• High pressure solutions
• Solutions for systems from ½”/15 mm up to 144”/3650 mm in size
• Designed for ease of system access and maintenance

The World Leader in Pipe Joining Solutions

IDEALLY SUITED FOR
Wastewater Treatment
What describes a reliable piping system?
Most installers and designers would describe a piping system that performs without fail for the life of the system.

We would agree. Victaulic systems that were installed in the 1920’s, 30’s and 40’s are still in service today. Designed for life-of-the-system service Victaulic joining systems provide reliable joints that meet the demands of your most rigorous, and routine, piping needs.
**Benefits of the grooved system**

The Victaulic grooved system for joining pipe is three to five times faster to install than welding and is easier and more reliable than threading or flanging pipe resulting in less installation time and easier replacement of piping components.

Plus, our new line of installation-ready couplings is twice as fast as existing groove couplings. With no loose parts to disassemble the coupling quickly stabs on to the pipe to create the most efficient joint on the market today.
“Over 1000 feet of plant effluent water piping needed to be replaced several years ago. The 30 inch diameter pipe with numerous taps snaked through our pipe galleries from one end of the plant to the other. This line is critical, since it provides water to our air pollution controls on the sludge incinerators. The plant was only able to shutdown the system for 48 hours at a time. The grooved connections allowed the contractor to install the system without difficulty during these limited shutdown periods.”

NEIL F. FRANKENBURG P.E., OPERATIONS DIVISION MANAGER, LEMAY TREATMENT PLANT, ST. LOUIS, MISSOURI

Benefits that save time and conserve valuable resources

What’s more important—faster installation for new projects or access for scheduled and unscheduled maintenance on existing systems? What if there was a pipe joining method that filled both needs?

Using the Victaulic grooved system is 3 to 5 times faster than competitive pipe joining methods on initial installations. For on-going maintenance simple removal of two bolts rather than the eight bolts found on flanged systems reduces downtime by up to 75%.

INCREASED SAVINGS

How much does each day of installing a piping project cost in direct and in-direct costs? How much money would you save by reducing the project schedule by one day, one week or one month? Only Victaulic mechanical pipe joining systems are designed specifically to reduce installation time and costs.

DESIGN VERSATILITY

With a variety of joining methods for piping—from carbon steel, ductile iron, aluminum, copper, HDPE, PVC, to stainless steel—Victaulic is unmatched in the design versatility it offers users. With rigid and flexible joints for systems from $\frac{1}{2}$\text{}/15 mm up to 144\text{"}/3650 mm only one supplier has the products and systems to meet your piping needs.

PROJECT MANAGEMENT

Pre-planning a project leads to more effective and efficient use of resources. The Construction Piping Services group at Victaulic is dedicated to organizing and managing your piping project for reduced material handling and faster project installations.
Grooved vs. Flanged

When installing a piping system are you better off using two nuts and bolts or eight nuts and bolts? We believe that installing only two nuts and bolts greatly reduces the chances of installation errors while increasing productivity.

What about maintaining a grooved system versus a flanged system? Again you have 75% fewer nuts and bolts, and the added benefit of reusing the gasket when reinstalling a grooved coupling. With flanges you’ll need to completely scrape away the old gasket and replace it with a brand new gasket.
Project Management

“The Victaulic grooved system enables quick and easy assembly/disassembly, as compared to conventional flanged systems, of our critical piping systems reducing time and labour requirements. We would recommend Victaulic grooved piping for any Waste Water System as access to process piping is essential to a well maintained plant with minimal downtime.”

RICK REID, SUPERVISOR—WASTEWATER TREATMENT, HALIFAX REGIONAL MUNICIPALITY, CANADA

The Victaulic Difference
Solutions at every step. Assistance for every need.

PHASE 1: CONCEPTUAL/FEASIBILITY
By thoroughly understanding the customer’s process and needs before we start, our project management solutions reduce man-hours, calendar days and overall dollars per foot.
- reduce project risk
- compressed construction schedules
- improve construction schedule
- reduce man-hours
- sustainable design
- increase safety
- lean construction

PHASE 2: DETAIL DESIGN
Victaulic piping system coordinators can assist with drawings, specifications and submittals. Minimizing back orders, leftover material and unexpected costs.
- equipment and pump connection packages
- drawing quotations
- software solutions
- specification updates

PHASE 3: BID/ESTIMATING
More competitive bids. More precise estimating. We streamline project design and workflow to maximize efficiencies. Victaulic provides material take-off comparisons, bill-of-materials conversions and more so that you can save time and money.
- bill-of-materials conversion
- building systems analysis
- equipment connection analysis

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The image contains a table listing quantities, part numbers, descriptions, units, and total labor hours for various Victaulic components used in a HVAC installation project. The table details parts such as check valves, coupling metal red plus EPDM, flanges, and other piping components, with sub-totals for Strainers, Valves, Flanges, and Other items.
PHASE 4: PLANNING

From advanced ordering of materials to ensure timely procurement, to our bag-and-tag services—our expert piping layout coordinators will make your project implementation hassle-free.

- CPS (Construction Piping Services)
- material handling
- bag & tag

PHASE 5: CONSTRUCTION

Easy to install. A union at every joint. The Victaulic mechanical pipe joining system gives contractors maximum field flexibility and on-site decision-making. And requires no hot work permits, flames or fire watches—increasing safety while reducing man-hours.

- field training
- on-site safety
- fabrication

PHASE 6: POST CONSTRUCTION

Our union-at-every-joint design permits easy access for system retrofits or expansions and minimizes maintenance activity, resulting in less time spent on system shutdowns.

- warranties
- maintenance
- as built updates
- site inspections

<table>
<thead>
<tr>
<th>PIPING PROJECT ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Installation (32%)</td>
</tr>
<tr>
<td>Indirect Operations (15%)</td>
</tr>
<tr>
<td>Ineffective Activities (26%)</td>
</tr>
<tr>
<td>Material Handling (20%)</td>
</tr>
<tr>
<td>Misc. (7%)</td>
</tr>
</tbody>
</table>

Source: Contractor Magazine
Kerry O'Brien Article
Style 31 couplings are designed to join radius cut grooved ANSI/AWWA C151/A21.51 class 53 or higher pipe. The coupling housings seat in a rigid radius groove that is cut into the outer diameter (OD) of the pipe. A synthetic rubber gasket seals the joint and is the only component exposed to the media. Couplings are compatible with cement, glass, epoxy and other pipe linings.

Victaulic installation-ready couplings use the same groove profile and have the same performance characteristics of original groove system couplings. The major difference is installation time. Installing up to 90% faster than welded systems and in 50% less time than standard groove couplings, installation-ready couplings eliminate the need for loose parts since the coupling is pre-assembled and ready to install.

Utilizing a patented, wedge shape groove the AGS line has a working pressure up to 350 psi/2400 kPa. The two-piece coupling housing design reduces handling making installation and maintenance up to 50% faster than competing systems.

The re-usable PVC Aquamine piping system is a fast, reliable way to join PVC pipe without the use of messy solvents or threading. The spline system provides reliable service up to 350 psi/2400 kPa. The complete system includes pipe, couplings, valves and fittings.
HDPE piping systems

The HDPE pipe joining system from Victaulic does not require any pipe end preparation and eliminates the need for special tools and fusing equipment. Providing a union at every joint the system allows for future expansion while drastically reducing downtime for maintenance.

Bolted Split Sleeve Couplings

The Bolted Split Sleeve system is a versatile solution to difficult piping needs. Bolted Split Sleeve products install up to 75% faster than flanged joints while providing expansion and deflection where needed. Designed for use on carbon steel, stainless steel, ductile iron, HDPE, pre-stressed concrete and fiberglass pipe.

Vic-Press™ for Schedule 10S stainless steel

The fastest way to join ½"–2"/15–50 mm Schedule 10S stainless steel pipe, the Vic-Press system is a line of couplings, fittings, and valves that is joined using a hand-held pressing tool. Rated up to 500 psi/3450 kPa this reliable and robust system eliminates the risks associated with hazardous flames and fumes caused by welding stainless steel.

Vic-Ring® systems

Victraulic offers the Vic-Ring piping method (in original groove and AGS configurations) for joining large diameter pipe which does not lend itself to direct grooving. Saving time, dollars and space, the Victaulic Vic-Ring system provides a bolted, self-restraining joint which eases valve installation and removal for maintenance compared with flanges, compression-type joints or mechanical joints.

IDEAL FOR:

- Large diameter piping systems
- Transition in outer dimensions and pipe material
- Abrasive services

IDEAL FOR:

- Connecting HDPE pipe without expensive fusing equipment
- SDR pipe thicknesses from 32.5 to 7.3
- Allowing rotation of pipe for extra life

IDEAL FOR:

- Joining stainless steel piping without hazardous flames and fumes
- Compressed air and water lines
- Systems that install in seconds

IDEAL FOR:

- Design versatility
- Non-restrained, restrained or systems using expansion joints
- Internal or external pipe repairs
- Aeration and water lines

IDEAL FOR:

- IDEAL FOR:
  - Joining stainless steel piping without hazardous flames and fumes
  - Compressed air and water lines
  - Systems that install in seconds

- Connecting HDPE pipe without expensive fusing equipment
- SDR pipe thicknesses from 32.5 to 7.3
- Allowing rotation of pipe for extra life
Grooved Ductile Iron Systems

Lightweight and reliable, Victaulic products join grooved AWWA size pipe with 75% fewer bolts than flanging and also eliminates two-holing. A FlushSeal gasket designed to seal ductile iron pipe surfaces a triple seal ensures reliable service over the life of the system.

Designed for AWWA sizes from 3 – 36”/80 – 900 mm and beyond, Victaulic has all your municipal applications covered. Victaulic works off a 4:1 bolt hole ratio which allows your projects to be constructed with ease. A Victaulic fitting is up to 1/3 the weight of a flanged fitting, so you can account for safer working conditions while installing the most reliable piping system for AWWA pipe.

By using Victaulic AWWA couplings, fittings, and valves in your design, you bring the benefits of union at every joint, ease of wall penetration, easier system access, light weight, and the ability to maintain your piping system with ease.

Upgrading a sanitary lift station valve chamber, the District of North Vancouver used Victaulic grooved-end couplings, plug valves and check valves instead of flanging. The smaller footprint and lighter weight of Victaulic products eliminated the need for gate valves resulting in a chamber depth reduced to a level no longer considered confined space entry. A single operator could now access the system safely without need for a permit or a second operator to stand watch.

Visit www.victaulic.com to view publication 23.02 for Style 31 coupling, 23.05 for fittings, 23.06 for Series 365 plug valve, 23.09 for Series 317 check valve, and 23.04 for Series 341 Vic-Flange® adapter.
Use of Victaulic minimizes welding of stainless steel which can leave thin-walled pipe compromised due to overheating. Victaulic stainless products enable speed of fabrication, easy rework or expansion, and quick installation of process valves.

The Victaulic Advanced Groove (AGS) system is the fastest and most dependable method for joining 14 – 24"/350 – 600 mm stainless steel systems. Featuring a two-piece housing design secured with only two bolts, AGS allows for quick installation and visual verification of proper assembly.

Needing to meet the contract deadline at Clarkson Wastewater Treatment Plant in Ontario, Canada, Detra Builders utilized Victaulic products to expedite installation time when joining the stainless steel piping system. Compared with the option of a welded system, Victaulic delivered significant time savings and kept the project on schedule due to its ease of installation and assembly in the field.

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A truly innovative joining solution that installs significantly faster than a welded joint is the Victaulic QuickVic® installation-ready coupling. Available in both rigid and flexible styles up to 8"/200 mm, QuickVic couplings have no loose bolts to drop or lose. The Advanced Groove System (AGS) is the fastest, strongest and most dependable system for joining 14–60"/350–1200 mm piping systems.

At the Columbia Boulevard WWTP Biogas Cogeneration Facility in Portland, Oregon, Victaulic installation-ready couplings were installed on the hot water piping system. With no need to disassemble the coupling, QuickVic provided fast, easy pipe connections.

Aquamine Systems

The Aquamine system is a complete line of impact resistant, reusable pipe fittings, valves and specialty items. Made of PVC, it is rust-free and lightweight making it ideal in situations where pipe sections must be carried to remote locations.

The reusable spline design can be easily assembled and doesn’t require special tools or equipment. Equally important, it can be easily disassembled and is easy to redeploy in a matter of seconds.

With sizes from 2 – 12”/50 – 300mm for pressures up to 350 psi/2400 kPa, the Aquamine system includes a repair coupling and transition couplings for PVC to HDPE and PVC to steel transitions and two valves for on-off services.

In Perth, Australia, Aquamine was used by WA Water Corporation as a temporary sewer bypass allowing for refurbishment of a main underground DICL line to be carried out without disrupting this critical utility service. Due to the location of the bypass which is less than 100M from the Swan River, it provided an environmentally safe method of bypass without the need for HDPE fusion machines.

Visit www.victaulic.com to view publication 50.01 for more information about Aquamine products.
HDPE Systems

For grit, scum and a variety of critical services, Victaulic HDPE plain end products eliminate the need for butt fusing and the associated special equipment, heating and cooling of pipe, labor and installation time. Using standard socket wrenches HDPE couplings can be installed in a matter of minutes and make for a cost-effective solution.

No special pipe end preparation is required and once the coupling is installed you have visual verification of proper installation. The system provides a union at every joint for easy maintenance and/or system expansions.

With sizes from 2 – 20”/50 – 500 mm, HDPE plain end couplings are stronger than the pipe they join. A flange adapter is available to allow for easy transition from equipment to the piping system and a transition coupling can join HDPE to steel piping.

The Blue River Wastewater Treatment Plant in Kansas City, Missouri chose to install the Victaulic HDPE system on a 4 – 12”/100 – 300 mm wastewater grit system for its ease of maintenance and reduced maintenance cost. Compared to flanging, the HDPE solution improved the construction cycle, lowered labor costs and provided much easier constructability.

Visit www.victaulic.com to view publication 19.02 for Style 995N coupling, 19.03 for Style 997 transition coupling, or 19.04 for Style 994 HDPE flange adapter.
Vic-Press for Schedule 10S

Vic-Press is a flame-free press system that installs in seconds using off-the-shelf ASTM-312 Schedule 10S stainless steel pipe for ½ – 2”/15 – 50 mm applications. For pressures up to 500 psi/3450 kPa, a complete system of couplings, fittings, valves and tools are available for types 304/304L and 316/316L stainless steel.

Unlike welded systems Vic-Press is environmentally friendly completely eliminating the noxious fumes and hazardous conditions associated with welding. Compared with threading or socket welding of schedule 40S pipe, Vic-Press provides a reliable system that minimizes need for rework and repair while eliminating costly air loss.

Vic-Press systems are ideal for compressed air, plant air, equipment water, sampling lines and a variety of other systems.

Vic-Press joins Schedule 10S stainless steel pipe in a matter of seconds. This air system was installed in just a fraction of the time required for welded systems. Since the pipe is not heated during the joining process the metallurgical integrity of the stainless steel system is not compromised.

Victaulic Bolted Split Sleeve couplings provide versatility for a wide range of applications in the wastewater treatment market.

Victaulic Bolted Split Sleeve couplings are designed for pressures up to 400 psi/2750 kPa and sizes up to 144”/3650 mm. There are five basic coupling designs—non-restrained flexible, non-restrained flexible expansion, restrained flexible, restrained flexible with dynamic joint deflection, and restrained flexible single-gasket. Available for carbon steel and stainless steel systems.

**Style 230**
non-restrained flexible coupling

**Style 231**
non-restrained flexible expansion coupling

**Style 232**
restrained flexible coupling

**Style 233**
restrained flexible coupling with dynamic joint deflection

**Style 234**
restrained flexible single-gasket coupling

Victaulic Bolted Split Sleeve couplings in the Hollywood valve vault the LADWP (Los Angeles Department of Water and Power) were able to save hundreds of thousands of dollars in construction costs. Because Bolted Split Sleeve couplings do not require external restraints the overall size of the valve vault could be reduced by about 400 square feet. This translated into less concrete and time needed to complete this project.

Visit victaulic.com to view publication PB-257 for more on Bolted Split Sleeve solutions.
Vic-Ring Systems

Victaulic Vic-Ring® multiple segment couplings are used on piping systems where full wall thickness is critical. Designed primarily for use with Vic-Ring adapters the couplings can be used to join systems up to 144”/3650 mm in size.

Where full pipe wall thickness and a smooth inner flow path are requirements the Vic-Ring system is ideal. A ring is mounted to the exterior of the pipe and a coupling seats into the ring to complete the joint. Using 2/3 fewer bolts than flanged systems of the same size Vic-Rings are available for systems as large as 144”/3650 mm.

At the St. Louis Grand Glaize Wastewater Treatment Plant in Missouri, Victaulic Vic-Ring couplings were the ideal application for joining AWWA ductile pipe for the raw sewage system. Vic-Ring couplings provided ease of installation and maintenance.

Visit victaulic.com to view publication 16.01 for Vic-Ring systems, 16.03 for Style 31 Vic-Ring, 16.04 for Style 41 Vic-Ring, and 16.05 for Style 44 Vic-Ring.
Pipe Preparation Tools

Victaulic pipe preparation tools allow for in-shop or in-field fabrication of grooved piping. The Victaulic grooved system is the fastest most reliable piping methodology on the market and with the use of Victaulic tools, you are able to keep your project on track. There is no need to send piping away to a shop to fabricate spool pieces, when you can utilize many of our different tools to prepare pipe on site.

CUT GROOVING
AWWA Class 53 and higher pipe can be cut grooved to receive a Victaulic coupling. Victaulic offers cut grooving tools that can be mounted anywhere along the pipe line greatly simplifying maintenance and future expansions as well as initial installations.

ROLL GROOVING
For carbon and stainless steel piping systems roll grooving is the preferred method of pipe preparation. Victaulic offers a full range of tools to meet your specific grooving needs.

VIC-PRESS TOOL
The revolutionary Vic-Press 304/316 system installs in seconds using a hand-held pressing tool. Once engaged the tool is designed to complete the pressing cycle for complete engagement.

CLOSURE TOOLS
Two types of clamping tools are available for Victaulic Bolted Split Sleeve couplings. Both manual and powered clamping tools hold the coupling in place until the bolts and nuts are fully installed.
Service and Support

From initial construction review through scheduled inspection dates, a skilled and highly trained Victaulic representative can work directly with your installers.

During each phase of the project fitters are trained by Victaulic representatives on proper installation procedures for a job done right...right from the start.

Visit www.victaulic.com for details.

“I still remember the call placed to you that we needed six 10” Victaulic 365 plug valves the next day, low and behold the following morning here comes a minivan practically scraping the pavement into our jobsite with six 10” plug valves.

This is the type of service we have come to and do receive when dealing with a quality company such as Victaulic.”

DANIEL A SHULTS
VICE PRESIDENT
KIEWIT (FORMERLY JETT INDUSTRIES, INC.)
Victaulic invented the grooved end system for pipe joining in 1925. More than 85 years later, Victaulic continues to lead the industry with pipe joining innovations and solutions around the world. With offices and manufacturing facilities in Europe, Asia, the US and Canada, and a worldwide network of sales and service representatives, Victaulic works closely with engineers, contractors and owners to provide mechanical piping systems that lower costs, improve productivity, reduce risk and allows for system expansions.

Visit www.victaulic.com/wwt
- Searchable product and global project database
- Download product submittals and literature
- Piping software demos and modules
- Engineering support services