

**B**ecause time is money.  
**The Victaulic® system for  
water and wastewater  
piping systems.**





**T**he Victaulic system — the fast, easy, reliable method for piping in water and wastewater treatment plant applications.



# A more practical approach to piping systems for water and wastewater treatment.

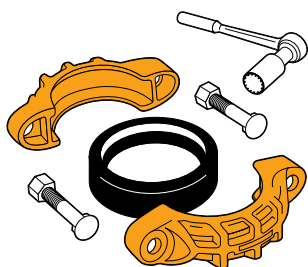
In today's world of water and wastewater plant construction, the process of facility design and engineering moves at a rapid pace. Often, fast track construction is the rule, not the exception.

When it comes to piping, there's a system that can help you manage those accelerated schedules, while meeting or exceeding design standards — and saving you money, in the process.



The grooved system is ideal for general purpose piping services.

## Introducing the Victaulic® system.



Victaulic provides ways to quickly, easily, and economically join pipe. One example is the grooved piping system, an alternative to welding, flanging, or threading — proven in over 70 years of applications in a wide range of industries.

The system uses four basic components: grooved pipe, a gasket, the housing, and nuts and bolts. In addition, there are fittings, valves, and accessories of all types, and components available in a variety of materials.

Another Victaulic product is the unique Pressfit® system, which joins small diameter (3/4" to 2"/

20-50 mm) carbon or stainless steel piping in seconds with a hand-held pressing tool.



Cut costs, not threads. The Pressfit system speeds and eases small diameter piping assembly.



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## The Victaulic advantage.

With the Victaulic system, you get:

- **Quicker, easier installation** – on-site pipe preparation and installation typically three to five times faster than threaded, flanged, or welded systems. That means fewer project calendar days, faster changeovers, and shorter down-time during planned outages for piping installation or maintenance.
- **Increased savings** – you'll achieve lower first cost, total installed cost, and reduced maintenance expenses.
- **Proven reliability** – Victaulic systems typically meet or exceed industry standards and application requirements.
- **Design versatility** – select from 3/4" through 144" sizes (20 - 3658 mm); for joining carbon steel, stainless steel, copper, aluminum, PVC and HDPE plastics, FRP, ductile iron, coated/lined, and specialty pipe.
- **Outstanding quality** – our mission is to satisfy customer requirements by furnishing defect-free products and services on time, every time.



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**T**he Victaulic system — proven for over 70 years in applications for the water and wastewater industry..



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**F**ast, easy job site or fab shop roll grooving speeds new installations or retrofits.

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## Greater on-site efficiency.

Assembling Victaulic components is simpler than any other system. Here's why:

- You cut to size and groove the pipe on-site, which eliminates double handling.
- Bolted assembly is fast, easy, and flameless; there's no fire hazard as with welding.
- Single source convenience — all the couplings, fittings, valves, and accessories you need are available from just one source, Victaulic.
- Victaulic Technical Services Division can help make the process easier by providing take-offs, bills of material, and construction drawings — even bagged and tagged materials by system, where appropriate.

The people  
with the  
expertise.



Victaulic gives you more than just products off the shelf. Our people are experts at providing creative solutions to your unique problems and needs. In addition to a specially trained municipal sales force we have more than 175 factory-

trained piping specialists all over the world, ready to offer application assistance by telephone, by fax, or in person. Our Technical Service Department can supply cost comparison summaries, detailed piping drawings, bills of material,

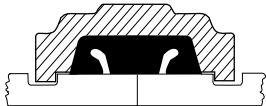
cut sheets and software packages to help you to customize your own piping system. Plus, our international stocking distribution system, interconnected by satellite, delivers the components you need, whenever and wherever you require.

The  
specifications  
you demand.

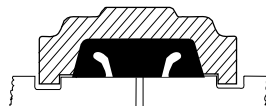
- **Codes & Standards** – The Victaulic system assures you of meeting applicable industry codes and standards such as compliance with AWWA specifications. The Victaulic rigid system for IPS pipe meets the same hanging standards as welded (ASME B31.1, 3, 9).
- **ISO 9001 quality** – Victaulic is a certified ISO 9001 manufacturer at its principal U.S., Canadian, and European facilities.
- **Pressure** – the standard grooved system performs under pressures up to 1,000 PSI (6900 kPa) and negative pressures to full vacuum, while the Pressfit System for both carbon and stainless steel, provides for pressures up to 300 PSI (2065 kPa). A double groove system is available for pressures up to 4000 PSI (27576 kPa).
- **Temperature** – Victaulic standard components can handle temperatures from -30°F to +230°F (-34°C to +110°C); specially compounded gaskets are available in Halogenated Butyl, Nitrile, EPDM, Fluoroelastomers and others for service compatibility, and for higher temperatures up to +350°F (+177°C). The Grade “M” Halogenated Butyl gasket material is UL classified in accordance with ANSI/NSF 61 for potable water service.

# The Victaulic System

The Victaulic System for joining pipe of AWWA sizes is designed to meet specifications as outlined in ANSI/AWWA C-606. A radius groove cut into the ductile iron pipe provides a gripping area for the coupling to engage around the full pipe circumference. A synthetic rubber gasket is fully enclosed by the ductile iron housings, with coupling sections joined by rugged, plated carbon steel bolts. The system is compatible with ductile iron pipe and easily accommodates cement, glass, epoxy or other pipe linings.



Rigid Radius Cut Groove



Flexible Radius Cut Groove

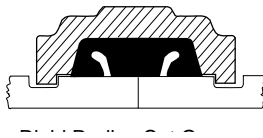
## Groove Types for AWWA Pipe

### Rigid Radius Cut Groove

- Prevents expansion/contraction.
- Ideal for long pipe runs.
- Designed for systems with cycling pressure.

### Flexible Radius Cut Groove

- Allows up to .47 inch of expansion/contraction.
- Ideal for uneven surfaces or where settlement is expected.

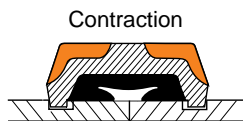


## Gasket Materials

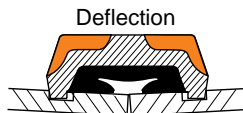
### FlushSeal Gasket Design

Victaulic FlushSeal gaskets have been specially designed to seal on the rough OD of ductile iron pipe surfaces. Victaulic FlushSeal gaskets are available in two standard grades:

- Grade "M" is rated from -20°F to +200°F for water service, oil free air and many chemical services. Grade "M" gasket material is UL classified in accordance with ANSI/NSF 61 for potable water service.
- Grade "S" is designed for petroleum products, air with oil vapors and mineral oils from -20°F to +180°F.



Contraction



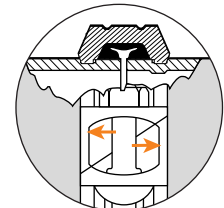
Deflection

FLEXIBLE

## For Steel and Other IPS Pipe

### Rigid Angled Pad Design

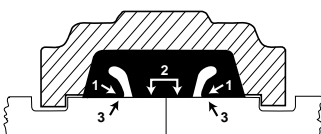
- Angled pad design for standard steel roll or cut grooved.
- Positive clamping to resist torsional and flexural loads.
- Wider key section fills more of the groove area.



RIGID

### Flexible – Expansion/Contraction/Deflection

- Permits expansion/contraction and or deflection to accommodate pipe movement.
- Absorbs noise and vibration – even temporary stresses induced by seismic activities.

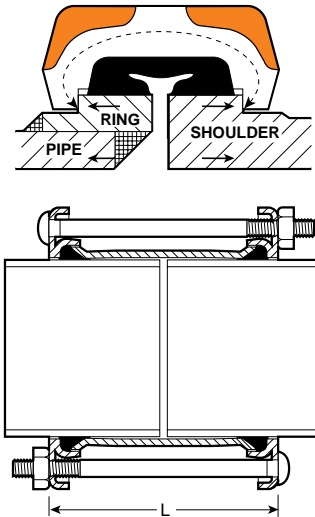


## Triple Seal Design

1. Stretching the Victaulic gasket over pipe ends puts the angular lips in immediate and automatic sealing tension.
2. Gasket center leg is compressed over pipe ends as coupling is assembled.
3. Line pressure automatically strengthens the seal by acting internally on the gasket lips – the higher the pressure, the tighter the seal.

## The Vic-Ring System

The Vic-Ring system permits mechanical joining of pipe up to 144" using an applied steel ring as a gripping area for large pipe. Many valve manufacturers offer large diameter valves with shouldered ends to receive Vic-Ring couplings to ease installation and service. Vic-Ring systems save space, weight and assemble with far fewer bolts than flanged systems.



## The Victaulic System vs. Compression Couplings

### Victaulic System

- Far fewer bolts to tighten
- No special torque requirements on most grooved products
- Self-restraining – No tie bars
- Each joint is a union
- Minimal space for access

### Compression Couplings

- Requires space for bolt insertion and assembly
- Requires space for coupling width
- Requires welded tie-bars for restraint
- Up to four times the number of bolts to tighten

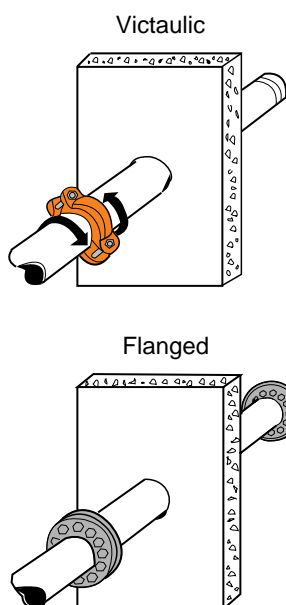
## The Victaulic System vs. Flanged Systems

### Victaulic System

- Grooved piping passes through wall sleeves eliminating special design considerations
- Compression type couplings not required
- No two-holing required
- No space needed for bolts
- 1/3 the weight of flanged systems
- Number of bolts greatly reduced

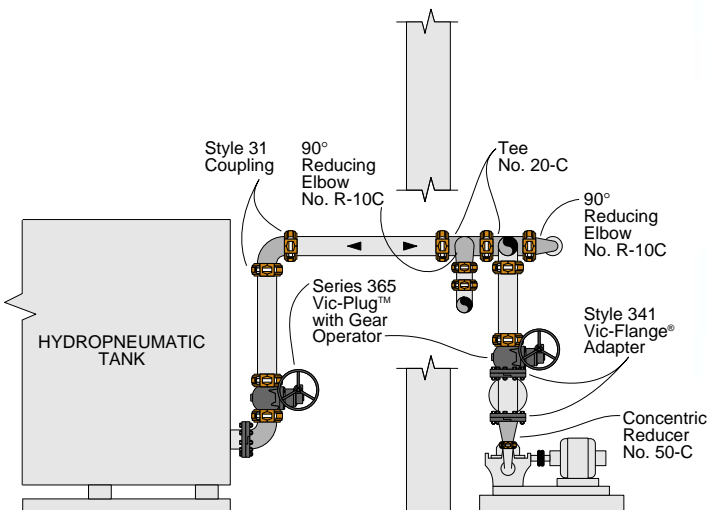
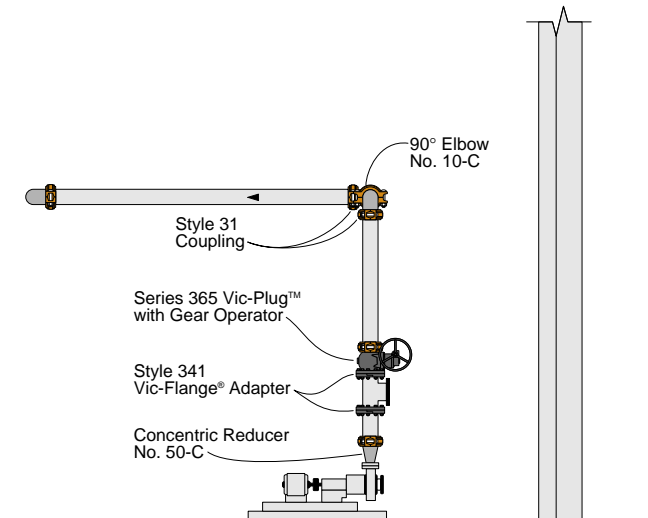
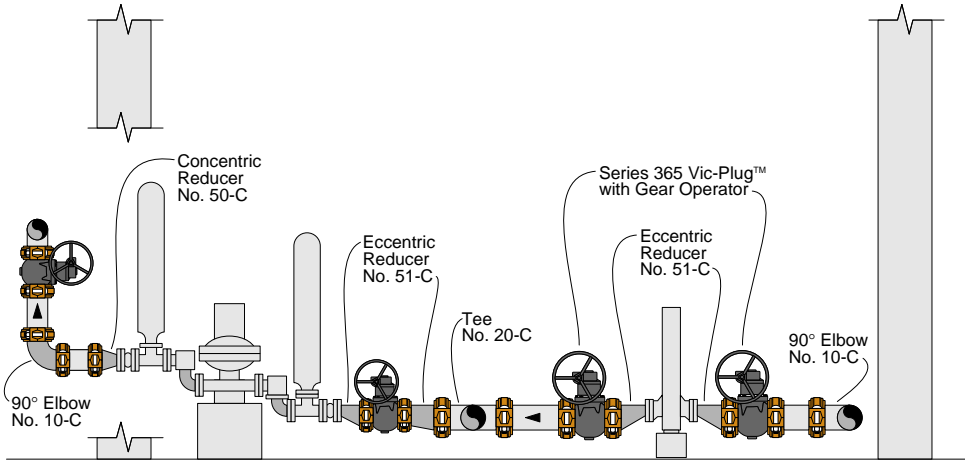
### Flanged

- Special design considerations such as loose made-on flanges or flange coupling adapters must be added at wall penetrations
- Two-holing required
- Side space needed for bolts
- Heavier, more costly to install
- More bolts, longer installation time

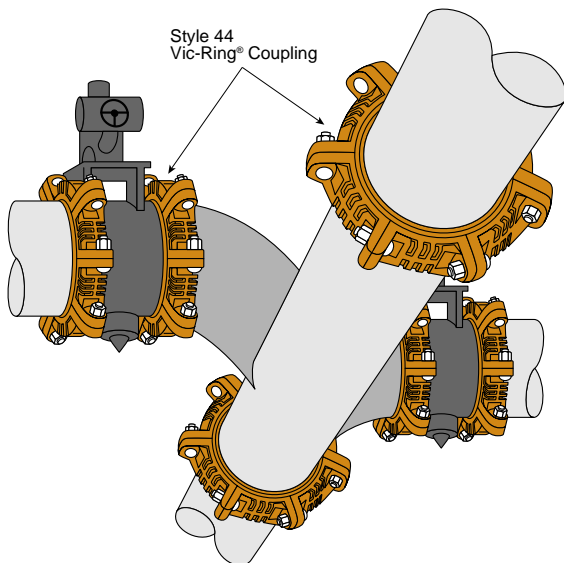
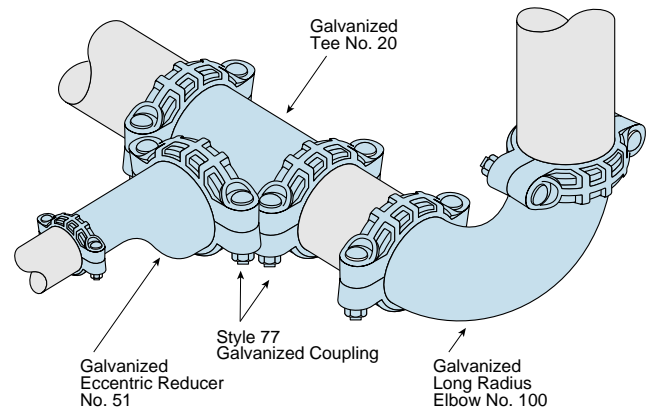
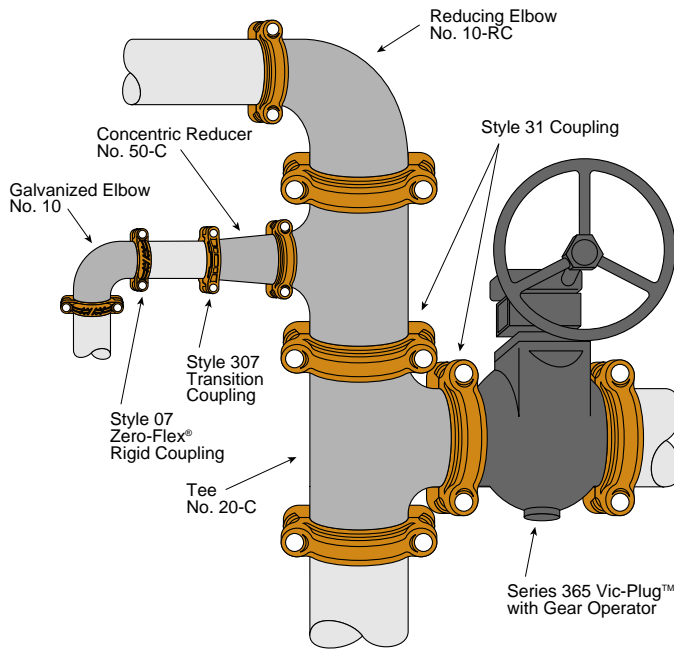




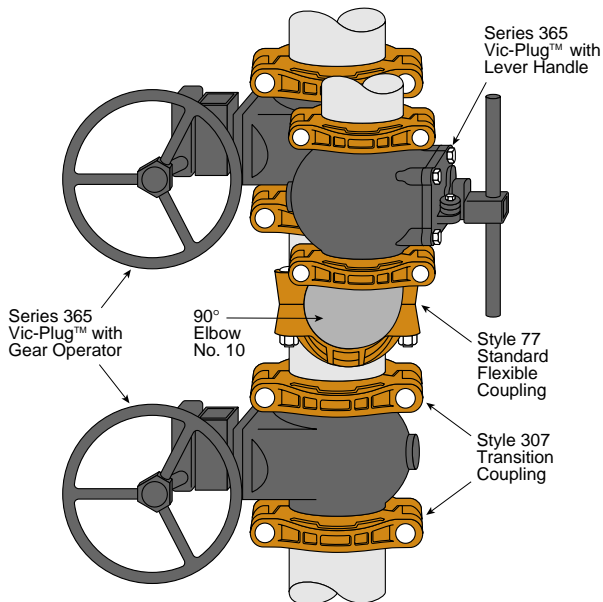
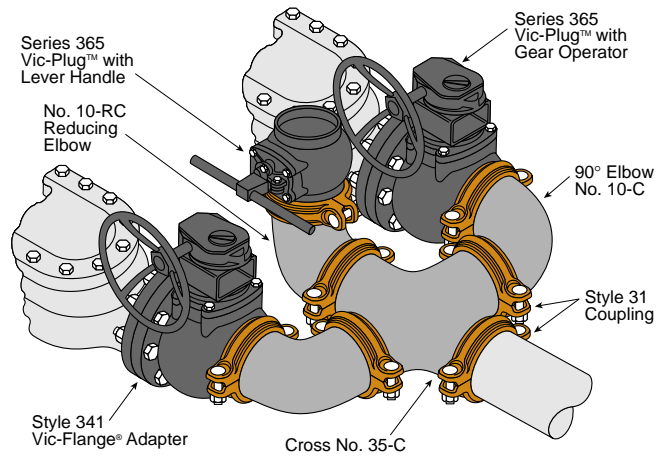
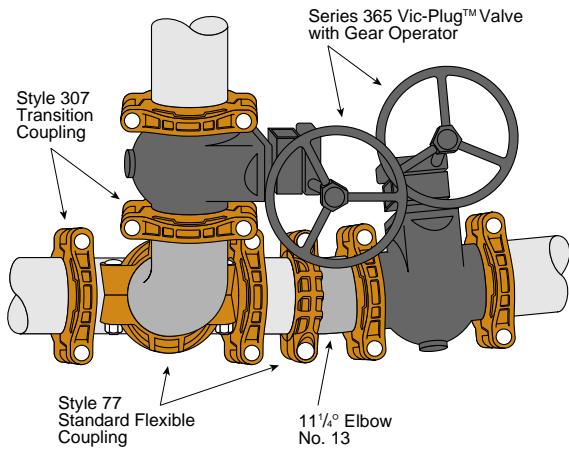
# Plant Water Services



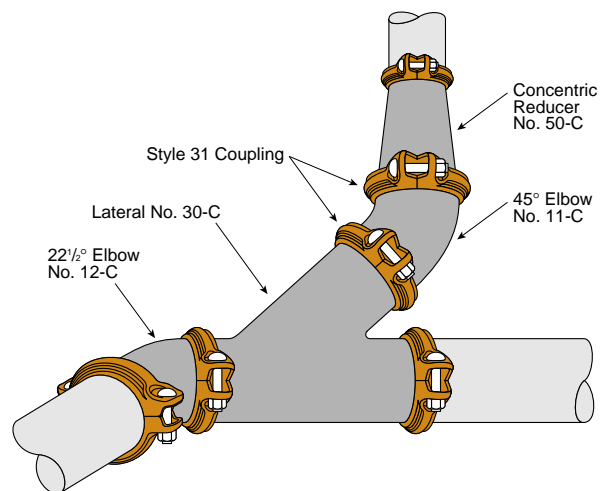
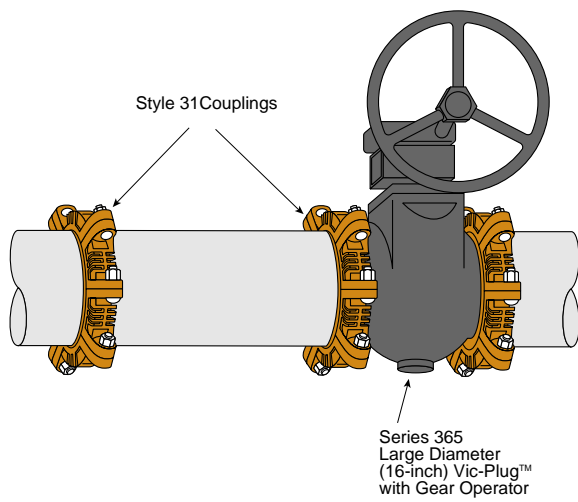
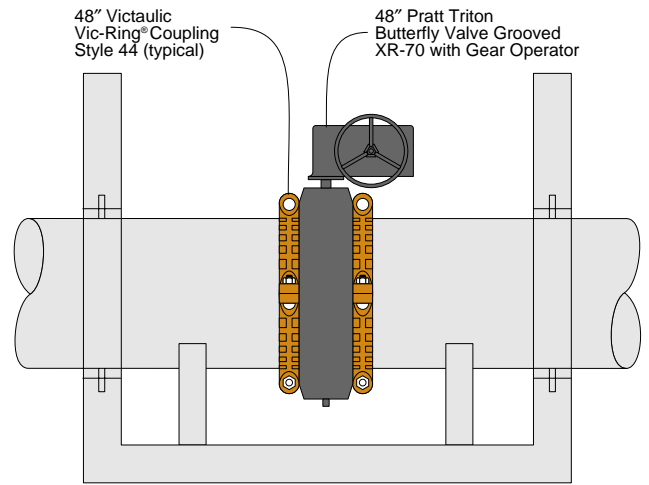




# Wastewater

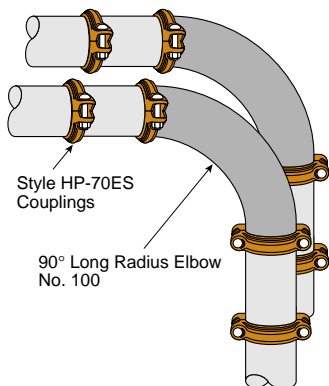
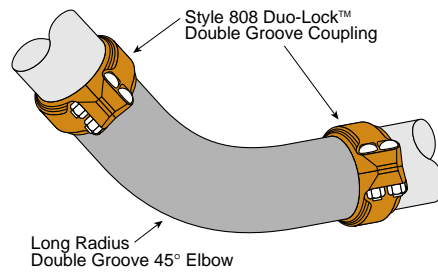
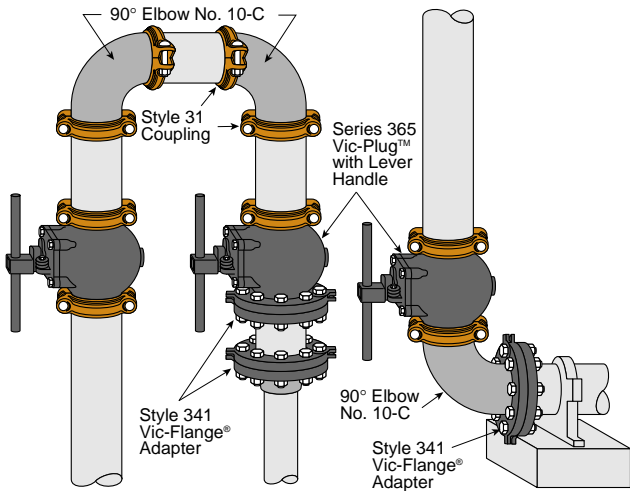


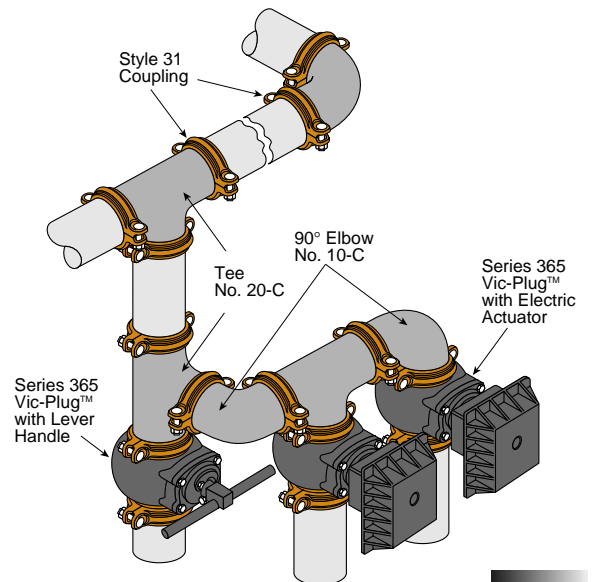
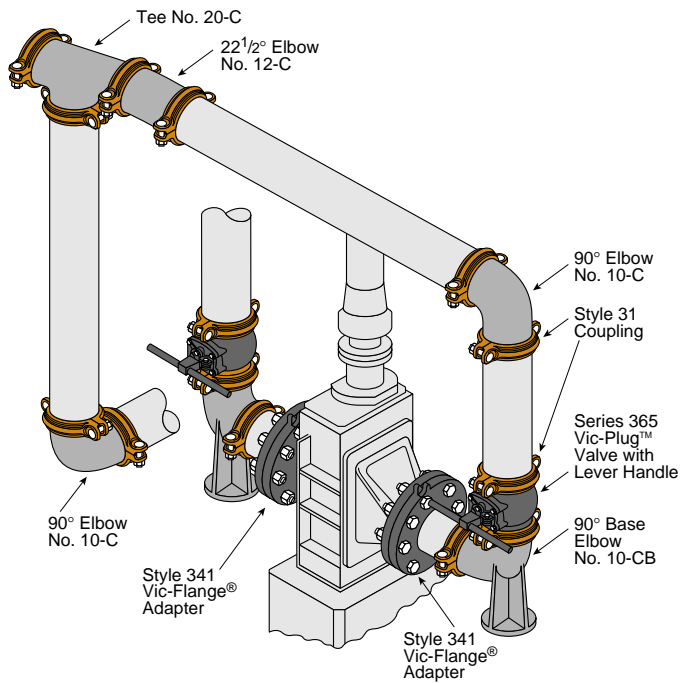
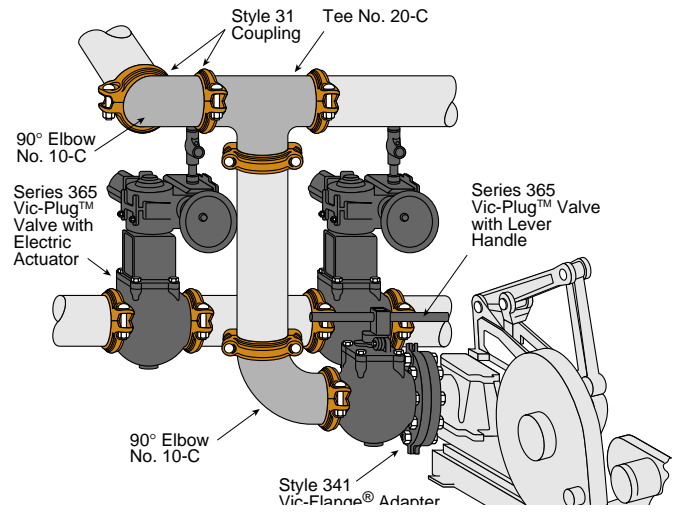




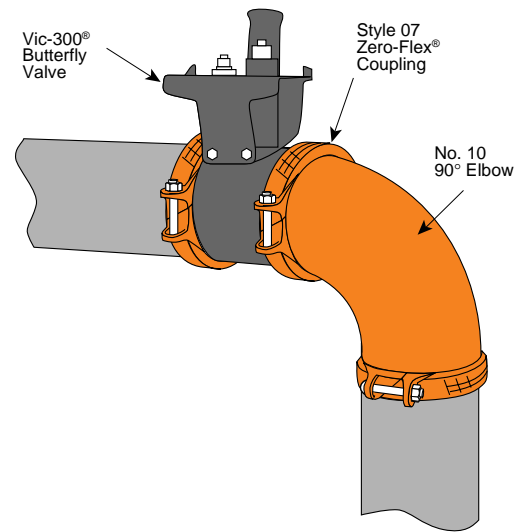


# Solids and Sludge

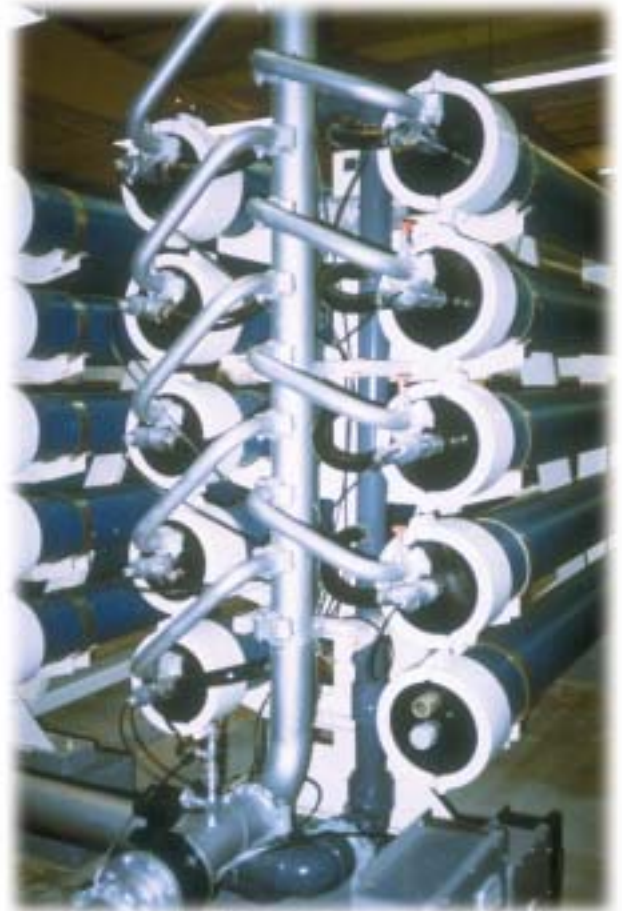
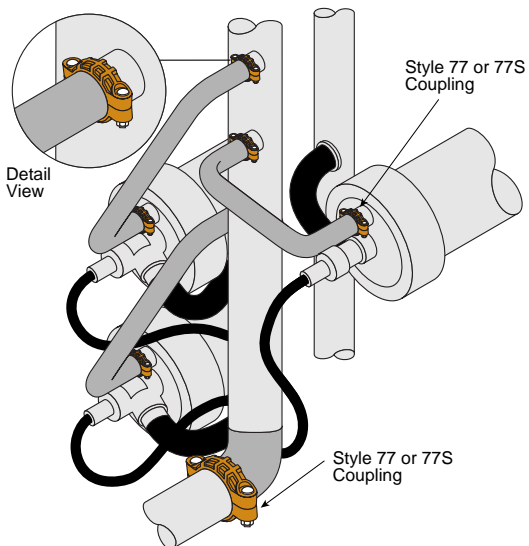




## Aeration Piping



## Reverse Osmosis





## Water and wastewater applications.

Typical applications where Victaulic components are utilized:

- Compressed Air
- Instrument Air
- Plant Air
- Condenser Water
- Deionized Water
- Domestic Hot/Cold Water
- Fire Protection
- Makeup Water
- Potable Water
- Reverse Osmosis Water
- Vacuum (full)
- Coolant Systems
- Waste/Wastewater/ Waste Treatment
- Floor/Roof Drains
- Vent Lines



Victaulic offers a complete variety of couplings, fittings, valves, piping accessories, and tools, in varied materials, and sizes up to 42"/1050 mm (up to 144"/3650 mm in special applications).

## Call Victaulic today.

See for yourself how the Victaulic system can save you time and money. Call or fax a Victaulic piping specialist for more information.

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Easton, PA 18044-0031 USA  
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Fax: 610/250-8817  
Int'l. Fax: 610/559-3608  
e-mail: vic@mail.com  
Internet: <http://www.victaulic.com>





[www.victaulic.com](http://www.victaulic.com)  
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