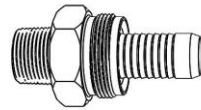


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PRODUCT SPECIFICATIONS:**SURSEAL® SERVICE HEAD RISER
STANDARD**FAMILY:
PRODUCT:
TYPE:
DOC:
PAGES:RISER
SHA
SPECIFICATIONS
PS-703/REV2
3**SCOPE:**

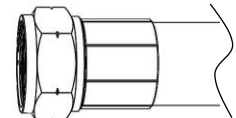
This document describes the standard specifications and features related to GF Central Plastics' Field Assembled Service Head Riser for pressure piping systems. Service Head Risers are designed to transport gas from an underground polyethylene service line to the above ground steel piping.



Service Head Adapter



Gasket



Swivel Riser Nut

SIZES:

PE Sizes from 1/2 CTS through 2 IPS.
Steel Sizes from 1/2 MPT through 2 MPT.

REQUIREMENTS:

ASTM D2513	<u>Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings (Category I)</u>
ASTM D3350	<u>Specification for Polyethylene Plastic Pipes and Fittings Materials</u>
ASTM F2509	<u>Specification for Field-Assembled Riser Kits for Use on Outside Diameter Controlled Polyethylene and Polyamide-11 Gas Distribution Pipe and Tubing</u>
ASTM F1948	<u>Specification for Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing</u>
DOT/CFR Part 192	<u>Department of Transportation, Pipeline Safety Standards - 49 CFR Part 192</u>
ANSI B1.20.1	<u>Pipe Threads, General Purpose (Inch)</u>

CERTIFICATION/LISTINGSIAPMO [Uniform Plumbing Code™](#)**REFERENCE DOCUMENTS**

NFPA 58	<u>Liquefied Petroleum Gas Code</u>
PPI TR-19	<u>Thermoplastics Piping for the Transport of Chemicals</u>
PPI TR-31	<u>Underground Installation of Polyolefin Pipe</u>
ANSI B31.8	<u>Gas Transmission and Distribution Piping Systems</u>
UL 360	<u>Standard for Liquid-Tight Flexible Metal Conduit</u>

CUSTOM OPTIONS

Custom Dimensions
Specialized Packaging & Bundling Options
Heat Shield

AVAILABLE RISER STYLES

Flexible
Steel x Flex

TEST METHODS

Service Head Risers are tested to meet or exceed the following test requirements

ASTM D1598	<u>Time-to-Failure of Plastic Pipe Under Constant Internal Pressure PE2708</u> Must exceed 170 hours in 80°C bath @ 670psi Hoop Stress, or Must exceed 1000 hours in 80°C bath @ 580psi Hoop Stress, or Must exceed 1000 hours in 23°C bath @ 1250psi Hoop Stress <u>PE4710</u> Must exceed 200 hours in 80°C bath @ 750psi Hoop Stress, or Must exceed 1000 hours in 80°C bath @ 660psi Hoop Stress, or Must exceed 1000 hours in 23°C bath @ 1600psi Hoop Stress <i>(All methods considered equivalent)</i>
ASTM D1599	<u>Short-Term Hydraulic Pressure Failure of Plastics Pipe, Tubing, and Fittings.</u> Uniform pressurization until failure between 60 and 70 seconds from start of test. Must result in ductile failure of the PE pipe at a pressure great enough to create a 2520psi Hoop Stress for PE2708 or 2900psi Hoop Stress for PE4710.
ASTM D638	<u>Tensile Strength Test</u> Test at a pull rate of 0.20 inches per minute. Test should result in a minimum of 25% elongation and permanent deformation in the PE pipe without separation or leakage at the transition between PE and Steel. Samples leak tested prior to, following, and while still under a tensile load.
ASTM D1588	<u>Constant Tensile Test</u> Constant tensile load and internal pressure applied to create a 1320 psi fiber stress for a minimum of 1000 hours. No failure or slippage at the transition joint. Samples leak tested prior to and following test @ 7 psi and 1.5 x's MAOP.
ASTM F1973 7.4	<u>Temperature Cycling Test</u> Leak-free after 10 cycles between -20F and 140F when tested at 7 psig and 1.5 x's MAOP.
ASTM F2509 4.2	<u>Riser Casings</u> Flexible riser casings shall be constructed of plastic coated flexible metallic tubing providing a crush strength of not less than 1000 lbs. when tested in accordance with UL 360, section 11.1.
ASTM F2509 8.2	<u>Tensile Pull Testing – Riser Adapter to Casing Connection</u> The connection shall be demonstrated to withstand a pull force greater than 300 lbs. when tested in accordance with ASTM F2509 8.2.

MATERIALS

Steel	ASTM A576/AISI 12L14 Carbon Steel with tapered threads per ANSI B1.20.1
Protective Casing	Flexible Liquid Tight Steel Conduit/API 5L-Grade B, or equivalent
Gaskets	Buna-N (Nitrile) per ASTM D2000
Zinc Coating	ASTM B633 Type II – Colored Chromate Conversion Coatings

PRESSURE RATING

SURSEAL™ Service head riser pressure ratings are dependent on the rating of the PE pipe. Pressure ratings are subject to de-rating depending on ambient temperatures. Central Plastics' Risers are designed to meet or exceed the pressure carrying capabilities of the PE pipe installed in the riser.

PRESSURE TESTING

Pressure testing can be conducted in accordance with the recommendations of the pipe manufacturer, or as described in ASTM F2164 STANDARD PRACTICE FOR FIELD LEAK TESTING OF POLYETHYLENE (PE) PRESSURE PIPING SYSTEMS USING HYDROSTATIC PRESSURE or as described in ASTM F2786 Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Gaseous Testing Media Under Pressure (Pneumatic Leak Testing). , typically 1.5 x's the rated working pressure not exceeding 8 hours in duration for a single test.

MAXIMUM OPERATING TEMPERATURE

The maximum operating temperature of PE pipe is 140°F. Pressure de-rating factors should be considered when operating systems above the 73°F stated pressure rating to maintain the 50 year substantiated long-term hydrostatic strength of the PE.

CHEMICAL RESISTANCE

Polyethylene generally exhibits strong resistance to many chemical compounds. Known chemical resistance characteristics at specified temperatures can be found in PPI Technical Report TR-19.

INSTALLATION

These risers are compatible for heat fusion joining with pipe or fittings manufactured from like or similar resin by butt, socket, or electrofusion methods.

These risers feature a positive stop nut that eliminates the need for torque requirements.

It is recommended that a pressure test be performed after installation. The test should be performed after the recommended fusion cooling time.

Adequate protection should be taken to insure there is no damage to the protective coating or protective casing prior to burial. Any damage to coating or protective casing should be repaired prior to burial.

All state, local, and federal safety standards and codes should be observed. The installer assumes responsibility for assuring that this product is suitable for the intended application.

Note: This Specification supersedes all previous Product

Specifications and is subject to change without notice.