CATALOGS

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Arrow Pneumatics

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ARROW PNEUMATICS

FRL CATALOG

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FILTERS REGULATORS LUBRICATORS ACCESSORIES

ARROW PNEUMATICS

Arrow Pneumatics manufactures a broad range of air preparation products. They include: particulate, oil removing, coalescing and absorbing filters; regulators; lubricators; sintered bronze exhaust mufflers, speed controls and in-line filters; aftercoolers, refrigerated and regenerative air dryers.

Technology expertise, patented design features, high quality standards and timely reaction to industry demands have established Arrow Pneumatics as a leader in the compressed air preparation field.

Arrow Pneumatics has a staff of qualified sales engineers to assist you with solutions to compressed air system needs and is committed to the future of compressed air technology.

COMPRESSED AIR SYSTEMS

Compressed air powered equipment and machinery are critical elements in the productivity, efficiency and economy of today's industry, and quality air is the essential ingredient. High speed pneumatic production lines operate efficiently because of air dryers and filters that remove moisture and impurities from the air and regulators and lubricators which help eliminate downtime.

AIR DRYERS

Water in a compressed air system, if not removed, can damage production machinery, rust pipes, shorten component life, clog air lines and reduce air flow, resulting in costly downtime and defective product. Dryers remove water vapor from the air. Installing a dryer removes this water vapor before it condenses in the line or in downstream equipment.

FILTERS

Particulate filters remove harmful oil and 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.

Certain pneumatic systems require air virtually free of oil and oil vapors. In these instances, oil removal may be achieved with the use of a coalescing filter.

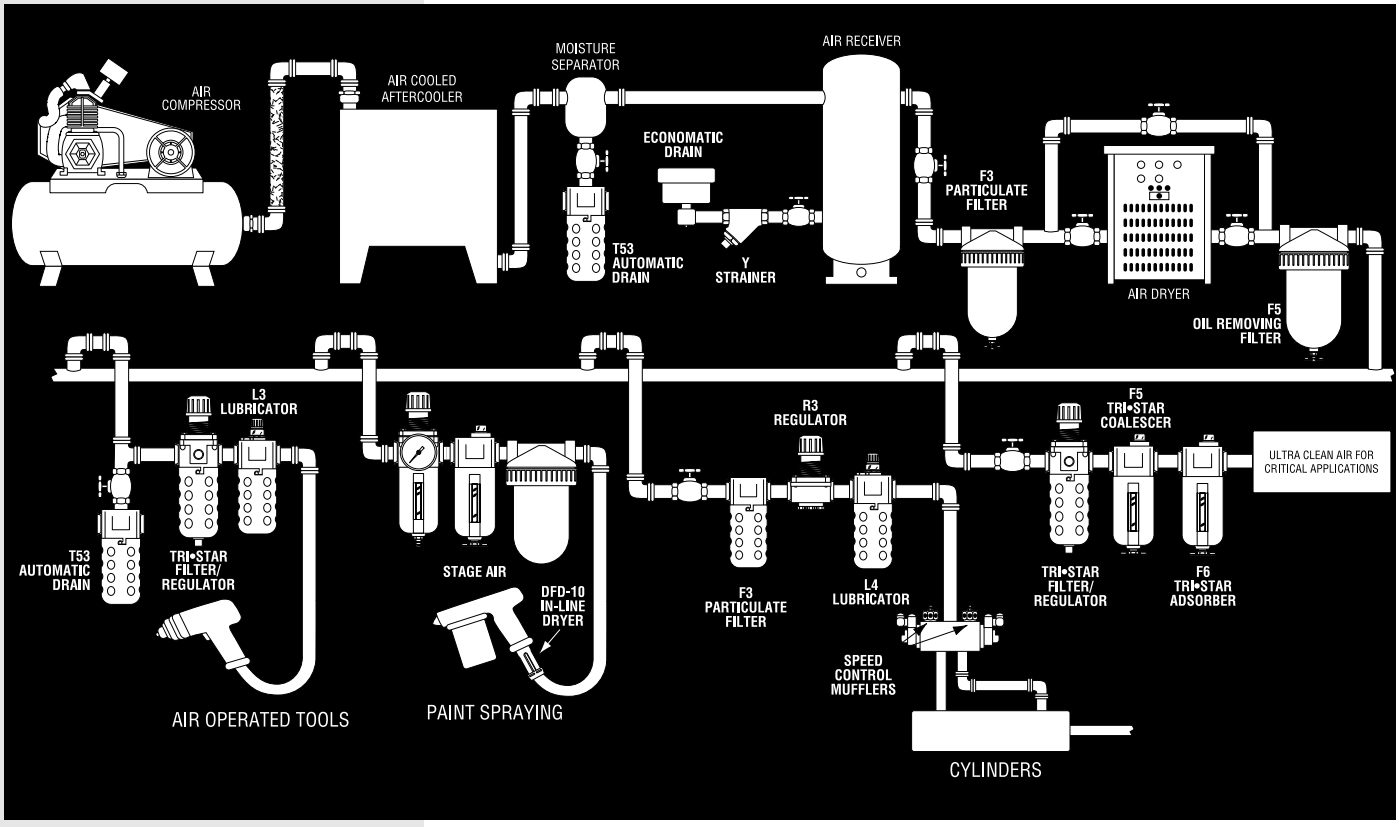
REGULATORS

Pneumatic equipment that operates at higher than recommended pressure can cause excess torque, force and wear and can waste compressed air. Operating below specified pressure can cause machines to fail to meet their design performance specifications. Therefore, precise air pressure control is essential to efficient operation of air-powered equipment. An air line regulator is a specialized control valve which reduces upstream supply pressure level to a specified constant downstream pressure.

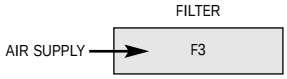
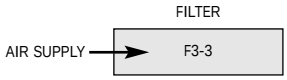
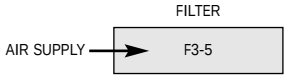
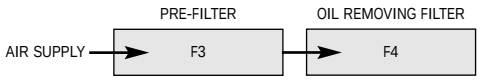
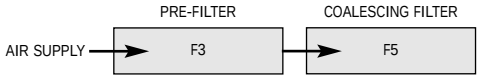
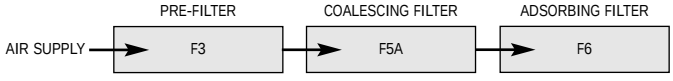
LUBRICATORS

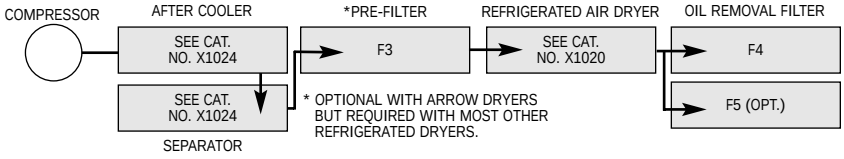
Most pneumatic system components and most pneumatic tools require oil lubrication for proper operation and long service life. Too little oil can cause excessive wear and premature failure. Too much oil is wasteful and can become a contaminant, particularly when carried over with the air exhaust. Pneumatic equipment can be lubricated by the use of an air-line lubricator. Filtered and regulated air enters the lubricator and is mixed with oil in an aerosol mist. The lubricated air is then routed to the operating system.

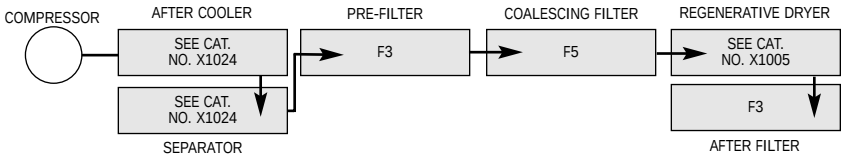
Arrow Pneumatics



FILTRATION SELECTION CHART

APPLICATION	FEATURES	SUGGESTED INSTALLATION AT POINT OF USE
• General Industrial	• General Purpose Liquid Removal and Particle Removal with Low Pressure Drop and Long Life	
	• General Purpose Liquid Removal with Extra Fine Particle Retention	
	• General Purpose Liquid Removal with Fine Particle Retention and Less Pressure Drop	
• General Industrial Use where Oil Exists in Supply • Air Cylinders, Valves, Motors • Pneumatic Machinery • General Paint Spraying	• Oil Removal with Long Element Life and Sub Micron Particle Retention	
• Instrumentation • Blow Molding • Air Blowing on Finished Product • Bottling Industry • Paint Spraying (critical)	• High Efficiency Oil and Water Removal and Sub Micron Particle Retention	
• Critical Instrumentation • Food/Dairy/Beverage • Clean Rooms • Pharmaceutical	• High Efficiency Oil Removal, Sub Micron Particle Retention; and Oil Vapor and Odor Removal	

APPLICATION	FEATURES	SUGGESTED INSTALLATION WHEN USED WITH REFRIGERATED AIR DRYERS
• Any Industrial Location that Cannot Tolerate Moisture or Oil Residue in Compressed Air • Spray Painting • Pneumatic Machinery • Climate Control	• Pre-Filter Removes Bulk Liquid and Particulate Matter which may Clog or Harm Heat Exchanger • Oil Removal Filters Remove Oil Carryover not Removed by Dryer	

APPLICATION	FEATURES	SUGGESTED USE WHEN USED WITH REGENERATIVE DESICCANT DRYERS
• Outside Dryer Locations • Instrument Air with Extra Low Dewpoints • Micro Processor Industry • Replacement of Nitrogen	• Separator and Pre-Filter Remove Bulk Liquid and Oil Residue which Contaminates Desiccant • After Filter Removes Fine Desiccant Dust Carryover	

TECHNICAL DATA

ARROW FILTER SERIES	USAGE	SUFFIX		PARTICLE SIZE REMOVAL	D.O.P. EFFICIENCY	REMAINING OIL CONTENT BY WEIGHT (Intake of 50 ppm)	DRY PRESSURE DROP	MATERIAL
Series F3 Particulate	Bulk Liquid (Water, Oil) and Particle Removal	___3 ___5 Std	Extra Fine Fine General	3 µ ABSOLUTE 5 µ NOMINAL 40 µ NOMINAL			5 psig at Nominal Rated Flow for Std. Element	Cellulose Porous Bronze Porous Bronze
Series F4 Oil Removal Coalescing Style	Economical Liquid Oil and Oil Aerosol Removal	Std	General	.9 µ	95%	2.5 ppm	.5 to 2.5 psig	Borosilicate Micro Glass Fibers
Series F5 Coalescing Style	High Efficiency Removal of Water, Oil Aerosols; Plus Sub Micron Particle Retention	A Std	Extra High Efficiency High Efficiency	.01 µ .03 µ	99.9999% 99.97%	.0005 ppm .015 ppm	.5 to 2.5 psig	Borosilicate Micro Glass Fibers
Series F6 Adsorbing, Charcoal Impregnated Coalescing Style	Removal of Oil Vapors and Oil Associated Odors as well as Solid Particulate Contaminates. Requires F5A Pre-Filter	Std			90%	.0001 ppm	.5 to 2.5 psig	Borosilicate Micro Glass Fibers Impregnated with Activated Charcoal Particles

PARTICULATE FILTERS

F3

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.

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.

Miniature Particulate Filters

F3

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 F300-01**J**
Push to manually drain.

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

M Metal bowl F300-01**M**

Z Piston drain F300-01**Z**

-5 5 micron element F300-01**-5**

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.*

Polycarbonate Bowl
- Max. pressure 150 psig
- Operating temperature range 40˚F to 125˚F

Metal Bowl
- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 175˚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 to175˚F

Body black coated zinc
Baffle plastic
Seals Buna N

Elements
- 20 micron sintered bronze
- 5 micron sintered bronze

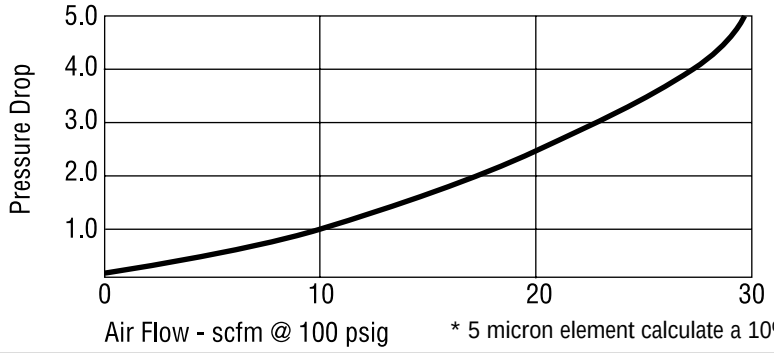
KITS
Bowl Kits
- Polycarbonate BKF300
- Polycarbonate with overnight drain BKF300J
- Metal BKF300M

Element Kits
- 20 micron 2-pack EKF300
- 5 micron 2-pack EKF300-5

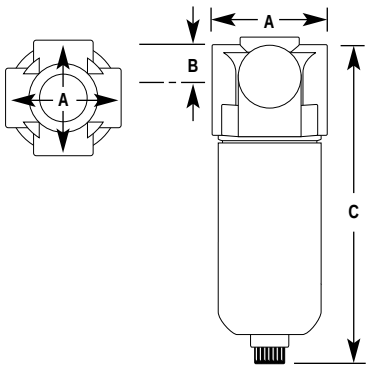
Drain Kit
- Piston drain kit PKF300

- Mounting Bracket FBK3

PERFORMANCE CHARACTERISTICS FOR 20 MICRON ELEMENT



* 5 micron element calculate a 10% less flow.



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
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 △ 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. F352**F**

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 F352**J**
Push to manually drain.

K Overnight drain for metal bowl F352**KM**
Twist to manually drain.

M Black coated metal bowl F352**M**

W Black coated metal bowl with sight F352**W**

-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.*

Polycarbonate Bowl

- Max. supply pressure 150 psig
- Operating temperature range 40˚F to 125˚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

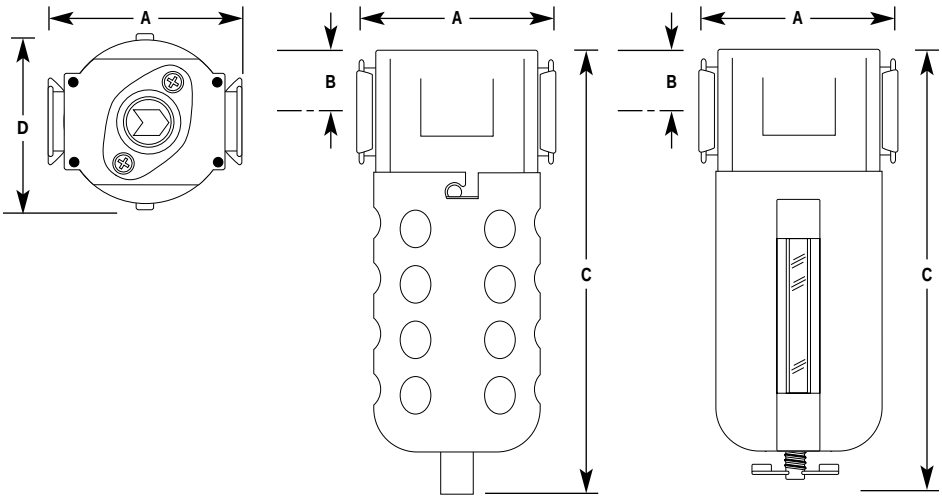
Note: limits bowl temperature and pressure rating

- 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

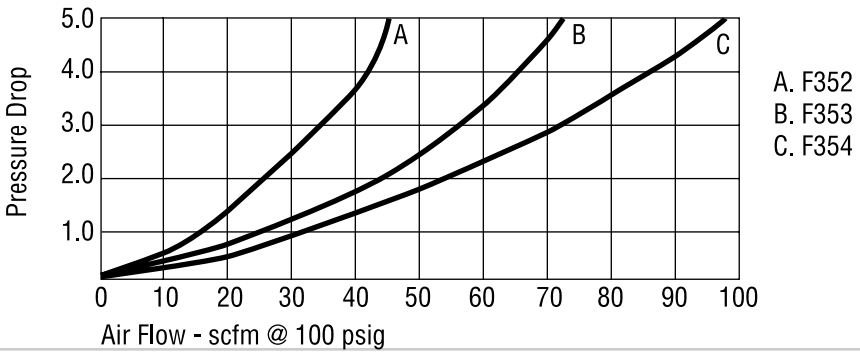
Bowl Kits
- Polycarbonate with guard . . . BKF35
- Black coated metal BKF45M
- Black coated metal with sight BKF45W

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 Kit see page 65
- Mounting kit FBK5

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



* 5 micron element reduces flow by 10%

DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
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 △ p @ 100 psig inlet.

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 cellulous 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

MidFlow Particulate Filters

F3

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 F373**FW**

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 F373**KW**
Twist to manually drain.

M Metal bowl without sight glass F373**M**

5 5 micron element F373W**5**

3 3 micron absolute element . F373W**3**

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

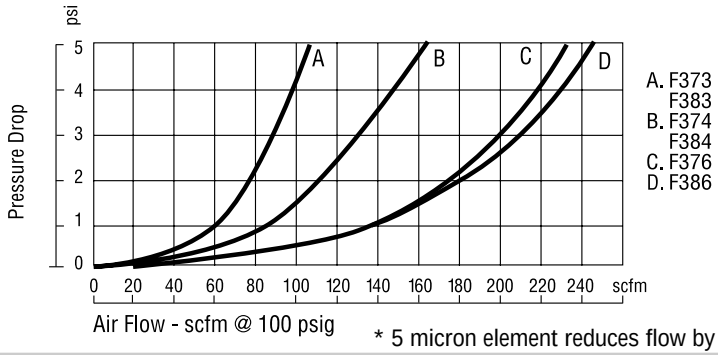
Bowl Kits
- Metal with sight BKF47W, BKF48W
- Metal without sight BKF47M, BKF48M

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

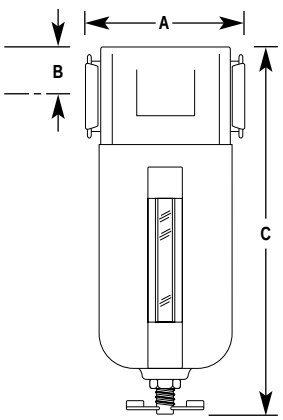
Repair Kits
- Repair kit RKF37, RKF38
- Replacement sight kit WK47

Mounting Kit see page 65
- Mounting kit FBK7

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



* 5 micron element reduces flow by 10%.



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
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 △ p @ 100 psig inlet.

High Flow Particulate Filters

F3

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 . F329-10

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

F Internal float drain. F329-08**F**W

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 F329-08**K**W
Twist to manually drain

5 5 micron element F329-08W**5**

3 3 micron absolute element . F329-08W**3**

For Metal Bowl without sight delete W

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

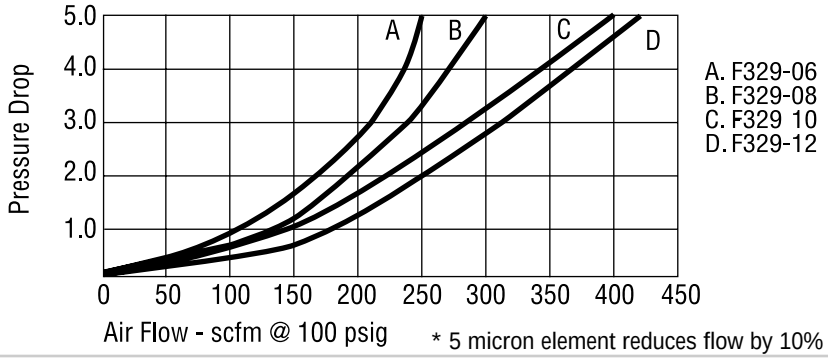
KITS
- Internal float drain. 5200

Bowl Kits
- Metal with sight BKF329W
- Metal without sight BKF329M

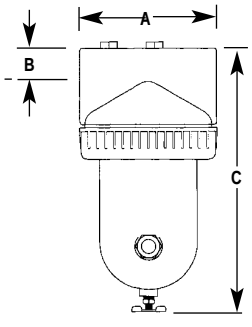
Element Kits
- 40 micron. EKF329
- 5 micron EKF329-5
- 3 micron absolute EKF329-3

Repair Kits
- Repair kit RKF329
- Replacement sight kit WK35

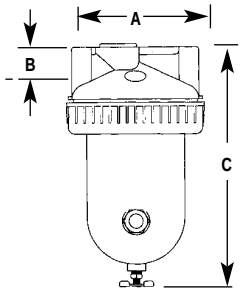
PERFORMANCE CHARACTERISTICS



* 5 micron element reduces flow by 10%



F329-10W, F329-12W



F329-06W, F329-08W

DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/4″	F329-06W	260	29 oz.	5 5/32	1 3/16	9 13/32	3.7
1″	F329-08W	300	29 oz.	5 5/32	1 5/16	9 13/32	3.7
1 1/4″	F329-10W	400	29 oz.	5 1/4	1 1/2	10 11/32	6.3
1 1/2″	F329-12W	425	29 oz.	5 1/4	1 1/2	10 11/32	6.3

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

High Flow Particulate Filters

F3

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

D Differential pressure gauge . F358HF-08**D**

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

F Internal float drain. F358HF-08**F**

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-08**K**
Twist to manually drain.

W Metal bowl with sight glass. F358HF-08**W**

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

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

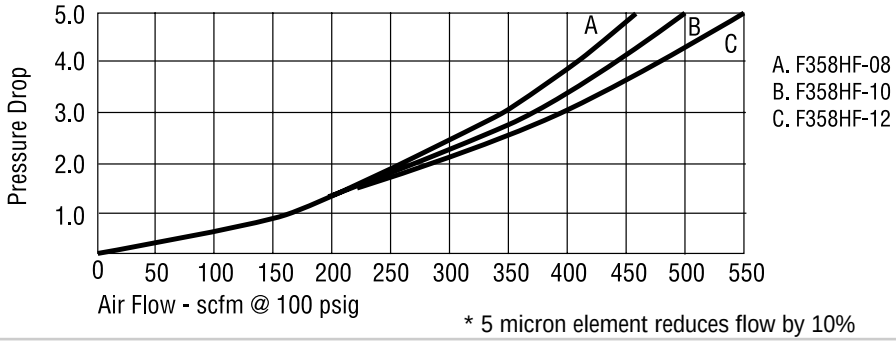
KITS
- Internal float drain. 5200

Bowl Kits
- Metal with sight BKF364W
- Metal without sight BKF364

Element Kits
- 40 micron. EKF358
- 3 micron EKF358-3

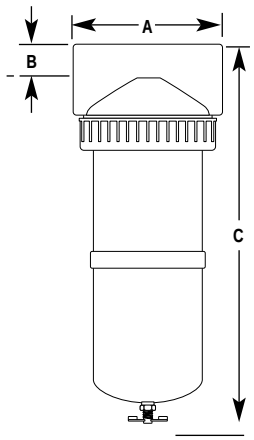
Repair Kits
- Repair kit RKF508
- Replacement sight kit WK35

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



A. F358HF-08
B. F358HF-10
C. F358HF-12

* 5 micron element reduces flow by 10%



DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1″	F358HF-08	50 oz.	460	5 1/4	1 1/2	14 1/2	11
1 1/4″	F358HF-10	50 oz.	500	5 1/4	1 1/2	14 1/2	9
1 1/2″	F358HF-12	50 oz.	550	5 1/4	1 1/2	14 1/2	7.8

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

High Flow Particulate Filters

F3

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

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

SPECIFICATIONS

Metal Bowl

- Black coated aluminum
- Max. supply pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with sight

- Black coated aluminum
- Max. supply pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body black 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

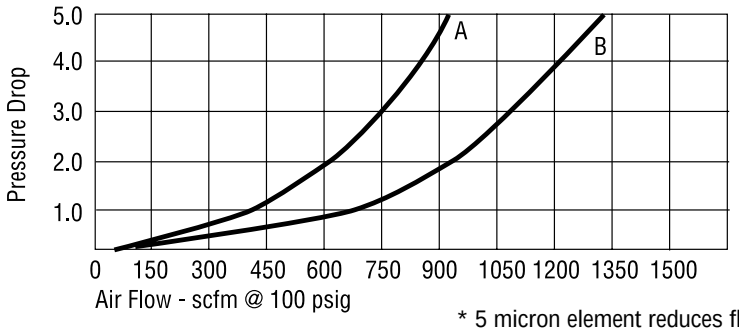
Element Kits

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

Repair Kits

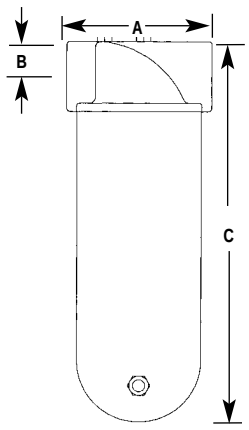
- Repair kit RKF3N1 RKF519
- Replacement sight kit BSF510

PERFORMANCE CHARACTERISTICS FOR 40 MICRON ELEMENT



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

* 5 micron element reduces flow by 10%



DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1½″	F3N1-12	100 oz.	910	6½	2	17¾	13
2″	F3N1-16	100 oz.	910	6½	2	17¾	13
3″	F3NHF-24	200 oz.	1300	7⅝	2¼	27½	18

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

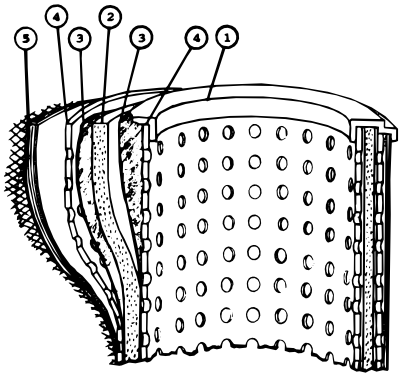
COALESCING FILTERS

A coalescing filter functions in a different way from a standard particulate filter. Air flows from inside to outside through a coalescing media. Coalescing, by definition, means “to come together”. It is a continuous process by which small aerosols come in contact with the fibers in the filter media, uniting with other collected aerosols and growing to emerge as a droplet on the downstream surface of the media which by its weight is gravitationally drained away. For maximum performance and efficiency, coalescing filters should be preceded by an F3 particulate filter.

F4 oil removing filters offer general industrial filtration with low pressure drop and long element life. They are often used with older compressors where downstream oil carryover is excessive and when longer element life and low pressure drop are a concern.

F5 coalescing filters are used for high filtration of oil aerosols and sub micron particles. They are often used with critical instrumentation; paint spraying equipment; more sophisticated air systems; blow molding bottling; in the food industry, and where air blows on a finished product. The .01 micron grade “A” element is offered for the most critical filtration applications, such as those found in clean rooms.

F6 adsorber filters were engineered specifically for critical applications that will not tolerate the presence of oil vapors. If the compressed air has been prepared by a suitable refrigerated dryer and F5 oil removing filter, the F6 Adsorber will insure oil concentrations of .01 PPM by weight. In all cases, an F5A coalescing filter must precede an F6 Adsorber filter. To prevent any particle migration downstream, an F3 with 3 micron element should be installed downstream for total system protection.



1) Molded, bonded urethane rubber end seals, seal on face and bore to ensure that all aerosols will pass through media.

2) High efficiency borosilicate glass fiber media coalesces and removes finest oil aerosols, Arrows unique tapered layer structure reduces wet pressure drop and extends element life.

3) The borosilicate core is additionally protected by polyester wraps before and after the core to prevent bulging through the support ribs under load.

4) Chemical resistant plastic inner and outer support ribs strengthen element structure and prevent damage to the element under high differential pressures and reverse flow conditions.

5) Fiberglass drain layer provides drainage vehicle, prevents reentrainment of droplets, and is not affected by synthetic oils and high temperatures. Outer netting prevents drain layer bulging and is color coded to identify element type.

IMPORTANT: Oil captured by Arrow Coalescing Filters will not retrain and move downstream.

Tri•Star Oil Removing Filters

F4

FEATURES
- .9 micron element
- Low pressure drop
- Long element life
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- 6 oz. black coated metal bowl with liquid level sight
- Manual drain
- In-line or modular installation

OPTIONS
add suffix to part number in alpha order

Float Drain
F Internal float drain F452**F**W

For Metal Bowl without sight delete W

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 Note: limits bowl temperature and pressure rating.
- Operating pressure range 30 to 175 psig
- Operating temperature range 40˚F to 120˚F

Element
- .9 micron borosilicate glass fiber D.O.P. Efficiency: 95%, Particle size removal, Remaining oil content by wt.: 2.5 PPM

Body black coated aluminum
Baffle plastic
Seals Buna N

KITS
- Internal float drain. 5200

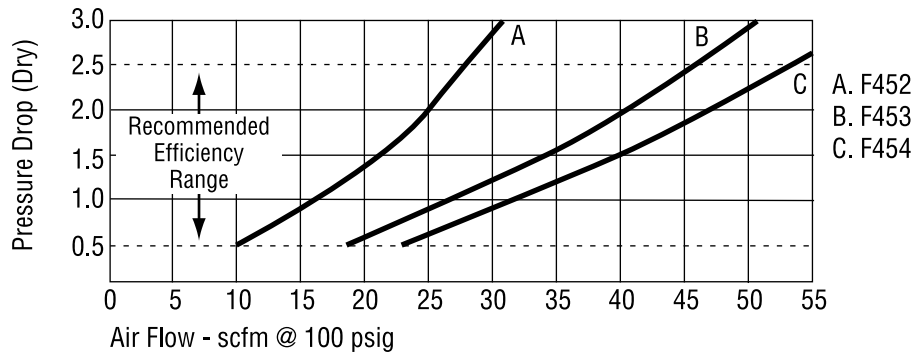
Bowl Kits
- Metal bowl without sight BKF45M
- Metal bowl with sight BKF45W

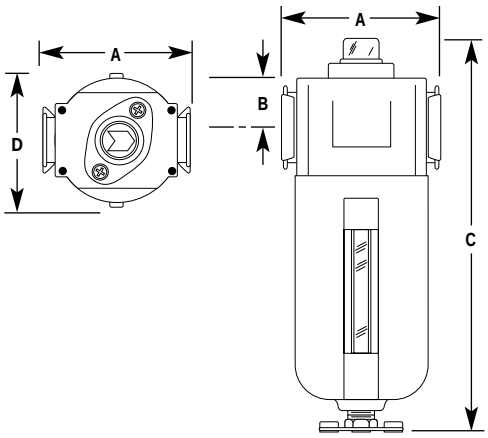
Element Kit
- .9 micron 2-pack. . . . . EK45 Orange netting or dot

Repair Kits
- Repair kit RKF45
- Replacement sight kit WK45
- Indicator pop-up kit DPK-05

Mounting Kit see page 65
- Mounting kit FBK5

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1/4″	F452W	27	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7
3/8″	F453W	45	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7
1/2″	F454W	53	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

MidFlow Oil Removing Filters

F4

FEATURES
- .9 micron element
- Low pressure drop
- Long element life
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- 10 oz. or 20 oz. black coated metal bowl with liquid level sight
- Manual twist drain

OPTIONS
add suffix to part number in alpha order

Float Drain

F Internal float drain F473**FW**

M Metal bowl without sight glass F473**M**

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

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

Elements
- .9 micron borosilicate glass filter D.O.P. Efficiency: 95%, Particle size removal, Remaining oil content by wt.: 2.5 PPM

KITS
- Internal float drain. 5200

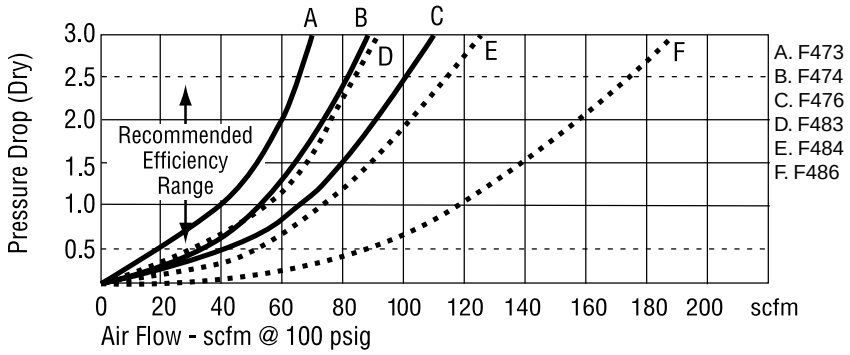
Bowl Kits
- 10 oz. with sight BKF47W
- 10 oz. without sight. BKF47M
- 20 oz. with sight BKF48W
- 20 oz. without sight BKF48M

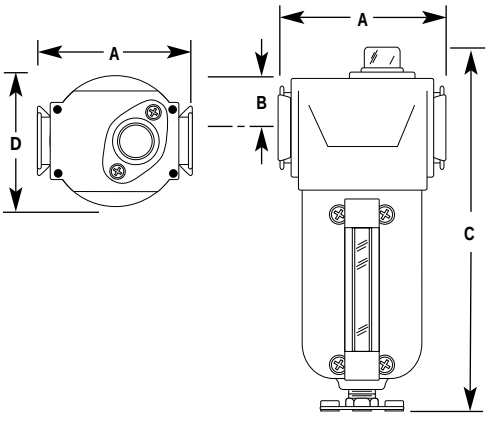
Element Kits
- .9 micron EK47
  Orange netting or dot EK48

Repair Kits
- Repair kit RKF47
  RKF48
- Replacement sight kit WK47
- Indicator pop-up kit DPK-05

Mounting Kit see page 65
- Mounting kit FBK7

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
3/8″	F473W	66	10 oz.	3 3/4	1 1/8	8 1/4	3	2.7
3/8″	F483W	84	20 oz.	3 3/4	1 1/8	11 1/2	3	3.6
1/2″	F474W	83	10 oz.	3 3/4	1 1/8	8 1/4	3	2.7
1/2″	F484W	116	20 oz.	3 3/4	1 1/8	11 1/2	3	3.6
3/4″	F476W	98	10 oz.	3 3/4	1 1/8	8 1/4	3	2.7
3/4″	F486W	172	20 oz.	3 3/4	1 1/8	11 1/2	3	3.6

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Oil Removing Filters

F4

FEATURES
- .9 micron element
- Manual twist drain
- Low pressure drop
- Long element life

OPTIONS
add suffix to part number in alpha and numeric order

D Differential pressure gauge . F408-10**D**

Float Drain

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

F Internal float drain. F405-06**F**W
F408-08**F**W

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

twist to manually drain F408-08**K**W

For Metal Bowl without sight delete W

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

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 aluminum
Seals Buna N

Elements
- .9 micron borosilicate glass fiber D.O.P. Efficiciency: 95%, Particle size removal, Remaining oil content by wt.: 2.5 PPM

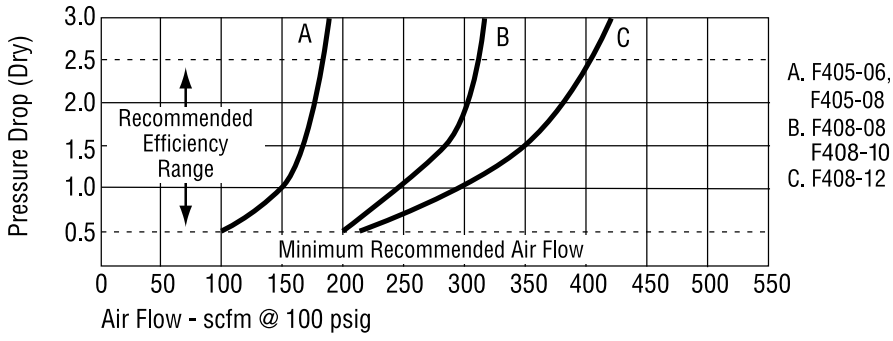
KITS
- Internal float drain kit 5200

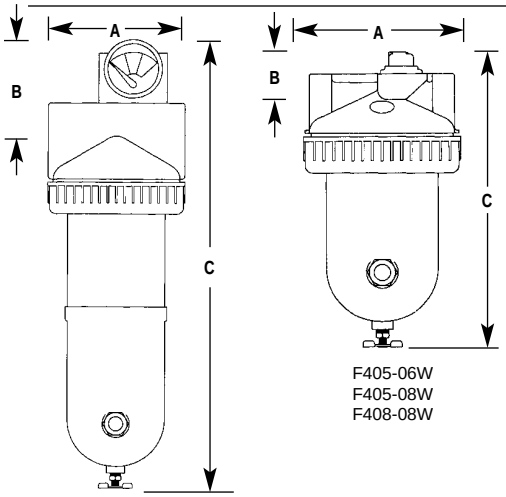
Bowl Kits
- Metal with sight F405 . . . . . BKF329W
- Metal without sight F405. . . . BKF329M
- Metal with sight F408 . . . . . BKF364W
- Metal without sight F408. . . . BKF364

Element Kits
- .9 micron F405 . . . . . EKF405
- .9 micron F408 . . . . . EKF408
  Orange netting or dot

Repair Kits
- Repair kit RKF505
- Repair kit RKF508
- Replacement sight kit 405. . . WK35
- Replacement sight kit 408. . . WK35

PERFORMANCE CHARACTERISTICS





F405-06W
F405-08W
F408-08W

F408-10DW, F408-12DW

DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/4″	F405-06W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1″	F405-08W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1″	F408-08W	60 oz.	300	4 7/8	1 3/16	14 13/32	6.0
1 1/4″	F408-10DW	60 oz.	300	5 5/32	3 3/4	16 3/4	6.3
1 1/2″	F408-12DW	60 oz.	400	5 5/32	3 3/4	16 3/4	6.3

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Oil Removing Filters

F4


Gauge Optional

FEATURES
- .9 micron element
- Low pressure drop
- Long element life

OPTIONS
add suffix to part number in alpha order

D Differential pressure gauge . F410-08**D**
T External Float Drain F410-08**T**
W Metal bowl with sight glass F410-08**W**

SPECIFICATIONS
Metal Bowl
- Max. supply pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with sight
- Black coated Aluminum
- Max. supply pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body black coated aluminum
Baffle plastic
Seals Buna N

Element
- .9 micron borosilicate glass filter D.O.P. Efficiciency: 95%, Particle size removal, Remaining oil content by wt.: 2.5 PPM

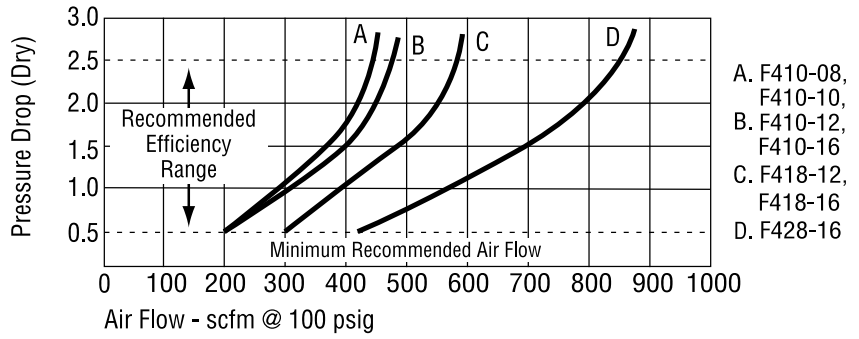
KITS
- Float for External Drain 5200

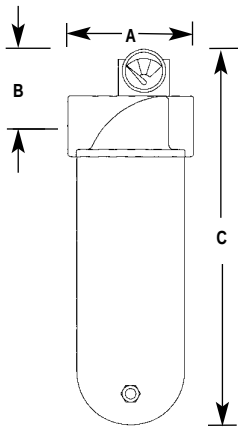
Bowl Kits
- Metal without sight F410. . . . BKF510
- Metal with sight F410 . . . . . BKF510W
- Metal without sight F418. . . . BKF518
- Metal with sight F418 . . . . . BKF518W
- Metal without sight F428. . . . BKF528
- Metal with sight F428 . . . . . BKF528W

Element Kit
- .9 micron . . . . . EKF410, EKF418, Orange netting or dot EKF428

Repair Kits
- Repair kit RKF511
- Replacement sight kit BSF510

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1″	F410-08	100 oz.	420	6 1/2	2	21	16
1 1/4″	F410-10	100 oz.	420	6 1/2	2	21	16
1 1/2″	F410-12	100 oz.	475	6 1/2	2	21	16
1 1/2″	F418-12	200 oz.	590	6 1/2	2	28 3/4	19
2″	F410-16	100 oz.	475	6 1/2	2	21	16
2″	F418-16	200 oz.	590	6 1/2	2	28 3/4	19
2″	F428-16	300 oz.	840	6 1/2	2	39	23

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

Miniature Coalescing Filters

F5

FEATURES
- .03 micron fiber element
- 1 oz. polycarbonate bowl
- Manual twist drain

OPTIONS
add suffix to part number in alpha order

A .01 micron element F500-02**A**

Overnight Drains

When a compressed air system is shut down, an overnight drain clears accumulated condensate from a filter bowl when the pressure falls to 3 psig or less.

J Overnight drain for polycarbonate bowl F500-02**J**
Push to manually drain.

K Overnight drain for metal bowl F500-02**KM**
Twist to manually drain.

M Metal bowl F500-02**M**

Z Piston drain F500-02**Z**

SPECIFICATIONS

Polycarbonate Bowl
- Max. pressure 150 psig
- Operating temperature range 40˚F to 125˚F

Metal Bowl
- Black coated Aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 175˚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.
- Operating pressure range 30 to 175 psig
- Operating temperature range 40˚F to 120˚F

Body
- Black coated aluminum

Elements
- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM
- .01 micron borosilicate glass fiber D.O.P. Efficiency: 99.999%, Particle removal size, Remaining oil content by wt.: .0005 PPM

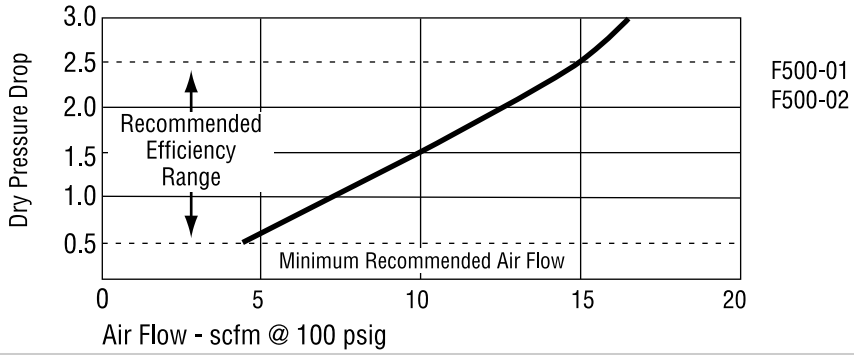
KITS
- Piston drain PKF300
- Overnight Metal (K). . . . . CKFK

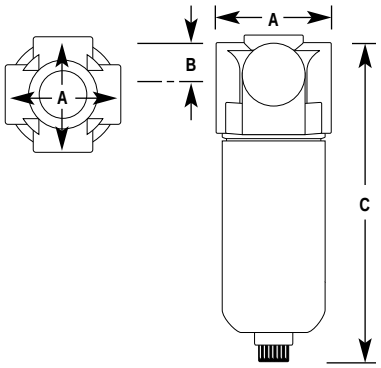
Bowl Kits
- 1 oz. poly. bowl. BKF300
- 1 oz. poly. bowl with piston drain. BKF300J
- 1 oz. metal bowl BKF300M
- 1 oz. metal bowl with overnight drain BKF300KM

Element Kits
- .03 micron 2-pack. . . . . EKF500 Clear net or no color
- .01 micron 2-pack. . . . . EKF500A Red net or dot

Mounting Kit see page 65
- Mounting kit FBK3

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1/8"	F500-01	15	1 oz.	1 1/2	1/2	4 1/2	.5
1/4"	F500-02	15	1 oz.	1 1/2	1/2	4 1/2	.5

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

Tri•Star Coalescing Filters

F5

FEATURES
- .03 micron fiber element
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- Low pressure drop
- 6 oz. black coated metal bowl with liquid level sight
- Black coated aluminum housing
- Manual drain
- In line or modular installation

OPTIONS
add suffix to part number in alpha order

A .01 micron element F552**AW**

Float Drain

F Internal float drain F552**FW**

For Metal Bowl without sight delete W

SPECIFICATIONS
Body Black coated aluminum
Baffle plastic
Seals Buna N

Metal Bowl
- Zinc, black coated
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight nickel plated zinc
- Zinc, black coated
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Internal Float Drain
plastic, metal, brass, Buna N seal
Note: limits bowl temperature and pressure rating
- Operating pressure range 30 to 175 psig
- Operating temperature range 40˚F to 120˚F

Elements
- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM
- .01 micron borosilicate glass fiber D.O.P. Efficiency: 99.999%, Particle size removal, Remaining oil content by wt.: .0005 PPM

KITS
- Internal float drain kit 5200

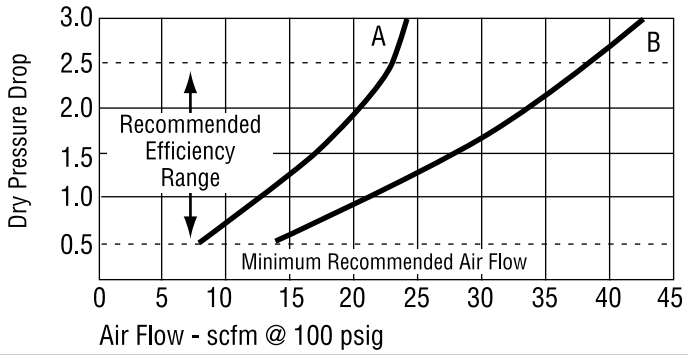
Bowl Kits
- Metal without sight BKF45M
- Metal with sight BKF45W

Element Kits
- .03 micron 2-pack. . . . . EK55 Clear net no color
- .01 micron 2-pack. . . . . EK55A Red net or dot

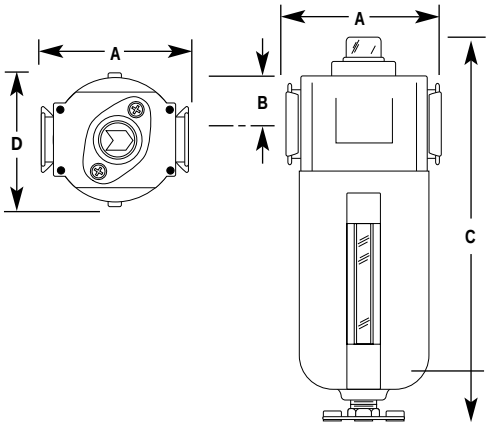
Repair Kits
- Repair kit RKF45
- Replacement sight kit WK35
- Indicator Pop-up kit DPK-05

Mounting Kit see page 65
- Mounting kit FBK3

PERFORMANCE CHARACTERISTICS



A. F552
B. F553
F554



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1/4″	F552W	24	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7
3/8″	F553W	37	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7
1/2″	F554W	37	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

MidFlow Coalescing Filters

F5

FEATURES

- .03 micron fiber element
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- Low pressure drop
- 10 oz. or 20 oz. black coated metal bowl with liquid level sight
- Manual drain

OPTIONS

add suffix to part number in alpha order

A .01 micron element F573**AW**

Float Drain

F Internal float drain F573**FW**

K Overnight drain F573**KW**

M Black coated metal bowl . . . F573**M**

SPECIFICATIONS

Metal Bowl

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

Metal Bowl with Sight

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

Internal Float Drain Note: limits bowl temperature and pressure ratings

- Operating pressure range 30 to 175 psig
- Operating temperature range 40˚F to 120˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Elements

- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM
- .01 micron borosilicate glass fiber, D.O.P. Efficiency: 99.999%, Particle size removal, Remaining oil content by wt.: .0005 PPM

KITS

- Internal float drain kit 5200
- Overnight Metal (K) . . . . . .CKFK

Bowl Kits

- 10 oz. with sight BKF47W
- 10 oz. without sight. BKF47M
- 20 oz. with sight BKF48W
- 20 oz. without sight BKF48M

Element Kits

- .03 micron EK57
  Clear net no color EK58
- .01 micron EK57A
  Red net or dot EK58A

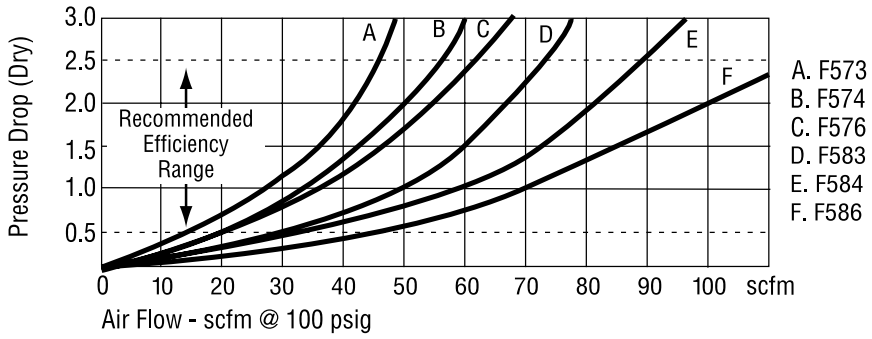
Repair Kits

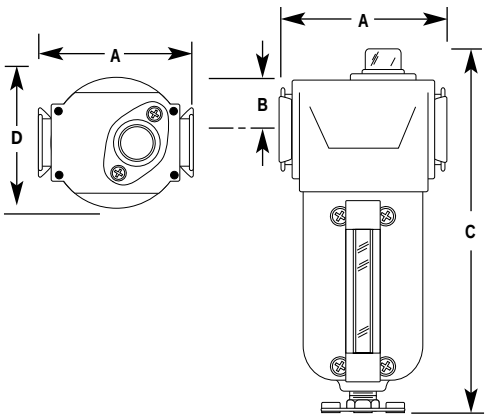
- Repair kit RKF47, RKF48
- Replacement sight kit WK37
- Indicator Pop-up kit DPK-05

Mounting Kit see page 65

- Mounting kit FBK7

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
3/8″	F573W	48	10	3 3/4	1 1/8	8 1/4	3	2.7
3/8″	F583W	72	20	3 3/4	1 1/8	11 1/2	3	3.6
1/2″	F574W	55	10	3 3/4	1 1/8	8 1/4	3	2.7
1/2″	F584W	90	20	3 3/4	1 1/8	11 1/2	3	3.6
3/4″	F576W	60	10	3 3/4	1 1/8	8 1/4	3	2.7
3/4″	F586W	110	20	3 3/4	1 1/8	11 1/2	3	3.6

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Coalescing Filters

F5

FEATURES
- .03 micron fiber element
- Manual drain
- Low pressure drop

OPTIONS
add suffix to part number in alpha and numeric order

A .01 micron element F505-06**A**
D Differential pressure gauge . F508-10**D**

Float Drain

F Internal float drain F505-06**F**W

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.

Twist to manually drain F508-08**K**W

For Metal Bowl without sight delete W

SPECIFICATIONS

Metal Bowl
- Zinc, black coated
- Max. 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 aluminum
Seals Buna N

Elements
- .03 micron borosilicate glass filter D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM
- .01 micron borosilicate glass filter D.O.P. Efficiency: 99.999%, Particle size removal, Remaining oil content by wt.: .0005 PPM

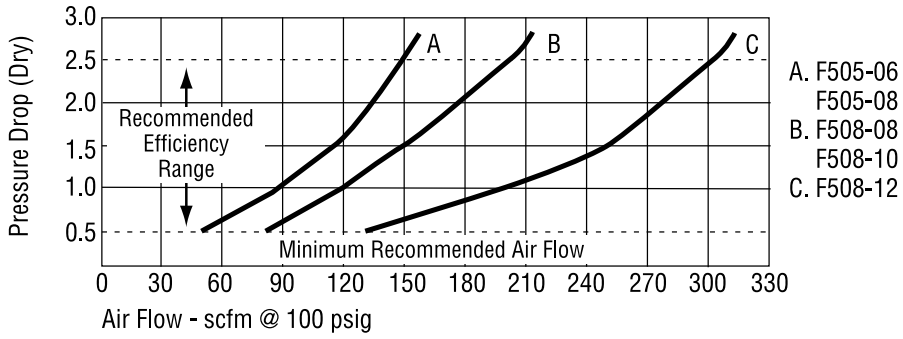
KITS
- Internal float drain kit 5200
- Overnight Drain Kit (K) . . . . . CKFK

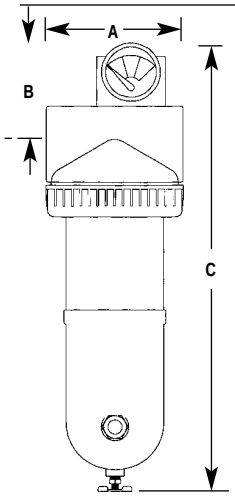
Bowl Kits
- Metal with sight F505 . . . . . BKF329W
- Metal without sight F505. . . . BKF329M
- Metal with sight F508 . . . . . BKF364W
- Metal without sight F508. . . . BKF364M

Element Kits
- .03 micron 505 (Clear net) . . EKF505
- .01 micron 505 (Red net) . . . EKF505A
- .03 micron 508 (Clear net) . . EKF508
- .01 micron 508 (Red net) . . . EKF508A

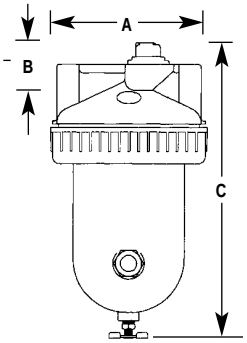
Repair Kits
- Repair kit 505. . . . . RKF505
- Repair kit 508. . . . . RKF508
- Replacement sight kit WK35

PERFORMANCE CHARACTERISTICS





F508-10DW, F508-12DW



F505-06W
F505-08W
F505-08W

DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/4″	F505-06W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1″	F505-08W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1″	F508-08W	60 oz.	300	4 7/8	1 3/16	14 13/32	6.0
1 1/4″	F508-10W	60 oz.	300	5 5/32	3 3/4	16 3/4	6.3
1 1/2″	F508-12W	60 oz.	400	5 5/32	3 3/4	16 3/4	6.3

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Coalescing Filters

F5

Gauge Optional

FEATURES
- .03 micron fiber element
- Low pressure drop
- Manual drain

OPTIONS
add suffix to part number in alpha order

A .01 micron element F510-08**A**
D Differential pressure gauge . F510-08**D**
T External Float Drain F510-08**T**
W Metal bowl with sight glass. F510-08**W**

SPECIFICATIONS

Metal Bowl
- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight
- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Elements
- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM
- .01 micron borosilicate glass fiber D.O.P. Efficiency: 99.999%, Particle size removal, Remaining oil content by wt.: .0005 PPM

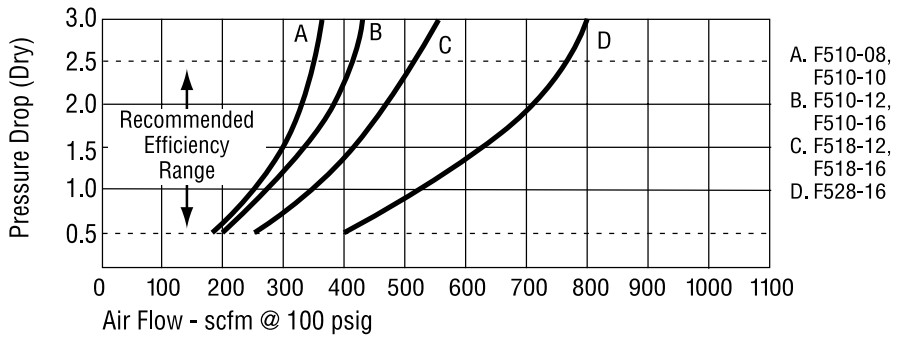
KITS
- Float for External Drain 5200

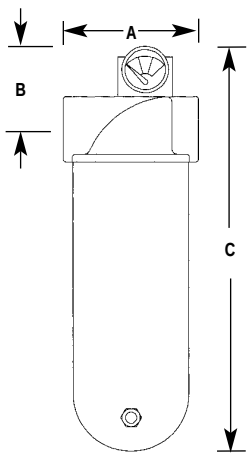
Bowl Kit
- Metal with sight BKF510W
- Metal without sight BKF510
- Metal with sight BKF518W
- Metal without sight BKF518
- Metal with sight BKF528W
- Metal without sight BKF528

Element Kits
- .03 micron . . . . . EKF510, Clear net no color EKF518, EKF528
- .01 micron . . . . . EKF510A, Red net or dot EKF518A, EKF528A

Repair Kits
- Repair kit RKF511, RKF519, RKF529
- Replacement sight kit BSF510

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1″	F510-08	100 oz.	310	6 1/2	2	21	16
1 1/4″	F510-10	100 oz.	310	6 1/2	2	21	16
1 1/2″	F510-12	100 oz.	415	6 1/2	2	21	16
1 1/2″	F518-12	200 oz.	515	6 1/2	2	28 3/4	19
2″	F510-16	100 oz.	415	6 1/2	2	21	16
2″	F518-16	200 oz.	515	6 1/2	2	28 3/4	19
2″	F528-16	300 oz.	765	6 1/2	2	39	23

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Coalescing Filters

F5

Gauge Optional

FEATURES

- .03 micron fiber element
- Low pressure drop
- Manual drain

OPTIONS

add suffix to part number in alpha order

A .01 micron element F511-24**A**
D Differential pressure gauge . . F511-24**D**
T External Float Drain F511-24**T**
W Metal bowl with sight glass. F511-24**W**

SPECIFICATIONS

Metal Bowl

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Elements

- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM
- .01 micron borosilicate glass fiber D.O.P. Efficiency: 99.999%, Particle size removal, Remaining oil content by wt.: .0005 PPM

KITS

- Float for External Drain 5200

Bowl Kits

- Metal with sight BKF510W
- Metal without sight BKF510
- Metal with sight BKF518W
- Metal without sight BKF518
- Metal with sight BKF529W
- Metal without sight BKF529

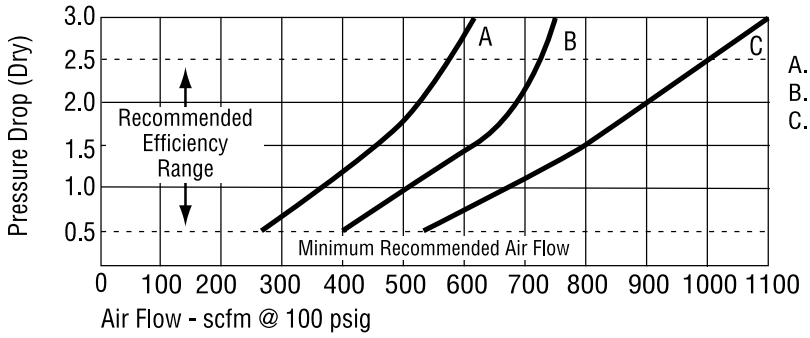
Element Kits

- .03 micron EKF511
  Clear net no color EKF519
  EKF529
- .01 micron EKF511A
  Red net or dot EKF519A
  EKF529A

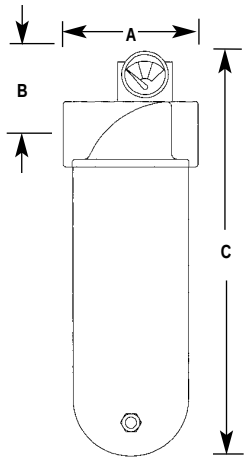
Repair Kits

- Repair kit RKF511
  RKF519
  RKF529
- Replacement sight kit BSF510

PERFORMANCE CHARACTERISTICS



A. F511-24
B. F519-24
C. F529-24



DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C**	WEIGHT (LBS.)
3″	F511-24	100 oz.	620	$7\frac{5}{8}$	$2\frac{1}{4}$	$22\frac{11}{16}$	21
3″	F519-24	200 oz.	770	$7\frac{5}{8}$	$2\frac{1}{4}$	$31\frac{3}{16}$	24
3″	F529-24	300 oz.	1100	$7\frac{5}{8}$	$2\frac{1}{4}$	$41\frac{7}{16}$	28

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

** Add 3/4" to height (c) if ordered with gauge

Tri•Star Adsorber Filters

F6

FEATURES

- Protects end processes from gaseous oil contamination and rids compressed air of offensive oily odors
- Removes hydrocarbons for use in analytical instruments
- Low pressure drop
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- 6 oz. black coated metal bowl with liquid level sight
- Black coated aluminum housing
- Manual drain
- In-line or modular installation

OPTIONS

For Metal Bowl without sight delete W

SPECIFICATIONS

Metal Bowl

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

Metal Bowl with Sight

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

Element

- Multi-wrapped layers of impregnated activated charcoal particles to increase purification qualities. If the compressed air has been prepared by a suitable refrigerated dryer and F5A Oilescer filter, the F6 Absorber will insure oil concentrations of .0015 PPM by weight. In all cases, an F5 Oilescer must precede an F6 Absorber. To prevent any particle migration downstream an F3 with 3 micron element should be installed downstream for total system protection.

Body Black coated aluminum
Baffle plastic
Seals Buna N

Bowl Kits

- Metal bowl without sight BKF45M
- Metal bowl with sight BKF45W

Element Kits

- Charcoal wrapped 2-pack . . . EK65 Clear net no color

Repair Kits

- Repair kit RKF45
- Replacement sight kit WK35
- Indicator Pop-up kit DPK-05

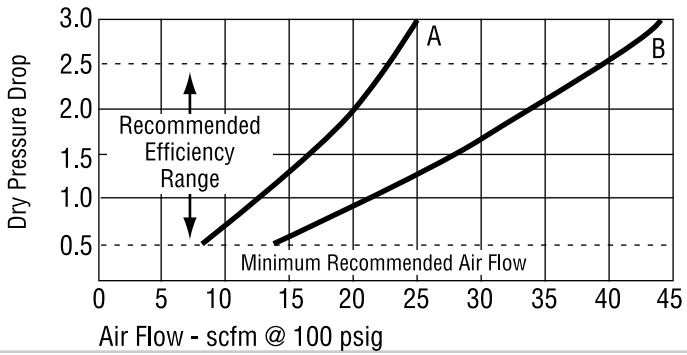
Mounting Kit see page 65

- Mounting kit FBK5

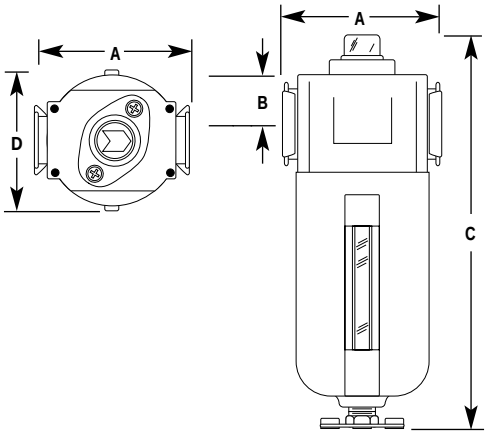
APPLICATIONS

- Food plants
- Pharmaceutical
- Instrumentation

PERFORMANCE CHARACTERISTICS



A. F652
B. F653
F654



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1/4″	F652W	24	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7
3/8″	F653W	37	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7
1/2″	F654W	37	6 oz.	2 3/4	3/4	7 5/8	2 1/2	1.7

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

MidFlow Adsorber Filters

F6

SPECIFICATIONS

Metal Bowl
- Zinc black coated
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight
- Zinc black coated
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Element
- Multi-wrapped layers of impregnated activated charcoal particles to increase purification qualities. If the compressed air has been prepared by a suitable refrigerated dryer and F5A Oilescer filter, the F6 Absorber will insure oil concentrations of .0015 PPM by weight. In all cases, an F5 Oilescer must precede an F6 Absorber. To prevent any particle migration downstream an F3 with 3 micron element should be installed downstream for total system protection.

Body Black coated aluminum
Baffle plastic
Seals Buna N

Bowl Kits
- Metal bowl without sight BKF47M
- Metal bowl with sight BKF47W

Element Kits
- Charcoal wrapped 2-pack . . . EK67, EK68 Clear net no color

Repair Kits
- Repair kit RKF47, RKF48
- Replacement sight kit WK37
- Indicator Pop-up kit DPK-05

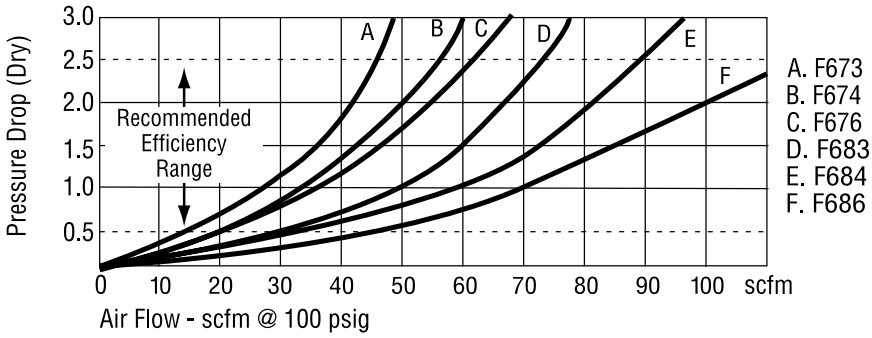
Mounting Kit see page 65
- Mounting kit FBK7

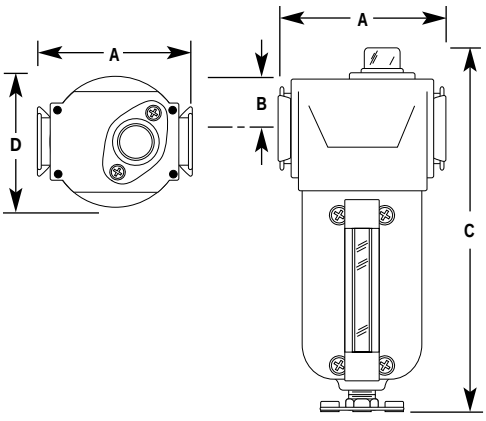
FEATURES
- Protects end processes from gaseous oil contamination and rids compressed air of offensive oily odors
- Removes hydrocarbons for use in analytical instruments
- Low pressure drop
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- 10 oz./20 oz. black coated metal bowl with liquid level sight
- Black coated aluminum housing
- Manual drain

OPTIONS
add suffix to part number in alpha order
M Metal bowl
without sight glass F673**M**

APPLICATIONS
- Food plants
- Pharmaceutical
- Instrumentation

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
3/8″	F673W	48	10 oz.	3 3/4	1 1/8	8 1/4	3	2.7
3/8″	F683W	72	20 oz.	3 3/4	1 1/8	11 1/2	3	3.8
1/2″	F674W	56	10 oz.	3 3/4	1 1/8	8 1/4	3	2.7
1/2″	F684W	90	20 oz.	3 3/4	1 1/8	11 1/2	3	3.8
3/4″	F676W	60	10 oz.	3 3/4	1 1/8	8 1/4	3	2.7
3/4″	F686W	110	20 oz.	3 3/4	1 1/8	11 1/2	3	3.8

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Adsorber Filters

F6

FEATURES

- Protects end processes from gaseous oil contamination and rids compressed air of offensive oily odors
- Removes hydrocarbons for use in analytical instruments
- Low pressure drop
- Black coated bowl
- Manual drain

OPTIONS

add suffix to part number in alpha order

D Differential pressure gauge . . F608-10D

For Metal Bowl without sight delete W

SPECIFICATIONS

Metal Bowl

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

Metal Bowl with sight

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

Element

- Multi-wrapped layers of impregnated activated charcoal particles to increase purification qualities. If the compressed air has been prepared by a suitable refrigerated dryer and F5A Oilescer filter, the F6 Absorber will insure oil concentrations of .0015 PPM by weight. In all cases, an F5 Oilescer must precede an F6 Absorber. To prevent any particle migration downstream an F3 with 3 micron element should be installed downstream for total system protection.

Body Black coated aluminum
(Note: F608 Series blue aluminum)
Baffle aluminum
Seals Buna N

Bowl Kits

- Metal bowl with sight BKF329W
- Metal bowl without sight BKF329M
- Metal bowl with sight BKF364W
- Metal bowl without sight BKF364

Element Kits

- Charcoal wrapped 605 . . . . . EKF605
  Clear net no color
- Charcoal wrapped 608 . . . . . EKF608

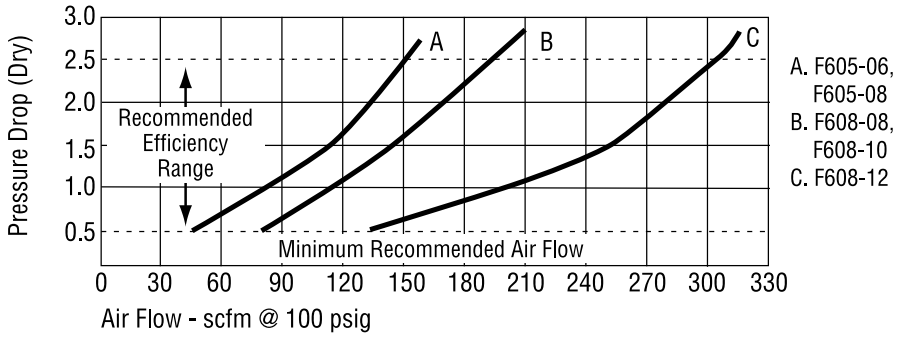
Repair Kit

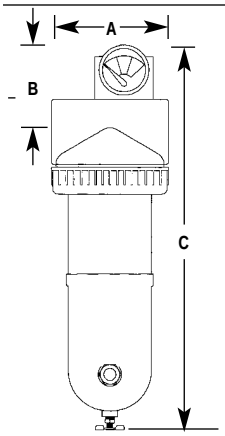
- Repair kit RKF505
  RKF508
- Replacement sight kit WK35

APPLICATIONS

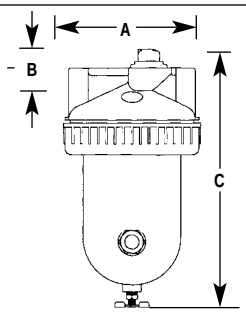
- Food plants
- Pharmaceutical
- Instrumentation

PERFORMANCE CHARACTERISTICS





F608-10DW, F608-12DW



F605-06W
F605-08W
F608-08W

DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/4″	F605-06W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1″	F605-08W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1″	F608-08W	60 oz.	300	4 7/8	1 3/16	14 13/32	6.0
1 1/4″	F608-10W	60 oz.	300	5 1/4	1 1/2	16 3/4	6.3
1 1/2″	F608-12W	60 oz.	400	5 1/4	1 1/2	16 3/4	6.3

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Adsorber Filters

F6

Gauge Optional

FEATURES

- Protects end processes from gaseous oil contamination and rids compressed air of offensive oily odors
- Removes hydrocarbons for use in analytical instruments
- Low pressure drop
- Manual drain

OPTIONS

add suffix to part number in alpha order

D Differential pressure gauge . F610-10**D**
T External Float Drain F610-10**T**
W Metal bowl with sight glass. F610-10**W**

SPECIFICATIONS

Metal Bowl

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Element

- Multi-wrapped layers of impregnated activated charcoal particles to increase purification qualities. If the compressed air has been prepared by a suitable refrigerated dryer and F5A Oilescer filter, the F6 Absorber will insure oil concentrations of .0015 PPM by weight. In all cases, an F5 Oilescer must precede an F6 Absorber. To prevent any particle migration downstream an F3 with 3 micron element should be installed downstream for total system protection.

KITS

- Float for External Drain 5200

Bowl Kits

- Metal bowl with sight BKF510W
- Metal bowl without sight. . . . BKF510M
- Metal bowl with sight BKF518W
- Metal bowl without sight. . . . BKF518M
- Metal bowl with sight BKF528W
- Metal bowl without sight. . . . BKF528M

Element Kits

- Charcoal wrapped 2-pack . . . EKF610, EKF618, Clear net no color EKF628

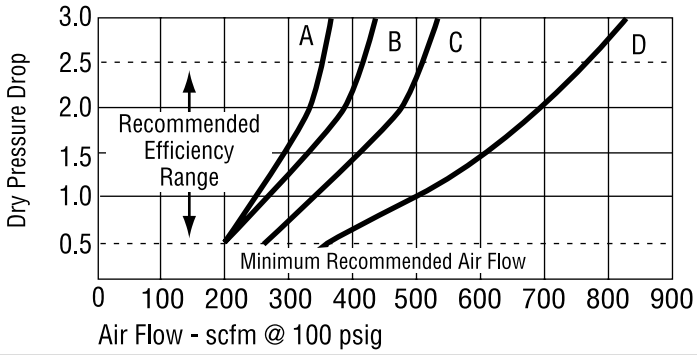
Repair Kits

- Repair kit RKF511 RKF519 RKF529
- Replacement sight kit BSF510

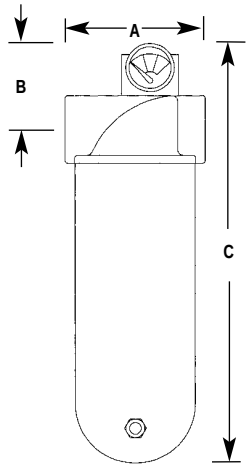
APPLICATIONS

- Food plants
- Pharmaceutical
- Instrumentation

PERFORMANCE CHARACTERISTICS



A. F610-10
B. F610-12, F610-16
C. F618-12 F618-16
D. F628-16



DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1″	F610-08	100 oz.	420	6 1/2	2	21	16
1 1/4″	F610-10	100 oz.	420	6 1/2	2	21	16
1 1/2″	F610-12	100 oz.	475	6 1/2	2	21	16
1 1/2″	F618-12	200 oz.	590	6 1/2	2	28 3/4	19
2″	F610-16	100 oz.	475	6 1/2	2	21	16
2″	F618-16	200 oz.	590	6 1/2	2	28 3/4	19
2″	F628-16	300 oz.	840	6 1/2	2	39	23

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Adsorber Filters

F6

Gauge Optional

FEATURES

- Protects end processes from gaseous oil contamination and rids compressed air of offensive oily odors
- Removes hydrocarbons for use in analytical instruments
- Low pressure drop
- Manual drain

OPTIONS

add suffix to part number in alpha order

D Differential pressure gauge . . F611-24**D**

T External Float Drain F611-24**T**

W Metal bowl with sight glass F611-24**W**

SPECIFICATIONS

Metal Bowl

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Element

- Multi-wrapped layers of impregnated activated charcoal particles to increase purification qualities. If the compressed air has been prepared by a suitable refrigerated dryer and F5A Oilescer filter, the F6 Absorber will insure oil concentrations of .0015 PPM by weight. In all cases, an F5 Oilescer must precede an F6 Absorber. To prevent any particle migration downstream an F3 with 3 micron element should be installed downstream for total system protection.

KITS

- Float for External Drain 5200

Bowl Kits

- Metal bowl with sight BKF510W
- Metal bowl without sight. . . . BKF510M
- Metal bowl with sight BKF518W
- Metal bowl without sight. . . . BKF518M
- Metal bowl with sight BKF528W
- Metal bowl without sight. . . . BKF528M

Element Kits

- Charcoal wrapped 2-pack . . . EKF611, EKF619, Clear net no color EKF629

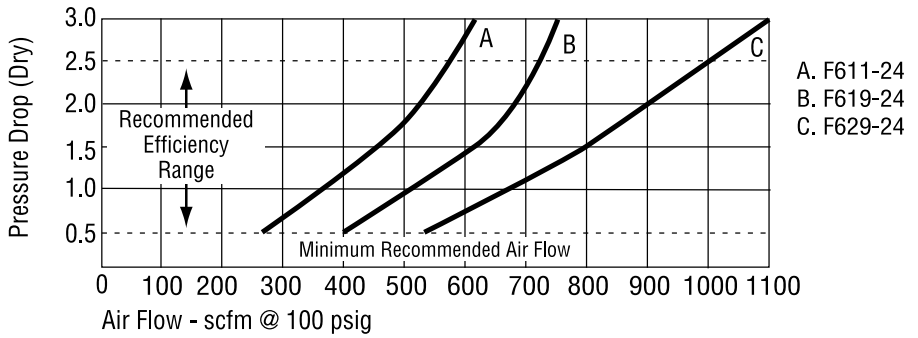
Repair Kits

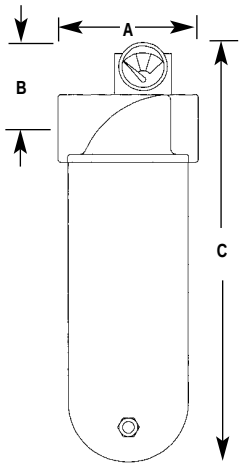
- Repair kit RKF511 RKF519 RKF529
- Replacement sight kit BSF510

APPLICATIONS

- Food plants
- Pharmaceutical
- Instrumentation

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3″	F611-24	100 oz.	620	$7\frac{5}{8}$	$2\frac{1}{4}$	$22\frac{11}{16}$	21
3″	F619-24	200 oz.	770	$7\frac{5}{8}$	$2\frac{1}{4}$	$31\frac{3}{16}$	24
3″	F629-24	300 oz.	1100	$7\frac{5}{8}$	$2\frac{1}{4}$	$41\frac{7}{16}$	28

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

MidFlow Two-in-One Coalescing Filters

F7

FEATURES

- 3 Micron absolute protection for .03 micron coalescing element
- Pop-up indicator indicates abnormal condition such as plugged element or excessive flow. Critical protection requires changing element at regular intervals.
- Low pressure drop
- 10 oz. or 20 oz. black coated metal bowl with liquid level sight
- Manual drain

OPTIONS

add suffix to part number in alpha order

Float Drain

F Internal float drain F773**FW**
K Overnight drain F773**KW**
M Black coated metal bowl . . . F773**M**

SPECIFICATIONS

Metal Bowl

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

Metal Bowl with Sight

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

Internal Float Drain Note: limits bowl temperature and pressure ratings

- Operating pressure range 30 to 175 psig
- Operating temperature range 40˚F to 120˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Elements

- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM with 3 micron absolute protection

KITS

- Internal float drain kit 5200
- Overnight Metal (K) . . . . . .CKFK

Bowl Kits

- 10 oz. with sight BKF47W
- 10 oz. without sight. BKF47M
- 20 oz. with sight BKF48W
- 20 oz. without sight BKF48M

Element Kits

- .03 micron EK77
  Clear net no color EK78

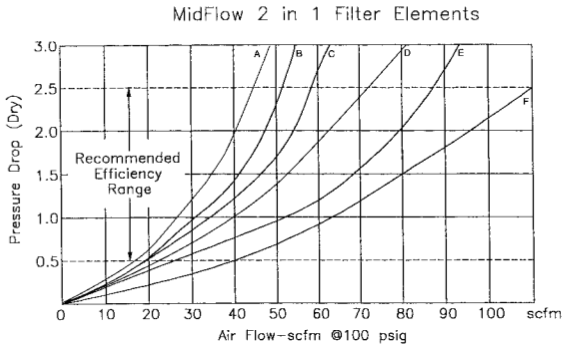
Repair Kits

- Repair kit RKF47, RKF48
- Replacement sight kit WK37
- Indicator Pop-up kit DPK-05

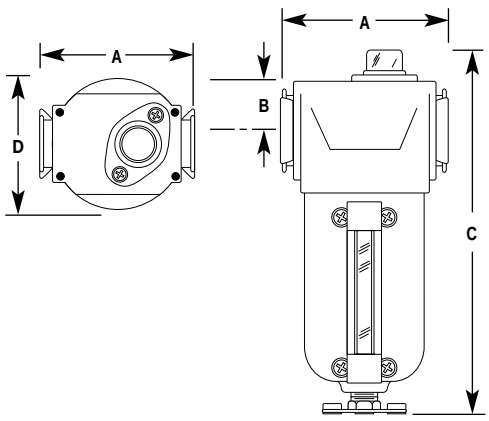
Mounting Kit see page 65

- Mounting kit FBK7

PERFORMANCE CHARACTERISTICS



A. F773W - 3/8"
B. F774W - 1/2"
C. F776W - 3/4"
D. F783W - 3/8"
E. F784W - 1/2"
F. F786W - 3/4"



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
3/8"	F773W	48	10	3 3/4	1 1/8	8 1/4	3	2.7
3/8"	F783W	72	20	3 3/4	1 1/8	11 1/2	3	3.6
1/2"	F774W	55	10	3 3/4	1 1/8	8 1/4	3	2.7
1/2"	F784W	90	20	3 3/4	1 1/8	11 1/2	3	3.6
3/4"	F776W	60	10	3 3/4	1 1/8	8 1/4	3	2.7
3/4"	F786W	110	20	3 3/4	1 1/8	11 1/2	3	3.6

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Two-in-One Coalescing Filters F7

FEATURES
- 3 Micron absolute protection for .03 micron coalescing element
- Manual drain
- Low pressure drop

OPTIONS
add suffix to part number in alpha and numeric order

D Differential pressure gauge . F708-10**D**

Float Drain

F Internal float drain F705-06**F**W

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.

Twist to manually drain F708-08**K**W

For Metal Bowl without sight delete W

SPECIFICATIONS

Metal Bowl
- Zinc, black coated
- Max. 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 aluminum
Seals Buna N
Elements
- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM with 3 micron absolute protection

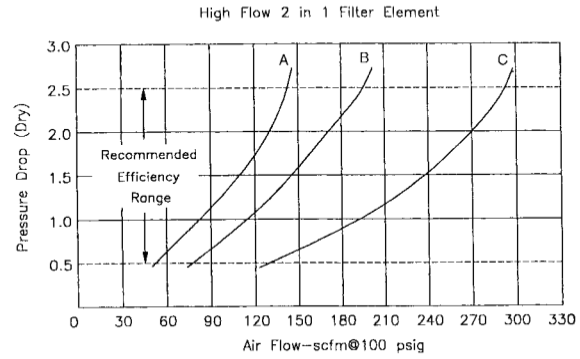
•KITS
- Internal float drain kit 5200
- Overnight Drain Kit (K) . . . . . CKFK

Bowl Kits
- Metal with sight F505 . . . . . BKF329W
- Metal without sight F505. . . . BKF329M
- Metal with sight F508 . . . . . BKF364W
- Metal without sight F508. . . . BKF364M

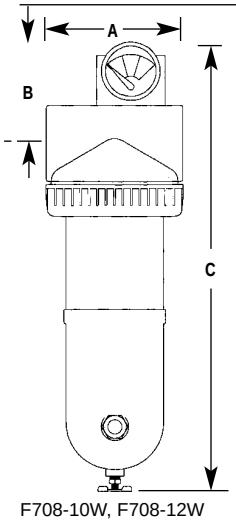
Element Kits
- .03 micron 505 (Clear net) . . EKF705
- .03 micron 508 (Clear net) . . EK708

Repair Kits
- Repair kit 505. . . . . RKF505
- Repair kit 508. . . . . RKF508
- Replacement sight kit WK35

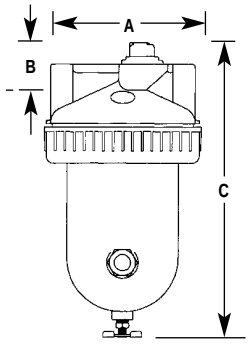
PERFORMANCE CHARACTERISTICS



A. F705-06W - 3/4"
F705-08W - 1"
B. F708-08W - 1"
F708-10DW - 1 1/4"
C. F708-12DW - 1 1/2"



F708-10W, F708-12W



F705-06W
F705-08W
F705-08W

DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/4"	F705-06W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1"	F705-08W	29 oz.	185	4 7/8	1 3/16	9 13/32	3.7
1"	F708-08W	60 oz.	300	4 7/8	1 3/16	14 13/32	6.0
1 1/4"	F708-10W	60 oz.	300	5 5/32	3 3/4	16 3/4	6.3
1 1/2"	F708-12W	60 oz.	400	5 5/32	3 3/4	16 3/4	6.3

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.


Gauge Optional

High Flow Two-in-One Coalescing Filters

F7

FEATURES
- 3 Micron absolute protection for .03 micron coalescing element
- Low pressure drop
- Manual drain

OPTIONS
add suffix to part number in alpha order

D Differential pressure gauge . F710-08**D**

T External Float Drain F710-08**T**

W Metal bowl with sight glass. F710-08**W**

SPECIFICATIONS

Metal Bowl
- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight
- Black Coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Elements
- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM with 3 micron absolute protection

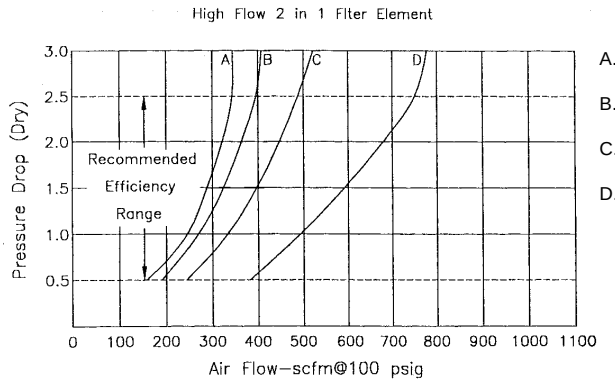
KITS
- Float for External Drain 5200

Bowl Kit
- Metal with sight BKF510W
- Metal without sight BKF510
- Metal with sight BKF518W
- Metal without sight BKF518
- Metal with sight BKF528W
- Metal without sight BKF528

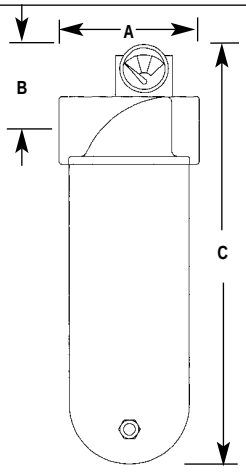
Element Kits
- .03 micron EKF710,
  Clear net no color EKF718, EKF728

Repair Kits
- Repair kit RKF511, RKF519, RKF529
- Replacement sight kit BSF510

PERFORMANCE CHARACTERISTICS



A. F710-08 - 1”
F710-10 - 1 1/4”
B. F710-12 - 1 1/4”
F710-16 - 2”
C. F718-12 - 1 1/2”
F718-16 - 2”
D. F728-16 - 2”



DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1″	F710-08	100 oz.	420	6 1/2	2	21	16
1 1/4″	F710-10	100 oz.	420	6 1/2	2	21	16
1 1/2″	F710-12	100 oz.	475	6 1/2	2	21	16
1 1/2″	F718-12	200 oz.	590	6 1/2	2	28 3/4	19
2″	F710-16	100 oz.	475	6 1/2	2	21	16
2″	F718-16	200 oz.	590	6 1/2	2	28 3/4	19
2″	F728-16	300 oz.	840	6 1/2	2	39	23

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

High Flow Two-in-One Coalescing Filters

F7

Gauge Optional

FEATURES

- 3 Micron absolute protection for .03 micron coalescing element
- Low pressure drop
- Manual drain

OPTIONS

add suffix to part number in alpha order

D Differential pressure gauge . SF711-24**D**
T External Float Drain F711-24**T**
W Metal bowl with sight glass F711-24**W**

SPECIFICATIONS

Metal Bowl

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 200˚F

Metal Bowl with Sight

- Black coated aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 160˚F

Body Black coated aluminum
Baffle plastic
Seals Buna N

Elements

- .03 micron borosilicate glass fiber D.O.P. Efficiency: 99.97%, Particle size removal, Remaining oil content by wt.: .015 PPM with 3 micron absolute protection

KITS

- Float for External Drain 5200

Bowl Kits

- Metal with sight BKF510W
- Metal without sight BKF510
- Metal with sight BKF518W
- Metal without sight BKF518
- Metal with sight BKF529W
- Metal without sight BKF529

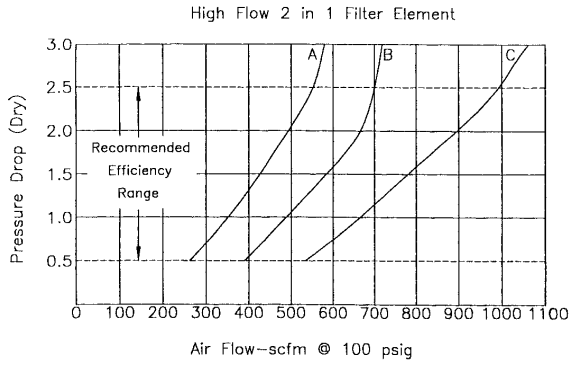
Element Kits

- .03 micron EKF711
  Clear net no color EKF719
  EKF729

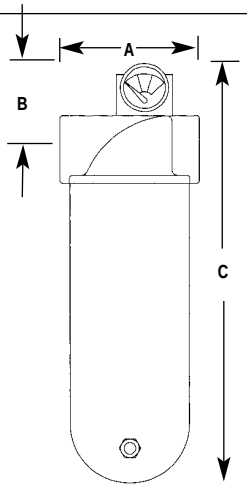
Repair Kits

- Repair kit RKF511
  RKF519
  RKF529
- Replacement sight kit BSF510

PERFORMANCE CHARACTERISTICS



A. F711-24 - 3”
B. F719-24 - 3”
C. F729-24 - 3”



DIMENSIONS

PIPE SIZE	MODEL NO.	BOWL CAPACITY	MAX. FLOW SCFM*	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3″	F711-24	100 oz.	620	7 5/8	2 1/4	22 11/16	21
3″	F719-24	200 oz.	770	7 5/8	2 1/4	31 3/16	24
3″	F729-24	300 oz.	1100	7 5/8	2 1/4	41 7/16	28

* Flow scfm based on 2.5 psi △ p @ 100 psig inlet.

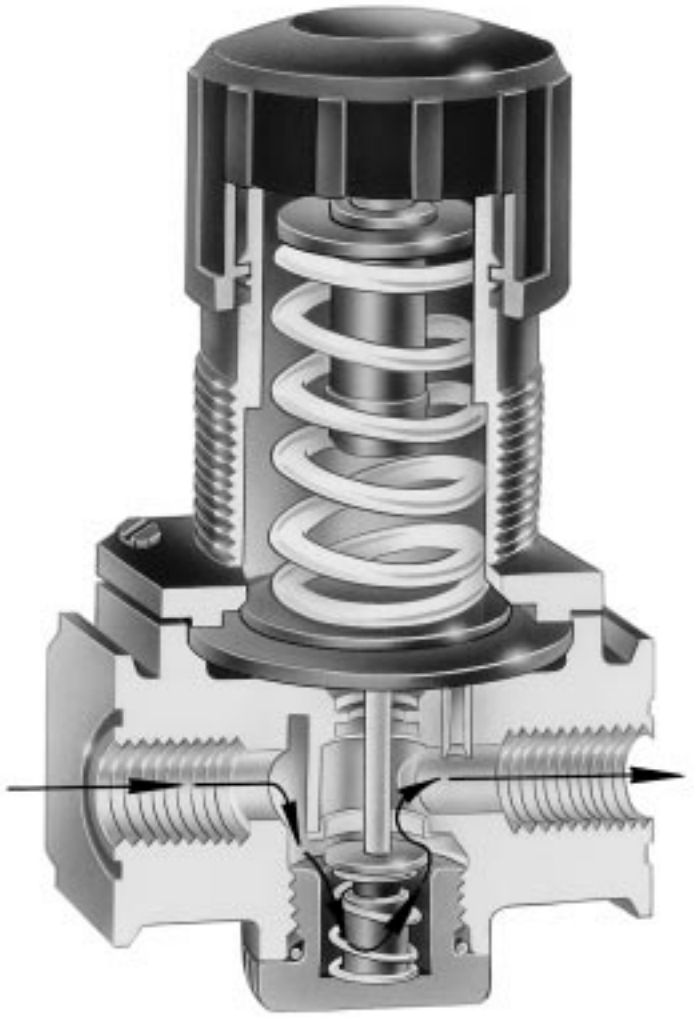
REGULATORS

Arrow Pneumatics

Pneumatic devices are designed to work at a certain pressure. Most devices will operate at pressures in excess of that recommended. However, operating at higher pressures can cause excess torque, force and wear and can waste compressed air. The best operation and life of the device can be obtained by using the proper pressure level. A regulator is used to reduce and maintain the pressure at a level suitable for the device.

Arrow's quality Regulators include the Miniature Series which are high performance, low cost regulators for the O.E.M. market and low flow applications up to 25 scfm. Arrow's Tri•Star Series are compact, lightweight regulators engineered for superior performance in a wide range of applications where air flow does not exceed 100 scfm. Arrow's Midflow Series regulators are compact and available in 3/8", 1/2", 3/4" & 1" with air flows exceeding 200 SCFM. Arrow's High Flow Series heavy duty regulators are for rigorous applications requiring constant pressure for flows up to 700 scfm.

The General Purpose Precision Series features state-of-the-art engineering for precision control in critical tolerance applications. These regulators are available in standard and pilot operated models for both low and high flow applications. The Arrow Precision Regulator lineup can be tailored to fit your specific needs. All Arrow regulators are easily panel mounted. All Arrow regulators are designed with a micro seat finish to ensure no reduced pressure creep.



Miniature Air Regulators

R16

FEATURES
- Micro seat finish to ensure no reduced pressure creep
- Diaphragm operation
- Relieving style standard
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Easily panel mounted
- Tamper-proof cap included

OPTIONS
add suffix to part number in alpha order

B 2-Position mechanical Lock Knob R162**B**
G Gauge (5-160 psi) R162**G**
I Instrument pressure . . . . R162**I** 3 to 20 psi adjustment
L Low pressure . . . . . R162**L** 3 to 60 psi adjustment
N Non-relieving R162**N**
P Panel mount R162**P**
U No gauge ports R162**U**

SPECIFICATIONS

Body
- Zinc, black coated

Bonnet
- Glass filled nylon

Seals
- Buna N

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig standard
- 3 to 60 psig optional
- 3 to 20 psig optional

Operating Temperature Range
- 40˚F to 120˚F

Gauge Ports
- 1/8″ standard, full flow

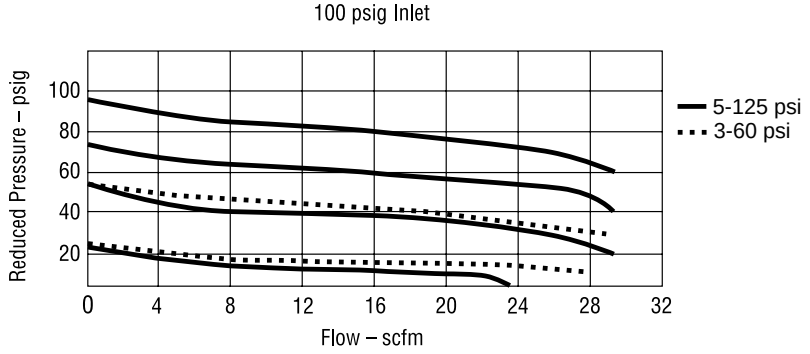
KITS

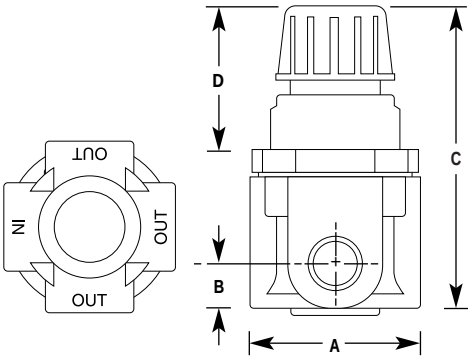
Panel Mounting Kit
- Ring only, panel hole size 1 3/16″ PK1611

Diaphragm Kits
- Relieving RK260
- Non-relieving RK260N

Bracket Kit see page 65
- Bracket and ring BR1611

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (OZS.)
1/8″	R161	25	1 1/2	1/2	2 3/4	1 1/4	6
1/4″	R162	25	1 1/2	1/2	2 3/4	1 1/4	6

Miniature Air Regulators

R26

FEATURES

- Micro seat finish to ensure no reduced pressure creep
- Diaphragm operation
- Relieving style standard
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Easily panel mounted
- Tamper-proof cap included
- Lightweight

OPTIONS

add suffix to part number in alpha order

B 2-Position Mechanical Lock Knob R262**B**
G Gauge (0-160 psi) R262**G**
I Instrument pressure . . . . R262**I** 3 to 20 psi adjustment
L Low pressure . . . . . R262**L** 3 to 60 psi adjustment
N Non-relieving R262**N**
P Panel mount R262**P**
U No gauge ports R262**U**
V All 1/4″ ports R262**V**
Y1 Viton diaphragm/valve set R262**Y1**
Y2 EDPM diaphragm/valve set R262**Y2**

SPECIFICATIONS

Body
- Glass filled nylon

Bonnet
- Glass filled nylon

Seals
- Buna N

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig standard
- 3 to 60 psig optional
- 3 to 20 psig optional

Operating Temperature Range
- 40˚F to 120˚F

Gauge Ports
- 1/8″ standard, full flow

KITS

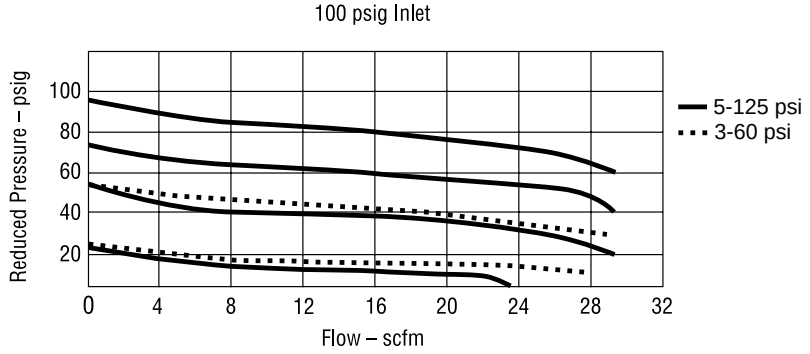
Panel Mounting Kit
- Ring only, panel hole size 1 3/16″ PK1611

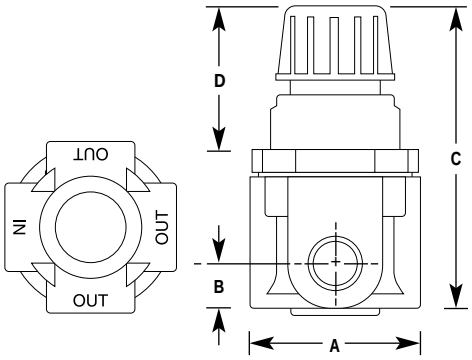
Diaphragm Kits
- Relieving RK260
- Non-relieving RK260N

Bracket Kit see page 65
- Bracket and ring BR1611

Applications
- Non-relieving diaphragm can be used on liquid applications

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (0ZS.)
1/8″	R261	25	1 1/2	1/2	2 3/4	1 1/4	2
1/4″	R262	25	1 1/2	1/2	2 3/4	1 1/4	2

Miniature Water Regulators

R36

FEATURES

- Micro seat finish ensuring no reduced pressure creep
- Sonic welded, leak-tight, non-relieving diaphragm assembly
- Water hammer and vibration dampner
- Three position adjustment knob: "push" to lock, "pull" to adjust and "detach" to make tamper resistant
- Excellent flow characteristics due to the large open outlet orifice
- Flexibility of design, offering all stainless internals and three elastomer selections
- Plastic (glass-filled nylon) construction
- One standard gauge port full flow
- Tamper-proof cap included

OPTIONS

add suffix to part number in alpha order

B 2-Position Mechanical Lockout Knob R362**B**
G Gauge (0-160 psi) R362**G**
I Instrument pressure . . . . . R362**I** 3 to 20 psi adjustment
L Low pressure . . . . . R362**L** 3 to 60 psi adjustment
P Panel mount R362**P**
U No gauge port R362**U**
V All 1/4″ ports R362**V**
Y1 Viton diaphragm/valve set . . R362**Y1**
Y2 EDPM diaphragm/valve set . R362**Y2**

SPECIFICATIONS

Body
- Glass filled nylon

Bonnet
- Glass filled nylon

Seals
- Buna N elastomer standard

Spring
- 316 stainless steel

Valve
- 316 stainless steel

Flow
- 5 gpm

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig

Operating Temperature Range
- 40˚F to 120˚F

Gauge Port
- (1) 1/8″ standard, full flow

KITS

Panel Kit
- Ring only panel hole size 1 3/16″ PK1611

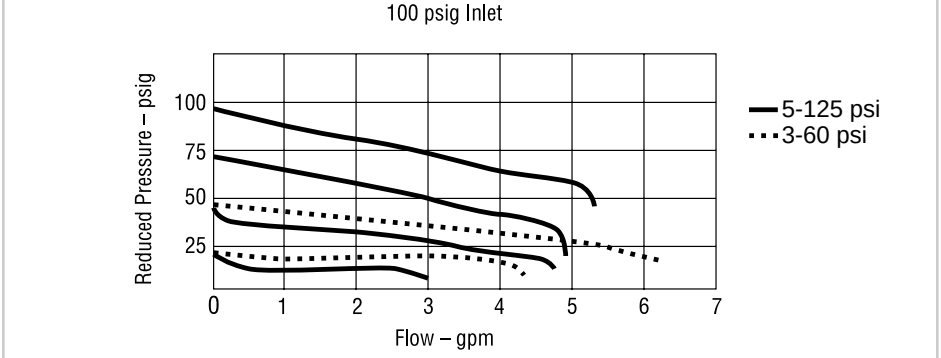
Diaphragm Kit
- Non-relieving RK260N

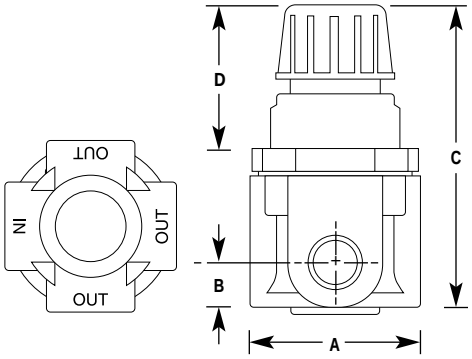
Mini Mounting Bracket see page 65
- Bracket and Ring BR1611

APPLICATIONS

- R360 series miniature water pressure regulator meets all pending restrictions on the use of brass in water systems.
- Prevent water hammer effect.
- Vending machines that require a water mixer
- Drinking fountains
- Home water filtration systems

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW GPM	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (OZS.)
1/8″	R361	5	1 1/2	1/2	2 3/4	1 1/4	3
1/4″	R362	5	1 1/2	1/2	2 3/4	1 1/4	3

Push-to-Connect Regulators

R24 R34

FEATURES

- Fast installation time
- Eliminates inlet and outlet fittings
- No pipe sealant
- Quick disconnect
- No tools needed
- Reduces potential leak points
- Micro-finish valve seat ensures no reduced creep
- Reduces potential leak points
- Easily panel mounted
- Tamper proof cap included
- Lightweight

OPTIONS

add suffix to part number in alpha order

B	2 Position Mechanical Lock Knob	R242**B**
G	Gauge (0-160 psi)	R242**G**
I	Instrument pressure (3-20psi)	R242**G**
L	Low Pressure (3 - 60 psi)	R242**L**
N	Non-relieving	R242**N**
P	Panel mount	R242**P**
Y1	Viton diaphragm/valve set	R242**Y1**
Y2	EDPM diaphragm/valve set	R242**Y2**

SPECIFICATIONS

Body
- Glass filled nylon

Bonnet
- Glass filled nylon

Seals
- Buna N

Spring
- 316 Stainless Steel

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig

Operating Temperature Range
- 40˚F to 120˚F

Gauge Ports
- (2) 1/8″ Standard, full flow R240 only

KITS

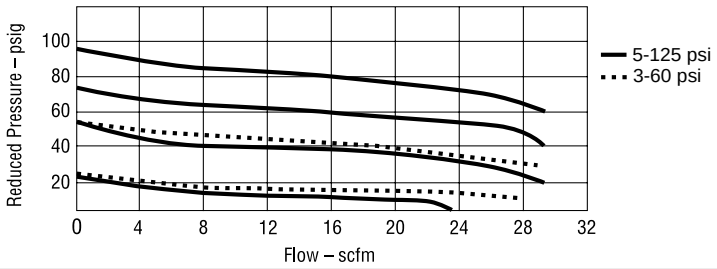
Diaphragm Kit
- Relieving RK260
- Non-relieving RK260N

Mounting Kits see page 65
- Bracket & Ring BR1611
- Ring Only PK1611

PERFORMANCE CHARACTERISTICS

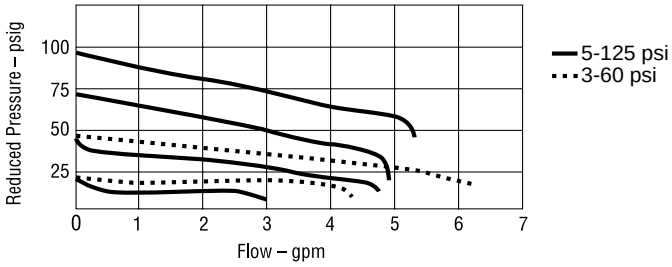
R242 - Air

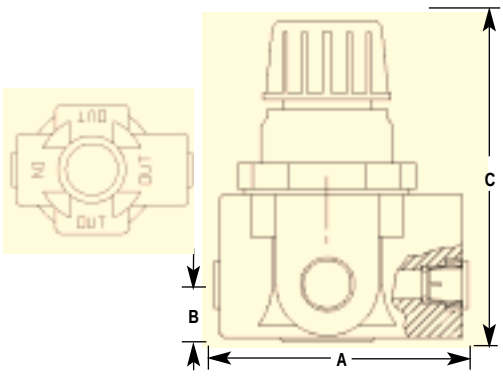
100 psig Inlet



R342 - Water

100 psig Inlet





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES) A	B	C	WEIGHT (OZ.)
1/4″	R242	30	2 3/16	1 9/16	2 3/4	2.9
1/4”	R342	5	2 3/16	1 9/16	2 3/4	2.9

Tri•Star Regulators

R35

FEATURES
- Micro finished brass seat to ensure no reduced pressure creep
- Reinforce diaphragm for repeated accuracy
- Minimal pressure droop due to efficient aspiration
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Relieving style standard
- In-line or modular installation
- Easily panel mounted
- Tamper-proof cap included
- High scfm flow due to efficient aspiration

OPTIONS
add suffix to part number in alpha order

G Gauge (0-160 psi) R354**G**
H High pressure R354**H**
10 to 250 psi adjustment
I Instrument pressure R354**I**
3 to 20 psi adjustment
L Low pressure R354**L**
3 to 60 psi adjustment
N Non-relieving R354**N**
P Panel mount R354**P**
T Tee handle adjustment R354**T**

SPECIFICATIONS

Body
- Black coated aluminum

Bonnet
- Glass filled nylon

Seals
- Buna N Elastomer standard

Seat
- Brass

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig

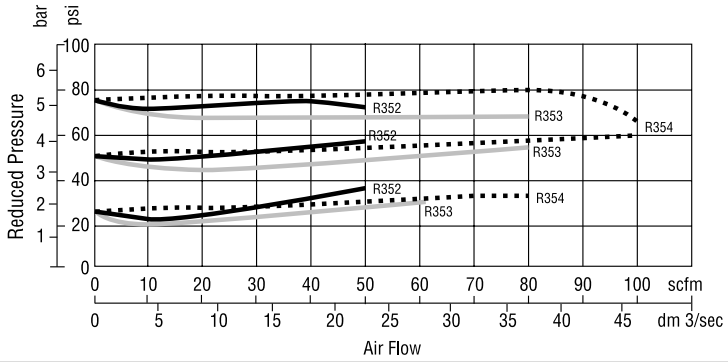
Operating Temperature Range
- 40˚F to 120˚

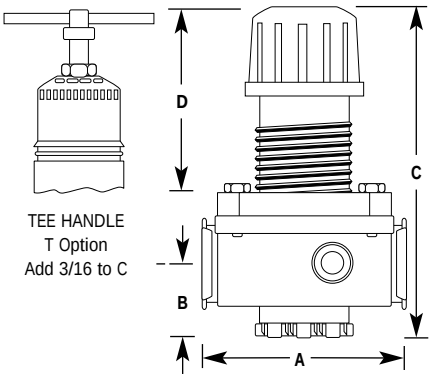
Gauge Port
- 1/4″ full flow

KITS
Repair Kits
- Diaphragm kit relieving DK35
- Diaphragm kit Non-relieving DK35N
- Valve kit VK35

Mounting Kits see page 65
- Bracket kit RBK5
- Panel mounting kit ring only panel hole size 1 3/16″ PKR35
- Panel mount bracket and ring PMKR35

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES) A	B	C	D	E (WIDTH)	WEIGHT (LBS.)
1/4″	R352	50	2 21/32	1 7/32	5 3/8	2 3/4	2 1/4	1.0
3/8″	R353	80	2 21/32	1 7/32	5 3/8	2 3/4	2 1/4	1.0
1/2″	R354	100	2 21/32	1 7/32	5 3/8	2 3/4	2 1/4	1.0

MidFlow Regulators

R37

FEATURES
- Micro finished brass seat to ensure no reduced pressure creep
- Reinforce diaphragm for repeated accuracy
- Minimal pressure droop due to efficient aspiration
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Relieving style standard
- Easily panel mounted
- Tamper-proof cap included
- High scfm flow due to efficient aspiration

OPTIONS
add suffix to part number in alpha order

G Gauge (0-160 psi) R373**G**

H High pressure R373**HT**
10 to 250 psi adjustment - ***Must use T-handle option***

I Instrument pressure R373**I**
3 to 20 psi adjustment

L Low pressure R373**L**
3 to 60 psi adjustment

N Non-relieving R373**N**

P Panel mount R373**P**

T Tee handle adjustment R373**T**

SPECIFICATIONS
Body
- Black coated aluminum

Bonnet
- Glass filled nylon

Seals
- Buna N Elastomer standard

Seat
- Brass

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig

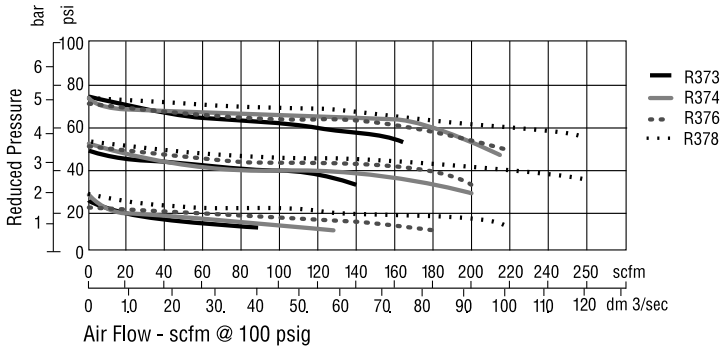
Operating Temperature Range
- 40˚F to 120˚

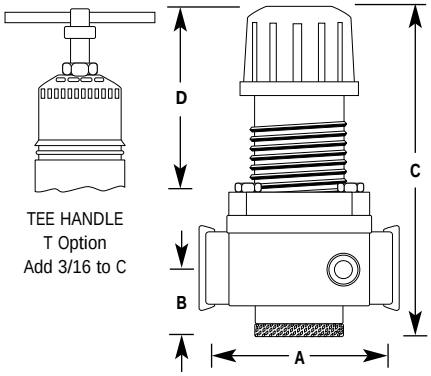
Gauge Port
- 1/4″ full flow

KITS
Repair Kits
- Diaphragm kit relieving DK35
- Diaphragm kit Non-relieving DK35N
- Valve kit VK37

Mounting Kits see page 65
- Bracket kit RBK7
- Panel mounting kit ring only panel hole size 1 3/16″ PKR35
- Panel mount bracket and ring PMKR35

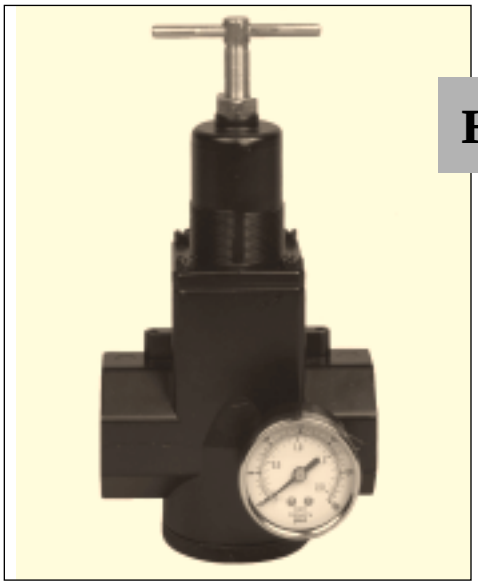
PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES) A	B	C	D	E (WIDTH)	WEIGHT (LBS.)
3/8″	R373	170	3 7/16	1 13/32	5 7/8	2 3/4	2 1/4	1.3
1/2″	R374	215	3 7/16	1 13/32	5 7/8	2 3/4	2 1/4	1.3
3/4″	R376	220	3 7/16	1 13/32	5 7/8	2 3/4	2 1/4	1.3
1″	R378	250	3 7/16	1 13/32	5 7/8	2 3/4	2 1/4	1.3



High Flow Regulators

R39

FEATURES
- Micro finished brass seat to ensure no reduced pressure creep
- Relieving style piston standard
- High scfm flow due to efficient aspiration
- Hard epoxy corrosion protection
- Available in 1", 1-1/4", 1-1/2" NPT sizes

OPTIONS
add suffix to part number in alpha order

G Gauge (0-160 psi) R398**G**

H High pressure R398**H**
10 to 250 psi adjustment

L Low pressure R398**L**
3 to 60 psi adjustment

P Panel mount R398**P**

SPECIFICATIONS

Body
- Black coated aluminum

Bonnet
- Die cast aluminum, black coated

Seals
- Buna N Elastomer standard

Seat
- Brass

Supply Pressure
- 250 psig

Operating Pressure Range
- 5 to 125 psig

Operating Temperature Range
- 40˚F to 120˚F

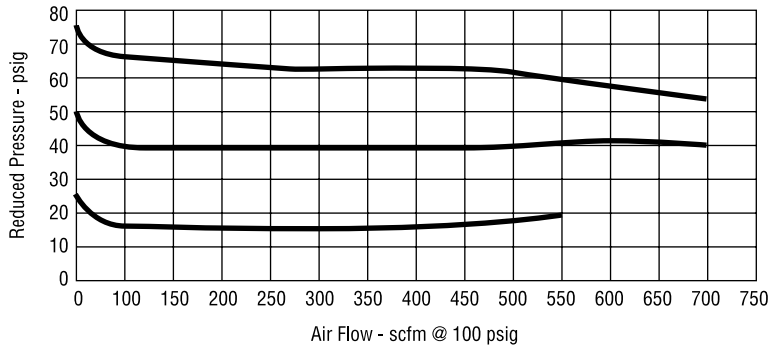
Gauge Ports
- 1/4"

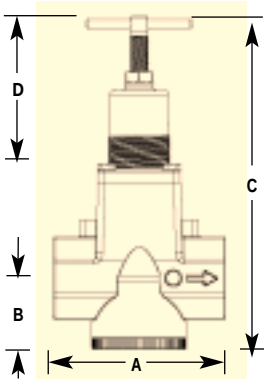
KITS

Repair Kit
- Piston relieving DK39
- Piston non-relieving DK39N
- Valve VK39
- Spring (5-125 psi) SK39
- Spring (3-60 psi) SK39L
- Spring (10-200 psi) SK39H
- Spring cage SC39

Mounting Kits see page 65
- Bracket Kit RBK39
- Panel mounting kit ring only . PKR35 panel hole size 1-3/16"

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1"	R398	600	4 7/8	2 1/32	9 1/2	4 1/4	3.4
1 1/4"	R3910	700	4 7/8	2 1/32	9 1/2	4 1/4	3.3
1 1/2"	R3912	700	4 7/8	2 1/32	9 1/2	4 1/4	3.2

Adjustable High Performance Regulators

P10 P14

FEATURES
- Micro finished brass seat to ensure no reduced pressure creep
- Reinforce diaphragm for repeated accuracy
- Minimal pressure droop due to efficient aspiration
- Relieving style standard
- In-line or modular installation
- Easily panel mounted
- High scfm flow due to efficient aspiration
- Continuous bleed

OPTIONS
G Gauge (0-160 psi) P14-O**G**
H High pressure P14-04**H**
P14 only: 10 to 250 psi adjustment
L Low pressure P14-04**L**
P14 Only: 3 to 60 psi adjustment
NB No bleed P14-04**NB**
SP Std. pressure P10 only P10-04**SP**

SPECIFICATIONS
Body
- Black coated aluminum

Bonnet
- Glass filled nylon

Seals
- Buna N Elastomer standard

Diaphragm
- Reinforced Buna N

Valve
- Brass and Buna N Disc

Seat
- Brass

Supply Pressure
- 250 psig

Reduced Press Flow
- P10: 3 to 25 psig, P14: 5 to 125 psig

Operating Temperature Range
- 40˚F to 120˚F

Gauge Ports
- $^1/_4$″ npt

Bleed Rates
- Continuous 5.0 scfh or .08 scfm

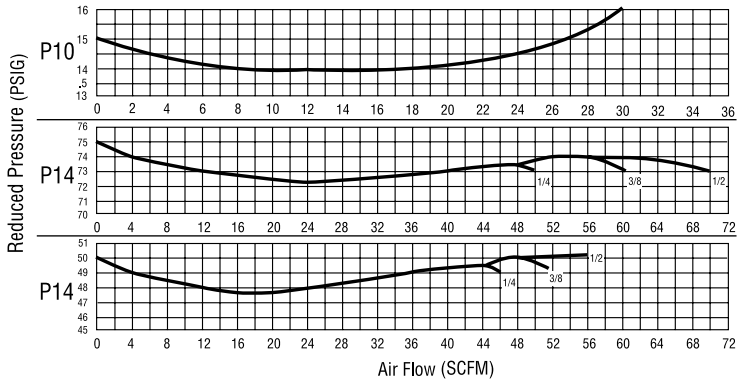
KITS
Panel Mounting Kit
- Panel mount kit $^9/_{16}$″ bonnet PMKR35
- Panel mounting ring PKR35

Diaphragm Kit
- Diaphragm kit relieving P10 . . . . . RKP10R
- Diaphragm kit relieving P14-03, P14-04. . . . . RKP10R
- Diaphragm kit P14-02 . . . . . RKP14

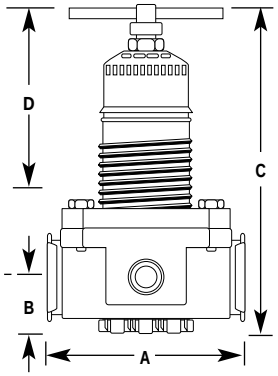
Mounting Kits see page 65
- Mounting bracket RBK5
- Panel mount nut PKR35

Applications
- Pneumatic instrumentation
- Controllers and transmitters
- Valve operators, positioners
- Cylinder loading and braking pressure control
- Roll loading
- Air and force balance hoists
- Electric pneumatic proportional modules
- Precise torque control of air operated tools

PERFORMANCE CHARACTERISTICS



Inverse Ratio Performance – P10											
Initial Pressure	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25
Reduced Pressure Variance	+2	+1	+1	0	0	0	0	0	-1	-2	-3
Inverse Ratio Performance – P14											
Reduced Pressure Variance	+1.5	+1.2	+1	+.6	+.4	0	-.3	-.7	-1	-1.3	-1.5



DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	MANUAL RANGE PSIG	DIMENSIONS (INCHES) A	B	C	D	E (WIDTH)	WEIGHT (LBS.)
$^1/_4$″	P10-02	30	3-25	$2^{21}/_{32}$	$1^{13}/_{32}$	$6^1/_4$	$3^3/_4$	$2^1/_4$	1.1
$^3/_8$″	P10-03	30	3-25	$2^{21}/_{32}$	$1^{13}/_{32}$	$6^1/_4$	$3^3/_4$	$2^1/_4$	1.1
$^1/_4$″	P14-02	40	5-125	$2^{21}/_{32}$	$1^{13}/_{32}$	$6^1/_4$	$3^3/_4$	$2^1/_4$	1.1
$^3/_8$″	P14-03	50	5-125	$2^{21}/_{32}$	$1^{13}/_{32}$	$6^1/_4$	$3^3/_4$	$2^1/_4$	1.1
$^1/_2$″	P14-04	70	5-125	$2^{21}/_{32}$	$1^{13}/_{32}$	$6^1/_4$	$3^3/_4$	$2^1/_4$	1.1

Miniature Integral Filter/Regulators B74

FEATURES
- Micro seat finish to ensure no reduced pressure creep
- Diaphragm operation
- Relieving style standard
- Three position non-rising adjustment knob; push to lock, pull to adjust, detach to make tamper resistant
- Easily panel mounted
- Tamper-proof cap included
- 20 micron filter

OPTIONS
add suffix to part number in alpha and numeric order

B 2-Position Mechanical Lockout Knob B742**B**
G Gauge (0-160 psi) B742**G**
I Instrument pressure . . . . . B742**I** 3 to 20 psi Adjustment
J Overnight drain plastic bowl . . B742**J**
K Overnight drain metal bowl . . . B742**K**
L Low pressure . . . . . B742**L** 3 to 60 psi adjustment
M Metal bowl B742**M**
N Non-relieving B742**N**
P Panel mount B742**P**
Z Piston drain B742**Z**
5 5 Micron element B742**5**

SPECIFICATIONS
Body
- Zinc, black coated

Bonnet
- Glass filled nylon

Polycarbonate Bowl
- Max. pressure 150 psig
- Operating temperature range 40˚F to 125˚F

Metal Bowl aluminum
- Max. pressure 250 psig
- Operating temperature range 40˚F to 175˚F

Piston Drain metal

Note: limits bowl temperature and pressure rating
- Max. pressure 150 psig
- Operating temperature range 40˚F to175˚F

Body nickel plated zinc
Baffle plastic
Seals Buna N
Elements
- 20 micron sintered bronze
- 5 micron sintered bronze

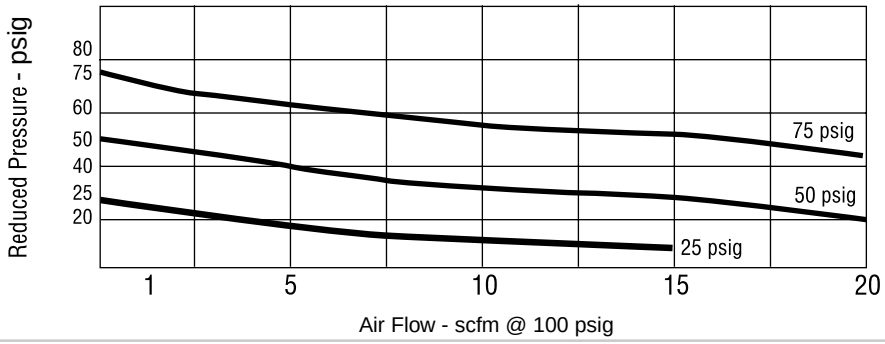
KITS
Bowl Kits
- Polycarbonate bowl. BKF300
- Metal bowl BKF300M

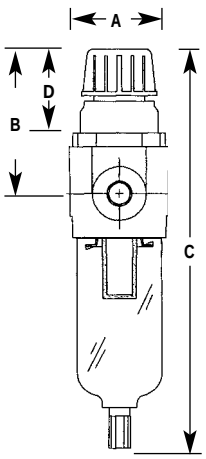
Element Kit
- 20 micron element 2-pack . . . EKF300
- Regulator bonnet repair RB260

Diaphragm Kit
- Relieving diaphragm RK260

Mounting Kits see page 65
- Mounting bracket and ring . . . BR1611
- Mounting bracket ring only . . . PK1611

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1/8″	B741	20	1 oz.	1 5/8	2 3/16	6 1/4	1 1/4	.6
1/4″	B742	20	1 oz.	1 5/8	2 3/16	6 1/4	1 1/4	.6

Tri•Star Integral Filter/Regulators

B75

FEATURES
- 40 micron element
- Manual drain
- Relieving regulator
- Zero creep, machined brass valve seat
- 3-position, non-rising adjustment knob
- Tamper-proof cap included

OPTIONS
add suffix to part number in alpha and numeric order

F Internal float drain B752**F**
G Gauge B752**G**
H High pressure B752**H**
10 to 250 psi adjustment
I Instrument pressure B752**I**
3 to 20 psi adjustment
J Overnight drain plastic bowl B752**J**
K Overnight drain metal bowl . B752**K**M
L Low pressure B752**L**
3 to 60 psi adjustment
M 6 oz. metal bowl without sight . B752**M**
P Panel mount B752**P**
T Tee handle adjustment B752**T**
W 6 oz. metal bowl with sight . . . B752**W**
-5 5 micron element B752-**5**
-3 3 micron element B752-**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 64 for details.*

Body
- Black coated aluminum

Bonnet
- Glass filled nylon

Seals
- Buna N Elastomer standard

Polycarbonate Bowl
- Max. pressure 150 psi
- Operating temperature range 40˚F to 125˚F

Metal Bowl
- Zinc, black epoxy coated
- Max. pressure 200 psi
- Operating temperature range 40˚F to 175˚F

Metal Bowl with Sight Gauge
- Max. pressure 250 psi
- Operating temperature range 40˚F to 175˚F

Internal Float Drain
plastic, metal, brass, Buna N seal
Note: limits bowl temperature and pressure rating
- Operating pressure range 30 to 175 psi
- Operating temperature range 40˚F to 125˚F

KITS
- Internal float drain. 5200

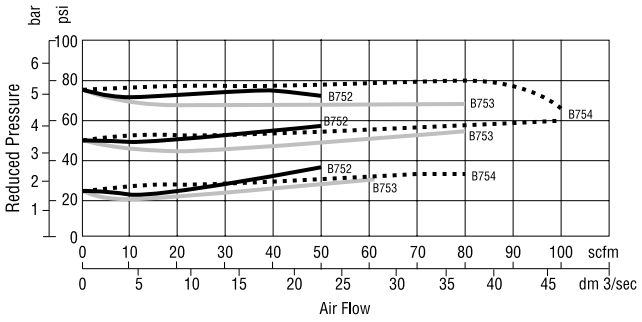
Bowl Kits
- Polycarbonate BKF35
- Metal BKF45M
- Metal with sight BKF45W

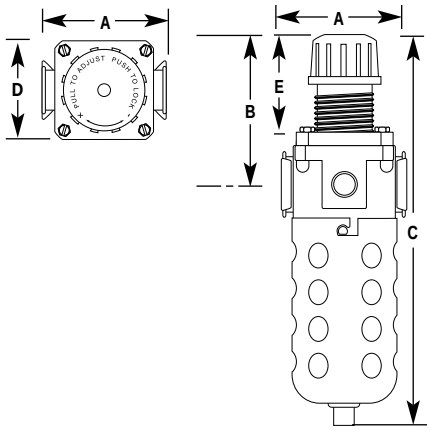
Element Kits
- 40 micron 2-pack EK35
- 5 micron 2-pack EK35-5
- 3 micron absolute 2-pack . . . EK35-3

Diaphragm Kits
- Relieving DK35

Mounting Kits see page 65
- Mounting bracket RBK5
- Panel mount nut PKR35

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	E	WEIGHT (LBS.)
1/4″	B752	50	5 oz.	2 21/32	4 5/32	9 3/4	2 1/4	2 3/4	1.75
3/8″	B753	80	5 oz.	2 21/32	4 5/32	9 3/4	2 1/4	2 3/4	1.75
1/2″	B754	100	5 oz.	2 21/32	4 5/32	9 3/4	2 1/4	2 3/4	1.75

Arrow Pneumatics

LUBRICATORS

Most pneumatically operated equipment such as valves, cylinders, and air tools, require some form of lubrication to reduce equipment maintenance and prolong life.

Air driven devices can be lubricated by using an air line lubricator, a device for adding lubricating oil in aerosol form into the compressed air line. The air passing through the lubricator transports the lubricant to air tools, cylinders or other air driven devices where the lubricant is deposited on moving and sliding surfaces to reduce friction and wear.

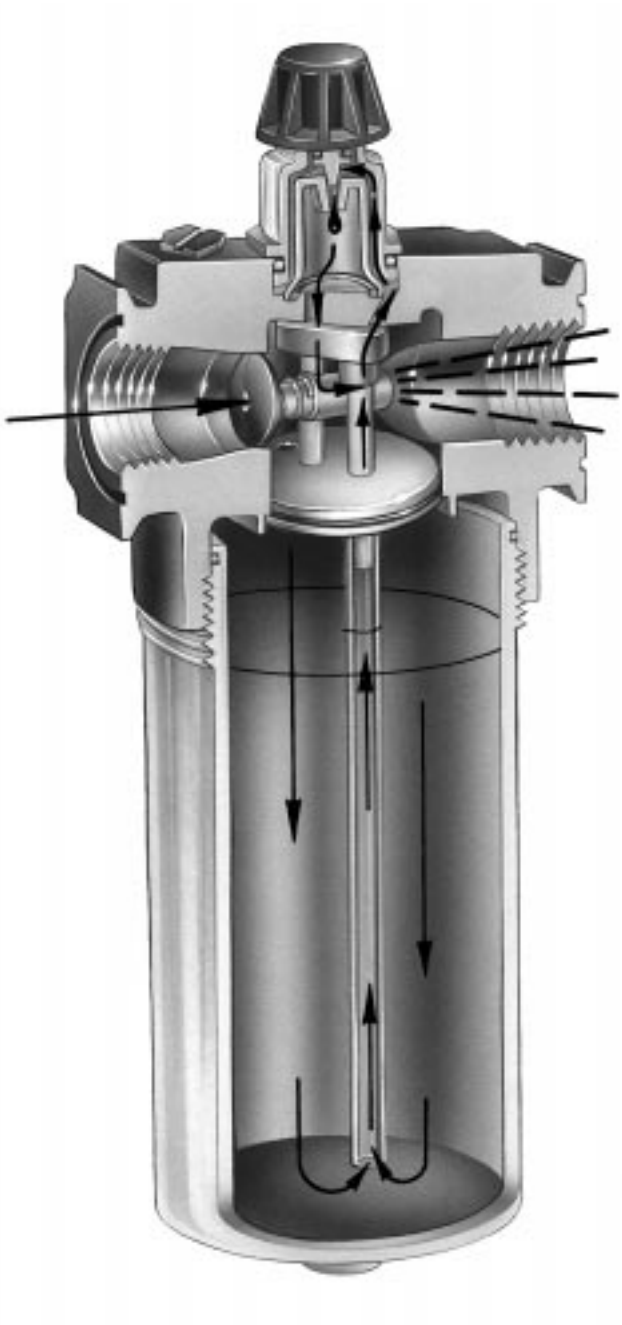
Arrow offers four distinct types: Miniature, Arrowfog, Ultrafog, Wick Style.

Miniature Fog-Type lubricators are designed for low air flow applications where space is limited.

Arrowfog in TriStar and Midflow lubricators are the most popular units for applications that do not require extremely fine oil particles or long distance lubrication. They produce oil particles of 2.5 micron. Arrowfog sends all metered oil down line in fog droplets; accommodates a wide range of applications.

Arrow Ultrafog in Tri-Star and Midflow lubricators produce extremely fine, .4 micron oil particles. Due to their size, these molecules remain in suspension and are carried further downstream than the particles from an Arrowfog. Arrow Ultrafog allows precise adjustment control. Atomizes oil droplets to a fine mist for reclassification in the bowl before sending lighter particles of oil down line.

Arrowick lubricators are economical and reliable for lubricating tools or cylinders that run constantly. The Arrowick automatically maintains the same air-oil ratio regardless of variations in air flow. The average droplet size is 3 microns. Arrowick uses an adjustable saturated wick to send particles or oil down line.



Miniature Fog Lubricators

L1

FEATURES
- 1 oz. polycarbonate bowl
- Optional metal bowl
- Visible drip rate
- Easy to refill
- Fine adjustment screw
- Requires only .1 cfm of air flow to operate
- Automatically adjusts oil mist delivery with air flow variations

OPTIONS
add suffix to part number in alpha order
M Metal bowl 1812**M**

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.*

Body
- Zinc, black coated

Polycarbonate Bowl
- Max. pressure 150 psi
- Operating temperature range 40˚F to 125˚F

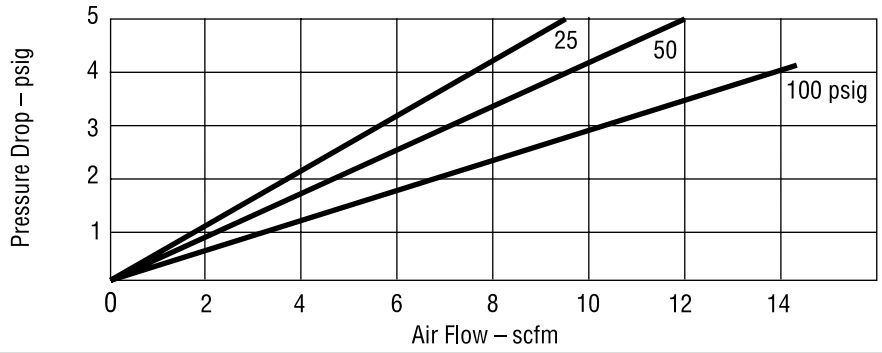
Metal Bowl
- Black coated aluminum
- Max. pressure 200 psi
- Operating temperature range 40˚F to 175˚F

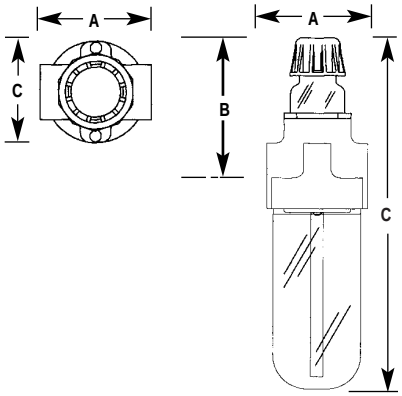
Recommended Oil
- SAE 10 oil or lighter
- Atomized average 2 micron
- .1 scfm to establish drip rate

KITS
Bowl Kits
- Polycarbonate BK1811
- Metal BK1811M
- Repair kit RK1812
- Dome Kit AK35

Mounting Kit see page 65
- Mounting kit FBK3

PERFORMANCE CHARACTERISTICS





DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1/8″	L181	16	1 oz.	1 1/2	2	5	.4
1/4″	L182	16	1 oz.	1 3/8	2	5	.4

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

Tri•Star Series 3 Arrowfog Lubricators

L3

FEATURES

- Aluminum housing
- Oil delivery at low air flow approximately 2 scfm
- Lubricator may be filled without shutting down air line
- 3-position non-rIsing adjustment knob; push to lock, pull to adjust, detach for tamper resistant
- Can be converted on-line to Ultrafog lubricator with interchangeable module Part # RKL452

OPTIONS

add suffix to part number in alpha order

M 6 oz. black coated metal bowl L354**M**

W 6 oz. black coated metal bowl with sight L354**W**

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.*

Body
- Black coated aluminum

Polycarbonate Bowl with Bowl Guard
- Max. pressure 150 psig
- Operating temperature range 40˚F to 125˚F

Metal Bowl
- Zinc, black coated
- Max. pressure 200 psig
- Operating temperature range 40˚F to 175˚F

Metal Bowl with Sight
- Zinc, black coated
- Max. pressure range 200 psig
- Operating temperature range 40˚F to 175˚F

Recommended Oil
- SAE 10 oil or lighter
- Atomized average 2 micron

KITS

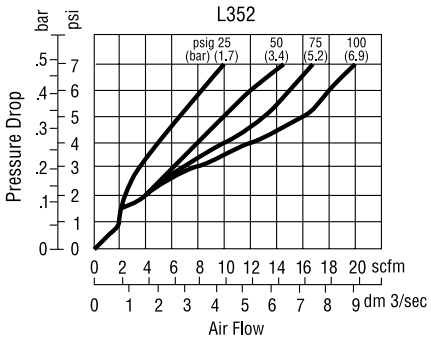
Bowl Kits
- Polycarbonate BKL35
- Metal bowl without sight BKL45M
- Metal bowl with sight BKL45W

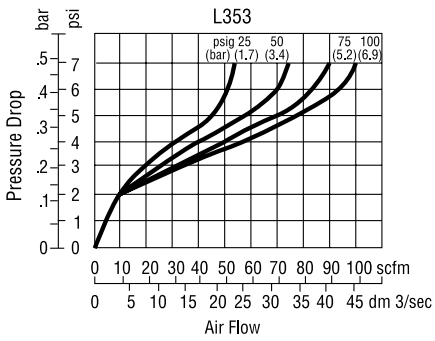
Repair Kits
- For L350 . . . . . RKL352
- Dome kit AK35
- Fill plug kit FK35

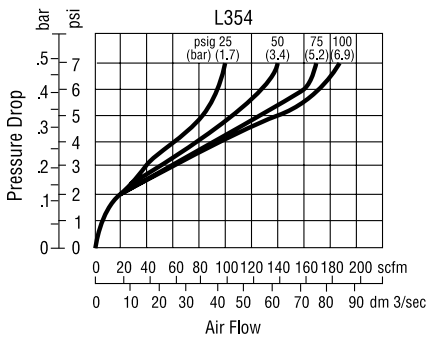
Mounting Kit see page 65
- Mounting kit FBK5

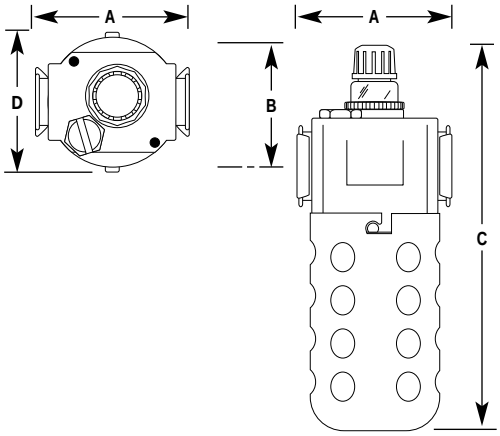
Applications
- Air tools
- Air motors
- Single point lubrication

PERFORMANCE CHARACTERISTICS









DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1/4"	L352	16	5 oz.	2 3/4	2 1/8	7"	2 1/2	1.0
3/8"	L353	82	5 oz.	2 3/4	2 1/8	7"	2 1/2	1.0
1/2"	L354	142	5 oz.	2 3/4	2 1/8	7"	2 1/2	1.0

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

MidFlow Series 3 Arrowfog Lubricators L3

FEATURES

- Oil delivery at low air flow approximately 2 scfm
- Lubricator may be filled without shutting down air line
- 3-position non-rising adjustment knob; push to lock, pull to adjust, detach for tamper resistant
- Can be converted on-line to Ultrafog lubricator with interchangeable module Part # RKL452

OPTIONS

add suffix to part number in alpha order

M 6 oz. black coated metal bowl L373**M**

SPECIFICATIONS

Body
- Black coated aluminum

Metal Bowl
- Zinc, black coated
- Max. pressure 200 psig
- Operating temperature range 40˚F to 175˚F

Metal Bowl with Sight
- Zinc, black coated
- Max. pressure range 200 psig
- Operating temperature range 40˚F to 175˚F

Recommended Oil
- SAE 10 oil or lighter
- 3 scfm to establish drip rate
- Atomized average 2 micron droplet

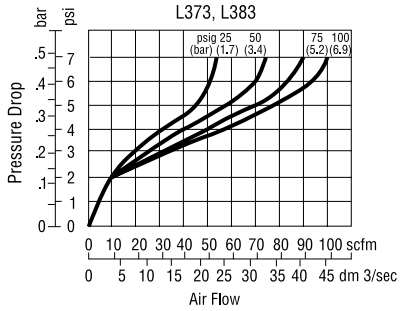
KITS

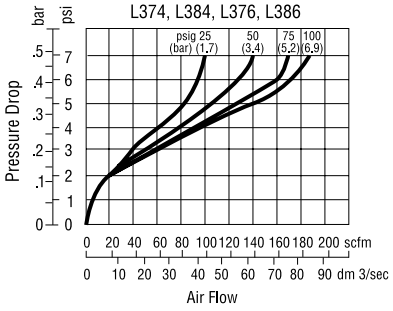
Bowl Kits
- Metal bowl with sight BKL47W
- Metal bowl without sight BKL47M
- Metal bowl with sight BKL48W
- Metal bowl without sight BKL48M

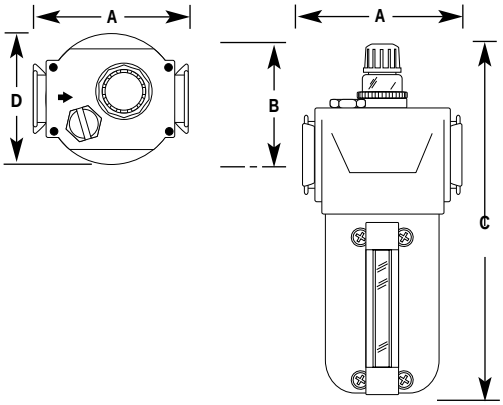
Repair Kits
- For L370 . . . . . RKL372
- For L380 . . . . . RKL382
- Dome kit AK35
- Fill plug kit FK37

Mounting Kit see page 65
- Mounting kit FBK7

PERFORMANCE CHARACTERISTICS







DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
3/8″	L373W	82	10 oz.	3 3/4	2 5/16	8 13/32	3	2.4
3/8″	L383W	82	20 oz.	3 3/4	2 5/16	11 19/32	3	3.3
1/2″	L374W	142	10 oz.	3 3/4	2 5/16	8 13/32	3	2.4
1/2″	L384W	142	20 oz.	3 3/4	2 5/16	11 19/32	3	3.3
3/4″	L376W	142	10 oz.	3 3/4	2 5/16	8 13/32	3	2.4
3/4″	L386W	142	20 oz.	3 3/4	2 5/16	11 19/32	3	3.3

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

Tri•Star Series 4 Ultrafog Lubricators

L4

FEATURES

- 5 oz. polycarbonate bowl w/steel bowl guard
- Aluminum housing, black coated
- Oil delivery at low air flow approximately 2 scfm
- 3-position non-rising adjustment knob; push to lock, pull to adjust, detach for tamper resistant
- Convert on-line to Arrowfog with interchangeable module #RKL352
- In line modular installation

OPTIONS

add suffix to part number in alpha order

M 6 oz. black coated metal bowl L454**M**

W 6 oz. black coated metal bowl with sight L454**W**

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.*

Body
- Black coated aluminum

Polycarbonate Bowl with Bowl Guard
- Max. pressure 150 psig
- Operating temperature range 40˚F to 125˚F

Metal Bowl
- Zinc, black coated
- Max. pressure 200 psig
- Operating temperature range 40˚F to 175˚F

Metal Bowl with Sight
- Zinc, black coated
- Max. pressure range 200 psig
- Operating temperature range 40˚F to 175˚F

Recommended Oil
- SAE 10 oil or lighter
- 2 scfm to establish drip rate
- Atomized average .6 micron
- 1 out of 28 drops travel downstream
- Cannot be filled under pressure

KITS

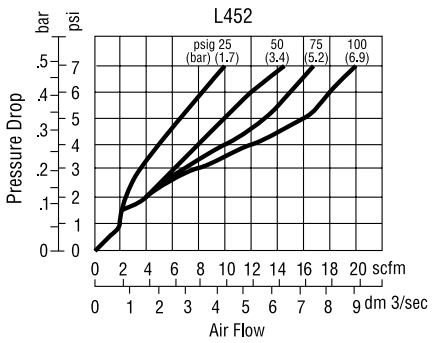
Bowl Kits
- Metal BKL45M
- Metal with sight BKL45W

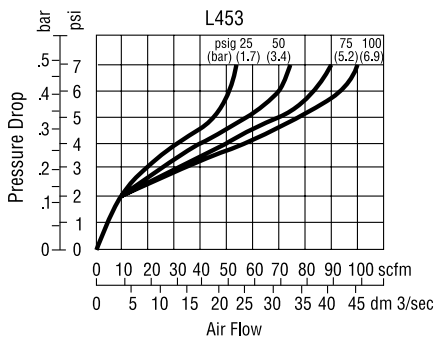
Repair Kits
- Adjustment dome kit AK35
- Fill plug FK35
- For Ultrafog RKL452
- Sight kit WK45

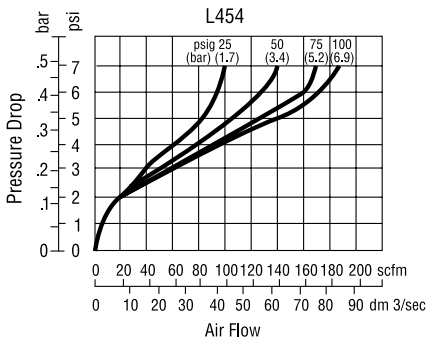
Mounting Kit see page 65
- Mounting kit FBK5

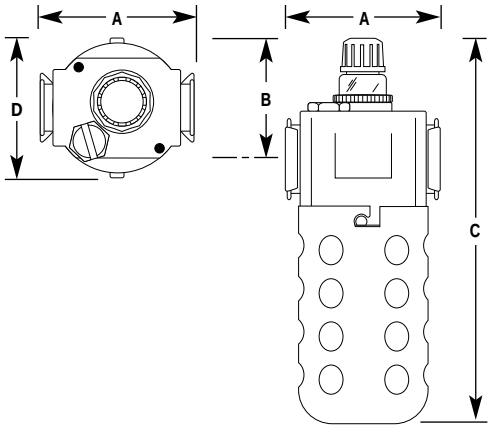
Applications
- Multiple lubrication points

PERFORMANCE CHARACTERISTICS









DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
1/4″	L452	16	5 oz.	2 3/4	2 1/8	7″	2 1/2	1.0
3/8″	L453	82	5 oz.	2 3/4	2 1/8	7″	2 1/2	1.0
1/2″	L454	142	5 oz.	2 3/4	2 1/8	7″	2 1/2	1.0

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

MidFlow Series 4 Ultrafog Lubricators

L4

SPECIFICATIONS

Body
- Black coated aluminum

Metal Bowl
- Zinc, black coated
- Max. pressure 250 psig
- Operating temperature range 40˚F to 125˚F

Metal Bowl with Sight
- Zinc, black coated
- Max. pressure range 200 psig
- Operating temperature range 40˚F to 175˚F

Recommended Oil
- SAE 10 oil or lighter
- 2 scfm to establish drip rate
- Atomized average .6 micron
- 1 out of 28 drops travel downstream
- Cannot be filled under pressure

KITS

Bowl Kits
- Metal bowl without sight BKL47M
- Metal bowl with sight BKL47W

Repair Kits
- For L350 . . . . . RKL470
- Dome kit AK37
- Fill plug kit FK47

Mounting Kit see page 65
- Mounting kit FBK7

FEATURES

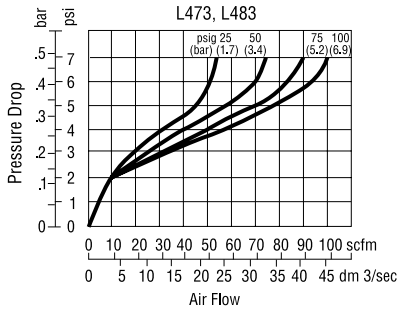
- Aluminum housing
- Oil delivery at low air flow approximately 2 scfm
- 3-position non-rising adjustment knob; push to lock, pull to adjust, detach for tamper resistant
- Convert on-line to Arrowfog with interchangeable module #RKL352

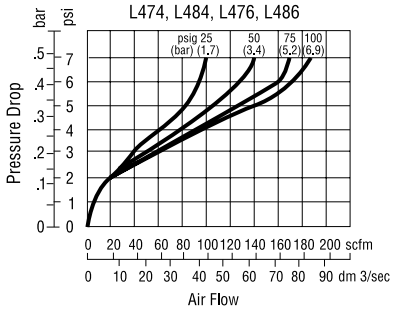
OPTIONS

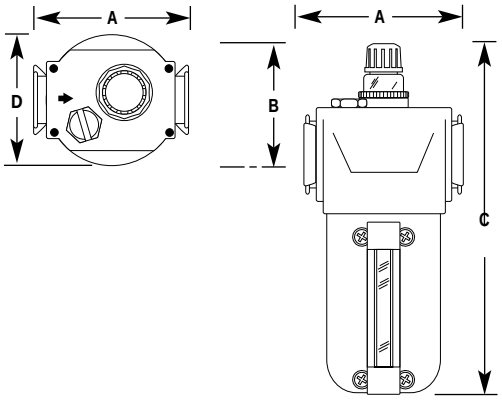
add suffix to part number in alpha order

M 6 oz. black coated metal bowl L472**M**

PERFORMANCE CHARACTERISTICS







DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	D	WEIGHT (LBS.)
3/8″	L473W	82	10 oz.	3 3/4	2 5/16	8 13/32	3	2.4
3/8″	L483W	82	20 oz.	3 3/4	2 5/16	11 19/32	3	3.3
1/2″	L474W	142	10 oz.	3 3/4	2 5/16	8 13/32	3	2.4
1/2″	L484W	142	20 oz.	3 3/4	2 5/16	11 19/32	3	3.3
3/4″	L476W	142	10 oz.	3 3/4	2 5/16	8 13/32	3	2.4
3/4″	L486W	142	20 oz.	3 3/4	2 5/16	11 19/32	3	3.3

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

Arrowick Lubricators

FEATURES

- Simple, trouble free design. It cannot be over-filled, and has greater bowl capacity which extends interval between filling
- Can be used downstream of 4 way valves because it accommodates reverse flow
- Bowl fills all the way to the top
- It can be filled under pressure no need to shut down air
- Tamper-proof internal adjustment
- Porous bronze oil metering diffuser introduces smallest possible oil particles to the air
- No small orifices to clog and stop oil delivery
- Automatically maintains air-oil ratio regardless of variations in air flow

OPTIONS

add suffix to part number in alpha order

W metal bowl w/sight glass . . 4108**W**

SPECIFICATIONS

Body

- Black coated aluminum

Metal Bowl

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

Recommended Oil

- SAE 10 oil or lighter
- 30 scfm to establish drip rate

Droplet Size

- 3 micron or less

KITS

Bowl Kits

- 29 oz. metal BK4106M
- 29 oz. metal with sight BK4106W
- 2 qt. metal with sight BK4106LCM

Repair Kits

- For 4106, 4106LCM, 4108, and 4108LCM RK4106
- For 4112 and 4112LCM RK4112
- Sight kit WK35

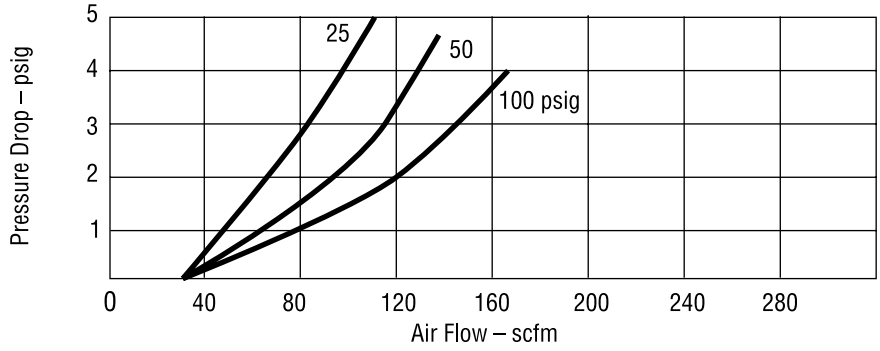
Applications

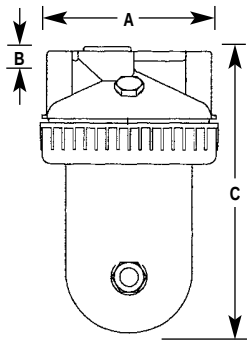
- Single point
- Flow can be reversed

Minimum Air Flow for Lubrication

Model No.	Air Flow SCFM
4106	30 SCFM
4106LCM	30 SCFM
4108	30 SCFM
4108LCM	30 SCFM
4112	50 SCFM
4112LCM	50 SCFM

PERFORMANCE CHARACTERISTICS





DIMENSIONS

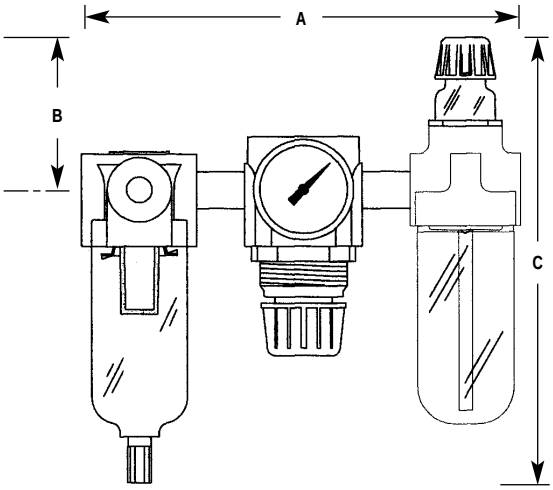
PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	BOWL CAPACITY	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/4″	4106	175	29 oz.	4 7/8	1 1/8	8 7/8	3.5
1″	4108	175	29 oz.	4 7/8	1 1/8	8 7/8	3.5
1 1/2″	4112	175	29 oz.	5 1/4	1 1/4	9	3.5
3/4″	4106LCM	175	60 oz.	4 7/8	1 1/8	13 1/2	6.0
1″	4108LCM	175	60 oz.	4 7/8	1 1/8	13 1/2	6.0
1 1/2″	4112LCM	175	60 oz..	5 1/4	1 1/4	13 1/2	6.0

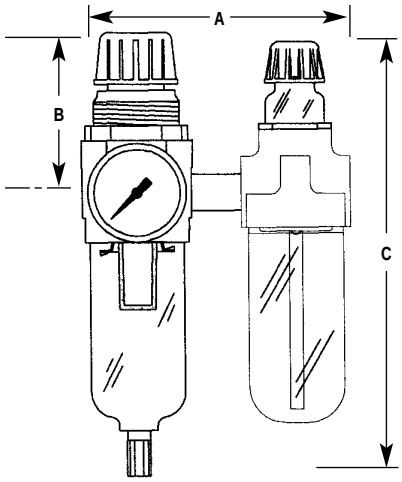
* Flow scfm based on 5.0 psi △ p @ 100 psig inlet.

Miniature Filter/Regulator/Lubricator Combinations

	PIPE SIZE	COMBINATION NUMBER	COMPONENTS			BOWL CAPACITY (OUNCES)	APPROX. DIMENSIONS			APPROX. WEIGHT (LBS.)
			FILTER	REGULATOR	DROP LUBE		A	B	C	
Miniature	1/8″	7681	F300-01	R161G	L181	1	5 1/4″	2″	6 1/2″	1.3
	1/4″	7682	F300-02	R162G	L182	1	5 1/4″	2″	6 1/2″	1.3
			FILTER/REGULATOR							
	1/8″	7621	B741G		L181	1	3 1/4″	2 3/16″	6 1/4″	1.1
	1/4″	7622	B742G		L182	1	3 1/4″	2 3/16″	6 1/4″	1.1

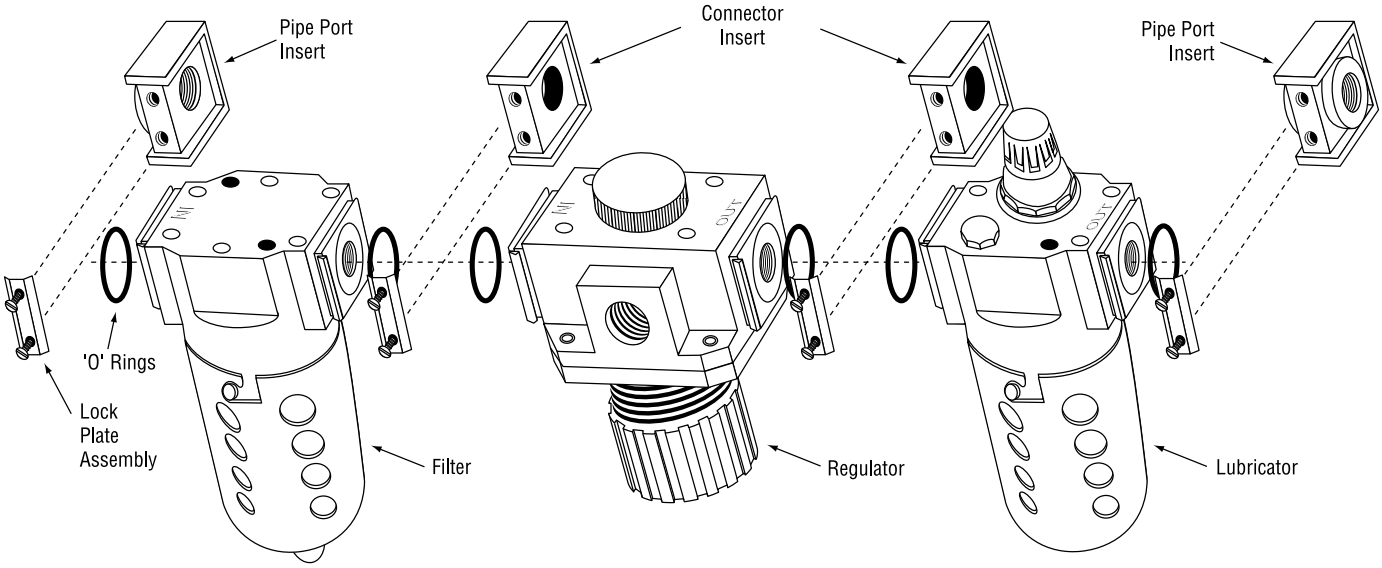
NOTE: Combinations with Regulators include gauge.
Combinations are boxed assembled.



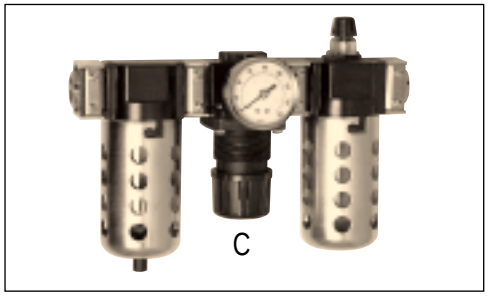


High Performance • Flexibility • Compact • Lightweight

- A screwdriver is the only tool needed to connect or disconnect units
- Insert interlocking feature allows simple installation in any location
- Installation or removal from one plane – without disturbing existing piping
- Regulator mounting can be either up or down
- Unique design allows side, top, individual and custom mounting
- Regulator and lubricator adjustments are made thru three position – tamper resistant adjusting knobs.
- Engineered to permit use with standard size pipe nipples
- Available in $^1/_4''$, $^3/_8''$ and $^1/_2''$ pipe sizes and insert pipe sizes $^1/_4''$, $^3/_8''$, $^1/_2''$ and $^3/_4''$
- Special optional diverter blocks supply air to secondary locations
- Unlimited adaptation to air preparation systems



Tri•Star Filter/Regulator/Lubricator Combinations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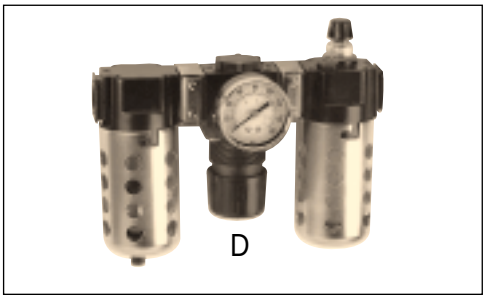
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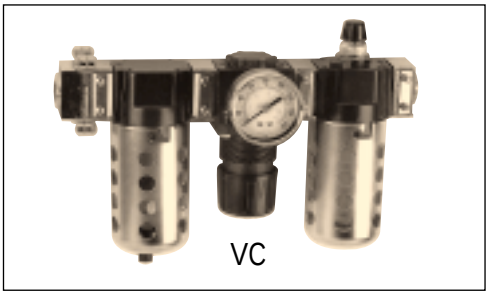
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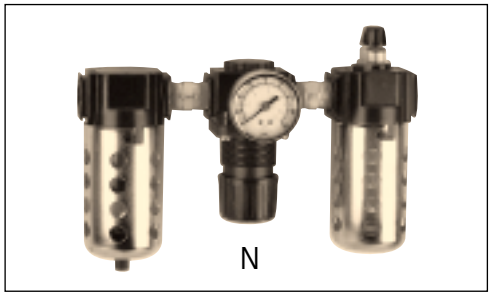
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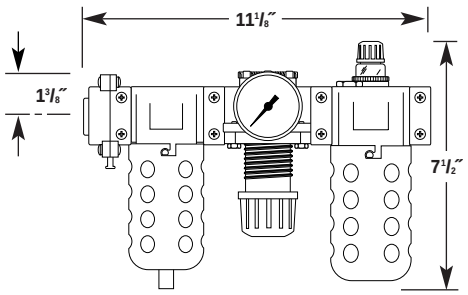
PIPE SIZE	STYLE	COMBINATION NUMBER*	COMPONENTS			BOWL CAPACITY (OUNCES)	APPROX. WEIGHT (LBS.)
			FILTER	REGULATOR	DROP LUBE		
1/4"	**Tri•Star*** (please reference chart below for further Tri•Star information)	33352	F352	R352G	L352	5	3.3
1/4"		33452	F352	R352G	L452	5	3.3
3/8"		33353	F353	R353G	L353	5	3.3
3/8"		33453	F353	R353G	L453	5	3.3
1/2"		33354	F354	R354G	L354	5	3.4
1/2"		33454	F354	R354G	L454	5	3.4
3/4"		33356	F354	R354G	L454	5	3.4
			FILTER/REGULATOR				
1/4"		70352	B752G		L352	5	3.0
3/8"		70353	B753G		L353	5	3.0
1/2"		70354	B754G		L354	5	4.1

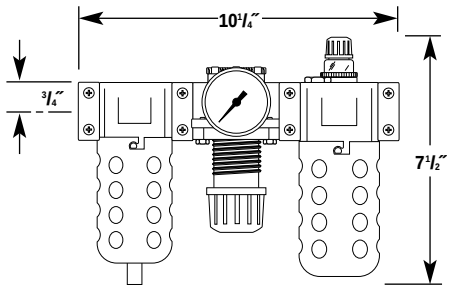
NOTE: Combinations with Regulators include gauge.
Combinations are boxed assembled.

STYLE	COMBINATION NUMBER				
	FILTER STYLE	REGULATOR STYLE	LUBRICATOR STYLE	SERIES	PIPE SIZE
C – With End Port Inserts D – Without End Port Inserts VC – With OSHA Lockout N – Nipple	0 – No Filter 3 – Particulate 4 – .09 Micron Oil Removing 5 – .03 Oilescer 6 – Vapor Removal 7 – Filter/Regulator	0 – No Regulator 3 – Standard Relieving	0 – No Lubricator 3 – Arrowfog 4 – Ultrafog	5 – 5 oz. Plastic Bowl or 6 oz. Metal Bowl	2 – 1/4" 3 – 3/8" 4 – 1/2" 6 – 3/4"

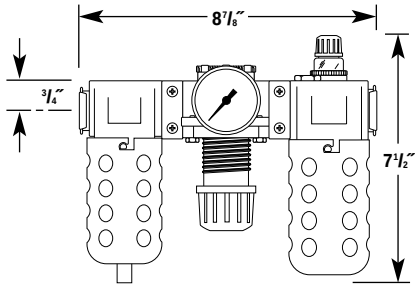
VC3 Unit



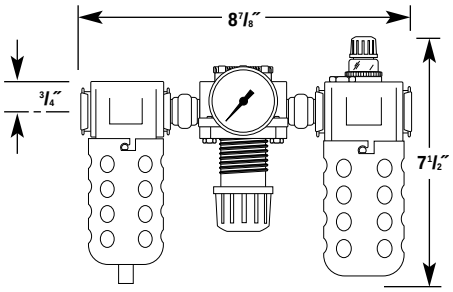
C3 Unit



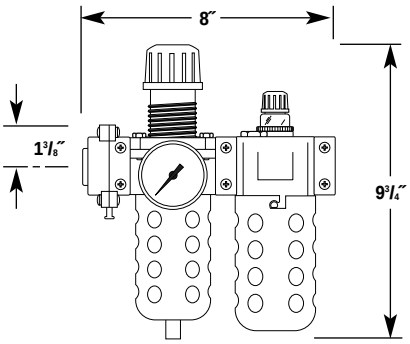
D3 Unit



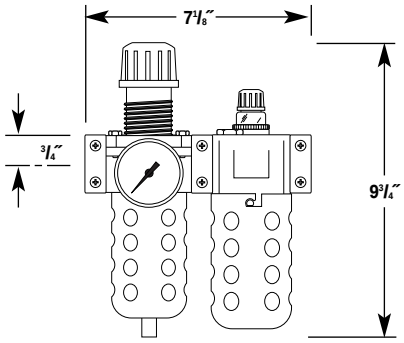
N3 Unit



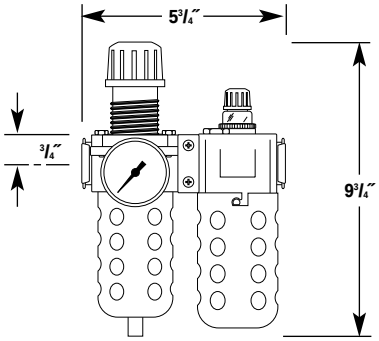
VC7 Unit



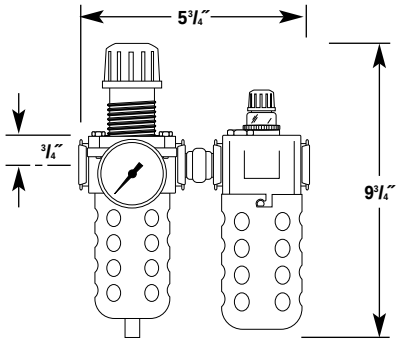
C7 Unit



D7 Unit



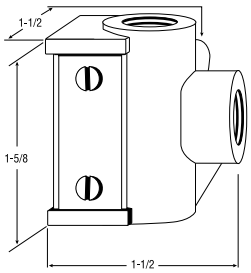
N7 Unit



Tri•Star Inserts & Accessories

Tri•Star Outboard Diverter

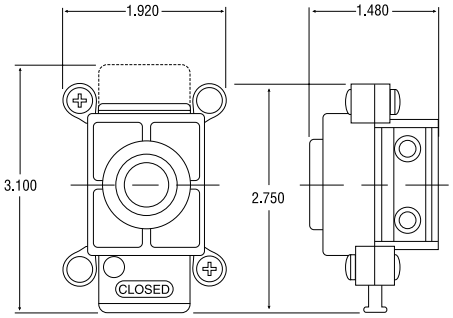
The Tri•Star Outboard Diverter block attaches to the outlet port of any Tri•Star unit and allows air to be diverted to up to 3¼″ outlets. Includes locking plate and “O” rings, and it will accept the Tri•Star mounting bracket.



Model No.	Description
DK54	¼″ NPT Outboard Diverter Kit

OSHA Lockout, 3-Way Valve

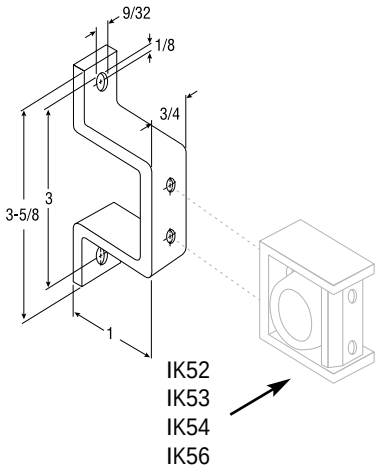
Arrow’s 3-way OSHA lockout valve exhausts all downstream pressure when closed and can be locked in the closed position with customer supplied pad lock. These valves will handle all Tri•Star system air flows and will exhaust 6 scfm @ 100 psi.



Model No.	Description
V252	¼″ OSHA Lockout Valve
V253	⅜″ OSHA Lockout Valve
V254	½″ OSHA Lockout Valve

Mounting Bracket

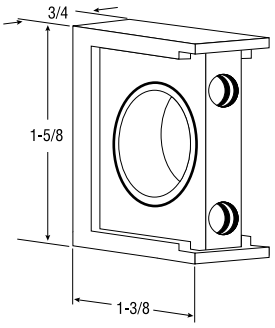
IBK5 wall mounting bracket for Modular Tri•Star FRL units permit bracket mounting from inlet and outlet ports, slide valve and diverter blocks



Modular Components & Accessories

Tri•Star Connector Insert

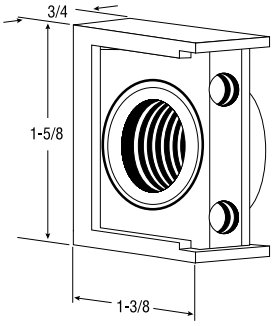
Tri•Star insert slides are designed to guide the insert to an interlocking position on the unit body. The design of the slide also provides a unique safety feature, should the insert plates be removed while the air line is under pressure, the interlocking slide will prevent blowing away.



Model No.	Description
IK50	Tri•Star Connector Insert

Tri•Star Pipe Port Insert

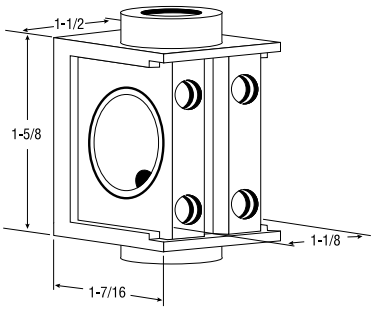
Any of four separate Tri•Star ports permit instant pipe sizing of every Tri•Star filter, regulator and lubricator. Available in ¼″, ⅜″, ½″, and ¾″ pipe sizes for inlets and outlet ports. Zinc diecase metal. A special Tri•Star locking design prevents backing out of lock plate screws and keeps the screws in place when the plate is removed.



Model No.	Description
IK05	“O” Rings for Modulars
IK52	¼″ NPT Pipe Port Insert
IK53	⅜″ NPT Pipe Port Insert
IK54	½″ NPT Pipe Port Insert
IK56	¾″ NPT Pipe Port Insert

Tri•Star Diverter

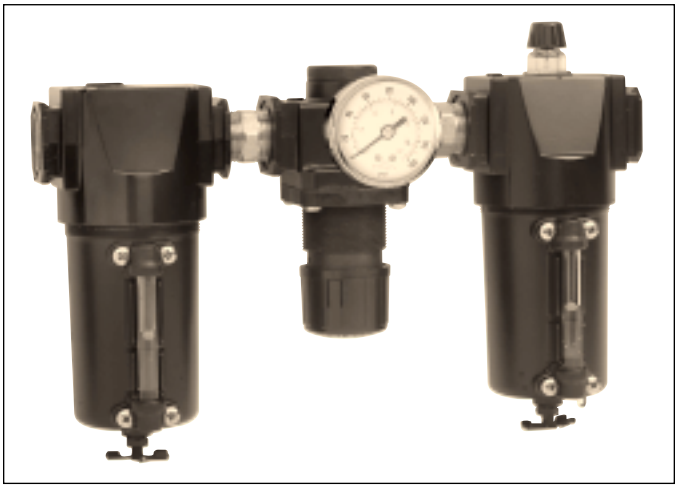
The unique Tri•Star diverter permits a portion of filtered air to be branched before entering the regulator and sends it to another location; or when installed after the regulator, it will divert a portion of regulated air. The diverter is also used when pressure drop readings are required.



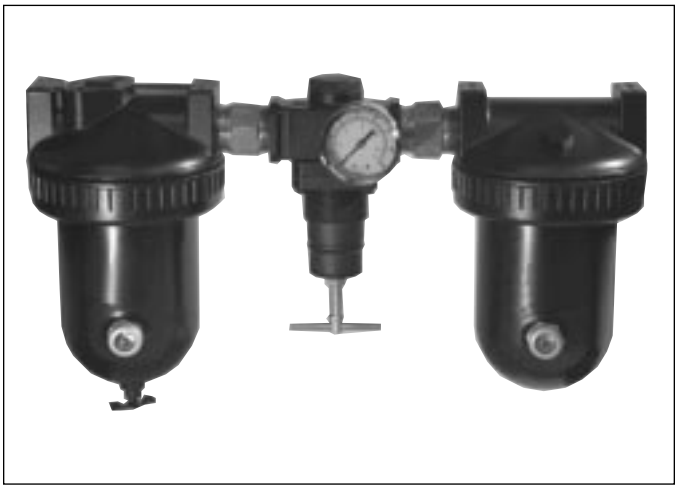
Model No.	Description
DK52	¼″ NPT Inboard Diverter Kit
DK53	⅜″ NPT Inboard Diverter Kit

MidFlow & High Flow Filter/Regulator/Lubricator Combinations

MidFlow



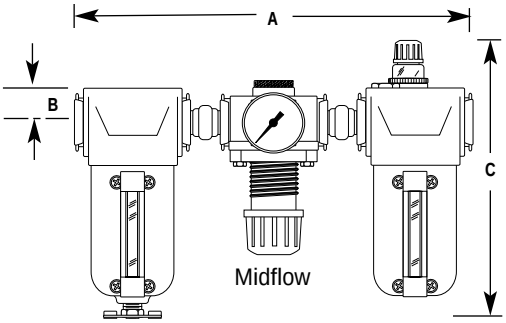
High Flow



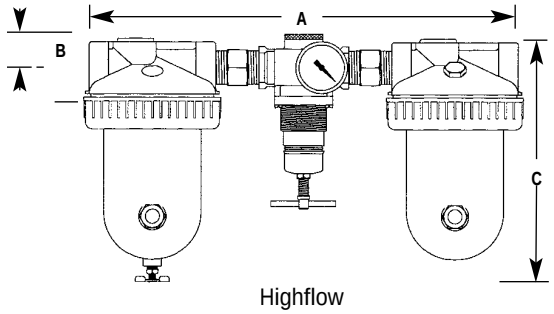
	PIPE SIZE	COMBINATION NUMBER	COMPONENTS			BOWL CAPACITY (OUNCES)	APPROX. DIMENSIONS			APPROX. WEIGHT (LBS.)
			FILTER	REGULATOR	DROP LUBE		A	B	C	
Mid Flow	3/8″	N33373W	F373W	R373	L373W	10	12 5/8	2 1/4	8 1/2	9 1/2
	3/8″	N33383W	F383W	R373	L383W	20	12 5/8	2 1/4	11 1/2	10 1/4
	1/2″	N33374W	F374W	R374	L374W	10	12 5/8	2 1/4	8 1/2	9 1/2
	1/2″	N33384W	F384W	R374	L384W	20	12 5/8	2 1/4	11 1/2	10 1/4
	3/4″	N33376W	F376W	R376	L376W	10	12 5/8	2 1/4	8 1/2	9 1/2
	3/4″	N33386W	F386W	R376	L386W	20	12 5/8	2 1/4	11 1/2	10 1/4

STYLE	COMBINATION NUMBERING SYSTEM FOR MIDFLOW					
	FILTER STYLE	REGULATOR STYLE	LUBRICATOR STYLE	SERIES	PIPE SIZE	Bowl Type
N – Nipple	0 – No Filter 3 – Particulate 4 – .09 Micron Oil Removing 5 – .03 Oilescer 6 – Vapor Removal	0 – No Regulator 3 – Standard Relieving	0 – No Lubricator 3 – Arrowfog 4 – Ultrafog	7 – 10 oz. Metal Bowl 8 – 20 oz. Metal Bowl	3 – 3/8″ 4 – 1/2″ 6 – 3/4″	**W-Metal bowl w/sight** **M-Metal Bowl w/o sight**

	PIPE SIZE	COMBINATION NUMBER	COMPONENTS			BOWL CAPACITY (OUNCES)	OPTIONAL MOUNTING BRACKET	APPROX. DIMENSIONS			APPROX. WEIGHT (LBS.)
			FILTER	REGULATOR	DROP LUBE			A	B	C	
High Flow	1″	3548M	F329	R378T	4108	29	ACA-7 (Req. 2)	15 7/8″	1 3/16″	7 1/8″	11.8



Midflow



Highflow

IN-LINE DESICCANT DRYER

The compressed air flow path through the dryer assures desiccant packing and maximum utilization of the desiccant's adsorption qualities. The compressed air enters the dryer (1) and is dispersed through a 70 micron polypropylene element (2) for the removal of particles. The air is then distributed uniformly through the full desiccant bed (3) to the bottom of the intake tube (4). The intake tube is protected by a 40 micron porous bronze element (5). As the desiccant adsorbs moisture, a dramatic and highly visible color change from dark blue to light pink is evident. The color change works its way through the desiccant as the adsorbative qualities of the desiccant are diminished. Once the color change is visible through the exclusive sight dome (6), the full desiccant bed has reached its maximum drying capacity and must be either changed or regenerated. Dry air exits through the inside diameter of the intake tube (7) and out the outlet port of the unit (8).

ADSORPTION

Adsorption means the attraction of a substance – the adsorbate – to, and its subsequent accumulation on, the surface of a solid material – the adsorbant – which is caused by physical forces of attraction. Adsorbants are substances which are permeated by a large number of very fine pores which give rise to a large internal surface area. This, in turn, determines the adsorption capacity of the adsorbant, since a large internal surface can accommodate more adsorbate. Other factors which influence the amount of adsorbate are: temperature, relative humidity and pressure.

REGENERATION PROCESS

Regeneration is accomplished by heating the desiccant to a temperature of 275°F in a drying oven. Regeneration is complete when the desiccant returns to its blue color.

For extended life and protection of the desiccant and equipment being serviced, an F3 Prefilter and F5 Coalescing filter should be used as a prefiltering system ahead of the dryer.

D05-03

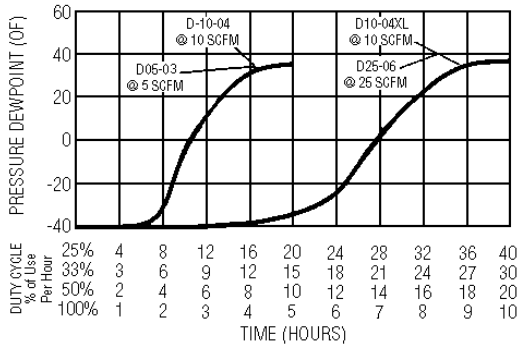
D10-04

D25-06

In-Line Desiccant Dryer

FEATURES

- Available in capacities from .5 to 50 scfm
- Compact sizes are ideal for portable or original equipment
- Drying efficiency can be tailored to your needs down to -30°F pressure dew point
- Highly visible color change from blue to pink through exclusive sight-glass highlights the need for service
- Exclusive hard spherical bead resists attrition and dusting and can be recharged
- Exclusive intake flow design takes air through entire supply of desiccant for maximum drying capacity
- Built-in particulate after-filter prevents downstream dust
- Needs no electrical connection
- No "purge air" lost as with regenerative dryers



SPECIFICATIONS

Bowl

- D05-03: Metal with sight gauge
- D10 & D 25: Metal with sight gauge
- D10-04XL: Metal with sight gauge

Desiccant

- Silica gel

Maximum Pressure

- 250 psig

Operating Temperature Range

- 0˚F to 120˚F

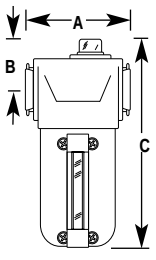
APPLICATIONS

- Always install an F5 coalescing filter upstream of the D05, D10 & D25
- For compressed air service only
- Not to be used on life support systems or breathing air systems
- Dry air for parts blowoff
- Paint spray systems
- Air gauging equipment
- Laboratory air

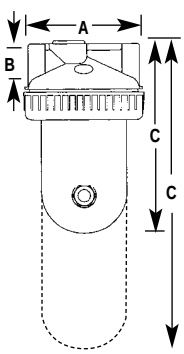
KITS

Replacement Desiccant
No. 34189 – 6 pack of 1 qt. jars
No. 34417 – 4-1 gallon jugs

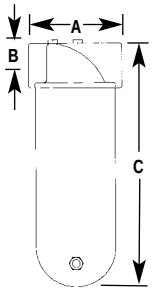
Check the exhaust element to avoid high pressure drop due to desiccant dust entrapment. We recommend replacement of the exhaust element.
D05, D10 & D10XL Use:
Element Kit EKD10 (1-pack each)
D25 Use: Element Kit EKD25 (1-pack each)



D05-03



D10-04
D10-04XL



D25-06

DIMENSIONS

PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	MAX. FLOW SCF*	DESICCANT WEIGHT (LBS.)	DESICCANT CHARGE	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
3/8″	D05-03	.5 to 5	830	5/8	10 oz.	3 3/4	1 1/8	8 1/4	2.7
1/2″	D10-04	5 to 15	2500	1 1/4	1 Qt.	4 7/8	1 1/8	8 7/8	5
1/2″	D10-04XL	15 to 25	5000	2 1/2	2 Qt.	4 7/8	1 1/8	13 1/2	7
3/4″	D25-06	25 to 50	12500	6	1 Gal.	6 3/4	2	17 3/4	23

* SCFM and SCF based on 70°F inlet temp. @ 100 psig

StageAir Drying System

- The StageAir Drying System is a point-of-use drying system and is protected by an OSHA Lockout valve which exhausts all downstream pressure when closed, and can be locked in the closed position with customer supplied padlock, exhaust 6 SCFM at 100 PSIG to prevent element damage.

  Note: When pressurizing, open slide valve slowly to prevent element burst.

HOW IT WORKS

FIRST AND SECOND STAGE

- The StageAir desiccant air drying system begins with the dual stage integral filter/regulator
- First, the air enters the particulate filter, which has a 5 micron cleanable sintered bronze element. In this stage, corrosive moisture, pipe scale, dirt and rust are removed from the air line protecting the precision parts in the regulator.
- Next, the air enters a high-performance regulator, which reduces primary pressure to a desired pressure setting.

THIRD STAGE COALESCING FILTER

- During Stage 3, fine filtration takes place. Here, 99.99 percent of oil aerosols and microscopic particles down to .01 micron absolute are removed from the air. The pop-up indicator alerts customer that an element change is necessary.

FOURTH STAGE DESICCANT AIR DRYER

- As the air enters the desiccant dryer, it is dispersed through a 70 micron element. The element distributes air evenly through the desiccant bed. The desiccant absorbs the water vapor from the air, producing a –40°F pressure dew point.
- To remove traces of desiccant dust before the air leaves the system, the air passes through a 40 micron filter element. The air is now clean and dry, and has been properly treated for use with your air operated system.
- The clear indicator sight glass shows a color change in the desiccant from blue to pink which indicates a desiccant recharge.

OPTIONS

To order options for the VC7500 series, simply add the appropriate suffix, as listed below, to the part number in the alpha-betical/numerical order.

3 3 micron absolute element (particulate filter)
F Float drain
J Overnight Drain

KITS

- Internal Float Drain 5200

Element Kits

- 5 micron EK35-5
- .01 micron EK55A

Desiccant Kit

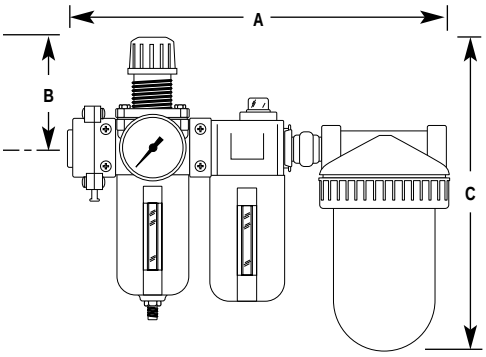
- 6-Pk. of 1 Qt. Jars 34189
- 4 - 1 Gal. Jugs 34417

Mounting Kit see page 65

- Mounting kit ABK10

Applications

- Paint Spray
- Air Gauging Equipment
- Lab Air



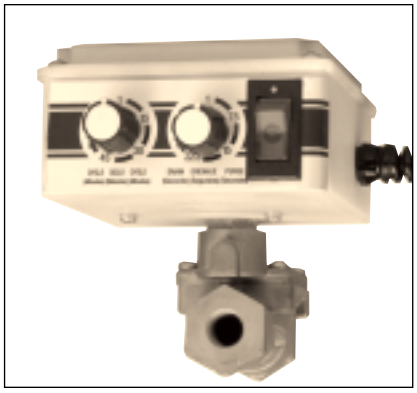
DIMENSIONS

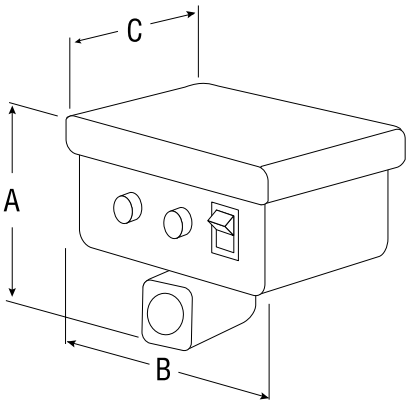
PIPE SIZE	MODEL NO.	MAX. FLOW SCFM*	MAX. FLOW SCF*	DESICCANT WEIGHT (LBS.)	DIMENSIONS (INCHES) A	B	C	WEIGHT (LBS.)
1/2″	VC7510	5 to 15	2,500	1 1/4	14 1/4	4	11 1/4	10
1/2″	VC7510XL	15 to 25	5,000	2 1/2	14 1/4	4	16 1/4	13.5
3/4″	VC7525	25 to 50	12,500	6	16 1/2	4	20 1/8	24.25

* SCFM and SCF based on 70°F inlet temp. @ 100 psig

ACCESSORIES

Economatic Drains





Arrow developed the **heavy duty** ECONOMATIC drain valve to be a low cost answer to leaking, clogging, noise and other problems caused by float-type drains.

A solenoid controlled by a solid state timer opens and closes the ECONOMATIC drain valve in 1 to 60 minute cycle times and 1 to 30 second blow down times. Both times are individually adjusted.

The drain is designed with a manual override switch with indicator light.

ECONOMATIC drains also feature a spring loaded softseat solenoid which eliminates valve noise and assures leak-proof shutoff.

Installation of the drain is simple and quick – thread on and plug in.

SPECIFICATIONS

Adjustable Cycle Time
- 1-60 minutes

Adjustable Drain Time
- 1-30 seconds

Maximum Working Pressure
- 200 psig

Maximum Fluid Temperature
- +165˚F
- NEMA one enclosure
- Voltage: 115V / 1 ph / 60Hz
- 0.25 amps
- Buna-N seals
- 6´ heavy duty grounded power plug

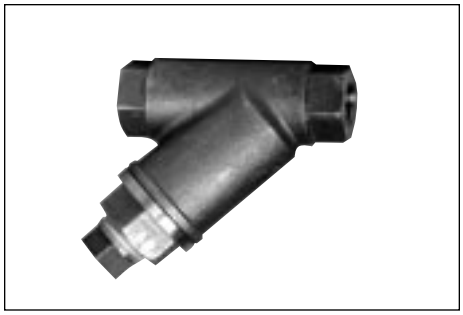
Purge Rate
- 16 scfm open flow @ 100 psig

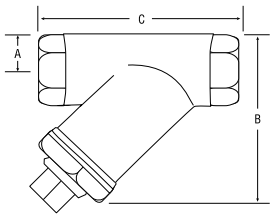
Mounting Kit see page 65
- Mounting kit BR5702

DIMENSIONS

Model No.	Connection NPT	Dimensions (inches) A	B	C	Weight
5702S	1/4″	3 1/4″	3 15/16″	4 3/16″	1.365
5704S	1/2″	4 1/16″	3 15/16″	4 3/16″	1.745

Y Strainer – furnished with each Economatic Drain





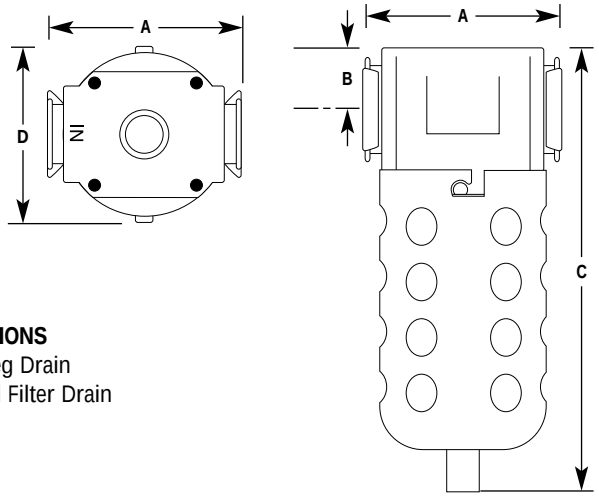
A Y Strainer installed ahead of an external drain, traps large debris and sludge; prevents malfunctions and extends the life of automatic drains.

FEATURES
- Cast brass manufactured in the U.S.
- 300 psi maximum working pressure
- 50 mesh stainless steel screen can be cleaned or replaced without removal of strainer from the line
- 3/8″ removable plug for quick draining

DIMENSIONS

Model No.	Connection NPT	Dimensions (inches) A	B	C	Weight
S202	1/4″	15/32″	2 27/64″	2 11/16″	10.5 oz.
S204	1/2″	11/16″	2 5/8″	2 11/16″	12 oz.

T53 Automatic Drain



APPLICATIONS
- Drop Leg Drain
- External Filter Drain

The T53 series float type drain is provided with a top threaded port. This drain features a protective stainless steel screen with an umbrella baffle, providing a large sump area for oil sludge and dirt. It is used to give continued performance and low maintenance to drain accumulated water and oil from drain lines, receiver tanks, condensate drop legs and filters.

DIMENSIONS

Model No.	Connection FPT	Dimensions (INCHES) A	B	C	D	Weight (lbs.)
T53-02	1/4″	2 3/4	3 1/4	6 1/2	2 1/4	1.0
T53-04	1/2″	2 3/4	3 1/4	6 1/2	2 1/4	1.0

Internal Float Drain - 5200

Automatically drains collected liquids when internal float indicates accumulation. Saves air loss. For standard size filter.

Overnight Bowl Drains

Arrow's Automatic 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. Available for either plastic or metal bowls.

	Kit Ordering #
Model J - For plastic bowls - push to manually drain	32008
Model K - For metal bowls - twist to manually drain	CKFK

Accessories

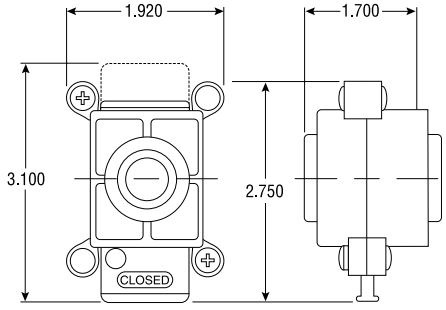
Slide Valve

Arrow's new slide valve is a 3 way OSHA lockout valve which exhausts all downstream pressure when closed, and can be locked in the closed position with customer supplied padlock.

3-Way Slide Valves (Open or close and exhaust) Meet O.S.H.A. Lockout Standard 29CFR 1910.147 - The 3-way slide valve is for use in the main line, upstream of equipment. When closed, it shuts off the upstream air and exhausts the downstream air.

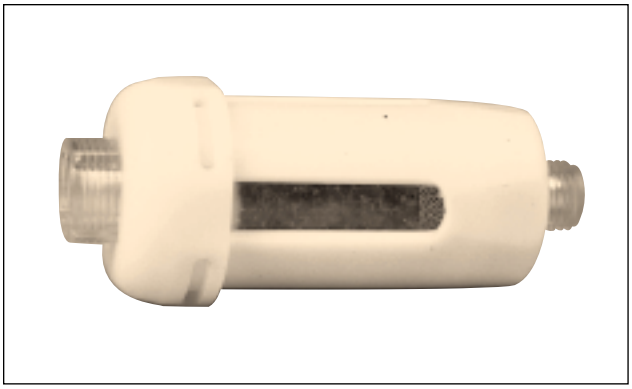
Body is black coated zinc. Slide is 5% Teflon, high-impact, safety yellow plastic. Seals are pre-lubricated Buna O-rings. Screws are black coated steel.

Maximum operating pressure: 250 PSIG
Maximum operating flow: 140 SCFM
Operating temperatures: 35°F to 150°F
Exhaust bleed at 100 PSI: 7 SCFM



Valve Type	Standard Line With Threaded Ports Model	Port Size
3 Way OSHA Lockout Valve Customer to Supply Lock	V202	1/4"
	V203	3/8"
	V204	1/2"

Mini In-Line Desiccant Dryer (-30°F Dew Point)



Used at the point-of-use, this **patented**, disposable, mini in-line desiccant dryer removes all traces of water vapor, oil vapor and dirt. It is often used directly upstream of blow guns or spray guns as final protection for critical parts blow off and paint spraying. Install in either direction; it functions in both directions. A 40 micron, porous bronze element removes fine dirt particles, an oil removing media removes oil vapor, and desiccant beads adsorb water vapor. The see-through housing shows desiccant color change, which indicates that the dryer needs to be replaced.

SPECIFICATIONS

Housing

- Polycarbonate material allows clear desiccant visibility

Guard

- Nylon guard

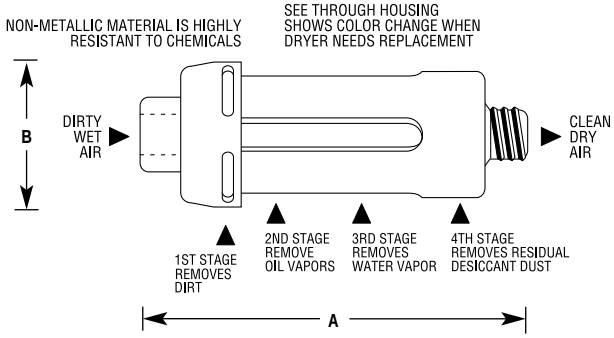
Maximum Flow Capacity: 15 scfm

Maximum Pressure: 125 psi

Maximum Temperature: 130° F

APPLICATIONS

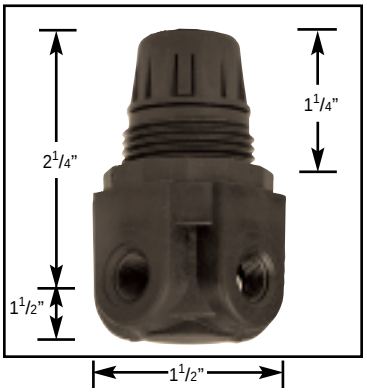
- Parts blow off
- Paint guns



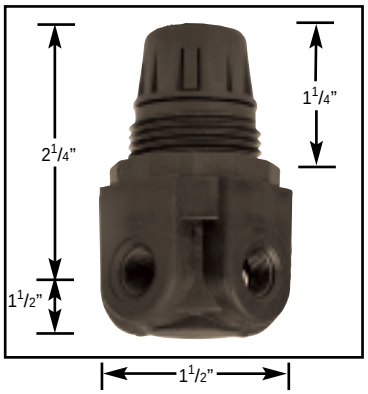
DIMENSIONS				
Connection NPT/FPT	Model No.	Dimensions (Inches) A	B	Weight
1/4"	DFD-10	3 3/4"	1 11/16"	2.8 oz.

Accessories

E291, E292



E191, E192



Miniature Relief Valves

Miniature, diaphragm operated relief valves with exceptional sensitivity. Ideally suited for applications requiring gradual proportional relief. 3 position knob pushes to lock and can be removed for tamper resistance.

Ordering Information

Pipe Size	Model No.	Description
1/8"	E291	All Plastic non-corrosive parts.
1/4"	E292	
1/8"	E191	Die cast black coated body, brass seat.
1/4"	E192	Buna N Diaphragm

Specifications

- E291, E191 all 1/8" ports
- E292, E192 1/4" ports
- With 1/8" gauge ports

Maximum Pressure Range

- 150 PSI

Options

B - 2-Position Mechanical Lockout Knob
G - Gauge (0-160 psi)
I - Instrumentation pressure, 1 - 15 psig

Maximum Temperature Range

- 40°F to 120°F

L - low pressure 0 - 50 psig
P - panel mount nut
U - No Gauge Ports
V - All 1/4" Ports (4)

Air Relief Capacity - SCFM

Range (psig)	Instrumentation Spring Range 1 to 15		Low Pressure Spring Range 15 to 30		Standard Pressure Spring Range 50 to 125	
Set Pressure (psig)	5.0	10.0	20.0	40.0	60.0	80.0
Rated Flow @ 10%*	.1	.3	.5	4.0	.2	5.5
Rated Flow @ 20%*	.3	.7	2.8	15.0	6.5	14.0
Rated Flow @ 30%	.5	2.3	6.8	25.0	15.0	23.0

Reseat @ ±1% of Set Pressure

1) Rated flows in SCFM are taken at percentage of pressure over set pressure.
2) The relief valve will not function as a pressure regulator - excess pressure must be vented to atmosphere.

PRESSURE SWITCH

The PDA4 pressure switch can be installed anywhere in a pneumatic or hydraulic system. It is often used to protect air compressors and pneumatically operated equipment from damage caused by over-pressurization. The unit can be set in a normally open or closed position in an adjustable actuation range from 25 PSIG to 95 PSIG with ± 2% repeatability. The pressure switch has standard 18" wire leads of 300 V, 22 SWG. For simple installation, thread the unit into the gauge port of a regulator or pipe tee.

Construction: Zinc die cast and plastic housing, and NEMA 13 electrical enclosure which is U.L. approved.

Max. operating pressure: 300 PSI

Operating temperatures: 35°F to 180°F

Part No.	NPT	Overall Length	Dia.	Wt. Lbs.	Voltage	Inductive	Resistive
PDA4	1/4"	1 5/8"	1 1/8"	.25	125/150/VAC	5 AMP	7 AMP

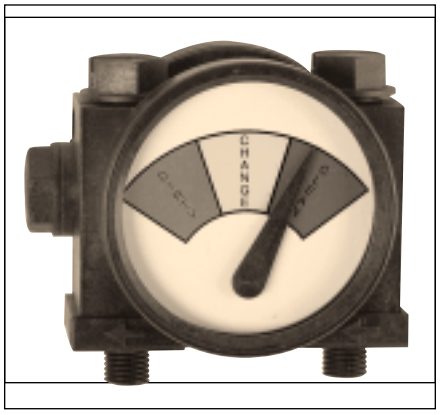
Standard Electrical Circuit

Wire Color	Circuit
Black	Common
Green	Normally Closed
Red	Normally Open

Note: 20% differential for reset, and 1% repeatability when operated within recommended conditions.

Pressure Gauges & Accessories

Delta 'P' Gauge



Reed Switch Specifications			
Max. Voltage Switching	Max Switch Current	Max. Carrying Current	Contact Rating
100 AC/DC	.30 AMPS	1 AMP	10 VA

FUNCTION
Allows exact determination of pressure drop across element. Divided into three sections, each marked for easy understanding. The differential pressure gauge is the best tool available for determining element maintenance requirements.

Color	Indicates	Pressure Drop
Green	Clean	0-6 psi
Yellow	Change	6-9 psi
Red	Dirty	9-12 psi

Maximum Pressure:
- 300 psig / 20 bar

Maximum Temperature:
- 200˚ F / 93˚ C

Weight:
- .33 Lb. / 1.5 Kg

Bolt Threads:
- $^{3}/_{8}$ -24 Inches

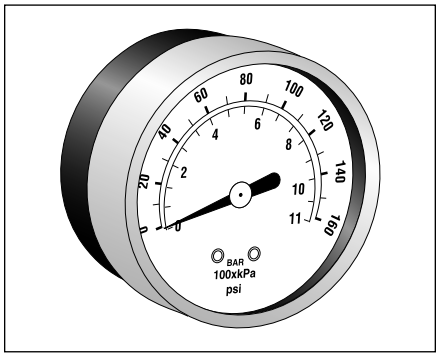
Bolt Material:
- Glass filled Nylon

GAUGE MODELS
- DP10-A* - Replacement unit only
  Basic model with $^{3}/_{8}$-24 slotted bolts
- DP10-AE*
  Basic model with $^{3}/_{8}$-24 slotted bolts and Reed Switch
- DP10-B
  Gauge with Remote Mounting Block
- DP10-BE
  Gauge with Remote Mounting Block and Reed Switch

KITS AND ACCESSORIES
- MK-10
  Mounting Kit for vertical or wall mounting
- TK-10
  $^{1}/_{4}$" Tubing Kit with Connector Fittings

* Model No. DP10-A & DP10-AE to mount directly on existing filter head for replacement only.
** Model No. DP10-B & DP10-BE remote model with slotted bolts & mounting block.
Note: To order pre-mounted units, adds suffix "D" to filter #.

Pressure Gauges

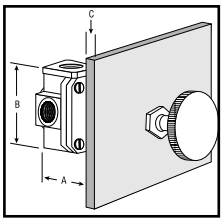


PART NO.	DESCRIPTION	PRESSURE RANGE	USED ON
1481C	2" face, $^{1}/_{4}$" center back mount	0-30 psi	Tri•Star Tri•Star II High Flow
1481A	2" face, $^{1}/_{4}$" center back mount	0-60 psi	
1481	2" face, $^{1}/_{4}$" center back mount	0-160 psi	
1481B	2" face, $^{1}/_{4}$" center back mount	0-300 psi	
1681C	1$^{1}/_{2}$" face, $^{1}/_{8}$" center back mount	0-30 psi	Mini Regulators and Mini Integral
1681A	1$^{1}/_{2}$" face, $^{1}/_{8}$" center back mount	0-60 psi	
1681	1$^{1}/_{2}$" face, $^{1}/_{8}$" center back mount	0-160 psi	

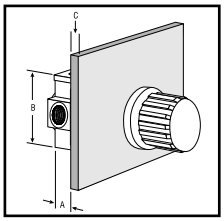
Regulator Accessories

Arrow regulators may be panel mounted to improve machine design and overall appearance, they are convenient for control panel or console mounting.

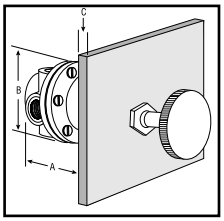
Suffix Q Tri-Star & Midflow



Suffix P Tri-Star & Midflow



Suffix P (1500 Series Regulators)

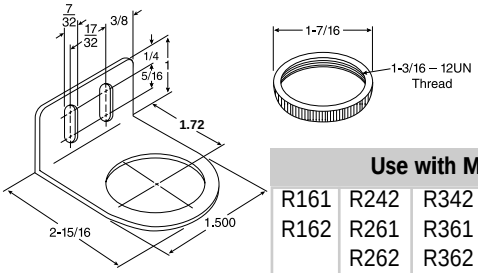


Panel Mounting Regulators					
Regulator Model	Suffix for Panel Mt.	Panel Hole Size	Dimensions & Max. A	B	C
Tri-Star, Midflow & Precision Series	P	$1^{13}/_{16}$"	$1^{1}/_{4}$"	$2^{22}/_{32}$"	$^{1}/_{2}$"
Tri-Star, Midflow & Precision Series	Q	$^{9}/_{16}$"	$3^{1}/_{2}$"	$2^{23}/_{32}$"	$^{5}/_{16}$"
1588	P	$^{3}/_{4}$"	5"	$4^{3}/_{4}$"	$^{1}/_{4}$"

Brackets

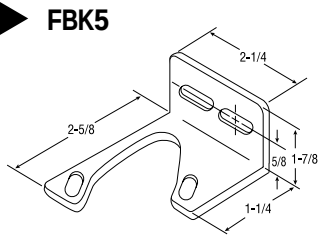
Miniature Mounting Brackets

BR1611 Bracket & Ring
PK1611 Ring Only



Use with Model #				
R161	R242	R342	7681	741
R162	R261	R361	7682	742
	R262	R362	7621	
			7622	

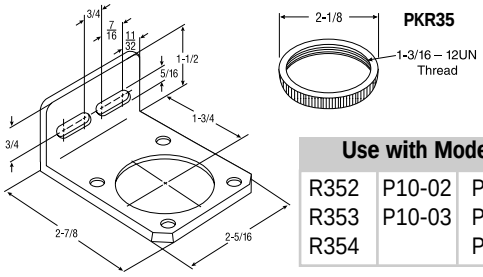
FBK5



Use with Model #		
F352	L352	L452
F353	L353	L453
F354	L354	L454

RBK5

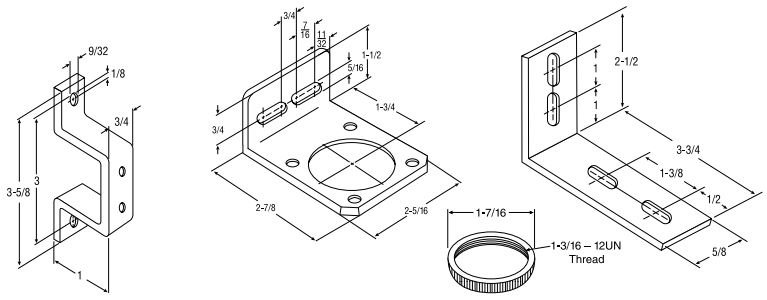
Mounting bracket for Tri•Star, Midflow, and precision regulators listed below. Also can be used for Tri-Star FRL Combination units.



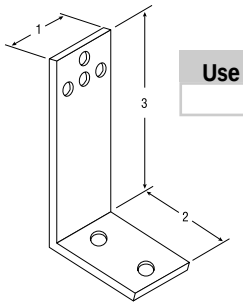
Use with Model #		
R352	P10-02	P14-02
R353	P10-03	P14-03
R354		P14-04

ABK-10

Use with Model #
VC7510 VC7510XL
VC7525

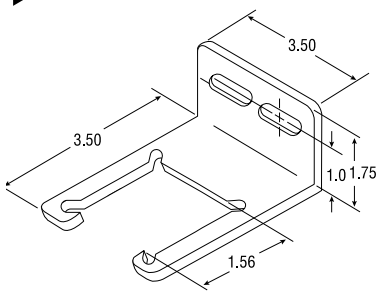


BR5702 Bracket



Use with Model #
5702S

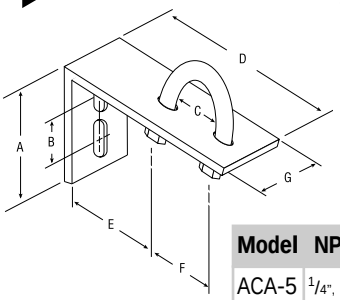
FBK7 Midflow Brackets



Use with Model #			
F373	F383	L373	L383
F374	F384	L374	L384
F376	F386	L376	L386

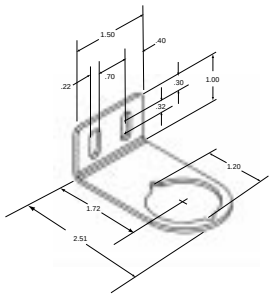
ACA Pipe Brackets

Mounting bracket for use with Tri-Star FRL's.
Example: N33354



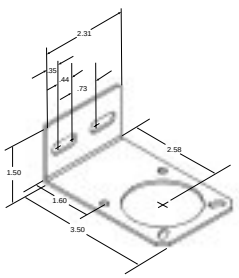
Model	NPT	A	B	C	D	E	F	G
ACA-5	1/4", 3/8"	2 1/2"	3/16"	3/4"	3 7/8"	2 1/16"	15/16"	5/8"
ACA-6	1/2", 3/4"	2 1/2"	3/16"	1 5/32"	3 7/8"	1 13/16"	1 5/16"	5/8"
ACA-7	1"	2 1/2"	3/16"	1 1/2"	3 7/8"	1 5/8"	1 11/16"	5/8"

FBK3 Bracket



Use with Model #	
F300-01	L181
F300-02	L182
F500-01	
F500-02	

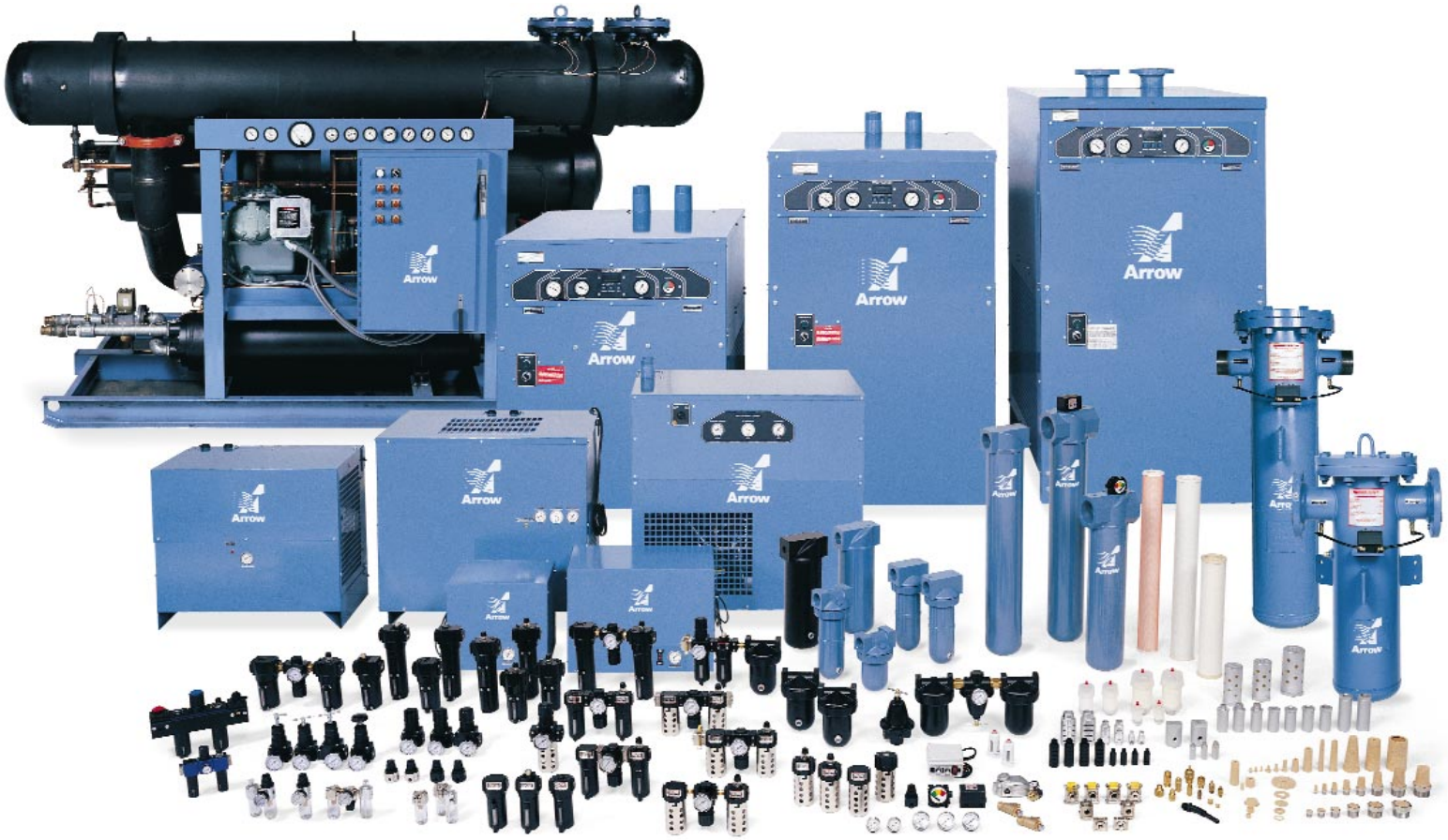
RBK7 Bracket



Use with Model #	
R373	R374
R376	R378

QUALITY AIR PREPARATION EQUIPMENT

ARROW PNEUMATICS



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PNEUMATIC EXHAUST MUFFLERS

BREATHER VENTS

SPEED CONTROL MUFFLERS

IN-LINE FILTERS

IN-LINE TOOL FILTER

Fluid Power Accessories

BREATHER VENTS

These breather vents have many applications, including vacuum relief or pressure equalization on gear boxes, oil tanks or reservoirs. Common uses can be found on single acting cylinders or valves to prevent dirt and foreign particles from entering ports open to the atmosphere.

Units have a nickel plated steel insert. All have standard pipe thread fittings for quick assembly and removal for cleaning. The filter element within the standard breather vent is rated for 40 micron filtration and can also be obtained for 20 or 90 micron filtration on special order.

See performance charts for flow characteristics.

Maximum operating pressure: 150 PSI
Operating temperatures: 35ºF to 300ºF

part no. NPT	part no. BSP	thread size	overall length	dia.	weight lbs.
ASP-1BV	ASP-1BVBS	1/8"	7/16"	7/16"	.01
ASP-2BV	ASP-2BVBS	1/4"	5/8"	9/16"	.02
ASP-3BV	ASP-3BVBS	3/8"	3/4"	11/16"	.04
ASP-4BV	ASP-4BVBS	1/2"	7/8"	7/8"	.06
ASP-6BV	---	3/4"	1"	1 1/16"	.10
ASP-8BV	---	1"	1 5/16"	1 5/16"	.23
ASP-10BV	---	1 1/4"	1 13/32"	1 11/16"	.41
ASP-12BV	---	1 1/2"	1 1/2"	2"	.56

PNEUMATIC EXHAUST MUFFLERS

Quiet Flow muffler/filters utilize porous sintered bronze directly bonded to nickel plated steel pipe thread fillings to diffuse air and muffle noise from the exhaust ports or valves, cylinders and air tools. These units offer a combination of small size with the greatest possible sound deadening qualities to reduce exhaust noise to acceptable levels within OSHA noise requirements.

In addition, these units are used as filters for gasoline, oil and air. Standard unit contains a 40 micron element, and 20 or 90 micron units are available on special order. Model ASP-420 is a female thread (1/2" - 20) muffler for use on exhaust ports of most solenoid valves. It can be used with "exhaust to atmosphere" valves, including Skinner, Peter Paul, Allied, KIP, Pre Dyne or any muffler using 1/2" - 20 threads on the sleeve.

See performance chart for flow information and sound characteristics.

Maximum operating pressure: 300 PSI
Operating temperatures: 35ºF to 300ºF

part no. NPT	part no. BSP	thread size	overall length	dia.	weight lbs.
ASP-M*	---	10"-32	45/64"	5/16"	.01
ASP-1	ASP-1BS	1/8"	1 1/8"	7/16"	.02
ASP-2	ASP-2BS	1/4"	1 3/8"	9/16"	.04
ASP-3	ASP-3BS	3/8"	1 1/2"	11/16"	.06
ASP-4	ASP-4BS	1/2"	1 7/8"	7/8"	.10
ASP-6	consult factory	3/4"	2 1/4"	1 1/16"	.18
ASP-8	consult factory	1"	2 7/8"	1 5/16"	.34
ASP-10	consult factory	1 1/4"	3 1/4"	1 11/16"	.62
ASP-12	consult factory	1 1/2"	3 11/16"	2"	.88
ASP-420**	---	1/2"-20 FEM	1 3/16"	5/8"	.04

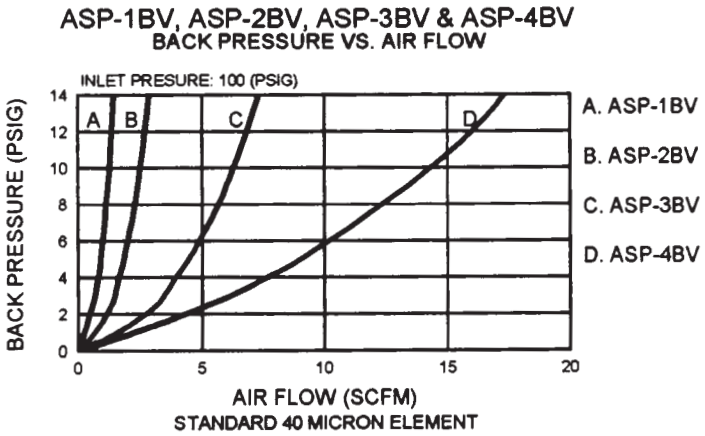
** Furnished with gasket.*
*** Female threads -- fits most solenoid valve exhaust ports.*

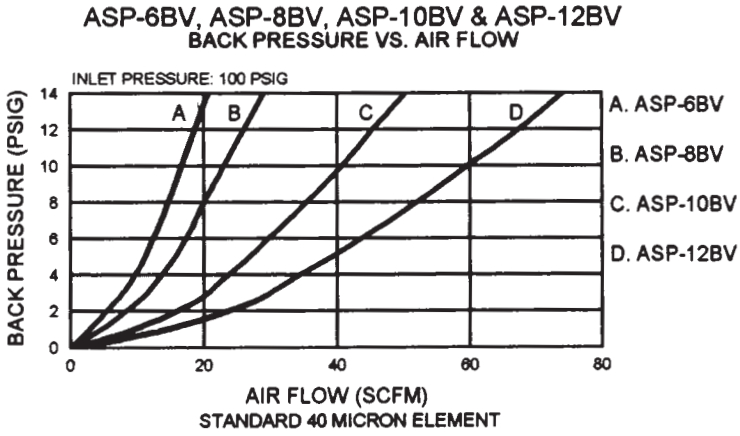
Arrow Pneumatics, Inc. has a long reputation as a world-leading manufacturer of sintered bronze elements and products. This reputation is built on producing high quality products with an ongoing commitment to exceed customer expectations.

All products are manufactured in the U.S.A. and marked with our logo to assure you are receiving genuine Arrow Pneumatics, Inc. sintered bronze components.

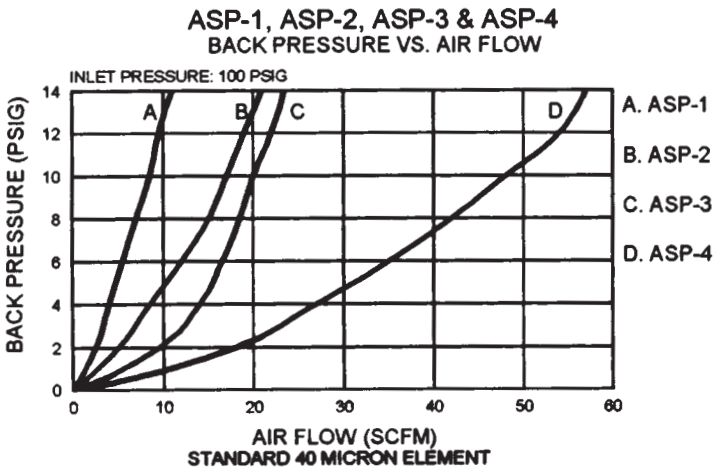
When it comes to features, performance and value, look for Arrow Pneumatics, Inc. logo-marked sintered bronze elements and products.

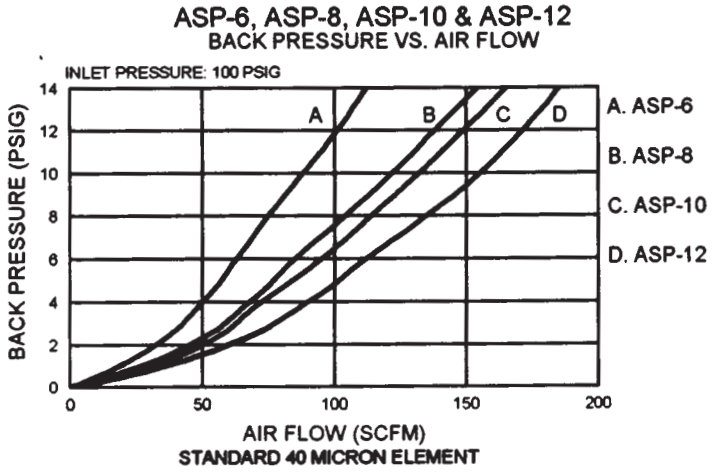
FLOW CHARACTERISTICS -- BREATHER VENTS





FLOW CHARACTERISTICS -- PNEUMATIC EXHAUST MUFFLERS





SOUND CHARACTERISTICS -- PNEUMATIC EXHAUST MUFFLERS

	ASP-1: 1/8"		ASP-2: 1/4"		ASP-3: 3/8"		ASP-4: 1/2"		ASP-6: 3/4"		ASP-8: 1"		ASP-10: 1 1/4"		ASP-12: 1 1/2"	
back pressure (PSIG)	flow (SCFM)	dB	flow (SCFM)	dB	flow (SCFM)	dB	flow (SCFM)	dB	flow (SCFM)	dB	flow (SCFM)	dB	flow (SCFM)	dB	flow (SCFM)	dB
1													38	102	52	111
2	4	72	5	75	9.5	81	17	92	32	99	45	109				
3													54	103	82	112
4	5	72	8	75	14	83	28	94	50	101	68	107				
5													70	107	108	111
6	6	73	12	76	16.5	83	35	98	63	101	84	106				
7													85	106	126	110
8	7	73	15	82	18.5	83	42	99	75	102	104	106				
9													110	105	150	109
10	7	76	16	83	20	84	48	100	88	102	122	106				
11													131	105	162	109
12	9	78	19	84	22	84	53	101	101	102	138	106				
13													154	105	---	---
14	11	80	21	84	23.5	85	57	101	112	103	154	106				

Inlet pressure 100 psi.

SUPER QUIET FLOW
ECONOMY PNEUMATIC SILENCERS / MUFFLERS

A new concept in muffler design incorporates a 50 mesh, self-cleaning, stainless steel screen in a strong, protective glass-filled nylon housing which is ultrasonically welded for maximum strength.

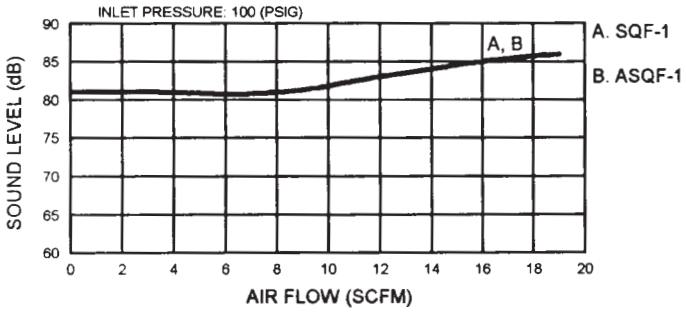
This unit offers greater flow with less pressure drop than the ASP Series, while reducing noise levels. See performance charts for flow information and sound characteristics.

Maximum operating pressure: 150 PSI
Operating temperatures: 35°F to 120°F

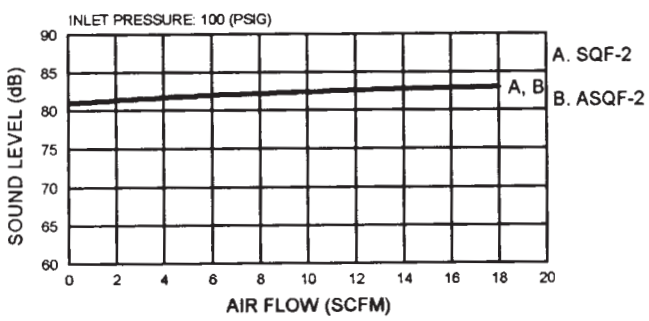
part no.	NPT	overall length	diameter	weight lbs.
SQF-1	1/8"	2 7/64"	13/16"	.02
SQF-2	1/4"	2 15/64"	13/16"	.03
SQF-3	3/8"	3 27/64"	1 1/4"	.09
SQF-4	1/2"	3 35/64"	1 1/4"	.09

SOUND CHARACTERISTICS -- PNEUMATIC SILENCERS / MUFFLERS

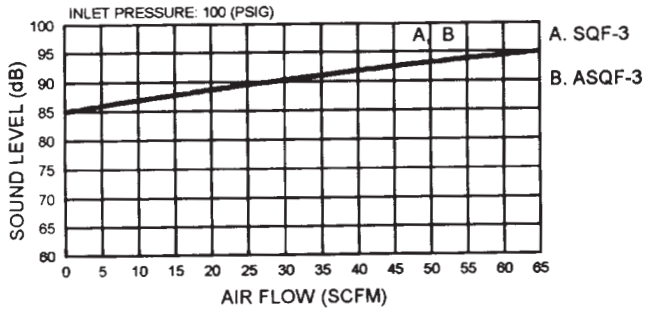
SQF-1 & ASQF-1
dB RATING VS. AIR FLOW



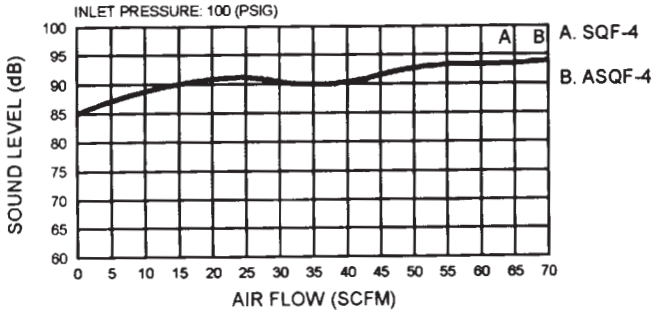
SQF-2 & ASQF-2
dB RATING VS. AIR FLOW



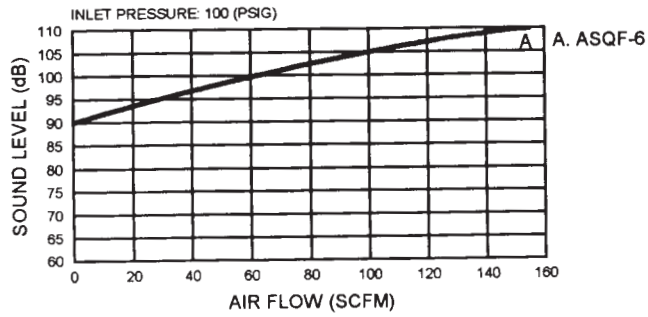
SQF-3 & ASQF-3
dB RATING VS. AIR FLOW



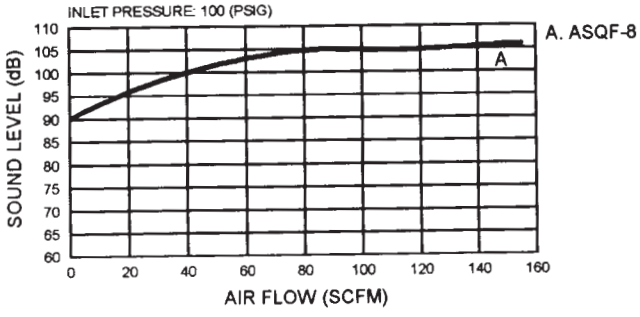
SQF-4 & ASQF-4
dB RATING VS. AIR FLOW



ASQF-6
dB RATING VS. AIR FLOW



ASQF-8
dB RATING VS. AIR FLOW



SUPER QUIET FLOW
HEAVY-DUTY METAL PNEUMATIC SILENCERS / MUFFLERS

Units 1/8" through 1" feature a 50 mesh, self-cleaning, stainless steel screen, corrosion-resistant aluminum shell, high flow and minimal back pressure.

When installed on the exhaust ports of pneumatic valves, metal pneumatic silencers are a quick and inexpensive way to help reduce work area noise. At the same time, they protect the inside of pneumatic valves from contamination which can enter through the exhaust ports.

See performance charts for flow information and sound characteristics.

SHELL CONSTRUCTION: Aluminum.

Maximum supply pressure: 300 PSI
Operating temperatures: 35°F to 160°F

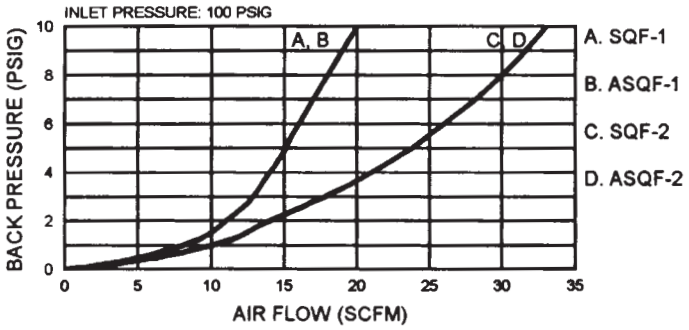
CAUTION: Operation at temperatures approaching 32°F could result in freeze up due to air line moisture.

part no.	NPT female	overall length	flats	weight lbs.
ASQF-1F	1/8"	1 7/8"	5/8"	.05
ASQF-2F	1/4"	1 7/8"	5/8"	.06
ASQF-3F	3/8"	3 1/4"	1"	.23
ASQF-4F	1/2"	3 1/4"	1"	.38
ASQF-6F	3/4"	4 5/8"	1 5/8"	.56
ASQF-8F	1"	4 5/8"	1 5/8"	.58
ASQF-10F	1 1/4"	5 1/2"	2 1/2"	.75
ASQF-12F	1 1/2"	5 1/2"	2 1/2"	.81
ASQF-16F	2"	6 7/16"	3"	1.62

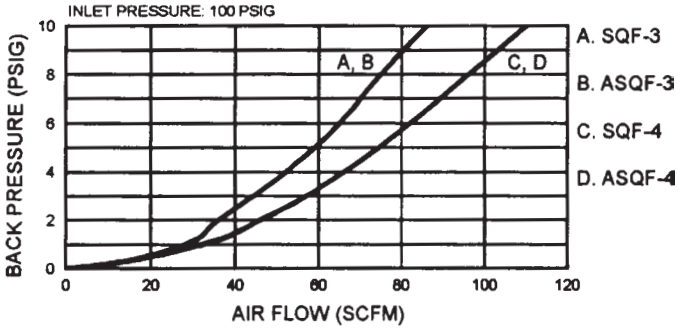
part no.	NPT male	overall length	flats	weight lbs.
ASQF-1M	1/8"	1 7/8"	5/8"	.06
ASQF-2M	1/4"	1 7/8"	5/8"	.06
ASQF-3M	3/8"	3 1/4"	1"	.21
ASQF-4M	1/2"	3 1/4"	1"	.23
ASQF-6M	3/4"	4 5/8"	1 5/8"	.56
ASQF-8M	1"	4 5/8"	1 5/8"	.58

FLOW CHARACTERISTICS -- PNEUMATIC SILENCERS / MUFFLERS

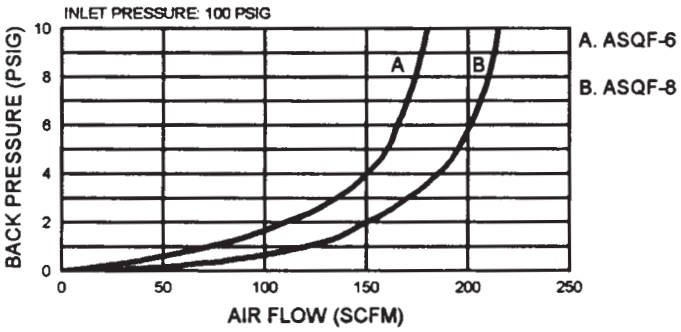
SQF-1, SQF-2, ASQF-1 & ASQF-2
BACK PRESSURE VS. AIR FLOW



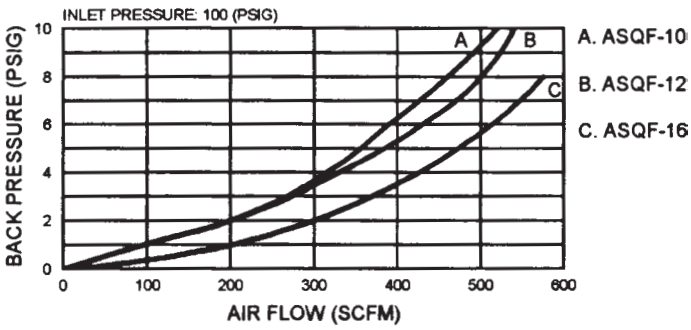
SQF-3, SQF-4, ASQF-3, & ASQF-4
BACK PRESSURE VS. AIR FLOW



ASQF-6 & ASQF-8
BACK PRESSURE VS. AIR FLOW



ASQF-10, ASQF-12 & ASQF-16
BACK PRESSURE VS. AIR FLOW



SUPER QUIET FLOW RECLASSIFIERS / MUFFLERS

The reclassifier / muffler is used to treat exhaust air in many in-plant and white room pneumatic operations. It can be installed as a completely new unit or its patented coalescing reclassifier element can be purchased separately for installation on existing ASQF mufflers.

MEETS OSHA LIMITS SET TO REDUCE SOUND LEVELS AND EXHAUSTED OIL MIST.

Per OSHA 1910.95, a worker must not be exposed to sound levels above 90 dBA for any eight-hour work shift of a 40-hour work week. Per OSHA 29CFR 1910.10, a worker's cumulative exposure to oil mist must not exceed 4.32 particles per million (PPM) in any eight-hour work shift of a 40-hour work week. Based on an intake of 50 PPM at 100 PSIG, the reclassifier / muffler reduces the exhausted oil mist to .015 PPM. The reservoir has a drain plug that is also designed for use with continuous 1/4" drain tubing.

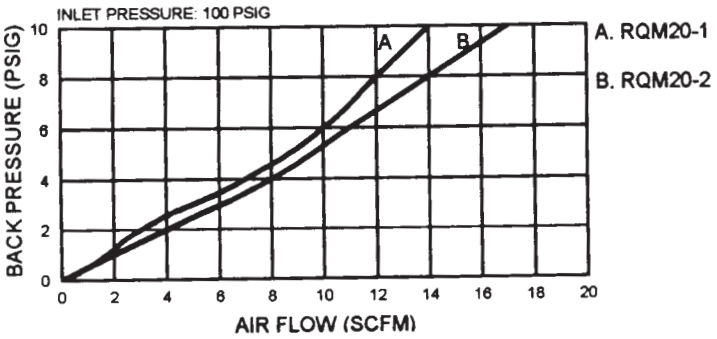
Maximum operating conditions: 160 SCFM, 300 PSIG
Maximum operating temperature: 160°F

RECLASSIFIER / MUFFLER						RECLASSIFIER REPLACEMENT ELEMENT			
part no.*	NPT	overall length	width	reservoir capacity	weight lbs.	part no.	overall length	width	weight lbs.
RQM20-1M RQM20-1F	1/8"	3 1/8"	1 5/8"	.5 oz.	.075	RQMK20 RQMK20	2 3/4"	1 5/8"	.04
RQM20-2M RQM20-2F	1/4"	3 1/8"	1 5/8"	.5 oz.	.075	RQMK20 RQMK20	2 3/4"	1 5/8"	.04
RQM40-3M RQM40-3F	3/8"	4 3/4"	2 7/16"	1.4 oz.	.220	RQMK40 RQMK40	4 5/16"	2 7/16"	.10
RQM40-4M RQM40-4F	1/2"	4 3/4"	2 7/16"	1.4 oz.	.220	RQMK40 RQMK40	4 5/16"	2 7/16"	.10
RQM80-6M RQM80-6F	3/4"	6 1/4"	3 5/16"	3.5 oz.	.575	RQMK80 RQMK80	5 1/2"	3 5/16"	.21
RQM80-8F RQM80-8F	1"	6 1/4"	3 5/16"	3.5 oz.	.575	RQMK80 RQMK80	5 1/2"	3 5/16"	.21

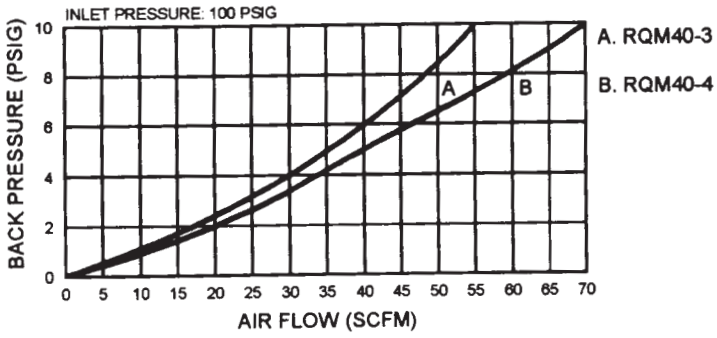
**Suffix F designates female thread, M male thread.*

FLOW CHARACTERISTICS -- RECLASSIFIERS / MUFFLERS

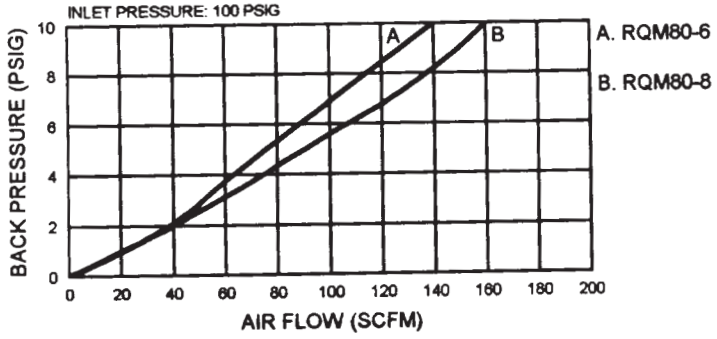
RQM20-1 & RQM20-2
BACK PRESSURE VS. AIR FLOW



RQM40-3 & RQM40-4
BACK PRESSURE VS. AIR FLOW

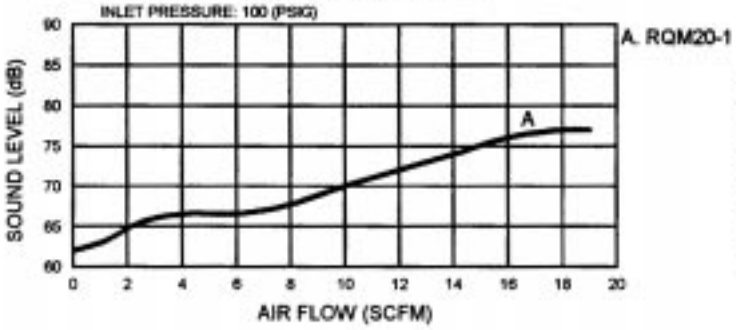


RQM80-6 & RQM80-8
BACK PRESSURE VS. AIR FLOW

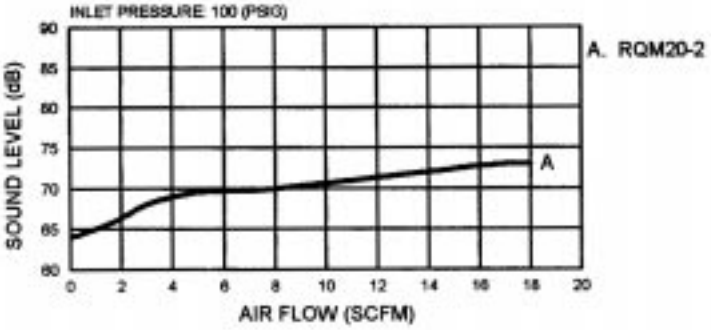


SOUND CHARACTERISTICS -- RECLASSIFIERS / MUFFLERS

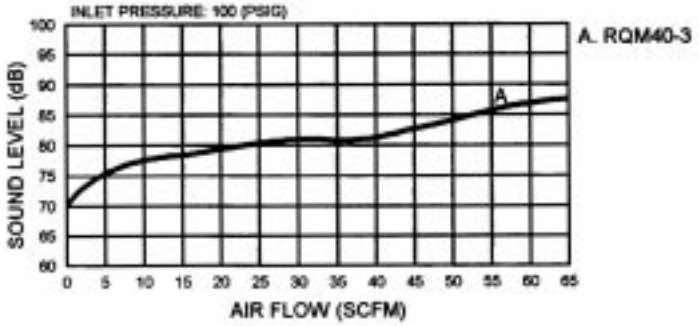
RQM20-1
dB RATING VS. AIR FLOW



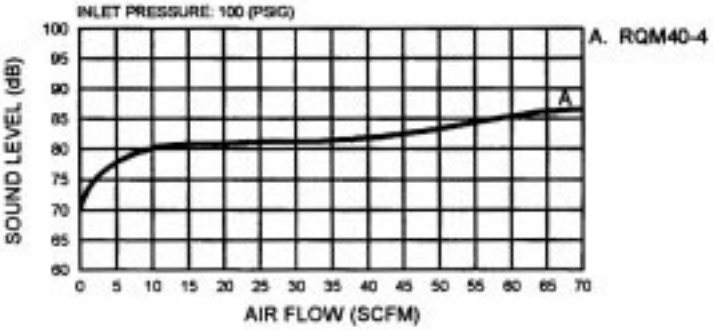
RQM20-2
dB RATING VS. AIR FLOW



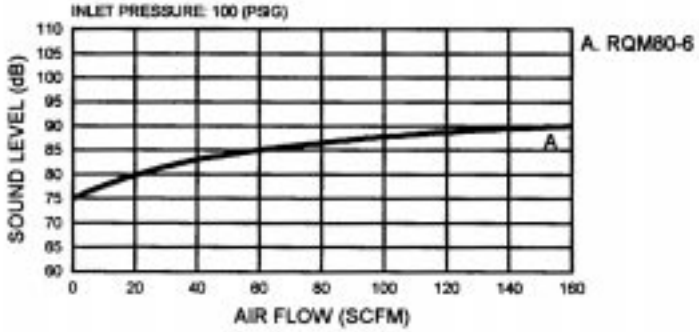
RQM40-3
dB RATING VS. AIR FLOW



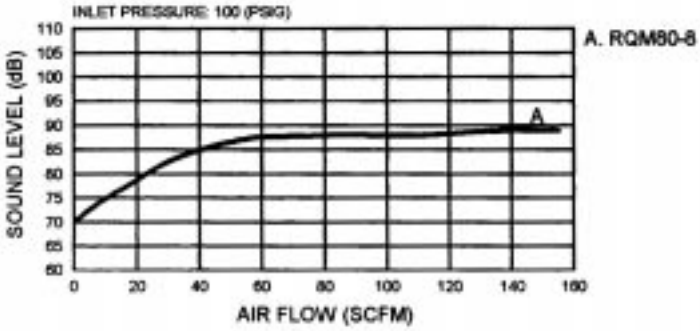
RQM40-4
dB RATING VS. AIR FLOW



RQM80-6
dB RATING VS. AIR FLOW



RQM80-8
dB RATING VS. AIR FLOW



SPEED CONTROL MUFFLERS

Quiet Flow speed control mufflers provide an infinite variation of metering air flow at an acceptable sound level on exhaust ports of air valves with complete safety.

With linear adjusting ability, the speed of an operating cylinder or air tool may be increased or decreased with the adjusting screw. The final position is then locked in place by the lock nut. Objectionable exhaust air noise is eliminated by the surrounding sleeve of sintered bronze.

Complete safety in operation is featured in Quiet Flow speed control mufflers. The sintered bronze sleeve is held securely in position and protected by an integral shroud. Unit contains a 40 micron element.

High flow units offer more surface area for increased flow.

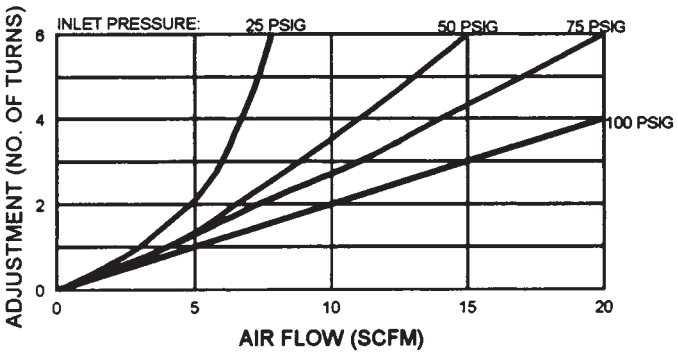
Maximum operating pressure: 300 PSI
Operating temperatures: 35°F to 300°F

part no.*	NPT	max adj flow SCFM	approx height full oper	hex	weight lbs
ASP-1SC	1/8”	20	1 5/16”	1/2”	.07
ASP-2SC	1/4”	30	1 9/16”	9/16”	.09
ASP-3SC	3/8”	40	1 5/8”	11/16”	.14
ASP-4SC	1/2”	60	2”	7/8”	.25
ASP-6SC	3/4”	70	2 3/8”	1 1/16”	.42
ASP-8SC	1”	100	2 1/2”	1 5/16”	.56
ASP-1SCH	1/8”	30	1 9/16”	9/16”	.09
ASP-2SCH	1/4”	40	1 5/8”	11/16”	.14
ASP-3SCH	3/8”	60	2”	7/8”	.25
ASP-4SCH	1/2”	70	2 3/8”	1 1/16”	.42

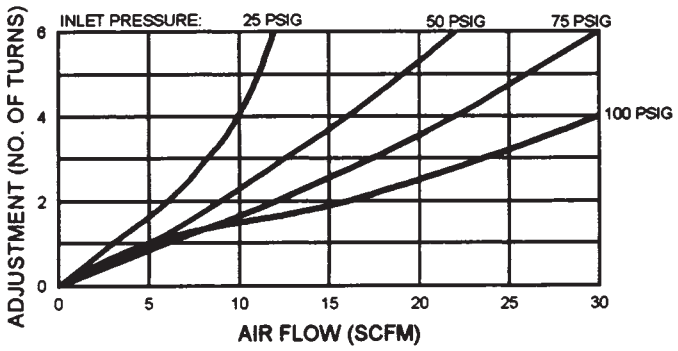
Suffix H indicates high flow.

FLOW CHARACTERISTICS VS. ADJUSTMENT - SPEED CONTROL MUFFLERS

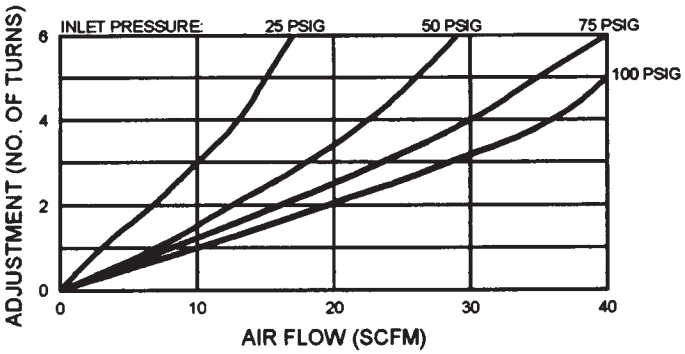
ASP-1SC
ADJUSTMENT VS. AIR FLOW



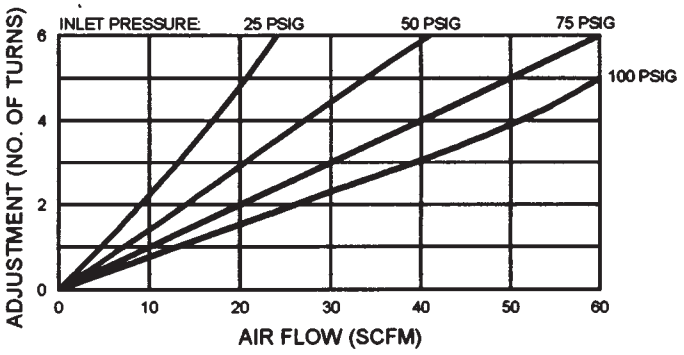
ASP-2SC & ASP-1SCH
ADJUSTMENT VS. AIR FLOW



ASP-3SC & ASP-2SCH
ADJUSTMENT VS. AIR FLOW

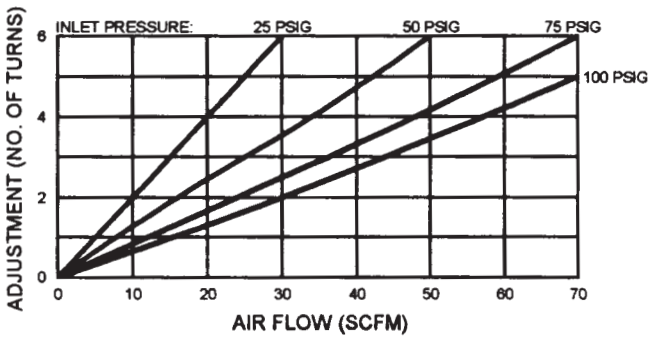


ASP-4SC & ASP-3SCH
ADJUSTMENT VS. AIR FLOW

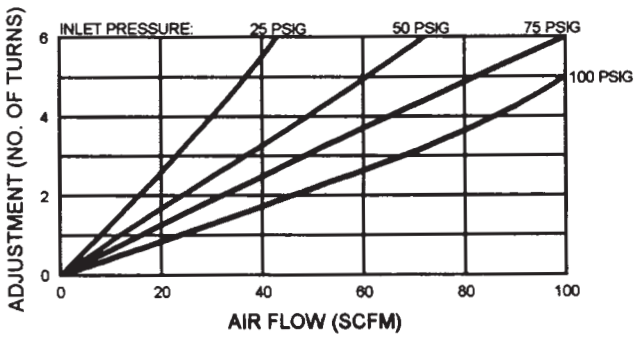


FLOW CHARACTERISTICS VS. ADJUSTMENT

ASP-6SC & ASP-4SCH
ADJUSTMENT VS. AIR FLOW

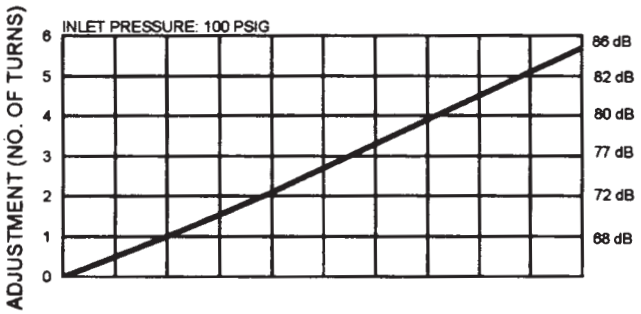


ASP-8SC
ADJUSTMENT VS. AIR FLOW

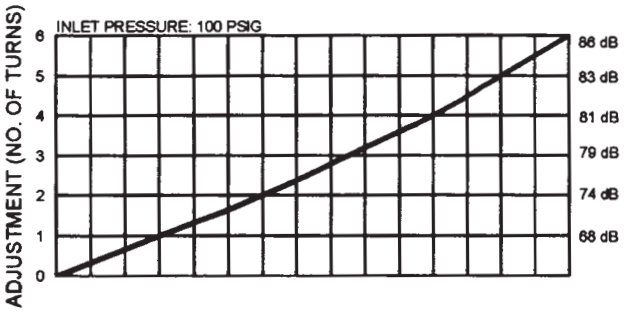


SOUND CHARACTERISTICS VS. ADJUSTMENT

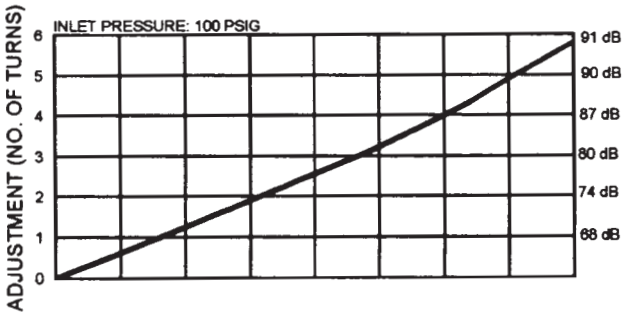
ASP-1SC
ADJUSTMENT VS. dB RATING



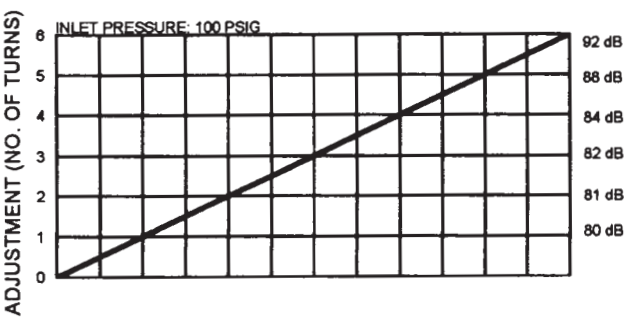
ASP-2SC & ASP-1SCH
ADJUSTMENT VS. dB RATING



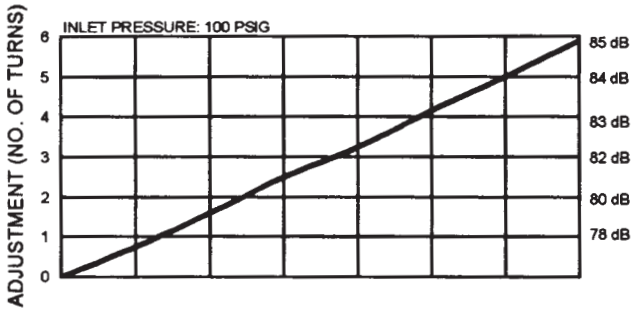
ASP-3SC & ASP-2SCH
ADJUSTMENT VS. dB RATING



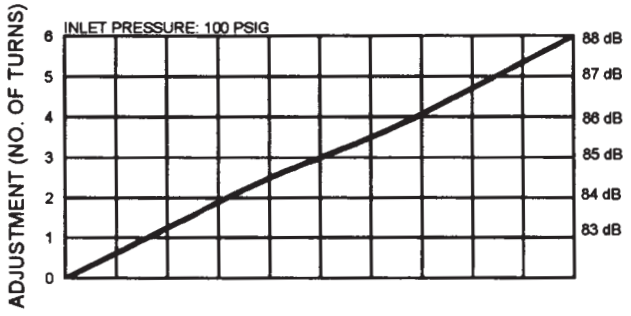
ASP-4SC & ASP-3SCH
ADJUSTMENT VS. dB RATING



ASP-6SC & ASP-4SCH
ADJUSTMENT VS. dB RATING



ASP-8SC
ADJUSTMENT VS. dB RATING



IN-LINE TOOL FILTER

This unique, compact in-line filter provides low pressure drop, high air flow and is designed for air tools. The inlet can be attached directly to pneumatic air tools, protecting the tool with a 40 micron sintered metal element. The bronze element has a large surface area allowing long service before cleaning. But best of all the filter weighs less than 1/2 ounce.

Maximum operating pressure: 500 PSIG
Operating temperatures: 35°F to 300°F

part no.	NPT male x female	overall length	hex	weight oz
9132	1/4”	1 9/16”	5/8”	.5

IN-LINE NIPPLE FILTERS

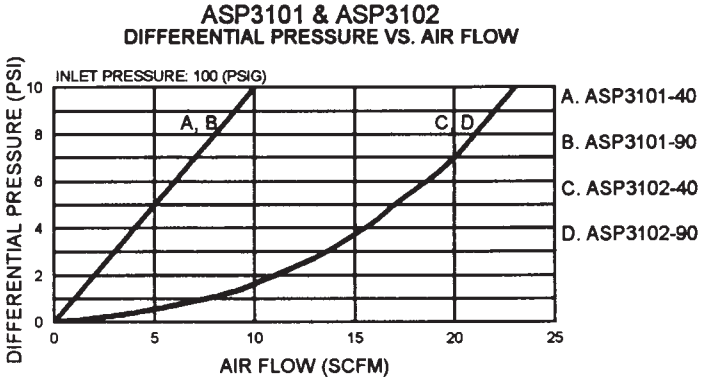
This inexpensive disposable in-line nipple filter is ideal for the filtration of water, oil and air. It is compact and lightweight and can be installed at the point of use. Unique unit construction features a brass fitting that contains a conically shaped, porous sintered bronze filter element. The shape of the filter element is conical, rather than disc, to provide a larger filtering flow and a true, uninterrupted axial flow.

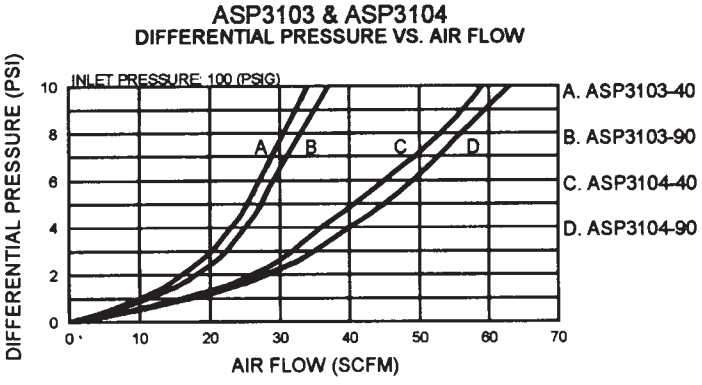
The porous sintered bronze element is available in the nominal filtration rating of 40 or 90 microns to insure minimum pressure drop.

Maximum operating pressure: 300 PSI
Operating temperatures: 35°F to 300°F

part no.	NPT	overall length	hex	weight lbs
ASP3101-40	1/8”	1 1/4”	7/16”	.04
ASP3101-90	1/8”	1 1/4”	7/16”	.04
ASP3102-40	1/4”	1 1/2”	9/16”	.08
ASP3102-90	1/4”	1 1/2”	9/16”	.08
ASP3103-40	3/8”	1 3/4”	11/16”	.14
ASP3103-90	3/8”	1 3/4”	11/16”	.14
ASP3104-40	1/2”	2”	7/8”	.86
ASP3104-90	1/2”	2”	7/8”	.86

FLOW CHARACTERISTICS -- IN-LINE NIPPLE FILTERS





part no.*	NPT	overall length	diameter	weight lbs	element & seal	spring kit
9071	1/8”	2 5/16”	3/4”	.08	EK9072	SK9072
9072	1/4”	2 5/16”	3/4”	.08	EK9072	SK9072
9073	3/8”	2 5/16”	3/4”	.08	EK9072	SK9072
9074	1/2”	3 1/4”	1 1/2”	.46	EK9074	SK9052
9074M	1/2”	3 13/16”	1 1/2”	.46	EK9074	SK9052
9076	3/4”	3 1/4”	1 1/2”	.46	EK9074	SK9052
9076M	3/4”	3 13/16”	1 1/2”	.46	EK9074	SK9052

**Use Suffix V for viton seals. For 90 or 20 micron elements, use micron size as dash number and add to part no. (i.e. 9072-20; EK9072-20).*

AIR / OIL IN-LINE FILTERS

This in-line filter is designed specifically for the protection of small air tools, such as impact wrenches, nut runners, grinders and screwdrivers. It reduces downtime, prevents costly tool repairs and extends tool life.

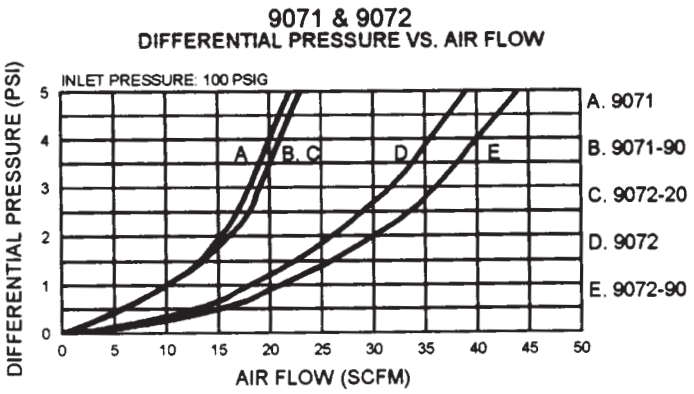
The all-anodized, lightweight aluminum housing is compact and can be used directly before the air tool. Elements can be replaced quickly at nominal cost.

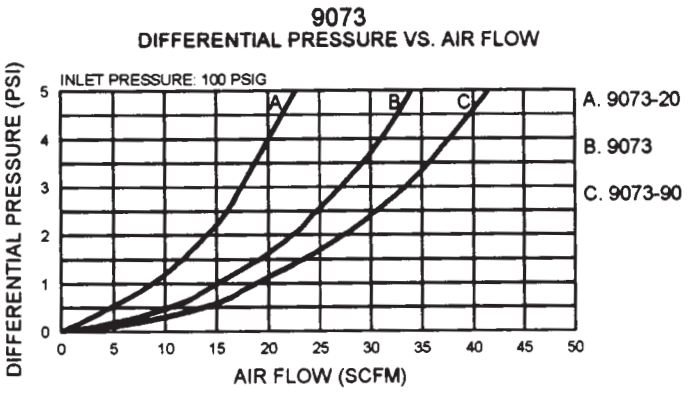
The standard element is 40 micron, which insures minimum pressure drop. Elements can be obtained in 20 or 90 micron filtration on special order.

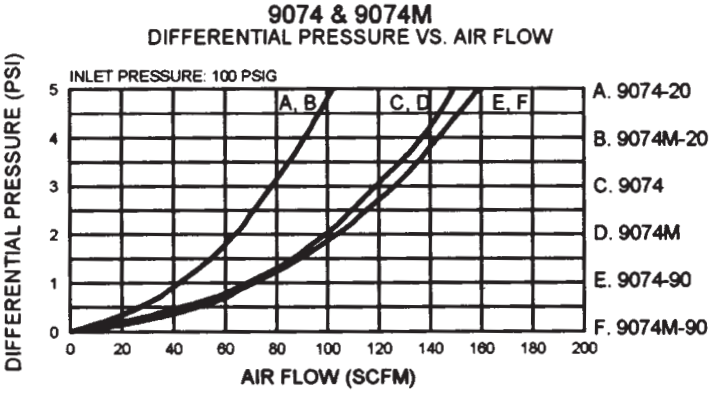
The in-line filter can also be used in low pressure hydraulic applications. When using for hydraulic applications, a 20 micron element is recommended. Special viton O-rings are available for oil systems where chemical action may be a problem.

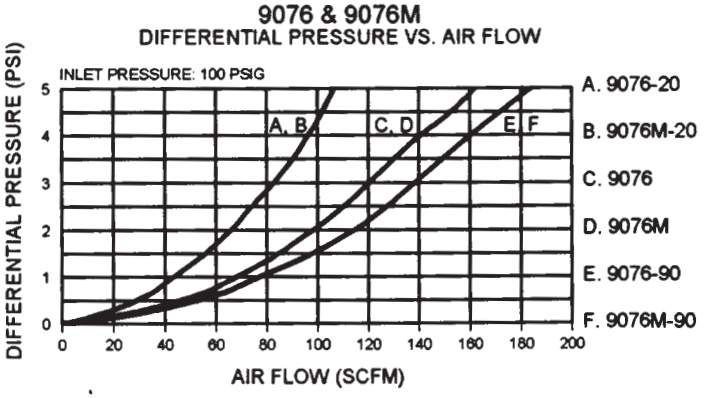
Maximum operating pressure: 500 PSI
Operating temperatures: 35°F to 200°F
For viton: 35°F to 400°F

FLOW CHARACTERISTICS -- AIR / OIL IN-LINE FILTERS









HYDRAULIC IN-LINE FILTERS

This hydraulic in-line filter provides protection for small, high pressure systems up to 3,000 PSI. By using this filter at the pressure side of a pump, foreign particles 25 microns and larger, such as those created by pump wear, are removed before damage can result to the valving in the system. A sintered bronze element ensures protection against crushing should dirt accumulate and increase pressure drop across the element.

The unique construction features an anodized aluminum housing for light weight, and a conically shaped sintered bronze element positioned by a retaining spring to allow true, uninterrupted axial flow. Special viton O-rings are available for oil systems where chemical action may be a problem. The standard 25 micron bronze filter element can be easily cleaned or replaced. Nominal filtration ratings of 90, 40, or 10 microns available.

Maximum operating pressure: 3000 PSI
Operating temperatures: 35°F to 200°F
For viton: 35°F to 400°F

part no.*	NPTF	overall length	diameter	weight lbs	element & seal	spring kit
9052	1/4"	3 1/4"	1 1/2"	.46	EK9052	SK9052
9053	3/8"	3 1/4"	1 1/2"	.46	EK9052	SK9052
9054	1/2"	4 15/16"	1 1/2"	.83	EK9054	SK9054
9056	3/4"	4 15/16"	1 1/2"	.83	EK9054	SK9054
9152	9/16"-18 SAE	3 1/4"	1 1/2"	.46	EK9052	SK9052
9153	3/4"-16 SAE	3 1/4"	1 1/2"	.46	EK9052	SK9052

Use Suffix V for viton seals. For 90, 40, or 10 micron elements, use micron size as dash number and add to part no. (i.e. 9052-10; EK9052-10).

HYDRAULIC IN-LINE FILTERS -- TEE-TYPE

This in-line filter provides protection for small, high pressure systems up to 5,000 PSI. The design is similar in performance to the model 9052 and 9053 filters, with the added convenience of a cleanable element that can be removed without breaking line connections. A filter access cap simply unscrews for easy element cleaning and replacement.

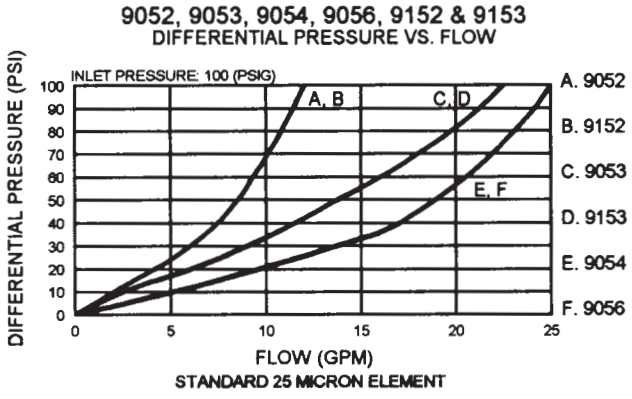
The anodized aluminum housing is lightweight. Porting is 1/4", 3/8" or 9/16"-18 SAE NPT pipe. Viton O-rings are offered for oil systems where chemical action may be a problem. The standard bronze filter element is 25 micron. Nominal filtration ratings of 90, 40, or 10 microns available.

Maximum operating pressure: 5,000 PSI
Operating temperatures: 35°F to 200°F
For viton: 35°F to 400°F

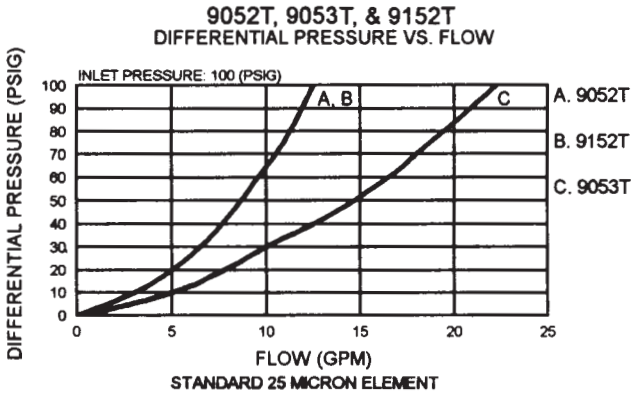
part no.*	NPT	overall length	diameter	weight lbs	element & seal	spring kit
9052T	1/4"	3 3/16"	2 1/8"	.93	EK9052	SK9052T
9053T	3/8"	3 3/16"	2 1/8"	.93	EK9052	SK9052T
9152T	9/16"-18 SAE	3 3/16"	2 1/8"	.93	EK9052	SK9052T

Use Suffix V for viton seals. For 90, 40, or 10 micron elements, use micron size as dash number and add to part no. (i.e. 9052T-10; EK9052-10).

FLOW CHARACTERISTICS -- HYDRAULIC IN-LINE FILTERS



HYDRAULIC OIL MIL H 5606
OIL TEMP. 100° F



HYDRAULIC OIL MIL H 5606
OIL TEMP. 100° F

ECONOMATIC DRAINS

ECONOMATIC drains are used to automatically drain filters, tanks, drain legs, aftercoolers and receivers. To trap large debris and sludge, a Y-strainer is included with the drain.

The drain can be set for manual operation or the drain interval and duration times can be preset. The drain interval can be adjusted between one to 60 minutes and the drain duration can be set from one to 30 seconds. The drain features: solid state adjustable controls, a corrosion-resistant, waterproof, molded solenoid coil, Buna N seals, a brass and stainless valve, a rust- and corrosion-proof NEMA 1 enclosure, an indicator light, and a heavy-duty, grounded, six-foot power cord.

part no.	NPT	dimensions			weight lbs.
		length	depth	height	
5702S	1/4"	4 15/16"	4 7/16"	3 11/16"	1.6
5704S	1/2"	5 7/16"	4 7/16"	4 3/16"	2.4

Maximum operating pressure: 200 PSIG
Maximum fluid temperature: 165°F
Ambient temperatures: 35°F to 165°F
Voltage: 115/1/60 Amps: .25

AIR FLOW CHECK VALVES

These are designed to protect workers from accidents caused by air hose whip, a potentially dangerous situation that occurs when air hoses snap while under high pressure loads.

When an air hose ruptures, the flow check valve senses an increase in air flow and automatically reduces the flow to a safe level. As a reminder to shut off the air supply before replacing the ruptured hoses, the check valve has an exhaust bleed rate of 9 SCFM at 100 PSI.

These units are easy to install. The inlet pipe port of the check valve is threaded into the compressed air line upstream of the air hose. The air hose is threaded into the outlet port of the check valve.

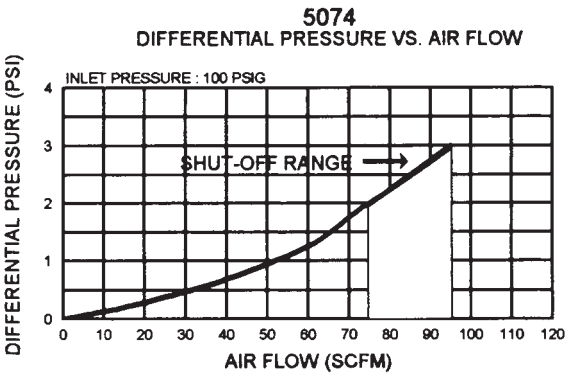
part no.	NPT	shut off range* SCFM	overall length	flats	weight lbs.
5074	1/2"	85 +/- 10	3 7/8"	1 1/2"	.44
5076	3/4"	100 +/- 10	3 7/8"	1 1/2"	.40

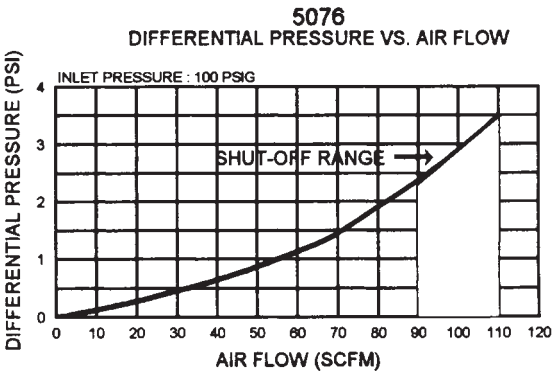
**Based on an inlet pressure of 100 PSIG.*

CONSTRUCTION: Protective, yet lightweight, anodized aluminum housing.

Maximum operating pressure: 300 PSI
Maximum temperature: 160°F

FLOW CHARACTERISTICS -- AIR FLOW CHECK VALVES





PRESSURE SNUBBERS

These units protect pressure instruments from sudden shock and ensure accurate gauge readings without surges and fluctuations. They use a brass housing with a porous bronze element and are capable of handling pressures to 10,000 PSI maximum. Unit also serves as an excellent mini in-line filter. Dry seal pipe threads are standard. SAE threads available upon special request.

RECOMMENDED ELEMENT POROSITY RATING

micron rating	color code	recommended application
40	none	viscose fluids (over 500 SSU)
30	black	med. type oils (225 to 500 SSU)
25	brown	water and light oils (30 to 225 SSU)
20	green	low viscosity fluids (under 30 SSU)
10	red	air and other gases

part no.	NPT	overall length	diameter	weight lbs.
602	1/4" M 1/4" F	1 3/8"	3/4"	.15
602-E	5 replacement elements for 602. Specify micron rating desired.*			.03

**Example: 602-E-40*

Each unit is packaged with five elements of different micron ratings to allow each user to adjust snubbing capacity for the specific application. Low cost and designed for quick and simple change of elements make cleaning unnecessary.

Maximum operating pressure: 10,000 PSI
Operating temperatures: 35°F to 300°F

LOCKOUT SLIDE VALVES

Lockout slide valves protect workers performing service on equipment powered by pneumatic, hydraulic or electrical energy. With a customer-supplied padlock, they allow equipment to be locked out from the energy source. A standard industrial grade padlock with 1/4" diameter shackle is recommended.

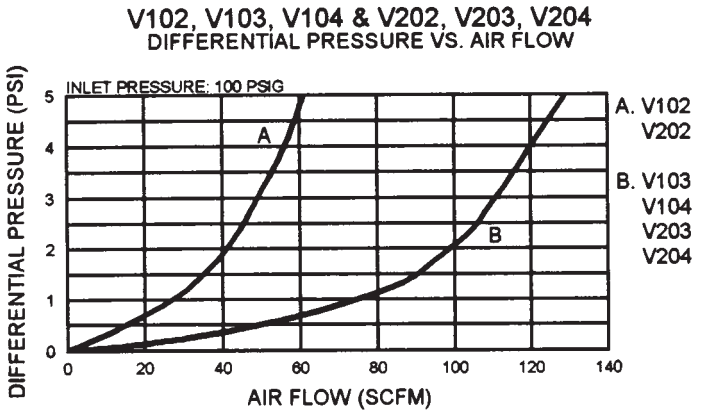
THREE-WAY SLIDE VALVES MEET OSHA LOCKOUT STANDARD 29CRF 1910.147 when used with a customer-supplied padlock and identification tag. The three-way slide valve is for use in the main line, upstream of equipment. When closed, it shuts off the upstream air and exhausts the downstream air.

Body is black e-coat. Slide is 5% Teflon, high-impact, safety yellow plastic. Seals are pre-lubricated Buna O-rings. Screws are black coated steel.

Maximum operating pressure: 250 PSIG
Maximum operating flow: 140 SCFM
Operating temperatures: 35°F to 150°F
Exhaust bleed at 100 PSI: 7 SCFM

part no.	NPTF	avg. C_V	overall length	width	depth	weight lbs.
V202	1/4"	2.7	3 1/8"	1 11/16"	1 15/16"	.40
V203	3/8"	6.4	3 1/8"	1 11/16"	1 15/16"	.40
V204	1/2"	6.4	3 1/8"	1 11/16"	1 15/16"	.40

FLOW CHARACTERISTICS -- LOCKOUT SLIDE VALVES



PRESSURE SWITCH

The PDA4 pressure switch can be installed anywhere in a pneumatic or hydraulic system. It is often used to protect air compressors and pneumatically operated equipment from damage caused by over-pressurization. The unit can be set in a normally open or closed position in an adjustable actuation range from 10 PSIG to 110 PSIG with a +/-2% repeatability.
The pressure switch has standard 18" wire leads of 300 V, 22 SWG.
For simple installation, thread the unit into the gauge port of a regulator or pipe tee.

CONSTRUCTION: Zinc die cast and plastic housing, and NEMA 13 electrical enclosure which is UL approved.

Maximum operating pressure: 300 PSI
Operating temperatures: 35°F to 180°F

part no.	NPT	overall length	diameter	weight lbs.	voltage	inductive	resistive
PDA4	1/4"	1 5/8"	1 1/8"	.25	125/150/VAC	5 AMP	7 AMP

standard electrical current

WIRE COLOR	CIRCUIT
black	common
green	normally closed
red	normally open

Note: 20% differential for reset, and 1% repeatability when operated within recommended conditions.

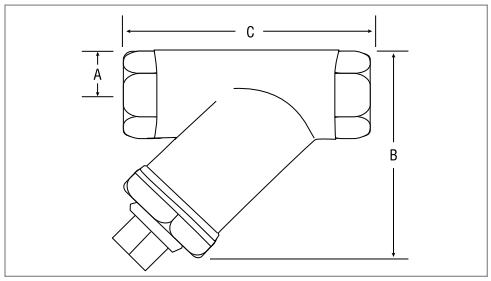
MINI IN-LINE DESICCANT DRYER (-40°F DEW POINT)

Used at the point-of-use, this patented, disposable, mini in-line desiccant dryer removes all traces of water vapor, oil vapor and dirt. It is often used directly upstream of blow guns or spray guns as final protection for critical parts blow off and paint spraying. Install in either direction; it functions in both directions. A 40 micron, porous bronze element removes fine dirt particles, an oil-removing media removes oil vapor and desiccant beads absorb water vapor. The see-through housing shows desiccant color change, which indicates that the dryer needs to be replaced. Full charge is a blue color, when the color changes to dark pink, filter needs to be replaced.

CONSTRUCTION: The housing is made of polycarbonate material which allows clear desiccant visibility. The large opening in the nylon guard shows color change when dryer needs replacing.

Maximum operating pressure: 125 PSI
Maximum flow capacity: 15 SCFM
Operating temperatures: 35°F to 130°F

part no.	NPT/FPT	dimensions (inches) length	dimensions (inches) diameter	weight oz.
DFD-10	1/4"	3 3/4"	1 11/16"	2.8



ARROW INLINE Y-STRAINER

The Arrow inline Y strainer, when installed before a valve or drain will trap large debris and sludge. This application prevents malfunctions and extends the life of valves or drains.
Maximum pressure: 300 PSI WOG
150 Steam
CONSTRUCTION: Cast bronze housing and cap, stainless steel 50 mesh screen 3/8" Brass plug standard for quick draining.
Special Feature: Maintenance can be done without removal of unit from line.

DIMENSIONS

model no.	NPT	dimensions A	dimensions B	dimensions C	weight oz.
S202	1/4"	15/32"	2 5/8"	2 11/16"	10.5
S204	1/2"	11/16"	2 7/8"	2 11/16"	12.6

ARROW PNEUMATICS, INC. WARRANTY

LIMITED WARRANTY -- Arrow Pneumatics warrants each Fluid Power and Sintered Product against defects in material and workmanship for a period of one year from date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental or consequential damages, including without limitation damages or other costs resulting from labor charges, delays, vandalism, fouling caused by foreign material, damage from adverse air conditions, chemicals, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product.

THE COMPANY MAKES NO OTHER WARRANTY. ALL OTHER WARRANTIES, ORAL OR WRITTEN, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A SPECIFIC PURPOSE ARE HEREBY EXCLUDED AND DISCLAIMED. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

The liability of the company for all loss or damage resulting from nonconforming goods or tender, including breach of any and all warranties, shall be limited to refund of the purchase of the particular goods with respect to which the loss or damage occurred.

Arrow Pneumatics, Inc. has a long reputation as a world-leading manufacturer of sintered bronze elements and products. This reputation is built on producing high quality products with ongoing commitment to meet customer expectations.

All products are manufactured in the U.S.A. and marked with a logo to assure you are receiving genuine Arrow Pneumatics, Inc. sintered bronze components.

Wen it comes to features, performance and value, look for Arrow Pneumatics, Inc. logo marked sintered bronze elements and products.

FLUID POWER DISTRIBUTORS ASSOCIATION FPDA
THE FUTURE IN MOTION

National FLUID POWER Association® MEMBER

ARROW PNEUMATICS, INC 2111 W. 21st Street Broadview, IL 60155 (847)438-9100 FAX (708)343-1907

X3000 August 2000

Refrigerated Dryers

Dry Air Technology

by Arrow Pneumatics

Quality Air Preparation Equipment

STEP 1

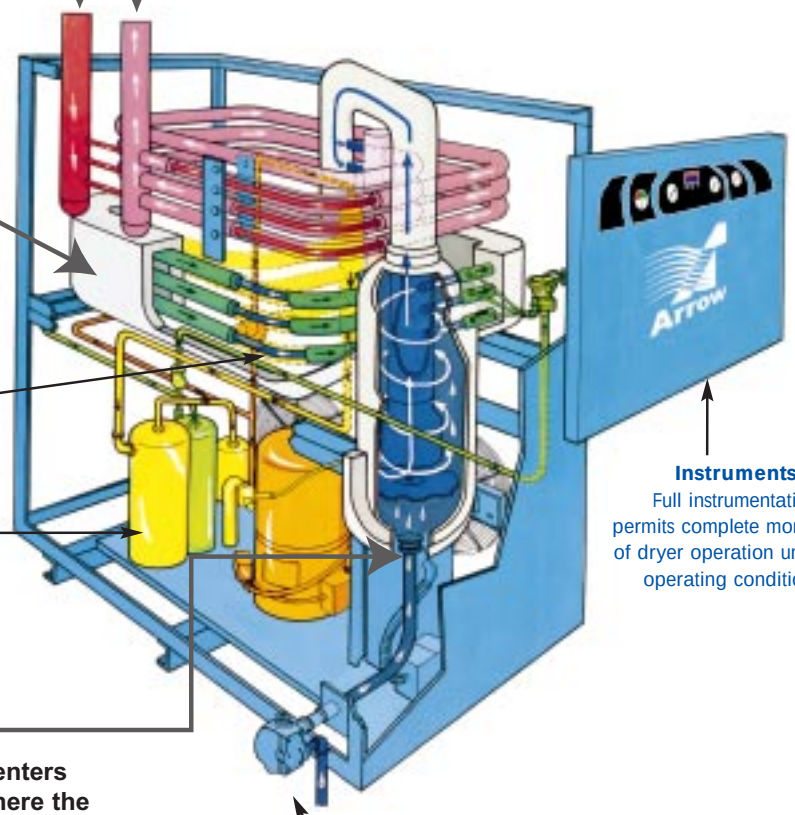
Hot, moist air from the air compressor enters the heat exchanger where it is cooled.

STEP 4

Air is now sent back to the air-to-air heat exchanger where it is reheated for plant use.

STEP 2

Air now moves from the air-to-air heat exchanger to the refrigerant-to-air heat exchanger where it is cooled to 35ºF.



Hot Gas Bypass System
Controls refrigerant suction pressure in refrigerant-to-air heat exchanger. This allows trouble-free operation under zero load without danger of freeze-up.

Suction Line Accumulator
Included on all units 1/2 h.p. and larger; protects compressor under varying loads by preventing liquid refrigerant from returning to refrigerant compressor, which could cause damage.

Instruments
Full instrumentation permits complete monitoring of dryer operation under all operating conditions.

STEP 3

Chilled air now enters the separator where the moisture is separated from the incoming air. The air is now at 35ºF dew point

Heavy Duty Automatic Drain
Trouble-free, heavy-duty steel, ball float type, is externally mounted for easy monitoring and service.

Modular Construction

Main heat exchangers 100% copper tubing, an air-to-air and a refrigerant-to-air, are made up of a stack of individual coils with a common header at each end. Each double tube coil is individually fed by a refrigerant line from the expansion valve to eliminate hot spots and insure the most efficient cooling of air in the inner tube.

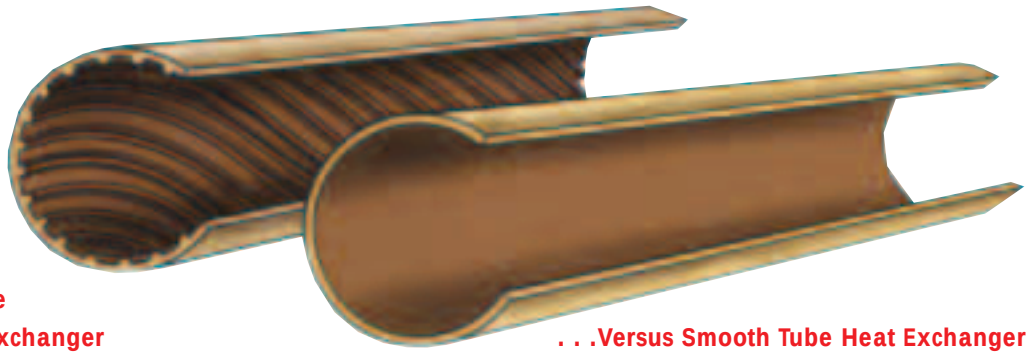
Refrigerant Feeder Assembly

Refrigerant is metered in equal amounts to each coil so refrigerant is evenly spread throughout the entire heat exchanger system. Utilizes quick response expansion valves instead of cheaper capillary tubes.

Controls

Highest quality controls are used throughout:

- Oil pressure safety switch protects compressor in case of low oil pressure.
- Water regulating valve, standard on water cooled units, conserves water usage.
- Low pressure and high pressure cutout switches protect refrigerator system from unsafe operating conditions.



Arrow's Exclusive Spiral Fin Heat Exchanger

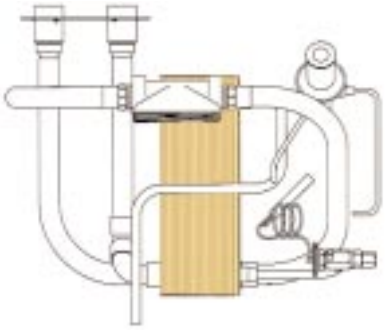
Arrow spiral fin tubing acts as a cold mechanical separator. sThe fins create turbulent flow and rotate the moisture laden air as it passes through the tubing. The turbulent flow and centrifugal forces generated cause the moisture and fog to condense rapidly and completely into water droplets. These droplets are trapped in the grooves between the fins and are easily removed by a mechanical separator.

. . .Versus Smooth Tube Heat Exchanger

By contrast, smooth tubing does not effectively tumble the air to cause all the molecules to come into contact with the cold tubing. Additionally, laminar flow does not permit effective condensation, and much of the condensate leaves the tube in the form of fog. A mechanical separator will not remove this fog and it is passed into the air stream in the form of a much higher dew point.

New! Braze Plate Design

New Arrow brazed plate heat exchangers in our "F-Series" dryers, Models F-10/20 thru F-150, provide turbulent flow, high heat transfer coefficients, lower pressure drops, in a compact size. These heat exchangers are made up of corrugated "herringbone" patterned AISI 316 type stainless steel channel plates. These plates are brazed together by using 99.9% pure copper, at all contact points and creates a completely hermetically sealed unit.. They are helium leak tested for internal and external leaks down to a volumetric equivalent to less than 2.8 grams of R-22 refrigerant per year. Arrow Pneumatics has incorporated this design in the new "F-Series" line of dryers. Our goals are to provide you with quality products adding higher efficiencies, reduced cabinet sizes, simplified installations and lower shipping costs



Automatic Pump-Down System

Runs for a short period after dryer is shut down to pump accumulated refrigerant from low pressure side of refrigerant system. Standard on all larger units. This prevents liquid refrigerant from migrating back to the compressor during shut-down, which could cause any refrigerant compressor to fail.

Crankcase Heater

Standard on 1-1/2 hp. and larger units. Keeps liquid refrigerant from contaminating compressor lubricating oil by heating refrigerant above evaporation point. Further protection for your system.

Semi-Hermetic Compressor

Semi-hermetic compressors are standard on 500 CFM to 2,500 CFM "C" series cycling dryers, as well as all units 3,000 cfm and above. These refrigerant compressors are more efficient and have a longer life than hermetic compressors. They provide substantial energy savings at less than full-load conditions.

F-05/10 thru F-30/40

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 40 Micron Particulate Filter
- R-134A Refrigerant
- Compressor Thermal Overload
- Mechanical Moisture Separator with Automatic Float Type Drain @ 99.97% Efficiency
- Constant Pressure Expansion Valve
- Refrigerant Suction Pressure Gauge* ***F-10/20 & F-30/40**
- Electrical Cord with Grounded Plug (115 volt units only)
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

F-50

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- R-134A Refrigerant
- Compressor Thermal Overload
- Mechanical Moisture Separator with Zero Air Loss Demand Drain
- Thermal Expansion Valve
- Refrigerant Suction Pressure Gauge
- 6 ft. Electrical Cord with Grounded Plug (115 volt units only)
- Hot Gas Bypass System
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

F-70/100 & F-125

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- Compressor Thermal Overload
- Mechanical Moisture Separator with zero air loss demand drain
- Thermostatic Expansion Valve
- Refrigerant Suction Pressure Gauge
- 6 ft. Electrical Cord with Grounded Plug (115 volt units only)
- Suction Line Accumulator
- R-22 Refrigerant
- Air or Water Cooled Condensers* ***F125 Only**
- Hot Gas Bypass System
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

F-150

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 90 Micron Particulate Filter
- Power Light On/Off Switch
- Compressor Thermal Overload
- Corrosion Resistant Coalescing Separator with 2 stage Separation and Zero Loss Demand Drain
- Thermostatic Expansion Valve
- Refrigerant Suction Pressure Gauge
- Air Inlet Temperature Gauge
- Air Inlet Pressure Gauge
- Max Operating Pressure Rated at 250 psi
- Suction Line Accumulator
- R-22 Refrigerant
- Hot Gas Bypass System
- Air or Water Cooled Condensers
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

A-200

- Pressure Dew Point as low as 35°F
- Spiral Fin Tubing
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- R-22 Refrigerant
- Mechanical Moisture Separator with Zero Air Loss Demand Drain
- Thermostatic Expansion Valve
- Hot Gas Bypass System
- Suction Line Accumulator
- Refrigerant Sight Glass
- Refrigerant Filter-Dryer
- Air or Water Cooled Condensers
- Air Inlet Temperature Gauge
- Refrigerant Suction Pressure Gauge
- Air Inlet Pressure Gauge
- One Year Warranty
- Max. Operating Pressure Rated @ 250 psi
- Five Year Heat Exchanger Warranty

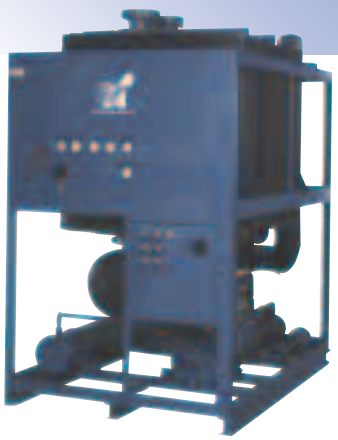
A-250 & A-300

- Pressure Dew Point as low as 35°F
- Spiral Fin Tubing
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- R-22 Refrigerant
- Mechanical Moisture Separator with Zero Air Loss Demand Drain
- Thermostatic Expansion Valve
- Hot Gas Bypass System
- Suction Line Accumulator
- Refrigerant Sight Glass
- Refrigerant Filter-Dryer
- Air or Water Cooled Condensers
- Refrigerant Suction Pressure Gauge
- Air Inlet Temperature Gauge
- Air Inlet Pressure Gauge
- Digital Display Panel
- Low Refrigerant Pressure Safety Switch
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty
- Five Year Heat Exchanger Warranty

Models 3512 thru 3519

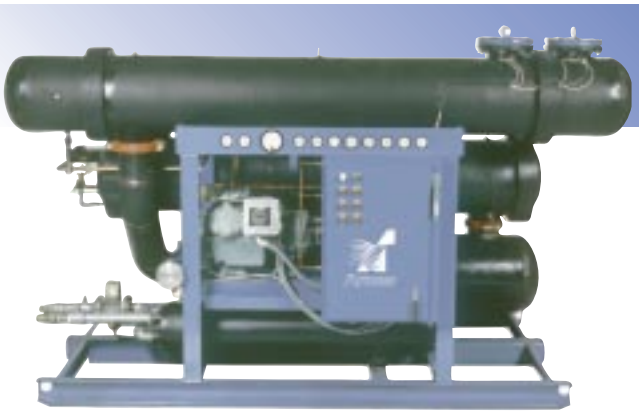
- "C" Series Cycling Dryers Available
- Produce 340 to 1600 SCFM of Air with a Pressure Dew Point as low as 35°F
- Spiral Fin Tubing
- Heavy-duty Automatic Drain Standard
- Mechanical Water Separator
- Refrigerant Filter Standard
- Digital Panel Display
- Quick Response Expansion Valve Standard
- Hot Gas Bypass Valve Standard
- Crankcase Heater Standard
- Automatic Pump-down System Standard on 3514 and up
- Suction Line Accumulator Standard
- Water Regulating Valve Standard on Water Cooled Units
- One Year Warranty
- Five Year Heat Exchanger Warranty

Models 3521 thru 3560W



- "C" Series Cycling Dryers Available
- Produce 2,000 scfm to 5,000 scfm of Air with a 35°F Pressure Dew Point at 100 psig
- NEMA 12 Electrical Enclosure Standard (3523 and larger)
- Full Instrumentation to Monitor Performance
- Energy Savings up to 56% Available with Optional Cylinder Uploaders
- Spiral Fin Tubing
- Heavy-duty Automatic Drain
- Mechanical Water Separator
- Refrigerant Filter
- Quick Response Expansion Valve
- Hot Gas Bypass System
- Suction Line Accumulator
- Crankcase Heater
- Automatic Pump-down System
- Water Regulating Valve Standard on Water Cooled Units
- Unsafe Condition Indicator Lights
- Five Year Heat Exchanger Warranty

Models 4041W thru 4046W



- Produce 5,000 scfm to 15,000 scfm of Air with a 39°F Pressure Dew Point at 100 psig
- 25 h.p. to 60 h.p. Motor, Carlyle Semi Hermetic Compressor
- High Efficiency Motor and Starter
- Fused Disconnect Switch Standard
- NEMA 12 Electrical Enclosure
- Full Instrumentation to Monitor Performance
- Power Factor Correction Equipment Available
- Full Safety Controls with Everload Protection for Compressor and Motor
- Unsafe Condition Shutdowns
- Energy Savings Up to 56% Available with Optional Cylinder Unloaders

High Temperature 3-in-1 Air Dryers

- Flow Capacity Range 21- 400 SCFM
- 3-in-1 Design Eliminates the Need for an Aftercooler, Separator and Drain Trap Before the Air Dryer
- Pressure Dew Point as Low as 35°F
- Handles Inlet Air Temperature Up to 180°F
- All Copper Spiral Fin Tube-In-Tube Heat Exchanger Provides Maximum Efficiency for Heat Transfer and Moisture Separation
- Includes Monitoring Instrumentation, Separator and DrainTrap
- 6 ft. Electrical Cord with Grounded Plug on Models 3528 - 3531 with 115 volts
- Refrigeration Systems Utilize Environmentally Safe R-134A Refrigerant or R-22 Refrigerant
- Refrigerant Suction Pressure Gauge
- One Year Warranty
- Five Year Heat Exchanger Warranty

Note: 3528 – 3531 Max. Operating Pressure Rated@ 250 psi

Arrow Pneumatics refrigerant air dryers are energy efficient, with air-to-air and refrigerant-to-air heat exchangers to reduce energy consumption. Our "C" series cycling dryers are now available on 500 CFM and above units by using semi-hermetic compressors and head unloaders.

"C" SERIES CYCLING DRYER
Arrow Model Numbers 3514C through 3560C

- Significant Energy Savings
- Longer Compressor Life Because of Reduced Cycling Wear
- Semi-hermetic Compressors have a Three Times Longer Life than Hermetic Compressors
- More BTU's/HR Capacity per KW with Semi-Hermetic Compressor
- No Dew Point Spikes which are Typical with Other Types of Cycling Dryers
- Superior Heat Exchanger Design with Spiral Fin Tube Construction

Semi-Hermetic Compressor Performance
R-22 Refrigerant

Model	Flow Capacity SCFM	# of Cylinders	HP	In/Outlet Connections	Step Unloaders	Full Load KW	1st Step Unloader KW	Energy Savings	2nd Step Unloader KW	Energy Savings
3514-*C	500	4	3	3" NPT	1 Step	4.07	2.32	43%	N/A	
3514W-*C	500	4	3	3" NPT	1 Step	3.20	1.82	43%	N/A	
3515-*C	625	4	3	3" NPT	1 Step	4.07	2.32	43%	N/A	
3515W-*C	625	4	3	3" NPT	1 Step	3.20	1.82	43%	N/A	
3516-*C	750	4	5	3" NPT	1 Step	5.04	2.87	43%	N/A	
3516W-*C	750	4	5	3" NPT	1 Step	4.17	2.38	43%	N/A	
3517-*C	1000	4	5	4" FLG	1 Step	6.51	3.71	43%	N/A	
3517W-*C	1000	4	5	4" FLG	1 Step	5.25	2.99	43%	N/A	
3518-*C	1200	4	5	4" FLG	1 Step	7.13	4.06	43%	N/A	
3518W-*C	1200	4	5	4" FLG	1 Step	5.87	3.35	43%	N/A	
3519-*C	1600	6	6.5	6" FLG	2 Step	9.37	6.75	28%	4.12	56%
3519W-*C	1600	6	6.5	6" FLG	2 Step	8.11	5.84	28%	3.57	56%
3521-*C	2000	6	10	6" FLG	2 Step	14.56	10.48	28%	6.41	56%
3521W-*C	2000	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3548W-*C	2300	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3522-*C	2500	6	10	6" FLG	2 Step	14.81	10.48	28%	6.41	56%
3523-*C	3000	4	15	6" FLG	1 Step	18.06	10.29	43%	N/A	0%
3549W-*C	3000	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3524-*C	3750	4	15	6" FLG	1 Step	19.57	11.10	43%	N/A	0%
3550-*C	4000	6	25	6" FLG	2 Step	18.90	14.45	28%	10.00	56%
3550W-*C	4000	4	15	6" FLG	1 Step	16.55	9.43	43%	N/A	0%
3560-*C	5000	6	25	8" FLG	2 Step	27.02	20.93	28%	14.55	56%
3560W-*C	5000	4	20	8" FLG	1 Step	16.55	9.43	43%	N/A	0%

All capacities above are based on design conditions of 100°F inlet, 100 PSIG and 100°F ambient.

*** Voltage Codes**
-3 - 208/3/60 or 200-240/3/50
-4 - 460/3/60 or 380/3/50
-5 - 575/3/60

Model	Flow Capacity at Listed Dew Point SCFM		Air Line Conn. In & Out	Drain Connect.	Refrig. Comp. H.P. Rating	Maximum Heat Rejection BTU/Hr.		Cool Air Flow CFM	Max. Water Flow GPM 85°F In, 95°F Out	Volt. Code	Std. Instrum. Panel	Optional Instrum.	Cond. Type	Dimensions (inches)			Wt. Lbs.	KW Input[5]
	35°F	50°F				Air Cooled	Water Cooled							Height	Width	Length		
F-05/10	10	12	3/8" OD	3/8" OD	1/6	1,050	----------	125	----------	1, 2	A	16	Air	13.5	13	15	50	.20
F-10/20	20	25	1/2" FPT	3/8" OD	1/6	1,560	----------	125	----------	1, 2	B	16	Air	13.5	13	18	58	.26
F-30/40	40	50	1/2" FPT	3/8" OD	1/4	2,420	----------	125	----------	1, 2	B	16	Air	16	14	22	78	.40
F-50	50	62	1" FPT	3/8" OD	1/4	3,316	----------	185	----------	1, 2	B	16	Air	16	14	22	83	.48
F-70/100	100	124	1" FPT	3/8" OD	1/2	6,000	----------	350	----------	1,2	B	16	Air	27.5	20	30	163	.51
F-125	125	156	1" FPT	3/8" OD	3/4	9,325	8,770	800	1.5	1, 2	B	16	Air or Water	27.5	20	30	190	1.28
F-150	150	175	1 1/2" FPT	1/2" FPT	1	9,325	8,900	800	1.7	1, 2, 4	D	16	Air or Water	27.5	20	30	190	1.34
A-200	200	240	2" MPT	1/2" FPT	1	9,500	8,900	800	1.7	1, 2, 4	D	4, 5,12, 13, 16	Air or Water	42	29	38	435	1.34
A-250	250	290	2" MPT	1/2" FPT	1-3/4	19,170	17,600	1125	2.7	2, 3, 4	E	4, 5, 12, 13, 16	Air or Water	42	29	38	477	2.37
A-300	300	350	2" MPT	1/2" FPT	1-3/4	19,170	17,600	1125	3.5	2, 3, 4	E	4,5, 12, 13, 16	Air or Water	42	29	38	505	2.37
3512	340	420	3" NPT	1/2" NPT	1-3/4	22,930	21,915	2000	4.4	2, 3, 4	F	1-7, 9, 12, 13, 15-17	Air or Water	44.5	38	42	716	2.01
3513	400	489	3" NPT	1/2" NPT	2	30,470	28,940	2000	5.8	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	44.5	38	42	718	2.75
3514	500	600	3" NPT	1/2" NPT	3	43,625	41,720	2100	8.3	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	44.5	38	42	807	3.75
3515	625	750	3" NPT	3/4" NPT	3	43,625	41,720	2100	8.3	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	59	38	50	1136	3.75
3516	750	900	3" NPT	3/4" NPT	4	57,170	54,925	4200	11	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	59	38	50	1147	4.38
3517	1000	1250	4" FLG	3/4" NPT	5-1/2[2]	73,600	70,030	5000	14	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	72	38	50	1500	7.15
3518	1200	1500	4" FLG	3/4" NPT	5-1/2[2]	80,500	77,280	5000	14.6	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	72	38	50	1570	7.15
3519	1600	1920	6" FLG	3/4" NPT	7-1/2[2]	114,510	109,345	5600	21.9	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	87	38	50	2117	8.90
3521	2000	2400	6" FLG	3/4" NPT	10[2]	159,937	139,407	5600	27.5	3, 4, 5	G	1-7, 9-15	Air or Water	91	56	72	3024	11.40
3548W	2300	2750	6" FLG	3/4" NPT	12[2]	----------	158,604	----------	30.2	3, 4, 5	G	1-7, 10-14, 19	Water	98	57	80	3400	8.70
3522	2500	3000	6" FLG	3/4" NPT	12[2]	194,263	169,008	11600	----------	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Air	98	57	98	4076	14.56
3523	3000	3600	6" FLG	3/4" NPT	15[2]	207,640	----------	11600	----------	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Air	98	57	98	4538	18.06
3549W	3000	3600	6" FLG	3/4" NPT	10[2]	----------	191,600	----------	38.3	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Water	98	57	98	3698	13.30
3524	3750	4500	6" FLG	3/4" NPT	15[2]	266,120	----------	11600	----------	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Air	98	57	98	5000	19.57
3550W	4000	5000	6" FLG	3/4" NPT	15[2]	----------	255,240	----------	51	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Water	106	57	80	5000	16.55
3560W	5000	5750	8" FLG	3/4" NPT	20[2]	----------	281,250	----------	63	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Water	109	57	80	5000	16.55
4041W	5000	5750	8" FLG	3/4" NPT	25[2]	----------	313,000	----------	68	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	79	56	140	5000	24.70
4042W	6250	7200	8" FLG	3/4" NPT	25[2]	----------	373,000	----------	75	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	82	56	141	6500	26.30
4043W	7500	8625	8" FLG	3/4" NPT	35[2]	----------	468,000	----------	94	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	88	60	140	7700	37.00
4044W	10000	11500	10" FLG	3/4" NPT	40[3]	----------	565,000	----------	113	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	103	65	150	10000	32.00
4045W	12500	14375	12" FLG	3/4" NPT	50[3]	----------	713,000	----------	143	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	108	72	150	13000	42.00
4046W	15000	17250	12" FLG	3/4" NPT	60[3]	----------	878,000	----------	176	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	120	75	160	15500	57.00

High Temperature 3-in-1 Dryers

Model	Flow Capacity[1] CFM at 160°F Saturated		Air Line Connect. In & Out	Drain Connect.	Refrig. Comp. H.P. Rating	Maximum Heat Rejection BTU/Hr. Air Cooled	Cool Air Flow CFM	Volt. Code	Std. Instrum. Panel	Optional Instrum.	Condense. Type[4]	Dimensions (inches)			Wt. Lbs.	KW Input[5]
	100 PSIG	140 PSIG										Height	Width	Length		
3528	21	21.9	1" NPT	3/8" OD	1/4	3900	185	1, 2	B	16	Air	27.5	20	30	141	.40
3529	30	36.8	1" NPT	3/8" OD	1/2	6500	350	1, 2	B	16	Air	27.5	20	30	158	.51
3530	50	56	1" NPT	3/8" OD	3/4	9900	800	1, 2	B	16	Air	27.5	20	30	200	1.28
3531	70	81	1" NPT	3/8" OD	1	16140	1125	1, 2, 4	C	1, 16	Air	31.5	27.5	34	288	1.73
3532	105	130	2" NPT	1/2" NPT	1-3/4	25500	1125	2, 3, 4	C	1, 16	Air	42	29.5	40	508	2.01
3533	135	187	3" NPT	1/2" NPT	2	32900	2000	3, 4	K	1, 16	Air	49.5	38.5	44	698	2.75
3534	220	280	3" NPT	1/2" NPT	3	54000	2100	3, 4	K	1-5,7,8,10-14,16	Air	49.5	38.5	44	768	4.38
3535	300	365	3" NPT	3/4" NPT	4	65600	4200	3, 4	K	1-5, 7,8,10-14,16	Air	63.5	38.5	52	1113	5.75
3536	400	480	3" NPT	3/4" NPT	5-1/2	88000	5000	3, 4	K	1-5,7,8,10-14,16	Air or Water	63.5	38.5	52	1190	7.15

NOTES:

1. All capacities above are based on design conditions of 100°F inlet, 100 psig, and 100°F ambient - except 3-in-1 dryers, which are based on 160°F inlet and 100°F ambient temperature.
2. Semi-hermetic compressor available on all "C" Series Cycling Dryers (Models 3514 thru 3522). Refer to X1022.
3. Single or Dual compressor offered or open drive.
4. Water regulating valve furnished with all water cooled units.
5. KW figures for water cooled models are 15% less than figures shown. Figures include total electric draw under maximum load, including fan motors, indicators, etc.

- Dryers rating 250 psi max. working pressure; std. drain trap rated for 250 psi max. up to A-300, 200 psi and larger sizes.
- On models F-70/100 and larger, an electronic drain (model 5702S) may be substituted for the std. float type drain for an additional charge. This must be noted on your P.O.

VOLTAGE CODE

Standard	Export
1 - 115/1/60	100/1/50
2 - 208-230/1/60	200-240/1/50
3 - 208-230/3/60	200-240/3/50
4 - 460/3/60	380/3/50
5 - 575/3/60	

STANDARD INSTRUMENT PANEL

	A	B	C	D	E	F	G	H	I	J	K
On/Off Switch		√	√	√	√	√	√	√	√	√	√
Power On Light	√	√	√	√	√			√	√	√	
Compressor On Light						√	√	√	√	√	√
Air Inlet Temp. Gauge			√	√			√	√	√	√	√
Air Inlet Pressure Gauge				√	√	√	√	√	√	√	√
Air Outlet Pressure Gauge			√				√	√	√	√	√
High Temperature Light	√										
Air Dew Point Temp. Gauge									√	√	
Digital Temp. Display*					√	√					
Differential Pressure Gauge					√	√					
Refrigerant Suction Pressure Gauge		√	√	√	√	√	√	√	√	√	√
Refrigerant Discharge Pressure Gauge						√	√	√	√	√	
Refrigerant Temp. Gauge							√	√	√	√	√
Hi/Low Refrigerant Pressure Light								√	√	√	
Low Oil Pressure Light									√	√	
Cooling Water Temp. Gauges (In & Out)									√	√	
Evaporator Pressure Gauge										√	
NEMA 12 Enclosure								√	√	√	

* Digital panel displays ambient air temp., compressor suction temp., compressor discharge temp., and inlet air temp.

Notes: 1) Second gauge on models 4042W and 4043W is an evaporator pressure gauge when an evaporator pressure valve is used.
2) Electric Power Cords - 6 ft. electrical cord with grounded plug is standard on all F-10/20 thru F-70/100 115V units.

Air Flow Ratings of ARROW Dryers

Air dryer rated flows are based upon design conditions of 100°F inlet, 100 psig, 100°F ambient. If these conditions vary, the rated flows will vary in accordance with the following general rules and tables.

1) As ***Inlet Air Temperature*** increases, ***Flow Capacity*** will decrease:

Inlet Air Temperature	90°F	95°F	100°F	110°F	120°F
Flow Capacity Multiplier:	1.23	1.13	1.00	0.83	0.69

2) As ***Air Line Pressure*** increases, ***Flow Capacity*** will increase:

Air Line Pressure:	60 psig	80psig	100 psig	120 psig	150 psig
Flow Capacity Multiplier:	.88	.95	1.00	1.04	1.08

3) As ***Ambient Air Temperature*** increases, ***Flow Capacity*** will decrease:

Ambient Air Temperature	80°F	90°F	100°F	110°F
Flow Capacity Multiplier:	1.14	1.07	1.00	.92

4) As the ***Dew Point*** increases, ***Flow Capacity*** will increase:
If design conditions (100°F, 100 psig, 100°F ambient) remain the same, but a higher dew point is acceptable, the Flow Capacity will increase approximately in accordance with the following multipliers:

Dew Point	**39°F**	**45°F**	**50°F**
Flow Capacity Multiplier:	1.05	1.15	1.20

These figures are simply general rules, multipliers, and formulas to help you select a dryer; however, they do not apply to 3-in-1 dryers.

OPTIONAL INSTRUMENTATION AND FEATURES

1) Power On Light
2) High Inlet Air Temperature Light
3) High Refrigerant Discharge Pressure Light
4) Low Ambient Fan Cut-Out Switch
5) Dead System Shutdown Light
6) Condensate Drain Alarm
7) Air Outlet Temperature Gauge
8) Refrigerant Discharge Pressure Gauge
9) Cooling Water Temperature In/Out
10) Air Dew Point Temperature
11) Air Flow Gauge
12) NEMA 12 or NEMA 13 Enclosures
13) Waterproof Enclosure with NEMA 4 Wiring
14) Fused Disconnect Switch
15) High Pressure Package
16) Electric Drain
17) Air Outlet Pressure
18) Refrigerant Temperature
19) Capacity Pressure Unloaders

MOISTURE REMOVAL DATA

TEMP. AT RECEIVER TANK	SYSTEM TEMP.	LBS. CONDENSED PER 100 CFM	LBS.PER 8 HR. SHIFT	GALLONS PER 8 HR. SHIFT
120	70	.05613	26.94	3.23
100	70	.02455	11.78	1.41
90	70	.01399	6.718	.81
80	70	.005965	2.863	.34
120	50	.06386	30.65	3.67
100	50	.03227	15.49	1.86
90	50	.02172	10.43	1.25
80	50	.01369	6.571	.79
120	35	.06714	32.23	3.86
100	35	.03556	17.07	2.05
90	35	.02501	12.00	1.44
80	35	.01698	8.149	.98

NOTE: 8.3453 LBS. PER GALLON

INSTRUMENTATION

3 Gauge Instrument Panel Includes:* Refrigerant Suction Pressure Gauge, Air Inlet Pressure Gauge, Air Inlet Temperature Gauge and Power Indicator Light.
***Standard on models F-150 & A-200**

Optional Instrumentation: Low Ambient Cut Out and Dead System Shutdown Light. (A-200 Only)

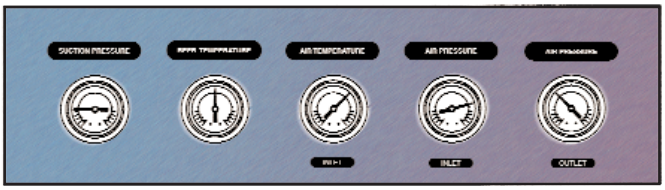
3 Gauge Instrument Panel with Digital Display Includes:*
Refrigerant Suction Pressure Gauge, Inlet Air Pressure Gauge, Efficiency Pressure Gauge and Power On/Off Switch. Digital Temperature Display Provides: Ambient, Compressor Suction, Compressor Discharge and Inlet Air Temperatures
***Standard on models A250 & A-300**

Optional Instrumentation: Low Ambient Cut Out and Dead System Shutdown Light

4 Gauge Instrument Panel with Digital Display Includes:*
Refrigerant Discharge Pressure Gauge,
Refrigerant Suction Pressure Gauge, Inlet Air Pressure Gauge, Efficiency Pressure Gauge and Power On/Off Switch. Digital Temperature Display Provides: Ambient, Compressor Suction, Compressor Discharge and Inlet Air Temperatures
***Standard on models 3512 through 3519**

Optional Temperature Readouts Include: Air Outlet Temperature, Refrigerant Temperature and Cooling Water In/Out

Optional Gauges Include: Air Outlet Pressure Gauge



Instrumentation Panel for High Capacity Dryers Includes*: Refrigerant Suction Pressure Gauge, Air Inlet Pressure Gauge, Air Outlet Pressure Gauge, Air Inlet Temperature Gauge, Refrigerant Temperature, and Refrigerant Discharge Pressure Gauge.
***Standard on models 3548W through 4046W**

Optional Instrumentation: Air Outlet Temperature, Air Dew Point Temperature, Air Flow Gauge, Cooling Water Temperature In/Out, High Inlet Air Temperature Light, High Discharge Pressure Light, Low Oil Pressure Light, Low Ambient Cut Out, Dead System Shutdown Light and Condensate Drain Alarm

WARRANTY

Arrow refrigerated type compressed air dryers are warranted to be free from defects in material and workmanship, when used under conditions recommended by the manufacturer, for a period of twelve (12) months from the date of start-up not to exceed eighteen (18) months from date shipped from factory. Products purchased from warehouse stock are warranted for a period of twelve (12) months from date of shipment from that warehouse provided Arrow is furnished full name, address and date of shipment information.

The patented modular heat exchanger used on models A-200 through 3560 is warranted for five (5) years. This warranty is limited to the replacement of the heat exchanger, F.O.B. factory, and is subject to the same restrictions as outlined below concerning misuse, abuse or accident.

This warranty applies to equipment installed, operated and maintained in accordance with the procedures and recommendations as outlined in the owner's manual published by Arrow Pneumatics.

The electric drain trap is warranted to be free from mechanical defects for a period of ninety (90) days.

Air cooled aftercoolers, watercooled aftercoolers and moisture separators are warranted to be free from defects in material and workmanship, when used under conditions recommended by the manufacturer, for a period of twelve (12) months from the date of shipment from the factory or regional warehouse.

During the period of this warranty, Arrow Pneumatics will repair or replace (at Arrow's option), free of charge, F.O.B. its plant, any defective part or assembly, if such defect occurred in normal service and was not due to apparent misuse, abuse or accident.

Before any warranty service work is started, it must first be authorized by Arrow Pneumatics. Please contact our Warranty Department at (847) 540-2133. Unauthorized service voids the warranty and any resulting charges will not be reimbursed by Arrow Pneumatics.

The foregoing warranty is exclusive and in lieu of all other warranties, written, oral or implied, and the company makes no warranty of merchantibility or fitness for any particular purpose or use. In no event shall the company be liable for special, incidental or consequential damages or losses arising out of or caused by products which may prove to be defective, including, but not limited to loss of revenues and loss of profits.

ARROW PNEUMATICS

Your Local Distributor

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Lake Zurich, Illinois 60047

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Fax: (847) 438-7110
Internet: www.arrowpneumatics.com

COMPRESSED AIR AND GAS INSTITUTE CAGI

Refrigerated Dryers

Dry Air Technology

by Arrow Pneumatics

Quality Air Preparation Equipment

STEP 1

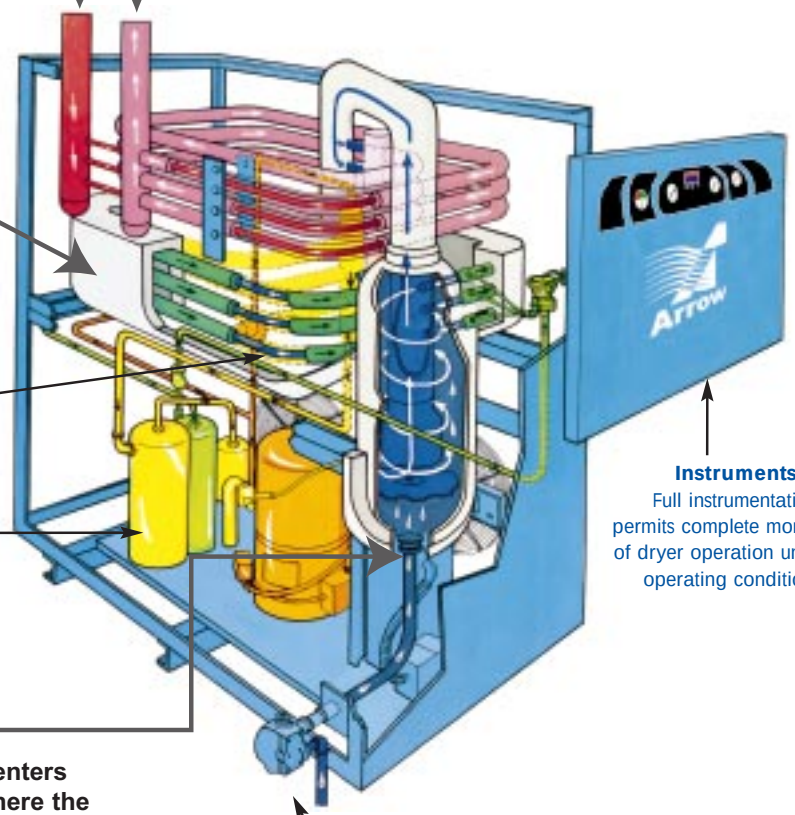
Hot, moist air from the air compressor enters the heat exchanger where it is cooled.

STEP 4

Air is now sent back to the air-to-air heat exchanger where it is reheated for plant use.

STEP 2

Air now moves from the air-to-air heat exchanger to the refrigerant-to-air heat exchanger where it is cooled to 35ºF.



Hot Gas Bypass System
Controls refrigerant suction pressure in refrigerant-to-air heat exchanger. This allows trouble-free operation under zero load without danger of freeze-up.

Suction Line Accumulator
Included on all units 1/2 h.p. and larger; protects compressor under varying loads by preventing liquid refrigerant from returning to refrigerant compressor, which could cause damage.

Instruments
Full instrumentation permits complete monitoring of dryer operation under all operating conditions.

STEP 3

Chilled air now enters the separator where the moisture is separated from the incoming air. The air is now at 35ºF dew point

Heavy Duty Automatic Drain
Trouble-free, heavy-duty steel, ball float type, is externally mounted for easy monitoring and service.

Modular Construction

Main heat exchangers 100% copper tubing, an air-to-air and a refrigerant-to-air, are made up of a stack of individual coils with a common header at each end. Each double tube coil is individually fed by a refrigerant line from the expansion valve to eliminate hot spots and insure the most efficient cooling of air in the inner tube.

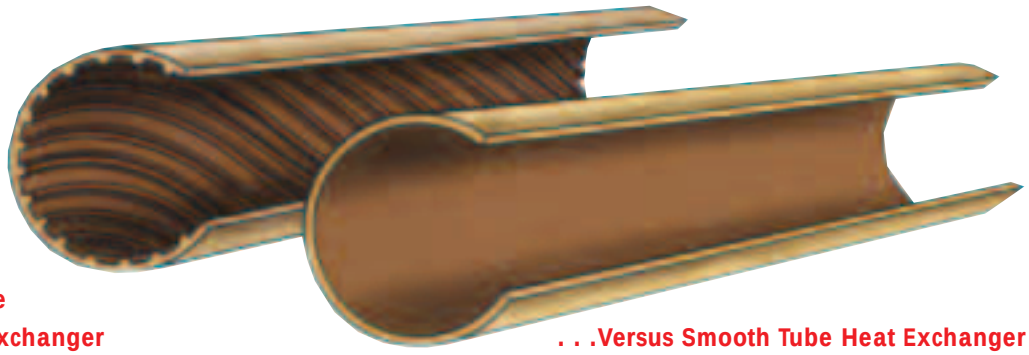
Refrigerant Feeder Assembly

Refrigerant is metered in equal amounts to each coil so refrigerant is evenly spread throughout the entire heat exchanger system. Utilizes quick response expansion valves instead of cheaper capillary tubes.

Controls

Highest quality controls are used throughout:

- Oil pressure safety switch protects compressor in case of low oil pressure.
- Water regulating valve, standard on water cooled units, conserves water usage.
- Low pressure and high pressure cutout switches protect refrigerator system from unsafe operating conditions.



Arrow's Exclusive Spiral Fin Heat Exchanger

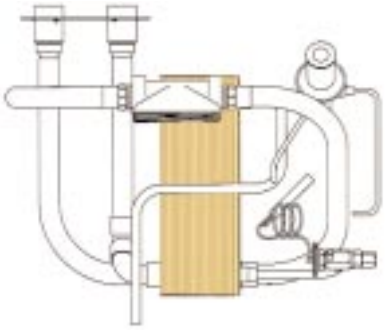
Arrow spiral fin tubing acts as a cold mechanical separator. sThe fins create turbulent flow and rotate the moisture laden air as it passes through the tubing. The turbulent flow and centrifugal forces generated cause the moisture and fog to condense rapidly and completely into water droplets. These droplets are trapped in the grooves between the fins and are easily removed by a mechanical separator.

. . .Versus Smooth Tube Heat Exchanger

By contrast, smooth tubing does not effectively tumble the air to cause all the molecules to come into contact with the cold tubing. Additionally, laminar flow does not permit effective condensation, and much of the condensate leaves the tube in the form of fog. A mechanical separator will not remove this fog and it is passed into the air stream in the form of a much higher dew point.

New! Braze Plate Design

New Arrow brazed plate heat exchangers in our "F-Series" dryers, Models F-10/20 thru F-150, provide turbulent flow, high heat transfer coefficients, lower pressure drops, in a compact size. These heat exchangers are made up of corrugated "herringbone" patterned AISI 316 type stainless steel channel plates. These plates are brazed together by using 99.9% pure copper, at all contact points and creates a completely hermetically sealed unit.. They are helium leak tested for internal and external leaks down to a volumetric equivalent to less than 2.8 grams of R-22 refrigerant per year. Arrow Pneumatics has incorporated this design in the new "F-Series" line of dryers. Our goals are to provide you with quality products adding higher efficiencies, reduced cabinet sizes, simplified installations and lower shipping costs



Automatic Pump-Down System

Runs for a short period after dryer is shut down to pump accumulated refrigerant from low pressure side of refrigerant system. Standard on all larger units. This prevents liquid refrigerant from migrating back to the compressor during shut-down, which could cause any refrigerant compressor to fail.

Crankcase Heater

Standard on 1-1/2 hp. and larger units. Keeps liquid refrigerant from contaminating compressor lubricating oil by heating refrigerant above evaporation point. Further protection for your system.

Semi-Hermetic Compressor

Semi-hermetic compressors are standard on 500 CFM to 2,500 CFM "C" series cycling dryers, as well as all units 3,000 cfm and above. These refrigerant compressors are more efficient and have a longer life than hermetic compressors. They provide substantial energy savings at less than full-load conditions.

F-05/10 thru F-30/40

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 40 Micron Particulate Filter
- R-134A Refrigerant
- Compressor Thermal Overload
- Mechanical Moisture Separator with Automatic Float Type Drain @ 99.97% Efficiency
- Constant Pressure Expansion Valve
- Refrigerant Suction Pressure Gauge* ***F-10/20 & F-30/40**
- Electrical Cord with Grounded Plug (115 volt units only)
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

F-50

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- R-134A Refrigerant
- Compressor Thermal Overload
- Mechanical Moisture Separator with Zero Air Loss Demand Drain
- Thermal Expansion Valve
- Refrigerant Suction Pressure Gauge
- 6 ft. Electrical Cord with Grounded Plug (115 volt units only)
- Hot Gas Bypass System
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

F-70/100 & F-125

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- Compressor Thermal Overload
- Mechanical Moisture Separator with zero air loss demand drain
- Thermostatic Expansion Valve
- Refrigerant Suction Pressure Gauge
- 6 ft. Electrical Cord with Grounded Plug (115 volt units only)
- Suction Line Accumulator
- R-22 Refrigerant
- Air or Water Cooled Condensers* ***F125 Only**
- Hot Gas Bypass System
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

F-150

- Pressure Dew Point as low as 35°F
- Entire Heat Exchanger Thermally Insulated
- Stainless Steel Heat Exchanger
- Built-in 90 Micron Particulate Filter
- Power Light On/Off Switch
- Compressor Thermal Overload
- Corrosion Resistant Coalescing Separator with 2 stage Separation and Zero Loss Demand Drain
- Thermostatic Expansion Valve
- Refrigerant Suction Pressure Gauge
- Air Inlet Temperature Gauge
- Air Inlet Pressure Gauge
- Max Operating Pressure Rated at 250 psi
- Suction Line Accumulator
- R-22 Refrigerant
- Hot Gas Bypass System
- Air or Water Cooled Condensers
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty

A-200

- Pressure Dew Point as low as 35°F
- Spiral Fin Tubing
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- R-22 Refrigerant
- Mechanical Moisture Separator with Zero Air Loss Demand Drain
- Thermostatic Expansion Valve
- Hot Gas Bypass System
- Suction Line Accumulator
- Refrigerant Sight Glass
- Refrigerant Filter-Dryer
- Air or Water Cooled Condensers
- Air Inlet Temperature Gauge
- Refrigerant Suction Pressure Gauge
- Air Inlet Pressure Gauge
- One Year Warranty
- Max. Operating Pressure Rated @ 250 psi
- Five Year Heat Exchanger Warranty

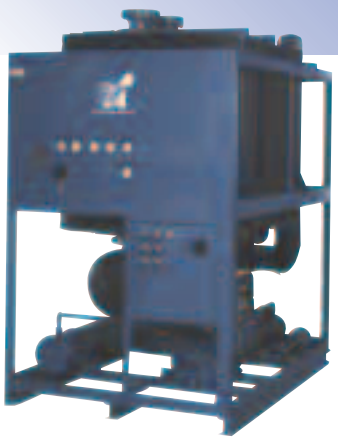
A-250 & A-300

- Pressure Dew Point as low as 35°F
- Spiral Fin Tubing
- Built-in 40 Micron Particulate Filter
- Power Light On/Off Switch
- R-22 Refrigerant
- Mechanical Moisture Separator with Zero Air Loss Demand Drain
- Thermostatic Expansion Valve
- Hot Gas Bypass System
- Suction Line Accumulator
- Refrigerant Sight Glass
- Refrigerant Filter-Dryer
- Air or Water Cooled Condensers
- Refrigerant Suction Pressure Gauge
- Air Inlet Temperature Gauge
- Air Inlet Pressure Gauge
- Digital Display Panel
- Low Refrigerant Pressure Safety Switch
- Max. Operating Pressure Rated @ 250 psi
- One Year Warranty
- Five Year Heat Exchanger Warranty

Models 3512 thru 3519

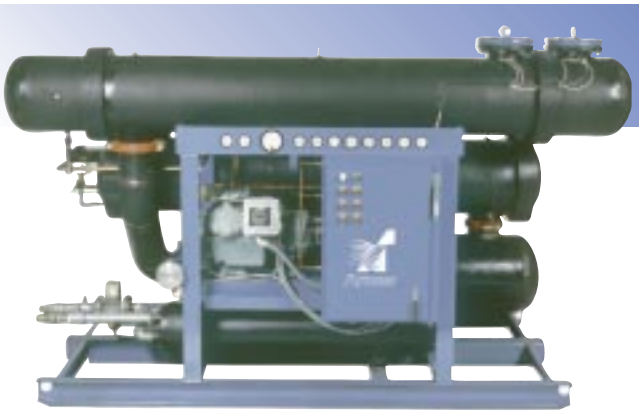
- "C" Series Cycling Dryers Available
- Produce 340 to 1600 SCFM of Air with a Pressure Dew Point as low as 35°F
- Spiral Fin Tubing
- Heavy-duty Automatic Drain Standard
- Mechanical Water Separator
- Refrigerant Filter Standard
- Digital Panel Display
- Quick Response Expansion Valve Standard
- Hot Gas Bypass Valve Standard
- Crankcase Heater Standard
- Automatic Pump-down System Standard on 3514 and up
- Suction Line Accumulator Standard
- Water Regulating Valve Standard on Water Cooled Units
- One Year Warranty
- Five Year Heat Exchanger Warranty

Models 3521 thru 3560W



- "C" Series Cycling Dryers Available
- Produce 2,000 scfm to 5,000 scfm of Air with a 35°F Pressure Dew Point at 100 psig
- NEMA 12 Electrical Enclosure Standard (3523 and larger)
- Full Instrumentation to Monitor Performance
- Energy Savings up to 56% Available with Optional Cylinder Uploaders
- Spiral Fin Tubing
- Heavy-duty Automatic Drain
- Mechanical Water Separator
- Refrigerant Filter
- Quick Response Expansion Valve
- Hot Gas Bypass System
- Suction Line Accumulator
- Crankcase Heater
- Automatic Pump-down System
- Water Regulating Valve Standard on Water Cooled Units
- Unsafe Condition Indicator Lights
- Five Year Heat Exchanger Warranty

Models 4041W thru 4046W



- Produce 5,000 scfm to 15,000 scfm of Air with a 39°F Pressure Dew Point at 100 psig
- 25 h.p. to 60 h.p. Motor, Carlyle Semi Hermetic Compressor
- High Efficiency Motor and Starter
- Fused Disconnect Switch Standard
- NEMA 12 Electrical Enclosure
- Full Instrumentation to Monitor Performance
- Power Factor Correction Equipment Available
- Full Safety Controls with Everload Protection for Compressor and Motor
- Unsafe Condition Shutdowns
- Energy Savings Up to 56% Available with Optional Cylinder Unloaders

High Temperature 3-in-1 Air Dryers

- Flow Capacity Range 21- 400 SCFM
- 3-in-1 Design Eliminates the Need for an Aftercooler, Separator and Drain Trap Before the Air Dryer
- Pressure Dew Point as Low as 35°F
- Handles Inlet Air Temperature Up to 180°F
- All Copper Spiral Fin Tube-In-Tube Heat Exchanger Provides Maximum Efficiency for Heat Transfer and Moisture Separation
- Includes Monitoring Instrumentation, Separator and DrainTrap
- 6 ft. Electrical Cord with Grounded Plug on Models 3528 - 3531 with 115 volts
- Refrigeration Systems Utilize Environmentally Safe R-134A Refrigerant or R-22 Refrigerant
- Refrigerant Suction Pressure Gauge
- One Year Warranty
- Five Year Heat Exchanger Warranty

Note: 3528 – 3531 Max. Operating Pressure Rated@ 250 psi

Arrow Pneumatics refrigerant air dryers are energy efficient, with air-to-air and refrigerant-to-air heat exchangers to reduce energy consumption. Our "C" series cycling dryers are now available on 500 CFM and above units by using semi-hermetic compressors and head unloaders.

"C" SERIES CYCLING DRYER
Arrow Model Numbers 3514C through 3560C

- Significant Energy Savings
- Longer Compressor Life Because of Reduced Cycling Wear
- Semi-hermetic Compressors have a Three Times Longer Life than Hermetic Compressors
- More BTU's/HR Capacity per KW with Semi-Hermetic Compressor
- No Dew Point Spikes which are Typical with Other Types of Cycling Dryers
- Superior Heat Exchanger Design with Spiral Fin Tube Construction

Semi-Hermetic Compressor Performance
R-22 Refrigerant

Model	Flow Capacity SCFM	# of Cylinders	HP	In/Outlet Connections	Step Unloaders	Full Load KW	1st Step Unloader KW	Energy Savings	2nd Step Unloader KW	Energy Savings
3514-*C	500	4	3	3" NPT	1 Step	4.07	2.32	43%	N/A	
3514W-*C	500	4	3	3" NPT	1 Step	3.20	1.82	43%	N/A	
3515-*C	625	4	3	3" NPT	1 Step	4.07	2.32	43%	N/A	
3515W-*C	625	4	3	3" NPT	1 Step	3.20	1.82	43%	N/A	
3516-*C	750	4	5	3" NPT	1 Step	5.04	2.87	43%	N/A	
3516W-*C	750	4	5	3" NPT	1 Step	4.17	2.38	43%	N/A	
3517-*C	1000	4	5	4" FLG	1 Step	6.51	3.71	43%	N/A	
3517W-*C	1000	4	5	4" FLG	1 Step	5.25	2.99	43%	N/A	
3518-*C	1200	4	5	4" FLG	1 Step	7.13	4.06	43%	N/A	
3518W-*C	1200	4	5	4" FLG	1 Step	5.87	3.35	43%	N/A	
3519-*C	1600	6	6.5	6" FLG	2 Step	9.37	6.75	28%	4.12	56%
3519W-*C	1600	6	6.5	6" FLG	2 Step	8.11	5.84	28%	3.57	56%
3521-*C	2000	6	10	6" FLG	2 Step	14.56	10.48	28%	6.41	56%
3521W-*C	2000	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3548W-*C	2300	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3522-*C	2500	6	10	6" FLG	2 Step	14.81	10.48	28%	6.41	56%
3523-*C	3000	4	15	6" FLG	1 Step	18.06	10.29	43%	N/A	0%
3549W-*C	3000	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3524-*C	3750	4	15	6" FLG	1 Step	19.57	11.10	43%	N/A	0%
3550-*C	4000	6	25	6" FLG	2 Step	18.90	14.45	28%	10.00	56%
3550W-*C	4000	4	15	6" FLG	1 Step	16.55	9.43	43%	N/A	0%
3560-*C	5000	6	25	8" FLG	2 Step	27.02	20.93	28%	14.55	56%
3560W-*C	5000	4	20	8" FLG	1 Step	16.55	9.43	43%	N/A	0%

All capacities above are based on design conditions of 100°F inlet, 100 PSIG and 100°F ambient.

*** Voltage Codes**
-3 - 208/3/60 or 200-240/3/50
-4 - 460/3/60 or 380/3/50
-5 - 575/3/60

Model	Flow Capacity at Listed Dew Point SCFM		Air Line Conn. In & Out	Drain Connect.	Refrig. Comp. H.P. Rating	Maximum Heat Rejection BTU/Hr.		Cool Air Flow CFM	Max. Water Flow GPM 85°F In, 95°F Out	Volt. Code	Std. Instrum. Panel	Optional Instrum.	Cond. Type	Dimensions (inches)			Wt. Lbs.	KW Input[5]
	35°F	50°F				Air Cooled	Water Cooled							Height	Width	Length		
F-05/10	10	12	3/8" OD	3/8" OD	1/6	1,050	----------	125	----------	1, 2	A	16	Air	13.5	13	15	50	.20
F-10/20	20	25	1/2" FPT	3/8" OD	1/6	1,560	----------	125	----------	1, 2	B	16	Air	13.5	13	18	58	.26
F-30/40	40	50	1/2" FPT	3/8" OD	1/4	2,420	----------	125	----------	1, 2	B	16	Air	16	14	22	78	.40
F-50	50	62	1" FPT	3/8" OD	1/4	3,316	----------	185	----------	1, 2	B	16	Air	16	14	22	83	.48
F-70/100	100	124	1" FPT	3/8" OD	1/2	6,000	----------	350	----------	1,2	B	16	Air	27.5	20	30	163	.51
F-125	125	156	1" FPT	3/8" OD	3/4	9,325	8,770	800	1.5	1, 2	B	16	Air or Water	27.5	20	30	190	1.28
F-150	150	175	1 1/2" FPT	1/2" FPT	1	9,325	8,900	800	1.7	1, 2, 4	D	16	Air or Water	27.5	20	30	190	1.34
A-200	200	240	2" MPT	1/2" FPT	1	9,500	8,900	800	1.7	1, 2, 4	D	4, 5,12, 13, 16	Air or Water	42	29	38	435	1.34
A-250	250	290	2" MPT	1/2" FPT	1-3/4	19,170	17,600	1125	2.7	2, 3, 4	E	4, 5, 12, 13, 16	Air or Water	42	29	38	477	2.37
A-300	300	350	2" MPT	1/2" FPT	1-3/4	19,170	17,600	1125	3.5	2, 3, 4	E	4,5, 12, 13, 16	Air or Water	42	29	38	505	2.37
3512	340	420	3" NPT	1/2" NPT	1-3/4	22,930	21,915	2000	4.4	2, 3, 4	F	1-7, 9, 12, 13, 15-17	Air or Water	44.5	38	42	716	2.01
3513	400	489	3" NPT	1/2" NPT	2	30,470	28,940	2000	5.8	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	44.5	38	42	718	2.75
3514	500	600	3" NPT	1/2" NPT	3	43,625	41,720	2100	8.3	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	44.5	38	42	807	3.75
3515	625	750	3" NPT	3/4" NPT	3	43,625	41,720	2100	8.3	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	59	38	50	1136	3.75
3516	750	900	3" NPT	3/4" NPT	4	57,170	54,925	4200	11	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	59	38	50	1147	4.38
3517	1000	1250	4" FLG	3/4" NPT	5-1/2[2]	73,600	70,030	5000	14	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	72	38	50	1500	7.15
3518	1200	1500	4" FLG	3/4" NPT	5-1/2[2]	80,500	77,280	5000	14.6	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	72	38	50	1570	7.15
3519	1600	1920	6" FLG	3/4" NPT	7-1/2[2]	114,510	109,345	5600	21.9	3, 4, 5	F	1-7, 9, 12, 13, 15-17	Air or Water	87	38	50	2117	8.90
3521	2000	2400	6" FLG	3/4" NPT	10[2]	159,937	139,407	5600	27.5	3, 4, 5	G	1-7, 9-15	Air or Water	91	56	72	3024	11.40
3548W	2300	2750	6" FLG	3/4" NPT	12[2]	----------	158,604	----------	30.2	3, 4, 5	G	1-7, 10-14, 19	Water	98	57	80	3400	8.70
3522	2500	3000	6" FLG	3/4" NPT	12[2]	194,263	169,008	11600	----------	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Air	98	57	98	4076	14.56
3523	3000	3600	6" FLG	3/4" NPT	15[2]	207,640	----------	11600	----------	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Air	98	57	98	4538	18.06
3549W	3000	3600	6" FLG	3/4" NPT	10[2]	----------	191,600	----------	38.3	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Water	98	57	98	3698	13.30
3524	3750	4500	6" FLG	3/4" NPT	15[2]	266,120	----------	11600	----------	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Air	98	57	98	5000	19.57
3550W	4000	5000	6" FLG	3/4" NPT	15[2]	----------	255,240	----------	51	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Water	106	57	80	5000	16.55
3560W	5000	5750	8" FLG	3/4" NPT	20[2]	----------	281,250	----------	63	3, 4, 5	H	2-7, 10, 11, 13, 14,19	Water	109	57	80	5000	16.55
4041W	5000	5750	8" FLG	3/4" NPT	25[2]	----------	313,000	----------	68	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	79	56	140	5000	24.70
4042W	6250	7200	8" FLG	3/4" NPT	25[2]	----------	373,000	----------	75	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	82	56	141	6500	26.30
4043W	7500	8625	8" FLG	3/4" NPT	35[2]	----------	468,000	----------	94	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	88	60	140	7700	37.00
4044W	10000	11500	10" FLG	3/4" NPT	40[3]	----------	565,000	----------	113	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	103	65	150	10000	32.00
4045W	12500	14375	12" FLG	3/4" NPT	50[3]	----------	713,000	----------	143	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	108	72	150	13000	42.00
4046W	15000	17250	12" FLG	3/4" NPT	60[3]	----------	878,000	----------	176	3, 4, 5	J	2-5, 7,10,11, 13, 14, 19	Water	120	75	160	15500	57.00

High Temperature 3-in-1 Dryers

Model	Flow Capacity[1] CFM at 160°F Saturated		Air Line Connect. In & Out	Drain Connect.	Refrig. Comp. H.P. Rating	Maximum Heat Rejection BTU/Hr. Air Cooled	Cool Air Flow CFM	Volt. Code	Std. Instrum. Panel	Optional Instrum.	Condense. Type[4]	Dimensions (inches)			Wt. Lbs.	KW Input[5]
	100 PSIG	140 PSIG										Height	Width	Length		
3528	21	21.9	1" NPT	3/8" OD	1/4	3900	185	1, 2	B	16	Air	27.5	20	30	141	.40
3529	30	36.8	1" NPT	3/8" OD	1/2	6500	350	1, 2	B	16	Air	27.5	20	30	158	.51
3530	50	56	1" NPT	3/8" OD	3/4	9900	800	1, 2	B	16	Air	27.5	20	30	200	1.28
3531	70	81	1" NPT	3/8" OD	1	16140	1125	1, 2, 4	C	1, 16	Air	31.5	27.5	34	288	1.73
3532	105	130	2" NPT	1/2" NPT	1-3/4	25500	1125	2, 3, 4	C	1, 16	Air	42	29.5	40	508	2.01
3533	135	187	3" NPT	1/2" NPT	2	32900	2000	3, 4	K	1, 16	Air	49.5	38.5	44	698	2.75
3534	220	280	3" NPT	1/2" NPT	3	54000	2100	3, 4	K	1-5,7,8,10-14,16	Air	49.5	38.5	44	768	4.38
3535	300	365	3" NPT	3/4" NPT	4	65600	4200	3, 4	K	1-5, 7,8,10-14,16	Air	63.5	38.5	52	1113	5.75
3536	400	480	3" NPT	3/4" NPT	5-1/2	88000	5000	3, 4	K	1-5,7,8,10-14,16	Air or Water	63.5	38.5	52	1190	7.15

NOTES:

1. All capacities above are based on design conditions of 100°F inlet, 100 psig, and 100°F ambient - except 3-in-1 dryers, which are based on 160°F inlet and 100°F ambient temperature.
2. Semi-hermetic compressor available on all "C" Series Cycling Dryers (Models 3514 thru 3522). Refer to X1022.
3. Single or Dual compressor offered or open drive.
4. Water regulating valve furnished with all water cooled units.
5. KW figures for water cooled models are 15% less than figures shown. Figures include total electric draw under maximum load, including fan motors, indicators, etc.

- Dryers rating 250 psi max. working pressure; std. drain trap rated for 250 psi max. up to A-300, 200 psi and larger sizes.
- On models F-70/100 and larger, an electronic drain (model 5702S) may be substituted for the std. float type drain for an additional charge. This must be noted on your P.O.

VOLTAGE CODE

Standard	Export
1 - 115/1/60	100/1/50
2 - 208-230/1/60	200-240/1/50
3 - 208-230/3/60	200-240/3/50
4 - 460/3/60	380/3/50
5 - 575/3/60	

STANDARD INSTRUMENT PANEL

	A	B	C	D	E	F	G	H	I	J	K
On/Off Switch		√	√	√	√	√	√	√	√	√	√
Power On Light	√	√	√	√	√			√	√	√	
Compressor On Light						√	√	√	√	√	√
Air Inlet Temp. Gauge			√	√			√	√	√	√	√
Air Inlet Pressure Gauge				√	√	√	√	√	√	√	√
Air Outlet Pressure Gauge			√				√	√	√	√	√
High Temperature Light	√										
Air Dew Point Temp. Gauge									√	√	
Digital Temp. Display*					√	√					
Differential Pressure Gauge					√	√					
Refrigerant Suction Pressure Gauge		√	√	√	√	√	√	√	√	√	√
Refrigerant Discharge Pressure Gauge						√	√	√	√	√	
Refrigerant Temp. Gauge							√	√	√	√	√
Hi/Low Refrigerant Pressure Light								√	√	√	
Low Oil Pressure Light									√	√	
Cooling Water Temp. Gauges (In & Out)									√	√	
Evaporator Pressure Gauge										√	
NEMA 12 Enclosure								√	√	√	

* Digital panel displays ambient air temp., compressor suction temp., compressor discharge temp., and inlet air temp.

Notes: 1) Second gauge on models 4042W and 4043W is an evaporator pressure gauge when an evaporator pressure valve is used.
2) Electric Power Cords - 6 ft. electrical cord with grounded plug is standard on all F-10/20 thru F-70/100 115V units.

Air Flow Ratings of ARROW Dryers

Air dryer rated flows are based upon design conditions of 100°F inlet, 100 psig, 100°F ambient. If these conditions vary, the rated flows will vary in accordance with the following general rules and tables.

1) As ***Inlet Air Temperature*** increases, ***Flow Capacity*** will decrease:

Inlet Air Temperature	90°F	95°F	100°F	110°F	120°F
Flow Capacity Multiplier:	1.23	1.13	1.00	0.83	0.69

2) As ***Air Line Pressure*** increases, ***Flow Capacity*** will increase:

Air Line Pressure:	60 psig	80psig	100 psig	120 psig	150 psig
Flow Capacity Multiplier:	.88	.95	1.00	1.04	1.08

3) As ***Ambient Air Temperature*** increases, ***Flow Capacity*** will decrease:

Ambient Air Temperature	80°F	90°F	100°F	110°F
Flow Capacity Multiplier:	1.14	1.07	1.00	.92

4) As the ***Dew Point*** increases, ***Flow Capacity*** will increase:
If design conditions (100°F, 100 psig, 100°F ambient) remain the same, but a higher dew point is acceptable, the Flow Capacity will increase approximately in accordance with the following multipliers:

Dew Point	**39°F**	**45°F**	**50°F**
Flow Capacity Multiplier:	1.05	1.15	1.20

These figures are simply general rules, multipliers, and formulas to help you select a dryer; however, they do not apply to 3-in-1 dryers.

OPTIONAL INSTRUMENTATION AND FEATURES

1) Power On Light
2) High Inlet Air Temperature Light
3) High Refrigerant Discharge Pressure Light
4) Low Ambient Fan Cut-Out Switch
5) Dead System Shutdown Light
6) Condensate Drain Alarm
7) Air Outlet Temperature Gauge
8) Refrigerant Discharge Pressure Gauge
9) Cooling Water Temperature In/Out
10) Air Dew Point Temperature
11) Air Flow Gauge
12) NEMA 12 or NEMA 13 Enclosures
13) Waterproof Enclosure with NEMA 4 Wiring
14) Fused Disconnect Switch
15) High Pressure Package
16) Electric Drain
17) Air Outlet Pressure
18) Refrigerant Temperature
19) Capacity Pressure Unloaders

MOISTURE REMOVAL DATA

TEMP. AT RECEIVER TANK	SYSTEM TEMP.	LBS. CONDENSED PER 100 CFM	LBS.PER 8 HR. SHIFT	GALLONS PER 8 HR. SHIFT
120	70	.05613	26.94	3.23
100	70	.02455	11.78	1.41
90	70	.01399	6.718	.81
80	70	.005965	2.863	.34
120	50	.06386	30.65	3.67
100	50	.03227	15.49	1.86
90	50	.02172	10.43	1.25
80	50	.01369	6.571	.79
120	35	.06714	32.23	3.86
100	35	.03556	17.07	2.05
90	35	.02501	12.00	1.44
80	35	.01698	8.149	.98

NOTE: 8.3453 LBS. PER GALLON

INSTRUMENTATION

3 Gauge Instrument Panel Includes:* Refrigerant Suction Pressure Gauge, Air Inlet Pressure Gauge, Air Inlet Temperature Gauge and Power Indicator Light.
***Standard on models F-150 & A-200**

Optional Instrumentation: Low Ambient Cut Out and Dead System Shutdown Light. (A-200 Only)

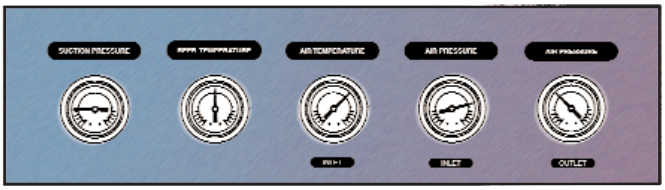
3 Gauge Instrument Panel with Digital Display Includes:*
Refrigerant Suction Pressure Gauge, Inlet Air Pressure Gauge, Efficiency Pressure Gauge and Power On/Off Switch. Digital Temperature Display Provides: Ambient, Compressor Suction, Compressor Discharge and Inlet Air Temperatures
***Standard on models A250 & A-300**

Optional Instrumentation: Low Ambient Cut Out and Dead System Shutdown Light

4 Gauge Instrument Panel with Digital Display Includes:*
Refrigerant Discharge Pressure Gauge,
Refrigerant Suction Pressure Gauge, Inlet Air Pressure Gauge, Efficiency Pressure Gauge and Power On/Off Switch. Digital Temperature Display Provides: Ambient, Compressor Suction, Compressor Discharge and Inlet Air Temperatures
***Standard on models 3512 through 3519**

Optional Temperature Readouts Include: Air Outlet Temperature, Refrigerant Temperature and Cooling Water In/Out

Optional Gauges Include: Air Outlet Pressure Gauge



Instrumentation Panel for High Capacity Dryers Includes*: Refrigerant Suction Pressure Gauge, Air Inlet Pressure Gauge, Air Outlet Pressure Gauge, Air Inlet Temperature Gauge, Refrigerant Temperature, and Refrigerant Discharge Pressure Gauge.
***Standard on models 3548W through 4046W**

Optional Instrumentation: Air Outlet Temperature, Air Dew Point Temperature, Air Flow Gauge, Cooling Water Temperature In/Out, High Inlet Air Temperature Light, High Discharge Pressure Light, Low Oil Pressure Light, Low Ambient Cut Out, Dead System Shutdown Light and Condensate Drain Alarm

WARRANTY

Arrow refrigerated type compressed air dryers are warranted to be free from defects in material and workmanship, when used under conditions recommended by the manufacturer, for a period of twelve (12) months from the date of start-up not to exceed eighteen (18) months from date shipped from factory. Products purchased from warehouse stock are warranted for a period of twelve (12) months from date of shipment from that warehouse provided Arrow is furnished full name, address and date of shipment information.

The patented modular heat exchanger used on models A-200 through 3560 is warranted for five (5) years. This warranty is limited to the replacement of the heat exchanger, F.O.B. factory, and is subject to the same restrictions as outlined below concerning misuse, abuse or accident.

This warranty applies to equipment installed, operated and maintained in accordance with the procedures and recommendations as outlined in the owner's manual published by Arrow Pneumatics.

The electric drain trap is warranted to be free from mechanical defects for a period of ninety (90) days.

Air cooled aftercoolers, watercooled aftercoolers and moisture separators are warranted to be free from defects in material and workmanship, when used under conditions recommended by the manufacturer, for a period of twelve (12) months from the date of shipment from the factory or regional warehouse.

During the period of this warranty, Arrow Pneumatics will repair or replace (at Arrow's option), free of charge, F.O.B. its plant, any defective part or assembly, if such defect occurred in normal service and was not due to apparent misuse, abuse or accident.

Before any warranty service work is started, it must first be authorized by Arrow Pneumatics. Please contact our Warranty Department at (847) 540-2133. Unauthorized service voids the warranty and any resulting charges will not be reimbursed by Arrow Pneumatics.

The foregoing warranty is exclusive and in lieu of all other warranties, written, oral or implied, and the company makes no warranty of merchantibility or fitness for any particular purpose or use. In no event shall the company be liable for special, incidental or consequential damages or losses arising out of or caused by products which may prove to be defective, including, but not limited to loss of revenues and loss of profits.

ARROW PNEUMATICS

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COMPRESSED AIR AND GAS INSTITUTE CAGI


ARROW PNEUMATICS
REGENERATIVE
DRYERS
CATALOG
REGENERATIVE DRYERS
CATALOG
Arrow Pneumatics
FILTERS REGULATORS LUBRICATORS ACCESSORIES

HEATLESS
REGENERATIVE DRYERS

Twin tower regenerative air dryers are the dryers of choice when traditional refrigerated dryers do not provide sufficient air quality required for today's applications. Arrow's reliable "RH" series of heatless twin tower regenerative dryers normally produce –40°F and can optionally be as low as –100°F dew points. The dryer utilizes activated alumina for efficient drying of compressed air and will operate under extreme environmental conditions. Activated alumina is aluminum oxide that is highly porous and exhibits tremendous surface area (350 sq. meters / gram). Activated alumina is resistant to thermal shock and abrasion. It has a smooth, uniform ball size that prevents channeling of the air flow, which maintains low bed velocities. This maintains air contact time for efficient moisture removal and minimal pressure drop.

Arrow's microprocessor dryer controls are housed in a NEMA 4 rated enclosure and provide control of pneumatically piloted valves chosen for long life and high air flow.

Operation

Compressed air saturated with water vapor passes through the inlet valve and flows upward through the desiccant in tower "A". Tower "A" is said to be "on line". The activated alumina desiccant adsorbs the water vapor in the compressed air and the pressure dew point is lowered to a minimum of –40°F. The dried air then passes through a check valve assembly to the outlet piping and then to the factory tools or equipment.

While the air is being dried in tower "A", the desiccant in tower "B" that adsorbed moisture in the previous cycle is simultaneously regenerated. Tower "B" is "off line". At the start of the regeneration cycle, tower "B" is depressurized from the operating pressure to atmospheric pressure with a downward air flow and passes through the purge valve and out the purge muffler. Regeneration continues with a portion of the dry air from tower "A" passing through an orifice assembly and downward through tower "B" out to atmosphere.

This process takes about ten minutes to complete, with the drying cycle using about five minutes to provide the desired dew point. The regeneration cycle takes approximately 30 seconds less to allow for repressurization before switchover. The complete operation therefore consists of two cycles, one for drying and the other for regeneration. Required purge air is generally 15% of rated flow. As pressure is a direct function of purge air, the higher the pressure, the lower the purge. All Arrow Pneumatics heatless regenerative dryers have a 2 psi maximum pressure drop at standard conditions.

Model No.	Capacity SCFM	Pipe Size Connection	Height Inches	Width Inches	Depth Inches	Weight Lbs.
RH203	35	3/4" NPT	40	44	24	360
RH204	50	3/4" NPT	40	44	24	508
RH205	75	3/4" NPT	40	44	24	599
RH206	100	1" NPT	64	44	24	627
RH207	125	1" NPT	64	44	24	657
RH208	150	1-1/2" NPT	75	49	36	739
RH209	200	1-1/2" NPT	75	49	36	797
RH210	250	1-1/2" NPT	75	49	36	855
RH211	300	2" NPT	68	51	36	918
RH212	350	2" NPT	68	51	36	1,124
RH213	400	2" NPT	86	51	36	1,187
RH214	500	2" NPT	86	51	36	1,245
RH215	650	2-1/2" NPT	97	67	36	1,905
RH216	750	2-1/2" NPT	97	67	36	2,022
RH217	900	2-1/2" NPT	97	67	36	2,197
RH218	1,100	3" FLG	97	72	36	2,500
RH219	1,300	3" FLG	97	72	36	3,350
RH220	1,500	3" FLG	122	96	60	3,775
RH221	1,800	3" FLG	122	96	60	4,550
RH222	2,100	3" FLG	122	96	60	5,725
RH223	2,500	4" FLG	122	108	60	6,500
RH224	3,000	4" FLG	122	108	60	8,500

1) Specifications and dimensions are subject to change without notice.

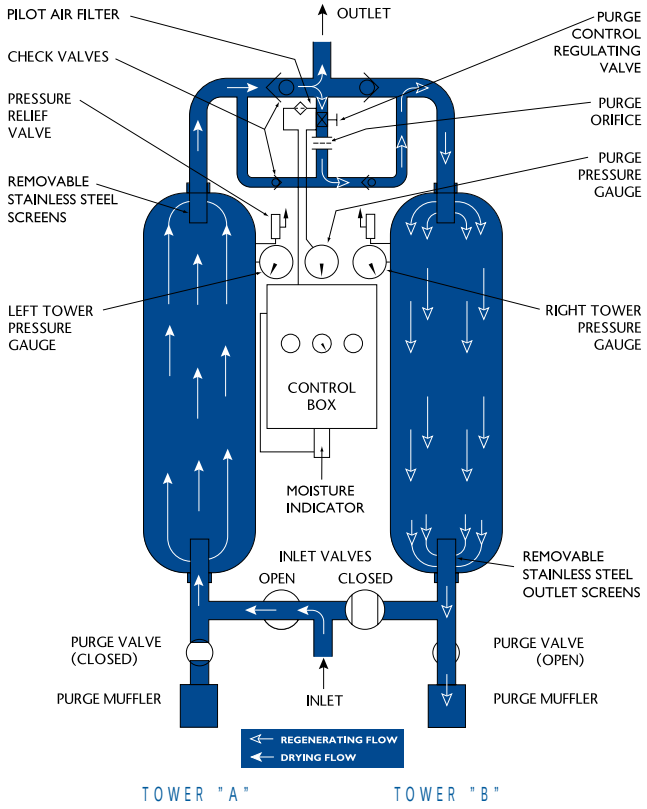
2) Standard design conditions are 100°F inlet, 100 psig and 100°F ambient. For other than standard design conditions or capacities up to 12,000 scfm, consult your factory representative.

3) Standard operating pressure is 150 psig maximum.

4) Standard voltage is 120V/1ph/60Hz

5) Pre and after filters must be used with all regenerative air dryers.

6) Maximum pressure drop of 2 psi



OPTIONS OF HEATLESS REGENERATIVE DRYERS

Dew Point Demand Plus

Dew Point Demand

High Humidity Alarm

–100°F Pressure Dew Point

Remote Alarm Contacts

Remote Alarm Dry Contacts

NEMA 7 Explosion Proof Electrical Construction

Low Ambient Package

220V/1ph/60Hz

Pre-Piped Connection with Pre and after Filters

Pre-Piped Filter Package with Three Valve Dryer Bypass

Pre-Piped Filter Package with Seven Valve Dryer Bypass

RS-232 Serial Communications Interface

Total Pneumatic Controls

See pages 8 and 9 for descriptions of optional features.

Standard Features of Heatless Regenerative Dryers

Fully automatic to provide the most efficient operation.

Panel mounted gauges provide accurate monitoring of tower pressures.

Adjustable purge regulator is utilized to control purge air for optimum dryer efficiency.

Indicator lights display tower operating status.

Visual moisture indicator detects increase in dew point on outlet air flow.

Reliable pneumatic valve operation is achieved by using poppet, butterfly and check valves. All valves are non-lubricated to provide maximum dependability and maintenance free operation.

Controlled repressurization gradually increases pressure in the tower to eliminate line surges and desiccant attrition.

Removable stainless steel diffuser screens disperse air flow for maximum desiccant capacity and to allow uniform air distribution throughout the desiccant bed.

NEMA 4 electrical construction.

Universally accepted 120V/1ph/60Hz power requirements for easy connection.

Power on indicator to show dryer is energized and functioning.

Tower relief valves to prevent overpressurization.

ASME coded and stamped vessels.

Separate fill and drain ports for easy desiccant change.

Microprocessor controls provide reliable sequencing of dryer functions.

Control air line filter with replaceable element to protect pneumatic circuitry.

Exhaust purge muffler for quiet operation.

Pressure alarm package indicates failure to shift, failure to depressurize, failure to repressurize and failure to purge.

EXTERNALLY HEATED REGENERATIVE DRYERS

The Arrow Pneumatics externally heated twin tower regenerative dryers combine the high reliability of our "RH" series desiccant dryer and adds external heaters to form the "RE" series dryer. Dew points, normally –40°F, can optionally be as low as –100°F. Purge air is approximately 7% of rated flow, thus reducing the operating costs of the heated twin tower regenerative dryers compared to heatless regenerative dryers. Purge air in the "RE" series is heated by a 100% efficient incoloy sheath electric heater housed in an externally mounted shell. A thermostat controls the temperature of the heater allowing long life and energy savings. The heater and purge piping are insulated for safety and further energy savings. Arrow "RE" series heated dryers have microprocessor controls housed in a NEMA 4 rated enclosure. Pneumatically actuated valves have been chosen for long life and high air flow.

Operation

Regeneration of the "RE" series dryers is similar to the twin tower regenerative dryers in that the airflow is reversed between operation and regeneration. Compressed air saturated with water vapor passes through the inlet valve and flows downward through the desiccant in tower "A". Tower "A" is said to be "on-line". The activated alumina desiccant adsorbs water vapor in the compressed air and the pressure dew point is lowered to a minimum of –40˚F. The dried air then passes through the outlet valve to the factory tools and / or equipment.

While the air is being dried in tower "A", the desiccant in tower "B" that absorbed moisture in the previous cycle is simultaneously regenerated. Tower "B" is "off line". At the start of the regeneration cycle, tower "B" is depressurized from the operating pressure to atmospheric pressure with an upward air flow which passes through the purge valve and out the purge muffler. Regeneration continues with dried purge air from tower "A" that is expanded to atmospheric pressure to lower its vapor pressure. This purge air is heated and passes through an orifice assembly and upward through tower "B" out to atmosphere. The temperature of the heater can be adjusted for better efficiencies. The combination of heated and lowered vapor pressure air allows for efficient and cost effective desiccant regeneration.

The entire process therefore consists of two cycles, one for drying and the other for regeneration. This process takes 8 hours to complete, with the drying cycle using 4 hours to provide the desired dew point, and regeneration cycle taking 4 hours; 3 hours for heating and 1 hour for cooling. As pressure is a direct function of purge air, the higher the pressure, the lower the purge. All Arrow Pneumatics externally heated regenerative dryers have a 2 psi maximum pressure drop at standard conditions.

Model No.	Capacity SCFM	Heater Power (KW)	Pipe Size Connection	Height Inches	Width Inches	Depth Inches	Weight Lbs.
RE231	50	.75	3/4" NPT	40	44	24	440
RE232	75	1.25	3/4" NPT	40	44	24	600
RE233	100	1.50	1" NPT	64	44	24	760
RE234	150	2.00	1-1/2" NPT	75	49	36	930
RE235	200	2.50	1-1/2" NPT	75	49	36	1,050
RE236	250	3.00	1-1/2" NPT	75	49	36	1,330
RE237	300	4.00	2" NPT	68	51	36	1,525
RE238	350	4.00	2" NPT	68	51	36	1,700
RE239	400	5.00	2" NPT	86	51	36	1,940
RE240	500	6.00	2" NPT	86	51	36	2,275
RE241	650	6.50	2-1/2" NPT	97	67	36	2,650
RE242	750	7.50	2-1/2" NPT	97	67	36	3,170
RE243	900	9.00	2-1/2" NPT	97	67	36	3,750
RE244	1,100	12.00	3" FLG	97	72	36	4,175
RE245	1,300	12.00	3" FLG	97	72	36	4,580
RE246	1,500	15.00	3" FLG	122	96	60	5,020
RE247	1,800	20.00	3" FLG	122	96	60	5,410
RE248	2,100	20.00	3" FLG	122	96	60	6,040
RE249	2,500	24.00	4" FLG	122	108	60	8,720
RE250	3,000	30.00	4" FLG	122	108	60	9,880

1) Specifications and dimensions are subject to change without notice.

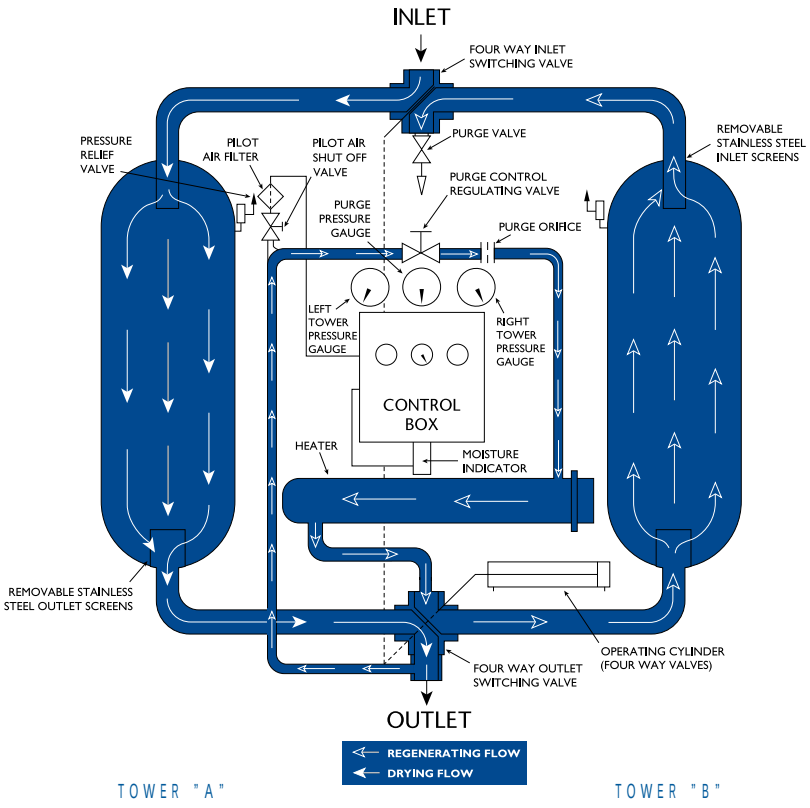
2) Standard design conditions are 100°F inlet, 100 psig and 100˚F ambient. For other than standard design conditions or capacities up to 12,000 scfm, consult your factory representative.

3) Standard operating pressure is 150 psig maximum.

4) Standard voltage for RE231 thru RE233 is 120V/1ph/60Hz. RE234 thru RE250 is 480V/3ph/60Hz.

5) Pre and after filters must be used with all regenerative air dryers.

6) Maximum pressure drop of 2 psi



OPTIONS OF EXTERNALLY HEATED REGENERATIVE DRYERS

Dew Point Demand Plus

Dew Point Demand

High Humidity Alarm

–100°F Pressure Dew Point

Remote Alarm Contacts

Remote Alarm Dry Contacts

NEMA 7 Explosion Proof Electrical Construction

Low Ambient Package

220V/1ph/60Hz

Pre-Piped Connection with Pre and after Filters

Pre-Piped Filter Package with Three Valve Dryer Bypass

Pre-Piped Filter Package with Seven Valve Dryer Bypass

Power Saver Thermal Control

Heater Overtemp Alarm

RS-232 Serial Communications Interface

See pages 8 and 9 for descriptions of optional features.

Standard Features of Externally Heated Regenerative Dryers

Externally mounted heater allows easy element service and efficiently conducts heat uniformly throughout the desiccant eliminating localized hot spots, desiccant fusing and heater burnouts. Heater elements are incoloy sheathed for long, trouble free service.

Heater thermostat controls and maintains user adjusted regeneration temperature to account for changing flow or seasonal moisture variations.

Interlock circuit protects units from heater burnout due to loss of purge air flow.

Non-lubricated control valves are pneumatically actuated to provide maximum dependability and maintenance free operation.

Fully automatic to provide the most efficient operation.

Panel mounted gauges provide accurate monitoring of tower pressures and temperatures.

Adjustable purge regulator is utilized to control purge air for optimum dryer efficiency.

Indicator lights display tower operating status.

Visual moisture indicator detects increase in dew point on outlet air flow.

Controlled repressurization gradually increases pressure in the tower to eliminate line surges and desiccant attrition.

Removable stainless steel diffuser screens disperse air flow for maximum desiccant capacity and to allow uniform air distribution throughout the desiccant bed.

NEMA 4 electrical construction.

Power on indicator to show dryer is energized and functioning.

Tower relief valves to prevent overpressurization.

ASME coded and stamped vessels.

Separate fill and drain ports for easy desiccant change.

Microprocessor controls provide reliable sequencing of dryer functions.

Control air line filter with replaceable element to protect pneumatic circuitry.

Exhaust purge muffler for quiet operation.

Pressure alarm package indicates failure to shift, failure to depressurize, failure to repressurize and failure to purge.

BLOWER
PURGE REGENERATIVE DRYERS

Arrow Pneumatics "BP" series blower purge regenerative dryers are more economical to operate than heated or heatless regenerative dryers. An external blower supplies heated atmospheric air as the purge air source for regeneration. This allows total air compressor capacity for plant operations. Eliminating the use of compressed air as purge allows the plant to more economically size the compressor only for plant operations. The blower purge offers the same easy maintenance features found in our heated regenerative dryer. The blower is designed for industrial applications and has an intake filter that protects the blower and dryer from damaging air born particles.

Operation

Our "BP" series blower purge dryers are fully automatic meaning purge air from compressor is not needed. Regeneration is similar to that of the "RE" series dryers in that the drying air flow is downward and is reversed between operation and regeneration. Compressed air saturated with water vapor passes through the inlet valve and flows downward through Tower "A". Tower "A" is said to be "on-line." The activated alumina desiccant adsorbs water vapor in the compressed air and the pressure dew point is lowered to a minimum of –40°F. The dried air then passes through the outlet valve to the factory tools or equipment.

While the air is being dried in tower "A", the desiccant in tower "B" that absorbed moisture in the previous cycle is simultaneously regenerated. Tower "B" is "off line". At the start of the regeneration cycle, tower "B" is depressurized from the operating pressure to atmospheric pressure with an upward air flow which passes through the purge valve and out the purge muffler. Regeneration continues with purge air being generated by an external blower. This purge air is heated and passes upward through tower "B" out to atmosphere. The temperature of the heater can be adjusted for better efficiencies. The combination of heated and lowered vapor pressure air allows for efficient and cost effective desiccant regeneration.

The entire process therefore consists of two cycles, one for drying and the other for regeneration. This process takes 8 hours to complete, with the drying cycle using 4 hours to provide the desired dew point, and regeneration cycle taking 4 hours; 3 hours for heating and 1 hour for cooling.

Model No.	Capacity SCFM	Heater KW	Blower KW	Pipe Size Connection	Height Inches	Weight Lbs.
BP123	200	6.00	0.75	1-1/2" NPT	74	1,375
BP144	350	9.00	1.12	2" NPT	88	2,260
BP183	600	15.00	1.50	2-1/2" NPT	80	2,900
BP204	800	20.00	2.24	3" FLG	92	4,150
BP244	1,100	36.00	3.73	3" FLG	98	5,600
BP304	1,500	40.00	7.46	4" FLG	94	7,425
BP325	2,100	50.00	7.46	4" FLG	101	8,675
BP366	3,000	75.00	11.19	6" FLG	106	11,200
BP425	4,000	105.00	11.19	6" FLG	109	15,500
BP485	5,000	140.00	14.92	6" FLG	111	17,700
BP545	6,500	175.00	22.38	6" FLG	117	20,900
BP605	8,000	230.00	37.30	8" FLG	126	26,400
BP665	10,000	280.00	55.95	8" FLG	130	31,600
BP725	12,000	340.00	74.60	10" FLG	134	37,800

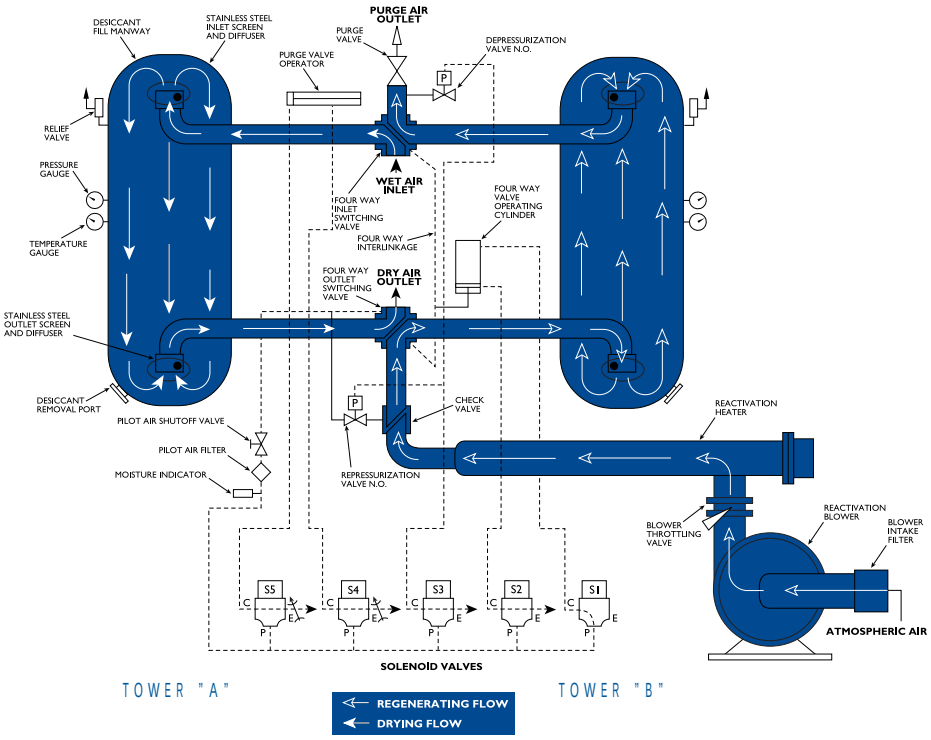
1) Specifications and dimensions are subject to change without notice.

2) Standard design conditions are 100°F inlet, 100 psig and 100°F ambient. For other than standard design conditions or capacities up to 12,000 scfm, consult your factory representative.

3) Standard operating pressure is 150 psig maximum.

4) Standard Voltage 480V/3ph/60Hz

5) Pre and after filters must be used with all regenerative air dryers.



OPTIONS OF BLOWER PURGE REGENERATIVE DRYERS

- Dew Point Demand Plus
- Dew Point Demand
- Remote Alarm Contacts
- Remote Alarm Dry Contacts
- NEMA 7 Explosion Proof Electrical Construction
- Low Ambient Package
- Power Saver Thermal Control
- Pre-Piped Connection with Pre and after Filters
- Pre-Piped Filter Package with Three Valve Dryer Bypass
- Pre-Piped Filter Package with Seven Valve Dryer Bypass
- Heater Overtemp Alarm
- Blower Purge Cool Down Loop
- RS-232 Serial Communications Interface
- High Humidity Alarm

See pages 8 and 9 for descriptions of optional features.

Standard Features of Blower Purge Regenerative Dryers

Externally mounted heater allows easy element service and efficiently conducts heat uniformly throughout the desiccant eliminating localized hot spots, desiccant fusing and heater burnouts. Heater elements are incoloy sheathed for long, trouble free service.

Heater thermostat controls and maintains user adjusted regeneration temperature to account for changing flow or seasonal moisture variations.

Interlock circuit protects units from heater burnout due to loss of purge air flow.

Non-lubricated control valves are pneumatically actuated to provide maximum dependability and maintenance free operation.

Fully automatic to provide the most efficient operation.

Panel mounted gauges provide accurate monitoring of tower pressures and temperatures.

Indicator lights display tower operating status.

Visual moisture indicator detects increase in dew point on outlet air flow.

Controlled repressurization gradually increases pressure in the tower to eliminate line surges and desiccant attrition.

Removable stainless steel diffuser screens disperse air flow for maximum desiccant capacity and to allow uniform air distribution throughout the desiccant bed as applicable.

NEMA 4 electrical construction.

Power on indicator to show dryer is energized and functioning.

Tower relief valves to prevent overpressurization.

ASME coded and stamped vessels.

Separate fill and drain ports for easy desiccant change.

Microprocessor controls provide reliable sequencing of dryer functions.

Control air line filter with replaceable element to protect pneumatic circuitry.

Exhaust purge muffler for quiet operation.

Heavy-duty blower designed for long life with intake filter to protect the blower and dryer from damaging particles.

Butterfly throttle valve controls amount of purge air.

Pressure alarm package indicates failure to shift, failure to depressurize, failure to repressurize and failure to purge.

OPTIONAL FEATURES

Dew Point Demand Plus

(PICTURED) Dew Point Demand Plus is an energy saving system that allows the user to program a controller for the desired dew point. This system regenerates the "off-line" vessel completely and allows that vessel to remain idle, while the "on-line" vessel dries service air. Outlet air flow is continuously sampled and once the desired dew point is reached a "tank switch-over" occurs and a new cycle begins. This option saves a significant amount of "purge air" each year thereby providing energy saving. This option includes a programmable digital display, an extremely accurate sensor and a high humidity alarm.

Dew Point Demand

(PICTURED) Dew Point Demand is a cost effective alternative to Dew Point Demand Plus. This system operates similar to the Dew Point Demand Plus but does not have the digital display, high humidity alarm or an adjustable dew point "tank switchover". The "tank switchover" occurs at a fixed –40˚F dew point.

High Humidity Alarm

This option continuously monitors the outlet air stream for dew point performance. If a high humidity condition should occur, a panel mounted visual alarm is energized.

RS-232 Serial Communications Interface

Allows serial port connections for computer monitoring of dryer functions and operating statuses.

Heater Overtemp Alarm

Should a heater overtemperature condition exist, the integrated overtemperature sensor automatically shuts down the heater until it cools down to an acceptable temperature range. The sensor then resets itself and heater operation will begin again. A panel mounted visual alarm is energized during the overtemperature condition.

Remote Alarm Contacts

Contacts will be supplied for each alarm allowing an easy connection method for energizing remote visual or audible alarms. A 120-volt signal is sent when a failure occurs.

Remote Alarm Dry Contacts

This option closes a contact in the event of a failure condition allowing the customer supplied alarm circuit to be activated. Maximum voltage and current are 120 volt, 3 amperes.

–100˚F Pressure Dew Point

This option lowers the dew point from the standard –40˚F to –100˚ F On heatless dryers, the cycling time is adjusted accordingly and a repressurizing system is added. On the heated dryers, a split bed of activated alumina and molecular sieve is added.

Low Ambient Package

Low ambient temperature protection is accomplished by encasing both towers with a rugged insulation. This insulation along with heat trace cables eliminates "freeze-ups" from low ambient conditions such as cold outdoor or unheated indoor installations.

DEW POINT DEMAND PLUS

DEW POINT DEMAND

Power Saver Thermal Control
This option monitors the temperature of the purge air flow from the regenerating tower. When the set regeneration temperature is reached, the heater shuts off. Power Saver minimizes the electrical energy used during regeneration when you have low dryer moisture loading. This also prevents dew point spikes and excessive temperature spikes at tower switchover.

Blower Purge Cool Down Loop
This option uses dry air from the "on-line" tower to cool and "polish" the desiccant in the regenerating tower. This feature ensures –40˚F dew points are maintained during tank switchover.

NEMA 7 Electrical Construction
(PICTURED) For applications where an explosion proof enclosure and electrical construction are required. NEMA 7 enclosures are capable of withstanding and containing internal explosions so that an explosive atmosphere surrounding the enclosure will not be ignited. Enclosed heat generating devices shall not cause external surfaces to reach temperatures capable of igniting explosive surrounding atmospheres.

Total Pneumatic Controls
For applications where electricity is unavailable or undesired, such as remote field applications or duty in explosive environments. This option uses an air driven timer and control valves in place of electronic components.

Pre-piped Connection With Pre and After Filters
Prefilter and afterfilter mounted to dryer with integral piping ready to install in system. See following page for filters included.

3-Valve Bypass w/Pre-piped Connection
Prefilter and afterfilter mounted to dryer with integral piping and 3 bypass valves for bypassing filters and dryer. Ready to install in system. See following page for filters included.

7-Valve Bypass w/Pre-piped Connection
Prefilter and afterfilter mounted to dryer with integral piping and 7 bypass valves for individually bypassing either filter and/or dryer. Ready to install in system. See following page for filters included.

NEMA 7 ENCLOSURE

FILTER PACKAGE

HEATLESS REGENERATIVE DRYER RECOMMENDED FILTERS

Dryer Model	Dryer In/Out Pipe Size	Dryer SCFM	Prefilter Model	Afterfilter Model
RH203	3/4" NPT	35	F505-06DF	F329-06-3
RH204	3/4" NPT	50	F505-06DF	F329-06-3
RH205	3/4" NPT	75	F505-06DF	F329-06-3
RH206	1" NPT	100	F508-08DF	F329-08-3
RH207	1" NPT	125	F508-08DF	F329-08-3
RH208	1-1/2" NPT	150	F510-12DT	F329-12-3
RH209	1-1/2" NPT	200	F510-12DT	F329-12-3
RH210	1-1/2" NPT	250	F510-12DT	F329-12-3
RH211	2" NPT	300	F510-16DT	F3N1-16-3
RH212	2" NPT	350	F510-16DT	F3N1-16-3
RH213	2" NPT	400	F518-16DT	F3N1-16-3
RH214	2" NPT	500	F518-16DT	F3N1-16-3
RH215	2-1/2" NPT	650	F519-24DT	F3NHF-24-3
RH216	2-1/2" NPT	750	F529-24DT	F3NHF-24-3
RH217	2-1/2" NPT	900	F529-24DT	F3NHF-24-3
RH218	3" FLG	1100	F5AX2M-24DF	F3AX2M-24-3
RH219	3" FLG	1300	F5AX2M-24DF	F3AX2M-24-3
RH220	3" FLG	1500	F5AX2L-24DF	F3AX2M-24-3
RH221	3" FLG	1800	F5AX2L-24DF	F3AX2M-24-3
RH222	3" FLG	2100	F5AX3L-32DF	F3AX2M-32-3
RH223	4" FLG	2500	F5AX4L-48DF	F3AX3L-48-3
RH224	4" FLG	3000	F5AX4L-48DF	F3AX3L-48-3

EXTERNALLY HEATED REGENERATIVE DRYER RECOMMENDED FILTERS

Dryer Model	Dryer In/Out Pipe Size	Dryer SCFM	Prefilter Model	Afterfilter Model
RE231	3/4" NPT	50	F505-06DF	F329-06-3
RE232	3/4" NPT	75	F505-06DF	F329-06-3
RE233	1" NPT	100	F508-08DF	F329-08-3
RE234	1-1/2" NPT	150	F510-12DT	F329-12-3
RE235	1-1/2" NPT	200	F510-12DT	F329-12-3
RE236	1-1/2" NPT	250	F510-12DT	F329-12-3
RE237	2" NPT	300	F510-16DT	F3N1-16-3
RE238	2" NPT	350	F510-16DT	F3N1-16-3
RE239	2" NPT	400	F518-16DT	F3N1-16-3
RE240	2" NPT	500	F518-16DT	F3N1-16-3
RE241	2-1/2" NPT	650	F519-24DT	F3NHF-24-3
RE242	2-1/2" NPT	750	F529-24DT	F3NHF-24-3
RE243	2-1/2" NPT	900	F529-24DT	F3NHF-24-3
RE244	3" FLG	1100	F5AX2M-24DF	F3AX2M-24-3
RE245	3" FLG	1300	F5AX2M-24DF	F3AX2M-24-3
RE246	3" FLG	1500	F5AX2L-24DF	F3AX2M-24-3
RE247	3" FLG	1800	F5AX2L-24DF	F3AX2M-24-3
RE248	3" FLG	2100	F5AX3L-32DF	F3AX2M-24-3
RE249	4" FLG	2500	F5AX4L-48DF	F3AX3L-48-3
RE250	4" FLG	3000	F5AX4L-48DF	F3AX3L-48-3

Note: For Blower Purge Regenerative Models BP123 thru BP725, consult factory for recommended pre and afterfilters.

Model	Description
RH	Heatless Regenerative Dryer
RE	Externally Heated Regenerative Dryer
BP	Blower Purge Regenerative Dryer

Dryer Size

RH	SCFM	RE	SCFM	BP	SCFM
203	35	231	50	123	200
204	50	232	75	144	350
205	75	233	100	185	600
206	100	234	150	205	800
207	125	235	200	245	1100
208	150	236	250	305	1500
209	200	237	300	325	2100
210	250	238	350	365	2500
211	300	239	400	366	3000
212	350	240	500	425	4000
213	400	241	650	485	5000
214	500	242	750	545	6500
215	650	243	900	605	8000
216	750	244	1100	665	10000
217	900	245	1300	725	12000
218	1100	246	1500		
219	1300	247	1800		
220	1500	248	2100		
221	1800	249	2500		
222	2100	250	3000		
223	2500				
224	3000				

Dew Point

A	–40˚ F
B	–100˚ F

Voltage

1	120V/1ph/60Hz
2	480V/3ph/60Hz
3	220V/1ph/60Hz
4	220V/3ph/60Hz

Electrical Construction

A	NEMA 4
B	NEMA 7
C	Total Pneumatic Controls (RH Dryers Only)

Dew Point Control & Monitoring Options

1	None
2	Dew Point Demand Plus
3	Dew Point Demand
4	Dew Point Demand and High Humidity Alarm
5	High Humidity Alarm

Heater Options (RE Dryers Only)

A	None
B	Heater Overtemp Alarm
C	Power Saver Thermal Control
D	Heater Overtemp Alarm and Power Saver

Remote Alarm Contacts Options

1	None
2	Remote Alarm Contacts (120V)
3	Remote Alarm Dry Contacts

Pre-Piping and Bypass Options

A	None
B	Pre-piped Filter Package
C	Pre-piped Filter PKG W/3 Valve Dryer Bypass
D	Pre-piped Filter PKG W/7 Valve Dryer Bypass

RS-232 Interface Option

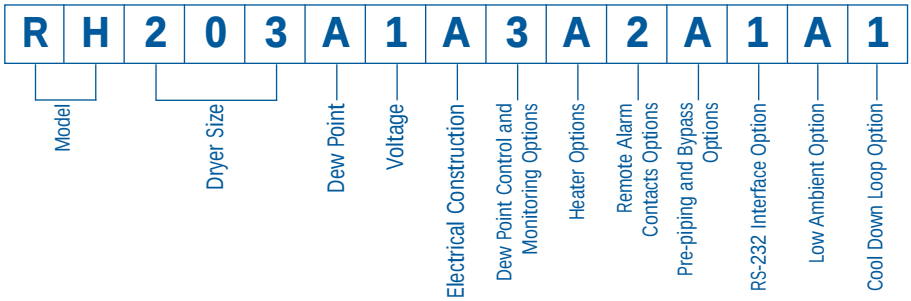
1	None
2	RS-232 Serial Communications Interface

Low Ambient Options

A	None
B	Low Ambient Insulation

Cool Down Loop Option (BP Dryers only)

1	None
2	Blower Purge Cool Down Loop



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Energy Saving Dryers

Dry Air Technology
by Arrow Pneumatics

"C" SERIES CYCLING DRYER

Arrow Model Numbers 3514C through 3560C

Features

- Significant energy savings
- Longer compressor life because of reduced cycling wear
- Semi-hermetic compressors have a 3 times longer life than hermetic compressors
- More BTU's/HR capacity per KW with Semi-Hermetic Compressor
- No Dew Point spikes that occur with cycling type dryers
- Superior heat exchanger design with spiral fin tube construction

THE BEST COMBINATION IN THE REFRIGERATED AIR DRYER BUSINESS

SEMI HERMETIC COMPRESSORS

- *Long Life Compressors (3 Times Longer than Hermetic Design)*
- *High Flow Oil Pump*
- *Much More Cooling Capacity (BTU/HR) than Hermetic Design*
- *Head Unloaders Provide for Greater Energy Savings at Less than Full Load Conditions*
- *Environmentally Friendly R-22 Refrigerant (R134A Refrigerant Available)*
- *Field Repairable and Rebuildable*
- *High Efficiency Motors*

ARROW PNEUMATICS SPIRAL FIN TUBE HEAT EXCHANGER DESIGN

- *100% Copper Tube within a Tube Design*
- *Exclusive Spiral Fin Tube in Evaporator Elimintates Laminar Flow and Acts as a Cold Mechanical Separator to Eliminate Fog and Mist*
- *Large Inlet and Outlet Manifolds Assures EvenAir Flow Through Tubes*
- *Refrigerant Feeder Assembly Delivers Precise Amounts of Refrigerant to Each Tube*
- *Most Efficient Separator Design on the Market*

Why specify a semi-hermetic compressor with head unloaders for a refrigerated air dryer?

Refrigerated air dryers rarely handle the same amount of compressed air at the same inlet temperature for any extended period of time. The BTU's/Hr. load on the dryer is constantly changing because the demand for compressed air in most plants varies from one minute to the next and from one shift to the next. Not only does the CFM requirements constantly change but the inlet temperature to the dryer varies dramatically depending on ambient temperatures. When sizing an air dryer, it is necessary to know all the conditions of the application, like the maximum pressures and temperatures the dryer will encounter. Knowing this information is most important to the performance and reliability of the dryer which is selected.

Refrigerated air dryers per industry standards are rated at a given CFM at 100°F inlet air temperature, 100°F ambient temperature and 100 PSIG operating pressure. The chart below shows how the performance of the dryer changes as the above design conditions change.

	Design Conditions	Actual Conditions	Affect on Performance
Air Flow %	**100%**	**50%**	**Reduces Load 50%**
Inlet Air Temperature	**100°F**	**75°F**	**Reduces Load 44%**
Ambient Air Temperature	**100°F**	**80°F**	**Reduces Load 14%**

As you can see knowing the actual operating conditions for the application, a properly sized "C" SERIES dryer can be selected to reduce the customers operating costs.

HERE'S HOW IT WORKS!

An Arrow "C" Series Refrigerated Air Dryer equipped with a semi-hermetic compressor and head unloaders will reduce the KW input to the dryer and save electricity at times when the dryer is operating at less than fully loaded conditions. Dryers equipped with four cylinder compressors can be unloaded to 1/2 of their full rated capacity and dryers equipped with six cylinder compressors can be unloaded to 2/3rds and 1/3rd of their full rated capacity. A typical plant operating 6000 hours per year could expect significant savings with the combination of an efficient semi-hermetic compressor and head unloaders. The semi-hermetic compressor is more efficient and at full load uses less power than a regular hermetic compressor.

An average plant operating 6000 hours per year will, realistically, operate the dryer 1/3rd of the time fully loaded, 1/3rd of the time 2/3rds loaded, and 1/3rd of the time 1/3rd loaded.

The **cost to operate** a 1500 CFM dryer fully loaded without head unloaders for 6000 hours would be:

6000 HRS X 8.11 KW X .10 KWH = $4,866

To operate the same dryer fully loaded on the 1st shift, 2/3rds loaded on the 2nd shift and 1/3rd loaded on the 3rd shift would be:

2000 hours X 8.11 KW X $.10 KWH = $1,622

2000 hours X 6.75 KW X $.10 KWH = $1,166

2000 hours X 4.12 KW X $.10 KWH = $714

The total electrical cost would be $3,502 compared to $4,866 or **a savings of $1,364 per year.**

Semi-Hermetic Compressor Performance
R-22 Refrigerant

Model	Flow Capacity SCFM	# of Cylinders	HP	In/Outlet Connections	Step Unloaders	Full Load KW	1st Step Unloader KW	Energy Savings	2nd Step Unloader KW	Energy Savings
3514-*C	500	4	3	3" NPT	1 Step	4.07	2.32	43%	N/A	
3514W-*C	500	4	3	3" NPT	1 Step	3.20	1.82	43%	N/A	
3515-*C	625	4	3	3" NPT	1 Step	4.07	2.32	43%	N/A	
3515W-*C	625	4	3	3" NPT	1 Step	3.20	1.82	43%	N/A	
3516-*C	750	4	5	3" NPT	1 Step	5.04	2.87	43%	N/A	
3516W-*C	750	4	5	3" NPT	1 Step	4.17	2.38	43%	N/A	
3517-*C	1000	4	5	4" FLG	1 Step	6.51	3.71	43%	N/A	
3517W-*C	1000	4	5	4" FLG	1 Step	5.25	2.99	43%	N/A	
3518-*C	1200	4	5	4" FLG	1 Step	7.13	4.06	43%	N/A	
3518W-*C	1200	4	5	4" FLG	1 Step	5.87	3.35	43%	N/A	
3519-*C	1600	6	6.5	6" FLG	2 Step	9.37	6.75	28%	4.12	56%
3519W-*C	1600	6	6.5	6" FLG	2 Step	8.11	5.84	28%	3.57	56%
3521-*C	2000	6	7.5	6" FLG	2 Step	14.56	10.48	28%	6.41	56%
3521W-*C	2000	6	7.5	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3548W-*C	2300	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3522-*C	2500	6	10	6" FLG	2 Step	14.81	10.48	28%	6.41	56%
3523-*C	3000	4	15	6" FLG	1 Step	18.06	10.29	43%	N/A	0%
3549W-*C	3000	6	10	6" FLG	2 Step	13.30	9.58	28%	5.85	56%
3524-*C	3750	4	15	6" FLG	1 Step	19.57	11.10	43%	N/A	0%
3550-*C	4000	6	25	6" FLG	2 Step	18.90	14.45	28%	10.00	56%
3550W-*C	4000	4	15	6" FLG	1 Step	16.55	9.43	43%	N/A	0%
3560-*C	5000	6	25	8" FLG	2 Step	27.02	20.93	28%	14.55	56%
3560W-*C	5000	4	20	8" FLG	1 Step	16.55	9.43	43%	N/A	0%

All capacities above are based on design conditions of 100°F inlet, 100 PSIG and 100°F ambient.

* - Voltage Code
-3 - 208/3/60 or 200-240/3/50
-4 - 460/3/60 or 380/3/50
-5 - 575/3/60

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COMPRESSED AIR AND GAS INSTITUTE CAGI

Mini-Regenerative

Dry Air Technology

MINI-HEATLESS REGENERATIVE DRYERS

Twin tower Mini-regenerative air dryers are the desiccant dryer of choice for low flow applications. Arrow's reliable series of heatless twin tower dryers produce dew points as low as -40°F but can be configured to create dew points as low as -100°F.

STANDARD FEATURES

- Fully automatic to provide the most efficient operation
- Panel mounted gauges provide accurate monitoring of tower pressures
- Reliable pneumatic valve operation is achieved by an electrically activated spool valve and a shuttle check valve. All valves are non-lubricated to provide maximum dependability and maintenance free operation.
- Removable stainless steel diffuser screens disperse air flow for maximum desiccant capacity and to allow uniform air distribution throughout the desiccant bed.
- Solid-state controls provide reliable sequencing or dryer functions
- Power-On lighted switch to show dryer is energized and functioning
- Exhaust Purge muffler for quiet operation
- Universally accepted 120V/1ph/60Hz power requirements for easy connection.
- Six foot cord included

OPTIONAL FEATURES

- -100°F Pressure Dew Point
- 220v/1ph/60Hz

BENEFITS

- Cabinet designed for wall mounting
- Tamper resistant: All components fully enclosed
- Dry air instantly - no waiting
- Low to zero maintenance
- Long lasting desiccant
- No electrician required

APPLICATIONS

- CNC Machines
- Low dew point instrument air
- Prevent air line freeze-ups
- Pressurizing of electronic cabinets
- Medical and dental equipment
- Paint spray systems
- Plastic molding
- Dry powder coating
- Auto body repair shops

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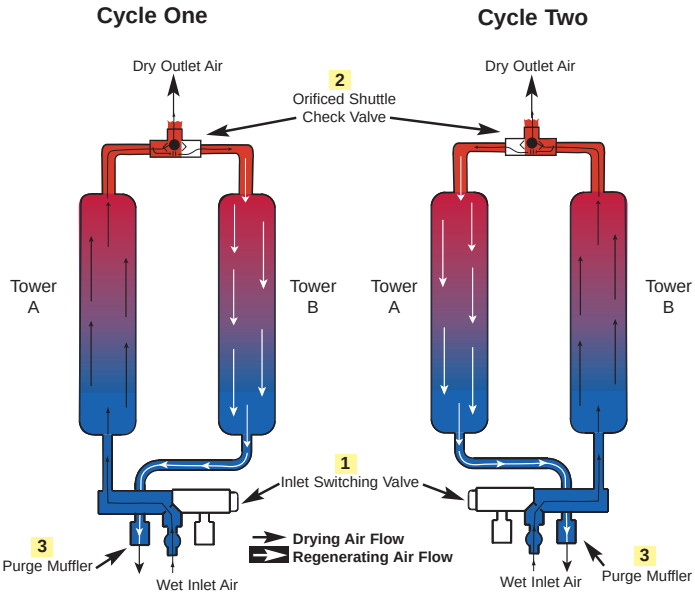
COMPRESSED AIR AND GAS INSTITUTE CAGI

Wet compressed air enters the dryer and is directed into Tower A through the inlet switching valve.[1] The wet air passes through the desiccant bed while the activated alumina strips moisture leaving dry service air. A portion of this extremely dry air passes though the orificed shuttle check valve[2] and flows downward through Tower B, drying out the saturated desiccant and exhausting out of the purge muffler.[3]

This “regenerating operation” is actually two cycles, one for drying service air, and one for drying desiccant. After approximately five minutes, the switching valve redirects flow, repeating the cycle.

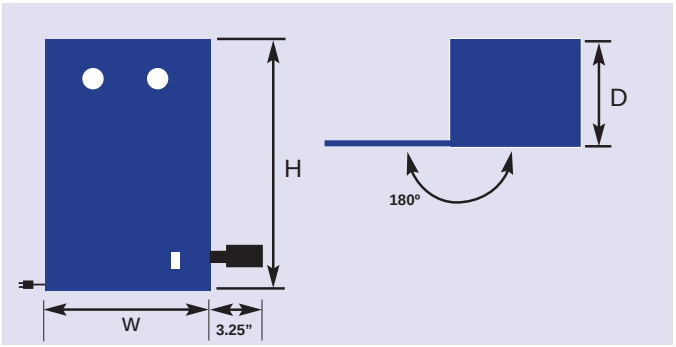
Required purge air is generally 15% of rated flow.

All Arrow Pneumatic mini-regen dryers have less than a 2 psi maximum pressure drop at standard conditions.



Dimensions

Model	Height (H) inches	Width (W) inches	Depth (D) inches	Weight (lbs)
RH105A1	22	10	5	50
RH110A1	22	10	5	60
RH115A1	30	12	8	70
RH120A1	30	12	8	80
RH125A1	30	12	8	90



Specifications

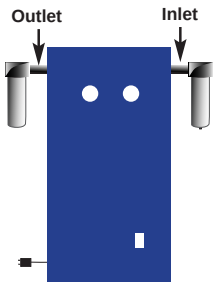
Model	Capacity SCFM	Purge Flow SCFM	In/Out conn.
RH105A1	5	.71	1/2” NPT
RH110A1	10	1.41	1/2” NPT
RH115A1	15	2.12	1/2” NPT
RH120A1	20	2.82	1/2” NPT
RH125A1	25	3.53	1/2” NPT

1) Capacities are based on 100º inlet temp. 100ºF ambient temp and 100PSIG inlet
2) Maximum working pressure is 150 PSIG
3) Coalescing filters must be installed before all mini-regenerative dryers to protect desiccant from oil contamination
4) Particulate filters must be installed after all mini-regenerative dryers to filter desiccant dust
5) Standard Voltage is 120v/1ph/60Hz
6) Amp draw 0.5 amps

RECOMMENDED FILTERS FOR ARROW MINI REGENERATIVE AIR DRYER

Dryer Model	Pre-Filter	Inlet/Outlet Conn.	After Filter	Inlet/Outlet Conn.
RH105	F552FW	1/4" NPT	F352-3	1/4" NPT
RH110	F552FW	1/4" NPT	F352-3	1/4" NPT
RH115	F554FW	1/2" NPT	F354-3	1/2" NPT
RH120	F554FW	1/2" NPT	F354-3	1/2" NPT
RH125	F554FW	1/2" NPT	F354-3	1/2" NPT

*”F” suffix indicates an internal float drain
*-3” suffix indicates 3 micron filter



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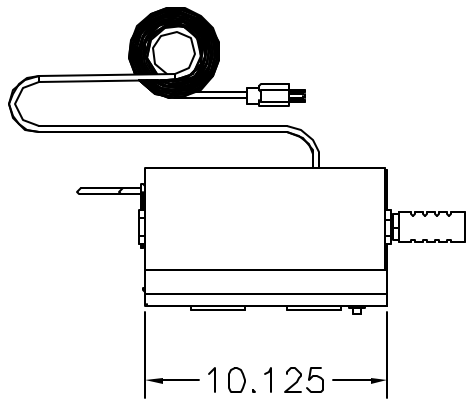
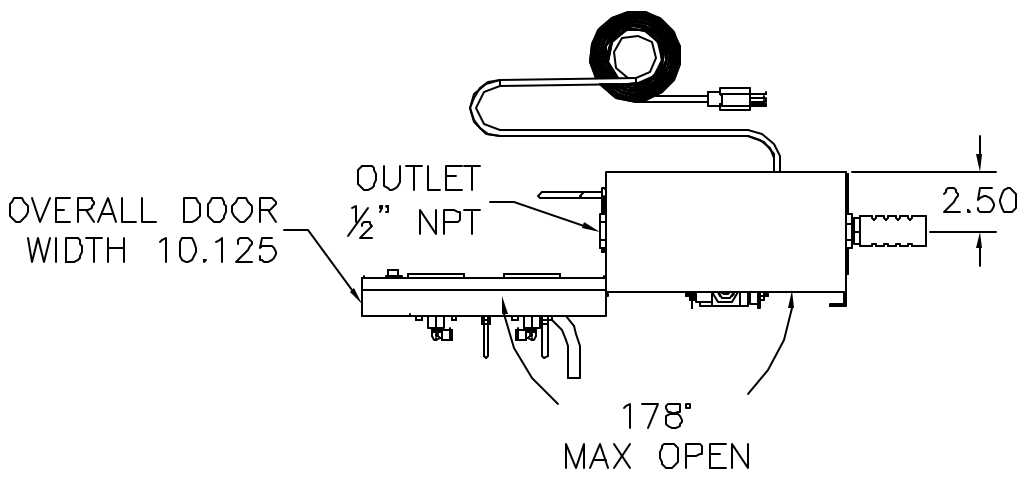
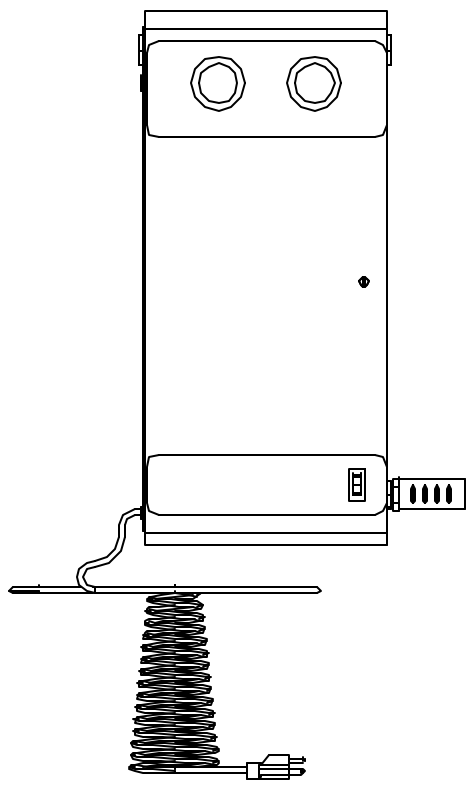
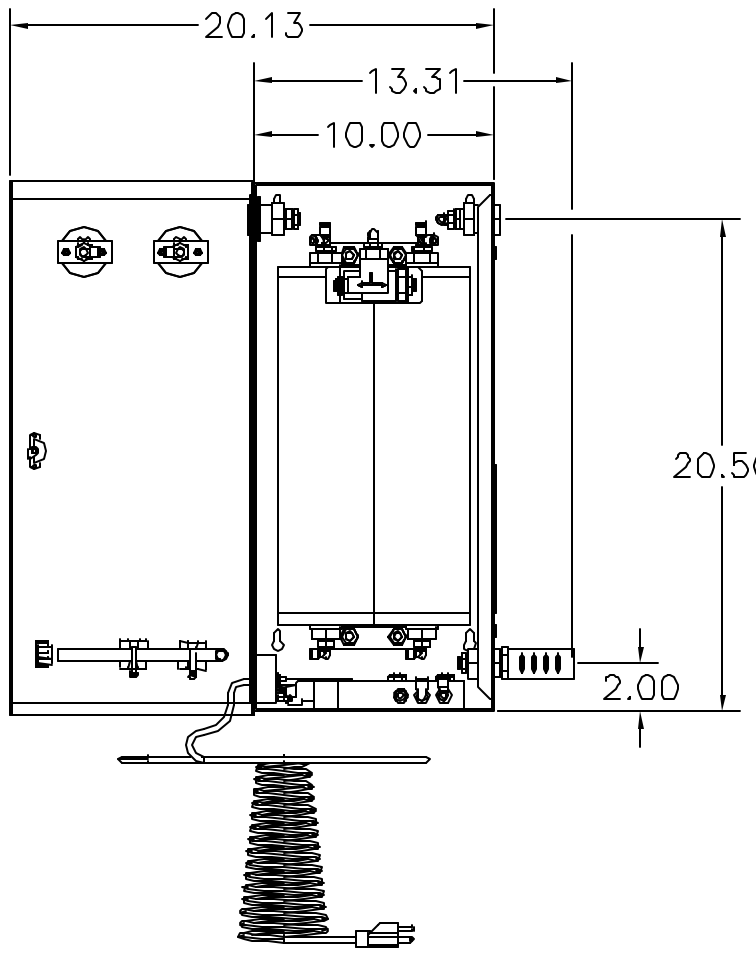
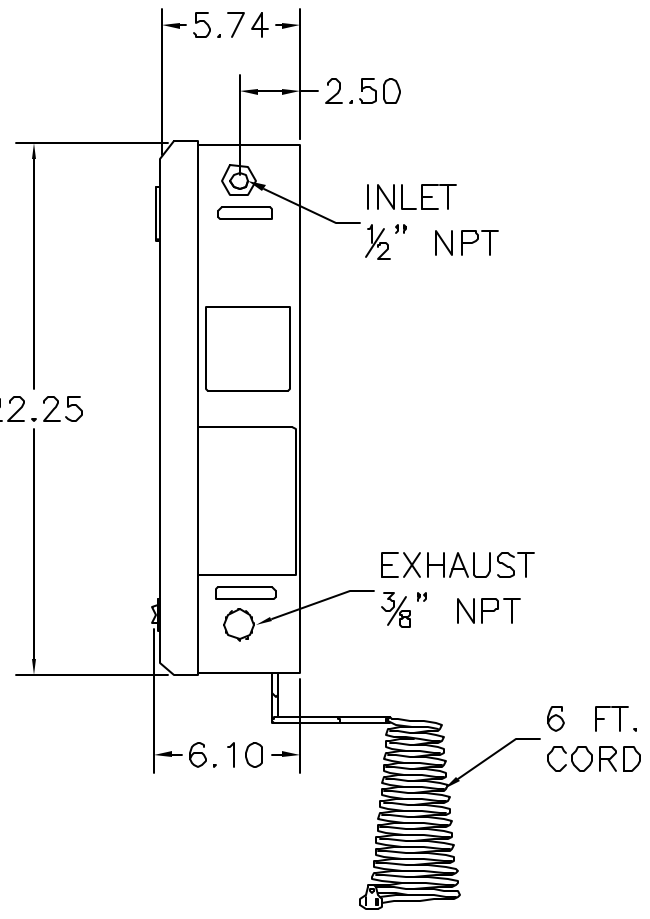










WEIGHT 60 LBS.

REV	ECN	DATE	DESCRIPTION	APPROVED

REVISIONS

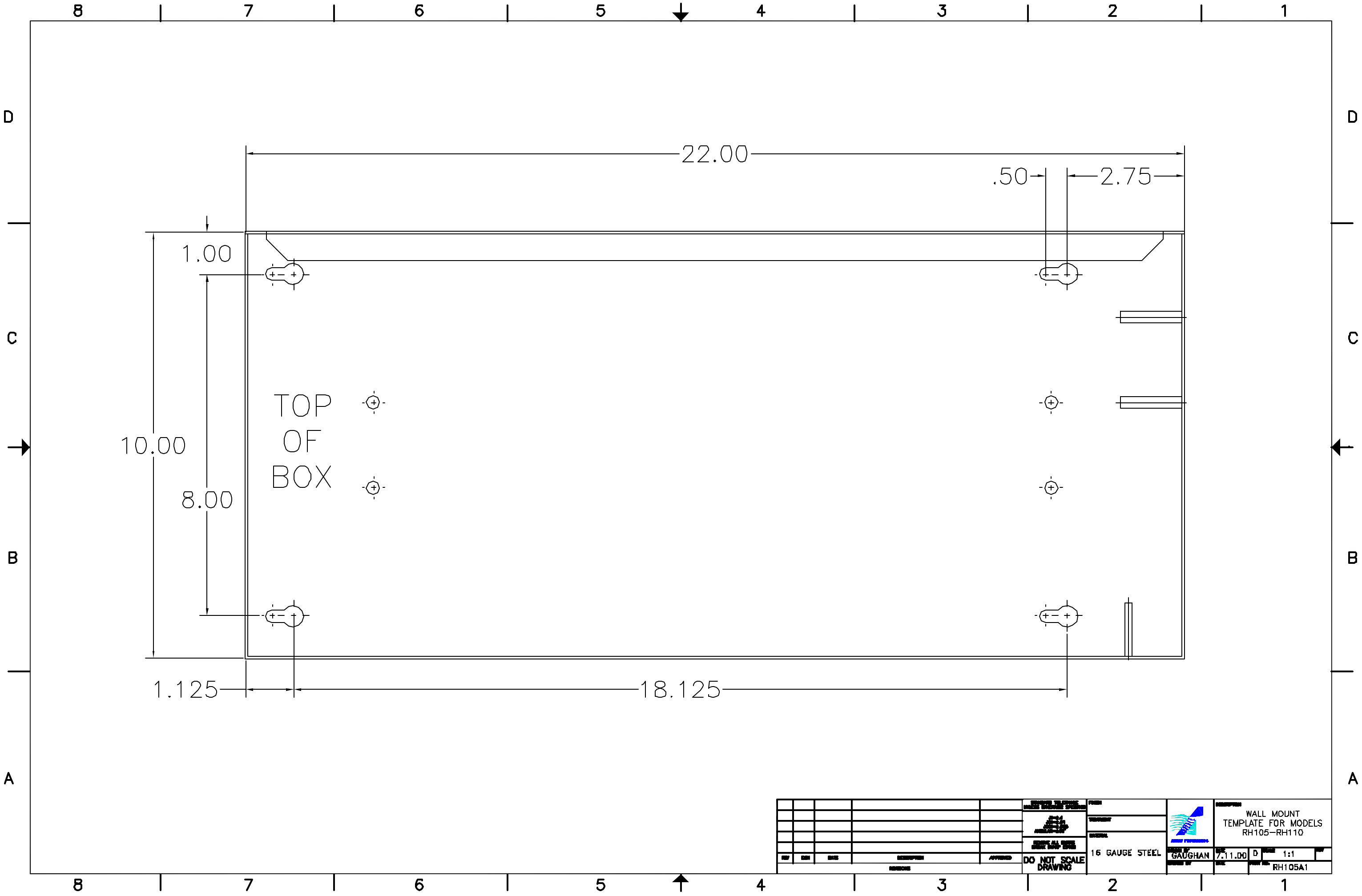
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED
[illegible]
REMOVE ALL BURRS BREAK SHARP EDGES
DO NOT SCALE DRAWING

FINISH
TREATMENT
MATERIAL

Arrow Pneumatics

DESCRIPTION
RH105A1

DRAWN BY GAUGHAN
DATE 7.11.00
SIZE D
SCALE NTS
REV
CHECKED BY
DATE
PART NO. RH105A1



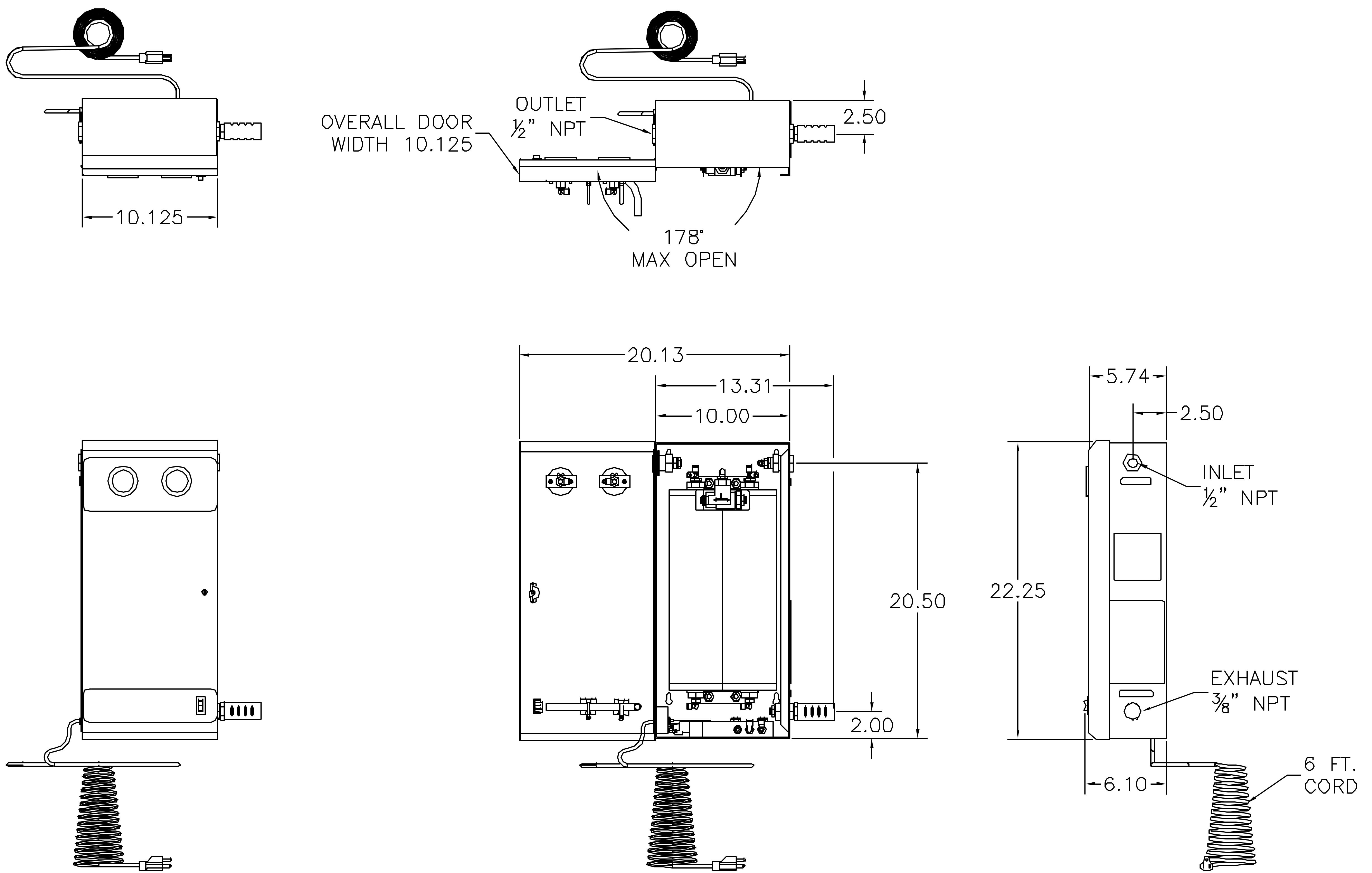
WALL MOUNT
TEMPLATE FOR MODELS
RH105–RH110

DO NOT SCALE DRAWING

16 GAUGE STEEL

GAUGHAN | 7.11.00 | D | 1:1

RH105A1



WEIGHT 60 LBS.

DO NOT SCALE DRAWING	
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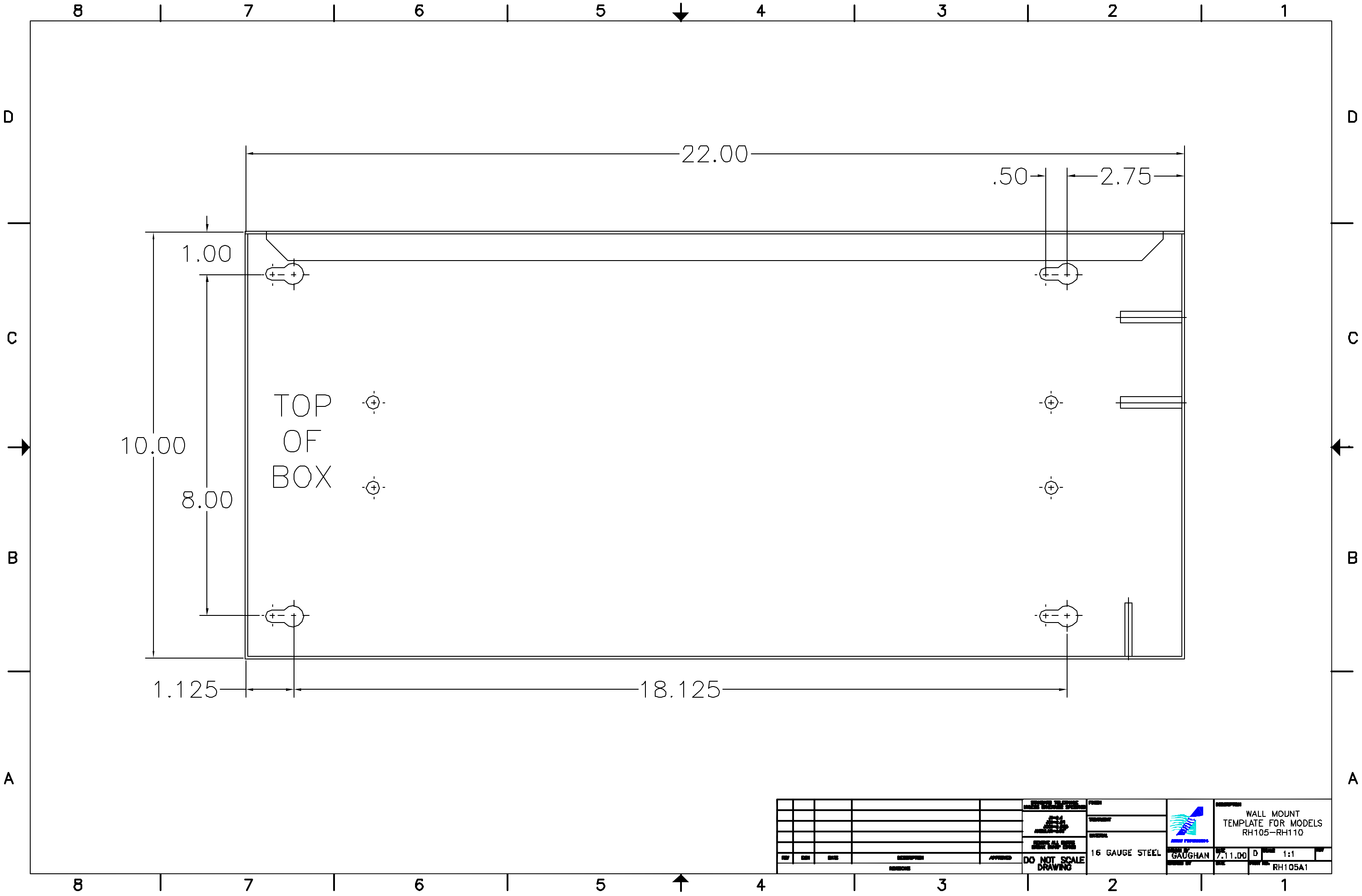
DRAWN BY	GAUGHAN
DATE	7.11.00
SIZE	D
SCALE	NTS
PART NO.	RH110A1



WALL MOUNT
TEMPLATE FOR MODELS
RH105–RH110

16 GAUGE STEEL

DO NOT SCALE DRAWING

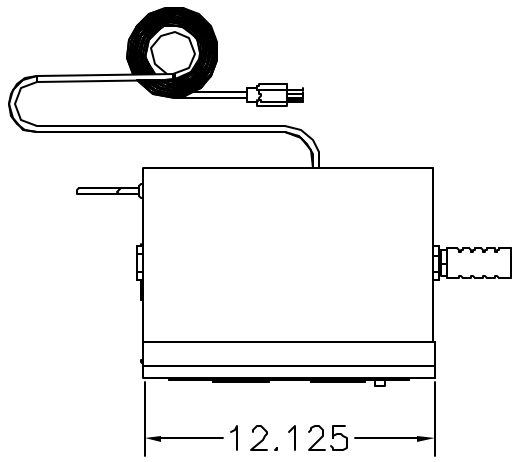
GAUGHAN

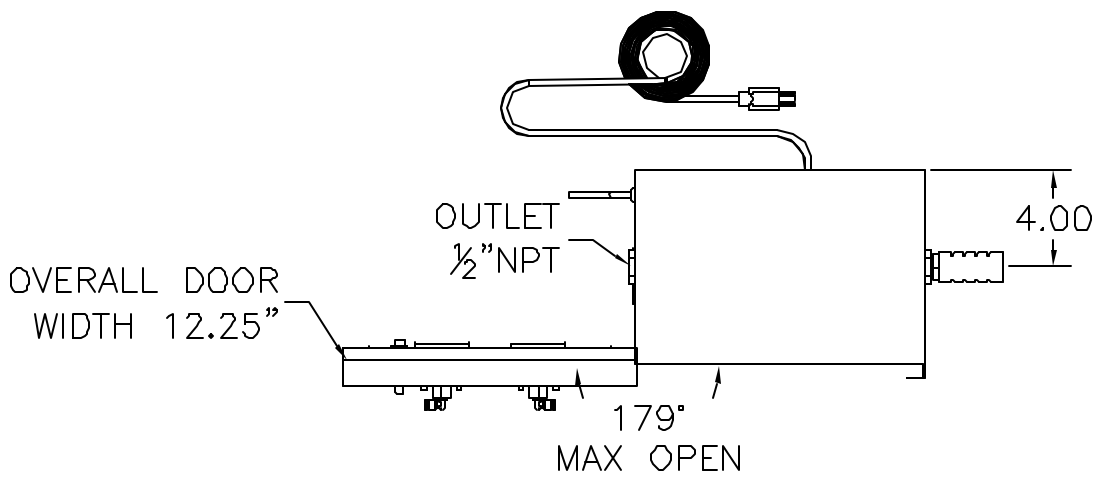
7.11.00

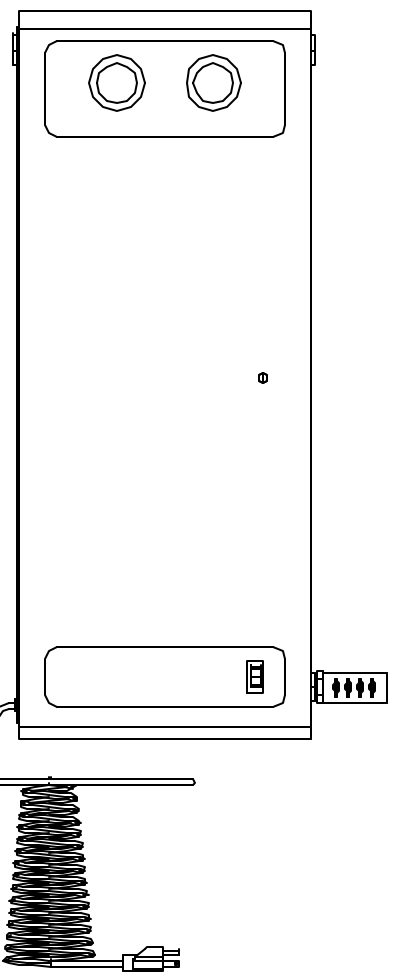
D

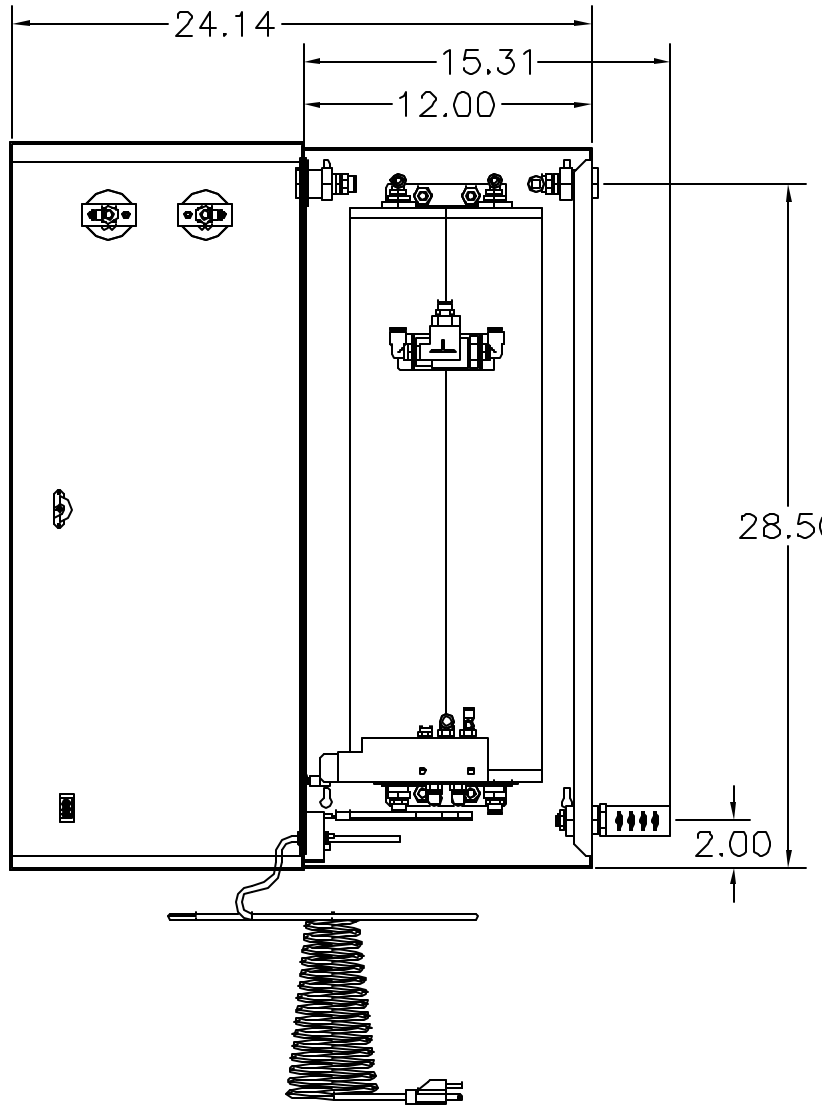
1:1

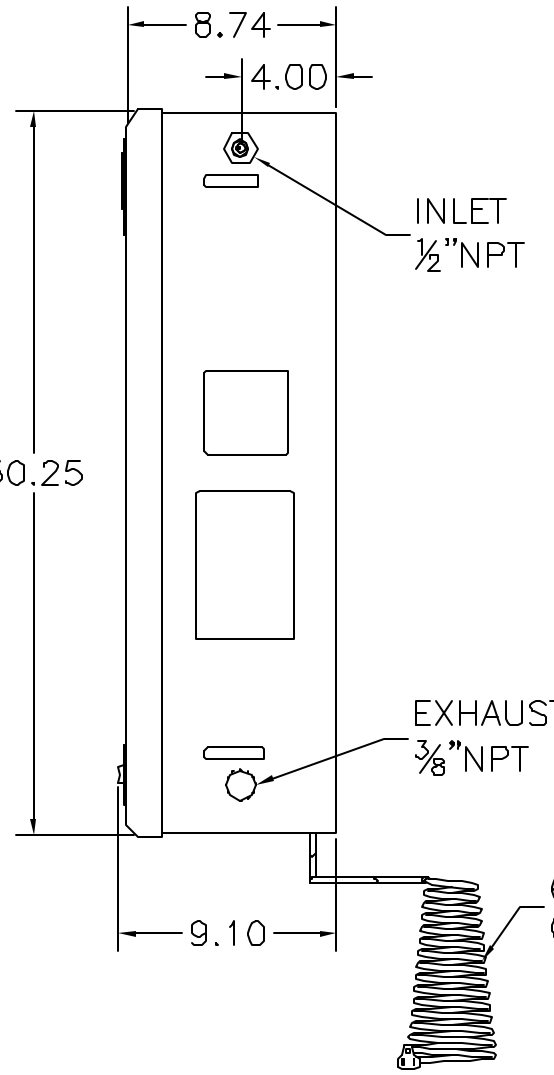
RH105A1



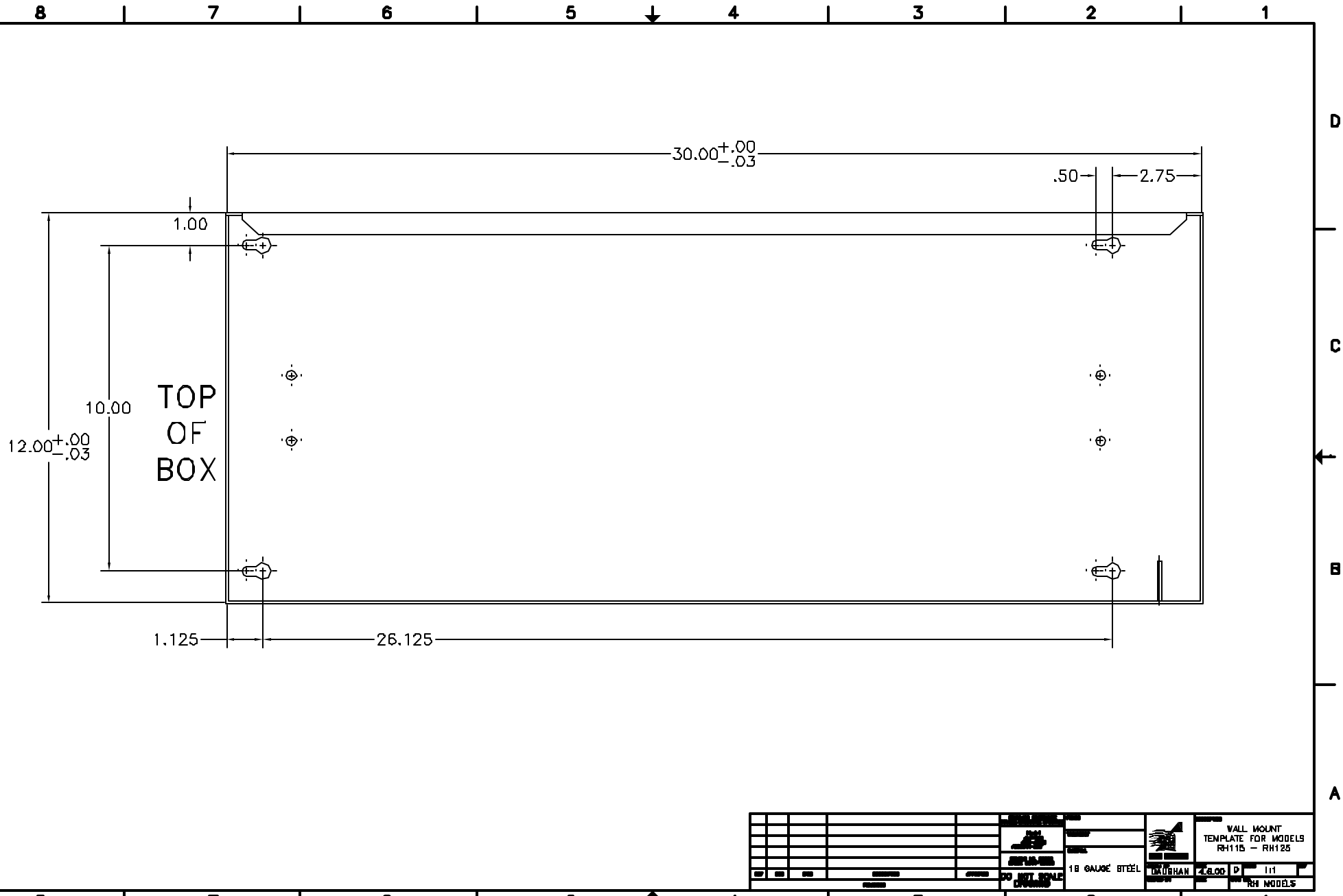


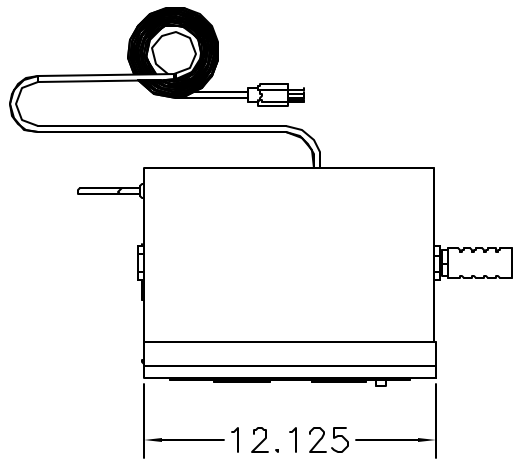


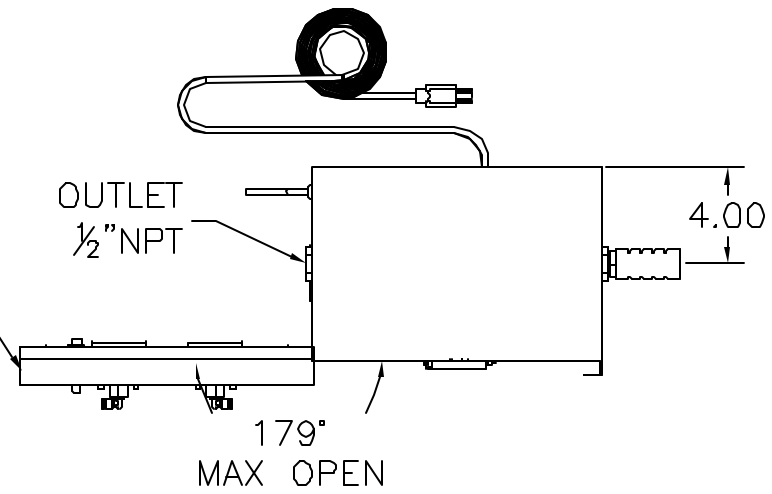


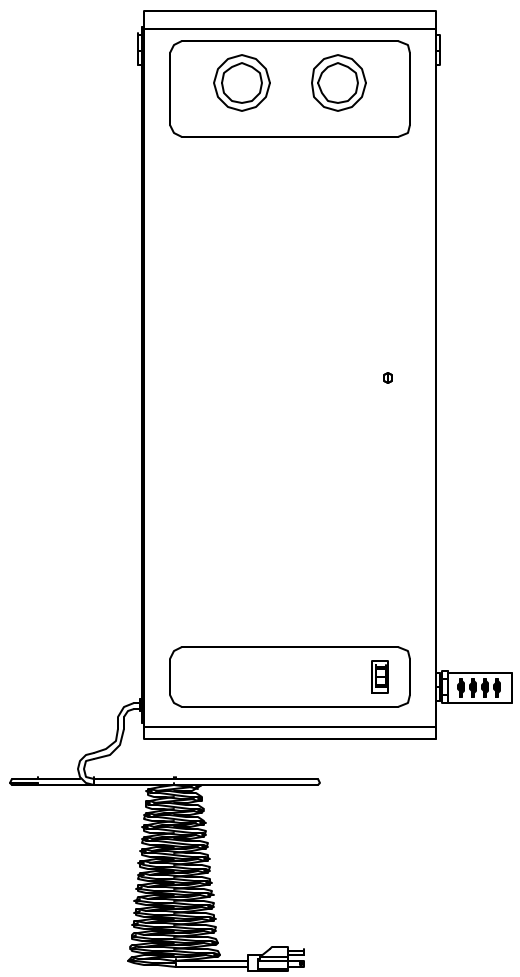


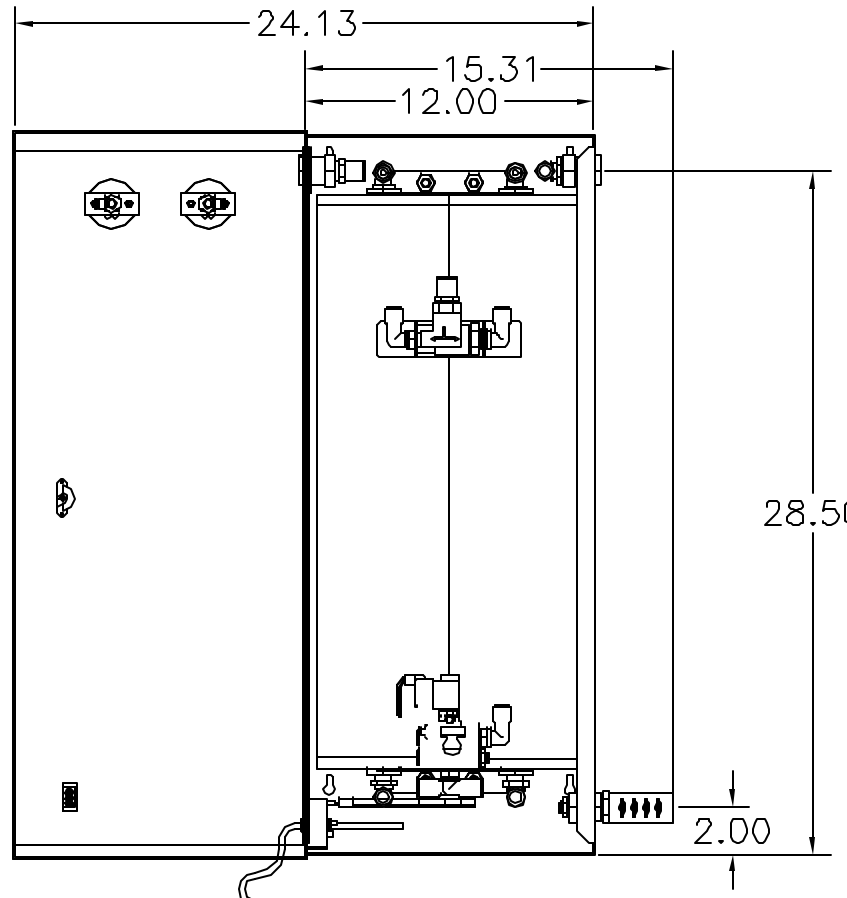
OUTLET
½"NPT
4.00
OVERALL DOOR
WIDTH 12.25"
179°
MAX OPEN
12.125
24.14
15.31
12.00
28.50
2.00
8.74
4.00
INLET
½"NPT
30.25
EXHAUST
⅜"NPT
9.10
6 FT.
CORD
WEIGHT 80 LBS.
DO NOT SCALE DRAWING
RH115A1
GAUGHAN
6.24.00
D
1:4
RH115A1

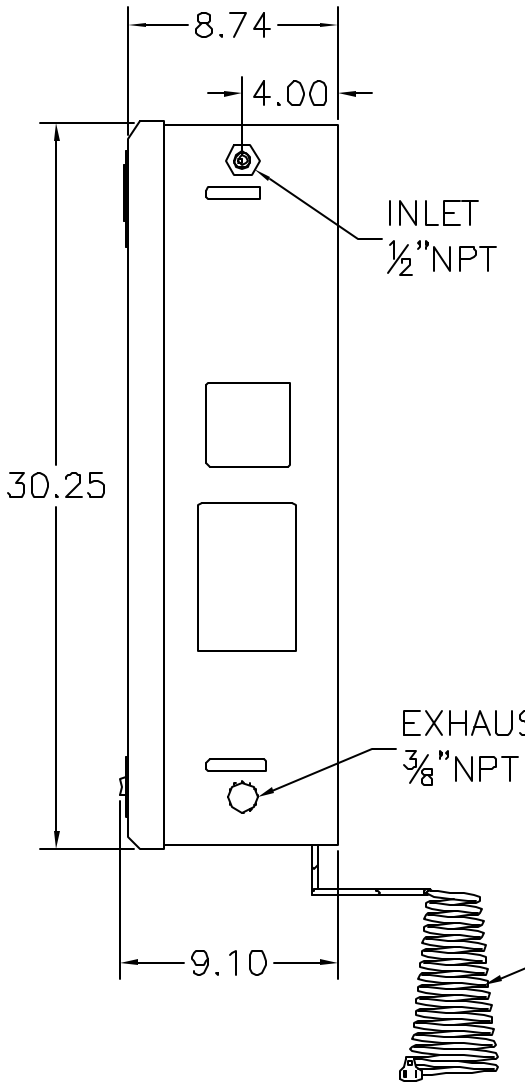

30.00 +.00 -.03
.50
2.75
1.00
10.00
12.00 +.00 -.03
TOP
OF
BOX
1.125
26.125
18 GAUGE STEEL
DO NOT SCALE DRAWING
DRAUGHAN
WALL MOUNT
TEMPLATE FOR MODELS
RH11B – RH12B
RH MODELS











WEIGHT 90 LBS.

DO NOT SCALE DRAWING

MINI REGEN
RH120A1

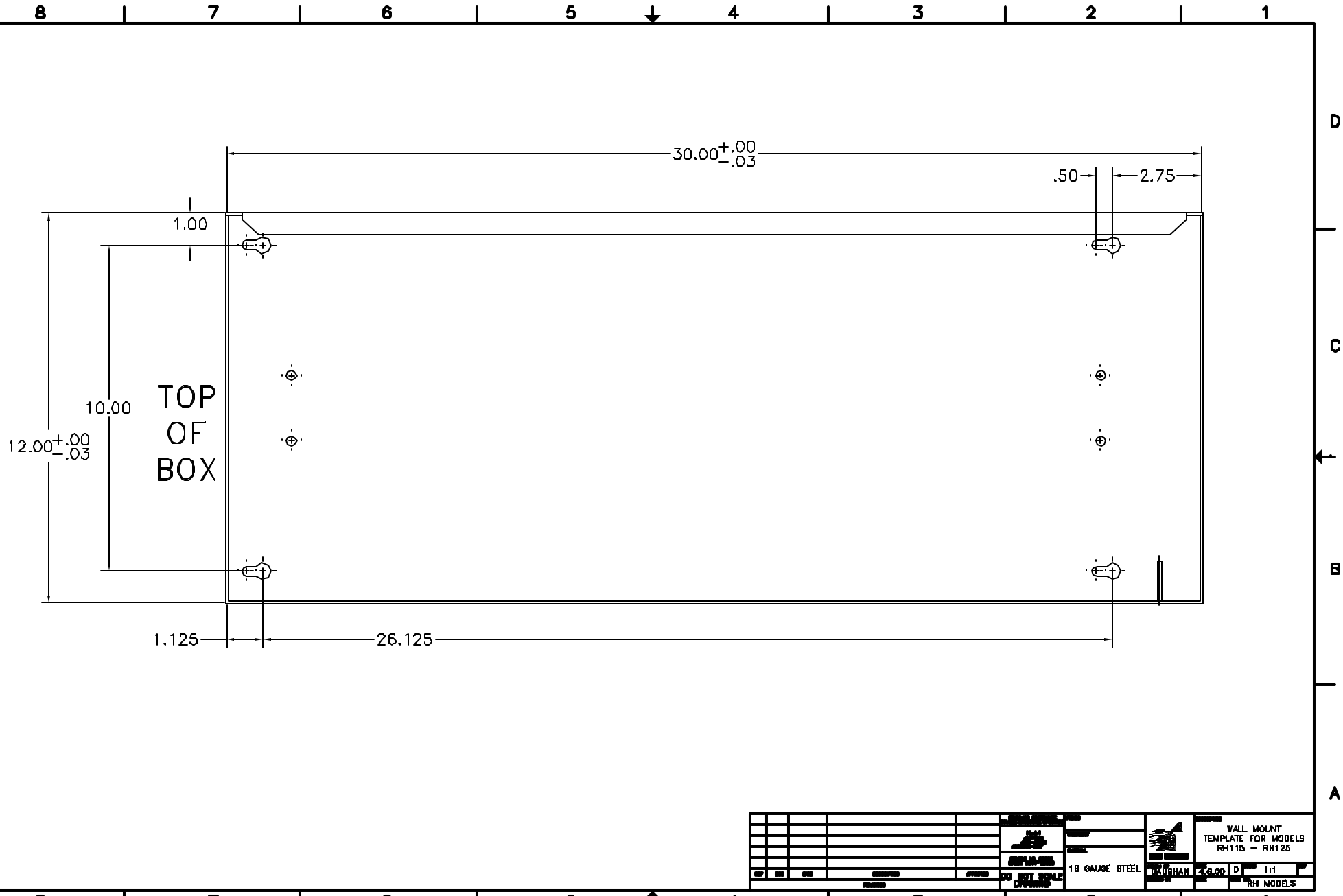
GAUGHAN

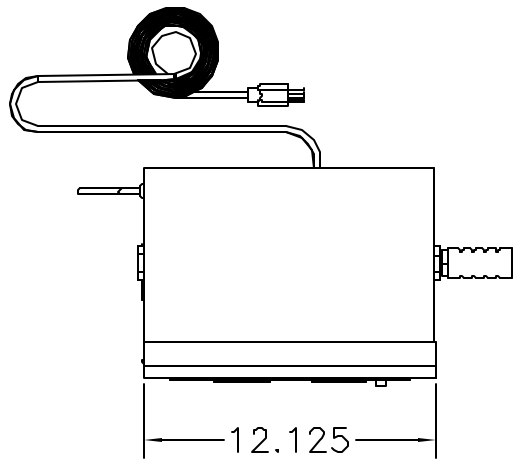
7.11.00

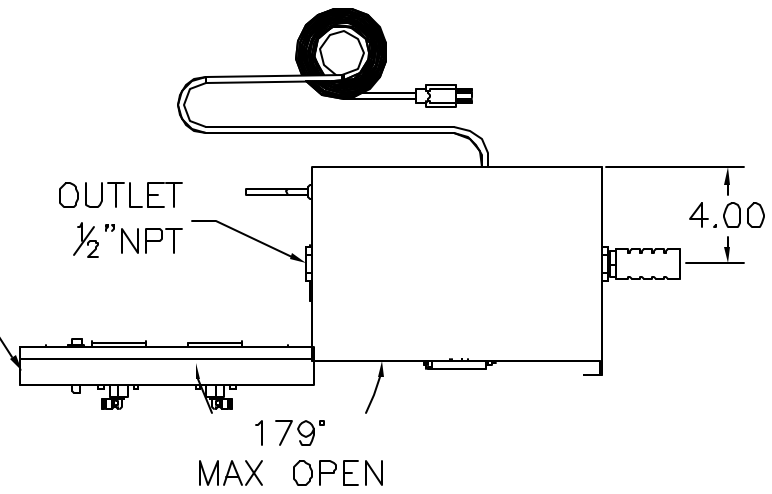
D

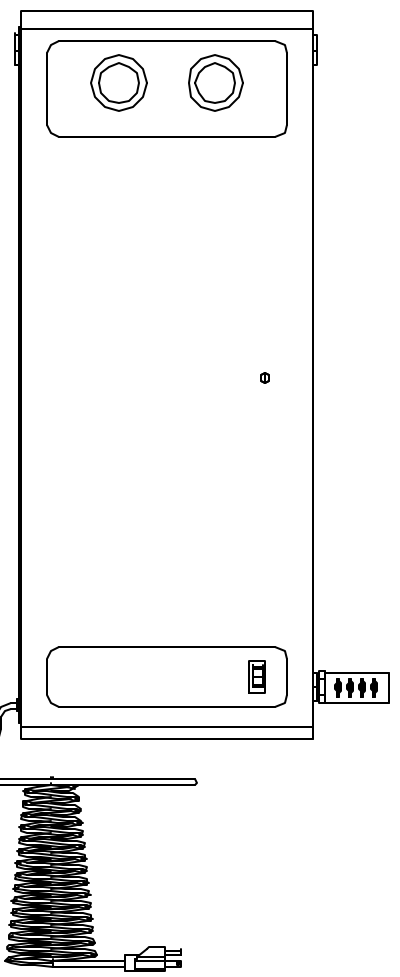
1:4

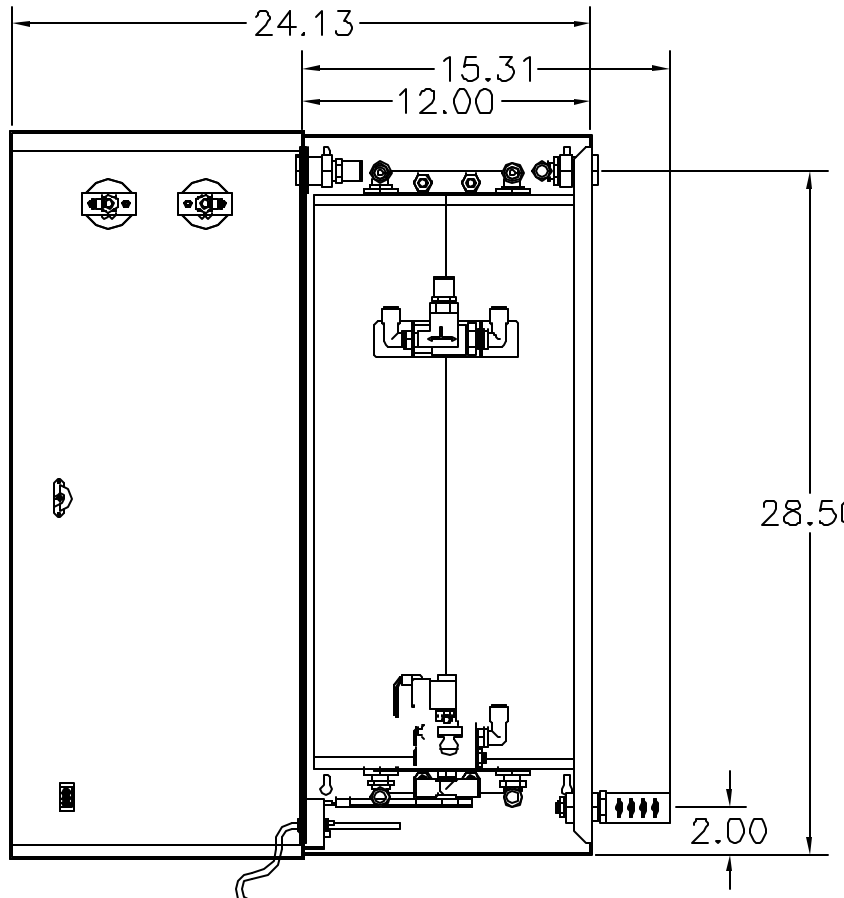
RH120A1

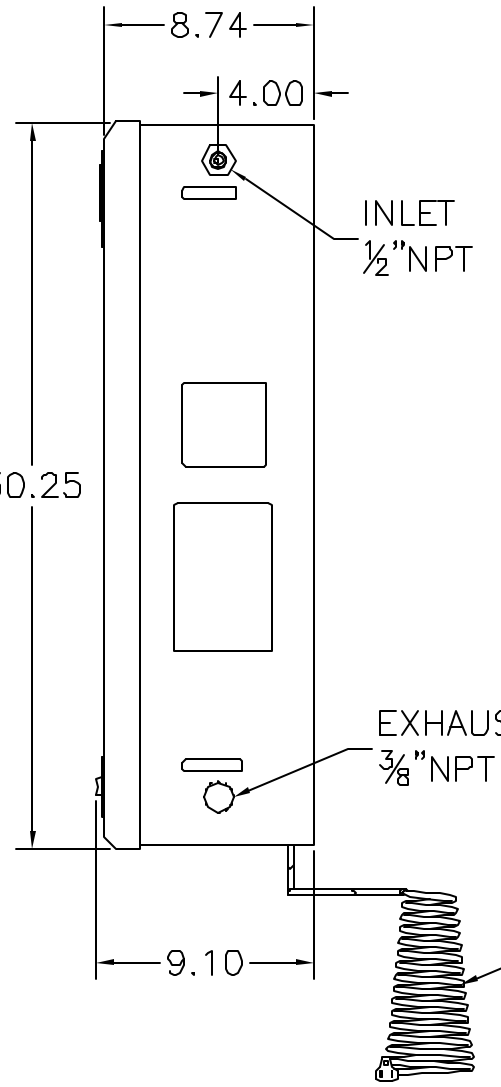

30.00 +.00 -.03
.50
2.75
1.00
10.00
12.00 +.00 -.03
TOP
OF
BOX
1.125
26.125
18 GAUGE STEEL
DO NOT SCALE DRAWING
DRAUGHAN
WALL MOUNT
TEMPLATE FOR MODELS
RH11B – RH12B
RH MODELS











WEIGHT 90 LBS.

DO NOT SCALE DRAWING

MINI REGEN
RH125A1

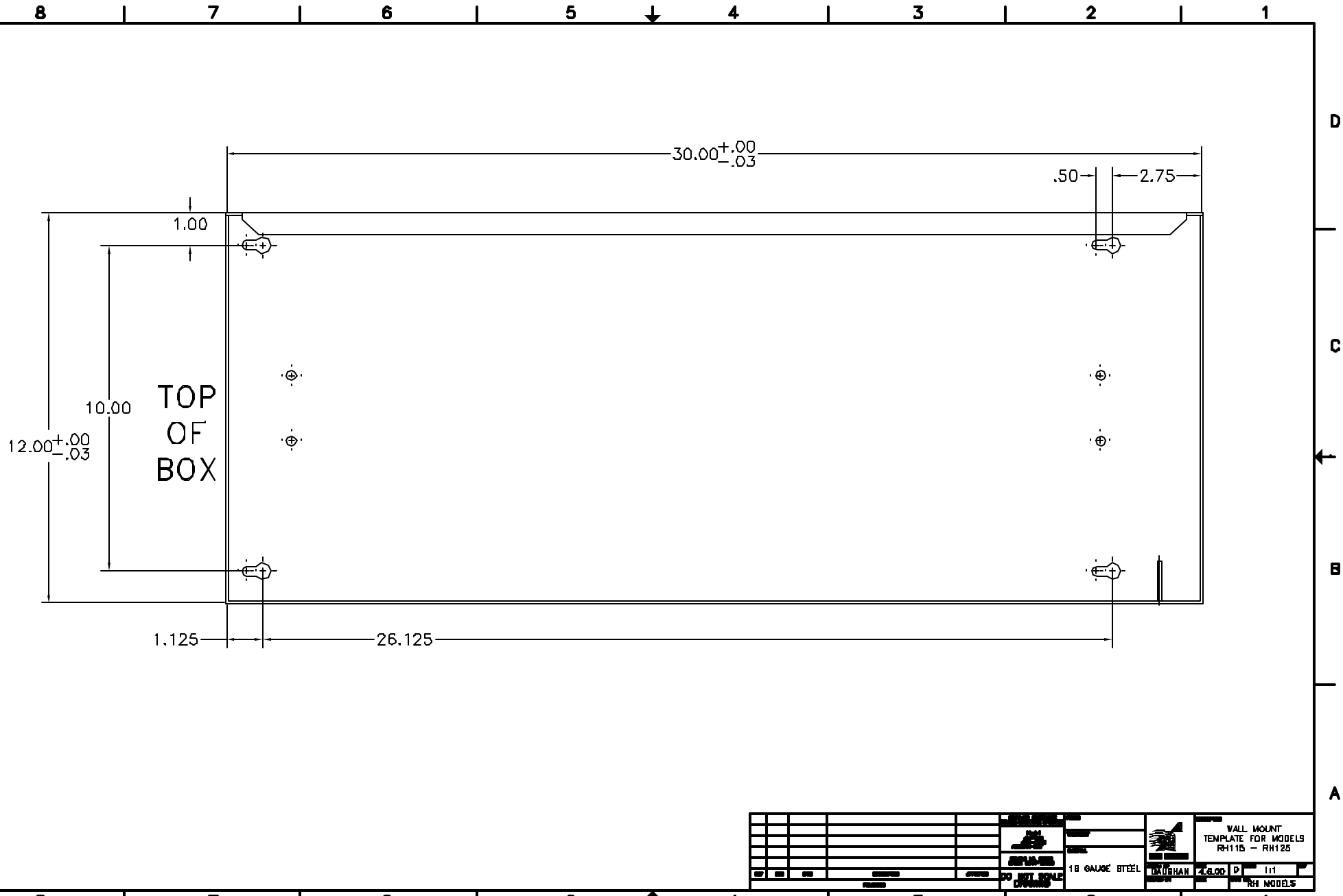
GAUGHAN

7.11.00

D

1:4

RH125A1


30.00 +.00 -.03
.50
2.75
1.00
10.00
12.00 +.00 -.03
TOP
OF
BOX
1.125
26.125
18 GAUGE STEEL
DO NOT SCALE DRAWING
DAUGHAN
WALL MOUNT
TEMPLATE FOR MODELS
RH11B – RH12B
RH MODELS