

Arrow F3 series particulate filters remove harmful oil/water condensate, pipe scale, dirt and rust from your compressed air system. This prevents corrosive damage to compressed air equipment and finished products.

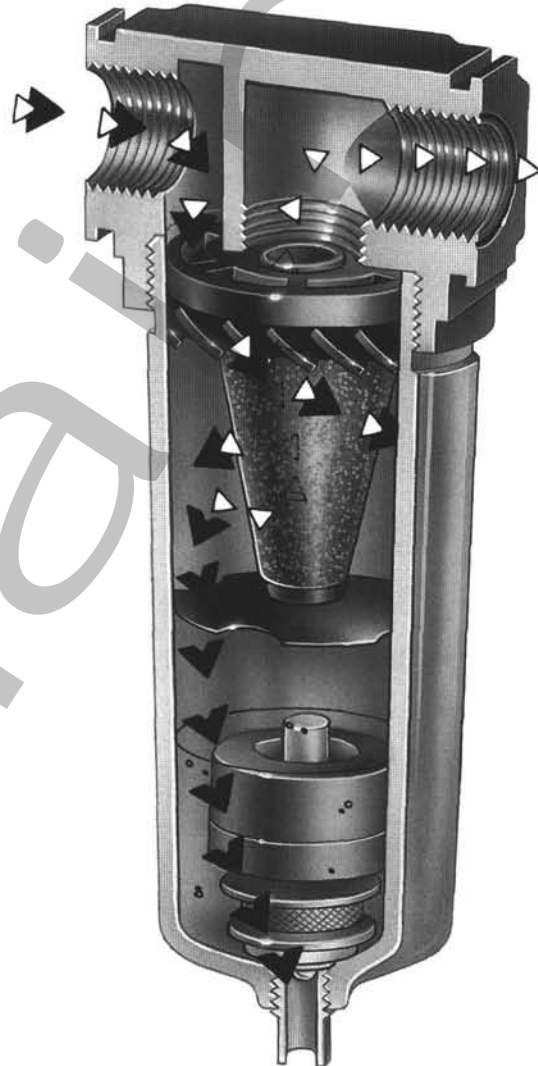
Typically, particulate filters are installed upstream of regulators to prevent valve failure. They are also used as pre-filters to oil removing and coalescing filters to insure high efficiency and long element life in applications such as paint spraying, instrumentation and pharmaceuticals.

Each filter is equipped with a highly efficient baffling system for maximum bulk liquid and dirt particle removal. The Arrow heavy-duty, cleanable porous bronze element removes fine particles. Particle removal can be tailored to specific needs with either the 40 or 5 micron bronze element. An optional 3 micron absolute pleated fiber element is also offered for extra-fine particle removal.

The Arrow 3 micron absolute element is a high efficiency filter element with solid particulate removal in the 90% efficiency range down to .28 microns. The Beta efficiency rating is 99.5%. The element is constructed of pleated cloth fibers and rib supports for strength. Both ends have urethane 50 durometer elastomer seals to insure particulate entrapment. The pleated fiber design gives this element 10 times the surface area of similar nominal rated elements. This increased surface area provides a long element life and the same pressure drop characteristics as our current 40 micron element. When used as a pre-filter to a coalescing filter, it will increase the life of the coalescing element by 4 to 6 times.

PARTICULATE FILTERS

F3



LEGEND

- ▼ – Air Containing Liquid and Particulate
- ▽ – Clean Air
- ▼ – Liquid and Particulate

IMPORTANT: Particulate filters only remove water in its liquid state. Water vapors will pass through a particulate filter and condense into liquid as the temperature in the air line drops. Liquid condensation may have a harmful effect on certain applications. We recommend installing an ARROW dryer for complete removal of liquid condensation from the system.

ARROW

Miniature Particulate Filters



SPECIFICATIONS

WARNING! Polycarbonate plastic bowls could rupture if exposed to incompatible chemicals whether inside or outside the bowl. If such chemicals are present, use a metal bowl. Refer to page 63 for details.

Polycarbonate Bowl

- Max. pressure 150 psig
- Operating temperature range 40°F to 120°F

Metal Bowl

- Aluminum
- Max. pressure 250 psig
- Operating temperature range 40°F to 200°F

Piston Drain

Note: Z option is differential drain which opens & ejects water only when a differential pressure is created at the start of air flow. The piston drain lifts up (approx. 1 second) & closes. It will not operate again until the flow stops, then starts back up again.

- Max. pressure 175 psig
- Operating temperature range 40°F to 125°F

Body nickel plated zinc

Baffle plastic

Seals Buna N

Elements

- 20 micron sintered bronze
- 5 micron sintered bronze

KITS

Bowl Kits

- Polycarbonate BKF300
- Polycarbonate with overnight drain BKF300J
- Metal BKF300M

Element Kits

- 20 micron 2-pack EKF300
- 5 micron 2-pack EKF300-5

Drain Kit

- Piston drain kit PKF300

FEATURES

- 20 micron sintered bronze element
- High strength, recleanable
- 1 oz. polycarbonate bowl
- Manual twist drain

OPTIONS

add suffix to part number in alpha and numeric order

Overnight Drains

An overnight drain operates when a compressed air system is shut down. It clears accumulated condensate from a filter bowl when pressure falls to 3 psig or less. It then closes when pressure rises to 6 psig.

J Overnight drain for polycarbonate bowl F300-01J
Push to manually drain.

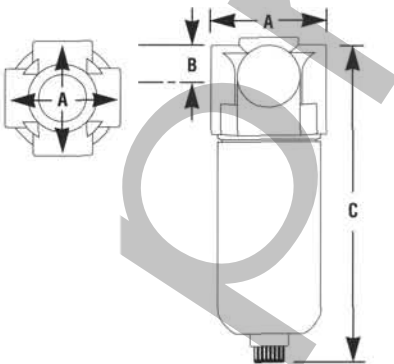
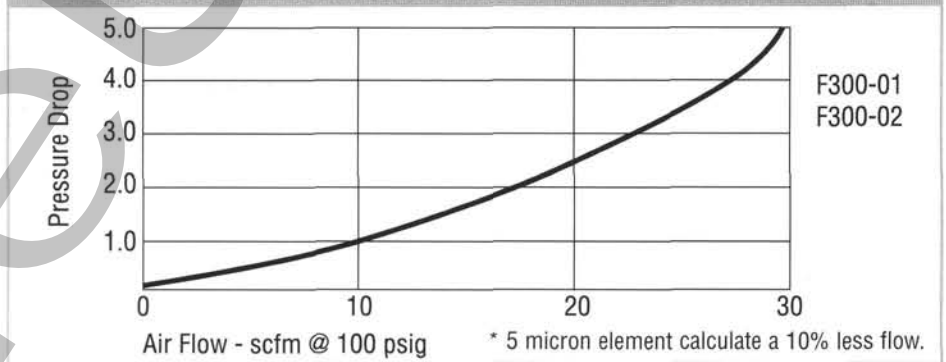
K Overnight drain for metal bowl F300-01KM
Twist to manually drain.

M Metal bowl F300-01M

Z Piston drain F300-01Z

-5 5 micron element F300-01-5

PERFORMANCE CHARACTERISTICS FOR 20 MICRON ELEMENT



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES)			WEIGHT (LBS.)
				A	B	C	
1/8"	F300-01	27	1 oz.	1 1/2	1/2	4 5/8	.5
1/4"	F300-02	27	1 oz.	1 1/2	1/2	4 5/8	.5

* Flow scfm based on 5.0 psi Δ p @ 100 psig inlet.

Tri•Star Particulate Filters



OPTIONS

add suffix to part number in alpha and numeric order

Float Drain

An internal float rises as condensate accumulates in a filter bowl to activate the drain.

F Internal float drain F352F

Overnight Drains

An overnight drain operates when a compressed air system is shut down. It clears accumulated condensate from a filter bowl when pressure falls to 3 psig or less.

J Overnight drain for polycarbonate bowl F352J
Push to manually drain.

K Overnight drain for metal bowl F352KM
Twist to manually drain.

M Black coated metal bowl F352M

W Black coated metal bowl with sight F352W

-5 5 micron element F352-5

-3 3 micron absolute element . F352-3

SPECIFICATIONS

WARNING! Polycarbonate plastic bowls could rupture if exposed to incompatible chemicals whether inside or outside the bowl. If such chemicals are present, use a metal bowl. Refer to page 63 for details.

Polycarbonate Bowl

- Max. supply pressure 150 psig
- Operating temperature range 40°F to 120°F

Metal Bowl

- Zinc, black coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 200°F

Metal Bowl with Sight

- Zinc, black coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 160°F

Internal Float Drain

- Buna N float
- Note: limits bowl temperature and pressure rating
- Operating pressure range 30 to 175 psig
 - Operating temperature range 40°F to 120°F

Body black coated aluminum

Bowl Guard nickel plated steel

Baffle plastic

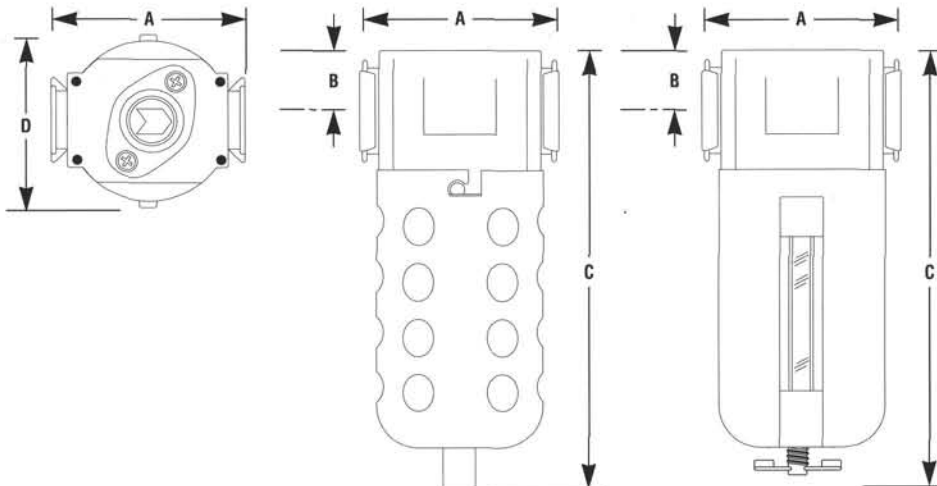
Vane plastic

Seals Buna N



FEATURES

- 40 micron sintered bronze element offers depth filtration. High strength, recleanable
- 5 oz. polycarbonate bowl with nickel plated steel bowl guard
- Manual push drain on polycarbonate bowl
- In-line or modular installation



F3

Elements

- 40 micron sintered bronze standard
- 5 micron sintered bronze
- 3 micron absolute pleated fiber

KITS

- Internal float drain kit 5200

Bowl Kits

- Polycarbonate with guard . . . BKF35
- Black coated metal BKF45M
- Black coated metal with sight BKF45W

Element Kits

- 40 micron 2-pack EK35
- 5 micron 2-pack EK35-5
- 3 micron absolute 2-pack . . EK35-3

Repair Kits

- Repair kit RKF35
- Replacement sight kit WK45

Mounting Bracket see page 60

- FBK5

3 Micron Absolute

The new Arrow 3 micron absolute element is a high efficiency particulate removal element. Unlike nominal rated particulate elements, the 3 micron absolute is qualified to an efficiency rating of 99.5% **solid particulate removal** at 3 microns, and maintains 95% efficiency ratings to .3 microns.

PARTICLE SIZE	REMOVAL EFFICIENCY RATING*	
	5 MICRON NOMINAL	ARROW 3 MICRON ABSOLUTE
.3 μ	19.2%	95.0%
.5 μ	28.8%	97.6%
1.0 μ	35.1%	97.6%
3.0 μ	89.7%	99.5%

* Beta Filtration Rating β₃ = 200

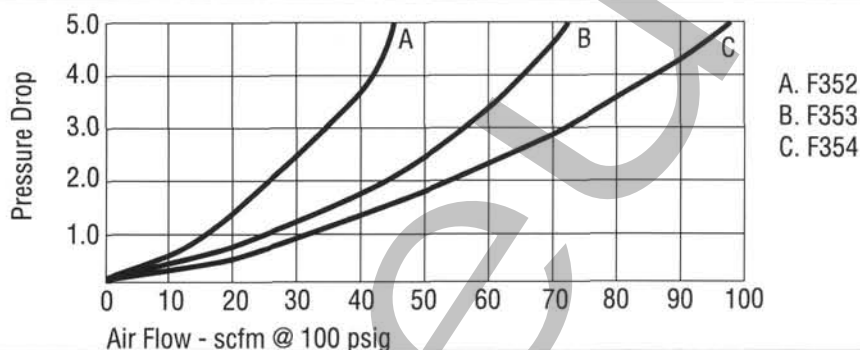
Features:

- Element media is cellulose and synthetic fibers with a resin binder. The pleated design has 10 times the surface area of sintered nominal rated elements and increases particle collection.
- End seals consist of 50 durometer Urethane to prevent solid particulate leakage past the element.
- Solid rib supports add extra strength and prevent element collapse under high differential pressure loads.
- Flow and pressure drop identical to 40 micron element.

Applications:

- Air gauging equipment
- Instrument air
- After filter for desiccant dryer

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES)				WEIGHT (LBS.)
				A	B	C	D	
1/4"	F352	48	5 oz.	2 3/4	3/4	6 1/4	2 1/2	1.2
3/8"	F353	75	5 oz.	2 3/4	3/4	6 1/4	2 1/2	1.2
1/2"	F354	100	5 oz.	2 3/4	3/4	6 1/4	2 1/2	1.2
1/4"	F352W	48	6 oz.	2 3/4	3/4	6 7/8	2 1/2	1.7
3/8"	F353W	75	6 oz.	2 3/4	3/4	6 7/8	2 1/2	1.7
1/2"	F354W	100	6 oz.	2 3/4	3/4	6 7/8	2 1/2	1.7

* Flow scfm based on 5.0 psi Δ p @ 100 psig inlet.

MidFlow Particulate Filters



SPECIFICATIONS

Metal Bowl

- Zinc, black coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 200°F

Metal Bowl with sight

- Zinc, black coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 160°F

Internal Float Drain

- Buna N float
- Note: limits bowl temperature and pressure rating
- Operating pressure range 30 to 175 psig
- Operating temperature range 40°F to 120°F

Body black coated aluminum

Baffle plastic

Seals Buna N

Vane plastic

Elements

- 40 micron sintered bronze
- 5 micron sintered bronze
- 3 micron absolute pleated fiber

KITS

- Internal float drain kit 5200

Bowl Kits

- Metal with sight BKF47W
BKF48W
- Metal without sight BKF47M
BKF48M

Element Kits

- 40 micron EK37, EK38
- 5 micron EK37-5, EK38-5
- 3 micron absolute EK37-3, EK38-3

Repair Kits

- Repair kit RKF37
RKF38
- Replacement sight kit WK47

Mounting Bracket see page 60

FEATURES

- 40 micron sintered bronze element offers depth filtration. High strength, recleanable
- 10 oz. or 20 oz. black coated metal bowl with liquid level sight
- Manual twist drain
- High Flow, low pressure drop

OPTIONS

add suffix to part number in alpha and numeric order

Float Drain

An internal float rises as condensate accumulates in a filter bowl to activate the drain.

F Internal float drain F373FW

Overnight Drains

An overnight drain operates when a compressed air system is shut down. It clears accumulated condensate from a filter bowl when pressure falls to 3 psig or less. It then closes when pressure rises to 6 psi.

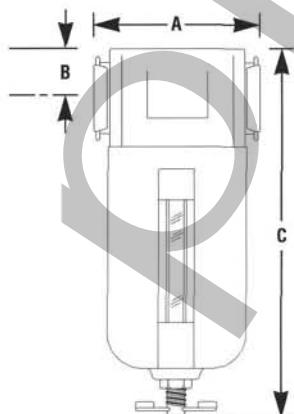
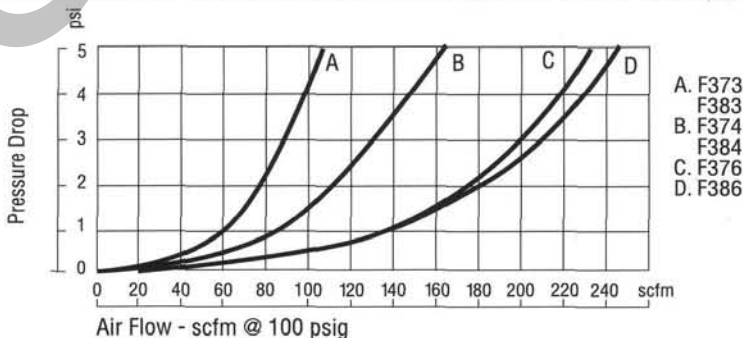
K Overnight drain F373KW
Twist to manually drain.

M Metal bowl without sight glass F373M

5 5 micron element F373W5

3 3 micron absolute element F373W3

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES)			WEIGHT (LBS.)
				A	B	C	
3/8"	F373W	110	10 oz.	3 3/4	1 3/32	7 5/8	2.7
3/8"	F383W	110	20 oz.	3 3/4	1 3/32	10 7/8	3.8
1/2"	F374W	160	10 oz.	3 3/4	1 3/32	7 5/8	2.7
1/2"	F384W	165	20 oz.	3 3/4	1 3/32	10 7/8	3.8
3/4"	F376W	230	10 oz.	3 3/4	1 3/32	7 5/8	2.7
3/4"	F386W	245	20 oz.	3 3/4	1 3/32	10 7/8	3.8

* Flow scfm based on 5.0 psi Δ p @ 100 psig inlet.

High Flow Particulate Filters

F3



SPECIFICATIONS

Metal Bowl

- Steel black coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 200°F

Metal Bowl with sight

- Steel black coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 160°F

Internal Float Drain

- Buna N float
- Operating pressure range 30 to 175 psig
- Operating temperature range 40°F to 120°F

Body black coated aluminum

Baffle plastic

Seals Buna N

Vane aluminum

Elements

- 40 micron sintered bronze
- 5 micron sintered bronze
- 3 micron absolute pleated fiber

KITS

- Internal float drain 5200

Bowl Kits

- Metal with sight BKF329W
- Metal without sight BKF329M

Element Kits

- 40 micron EKF329
- 5 micron EKF329-5
- 3 micron absolute EKF329-3

Repair Kits

- Repair kit RKF329
- Replacement sight kit WK35

FEATURES

- 40 micron sintered bronze element offers depth filtration. High strength, recleanable.
- Metal bowl is standard with liquid level sight
- Manual twist drain

OPTIONS

add suffix to part number in alpha and numeric order

D Differential pressure gauge . F329-08DW

Float Drain

An internal float rises as condensate accumulates in a filter bowl to activate the drain.

F Internal float drain F329-08FW

Overnight Drains

An overnight drain operates when a compressed air system is shut down. It clears accumulated condensate from a filter bowl when pressure falls to 3 psig or less. It then closes when pressure rises to 6 psi.

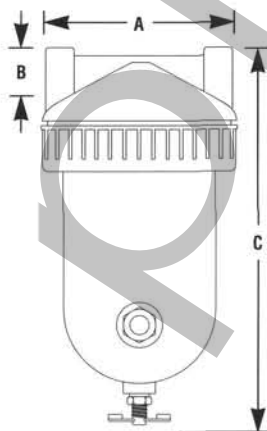
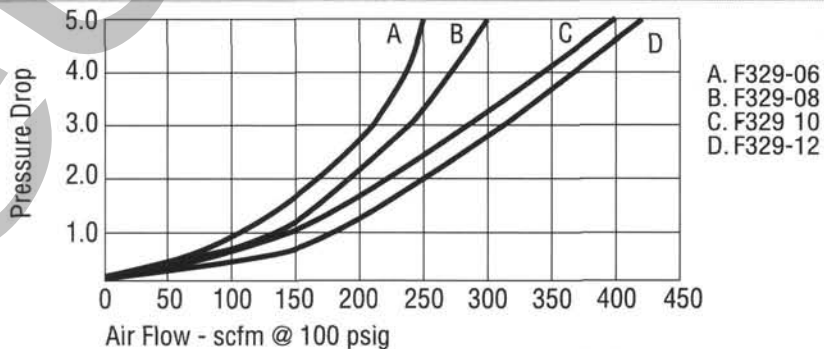
K Overnight drain for metal bowl F329-08KW
Twist to manually drain

5 5 micron element F329-08W5

3 3 micron absolute element . F329-08W3

For Metal Bowl without sight delete W

PERFORMANCE CHARACTERISTICS



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES)			WEIGHT (LBS.)
				A	B	C	
3/4"	F329-06W	260	29 oz.	4 7/8	1 3/16	8 7/8	3.7
1"	F329-08W	300	29 oz.	4 7/8	1 5/16	8 7/8	3.7
1 1/4"	F329-10W	400	29 oz.	5 1/4	1 1/2	10	6.3
1 1/2"	F329-12W	425	29 oz.	5 1/4	1 1/2	10	6.3

* Flow scfm based on 5.0 psi Δ p @ 100 psig inlet.



High Flow Particulate Filters



SPECIFICATIONS

Metal Bowl

- Steel blue coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 200°F

Metal Bowl with sight

- Steel blue coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 160°F

Internal Float Drain

- Buna N float
- Operating pressure range 30 to 175 psig
- Operating temperature range 40°F to 120°F

Body blue coated aluminum

Baffle plastic

Seals Buna N

Vane aluminum

Elements

- 40 micron pleated fiber
- 5 micron pleated fiber
- 3 micron absolute pleated fiber

KITS

- Internal float drain. 5200

Bowl Kits

- Metal with sight BKF364W
- Metal without sight BKF364

Element Kits

- 40 micron. EKF358
- 3 micron EKF358-3

Repair Kits

- Repair kit RKF508
- Replacement sight kit WK35

FEATURES

- 40 micron pleated fiber element offers depth filtration. High strength, recleanable.
- Metal bowl is standard
- Twist drain

OPTIONS

add suffix to part number in alpha and numeric order

C Arrowlight differential pressure light F358HF-08C

D Differential pressure gauge . F358HF-08D

Float Drain

An internal float rises as condensate accumulates in a filter bowl to activate the drain.

F Internal float drain. F358HF-08F

Overnight Drains

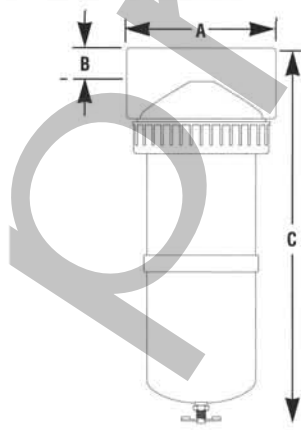
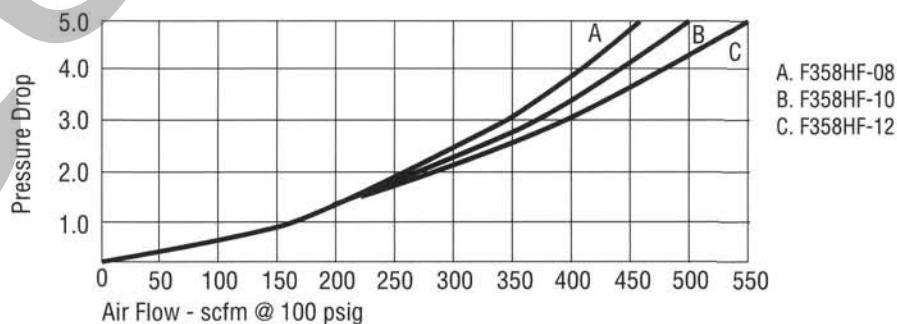
An overnight drain operates when a compressed air system is shut down. It clears accumulated condensate from a filter bowl when pressure falls to 3 psig or less. It then closes when pressure rises to 6 psi.

K Overnight drain F358HF-08K
Twist to manually drain.

W Metal bowl with sight glass. F358HF-08W

-3 3 micron absolute element. F358HF-08-3

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	DIMENSIONS (INCHES)			WEIGHT (LBS.)
			A	B	C	
1"	F358HF-08	460	5 1/4	1 1/2	14 1/2	11
1 1/4"	F358HF-10	500	5 1/4	1 1/2	14 1/2	9
1 1/2"	F358HF-12	550	5 1/4	1 1/2	14 1/2	7.8

* Flow scfm based on 5.0 psi Δ p @ 100 psig inlet.

High Flow Particulate Filters



SPECIFICATIONS

Metal Bowl

- Aluminum blue coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 200°F

Metal Bowl with sight

- Aluminum blue coated
- Max. supply pressure 250 psig
- Operating temperature range 40°F to 160°F

Body blue coated aluminum

Baffle plastic

Seals Buna N

KITS

- Float for External Drain 5200

Bowl Kits

- Metal with sight BKF510W
- Metal without sight BKF510
- Metal with sight BKF518W
- Metal without sight BKF518

Element Kits

- 40 micron EKF3N1
- 3 micron EKF3N1-3
- 40 micron EKF3NHF
- 3 micron EKF3NHF-3

Repair Kits

- Repair kit RKF3N1
- Repair kit RKF519
- Replacement sight kit BSF510

FEATURES

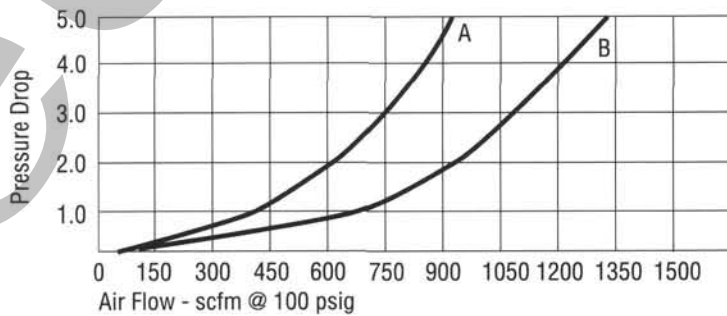
- 40 micron standard element offers depth filtration for 1½" and 2". High strength, recleanable.
- Metal bowl is standard
- Twist drain

OPTIONS

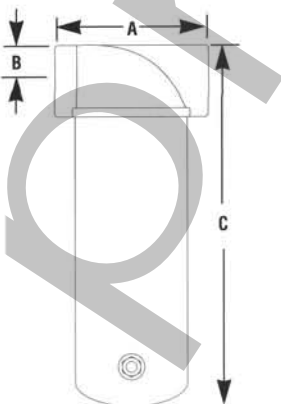
add suffix to part number in alpha and numeric order

- C** Arrowlight differential pressure light F3N1-12C
- D** Differential pressure gauge . F3N1-12D
- T** External Float Drain F3N1-12T
- W** Metal bowl with sight glass F3N1-12W
- 3** 3 micron absolute element F3N1-12-3

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



A. F3N1-12,
F3N1-16
B. F3N1HF-24



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	DIMENSIONS (INCHES)			WEIGHT (LBS.)
			A	B	C	
1½"	F3N1-12	910	6½	2	17¾	13
2"	F3N1-16	910	6½	2	17¾	13
3"	F3NHF-24	1300	7⅞	2¼	27½	18

* Flow scfm based on 5.0 psi Δ p @ 100 psig inlet.