Parker
Filtration

International H-Series

Compressed Air & Gas Filters

- **Coalescing, Particulate & Hydrocarbon Adsorption**
- **Flows from 10 to 1600 SCFM; 17 to 2822 m^3/hr**
- **1/4" to 3" NPT, BSPF & BSPT Ports**

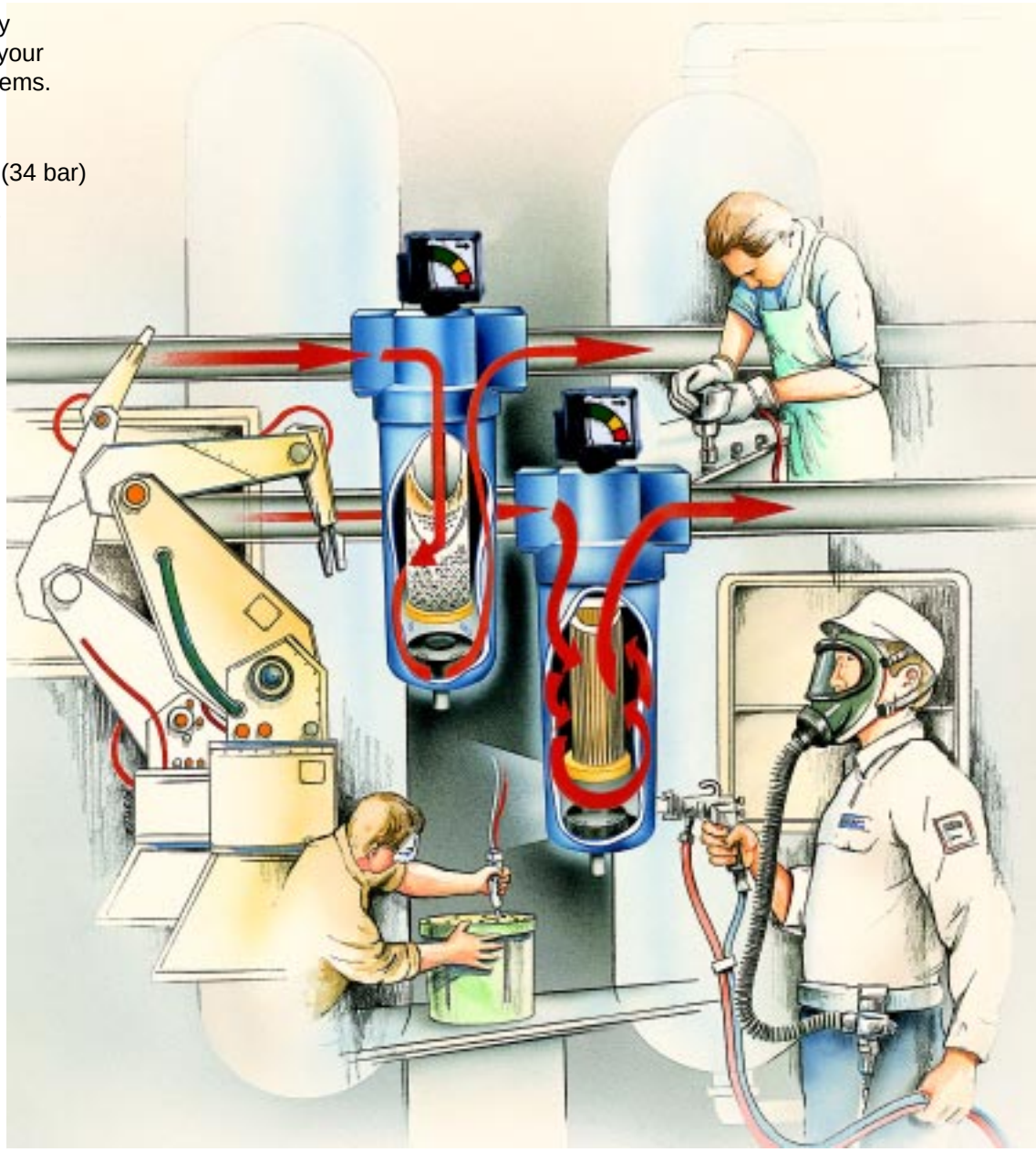
Bulletin 1300 - 993C/USA

Finite®

Finite Filter's International H-Series is the right solution for most compressed air/gas applications. The International H-Series housings are available with oil removal (coalescing), particulate and oil vapor removal elements.

This world class, world quality product can greatly improve your compressed air and gas systems.

- ***Pressure To:*** 500 PSIG (34 bar)
- ***Porting:*** 1/4" - 3" (NPT - BSPF - BSPT)
- ***Flows:*** 10 - 1600 SCFM (17-2822 m^3/hr)
- ***Construction:*** All aluminum with powder paint finish
- ***Design:*** In-line threaded bowl to head



Typical Applications

Coalescing (Oil Removal)

- Dryer protection
- Paint spray booths
- Breathing air
- Tool protection
- Valve protection
- Cylinder protection
- Compressed air system protection

Interceptor (Particulate Removal)

- Desiccant dryer afterfilter
- Prefilter for coalescer
- Systems with high particulate concentration
- Particulate protection for non lubricated systems

Adsorber (Vapor Removal)

- Odor removal
- Breathing air
- Food packaging machines
- High purity laboratory gases

International ISO Standards

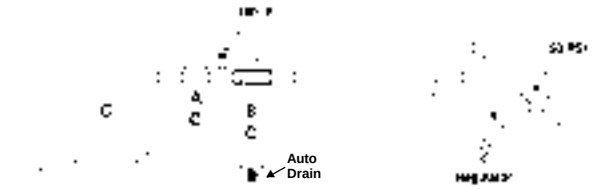
Table taken from ISO8573 - 1

Class	Solid			Water		Oil	
	Maximum Particle Size (μm)	Maximum Concentration ppm	(mg/m³)	Maximum Pressure Dewpoint °F	(°C)	Maximum Concentration ppm	(mg/m³)
1	0.1	.08	(0.1)	-94	(-70)	.008	(0.01)
2	1	.8	(1)	-40	(-40)	.08	(0.1)
3	5	4.2	(5)	-4	(-20)	.83	(1)
4	15	6.7	(8)	37	(+3)	4.2	(5)
5	40	8.3	(10)	45	(+7)	21	(25)
6	-	-	-	50	(+10)	-	-

ISO Class Example [1] **Solid** [4] **Water** [1] **Oil**

ISO Class [2] [ ] [3]

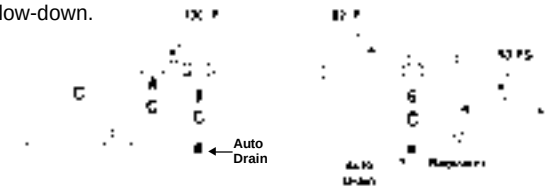
Any compressor with aftercooler. Air intended for use with lubricated air tools, air motors, cylinders, shot blasting, non-frictional valves.



ADDITIONAL SPECS: CGA - G7.1 (Grades A & Ba1)

ISO Class [1] [ ] [1]

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



ADDITIONAL SPECS: Mil. Std. 282 H.E.P.A., U.S.P.H.S. 3A accepted particles for milk.

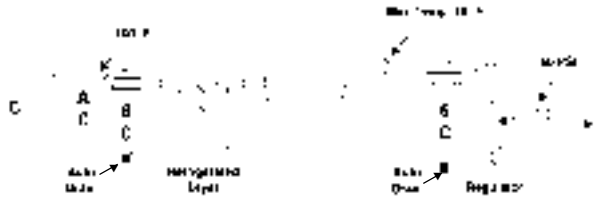
ISO Class [1] [ ] [1]

Any compressor with aftercooler, 2-stage coalescing and deliques-cent dryer. Air intended for use with general pneumatics systems.

ADDITIONAL SPECS: CGA - G7.1 (Grade C)

ISO Class [1] [4] [1]

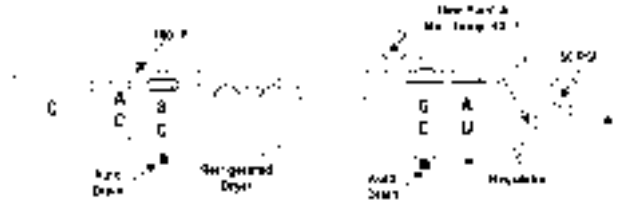
Any compressor with aftercooler, 2-stage coalescing and refrigerated dryer for use with instrument quality air.



ADDITIONAL SPECS: CGA - G7.1 (Grade D & E) ISA S7.3, Fed. Std. 209 (Class 100)

ISO Class [1] [4] [1]

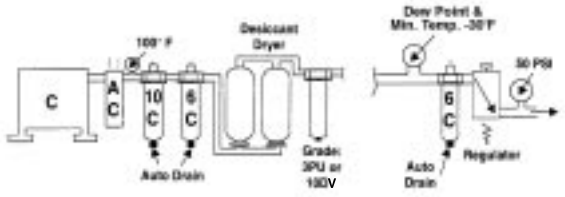
Any compressor with aftercooler, 2-stage coalescing, refrigerated dryer and carbon adsorber. Air intended for use as industrial breathing air and decompression chambers.*



ADDITIONAL SPECS: O.S.H.A. 29CFR 1910.134
*CO Monitor required.

ISO Class [1] [2] [1]

Any 2-stage compressor with aftercooler, double coalescing and a regenerative-type desiccant dryer. Air intended for use in applications involving critical instrumentation and high purity gases.



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

Note: In the pictorial examples shown above, the contribution of hydrocarbon vapors has not been taken into account in determining the OIL class category.

Media Selection Chart

Find your (or similar) application in the chart below or from the basic application circuits on the previous page. Determine media grade, media type, and end seal required.

Coalescing (Oil Removal) Filter Media

Coalescing elements are wrapped in color netting corresponding to media grades below.

Media Grade | Media Type | End Seal

STANDARD

4 ☐☐

APPLICATIONS: Very high-efficiency coalescer; for medium elevated pressures between **150 & 500 psig** (10 & 34 bar) or lighter weight aerosols. Protection of fluidic systems and critical modulating systems such as flow and temperature controllers.

6 ☐☐

APPLICATIONS: General air coalescing applications when total removal of liquid aerosols and suspended fines is required in all pressure ranges. Protection of air gauging, air logic, modulating systems, critical air conveying, most breathing air systems, etc.

7CVP

APPLICATIONS: High efficiency and very low pressure drop, even when wetted by oil and water, make this pleated coalescing media an excellent choice for medium efficiency applications. Large surface area means long life and a high tolerance for heavy liquid aerosol contamination.

8 ☐☐

APPLICATIONS: Good air coalescing efficiency in combination with high flow rate and long element life. Protection of non-critical circuit components such as valves, cylinders, etc.

10 ☐☐

APPLICATIONS: Precoalescer or prefilter for Grade 6 to remove gross amounts of water and oil, or tenacious aerosols which are difficult to drain. Upgrading existing particulate equipment to coalescing without increase in pressure drop.

Media Specifications (Grades 4 and 6 are .01 micron filters)

Grade Designation	Coalescing Efficiency .3 to .6 Micron Particles	Maximum Oil Carryover[1] PPM w/w	Pressure Drop (PSID)[2] @ Rated Flow	
			Media Dry	Media Wet With 10-20 wt. oil
4	99.995%	.003	1.25	3-4
6	99.97%	.008	1.0	2-3
7	99.5%	.09	.25	.5-.7
8	98.5%	.2	.5	1-1.5
10	95%	.83	.5	.5-1

[1]Tested per ADF-400 at 40 ppm inlet.
[2]Add dry + wet for total pressure drop.

Media Type

C: Micro-glass coalescer
Q: Coalescer with built-in pre-filter
D: High -Temperature **450°F** (232°C) micro-glass

End Seal

Blank: 1/4" to 1" conn. No end seals - standard.
U: Molded Urethane, standard on all 1 1/4" to 3" filters
S: Molded Silicone used for high-temperature **450°F** (232°C) seal.
V: Fluorocarbon gasket bonded to metal end cap; used for high temperature **450°F** (232°C) seal. Available on 1/4" NPT and larger

Interceptor (Particulate Removal) Filter Media

3PU

APPLICATIONS: Particulate removal where very high dirt-holding capacity is required. Safety afterfilter for desiccant dryer, pore matched prefilter for coalescer or as general use for final instrument air protection.

Media Specifications

Grade Designation	Absolute Efficiency Rating	Pressure Drop (PSID) @ Rated Flow Media Dry
3P	3µm	.25

Media Type (P): Pleated cellulose.

End Seal (U): Molded urethane, standard on all pleated cellulose filters.

Adsorption (Vapor Removal) Filter Media

AU

APPLICATIONS: Polishing gas stream of final trace amounts of hydrocarbon contaminants, usually .5 to 2 ppm inlet concentrations. Preparation for breathing air; hydrocarbon vapor removal.

Special Note: Activated charcoal adsorbers should always be preceded by a coalescer.

Media Specifications

Grade Designation	Oil Vapor Removal Efficiency	Pressure Drop (PSID) @ Rated Flow Media Dry
A	99%+	1

Media Type (A): Activated charcoal adsorber.

End Seal (U): Molded urethane, standard on all activated charcoal filters.

Housing Selection Chart

Housing Assembly	Port Size	4 C/CU/QU/DS	STANDARD 6 C/CU/QU/DS	7CVP	8 C/CU/QU/DS	10 C/CU/QU/DS	AU Adsorbers	3PU Interceptors
	Rated Flows: SCFM @ 100 PSIG (m³/hr @ 7 bar) ±10% See page 8 for other pressures							
H□1S	1/4"	11 (19)	15 (26)	N/A	20 (34)	25 (43)	15 (26)	25 (43)
H□15S	3/8"	15 (26)	20 (34)	N/A	27 (46)	33 (56)	20 (34)	33 (56)
H□2S	1/2"	19 (32)	25 (43)	N/A	34 (58)	42 (71)	25 (43)	42 (71)
H□1L	1/4"	23 (39)	30 (51)	N/A	41 (68)	50 (85)	30 (51)	50 (85)
H□15L	3/8"	30 (51)	40 (68)	N/A	55 (94)	66 (112)	40 (68)	66 (112)
H□2L	1/2"	38 (65)	50 (85)	N/A	68 (116)	83 (141)	50 (85)	83 (141)
H□3S	3/4"	61 (104)	80 (136)	N/A	109 (185)	133 (226)	80 (136)	133 (226)
H□4S	1"	76 (129)	100 (170)	N/A	136 (231)	166 (282)	100 (170)	166 (282)
H□4L	1"	106 (180)	140 (238)	N/A	191 (325)	232 (394)	140 (238)	232 (394)
H□5S	1 1/4"	190 (323)	250 (425)	415 (706)	330 (461)	415 (706)	250 (425)	415 (706)
H□6S	1 1/2"	260 (442)	350 (595)	600 (1020)	465 (791)	600 (1020)	350 (595)	600 (1020)
H□8S	2"	340 (578)	450 (765)	750 (1275)	600 (1020)	750 (1275)	450 (765)	750 (1275)
H□8L	2"	470 (799)	625 (1063)	1035 (1760)	830 (1411)	1035 (1760)	625 (1063)	1035 (1760)
H□0L	2 1/2"	600 (1020)	800 (1360)	1330 (2261)	1060 (1802)	1330 (2261)	800 (1360)	1330 (2261)
H□12L	3"	750 (1275)	1000 (1700)	1660 (2822)	1330 (2261)	1660 (2822)	1000 (1700)	1660 (2822)

Pre-Installed Accessory Options

Accessory Designator	Auto Drain	DPI Indicator	DPG Gauge	High Temp	DP Ports	Fluorocarbon 0-Rings	No Accessories	Pressure/Temp PSIG	Pressure/Temp Degrees F	Pressure/Temp bar	Pressure/Temp Degrees C
A	■							250	175	17	79
D		■						250	175	17	79
G			■					500	175	34	79
J				■				250	450	17	232
N							■	500	175	34	79
P					■			250	175	17	79
V						■		500	175	34	79
W	■	■						250	175	17	79
X	■				■			250	175	17	79
Y	■		■					250	175	17	79

How To Order

H	N	1 2	L -	6	C	U	G
Series Name	Port Type	Port Size	Bowl	Element Grade	Element Type	End Seal	Accessories

Port Type
- **N** - NPT
- **F** - BSPF
- **S** - SAE*
- **T** - BSPT

*SAE32 (2") only

Port Size
- **1** - 1/4"
- **15** - 3/8"
- **2** - 1/2"
- **3** - 3/4"
- **4** - 1"
- **5** - 1 1/4"
- **6** - 1 1/2"
- **8** - 2"
- **0** - 2 1/2"
- **12** - 3"

Bowl
- **S** - Standard
- **L** - Long

Element Grade
- 4
- 6
- 8
- 10
- 3 — Leave Blank for Adsorber
- 7

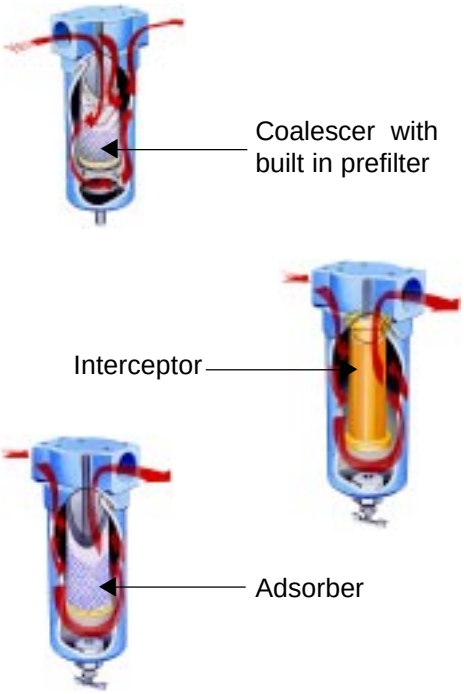
Element Type
- **C** - Coalescer
- **Q** - Coalescer w/built-in prefilter
- **D** - High Temp.
- **I** - Inner Ret. (1/4" - 1")
- **P** - Pleated Cellulose
- **A** - Adsorber
- **CVP** - Pleated Coalescer

End Seal
- **Blank** - No end seal Standard on 1/4" - 1"
- **U** - Urethane Standard on 1 1/4" & up
- **S** - Silicone
- **V** - Fluorocarbon

Accessories
- **A** - Auto Drain
- **D** - DPI Indicator (1/4" - 1/2")
- **G** - DPG Gauge (Std. on 3/4" & up)
- **J** - High Temp.
- **N** - No Accessories
- **P** - 1/8" Differential (3/4" & up) Sensing Ports
- **V** - Fluorocarbon Seals
- **W** - A + D
- **X** - A + P
- **Y** - A + G

Replacement Element Part Numbers

Housing Assembly	Media Type (* Insert selected grade 4, 6, 8, 10) Coalescer	Coalescer w/ built-in prefilter	7CVP Pleated Coalescer	3PU Interceptor	AU Adsorber
H☐ 1S	*C10-025	*QU10-025	N/A	3PU10-025	AU10-025
H☐ 15S	*C10-025	*QU10-025	N/A	3PU10-025	AU10-025
H☐ 2S	*C10-025	*QU10-025	N/A	3PU10-025	AU10-025
H☐ 1L	*C10-050	*QU10-050	N/A	3PU10-050	AU10-050
H☐ 15L	*C10-050	*QU10-050	N/A	3PU10-050	AU10-050
H☐ 2L	*C10-050	*QU10-050	N/A	3PU10-050	AU10-050
H☐ 3S	*C15-060	*QU15-060	N/A	3PU15-060	AU15-060
H☐ 4S	*C15-060	*QU15-060	N/A	3PU15-060	AU15-060
H☐ 4L	*C15-095	*QU15-095	N/A	3PU15-095	AU15-095
H☐ 5S	*CU25-130	*QU25-130	7CVP25-130	3PU25-130	AU25-130
H☐ 6S	*CU25-130	*QU25-130	7CPV25-130	3PU25-130	AU25-130
H☐ 8S	*CU25-187	*QU25-187	7CVP25-187	3PU25-187	AU25-187
H☐ 8L	*CU25-235	*QU25-235	7CVP25-235	3PU25-235	AU25-235
H☐ 0L	*CU35-280	*QU35-280	7CVP35-280	3PU35-280	AU35-280
H☐ 12L	*CU35-280	*QU35-280	7CVP35-280	3PU35-280	AU35-280



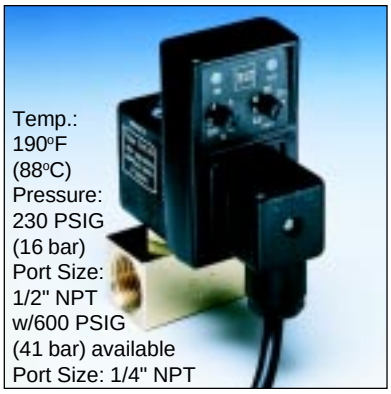
International H-Series Accessories

DPG-15 Differential Pressure Gauge

AD-12 Automatic Drain Valve (Internal)

VS-50 Visual Sump Drain
(not shown: Standard Bowl Guard)

MS-50 Metal Sump Drain (External)

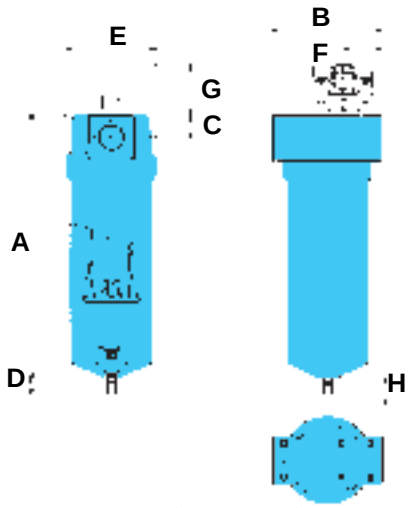


TV-98 Timed Drain Valve

ZLD-10 Zero Loss Drain

Drawings, Dimensions & Specifications

1/4" to 1" Housings



Specifications

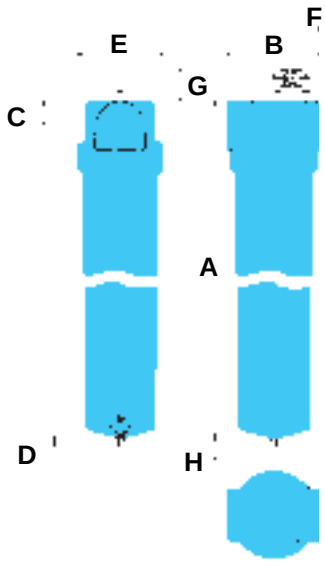
Max. Pressure: **500 psig** (34 bar)
Safety Factor: Max. operating to burst 4:1
Max Temp.: **175°F** (79°C) with option to **450°F** (232°C)
Seals: Nitrile Std./Fluorocarbon optional
Materials: Aluminum - 380 Die cast heads;
6061 Drawn bowls
Coatings: Chromated heads and bowls;
Powder painted exterior
Design: In-line threaded bowl to head

Note: Manual Drain Port is 1/8" FNPT when tee valve is removed from drain bushing.

Model	A	B	C	D	E	F	G	H*	Sump (ml)	Weight
H□1S	7.21 (183)	3.12 (79)	.53 (13)	.79 (20)	2.98 (76)	1.56 (39.5)	2.6 (66)	2.99 (76)	150	1.49 (.68)
H□15S	7.21 (183)	3.12 (79)	.53 (13)	.79 (20)	2.98 (76)	1.56 (39.5)	2.6 (66)	2.99 (76)	150	1.47 (.66)
H□2S	7.21 (183)	3.12 (79)	.53 (13)	.79 (20)	2.98 (76)	1.56 (39.5)	2.6 (66)	2.99 (76)	150	1.44 (.65)
H□1L	9.69 (246)	3.12 (79)	.53 (13)	.79 (20)	2.98 (76)	1.56 (39.5)	2.6 (66)	5.51 (140)	140	1.89 (.86)
H□15L	9.69 (246)	3.12 (79)	.53 (13)	.79 (20)	2.98 (76)	1.56 (39.5)	2.6 (66)	5.51 (140)	140	1.87 (.85)
H□2L	9.69 (246)	3.12 (79)	.53 (13)	.79 (20)	2.98 (76)	1.56 (39.5)	2.6 (66)	5.51 (140)	140	1.85 (.84)
H□3S	10.75 (273)	4.65 (118)	.98 (25)	.79 (20)	3.68 (93.5)	1.73 (44)	2.6 (66)	6.5 (165)	270	3.56 (1.61)
H□4S	10.75 (273)	4.65 (118)	.98 (25)	.79 (20)	3.68 (93.5)	1.73 (44)	2.6 (66)	6.5 (165)	270	3.29 (1.49)
H□4L	14.25 (362)	4.65 (118)	.98 (25)	.79 (20)	3.68 (93.5)	1.73 (44)	2.6 (66)	10.00 (254)	270	4.11 (1.86)

Special Note: Dimensions are in **inches** (millimeters); weight is in **pounds** (kilograms).
* Clearance required to remove bowl.

1 1/4" to 3" Housings



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Safety Factor: Max. operating to burst 4:1
Max Temp.: **175°F** (79°C) with option to **450°F** (232°C)
Seals: Nitrile Std./Fluorocarbon optional
Materials: Aluminum - 356 Sand cast heads;
6061 Drawn bowls
Coatings: Chromated heads and bowls;
Powder painted exterior
Design: In-line threaded bowl to head

Note: Manual Drain Port is 1/8" FNPT when tee valve is removed from drain bushing.

Model	A	B	C	D	E	F	G	H*	Sump (ml)	Weight
H□5S	18.23 (463)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)	2.6 (66)	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)	2.6 (66)	13.50 (343)	440	11.97 (5.43)
H□8S	24.29 (617)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)	2.6 (66)	19.25 (489)	530	14.00 (6.35)
H□8L	29.33 (745)	6.0 (152)	1.65 (42)	.83 (21)	5.67 (144)	1.85 (47)	2.6 (66)	24.02 (610)	620	15.99 (7.25)
H□0L	35.98 (914)	8.0 (203)	2.4 (61)	.83 (21)	7.24 (184)	2.36 (60)	2.6 (66)	28.50 (724)	880	35.00 (15.87)
H□12L	35.98 (914)	8.0 (203)	2.4 (61)	.83 (21)	7.24 (184)	2.36 (60)	2.6 (66)	28.50 (724)	880	34.14 (15.48)

Special Note: Dimensions are in **inches** (millimeters); weight is in **pounds** (kilograms).
* Clearance required to remove bowl.

Sizing Chart for Grade 6

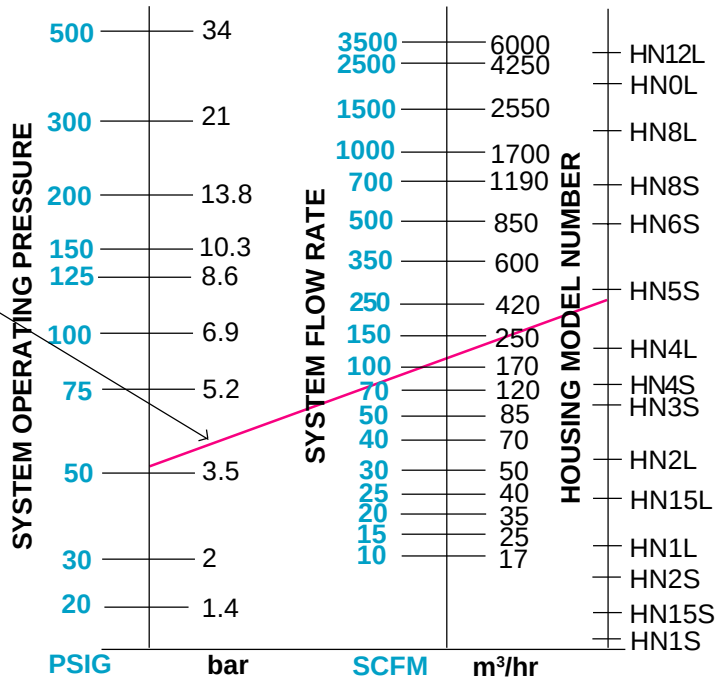
For pressures other than 100 PSIG/7 bar

Instructions for Sizing Chart

1. Locate system pressure in PSIG or bar.
2. Locate system flow in SCFM or m^3/hr.
3. Lay straight edge on pressure through flow points (see example).
4. Locate filter housing model number.

For grades other than 6C, 6Q or AU, muliply flow rate by these factors first:

4C - 1.32
7CVP - .6
8C - .73
10C - .6
3P - .6



Finite Sizing Equation

$$\text{System Flow Rate} \times \frac{\text{100 PSIG + 14.7}}{\text{System Pressure +14.7}} \times \frac{\text{System Temp } ^{o}\text{F + 460}}{530} = \text{Adjusted Flow Rate (At 100 PSIG)}$$

⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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Parker Filtration

Member of CAGI

CE

CERTIFIED ISO 9001

Accredited by the Council for Accreditation (RvA)

INTERTEK CERTIFICATION

ANSI-RAB QMS ACCREDITED

National Accreditation Program

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