High Pressure Filters

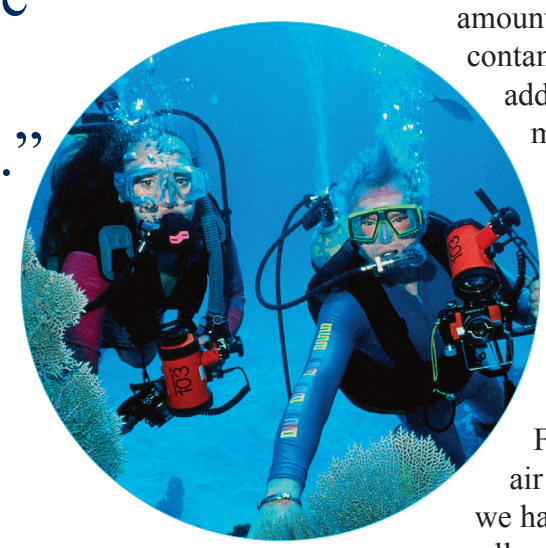
Compressed Air & Gas

- CNG and Alternative Fuel Filters
- Pressures to 6000 PSIG
- Ductile Iron, Stainless Steel & Aluminum

Bulletin 1300 - 997/USA

Finite®

"High pressure systems are plagued with problems of contamination and require filtration protection."



High pressure compressors are used in a variety of applications. Many owners, operators and designers of high pressure compressed air or gas systems rely on Finite for high-quality air treatment filters. End users of high pressure compressed air, such as scuba divers and fire rescue workers, depend on this high quality breathable air.

Throughout the stages of compression many contaminants can enter into the system. Excessive amounts of liquid aerosols and solid particulate contamination are common in high pressure systems. In addition, higher temperature levels are possible and may cause liquid oils to varnish. This contamination can lead to poor component performance and wear that may lead to unscheduled maintenance. Even submicronic contaminants in compressed air or gas systems can foul multistage compressors, increase maintenance costs or eventually make it into your final product.

Finite offers a variety of high pressure compressed air and gas filters. With our wide range of elements, we have a solution for every stage of compression, as well as at the point of use. Whether you are storing high pressure air or gas or using a continuous flow, count on Finite to protect your equipment from contamination.

Alternative Vehicles Need High Pressure Filtration

Compressed Natural Gas, or CNG, is a leading alternative to traditional fuel for the automotive industry. CNG is used in passenger vehicles, pickup trucks, in transit and on school buses. It can be less expensive than gasoline, and is more environmentally friendly – it reduces the amount of carbon monoxide, carbon dioxide and hydrocarbon vehicle exhaust emissions.

Natural gas is gathered from a pipeline and travels to a connecting compressor station. The gas is elevated to pressures ranging from 2000 PSIG up to 5000 PSIG and the resultant CNG is stored in large tanks. The CNG then makes its way to a gas dispenser where it is ready for use in natural gas vehicles.
Contaminants can enter into the gas at any stage of this processing.

Filters are critical at each stage to ensure clean gas as a final product. Contamination that collects during handling, water that condenses in tanks and compressors that leak oil into the fuel stream are all problems that could shorten the life of expensive equipment, create unnecessary downtime and increase maintenance costs.
From pipeline to engine, Finite filters provide the critical filtration required

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How to select your Finite Filter...

The following steps will help you to choose the correct fil er for your application. If there are other factors involved or if you have special requirements, call one of Finite's application engineers.	1 Evaluate the requirements of your application. The sketches on pages 4-5 depict popular examples of breathing air, PET bottle blowing and alternative fuel applications.	2 What type of filt ation is needed? Coalescing fil er media removes solid and liquid contaminants from gas streams. Particulate fil er media removes solids from gas streams. Adsorber media removes hydrocarbon vapors from gas streams. See pages 6-7 for more detailed information.
3 Are you searching for a specific micron rating... or efficie y rating? If so, pages 6-7 provide a complete breakdown of Finite's fil er media grades and their performance specific tions.	4 What are the operating conditions of your application? Key criteria to consider: fl w, pressure, temperature, materials of construction (stainless steel, nylon, aluminum, etc.). Pages 8-25 provide detailed descriptions of the various products available.	5 Sizing: Flow charts are provided for each high pressure fil er series. Flows are listed at various operating pressures. Filters are available with fl ws up to 6500 SCFM and pressure ratings up to 6000 PSIG.

What's Inside?

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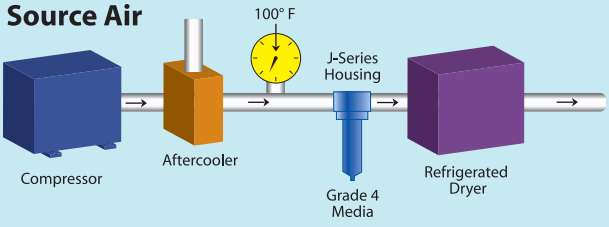
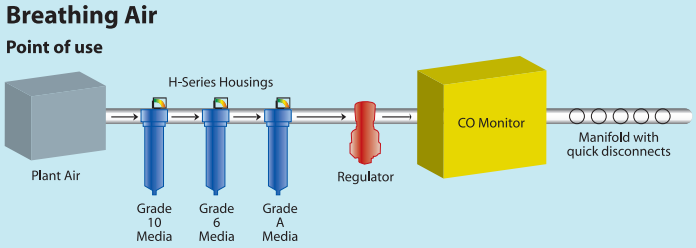
Applications

High Pressure Breathing

The filtration of compressed air is critical to ensure that it meets stringent air quality requirements for use in breathing air applications as set forth by North American agencies such as the Occupational Health and Safety Administration (OSHA) and Canadian Standards Association (CSA). Breathing air is used for scuba tanks, fire rescue equipment, and emergency respiratory gear. Any contaminants in the air stream may cause equipment damage and malfunction, requiring costly repairs and replacements, and ultimately creating a hazardous situation for any users of high pressure breathing air apparatus. The use of filters will protect the consumer's health and keep equipment safe and fully operational. At the source, a coalescing filter will remove any oil or other liquid contaminants that may be carried downstream. At the point of use, conventional compressed air must be free of

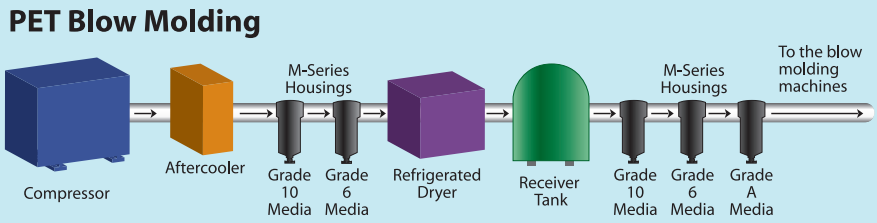




For more information on H-Series filters, please see Bulletin 1300-993C.

PET Blow Molding

PET, or polyethylene terepthalate, is a recyclable material used to make bottles by blow molding. Food and beverage containers are just a few of the many products that can be manufactured from this thermoplastic. In order to ensure that these products remain contaminant free throughout a process, they must be manufactured with clean, dry air. The proper combination of filters will prevent compressor oils, pipe scale and other damaging impurities from building up on equipment.



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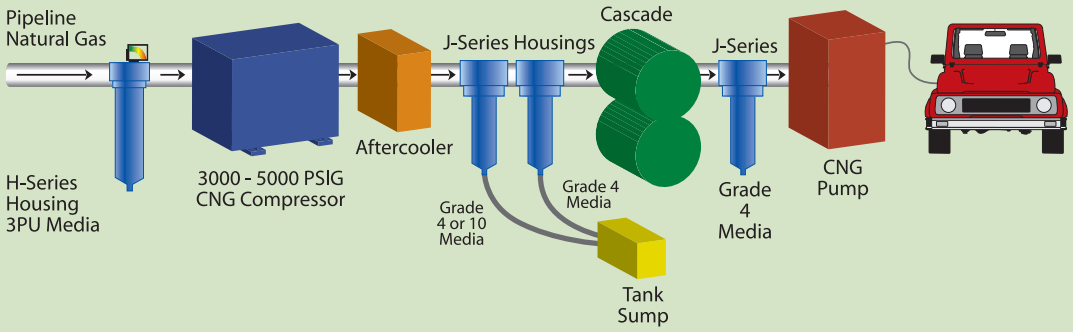
At the CNG Fueling Station

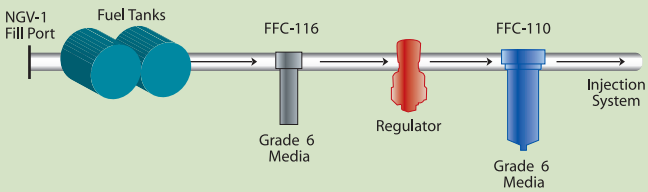
Installing a lower pressure particulate filter (H-Series Housing 3PU Media) before the compressor station will remove pipe scale to prevent compressor damage. Before the gas is transported from storage to the dispenser, prefiltration of the gas with two-stage coalescing will eliminate solids, oil and water generated during underground transit. For extra protection, a high efficiency coalescer should be placed at the gas dispenser to protect sensitive dispenser metering equipment and prevent oil from making its way into the vehicle.



For more information on H-Series filters, please see Bulletin 1300-993C.

Onboard CNG Vehicles

Filtration is the key to guarding against damaging contaminants that could ruin a fuel system. Installing a coalescer upstream of the high pressure regulator extends the system's life and reduces maintenance costs. A low pressure filter can also be used downstream of the regulator to protect other



Other applications include:

- General high pressure compressed air
- High pressure testing
- Offshore applications
- High pressure gas storage
- Corrosive gases
- Specialty gases
- Air-blast circuit breakers
- Leak testing of hydraulic equipment
- Shipboard air distribution systems

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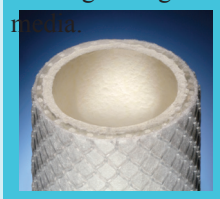
Finite Media Types, Grades and Efficiencies

Coalescing elements:

Coalescing elements are specially designed for the removal of liquid contaminants from gaseous flows. These media types flow from the inside of the element to the outside. Coalesced liquid (water and oil) collects in the bowl where it is drained, while clean air or gas exits the housing through the outlet port. Particulate contaminants are captured and held in the media.

Water Separator element:

Particulate elements:



Type C

Coalescing element composed of an epoxy saturated, borosilicate glass microfiber tube in intimate interlocking contact with a rigid retainer. Surrounded by a coarse fiber drain layer, retained by a synthetic fabric safety layer. Some models are available with molded elastomeric end seals (CU), or with metal end caps and fluorocarbon gaskets.

For use with:

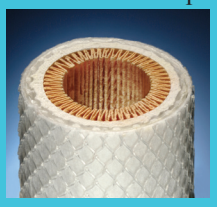
- FFC-110 (500 PSIG) Page 8
- FFC-110L (500 PSIG) Page 8
- SN8S (500 PSIG) Page 9
- M-Series (800 PSIG) Pages 10-12
- A5R/A1R (1000 PSIG) Page 13
- SM-Series (1200 PSIG) Page 14-15
- FFC-112 (3600 PSIG) Page 16
- FFC-112 SAE (3600 PSIG) Page 16
- FFC-113 (3600 PSIG) Page 17
- J-Series (5000 PSIG) Pages 18-20
- S5R/S1R (5000 PSIG) Page 21
- SJ-Series (6000 PSIG) Pages 24-25

Type H

Coalescing element similar to type "C," however no rigid retainer is used. Typically used in applications with low or constant flow rates.

For use with:

- A5R/A1R (1000 PSIG) Page 13
- SM-Series (1200 PSIG) Pages 14-15
- S5R/S1R (5000 PSIG) Pages 21

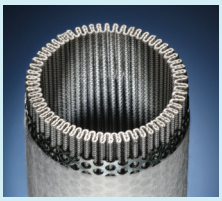


Type Q

Coalescing element with the same configuration as "C" tube, but with "3P" type pleated cellulose prefilter built-in. Includes molded elastomeric end seals (QU). Some models offer the option of metal end caps and fluorocarbon gaskets.

For use with:

- M-Series (800 PSIG) Pages 10-12
- SM-Series (1200 PSIG) Pages 14-15

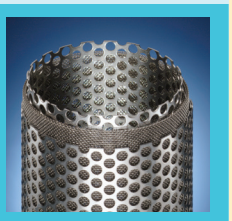


Type 7CVP

Coalescing element made of pleated glass media. Metal retained for added strength. Includes metal end caps and fluorocarbon gaskets for proper sealing. Only available in grade 7.

For use with:

- SN8S (500 PSIG) Page 9
- M-Series (800 PSIG) Pages 10-12



Type 100WS

This all stainless steel element has two metal retainers with rolled mesh screen in between. This cleanable element combines liquid droplets and aerosols, separating the liquids from the gas stream in systems with

For use with:

- SN8S (500 PSIG) Page 9
- M-Series (800 PSIG) Pages 10-12
- J-Series (5000 PSIG) Pages 18-20
- SJ-Series (6000 PSIG) Pages 24-25

Type 3P

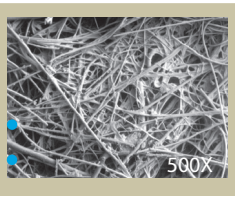
Pleated cellulose particulate removal element. Includes molded elastomeric end seals (3PU). Some models offer the option of metal end caps and fluorocarbon gaskets.

For use with:

- SN8S (500 PSIG) Page 9
- M-Series (800 PSIG) Pages 10-12
- SM-Series (1200 PSIG) Pages 14-15
- J-Series (5000 PSIG) Pages 18-20
- SJ-Series (6000 PSIG) Pages 24-25

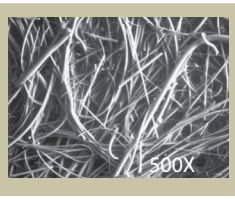
Media Grades:

Grade 4



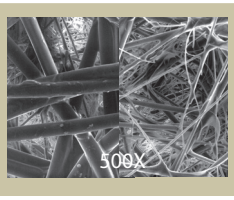
Grade 4 filter elements are very high efficiency coalescers; for elevated pressures or lighter weight gases. Recommended when system pressure exceeds 500 PSIG.

Grade 6



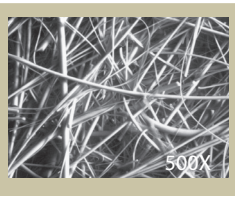
Grade 6 filter elements are used when "total removal of liquid aerosols and suspended fines" is required. Because of its overall performance characteristics, this grade is most of-

Grade 7CVP



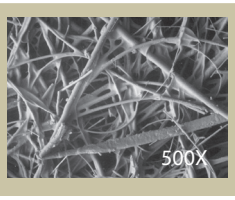
Grade 7CVP filter elements are made with two layers. The inner layer (left) effectively traps dirt particles, protecting and extending the life of the outer layer. The coalescing outer layer (right) consists of a dense matrix of glass fibers, providing highly efficient aerosol removal.

Grade 8



Grade 8 filter elements provide high efficiency filtration in combination with high flow rate and long element life.

Grade 10



Grade 10 filters are used as prefilters for grade 6 to remove gross amounts of aerosols or tenacious aerosols which are difficult to drain. This grade is often used as a 'coarse' coalescer.

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Particulate filters such as G, F, T and 3P flow from the outside of the element to the inside. Particles collect in the element, while the clean air exits through the outlet port.

Adsorption elements:

Adsorption elements are used to remove vapors (hydrocarbon or water) that are not removed by the coalescing filter. Hydrocarbon vapors collect in the element, while clean air exits the housing through the outlet port. In this element, the air or gas flows from the

Type G

Particulate removal element constructed of the same fiber matrix as type "C", but with no rigid retainer or drain layer.

For use with:
- A5R/A1R (1000 PSIG) Page 13
- SM-Series (1200 PSIG) Pages 14-15
- S5R/S1R (5000 PSIG) Page 21
- S1IL (5000 PSIG) Page 22

Type F

Particulate removal element like "G" tube, except fluorocarbon saturant replaces epoxy.

For use with:
- A5R/A1R (1000 PSIG) Page 13
- SM-Series (1200 PSIG) Pages 14-15
- S5R/S1R (5000 PSIG) Page 21
- S1IL (5000 PSIG) Page 22

Type T

Particulate removal element like "G" tube, except high temperature fluorocarbon saturant

For use with:
- A5R/A1R (1000 PSIG) Page 13
- SM-Series (1200 PSIG) Pages 14-15
- S5R/S1R (5000 PSIG) Page 21
- S1IL (5000 PSIG) Page 22

Type A

Hydrocarbon vapor removal element. Ultrafine grained, highly concentrated, activated carbon sheet media. Includes molded elastomeric end seals (AU). Some models offer the option of metal end caps and fluorocarbon

For use with:
- SN8S (500 PSIG) Page 9
- M-Series (800 PSIG) Pages 10-12
- SM-Series (1200 PSIG) Pages 14-15
- J-Series (5000 PSIG) Pages 18-20
- SJ-Series (6000 PSIG) Pages 24-25

Type 10JWM

Vapor adsorbing filter element consisting of a grade 10 microfiber tube, strengthened by a perforated metal retainer and then filled with molecular sieve, which works as a desiccant dryer, making the air clean and dry as it exits. This element should always be preceded by a coalescing filter.

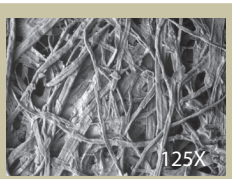
For use with:
- J-Series (5000 PSIG) Pages 18-20

Type 10JWA

Vapor adsorbing filter element consisting of a grade 10 microfiber tube, strengthened by a perforated metal retainer and then filled with activated alumina, which works as a desiccant dryer, making the air clean and dry as it exits. This element should always be preceded by a coalescing filter.

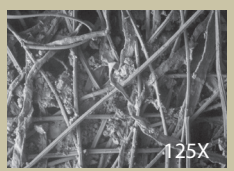
For use with:
- J-Series (5000 PSIG) Pages 18-20

Grade 3P



Three micron pleated cellulose filters are used for particulate interception where very high dirt holding capacity and a relatively fine pore structure are required.

Grade A



A (Adsorption) filters are used to remove hydrocarbon vapor, most typically in preparation for breathing air. (Must be preceded by grade 6C coalescer.)

Finite® media grades and specifications

Finite media grades determine the filtration efficiency. Capture efficiencies are available up to 99.999%.
Micron ratings range from 0.01 to 3 micron. The columns on the right note both the wet and dry pres-

Media Grade	Coalescing Efficiency 0.3 to 0.6 Micron Particles	Coalescing Filters - C, H, Q, 7CVP Maximum Oil Carryover[1] PPM w/w	Particulate Filters - 3P, G, F, T Micron Rating	Pressure Drop (PSID) @ Rate Flow[2]	
				Media Dry	Media Wet With 10-20 wt. oil
4	99.995%	0.003	0.01	1.25	3-4
6	99.97%	0.008	0.01	1.0	2-3
7CVP	99.5%	0.09	0.5	0.25	0.5-0.7
8	98.5%	0.2	0.5	0.5	1-1.5
10	95%	0.85	1.0	0.5	0.5
100WS	N/A	N/A	100 Nominal	<0.25	0.25
3P	N/A	N/A	3.0	0.25	N/A
A	99%+[3]	N/A	3 Nominal	1.0	N/A

[1]Tested per ADF-400 at 40 ppm inlet.
[2]Add dry + wet for total pressure drop.
[3]Oil vapor removal efficiency is given for A media

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500 PSIG Pressure Filters

FFC-110

Many CNG powered commuter vehicles, such as shuttle buses, taxis or vans, rely on FFC-110 filters to protect contaminants in the fuel tank from entering the engine.

Finite's FFC-110 is often used onboard CNG (compressed natural gas) powered vehicles to prevent contaminants in the fuel tank from getting into the engine, protecting critical engine components, like fuel injectors. Its small size allows for versatile installation and easy servicing. Each housing is powder painted for long-term corrosion protection. These coalescers are ideal for operating environments up to 500 PSIG. Coalescing efficiencies of 95% (grade 10) or 99.97% (grade 6) can be chosen to match the filter to the application. Both the FFC-110 and FFC-110L have an 1/8" NPT drain port with a brass petcock manual drain.

Specifications:

Model Number	Port Size (NPT)	Max. Pressure	Max. Temp.	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
FFC-110	1/4"	500 PSIG (34 bar)	175°F (79°C)	Chromated Aluminum	Stainless Steel	Chromated Aluminum	Buna-N	5.1 oz. (150 ml)	1.5 lbs. (0.68 kgs.)	7.8" (198.1mm)	3.1"

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100	250	500 PSIG
FFC-110	6	15	35	67
	10	25	58	112
FFC-110L	6	30	69	135
	10	50	115	224

How to Order:

							Bowl		Element Grade
F		C	-		1	0	Leave blank for standard L (Long)	-	6 10

Example: FFC-110-6

Mounting bracket available: BK-M

Replacement Elements Available:

Filter Housing Model	Media Grade 6	Media Grade 10
FFC-110	CLS110-6 X 8	CLS110-10 X 8

Note: X 4 or X 8 in the part number signifies how many elements are sold in a box.

SN8S

Bottling plants uses stainless steel system components for their critical processes. In applications where stainless steel is required, use the SN8S to remove contaminants from your compressed air or gas system.

Finite's 500 PSIG SN8S filter is the best solution for most critical or corrosive compressed air/ gas applications. Its 2" NPT stainless steel housing is a perfect fit for food processing, bottling plants and pharmaceutical manufacturing, where stainless steel system components are required. Bulk liquid from gas separation, oil coalescing, particulate removal and vapor adsorber filter elements are available. The housing has a plugged 1/4" NPT drain connection. The optional ADS-50 (see page 27) stainless steel auto drain can be easily connected with standard pipe fittings.

Specifications:

Model Number	Port Size (NPT)	Max. Pressure	Max. Temp. for each Element Type	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
SN8S	2”	500 PSIG (34 bar)	175°F (CU, 3PU, AU) 225°F (7CVP) 350°F (100WS) 450°F (DS)	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	Fluoro-carbon	14.6 oz (431.8 ml)	32.0 lbs. (14.5 kgs.)	27.7” (703.6mm)	6.3” (160.0mm)

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100	250	500
SN8S	4CU/4DS	340	785	1526
	6CU/6DS	450	1038	2019
	8CU/8DS	600	1385	2692
	10CU/10DS	750	1731	3366
	3PU	750	1731	3366
	AU	450	1038	2019
	7CVP	750	1731	3366
	100WS	750	1731	3366

How to Order:

S	N	8	S	X	1

Example: SN8S X 1

How to Order Replacement Elements:

Element and housing sold separately.
Elements available (one per box):

*CU24-187 X 1
*DS24-187 X 1
3PU24-187 X 1
AU24-187 X 1
7CVP24-187 X 1
100WS24-187 X 1

* insert grade: 4, 6, 8, 10
For more information on element selection, please see pages 6-7.

For Example: 6CU24-187 X 1

800 PSIG Pressure Filters

M-Series

PET bottle blowing plants rely on the filtration protection of the M-Series to meet stringent standards for contact with food and beverage containers.

Finite's M-Series provides the needed filtration for a wide variety of compressed air/gas applications. Varied porting and connection styles, along with a robust design make this an extremely versatile filter. It is a perfect fit for interstage filtration applications for multistage, high pressure gas compressors. The aluminum heads and drawn aluminum bowls are compatible with special gases such as argon, hydrogen, compressed natural gas and helium. This housing design minimizes the problem of porosity often present with housings made by die casting.

Specifications:

Model Number	Port Size	Max. Pressure	Max.	Materials of Construction				Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl	Seals			Length	Width
MN1S	1/4"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	5.1 oz. (150 ml)	1.83 lbs. (0.83 kgs.)	7.89" (200 mm)	3.06" (78 mm)
MN1L	1/4"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	4.7 oz. (140 ml)	2.19 lbs. (0.99 kgs.)	10.28" (261 mm)	3.06" (78 mm)
MN15S	3/8"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	5.1 oz. (150 ml)	1.82 lbs. (0.82 kgs.)	7.89" (200 mm)	3.06" (78 mm)
MN15L	3/8"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	4.7 oz. (140 ml)	2.17 lbs. (0.98 kgs.)	10.28" (261 mm)	3.06" (78 mm)
MN2S	1/2"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	5.1 oz. (150 ml)	1.80 lbs. (0.82 kgs.)	7.89" (200 mm)	3.06" (78 mm)
MN2L	1/2"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	4.7 oz. (140 ml)	2.15 lbs. (0.98 kgs.)	10.28" (261 mm)	3.06" (78 mm)
MN3S	3/4"	800 PSIG (55 bar)	175°F	Machined Aluminum	Stainless Steel/Plastic	Aluminum	Buna-N	9.1 oz. (270 ml)	5.01 lbs. (2.27 kgs.)	10.83" (275 mm)	4.55" (116 mm)

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How to Order:

Series Name	Port Type	Port Size	Bowl	-	Element Grade	Element Type	End Seal	Accessories
M	**N** (NPT) **T** (BSPT) **F** (BSPF)	**1** (1/4") **15** (3/8") **2** (1/2") **3** (3/4") **4** (1") **8** (2")	**S** (Standard) **L** (Long) Note: L is not available for 3/4" and 2" port size housings		**4** **6** **8** **10**	**C** (Coalescer)	1/4" - 1" port size: Leave blank for no end seal or **U** (Urethane) 2" port size: **V** (Fluorocarbon)	**N** (No Accessories) **G** (Gauge) Standard on 2" port
					4 **6** **8** **10**	**Q** (Coalescer with built-in prefilter)	**U** (Urethane) Standard on all sizes	
					Leave blank	**100WS**	1/4" - 1" port size: **U** (Urethane) For 2" leave blank (standard fluorocarbon end seals)	
					Leave blank	**7CVP** (only available on 2" port)	Leave blank (standard fluorocarbon end seals)	
					Leave blank	**3P** (Pleated Cellulose) Particulate element	1/4" - 1" port size: **U** (Urethane) 2" port size: **V** (Fluorocarbon)	
					Leave Blank	**A** (Adsorber)	1/4" - 1" port size: **U** (Urethane) 2" port size: **V** (Fluorocarbon)	

Examples: MN2S-6QUG
MN3L-3PUN
MN8S-6CVG
MN8S-7CVPG

This (**G**) option is a great way to monitor pressure drop and determine when to replace the filter element.

Mounting brackets available: MB-2 (1/4" - 1/2" port size)

How to Order Replacement Elements:

Housings are sold with one element. Build your own replacement element with the chart below:

Housing	Element Grade and Type	Element Size
M_1S M_15S M_2S	*C,*CU,*QU, 3PU, AU, 100WSU	10-025
M_1L M_15L M_2L	*C,*CU,*QU, 3PU, AU, 100WSU	10-050 (for 100WSU use 10-025)
M_3S M_4S	*C,*CU,*QU, 3PU, AU, 100WSU	15-060
M_4L	*C,*CU,*QU, 3PU, AU, 100WSU	15-095 (for 100WSU use 15-060)

Note: _insert port type. See How to Order above for more information.

1. Determine the housing you have by choosing from the "Housing" column on the chart.

2. Determine the element type and grade you need. *Insert grades 4,6,8 or 10 for C, CU, CV or QU. See page 6-7 for more detail on grade selection.

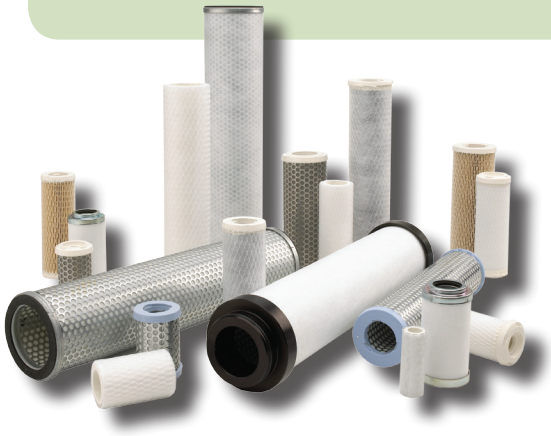
3. Determine the corresponding element size by choosing from the "Element Size" column on the chart.

4. Combine "Element Grade and Type" designation with "Element Size" to get element part number.

Ex: 3PU10-025 or 6CU10-025

Element box quantity depends on media type selected.

For M-Series Flow Rates, see next page!



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Oxford, MI

M-Series (800 PSIG) Flow Rates (SCFM):

Filter Housing	Media Grade	100 PSIG	250 PSIG	500 PSIG	800 PSIG
M_1S	4C/4Q	11	25	49	78
	6C/6Q	15	35	67	107
	7CVP	NA	NA	NA	NA
	8C/8Q	20	46	90	142
		25	58	112	178
	3P	25	58	112	178
	100WS	50	115	224	355
	A	15	35	67	107
M_1L	4C/4Q	23	53	103	163
	6C/6Q	30	69	135	213
	7CVP	NA	NA	NA	NA
	8C/8Q	41	95	184	291
		50	115	224	355
	3P	50	115	224	355
	100WS	50	115	224	355
	A	30	69	135	213
M_15S	4C/4Q	15	35	67	107
	6C/6Q	20	46	90	142
	7CVP	NA	NA	NA	NA
	8C/8Q	27	62	121	192
		33	76	148	235
	3P	33	76	148	235
	100WS	66	152	296	469
	A	20	46	90	142
M_15L	4C/4Q	30	69	135	213
	6C/6Q	40	92	179	285
	7CVP	NA	NA	NA	NA
	8C/8Q	55	127	247	391
		66	152	296	469
	3P	66	152	296	469
	100WS	66	152	296	469
	A	40	92	179	285
M_2S	4C/4Q	19	44	85	135
	6C/6Q	25	57	112	178
	7CVP	NA	NA	NA	NA
	8C/8Q	34	78	153	242
		42	97	189	299
	3P	42	97	189	299
	100WS	83	192	372	590
	A	25	58	112	178

Filter Housing	Media Grade	100 PSIG	250 PSIG	500 PSIG	800 PSIG
M_2L	4C/4Q	38	88	171	270
	6C/6Q	50	115	224	355
	7CVP	NA	NA	NA	NA
	8C/8Q	68	157	305	483
		83	192	372	590
	3P	83	192	372	590
	100WS	83	192	372	590
	A	50	115	224	355
M_3S	4C/4Q	61	141	274	434
	6C/6Q	80	185	359	569
	7CVP	NA	NA	NA	NA
	8C/8Q	109	252	489	775
		133	307	597	946
	3P	133	307	597	946
	100WS	133	307	597	946
	A	80	184	359	569
M_4S	4C/4Q	76	175	341	541
	6C/6Q	100	231	449	711
	7CVP	NA	NA	NA	NA
	8C/8Q	136	314	610	967
		166	383	745	1181
	3P	166	383	745	1181
	100WS	232	535	1041	1650
	A	100	231	449	711
M_4L	4C/4Q	106	245	476	754
	6C/6Q	140	323	628	995
	7CVP	NA	NA	NA	NA
	8C/8Q	191	441	857	1358
		232	535	1041	1650
	3P	232	535	1041	1650
	100WS	232	535	1041	1650
	A	140	323	628	995
M_8S	4C/4Q	260	600	1167	1849
	6C/6Q	350	808	1571	2489
	7CVP	600	1385	2692	4267
	8C/8Q	465	1073	2087	3307
		600	1385	2692	4267
	3P	600	1385	2692	4267
	100WS	600	1385	2692	4267
	A	350	808	1571	2489

Note: _insert port type. See How to Order on page 11 for more information.

1000 PSIG Pressure Filters

A*R

This robust but lightweight aluminum housing is designed especially for bypass gas sampling of specialty gases.

This lightweight, 1000 PSIG filter is constructed of aluminum and offers your choice of high efficiency particulate and coalescing filter elements. This product can be used for CNG or specialty gas applications. The A*R includes a drain port with a plug. The connection size of the drain port matches the inlet and outlet connection size, making it ideal for bypass gas sampling.

*specify part number A5R for 1/8" NPT connections or A1R for 1/4" NPT connections.

Specifications:

Model Number	Port Size (NPT)	Max. Pressure	Max. Temp.	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100	250 PSIG	500	750	1000 PSIG
A5R/ A1R	4	6.4	15	29	43	57
	6	8.4	19	38	56	75
	8	9.2	21	41	61	81
	10	10	23	45	67	88

How to Order:

	Port Size NPT			Media	Media Type	Element Size
A	5 (1/8")	R	-	4	G	04-023
				6	T	
	1 (1/4")			8	F	
				10	H	
					C	

Example: A1R-6C04-023

Mounting bracket available: MBS-1

How to Order Replacement Elements:

Elements available:
_G04-023 X 10
_T04-023 X 10
_F04-023 X 10
_H04-023 X 10
_C04-023 X 10

_ insert grade: 4, 6, 8, 10

For more information on element selection, please see pages 6-7. Elements are sold in box quantities

1200 PSIG Pressure Filters

SM-Series

Finite's stainless steel SM-Series housings are perfect for higher-pressure applications in corrosive working environments. Coalescing, particulate and adsorption filters are available. A threaded collar enables the user to easily remove the bowl for servicing, without having to remove the drain fitting and connections. The SM-Series has an SAE-4 drain port with plug.

Critical gas processing applications at elevated pressures rely on the SM-Series to provide clean, contaminant-free gas in corrosive environments.

Specifications:

Model Number	Port Size	Max. Pressure	Max. Temp. for each Element Type	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
SMN1S, SMN2S	1/4", 1/2"	1200 PSIG (83 bar)	450°F (T) 350°F (H, G) 275°F (F) 175°F (C, CU, QU, 3PU, AU)	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	Fluoro-carbon	1.8 oz. (53.23 ml)	3.6 lbs. (1.6 kgs.)	5.2" (132 mm)	3.0" (76 mm)
	1/4", 1/2"	1200 PSIG (83 bar)	450°F (T) 350°F (H, G) 275°F (F) 175°F (C, CU, QU, 3PU, AU)	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	Fluoro-carbon	1.8 oz. (53.23 ml)	4.7 lbs. (2.1 kgs.)	7.7" (196 mm)	3.0" (76 mm)
SMN1L, SMN2L	1/4", 1/2"	1200 PSIG (83 bar)	450°F (T) 350°F (H, G) 275°F (F) 175°F (C, CU, QU, 3PU, AU)	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	Fluoro-carbon	1.8 oz. (53.23 ml)	5.7 lbs. (2.6 kgs.)	9.7" (246 mm)	3.0" (76 mm)

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100	250	500	750	1000	1200
SMN1S	4	10	23	45	67	88	106
	6	13	30	58	87	115	138
	8	17	39	76	113	150	181
	10	22	51	99	147	195	233
	3PU	22	51	99	147	195	243
	AU	13	30	58	87	115	138
SMN1M	4	20	46	90	133	177	212
	6	26	60	117	173	230	275
	8	34	78	153	227	301	360
	10	44	102	197	293	389	466
	3PU	44	102	197	293	389	466
	AU	26	60	117	173	230	275
SMN1L	4	28	65	126	187	248	296
	6	36	83	162	240	318	382
	8	47	108	211	313	416	498
	10	62	143	278	413	548	657
	3PU	62	143	278	413	548	657
	AU	36	83	162	240	318	382
Filter Housing Model	**Media Grade**	**100**	**250**	**500**	**750**	**1000**	**1200**

SMN2S	4	16	37	72	107	142	169
	6	22	51	99	147	195	233
	8	29	67	130	193	257	307
	10	37	85	166	247	327	392
	3PU	37	85	166	247	327	392
	AU	22	51	99	147	195	233
SMN2M	4	32	74	144	213	283	339
	6	43	99	193	287	380	456
	8	58	134	260	387	513	615
	10	74	171	332	493	655	784
	3PU	74	171	332	493	655	784
	AU	43	99	193	287	380	456
SMN2L	4	45	104	202	300	398	477
	6	60	138	269	400	531	635
	8	81	187	363	540	717	858
	10	104	240	467	693	920	1102
	3PU	104	240	467	693	920	1102
	AU	60	138	269	400	531	635

Series Name	Port Type	Port Size	Bowl	-	Element Grade	Element Type	End Seal	Accessories
SM	**N** (NPT)	**1** (1/4") **2** (1/2")	**S** (Short) **M** (Medium) **L** (Long)		**4** **6** **8** **10**	**C** (Coalescer) **Q** (Coalescer with built-in prefilter) **G** **T** **F** **H**	Leave blank for no end seal (Available on type G,T,F,H,C) **U** (Urethane end seals, available on types C,Q,3P,A)	**N** (No Accessories)
					Leave blank	**3P** (Pleated Cellulose) Particulate Element		
					Leave Blank	**A** (Adsorber)		

Examples: SMN2S-8GN
SMN1L-6CUN
SMN2M-3PUN

Mounting bracket available: MBS-2

How to Order Replacement Elements:

Housing	Element Grade and Type	Element Size
SMN1S, SMN2S	*C, *CU, *QU, *H, *F, *G, *T, 3PU, AU	10-025
SMN1M, SMN2M	*C, *CU, *QU, *H, *F, *G, *T, 3PU, AU	10-050

Housings are sold with one element. Build your own replacement element using the steps below. Refer to the chart on the left.

1. Determine the housing you have.

2. Determine the element type and grade you need. *Insert grades 4,6,8 or 10. See page 6-7 for more detail on grade selection.

3. Determine the corresponding element size.

4. Combine "Element grade and Type" designation with "Element Size" to get part number. For example: 6QU10-050. Box quantity depends on media type

3600 PSIG Pressure Filters

FFC-112

CNG powered vehicles such as airport shuttles and taxis use FFC-112 filters, which are installed on these vehicles. They protect critical engine components from contaminants present in CNG fuel.

CNG powered engine components such as fuel injectors and pressure reducing valves require contaminant free air. Submicronic solid or lubricant aerosols may carry over during CNG compression. Contaminants can also be generated in the storage and distribution of the natural gas, and may eventually enter the vehicle's storage tank. Both 1/4" NPT and 9/16" SAE connections are available on this 3600 PSIG rated assembly. The machined aluminum housing is anodized to enhance durability. It's robust yet small, lightweight size allows for versatile installation and easy servicing.

Specifications:

Model Number	Port Size	Max. Pressure	Max. Temp.	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
FFC-112	1/4" NPT	3600 PSIG (248 bar)	225°F	Anodized Alumi-num	Acetal Plastic	Anodized Alumi-num	Buna-N	0.5 oz. (14.8 ml)	1.5 lbs. (0.68 kgs.)	4.75" (120.65mm)	2.25" (57.15mm)

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100 PSIG	250 PSIG	500 PSIG	750 PSIG	1000 PSIG	1500 PSIG	2000 PSIG	2500 PSIG	3000 PSIG	3600 PSIG
FFC-112/FFC-112 SAE	6	10	23	45	67	88	132	176	219	263	315
	10	15	35	67	100	133	198	263	329	394	473

How to Order:

								Port		Element Grade
F	F		-	1	1	2		Leave blank for NPT SAE	-	6 10

Examples: FFC-112-6 or FFC-112 SAE-10

Replacement Elements Available:

Filter Housing Model	Media Grade 6	Media Grade 10
FFC-112/FFC-112 SAE	CLS112-6 X 10	CLS112-10 X 10

Note: X 10 in the part number denotes how many elements are sold in a box.

Mounting bracket available: MB-2S

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Filtration and Separation Division
Oxford, MI

FFC-113

Many large CNG powered vehicles, such as buses used in city transit systems rely on FFC-113 filters, which are installed onboard the vehicle itself. They protect critical engine components from contaminants present in

The FFC-113 is a popular filter choice onboard alternative fuel vehicles. Tiny solid and liquid contaminants can foul critical engine components, diminishing engine performance. These contaminants are typically generated during the compression, storage, and dispensing of alternative fuel gases like CNG. The FFC-113 removes sub-micronic contaminants with removal efficiencies from 95% to 99.97% ensuring long service intervals for components like fuel injectors.

Its robust 303 stainless steel construction and 3600 PSIG design pressure and relatively light weight combine to provide a unit that will withstand the harsh operating environments found on heavy duty vehicles like buses and trucks. It is supplied with 1/2" NPT connections and is designed for flows exceeding 1550 SCFM at

Specifications:

Model Number	Port Size (NPT)	Max. Pressure	Max. Temp.	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
FFC-113	1/2”	3600 PSIG (248 bar)	175°F (79°C)	303 Stainless Steel	303 Stainless Steel	303 Stainless Steel	Fluoro-carbon	5.0 oz. (147.9 ml)	5.5 lbs. (2.5 kgs.)	8.06”	2.97”

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100 PSIG	250 PSIG	500 PSIG	750 PSIG	1000 PSIG	1500 PSIG	2000 PSIG	2500 PSIG	3000 PSIG	3600 PSIG
FFC-113	6	25	58	112	167	221	330	439	548	657	788
	10	50	115	224	333	442	660	878	1096	1314	1576

How to Order:

F	F		-	1	1	3	-

Example: FFC-113-6

Element Grade
6
10

Replacement Elements Available:

Filter Housing Model	Media Grade 6	Media Grade 10
FFC-113	DLS113-6 X 6	DLS113-10 X 6

Note: X 6 in the part number denotes how many elements are sold in a box.

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Filtration and Separation Division
Oxford, MI

5000 PSIG Pressure Filters

J-Series

J-Series filters are used in a number of applications, ranging from breathing air for scuba divers, to high-pressure hydraulic circuit testing, to a variety of uses in the alternative fuel industry.

Finite's J-Series is designed to filter contaminants such as rust and pipe scale, compressor lube oil, and water from compressed gases. These filters are often used in high pressure compressed natural gas (CNG) systems, not only as inter-stage filters in the multiple stage compression of the gas, but also in the storage and delivery of the gas to CNG powered vehicles.

Finite's varied media choices remove up to 99.995% of both solid and liquid aerosols, and contaminants as small as 0.2 microns in size. Additionally, cartridges are available with either silica gel or molecular sieve, these desiccants adsorb water vapor, drying the high pressure air or gas. An activated carbon media is also available which removes oil vapor. This stage of filtration is often used as the final filter before the storage of high pressure breathing air used by scuba divers, firefighters, and others that utilize portable breathing devices.

The filter housings and the replaceable elements used in this product line have an extremely robust construction, specially designed for use in system pressures up to 5000 psig. Four housing sizes and two thread styles (NPT or SAE) are available with connections ranging from ½" to 1 ½"; temperatures up to 350°F, and flows up to 20,000 SCFM at 5000 PSIG.

Specifications:

Model Number	Port Size	Max. Pressure	Max. Temp. for each Element Type	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
J2SD	SAE-8*	5000 PSIG (345 bar)	350°F (C, 3P, 100WS) 175°F (A)	Ductile Cast Iron	Alumi-num	Car-bon Steel	Fluo-rocar-bon	2.0 oz. (60 ml)	9.2 lbs. (4.2 kgs.)	8.1" (205.7 mm)	3.7" (94.0mm)
J2SL	SAE-8*	5000 PSIG (345 bar)	350°F (C, 3P, 100WS) 175°F (A)	Ductile Cast Iron	Alumi-num	Car-bon Steel	Fluo-rocar-bon	7.4 oz. (220 ml)	13.1 lbs. (5.9 kgs.)	12.0"	3.7" (94.0mm)
J4SF/ J4NF	SAE-16/ 1" NPT	5000 PSIG (345 bar)	350°F (C, 3P, 100WS) 175°F (A) 130°F (10J)	Nodu-lar Cast Iron	Alumi-num	Nodu-lar Cast Iron	Fluo-rocar-bon	7.1 oz. (210 ml)	22.1 lbs. (10.0 kgs.)	13.5"	4.6"
J6SH/ J6NH	SAE-24/ 1 ½" NPT	5000 PSIG (345 bar)	350°F (C, 3P, 100WS) 175°F (A) 130°F (10J)	Nodu-lar Cast Iron	Alumi-num	Car-bon Steel	Fluo-rocar-bon	21.5 oz. (636 ml)	52.3 lbs. (23.7 kgs.)	21.1"	6.5"

Parker Hannifin Corporation
Filtration and Separation Division
Oxford, MI

How to Order:

Series Name	Port Size	Port Type	Bowl	-	Element Grade	Element Construction	Element Size
J	**2** (1/2")	**S** (SAE-8) Note: 1/2" NPT adapter bushings included.	**D** (Standard) **L** (Extra Sump)		**4C** **10C** **3P** **A**	**WC** (metal retainers, bonded on end caps with positive o-ring seal)	**11-035** (J2) **15-070** (J4) **23-130** (J6)
					Leave blank	**100WS**	
	4 (1")	**N** (NPT) **S** (SAE-16)	**F** (Standard)		**10J** (Available on 1" and 1 ½" port only)	**WM** (desiccant dryer with molecular sieve) **WA** (desiccant dryer with activated aluminum)	
	6 (1 1/2")	**N** (NPT) **S** (SAE-24)	**H** (Standard)				

Examples: J2SL-10CWC11-035
J4NF-4CWC15-070
J6SH-3PWC23-130

SMN1M-AUN

How to Order Replacement Elements:

1. Determine the housing you have by choosing from the "Housing" column on the chart.

2. Determine the "Element Grade and Type" you need.
See page 6-7 for more detail on grade selection.

3. Determine the corresponding element size by choosing from the "Element Size" column on the chart.

4. Combine "Element Grade and Type" , "Element Size" and "Box Quantity" get part number.

Example: 4CWC15-070 X 2 or 3PWC23-130 X 1

Housings are sold with one element. Build your own replacement element with the chart below.

Housing	Element Grade and Type	Element Size	X	Box Quantity
J2SD, J2SL	4CWC, 10CWC, 3PWC, AWC, 100WS	11-035		4
J4NF, J4SF	4CWC, 10CWC, 3PWC, AWC, 100WS, 10JWM, 10JWA	15-070		2
J6NH, J6SH	4CWC, 10CWC, 3PWC, AWC, 100WS, 10JWM, 10JWA	23-130		1

Use a high pressure drain kit with Finite's J-Series... see page 26!

For J-Series Flow Rates ... see next page!

J-Series (5000 PSIG) Flow Rates (SCFM):

Filter Housing Model	Media Grade	100 PSIG	1000 PSIG	1500 PSIG	2000 PSIG	2500 PSIG	3000 PSIG	3500 PSIG	4000 PSIG	4500 PSIG	5000 PSIG
J2SD/J2SL	4C	30	265	400	527	658	800	919	1050	1200	1333
	10C	60	531	800	1054	1315	1600	1839	2100	2400	2667
	3P	60	531	800	1054	1315	1600	1839	2100	2400	2667
	A	30	265	400	527	658	800	919	1050	1200	1333
	100WS	60	531	800	1054	1315	1600	1839	2100	2400	2667
J4SF/J4NF	4C	75	663	1000	1317	1644	2000	2298	2625	3000	3333
	10C	150	1327	2000	2635	3289	4000	4596	5250	6000	6667
	3P	150	1327	2000	2635	3289	4000	4596	5250	6000	6667
	A	75	663	1000	1317	1644	2000	2298	2625	3000	3333
	100WS	150	1327	2000	2635	3289	4000	4596	5250	6000	6667
	10JWM	150	1327	2000	2635	3289	4000	4596	5250	6000	6667
	10JWA	150	1327	2000	2635	3289	4000	4596	5250	6000	6667
J6SH/J6NH	4C	225	1990	3000	3952	4933	6000	6895	7875	9000	10000
	10C	450	3981	6000	7904	9866	12000	13789	15751	18000	20000
	3P	450	3981	6000	7904	9866	12000	13789	15751	18000	20000
	A	225	1990	3000	3952	4933	6000	6895	7875	9000	10000
	100WS	450	3981	6000	7904	9866	6000	13789	15751	6000	6667
	10JWM	450	3981	6000	7904	9866	6000	13789	15751	6000	6667
	10JWA	450	3981	6000	7904	9866	6000	13789	15751	6000	6667

Scuba divers rely on clean, dry air to fill their air tanks. Finite filters ensure that any impurities, such as oil, water or particulate are removed before entering the tanks.

Parker Hannifin Corporation
Filtration and Separation Division
Oxford, MI

5000 PSIG Pressure Filters

S*R

These robust, corrosion resistant filters are ideal for ultrafine filtration of specialty gases.

Measuring only four inches in height, these filters are ideal for bypass gas sampling applications. The drain port (plugged) connection size matches the inlet/outlet connection size. The corrosion resistant materials used for this model lend themselves to extreme operating environments.

*specify part number S5R for 1/8" NPT connections or S1R for 1/4" NPT connections.

Specifications:

Model Number	Port Size (NPT)	Max. Pressure	Max. Temp. for each Element Type	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width
S5R, S1R	1/8", 1/4"	5000 PSIG (345 bar)	400°F (T) 350°F (G, C) 275°F (F)	316 Stainless Steel	316 Stainless Steel	316 Stainless Steel	Fluoro-carbon	0.25 oz. (7.4 ml)	1.16 lbs. (0.53 kgs.)	4.0"	1.75"

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100 PSIG	1000 PSIG	1500 PSIG	2000 PSIG	2500 PSIG	3000 PSIG	3500 PSIG	4000 PSIG	4500 PSIG	5000 PSIG
S5R/S1R	4	6.4	56	85	112	140	168	196	224	252	280
	6	8.4	74	111	148	184	221	257	294	331	368
	8	9.2	82	121	162	202	242	282	322	362	402
	10	10	90	132	176	219	263	306	350	394	438

How to Order:

	Port Size NPT			Media	Media Type	Element Size
S	5 (1/8") 1 (1/4")	R	-	4 6 8 10	G T F H C	04-023

Example: S1R-6T04-023

Mounting bracket available: MBS-1

How to Order Replacement Elements:

Elements available:
_G04-023 X 10
_T04-023 X 10
_F04-023 X 10
_H04-023 X 10
_C04-023 X 10

_ insert grade: 4, 6, 8, 10

For more information on element selection, please see pages 6-7.

Parker Hannifin Corporation
Filtration and Separation Division
Oxford, MI

5000 PSIG Pressure Filters

S1IL

The S1IL is often used on specialty gas analyzers or to remove particulate contamination from bottled gases.

Finite's S1IL particulate filter is typically applied in bottled gas applications or for sample preparation on gas analyzing equipment. It does not have a drain port and should only be used when little or no liquid contamination is expected. Though small in size, the S1IL is perfect for applications with elevated pressures or corrosive atmospheres and offers the availability of a high temperature element. Three high efficiency particulate elements are available for temperatures rated up to 400°F.

Specifications:

Model Number	Port Size	Max. Pressure	Max. Temp. for each Element Type	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100 PSIG	1000 PSIG	1500 PSIG	2000 PSIG	2500 PSIG	3000 PSIG	3500 PSIG	4000 PSIG	4500 PSIG	5000 PSIG
S1IL	4	3.6	32	48	63	79	95	110	126	142	158
	6	4.7	42	62	83	103	124	144	165	185	206
	8	5.2	46	69	91	114	137	159	182	205	228
	10	5.7	51	75	100	125	150	175	200	224	249

How to Order:

					Media	Media Type	Element Size
S	1	I		-	4 6 8 10	T G F	04-013

Example: S1IL-8G04-013

How to Order Replacement Elements:

Elements available:
*T04-013 X 10
*G04-013 X 10
*F04-013 X 10

* insert grade: 4, 6, 8, 10
For more information on element selection, please see pages 6-7.
Elements are sold in box quantities of 10.

Parker Hannifin Corporation
Filtration and Separation Division
Oxford, MI

FFC-116

Many CNG powered commuter vehicles, such as shuttle buses, taxis or vans, rely on FFC-116 filters to protect contaminants from fouling fuel injector systems. Both solid and liquid contaminants can enter the system from various

This stainless steel filter is commonly used to filter oil, water and particulate from lower flow CNG systems and onboard CNG vehicles. Its small size allows for installation versatility and ease of servicing. The 316 stainless steel construction resists corrosion. Its 5000 PSIG design enables it to be used on the high pressure side of a CNG system, protecting both the regulator and the fuel injectors. The sump capacity is 0.25 oz. (7.4 cc) for fluid contaminants, which can be drained through a plugged 1/4" NPT drain port.

Specifications:

Model Number	Port Size (NPT)	Max. Pressure	Max. Temp.	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions	
				Head	Internals	Bowl				Length	Width

Flow Rates (SCFM):

Filter Housing Model	Media Grade	100 PSIG	1000 PSIG	1500 PSIG	2000 PSIG	2500 PSIG	3000 PSIG	3500 PSIG	4000 PSIG	4500 PSIG	5000 PSIG
FFC-116	6	8.4	74	111	148	184	221	257	294	331	368
	10	10	90	132	176	219	263	306	350	394	438

How to Order:

								Element Grade
F	F		-	1	1	6	-	6 10

Example: FFC-116-6

Mounting bracket available: MBS-1

Replacement Elements Available:

Filter Housing Model	Media Grade 6	Media Grade 10
FFC-116	CLS116-6 X 10	CLS116-10 X 10

Note: X 10 in the part number denotes how many elements are sold

Parker Hannifin Corporation
Filtration and Separation Division
Oxford, MI

6000 PSIG Pressure Filters

SJ-Series

This robust, stainless steel filter is rated for working pressures up to 6000 PSIG, which makes this the filter of choice for extremely demanding applications. The SJ-series comes in a variety of port sizes and types, reducing the need for extra piping or the use of adapters in your application. The ¼" drain port allows the user to drain all oil from the assembly prior to servicing, eliminating possible cross contamination and leaving a cleaner environment. Use this filter for your offshore applications, water fogging, caustic washdowns (food processing) or on high pressure test stands. A wide variety of filter element media grades and styles means that your application needs will be efficiently met.

Specifications:

Model Number	Port Size (NPT or SAE)	Max. Pressure	Max. Temp. for each Element Type	Materials of Construction			Seals	Sump Capacity	Weight	Dimensions		Replace-ment Element Size
				Head	Internals	Bowl				Length	Width	
SJN*S, SJS*S	1/2"-1"	6000 PSIG (414 bar)	175°F (Grade A) 350°F (All other grades)	316L Stain-less Steel	316L Stainless Steel	316L Stain-less Steel	Fluoro-carbon	2.1 oz. (61 ml)	14 lbs. (6.4 kgs.)	8.26" (210mm)	4.00" (102mm)	11-036
SJN*L, SJS*L	1/2"-1"	6000 PSIG (414 bar)	175°F (Grade A) 350°F (All other grades)	316L Stain-less Steel	316L Stainless Steel	316L Stain-less Steel	Fluoro-carbon	7.8 oz. (230 ml)	18 lbs. (8.2 kgs.)	11.97" (304mm)	4.00" (102mm)	11-036

*insert port size: 2 =1/2", 3=3/4" and 4=1"

How to Order:

Series Name	Port Type	Port Size	Bowl		Element Grade	Element Construction	Accessories
SJ	N (NPT) S (SAE)	2 (1/2") 3 (3/4") 4 (1")	S (Standard) L (Long bowl, short element, extra sump) H (High Flow: Long bowl, long	-	4C 10C 3P A	WC (metal retainers, bonded on end caps with positive o-ring seal.)	N (No Accessories)
					100WS	Leave blank	

Examples: SJN2S-4CW-CN SJS3L-

How to Order Replacement Elements:

Housings are sold with one element. Build your own replacement element with the chart below.

Housing	Element Grade and Type	Element Size
SJN*S, SJS*S, SJN*L, SJS*L	4CWC, 10CWC, 3PWC, AWC, 100WS	11-036
SJN*H, SJS*H	4CWC, 10CWC, 3PWC, AWC, 100WS	11-072

1. Determine the housing you have by choosing from the "Housing" column on the chart. *Insert port size. See How to Order above for more info on port sizes.
2. Determine the "Element Grade and Type" you need. See pages 6-7 for more detail on grade selection.
3. Determine the corresponding element size by choosing from the "Element Size" column on the chart.
4. Combine "Element Grade and Type" , "Element Size" and then add box quantity to the end. Box quantities are all X 4, except 100WS which is X 1.

Example: 4CWC11-036 X 4 or 100WS11-072X 1

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Oxford, MI

Use a high pressure drain kit with Finite's SJ-Series... see page 26!

Flow Rates (SCFM):

Filter Housing Model	Me-dia	100	250	500	750	1000	1500	2000	2500	3000	3500	4500	5000	5500	6000
SJN_S	4C	25	58	112	167	221	330	439	548	657	766	984	1093	1202	1311
	10C	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	3P	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	A	33	76	148	220	292	436	580	723	867	1011	1299	1443	1587	1731
	100	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
SJS_S	4C	25	58	112	167	221	330	439	548	657	766	984	1093	1202	1311
	10C	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	3P	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	A	33	76	148	220	292	436	580	723	867	1011	1299	1443	1587	1731
	100	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
SJN_L	4C	25	58	112	167	221	330	439	548	657	766	984	1093	1202	1311
	10C	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	3P	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	A	33	76	148	220	292	436	580	723	867	1011	1299	1443	1587	1731
	100	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
SJS_L	4C	25	58	112	167	221	330	439	548	657	766	984	1093	1202	1311
	10C	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	3P	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
	A	33	76	148	220	292	436	580	723	867	1011	1299	1443	1587	1731
	100	55	127	247	367	487	726	966	1206	1446	1685	2165	2405	2644	2884
SJN_H	4C	62	143	278	413	548	819	1089	1359	1630	1900	2440	2711	2981	3252
	10C	136	314	610	907	1203	1796	2389	2982	3575	4167	5353	5946	6539	7133
	3P	136	314	610	907	1203	1796	2389	2982	3575	4167	5353	5946	6539	7133
	A	82	189	368	547	725	1083	1440	1798	2155	2513	3228	3585	3943	4301
	100	136	314	610	907	1203	1796	2389	2982	3575	4167	5353	5946	6539	7133
SJS_H	4C	62	143	278	413	548	819	1089	1359	1630	1900	2440	2711	2981	3252
	10C	136	314	610	907	1203	1796	2389	2982	3575	4167	5353	5946	6539	7133
	3P	136	314	610	907	1203	1796	2389	2982	3575	4167	5353	5946	6539	7133
	A	82	189	368	547	725	1083	1440	1798	2155	2513	3228	3585	3943	4301
	100	136	314	610	907	1203	1796	2389	2982	3575	4167	5353	5946	6539	7133

Note: _insert port type. See How to Order on page 24 for more information.

Parker Hannifin Corporation
Filtration and Separation Division
Oxford, MI

High Pressure Drain Kits

Product Overview

High pressure compressed gas systems oftentimes contain excessive amounts of liquid aerosols. This liquid can best be removed by utilizing Finite's J-Series or SJ-Series coalescing filters. A Grade 10 filter followed by a Grade 4 filter will remove greater than 99.995% of the liquid water and/or oil carryover from the compressed gas system. This liquid can now be safely removed with Finite's NEW High Pressure Drains (JDK and SJDK Series)! These drains are fully-assembled and are constructed of 316 Stainless Steel. They include two needle valves, fittings, and a pipe reservoir.

The JDK Series is rated for 5000 PSIG and connects directly to the bottom of the J-Series filter housings. The SJDK Series is rated for 6000 PSIG and connects directly to the bottom of the SJ-Series housing. These High Pressure Drains are offered in both vertical and horizontal orientations. The vertical orientation is ideal for applications in which there is adequate bowl removal clearance, while the horizontal orientation is ideal for applications with limited bowl removal clearance.

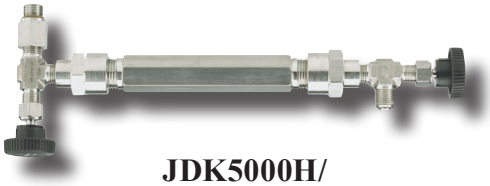
Operation

Finite's new High Pressure Drains allow the user to safely remove condensate from a high pressure compressed gas system. Proper operation of the drain involves keeping the first needle valve open and the second needle valve closed. The liquid that is coalesced from the filter will empty into the drain's high pressure reservoir and fill the internal volume with liquid.

When it is time to expel the liquid from the drain kit (usually on a preventative maintenance schedule), the top needle valve should be closed to shut off system pressure. The bottom needle valve should then be opened SLOWLY since the liquid will discharge rapidly from the drain. This procedure should be repeated until all of the liquid has been removed from the filter bowl and drain reservoir.

All liquid should be collected and disposed of in accordance with local regulations.

JDK5000V/ SJDK6000V



JDK5000H/ SJDK6000H

A direct connection

Finite's drain kits can be used in many high pressure air or gas system. They can also be used to hook up directly to Finite's J-Series (pages 18-20) or Finite's SJ-Series (pages 24-25).

Finite's J-Series

Finite's SJ-Series

Part Number	Description	Inlet	Outlet	Max Pressure	Max Temp.
JDK5000V	Vertical J-Series Drain	SAE-6	1/4" NPT	5000 PSIG (345 bar)	100°F (38°C)
JDK5000H	Horizontal J-Series Drain	SAE-6	1/4" NPT	5000 PSIG (345 bar)	100°F (38°C)

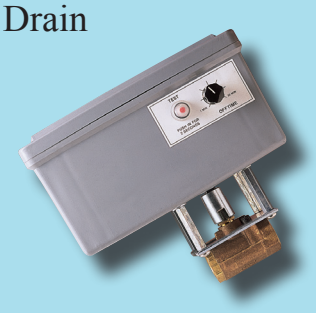
*The SAE-4 fitting can be removed to adapt to

ADS-50
304 Stainless Steel
Automatic Drain Trap

Specifications:

Max Tempera-ture:	450°F (232°C)
Max Pressure:	250 PSIG (17 bar)
Connections:	1/2” NPT inlet and outlet

TD-50
Adjustable Timed Drain Valve



Specifications:

Max Tempera-ture:	150°F (66°C)
Max Pressure:	600 PSIG (42 bar)
Connections:	1/2” NPT inlet and outlet

TV-25-700
Timed Drain Valve

Specifications:

Max. Tempera-ture:	210°F (99°C)
Max. Pressure:	700 PSIG (48 bar)
Connections:	1/4” NPT

DPI-25
Differential Pressure Gauge

Specifications:

Max. Tempera-ture:	200°F (88°C)
Max. Pressure:	5000 PSIG (340 bar)
Connections:	1/4” NPT

Other options available:
- BDPI-25 (DPI-25 with mounting brackets)
- DPS-25 (DPI-25 with SPST reed switch included)
- BDPS-25 (DPS-25 with mounting brackets)

DPG-15HP
Adjustable Timed Drain Valve

Specifications:

Max. Tempera-ture:	200°F (93°C)
Max. Pressure:	800 PSIG (55 bar)

Filtration Group Manufacturing & Technical Service Locations

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