

CERTIFICATION/LISTINGS



NOTE

- See Victaulic [Publication 10.01](#) for more details

The American Society of Mechanical Engineers (ASME) established the B31 Pressure Piping Code Committees to promote safety in pressure piping design and construction through published engineering criteria. The basic consideration of the Codes is safety; however, the Codes are not designed to replace competent engineering design or judgment. Most importantly, the Codes do not “approve,” “rate,” or “endorse” any items of construction, proprietary devices, or activity. The Codes do not put a limit on conservatism and, conversely, the Codes also allow for designs that are capable of more rigorous engineering analysis which justifies less conservative designs. A final point of importance is that the Codes strive to keep abreast of all current technologies regarding improvements to materials, fabrication, and any other new developments in the piping industry. They are not intended to limit the introduction of new products. Numerous sections of the B31 Codes provide the necessary guidelines to analyze new or nontraditional products so that sound engineering judgments can be made regarding Code conformance.

The Victaulic Vic-Press™ for Schedule 10S system is Listed for use on ASME B31.9 Building Services Piping Code Applications. Paragraph 904.7.1 Listed Components says: “Other pressure-containing components manufactured in accordance with a standard listed in Table 926.1 are suitable for use in accordance with para 903.” Table 926.1 includes ASTM F3226 Metallic Press-Connect Fittings for Piping and Tubing Systems as a Listed Component Standard. Victaulic Vic-Press for Schedule 10S products meet the requirements of ASTM F3226. Furthermore, ASTM A312 Seamless, Welded and Heavily Cold Worked Austenitic Stainless Steel Pipes is also Listed as a Component Standard in Table 926.1. The Type 304 or Type 316 schedule 10 stainless steel pipe specified for used with the Vic-Press system complies to this standard.

Victaulic introduced the technology of Press mechanical pipe joining systems to North America in 1991 with its Pressfit System. Press joining technology was invented in the late 1950’s and was first used commercially in Europe during the early 1960’s. The Victaulic Pressfit System was a time proven reliable pipe joining solution that became a standard method for joining small bore water and gaseous utility piping. The earlier Victaulic Pressfit System technology used schedule 5 carbon and stainless steel pipe and fittings with working pressures up to 300psi (21 Bar). The introduction of Vic-Press for Schedule 10S stainless steel system has built upon the years of experience and created a more robust product with more commercially available pipe, resulting in improved performance. The 500psi Vic-Press for Schedule 10S working pressure was established through extensive testing of all sizes and configurations and based on safety factors consistent with standard industry practice.

The conformance of the Vic-Press for Schedule 10S systems to the B31.9 Building Services Piping Code should also be reviewed by the piping system designer for the type of B31.9 application. Victaulic Vic- Press for Schedule 10S products will be acceptable on B31.9 applications that are within the scope of the Victaulic published performance limitations. Services such as hot and cold fluids and compressed air and other gases are permitted provided that the system temperature is within published temperature ranges, and the system pressure is equal to or less than the published working pressure of the Vic-Press for Schedule 10S system (500psi/34.5 Bar).

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

Appendix A – Calculations:

Pipe Calculations	
ASME B31.9 Paragraph 904.1.1 Equation #2	
P =	$\frac{2(S \times E(t_m - A))}{D_o}$
Where:	
P =	Maximum Design Pressure
S =	10,200 psi (Maximum Allowable Material Stress at 300°F for ASTM A312 Type 304L/316L Pipe) (Table I-1)
E =	0.85 (Table 902.4.3 Joint Factor for Longitudinal Weld Joints in Pipe...for ASTM A312 electric fusion welded tube)
t_m =	Minimum Wall Thickness
A =	0 (corrosion allowance)
D = Nominal Pipe Outside Diameter	
½"	= 0.840"
¾"	= 1.050"
1"	= 1.315"
1 ½"	= 1.900"
2"	= 2.375"
t_m = Minimum Wall Thickness	
½"	=0.083" – 12.5% = 0.073" (ASTM A-312)
¾"	=0.083" – 12.5% = 0.073" (ASTM A-312)
1"	=0.109" – 12.5% = 0.095" (ASTM A-312)
1 ½"	=0.109" – 12.5% = 0.095" (ASTM A-312)
2"	=0.109" – 12.5% = 0.095" (ASTM A-312)
½": P =	$\frac{2 \times 10,200 \text{ psi} \times 0.85 \times 0.073''}{0.840''} = 1506.9 \text{ PSI}$
¾": P =	$\frac{2 \times 10,200 \text{ psi} \times 0.85 \times 0.073}{1.050''} = 1205.5 \text{ PSI}$
1": P =	$\frac{2 \times 10,200 \text{ psi} \times 0.85 \times 0.095}{1.315''} = 1252.7 \text{ PSI}$
1 ½": P =	$\frac{2 \times 10,200 \text{ psi} \times 0.85 \times 0.095}{1.900''} = 867.0 \text{ PSI}$
2": P =	$\frac{2 \times 10,200 \text{ psi} \times 0.85 \times 0.095}{2.375''} = 693.6 \text{ PSI}$

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at www.victaulic.com.

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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