

# MARINE INDUSTRY PRODUCT CATALOG

G-108 updated 1/2015



ictaulic®

# VICTAULIC® SOLUTIONS FOR SHIPBUILDING AND MARINE PIPING SYSTEMS

Since the first patent in 1919, Victaulic has delivered innovative pipe joining solutions that help customers succeed worldwide. Look inside many of the world's most recognizable ships and vessels, and you'll find Victaulic solutions at work making bold design innovations possible, speeding time to completion, allowing for unpredictable seismic movements and setting the stage for scalability.

From concept to commissioning, Victaulic provides the technologies and services necessary to simplify your next project.

## Ship Owners

- Bring your ship to sea faster with speedier installation time. Up to 50% faster than competitive joining methods allowing you to complete projects faster.
- Reduce downtime on system retrofits or expansions
- Maintaining a sustainable marine environment
- Victaulic piping system solutions provide a flame free installation, avoiding toxic fumes and fire watch, and only requires a visual inspection to confirm proper installation
- Reduce noise and vibration transmission from pumps, chillers and other components

## TABLE OF CONTENTS

ii	The Victaulic® Difference
1	Original Groove System (OGS)
7	Advanced Groove System (AGS)
8	Hole Cut System
9	Vic-Press™ for Schedule 10 Stainless Steel
11	Plain End System for Carbon Steel
12	Specialty Solutions
13	Pipe Preparation Tools
22	Design Data
23	Gaskets/Seals/O-Rings
25	Index
26	Case Studies

### Naval Engineers

- Visual confirmation of a proper installation
- Accommodate system expansion and contraction
- Accommodate unique space requirements due to the small product footprint
- Reduce weight by 50% when compared to flanged components
- Attenuate system noise and vibration

### Shipyards and Contractors

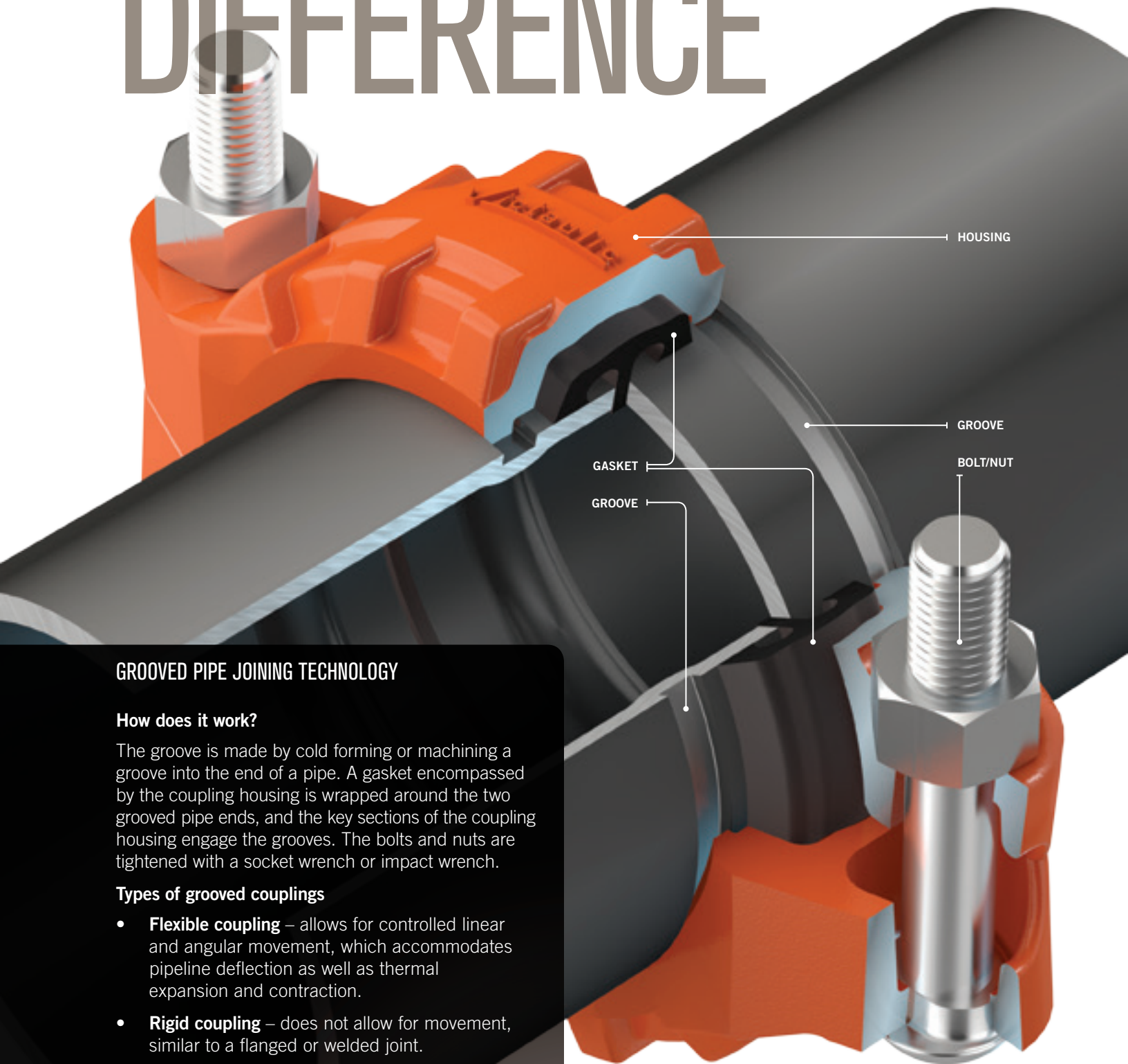
- Reduced installation time helps to meet or even beat project deadlines
- Improve work site safety and ease system alignment
- Ease material handling in confined spaces
- Only two bolts necessary up to 24" | 600 mm
- Easier scheduled or day-to-day maintenance

See [MB-560](#) for complete list of applications and systems

### Products Tested and Type Approved by IACS Members



# THE VICTAULIC® DIFFERENCE



## GROOVED PIPE JOINING TECHNOLOGY

### How does it work?

The groove is made by cold forming or machining a groove into the end of a pipe. A gasket encompassed by the coupling housing is wrapped around the two grooved pipe ends, and the key sections of the coupling housing engage the grooves. The bolts and nuts are tightened with a socket wrench or impact wrench.

### Types of grooved couplings

- **Flexible coupling** – allows for controlled linear and angular movement, which accommodates pipeline deflection as well as thermal expansion and contraction.
- **Rigid coupling** – does not allow for movement, similar to a flanged or welded joint.

At the core of all the benefits that Victaulic® solutions bring to a project – such as productivity, safety, design flexibility and quality – are the unique features of our products.

**VICTAULIC® GROOVED END PIPING SYSTEMS PROVIDE:**



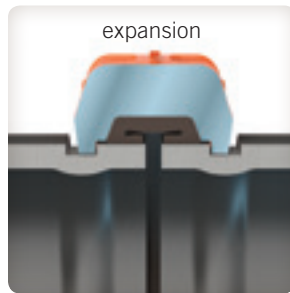
**Easy system maintenance and expansion** – through simple coupling disassembly that allows for easy access.



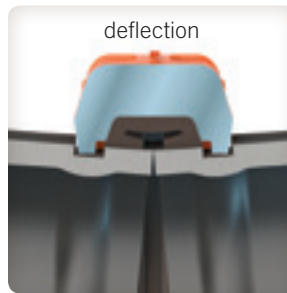
**Alignment ease** – through a design that allows for full rotation of the pipe and system components before tightening.



contraction

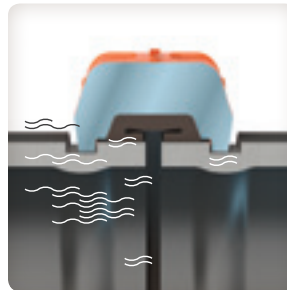


expansion

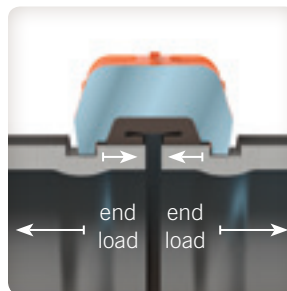


deflection

**Flexibility** – with the inherent axial movement and deflection properties of flexible couplings in a groove system. May be used to accommodate pipeline thermal expansion and contraction, misalignment and settlement, and seismic stress absorption.



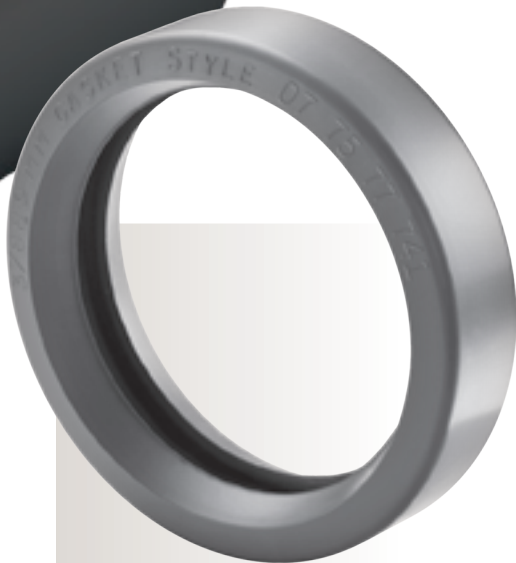
**Noise and vibration attenuation** – by isolating the transference of vibration at each joint.



**Self restrained pipe joints** – Couplings engage the pipe grooves to hold the pipes against full pressure thrust loads without the need of supplemental restraints.



**Rigidity** – with an angled pad design that provides positive clamping of the pipe to resist torsional and flexural loads.







**Victaulic gaskets** – Unlike flanged systems which are manufactured with asbestos material, Victaulic gaskets are not and have a much longer life cycle than the standard flanged gasket.

## Original Groove System (OGS)

The Victaulic® grooved piping system is the most versatile, economical, and reliable piping system available. It is up to three times faster to install than welding, easier and more reliable than threading or flanging, resulting in lower total installed cost. The system is designed for roll grooved or cut grooved standard pipe or roll grooved light wall pipe. Also, pipe end preparation is fast and easy. It can be done on the job site or in the shop with a variety of Victaulic grooving tools.



### Couplings

	Zero-Flex™ Rigid Coupling (Style 07)	2
	Flexible Coupling (Style 77)	2
	Flexible Coupling (Style 75)	2
	Reducing Coupling (Style 750)	3




### Adapters

	Vic-Flange Adapter (Style 741)	3
---	--------------------------------	---



### Fittings

	Fittings	4
---	----------	---

### Valves

	Vic™-300 MasterSeal™ Butterfly Valve (Series 761)	5
	Vic-Check Valve (Series 716H and 716)	5
	Vic-Ball Valve (Series 726)	6

### Strainers and Diffusers

	Vic-Strainer Tee Type (Series 730)	6
	Vic-Strainer Wye Type (Series 732)	6



**Painted  
Ductile Iron**



**Galvanized  
Steel**



**Stainless  
Steel**

## Coating and Material Options

Victaulic offers a complete line of couplings, fittings and valves designed to maintain piping integrity in corrosive seawater applications. Coatings/material may vary per application, please reference the product submittal for specified options.

Note: Victaulic stainless steel products do not have IACS Member Type Approvals and are for use on non-essential systems only. For use on non-essential on board systems, please contact Victaulic for more information.

**Pressure ratings on product submittals are for commercial use. Marine pressure ratings vary by agency.**



## Zero-Flex™ Rigid Coupling

STYLE 07

[Download submittal 06.02](#) for complete information

- Angled bolt pad provides rigidity
- Sizes from 1–12" | 25–300 mm
- Sizes from 1–10" | 25–250 mm are approved by DNV-GL for use with Cu-Ni - C70600 (90/10), Class 200 pipe per ASTM B466/B466M
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information



## Flexible Coupling

STYLE 77

[Download submittal 06.04](#) for complete information

- Cross-ribbed, two piece housing construction
- Sizes from ¾–24" | 20–600 mm
- Sizes from ¾–10" | 20–250 mm are approved by DNV-GL for use with Cu-Ni - C70600 (90/10), Class 200 pipe per ASTM B466/B466M
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1
- May be used on FRP/GRP pipe

Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information



## Flexible Coupling

STYLE 75

[Download submittal 06.05](#) for complete information

- Lightweight coupling for moderate pressures
- Sizes from 1–8" | 25–200 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information

## Original Groove System (OGS)



## Reducing Coupling

STYLE 750

[Download submittal 06.08](#) for complete information

- Replaces two couplings and a reducing fitting
- Sizes from 2–10" | 50–275 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

## Products Tested and Type Approved by IACS Members:

See the Victaulic® [IACS Member Certificates](#) for specific application information

## Vic-Flange Adapter

STYLE 741

[Download submittal 06.06](#) for complete information

- ANSI Class 125 and 150 flanges
- Also available for Australian Standard Table E and PN10
- Sizes from 2–24" | 50–600 mm
- Sizes from 2–12" | 20–300 mm (ANSI Class 125 and 150, and PN10) are approved by DNV-GL for use with Cu-Ni - C70600 (90/10), Class 200 pipe per ASTM B466/B466M
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

## Products Tested and Type Approved by IACS Members:

See the Victaulic® [IACS Member Certificates](#) for specific application information



## Fittings

[Download submittal 07.01](#) for complete information on original grooved end fittings for carbon steel pipe

- Standard fitting pressure ratings conform to ratings of installed coupling
- All fittings supplied with grooves or shoulders for fast installation
- Fittings available from ¾–24" | 20–600 mm
- For coating options, see pg. 1



### Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information



**No. 10**  
90° Elbow



**No. 11**  
45° Elbow



**No. 12**  
22½° Elbow



**No. 13**  
11¼° Elbow



**No. 20**  
Tee



**No. 35**  
Cross



**No. 33**  
True Wye



**No. 25**  
Grooved Branch Reducing Tee



**No. 30**  
45° Lateral



**No. 60**  
Cap



**No. 50**  
Concentric Reducer

## Original Groove System (OGS)



## Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information

## Vic™ -300 MasterSeal™ Butterfly Valve

SERIES 761

[Download submittal 08.20](#) for complete information

- Designed for bi-directional, dead end services to full working pressure
- Available bare, with gear operator, with lever lock handle and memory stop or with 10-position handle and memory stop
- Sizes from 2–12" | 50–300 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar



## Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information

## Vic-Check Valve

SERIES 716H

[Download submittal 08.08](#) for complete information

- Features a stainless steel disc which seats against the o-ring seal, when mounted on the electroless nickel plated face
- Sizes from 2–3" | 50–80 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar



## Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information

## Vic-Check Valve

SERIES 716

[Download submittal 08.08](#) for complete information

- Features an elastomer encapsulated disc and a welded in nickel seat
- Sizes from 4–12" | 100–300 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar



## Vic-Ball Valve

SERIES 726

[Download submittal 08.23](#) for complete information

- High pressure standard port ball valve with grooved ends
- Available with a lever operator or a gear operator
- Sizes from 1½–6" | 40–150 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar

Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information



## Vic-Strainer Tee Type

SERIES 730

[Download submittal 09.02](#) for complete information

- Lighter than flanged Y-type strainers and provides straight through flow for lower pressure drop
- Sizes from 1½–12" | 40–300 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information



## Vic-Strainer Wye Type

SERIES 732

[Download submittal 09.03](#) for complete information

- Provides straight through flow for lower pressure drop
- Sizes from 2–12" | 50–300 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information

## Advanced Groove System **AGS**

As the marine industry continues to expand, so does the need for Advanced Groove System (AGS) products. Victaulic® offers the W77 AGS flexible coupling for systems 14–24" | 350–600 mm. Our large diameter piping solutions provide strength and dependability in addition to speed, making them an excellent choice over welding. Other advantages AGS joints provide over welded joints include no flame installation, superior seismic-shock resistance and a union at every joint for easy adjustment, system maintenance or system expansion.



### Products Tested and Type Approved by IACS Members:



See the Victaulic [IACS Member Certificates](#) for specific application information

## AGS Flexible Coupling

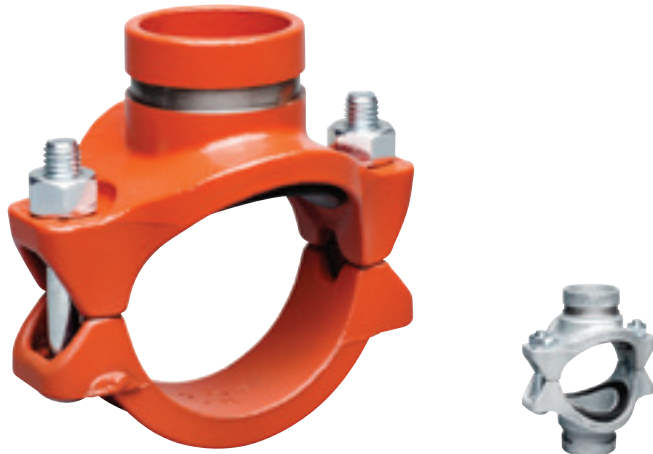
### STYLE W77

[Download submittal 20.03](#) for complete information

- Unique wedge shaped key profile increases allowable pipe end separation
- Sizes from 14–24" | 350–600 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1
- May be used on FRP/GRP pipe
- For original groove sizes ¾–24" | 20–600 mm (Style 77), [download submittal 06.04](#)

## Hole Cut Systems

Victaulic® developed the hole cut piping system concept to enable a fast and easy mid-pipe outlet solution that would not require welding. The system allows for a direct branch connection at any location where a hole can be cut in the pipe. Gaskets are molded to conform to the outer diameter of the pipe and provide a pressure-responsive seal. Victaulic hole cut products are positioned on the pipe using a locating collar (Style 920 and 920N).



## Mechanical-T Outlet

STYLE 920/920N

[Download submittal 11.02](#) for complete information

- Provides a direct branch connection at any location where a hole can be cut in the pipe
- Available as a cross outlet, a female threaded outlet or a grooved outlet
- Sizes from 2–8" | 50–300 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1
- For hole cutting tools, see pg. 18

### Products Tested and Type Approved by IACS Members:





See the Victaulic [IACS Member Certificates](#) for specific application information

## Vic-Press™ for Schedule 10S Stainless Steel

The revolutionary *Vic-Press* for Schedule 10S system provides quick, easy and safe installation and maintenance. It has the integrity to stand up to the demands of shipboard applications by providing a positive mechanical interlock between the pipe and the fitting. The *Vic-Press* for Schedule 10S press-to-connect system joins off-the-shelf ASTM A-312 stainless steel pipe.

*Vic-Press* systems are ideal for compressed air, instrument air, eye wash stations and a variety of other systems. Unlike welded systems *Vic-Press* is environmentally friendly, completely eliminating the noxious fumes and hazardous conditions associated with welding.



<i>Vic-Press</i>	page	<i>Vic-Press</i> Tools	page
 For Schedule 10S Stainless Steel (Type 316)	10	 PFT510	19

### Insertion Mark

A witness mark made by installer prior to installation allows for visual verification that the pipe has been fully inserted for proper installation.

### Unpressed Joint Seal Pocket

Sized to contain the seal, the seal pocket position helps protect the seal during assembly.

### Pipe Stop

An internal pipe stop locates pipe position to ensure positive joining.

### Positive Mechanical Interlock

The *Vic-Press* PFT510 hand-held tool engages the entire circumference of the fitting to ensure a secure attachment of pipe to fitting.

### Innovative Gasket Technology

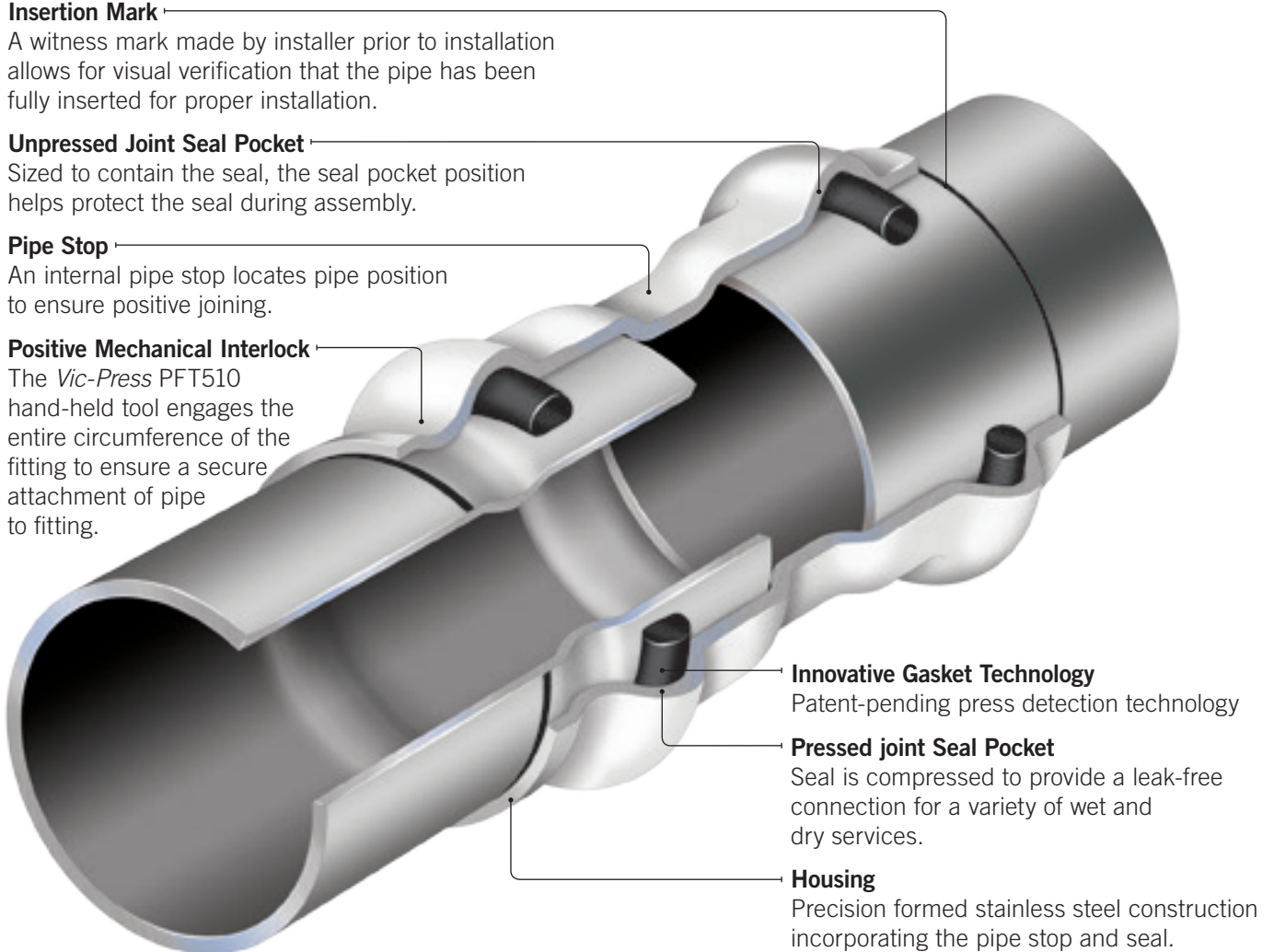
Patent-pending press detection technology

### Pressed joint Seal Pocket

Seal is compressed to provide a leak-free connection for a variety of wet and dry services.

### Housing

Precision formed stainless steel construction incorporating the pipe stop and seal.





## Vic-Press™ For Schedule 10S Stainless Steel Type 316

[Download submittal 18.11](#) for complete information

- Fast, easy, reliable way to join small diameter Type 316/316L stainless steel
- Sizes from ½–2" | 15–50 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- Approvals vary per product

### Products Tested and Type Approved by IACS Members:



See the Victaulic® [IACS Member Certificates](#) for specific application information

						<b>End Type Code</b> <b>P</b> Press <b>F</b> Female Thread <b>M</b> Male Thread <b>T</b> Plain End <b>L</b> Flanged <b>G</b> Grooved
<b>Style P507</b> Standard Coupling (P × P)	<b>Style P568</b> Short Tangent 90° Elbow (P × P)	<b>Style P562</b> 90° Street Elbow (P × T)	<b>Style P571</b> 45° Elbow (P × P)	<b>Style P563</b> 45° Street Elbow (P × T)		
<b>Style P508</b> Slip Coupling (P × P)	<b>Style P572</b> Tee (P × P × P)	<b>Style P578</b> Tee with Threaded Branch (P × P × F)	<b>Style P573</b> Tee with Reducing Branch (P × P × P)	<b>Style P576</b> Male Threaded Adapter (P × M)	<b>Style P579</b> Female Threaded Adapter (P × F)	
<b>Style P575</b> Flange Adapter (P × L)	<b>Style P577</b> Transition Nipple (G × T)	<b>Style P574</b> Concentric Reducer (P × P)	<b>Style P560</b> End Cap			



**PFT510**  
Vic-Press Tool,  
pg. 19

## Plain End Systems for Carbon Steel

The Victaulic® plain end piping method is ideal for maintenance and repairs as well as new systems such as roof drains, slurries, tailings and oil field services. *Roust-A-Bout* couplings and plain end fittings are UL and ULC Listed for fire protection services.

Victaulic plain end couplings are primarily designed for use on standard weight steel pipe (Schedule 40), but may be used on light wall steel or other metallic pipe, such as aluminum or stainless steel. They are not intended for use on plastic pipe, plastic-coated pipe or brittle pipe, such as cement-lined or cast iron. Nor are they intended for use on pipe with a surface hardness greater than 150 Brinell.



## *Roust-A-Bout* Plain End Coupling STYLE 99

[Download submittal 14.02](#) for complete information

- Grips to provide a strong component for joining plain and beveled end pipe and fittings
- Not designed for use with plastic pipe
- Sizes from 1 – 18" | 25 – 450 mm
- Pressures up to 232 psi | 1600 kPa | 16 bar
- For coating options, see pg. 1

### Products Tested and Type Approved by IACS Members:



See the Victaulic [IACS Member Certificates](#) for specific application information



## Specialty Solutions

It's never been easier to install Victaulic® grooved piping solutions into marine piping systems. Our couplings, fittings and valves are compatible and incorporated into several grooved system designs with IACS Member Type Approved components such as Wager air vents, IMI TA balancing valves and Vatec suction pipe inlet nozzles.

### Grooved solutions for FRP/GRP pipe



#### Wager Air Vent

Wager Air Vents restrict backflow into the system. When partnered with Victaulic couplings and fittings repairs are easily accomplished.



#### IMI TA Manual Balancing Valves with Grooved Ends

To reduce the weight and footprint of the system, IMI TA grooved end valves can be easily joined with Victaulic mechanical couplings.



#### Delta-Y Assembly

For use on bulk cement/barite systems commonly found on offshore platforms, the Delta-Y assembly reduces space required for flanged and welded delta installation.



#### “Elephant Foot” (Suction Pipe Inlet Nozzle)

Victaulic solutions are compatible with suction pipe inlet nozzles to ease maintenance when emptying tanks.



#### Box Coolers

Victaulic grooved pipe-joining solutions eliminate space constraints, ease access for clean up operations and reduce time out of service.



#### Mud Box Strainers

Fitted into machinery space bilge suction piping, these coarse strainers are oriented in tight hard to reach areas. Mud box strainers can easily be removed and replaced when joined with Victaulic couplings.

## Pipe Preparation Tools






Victaulic® is the world's leading developer of pipe preparation tools. These tools simplify pipe end preparation and are available for pipe sizes ranging from ½–24" | 15–600 mm and pipe wall thicknesses up to Schedule 80 for sizes ½–6" | 15–150 mm.

Victaulic tools are available for field use, fab shop environments and ship board applications. As with our pipe joining technologies, Victaulic tools make pipe end preparation faster, easier and safer.



Additionally, Victaulic offers hole cutting, pipe cut-off, pressing tools and a variety of accessories.



### Field Portable Roll Grooving Tools

 VE12	page	14
 VE26	page	14
 VE46	page	15
 VE26/46 Power Drive Kit	page	15
 VE206	page	16

### Field Fabrication Roll Grooving Tools

 VE416FS	page	16
 VE416FSD/VE417FSD	page	17

### Plant/Shop Fabrication

 VE460	page	17
---	------	----






### Hole Cutting Tools

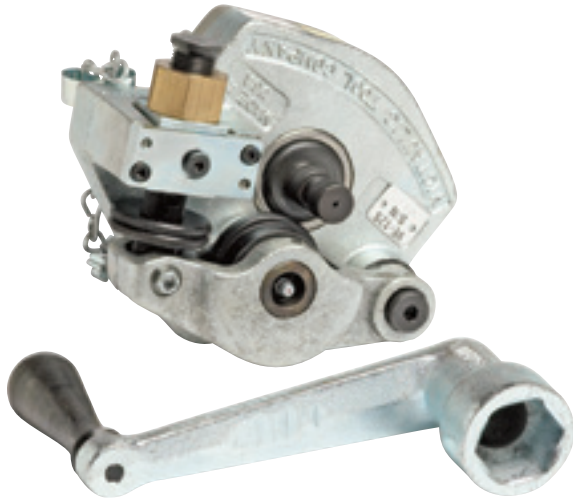
 HCT908	page	18
 VHCT900	page	18

### Vic-Press™ Tools

 PFT510	page	19
--	------	----

### Tool Accessories

 VAPS112	page	19
 VAPS224	page	20
 VAPS1672	page	20
 PT100A/PT102	page	21
 Gasket Lubricant	page	21

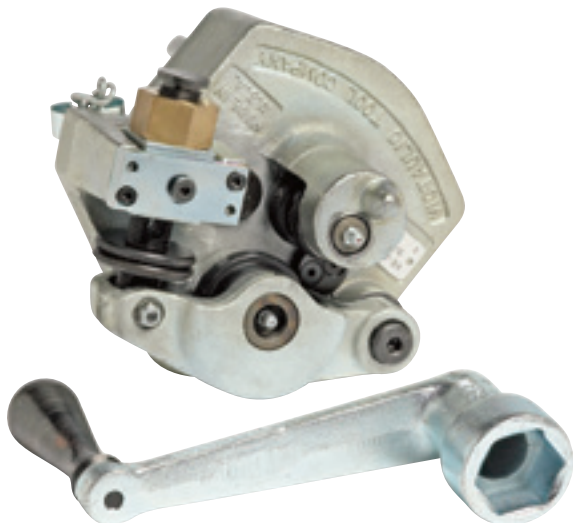


## Field Portable Roll Grooving Tools

### VE12 GROOVE IN-PLACE

[Download submittal 24.01](#) for complete information

- Tool is manually operated using the supplied ratchet handle
- For manual grooving of Schedule 5, 10 and 40 steel and stainless steel pipe
- Patented enhanced tracking rolls allow bi-directional grooving
- Roll grooves ¾–2" | 20–50 mm pipe



## Field Portable Roll Grooving Tools

### VE26 GROOVE IN-PLACE

[Download submittal 24.01](#) for complete information

- Tool is manually operated using the supplied ratchet handle
- Repair and retrofit existing lightwall steel, Schedule 40 steel and stainless steel
- Enhanced tracking rolls allow bi-directional grooving
- Model VE26SS grooves Schedule 5 and 10 stainless steel
- Optional power drive adapter kit available to alternately groove pipe using a Ridgid™ 300 power drive or VPD752
- Roll grooves 2–6" | 50–150 mm pipe

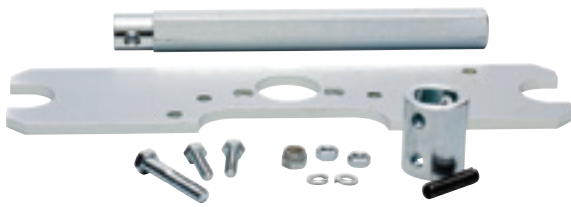


## Field Portable Roll Grooving Tools

### VE46 GROOVE IN-PLACE

[Download submittal 24.01](#) for complete information

- Tool is manually operated using the supplied ratchet handle
- Designed for manually roll grooving Schedule 40 steel and stainless steel pipe
- Enhanced tracking rolls allow bi-directional grooving and helps to hold the tool on the pipe end during the roll grooving process
- Optional power drive adapter kit available to alternately groove pipe using a Ridgid™ 300 power drive or Victaulic® VPD752
- Roll grooves 3½–6" | 90–150 mm pipe



## Field Portable Roll Grooving Tools

### VE26/46 POWER DRIVE KIT

[Download submittal 24.01](#) for complete information

- The VE26/46 power drive kit is available to allow both tools to be directly mounted to either a Victaulic VPD752 or Ridgid™ 300 Power Drive.



## Field Portable Roll Grooving Tools

VE206

[Download submittal 24.01](#) for complete information

- Tool head mounts to any tripod stand with a Ridgid™ 300 bolt pattern or the flat bed of a roustabout truck
- Compatible with multiple power drive units; Victaulic® VPD752, Ridgid™ 300 or 700 and Rems Amigo II
- Hydraulic hand pump can be mounted on either side of the tool for right or left hand operation
- Roll grooves 1¼–6" | 32–150 mm pipe



## Field Fabrication Roll Grooving Tools

VE416FS

[Download submittal 24.01](#) for complete information

- For field roll grooving of 2–12" | 50–300 mm standard wall pipe, lightwall steel pipe and stainless steel pipe
- Groove depth adjuster allows for easy adjustment for initial groove diameter
- Roll grooves 2–12" | 50–300 mm pipe (Supplied with 2–12" | 50–300 mm original rolls).
- Equipped with a pipe stabilizer for 6–12" | 50–300 mm pipe sizes to control pipe sway

## Pipe Preparation Tools



## Field Fabrication Roll Grooving Tools

VE416FSD/VE417FSD

[Download submittal 24.01](#) for complete information

- For field roll grooving of 2–16" | 50–400 mm standard wall pipe, lightwall steel pipe and stainless steel pipe
- Groove depth adjuster allows for easy adjustment for initial groove diameter
- Completely self-contained units with integral gear motors, safety foot switch and power cord/plug
- Equipped with a pipe stabilizer for 6–16" | 150–400 mm pipe sizes to control pipe sway



## Plant/Shop Fabrication

VE460

[Download submittal 24.01](#) for complete information

- Fully-motorized, semi-automatic, hydraulic shop tool is shipped fully assembled with safety foot switch and rolls for standard grooving (4–24" | 100–600 mm) 0.500 wall maximum.
- Enhanced tracking rolls help to keep the pipe on the tool during the roll grooving process
- Tool ships with 4–12" | 100–300 mm OGS groove rolls (8–12" | 200–300 mm rolls installed) and 14–24" | 350–600 mm AGS groove rolls
- Grooving kits available to accommodate AGS grooving 26–60" | 650–1500 mm



## Hole Cutting Tools

HCT908

[Download submittal 24.01](#) for complete information

- One-piece hole cutting tool designed to cut holes up to 4½" | 120 mm in carbon and stainless steel pipe; for pipe with OD up to 8" | 200 mm
- Allows use of *Mechanical-T*



## Hole Cutting Tools

VHCT900

[Download submittal 24.01](#) for complete information

- Three-piece hole cutting tool designed to cut holes up to 3½" | 90 mm in diameter for *Mechanical-T*
- Base unit clamps quickly onto the pipe in vertical, horizontal or overhead positions
- Heavy-duty drill mounts to the alignment guides and a manual feed assembly provides uniform pressure on the saw for maximum cutting efficiency



## Vic-Press™ Tools

### PFT510

[Download submittal 24.01](#) for complete information

- The *Vic-Press* Schedule 10S System requires a *Vic-Press* Schedule 10S tool designed for securing *Vic-Press* Schedule 10S products onto IPS Schedule 10S stainless steel pipe
- Tool package include one (1) *Vic-Press* PFT510 tool, two (2) 18V lithium ion batteries, one (1) battery charger, one (1) corded adapter, one (1) tool carrying case, one (1) jaw carrying case, one (1) ½" | 15 mm jaw, one (1) ¾" | 20 mm jaw, one (1) 1" | 25 mm jaw, one (1) 1 ½" | 40 mm hinged jaw, 2" | 50 mm hinged jaw, and one (1) adapter jaw
- Jaws are included with every tool purchase



## Tool Accessories

### VAPS112 ADJUSTABLE PIPE STAND

[Download submittal 24.01](#) for complete information

- Designed for supporting pipe to be roll grooved
- Four adjustable legged portable self-standing unit
- Turnstile design allows pipe to be spun around for grooving of both pipe ends without dismounting pipe from stand
- Unique trough design allows for rotational and forward/traverse movement





## Tool Accessories

### VAPS224 ADJUSTABLE PIPE STAND

[Download submittal 24.01](#) for complete information

- Designed specifically for supporting 2–24" | 50–600 mm IPS pipe to be roll grooved
- Self-standing heavy-duty unit permits free pipe rotation and traversing on ball transfers
- Ball transfers are mounted in a manner permitting use of pipe slings
- Turnstile design allows pipe to be spun around for grooving of both pipe ends without dismounting pipe from stand



## Tool Accessories

### VAPS1672 ADJUSTABLE PIPE STAND

[Download submittal 24.01](#) for complete information

- *Vic-Easy* adjustable pipe stands are portable and self-standing units that permit free pipe rotation and traversing on ball transfers. They are designed for direct use with *Vic-Easy* roll grooving tools: VE436MC and VE460.
- For use with 16–24" | 400–600 mm pipe

## Pipe Preparation Tools



## Tool Accessories

### PT100A AND PT102

[Download submittal 24.01](#) for complete information

- Go/No-Go, pocket-sized steel tapes for taking circumferential measurements of pipe
- Go/No-Go side can be used to check cut or roll grooved pipe for conformance to Victaulic® grooved specifications
- Tapes notched on the lead end to allow proper overlap within the groove for more accurate measurement
- PT100A contains Go/No-Go markings for use with  $\frac{3}{4}$ –24" | 20–600 mm pipe; tape marked with 0.01" | 0.25 mm increments on the opposite side
- PT102 contains Go/No-Go markings for use with Original Groove System sizes 8–12" | 200–300 mm and Advanced Groove System sizes 14–72" | 350–1800 mm; tape marked in 0.02" | 0.5 mm increments on the opposite side
- Go/No-Go side of tapes may not be used to measure cast iron, ductile iron, or copper tube sizes

## Vic™-Lube

### GASKET LUBRICANT

[Download submittal 05.02](#) for complete information

- To ensure easy assembly and service be sure to include plenty of Victaulic lubricant
- Available in a (12) tube pack or 32 oz. container
- Not compatible for use with HDPE pipe
- See pg. 23 for more information

## Design Data

### Introduction

This Victaulic® Marine Catalog has been written for the piping system installer, marine architect, specification writer and owner as a basic reference guide for data about Victaulic mechanical piping methods. This catalog is organized to provide information in the context and form most readily usable. For easy identification of major sections of interest, see the condensed table of contents on pg. i, for a fully detailed index, see pg. 25. For more detailed information, [download Design Data 26.01](#).

### Important Information

Victaulic standard grooved pipe couplings are designed for use with pipe grooved to meet Victaulic groove specifications and Victaulic grooved end fittings, valves, and related grooved end components only. They are not intended for use with plain end pipe and/or fittings. Victaulic plain end couplings are designed for use only with plain end or beveled end steel pipe (unless otherwise indicated) and Victaulic plain end fittings. **Victaulic plain end couplings must not be used with grooved end or threaded end pipe and/or fittings. Nor are they intended for use with Advanced Groove System (AGS) components used on 14–24" | 350–600 mm pipe sizes.**

Pipe must be prepared to meet Victaulic specifications outlined for each specific product style. Performance data listed herein is based on proper pipe preparation. The proper gasket must be selected for the service intended. **It should be noted that there are various services for which Victaulic gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide ([download submittal 05.01](#)) for specific gasket service recommendations and for a listing of services which are not recommended. Gaskets for Victaulic products always must be lubricated for proper assembly.**

Gasket lubricant must meet manufacturer's specifications. Thorough lubrication of the gasket exterior, including the lips and/or pipe ends and housing interiors, is essential to prevent gasket pinching. Lubrication assists proper gasket seating and alignment during installation.

Victaulic has a complete line of tools for preparing pipe to Victaulic specifications. Use of these tools is recommended in preparing pipe to receive Victaulic products. Always read and understand the Tool Operating Instructions supplied with every Victaulic tool prior to using any tools. All data contained herein, is subject to change without notice.

### Notice

The technical and performance data, weights, dimensions and specifications published in this catalog supersede all previously published data.

Victaulic maintains a policy of continual product improvement and, therefore, reserves the right to change product specifications, designs, and standard equipment without notice and without incurring obligation.

For the most up-to-date Victaulic product information, please visit [victaulic.com](http://victaulic.com).

The material presented in this catalog is intended for piping design reference in utilization of Victaulic products for their intended application. It is not intended as a substitute for competent, professional assistance which is an obvious requisite to any specific application.

### Design

Reference should always be made to design information available at no charge on request from Victaulic. Good piping practices should always prevail. Specific pressures, temperatures, external or internal loads, performance standards and tolerances must never be exceeded. Many applications require recognition of special conditions, code requirements and use of safety factors. Qualified engineers must make these decisions.

While every effort has been made to ensure its accuracy, Victaulic, its subsidiaries and affiliated companies, make no express or implied warranty of any kind respecting the information contained in this catalog or the material referred to herein.

Anyone making use of the information or material contained herein does so at their own risk and assumes any and all liability resulting from such use.

### Installation

Reference should always be made to the specific Victaulic Field Installation Handbook for the product you are installing. The following is a list of handbooks that can be requested for free from Victaulic:

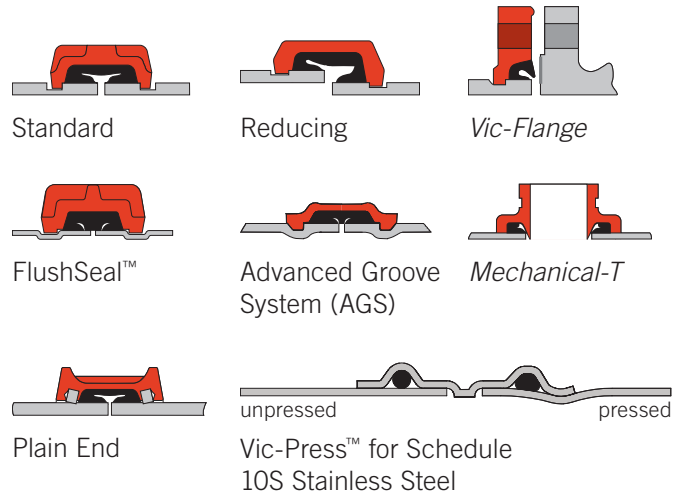
I-100	General Handbook
I-P500	Vic-Press™ Handbook

Handbooks are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at [victaulic.com](http://victaulic.com).

## Elastomer Gasket Seals

Victaulic® offers a broad variety of synthetic rubber gaskets suitable for a wide range of applications. Victaulic gaskets provide high- and low-temperature limits, tensile strength, chemical resistance and shelf life.

Nitrile Grade T (Type A) gaskets are DNV-GL and LR Type approved with Style 07, 75, and 77 couplings along with the Style 741 flange adapter, tested according to requirements of ISO 19921 and applicable as per requirements of IACS member rules.



## Gasket Materials

Victaulic offers a wide variety of elastomeric gaskets for a broad range of applications. For most water applications, the Victaulic Grade “E” EPDM (ethylene propylene diene monomer) gasket compound is compatible. Victaulic Grade “E” material has premium performance properties with respect to aging and resistance to heat and hot water. Heat aging tests at +250°F | +121°C conducted on this material show essentially no change in physical properties. This situation is further enhanced when this rubber is subjected to an essentially non-oxidative environment, such as a gasket in a water piping system. For example, aging tests in a non-oxidative atmosphere show essentially no change in physical properties of this material even when tested at temperatures up to +350°F | +177°C.

Since water has no deteriorating effect on the elastomer, temperature is the only limiting factor to be considered in determining the life expectancy of the elastomer in water service. The superior performance of the Grade “E” elastomer permits its use for hot water service up to +230°F | +110°C. The Grade “E” gasket is superior to previous gasket materials by all performance barometers, including high and low temperature limits, tensile strength, chemical resistance and shelf life.

The Grade T “Type A” gasket may be specified for oil related services, including air with oil vapor, this gasket may be specified for temperatures rated up to +180°F | +82°C. For water related services, this gasket may be specified for temperatures rated up to +150°F | +66°C. For oil free, dry air services, this gasket may be specified for temperatures rated up to +140°F | +60°C. ISO 19921:2005(E) compliant fire resistant material in accordance with DNV and LR.

## Gasket/Seal/O-Ring Data

Victaulic offers a variety of elastomeric gaskets/seals/o-rings for the widest range of applications. To assure the maximum life for the service intended, proper gasket selection and specification in ordering is essential.

The foremost consideration is temperature, along with concentration of product, duration of service and continuity of service. Temperatures beyond the compatibility limits have a degrading effect on the polymer.

Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets/seals/o-rings are not compatible. Reference should always be made to the latest Gasket Chemical Services Guide ([download publication GSG-100](#)) for specific service guidelines and for a listing of services which are not compatible.

Gasket guidelines apply only to Victaulic gaskets, seals and o-rings. Guidelines for a particular service do not necessarily imply compatibility of the coupling housing, related fittings or other components for the same service.

These guidelines do not apply to rubber-lined or rubber seal valves or other rubber-lined products. Victaulic gaskets are clearly marked as part of the mold with the gasket size, style and compound for easy identification.

## Gasket Lubricant

Thorough lubrication of the gasket exterior, including the sealing lips and/or pipe ends and housing interiors, is essential for proper installation. Use Victaulic lubricant for installation. Other compatible material, such as silicone and others may be used on Grades “E” gaskets. Victaulic lubricant is available in a box of (12) 4 fluid ounce | 114 milliliter tubes or in 1 quart | 946 milliliters containers.

**ALWAYS USE LUBRICANT FOR PROPER COUPLING ASSEMBLY.**

## Valve Seals

Victaulic Gasket Selection Guide (05.01) does not include Victaulic seals for valves. Refer to the individual Victaulic valve submittal for information on the seals available for each valve.

**WARNING**

- To assure maximum life for the service intended, proper gasket selection and specification in ordering is essential. For specific chemical and temperature compatibility, refer to the Gasket Selection and Chemical Services sections. The information shown defines general ranges for all compatible fluids.

Failure to select the proper rubber compound may result in personal injury or property damage, improper installation, joint leakage or joint failure.

**Standard Gaskets—IPS**

Grade <sup>1</sup>	Temp. Range <sup>1</sup>	Compound	Color Code	General Service Guidelines
<b>E</b>	-30°F to +230°F -34° C to +110° C	EPDM	Green Stripe	May be specified for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. UL Classified in accordance with ANSI/NSF 61 for cold +73°F   +23°C and hot +180°F   +82°C potable water service and ANSI/NSF 372. <b>NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES.</b>
<b>T</b> (Type A) <sup>3</sup>	-20°F to +180°F -29° C to +82° C	Nitrile	Gray Gasket	May be specified for oil related services, including air with oil vapor, this gasket may be specified for temperatures rated up to +180°F   +82°C. For water related services, this gasket may be specified for temperatures rated up to +150°F   +66°C. For oil free, dry air services, this gasket may be specified for temperatures rated up to +140°F   +60°C.
<b>T</b>	-20°F to +180°F -29° C to +82° C	Nitrile	Orange Stripe	May be specified for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils within the specified temperature range. <b>Not compatible for use with hot, dry air over +140°F   +60°C and water over +150°F   +66°C.</b> <b>NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES.</b>

<sup>1</sup> For specific chemical and temperature compatibility, refer to the [Gasket Selection Guide \(05.01\)](#) which includes the Gasket Chemical Services Short Report or refer to the [Gasket Chemical Services Guide Long Report \(GSG-100\)](#) located on [victaulic.com](http://victaulic.com). The information shown defines general ranges for all compatible fluids.

<sup>3</sup> The Grade T Type A gasket is fire resistant and only available on Style 07, 75, 77 couplings and Style 741 Vic-Flange adapter.

**Vic-Press™ Seals**

Grade	Temp. Range <sup>1</sup>	Compound	Color Code	General Service Guidelines
<b>H</b>	-20° F to +210° F -29° C to +98° C	Hydrogenated Nitrile Butadiene Rubber (HNBR)	Two Orange Stripes	May be specified for hot petroleum/water mixtures, hydrocarbons, air with oil vapors, vegetable and mineral oils, engine oil and transmission oil. UL Classified in accordance with ANSI/NSF 61 for cold +73°F   +23°C and hot +180°F   +82°C potable water service and ANSI/NSF 372.
Standard Seal: Vic-Press products will ship with Grade "H" seal unless otherwise specified on order.				
<b>E</b>	-30° F to +250° F -34° C to +121° C	EPDM	Green Stripe	May be specified for hot water service, dilute acids, oil-free air, chemical services. UL Classified in accordance with ANSI/NSF 61 for cold +73°F   +23°C and hot +180°F   +82°C potable water service and ANSI/NSF 372. <b>NOT COMPATIBLE FOR USE WITH PETROLEUM OR STEAM SERVICES.</b>

<sup>1</sup> For specific chemical and temperature compatibility, refer to the [Gasket Selection Guide \(05.01\)](#) which includes the Gasket Chemical Services Short Report or refer to the [Gasket Chemical Services Guide Long Report \(GSG-100\)](#) located on [victaulic.com](http://victaulic.com). The information shown defines general ranges for all compatible fluids.

## Index

**Original Groove System (OGS)**

Fittings	4
Flexible Coupling	2
Reducing Coupling	3
Vic™-300 MasterSeal™ Butterfly Valve	5
Vic-Ball Valve	6
Vic-Check Valve	5
Vic-Flange Adapter	3
Vic-Strainer Tee Type	6
Vic-Strainer Wye Type	6
Zero-Flex™ Rigid Coupling	2

**Advanced Groove System (AGS)**

AGS Flexible Coupling	7
-----------------------	---

**Hole Cut System**

Mechanical-T Outlet	8
---------------------	---

**Vic-Press™**

Vic-Press	
For Schedule 10S Stainless Steel	
Type 316	10

**Plain End Systems for Carbon Steel**

Roust-A-Bout Plain End Coupling	11
---------------------------------	----

<b>Specialty Solutions</b>	12
----------------------------	----

**Pipe Preparation Tools**

Gasket Lubricant	21
HCT908	18
PFT510	19
PT100A and PT102	21
VAPS112 Adjustable Pipe Stand	19
VAPS224 Adjustable Pipe Stand	20
VAPS1672 Adjustable Pipe Stand	20
VE12 GROOVE IN-PLACE	14
VE26/46 Power Drive Kit	15
VE26 GROOVE IN-PLACE	14
VE46 GROOVE IN-PLACE	15
VE206	16
VE416FS	16
VE416FSD/VE417FSD	17
VE460	17
VHCT900	18

**Gaskets**

Standard Gaskets—IPS	24
Vic-Press Seals	24

## Warranty

We warrant all products to be free from defects in materials and workmanship under normal conditions of use and service. Our obligation under this warranty is limited to repairing or replacing at our option at our factory any product which shall within one year after delivery to original buyer be returned with transportation charges prepaid, and which our examination shall show to our satisfaction to have been defective.

THIS WARRANTY IS MADE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE BUYER'S SOLE AND EXCLUSIVE REMEDY SHALL BE FOR THE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS AS PROVIDED HEREIN. THE BUYER AGREES THAT NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO HIM.

Victaulic® neither assumes nor authorizes any person to assume for it any other liability in connection with the sale of such products.

**This warranty shall not apply to any product which has been subject to misuse, negligence or accident, which has been repaired or altered in any manner outside of a Victaulic factory or which has been used in a manner contrary to Victaulic instructions or recommendations. Victaulic shall not be responsible for design errors due to inaccurate or incomplete information supplied by Buyer or its representatives.**

Items purchased by Victaulic and resold will have the original equipment manufacturer's warranty extended to Victaulic customers.

© Copyright 2015, Victaulic Company. All rights reserved.

No part of this Victaulic catalog may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopy, recording or otherwise, without the prior written permission of Victaulic Company.

## Case Studies

Vessels and Rigs all over the world have already taken advantage of the benefits that accompany the employment of Victaulic® products in a wide range of applications.

Whether you are constructing a new ship or looking to simplify repairs, conversions and retrofits, reduce your down time with faster installation. Getting your vessel out in service as quickly and safely as possible is as important to you as it is to us.

For more information on these case studies please reference the Victaulic Marine Systems Brochure (MB-560).



### Celebrity Eclipse

With a limited window of time for repairs, contractor, Servyman del Estrecho S.L., relied on Victaulic piping solutions to meet the operator's demanding time schedule. By employing Victaulic couplings and fittings, Servyman del Estrecho S.L. was able to finish the whole installation in three hours; meeting and beating the project deadline.



### McAllister

When a tug owned by one of the oldest family owned-marine towing companies was in need of a quick repair the best long term solution was Victaulic rigid couplings. Robert E. McAllister was able to avoid drydock and was back at sea in a little over an hour.



### La Superba

One of the world's largest and fastest luxury cruise ferries, La Superba can house 2,920 passengers and 1,000 vehicles. The owners of the ferry cruise needed a world class piping solution. Noise and vibration attenuation, as well as ease of installation and maintenance, made Victaulic a natural choice.



### John W. Brown Liberty Ship

World War II Liberty Ship tests longevity of grooved piping systems. To address the sudden need for supplies overseas during World War II, the United States government launched an emergency shipbuilding program in 1941 that resulted in the construction of 2,700 cargo ships. Dubbed Liberty ships, these vessels were designed as economically and quickly built cargo steamers that formed the backbone of a massive sealift of troops, arms, materiel and ordnance to every theater of the war. Liberty ships, like the Brown, were not expected to last much longer than five years, but the 441-foot-6-inch-long Brown looks and sails almost exactly as she did at the end of the war and the Victaulic products installed are still holding water after more than 70 years. In fact, the vessel still sails today on living history tour cruises in Baltimore, Maryland.

# VICTAULIC® WORLDWIDE

## North and South America

### UNITED STATES AND WORLD HEADQUARTERS

4901 Kesslersville Road  
Easton, PA 18040 USA  
1 800 PICK VIC  
1 800 742 5842  
(within North America)  
1 610 559 3300  
[pickvic@victaulic.com](mailto:pickvic@victaulic.com)

### CANADA

123 Newkirk Road  
Richmond Hill  
Ontario L4C 3G5 Canada  
1 905 884 7444  
[viccanada@victaulic.com](mailto:viccanada@victaulic.com)

### MEXICO

Calle Circuito del Marques  
No 8 al 11  
Parque Industrial El Marques  
Municipio El Marques  
Queretaro, Mexico  
CP 76246  
52 442 253 0066  
[vical@victaulic.com](mailto:vical@victaulic.com)

### BRAZIL

Av. Marquês de São Vicente  
446 Cj 1303  
Várzea da Barra Funda –  
São Paulo-SP  
CEP 01139-000 – Brazil  
55 11 3548 4280  
[vicbr@victaulic.com](mailto:vicbr@victaulic.com)

## Europe, Middle East, Africa and India

### BELGIUM

Prijkelstraat 36  
9810 Nazareth, Belgium  
32 9 381 15 00  
[viceuro@victaulic.com](mailto:viceuro@victaulic.com)

### UNITED KINGDOM

Units B1 & B2, SG1 Industrial Park  
Cockerell Close, Gunnels Wood Road  
Stevenage, Hertfordshire, UK  
SG 1 2NB  
44 1438 310 690  
[viceuro@victaulic.com](mailto:viceuro@victaulic.com)

### GERMANY

LOGICPARK  
Gutenbergstrasse 19  
D-64331 Weiterstadt, Germany  
49 6151 9573 0  
[viceuro@victaulic.com](mailto:viceuro@victaulic.com)

### UNITED ARAB EMIRATES

P.O. Box 17683, Unit XB 8  
Jebel Ali Free Zone  
Dubai, United Arab Emirates  
971 4 883 88 70  
[viceuro@victaulic.com](mailto:viceuro@victaulic.com)

### INDIA

India Land Global Industrial Park  
Plot 4, Hinjewadi, Phase-1, Mulshi  
Pune 411057, India  
91 20 67 919 300  
[viceuro@victaulic.com](mailto:viceuro@victaulic.com)

## Asia Pacific

### CHINA

Unit 808, Building B  
Hongwell International Plaza  
No.1602 West Zhongshan Road  
Shanghai, China 200235  
86 21 6021 9400  
[vicap@victaulic.com](mailto:vicap@victaulic.com)

### KOREA

4F, Seoil Building, 1430-5,  
Seocho-Dong, Seocho-Gu  
Seoul, Korea 137-070  
82 2 521 7235  
[vicap@victaulic.com](mailto:vicap@victaulic.com)

### TAIWAN

No. 55, NanGong Rd, LuJhu Township  
TaoYuan County, Taiwan 338  
886 3 222 3220  
[vicap@victaulic.com](mailto:vicap@victaulic.com)

### AUSTRALIA AND NEW ZEALAND

7 Chambers Road  
Unit 1  
Altona North, Victoria  
Australia 3025  
1 300 PIC VIC  
1 300 742 842  
(within Australia)  
0 508 PICK VIC  
0 508 7425 842  
(within New Zealand)  
61 3 9392 4000  
[vicaust@victaulic.com](mailto:vicaust@victaulic.com)

For additional locations, information and support, visit [victaulic.com/contactus](http://victaulic.com/contactus)

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



G-108 7921 REV B 01/2015

Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries. All other trademarks listed herein are the property of their respective holders, in the U.S. and/or other countries. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries.

© 2015 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

