

# BACKFILL SOLUTIONS

FOR THE MINING INDUSTRY

THE WORLD LEADER IN PIPE JOINING SOLUTIONS





# THE VICTAULIC<sup>®</sup> DIFFERENCE

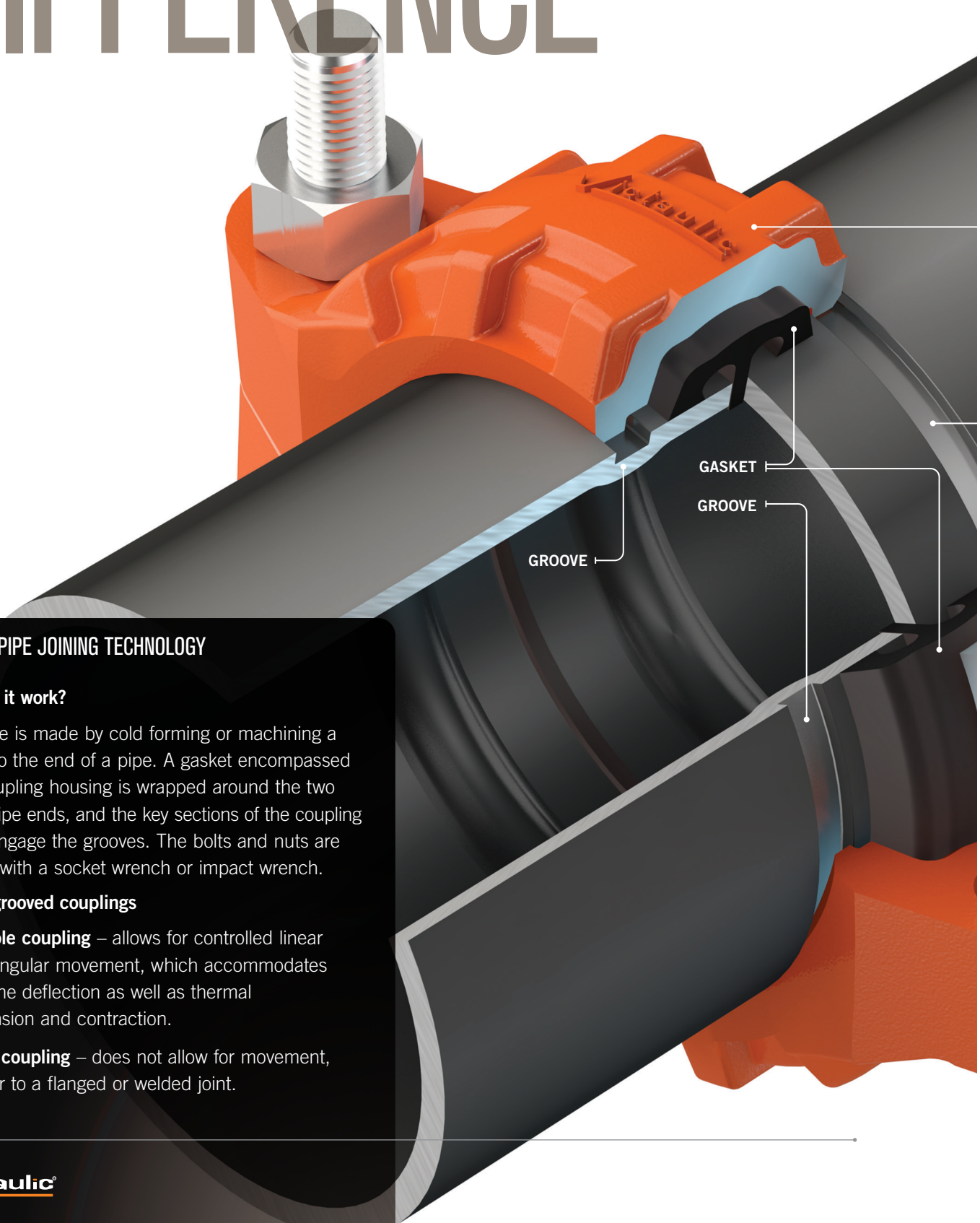
## GROOVED PIPE JOINING TECHNOLOGY

### How does it work?

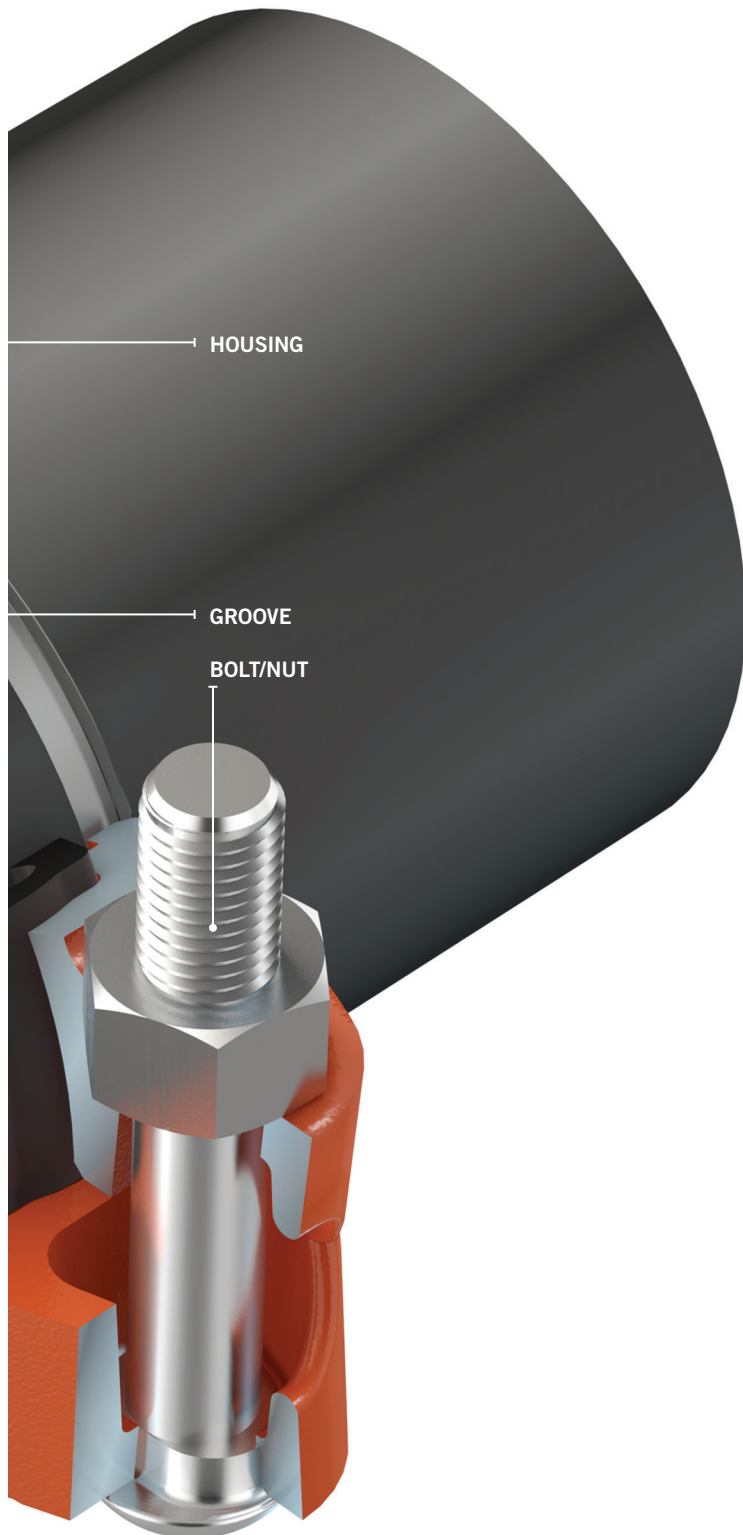
The groove is made by cold forming or machining a groove into the end of a pipe. A gasket encompassed by the coupling housing is wrapped around the two grooved pipe ends, and the key sections of the coupling housing engage the grooves. The bolts and nuts are tightened with a socket wrench or impact wrench.

### Types of grooved couplings

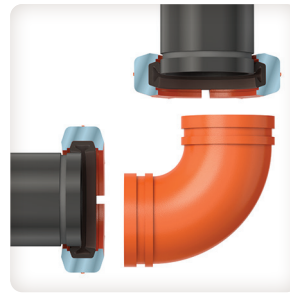
- **Flexible coupling** – allows for controlled linear and angular movement, which accommodates pipeline deflection as well as thermal expansion and contraction.
- **Rigid coupling** – does not allow for movement, similar to a flanged or welded joint.



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.



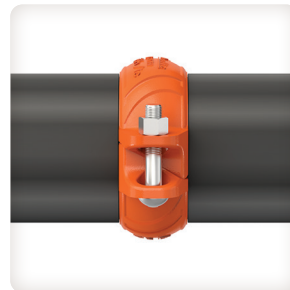
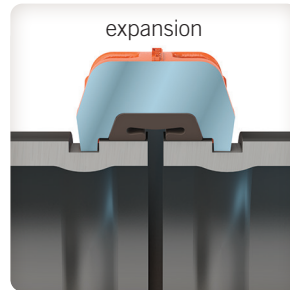
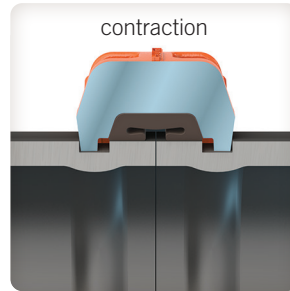
## VICTAULIC® GROOVED END PIPING SYSTEMS PROVIDE:



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

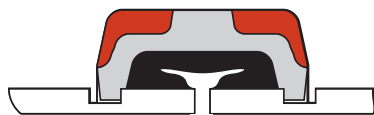


**Alignment ease** – through a design that allows for full rotation of the pipe and system components before tightening.



**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.

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



## Flexible Coupling

### STYLE 77

[Download submittal 06.04](#) for complete information

- Allows for deflection, expansion and contraction
- Robust cross-ribbed, two piece housing construction
- Sizes from  $\frac{3}{4}$ –24" | DN20–DN600
- Pressures up to 1000 psi | 6900 kPa



## Long Radius Cast Ductile Iron Elbows

### No.100

[Download submittal 07.12](#) for complete information

- Standard fitting pressure ratings conform to ratings of installed coupling
- All fittings supplied with grooves or shoulders for fast installation
- Long radius steel elbows are formed from standard wall steel pipes
- Available in 3D, 5D and 6D
- Fittings available from  $\frac{3}{4}$ –24" | DN20–DN600



Style 77 Flexible Coupling and Long Radius Steel Elbow



# TAKING BACKFILL ENGINEERING AND INNOVATION TO NEW LEVELS

WITH 4-WAY DIVERTER VALVE TECHNOLOGY



## SERIES 725T DIVERTER VALVE

IN A FULLY ENCLOSED,  
COMPACT, AND  
POWERFUL DESIGN



- › Increase site safety
- › Reduce system downtime and maintenance
- › Protect upstream piping and bore holes
- › Increase mine productivity





## Diverter Valve

### SERIES 725T

[Download submittal 08.41](#) for complete information

- 4-Way, 3-Port, design for mining backfill and flush water diversion
- May be operated under pressure to dump backfill in the event of a blockage
- Martensitic stainless steel wetted surfaces
- Fully enclosed rotating plug, eliminating exposed moving parts
- Manual, pneumatic, and electric actuation options available
- Available in 4–8" | DN100–DN200
- Pressures up to 1500 psi | 10342 kPa | 103 bar
- Optional support frames available



## Diverter Valve

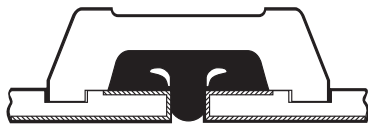
### SERIES 725S

[Download submittal 08.41](#) for complete information

- Intended for backfill and flush water diversion in backfill mining operations
- May be operated under pressure to dump backfill in the event of a blockage
- Stainless steel wetted surfaces
- Manual, hydraulic, pneumatic, and electric actuation options available
- Available in 4–8" | DN100–DN200
- Pressures up to 1500 psi | 10342 kPa | 103 bar
- Optional support frames available







## EndSeal™ (ES) System

High pressure coupling Style HP-70ES  
Fittings include Elbows, Tees and Crosses

[Download submittal 06.13](#) for Style HP-70ES Coupling  
[Download submittal 07.03](#) for ES Fittings

- EndSeal Groove system creates a higher pressure rigid joint than standard groove systems
- Fittings are Schedule 80 wall thickness for use with HP-70ES couplings
- For plastic coated pipe or high pressure rigid systems
- Coupling sizes from 2–12" | DN50–DN300 and Fitting sizes from 2–6" | DN50–DN150
- Pressures up to 2500 psi | 17250 kPa



Style HP-70ES



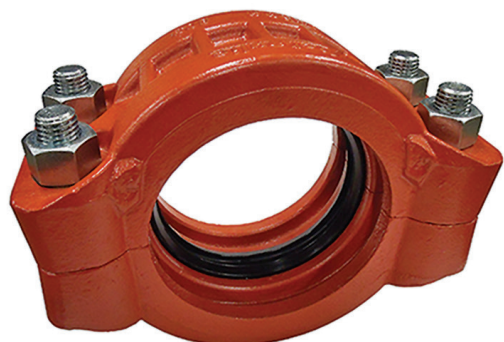


## High Pressure Coupling

### Style 808

[Download submittal 15.01](#) for complete information

- Unique double grooved system for the highest pressure rating for a mechanical joint
- Double-bolted coupling for use with Schedule 80 or heavier steel pipe
- Provides superior joint integrity at high pressures while maintaining a degree of flexibility to facilitate joining
- Can be joined directly to a double grooved pipe, eliminating special weld-on nipples and collars
- Sizes from 6–12" | DN150–DN300
- Pressures up to 4000 psi | 27500 kPa



## High Pressure Coupling for Ring Systems

### Style 809N

[Download submittal 15.03](#) for complete information

- Maintains full pipe wall thickness without intrusion into the pipe I.D.
- Engages directly onto rings welded onto the O.D. of the pipe
- Sizes 4–10" | DN100–DN250
- Pressures up to 3000psi | 20700kPa



Style 808



Style 809



## Couplings

INSTALLATION-  
READY™



Certifications/Listings:



### Plain End Installation-Ready™ Coupling for HDPE Pipe

Style 905

[Download publication 19.07](#) for complete information

- Designed for plain end HDPE pipe (SDR 7 – SDR 26)
- Sizes from 2–14" IPS and 63–355 mm ISO
- Pressure rating meets or exceeds the performance capabilities of the pipe

INSTALLATION-  
READY™



Certifications/Listings:



### Coupling for HDPE-to-Steel Pipe

Style 907

[Download publication 19.10](#) for complete information

- Designed to provide a single transition from plain end HDPE pipe (SDR 7 – SDR 26) to grooved steel sized piping system components
- Sizes from 2 – 14" IPS HDPE to 2–14" IPS grooved steel
- Sizes from 63 – 355 mm ISO HDPE to 50–350 mm ISO grooved steel
- Pressure rating meets or exceeds the performance capability of the pipe



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