

# **TUF-LOK<sup>®</sup>**

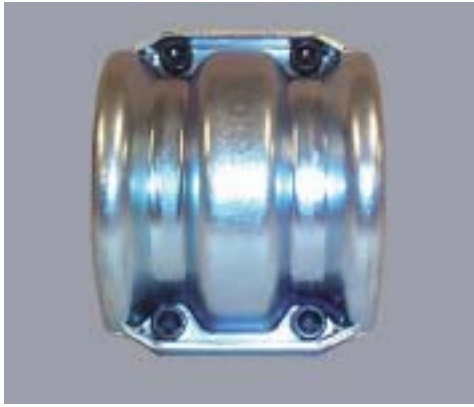
## **PIPE COUPLINGS**

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**Ring Grip Series 689, 688 & 698**



**Zinc Plated Coupling**



**Stainless Steel Coupling**

## Self-Aligning and Self-Grounded

The Tuf-Lok® ring grip pipe coupling is a rugged, heavy duty, self-aligning and self-grounded pipe coupling with a high end pull for almost any application where pipe ends need to be connected.

The Tuf-Lok pipe coupling installs quickly, reducing installation costs. Reinstallation is also fast and easy. This makes it ideal for applications where assembly and disassembly are required. Also, with the Tuf-Lok ring grip pipe coupling the pipe ends do not require machining or grooving and never become marred or damaged when making a connection. Pipeline integrity and reuse of the pipe is never questioned or compromised.

## Strong and Rugged

The extremely high end pull capability is proof that the Tuf-Lok ring grip pipe coupling is one of the strongest and most rugged available. This toughness is important for many applications, including those with high dynamic loads or applications where the pipeline integrity is extremely important. Even vibration and excessive pipe movement can be accommodated by the Tuf-Lok pipe coupling.

## Special Gasket Design

A special design feature built into the gasket of the Tuf-Lok ring grip pipe coupling allows it to accommodate both high pressure and full vacuum pressure conditions. Even high external pressure conditions are accommodated, so the Tuf-Lok pipe coupling is leakproof from the outside as well as the inside. The leakproof connection is maintained even when the Tuf-Lok pipe coupling is completely submerged under water, a feature not always achievable with other pipe couplings.

## Cost Saving Feature

A special cost saving feature of the Tuf-Lok ring grip pipe coupling is that it can be installed on just about any kind of metal pipe irrespective of the wall thickness. It can also be used on mild steel, stainless steel, aluminum and most other thick or thin wall pipe.

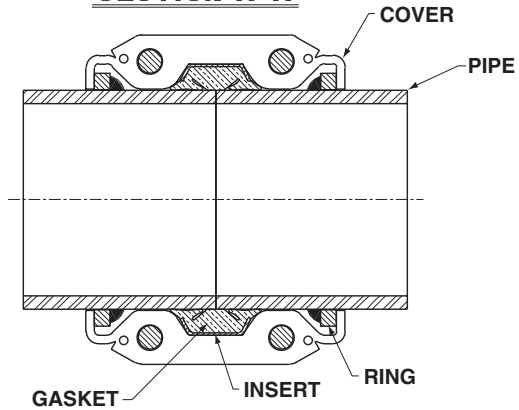
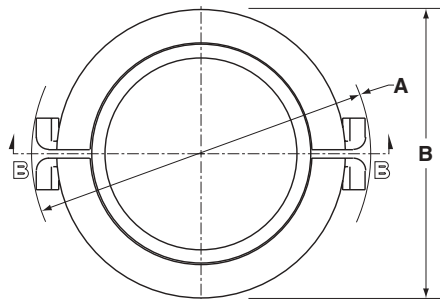
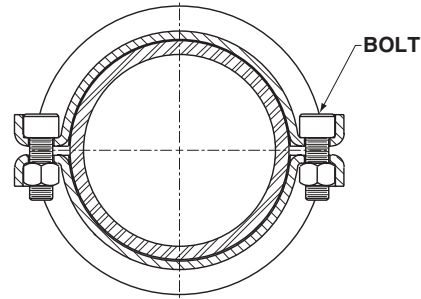
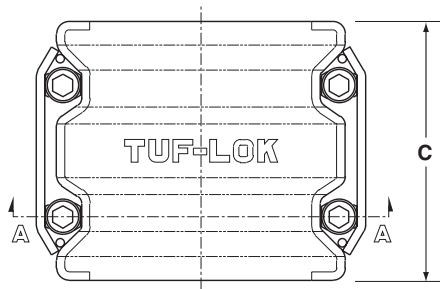
## Features

- **Self-aligning**
- **Installs quickly**
- **High end pull**
- **High pressure rated**
- **Full vacuum rated**
- **Reusable**
- **Absorbs vibration**
- **Rigid**
- **Usable on thin or thick wall pipe**
- **Low cost**
- **Externally leakproof**
- **Self grounding**
- **Smooth internal connection**
- **Every coupling a union**

## Options

- **Covers**
  - **Mild steel**
  - **Zinc plated**
  - **Stainless steel**
- **Rings**
  - **Mild steel**
  - **Stainless steel**
  - **Aluminum**
- **Custom gaskets**
  - **EPDM**
  - **Buna-N**
  - **Silicone**
  - **Fluoroelastomer**
  - **Others**
- **High temperature design to 350° F (176° C)**

# Dimensions & Specifications



SECTION B-B

## Tuf-Lok Ring Grip Pipe Coupling Series 689, 688 and 698

Nominal Pipe Size Inches (mm)	Pipe Outside Diameter Inches (mm)	Series Number	Maximum Working Pressure PSIG (barg)	Maximum End Load* Pounds (N)	Dimensions - Inches (mm)			Approximate Weight, Ea. Pounds (kg)
					A	B	C	
1 (25)	1.315 (33)	689	150 (10.34)	2,950 (13,122)	3.76 (96)	2.54 (65)	1.79 (45)	0.5 (0.2)
1.5 (40)	1.900 (48)	689	150 (10.34)	3,900 (17,348)	4.36 (111)	3.13 (80)	1.79 (45)	0.6 (0.3)
2 (50)	2.375 (60)	688	150 (10.34)	4,600 (20,461)	4.26 (108)	3.45 (88)	4.14 (105)	2.3 (1.0)
3 (80)	3.500 (89)	688	150 (10.34)	6,300 (28,024)	5.38 (137)	4.57 (116)	4.14 (105)	2.9 (1.3)
4 (100)	4.500 (114)	688	150 (10.34)	7,600 (33,806)	6.37 (162)	5.57 (141)	4.14 (105)	3.6 (1.6)
5 (125)	5.563 (141)	688	150 (10.34)	9,000 (40,034)	7.42 (188)	6.63 (168)	4.14 (105)	4.3 (1.9)
6 (150)	6.625 (168)	688	150 (10.34)	10,100 (44,927)	8.49 (216)	7.69 (195)	4.14 (105)	4.9 (2.2)
8 (200)	8.625 (219)	688	130 (8.96)	12,400 (55,158)	10.49 (266)	9.70 (246)	4.14 (105)	6.4 (2.9)
8 (200)	8.625 (219)	698	150 (10.34)	18,000 (80,067)	12.88 (327)	9.95 (253)	6.60 (168)	14.5 (6.6)
10 (250)	10.750 (273)	698	150 (10.34)	22,100 (98,306)	15.15 (385)	12.22 (310)	6.70 (170)	22.0 (10.0)

\* Working pressure and end load are total, including equivalent loads based on proper coupling assembly.

## Easy Assembly

The Tuf-Lok ring grip pipe coupling can be installed on any pipe having the same outside diameter, such as Schedule 10, Schedule 40 or Schedule 80. After welding the metal rings onto each pipe end as shown, the Tuf-Lok coupling is ready to be installed.

Steps 1 through 4 of the assembly shown below can be performed in the shop or in the field. No special tools are required for assembly.

## The Parts



## How It's Assembled



**Step 1** - A Tuf-Lok coupling ring is placed over each square cut, deburred pipe end.



**Step 2** - The Tuf-Lok coupling rings are held in place using the nylon ring gauges provided, insuring correct welding position.



**Step 3** - The coupling ring is tack welded in place between the ring gauges.



**Step 4** - The nylon ring gauges are removed and the ring is continuously welded on the pipe end side only. The weld does not need to be air tight.



**Step 5** - A simple soap solution is used to lubricate the Tuf-Lok gasket for ease of installation.



**Step 6** - The Tuf-Lok rubber gasket is positioned on one pipe end.



**Step 7** - Both pipe ends are butted together and the rubber gasket is centered.



**Step 8** - The Tuf-Lok cover slips over the rings and against the rubber gasket.



**Step 9** - Bonded metal tabs on the Tuf-Lok gasket are positioned between cover halves.



**Step 10** - With both metal Tuf-Lok covers positioned over the welded rings, the covers are evenly tightened.

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