# Stainless Steel Rigid Coupling Fig. 7401SS



The Figure 7401SS Rigid Coupling is a Stainless Steel coupling made of ASTM A-743 / A743M cast stainless steel which is the cast equivalent to 316 Stainless Steel. It is designed for installation on grooved Stainless Steel Schedules 10 and 40 pipe and grooved fittings. The stainless steel material is suitable for a variety of aggressive corrosive environments. The Figure 7401SS provides a rigid joint connection by firmly gripping along the circumference of the pipe grooves. It is capable of pressures up to 750 psi (41.4 bar) depending on pipe size and wall thickness.

## **Material Specifications**

#### **Stainless Steel Bolts**

Stainless steel bolts are metric track head bolts conforming to ASTM A 193M Class 2, Type 316 Grade B8M.

### **Stainless Steel Nuts**

Class 2 stainless steel nuts are heavy hex nuts conforming to ASTM A 194M, Type 316, Grade 8M.

### Stainless Steel Housing

Type 316L, ASTM A 743/A 743M – Standard specification for castings, iron-chromium, iron-chromiumnickel, corrosion resistant; for general application Grade CR-8M. Tensile strength, minimum 70,000 psi (4826.3 bar). Yield strength, minimum 30,000 psi (2068.4 bar). Elongation in 2" (50mm) minimum 30%.



## Material Specifications (cont.)

#### **Gaskets:** Materials

Properties as designated in accordance with ASTM D 2000.

**Grade "EP" EPDM** (Green and Red color code) -40°F to 250°F (Service Temperature Range) (-40°C to 121°C). Recommended for water service, diluted acids, alkaline solutions, oil-free air and many other chemical services.

NOT FOR USE IN PETROLEUM APPLICATIONS. For hot water applications the use of Gruvlok Extreme Temperature lubricant is recommended.

**Grade "T" Nitrile** (Orange color code) -20°F to 180°F (Service Temperature Range) (-29°C to 82°C). Recommended for petroleum applications, air with oil vapors and vegetable and mineral oils.

NOT FOR USE IN HOT WATER OR HOT AIR.

#### Grade "O" Fluoro-Elastomer (Blue color code)

20°F to 300°F (Service Temperature Range) (-7°C to 149°C). Recommended for high temperature resistance to oxidizing acids, petroleum oils, hydraulic fluids, halogenated hydrocarbons and lubricants.

## Gasket Type

Standard C Style (1¼" – 12") Flush Gap (1¼" – 12")

#### Lubrication

Standard Gruvlok Gruvlok Xtreme<sup>™</sup> (Do Not use with Grade "L")



PROJECT INFORMATION	APPROVAL STAMP		
Project:	Approved		
Address:	Approved as noted		
Contractor:	Not approved		
Engineer:	Remarks:		
Submittal Date:			
Notes 1:			
Notes 2:			



# Stainless Steel Rigid Coupling **Fig. 7401SS**



## Fig. 7401SS Stainless Steel Rigid Coupling

Size		Max. Working	g Max. End Load <sup>+</sup> Lbs./kN	Max. End Gap*‡	Coupling Dimensions		ons	Coupling Bolts		Approx.
	0.D.	0.D. Pressure <sup>†</sup>			Х	Y	Z	01.	Size	Wt. Ea.
	In./mm	In./mm PSI/bar			In./mm In./mm	In./mm	Qty.	In./mm	Lbs./kg	
<b>1¼</b>	1.660	<b>750</b>	1.623	<b>0.06</b>	<b>3.02</b>	<b>4.38</b>	<b>1.81</b>	2	<b>¾ x 2¼</b>	<b>2.0</b>
32	42.4	51.7	7.22	1.5	76.7	111.3	46.0		M10 x 57	0.9
1½ 40	1.900 48.3	<b>750</b> 51.7	<b>2.127</b> 9.46	<b>0.08</b> 2.0	<b>3.14</b> 79.7	<b>4.62</b> 117.3	<b>1.81</b> 46.0	2	<b>³% x 2¼</b> M10 x 57	2.1 0.9
<b>2</b>	<b>2.375</b>	<b>750</b>	<b>3.323</b>	0.13	<b>3.63</b>	<b>5.12</b>	<b>1.88</b>	2	<mark>³∕8 x 2¼</mark>	<b>2.5</b>
50	60.3	51.7	14.78	3.3	92.2	130.0	47.8		M10 x 57	1.1
<b>2½</b>	<b>2.875</b>	<b>600</b>	<b>3.895</b>	0.13	<b>4.28</b>	<b>5.70</b>	<b>1.88</b>	2	<b>¾ x 2¼</b>	<b>3.2</b>
65	73.0	41.4	17.3	3.3	108.7	144.8	47.8		M10 x 57	1.5
<b>3</b>	3.500	<b>600</b>	<b>5.772</b>	0.13	<b>4.90</b>	<b>6.50</b>	<b>1.88</b>	2	<b>½ x 3</b>	<b>4.3</b>
80	88.9	41.4	25.7	3.3	111.7	165.1	47.8		M12 x 76	1.9
<b>4</b>	<b>4.500</b>	<b>600</b>	<b>9.542</b>	0.19	<b>6.08</b>	<b>7.82</b>	<b>1.97</b>	2	<b>½ x 3</b>	<b>5.7</b>
100	114.3	41.4	42.4	4.8	154.4	198.6	44.9		M12 x 76	2.6
<b>5</b>	<b>5.563</b>	<b>600</b>	14.583	0.19	<b>7.20</b>	<b>9.71</b>	<b>2.04</b>	2	<b>% x 3¼</b>	<b>8.2</b>
125	141.3	41.4	64.9	4.8	182.8	246.6	51.8		M16 x 83	3.7
<b>6</b> 150	<b>6.625</b> 168.3	<b>600</b> 41.4	<b>20.682</b> 92.0	0.19 4.8	<b>8.27</b> 210.1	<b>10.88</b> 276.3	<b>2.13</b> 54.1	2	<b>5% x 3¼</b> M16 x 83	<b>9.2</b> 4.2
<b>8</b>	<b>8.625</b>	<b>600</b>	<b>35.054</b>	0.19	<b>10.51</b>	<b>13.56</b>	<b>2.62</b>	2	<b>¾ x 4¾</b>	19.4
200	219.1	41.4	156	4.8	266.9	344.4	66.5		M20 x 121	8.8
<b>10</b>	<b>10.750</b>	<b>600</b>	<b>54.455</b>	0.13	<b>12.97</b>	<b>16.40</b>	<b>2.62</b>	2	<b>1 x 6½</b>	<b>32.2</b>
250	273.0	41.4	242	3.3	329.4	416.6	66.5		M24 x 165	14.6
<b>12</b>	<b>12.750</b>	<b>600</b>	76.603	0.13	<b>15.42</b>	<b>18.84</b>	<b>2.62</b>	2	1 x 6½	<b>42.2</b>
300	323.9	41.4	340	3.3	391.7	478.5	66.5		M24 x 165	19.1

#### Note:

\* Maximum available gap between pipe ends. Minimum gap = 0.

† Maximum Pressure and End Load are total from all loads based on schedule 40 stainless steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thicknesses. Contact an ASC Engineered Solutions Sales Representative for details.

\* Max End Gap and Deflection is for cut grooved standard weight stainless steel pipe. Values for roll grooved pipe will be half that of cut grooved.



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