



GeoManifold[®] 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 GeoManifold[®].

Construction: High density polyethylene (HDPE) pipe and fittings, joined together with heat fusion, shall be used for all circuit and main header piping. All HDPE pipe and heat fused materials 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). All 3" and larger HDPE piping will be DR15.5 and all 2" and smaller HDPE piping will be DR11. All circuits 2" and greater shall include butterfly valves constructed of lug type/lever with cast iron body, aluminum-bronze disc, EPDM Seat, 416 stainless steel stem, rated at 200 psi. All circuit setter flow balancing valves will have a fixed port venture orifice, have blow-out proof stem, flow measurement function independent of ball position, install in any position, and serve as a service shutoff with a tamper resistant memory stop to accurately reset to balancing. Circuits smaller than 2" and all fill ports shall be ball valves with full port opening with blow out proof stem, 600 psi non-shock cold WOG. Pressure/temperature ports shall be brass and have a dual seal core of Nordel, good up to 350°F for water and shall be rated zero leakage from vacuum to 1000 psig. Plug shall be capable of receiving a 1/8" pressure or temperature probe. A stainless steel pressure gauge with 1/4" isolation valve will be included on both supply and return mains. The pressure gauge will be Sisco brand with 4 1/2" dial size and read 0 – 100 psig. A stainless steel bimetal thermometer will be included on both supply and return mains. The pressure gauge will be Ashcroft brand with 3" dial size with 4" stem and reads 0 – 250°F. The manifold will be leak- proof checked at factory with 100 psi pressure for a period of 24 hours or more.

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 GeoManifold[®] without notice.