gr. 65-45-15, 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.

- ☐ (Option) **Grade "T" Nitrile** (Color code: Orange stripe) Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Also good for water services under +150°F (+66°C).
  Temperature range: -20°F to +180°F (-29°C to +82°C).
  Do not use for HOT WATER above +150°F (+66°C) or HOT DRY AIR above +140°F (+60°C)
- ☐ Other options: 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.

General Notes:

- ***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.

Shurjoint *product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact* ***Shurjoint*** *Technical Service.* ***Shurjoint*** *reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligations to make such changes and modifications on* ***Shurjoint*** *products previously subsequently sold.*

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