



*heating and plumbing products
that won't cost the **earth***

GeoMeg 2" & 110mm geothermal manifolds

February 2011



GeoMeg 2" & 110mm manifolds

In the geothermal world, volume flow is king.

To achieve high volumes, the surface area of pipe needs to be large to feed a large capacity header.

The GeoMeg range fulfils the demand for such capability perfectly and the manifolds are available in a comprehensive range of sizes from 2 to 10 ports. The brass header connectors are all two inch with outlets of 1 1/4" plus 2 x 3/4" fill and flush connections.

GeoMeg 110mm manifold pair - no isolation valves

No. of ports	product code
2 ports	362110/2
3 ports	362110/3
4 ports	362110/4
5 ports	362110/5
6 ports	362110/6
7 ports	362110/7
8 ports	362110/8
9 ports	362110/9
10 ports	362110/10

GeoMeg V 110mm manifold pair - with isolation valves

No. of ports	product code
2 ports	3630110/2
3 ports	3630110/3
4 ports	3630110/4
5 ports	3630110/5
6 ports	3630110/6
7 ports	3630110/7
8 ports	3630110/8
9 ports	3630110/9
10 ports	3630110/10



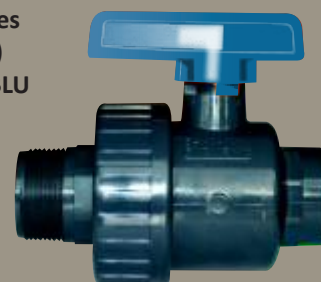
GeoMeg 5 port manifold
362110/5



GeoMeg V 5 port manifold
including isolation valves
3630110/5



GeoMeg isolation valves
(available separately)
GMEGVRED & GMEGVBLU



GeoMeg 2" & 110mm manifolds

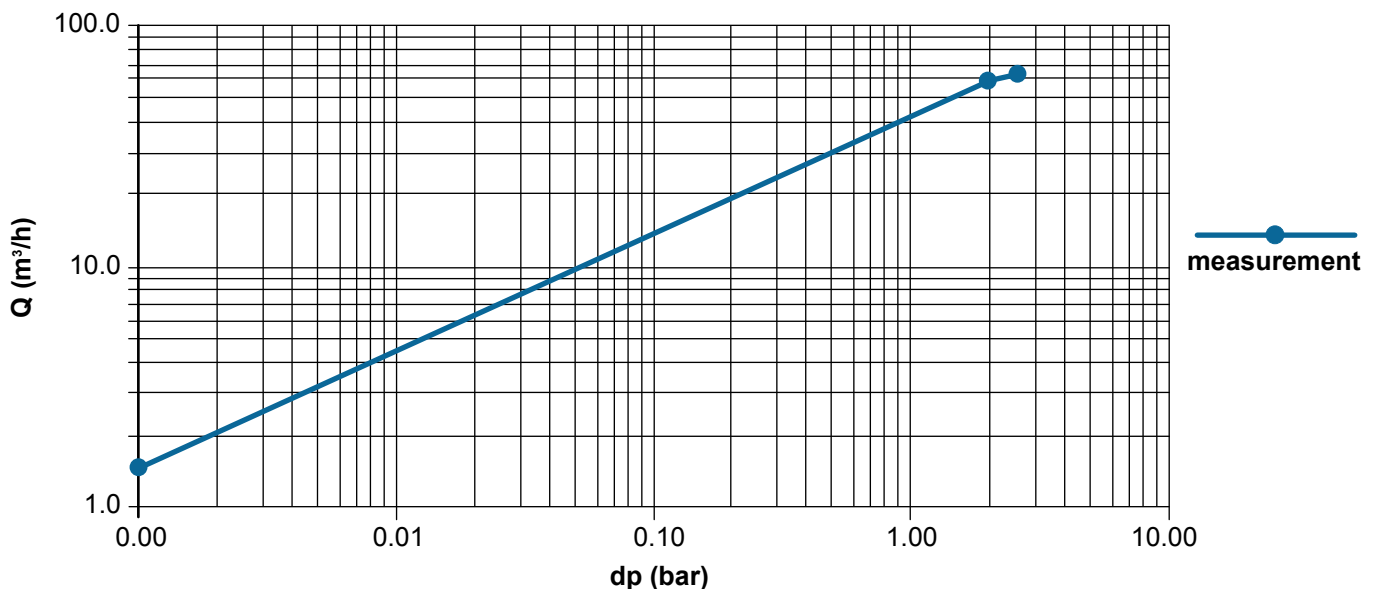
Pressure Drop Test Results.

3 samples were sent for independent tests to determine minimum values using GMEGV valves as the outlet control (simulating feed to ground loops). Of course after these valves, variable will occur according to pipe sizing/length etc. Also if the installer used different isolating valves, results could vary depending on the bore of the valves. The manifolds tested had 2" brass union header connections as per our standard issue Geomeg manifolds.

Manifolds 1 to 3 were logged individually, where a low flow flow rate of 1.5m³/hour was the controlled inlet flow rate. The 3rd manifold was then retested (tests 3.2 and 3.3) under controlled rate conditions of 60m³/hour. The actual figures are logged in the test results table below.

Table 1: Measured results from tests

Sample	Inlet pressure (bar)	Outlet pressure (bar)	Pressure drop dp(bar)	Flow rate Q(m ³ /h)
1	4.18	4.32	-0.14	1.44
2	4.20	4.34	-0.14	1.44
3	4.59	4.74	-0.15	1.38
3-2	4.0	1.43	2.60	62.90
3-3	4.20	2.21	1.99	60.12



Standard no. according to EN 12117

- Test procedure:**
1. Conditioning of test sample at test temperature.
 2. Open all 4 outlet valves E at about 10%.
 3. Open intake valve to pressure reducer A.
 4. Set up test pressure P1 with pressure reducer A at manometer C.
 5. Measure (\pm 4%) and log flow rate with flow control unit B and pressure difference with 2 pressure gauges D.
 6. Open all 4 outlet valves E step by step, equally as much as intake pressure at manometer C is P1 and flow rate at control unit B is Q.
 7. After 1 minute, measure and log pressure difference with pressure gauge D.

- Test rig instruments:**
- 1 test rig for pressure drop measurement, P310
 - 1 HBM-measuring amplifier, Z00389A
 - 2 HBM-pressure transmitter, Z-00195A/Z-00387A
 - 2 Manometer, Z-00231A/Z00254A
 - 1 Hioki measuring device, P950/Z00497A



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