A Lotorsport Filters EDITION 2





















PERFORMANCE FILTERS FOR FUEL AND OIL APPLICATIONS FROM



FLOW EZY FILTERS

Introducing Flow Ezy Motorsport Filters

OUR LATEST DEVELOPMENTS IN MOTORSPORT TECHNOLOGY TO KEEP FLUIDS CLEAN. YOU CAN TRUST OUR 65-PLUS YEARS OF EXPERIENCE TO GET THE JOB DONE!

FLOW EZY MOTORSPORT FILTERS: NPT, AN, CLAMSHELL, AND CLAMSHELL W/PORT CONNECTIONS (SEE REFERENCE GUIDE) BUNA SEALS (VITON OPTIONAL) BLACK MACHINED ANODIZED ALUMINUM WITH HIGH POLISH FINISH STAINLESS STEEL FILTER ELEMENTS

Working with race teams, drivers, crews, and designers, Flow Ezy is listening to what they are saying. We have new designs of some of our filters so they can be used in either fuel or oil applications. Our 9000 and 16000 series, in addition to having standard AN style connections, are now available with clamshell connections, both with or without temperature sensor ports.

Our filter housings are machined anodized aluminum and high polished. Filter elements are pleated all stainless steel with soldered end caps*. This is done to meet the requirements of evolving higher performance fuels that may attack existing epoxy adhesive used to keep a filter element together. All filter elements are pleated for maximum flow.

*Only 2000 series filter elements are aluminum, stainless steel, and epoxy bonded

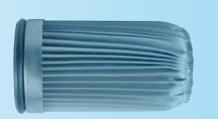
When you purchase a Flow Ezy filter you are getting

- Over 65 years of experience manufacturing filters
- Machined anodized aluminum housings that are corrosion resistant
- Good delivery (all units are generally in stock)
- Ease of installation and cleaning
- A choice of 10, 25, 40, 74, and 149 micron all stainless steel pleated filter elements*
 Other micron sizes available by special order.
 - *14000 and 16000 series also has a 100 micron filter element available
- 9000, 14000, and 16000 series available with AN or Clamshell connections with or without sensor ports
- A filter that is compatible with today's fuels AND oils



HOUSING QUICK REFERENCE GUIDE

AUTOMOTIVE									
SERIES	Page	Pres- sure Rating	Flow Rate GPM	Filtration Area SQ. IN.	Weight w/Element OZ.	Hex Nut Size	Avail. Micron Size	Overall Length OAL	Outer Dia. OD
1000 NPT				4 00 111	0.07	0.75"		1.75"	4.11
1000 AN-6	5		Up to 2 GPM	1 SQ. IN.	3 OZ.	0.75"		2.88"	1"
2000		250	2 01 111	12 SQ. IN.	3.5 OZ.	0.75"	10, 25,	4.31"	1.25"
3000 AN-6		PSI		00.00 IN	5007	0.75"	40, 74, 149	5 O 4"	4 5"
3000 AN-8	6		Up to 4 GPM	20 SQ. IN.	5.2 OZ.	0.875"		5.94"	1.5"
4000			4 GI W	20 SQ. IN.	6.6 OZ.	1.25"		4.66"	1.5"
9000 AN-10								6.38"	
9000 AN-12								6.56"	
9000 C10	8							6.44"	
9000 C12		250	Up to	40 SQ. IN.	10 5 07	1.25"	10, 25,	6.13"	0.0"
9000 C16		PSI	9 GPM	40 SQ. IIV.	12.5 OZ.	1.25	40, 74, 149	6.5"	2.0"
9000 CP10								7.06"	
9000 CP12	9							6.94"	
9000 CP16								7.125"	
14000	7	250 PSI	Up to 16 GPM	60 SQ. IN.	1 LB. 2 OZ.	2.125"	10, 25, 40, 74, 149	7.78"	2.13"
16000 AN-10									
16000 AN-12						4.0511		8.75"	
16000 C10	10				15 OZ.	1.25"			
16000 C12		250	Up to	00.00 IN			10, 25,	8.87"	0.0"
16000 C16		PSI	16 GPM	60 SQ. IN.		1.375"	40, 74, 149		2.0"
16000 CP10						1.05"			
16000 CP12	11				1 LB. 1 OZ.	1.25"		9.38"	
16000 CP16					1 02.	1.375"			
Y2SS	12	300 PSI	Up to 2 GPM	2.5 SQ. IN.	7.5 OZ.	_	25, 40, 75, 149	2.25"	2.25"
Mounting Clamps	13		Stainless Steel Bracket with Thermoplastic Elastomer Bushing - Fits All Models						
Filter Elements			Stainless Steel for Existing Housing or Self-Made Adapter						









FILTER ELEMENT QUICK REFERENCE GUIDE

FILTER ELE	EMENTS	ONLY - St	ainless Ste	el						
FILTER ELEMENT SERIES	Page	Pressure Rating PSI	Filtration Area SQ. IN.	Element Weight OZ.	Avail. Micron Size	Stan- dard Seals	Overall Length OAL	Outer Dia. OD	Inner Dia. ID	For Model Series
Perforated I	nside an	d Outside								
8108					149					
8109	13	250 PSI	140 SQ. IN.	4.6 OZ.	63	N/A	7.88"	1.67"	.69"	N/A
8109-01					74					
Perforated I	nside Or	nly								
8109-02					63					
8109-03	13	250	140	4.3 OZ.	74	N/A	7.88"	1.67"	.69"	N/A
8109-04	13	PSI	SQ. IN.	4.3 UZ.	100	IN/A	7.00	1.07	.69	IN/A
8109-05					120					
6180	5	250 PSI	1 SQ. IN.	1 OZ.	10, 25, 40, 74, 149	Buna	N/A	.75"	N/A	1000
Single Oper	End SC)E								
9133	5		12 SQ. IN.	0.07	25, 40, 74, 149		1.94"	.83"	.39"	2000
8286	6	050	20 SQ. IN.	2 OZ.	10, 25,		3.26"	1.03"	.58"	3000 4000
8736	9	250 PSI	40 SQ. IN.	3 OZ.	40, 74, 149	Buna	2.83"	1.60"	1.08"	9000
8731	7/11		60 SQ. IN.	4 OZ.	10, 25, 40, 74, 100, 149		5.68"	1.60"	1.08"	14000 16000
Double Ope	n End D	OE								
6177	12	300 PSI	2.5 SQ. IN.	2 OZ.	25, 40, 74, 149	N/A	1.19"	.75"	.60"	Y2SS



Pressure Rating	250 PSI
Flow Rate	Up to 2 GPM
Filtration Area	1 SQ. IN.
Weight w/screen	3 OZ.
Connection Size	1/4" NPT / AN-6
Hex Nut Size	0.75"
Overall Length	1.75" NPT / 2.88" AN OAL
Outer Diameter	1 0" OD

Overall Length		I.75" NPT / 2	2.88" AN OAL
Outer Diameter			1.0" OD
Order by	Part Number		1000
4000	Housing & Screen Part Number		
1000 Series	_		Replacement Screen
	_		
Series Micron	Part Nu	mber	Screen Part
Series Micron Size	Part Nu	AN-6	Screen Part Number

1-AN6-40

1-AN6-74

1-AN6-149

1-.25NPT-40

1-.25NPT-74

1-.25NPT-149

40

74

149

2000	SERIES	. .
-	31)	
21112	Flow Ezy File	

Pressure Rating	250 PSI
Flow Rate	Up to 2 GPM
Filtration Area	12 SQ. IN.
Weight w/element	3.5 OZ.
Connection Size	AN-6
Hex Nut Size	0.75"
Overall Length	4.31" OAL
Outer Diameter	1.25" OD

000	 Order by Part Number			
Replacement Screen	2000 Series	Housing & Element Part Number		
Part Number	Micron Size	AN-6		
6180-10	 25	2-AN6-25		
6180-09	 40	2-AN6-40		
6180-03	 74	2-AN6-74		
6180-02	 149	2-AN6-149		
6180-05				

2000
Replacement Element Part Number
9133-05
9133-04
9133-02
9133-01





Pressure Rating	250 PSI
Flow Rate	Up to 4 GPM
Filtration Area	20 SQ. IN.
Weight w/element	5.2 OZ.
Connection Size	AN-6 / AN-8
Hex Nut Size	0.75" / 0.875
Overall Length	5.94" OAL
Outer Diameter	1.5" OD

Pressure Rating	250 PSI
Flow Rate	Up to 4 GPM
Filtration Area	20 SQ. IN.
Weight w/element	6.6 OZ.
Connection Size	1/4" / 3/8" / 1/2" NPT
Hex Nut Size	1.25"
Overall Length	4.66" OAL
Outer Diameter	1.5" OD

Order by Part Number			
3000 Series	Housing & Element Part Number		
Micron Size	AN-6	AN-8	
10	3-AN6-10W	3-AN8-10W	
25	3-AN6-25	3-AN8-25	
40	3-AN6-40	3-AN8-40	
74	3-AN6-74	3-AN8-74	
149	3-AN6-149	3-AN8-149	

	3000/4000
	Replacement Element Part Number
L	8286-10W
L	8286-05
L	8286-04
	8286-02
	8286-01

Order by Part Number			
4000 Series	Housing & Element Part Number		
Micron Size	1/4" NPT	3/8" NPT	1/2" NPT
10	425NPT-10W	4375NPT-10W	450NPT-10W
25	425NPT-25	4375NPT-25	450NPT-25
40	425NPT-40	4375NPT-40	450NPT-40
74	425NPT-74	4375NPT-74	450NPT-74
149	425NPT-149	4375NPT-149	450NPT-149





Order by Part Number			
14000 Series	Housing & Element Part Number		
Micron Size	1/2" NPT	3/4" NPT	1" NPT
10	1450NPT-10W	1475NPT-10W	14-1.0NPT-10W
25	1450NPT-25	1475NPT-25	14-1.0NPT-25
40	1450NPT-40	1475NPT-40	14-1.0NPT-40
74	1450NPT-74	1475NPT-74	14-1.0NPT-74
100	1450NPT-100	1475NPT-100	14-1.0NPT-100
149	1450NPT-149	1475NPT-149	14-1.0NPT-149

14000
Replacement Element Part Number
8731-25
8731-05
8731-04
8731-02
8731-100
8731-01

For Viton O-Ring add -F3 at end of number



Pressure Rating	250 PSI
Flow Rate	Up to 9 GPM
Filtration Area	40 SQ. IN.
Weight w/element	12.5 OZ.
Connection Size	AN10 / AN12
Hex Nut Size	1.25"
Overall Length	6.38" / 6.56" OAL
Outer Diameter	2.0" OD

Order by Part Number		
9000 Series	Housing & Element Part Number	
Micron Size	AN-10 AN-12	
10	9-AN10-10	9-AN12-10
25	9-AN10-25	9-AN12-25
40	9-AN10-40	9-AN12-40
74	9-AN10-74	9-AN12-74
149	9-AN10-149	9-AN12-149



Pressure Rating	250 PSI
Flow Rate	Up to 9 GPM
Filtration Area	40 SQ.IN.
Weight w/element	12 OZ.
Connection Size	Clamshell -10 /-12 /-16
Hex Nut Size	1.25" / 1.25" / 1.375"
Overall Length	6.44" / 6.13" / 6.5" OAL
Outer Diameter	2.0" OD

Order by Part Number			
9000 Series	Housing & Element Part Number		
Micron Size	C10	C12	C16
10	9-C10-10	9-C12-10	9-C16-10
25	9-C10-25	9-C12-25	9-C16-25
40	9-C10-40	9-C12-40	9-C16-40
74	9-C10-74	9-C12-74	9-C16-74
149	9-C10-149	9-C12-149	9-C16-149





Order by Part Number			
9000 Series	Housing & Element Part Number		
Micron Size	CP10	CP12	CP16
10	9-CP10-10	9-CP12-10	9-CP16-10
25	9-CP10-25	9-CP12-25	9-CP16-25
40	9-CP10-40	9-CP12-40	9-CP16-40
74	9-CP10-74	9-CP12-74	9-CP16-74
149	9-CP10-149	9-CP12-149	9-CP16-149

9000
Replacement Element Part Number
8736-10
8736-05
8736-04
8736-02
8736-01



Pressure Rating	250 PSI
Flow Rate	Up to 16 GPM
Filtration Area	60 SQ. IN.
Weight w/element	15 OZ.
Connection Size	AN-10 / AN-12
Hex Nut Size	1.25"
Overall Length	8.75" OAL
Outer Diameter	2.0" OD

Pressure Rating	250 PSI
Flow Rate	Up to 16 GPM
Filtration Area	60 SQ. IN.
Weight w/element	15 OZ.
Connection Size	Clamshell -10 /-12 /-16
Hex Nut Size	1.25" / 1.25" / 1.375"
Overall Length	8.87" OAL
Outer Diameter	2.0" OD

Order by Part Number		
16000 Series	Housing & Element Part Number	
Micron Size	AN-10 AN-12	
10	16-AN10-10W	16-AN12-10W
25	16-AN10-25	16-AN12-25
40	16-AN10-40	16-AN12-40
74	16-AN10-74	16-AN12-74
100	16-AN10-100	16-AN12-100
149	16-AN10-149	16-AN12-149

Order by Part Number				
16000 Series	Housing & Element Part Number			
Micron Size	C10	C12	C16	
10	16-C10-10	16-C12-10	16-C16-10	
25	16-C10-25	16-C12-25	16-C16-25	
40	16-C10-40	16-C12-40	16-C16-40	
74	16-C10-74	16-C12-74	16-C16-74	
100	16-C10-100	16-C12-100	16-C16-100	
149	16-C10-149	16-C12-149	16-C16-149	





Order by Part Number				
16000 Series	Housing & Element Part Number			
Micron Size	CP10	CP12	CP16	
10	16-CP10-10	16-CP12-10	16-CP16-10	
25	16-CP10-25	16-CP12-25	16-CP16-25	
40	16-CP10-40	16-CP12-40	16-CP16-40	
74	16-CP10-74	16-CP12-74	16-CP16-74	
100	16-CP10-100	16-CP12-100	16-CP16-100	
149	16-CP10-149	16-CP16-149	16-CP16-149	

16000
Replacement Element Part Number
8731-25
8731-05
8731-04
8731-02
8731-100
8731-01

For Viton O-Ring add -F3 at end of number



Pressure Rating	300 PSI
Flow Rate	Up to 2 GPM
Filtration Area	2.5 SQ. IN.
Weight w/element	7.5 OZ.
Connection Size	1/4" / 3/8" / 1/2" NPT
Hex Nut Size	1"
Overall Length	2.5" OAL
Outer Diameter	2.25" OD

Order by Part Number				
Model Y2SS	Housing & Element Part Number			
Micron Size	1/4" NPT	3/8" NPT	1/2" NPT	
25	Y2SS25NPT-25	Y2SS375NPT-25	Y2SS50NPT-25	
40	Y2SS25NPT-40	Y2SS375NPT-40	Y2SS50NPT-40	
74	Y2SS25NPT-74	Y2SS375NPT-74	Y2SS50NPT-74	
149	Y2SS25NPT-149	Y2SS375NPT-149	Y2SS50NPT-149	

Y2SS
Replacement Element Part Number
6177-05
6177-07
6177-06
6177-03

MOUNTING CLAMPS



THE CLAMP The clamp assembly retains and protects the filter from vibration, shock, and noise. It also helps the filter to remain stable and prevent leakage. Our mounting clamps are "tailor made" for our in-line filters. All clamps are stainless steel.

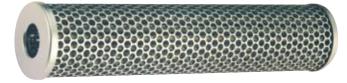


THE CUSHION Manufactured from a thermoplastic elastomer. It's built tough to withstand the effects of most oils, chemicals, and other industrial fluids, in temperatures from -50°F to 275°F. Interlock edge insures the cushion remains in place.

Order by Part Number			
For Housing Series	Part Number		
1000	HCOC16SS		
2000	HCOC20SS		
3000 / 4000	HCOC24SS		
9000 / 16000	HCOC32SS		
14000	HCOC34SS		
Hardware not Included			

STAINLESS STEEL FILTER ELEMENTS

The filter element can be used in an existing housing or with a self-made adapter. It can even be laid in the bottom of a fuel cell and be used as a suction filter. With a perforated support tube on both inside and outside, fluid can flow either inside-out or outside-in. The end caps are soldered to the element to aid in a wide range of chemical compatibility applications. This element is cleanable.



SINGLE OPEN END, LIGHT PERFORATION INSIDE & OUTSIDE

This filter element, like the above filter, can also be used in an existing housing or with a self-made adapter. It too, can be laid in the bottom of a fuel tank and used as a suction filter. The perforated support tube is on the inside and can only be used for outside-in flow. This element is cleanable.



SINGLE OPEN END, LIGHT PERFORATION INSIDE ONLY

Order by Part N	lumber								
Basic Configuration	Media Material	Flow Rate (GPM)	Filtration Area (Sq. In.)	Weight w/Element	Dimensions			on Sizes cron	
Single open end,	304	Up To 12	140	4.6 oz.	7.88" OAL x	148	7	4	63
light perforation inside & outside		1.67" OD x .69" ID	MODEL NUMBER						
						8108	810	9-01	8109
Single open end,	304	Up To 12	140	4.3 oz.	7.88" OAL x	120	100	74	63
3 1 - 1 - 1	Stainless Steel				1.67" OD x .69" ID		MODEL	NUMBER	
-						8109-05	8109-04	8109-03	8109-02

TECHNICAL DATA



WIRE CLOTH: Wire cloth acts as a surface type filter (or strainer). It is usually specified by its mesh or what is referred to as mesh count. This indicates the number of openings per linear inch. It does not directly indicate the size of the openings, which can vary depending on the wire diameter. Wire cloth can be cleanable. Terminology includes the following:

Space: Clear opening or space between parallel adjacent wires, expressed in inches.

Fill Wires: Wires running the short way of the cloth as woven. Also called "shute" or "shoot" wires.

Warp Wires: Wires running the long way of the cloth as woven.

Square Mesh: Wire cloth with the same mesh count in the fill as in the warp. Also called, "plain weave".

Rectangular Mesh: Wire cloth with a different mesh count in the fill and the warp. Also called "oblong mesh" or in finer meshes "off count".

PLAIN WEAVE:	The most popular wire cloth weave. Each warp wire passes alternately over and under each fill wire. Each fill wire passes alternately over and under each warp wire. Warp and fill wire diameters are generally the same.	
TWILLED WEAVE:	Each fill wire passes over and under two warp wires at a time, and each warp wire passes over and under two fill wires at a time.	
PLAIN DUTCH WEAVE:	The same pattern as plain weave, but the warp wires are of larger diameter than the fill wires. The fill wires are driven close to each other, making tapered or wedge shaped openings instead of square ones. The warp remains straight and the fill has all the crimps.	
TWILLED DUTCH WEAVE:	The same pattern as twilled weave but the warp wires are of larger diameter than the fill wires. The warp wires are straight and the fill wires, driven up tight, have all the crimps, both up and down and sideways. Openings are wedge shaped.	8 8 8
CELLULOSE:	A porous paper used in the manufacture of filter media. Made from cellulose pulp derived mainly from wood or certain grasses.	
MICRO- GLASS:	Glass fibers fabricated in a unique manner by twisting, braiding, tapering, and splicing, with micronic precision to form filter media.	

Absolute Filtration Rating:	The diameter, usually in microns, of the largest solid particle which a specified filter media will pass.	
Collapse Pressure:	The maximum differential pressure which a filter element will withstand without permanent deformation.	
Differential Pressure:	The difference in pressure between two points in a fluid system usually as it relates to filtration. Expressed as ΔP (Delta P) between a housing inlet and housing outlet. This is important when it comes to proper filter maintenance.	
Fluid Compatibility:	The suitability of using the materials of a filter assembly, filter element, or seal in conjunction with a specified fluid.	
Mean Flow Pore Size:	Indicates that half the flow passes through openings of equal or smaller size and the rest flows through openings of larger sizes.	
Mesh Rating:	Indicates the number of openings in wire cloth per linear inch.	
Micron Rating:	A micron is equal to one millionth of a meter or .000039 (39 millionths of an inch). Expressed in convenient terms, 25 micron is equal to one thousandth of an inch (.001).	
Nominal Filtration Rating:	An arbitrary micron value established by a filter manufacturer as a relative indication of average filtration capability. Based on Mean Flow Pore Size.	
PSI:	Pounds per square inch. As it relates to filtration, it means the maximum operating pressure that a filter is capable of.	
Rated Flow:	The optimum flow rate for which a filter is designed.	
SUS:	Saybolt Universal Seconds. A measure of viscosity. The time in seconds for 60 cubic centimeters (CC) of fluid to flow through a standard orifice at a specific temperature.	
Viscosity:	A measure of the internal friction or the resistance of a fluid to flow. The standard unit of measure is SUS or Centipoises.	

Micron-Mesh-Inches Comparison

		-
MICRON	MESH	INCHES
2,487	4	.0970
1,923	8	.0750
1,307	10	.0510
1,000	14	.0394
840	20	.0331
710	25	.0280
590	30	.0232
500	35	.0197
420	40	.0165
350	45	.0138
297	50	.0117
250	60	.0098
210	70	.0083
177	80	.0070
149	100	.0059
125	120	.0049
105	140	.0041
88	170	.0035
74	200	.0029
62	230	.0024
53	270	.0021
44	325	.0017
37	400	.0015
25	550	.0009
15	800	.0006
10	1,250	.0004
5	2,500	.0002

Flow Rate

GPM	GPH
10	600
12	720
15	900
20	1200
30	1800
40	2400
50	3000
60	3600
70	4200
80	4800
90	5400
100	6000
120	7200
150	9000
180	10,800
200	12,000
250	15,000
300	18,000
400	24,000
500	30,000
600	36,000
700	42,000
800	48,000
900	54,000
1000	60,000
1400	84,000
1500	90,000

Approximate Viscosity Sample Table @ Standard Operating Temperatures

FLUID	CENTIPOISE	sus
Water @ 70°F	1	32
Crude Oil	10	60
Kerosene	10	60
Standard Fuel	12	71
Anti-Freeze	15	82
Fuel oil	20	97
Heavy Crude Oil	100	450
SAE 10 Wt. Oil	75	310
SAE 30 Wt. Oil	175	740
Standard Hydraulic Oil	32	150
Honey	2500	11,900
Asphalt @ 200°F	3000	14,000

Relative Size of Particles

SUBSTANCE	MICRON	INCH
Grain of Table Salt	100	.0039
Human Hair	70	.0027
Lower Limit of Visibility	40	.00158
White Blood Cell	25	.0010
Talcum Powder	10	.00039
Red Blood Cell	8	.0030
Bacteria (Average)	2	.000078

FLOW EZY is "ISO" CERTIFIED



QUALITY SYSTEM REGISTERED TO ISO 9001: 2000







BB-8 Full Product Line

CALL OUR LITERATURE DEPARTMENT TO REQUEST ANY OF OUR CATALOGS

RP-2 Basket Strainers and Bag Filters

CALL FLOW EZY TODAY FOR MORE INFORMATION: 1-800-237-1165 OR 1-734-665-8777				
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Accounts Payable/Purchasing/ Office Manager	Tony Day	tday@flowezyfilters.com	Ext.109	
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Receptionist/Office Assistant/ Literature Coordinator	Donna Schwartzenberger	accounting@flowezyfilters.com	Ext.100	
Corporate Security	Sumo	no e-mail, paws too big for keyboard	no phone, does not speak English	

Photo Credit: John Stubuck



FLOW EZY FILTERS, INC.





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