

MODEL Z05 RIGID COUPLING

- Angle-Pad Design -

The **Shurjoint** Model Z05 is an angle-pad design rigid coupling for moderate pressure piping services including fire mains, long straight runs and valve connections. The angle-pad design allows the coupling housings to slide along the bolt pads when tightened. The result is an offset clamping action which provides a rigid joint which resists so called snaking of a long straight run. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13. With the removal of only one bolt you can make a fast and easy "swing-over" installation.

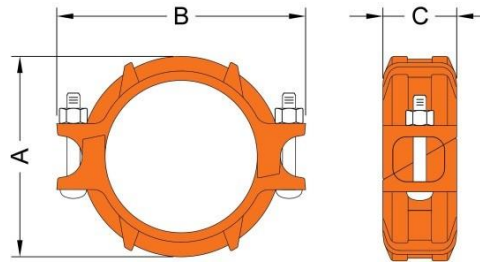
The **Shurjoint** Model Z05 is available with a standard "C" shaped or **GapSeal** gasket type to meet your specific service requirements.



Z05 couplings should always be installed so that the coupling bolt pads make metal to metal contact.



For Fire Protection pressure rating, listing, and approval information, refer to Data Sheet B-42 or visit **SHURJOINT** website, www.shurjoint.com for details or contact your **SHURJOINT** Representative.



10
YEAR
LIMITED
WARRANTY

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

Model Z05 Rigid Coupling

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max End Load (CWP)	Axial Displacement †	Dimension			Bolt		
					A	B	C	No.	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 4.89	0 ~ 0.05 0 ~ 1.2	2.60 66	4.00 102	1.81 46	2	¾ x 2½ M10 x 55	1.41 0.64
1½ 40	1.900 48.3	500 35	1410 6.41	0 ~ 0.05 0 ~ 1.2	2.83 72	4.29 109	1.81 46	2	¾ x 2½ M10 x 55	1.46 0.66
2 50	2.375 60.3	500 35	2210 9.99	0 ~ 0.07 0 ~ 1.7	3.35 85	4.61 117	1.85 47	2	¾ x 2¾ M10 x 70	1.74 0.79
2½ 65	2.875 73.0	500 35	3240 14.64	0 ~ 0.07 0 ~ 1.7	3.86 98	5.24 133	1.85 47	2	¾ x 2¾ M10 x 70	2.05 0.93
76.1 mm	3.000 76.1	500 35	3530 15.91	0 ~ 0.07 0 ~ 1.7	3.94 100	5.35 136	1.85 47	2	¾ x 2¾ M10 x 70	2.16 0.98
3 80	3.500 88.9	500 35	4800 21.71	0 ~ 0.07 0 ~ 1.7	4.45 113	5.91 150	1.88 48	2	¾ x 2¾ M10 x 70	2.60 1.20
108.0 mm	4.250 108.0	500 35	7080 32.05	0 ~ 0.16 0 ~ 4.1	5.59 142	6.93 176	2.13 54	2	¾ x 2¾ M10 x 70	3.62 1.64
4 100	4.500 114.3	500 35	7940 35.89	0 ~ 0.16 0 ~ 4.1	5.75 146	7.20 183	2.13 54	2	¾ x 2¾ M10 x 70	4.12 1.87
133.0 mm	5.250 133.0	350 24	7570 33.33	0 ~ 0.16 0 ~ 4.1	6.69 170	8.82 224	2.13 54	2	½ x 3 M12 x 75	5.14 2.33
139.7 mm	5.500 139.7	350 24	8310 36.77	0 ~ 0.16 0 ~ 4.1	6.81 173	8.98 228	2.09 53	2	½ x 3 M12 x 75	5.67 2.57
5 125	5.563 141.3	350 24	8500 37.62	0 ~ 0.16 0 ~ 4.1	6.89 175	9.06 230	2.13 54	2	½ x 3 M12 x 75	5.69 2.58
159.0 mm	6.250 159.0	350 24	10730 47.63	0 ~ 0.16 0 ~ 4.1	7.80 198	9.84 250	2.09 53	2	½ x 3 M12 x 75	6.06 2.75

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Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max End Load (CWP)	Axial Displacement †	Dimension			Bolt		Weight
					A	B	C	No.	Size	
in	in	PSI	Lbs	in	in	in	in		in	Lbs
mm	mm	Bar	kN	mm	mm	mm	mm		mm	Kgs
165.1mm	6.500 165.1	350 24	11600 51.35	0 ~ 0.16 0 ~ 4.1	7.87 200	9.92 252	2.09 53	2	½ x 3 M12 x 75	6.72 3.05
6	6.625 150	350 24	12050 53.36	0 ~ 0.16 0 ~ 4.1	8.00 203	10.00 254	2.09 53	2	½ x 3 M12 x 75	6.77 3.07
8	8.625 200	350 24	20430 90.44	0 ~ 0.19 0 ~ 4.8	10.40 264	12.68 322	2.52 64	2	¾x55/16 M16 x135	13.38 6.07
200 JIS	8.516 216.3	350 24	19920 88.14	0 ~ 0.19 0 ~ 4.8	10.24 260	13.35 339	2.50 64	2	¾x4¾ M20 x120	15.43 7.00

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

† Allowable Axial Displacement and Angular Movement (deflection) figures are for roll grooved standard steel pipe. Values for cut grooved pipe will be double that of roll grooved. These values are maximums; for design and installation purposes these figures should be reduced by: 50% for ¾"/DN20 – 3½"/DN90; 25% for 4"/DN100 and larger to compensate for jobsite conditions.

Performance Data

The following tables show the maximum working pressures (CWP) of **Shurjoint** Model Z05 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 Z05 on Carbon Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
	XS PSI / Bar	STD PSI / Bar	STD PSI / Bar	Sch. 10 PSI / Bar	Sch. 7 PSI / Bar
in / mm					
1¼ 32	600 42	600 42	500 35	400 28	250 17
1½ 40	600 42	600 42	500 35	400 28	250 17
2 50	600 42	600 42	500 35	400 28	250 17
2½ 65	600 42	600 42	500 35	400 28	250 17
3 80	600 42	600 42	500 35	400 28	250 17
4 100	600 42	600 42	500 35	400 28	200 14
5 125	450 31	450 31	350 24	300 20	175 12
6 150	450 31	450 31	350 24	300 20	175 12
8 200	450 31	450 31	350 24	300 20	150 10

Model Z05 on Stainless Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
	Sch. 80S PSI / Bar	Sch. 40S PSI / Bar	Sch. 40S PSI / Bar	Sch. 10S PSI / Bar	Sch. 5S PSI / Bar
in / mm					
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

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 (Optional).
- Epoxy Coatings in RAL3000 red or other colors (Optional)

• Rubber Gasket:

Grade “Lube-E” (E-A) (Color code: Violet stripe) UL approved pre-lubricated gasket designed specifically for the fire protection industry.

Maximum Temperature Range: ambient

- Other options: GapSeal E-A* (without prelubrication).**
Maximum Temperature Range: ambient

• 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.

For dry fire systems, we recommend GapSeal E-A gasket (listed under other options)

For additional details or questions contact **Shurjoint**.

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.