

MECHANICAL JOINT RESTRAINT GLAND

MJ TLD TUFGrip™ KIT for DI PIPE

KIT UPCode 670610	SIZE	SHIP CODE	PART NUMBER	KIT LIST PRICES	APPROX KIT WEIGHT
114352	3"	S	TLD-3	63.75	10.5
114154	4"	S	TLD-4	70.00	11.8
114161	6"	S	TLD-6	98.00	17.8
114178	8"	S	TLD-8	118.75	20.3
114185	10"	S	TLD-10	188.00	32.5
114192	12"	S	TLD-12	231.25	40.4
114208	14"	S	TLD-14	316.25	53.6
114215	16"	S	TLD-16	413.75	66.3
114222	18"	S	TLD-18	565.00	72.2
114239	20"	S	TLD-20	687.50	83.8
114246	24"	S	TLD-24	812.50	106.9
461289	30"	S	TLD-30	2102.50	290.0
461333	36"	S	TLD-36	2737.50	327.0
461319	42"	S	TLD-42	3691.25	512.0
461326	48"	S	TLD-48	4985.00	597.0

MJ TLD TUFGrip™ GLAND for DI PIPE

GLAND UPCode 670610	SIZE	SHIP CODE	PART NUMBER	GLAND LIST PRICES	APPROX GLAND WEIGHT
113805	3"	S	TLD-3	46.25	6.5
113812	4"	S	TLD-4	48.75	7.1
113829	6"	S	TLD-6	69.50	11.2
113836	8"	S	TLD-8	87.50	13.1
113843	10"	S	TLD-10	152.50	26.0
113850	12"	S	TLD-12	186.25	31.5
113867	14"	S	TLD-14	242.50	43.3
113874	16"	S	TLD-16	341.25	54.1
113898	18"	S	TLD-18	485.00	59.8
113904	20"	S	TLD-20	598.75	69.8
113911	24"	S	TLD-24	705.00	90.4
456186	30"	S	TLD-30	1915.00	248.0
458869	36"	S	TLD-36	2450.00	277.0
456209	42"	S	TLD-42	3691.25	448.0
456216	48"	S	TLD-48	4985.00	519.0

MJ TLD TUFGrip™ KIT for PVC PIPE

KIT UPCode 670610	SIZE	SHIP CODE	PART NUMBER	KIT LIST PRICES	APPROX KIT WEIGHT
-	3"	S	TLP-3	81.25	-
114253	4"	S	TLP-4	81.25	12.2
114260	6"	S	TLP-6	109.50	18.3
114277	8"	S	TLP-8	138.75	20.8
114284	10"	S	TLP-10	241.25	33.4
114291	12"	S	TLP-12	272.00	42.0
114307	14"	S	TLP-14	440.00	55.4
114314	16"	S	TLP-16	535.00	68.4
114321	18"	S	TLP-18	647.50	74.8
114338	20"	S	TLP-20	788.75	86.9
114345	24"	S	TLP-24	917.50	109.8
461302	30"	S	TLP-30	2331.25	293.0
461357	36"	S	TLP-36	3060.00	331.0

MJ TLD TUFGrip™ GLAND for PVC PIPE

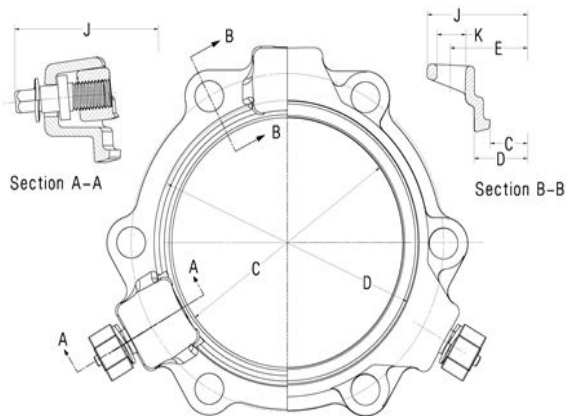
GLAND UPCode 670610	SIZE	SHIP CODE	PART NUMBER	GLAND LIST PRICES	APPROX GLAND WEIGHT
113928	3"	S	TLP-3	61.25	7.0
113935	4"	S	TLP-4	61.25	8.3
113942	6"	S	TLP-6	78.50	12.4
113959	8"	S	TLP-8	106.25	14.9
113973	10"	S	TLP-10	200.00	25.7
113980	12"	S	TLP-12	221.00	34.1
113997	14"	S	TLP-14	342.50	45.1
114000	16"	S	TLP-16	456.25	56.2
114017	18"	S	TLP-18	567.50	62.4
114024	20"	S	TLP-20	700.00	72.9
114031	24"	S	TLP-24	813.75	93.2
456193	30"	S	TLP-30	2061.00	251.0
458876	36"	S	TLP-36	2689.00	281.0

**MJ TLD TUFGrip™ TRANSITION KIT
for IPS PVC PIPE**

KIT UPCode 670610	SIZE	SHIP CODE	PART NUMBER	KIT LIST PRICES	APPROX KIT WEIGHT
114420	3"	S	TLP-3	81.25	11.0
114437	4"	S	TLP-4	81.25	12.2
114444	6"	S	TLP-6	109.50	18.3
114451	8"	S	TLP-8	138.75	20.8
114468	10"	S	TLP-10	241.25	33.4
114475	12"	S	TLP-12	272.00	42.0



Reference Dimensions



TUF Grip™ 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
30	32.18	33.30	36.88	39.42	39.78	1-1/8
36	38.48	39.60	43.75	46.29	46.08	1-1/8
42	44.68	45.80	50.62	53.62	53.08	1-3/8
48	50.98	52.10	57.50	60.50	59.28	1-3/8

TUF Grip™ Advantages

- UL Listed and FM approved for PVC and Ductile Iron Pipe sizes 4 - 12 inch
- Allows disassembly just like a standard mechanical joint
- Eliminates cumbersome thrust blocks
- Wedges and bolts are immersion E-coated for corrosion resistance
- Sizes 3" through 48"
- Available packaged with accessories
- Accommodates out of round pipe

Suggested Specifications apply 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, shall have a bolt and threaded wedge that can not be removed prior to assembly. Mechanical Joint restraints shall be listed by Underwriters Laboratories in sizes 4" - 12", and have a Factory Mutual approval in sizes 4" - 12". Speciality tools will not be required for installation. Restraint glands shall be Tyler / Union TUF Grip™ or approved equal.

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

UPCode 670610	Ship Code	Size	List Price	Weight	UPCode 670610	Ship Code	Size	List Price	Weight
------------------	--------------	------	---------------	--------	------------------	--------------	------	---------------	--------

**TUFG_{RI}P SERRATED PIPE
RESTRAINERS**

300C KITS FOR DUCTILE OD PIPE

S	4	95.00	15
S	6	116.00	19
S	8	180.00	31
S	10	315.00	51
S	12	340.00	55

300C KITS FOR IPS OD PIPE

S	4	95.00	15
S	6	116.00	19
S	8	180.00	31
S	10	315.00	51
S	12	340.00	55

300C-AF KITS FOR DUCTILE OD PIPE

S	4	65.00	16
S	6	76.00	20
S	8	110.00	32
S	10	202.00	52
S	12	217.00	56

300C-AF KITS FOR IPS OD PIPE

S	4	65.00	16
S	6	76.00	20
S	8	110.00	32
S	10	202.00	52
S	12	217.00	56

360C KITS FOR PVC PIPE

S	4	107.00	14
S	6	130.00	17
S	8	212.00	30
S	10	347.00	46
S	12	407.00	50

SET-SCREW MJ RETAINER GLANDS

MJ D.I. RETAINER GLAND ONLY C110**

053774	S	3	28.00	5
053781	S	4	27.00	6
053798	S	6	45.00	11
053804	S	8	56.50	13
053811	S	10	105.50	18
053828	S	12	144.00	23
053835	S	14	178.50	45
053842	S	16	204.00	51
053859	S	18	247.00	62
053866	S	20	293.00	73
053873	S	24	373.50	93

DI RETAINER GLAND ACCESSORY PACK C110 **

365624	S	3	44.00	7
365631	S	4	44.00	9
365648	S	6	70.00	12
365655	S	8	83.00	17
365662	S	10	140.00	21
365679	S	12	182.00	23
085348	S	14†	236.00	54
085355	S	16†	270.00	65
085362	S	18†	316.00	76
085379	S	20†	371.00	95
085386	S	24†	468.00	120

† Not packaged

**SURE STOP 350 LOCKING
GASKETS (SBR)**

For use with Tyton® Joint Bells

S	4	35.00	.5
S	6	50.00	.5
S	8	67.00	.5
S	10	97.00	1.0
S	12	111.00	1.0
S	14	225.00	1.5
S	16	262.00	1.5
S	18	317.00	2.0
S	20	367.00	2.0
S	24	512.00	2.0

NOTE: The prices shown for Sure Stop 350 Locking Gaskets are NET prices - no discounts apply.

TYTON® is a registered trademark of U.S. Pipe and Foundry Company

*ANSI/AWWA C111/A21.11

**Not included in AWWA Standards

TUF Grip SERRATED PIPE RESTRAINER CLAMPS

TUF Grip 300C Serrated Clamps											
PIPE RESTRAINERS 300C SPECIFICATIONS											
Serrated clamp pipe restrainers for restraining AWWA C900 PVC and IPS PVC pipe spigot to bell.											
	Pressure Rating	PVC Pipe With Ductile Iron Pipe OD		PVC Pipe With Steel Pipe (IPS) OD		300 Clamps Included	Restraint Rods & Nuts		Clamping Bolts & Nuts		Wt (approx.)
Nominal Size	psi	O.D.	ITEM CODE	O.D.	ITEM CODE	QTY	QTY	SIZE	QTY	SIZE	(LBS)
4	*	4.80	300C-4-DI	4.50	300C-4-IPS	2	2	3/4" x 17"	4	5/8" x 3-1/2"	15
6	*	6.90	300C-6-DI	6.63	300C-6-IPS	2	2	3/4" x 17"	4	5/8" x 4"	19
8	*	9.05	300C-8-DI	8.63	300C-8-IPS	2	2	3/4" x 17"	4	3/4" x 5"	31
10	*	11.10	300C-10-DI	10.75	300C-10-IPS	2	4	3/4" x 24"	4	7/8" x 5"	51
12	*	13.20	300C-12-DI	12.75	300C-12-IPS	2	4	3/4" x 24"	4	7/8" x 5"	55

TUF Grip 300C-AF Serrated Clamps											
PIPE RESTRAINERS 300C-AF SPECIFICATIONS											
Serrated clamp pipe restrainers for restraining AWWA C900 PVC and IPS PVC pipe to Mechanical Joint and Push On-Joint ductile iron anchor fittings.											
	Pressure Rating	PVC Pipe With Ductile Iron Pipe OD		PVC Pipe With Steel Pipe (IPS) OD		300 Clamps Included	Restraint Rods & Nuts		Clamping Bolts & Nuts		Wt (approx.)
Nominal Size	psi	O.D.	ITEM CODE	O.D.	ITEM CODE	QTY	QTY	SIZE	QTY	SIZE	(LBS)
4	*	4.80	300C-AF-4-DI	4.50	300C-AF-4-DI-IPS	2	4	3/4" x 8"	4	5/8" x 3-1/2"	16
6	*	6.90	300C-AF-6-DI	6.63	300C-AF-6-DI-IPS	2	4	3/4" x 8"	4	5/8" x 4"	20
8	*	9.05	300C-AF-8-DI	8.63	300C-AF-8-DI-IPS	2	4	3/4" x 8"	4	3/4" x 5"	32
10	*	11.10	300C-AF-10-DI	10.75	300C-AF-10-DI-IPS	2	8*	3/4" x 8"	4	7/8" x 5"	52
12	*	13.20	300C-AF-12-DI	12.75	300C-AF-12-DI-IPS	2	8*	3/4" x 8"	4	7/8" x 5"	56

* Restraint to Push On-Joint anchor fittings is only recommended through 8 inches in diameter.
 note: 3/4" x 7" Tee Head Bolts are available as separate accessories.

TUF Grip 360C Serrated Clamps												
PIPE RESTRAINERS 360C SPECIFICATIONS												
Serrated clamp restrainer and split backup ring for restraining AWWA C900 PVC and IPS PVC pipe to PVC pressure fittings.												
	Pressure Rating	PVC Pipe With Ductile Iron Pipe OD		PVC Pipe With Steel Pipe (IPS) OD		300 Clamps Included	Restraint Rods & Nuts		Clamping Bolts & Nuts		Wt (approx.)	360C Split Back-up Ring
Nominal Size	psi	O.D.	ITEM CODE	O.D.	ITEM CODE	QTY	QTY	SIZE	QTY	SIZE	(LBS)	QTY
4	*	4.80	360C-4-DI	4.50	360C-4-IPS	1	2	3/4" x 9"	2	5/8" x 3-1/2"	14	1
6	*	6.90	360C-6-DI	6.63	360C-6-IPS	1	2	3/4" x 9"	2	5/8" x 4"	17	1
8	*	9.05	360C-8-DI	8.63	360C-8-IPS	1	2	3/4" x 12"	2	3/4" x 5"	30	1
10	*	11.10	360C-10-DI	10.75	360C-10-IPS	1	4	3/4" x 12"	4	7/8" x 5"	46	1
12	*	13.20	360C-12-DI	12.75	360C-12-IPS	1	4	3/4" x 12"	4	7/8" x 5"	50	1

* Rated at 2-times the pressure rating of the PVC Pipe being used on.

Basic Specifications:

- 1) all dimensions are in inches
- 2) all connecting rods, and nuts shall comply with ASTM - A307 Grade or (Type C)
- 3) all clamping bolts shall comply with ASTM A449 and nuts will comply with ASTM - A563 - Grade 5
- 4) Colors: DIOD Clamps - BLACK Industrial Enamel; IPS Clamps - GRAY Industrial Enamel

ASSEMBLY INSTRUCTIONS 300C, 300C-AF, 360C

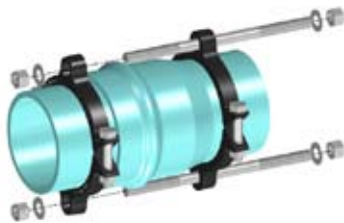
PVC BELL AND SPIGOT INSTALLATION
INSTRUCTION 300C



1. Insert pipe into push-on joint bell per pipe manufacturer's instructions.

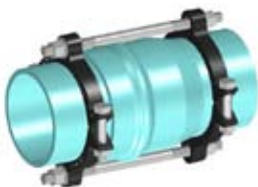


2. Using the restraint rods as a guide mark a line on each section of pipe one inch less than the restraint rods total length. Place clamps onto pipes aligning outside edge of clamps to marks. Place hex head clamp bolts through clamp ears insuring bolt end threads are exposed. Do not tighten clamping bolts, leave loose.



3. Align the clamps and insert the restraining rods. Loosely install the restraining rod nuts until they touch the backside of the clamps. Tighten clamping bolts evenly insuring equal gaps exist between the two halves. Torque clamp bolts to the following torque requirements:

- 4" - 6" clamps (100 ft-lbs)
- 8" clamp (150 ft-lbs)
- 10"-12" clamps (200 ft-lbs)



4. Complete the installation by tightening the restraining rod nuts until snug.

MECHANICAL JOINT INSTALLATION
INSTRUCTION 300C-AF



1. Insert pipe into the mechanical joint hub. Place the all thread rod or long T-bolt through a mechanical joint bell hole and mark a line on the pipe one inch from the end of the bolt.



2. Assemble the follower gland, according to AWWA specifications, omitting the two rods or long T-bolts which must be 180 degrees opposite. Place clamps onto pipes aligning rings to marks and placing hex head clamp bolts through clamp ears insuring bolt end threads are exposed. Do not tighten clamping bolts, leave loose.



3. Insert the rods with nuts or long T-bolts insuring one nut is between the follower gland and the split clamp. Tighten the follower gland nut per AWWA specifications. Install a second nut onto the exposed threads of the long T-bolts and loosely tighten against the clamp's outside face. Tighten the clamping bolt nuts insuring equal gaps exist between the two halves. Torque clamping bolts to the following torque requirements:

- 4" - 6" clamps (100 ft-lbs)
- 8" clamp (150 ft-lbs)
- 10"-12" clamps (200 ft-lbs)



4. Snug tighten the restraining nuts behind each clamping ring until the pipe spigot ends are secure in the bell of the receiving fitting. Do not over tighten the clamp restraining rods or long T-bolts.

**PUSH ON FITTING INSTALLATION
INSTRUCTION 300C-AF**



**PVC FITTING INSTALLATION
INSTRUCTION 360C**



1. Insert pipe into push-on joint bell per pipe manufacturer's instructions.



2. Using the restraint rods or T-bolts inserted through the restraining lug as a guide mark a line on the pipe one inch from the end of the rod or bolt. Place clamps onto pipes aligning outside edge of clamps to marks. Place hex head clamp bolts through clamp ears insuring bolt end threads are exposed. Do not tighten clamp bolts, leave loose.



3. Insert the long rods or T-bolts through the restraining lug and clamp. Install a nut onto the exposed threads of the long rods or T-bolts behind the lug and outside face of the clamp. Tighten the clamping bolt nuts insuring equal gaps exist between the two halves. Torque clamping bolts to the following torque requirements:

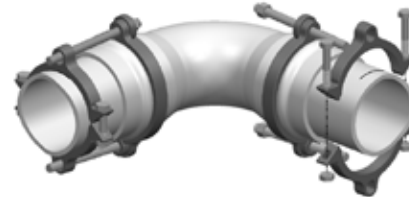
- 4" - 6" clamps (100 ft-lbs)
- 8" clamp (150 ft-lbs)
- 10"-12" clamps (200 ft-lbs)



4. Complete the installation by tightening the restraining rod nuts until snug.



1. Install pipe into the fitting per the pipe manufacturer's instructions. Place the split rings behind the fittings gasket races locking the halves together. Insert the restraining rods into each 360 split ring placing a nut on each rod behind the ring.



2. Use the restraining rod as a guide and position the 300 series split clamp on the pipe. Place hex head clamp bolts through clamp ears insuring bolt end threads are exposed. Do not tighten clamp bolts, leave loose.



3. Align the restraining rods and insure equal threads are beyond the 360 ring and 300 clamp. Tighten the clamping bolt nuts insuring equal gaps exist between the two halves. Torque clamping bolts to the following torque requirements:

- 4" - 6" clamps (100 ft-lbs)
- 8" clamp (150 ft-lbs)
- 10"-12" clamps (200 ft-lbs)



4. Complete the installation by tightening the restraining rod nuts until snug.

MJ FIELD LOK® MECHANICAL JOINT RESTRAINT

UPCode 670610	Ship Code	Size	Field Lok Number	List Prices	Weight
------------------	--------------	------	---------------------	----------------	--------

MJ FIELD LOK® FOR DUCTILE

247852	S	4	DI04	49.90	7.3
247869	S	6	DI06	61.10	10.9
247876	S	8	DI08	84.30	13.5
247883	S	10	DI10	121.70	18.5
247890	S	12	DI12	165.05	19.7
062745	S	14	DI14	238.70	26.9
062752	S	16	DI16	295.30	31.8
062769	S	18	DI18	402.70	49.8
062776	S	20	DI20	491.50	59.7
062783	S	24	DI24	595.65	81.3

MJ FIELD LOK® FOR C900 PVC

247906	S	4	PV04	56.90	7.8
247913	S	6	PV06	71.35	11.8
247920	S	8	PV08	98.15	14.8
247937	S	10	PV10	172.10	21.1
247944	S	12	PV12	181.35	21.6

MJ FIELD LOK® Gasket Series DI

SIZE (Inches)	PIPE OD	ORDER NUMBER	NO. OF SEGMENTS	PRESSURE RATING	APPROX. KIT WEIGHT
4	4.80	DI04	3	350	7.3
6	6.90	DI06	4	350	10.9
8	9.05	DI08	6	350	13.5
10	11.10	DI10	9	350	18.5
12	13.20	DI12	13	350	19.7
14	15.30	DI14	18	350	26.9
16	17.40	DI16	24	350	31.8
18	19.50	DI18	30	250	49.8
20	21.60	DI20	36	250	59.7
24	25.80	DI24	52	250	81.3

MJ FIELD LOK® Gasket Series PV

SIZE (Inches)	PIPE OD	ORDER NUMBER	PRESSURE RATING DR-18(psi)	PRESSURE RATING DR-14 (psi)	APPROX. KIT WEIGHT
4	4.80	PV04	150	200	7.8
6	6.90	PV06	150	200	11.8
8	9.05	PV08	150	200	14.8
10	11.10	PV10	150	200	20.1
12	13.20	PV12	150	200	21.6

MJ FIELD LOK® Gland (See illustration at right)

SIZE (Inches)	WEIGHT (pounds)	A (Outside Dim)	B (Bolt Hole)	DIMENSION C (Inside Dia.)	D (OD Lip)	E (Gland Height)
4	3.3	8.88	7.50	4.90	5.92	1.75
6	5.0	10.87	9.50	7.00	8.02	2.00
8	7.2	13.13	11.75	9.15	10.17	2.25
10	10.2	15.38	14.00	11.20	12.22	2.25
12	11.0	17.63	16.25	13.30	14.32	2.25
14	17.2	20.13	18.75	15.44	16.40	2.51
16	25.0	22.38	21.00	17.54	18.50	2.75
18	38.0	24.75	23.25	19.64	20.60	3.14
20	46.0	27.00	25.50	21.74	22.70	3.20
24	64.0	31.50	30.00	25.94	26.90	3.57

UPCode 670610	Ship Code	Size	Field Lok Number	List Prices	Weight
------------------	--------------	------	---------------------	----------------	--------

LESS BOLTS

MJ FIELD LOK® FOR DUCTILE

111344	S	4	DI04	45.60	4.1
111351	S	6	DI06	55.00	6.1
111368	S	8	DI08	78.20	8.7
111375	S	10	DI10	113.85	12.1
111382	S	12	DI12	157.20	13.3
111399	S	14	DI14	227.40	18.6
111405	S	16	DI16	282.15	21.8
111412	S	18	DI18	389.55	39.8
111429	S	20	DI20	476.40	49.1
111436	S	24	DI24	577.45	66.9

MJ FIELD LOK® FOR C900 PVC

111443	S	4	PV04	52.60	4.6
111450	S	6	PV06	65.30	7.0
111467	S	8	PV08	92.05	10.0
111474	S	10	PV10	164.25	13.7
111481	S	12	PV12	173.50	15.2



MJ FIELD LOK™ Gland

