



**SIP Industries**

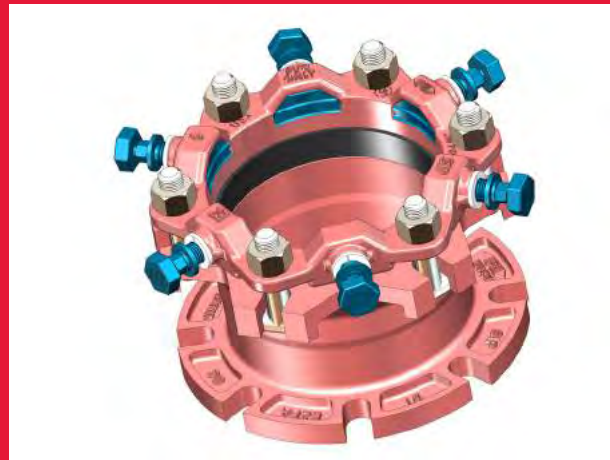
Quality Manufacturers Since 1960

**EZ GRIP®**

RESTRAINED FLANGE ADAPTER COUPLING FOR PVC & DI PIPES

## The EZ GRIP®

Restrained Flange Adapter is a proven design, offering an efficient, reliable and inexpensive method to connect Plain End Ductile Iron Pipe or Plain End PVC Pipe directly to Flanged End Pipe, Flanged Fittings, Flanged Valves or Flanged Pumps where needed.



### ADVANTAGES, BENEFITS, FEATURES

- Eliminates the need for Thrust Blocks and Rod & Clamp restraint methods
- Allows for a secure connection and full 5° deflection per AWWA C600 for misaligned joints
- Main Body & Restraint Gland made from Ductile Iron in accordance with ASTM A536, Grade 65-45-12
- Performs to a Pressure Rating equal to that of the Ductile Iron pipe and shall have a minimum safety factor of at least 2 to 1
- Uses Standard 'SBR' MJ Gasket and O-Ring Flange Gasket, per ANSI/AWWA C111/A21.11
- T-Head Bolts and Nuts are made from HSLA Steel per ANSI/AWWA C111/A21.11. Stainless Steel and Fluoropolymer options also available
- Available in NSF61 Approved Asphaltic Seal Coat in accordance with ANSI/AWWA C104/A21.4 or NSF61 Approved Fusion-Bonded Epoxy (FBE) in accordance with ANSI/AWWA C116/A21.16
- Approved by Factory Mutual (FM) for sizes 4"-12" at 200psi for AWWA C151 Ductile Iron pipe. Listed with Underwriters Laboratories (UL) for sizes 4"-12" at 350psi on AWWA C151 Ductile iron pipe.
- Approved by Factory Mutual (FM) for sizes 4"-12" at 200psi for AWWA C900 pipe. Listed with Underwriters Laboratories (UL) for sizes 4"-12" at 235psi on AWWA C900 Class 235 DR-18 pipe
- Goes with EZDP, EZPVC, and EZPVCU series Joint Restraints
- Offered in sizes from 3" to 36"



Available: Import

V 0524-01

**Toll Free 877-921-6111**

**www.sipindustries.com**

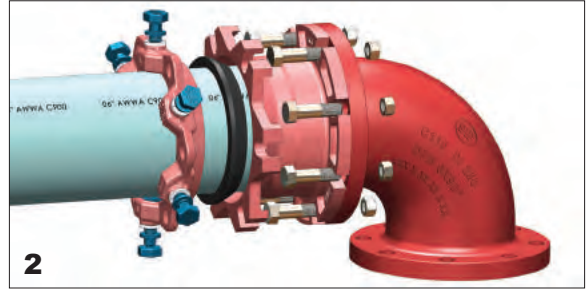
RESTRAINED FLANGE ADAPTER COUPLING FOR PVC & DI PIPES

**Installation Procedure: 3"-12"**



**1** Check the EZ Grip Restrained Flange Adapter for any missing components and any damage. Also be certain the O-ring gasket on the flange face is properly seated in its raceway.

Thoroughly clean the Pipe end for a distance of 2" greater than the length of the Adapter body. (see dimension "D") Slide the EZ Grip Gland on the plain end of the pipe making sure that the lip extension is towards the mechanical joint bell of the Adapter.

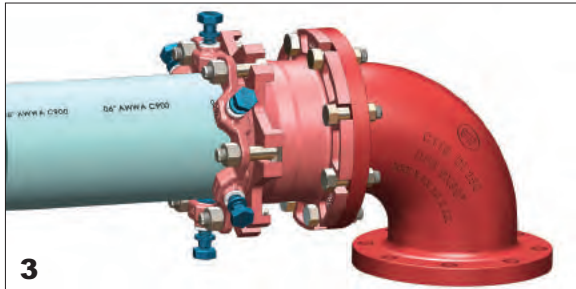


**2** Apply approved pipe lubricant to both the M.J. gasket and the plain end of pipe that meets the AWWA C151 Standard. Slide the MJ gasket over the pipe with the beveled edge towards the MJ bell of Adapter.

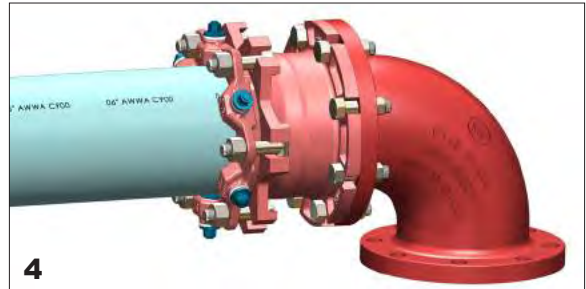
Slide the Adapter on to the pipe with the MJ bell towards the EZ Grip Gland. Pipe must be inserted into the Adapter a minimum of 2.125" on 3"-4", 2.500" on 6"-12" to attain maximum deflection per table.

Align the pipe and flanged end of Adapter against the mating flange and make sure that the flange bolt holes line-up. Assemble the flanged joint using flange bolts.

NOTE: Flange bolts are not supplied with Adapter.



**3** Center the pipe evenly into the I.D. of the Adapter and slide the MJ Gasket into the MJ bell recess of the Adapter. Slide the EZ Grip towards the Adapter with the Gland lip against the gasket. Insert T-bolts and hand-tighten nuts.



**4** Tighten the T-Bolts to normal range of bolt torque per table below. T-bolts should be tightened alternately on opposite sides using a 'Star Pattern'. It is important that the gland be brought up toward the bell socket evenly, maintaining approximately the same distance between the gland and the face of the bell socket at all points around the socket.

**EZ GRIP® RESTRAINED FLANGE ADAPTERS FOR DUCTILE IRON PIPE**

| BREAK-AWAY HEX NUT TORQUE RANGES |           |
|----------------------------------|-----------|
| SIZE (IN)                        | (FT/LBS)  |
| 3 - 24                           | 80 - 90   |
| 30 - 36                          | 115 - 135 |

| RECOMMENDED TORQUE (T-HEAD BOLTS & NUTS)* |                |                          |
|---|----------------|--------------------------|
| PIPE SIZE (IN)                            | BOLT SIZE (IN) | RANGE OF TORQUE (FT/LBS) |
| 3   | 5/8            | 45 - 60                  |
| 4 - 24                                    | 3/4            | 75 - 90                  |
| 30 - 36                                   | 1              | 100 - 120                |

\* Requirement of AWWA C600

**EZ GRIP® RESTRAINED FLANGE ADAPTERS FOR PVC PIPE**

| STANDARDIZED PRESSURE RATINGS |         |                   |         |
|-------------------------------|---------|-------------------|---------|
| ANSI/AWWA C900 CI OD          |         | ASTM D2241 IPS OD |         |
| DR 14                         | 305 PSI | SDR 17            | 250 PSI |
| DR 18                         | 235 PSI | SDR 21            | 200 PSI |
| DR 21                         | 200 PSI | SDR 26            | 160 PSI |
| DR 25                         | 165 PSI |                   |         |
| DR 32.5                       | 125 PSI |                   |         |

| RECOMMENDED TORQUE (T-HEAD BOLTS & NUTS)* |                |                          |
|---|----------------|--------------------------|
| PIPE SIZE (IN)                            | BOLT SIZE (IN) | RANGE OF TORQUE (FT/LBS) |
| 3   | 5/8            | 45 - 60                  |
| 4 - 24                                    | 3/4            | 75 - 90                  |
| 30 - 36                                   | 1              | 100 - 120                |

\* Requirement of AWWA C600

| BREAK-AWAY HEX NUT TORQUE RANGES |                          |
|----------------------------------|--------------------------|
| SIZE (IN)                        | RANGE OF TORQUE (FT/LBS) |
| 3 - 12                           | 60 - 75 <sup>2</sup>     |
| 14 - 24                          | 65 - 85                  |
| 30 - 36                          | 75 - 95                  |

<sup>2</sup> 65 - 75 FT/LBS for EZPVCU Series

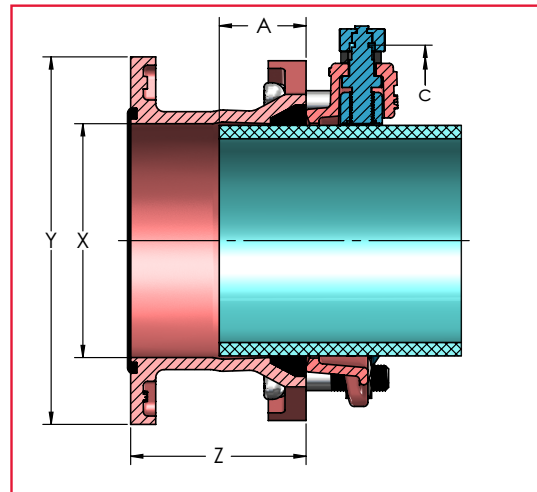
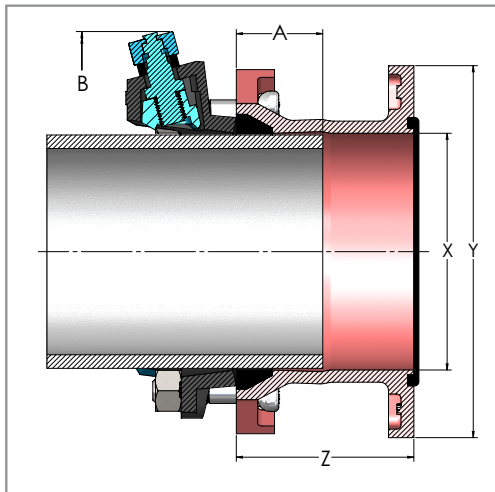
RESTRAINED FLANGE ADAPTER COUPLING FOR PVC & DI PIPES

**Technical Data**

**EZ GRIP® RESTRAINED FLANGE ADAPTERS FOR DUCTILE IRON PIPE**

| NOMINAL PIPE SIZE | SERIES NUMBER | X     | Y     | Z    | A    | B     | PRESSURE RATING (PSI - MAX.) | APPROX. WEIGHT (LBS) |
|-------------------|---------------|-------|-------|------|------|-------|------------------------------|----------------------|
| 3                 | EZFADP03      | 4.06  | 7.50  | 3.88 | 2.50 | 10.00 | 350                          | 16.38                |
| 4                 | EZFADP04      | 4.90  | 9.00  | 4.35 | 2.50 | 11.00 | 350                          | 21.88                |
| 6                 | EZFADP06      | 7.00  | 11.00 | 5.25 | 2.50 | 13.14 | 350                          | 33.07                |
| 8                 | EZFADP08      | 9.15  | 13.50 | 5.25 | 2.50 | 15.30 | 350                          | 45.16                |
| 10                | EZFADP10      | 11.20 | 16.00 | 5.63 | 2.50 | 17.30 | 350                          | 63.14                |
| 12                | EZFADP12      | 13.30 | 19.00 | 5.69 | 2.50 | 19.45 | 350                          | 85.45                |
| 14                | EZFADP14      | 15.44 | 21.00 | 6.70 | 3.88 | 21.45 | 350                          | 127.91               |
| 16                | EZFADP16      | 17.54 | 23.50 | 6.80 | 3.93 | 24.20 | 350                          | 156.33               |
| 18                | EZFADP18      | 19.64 | 25.00 | 7.40 | 4.23 | 26.00 | 350                          | 188.73               |
| 20                | EZFADP20      | 21.74 | 27.50 | 7.40 | 4.23 | 28.20 | 350                          | 218.91               |
| 24                | EZFADP24      | 25.94 | 32.00 | 7.90 | 4.48 | 33.50 | 350                          | 321.92               |
| 30                | EZFADP30      | 32.17 | 38.75 | 8.50 | 4.94 | 39.80 | 250                          | 499.95               |
| 36                | EZFADP36      | 38.47 | 46.00 | 9.00 | 5.19 | 46.10 | 250                          | 688.70               |

All dimensions are in inches, unless otherwise noted



**EZ GRIP® RESTRAINED FLANGE ADAPTERS FOR PVC PIPE**

| NOMINAL PIPE SIZE | SERIES NUMBER         |                 | C900 PVC PIPES OD | IPS PVC PIPES OD | X     | Y     | Z    | A    | B     | APPROX. WEIGHT (LBS) |
|-------------------|-----------------------|-----------------|-------------------|------------------|-------|-------|------|------|-------|----------------------|
|                   | W/ EZ Grip® PVC ULTRA | W/ EZ Grip® PVC |                   |                  |       |       |      |      |       |                      |
| 3                 | N/A                   | EZFAPVCP03      | N/A               | 3.50             | 4.06  | 7.50  | 3.88 | 2.50 | 9.02  | 17.50                |
| 4                 | EZFAPVCUP04           | EZFAPVCP04      | 4.80              | 4.50             | 4.90  | 9.00  | 4.35 | 2.50 | 9.84  | 21.75                |
| 6                 | EZFAPVCUP06           | EZFAPVCP06      | 6.90              | 6.63             | 7.00  | 11.00 | 5.25 | 2.50 | 11.94 | 32.90                |
| 8                 | EZFAPVCUP08           | EZFAPVCP08      | 9.05              | 8.63             | 9.15  | 13.50 | 5.25 | 2.50 | 14.39 | 45.74                |
| 10                | EZFAPVCUP10           | EZFAPVCP10      | 11.10             | 10.75            | 11.20 | 16.00 | 5.63 | 2.50 | 16.44 | 62.90                |
| 12                | EZFAPVCUP12           | EZFAPVCP12      | 13.20             | 12.75            | 13.30 | 19.00 | 5.69 | 2.50 | 18.58 | 85.26                |
| 14                | N/A                   | EZFAPVCP14      | 15.30             | N/A              | 15.44 | 21.00 | 6.70 | 3.88 | 22.93 | 126.71               |
| 16                | N/A                   | EZFAPVCP16      | 17.40             | N/A              | 17.54 | 23.50 | 6.80 | 3.93 | 25.03 | 155.56               |
| 18                | N/A                   | EZFAPVCP18      | 19.50             | N/A              | 19.64 | 25.00 | 7.40 | 4.23 | 27.13 | 181.66               |
| 20                | N/A                   | EZFAPVCP20      | 21.60             | N/A              | 21.74 | 27.50 | 7.40 | 4.23 | 29.23 | 218.65               |
| 24                | N/A                   | EZFAPVCP24      | 25.80             | N/A              | 25.94 | 32.00 | 7.90 | 4.48 | 33.43 | 288.66               |
| 30                | N/A                   | EZFAPVCP30      | 32.00             | N/A              | 32.17 | 38.75 | 8.50 | 4.94 | 39.65 | 475.75               |
| 36                | N/A                   | EZFAPVCP36      | 38.00             | N/A              | 38.47 | 46.00 | 9.00 | 5.19 | 45.95 | 664.06               |

All dimensions are in inches, unless otherwise noted

RESTRAINED FLANGE ADAPTER COUPLING FOR PVC & DI PIPES

**Sample Specifications**


A restrained flange adapter will be used to connect plain end Ductile Iron pipe or PVC pipe to a flanged pipe, valve or fitting. The adapter shall be manufactured of high strength ductile iron in accordance to ASTM A536, Grade 65-45-12 for all sizes. The restrainer portion of the adapter shall be a mechanical joint wedge type design with torque limiting bolts to insure proper seating of the wedges.

Applicable dimensions shall be in accordance to ANSI/AWWA C110/A21.10, C111/A21.15 and C153/ A21.53. Flange ends shall be in accordance to meet ANSI Class 125/150 & ANSI/ AWWA C115/A21.15 drill pattern.

The restrained flange adapter shall have pressure rating equal to that of the Ductile Iron pipe and shall have a minimum safety factor of at least 2 to 1 for sizes 3"-12. Restrained adapter flange shall be SIP Industries EZ GRIP® or approved equal.

The restrained flange adapter shall have pressure rating equal to that of the PVC pipe and shall have a minimum safety factor of at least 2 to 1 for sizes 3"-12. Restrained adapter flange shall be SIP Industries EZ GRIP® or approved equal.

The restrained flange adapter shall be UL Listed and FM Approved.

Available: Import 



**PRODUCT LINE**

**AWWA DI Fittings & Accessories**

- C153 Compact MJ Fittings and Acc. 2" – 64"
- C110 Full Body MJ Fittings 2" - 64"
- C153 Trim Tyton® Push-On Fittings 4" - 24"
- C110 Flange Fittings 2" - 64"
- MJ x MJ Adapter for Connecting MJ Bells 3" - 24"
- Stainless Steel & Blue T-Bolts
- Made in India, China & Mexico
- Bare, Cement, Zinc, FBE & Other Linings

**Joint Restraint System**

- EZD Joint Restraint for DI Pipe 3" - 48"
- EZDTP Joint Restraint Tandem for DI Pipe 3" - 48"
- EZDPTP Joint Restraint for Push-On Joints DI Pipe 3" - 48"
- Ductile Iron Retainer Glands 3" - 30"
- FAR / FAH Flange Adapter for DI Pipe 3" - 48"
- EZFA Restrained Flange Adapter for DI and PVC Pipe 3" - 36"
- EZPVC Joint Restraint for PVC Pipe 3" - 36"
- ULTRA Joint Restraint for PVC Pipe 4" - 12"
- EZPVCPTP Joint Restraint for Push-On Joints PVC Pipe 14" - 36"
- PTPVC Pipe to Pipe Restraint 4" - 48"
- PTPDF Pipe to MJ Fittings Restraint 4" - 48"
- PTPFC Pipe to PVC Fittings Restraint 4" - 12"
- Made in China & USA
- EZ Shield or Shop Coating

**Municipal Construction Castings**

- Manhole Rings and Cover
- Frames and Grates
- Valve Boxes and Service Boxes
- Water Meter Covers and Boxes
- Cleanout and Monument Boxes
- Detectable Warning Plates
- Extension Rings
- Trench Grates and Tree Grates
- Made in India & USA

**Fabrication Products for DI Pipe**

- High Hub Flanges Class 150 and 250. 3" - 64"
- Threaded Bell Flanges 3" - 48"
- Anchor Flanges 3" - 60"
- Filler Flanges 4" - 30"

**Other Products and Services**

- All Thread Rod
- Pipe Lube and Hydraulic Cement
- Socket Clamps and Lugs
- Flange Packs
- OEM Castings



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