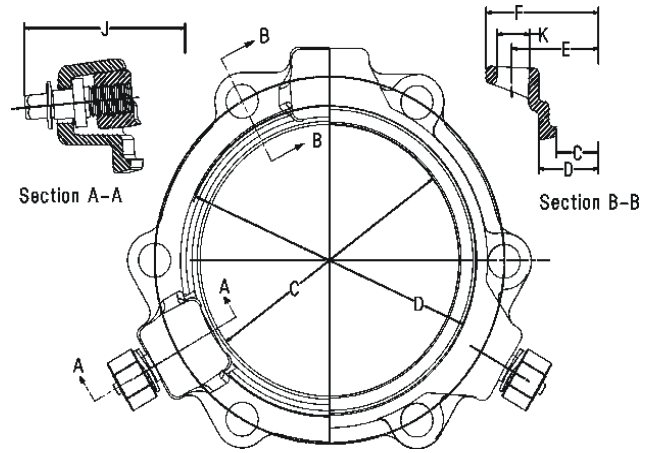


## TUF Grip™ MJ Restraint Dimensions

Size (inches)	C	D	E	F	J	K
3	4.08	4.88	6.19	7.67	9.82	3/4
4	4.93	5.92	7.50	8.98	10.67	7/8
6	7.03	8.02	9.50	10.98	12.77	7/8
8	9.18	10.17	11.75	13.23	14.92	7/8
10	11.23	12.22	14.00	15.70	16.97	7/8
12	13.33	14.32	16.25	17.95	19.07	7/8
14	15.44	16.40	18.75	20.43	21.18	7/8
16	17.54	18.50	21.00	22.88	23.28	7/8
18	19.64	20.60	23.25	25.43	25.38	7/8
20	21.74	22.70	25.50	27.50	27.48	7/8
24	25.94	26.90	30.00	32.00	31.68	7/8



## Ductile TUF Grip™ Application Chart

Size (inches)	Part Number	Wedge Quantity	T-Bolt Quantity	Weight (lbs)	Weight (w/ Acc.)	Pressure Rating (psi)	Pipe OD
3	TLD-3	2	4	6.5	10.5	350	3.96
4	TLD-4	2	4	7.1	11.8	350	4.80
6	TLD-6	3	6	11.2	17.8	350	6.90
8	TLD-8	3	6	13.1	20.3	350	9.05
10	TLD-10	6	8	26.0	32.5	350	11.10
12	TLD-12	8	8	31.5	40.4	350	13.20
14	TLD-14	10	10	43.3	53.6	350	15.30
16	TLD-16	12	12	54.1	66.3	350	17.40
18	TLD-18	12	12	59.8	72.2	250	19.50
20	TLD-20	14	14	69.8	83.8	250	21.60
24	TLD-24	16	16	90.4	106.9	250	25.80

## PVC TUF Grip™ Application Chart

Size (inches)	Part Number	Wedge Quantity	T-Bolt Quantity	Weight (lbs)	Weight (w/ Acc.)	Pressure Rating (psi)	Pipe OD
3	TLP-3	2	4	7.0	11.0	305	3.50
4	TLP-4	2	4	8.3	12.2	305	4.50-4.80
6	TLP-6	3	6	12.4	18.3	305	6.63-6.90
8	TLP-8	3	6	14.9	20.8	305	8.63-9.05
10	TLP-10	6	8	25.7	33.4	305	10.75-11.10
12	TLP-12	8	8	34.1	42.0	305	12.75-13.20
14	TLP-14	10	10	45.1	55.4	235	15.30
16	TLP-16	12	12	56.2	68.4	235	17.40
18	TLP-18	12	12	62.4	74.8	235	19.50
20	TLP-20	14	14	72.9	86.9	235	21.60
24	TLP-24	16	16	93.2	109.8	235	25.80

**Suggested Specifications: *Bold Italicized language applies to Ductile and PVC TUF Grip™***

***Restraint glands shall be designed for use with and conform to the applicable requirements of ANSI / AWWA C111. A21.11. Restraint gland product identification shall have traceability. Restraint glands shall have a minimum safety factor of 2:1. Restraint glands shall employ a single tooth wedge design and utilize torque limiting nuts requiring no more than 60 ft-lbs of torque to actuate wedges. Restraint devices shall accept out of round pipe. Restraint devices shall not utilize stops, and have a bolt and wedge assembly that can not be removed prior to installation. Mechanical Joint restraints shall be listed by Underwriters Laboratories in sizes 4" - 12", and have Factory Mutual approval in sizes 4" - 12". Specialty tools will not be required for installation. Restraint glands shall be Tyler / Union TUF Grip™ Restraint or approved equal.***

**Ductile TUF Grip™ TLD** will restrain pipe conforming to the requirements of ANSI/AWWA/C151/A21.51. Ductile Iron Pipe gripping wedges shall be heat treated and hardened to a BHN range of 370-470.

**PVC TUF Grip™ TLP** will restrain pipe manufactured to AWWA C900 / C905 and have working pressure ratings equal to the pressure rating of the pipe on which they are used. Restraint glands shall accommodate 3" - 12" IPS pipe without the removal of spacers or other modification of the device and conform to the requirements of ASTM 1674.

\* **Ductile TUF Grip™ TLD** is not recommended for plain end fittings.