



VBSP

Victaulic Bolted Split-Sleeve Products



Victaulic Bolted Split-Sleeve Products (VBSP)

Introducing Victaulic Bolted Split-Sleeve Products

Formerly known as Depend-O-Lok, VBSP ranges from 3–144"/80–3600mm for pressures up to 400 psi/2750 kPa



VBSP joins large diameter pipe using as few as three bolts and nuts versus 52 bolts and nuts for competitive 144"/3600mm sleeve-type couplings. Other joining methods require the bolts and nuts to be star-pattern tightened five times to complete the joint.

WHERE CAN IT BE USED?

- › Above ground applications
- › Buried applications
- › Submerged applications
- › Aeration and water/wastewater lines
- › Between buildings
- › Non-restrained systems
- › Restrained systems
- › Systems requiring expansion joints
- › Inside and outside valve vaults

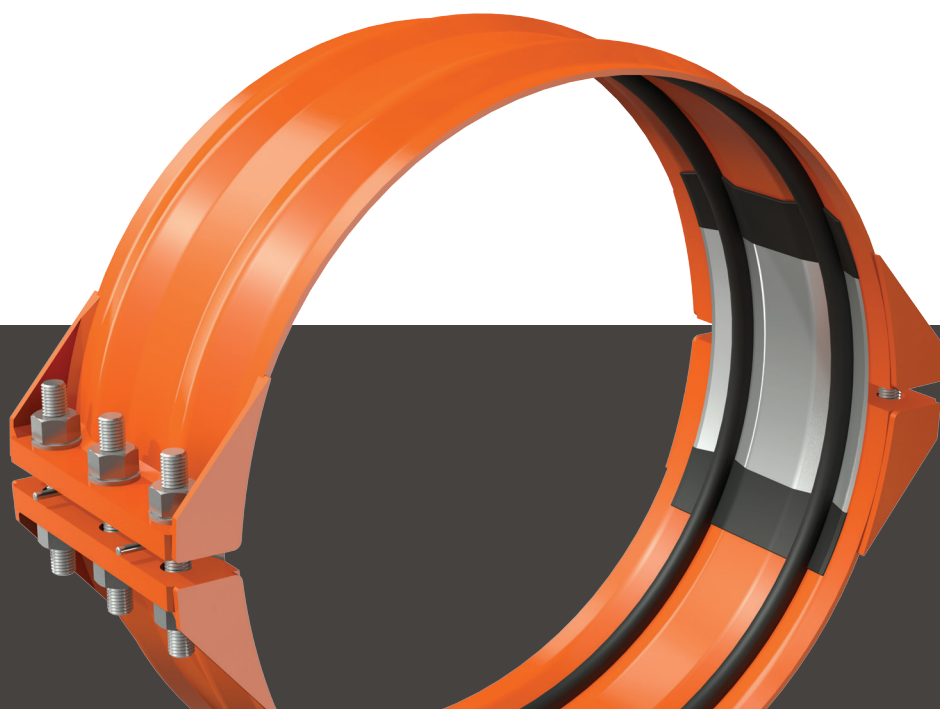
WHAT MATERIALS CAN IT BE USED ON? (LIMITATIONS MAY APPLY)

- › Carbon steel
- › Stainless steel
- › Ductile iron
- › HDPE
- › PVC
- › Pre-stressed and reinforced concrete
- › Fiberglass pipe (FRP/GRP)
- › Cast iron

WHAT ARE THE VBSP DESIGN CAPABILITIES?

- › Versatile pipe joining system meets the design requirements for demanding piping applications
- › Available for pressures up to 400 psi/2750 kPa with higher pressure coupling designs available as a special order
- › Sizes from 6–144"/150–3600mm for carbon steel and 3–96"/80–2400mm stainless steel with larger sizes available as a special order

VBSP



STYLE 230/230S, PGS. 2–3

Non-restrained flexible coupling



STYLE 231/231S, PGS. 4–5

Non-restrained flexible expansion coupling



STYLE 232/232S, PGS. 6–7

Restrained flexible coupling



STYLE 233/233S, PGS. 8–9

Restrained flexible coupling for dynamic joint deflection



STYLE 234/234S, PGS. 10–11

Restrained flexible single-gasket coupling

STYLE 240S, PG. 12

Bellows expansion joint

CLOSURE TOOLS, PG. 13

Benefits of VBSP

- › Fewer bolts to assemble, reducing installation time by up to 70%
- › In most applications VBSP eliminates the need for an AWWA M11 harness
- › Expansion, contraction and deflection capabilities
- › Reduces handling and labor costs, increasing savings
- › Minimum space required for installation eliminates challenges in confined areas
- › One or two piece coupling design available to meet project requirements
- › Reduces vibration which in turn reduces noise
- › Allows for faster and easier pipe access, reducing maintenance downtime up to 75%
- › Meets AWWA C227 standards



www.victaulic.com/VBSP [1]

VICTAULIC

Non-Restrained Flexible Couplings

Style 230

Used where you need system access,
but you don't need a restrained joint

8–144"/200–3600 mm

FEATURES:

- › Allows for angular deflection at the joint while maintaining full joint integrity

APPLICATIONS:

- › Water and wastewater pipelines
- › Inlet and drainage piping
- › Piping applications that require a non-restrained flexible connection

PRODUCT DETAILS

- › 8–144"/200–3600 mm
- › Pressures up to 400 psi/2750 kPa
- › Up to ½"/15 mm intermittent axial movement



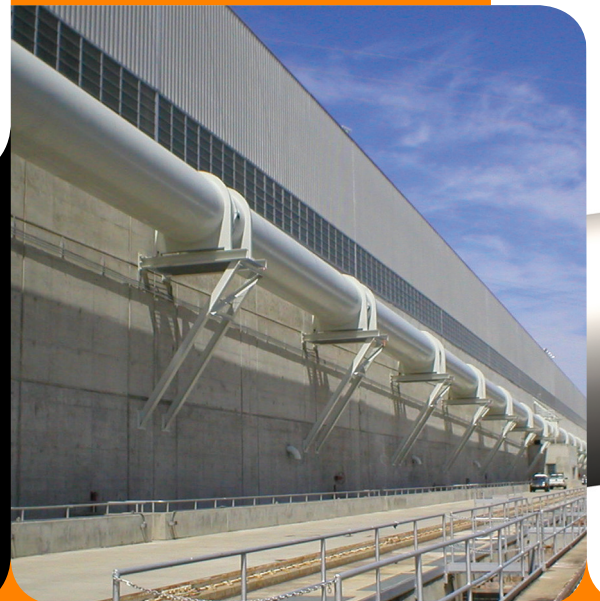
For further information please
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ROCKY REACH DAM

Rocky Reach Dam was constructed in 1956. But every year, up to 6% of the salmon and steelhead runs perished in its turbines during their seasonal migration to the sea. One alternative: spill 40% to 50% of the water by the dam, at a cost of reducing power generation by \$25 million a year. The second option: construct a pipe around the turbines so that fish could pass through unharmed. Today, the fish are collected upstream via pumps that conduct water flows of up to 7,000 cubic feet per second to attract the fish into the conduit. They are then transported through the 4,600-foot pipeline, held together by VBSP, to a discharge point on the downstream side of the dam.

[2] www.victaulic.com/VBSP



Style 230S

Used where you need a flexible stainless steel, non-restrained pipe joint that requires corrosion resistance

3–96"/80–2400 mm

FEATURES:

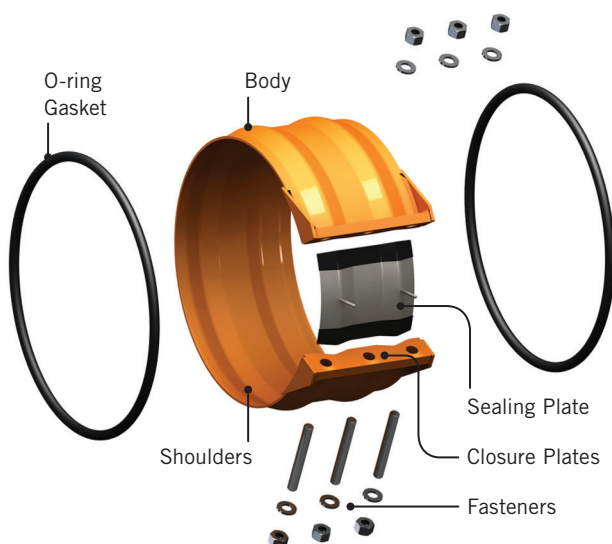
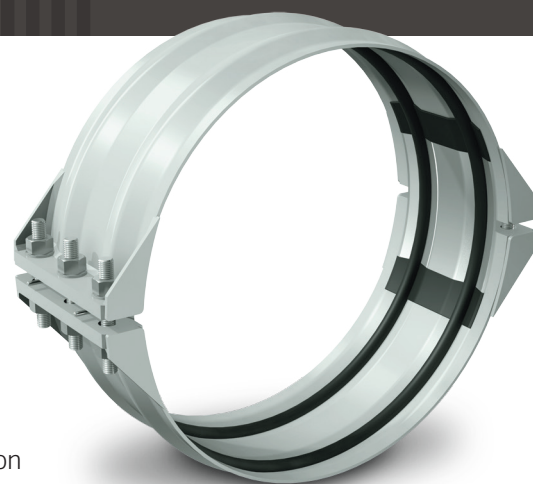
- › Used where corrosion resistance is required
- › Allows for angular deflection at the joint while maintaining full joint integrity

APPLICATIONS:

- › Liquid and gaseous media piping
- › Ethanol and other chemical plant piping
- › Pulp and paper industry piping
- › Systems that require a corrosion resistant, non-restrained flexible connection

PRODUCT DETAILS

- › 3–96"/80–2400 mm
- › Pressures up to 300 psi/2065 kPa
- › Up to ½"/15 mm intermittent axial movement



For further information please
download submittal 60.02



VICTAULIC

Non-Restrained Flexible Expansion Couplings

Style 231

Used for field joint connections where axial pipe movement due to thermal changes in pipeline are a factor

16–144"/400–3600 mm

FEATURES:

- › Reduces stress on piping due to thermal movement
- › A single joint versus the two connections needed on AWWA C221 expansion joints

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Force main and water transmission piping
- › Penstock piping

PRODUCT DETAILS

- › 16–144"/400–3600 mm
- › Pressures up to 300 psi/2065 kPa
- › Up to 4"/100 mm axial movement



For further information please
download submittal 60.03



[4] www.victaulic.com/VBSP

Style 231S

Used in stainless steel pipe applications for field joint connections where axial pipe movement due to thermal changes in pipeline are a factor

3 – 96" / 80 – 2400 mm

FEATURES:

- › Used where corrosion resistance is required
- › Reduces stress on piping due to thermal movement

APPLICATIONS:

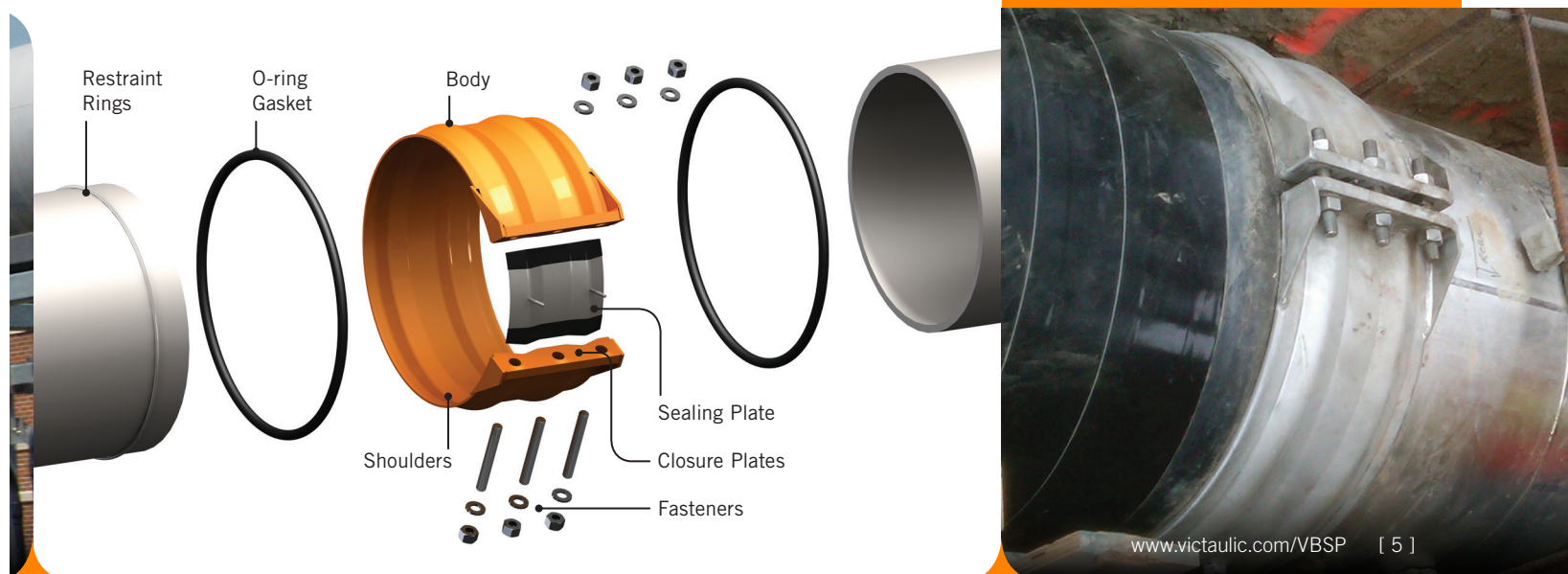
- › Water and wastewater treatment facility pipelines
- › Aeration systems

PRODUCT DETAILS

- › 3–96" / 80–2400 mm
- › Pressures up to 300 psi / 2065 kPa
- › Up to 4" / 100 mm axial movement



For further information please
download submittal 60.04



VICTAULIC

Restrained Flexible Couplings

Style 232

Used to restrain pipe joints to the full working pressure of the coupling with very little moment load transferred to the pipe

8–144"/200–3600 mm

FEATURES:

- › Provides a restrained, flexible connection
- › Allows some irregularities encountered during field installation
- › Eliminates field welding
- › Less space is required than externally restrained joints, reducing the footprint of a structure; thereby reducing construction costs

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Force main and water transmission piping
- › Penstock piping

PRODUCT DETAILS

- › 8–144"/200–3600 mm
- › Pressures up to 400 psi/2750 kPa



For further information please
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LA DEPARTMENT OF WATER AND POWER (LADWAP) – HOLLYWOOD VALVE VAULT

A valve vault is a costly yet crucial part of water systems. Every space reduction results in a corresponding reduction in the cost of time and materials to create the vault. So what does piping have to do with this? By specifying and installing VBSP couplings in the Hollywood Valve vault, the LADWAP was able to save hundreds of thousands of dollars in construction costs. Because VBSP does not require external restraints, the valve vault could be reduced by about 400 square feet. This translated into less concrete and time needed to complete this project.



Style 232S

Used in stainless steel pipe applications for field joint connections where joint flexibility and thrust restraint is required

3–96"/80–2400 mm

FEATURES:

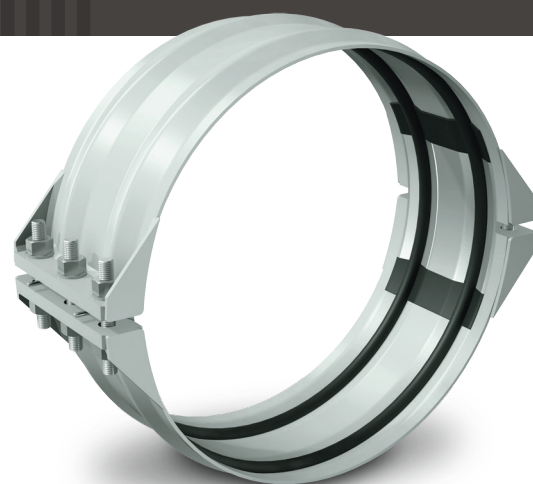
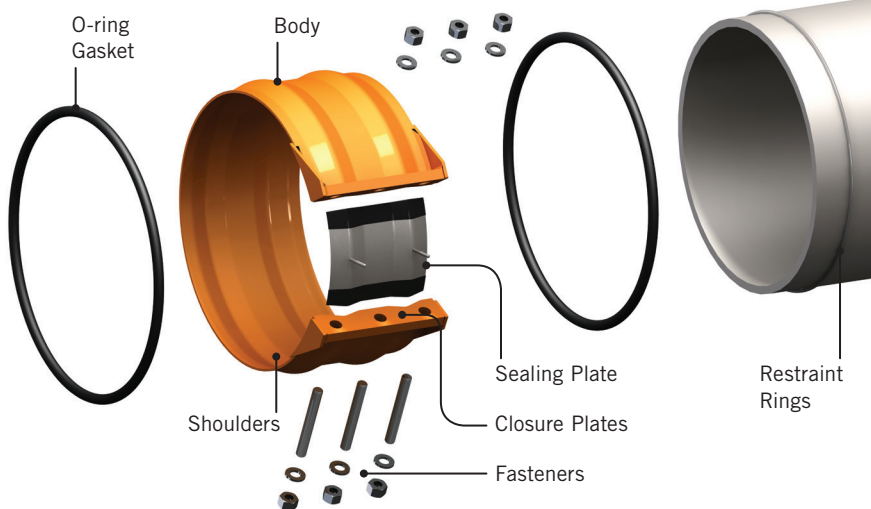
- › Provides a restrained, flexible connection
- › Used where corrosion resistance is required
- › Less space is required than externally restrained joints, reducing the footprint of a structure; thereby reducing construction costs
- › Available with gaskets suitable for air temperatures up to +350°F/+177°C

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Ethanol and other chemical plant piping
- › Pulp and paper industry piping
- › Aeration systems
- › Applications where corrosion resistant restrained flexible joints are required

PRODUCT DETAILS

- › 3–96"/80–2400 mm
- › Pressures up to 300 psi/2065 kPa



For further information please
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www.victaulic.com/VBSP [7]

VICTAULIC

Restrained Flexible Couplings for Dynamic Joint Deflection

Style 233

Used to accommodate dynamic joint deflection,
commonly found during settlement between
a structure and pipeline

8–144"/200–3600 mm

FEATURES:

- › Provides designers with greatest range of dynamic (in-service) deflection
- › When used in pairs, the length of pipe spools required is reduced by up to 60%
- › Allows for some pipe irregularities encountered during field installations
- › Easier to protect from soil corrosion than competitive joining methods

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Force main and water transmission piping
- › Buried piping connections

PRODUCT DETAILS

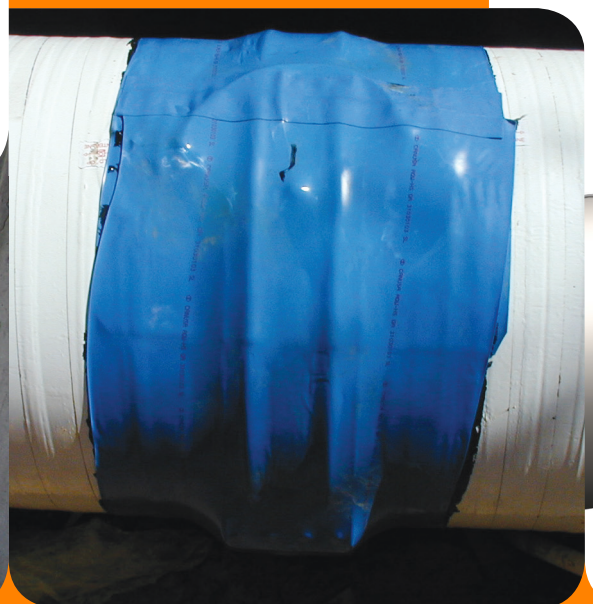
- › 8–144"/200–3600 mm
- › Pressures up to 300 psi/2065 kPa



For further information please
download submittal 60.07



[8] www.victaulic.com/VBSP



Style 233S

Used to accommodate dynamic joint deflection on stainless steel piping, commonly found during settlement between a structure and pipeline

8–96"/200–2400 mm

FEATURES:

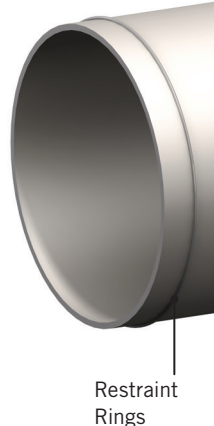
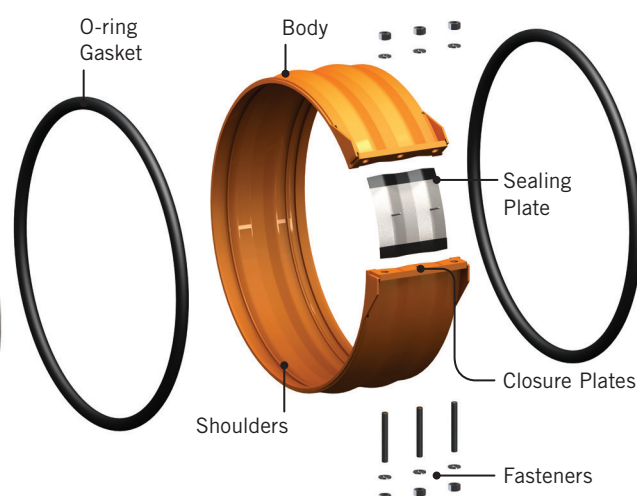
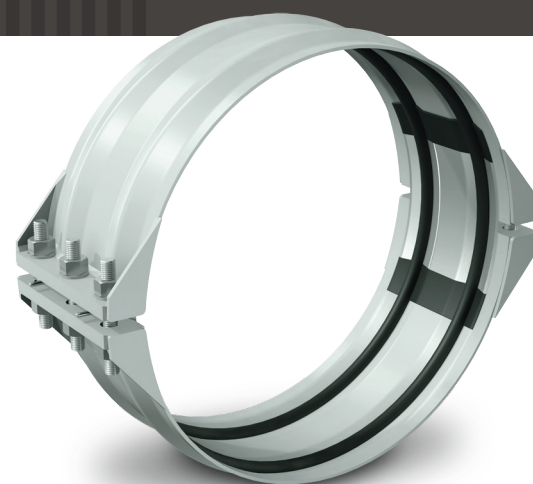
- › Used where corrosion resistance is required
- › Specifically designed to allow for dynamic deflection and provide thrust restraint at the joint
- › Arched profile adds stiffness to the coupling body, allowing the use of the coupling in vacuum/negative pressure services

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Ethanol and other chemical plant piping
- › Pulp and paper industry piping
- › Applications where corrosion resistant restrained flexible joints are required

PRODUCT DETAILS

- › 8–96"/200–2400 mm
- › Pressures up to 300 psi/2065 kPa



For further information please
download submittal 60.08



www.victaulic.com/VBSP [9]

VICTAULIC

Restrained Flexible Single-Gasket Couplings

Style 234

Used in steel pipe applications for field joint connections where thrust restraint is required

8–120"/200–3000 mm

FEATURES:

- › Ideally suited for applications that require a narrow restrained coupling or where contact of the medium flowing through the pipe with the interior of the coupling body is undesirable

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Force main and water transmission piping
- › Penstocks
- › Other applications that require a narrow restrained coupling

PRODUCT DETAILS

- › 8–120"/200–3000 mm
- › Pressures up to 300 psi/2065 kPa
- › Higher pressures available by special design



For further information please
download submittal 60.09



[10] www.victaulic.com/VBSP



Style 234S

Used in stainless steel pipe applications for field joint connections where thrust restraint is required

8–60"/200–1500 mm

FEATURES:

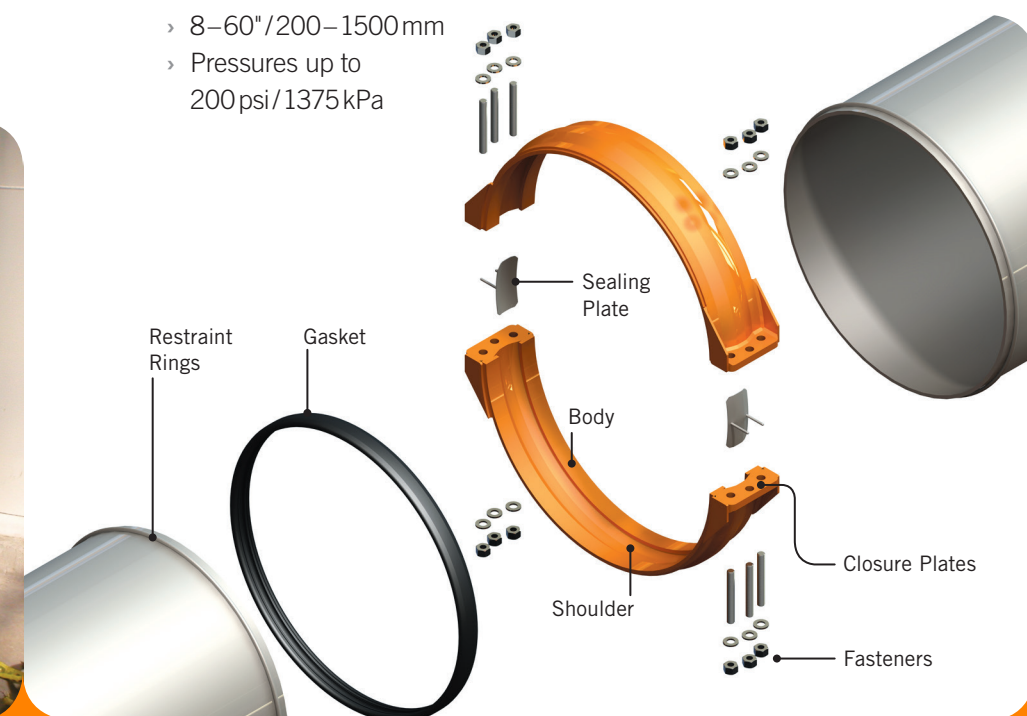
- › Used where corrosion resistance is required
- › Ideally suited for applications that require a narrow restrained coupling or where contact of the medium flowing through the pipe with the interior of the coupling body is undesirable

APPLICATIONS:

- › Water and wastewater treatment facility pipelines
- › Ethanol and other chemical plant piping
- › Pulp and paper industry piping
- › Applications where corrosion resistant restrained flexible joints are required

PRODUCT DETAILS

- › 8–60"/200–1500 mm
- › Pressures up to 200 psi / 1375 kPa



For further information please
download submittal 60.10



www.victaulic.com/VBSP [11]

VICTAULIC

Bellows Expansion Joint

Style 240S

Used in stainless steel pipe applications for expansion joints that need axial, angular and/or lateral pipe movement

3–96"/80–2400 mm

FEATURES:

- › Concurrent axial, angular and/or lateral pipe movement possible
- › Available with an internal liner that can drastically reduce noise
- › Corrosion and UV resistant
- › Available with a wide range of end preparations
- › Eliminate flange and flange accessory sets needed on pipe spool
- › Vibration reduction
- › Lateral offset at pipeline joints

APPLICATIONS:

- › Any system requiring either concurrent or non-concurrent angular, axial, or lateral movement

PRODUCT DETAILS

- › 3–96"/80–2400 mm
- › Designed to job specific parameters

AVAILABLE END CONFIGURATIONS



Plain End



Beveled End



Restraint Ring



Roll Groove



Fixed Flange



Floating Flange



For further information please
download submittal 60.13



Closure Tools

Victaulic closure tools reduce the time and effort required to install VBSP



CTM-01 Small Manual Tool **CTM-02 Large Manual Tool**

The CTM is offered in small and large sizes and is ideal for joining select VBSP. The tool brings the coupling housings together to allow the bolts and nuts to be installed.



CTH-01 Small 10-Ton Hydraulic Tool

The CTH-01 hydraulic tool can be used on many of the VBSP. Applying up to 10 tons of hydraulic force the CTH-01 makes joining VBSP faster, easier and more reliable.



CTH-02 Large 25-Ton Hydraulic Tool

The CTH-02 hydraulic tool is designed for joining VBSP with a wall thickness of $\frac{3}{4}$ " or 1". Exerting over 25 tons of pressure the tool is the fastest, safest and easiest way to assemble any Type 3 VBSP.

For specific information on the appropriate tool by coupling, please reference the individual product submittals.



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