

The AquaGrip® System

Connection and Restraint in ONE Fitting.

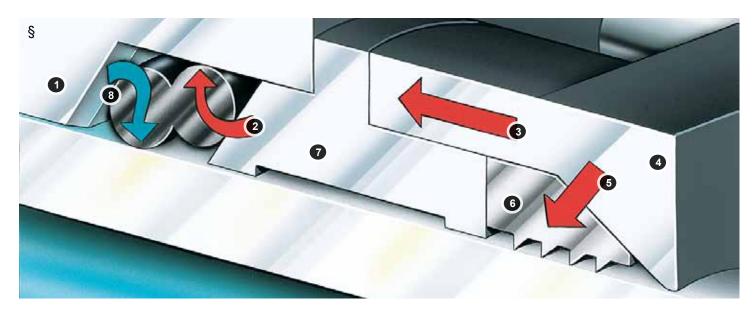


Mueller® AquaGrip® System

Connection and Restraint in ONE Fitting.

About The System

The Mueller AquaGrip System uses unique, innovative technology that includes both the compression connection and the restraint system in one convenient, quick installation package. This system eliminates the need for tie rods, anchor couplings and/or separate gland-type restraints which reduces cost and saves time.



- 1 Hydrant/valve bell
- 2 Mechanical force transfer path
- 3 Bolt clamping force
- 4 End ring

- **5** Compression force
- 6 Gripper ring
- 7 Intermediate ring
- 8 Hydrostatic pressure path

How it Works §

The AquaGrip System is manufactured exclusively by Mueller Co. It features a pressure responsive sealing system and visual indication of proper tightening. These features help assure a leaktight seal, even after pipe wall relaxation.

As the bolts are tightened, the end ring pushes the gripper ring and intermediate ring toward the bell end of the connection, mechanically forcing the double O-ring seal into compression. In addition, integral channels are built into the connection to allow line pressure behind the O-ring, allowing hydrostatic pressure to assist in providing a positive seal.

'Gap Stop' tangs built into the assembly prevent the gripper ring from gripping the pipe prematurely. Once the O-ring is properly compressed, the tangs are designed to break away, allowing the gripper ring to compress. An audible pop will be heard as they snap off. The small pieces are confined and are not able to enter the waterway. The teeth of the gripper ring bite into the pipe O.D., providing a uniform, positive restraint around the entire circumference to prevent pullout caused by ground movement or pressure surges.

Finally, the top half of the nut breaks away when the connection is properly tightened. This eliminates the guesswork of bolt tightening and torquing, and makes achieving a proper seal simple for even inexperienced installers.



Features and Benefits

- No disassembly required. AquaGrip® is a stab-fit system.
- No special tools or torquing required. Simply tighten the bolts with an ordinary wrench until the top half of the nut breaks away. A plastic washer on the nut assures that the wrench engages the nut properly.
- No dual inventory. You no longer need to purchase multiple components to accommodate ductile iron, PVC or polyethylene. AquaGrip fittings are used with all three types of pipe.
- No pipe end preparation. Works with plain end pipe.
- No special field conditions required for installation.
 The AquaGrip System can be installed in wet conditions, even under water.
- No point loading of pipe. The AquaGrip gripper ring provides contact around the entire pipe circumference to provide uniform restraint against pipe pullout.



For illustration only, this bolt is shown not fully tightened; nut has not broken away. Washer used to assure proper wrench engagement is still in place (drops away once outer nut breaks off).

Specifications

Applications:

Ductile iron

- C900 PVC pipe DR 18 and 14
- C909 PVC pipe DR 25
- IPS PVC pipe DR 17, 21
- Polyethylene pipe SDR17, 13.5, 11, 9 and 7 (support liner recommended on hydrant and valve applications)

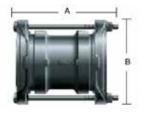
Designed to meet the performance requirements of ASTM F1674, WIS 4-24-01 Type 2 and ISO 14236.2.

Maximum working pressure:

- Hydrants and valves—250 psig
- Couplings, fittings and adapters—200 psig

Couplings and Flange Adapters

AquaGrip "in-line" couplings and flanged coupling adapters are available to complete the package. You can use the AquaGrip System virtually anywhere restraints are needed in your water distribution system.



AquaGrip Coupling

Pipe Nominal	Pipe O.D.	Bolts: # - Size	Dimensions: A - B	Setting Gap	Maximum Gap	Weight (lbs.)
4"	4.80	2 – M16x9.45	9.9 - 8.3	0.8	1.2	11.24
6"	6.90	4 – M16x15.5	15.6 – 10.8	1.2	1.6	32.19
8"	9.05	4 – M16x15.5	15.6 – 13.1	1.2	1.6	47.40
10"	11.10	6 – M16x15.15	15.6 – 15.1	1.2	1.6	58.42
12"	13.20	6 – M16x15.15	15.6 – 17.3	1.2	1.6	66.80



AquaGrip Flange Adapter

Pipe Nominal	Pipe O.D.	Flange Drillings	Bolts: # - Size	Dimensions: A - B	Setting Gap	Maximum Gap	Weight (lbs.)
4"	4.80	4" AWWA C207 Table D	2 - M16x5.3	9.9 - 8.3	0.8	1.2	11.24
6"	6.90	6" AWWA C207 Table D	4 - M16x7.3	15.6 – 10.8	1.2	1.6	32.19
8"	9.05	8" AWWA C207 Table D	4 - M16x7.3	15.6 - 13.1	1.2	1.6	47.40
10"	11.10	10" AWWA C207 Table D	6 - M16x7.3	15.6 – 15.1	1.2	1.6	58.42
12"	13.20	12" AWWA C207 Table D	6 - M16x7.3	15.6 – 17.3	1.2	1.6	66.80

Note: Couplings and flange adapters do not have pipe stops.



Our Products

Mueller has built its reputation on producing innovative water distribution products of superior quality – a reputation that is literally "on the line" every day throughout the world. Mueller products and those of its affiliates are used throughout the water system from the source to the consumer. We are committed to continuing research and development of new products and services to meet the growing needs of the water infrastructure industry. Mueller is the largest and only full-line supplier of potable water distribution products in North America and its markets continue to expand globally.

Our People

The capacity to deliver the widest array of products and stand behind those products to ensure your satisfaction is our strength. The success of Mueller is dependent upon the success of those who are involved, both inside and outside our company. Therefore, we feel our future is wholly dependent on long-term relationships with our employees, customers and suppliers. This is why we strive to be proactive and responsive to their needs, always looking for a "better way". It's an approach that has set us apart since 1857 and will assure our mutual achievement and prosperity in the future.

For more information about Mueller or to view Mueller's full line of water products, please visit www.muellercompany.com or call Mueller Customer Service at 1.800.423.1323.

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Complementary Mueller Products

MUELLER® 300™ Ball Valve



- Manufactured & Tested to ANSI/AWWA C800 Standard.
- · Heavy brass components constructed of low lead bronze ASTM B584 Alloy C83833 for strength and durability.
- Optimized Key-to-Ball Connection provides strong, reliable performance and resists breakage.
- End Pieces are O-ring Sealed to provide additional protection against leaking.
- Fluorocarbon Coated Ball ensures smooth, easy turning operation.
- End Connections include MUELLER 110[®] Compression Connection, Pack Joint Connection, Copper Flare, M.I.P, F.I.P. Thread and Mueller Grip.



Mueller Co.

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