

# H Series High Efficiency Coalescing Filters



# Why Filter Compressed Air?

# Product rejects and increased maintenance expenses can occur due to poor air quality

Submicronic contaminants in compressed air systems plug orifices of sensitive pneumatic instrumentation, wear out seals, erode system components, reduce the absorptive capacity of desiccant air/gas dehydrators, foul heat transfer surfaces, reduce air tool efficiency, and damage finished products. The results include product rejects, lost production time and increased maintenance expense. For example, trace amounts of submicronic oil can cause serious fish eye blemishing in automotive finishing operations. Water left in air lines can freeze during exposure to cold temperatures, blocking flow or rupturing pipes. Compressor lubricant not captured in a coalescing filter will eventually collect in pneumatic components, causing premature component repair or replacement. Environmental concerns will be raised if oily, compressed air is continually discharged into the atmosphere through a pneumatic muffler.

# Finite's H-Series Offers

- · Coalescing, particulate and adsorption filter elements
- · Optional indicators, gauges and drains
- Temperatures to 450° F (232° C)
- Pressures to 500 PSIG (34 bar)
- Connection sizes from 1/4" to 3" NPT, BSPP & BSPT
- Flows from 10 to 1660 SCFM (17-2822 m3/hr)

# Why Use Finite Filters?

### **Element formation**

Our special UNI-CAST formed elements provide lower pressure drop and less frequent changeouts, saving you time and money.

# We meet your needs

Finite offers a variety of filter elements to meet your application requirements.

# **Technical support**

We are committed to providing unmatched technical support to all of our customers.

### Configure your filter housing

Multiple accessories are offered as first-fit or available to purchase separately.

# **Typical Applications**

(See Pages 4-5 for application and air cleanliness schematics)

# **Coalescing (Oil Removal)**

- · Air dryer prefilter
- · Paint spray booths
- · Breathing air
- Tool protection
- · Air valve protection
- Air cylinder protection
- Natural gas filtration
- · Technical gas filtration

# Interceptor (Particulate Removal)

- Desiccant dryer afterfilter
- · Prefilter for coalescer
- Systems with high concentrations of solid contaminant
- Particulate protection for non-lubricated systems

# Adsorber (Vapor Removal)

- · Odor removal
- · Breathing air
- Food packaging equipment
- · High purity laboratory gases
- Hydrocarbon vapor removal

# **Sources of Contamination**

# Compressed air and gas lines typically contain water, oil, and particulate contamination

The contaminants of greatest concern in precision compressed air systems are water, oil, and solids. Water vapor is present in all compressed air and it becomes greatly concentrated by the compression process. While air dryer systems can be used effectively to remove water from compressed air, they will not remove the second major liquid contaminant – oil.

Most oil comes from compressor lubrication carry-over, but even the air produced by oil-free compressors has hydrocarbon contamination brought into the system through the intake.

The third contaminant is solid matter including dirt, rust, and scale. Solid particulates, combined with aerosols of water and oil, can clog and shorten the life of air system components and can foul processes.

# Four steps to clean, dry compressed air and gas:



Determine your application, media grade, media type and end seal material.
Pages 4-7



Choose your accessories. Find out what's standard or choose what's best for your application. Page 9



Choose your housing and replacement elements. Pages 8-9



Order by using our part number configurator. Pages 10-11



# Compressed Air Standards and Applications

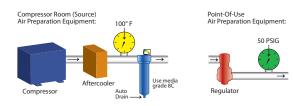
From aeration in pharmaceutical and chemical processes to pneumatic power systems, the possibilities for applications are endless. Finite has some suggested air cleanliness standards that may fit your needs.

International Standard ISO8573-1 has become the industry standard method for specifying compressed air cleanliness. The following diagrams describe various systems in terms of their corresponding ISO classification.

	Notification as specified in ISO8573 - 1 (1991)								
	Maximum	S	olid	Wa	ter	Oil			
Class	Particle Size	Maximum Concentration*		Maximum Pressure Dewpoint		Maximum Concentration*			
	(µm)	ppm	mg/m³	° <b>F</b>	°C	ppm	mg/m³		
1	0.1	0.08	(0.1)	-94	(-70)	0.008	(0.01)		
2	1	0.8	(1)	-40	(-40)	0.08	(0.1)		
3	5	4.2	(5)	-4	(-20)	0.83	(1)		
4	15	6.7	(8)	37	(+3)	4.2	(5)		
5	40	8.3	(10)	45	(+7)	2.1	(25)		
6	-	-	-	50	(+10)	-	-		

- \*At 14.7 psi (1 bar) absolute pressure, +70°F (+20°C) and a relative humidity of 60%.
- It should be noted that at pressures above atmospheric, the contaminant concentration is higher.
- The quality of the air delivered by nonlubricated compressors is influenced by the quality of the intake air and the compressor design.

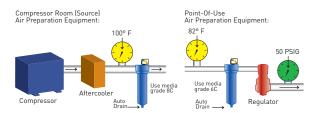
# ISO Class 2 3



Any compressor with aftercooler. Air intended for use with lubricated air tools, air motors, cylinders, shot blasting, non-frictional valves.

OTHER SPECS MET: Compressed Air & Gas Institute: CGA – G7.1 (Grades A & Ba1)

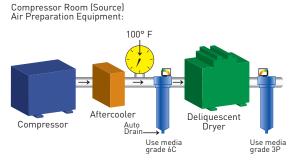
# ISO Class 1



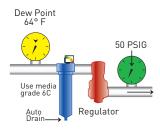
Any compressor with aftercooler and 2-stage coalescing. Air intended for use with lubricated control valves, cylinders, parts blow-down, etc.

OTHER SPECS MET: Mil. Std. 282 H.E.P.A., U.S.P.H.S. 3A Accepted particles for milk

# ISO Class 1 1 1



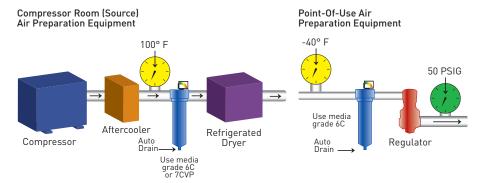
Point-Of-Use Air Preparation Equipment:



Any compressor with aftercooler, 2-stage coalescing and deliquescent dryer. Air intended for use with general pneumatic systems, body shop spray painting and components sensitive to high moisture content.

OTHER SPECS MET: Compressed Air & Gas Institute: CGA - G7.1 (Grade C)

# ISO Class 141

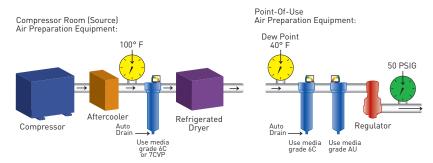


Any compressor with aftercooler, 2-stage coalescing and refrigerated dryer. Air intended for use with air-gauging, air conveyors, spray-painting, food processing, instrumentation,

blow molding, cosmetics, film processing, bottling, pharmaceuticals, dairy, breweries, medical, robotics, and close tolerance valves.

SPECS MET: CGA - G7.1 (Grades D & E), ISAS7.3 Fed. Std. 209 (Class 100)

### ISO Class 141



Any compressor with aftercooler, 2-stage coalescing, refrigerated dryer and carbon absorber. Air intended for use as industrial breathing air and decompression chambers.

OTHER SPECS MET: O.S.H.A. 29CFR 1910.134

CAUTION: Always use high temperature synthetic lubricants and monitor (alarm for carbon monoxide concentrations). This system will not eliminate toxic gases!

### ISO Class 121

# Compressor Room (Source) Air Preparation Equipment: Point-Of-Use Air Preparation Equipment: 100° F Regenerative Dessicant Dryer Use media grade 6C Use media grade 6C Use media 3PU [Heatless Dryer] 10DS [Heat Generated]

Any compressor with aftercooler, two-stage and double coalescing and a regenerative-type desiccant dryer. Air intended for use in applications involving rapid expansion

SPECS MET: CGA - G7.1 (Grade F)

of compressed air, critical instrumentation, high purity gases, computer chip drying, etc. CAUTION: This air is too dry for respiratory use.

# Determine your application, media grade, media type and end seals.

Find your (or similar) application from the descriptions below, from the basic application circuits on the previous page, or consult a Finite application engineer. Determine media grade, media type, and end seal required. If your application requires a coalescing element, use the information listed below. For other media types, please see the following page.

# **Coalescing Elements (removal of liquids and particulate)**

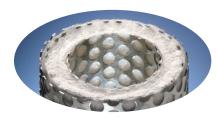


### Media type C

Available in grades 4, 6, 8, or 10 Air Flow: Inside to Outside

This coalescing element is made with our special UNI-CAST construction. Composed of an epoxy saturated, borosilicate glass micro-fiber media, this media is used in applications requiring the removal of liquid and particulate contamination. The outer synthetic fabric layer allows swift removal of coalesced liquids.

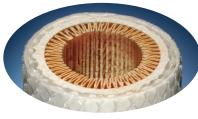
Media type I is constructed similarly to the C media but also includes an inner retainer intended for additional strength where reverse flow is likely.



### Media type D

Available in grades 4, 6, 8, or 10 Air Flow: Inside to Outside

This coalescing element is composed of an epoxy saturated, borosilicate glass micro-fiber media, and is also made with our special UNI-CAST construction. This media type has a built-in pleated cellulose prefilter as the inner layer. As with the C and I media types, the outer synthetic fabric layer aids in the swift and efficient removal of coalesced liquids.



# Media type Q

Available in grades 4, 6, 8, or 10 Air Flow: Inside to Outside

Media type D elements are composed of a micro-glass coalescer, utilize a special high temperature UNI-CAST formulation, but are surrounded by inner and outer diameter metal retainers. These metal retainers, coupled with a glass drain layer, make this an extremely robust element designed to remove both solid and liquid contaminants at elevated temperatures.



### Media type 7CVP or ME

Air Flow: Inside to Outside
Only available in 11/4" NPT port size housings
and larger

Finite's 7CVP media type consists of two filter layers between metal retainers. The outer layer removes aerosols while the inner layer traps solid particles, protecting and extending the life of the outer layer. 7CVP elements are used in bulk liquid coalescing applications or when relatively high efficiency and low pressure drop are required. A special 7DVP media is constructed the same way, however it allows for higher temperature applications.

Finite's ME media type are mist eliminator elements that are constructed similarly to the 7CVP, but offer even higher filtration efficiency for more critical compressed air quality demands.

# For types C, D, I and Q - Choose your grade

### Grade 4

Finite's media grade 4 is typically chosen when an extremely high coalescing efficiency is required. Its 99.995% rating is the best available and is ideal for use as a final filter in applications with elevated operating pressures (up to 500 PSIG), or when removing liquid contaminants from gases lighter than compressed air.

### Grade 6 (Standard)

Grade 6 filters are used when "total removal of liquid aerosols and suspended fines" is required. Because of its overall performance characteristics, this grade is most often recommended in a variety of industrial applications. Grade 6 is an excellent choice as a prefilter for regenerative desiccant air dryers, as it prevents oil or varnish from coating the desiccant.

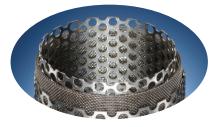
### Grade 8

Grade 8 filters combine high efficiency (98.5%) with high flow rate and long element life. A separate prefilter is not required for "normal to light" particulate loading. A grade 8 element is often chosen as protection for refrigerated air dryers. This element allows the dryer to maintain efficiency by preventing the coating of copper coils with the build-up of oil or varnish.

### Grade 10

Grade 10 filters are used as prefilters for grades 6 or 8 to remove gross amounts of liquid aerosols or tenacious aerosols. Grade 10 is often referred to as a coarse coalescer, or precoalescer. A grade 10 in a media type D filter element is recommended as an afterfilter for heat regenerated desiccant type air dryers as its one micron rating is ideal for collecting air dryer desiccant fines before they pass downstream.

# Water Separator Element (removal of bulk liquids)



# Media type 100WS

Air Flow: Inside to Outside

This rolled stainless steel mesh element has ID and OD metal retainers with rolled stainless steel mesh in between. It is an extremely robust design. With a nominal rating of 100 micron, this media is used for the reduction and elimination of excess liquids in gas streams. It also would be a good choice as a prefilter for coalescing grades 6 and 10 when extreme volumes of liquid contaminants are present.

# Adsorption Element (removal of odor)



# Media type 3P

Air Flow: Outside to Inside

Finite's 3P pleated cellulose element removes solid contaminants, with a 3 micron absolute rating. Because this element is designed to flow from its outside to the inside, it has a strong inner retainer that gives this element added strength. 3P particulate "Interceptor" elements are used where very high dirt loading is expected but a relatively fine pore structure is required. It is also used as a prefilter to a coalescing filter in systems where a lot of solid contamination exists.

# Interceptor Element (removal of solids)



## Media type A

Air Flow: Outside to Inside

This hydrocarbon vapor removal element consists of an ultra-fine grained, highly concentrated, activated carbon sheet media. Because these elements are designed to flow from the outside to their inside, they have a strong inner retainer giving this element added strength. This media type is used to remove hydrocarbon vapor and is often used to remove the smell or taste of compressor lube oil from breathing air.

# **Finite Media Specifications**

Grade	Coalescing Efficiency	Maximum Oil	Micron	Pressure Drop (PSID) @ Rated Flow <sup>2</sup>		
Designation	0.3 to 0.6 Micron Particles	Carryover <sup>1</sup> PPM w/w	Rating	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	
ME	99.95%	0.02	0.3	.5	1.0	
7	99.5%	0.09	0.5	.25	0.5-0.7	
8	98.5%	0.2	0.5	.5	1-1.5	
10	95%	0.85	1.0	.5	0.5	
100WS	99+%³	N/A	100	< 0.25	< 0.25	
3P	N/A	N/A	3.0	0.25	N/A	
Α	99+%4	N/A	3.0	1.0	N/A	

# Notes:

- 1. Tested per ISO 12500-1 at 40 ppm inlet.
- 2. Add dry + wet columns for total pressure drop.
- 3. Bulk liquid removal efficiency.
- 4. Oil vapor removal efficiency is given for A media.

# **End Seals Available**

End Seals	Available on Media Type	Max. temp. of element with end seal
No end seals. Elements are self sealing.	С	175°F (79°C)
U: Molded	С	
Urethane (standard)	1	
(Standard)	Q	175°F (79°C)
	3P	
	100WS	
	Α	
S: Molded	С	175°F (79°C)
Silicone Rubber	Α	175°F (79°C)
	D	450°F (232°C)
	3P	350°F (177°C)
V: Fluorocarbon	С	350°F (177°C)
gaskets on metal end caps	Q	350°F (177°C)
metal end caps	D	450°F (232°C)
Note: V option	ME	175°F (79°C)
is only available on 1¼" NPT and	7CVP	175°F (79°C)
larger. Standard	7DVP	400°F (204°C)
on all 7CVP,	100WS	450°F (232°C)
7DVP, ME and 100WS media.	3P	350°F (177°C)
To The Interior	Α	175°F (79°C)

# **Determine your housing**

Find your desired flow rate under the appropriate media grade column. For pressures other than 100 PSIG or temperatures other than 70°F, please see Alternate Housing Selection Chart, Step 2a, below.

# **Housing Selection Chart**

Rated Flows:	SCFM@1	00 PSIG (	m <sup>3</sup> /hr @ 7	har)

House Assembly	Port Size	Grade 4 Coalescer	Grade 6 Coalescer (Standard)	Grade 7CVP Coalescer (or ME Media)	Grade 8 Coalescer	Grade 10 Coalescer & Grade 3PU Interceptor	Grade 100WS Water Separator	Grade A Adsorber
HN1S	1/4"	11 (19)	15 (26)	N/A	20 (34)	25 (43)	50 (85)	15 (26)
HN15S	3/8"	15 (26)	20 (34)	N/A	27 (46)	33 (56)	66 (112)	20 (34)
HN2S	1/2"	19 (32)	25 (43)	N/A	34 (58)	42 (71)	83 (141)	25 (43)
HN1L	1/4"	23 (39)	30 (51)	N/A	41 (68)	50 (85)	50 (85)	30 (51)
HN15L	3/8"	30 (51)	40 (68)	N/A	55 (94)	66 (112)	66 (112)	40 (68)
HN2L	1/2"	38 (65)	50 (85)	N/A	68 (116)	83 (141)	83 (141)	50 (85)
HN3S	3/4"	61 (104)	80 (136)	N/A	109 (185)	133 (226)	133 (226)	80 (136)
HN4S	1"	76 (129)	100 (170)	N/A	136 (231)	166 (282)	232 (394)	100 (170)
HN4L	1"	106 (180)	140 (238)	N/A	191 (325)	232 (394)	232 (394)	140 (238)
HN5S	1 1/4"	190 (323)	250 (425)	415 (706)	330 (461)	415 (706)	415 (706)	250 (425)
HN6S	1 1/2"	260 (442)	350 (595)	600 (1020)	465 (791)	600 (1020)	600 (1020)	350 (595)
HN8E	2"	260 (442)	350 (595)	600 (1020)	465 (791)	600 (1020)	600 (1020)	350 (595)
HN8S	2"	340 (578)	450 (765)	750 (1275)	600 (1020)	750 (1275)	750 (1275)	450 (765)
HN8L	2"	470 (799)	625 (1063)	1035 (1760)	830 (1411)	1035 (1760)	1035 (1760)	625 (1063)
HN0L	2 1/2"	600 (1020)	800 (1360)	1330 (2261)	1060 (1802)	1330 (2261)	1330 (2261)	800 (1360)
HN12L	3"	750 (1275)	1000 (1700)	1660 (2822)	1330 (2261)	1660 (2822)	1660 (2822)	1000 (1700)

# Step 2a. Alternate Housing Selection Chart

Use this step for applications with technical gases or for applications that do not have standard conditions (100 PSIG and 70°F).

Because the required size of a filter is affected not only by flow, but also by operating pressure and operating temperature, it is necessary to convert those actual conditions to standardized conditions (100 PSIG and 70°F). The calculated adjusted flow rate can then be used to choose the appropriate filter in the chart on the previous page. When using the chart, choose the closest flow rate from the appropriate media grade column.

**Note:** Take the square root of your specific gravity. If this is for a compressed air application, skip this step because the specific gravity of air equals one. Please see chart to the right for specific gravities.

Flow Rate		Pressure		Temperature		Specific Gravity (See chart above)		Adjusted Flow Rate
Actual System Flow Rate (SCFM)	X	(100 PSIG + 14.7 PSIG) (System Pressure (PSIG) +14.7 PSIG)	Χ	(System Temp. °F + 460°F)  70°F + 460°F	X		=	SCFM @ 100 PSIG, 70°F
Information Given: Flow Rate = 136 SCFM Pressure = 150 PSIG Actual Temperature = 100°F $ 136 SCFM X \frac{[100 PSIG + 14.7 PSIG]}{[150 PSIG + 14.7 PSIG]} X \frac{[100°F + 460°F]}{70°F + 460°F} X \sqrt{1} = 100 SCFM $								

Now go to the chart on page 8, look down the media grade 6 column for a flow of 100 SCFM, you will see the correct housing is the HN4S.

Refer to this chart if you do not know the specific gravity of the gas you are filtering.

# **Replacement Element Part Numbers**

\*Insert selected media grade 4, 6, 8, 10.

								9	
House Assembly	Coalescer	Coalescer w/inner retainer	High Temp.	Coalescer w/built-in prefilter	ME Mist Eliminator	7CVP Pleated Coalescer	3PU Interceptor	100WS Water Separator	AU Adsorber
HN1S	*C10-025	*IU10-025	*DS10-025	*QU10-025	N/A	N/A	3PU10-025	100WSU10-025	AU10-025
HN15S	*C10-025	*IU10-025	*DS10-025	*QU10-025	N/A	N/A	3PU10-025	100WSU10-025	AU10-025
HN2S	*C10-025	*IU10-025	*DS10-025	*QU10-025	N/A	N/A	3PU10-025	100WSU10-025	AU10-025
HN1L	*C10-050	*IU10-050	*DS10-050	*QU10-050	N/A	N/A	3PU10-050	100WSU10-025	AU10-050
HN15L	*C10-050	*IU10-050	*DS10-050	*QU10-050	N/A	N/A	3PU10-050	100WSU10-025	AU10-050
HN2L	*C10-050	*IU10-050	*DS10-050	*QU10-050	N/A	N/A	3PU10-050	100WSU10-025	AU10-050
HN3S	*C15-060	*IU15-060	*DS15-060	*QU15-060	N/A	N/A	3PU15-060	100WSU15-060	AU15-060
HN4S	*C15-060	*IU15-060	*DS15-060	*QU15-060	N/A	N/A	3PU15-060	100WSU15-060	AU15-060
HN4L	*C15-095	*IU15-095	*DS15-095	*QU15-095	N/A	N/A	3PU15-095	100WSU15-060	AU15-095
HN5S	*CU2	5-130	*DS25-130	*QU25-130	ME25-130	7CVP25-130	3PU25-130	100WS25-130	AU25-130
HN6S	*CU2	5-130	*DS25-130	*QU25-130	ME25-130	7CVP25-130	3PU25-130	100WS25-130	AU25-130
HN8E	*CU2	5-130	*DS25-130	*QU25-130	ME25-130	7CVP25-130	3PU25-130	100WS25-130	AU25-130
HN8S	*CU2	5-187	*DS25-187	*QU25-187	ME25-187	7CVP25-187	3PU25-187	100WS25-187	AU25-187
HN8L	*CU2	5-235	*DS25-235	*QU25-235	ME25-235	7CVP25-235	3PU25-235	100WS25-235	AU25-235
HN0L	*CU3	5-280	*DS35-280	*QU35-280	ME35-280	7CVP35-280	3PU35-280	100WS35-280	AU35-280
HN12L	*CU3	5-280	*DS35-280	*QU35-280	ME35-280	7CVP35-280	3PU35-280	100WS35-280	AU35-280

Gas	Specific Gravity
Air	1
Ammonia	0.58
Argon	1.37
Carbon Dioxide	1.52
Carbon Monoxide	0.96
Chlorine	2.48
Ethane	1.04
Ethylene	0.97
Helium	0.13
Hexane	2.73
Hydrogen	0.06
Methane	0.55
Natural Gas	0.66
Neon	0.69
Nitrogen	0.96
Oxygen	1.18
Pentane	2.47
Propane	1.56



# **Accessories**

Consult Finite when choosing pre-installed accessories for gases other than air.

# **Pre-installed Accessories**

Accessory Designator	Installed with	Max. Pressure	Max. Temperature
Α	Auto Drain	250 PSIG (17 bar)	175°F (79°C)
D	DPI Indicator	250 PSIG (17 bar)	175°F (79°C)
G	DPG Gauge	500 PSIG (34 bar)	175°F (79°C)
J	High Temp	250 PSIG (17 bar)	450°F (232°C)
N	No Accessories	500 PSIG (34 bar)	175°F (79°C)
P	DP Ports (1/8" NPT gauge ports)	500 PSIG (34 bar)	175°F (79°C)
V	Fluorocarbon O-rings	500 PSIG (34 bar)	175°F (79°C)
W	Auto Drain and DPI Indicator	250 PSIG (17 bar)	175°F (79°C)
X	Auto Drain and DP Ports	250 PSIG (17 bar)	175°F (79°C)
Υ	Auto Drain and DGP Gauge	250 PSIG (17 bar)	175°F (79°C)





DPG Gauge

**DPI** Indicator



Auto Drain (AD-12)

# **Other Compatible Accessories**

TV-50 Timed Drain Valve	ZLD-013 Zero Loss Drain	VS-50 Visual Sump Drain (not shown: standard bowl guard)	MS-50 Metal Sump Drain (External)
210° F (99° C)	140° F (60° C)	125° F (52° C)	175° F (79° C)
300 PSIG (20 Bar)	232 PSIG (16 Bar)	150 PSIG (10 Bar)	250 PSIG (17 Bar)
		1/2" NPT	

- The accessories above are compatible with this product line, however, they are sold separately. Other timed drain valves can be found in Finite's Catalog 1300-300-06/USA.
- Auto drains require a minimum operating pressure of 10 PSIG to seal.
- Mounting brackets available: BK-M (1/4" 1/2" connections); BK-3 (3/4" - 1" connections).



# **Examples of How to Order**

### Example 1: HN12L-6CUY

What am I ordering? An H-Series, with a 3" NPT connection, long bowl, standard grade 6 coalescing element with urethane end seals, an auto drain, and a standard DPG gauge.

# Example 4: HN2S-AUN

What am I ordering? An H-Series, with a 1/2" NPT connection, short bowl, adsorber element, with the standard urethane end seals and no accessories.

### Example 2: HN15L-8CA

What am I ordering?
An H-Series, with a 3/8" NPT connection, long bowl, grade 8 coalescing element without end seals and an auto drain.

### Example 3: HN8S-7CVPG

What am I ordering?
An H-Series, with a 2" NPT connection, standard bowl, a 7CVP coalescing element, with the standard fluorocarbon end seals and standard DPG gauge.

### Example 5: HN8E-10DVJ

What am I ordering?

An H-Series, with a 2" NPT connection, economy short bowl, grade 10 high-temp coalescing element, with the standard fluorocarbon end seals and "J" as an accessory. This high temperatureoption converts all materials to be capable of handling temperatures of 450°F.

# **How to Order**

Use the steps below to build your own part number. For any permutation not mentioned below, please consult factory at 1-800-521-4357.

# Step 1



- 1. SAE-32 2" connection only
- Bowl length is determined by the flow rate required.See page 8, Housing Selection Chart, for flow rates.
- 3. Economy bowl is only available on 2" connection size.

# Step 3



Accessory Designator for preinstalled accessories

- A Auto Drain
- D DPI Indicator
- G DPG Gauge (Standard on 3/4" & up)
- J High Temperature (450°F)
- N No Accessories
- P 1/8" Differential (3/4" & up) Sensing Ports
- V Fluorocarbon O-rings
- W A + D
- X A + P
- Y A + G

 For max. pressures and temperatures related to Accessories, please see chart on previous page.

# Step 2 or 2a

Εl

Gr

4

6

8

10

6 leme		ent Er	U nd Seal
	С	Blank	No end seal, Standard on 1/4" to 1" connection sizes
)		U	Urethane, Standard on 11/4" to 3" connection sizes
		S	Molded Silicone Rubber
		٧	Fluorocarbon, Available 1¼" to 3" connections only
	Q	U	Urethane, Standard on 1¼" to 3" connection sizes
		S	Molded Silicone Rubber
		٧	Fluorocarbon, Available 11/4" to 3" connections only
	D	S	Molded Silicone Rubber
		٧	Fluorocarbon, Available 1¼" to 3" connections only
	7CVP 7DVP ME	Blank	Fluorocarbon, Standard on all 7CVP, 7DVP, and ME elements; elements available 11/4" to 3" connections only
	- 1	U	Urethane, Standard on 1/4" to 1" connection sizes
	3P	U	Urethane, Standard on all connection sizes
	01	S	Molded Silicone Rubber
		٧	Fluorocarbon, Available 1¼" to 3" connections only
	100WS	U	Urethane, Standard on 1/4" to 1" connection sizes
		Blank	Fluorocarbon, standard on 100WS elements 11/4" to 3" connections only
	Δ	U	Urethane, Standard on all connection sizes
		S	Molded Silicone Rubber

 Grades are available on element type C, Q, D, and I. For 7CVP, 7DVP, ME, 3P, 100WS, and A, leave this blank.

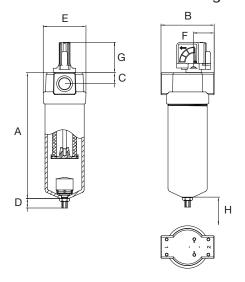
# **Drawings, Dimensions & Specifications**

# **Specifications**

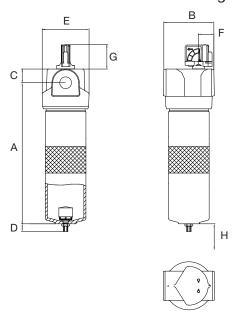
<b>Maximum Pressure</b>	500 psig (34 bar)
Safety Factor	Maximum operating to burst 4:1
Maximum Temperature	175°F (79°C) with option to 450°F (232°C)
Seals	Nitrile Std./Fluorocarbon optional
Materials: ¼" to 1" Port Size Housings 1¼" to 3" Port Size Housings	Aluminum - 380 Die cast heads; 6061 Drawn bowls Aluminum - 356 Die cast heads; 6061 Drawn bowls
Coatings	Chromated heads and bowls; Powder painted exterior
Design	In-line threaded bowl to head

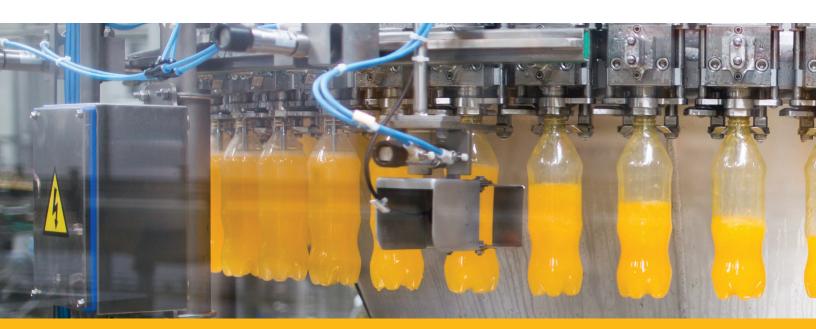
• Manual Drain port is 1/8" FNPT when tee valve is removed from drain bushing.

1/4" to 1" Port Size Housings



11/4" to 3" Port Size Housings





# **Weights and Dimensions**

Model	Α	В	С	D	E	F	G	Н*	Sump (ml)	Weight
H_1S	6.80 (172)	3.12 (79)	.63 (16)	.79 (20)	2.98 (76)	1.56 (39.5)		2.99 (76)	150	1.49 (.68)
H_15S	6.80 (172)	3.12 (79)	.63 (16)	.79 (20)	2.98 (76)	1.56 (39.5)		2.99 (76)	150	1.47 (.66)
H_2S	6.80 (172)	3.12 (79)	.63 (16)	.79 (20)	2.98 (76)	1.56 (39.5)		2.99 (76)	150	1.44 (.65)
H_1L	9.19 (233)	3.12 (79)	.63 (16)	.79 (20)	2.98 (76)	1.56 (39.5)		5.51 (140)	140	1.89 (.86)
H_15L	9.19 (233)	3.12 (79)	.63 (16)	.79 (20)	2.98 (76)	1.56 (39.5)		5.51 (140)	140	1.87 (.85)
H_2L	9.19 (233)	3.12 (79)	.63 (16)	.79 (20)	2.98 (76)	1.56 (39.5)		5.51 (140)	140	1.85 (.84)
H_3S	10.86 (276)	4.65 (118)	.96 (24)	.79 (20)	3.68 (93.5)	1.73 (44)		6.5 (165)	270	3.56 (1.61)
H_4S	10.86 (276)	4.65 (118)	.96 (24)	.79 (20)	3.68 (93.5)	1.73 (44)	2.6 (66)	6.5 (165)	270	3.29 (1.49)
H_4L	14.36 (365)	4.65 (118)	.96 (24)	.79 (20)	3.68 (93.5)	1.73 (44)		10.0 (254)	270	4.11 (1.86)
H_5S	18.23 (463)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)		13.50 (343)	440	12.11 (5.49)
H_6S	18.23 (463)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)		13.50 (343)	440	11.97 (5.43)
H_8E	18.23 (463)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)		13.50 (343)	440	11.97 (5.43)
H_8S	24.23 (617)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)		19.25 (489)	530	14.00 (6.35)
H_8L	29.23 (742)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)		24.02 (610)	620	15.99 (7.25)
H_OL	35.70 (907)	8.0 (203)	2.4 (61)	.83 (21)	7.24 (184)	2.36 (60)		28.50 (724)	880	35.00 (15.87)
H_12L	35.70 (907)	8.0 (203)	2.4 (61)	.83 (21)	7.24 (184)	2.36 (60)		28.50 (724)	880	34.14 (15.48)

- Dimensions are in inches (millimeters); weight is in pounds (kilograms).
   Clearance required to remove bowl.



# Parker Filtration Group

Aerospace Filtration Division Greensboro, North Carolina 336 668 4444

Bioscience & Water Filtration Division Bioscience Filtration Oxnard, California 877 784 2234

Water Purification Carson, California 310 608 5600

Engine Mobile Aftermarket Division Kearney, Nebraska 308 234 1951

Engine Mobile Original Equipment Division Modesto, California 209 521 7860

**HVAC Filtration Division** Jeffersonville, Indiana 866 247 4827

Hydraulic & Fuel Filtration Division Metamora, Ohio 419 644 4311 Industrial Gas Filtration & Generation Division Lancaster, NY 800 343 4048

Industrial Process Filtration Division Mineral Wells, Texas 940 325 2575

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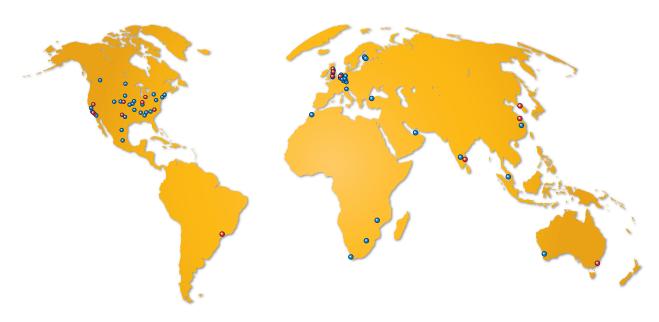
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State of California ONLY
WARNING: Proposition 65

The products described herein can expose you to chemicals known to the State of California to cause cancer or reproductive harm.

For more information: www.P65Warnings.ca.gov