



GeoHeader[®] Engineering Specifications

GHP Systems, Inc.
1000 32nd Ave
Brookings, SD 57006

(605) 697-7869 tel
(605) 697-9118 fax
888-447-7757 toll-free
www.ghpsystems.com

- Scope:** This specification designates requirements for the GeoHeader[®].
- Material:** All pipe and fittings used to manufacture the header shall be manufactured from high-density, high-molecular weight PE 3408 polyethylene compound that meets or exceeds ASTM D 3350 cell classification 345464C, and is listed by the Plastic Pipe Institute in PPI TR- 4 with HDB ratings of 1600 psi (11.04 MPa) at 73°F (23°C) and 800 psi (5.52 MPa) at 140°F (60°C). Pipe fittings shall meet the requirements of ASTM D2683 (for socket fusion fittings) or ASTM D3261 (for butt/saddle fusion fittings).
- Construction:** All 2" and smaller header piping shall be DR11 (160 psi) and will come completely assembled. There will be one continuous supply and one continuous return coil with all vertical heat exchanger (VHE) branches in place and at the specified spacing. The minimum inside diameter of the header coil is 54" with a maximum outside diameter of 84". Header pipe section that are 2" and 1 ½" shall be constructed from large master coils to reduce heat fusion connections of same pipe size sections. If required the reverse return elbows will be factory heat fused to the return header. If required the 3" X 2" reducing tees will be factory heat fused to both supply and return header coils ready for 3" section connections. All 1½" and larger header pipe connections will be butt fused and all 1¼" and smaller header pipe connections will be socket fused. The only required field connections will be to socket fuse the VHE piping ends to the header (can be setup for VHE butt fusion connections if requested).
- All 3" and larger header piping shall be DR15.5 (110 psi) and will come in straight lengths with multiple VHE branches connections in place and at the specified spacing. These straight lengths will be constructed up to 50' in length (shipping constraint) to minimize field butt fusions. The header straight sections will be precut to length so sections go directly together with no field measuring and cutting.
- Packaging:** All coiled 2" and smaller header piping will come palletized and shrink wrapped. All 3" and larger header pipe sections will be shipped in straight lengths that are banded with block separations between rows to protect from being damaged in transit/handling and facilitate ease in unloading and storage. All open branch and pipe ends will be shipped from factory with plastic caps inserted to keep header piping free of debris.

Notice: Information contained in this document is subject to change without notice. This document reports accurate and reliable information to the best of our knowledge but our suggestions and recommendations cannot be guaranteed because the conditions of use are beyond our control. The user of such information assumes all risk connected with the use therefore. GHP Systems, Inc. assumes no responsibility for the use of information presented herein and hereby disclaims all liability in regard to such use. GHP Systems, Inc. reserves the right to upgrade the design/specifications of the GeoHeader[®] without notice.