

REPLACEMENT PARTS:
 ELEMENT: P/N 010-13-180508
 GASKET: P/N 030-10-002866

TYPICAL ELEVATION

MAWP: 1480 PSIG @ 150 °F

WEIGHT: 225 LBS

APOLLO ENGINEERING COMPANY
 BROKEN ARROW, OKLAHOMA

OUTLINE DRAWING
 MODEL GFR-03-1440 GAS FILTER

DWG No. OL-03-1440

DRAWN BY: JAC
 DATE: 12-27-94

APP'D BY: JAC
 DATE: 12-27-94

REVISION No.
 DATE:

FILE: GFR03-HP.DWG

JOB No.

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

Capacity Table For
GFR-03 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.	3.068 inches
Flowing Temperature	60 °F
Specific Gravity	0.60 air = 1.00
k-Factor ($h=kV^2/2g$)	2.50

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	29	41	58	69	97	119	138	154
20	35	49	69	82	115	141	163	182
30	39	56	79	93	131	160	185	207
40	44	62	87	102	145	177	205	229
50	47	67	95	111	158	193	223	249
60	51	72	102	120	169	207	239	268
75	56	79	111	131	186	227	262	293
100	63	89	126	148	210	257	297	332
150	76	107	151	178	251	308	356	398
200	86	122	172	203	287	352	406	454
300	104	148	209	246	348	426	492	550
400	120	169	240	282	399	489	564	631
500	134	189	267	314	445	544	629	703
600	146	206	292	344	486	595	687	768
700	157	222	315	370	524	642	741	828
800	168	238	336	396	559	685	791	884
900	178	252	356	419	593	726	838	937
1000	187	265	375	441	624	765	883	987
1100	196	278	393	463	654	801	925	1034
1200	205	290	410	483	683	836	966	1080
1300	213	302	427	502	711	870	1005	1123
1400	221	313	443	521	737	903	1042	1165
1500	229	324	458	539	763	934	1079	1206

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	6.625"	O.D.	
Shell Length	28.500"	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	Spot
Joint Eff.	1.00	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.	260 lbs	Volume	0.50 c.f.

Notes

Materials

Shell	SA106-B/C	Size	6"	Sch	XH
Nozzles	SA106-B/C	Size	3"	Sch	XH
QOC Hub	N/A	Size	N/A	Sch	N/A
QOC Cap	N/A	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.	010-13-180508	Qty	1		
Gasket Part No.	030-10-002866	Qty	1		
Filter Cap Part No.	040-10-450300	Qty	1		
Wing Nut Part No.	040-10-450300	Qty	1		

Other

Notes

Process Design Conditions

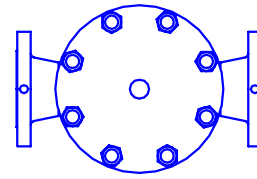
Fluid	---	Notes	
Flow Rate	---	MSCFH	
Pressure	---	PSIG	
Temperature	---	°F	
Specific Gr.	---		
Pressure Drop	---	PSID	

Schedule of Openings

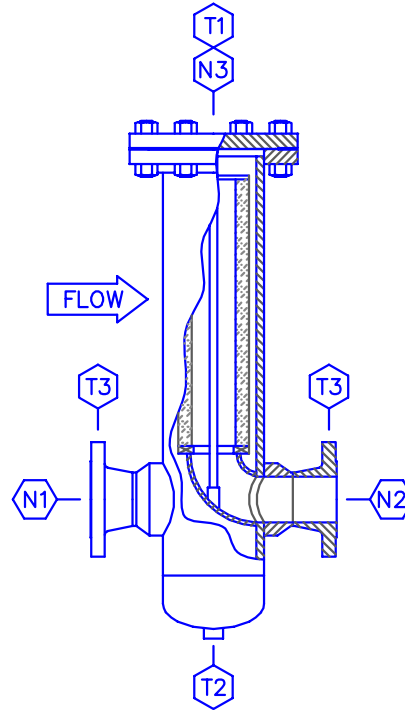
Mark	Qty	Size	Series	Facing	Type	Sch	Service
N1	1	3"	600#	RF	WN	XH	Inlet
N2	1	3"	600#	RF	WN	XH	Outlet
N3	1	6"	AECo	O-Ring	App Y	XH	Service Entry
T1	1	1/2"	N/A	Thr'd	D&T	---	Vent
T2	1	1"	3000#	Thr'd	Cplg	---	Drain
T3	2	1/4"	N/A	Thr'd	D&T	---	D.P. Taps

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 C

Specification	AECo Std	ITEM	Model GFR-03-1440 Gas Filter
Prepared By	JAC		
Date	9/26/2004		
Shop Order/Quote No.	Std	TAG	GFR-03-1440
Customer	AECo Users		

Apollo Engineering Company
Broken Arrow, Oklahoma