

TYPICAL ELEVATION

DESIGN PRESSURE: 1480 PSIG @ 150 °F

APOLLO ENGINEERING COMPANY
BROKEN ARROW, OKLAHOMA

OUTLINE DRAWING
MODEL GFR-06-1440-Q GAS FILTER
STYLE "MFRQ"

DWG No. A06Q1440-MFRQ

DRAWN BY:
DATE:

APP'D BY:
DATE:

REVISION No.
DATE:

FILE: GFR06-QL.DWG

JOB No.

Prepared For
Apollo Customers
 Attn: All Users
 U.S.A.

Capacity Table For
GFR-06 Series Gas Filter
 (***)

Date Prepared: March 8, 2004

Flow Rate in MSCFH STP = 60F/14.65 PSI.

Not Corrected for Compressibility

Flowing Media	Natural Gas
Pipeline I.D.	6.065 inches
Flowing Temperature	60 °F
Specific Gravity	0.60 air = 1.00
k-Factor ($h=kV^2/2g$)	3.00

Line PSIG	Flow Rates (MSCFH) at Various Differential Pressures							
	5" wc	10" wc	20" wc	1 PSID	2 PSID	3 PSID	4 PSID	5 PSID
10	104	147	208	245	347	425	491	549
20	124	175	247	291	412	504	582	651
30	140	198	281	330	467	572	661	739
40	155	219	310	365	517	633	731	817
50	169	239	338	397	562	688	795	889
60	181	257	363	427	604	740	854	955
75	199	281	398	468	662	811	936	1047
100	225	318	450	529	749	917	1059	1184
150	269	381	539	634	897	1099	1269	1418
200	308	435	615	724	1024	1254	1449	1619
300	372	527	745	877	1240	1519	1754	1961
400	428	605	855	1007	1424	1744	2013	2251
500	476	674	953	1121	1586	1942	2243	2508
600	521	736	1041	1226	1733	2123	2451	2740
700	561	794	1123	1322	1869	2289	2643	2955
800	599	847	1198	1411	1995	2444	2822	3155
900	635	898	1270	1495	2114	2589	2990	3343
1000	669	946	1338	1575	2227	2727	3149	3521
1100	701	991	1402	1650	2334	2859	3301	3690
1200	732	1035	1463	1723	2436	2984	3446	3852
1300	761	1077	1522	1792	2535	3104	3585	4008
1400	790	1117	1579	1859	2629	3220	3719	4158
1500	817	1156	1634	1924	2721	3332	3848	4302

Represented By

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**Fabricated in Accordance with the Latest Edition of the ASME
Boiler and Pressure Vessel Code, Section VIII, Division 1**

Diameter	10.750"	O.D.	
Shell Length	37.250"	Seam to Seam	
Code Stamp	Optional	Other Specs	N.S.
Design Press.	1480	PSIG @	150 °F
Hydro. Press.	2220	PSIG @	40-100 °F
MDMT	-20	°F	1480 PSIG
Limited By	Flange	Radiograph	None
Joint Eff.	0.85	Heat Treat	No
Corr.Allow.	None	Wind Load	Std
Nozzle Proj.	Std	Dim'l Toler.	Std
Hinged Cover	No	Davit	No
Ladders	No	Platforms	No
Saddles	No	Insulation	No
Surface Prep.	SPPC SP2	Paint	Red Oxide Primer
Weight.	570 lbs	Volume	2.20 c.f.

Notes

Materials

Shell	SA106-B/C	Size	10"	Sch	XH
Nozzles	SA106-B/C	Size	6"	Sch	XH
QOC Hub	SA350-LF2	Size	10"	Sch	XH
QOC Cap	SA350-LF2	Heads	SA234-WPB		
Plate	SA516-70	Studs	SA193-B7, Plt'd		
Forgings	SA105	Nuts	SA194-2H, Plt'd		
BW Fittings	SA234-WPB	Gaskets	NonAsb		
Pipe	SA106-B/C	O-Rings	Nitrile		
Element Part No.	010-10-160808	Qty	1		
Gasket Part No.	030-10-002950	Qty	1		
Filter Cap Part No.	Not Req'd	Qty	---		
Wing Nut Part No.	Not Req'd	Qty	1		

Other

Notes

Requires a core support inside filter element, P/N 011-10-160808

Process Design Conditions

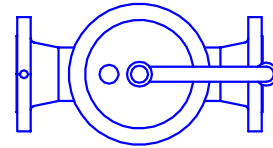
Fluid	---	Notes
Flow Rate	--- MSCFH	
Pressure	--- PSIG	
Temperature	--- °F	
Specific Gr.	---	
Pressure Drop	--- PSID	

Schedule of Openings

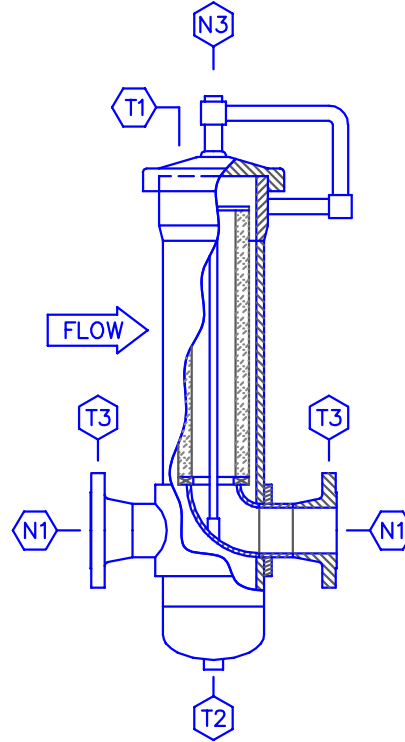
Mark	Qty	Size	Series	Facing	Type	Sch	Service
N1	1	6"	600#	RF	WN	XH	Inlet
N2	1	6"	600#	RF	WN	XH	Outlet
N3	1	10"	VQOC	O-Ring	Thr'd	XH	Service Entry
T1	1	1/2"	N/A	Thr'd	D&T	---	Vent
T2	1	1"	3000#	Thr'd	Cplg	---	Drain
T3	2	1/4"	N/A	Thr'd	D&T	---	D.P. Taps

Sketch depicts general arrangement - actual details may vary. For example, nozzle necks may be either weld-o-lets or pipe, nozzles may have repads, baseplates may not have gussets, etc.

Notes



PLAN



ELEVATION

Style MFRQ

Specification	AECo Std	ITEM Model GFR-06-1440-Q Gas Pipeline Filter
Prepared By	JAC	
Date	9/26/2004	
Shop Order/Quote No.	Std	
Customer	AECo Users	TAG GFR-06-1440-Q

Apollo Engineering Company
Broken Arrow, Oklahoma