

TM Filtration

GAS FILTRATION PRODUCTS



PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

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Fax: 814-452-6573
Email: sales@tmfiltration.com



NEED HELP?

What is Coalescing? See page 4 for information

What is your application?

Remove liquid and solids from gas streams

Remove fine solid particulate, 50 μ or less, from gas or liquid streams

Remove coarse, solid particulate from liquid streams

Do you have highly saturated gas streams?

Do you require an automated system?

Contact Fluid Engineering at 814-453-5014 for Automatic & Manual Strainers

Fluid Engineering 

Yes, see page 14 for 3 Phase Gas Coalescing Filters

No, see page 23 for 2 Phase Gas Coalescing Filters

Yes, What is the Design Temperature?

No, see page 38 for Manual Basket and Cone strainers



Below 290°F (143°C) See page 32 for RGF Series Fine Particulate Filter for Gas or Liquid

Above 290°F (143°C) See page 36 for RGFHT Series Fine Particulate Filter for Gas or Liquid at high temperatures



We also offer Skid Systems Single Phase Knock Out Pots and 2 Phase Separators for Slug Guarding. See page 38 for further information



Not sure what the next step is? Complete engineering data sheet on page 5, then fax or email us for a quotation.

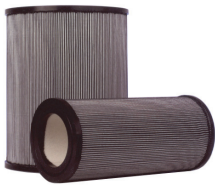


WHO IS TM FILTRATION?

TM Filtration is a division of TM Industrial Supply, Inc established in 1976 as a manufacturer of separators, receivers, and knockout pots for the air and gas markets. Headquartered in Erie, Pennsylvania, our services include Engineering, Inside Sales and Support, Purchasing as well as Manufacturing of custom engineered products designed to meet each customer's specification and built to ASME Section VIII Div. 1 pressure vessel code. "U" Stamp available.

CUSTOM ENGINEERED FILTRATION SOLUTIONS

"Products don't solve Problems, Solutions solve Problems"



Patented GFC – Gas Filter Coalescer (Page 6)

- Cleanable, reusable, "Green" coalescing filter element
- Efficiently removes both solid and liquid particles down to 0.3 microns
- Out-to-In flow with pleated filter element for longer usable life before maintenance is required
- Pleated filter design provides a larger filtering surface area
- GFC Element is cleanable using an Ultrasonic Filter Cleaner (Page 43)



Patent Pending RGF / RGFHT– Resilient Gas Filter (Page 32, 36)

- Cleanable, reusable, "Green" particulate filter element for gas and liquid
- Out-to-In flow with pleated design for large contaminant holding capacity
- Durable backflushable filter element for use in automated, self-cleaning systems
- Standard particulate removal of 2, 5, 10, 25 and 50 microns (Other sizes available)
- RGFHT model used for application temperatures up to 1500°F (815°C)



Patented POSI-Sealoc II™ Quick Opening Closure (Page 10)

- Designed to be both safe and efficient
- The wheel driven, cam operated opening is quick, easy, and eliminates the need for tools or torquing thus significantly reducing maintenance time and personnel requirements.
- A Safety Pin acts as a Pressure Warning Device, alerting operators that the vessel is still under pressure, preventing accidental blow off of lids and injuries.
- A Safety Pin acts as a Pressure Warning Device, alerting operators that the vessel is still under pressure, preventing accidental blow off of lids and injuries.

Our sister company, Fluid Engineering, provides custom designed Automatic and Manual strainers for water applications. For further information about their products and services, visit www.fluideng.com.

TIME LINE FOR TM INDUSTRIAL SUPPLY AND DIVISIONS



1976
TM Industrial Supply, Inc
Established

1986
Fluid Engineering Division
Established

1996
Envirovision Modular Systems
Division Established

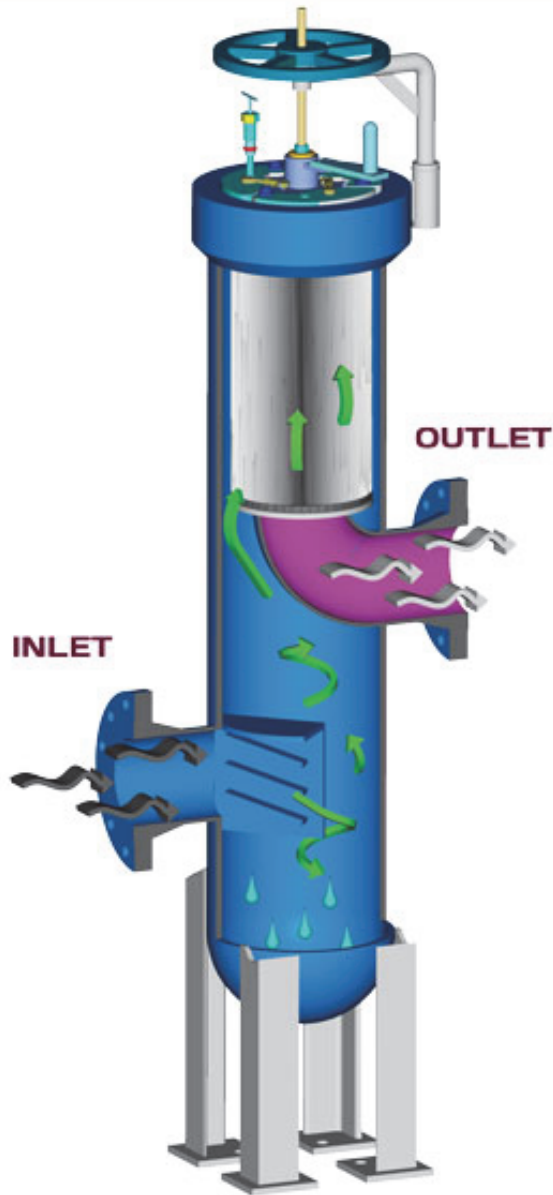
2009
TM Filtration Division
Established



PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

INNOVATIONS IN COALESCING FILTRATION

**TM Filtration "New Flow Technology"
Outside to In Flow path
(Two Phase Coalescer Shown)**



Patent No. 7,332,010

**LOOK FOR OUR CLEANABLE FILTRATION
LOGO THROUGHOUT THIS CATALOG FOR
GREEN PRODUCTS THAT CAN BE REUSED**

Coalescing

Coalescing is the process where liquid aerosols in a compressed gas/air system are forced to join together into large droplets. These combined droplets then can be drained away by gravity.

Conventional Coalescing

The conventional coalescing elements by design have the compressed gas/air flowing from inside the element to the outside. This has been the design since the inception of coalescing filtration.

New Flow Technology

TM Filtration has now developed and patented the "NEW FLOW TECHNOLOGY" where the gas/air flows from the "OUTSIDE TO INSIDE" of the element. This allows a pleated element design to be utilized.

Pleated Element Design

Our pleated design has a larger surface area which allows for more contaminant holding capacity, a longer working life, fewer change outs, and less downtime. The surface area of a GFC element may have up to 20 times greater holding capacity than similar dimensioned conventional elements.

Reduced Vessel Quantity

Coalescing systems utilizing conventional technology require Knock Out Pots and Vane separators to be incorporated where high liquid loadings are present. If this liquid is not removed the conventional elements become saturated and ineffective. The flow path of the GFC Coalescing filter, allows large quantities of water to fall out of the gas/air and settle into the sump prior to contacting the GFC element, eliminating the need for Knock Out Pots and Vane separators.

Particulate Filtration Included

The GFC Element is constructed of several layers of filtration, including a substrate layers which functions as a particulate filtration.

Liquid Barrier

The layers of filtration removes liquid by the coalescing method. The GFC Element inner core is a final polish filtration. It safeguards any droplets of liquid from going downstream.



Cleanable Coalescing Elements

The GFC Element is constructed of materials that may be ultrasonically cleaned to extend the working life and the value of the element.



ENGINEERING DATA SHEET FOR GAS FILTRATION SELECTION

COMPANY
ADDRESS
CONTACT
PHONE
EMAIL

QUOTE TYPE	
BUDGETARY ESTIMATE	FORMAL QUOTE (1-2 WEEKS)

QUANTITY OF VESSELS	
---------------------	--

CONTAMINANT
LIQUID
PARTICULATE

QUALITY OF FILTRATION
3 MICRON (STANDARD)
OTHER

GAS INFORMATION	
GAS TYPE	
GAS DENSITY	
SPECIFIC GRAVITY	
CONSISTENCY	
MOLE WEIGHT	
H2S CONTENT	

VESSEL SELECTIONS

FLANGE SIZE (IF KNOWN)
150#
300#
600#
900#
1500#
2500#
RF
FF
RTJ
THREADED
SOCKETWELD

ARRANGEMENT
SIMPLEX (SINGLE VESSEL)
DUPLEX (TWO VESSELS IN PARALLEL)

VESSEL OPTIONS
ASME "U" STAMP
CRN NUMBER
QUICK OPENING COVER
DAVIT
NACE MATERIAL
100% WELD RADIOGRAPHY
OTHER

PIPELINE SIZE (INCH / CM)

INTERNAL COATINGS
BLACK MAGNACOAT
OTHER

OPERATING CONDITIONS

FLOW:	MIN	OPERATING	DESIGN
PRESSURE:	MIN	OPERATING	DESIGN
TEMPERATURE:	MIN	OPERATING	DESIGN

BODY & COVER MATERIAL
CARBON STEEL
304 SS
316 SS
OTHER

EXTERNAL COATINGS
RED OXIDE PRIMER (STD)
BLUE ENAMEL
OTHER

OTHER INFORMATION

INSTRUMENTATION

DIFF. PRESSURE GAUGE
TEMPERATURE INDICATOR
PRESS. RELIEF VALVE
LIQUID LEVEL GAUGE
SIGHT GAUGE
PRESS. REGULATOR
DRAIN VALVE (AIR OP)
DRAIN VALVE (ELEC. OP)
DRAIN VALVE (MANUAL)
OTHER

PLEASE ATTACH GAS ANALYSIS IF AVAILABLE.

FAX TO 814-452-6573 (ATTN: GAS SALES) , SCAN AND EMAIL TO SALES@TMFILTRATION.COM OR CALL TO DISCUSS.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

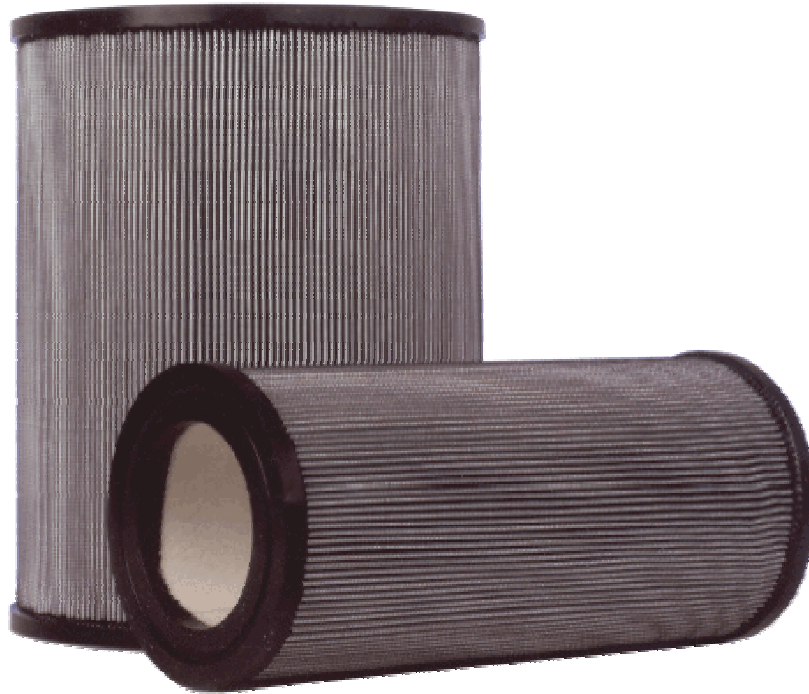


TM'S GFC CLEANABLE GAS COALESCING ELEMENTS



PATENT NO. 7,332,010

COMPONENTS	MATERIAL	PURPOSE
PLEATED MESH SCREEN	METALLIC SCREEN	RE- ENFORCEMENT, PARTICULATE RETENTION
SUBSTRATE	SPUN BONDED POLYESTER	PARTICULATE FILTRATION
FILTER MEDIA	MICRO BOROSILICATED GLASS	COALESCING, AEROSOL RETENTION
INNER CORE	SINTERED POLYPROPYLENE TUBE	FINAL GAS POLISHING, LIQUID BARRIER
END CAPS	POLYURETHANE	RIGIDITY, SEALING SURFACE



ELEMENT NO	OD	ID	LENGTH	SURFACE AREA
	IN / MM	IN / MM	IN / MM	FT ² / M ²
991-GFC-03-00	3.56 / 90.4	1.50 / 38.1	12.0 / 304.8	6.6 / 0.61
991-GFC-03-0	4.50 / 114.3	2.25 / 57.1	12.0 / 304.8	11.0 / 1.02
991-GFC-03-1	5.53 / 140.5	3.53 / 89.7	12.0 / 304.8	17.4 / 1.61
991-GFC-03-4	9.56 / 243.0	6.65 / 169.0	18.0 / 457.2	60.8 / 5.64
991-GFC-03-5	15.75 / 400.0	13.00 / 330.2	18.0 / 457.2	99.6 / 9.25

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



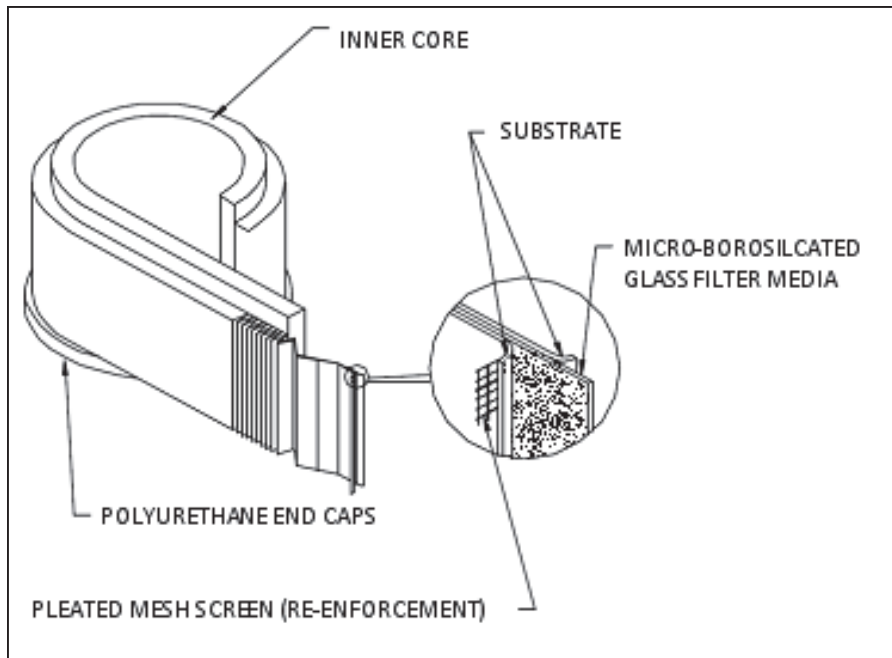
TM'S GFC CLEANABLE GAS COALESCING ELEMENTS

PATENT NO. 7,332,010



EFFICIENCIES OF ELEMENT (IN CONSTRUCTED FORM)	
Liquid Removal	99.99% of 0.3 μ and larger particles
Solid Removal	99.995% of 0.3 μ and larger particles

MAXIMUM TEMP RATING (CONTACT FACTORY FOR OTHER HIGH TEMP OPTIONS)
200° F (93° C)



The outer layer of the element is a **Pleated Mesh Screen**, which acts as a re-enforcement.

The **Substrate** is a spun bond polyester, which acts as a solid particulate filter layer (3 micron).

The **Micro Borosilicate Glass** is the coalescing filtration layer (3 micron absolute).

The **Inner Core** is a polypropylene tube which is designed to polish the Gas. This also functions as a liquid barrier, that only allows gas to pass.

GLASS FILTER MEDIA ANALYSIS				
TYPICAL PROPERTIES	STANDARD UNITS		METRIC UNITS	
Caliper (Thickness measured at 8psi)	22	mils	0.56	mm
Resistance	40	mm	391	Pa
Frazier	3.7	cfm	1.8	cc/sec/cm ²
Mean Flow Pore	4	micron	4	micron
Flat Sheet Multipass Efficiency – Beta 200	< 4	micron	< 4	micron
Flat Sheet Multipass Efficiency – Beta 1000	< 4	micron	< 4	micron
DOP Penetration	0.016	%	0.016	%

NOTE: Caliper Test :The thickness measured at a specific pressure. Frazier Test : The column of air, in CFM , that can flow through 1 square foot of media 0.5 W.G. pressure drop . Mean Flow Pore : The average particle size. Flat Sheet Multipass Efficiency: Beta 200 or 1000: Size of contaminant that can be captured with a efficiency of 99.5% for Beta 200, and 99.95% for Beta 1000. DOP Penetration test: 0.3 micron particle @ 32 l/min/cm2

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

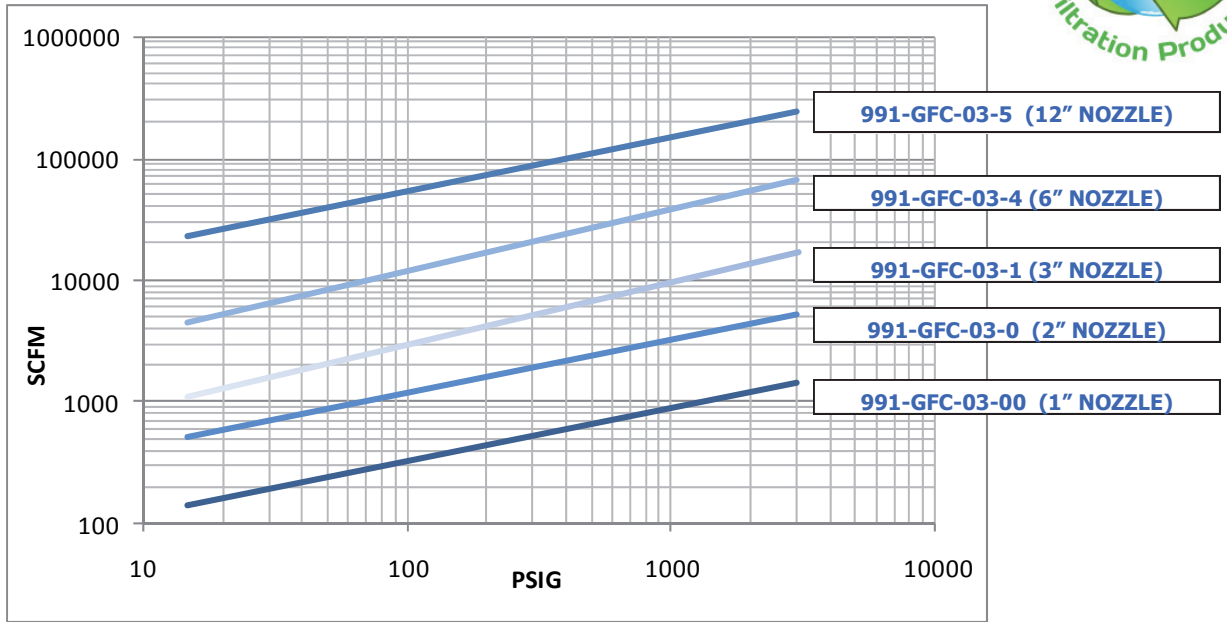


FLOW (SCFM VS PSIG) OF GFC CLEANABLE GAS COALESCING ELEMENTS

PATENT NO. 7,332,010

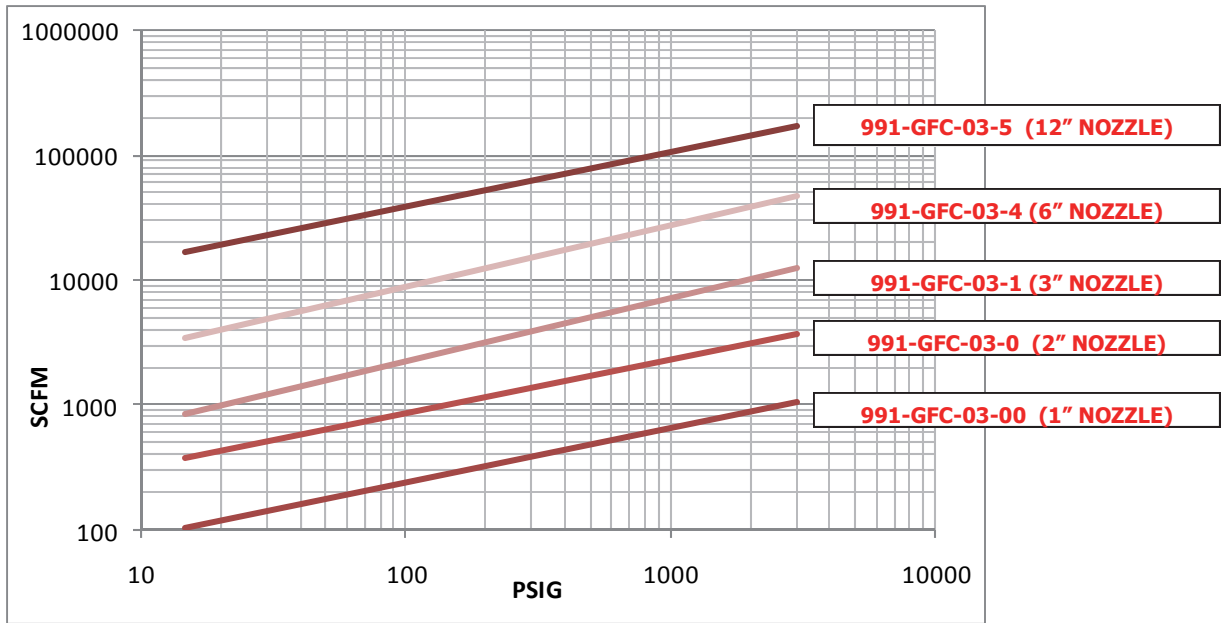


Mole weight = 16.05
 Specific gravity = 0.555
 SCFM = Free Gas @ 14.7 PSIA @ 60°F



NATURAL GAS (@1 PSID)

Mole weight = 28.97
 Specific gravity = 1.0
 SCFM = Free Gas @ 14.7 PSIA @ 60°F



COMPRESSED AIR (@1 PSID)

FOR FLOW AND PRESSURE DATA REGARDING YOUR SPECIFIC APPLICATION, PLEASE COMPLETE GAS DATA SHEET ON PAGE 49 AND FAX TO 814-452-6573 OR EMAIL TO SALES@TMFILTRATION.COM

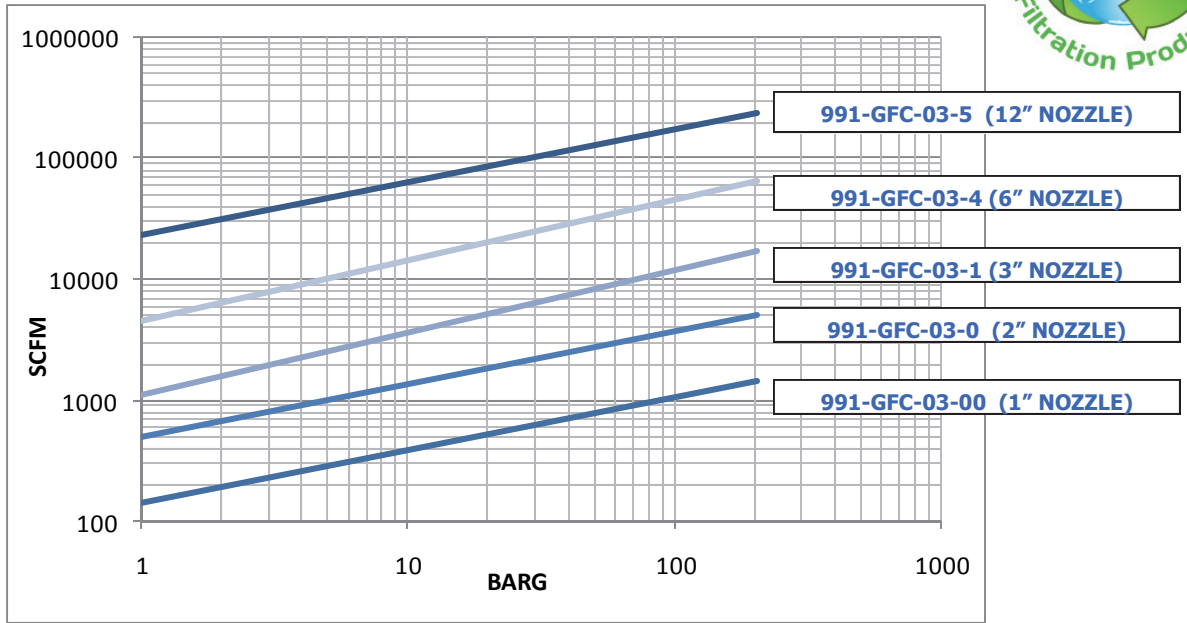


FLOW (SCFM VS BARG) OF GFC CLEANABLE GAS COALESCING ELEMENTS

PATENT NO. 7,332,010

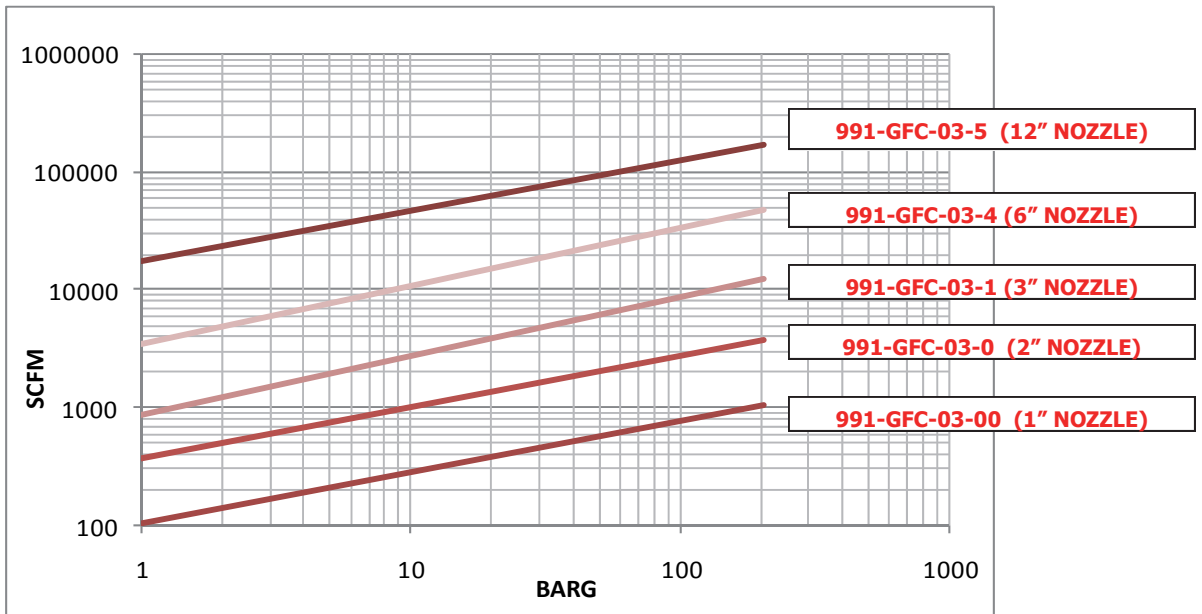


Mole weight = 16.05
 Specific gravity = 0.555
 SCFM = Free Gas @ 14.7 PSIA @ 60°F



NATURAL GAS (@0.069 BARD)

Mole weight = 28.97
 Specific gravity = 1.0
 SCFM = Free Gas @ 14.7 PSIA @ 60°F



COMPRESSED AIR (@0.069 BARD)

FOR FLOW AND PRESSURE DATA REGARDING YOUR SPECIFIC APPLICATION,
 PLEASE COMPLETE GAS DATA SHEET ON PAGE 49 AND FAX TO 814-452-6573 OR EMAIL TO SALES@TMFILTRATION.COM

POSI-SEALOC II® QUICK OPENING ENCLOSURES

**Posi-Sealoc II®
Quick Opening
Enclosure**

Patent No. 7,332,010 B2



**INTEGRATED POSI-SEALOC II®
DESIGN AVIALABLE FOR NEW APPLICATIONS**

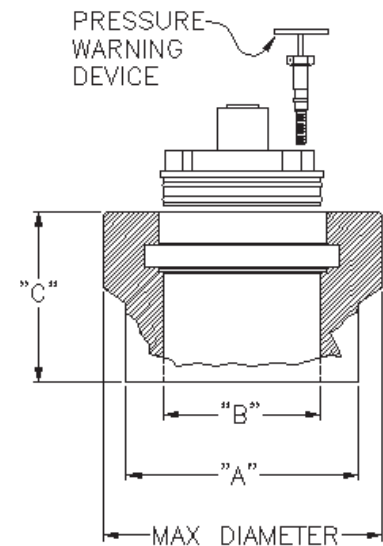
- Standard closure designs for 740 PSIG @100°F ANSI 300# and 1480 PSIG @100°F ANSI 600#
- Standard closure supplied with dual BUNA-N O-ring seals.
- Other O-ring materials available (See O-Ring Material chart)
- Locking clamps have no effect on seal.
- All units supplied with pressure warning device (Lock and depressurization safety bolt)
- If removal of Pressure Warning Device is attempted while the unit is under pressure, an audible sound will be generated.
- Prevents the need for measuring the torque of the bolts, and reduces potential operator error.
- Designed in accordance to ASME VIII Div 1

SIZE	A (IN)	A (mm)	B - Bore Size (IN)	B - Bore Size (mm)	C (IN)	C (mm)	D (IN)	D (mm)
10 x 8	10 3/4	273	7 1/4	184	6 3/4	171	13	330
12 x 8	12 3/4	324	7 1/4	184	6 3/4	171	13	330
12 x 12	12 3/4	324	10 9/16	268	7	178	15	381
14 x 12	14	356	10 9/16	268	7	178	15	381
14 x 16	14	356	12 1/16	306	7	178	18	457
16 x 16	16	406	12 1/16	306	7	178	18	457
18 x 20	18	457	15 5/8	397	8	203	22	559
20 x 20	20	508	15 5/8	397	8	203	22	559
22 x 24	22	559	20 3/4	527	8	203	26	660
24 x 24	24	610	20 3/4	527	8	203	26	660
26 x 24	26	660	20 3/4	527	8	203	26	660
30 x 30	30	762	26	660	10	254	32	813
32 x 30	32	813	26	660	10	254	32	813

O-Ring Materials	
Buna-N	-60° to 225° F (-51° to 107° C)
EPDM	-40° to 300° F (-40° to 149° C)
Viton®	-20° to 400° F (-28° to 204° C)
Silicon	-100° to 500° F (-73° to 260° C)

Standard material of construction

- Housing** : Carbon Steel
- Closure** : SA106 Grade B or SA105
- Cover** : SA516 Grade 70
- Locking Cams** : 316 Stainless Steel



Notes: Dimensions, material and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings or additional information.

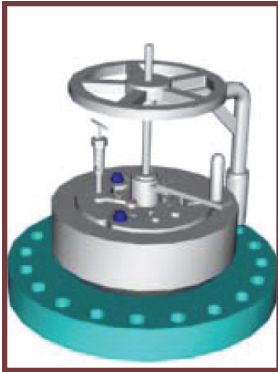


POSI-SEALOC II® RETRO-FIT KIT FOR ANSI ENCLOSURES

SERIES 337

Posi-Sealoc II® Quick Opening Enclosure
Retro-fit kit for ANSI enclosures

Patent No. 7,332,010 B2 USA



RETROFIT KIT FOR EXISTING APPLICATIONS

- Standard ANSI 600# closure design for 1480 PSIG @100°F
- Other ANSI Pressure classes available (Contact manufacturer)
- Standard includes two flanged ports for additional relief and vent. (Available without extra ports, Contact Manufacturer)
- Standard closure supplied with dual BUNA-N O-ring seals.
- Other O-ring materials available (See O-Ring Material chart)
- All units supplied with pressure warning device (Lock and depressurization safety bolt)
- If removal of Pressure Warning Device is attempted while the unit is under pressure, an audible sound will be generated.
- Prevents the need for measuring the torque of the bolts, and reduces potential operator installation error.
- Designed in accordance to ASME VIII, Div 1
- Other custom bore sizes available (Contact manufacturer)

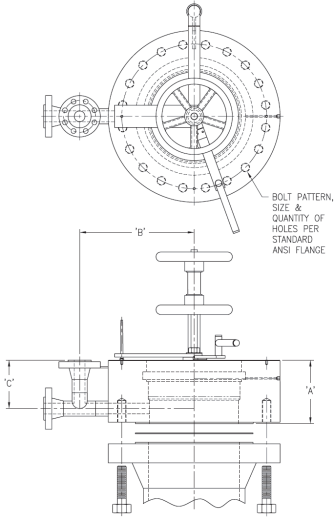
SIZE	FLANGE COMPATIBILITY <i>Other pressure classes available</i>	A (IN)	A (mm)	B (IN)	B (mm)	C (IN)	C (mm)
337-166	16"-600#	10"	254 mm	18"	457.2 mm	7-5/8"	193.7 mm
337-206	20"-600#	10"	254 mm	21"	533.4 mm	7-5/8"	193.7 mm
337-246	24"-600#	10"	254 mm	23"	584.2 mm	7-5/8"	193.7 mm
337-306	30"-600#	11"	279.4 mm	27"	685.8 mm	8-5/8"	219 mm
337-366	36"-600#	TBD	TBD	TBD	TBD	TBD	TBD
337-486	48"-600#	13"	330.2 mm	36"	914.4 mm	10-5/8"	269.9 mm
337-546	54"-600#	15"	381 mm	40"	1016 mm	12-5/8"	320.7 mm
337-606	60"-600#	16"	406.4 mm	44"	1117.6 mm	13-5/8"	346.1 mm

O-Ring Materials	
Buna-N	-60° to 225°F (-51° to 107° C)
EPDM	-40° to 300° F (-40° to 149° C)
Viton®	-20° to 400° F (-28° to 204° C)
Silicon	-100° to 500° F (-73° to 260° C)

Standard material of construction

Housing : Carbon Steel
Closure : SA106 Grade B or SA105
Cover : SA516 Grade 70
Locking Cams : 316 Stainless Steel

Other materials available upon request



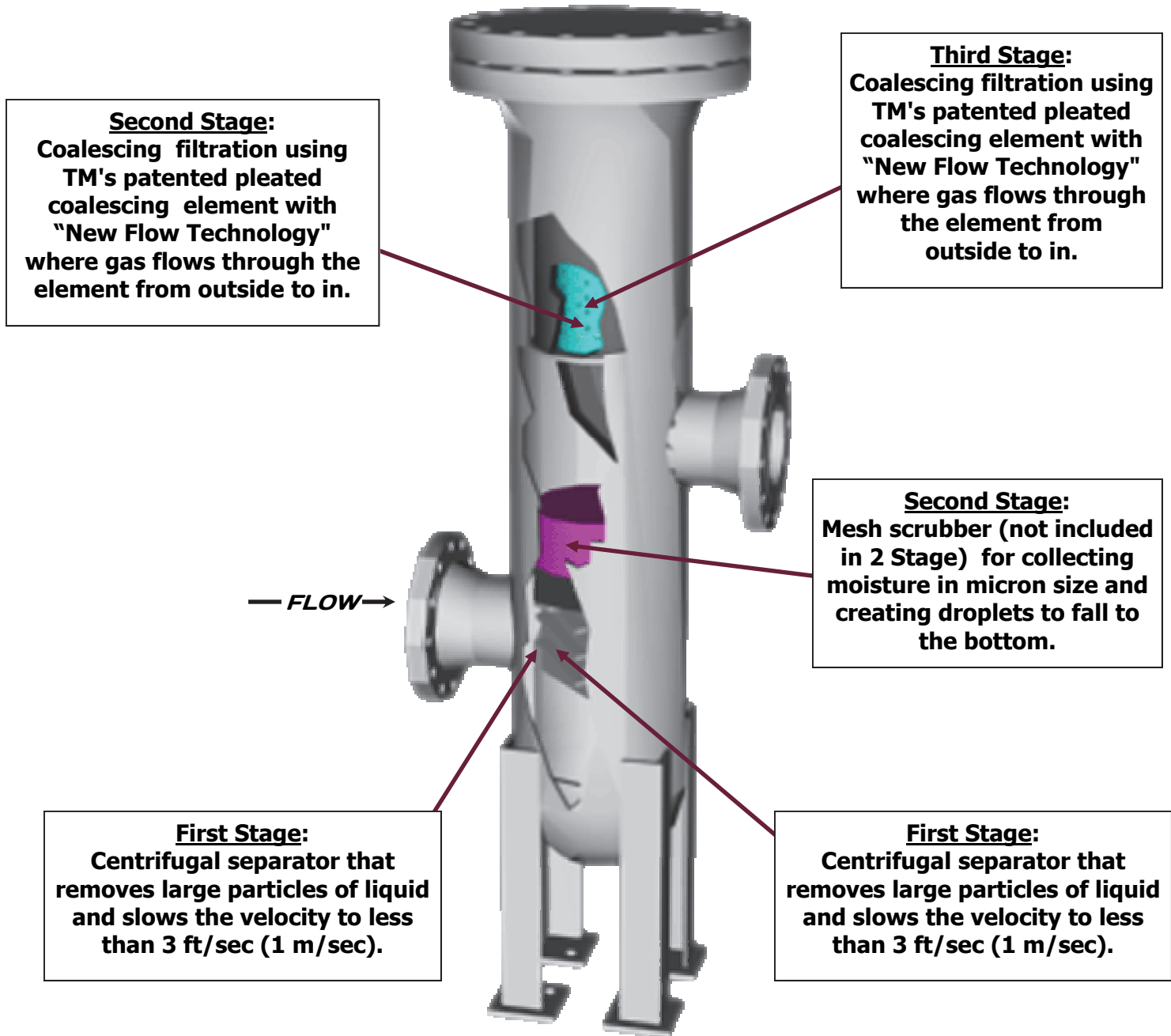
Notes: Dimensions, material and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings or additional information.



2 STAGE (PHASE) GAS FILTRATION

3 STAGE (PHASE) GAS FILTRATION

PATENT NO. 7,332,010



CREATING A 300 SERIES CLEANABLE GAS COALESCING PART NUMBER



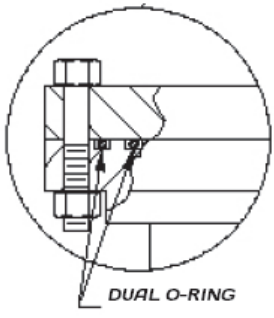
PATENT NO. 7,332,010

300 SERIES PART NUMBER BREAKDOWN

3


STAGES OF FILTRATION
 2 = Two Stage Filtration
 3 = Three Stage Filtration

COVER STYLE
 4 = Double O-ring cover
 8 = Posi-Sealoc II® quick release cover
 9 = Bolted cover




DUAL O-RING

4 SHOWN




9 SHOWN




8 SHOWN

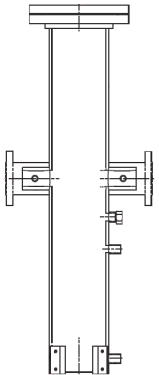
DESIGN OPTIONS
 BLANK = Standard Unit
 E = E-line (Econo-line)
 ER = E-line with reservoir
 H = Horizontal Design
 D = Duplex Arrangement
 HR = Horizontal Reservoir



E SHOWN



H SHOWN



ER SHOWN

Examples

383 3 Stage Coalescing Filter with a Posi-Sealoc II® quick release cover

392ER Economy line, 2 Stage Coalescing Filter with a bolted cover and reservoir

342 2 Stage Coalescing Filter with Double O-ring cover

Note: It is possible to assemble codes that have not previously been designed. Please contact the sales department if you cannot find your model code in this catalog.

OVERVIEW OF 3 PHASE GAS COALESCING



3 PHASE GAS COALESCING FILTERS

SERIES 343, 383, 393
Patent No. 7,332,010

TM Filtration's three-phase coalescing filter vessels are used where high loadings, and highly saturated gasses are at their worst.

TM Filtration's pleated GFC coalescing element ensures maximum removal of liquid and solid particulate, while minimizing frequent and expensive element change outs by utilizing our standard patented high capacity element. It also reduces your future costs of spare elements, as our elements may be ultrasonically cleaned.

The three-phase separator/filter combines the functionality of a vane or mesh separator, with the high efficiency, high capacity GFC coalescing filter; thus removing the need for separate vessels, and their additional cost.

APPLICATIONS:

- Turbine protection
- Gas compressor oil & water removal
- Meter protection
- Liquid removal prior to compressed gas storage
- Heat exchanger protection
- Air compressor protection
- Vacuum pump protection (when a knock out pot is not enough)

DESIGN INFORMATION:

- Gas radial velocity impacting on the surface area of the coalescing element ≤ 0.5 ft / sec
- Clean pressure drop inlet to outlet ≤ 1 psid Vessels are available in full ANSI class ratings
- All vessels are designed per ASME code Section VIII Div. 1 (Latest addendum)
- ASME "U" Stamp available upon request



Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

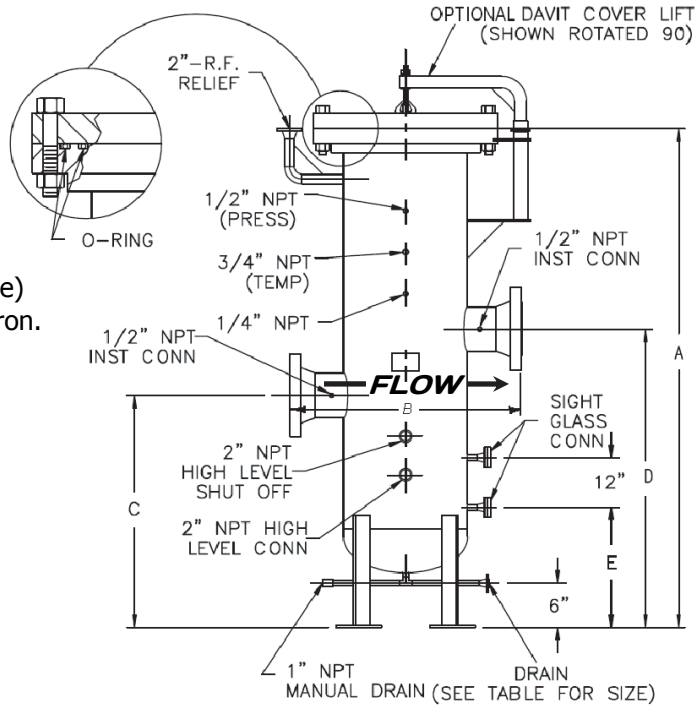


3 PHASE GAS COALESCING



SERIES 343

3 Phase Separator/Coalescing Filter with Dual O-Ring seal
Patent No. 7,332,010



Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir
- Smaller Diameter bolting requirements than standard flange.

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.

Partial Model Code	A	B	C	D	E	Inlet/ Outlet RF	Drain RF	Sight Gauge RF
343-02008	88" 2235.2 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	2" 50mm	1.5" 40 mm	1" 25 mm
343-03008	88" 2235.2 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	3" 80 mm	1.5" 40 mm	1" 25 mm
343-04008	88" 2235.2 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	4" 100 mm	1.5" 40 mm	1" 25 mm
343-04012	90" 2286 mm	30" 762 mm	40" 1016 mm	62" 1574.8 mm	20" 508 mm	4" 100 mm	2" 50 mm	1" 25 mm
343-06012	92" 2336.8 mm	30" 762 mm	40" 1016 mm	62" 1574.8 mm	20" 508 mm	6" 150 mm	2" 50 mm	1" 25 mm
343-06024	94" 2387.6 mm	40" 1016 mm	42" 1066.8 mm	64" 1625.6 mm	22" 558.8 mm	6" 150 mm	2" 50 mm	1" 25 mm
343-08024	102" 2590.8 mm	42" 1066.8 mm	44" 1117.6 mm	66" 1676.4 mm	22" 558.8 mm	8" 200 mm	2" 50 mm	1" 25 mm
343-08030	106" 2692.4 mm	48" 1219.2 mm	46" 1168.4 mm	68" 1727.2 mm	24" 609.6 mm	8" 200 mm	2" 50 mm	1" 25 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



3 PHASE GAS COALESCING



SERIES 383

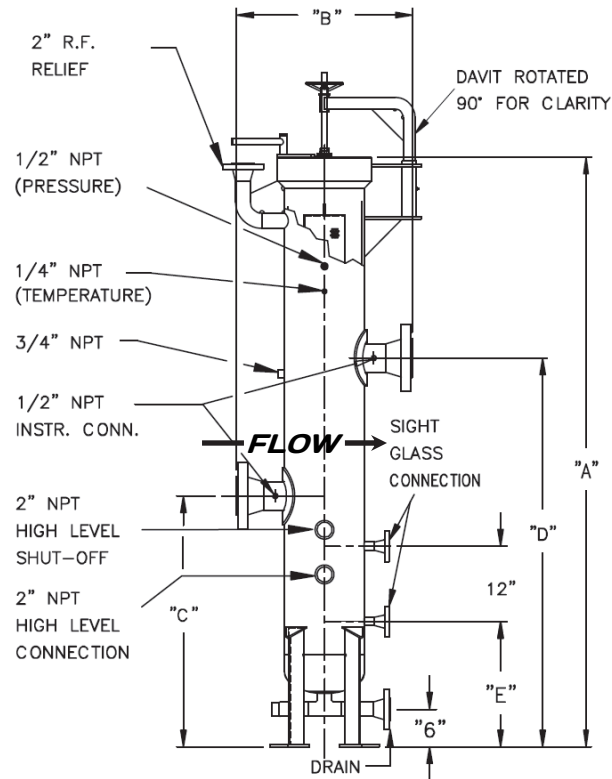
3 Phase Separator/ Coalescing Filter with Posi-Sealoc II[®] Quick Opening Enclosure Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir
- Quick opening cover with no bolts to torque.
- Standard "Pressure Warning Device" (PWD)
See page 12 for more information

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	A	B	C	D	E	Inlet/Outlet RF	Drain RF	Sight Gauge RF
383-02008	92" 2336.8 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	2" 50mm	1.5" 40 mm	1" 25 mm
383-03008	92" 2336.8 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	3" 80 mm	1.5" 40 mm	1" 25 mm
383-04008	92" 2336.8 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	4" 100 mm	1.5" 40 mm	1" 25 mm
383-04012	94" 2387.6 mm	30" 762 mm	40" 1016 mm	62" 1574.8 mm	20" 508 mm	4" 100 mm	2" 50 mm	1" 25 mm
383-06012	96" 2438.4 mm	30" 762 mm	40" 1016 mm	62" 1574.8 mm	20" 508 mm	6" 150 mm	2" 50 mm	1" 25 mm
383-06024	100" 2540 mm	40" 1016 mm	42" 1066.8 mm	64" 1625.6 mm	22" 558.8 mm	6" 150 mm	2" 50 mm	1" 25 mm
383-08024	108" 2743.2 mm	42" 1066.8 mm	44" 1117.6 mm	66" 1676.4 mm	22" 558.8 mm	8" 200 mm	2" 50 mm	1" 25 mm
383-08030	114" 2895.6 mm	48" 1219.2 mm	46" 1168.4 mm	68" 1727.2 mm	24" 609.6 mm	8" 200 mm	2" 50 mm	1" 25 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

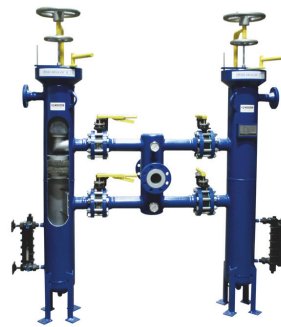
PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

3 PHASE GAS COALESCING

SERIES 383D
Duplex 3 Phase Separator/
Coalescing Filter
with Posi-Sealoc II®
Quick Opening Enclosure
Patent No. 7,332,010
7,850,751 B2
2,426,752 CAN

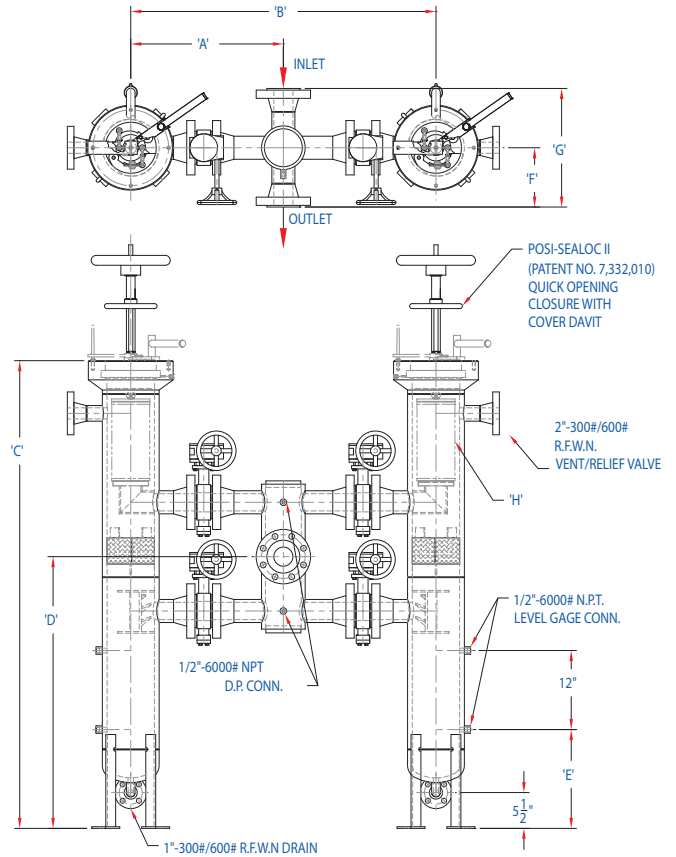
Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Designed per ANSI 300# or 600# Rating
- Coalescing filter incorporates a filtration level of 3 micron.
- Buna-N seals
- Built in Reservoir
- Quick opening cover with no bolts to torque.
- Standard "Pressure Warning Device" (PWD) (See page 12)



Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design. (See page 6)



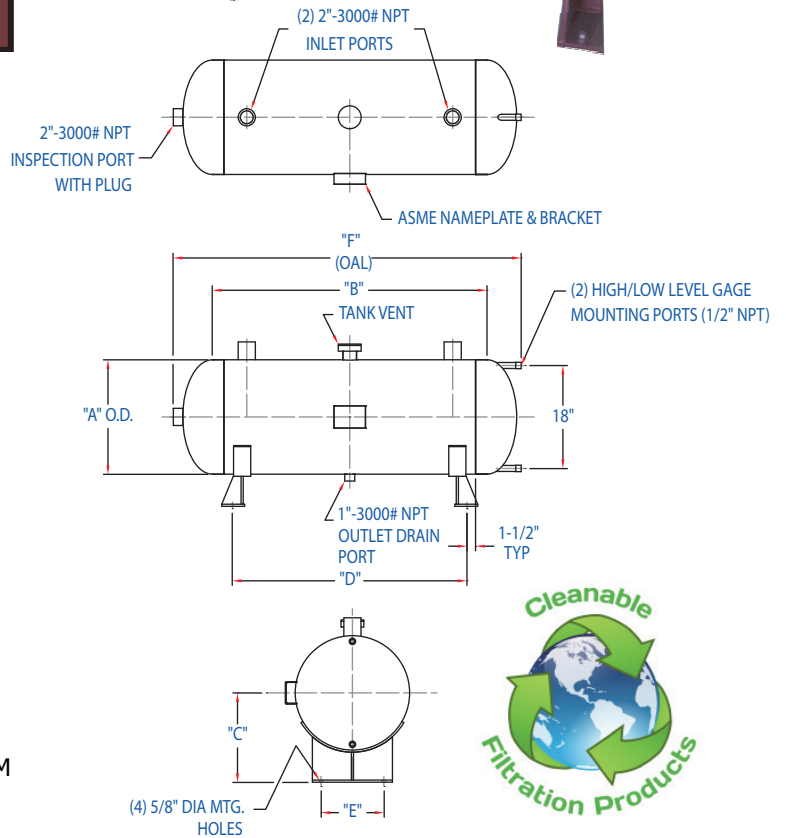
SIZE	A	B	C	D	E	F	G	H	INLET/ OUTLET R.F.W.N.
383D-03008	23" 584.2mm	46" 1168.4mm	72" 1828.8mm	41-1/2" 1079.5mm	15" 381mm	9" 228.6mm	18" 457.2mm	GFC-1	3" 76.2mm
383D-04008	25" 635mm	50" 1270mm	74" 1879.6mm	42-1/2" 1079.5mm	15" 381mm	9-1/2" 241.3mm	19" 482.6mm	GFC-1	4" 101.6mm
383D-04014	28" 711.2mm	56" 1422.4mm	84" 2133.6mm	43-1/2" 1104.9mm	16" 406.4mm	9-1/2" 241.3mm	19" 482.6mm	GFC-4	4" 101.6mm
383D-06014	31" 787.4mm	62" 1574.8mm	89" 2260.6mm	45-1/2" 1155.7mm	16" 406.4mm	13" 330.2mm	26" 660.4mm	GFC-4	6" 152.4mm
383D-08024	42" 1066.8mm	84" 2133.6mm	101" 2665.4mm	52" 1320.8mm	18-1/2" 469.9mm	15" 381mm	30" 762mm	GFC-5	8" 203.2mm
383D-10024	45" 1143mm	90" 2286mm	106" 2692.4mm	54" 1371.6mm	18-1/2" 469.9mm	16" 406.4mm	32" 812.8mm	GFC-5	10" 254mm
383D-12024	46" 1168.4mm	92" 2336.8mm	112" 2844.8mm	57-1/2" 1460.5mm	18-1/2" 469.9mm	17" 431.8mm	34" 863.6mm	GFC-5	12" 304.8mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

Receiver

Drain Tank Receiver

Storage for filtered residual liquids from Fuel Gas



APPLICATIONS:

- Liquid storage at site independently
- Packaged with 383D Duplex Skid system

DESIGN INFORMATION:

- Horizontal orientation
- Designed, constructed, and tested in accordance with ASME Section VIII, Division 1 ("U" Stamp available)
- Maximum Pressure rated: 100 PSI @ 150°F
- Fittings:
 - 2" NPT Inlets (option to be flanged)
 - 1" NPT Outlet drain
 - 2" NPT Inspection port w/ plug
 - 1/2" NPT Level Gage mounting ports
 - Tank vent
- Support: Saddle support with structural legs
- Material: Carbon Steel
- Painting:
 - Interior: Black Magna Coat
 - Rust prohibitive
 - Exterior: Red Oxide

OPTIONS:

For higher pressure rated availability, please consult with TM Sales department

DRAIN TANK RECEIVERS FOR 383D SERIES DUPLEX FUEL GAS FILTERS							
MODEL	"A" (DIA)	"B"	"C"	"D"	"E"	"F" (OAL)	GAL
REC-200-30-8181	20" 508 mm	48" 1219.2 mm	15-5/8" 396.8 mm	41" 1041.4 mm	11" 279.4 mm	60-13/16" 1544.6 mm	60
REC-200-30-8182	20" 508 mm	64" 1625.6 mm	15-5/8" 396.8 mm	57" 1447.8 mm	11" 279.4 mm	76-13/16" 1951.0 mm	80
REC-240-30-8183	24" 609.6 mm	56" 1422.4 mm	17-5/8" 447.6 mm	49" 1244.6 mm	15" 381 mm	71-3/4" 1822.4 mm	100
REC-240-30-8184	24" 609.6 mm	79" 2006.6 mm	17-5/8" 447.6 mm	72" 1828.8 mm	15" 371 mm	94-3/4" 2406.6 mm	150
REC-300-30-8185	30" 762 mm	70" 1778 mm	20-5/8" 523.8 mm	63" 1600.2 mm	20" 508 mm	88-1/4" 2241.5 mm	200

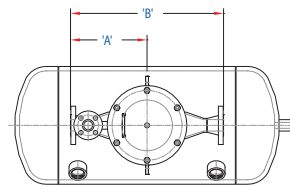
Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

3 PHASE GAS COALESCING



SERIES 343HR

**3 Phase Separator/
Coalescing Filter
With Dual O-Ring
Bolted Closure**

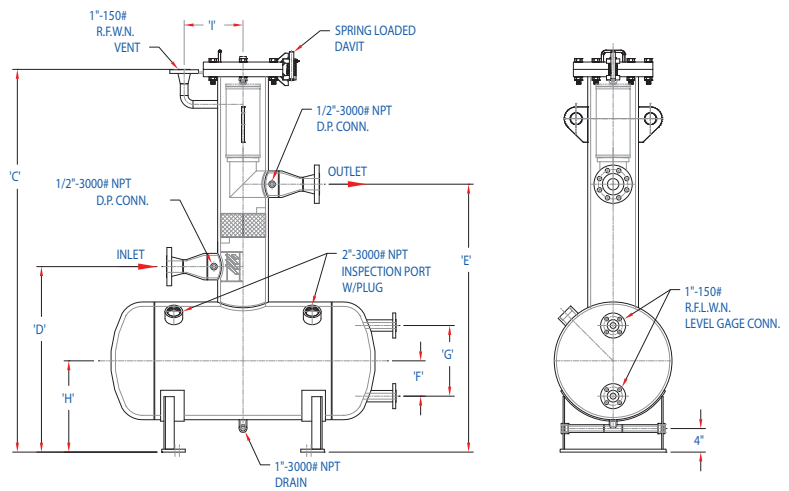


Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Designed per ANSI 150# rating
- Coalescing filter incorporates a filtration level of 3 micron.
- Buna-N seals
- Built in Reservoir

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



**Note: 2" & 3" have concentric reducer on inlet and outlet.
4", 6", 8" units have full diameter inlet and outlet nozzles.*

SIZE	A	B	C	D	E	F	G	H	I	*INLET/ OUTLET 150# R.F.W.N.
343HR-02008	13 in 330.2 mm	26 in 660.4 mm	65 in 1651 mm	32 in 812.8 mm	46 in 1168.4 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	10 in 254 mm	2 in 50.8 mm
343HR-03014	16 in 406.4 mm	32 in 812.8 mm	71 in 1803.4 mm	32 in 812.8 mm	46 in 1168.4 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	13.5 in 342.9 mm	3 in 76.2 mm
343HR-04014	14 in 355.6 mm	28 in 711.2 mm	71 in 1803.4 mm	32 in 812.8 mm	46 in 1168.4 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	13.5 in 342.9 mm	4 in 101.6 mm
343HR-06014	16 in 406.4 mm	32 in 812.8 mm	75 in 1905 mm	33 in 838.2 mm	49 in 1244.6 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	13.5 in 342.9 mm	6 in 152.4 mm
343HR-08020	19.5 in 495.3 mm	39 in 990.6 mm	84 in 2133.6 mm	39 in 990.6 mm	57 in 1447.8 mm	8 in 203.2 mm	16 in 406.4 mm	17.5 in 444.5 mm	16.5 in 419.1 mm	8 in 203.2 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

3 PHASE GAS COALESCING



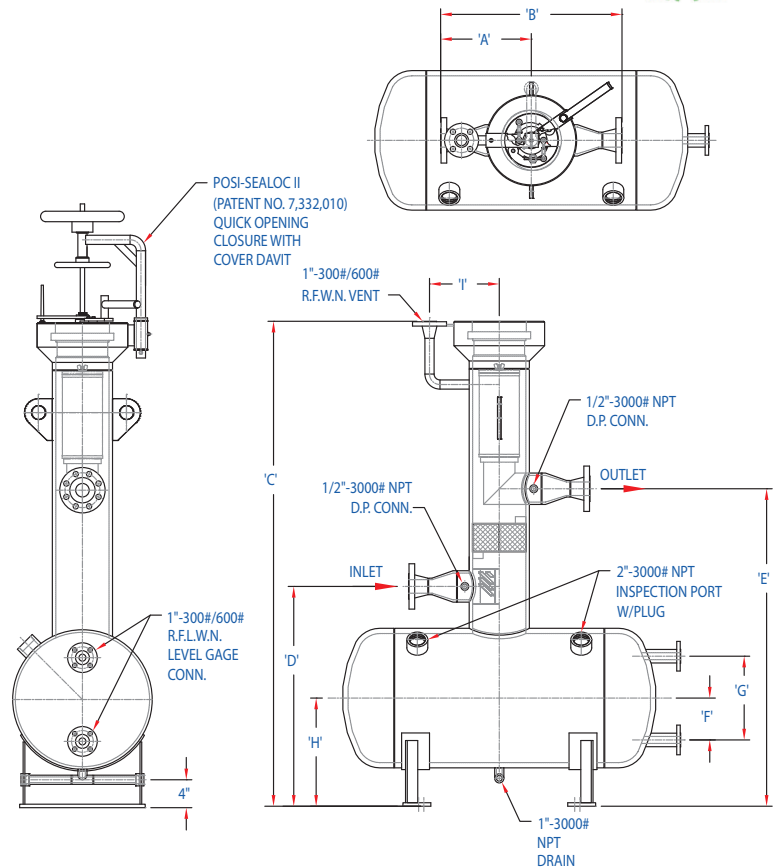
SERIES 383HR
**3 Phase Separator/
 Coalescing Filter
 With Horizontal Reservoir &
 Posi-Sealoc II®
 Quick Opening Enclosure**
 Patent No. 7,332,010
 7,850,751 B2
 2,426,752 CAN

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Designed per ANSI 300# or 600# rating
- Coalescing filter incorporates a filtration level of 3 micron.
- Buna-N seals
- Built in Reservoir
- Quick opening cover with no bolts to torque.
- Standard "Pressure Warning Device" (PWD) *See page 10 for more information*

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in



**Note: 2" & 3" have concentric reducer on inlet and outlet.
 4", 6", 8" units have full diameter inlet and outlet nozzles.*

SIZE	A	B	C	D	E	F	G	H	I	*INLET/ OUTLET R.F.W.N.
383HR-02008	13 in 330.2 mm	26 in 660.4 mm	70 in 1778 mm	32 in 812.8 mm	46 in 1168.4 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	10 in 254 mm	2 in 50.8 mm
383HR-03014	16 in 406.4 mm	32 in 812.8 mm	76 in 1930.4 mm	32 in 812.8 mm	46 in 1168.4 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	12.5 in 317.5 mm	3 in 76.2 mm
383HR-04014	14 in 355.6 mm	28 in 711.2 mm	76 in 1930.4 mm	32 in 812.8 mm	46 in 1168.4 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	12.5 in 317.5 mm	4 in 101.6 mm
383HR-06014	16 in 406.4 mm	32 in 812.8 mm	80 in 2032 mm	33 in 838.2 mm	49 in 1244.6 mm	6 in 152.4 mm	12 in 304.8 mm	15.5 in 393.7 mm	12.5 in 317.5 mm	6 in 152.4 mm
383HR-08020	19.5 in 495.3 mm	39 in 990.6 mm	91 in 2311.4 mm	39 in 990.6 mm	57 in 1447.8 mm	8 in 203.2 mm	16 in 406.4 mm	17.5 in 444.5 mm	14.5 in 368.3 mm	8 in 203.2 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



3 PHASE GAS COALESCING



SERIES 393

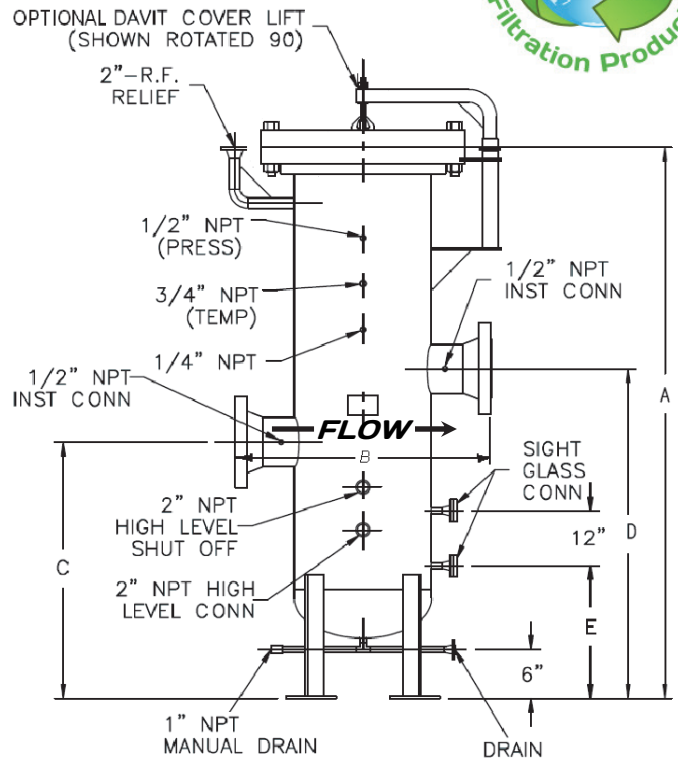
3 Phase Separator/ Coalescing Filter with Bolted Cover
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	A	B	C	D	E	Inlet/ Outlet RF	Drain RF	Sight Gauge RF
393-02008	88" 2235.2 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	2" 50mm	1.5" 40 mm	1" 25 mm
393-03008	88" 2235.2 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	3" 80 mm	1.5" 40 mm	1" 25 mm
393-04008	88" 2235.2 mm	24" 609.6 mm	38" 965.2 mm	60" 1524 mm	20" 508 mm	4" 100 mm	1.5" 40 mm	1" 25 mm
393-04012	90" 2286 mm	30" 762 mm	40" 1016 mm	62" 1574.8 mm	20" 508 mm	4" 100 mm	2" 50 mm	1" 25 mm
393-06012	92" 2336.8 mm	30" 762 mm	40" 1016 mm	62" 1574.8 mm	20" 508 mm	6" 150 mm	2" 50 mm	1" 25 mm
393-06024	94" 2387.6 mm	40" 1016 mm	42" 1066.8 mm	64" 1625.6 mm	22" 558.8 mm	6" 150 mm	2" 50 mm	1" 25 mm
393-08024	102" 2590.8 mm	42" 1066.8 mm	44" 1117.6 mm	66" 1676.4 mm	22" 558.8 mm	8" 200 mm	2" 50 mm	1" 25 mm
393-08030	106" 2692.4 mm	48" 1219.2 mm	46" 1168.4 mm	68" 1727.2 mm	24" 609.6 mm	8" 200 mm	2" 50 mm	1" 25 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



TM Filtration

OVERVIEW OF 2 PHASE GAS COALESCING



2 PHASE GAS COALESCING FILTERS

SERIES 342, 382, 392,
392H, 392E, 392ER
Patent No. 7,332,010

TM Filtration's two-phase coalescing filter vessels are used where liquid and particulate loadings are not sufficient enough to warrant a three-phase design. TM Filtration's pleated GFC coalescing element ensures maximum removal of liquid and particulate while minimizing expensive change-outs and spare filter purchases.

APPLICATIONS:

Turbine protection
Gas compressor oil & water removal
Delicate instrumentation protection
Meter protection
Liquid removal prior to compressed gas storage
Heat exchanger protection
Air compressor protection



DESIGN INFORMATION:

- Gas radial velocity impacting on the surface area of the coalescing element ≤ 0.5 ft / sec
- Clean pressure drop inlet to outlet ≤ 1 psid Vessels are available in full ANSI class ratings
- All vessels are designed per ASME code Section VIII Div. 1 (Latest addendum)
- ASME "U" Stamp available upon request

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

2 PHASE GAS COALESCING



SERIES 342

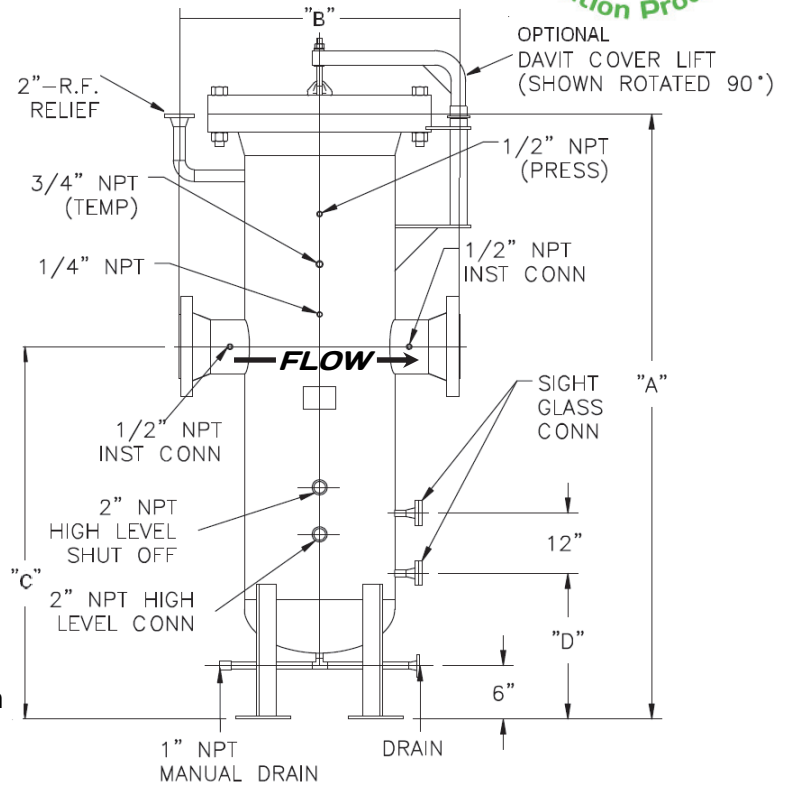
2 Phase Coalescing Filter with Dual O-Ring seal
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir
- Smaller Diameter bolting requirements than standard flange.

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	A	B	C	D	Inlet/Outlet RF	Drain RF	Sight Gauge RF
342-02008	66" 1676.4 mm	21" 533.4 mm	38" 965.2 mm	21" 533.4 mm	2" 50mm	1.5" 40 mm	1" 25 mm
342-03008	66" 1676.4 mm	21" 533.4 mm	38" 965.2 mm	21" 533.4 mm	3" 80 mm	1.5" 40 mm	1" 25 mm
342-04008	66" 1676.4 mm	21" 533.4 mm	38" 965.2 mm	21" 533.4 mm	4" 100 mm	1.5" 40 mm	1" 25 mm
342-04012	68" 1727.2 mm	28" 711.2 mm	40" 1016 mm	21" 533.4 mm	4" 100 mm	2" 50 mm	1" 25 mm
342-06014	70" 1778 mm	32" 812.8 mm	47" 1193.8 mm	21" 533.4 mm	6" 150 mm	2" 50 mm	1" 25 mm
342-06024	72" 1828.8 mm	42" 1066.8 mm	47" 1193.8 mm	22" 558.8 mm	6" 150 mm	2" 50 mm	1" 25 mm
342-08024	80" 2032 mm	42" 1066.8 mm	53" 1346.2 mm	22" 558.8 mm	8" 200 mm	2" 50 mm	1" 25 mm
342-08030	84" 2133.6 mm	48" 1219.2 mm	59" 1498.6 mm	24" 609.6 mm	8" 200 mm	2" 50 mm	1" 25 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

2 PHASE GAS COALESCING



SERIES 382

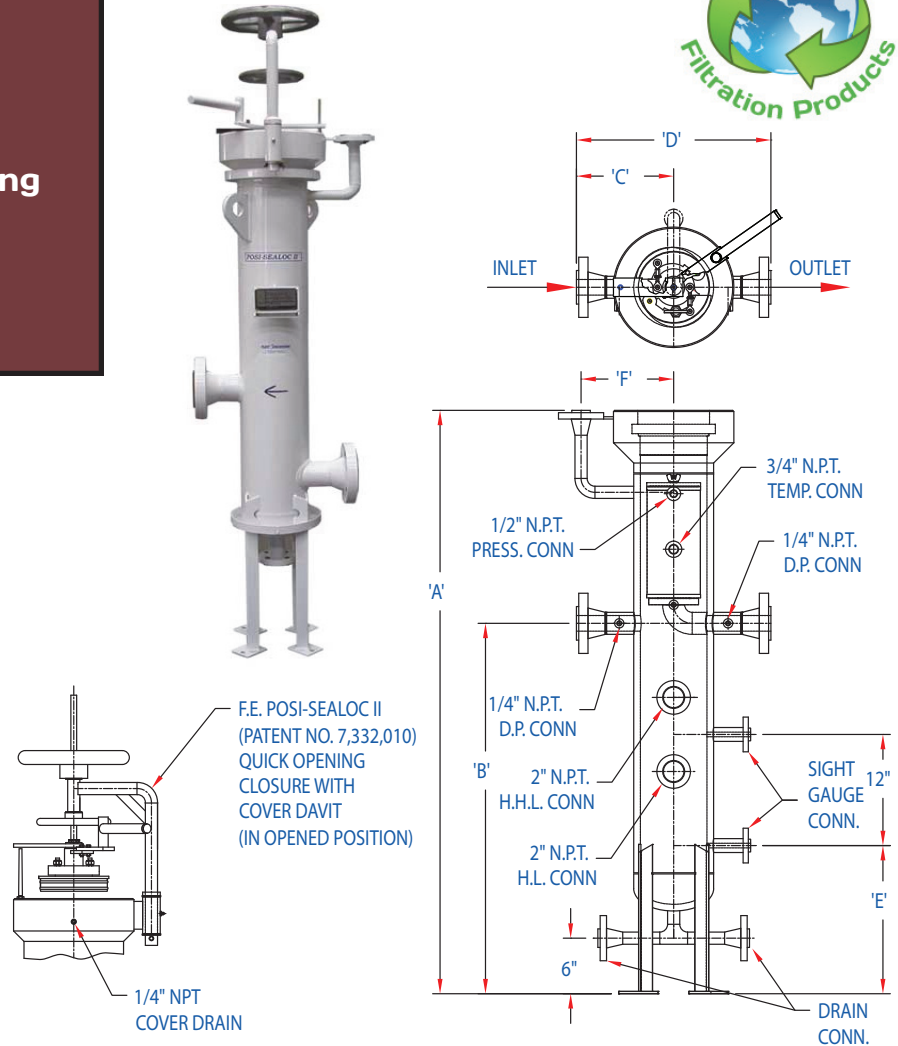
2 Phase Separator/Coalescing Filter with Posi-Sealoc II® Quick Opening Enclosure
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir
- Quick opening cover with no bolts to torque.
- "Pressure Warning Device" (PWD) standard. See Page 10 for more information.

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



SIZE	A	B	C	D	E	F	INLET/ OUTLET 600# R.F.W.N.	DRAIN 600# R.F.W.N.	SIGHT GAUGE 600# R.F.W.N.
382-02008	63.0 in 1600.2 mm	40.0 in 1016.0 mm	10.5 in 266.7 mm	21.0 in 533.4 mm	16.0 in 406.4 mm	10.0 in 254.0 mm	2.0 in 50.8 mm	1.0 in 25.4 mm	1.0 in 25.4 mm
382-03008	64.0 in 1625.6 mm	40.0 in 1016.0 mm	11.5 in 292.1 mm	23.0 in 584.2 mm	16.0 in 406.4 mm	10.0 in 254.0 mm	3.0 in 76.2 mm	1.0 in 25.4 mm	1.0 in 25.4 mm
382-04008	65.0 in 1651.0 mm	40.0 in 1016.0 mm	12.0 in 304.8 mm	24.0 in 609.6 mm	16.0 in 406.4 mm	10.0 in 254.0 mm	4.0 in 101.6 mm	1.0 in 25.4 mm	1.0 in 25.4 mm
382-04012	72.0 in 1828.8 mm	40.0 in 1016.0 mm	14.0 in 355.6 mm	28.0 in 711.2 mm	18.0 in 457.2 mm	11.0 in 279.4 mm	4.0 in 101.6 mm	1.0 in 25.4 mm	1.0 in 25.4 mm
382-06014	77.0 in 1955.8 mm	44.0 in 1117.6 mm	16.0 in 406.4 mm	32.0 in 812.8 mm	18.0 in 457.2 mm	11.0 in 279.4 mm	6.0 in 152.4 mm	1.0 in 25.4 mm	1.0 in 25.4 mm
382-08024	86.0 in 2184.4 mm	50.0 in 1270.0 mm	21.0 in 533.4 mm	42.0 in 1066.8 mm	21.0 in 533.4 mm	16.5 in 419.1 mm	8.0 in 203.2 mm	1.0 in 25.4 mm	1.0 in 25.4 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



2 PHASE GAS COALESCING



SERIES 392

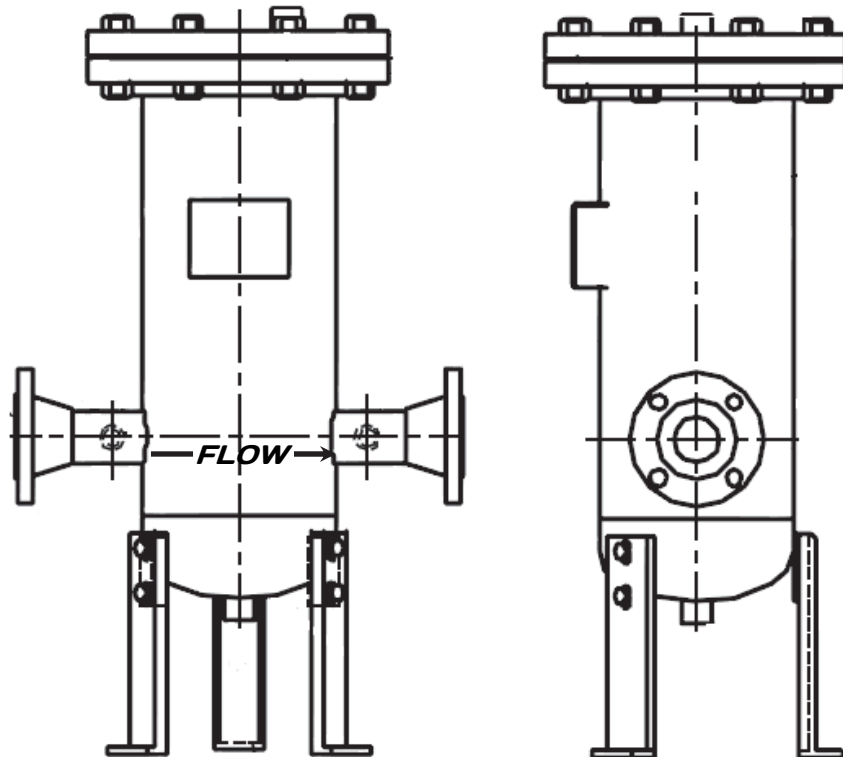
2 Phase Separator/
Coalescing Filter with
Bolted Cover
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



2 PHASE GAS COALESCING



SERIES 392H

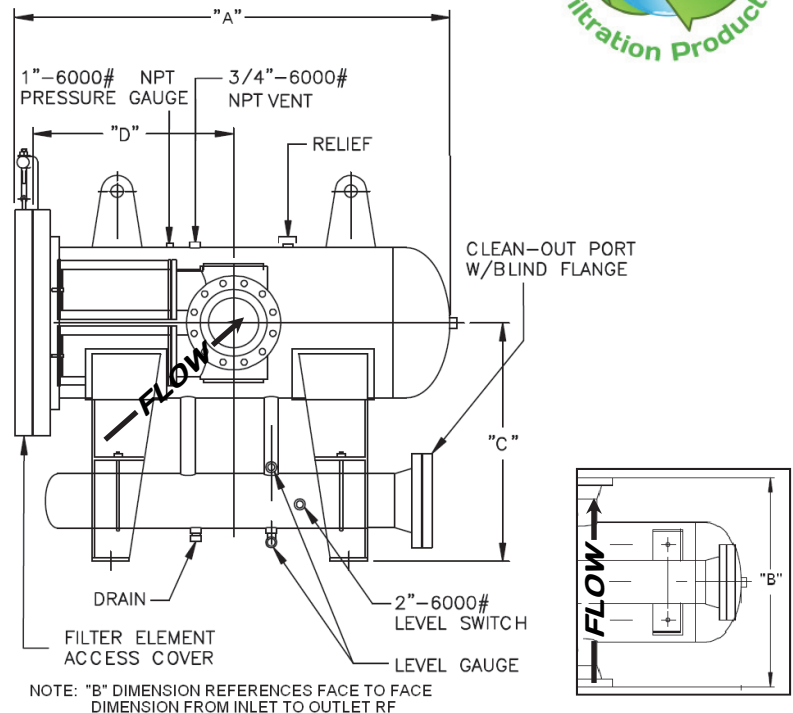
Horizontal 2 Phase Gas Coalescing Filter with Bolted Cover and Reservoir
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. ('U' Stamp available)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir
- Horizontal design

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	A	B	C	D	Inlet/Outlet RF	Drain RF	Sight Gauge	Relief Valve
392H-04024	65" 1651 mm	42" 1066.8 mm	38" 965.2 mm	32" 812.8 mm	4" 100 mm	1" 25 mm	3/4"-NPT	3/4"-NPT
392H-08024	65" 1651 mm	42" 1066.8 mm	38" 965.2 mm	34" 863.6 mm	8" 200 mm	1" 25 mm	3/4"-NPT	3/4"-NPT
392H-08030	70" 1778 mm	48" 1219.2 mm	42" 1066.8 mm	34" 863.6 mm	8" 200 mm	1 1/2" 40 mm	1"-RF 25 mm	2"-RF 50 mm
392H-10030	70" 1778 mm	48" 1219.2 mm	42" 1066.8 mm	35" 889 mm	10" 250 mm	1 1/2" 40 mm	1"-RF 25 mm	2"-RF 50 mm
392H-10032	72" 1828.8 mm	50" 1270 mm	46" 1168.4 mm	35" 889 mm	10" 250 mm	2" 50 mm	1"-RF 25 mm	2"-RF 50 mm
392H-12032	72" 1828.8 mm	50" 1270 mm	46" 1168.4 mm	36" 914.4 mm	12" 300 mm	2" 50 mm	1"-RF 25 mm	2"-RF 50 mm
392H-12048	76" 1930.4 mm	68" 1727.2 mm	60" 1524 mm	38" 965.2 mm	12" 300 mm	2" 50 mm	1"-RF 25 mm	2"-RF 50 mm
392H-14048	76" 1930.4 mm	68" 1727.2 mm	60" 1524 mm	40" 1016 mm	14" 350 mm	2" 50 mm	1"-RF 25 mm	2"-RF 50 mm

Notes: Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



LOW COST 2 PHASE GAS COALESCING

SERIES 392E

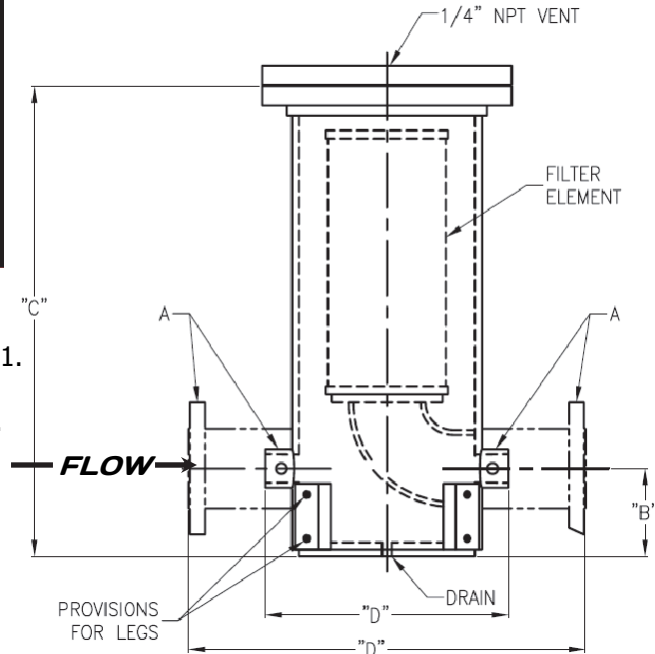
**2 Phase Coalescing Filter
270 PSIG* with Bolted Cover
Patent No. 7,332,010**

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. (No 'U' Stamp)
- Dimensional drawings available upon request.
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	Inlet/Outlet "A"	"B"	"C"	"D" Dia.	Drain
392E-01006-100-03XX	1" NPT	4" 101.6mm	22" 558.8mm	11" 279.4mm	1/2" NPT
392E-01506-100-03XX	1 1/2" NPT	4" 101.6mm	22" 558.8mm	12" 304.8mm	1/2" NPT
392E-02006-10-03XX	2" NPT	4" 101.6mm	22" 558.8mm	12.5" 317.5mm	1/2" NPT
392E-01006-100-01XX	1"-150# RF 25mm	4" 101.6mm	22" 558.8mm	12" 304.8mm	1/2" NPT
392E-02006-10-01XX	2"-150# RF 50mm	4" 101.6mm	22" 558.8mm	12" 304.8mm	1/2" NPT
392E-03006-10-01XX	3"-150# RF 75mm	4" 101.6mm	22" 558.8mm	12" 304.8mm	1/2" NPT
392E-04008-11-01XX	4"-150# RF 100mm	5" 127 mm	23" 584.2mm	16" 406.4mm	1/2" NPT
392E-06008-11-01XX	6"-150# RF 150mm	6" 152.4mm	24" 609.6mm	16" 406.4mm	1/2" NPT
392E-04012-14-01XX	4"-150# RF 100mm	6 152.4mm	31 787.4mm	20" 508mm	1" NPT
392E-06012-14-01XX	6"-150# RF 150mm	6 152.4mm	31 787.4mm	20" 508mm	1" NPT

Note: * Carbon Steel@150 °F, XX designates material of construction. 02 = 304 Stainless Steel, 03 = 316 Stainless Steel, 11 = Carbon Steel. Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



LOW COST 2 PHASE GAS COALESCING

SERIES 392E

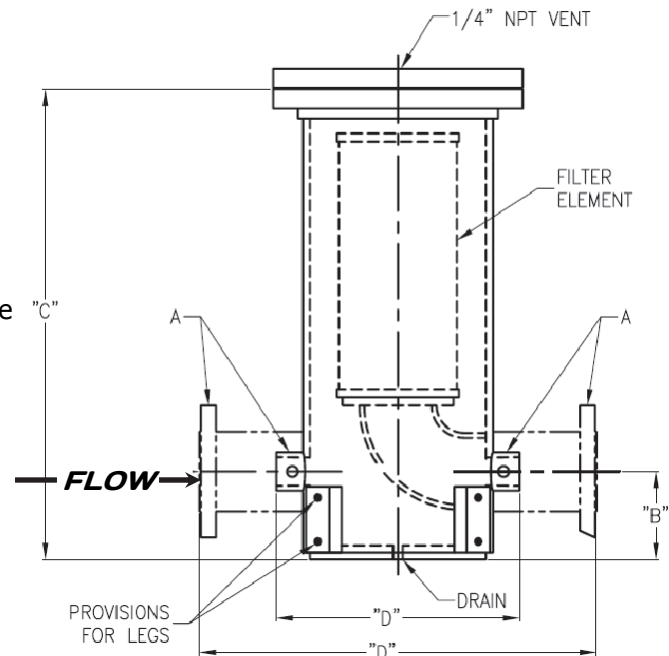
**2 Phase Coalescing Filter
675 PSIG* with Bolted Cover
Patent No. 7,332,010**

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. (No 'U' Stamp)
- Dimensional drawings available upon request.
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	Inlet/Outlet "A"	"B"	"C"	"D" Dia.	Drain
392E-01006-300-01XX	1"-300# RF 25mm	4" 101.6mm	22" 558.8mm	16" 406.4mm	1/2" NPT
392E-02006-30-01XX	2"-300# RF 50mm	4" 101.6mm	22" 558.8mm	16" 406.4mm	1/2" NPT
392E-03006-30-01XX	3"-300# RF 75mm	4" 101.6mm	22" 558.8mm	16" 406.4mm	1/2" NPT
392E-04008-31-01XX	4"-300# RF 100mm	5" 127 mm	23" 584.2mm	20" 508mm	1/2" NPT
392E-06008-31-01XX	6"-300# RF 150mm	6" 152.4mm	24" 609.6mm	20" 508mm	1/2" NPT
392E-04012-34-01XX	4"-300# RF 100mm	6 152.4mm	31 787.4mm	24" 609.6mm	1" NPT
392E-06012-34-01XX	6"-300# RF 150mm	6 152.4mm	31 787.4mm	24" 609.6mm	1" NPT

Note: * Carbon Steel@150 °F, XX designates material of construction. 02 = 304 Stainless Steel, 03 = 316 Stainless Steel, 11 = Carbon Steel. Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



LOW COST 2 PHASE GAS COALESCING



SERIES 392ER

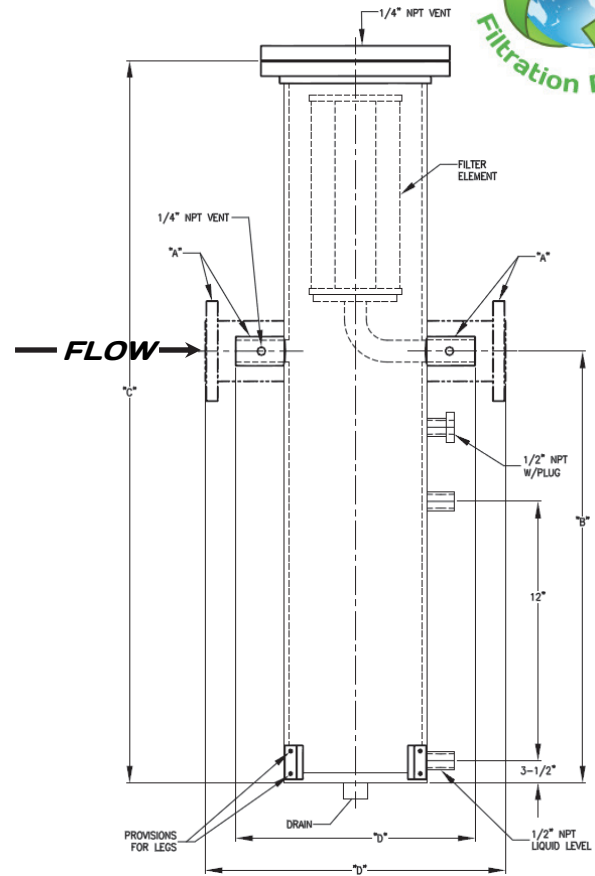
2 Phase Coalescing Filter
270 PSIG* with Bolted Cover
and Reservoir
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. (No 'U' Stamp)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



Partial Model Code	Inlet/Outlet "A"	"B"	"C"	"D" Dia.	Drain
392ER-01006-100-03XX	1" NPT	24" 609.6mm	42" 1066.8mm	11" 279.4mm	1/2" NPT
392ER-01506-100-03XX	1-1/2" NPT	24" 609.6mm	42" 1066.8mm	12" 304.8mm	1/2" NPT
392ER-02006-10-03XX	2" NPT	24" 609.6mm	42" 1066.8mm	12.5" 317.5mm	1/2" NPT
392ER-01006-100-01XX	1"-150# RF 25mm	24" 609.6mm	42" 1066.8mm	12" 304.8mm	1/2" NPT
392ER-02006-10-01XX	2"-150# RF 50mm	24" 609.6mm	42" 1066.8mm	12" 304.8mm	1/2" NPT
392ER-03006-10-01XX	3"-150# RF 75mm	24" 609.6mm	42" 1066.8mm	12" 304.8mm	1/2" NPT
392ER-04008-11-01XX	4"-150# RF 100mm	25" 635mm	43" 1092.2mm	16" 406.4mm	1/2" NPT
392ER-06008-11-01XX	6"-150# RF 150mm	26" 660.4mm	44" 1117.6mm	16" 406.4mm	1/2" NPT
392ER-04012-14-01XX	4"-150# RF 100mm	26" 660.4mm	51" 1295.4mm	20" 508mm	1" NPT
392ER-06012-14-01XX	6"-150# RF 150mm	26" 660.4mm	51" 1295.4mm	20" 508mm	1" NPT

Note: * Carbon Steel@150 °F, XX designates material of construction. 02 = 304 Stainless Steel, 03 = 316 Stainless Steel, 11 = Carbon Steel. Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



LOW COST 2 PHASE GAS COALESCING



SERIES 392ER

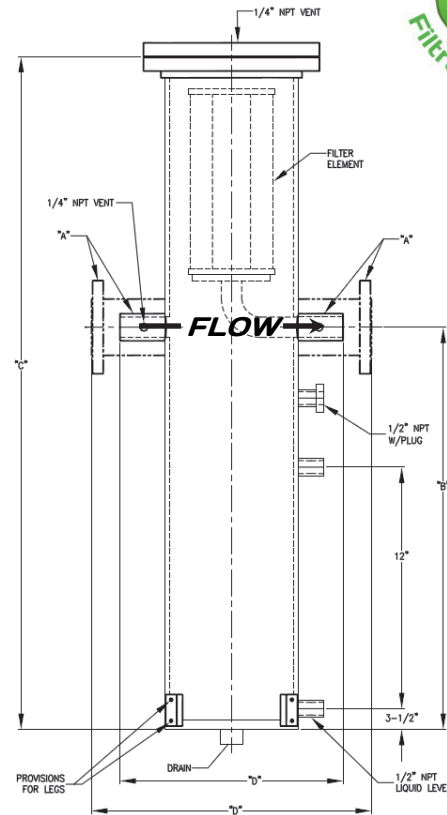
**2 Phase Coalescing Filter
675 PSIG* with Bolted Cover
and Reservoir
Patent No. 7,332,010**

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. (No 'U' Stamp)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals
- Built in Reservoir

Filter Element:

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



PARTIAL MODEL NUMBER	INLET/OUTLET "A"	"B"	"C"	"D" DIA.	DRAIN
392ER-01006-300-03XX	1" NPT	24" 609.6mm	42" 1066.8mm	11" 279.4mm	1/2" NPT
392ER-01506-300-03XX	1-1/2" NPT	24" 609.6mm	42" 1066.8mm	12" 304.8mm	1/2" NPT
392ER-02006-30-03XX	2" NPT	24" 609.6mm	42" 1066.8mm	12.5" 317.5mm	1/2" NPT
392ER-01006-300-01XX	1"-300# RF 25mm	24" 609.6mm	42" 1066.8mm	16" 406.4mm	1/2" NPT
392ER-02006-30-01XX	2"-300# RF 50mm	24" 609.6mm	42" 1066.8mm	16" 406.4mm	1/2" NPT
392ER-03006-30-01XX	3"-300# RF 75mm	24" 609.6mm	42" 1066.8mm	16" 406.4mm	1/2" NPT
392ER-04008-31-01XX	4"-300# RF 100mm	25" 635mm	43" 1092.2mm	20" 508mm	1/2" NPT
392ER-06008-31-01XX	6"-300# RF 150mm	26" 660.4mm	44" 1117.6mm	20" 508mm	1/2" NPT
392ER-04012-34-01XX	4"-300# RF 100mm	26" 660.4mm	51" 1295.4mm	24" 609.6mm	1" NPT
392ER-06012-34-01XX	6"-300# RF 150mm	26" 660.4mm	51" 1295.4mm	24" 609.6mm	1" NPT

Note: * Carbon Steel@150 °F, XX designates material of construction. 02 = 304 Stainless Steel, 03 = 316 Stainless Steel, 11 = Carbon Steel. Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



LOW COST 2 PHASE GAS COALESCING



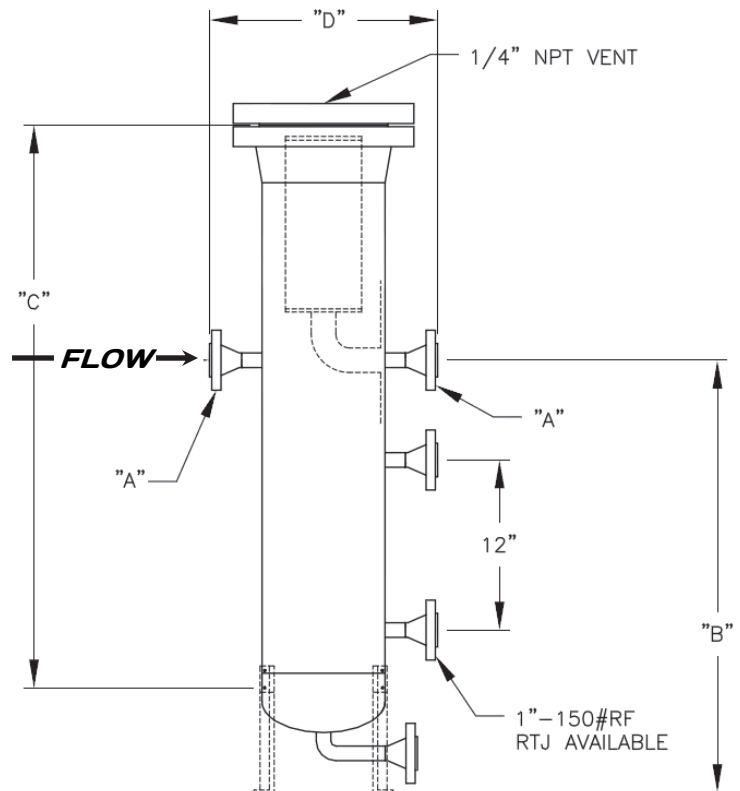
SERIES 392ER
2 Phase Coalescing Filter
3550 PSIG* with Bolted Cover and Reservoir
Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. (No 'U' Stamp)
- Coalescing filter incorporates a filtration level of 3 micron.
- Provisions for legs
- Buna-N seals

Filter Element

- GFC pleated cleanable coalescing filter elements, with "New Flow Technology" out to in design.



PARTIAL MODEL NUMBER	INLET/OUTLET "A"	"B"	"C"	"D"	DRAIN
392ER-01006-1500-01XX	1"-1500# RF	24"	42"	20"	1/2" NPT
	25mm 2500# RF	609 mm	1066.8mm	508mm	
392ER-02006-150-01XX	2"-1500# RF	24"	42"	22"	1/2" NPT
	50mm 2500# RF	609 mm	1066.8mm	558.8mm	
392ER-03006-150-01XX	3"-1500# RF	24"	42"	24"	1/2" NPT
	75mm 2500# RF	609 mm	1066.8mm	609.6mm	
392ER-04008-151-01XX	4"-1500# RF	24"	42"	28"	1/2" NPT
	100mm 2500# RF	609 mm	1066.8mm	711.2mm	

Note: * Carbon Steel@150 °F, XX designates material of construction. 02 = 304 Stainless Steel, 03 = 316 Stainless Steel, 11 = Carbon Steel. Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



RGF CLEANABLE FINE PARTICULATE FILTER ELEMENTS FOR GAS OR LIQUID



SERIES "RGF"

Fine Particulate Filter Elements for Gas or Liquid with Posi-Sealoc II® or bolted cover and "Out to In" flow path

Patent Pending



APPLICATIONS

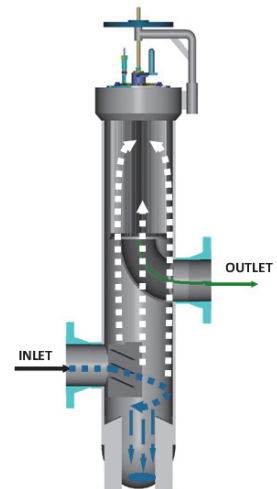
- Natural Gas Compressors
- Turbine Protection
- Water Pre-Filtration Systems
- Process Filtration
- Petrochemical / Biomass
- Pharmaceutical Reclamation

FILTRATION

2, 5, 10, 25 or 50 microns filtration Nominal (XX)

DESIGN INFORMATION

- Maximum operating temperature 290°F (143°C)
- Resilient Back-flushable element (Air, Gas, Water, Steam)
- Designed for low pressure drop
- Stackable design to meet any desired flow rate
- "Out to In" Flow Path for large contaminant holding capacity
- RGF Element are interchangeable with same size GFC Coalescing Elements



ELEMENT NO	OD IN / MM	ID IN / MM	LENGTH IN / MM	SURFACE AREA FT ² / CM ²
991-RGF-XX-1	5.53 / 140.5	3.53 / 89.7	12 / 304.8	2.57 / 2387
991-RGF-XX-4	9.56 / 243.0	6.65 / 169.0	18 / 457.2	7.97 / 7400
991-RGF-XX-5	15.75 / 400.0	13.00 / 330.2	18 / 457.2	14.26 / 13,245

Notes: Dimensions are subject to change without notice. Other Materials of construction are available. Please consult the TM Sales Department or your local sales representative for certified drawings or to discuss interchangeability with GFC Elements.

COMPONENTS	MATERIAL	PURPOSE
OUTER PLEATED MESH SCREEN	316 SS METALLIC SCREEN	IMPACT PROTECTION - COURSE FILTRATION
PLEATED FILTER	316 SS METALLIC FILTER LAYER	PARTICULATE FINE FILTRATION
INNER PLEATED MESH SCREEN	316 SS METALLIC SCREEN	COURSE FILTRATION (FOR BACKFLUSH)
PERF	316 SS METAL	RE-ENFORCEMENT SUPPORT
END CAPS	POLYURETHANE	RIGIDITY, SEALING SURFACE

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



BACK FLUSHABLE GAS OR LIQUID FINE PARTICULATE SIMPLEX/DUPLEX SYSTEMS

SERIES 311/312 & 311P & 312P

Back Flushable Fine Particulate Filter Systems utilizing the "RGF" Elements

Patent Pending



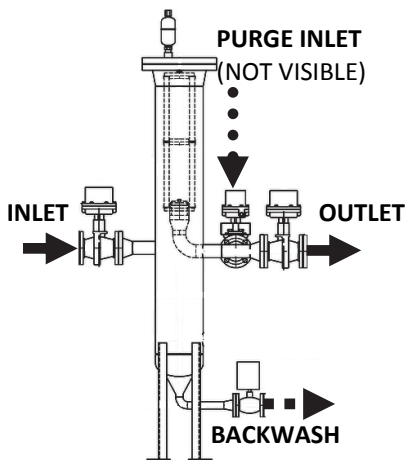
APPLICATIONS

- Natural Gas Compressors
- Turbine Protection
- Water Pre-Filtration Systems
- Process Filtration
- Petrochemical / Biomass
- Pharmaceutical Reclamation

DESIGN INFORMATION

- Vessels of Carbon Steel, Stainless Steel, or other materials.
- Pressure ranges ANSI 150#, 300#, 600#, 900#, 1500# or 2500#
- Resilient Back-flushable Cleaning System utilizing; Air, Gas, Water
- Optional Control Panel (Cleaning initiated by Timer with DP Override)
- Optional Manual Change-over valves (Automatic Valves shown)
- Safety Interlocks to reduce the opportunity of pressurizing an open vessel
- Optional Posi-Sealoc II™ Quick Opening cover (311P/312P)

SERIES 311: SIMPLEX DESIGN



COVER OPTIONS:

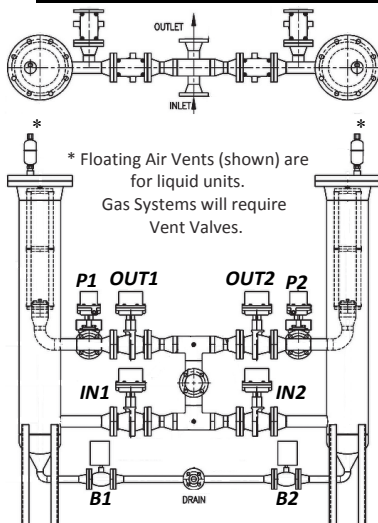


STANDARD SIMPLEX VALVE ACTUATION SEQUENCE ¹⁾

VALVE DESCRIPTION	STANDARD OPERATION	CLEANING CYCLE
INLET	OPEN	CLOSED
OUTLET	OPEN	CLOSED
BACKWASH / BLOWDOWN	CLOSED	OPEN
PURGE	CLOSED	OPEN

1) DEPENDANT ON MEDIA TYPE AND APPLICATION PARAMETERS. OTHER VALVES MAY BE NECESSARY. PLEASE CONSULT THE FACTORY FOR MORE DETAILED INFORMATION.

SERIES 312: DUPLEX DESIGN



STANDARD DUPLEX VALVE ACTUATION SEQUENCE ²⁾

VALVE DESCRIPTION	STANDARD OPERATION (VESSEL 1 FILTERING)	CLEANING CYCLE (VESSEL 1 CLEANING)	POST CLEAN (PENDING SWITCH)
INLET (IN1)	OPEN	CLOSED	CLOSED
OUTLET (OUT1)	OPEN	CLOSED	CLOSED
BACKWASH / BLOWDOWN (B1)	CLOSED	OPEN	CLOSED
PURGE (P1)	CLOSED	OPEN	CLOSED
INLET (IN2)	CLOSED	OPEN	OPEN
OUTLET (OUT2)	CLOSED	OPEN	OPEN
BACKWASH / BLOWDOWN (B2)	CLOSED	CLOSED	CLOSED
PURGE (P2)	CLOSED	CLOSED	CLOSED

2) DEPENDANT ON MEDIA TYPE AND APPLICATION PARAMETERS. OTHER VALVES MAY BE NECESSARY. PLEASE CONSULT THE FACTORY FOR MORE DETAILED INFORMATION.

Notes: Vessel Material, Connections, Available Options, and Dimensions are customizable.. Option availability is subject to change without notice. Consult the TM Sales Department or your local sales representative for more information.



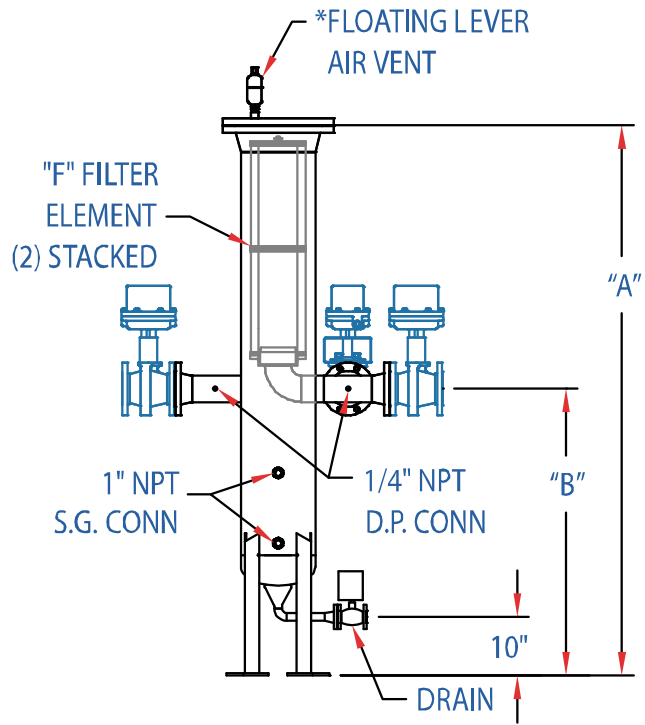
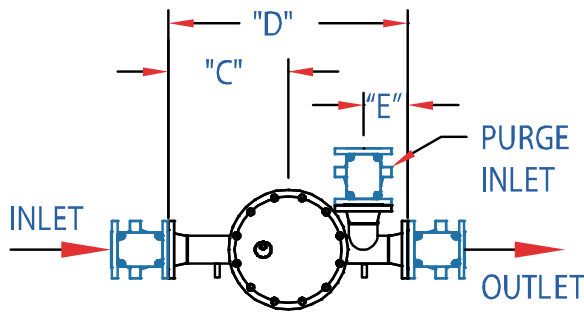
BACK FLUSHABLE GAS OR LIQUID FINE PARTICULATE SIMPLEX SYSTEMS



SERIES 311 & 311P

Back Flushable Fine Particulate Filter Systems utilizing the "RGF" Elements

Patent Pending



*Floating lever air vents are for liquid units.
Gas systems will require vent valves

SIZE	A	B	C	D	E	F	INLET/OUTLET 150# R.F.	PURGE INLET 150# R.F.	DRAIN 150# R.F.
311-01008	74	41	10	22	3-1/2	RGF-1	1"	1"	1"
311-01508	75	41	14	24	4-3/4	RGF-1	1-1/2"	1"	1"
311-02008	77	43	15	26	5-1/8	RGF-1	2"	1"	1"
311-03012	94	44	14	34	8	RGF-4	3"	1-1/2"	1-1/2"
311-04012	94	44	14	34	8	RGF-4	4"	1-1/2"	1-1/2"
311-06020	102	45	19	45	9	RGF-5	6"	1-1/2"	1-1/2"
311-08020	108	49	20	49	10	RGF-5	8"	2"	2"
SIZE	A	B	C	D	E	F	INLET/OUTLET 300# R.F.	PURGE INLET 300# R.F.	DRAIN 300# R.F.
311-01008	74	41	10	22	3-3/4	RGF-1	1"	1"	1"
311-01508	75	41	14	24	5	RGF-1	1-1/2"	1"	1"
311-02008	77	43	15	26	5-3/8	RGF-1	2"	1"	1"
311-03012	94	44	14	34	8	RGF-4	3"	1-1/2"	1-1/2"
311-04012	94	44	14	34	8	RGF-4	4"	1-1/2"	1-1/2"
311-06020	102	45	19	45	9	RGF-5	6"	1-1/2"	1-1/2"
311-08020	108	49	20	49	11	RGF-5	8"	2"	2"

Notes: Dimensions are subject to change without notice. Other materials of construction are available. Please consult the TM Sales Department or your local sales representative for certified drawings.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



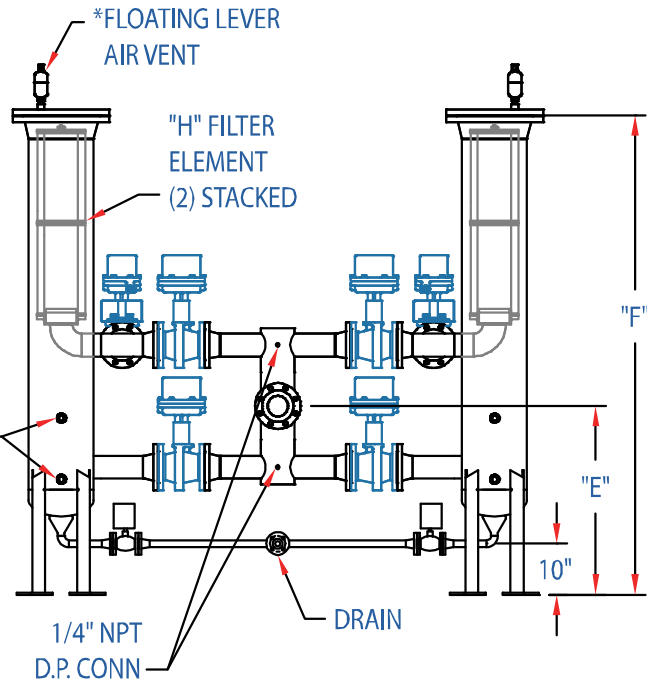
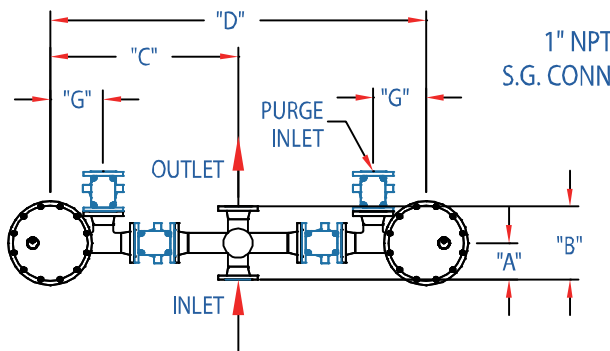
BACK FLUSHABLE GAS OR LIQUID FINE PARTICULATE DUPLEX SYSTEMS



SERIES 312 & 312P

Back Flushable Fine Particulate Filter Systems utilizing the "RGF" Elements

Patent Pending



*Floating lever air vents are for liquid units. Gas systems will require vent valves

SIZE	A	B	C	D	E	F	G	H	INLET/OUTLET 150# R.F.	PURGE INLET 150# R.F.	DRAIN 150# R.F.
312-01008	6	12	24	48	33	74	8	RGF-1	1"	1"	1"
312-01508	7	14	27	54	33	75	8	RGF-1	1-1/2"	1"	1"
312-02008	7	14	30	60	37	82	9	RGF-1	2"	1"	1"
312-03012	8	16	32	64	43	108	11	RGF-4	3"	1-1/2"	1-1/2"
312-04012	9.5	19	33	66	44	110	11	RGF-4	4"	1-1/2"	1-1/2"
312-06020	12	24	42	84	47	122	17	RGF-5	6"	1-1/2"	1-1/2"
312-08020	13	26	48	96	53	130	18	RGF-5	8"	2"	2"
SIZE	A	B	C	D	E	F	G	H	INLET/OUTLET 300# R.F.	PURGE INLET 300# R.F.	DRAIN 300# R.F.
312-01008	6	12	24	48	33	74	8	RGF-1	1"	1"	1"
312-01508	7	14	28	56	33	75	8-1/2	RGF-1	1-1/2"	1"	1"
312-02008	7	14	20	60	37	82	9	RGF-1	2"	1"	1"
312-03012	8	16	32	64	43	108	12	RGF-4	3"	1-1/2"	1-1/2"
312-04012	9.5	19	33	66	44	110	12	RGF-4	4"	1-1/2"	1-1/2"
312-06020	12	24	42	84	47	122	17	RGF-5	6"	1-1/2"	1-1/2"
312-08020	13	26	48	96	53	130	18	RGF-5	8"	2"	2"

Notes: Dimensions are subject to change without notice. Other materials of construction are available. Please consult the TM Sales Department or your local sales representative for certified drawings.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



RGFHT CLEANABLE HIGH TEMPERATURE FINE PARTICULATE FILTER ELEMENTS FOR GAS OR LIQUID



SERIES "RGFHT"

Fine Particulate Filter Elements
for Hot Gas or Hot Liquid with
bolted covers and "Out to In"
flow path

Patent Pending

APPLICATIONS

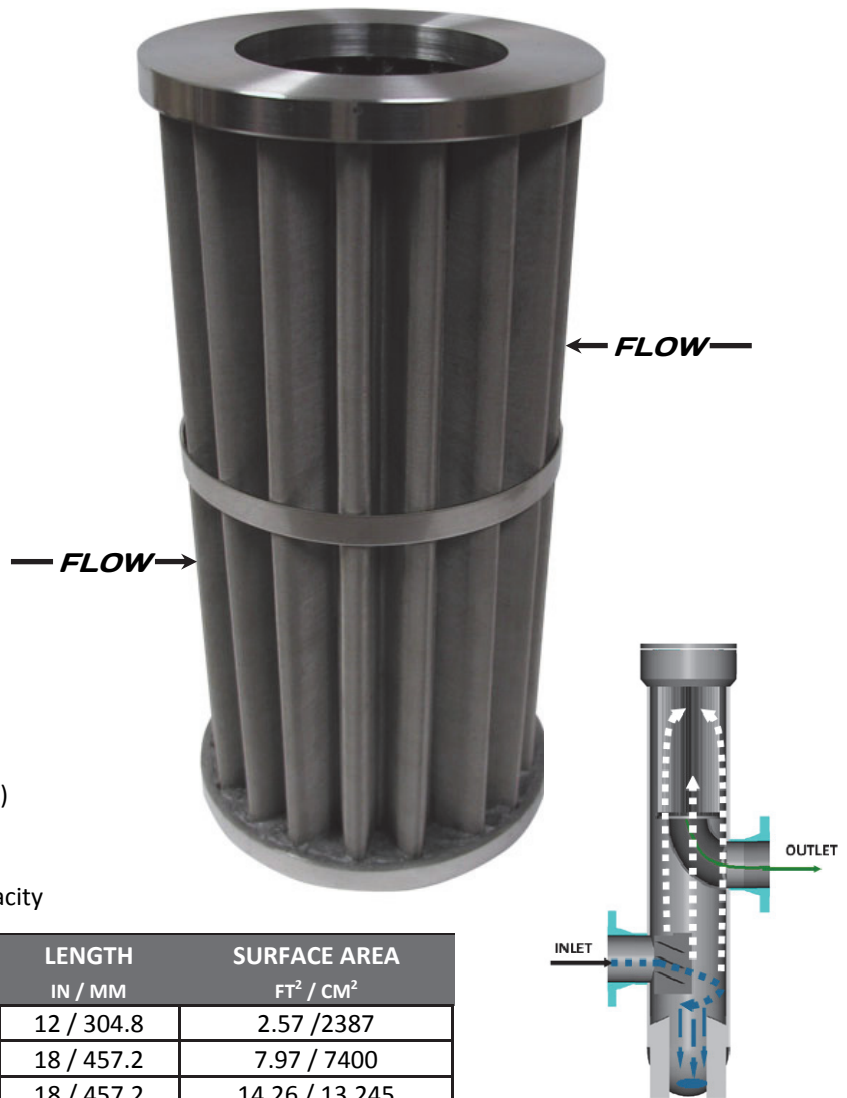
- Gasification Systems (IGCC, BIOMASS, etc)
- Pyrolysis, Combustion, and Catalytic processes
- Municipal Solid Waste Incineration
- Hot Water Filtration
- Petrochemical
- Pharmaceutical
-

FILTRATION

2, 5, 10, 25 or 50 microns filtration Nominal (XX)

DESIGN INFORMATION

- Maximum operating temperature **1500°F (815°C)**
- Resilient Back-flushable element (Air, Gas, Water, Steam)
- Designed for low pressure drop
- Stackable design to meet any desired flow rate
- "Out to In" Flow Path for large contaminant holding capacity



ELEMENT NO	OD	ID	LENGTH	SURFACE AREA
	IN / MM	IN / MM	IN / MM	FT ² / CM ²
991-RGFHT-XX-1	5.53 / 140.5	3.53 / 89.7	12 / 304.8	2.57 / 2387
991-RGFHT-XX-4	9.56 / 243.0	6.65 / 169.0	18 / 457.2	7.97 / 7400
991-RGFHT-XX-5	15.75 / 400.0	13.00 / 330.2	18 / 457.2	14.26 / 13,245

Notes: Dimensions are subject to change without notice. Other Materials of construction are available. Please consult the TM Sales Department or your local sales representative for certified drawings or to discuss interchangeability with GFC Elements.

COMPONENTS	MATERIAL	PURPOSE
OUTER PLEATED MESH SCREEN	316 SS METALLIC SCREEN	IMPACT PROTECTION - COURSE FILTRATION
PLEATED FILTER	316 SS METALLIC FILTER LAYER	PARTICULATE FINE FILTRATION
INNER PLEATED MESH SCREEN	316 SS METALLIC SCREEN	COURSE FILTRATION (FOR BACKFLUSH)
PERF	316 SS METAL	RE-ENFORCEMENT SUPPORT
END CAPS	316 SS METAL	RIGIDITY, SEALING SURFACE

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

HIGH TEMP BACK FLUSHABLE GAS OR LIQUID FINE PARTICULATE SIMPLEX/DUPLEX SYSTEM

SERIES 371 & 372
Back Flushable Fine Particulate Filter Systems utilizing the "RGFHT" Elements
Patent Pending



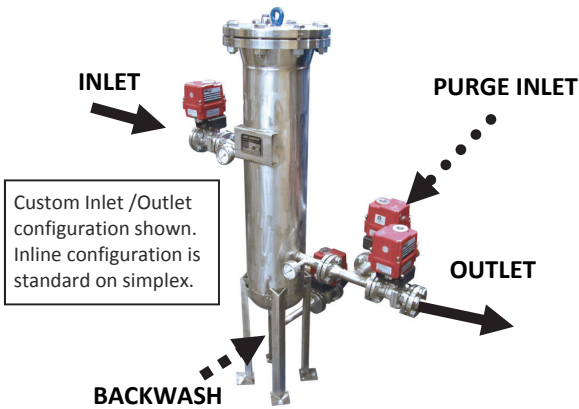
APPLICATIONS

- Gasification Systems (IGCC, BIOMASS, etc)
- Pyrolysis, Combustion, and Catalytic processes
- Municipal Solid Waste Incineration
- Hot Water Filtration

DESIGN INFORMATION

- Vessels of Carbon Steel , Stainless Steel, or other materials .
- Pressure ranges ANSI 150#, 300#, 600#, 900#, 1500# or 2500#
- Resilient Back-flushable Cleaning System utilizing; Air, Gas, Water
- Optional Control Panel (Cleaning initiated by Timer with DP Over-ride)
- Optional Manual Change-over valves (Automatic Valves shown)
- Safety Interlocks to reduce the opportunity of pressurizing an open vessel

SERIES 371: SIMPLEX DESIGN

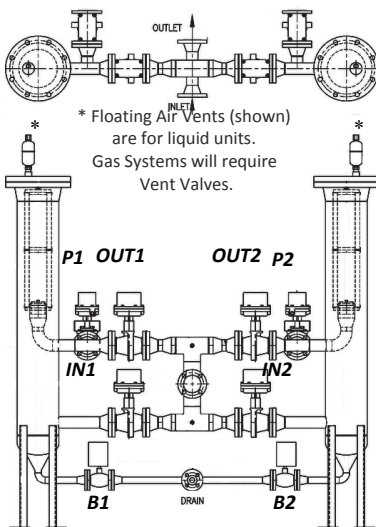


STANDARD SIMPLEX VALVE ACTUATION SEQUENCE ¹⁾

VALVE DESCRIPTION	STANDARD OPERATION	CLEANING CYCLE
INLET	OPEN	CLOSED
OUTLET	OPEN	CLOSED
BACKWASH / BLOWDOWN	CLOSED	OPEN
PURGE	CLOSED	OPEN

1) DEPENDANT ON MEDIA TYPE AND APPLICATION PARAMETERS. OTHER VALVES MAY BE NECESSARY. PLEASE CONSULT THE FACTORY FOR MORE DETAILED INFORMATION.

SERIES 372: DUPLEX DESIGN



STANDARD DUPLEX VALVE ACTUATION SEQUENCE ²⁾

VALVE DESCRIPTION	STANDARD OPERATION (VESSEL 1 FILTERING)	CLEANING CYCLE (VESSEL 1 CLEANING)	POST CLEAN (PENDING SWITCH)
INLET (IN1)	OPEN	CLOSED	CLOSED
OUTLET (OUT1)	OPEN	CLOSED	CLOSED
BACKWASH / BLOWDOWN (B1)	CLOSED	OPEN	CLOSED
PURGE (P1)	CLOSED	OPEN	CLOSED
INLET (IN2)	CLOSED	OPEN	OPEN
OUTLET (OUT2)	CLOSED	OPEN	OPEN
BACKWASH / BLOWDOWN (B2)	CLOSED	CLOSED	CLOSED
PURGE (P2)	CLOSED	CLOSED	CLOSED

2) DEPENDANT ON MEDIA TYPE AND APPLICATION PARAMETERS. OTHER VALVES MAY BE NECESSARY. PLEASE CONSULT THE FACTORY FOR MORE DETAILED INFORMATION.

Notes: Vessel Material, Connections, Available Options, and Dimensions are customizable.. Option availability is subject to change without notice. Consult the TM Sales Department or your local sales representative for more information.



SIMPLEX GAS STRAINER

SERIES 120

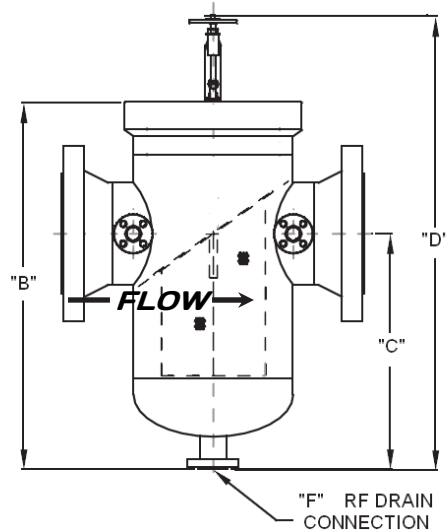
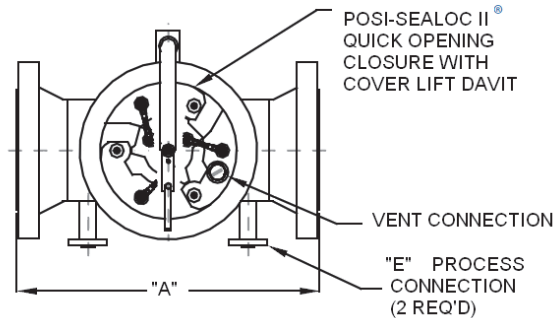
Gas Strainer with Posi-Sealoc II® Quick Opening Closure with bottom drain
 Patent No. 7,332,010

Standards:

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. No "U" Stamp ('U' stamp available as option)
- Provisions for legs
- Buna-N seals
- Flat bottoms with side drain available option.
- Standard "Pressure Warning Device" (PWD)
 See *Page 10 for more information.*

Straining/Filtration:

- High flow mesh basket with filtration to 25 micron



SIZE CONNECTION *	"A"	"B"	"C"	"D"	"E" *	"F" *
4" RF 100mm	24" 609.6mm	26" 660.4mm	16" 406.4mm	37" 939.8mm	1" RF 25mm RF	2" RF 50mm RF
6" RF 150mm	28" 711.2mm	31.5" 800.1mm	18.5" 469.9mm	42.5" 1079.5mm	1" RF 25mm RF	2" RF 50mm RF
8" RF 200mm	32" 812.8mm	36.16" 918.5mm	22.5" 571.5mm	47.5" 1206.5mm	1" RF 25mm RF	2" RF 50mm RF
10" RF 250mm	33" 838.2mm	41.5" 1054.1mm	26.5" 673.4mm	52.5" 1333.5mm	1" RF 25mm RF	2" RF 50mm RF
12" RF 300mm	38" 965.2mm	46" 1168.4mm	29.5" 749.3	58" 1473.2mm	1" RF 25mm RF	2" RF 50mm RF
16" RF 400mm	42" 1066.8mm	52" 1320.8mm	32.5" 825.5mm	64" 1625.6mm	1" RF 25mm RF	2" RF 50mm RF

Note: * = Options for 150#, 300#, 600#, 900#, 1500# or 2500# RF connections. Body material, connections, available options, and dimensions are completely customizable. Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



FINE GAS STRAINER

SERIES 132

**Fine Gas Strainer/
Polisher with
Posi-Sealoc II ®
Quick Opening Closure
and bottom drain
Patent No. 7,332,010**



**CONVOLUTED BASKET
PROVIDES LARGER OPEN AREA
FOR BETTER FILTRATION**

APPLICATIONS

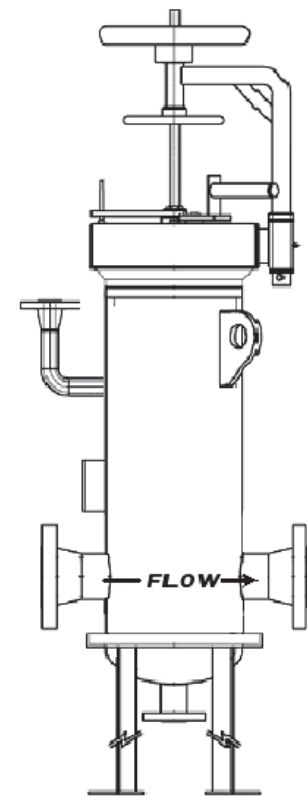
- Natural Gas Compressor stations
- Skid Filtrations Systems
- Fine Water Filtration Systems

STRAINING / FILTRATION

- High flow Convoluted Dutch Weave Mesh basket with filtration to 2 micron (nominal) (Options for other meshes)

DESIGN INFORMATION

- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. 'U' Stamp available)
- Posi-Sealoc II ® Quick Opening Closure
- Provisions for legs
- Buna-N seals
- Maximum Temperature rating for Basket 290°F
- Standard Pressure Warning Device (PWD)
- Pressure ranges ANSI 150#, 300#, 600#, 900#, 1500# or 2500#
- Seal material, Vessel material, Dimensions, and Coatings may be customized.



Notes: Body material, connections, available options, and dimensions are completely customizable. Options availability is subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

TEMPORARY CONICAL GAS STRAINERS

SERIES CRS & CRL

TEMPORARY CONICAL GAS REVERSE FLOW STRAINERS

CRS (Short) & CRL (Long)

Temporary (Conical) Strainers are very low cost pipeline strainers that are designed for new system start-up. They offer protection for process equipment against damage causing contamination present during start-up and commissioning.

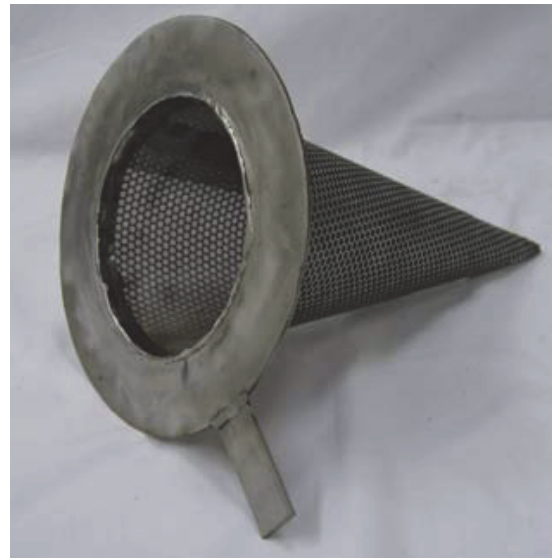
Applications:

Temporary protection during new system start up and system change outs.

Since these strainers are temporary, they need to be installed in a section of pipe such as a removable spool piece. These units should be removed and thrown away after the initial cleaning of the system.

DESIGN INFORMATION

- Conical strainers can be manufactured in a range of different configurations to suit your specific requirements.
- Conical strainers can be supplied in 304 stainless steel, 316 stainless steel, monel, or other materials.



Notes: Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



EXTENDED DUTY HIGH PRESSURE CONICAL GAS STRAINERS

SERIES CRL-HP

Extended Duty - Reverse Flow Conical Strainers for Compressed Gas Applications with High Solid Loading potential



The **CRL-HP** is ideal for long term particulate protection of gas production and distribution systems that have the potential for high solid loading.

Our robust design of the **CRL-HP** allows the unit to withstand differential pressures of up to 75 PSID.

These strainers are installed by sandwiching it between two flanges in a removable section of pipe, such as a spool piece.

The differential pressure across this strainer should be monitored to indicate when the strainer should be removed from the system and cleaned.

APPLICATIONS

- Extended protection of Natural or Shale Gas process equipment

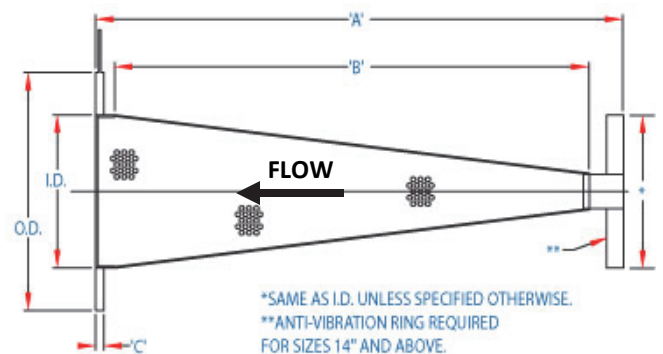
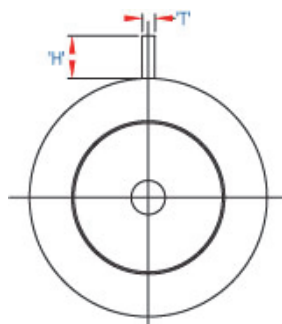
FILTRATION

Wire mesh available in a multitude of options. Please contact the factory for more information.

MATERIALS OF CONSTRUCTION

316 Stainless Steel is standard. Please consult the factory for other material options

SIZE	300 LB O.D.	300 LB I.D.	600 LB O.D.	600 LB I.D.	OVERALL 'A'	SCREEN 'B'	'C'	300# LBS	600# LBS	'H'	'T'
4"	6-7/8"	3-1/2"	7-3/8"	3-1/2"	12-5/8"	11-1/2"	1/2"	5	6	2-1/2"	3/4"
5"	8-1/4"	4-5/8"	9-1/4"	4-5/8"	15-1/8"	14"	1/2"	7	9	2-1/2"	3/4"
6"	9-5/8"	5-1/2"	10-1/4"	5-1/2"	18-1/8"	17"	1/2"	9	10	2-1/2"	3/4"
8"	11-7/8"	7-1/8"	12-3/4"	7-1/8"	24-1/8"	23"	1/2"	13	15	2-1/2"	3/4"
10"	14"	9"	15-1/2"	9"	29-1/8"	28"	1/2"	20	28	2-1/2"	3/4"
12"	16-3/8"	10-7/8"	17-3/4"	10-7/8"	34-1/8"	33"	1/2"	30	35	3"	1"
14"	18-7/8"	12-5/8"	19-1/8"	11-7/8"	39-1/8"	35"	1/2"	52	47	3"	1"
16"	21"	14-1/2"	22"	13-3/4"	44-5/8"	40"	1/2"	80	84	3"	1"
18"	23-1/4"	16-3/4"	23-7/8"	15-3/8"	49-5/8"	45"	1/2"	104	110	3"	1"
20"	25-1/2"	18-3/8"	26-5/8"	17"	54-5/8"	50"	1/2"	151	129	3-1/2"	1"
24"	30-1/4"	22-3/8"	30-7/8"	20-1/2"	65-1/8"	60"	1/2"	228	242	3-1/2"	1"
30"	37-1/8"	28-1/2"	37-3/4"	26"	79-1/8"	74"	1/2"	386	370	3-1/2"	1"



Dimensions and options availability are subject to change without notice.

Please consult the TM Sales Department or your local sales representative for certified drawings or additional information.



SINGLE PHASE KNOCK-OUT POT & 2 PHASE VANE SEPARATOR

SINGLE PHASE KNOCK-OUT POT

Where liquids are greater than
5% of the weight of the mixture.

TM Filtration's KNOCK-OUT POTs are designed for both pressure and vacuum applications.

Applications:

- Vacuum pump protection
- Compressor protection
- Removal of heavily entrained liquid at gas wells
- Removal of contaminant and particulates at gas wells
- Gas Dryer protection



**KNOCK-OUT POT
DESIGN INFORMATION**

- Uses impingement and centrifugal separation to remove liquid and particulates from gas flow.
- Vertical or horizontal orientation
- Designed for low pressure drop
- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. "U" Stamp available upon request

2 PHASE VANE SEPARATOR

Where "Old Style" Coalescing
Filters are used and there is
greater than 5% Liquid by
weight of gas mixture.

TM Filtration's 2 phase vane separators are used where a wide range of flows are possible.

Applications for 2 phase vane separators involve removal of large amounts of liquid from the Air/Gas stream. Ideal when liquid is greater than 5% of the weight of the mixture.

Applications:

- Removal of viscous liquids.
- Recovery of product in some chemical applications
- Prevents carryover of corrosives



**VANE SEPARATOR
DESIGN INFORMATION**

- Vertical or horizontal orientation
- Designed for low pressure drop
- High efficiency 99.8% > 10 micron removal of solids or liquids.
- Designed, manufactured, and tested in accordance with ASME Section VIII, Division 1. "U" Stamp available upon request

Notes: Body material, connections, available options, and dimensions are completely customizable. Options availability is subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.



ULTRASONIC FILTER CLEANING EQUIPMENT

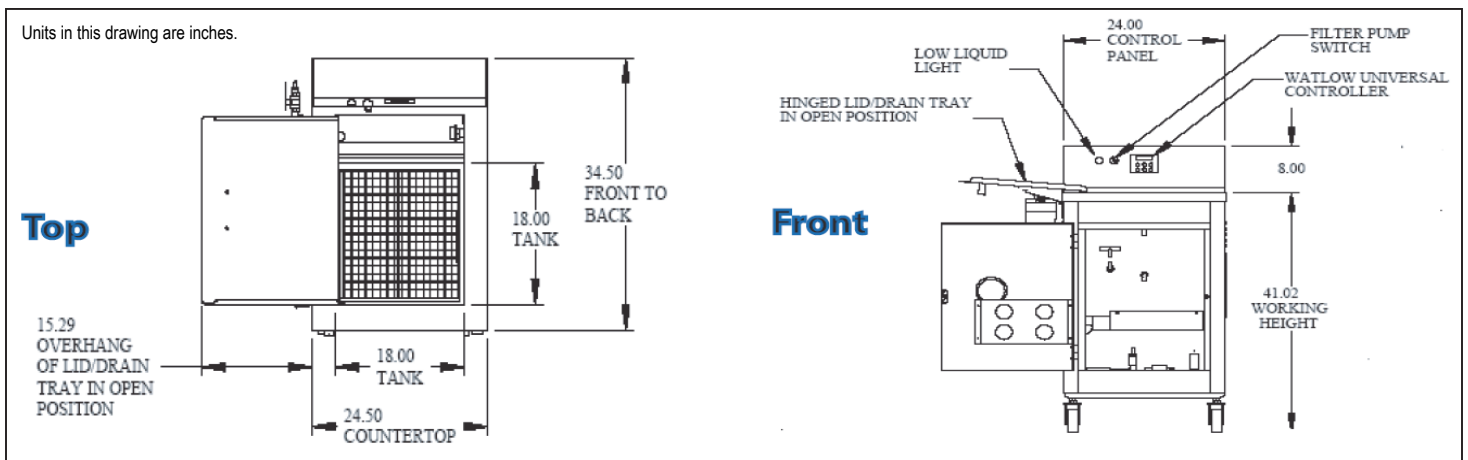
UFC-1818

Ultrasonic Filter Cleaner
Ultrasonic power (40kHz) 2,000 Watts
Heating power 1,800 Watts
25 gallons tank



Standard Features:

- 2,000 Watts of ultrasonic cleaning power
- 1,800 Watts of heating power
- 316L Stainless steel construction
- High performance ultrasonics, metallurgically attached transducers
- Dual filter system
- Oil removing surface sparger
- Low level liquid protection
- 7-day programmable timer
- Parts basket
- Hinged lid- converts to drain shelf
- Heavy-duty locking, leveling 4" casters
- - Contact our Sales Department for additional information



Dimensions: Left Right x Front Back x Depth Height
 Tank: 18" x 18" x 20" (458mm x 458mm x 508 mm)
 Overall: 24.5" x 34.5" x 20" (622mm x 900mm x 508 mm)
 Working Liquid Depth: 18" (458mm)

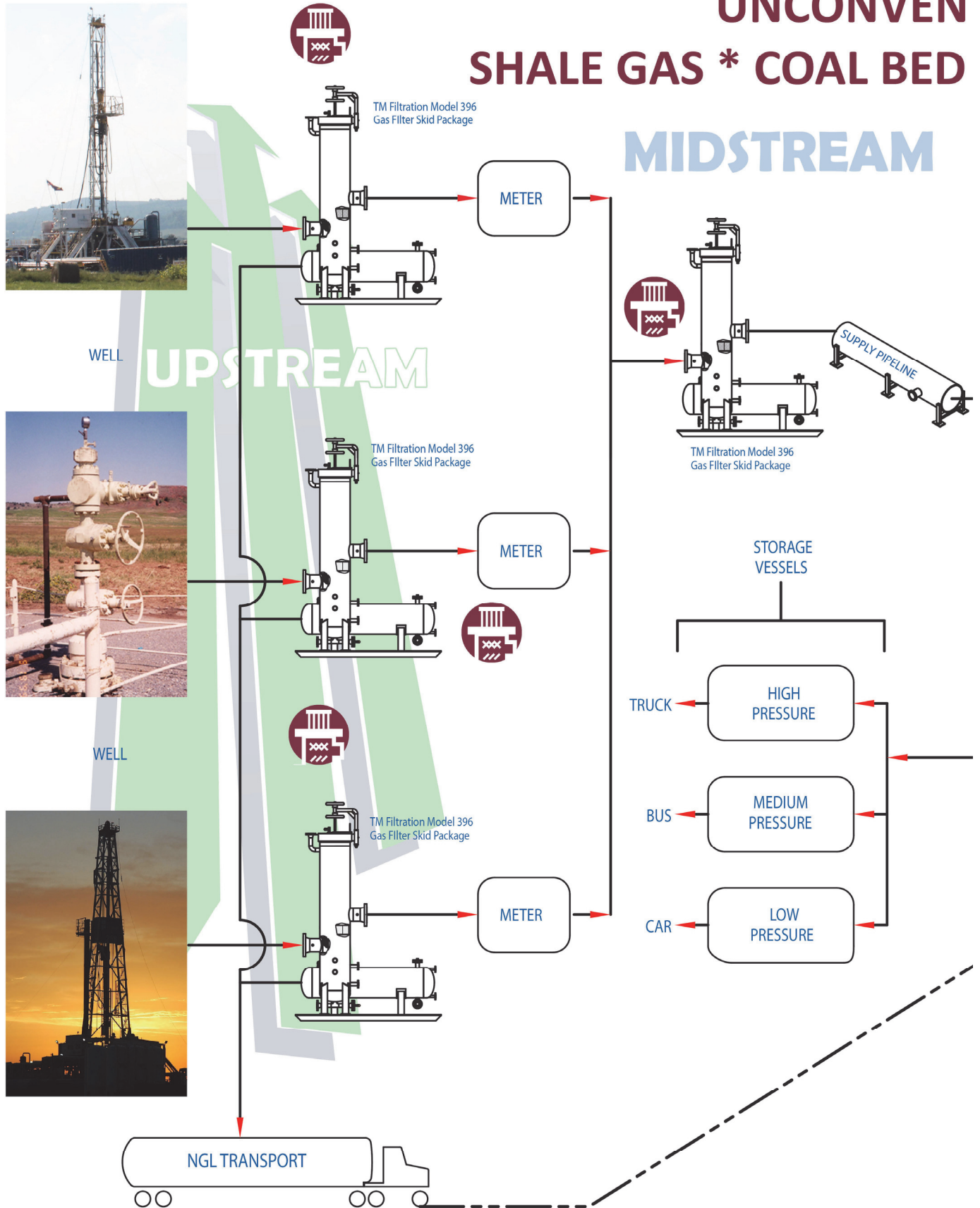
Power Requirement: 120 V, Single Phase, 60Hz (other styles available)

Notes: Dimensions and options availability are subject to change without notice. Please consult the TM Sales Department or your local sales representative for certified drawings, or additional information.

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

UNCONVENTIONAL SHALE GAS * COAL BED

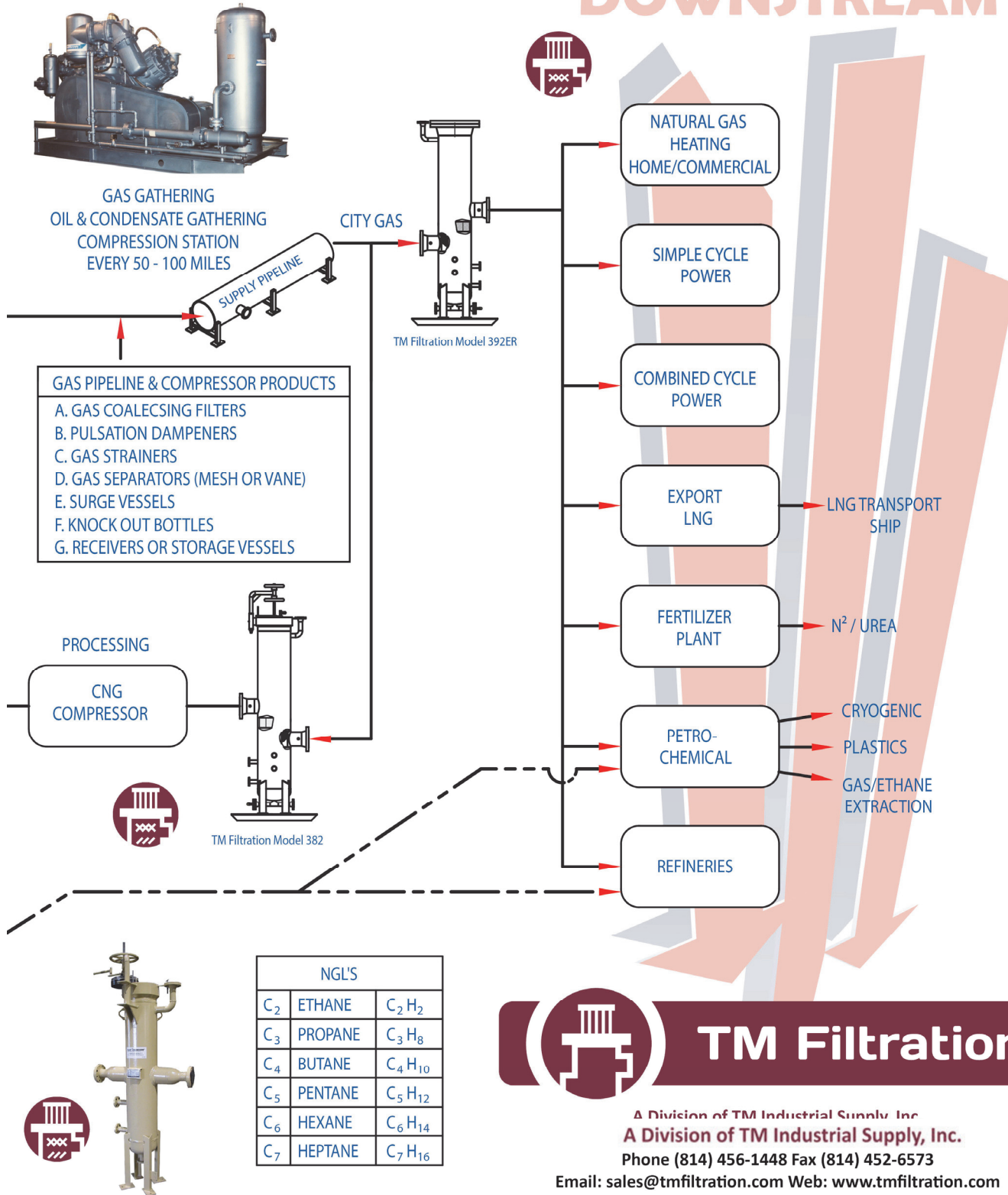
MIDSTREAM



PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

TIONAL GAS METHANE * TIGHT GAS

DOWNSTREAM



A Division of TM Industrial Supply, Inc.
A Division of TM Industrial Supply, Inc.

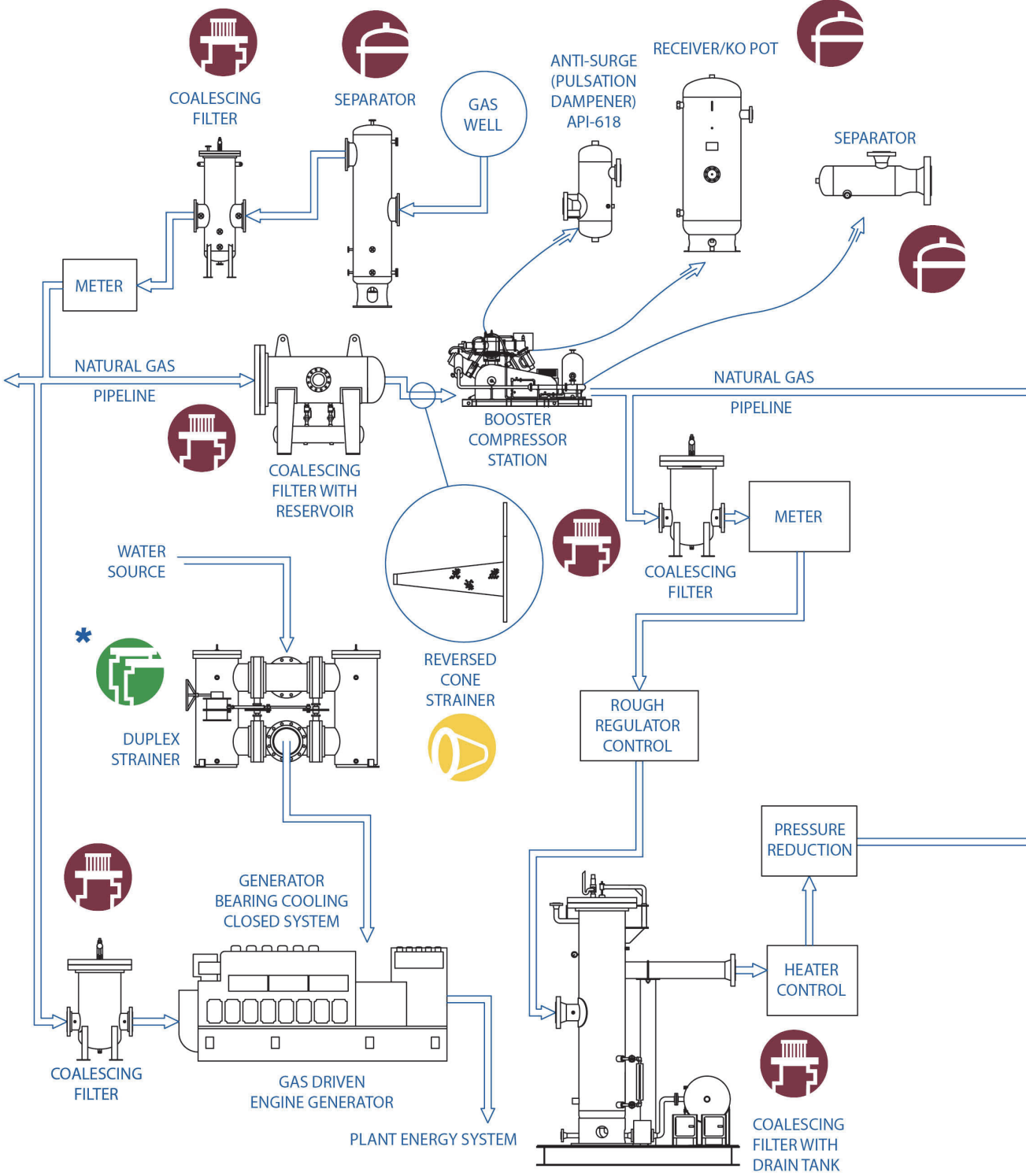
Phone (814) 456-1448 Fax (814) 452-6573

Email: sales@tmfiltration.com Web: www.tmfiltration.com

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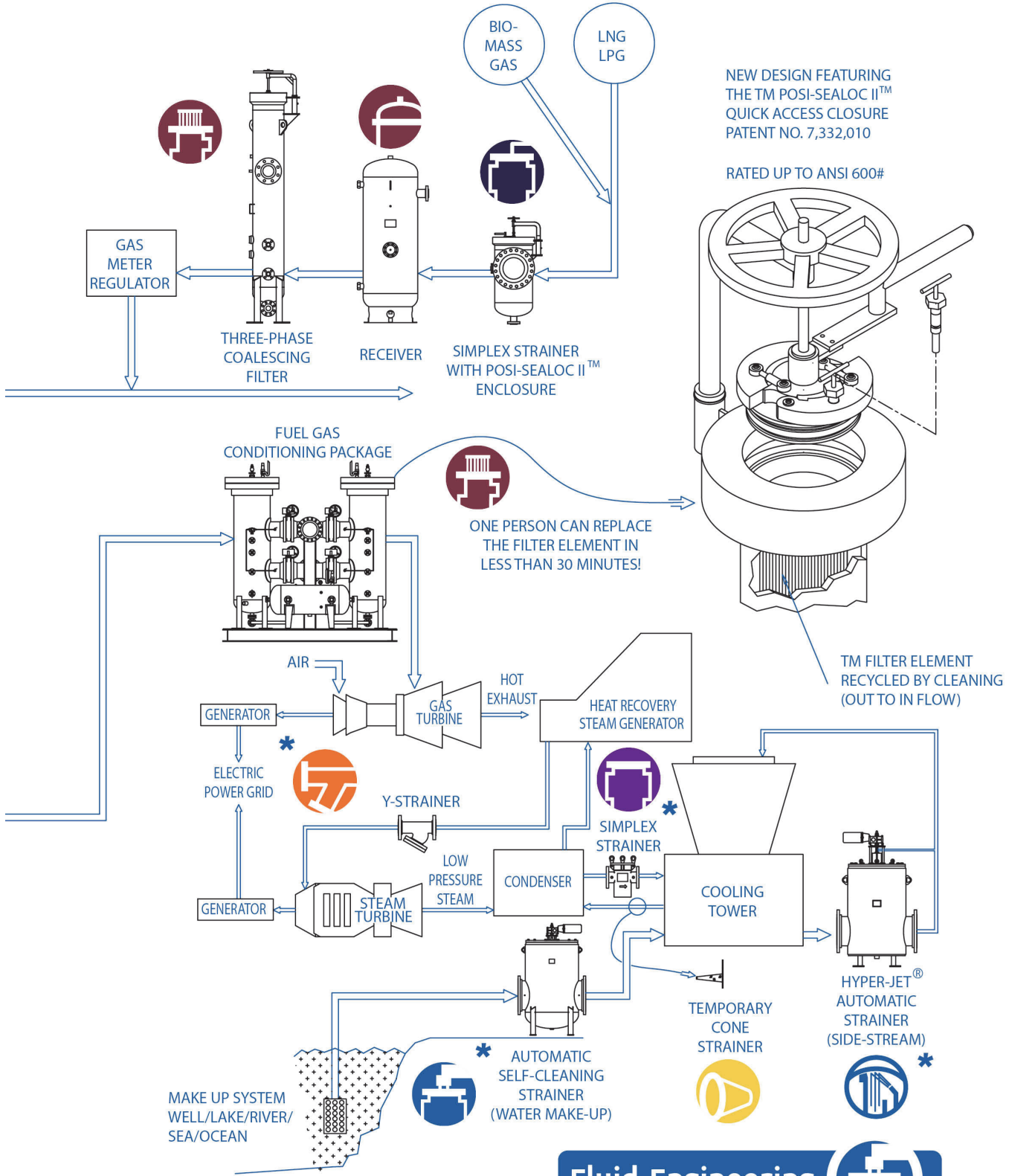
PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

NATURAL GAS POWER



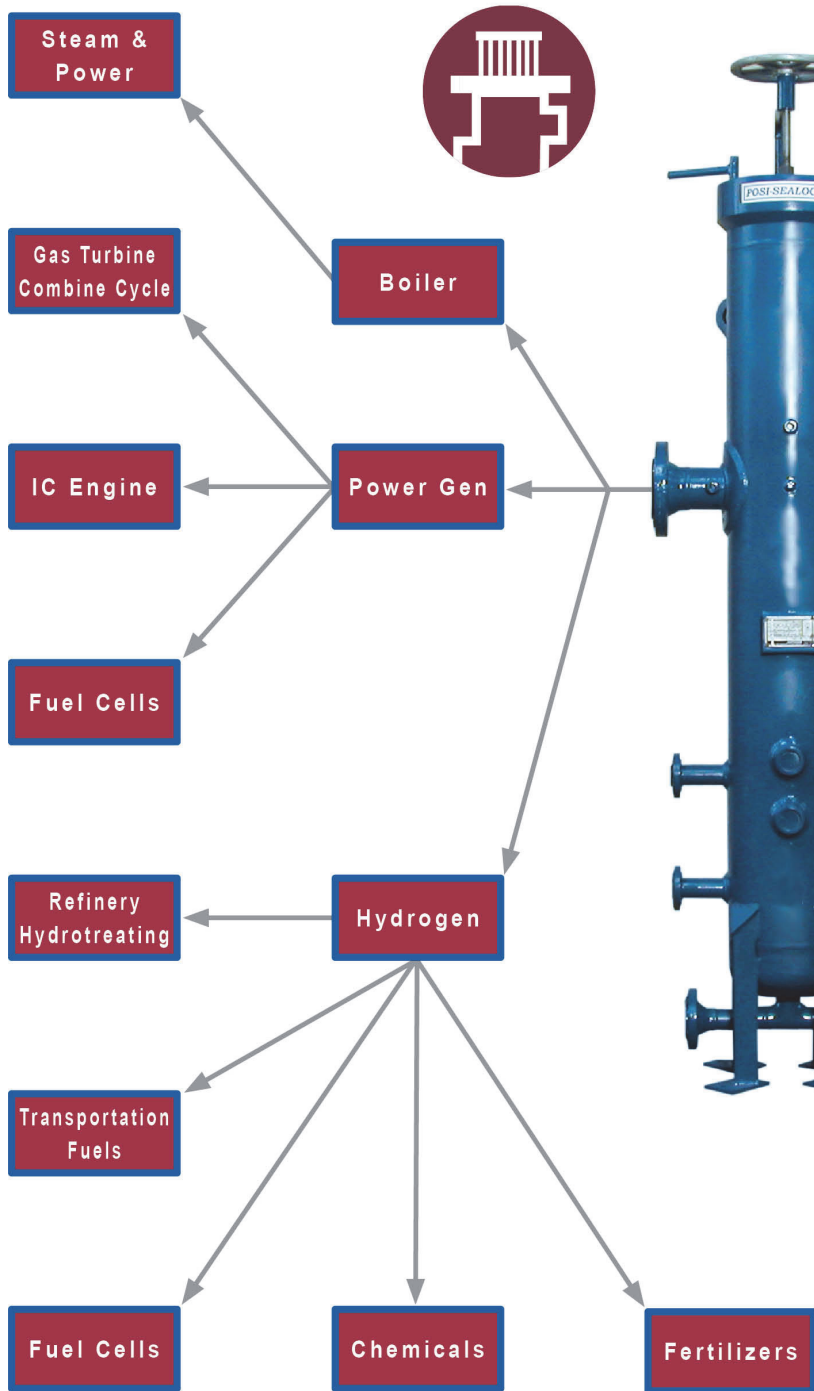
PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

PLANT EQUIPMENT



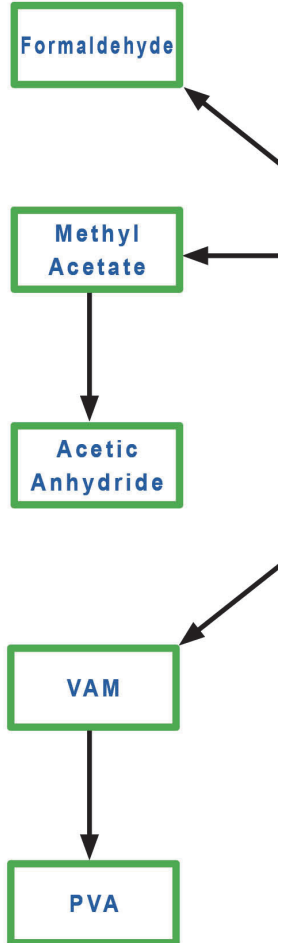
*See Fluid Engineering Catalog





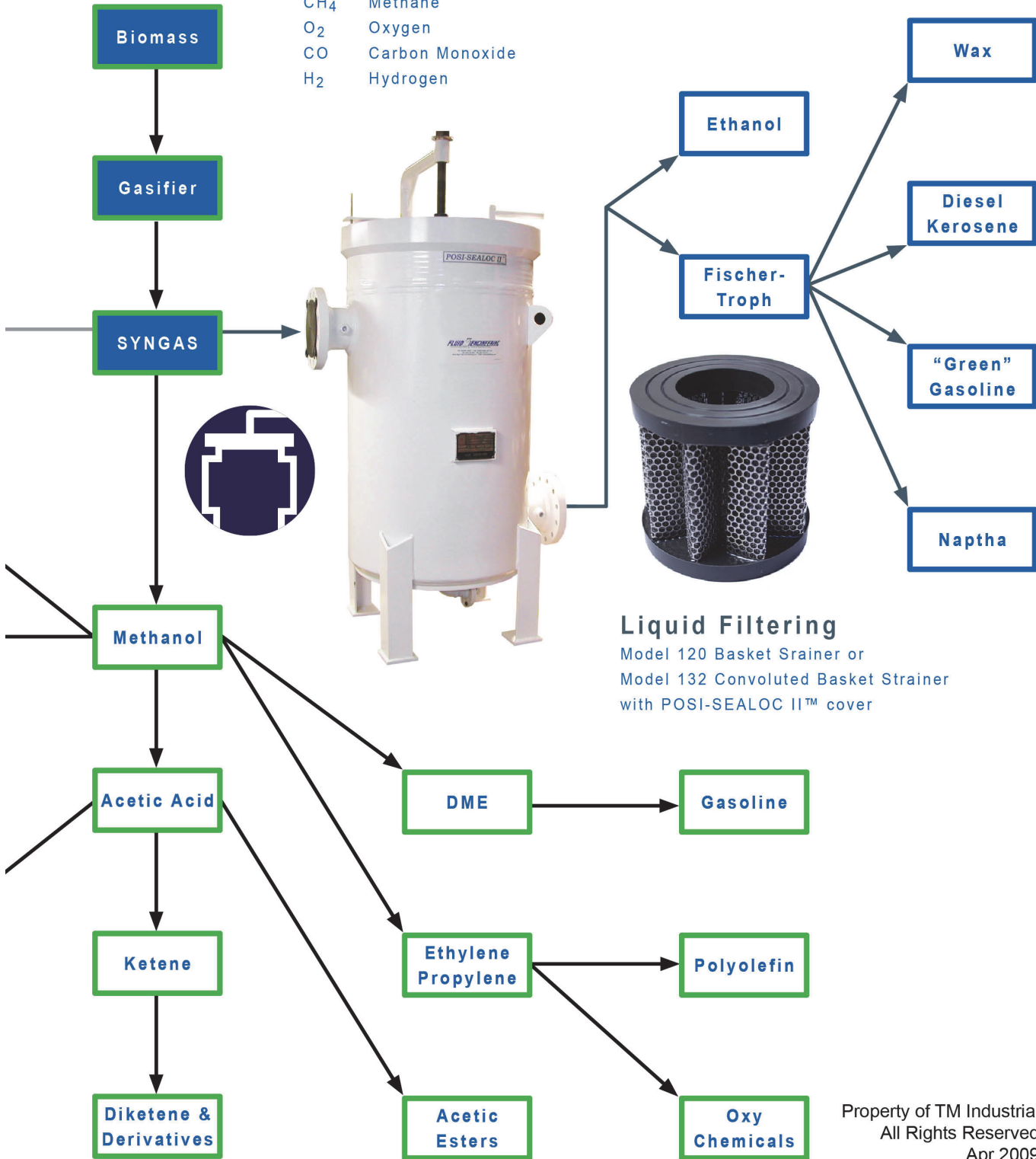
Gas Filtering

Model 383 Coalescing Gas Filter
with POSI-SEALOC II™ cover
Patent No. 7,332,010



SYNGAS Technology

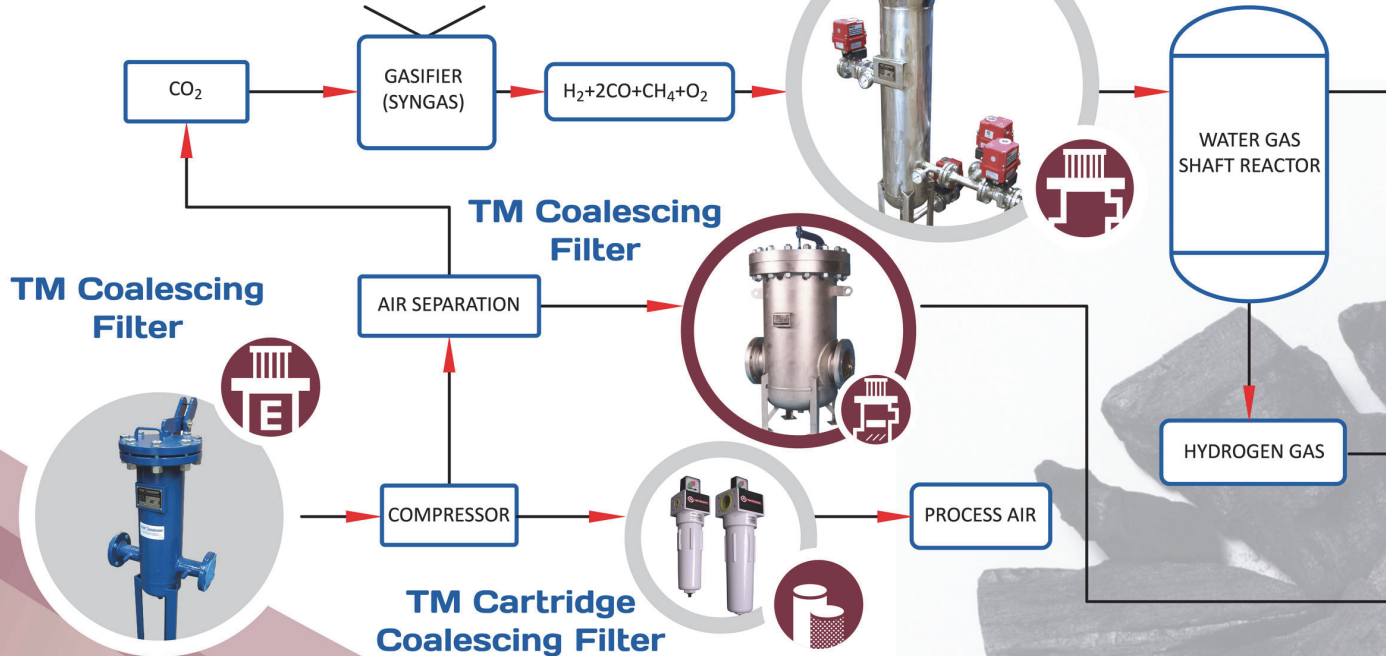
Syngas
 CH₄ Methane
 O₂ Oxygen
 CO Carbon Monoxide
 H₂ Hydrogen



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 Apr 2009

High Temp Back-flushable Gas/Liquid Filter

COAL
PETROLEUM
COKE
BIOMASS
MUNICIPAL WASTE



Resilient Gas Filter



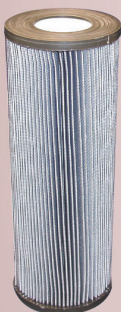
TM Separator



Resilient Gas Filter High Temp



Coalescing Gas Filter

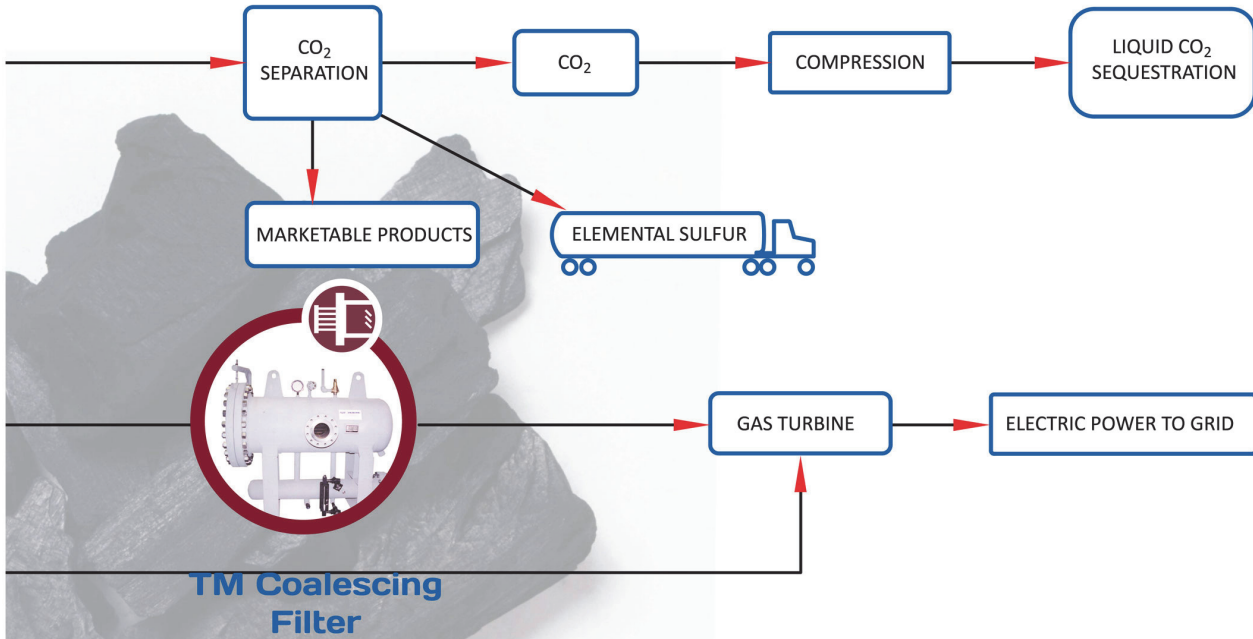


COAL CLEAT/VEIN

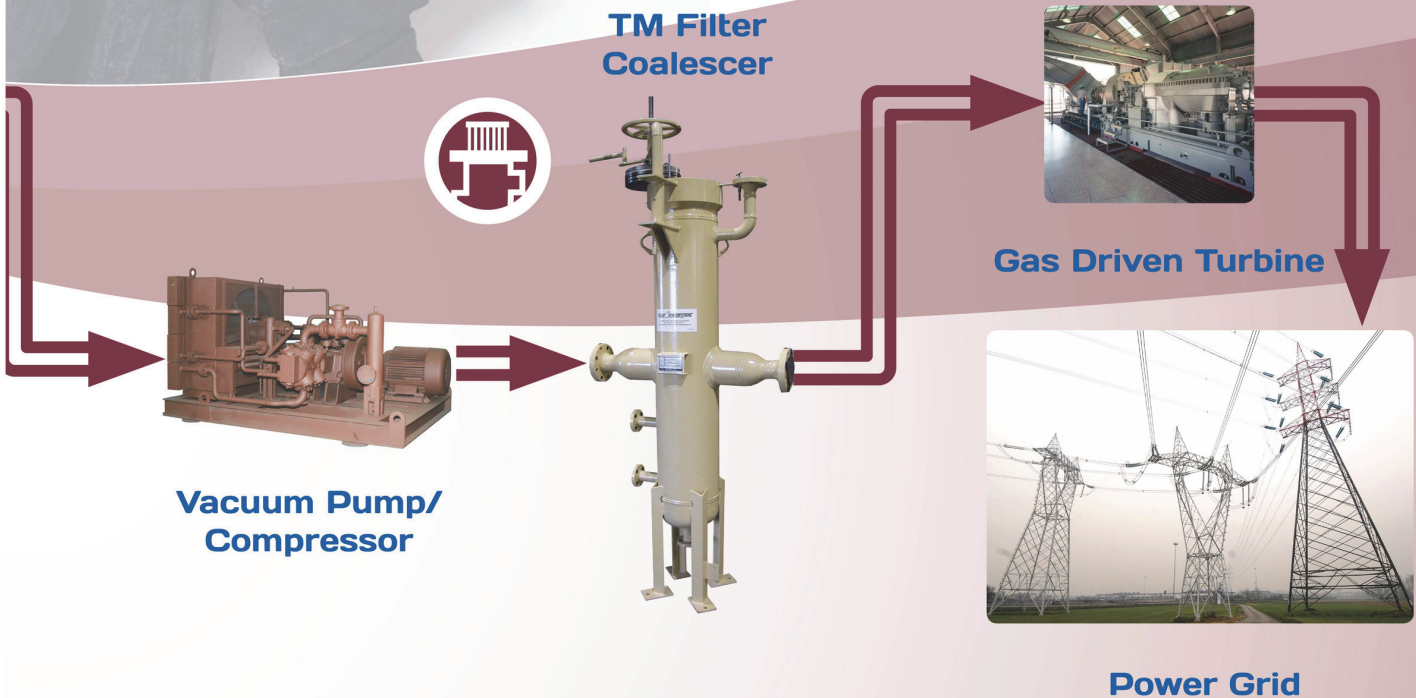
PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES

IGCC SYSTEM

(INTEGRATED GASIFICATION COMBINED CYCLE)
CLEANING PROCESS



COAL SEAM METHANE FILTRATION



PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



COALESCING FILTRATION PARTIAL CUSTOMER LIST

<u>CUSTOMER</u>	<u>PROJECT</u>	<u>TM MODEL</u>	<u>SPECIFICS</u>	<u>QTY</u>
Parsons Power Group Reading PA USA	Dighton Combined Cycle Power Project Dighton Massachusetts, USA Gas Fired Merchant Plant 172 MW ABB GT 11N2 Gas Turbine	392 Gas Filter Coalescer W/3 GFC-4 Elements 1232	Flow: 60,000 lb/hr Fab: 304 Stainless Steel Design psig: 500 psig Design temp: 300 Deg F Filtration: 5 Microns	One
Utility Engineers Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	Colorado Springs Utilities Fountain, Colorado, USA Combustion Turbine Generators 60 MW Peaker Power Project GE PG6541B Turbine	392 Gas Filter Coalescer W/1 GFC-1 Element 1247	Flow: 21,000 lb/hr Fab: Carbon Steel Design psig: 655 psig Design temp: 170 Deg F Filtration: 3 Micron	Four
Utility Engineers Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	Manchief Generating Station Brush, Co USA Combustion Turbine Generators 250 MW Siemens Westinghouse V84.3A	392 Gas Filter Coalescer W/3 GFC-4 Elements CU00170	Flow: 100,000 lb/hr Fab: Carbon Steel Design psig: 655 psig Design temp: 100 Deg F Filtration: 2 Microns	Four
Merrick Engineers 2460 S. Peoria St. Aurora, Co. USA	Gas Compression and Processing Plant Sweetwater County, WY USA Lost Creek Gathering Station	392 Gas Filter Coalescer W/1 GF-1 Element CU00160 VVS Scrubber/Separator SS Mesh De-Mister Pad CU00160	Flow: 30 scfm Fab: Carbon Steel Design psig: 1100 psig Design temp: 250 Deg F Filtration: 0.5 Micron Flow: 46,000 lb/hr Fab: Carbon Steel Design psig: 350 psig Design temp: 250 Deg F Filtration: 10 Micron	One Two
Utility Engineers Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	Arapahoe Cogen Turbines Denver, Co USA Combustion Turbine Generators 120 MW GE LM6000	392 Gas Filter Coalescer W/1 GFC-4 Element CU00278	Flow: 20.8 mmscfd Fab: 304 Satinless Steel Design psig: 750 psig Design temp: 200 Deg F Filtration: 3 Microns	One
Utility Engineers Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	Valmont Turbine Project Boulder, CO USA Combustion Turbine Generators 37 MW GE LM6000	392 Gas Filter Coalescer W/1 GFC-4 Element CU00278	Flow: 10.4 mmscfd Fab: 304 Satinless Steel Design psig: 750 psig Design temp: 200 Deg F Filtration: 3 Microns	One
Vepica-Nase Caracas Venezuela A. Liberator Torre Maracaibo	Fuel Gas Filter Caracas, Venezuela	393 Gas Filter Coalescer W/1 GF-1 Element SS Mesh De-Mister Pad Three Phase Filtration CU00277	Flow: 122 scfm Fab: Carbon Steel Design psig: 90 psig Design temp: 190 Deg F Filtration: 3 Microns	One



COALESCING FILTRATION PARTIAL CUSTOMER LIST

<u>CUSTOMER</u>	<u>PROJECT</u>	<u>TM MODEL</u>	<u>SPECIFICS</u>	<u>QTY</u>
Transfield Energy Tahmoor NSW Australia	Coal Seam Methane Gas Tahmoor, NSW Australia Burns & Roe Worley PTY, LTD	392 Gas Filter Coalescer W/4 GFC-4 Elements	Flow: 120 scfm Fab: Carbon Steel Design psig: 100 psig Design temp: 160 Deg F	One
	Jenbacher JGS320 Gas Engine Generator	CU00416 VVS Scrubber/Separator SS Vane Assembly Two Phase Filtration	Filtration: 3 Micron Flow: 120 scfm Fab: Carbon Steel Design psig: 100 psig Design temp: 160 Deg F	One
		CU00416	Filtration: 10 Micron	
Cornell Machine 45 Brown Ave. Springfield NJ USA	Compressor Protection Against Wax Particulate and Fragrance	393 Gas Filter Coalescer W/1 GFC-1 Element SS De-Mister Pad Activated Carbon Insert CU00641	Flow: 61 scfm Fab: Carbon Steel Design psig: 100 psig Design temp: 150 Deg F Filtration: 3 Microns	One
TIC / Utility Engineering Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	West Phoenix #4 Combined Cycle Phoenix, AZ USA The Industrial Company Pinnacle West 120 MW GE Frame 7EA CT	392 Gas Filter Coalescer W/1 GFC-1 Element CU00725	Flow: Fab: Carbon Steel Design psig: 1100 psig Design temp: 150 deg F Filtration: 3 Microns	One
Utility Engineering Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	Valmont Unit #8 Boulder, CO USA	392 Gas Filter Coalescer W/1 GFC-4 Element CU00804	Flow: 6,945 scfm Fab: 304 Stainless Steel Design psig: 1000 psig Design temp: 150 deg F Filtration: 3 Microns	One
Sembcorp Gas PTE LTD Singapore	Natural Gas Reticulation project Tuas and Jurong, Singapore	392 Gas Filter Coalescer W/1 GFC-1 Element w/ Depressure Cover CU00805	Flow: 625 scfm Fab: SA333-6 CS Design psig: 710 psig Design temp: 140 deg F Filtration: 3 Microns	One
Sembcorp Gas PTE LTD Singapore	Singapore Data not Available	392 Gas Filter Coalescer W/1 GFC-2 Element w/ Depressure Cover CU01356	Flow: 2085 scfm Fab: SA333-6 CS Design psig: 710 psig Design temp: 140 deg F Filtration: 3 Microns	One
TIC / Utility Engineers Utility Engineering Plaza 5601 I-40 West Amarillo, Texas 79406 USA	Hermiston Power Plant Hermiston, Oregon USA Calpine Combustion Turbine Generators 474 MW GE 7FA GTC	392 Gas Filter Coalescer W/4 GFC-4 Elements CU01298	Flow: 92,484 scfm Fab: Carbon Steel Design psig: 1,480 psig Design temp: 100 deg F Filtration: 3 Microns	Four
		392 Gas Filter Coalescer W/1 GFC-4 Elements CU01298	Flow: 38,866 scfm Fab: Carbon Steel Design psig: 1,480 psig Design temp: 100 deg F Filtration: 3 Microns	Two

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



COALESCING FILTRATION PARTIAL CUSTOMER LIST

<u>CUSTOMER</u>	<u>PROJECT</u>	<u>TM MODEL</u>	<u>SPECIFICS</u>	<u>QTY</u>
Raytheon Engineers and Constructors The Washington Group Princeton NJ USA	Michigan Power Plant East China Michigan DTE Energy Simple Cycle 320 MW (4) 80 MW GE Model 73A Turbines	392 Gas Filter Coalescer W/2 GFC-4 Elements and Condensate Tank CU01445	Flow: 54,720 lb/hr Fab: Carbon Steel Design psig: 500 psig Design temp: 140 deg F Filtration: 3 Microns	Four
TIC P.O. Box 460 Fountain CO USA	Nixon Power Plant Fountain CO Front Range 480 MW	SEP-320 Fuel Gas Detection Separator CU01578	Flow: 401,000 lb/hr Fab: Carbon Steel Design psig: 450 psig Design temp: 490 deg F	Two
Familian Northwest FNW Willing Pump 3735 W Cambridge Ave. Phoenix AZ USA	Arizona Pipeline Project Phoenix AZ To Feed Package Boilers Ross Products	392 Gas Filter Coalescer W/1 GFC-2 Elements CU01707	Flow: 7,000 scfm Fab: Carbon Steel Design psig: 850 psig Design temp: 150 deg F Filtration: 3 Microns	Two
Envirogen Pty Limited NSW Australia	Coal Seam Methane Gas Tahmoor, NSW (expansion project) Australia	392 Gas Filter Coalescer W/4 GFC-4 Elements CU02282	Flow: 120 scfm Fab: Carbon Steel Design psig: 100 psig Design temp: 200 Deg. F Filtration: 3 Micron	One
Clarke Energy Australia	Oaky Creek WMG Power Station Oaky North Colliery Queensland, Australia	392 Gas Filter Coalescer W/36 GFC-1 Elements CU04038	Flow 1413 scfm Fab Carbon Steel Design psig 150 Design temp 150 Filtration 3 Micron	Three
Clarke Energy Australia	Woodlawn LFG Power Station Land Fill Gas Australia	392 Gas Filter Coalescer W/6 GFC-4 Elements CU04421	Flow 2,648 scfm Fab Carbon Steel Design psig 50 Design temp 165 Filtration 3 Micron	One
Cameron Compression Oklahoma City, OK	Cooper Energy Services Ajax usa	Suction Separators Interstage Separators Suction Bottles Discharge Bottles CU04898		Fifty and ongoing
Absolute Filters	Tamar Valley Power Station Tasmania	383 Gas Filter Coalescer W/2 GFC-4 Elements Posi-Sealoc II Closure CU06286	Flow Fab Carbon Steel Design psig 1015 Design temp 140 Filtration 3 Micron	One
Bedminster Int'l Newton MA USA	Gas Driven Engine	392E Gas Filter Coalescer W/2 GFC-00 Elements CU06296	Flow 26.5 SCFM Fab Carbon Steel Design psig 115 PSI Design temp 150 Filtration 3 Micron	One

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



COALESCING FILTRATION PARTIAL CUSTOMER LIST

<u>CUSTOMER</u>	<u>PROJECT</u>	<u>TM MODEL</u>	<u>SPECIFICS</u>	<u>QTY</u>
Absolute Filters	Tamar Valley Power Station Tasmania	382E Gas Filter Coalescer W/2 GFC-0 Elements Posi-Sealoc II Closure	Flow Fab Carbon Steel Design psig 220 Design temp 1080F	Two
Range Fuels Soperton, GA USA	Phase 1 Georgia Plant Soperaton, GA Chilled Syngas	382 Gas Filter Coalescer W/1 GFC-1 Elements Posi-Sealoc II Closure	Flow 5958 ACFH Fab Carbon Steel Design psig 800/FV Design temp 250	Two
	Phase 1 Georgia Plant Soperaton, GA Solvent Filter	CU06880 132-030 Convolved Basket Posi-Sealoc II Closure	Filtration 1 Micron Flow 205 GPM Fab Carbon Steel/NACE Design psig 450/FV Design temp 250 ⁰ F	One
Utility Engineering Denver, CO	SMUD Consumnes Power Plant Herold, CA USA Water and steam storage for natural gas leak detection	SEP-300 Internals vortex breakers for drains CU02124	Flow: 50,000 lb/hr Fab: Carbon Steel Design psig: 450 psig Design temp: 460 Deg. F Filtration: N/A	Two
Columbia Pipe & Supply Decatur, IL USA	Abbott Power Plant Champaign, Illinois USA	392 Gas Filter Coalescer W/1 GFC-2 Element CU02272	Flow: 3,400 scfm Fab: Carbon Steel Design psig: 600 psig Design temp: 120 Deg. F Filtration: 3 micron	Two
Dept. Natural Resources Quebec, Canada	CANMET Ottawa, ON Canada For removal of heavy ash loadings from a gas stream	392 Gas Filter Coalescer W/1 GFC-1 Element CU02328	Flow: 124 acfh Fab: 316 Stainless steel Design psig: 260 psig Design temp: 150 Deg. F Filtration: 3 micron	One
PT GAMAKO	Perusahaan Gas Negara Gas transmission and Distribution Project	392 Gas Filter Coalescer W/1 GFC-1 Element CU02368	Flow: 15.09 scfm Fab: 316 Stainless steel Design psig: 150 psig Design temp: 150 Deg. F Filtration: 3 micron	Two
Ali Al Aufy Trading Co. Sultanate of Oman	Daleel Petroleum Company Block B. Debottlenecking Project For coalescing and filtration on Fuel Gas line to Generator	392 Gas Filter Coalescer W/1 GFC-1 Element CU02840	Flow: 83.3 scfm Fab: Carbon Steel Design psig: 145 psig Design temp: 179.6 Deg. F Filtration: 3 micron	Two



COALESCING FILTRATION PARTIAL CUSTOMER LIST

<u>CUSTOMER</u>	<u>PROJECT</u>	<u>TM MODEL</u>	<u>SPECIFICS</u>	<u>QTY</u>
Sinoven, S.A.	New Dehydration / Desalting Trains Plant Project Morichal Edo Monagas Venezuela	392 Gas Filter Coalescer W/1 GFC-1 Element CU03385	Flow: 786 scfm Fab: Carbon Steel Design psig: 115 psig Design temp: 150 Deg. F Filtration: 0.3 micron	Two
S & D Worldwide Ent.	Vintage Petroleum (Yemen), Inc. An Nagyah Block S-1 Injection Gas Filter Yemen	392 Gas Filter Coalescer W/1 GFC-1 Element CU03840	Flow Fab Carbon Steel Design psig 2120 Design temp 150 Filtration 3 Micron	Two
Trexer Corp Conare Venezuela	Venezuela Methane	120-120 124 BASKET Posi-Sealoc II Closure CU07132	Flow Fab Carbon Steel Design psig 425 Design temp 128 Filtration 20 MESH	Two
Delphi Automotive Amherst, NY	Oil Separator Upgrade	SEP-040 Separator CU07706	Flow Fab Carbon Steel Design psig 500 Design temp 400 Deg F Filtration	One
URS Energy & Construction, Inc. Princeton, NJ	Tennessee Valley Authority – John Sevier Combined Cycle Plant	VVS Scrubber 304 SS Vane Separator CU07977	Flow 321,735 lb/hr Fab Carbon Steel Design psig 550 Design temp 150 Deg. F Filtration 8 micron	Two
		Gas Coalescing Filter 382H Series w/ 1 GFC-5 Element Posi-Sealoc II CU07977	Flow 107,245 lb/hr Fab Carbon Steel Design psig 550 Design temp 150 Deg. F Filtration 3 Micron	Three
Kinecor LP Calgary Calgary, Canada	City of Calgary John Sevier Combined Cycle Plant	Gas Coalescing Filter 392ER Series w/ 1 GFC-4 Element CU08197	Flow 2,500 SCM Fab Carbon Steel Design psig 150 Design temp 210 Deg. F Filtration 3 micron	One
University of Illinois		Gas Coalescing Filter 372 Series w/ GFC-3 Element CU02272	Flow Fab Carbon Steel Design psig 600 Design temp 150 Deg. F Filtration 3 micron	One
Absolute Filters		Gas Coalescing Filter 393 Series w/ GFC-1 Element CU08916	Flow 118 SCFM Fab Carbon Steel Design psig 180 Design temp 180 Deg. F Filtration 3 micron	One
GE Dresser Piping Solutions Bradford, PA	Rice Energy Thunder Upgrade Project Waynesburgh, PA	Gas Coalescing Filter 373 Series w/ (Qty 2) GFC-5 Element CU09490	Flow 100 MMGCFD Fab Carbon Steel Design psig 1480 Design temp 100 Deg. F Filtration 3 micron	One

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



COALESCING FILTRATION PARTIAL CUSTOMER LIST

<u>CUSTOMER</u>	<u>PROJECT</u>	<u>TM MODEL</u>	<u>SPECIFICS</u>	<u>QTY</u>
Absolute Filter	Synchrotech Controls	Gas Coalescing Filter 393HR Series w/ GFC-4 Element CU09832	Flow 200 CMH Fab Carbon Steel Design psig 180 Design temp 180 Deg. F Filtration 3 micron	Six
Absolute Filters	Synchrotech Controls	Gas Coalescing Filter 393 Series w/ GFC-1 Element CU10168	Flow 200 SCMh Fab Carbon Steel Design psig 180 Design temp 100 Deg. F Filtration 3 micron	One
Kobelco Compressors America	El Paso Electric Montana Simple Cycle Power Plant	Gas Coalescing Filter 383 Series w/ GFC-4 Element CU10187	Flow 18,372 SCFM Fab 304 Stainless Design psig 940 Design temp 230 Deg. F Filtration .3 micron	Two
Advanz Mexico	Platform Project	Magnetic Strainer 120 Series SS Mesh Basket w magnets CU10113	Flow 34,725 SCFM Fab Carbon Steel Design psig 2034 Design temp 176 Deg. F Filtration 864 micron	Two



DISPOSABLE "OLD STYLE" COALESCING FILTERS & REPLACEMENTS

LP Series (Disposable)

Aluminum Threaded Coalescing
Filters with "In to Out" flow

Pressure 232 PSI
Flows to 1500 SCFM
Sizes 1/4" NPT THRU 3" NPT

HP Series (Disposable)

SS Threaded Coalescing Filters
with "In to Out" flow

Pressure 725, 1450, or 5000PSI
Flows to 2000 SCFM
Sizes 1/4" NPT THRU 2" NPT



LP SERIES COALESCING FILTERS



LP & HP ELEMENT GRADES

- 5 micron (Course Coalescing)
- 1 micron (Fine Coalescing)
- 0.01 micron (Very Fine Coalescing)
- Active Charcoal (Vapor Removal)

Please consult the TM Sales Department or your local sales representative for additional product information, drawings or for selection assistance.



HP SERIES COALESCING FILTERS



RE Series (Disposable)

Drop In replacement filter elements for most
compressed air filter manufacturers

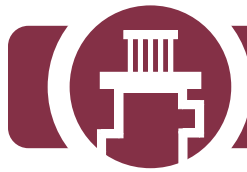
- Airtek
- Atlas Copco
- Balston
- Champion
- Comp Air
- Comp Air Leroi
- Deltech
- Dollinger
- Domnick Hunter
- Finite
- Flair
- Gardner Denver
- Great Lakes
- Gimmer Schmidt

- Hankison
- Hiross
- Hydrovane
- Ingersoll Rand
- Kaeser
- Pioneer
- Sullair
- Sullivan Pallatek
- Technolab
- Ultrafilter
- Van Air
- Watts
- Zander



RE SERIES COALESCING FILTERS

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES



TM Filtration

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Fax: 814-452-6573
Email: sales@tmfiltration.com

Going "Green", is a global movement to become more aware of the impact a product has on the environment.



TM Filtration's patented cleanable coalescing elements are manufactured using materials that may be cleaned using commonly available ultrasonic cleaning methods.

INDUSTRIES SERVED:

NGL—NATURAL GAS LIQUID
LGN—LIQUIFIED NATURAL GAS
SHALE OIL MIDSTREAM PROTECTION
FLARED GAS
COAL BED METHANE
SYNGAS
IGCC
BIOFUEL & SYNGAS PRODUCTION
LANDFILL GAS RECOVERY
NATURAL GAS PROCESSING & TRANSMISSION
GAS FUELED POWER PLANTS
COMPRESSED GASES PRODUCTION;
AIR, AMMONIA, ARGON
HELIUM, HYDROGEN, METHANE
NITROGEN, AND OTHERS

COMMON APPLICATIONS:

GAS COMPRESSOR PROTECTION
TURBINE PROTECTION
GAS WELL FILTRATION
VACUUM PUMP PROTECTION
AIR COMPRESSOR PROTECTION
GAS DRYER PROTECTION
METER PROTECTION
INSTRUMENTATION PROTECTION
HEAT EXCHANGER PROTECTION
AEROSOL REMOVAL

PATENTED & INNOVATIVE FILTRATION TECHNOLOGIES