

**ROSS CONTROLS®**



## **FILTERS**



## FILTERS – KEY FEATURES

- Filters – 5- and 40-micron filtration levels
- Coalescing Filters – 0.3- and 0.01-micron filtration levels
- Oil Vapor Removal (Adsorbing) Filters – removes oil and hydrocarbon vapors
- Filter Drains – manual, automatic, internal float, and automatic external drains
- Modular and inline mounting options
- Metal and High Strength polycarbonate bowl options
- Several Differential Gauge options available

FILTER TYPE/SERIES	AVAILABLE PORT SIZES								MOUNTING		FLOW	OPTIONS				FILTRATION					Page		
	1/8	1/4	3/8	1/2	3/4	1	1¼	1½	2	INLINE	MODULAR	MAX FLOW (scfm)	POLYCARBONATE BOWL	METAL BOWL	AUTOMATIC DRAIN	MANUAL DRAIN	0.01 µm	0.3 µm	5 µm	20 µm		40 µm	ACTIVATED CARBON
FILTERS																							
BANTAM												30											E1.3
MINIATURE												23											E1.4
MID-SIZE												75											E1.5
MD3™												92											E1.6
FULL-SIZE												155											E1.7
MD4™												205											E1.8
HIGH-CAPACITY												1000											E1.9 E1.11
COALESCING FILTERS																							
BANTAM												11											E1.12
MINIATURE												10											E1.13
MID-SIZE												100											E1.14
MD3™												125											E1.15
FULL-SIZE												100											E1.16
MD4™												158											E1.17
HIGH-CAPACITY												840											E1.18- E1.22
OIL VAPOR REMOVAL (ADSORBING) FILTERS																							
MD3™												125											E1.23
MD4™												165											E1.24
CLEAN AIR PACKAGES																							
MD3™												125											E1.25 - E1.26
MD4™												158											E1.27 -E1.28
INLINE SILENCERS / RECLASSIFIERS																							
																							E1.29
DRIP LEG DRAINS																							
																							E1.30

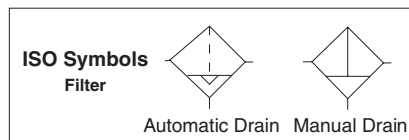
**Port Sizes: 1/8 to 1/4 – Flow to 30 scfm**

Port Size	Model Numbers			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
<b>With THREADED PORTS</b>				
1/8*	5B01B0100	5B01B0200	5B01B0300	5B01B0400
1/4*	5B02B0100	5B02B0200	5B02B0300	5B02B0400
<b>With Quick-Connect TUBE FITTINGS</b>				
1/4	5B03B0100	5B03B0200	5B03B0300	5B03B0400
3/8	5B04B0100	5B04B0200	5B04B0300	5B04B0400
4mm	5B05B0100	5B05B0200	5B05B0300	5B05B0400
6mm	5B06B0100	5B06B0200	5B06B0300	5B06B0400
8mm	5B07B0100	5B07B0200	5B07B0300	5B07B0400
10mm	5B08B0100	5B08B0200	5B08B0300	5B08B0400

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5B01B0100.

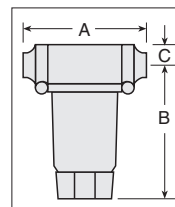


E1



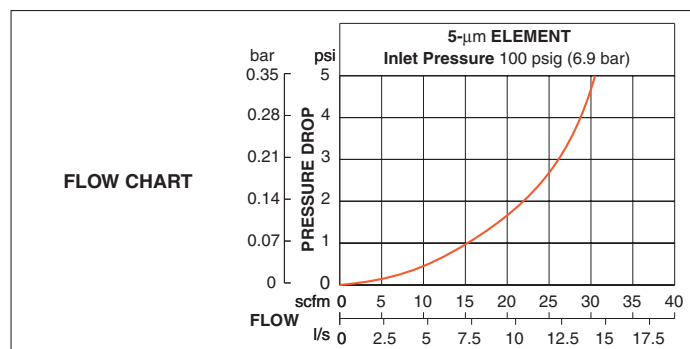
Port Size	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
		A	B**	C	Depth	
No Port	2-oz (60-ml)	1.7 (43)	3.9 (99)	0.5 (13)	1.8 (45)	0.27 (0.12)
1/8, 1/4	2-oz (60-ml)	3.0 (76)	3.9 (99)	0.5 (13)	1.8 (45)	0.49 (0.22)
<b>Models below have quick-connect tube fittings.</b>						
1/4	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
3/8	2-oz (60-ml)	3.9 (99)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
4 mm	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
6 mm	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
8 mm	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
10 mm	2-oz (60-ml)	3.9 (99)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)

\*\* Dimension for polycarbonate bowl; metal bowl is 3.8 (97).



E

REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-µm	Polyethylene	933K77



*Accessories ordered separately, refer to page E6.3-4.*

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 150°F (4° to 66°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 5-micron rated polyethylene.

**Body:** Acetal.

**Bowl:** Polycarbonate or aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.3

Port Sizes: 1/8 & 1/4 – Flow to 23 scfm

Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
1/8	5021B1010	5022B1010	5011B1010	5012B1010
1/4	5021B2010	5022B2010	5011B2010	5012B2010

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5021B1010.



Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1/8, 1/4	Polycarbonate	2-oz (60-ml)	1.6 (41)	3.9 (99)	0.4 (9.5)	1.6 (41)	0.33 (0.15)
	Aluminum	2-oz (60-ml)	1.6 (41)	4.3 (109)	0.4 (9.5)	1.6 (41)	0.35 (0.16)

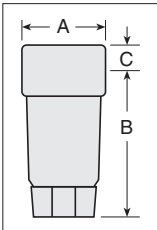
ISO Symbols  
Filter



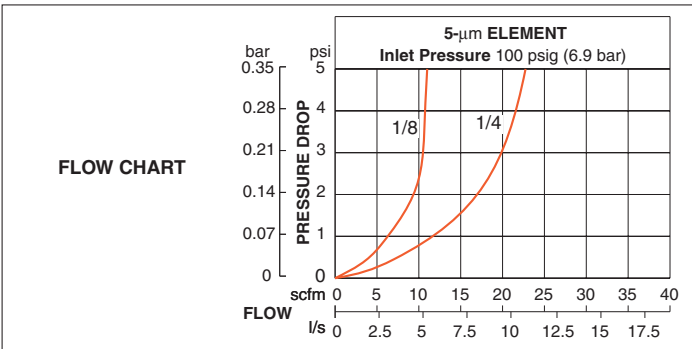
Automatic Drain



Manual Drain



REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-µm	Polyethylene	933K77



Accessories ordered separately, refer to page E6.3-4.

STANDARD SPECIFICATIONS (for products on this page):

- Construction:** Fiber.

**Ambient/Media Temperature:**  
Polycarbonate bowl: 40° to 125°F (4° to 52°C).  
Metal bowl: 40° to 150°F (4° to 66°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**  
Polycarbonate bowl: Up to 150 psig (up to 10 bar).  
Metal bowl: Up to 200 psig (up to 14 bar).
- Inlet Pressure - Manual drain model:**  
Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).  
Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 5-micron rated polyethylene.

**Body:** Aluminum.

**Bowl:** Polycarbonate or aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



## Port Sizes: 1/4, 3/8 & 1/2 – Flow to 75 scfm

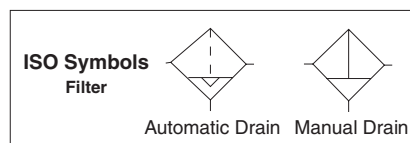
Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
1/4	5021B2007	5022B2007	5011B2007	5012B2007
3/8	5021B3027	5022B3027	5011B3026	5012B3026
1/2	5021B4007	5022B4007	5011B4007	5012B4007

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5021B2007.

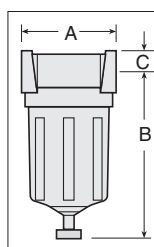


E1

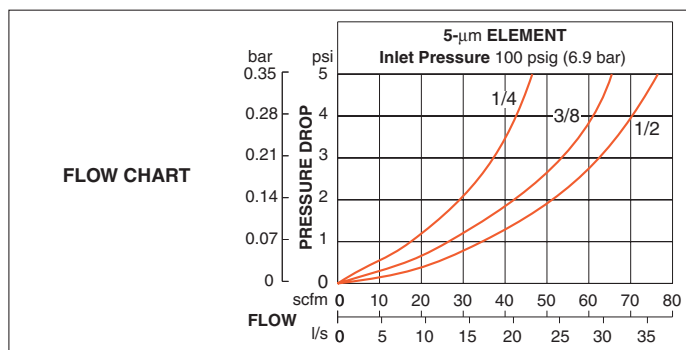
Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1/4, 3/8, 1/2	Polycarbonate	4-oz (120-ml)	2.7 (67)	4.8 (122)	0.6 (16)	2.4 (60)	1.13 (0.51)
	Zinc	4-oz (120-ml)	2.7 (67)	4.9 (123)	0.6 (16)	2.4 (60)	1.50 (0.68)



REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-μm	Polyethylene	936K77



E



**Options:** Internal Float Drain, consult ROSS.  
**Accessories ordered separately, refer to page E6.3-4, E6.7.**

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 79°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 5-micron rated polyethylene.

**Body:** Zinc.

**Bowl:** Polycarbonate bowl with zinc shatterguard, or zinc bowl.

**Seals:** Nitrile.



Online Version  
Rev. 05/16

www.rosscontrols.com

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Port Sizes: 1/4, 3/8 &amp; 1/2 – Flow to 92 scfm

E1

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

MD3 50P A M C 2 2 A

## BOWL TYPE

Polycarbonate Bowl 5.1-oz (151-ml)	50P
Metal Bowl 6-oz (177-ml)	50M

## FILTER ELEMENT TYPE

40 µm sintered bronze	A
5 µm polyethylene	B
5 µm sintered bronze	E
20 µm sintered bronze	F

## BOWL DRAIN

Manual Drain	M
Float Drain	F
Less Drain Fitting (1/4 NPT female instead)	L

## PIPE SIZE

1/4 NPTF	2
3/8 NPTF	3
1/2 NPTF	4
1/4 BSPP	B
3/8 BSPP	C
1/2 BSPP	D

## DIFFERENTIAL PRESSURE GAUGE

No Gauge (without gauge port)	A
Small Slide Gauge	S

## CAP COLOR

Gold	2
Gray	G
Yellow	Y
Red	R
Blue	B

ISO Symbols  
Filter

Automatic Drain

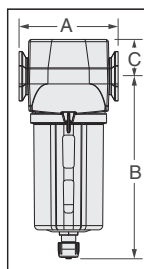


Manual Drain



Port Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A	B*	C	Depth	
1/4, 3/8, 1/2	Polycarbonate	3.0 (76.2)	5.54 (140.6)	1.12 (28.3)	2.51 (63.8)	1.29 (0.59)
	Aluminum	5.0 (127)	6.42 (163.1)	1.12 (28.3)	2.76 (70.1)	1.41 (0.64)

\* With small differential gauge, add 1.21 (31) to dimension C.  
Bowl removal clearance: add 3.1 (79).



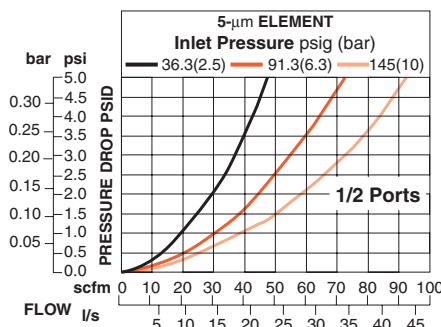
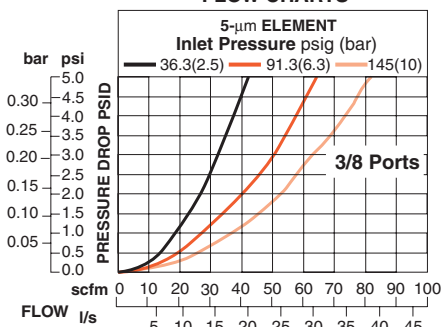
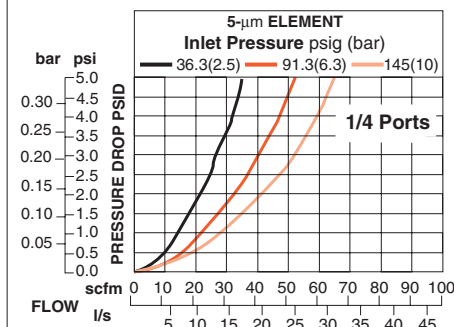
## REPLACEMENT FILTER ELEMENTS\*

Element Rating	Element Material	Part Number
5-µm	Polyethylene	R-A60F-03PE5
5-µm	Sintered Bronze	R-A60F-03E5
20-µm	Sintered Bronze	R-A60F-03E4
40-µm	Sintered Bronze	R-A60F-03E3

\* For polycarbonate and metal bowl types.

E

## FLOW CHARTS



Options: Differential Pressure Gauge, for additional information refer to page E6.6.

Options: External Bowl Drains, refer to page E6.7.

Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Sintered or fiber.**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: 30 to 150 psig (2 to 10 bar).

Metal bowl: 30 to 200 psig (2 to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 250 psig (0 to 17 bar).

**Filter Element:** 5-micron polyethylene, or 5-, 20-, 40-µm sintered bronze.**Body:** Die-cast zinc.**Bowl:** Polycarbonate bowl with nylon shatterguard, or aluminum bowl with clear nylon sight glass.**Seals:** Nitrile**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



**Port Sizes: 1/4, 3/8, 1/2 & 3/4 – Flow to 155 scfm**

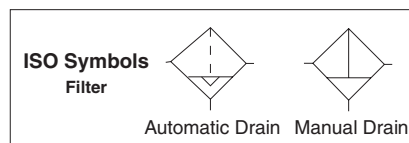
Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
1/4	5021B2008	5022B2005	5011B2008	5012B2006
3/8	5021B3008	5022B3005	5011B3008	5012B3006
1/2	5021B4008	5022B4005	5011B4008	5012B4006
3/4	5021B5018	5022B5015	5011B5018	5012B5016

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5021B2008.

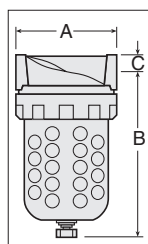


E1

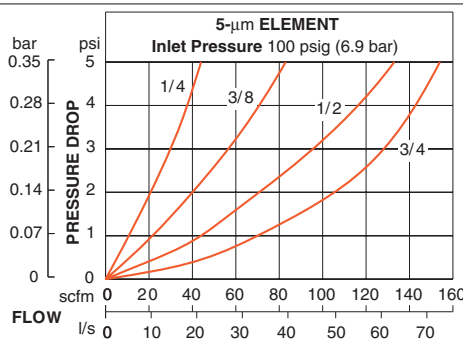
Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1/4, 3/8, 1/2, 3/4	Polycarbonate	8-oz (240-ml)	3.5 (89)	5.8 (146)	0.6 (16)	3.5 (89)	1.93 (0.88)
	Zinc	8-oz (240-ml)	3.5 (89)	6.4 (163)	0.6 (16)	3.5 (89)	2.90 (1.32)



REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-μm	Polyethylene	939K77



**FLOW CHART**



**Options:** Automatic External Drain, refer to page E6.7.  
Internal Float Drain, consult ROSS.  
**Accessories ordered separately, refer to page E6.3-4.**

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 5-micron rated polyethylene.

**Body:** Zinc.

**Bowl:** Polycarbonate bowl with steel shatterguard, or zinc bowl with clear nylon sight glass.

**Bowl Ring:** Aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.7

Port Sizes: 3/8, 1/2 & 3/4 – Flow to 205 scfm

HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

MD4

50P

B

A

B

5

2

L

**BOWL TYPE**

Polycarbonate Bowl 9-oz (266-ml) 50P

Metal Bowl 9-oz (266-ml) 50M

**FILTER ELEMENT TYPE**

40-µm sintered bronze A

5-µm polyethylene B

**BOWL DRAIN**

Automatic Drain A

Manual Drain M

Less Drain Fitting - 1/4 NPT female instead L

Internal Float Drain F

**PIPE SIZE**

3/8 NPTF 3

1/2 NPTF 4

3/4 NPTF 5

3/8 BSPP C

1/2 BSPP D

3/4 BSPP E

**DIFFERENTIAL PRESSURE GAUGE**

No Gauge (without gauge port) A

Large Dual Face Gauge L

Small Slide Gauge S

Large Dual Face Gauge with Normally Open Reed Switch E

Large Dual Face Gauge with Normally Closed Reed Switch C

**CAP COLOR**

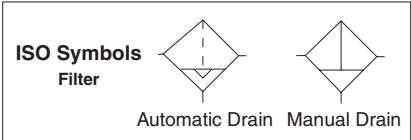
Gold 2

Gray G

Yellow Y

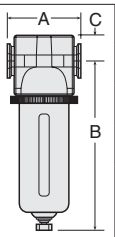
Red R

Blue B

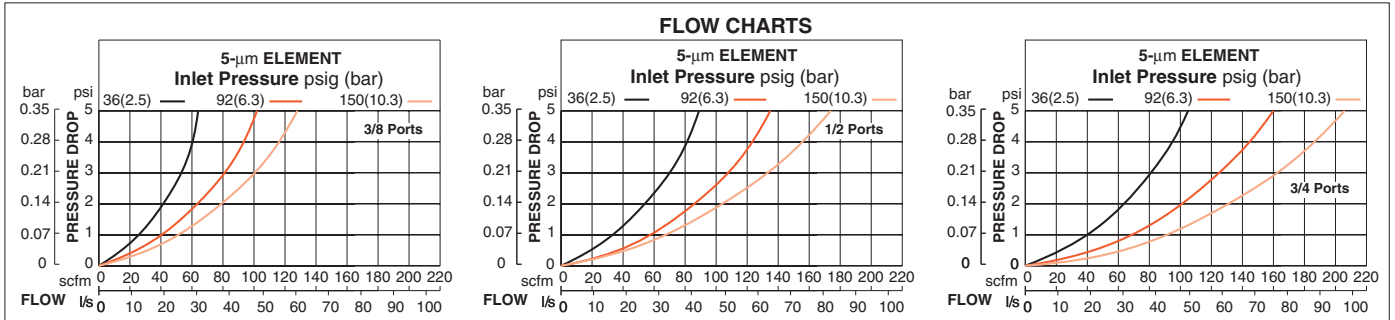


Port Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A	B**	C	Depth	
3/8, 1/2, 3/4	Polycarbonate	3.0 (76.2)	7.7 (195)	1.1 (28)	2.9 (73)	2.13 (0.97)
	Aluminum	3.5 (76.2)	7.6 (193)	1.1 (28)	3.1 (79)	2.13 (0.97)

\*\*With small differential gauge, add 1.21 (31) to dimension C.  
Bowl removal clearance: add 3.1 (79).



REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Element Number
5-µm	Polyethylene	R-A115-106PE5
40-µm	Sintered Bronze	R-A115-106PE3



Options: Differential Pressure Gauge, for additional information refer to page E6.6.  
Options: External Bowl Drains, refer to page E6.7.  
Accessories ordered separately, refer to page E6.3-4.

STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Sintered or fiber.

**Ambient/Media Temperature:**  
Polycarbonate bowl: 40° to 125°F (4° to 52°C).  
Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**  
Polycarbonate bowl: Up to 150 psig (up to 10 bar).  
Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**  
Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).  
Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 5-micron rated polyethylene, or 40-micron rated sintered bronze.

**Body:** Die-cast zinc.

**Bowl:** Polycarbonate bowl with steel shatterguard, or aluminum bowl with clear nylon sight glass.

**Bowl Ring:** Nylon.

**Seals:** Nitrile

IMPORTANT NOTE: Please read carefully and thoroughly all of the CAUTIONS, WARNINGS on the inside back cover.



## Port Sizes: 3/4 & 1 – Flow to 275 scfm

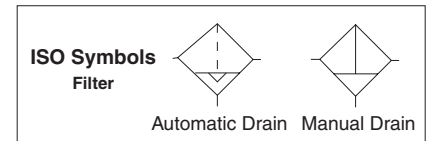
Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
3/4	5021B5008	5022B5005	5011B5008	5012B5006
1	5021B6008	5022B6005	5011B6008	5012B6006

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5021B5008.

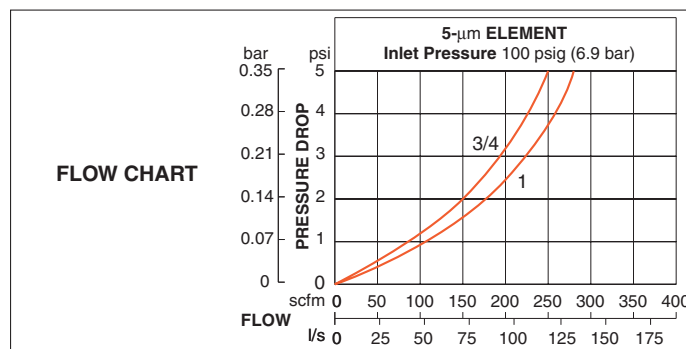
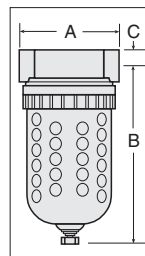


E1

Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
3/4	Polycarbonate	16-oz (480-ml)	4.5 (114)	8.0 (203)	0.8 (21)	4.2 (106)	2.44 (1.11)
1	Aluminum	16-oz (480-ml)	4.5 (114)	8.3 (210)	0.8 (21)	4.2 (106)	3.25 (1.48)



REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-μm	Polyethylene	1010K77



E

**Options:** Automatic External Drain, refer to page E6.7.  
Internal float drain, consult ROSS.  
**Accessories ordered separately, refer to page E6.3-4.**

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 5-micron rated polyethylene.

**Body:** Aluminum.

**Bowl:** Polycarbonate bowl with steel shatterguard, or aluminum bowl with clear nylon sight glass.

**Bowl Ring:** Aluminum.

**Seals:** Nitrile.

## Port Sizes: 1¼ & 1½ – Flow to 660 scfm

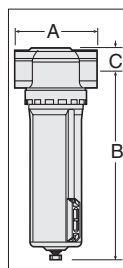
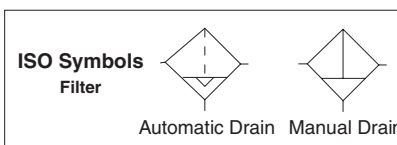
E1

Port Size	Filter Element Rating	Model Numbers*	
		Automatic Drain	Manual Drain
		Metal Bowl	Metal Bowl
1¼	5-µm	5022B7019	5012B7019
	40-µm	5X00B7051	5X00B7052
1½	5-µm	5022B8019	5012B8019
	40-µm	5X00B8037	5X00B8051

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5022B7019.



Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1¼	Aluminum	35-oz (1000-ml)	5.5 (140)	10.7 (271)	1.4(36)	4.2 (106)	1.93 (0.88)
1½	Aluminum	35-oz (1000-ml)	5.5 (140)	10.7 (271)	1.4(36)	4.2 (106)	1.93 (0.88)

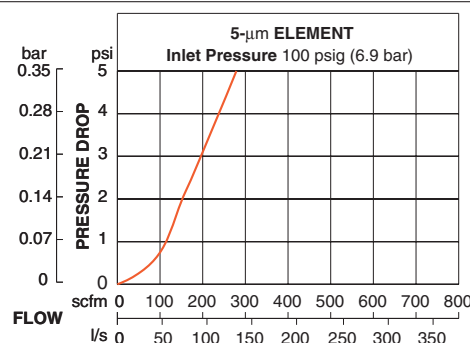
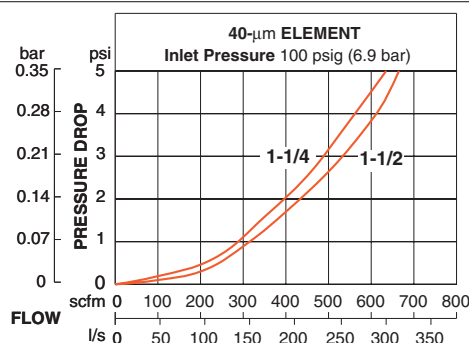


### REPLACEMENT FILTER ELEMENTS

Element Rating	Element Material	Part Number
5-µm	Sintered Bronze	1656K77
40-µm	Sintered Bronze	R-A114-106E3

E

### FLOW CHARTS



**Options:** External Automatic Drain, refer to page E6.7.  
Internal float drain, consult ROSS.  
**Accessories** ordered separately, refer to page E6.3-4.

### STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Sintered.  
**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).  
**Fluid Media:** Compressed air.  
**Inlet Pressure:**  
Automatic drain model: Up to 200 psig (up to 14 bar).  
Manual drain model: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 40-micron rated or 5-micron rated sintered bronze.  
**Body:** Aluminum.  
**Bowl:** Aluminum bowl with clear nylon sight glass.  
**Bowl Ring:** Aluminum.  
**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

# Inline Filters

# HIGH-CAPACITY Series

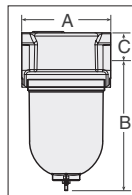
Port Sizes: 1¼, 1½ & 2 – Flow to 1000 scfm

Port Size	Filter Element Rating	Model Numbers*	
		Internal Float Drain	Manual Drain
1¼	5-µm	5022B7018	5012B7018
1¼	40-µm	5X00B7025	5X00B7054
1½	5-µm	5022B8018	5012B8018
1½	40-µm	5X00B8018	5X00B8019
2	5-µm	5022B9018	5012B9018
2	40-µm	5X00B9004	5X00B9003

\* NPT port threads. For BSP threads add a "C" prefix to the model number e.g., C5022B7018.

Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1¼, 1½, 2	Aluminum	123-oz (3700-ml)	8.1 (204)	12.0 (305)	2.4 (60.3)	8.0 (203.2)	14.3 (6.59)

REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-µm	Sintered Bronze	942K77
40-µm	Sintered Bronze	944K77

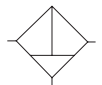


E1

ISO Symbols  
Filter

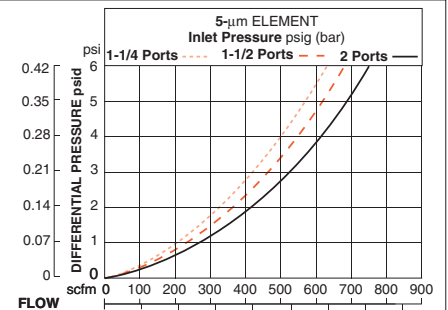
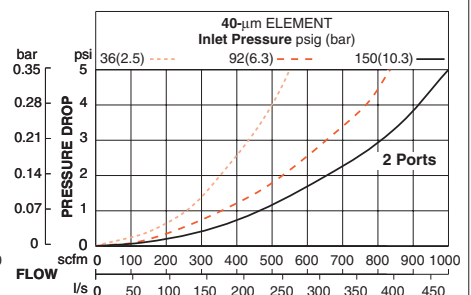
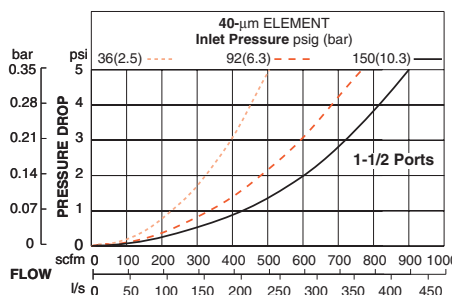
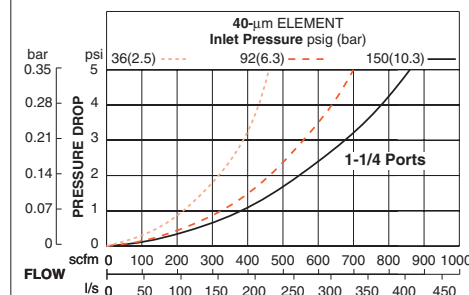


Automatic Drain



Manual Drain

## FLOW CHARTS



Options: External Automatic Drain, refer to page E6.7.  
Accessories ordered separately, refer to page E6.3-4.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Sintered or fiber.

**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

Internal float drain model: 30 to 200 psig (2.1 to 14 bar).

Manual drain model: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 40-micron rated or 5-micron rated sintered bronze.

**Body:** Aluminum.

**Bowl:** Aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.11

# Modular Coalescing Filters

## BANTAM Series

Port Sizes: 1/8 & 1/4 – Flow to 11 scfm

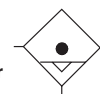
E1

Port Size	Model Numbers			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
<b>With THREADED PORTS</b>				
1/8*	5B01B0700	5B01B0800	5B01B0500	5B01B0600
1/4*	5B02B0700	5B02B0800	5B02B0500	5B02B0600
<b>With Quick-Connect TUBE FITTINGS</b>				
1/4	5B03B0700	5B03B0800	5B03B0500	5B03B0600
3/8	5B04B0700	5B04B0800	5B04B0500	5B04B0600
4mm	5B05B0700	5B05B0800	5B05B0500	5B05B0600
6mm	5B06B0700	5B06B0800	5B06B0500	5B06B0600
8mm	5B07B0700	5B07B0800	5B07B0500	5B07B0600
10mm	5B08B0700	5B08B0800	5B08B0500	5B08B0600

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5B01B0700. Models include 0.3-micron rated filter element.



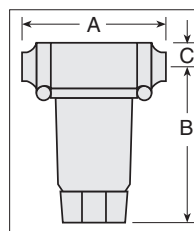
ISO Symbols  
Coalescing Filter



Automatic Drain Manual Drain

Port Size	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
		A	B**	C	Depth	
No Ports	2-oz (60-ml)	1.7 (43)	3.9 (99)	0.5 (13)	1.8 (45)	0.27 (0.12)
1/8, 1/4	2-oz (60-ml)	3.0 (76)	3.9 (99)	0.5 (13)	1.8 (45)	0.49 (0.22)
<b>Models below have quick-connect tube fittings.</b>						
1/4	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
3/8	2-oz (60-ml)	3.9 (99)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
4 mm	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
6 mm	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
8 mm	2-oz (60-ml)	3.4 (86)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)
10 mm	2-oz (60-ml)	3.9 (99)	3.9 (99)	0.5 (13)	1.8 (45)	0.47 (0.21)

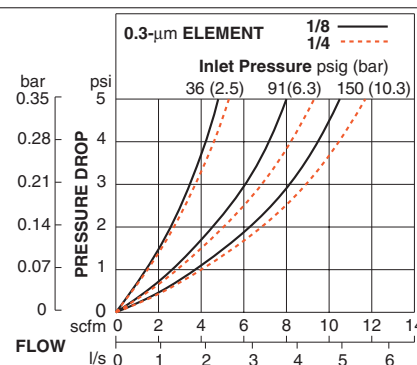
\*\* Dimension for polycarbonate bowl; aluminum bowl is 3.8 (97).



E

REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
0.3- $\mu$ m	Borosilicate-glass-fiber	945K77
0.01- $\mu$ m	Borosilicate-glass-fiber	R-A-10F-16E8

FLOW CHART



Accessories ordered separately, refer to page E6.3-4.

### STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 150°F (4° to 66°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated, or 0.01-micron rated borosilicate-glass-fiber element.

**Body:** Acetal.

**Bowl:** Polycarbonate or aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

**Port Sizes: 1/8 & 1/4 – Flow to 10 scfm**

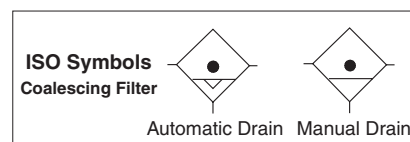
Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
1/8	5031B1128	5032B1118	5031B1028	5032B1028
1/4	5031B2128	5032B2128	5031B2028	5032B2028

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5031B1128. Models include 0.3-micron rated filter element.

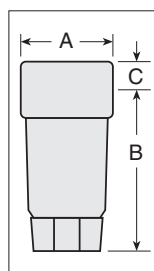


E1

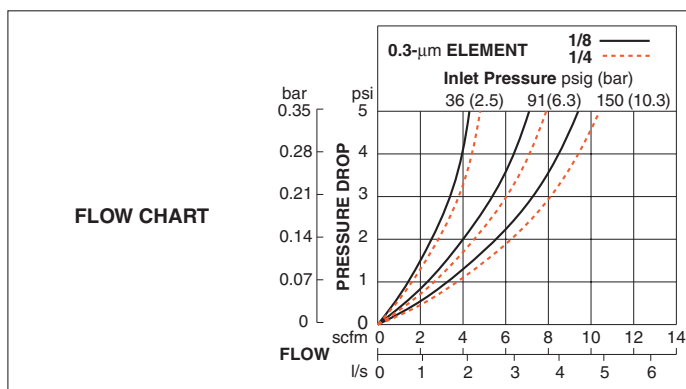
Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1/8, 1/4	Polycarbonate	2-oz (60-ml)	1.6 (41)	3.6 (92)	0.4 (9.5)	1.6 (41)	0.33 (0.15)
1/8, 1/4	Aluminum	2-oz (60-ml)	1.6 (41)	4.3 (109)	0.4 (9.5)	1.6 (41)	0.35 (0.16)



REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
0.3-μm	Borosilicate-glass-fiber	945K77
0.01-μm	Borosilicate-glass-fiber	R-A-10F-16E8



E



Accessories ordered separately, refer to page E6.3-4.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 150°F (4° to 66°C)

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar)

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Aluminum.

**Bowl:** Polycarbonate or aluminum.

**Seals:** Nitrile.

# Modular Coalescing Filters

## MID-SIZE Series

Port Sizes: 1/4, 3/8 & 1/2 – Flow to 85 scfm

E1

Port Size	Filter Element Rating	Model Numbers*			
		Automatic Drain		Manual Drain	
		Metal Bowl	Extended Metal Bowl	Metal Bowl	Extended Metal Bowl
1/4	0.3-µm	5032B2138	5032B2148	5032B2038	5032B2048
	0.01-µm	5032B2239	5032B2249	5032B2238	5032B2248
3/8	0.3-µm	5032B3138	5032B3148	5032B3038	5032B3048
	0.01-µm	5032B3239	5032B3249	5032B3238	5032B3248
1/2	0.3-µm	5032B4138	5032B4148	5032B4038	5032B4048
	0.01-µm	5032B4239	5032B4249	5032B4238	5032B4248

\*NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5032B2138. Models include 0.3-micron rated filter element.

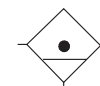


Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1/4, 3/8, 1/2	Standard	6-oz (180-ml)	2.7 (67)	6.5 (165)	1.8 (45)	2.4 (60)	1.75 (0.80)
1/4, 3/8, 1/2	Extended	10-oz (300-ml)	2.7 (67)	9.5 (241)	1.8 (45)	2.4 (60)	2.00 (0.91)

ISO Symbols  
Coalescing Filter



Automatic Drain

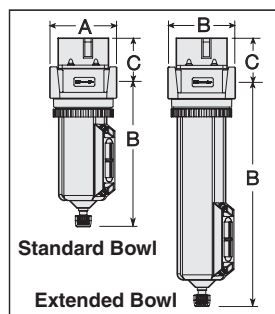


Manual Drain

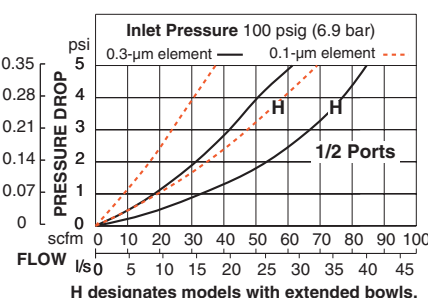
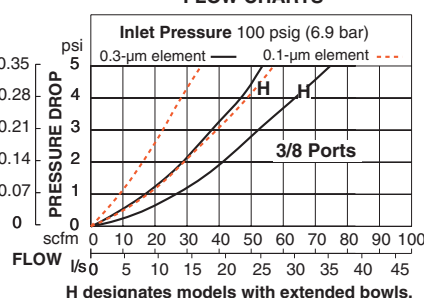
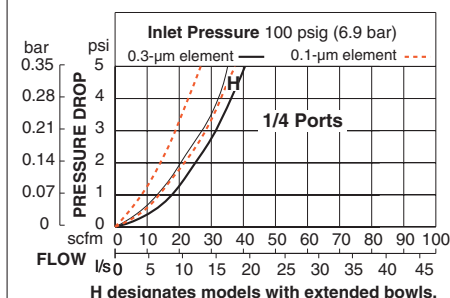
E

### REPLACEMENT FILTER ELEMENTS

Element Rating	Bowl Type	Element Material	Part Number
0.3-µm	Standard	Borosilicate-glass-fiber	R-A60F-29
0.3-µm	Extended	Borosilicate-glass-fiber	R-A60F-32
0.01-µm	Standard	Borosilicate-glass-fiber	R-A60F-29E8
0.01-µm	Extended	Borosilicate-glass-fiber	R-A60F-32E8



### FLOW CHARTS



Accessories ordered separately, refer to page E6.3-4.

### STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

Automatic drain model: Up to 150 psig (up to 10 bar).

Manual drain model: 0 to 150 psig (0 to 10 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Zinc.

**Bowl:** Aluminum bowl with clear nylon sight glass, or extended aluminum bowl with clear nylon sight glass.

**Bowl Ring:** Nylon.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Port Sizes: 1/4, 3/8 & 1/2 – Flow to 125 scfm

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

**MD3** **50P** **C** **M** **C** **4** **2** **A**

BOWL TYPE	
Polycarbonate Bowl 5.1-oz (151-ml)	<b>50P</b>
Metal Bowl 6-oz (177-ml)	<b>50M</b>
Extended Metal Bowl 10-oz (295-ml)	<b>50E</b>

### FILTER ELEMENT TYPE

0.3 µm Borosilicate glass	<b>C</b>
0.01 µm Borosilicate glass	<b>D</b>

### BOWL DRAIN

Manual Drain	<b>M</b>
Float Drain	<b>F</b>
Less Drain Fitting (1/4 NPT female instead)	<b>L</b>

PIPE SIZE	
1/4 NPTF	<b>2</b>
3/8 NPTF	<b>3</b>
1/2 NPTF	<b>4</b>
1/4 BSPP	<b>B</b>
3/8 BSPP	<b>C</b>
1/2 BSPP	<b>D</b>

### DIFFERENTIAL PRESSURE GAUGE

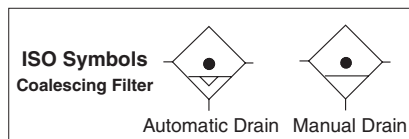
No Gauge (without gauge port)	<b>A</b>
Small Slide Gauge	<b>S</b>

### CAP COLOR

Gold	<b>2</b>
Gray	<b>G</b>
Yellow	<b>Y</b>
Red	<b>R</b>
Blue	<b>B</b>



E1

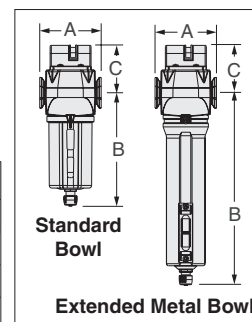


Port Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A	B*	C	Depth	
1/4, 3/8, 1/2	Polycarbonate	3.0 (76.2)	5.54 (140.6)	2.33 (59.3)	2.51 (63.8)	1.30 (0.59)
	Aluminum	3.0 (76.2)	6.42 (163.1)	2.33 (59.3)	2.76 (70.1)	1.41 (0.64)
	Extended Aluminum	3.0 (76.2)	9.51 (241.6)	2.33 (59.3)	2.76 (70.1)	1.54 (0.70)

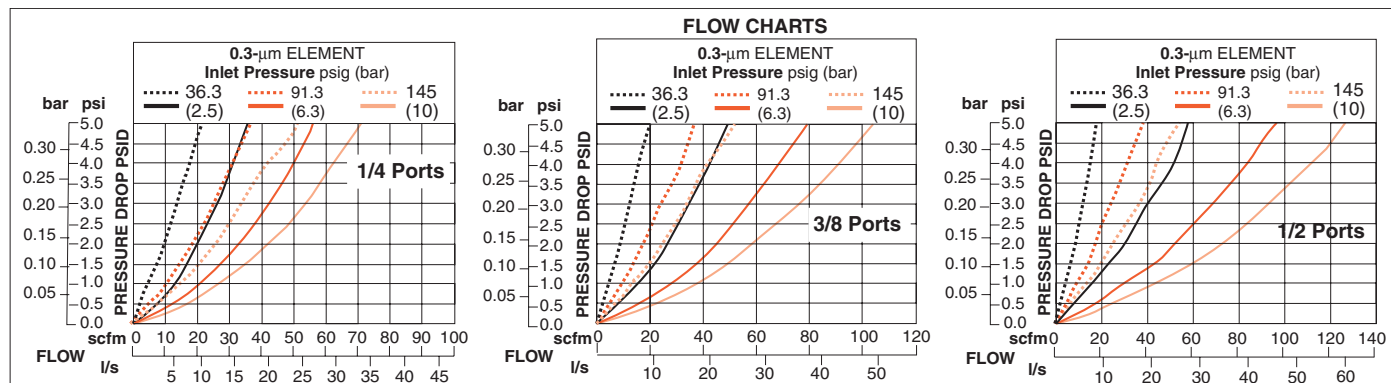
\* Bowl removal clearance: add 3.1 (79). Extended Bowl removal clearance: add 6.1 (155).

## REPLACEMENT FILTER ELEMENTS

Element Rating	Bowl Type	Part Number	Element Rating	Bowl Type	Part Number
0.3-µm	Polycarbonate	R-A60F-23	0.01-µm	Polycarbonate	R-A60F-23E8
	Metal	R-A60F-29		Metal	R-A60F-29E8
	Extended Metal	R-A60F-32		Extended Metal	R-A60F-32E8



E



Options: External Bowl Drains, for additional information refer to page E6.7.

Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: 30 to 150 psig (2 to 10 bar).

Metal bowl: 30 to 200 psig (2 to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 250 psig (0 to 17 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Die-cast zinc.

**Seals:** Nitrile.

**Bowl:** Polycarbonate bowl with nylon shatterguard, or aluminum bowl with clear nylon sight glass.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.15

Port Sizes: 1/4, 3/8 & 1/2 – Flow to 100 scfm

E1

Port Size	Bowl Type	Filter Element Rating	Model Numbers*			
			Automatic Drain		Manual Drain	
			Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
1/4	Standard	0.3-µm	5031B2108	5032B2118	5031B2008	5032B2018
		0.01-µm	5031B2209	5032B2219	5031B2208	5032B2218
3/8	Standard	0.3-µm	5031B3108	5032B3118	5031B3008	5032B3018
		0.01-µm	5031B3209	5032B3219	5031B3208	5032B3218
1/2	Standard	0.3-µm	5031B4108	5032B4118	5031B4008	5032B4018
		0.01-µm	5031B4209	5032B4219	5031B4208	5032B4218
	Extended	0.3-µm	5031B4128	5032B4128	5031B4028	5032B4028
		0.01-µm	5031B4229	5032B4229	5031B4228	5032B4228

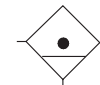
\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5031B2108.



ISO Symbols  
Coalescing Filter



Automatic Drain

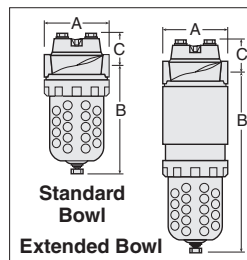


Manual Drain

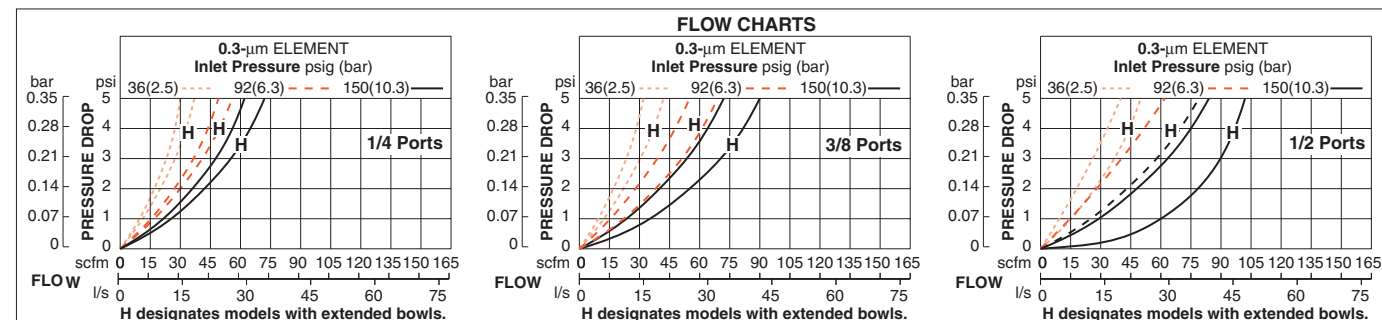
Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1/4, 3/8, 1/2	Standard	8-oz (240-ml)	3.5 (89)	5.8 (146)	1.8 (45)	3.5 (89)	2.13 (0.95)
1/4, 3/8, 1/2	Extended	20-oz (600-ml)	3.5 (89)	10.3 (260)	1.8 (45)	3.5 (89)	3.25 (1.54)

## REPLACEMENT FILTER ELEMENTS

Element Rating	Bowl Type	Element Material	Part Number
0.3-µm	Standard	Borosilicate-glass-fiber	947K77
0.3-µm	Extended	Borosilicate-glass-fiber	R-A103-160L
0.01-µm	Standard	Borosilicate-glass-fiber	948K77
0.01-µm	Extended	Borosilicate-glass-fiber	R-A103-160LE8



E



Small slide differential Pressure Gauge included.

Options: Differential Pressure Gauges: Large Dual Face, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.

Accessories ordered separately, refer to page E6.3-4.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Zinc.

**Bowl:** Polycarbonate bowl with steel shatterguard, or zinc bowl with clear nylon sight glass.

**Bowl Ring:** Aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Port Sizes: 3/8, 1/2 & 3/4 – Flow to 158 scfm

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

**MD4** **50P** **C** **A** **B** **5** **2** **L**

BOWL SIZE	
Polycarbonate Bowl 9-oz (266-ml)	<b>50P</b>
Metal Bowl 9-oz (266-ml)	<b>50M</b>
Extended Metal Bowl 15-oz (443-ml)	<b>50E</b>

FILTER ELEMENT TYPE	
0.3 µm Borosilicate glass	<b>C</b>
0.01 µm Borosilicate glass	<b>D</b>

PIPE SIZE	
3/8 NPTF	<b>3</b>
1/2 NPTF	<b>4</b>
3/4 NPTF	<b>5</b>
3/8 BSPP	<b>C</b>
1/2 BSPP	<b>D</b>
3/4 BSPP	<b>E</b>

CAP COLOR	
Gold	<b>2</b>
Gray	<b>G</b>
Yellow	<b>Y</b>
Red	<b>R</b>
Blue	<b>B</b>

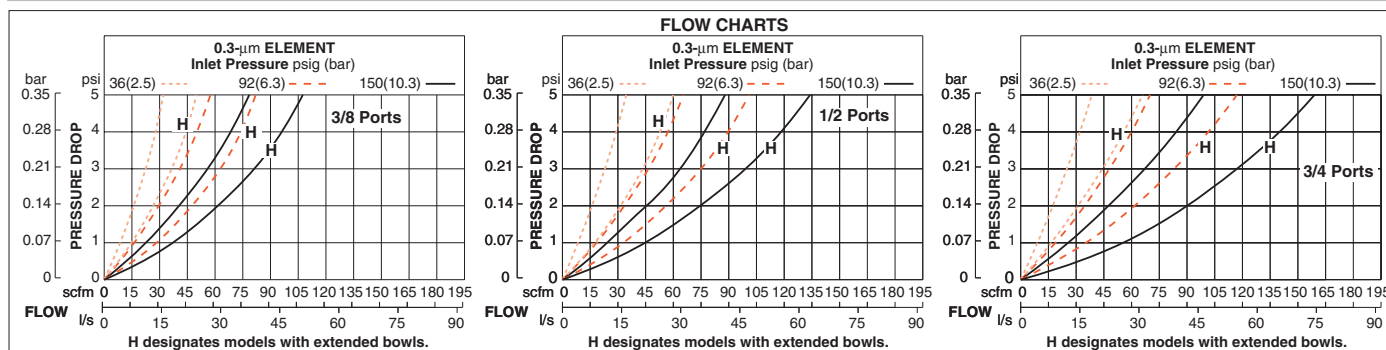
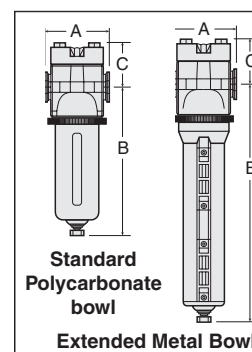
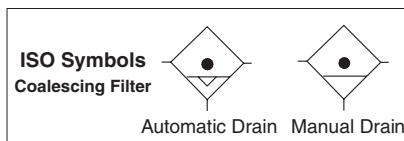
DIFFERENTIAL PRESSURE GAUGE	
No Gauge (without gauge port)	<b>A</b>
Large Dual Face Gauge	<b>L</b>
Small Slide Gauge	<b>S</b>
Large Dual Face Gauge with Normally Open Reed Switch	<b>E</b>
Large Dual Face Gauge with Normally Closed Reed Switch	<b>C</b>

BOWL DRAIN	
Automatic Drain	<b>A</b>
Manual Drain	<b>M</b>
Less Drain Fitting - 1/4 NPT female instead	<b>L</b>
Internal Float Drain	<b>F</b>

Bowl Type	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A	B*	C	Depth	
3/8, 1/2, 3/4	Polycarbonate	3.5 (88)	7.7 (195)	2.2 (55)	2.9 (73)	2.13 (0.97)
	Aluminum	3.5 (88)	7.6 (193)	2.2 (55)	3.1 (79)	2.13 (0.97)
	Extended Aluminum	3.5 (88)	11.2 (284)	2.2 (55)	3.1 (79)	2.31 (1.05)

\* Bowl removal clearance: add 3.1 (79). Extended Bowl removal clearance: add 6.1 (155).

REPLACEMENT FILTER ELEMENTS					
Element Rating	Bowl Type	Part Number	Element Rating	Bowl Type	Part Number
0.3-µm	Standard	R-A115-117	0.01-µm	Standard	R-A115-117E8
	Extended	R-A115-118		Extended	R-A115-118E8



Options: Differential Pressure Gauges: Large Dual Face, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.

Options: External Bowl Drains, for additional information refer to page E6.7.

Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Die-cast zinc.

**Bowl:** Polycarbonate bowl with steel shatterguard, or aluminum bowl with clear nylon sight glass.

**Bowl Ring:** Nylon.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

# Inline Coalescing Filters

# HIGH-CAPACITY Series

## Port Sizes: 3/4 & 1 – Flow to 220 scfm

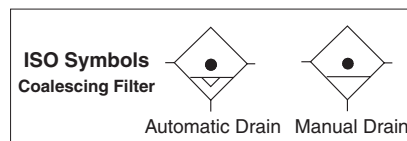
E1

Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Polycarbonate Bowl	Metal Bowl	Polycarbonate Bowl	Metal Bowl
3/4	5X00B5099	5X00B5076	5031B5008	5032B5018
1	5X00B6027	5X00B6054	5031C6008	5032B6117

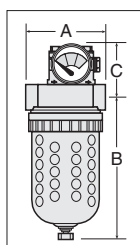
\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5X00B5099. Models include 0.3-micron rated filter element.



Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B*	C	Depth	
3/4, 1	Polycarbonate	16-oz (480-ml)	4.5 (114)	8.0 (203)	3.1 (78)	4.5 (114)	2.38 (1.09)
3/4, 1	Aluminum	16-oz (480-ml)	4.5 (114)	8.3 (210)	3.1 (78)	4.5 (114)	3.20 (1.46)

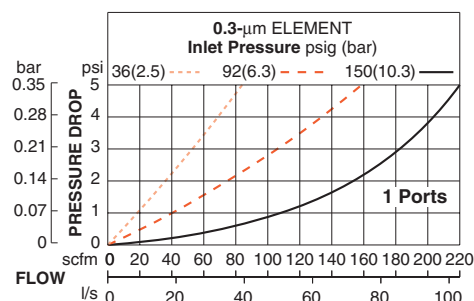
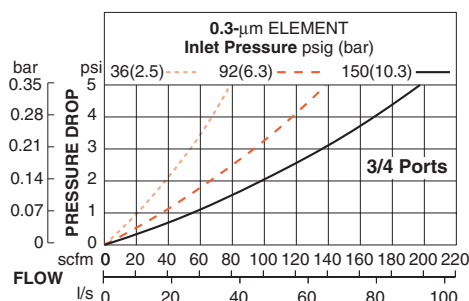


REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
0.3-µm	Borosilicate-glass-fiber	949K77
0.01-µm	Borosilicate-glass-fiber	R-A109-106E8



E

## FLOW CHARTS



Large dual face differential Pressure Gauge included.

Options: Differential Pressure Gauges: Small Slide, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.

Accessories ordered separately, refer to page E6.3-4.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

Polycarbonate bowl: 40° to 125°F (4° to 52°C).

Metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

Polycarbonate bowl: Up to 150 psig (up to 10 bar).

Metal bowl: Up to 200 psig (up to 14 bar).

**Inlet Pressure - Manual drain model:**

Polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

Metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Aluminum.

**Bowl:** Polycarbonate bowl with steel shatterguard, or aluminum bowl with clear nylon sight glass.

**Bowl Ring:** Aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

## Port Sizes: 3/4 & 1 – Flow to 295 scfm

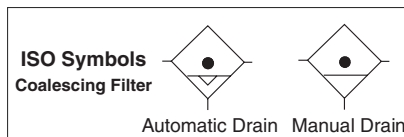
Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Metal Bowl	Extended Metal Bowl	Metal Bowl	Extended Metal Bowl
3/4	5X00B5086	5X00B5087	5032B5019	5032B5029
1	5X00B6064	5X00B6065	5032B6019	5032C6028

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5X00B5086. Models include 0.3-micron rated filter element.

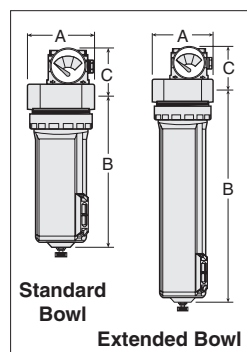


E1

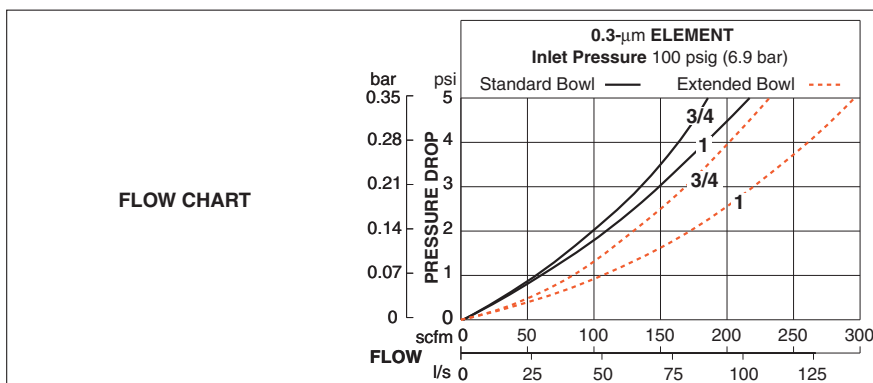
Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
3/4, 1	Standard	35-oz (1050-ml)	4.5 (114)	10.1 (257)	3.3 (83)	4.2 (106)	3.50 (1.59)
3/4, 1	Extended	62-oz (1860-ml)	4.5 (114)	15.7 (399)	3.3 (83)	4.2 (106)	4.25 (1.91)



REPLACEMENT FILTER ELEMENTS			
Element Rating	Bowl Type	Element Material	Part Number
0.3-μm	Standard	Borosilicate-glass-fiber	R-A114-112
	Extended	Borosilicate-glass-fiber	R-A114-113
0.01-μm	Standard	Borosilicate-glass-fiber	R-A114-112E8
	Extended	Borosilicate-glass-fiber	R-A114-113E8



E



**Large dual face differential Pressure Gauge included.**

**Options: Differential Pressure Gauges: Small Slide, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.**

**Accessories ordered separately, refer to page E6.3-4.**

### STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

*Automatic drain model:* Up to 200 psig (up to 14 bar).

*Manual drain model:* 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Aluminum.

**Bowl:** Aluminum bowl, or extended aluminum bowl.

**Bowl Ring:** Aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.19

**Port Sizes: 1¼ & 1½ – Flow to 450 scfm**

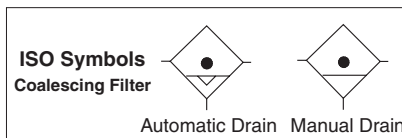
E1

Port Size	Model Numbers*			
	Automatic Drain		Manual Drain	
	Metal Bowl	Extended Metal Bowl	Metal Bowl	Extended Metal Bowl
1¼	5X00B7034	5X00B7036	5032B7019	5032B7029
1½	5X00B8035	5X00B8036	5032B8019	5032B8029

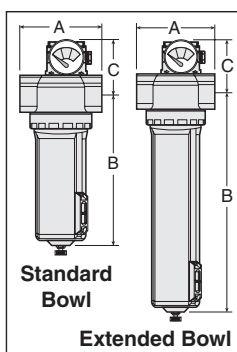
\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5X00B7034. Models include 0.3-micron rated filter element.



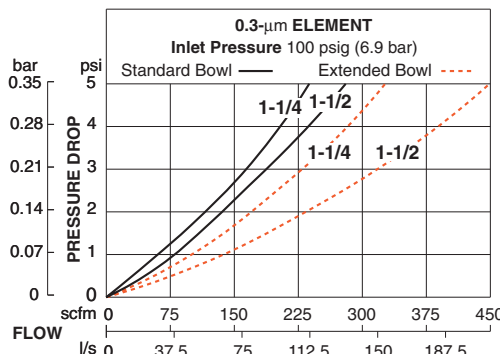
Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1¼, 1½	Standard	35-oz (1050-ml)	5.5 (140)	10.6 (270)	3.7 (94)	4.2 (106)	4.31 (1.94)
	Extended	62-oz (1860-ml)	5.5 (140)	16.2 (412)	3.7 (94)	4.2 (106)	5.00 (2.27)



REPLACEMENT FILTER ELEMENTS			
Element Rating	Bowl Type	Element Material	Part Number
0.3-µm	Standard	Borosilicate-glass-fiber	R-A114-112
	Extended	Borosilicate-glass-fiber	R-A114-113
0.01-µm	Standard	Borosilicate-glass-fiber	R-A114-112E8
	Extended	Borosilicate-glass-fiber	R-A114-113E8



**FLOW CHART**



**Large dual face differential Pressure Gauge included.**

**Options: Differential Pressure Gauges: Small Slide, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.**

**Bowl Drain - Internal Float Drain (on polycarbonate bowl only), consult ROSS.**

**Accessories ordered separately, refer to page E6.3-4.**

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

Automatic drain model: Up to 200 psig (up to 14 bar).

Manual drain model: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber coalescing element.

**Body:** Aluminum.

**Bowl:** Aluminum bowl, or extended aluminum bowl.

**Bowl Ring:** Aluminum.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



# Inline Coalescing Filters

## HIGH-CAPACITY Series

Port Sizes: 1¼ & 1½ – Flow to 465 scfm

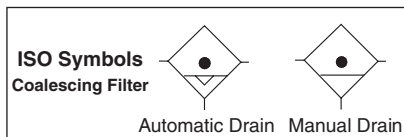


E1

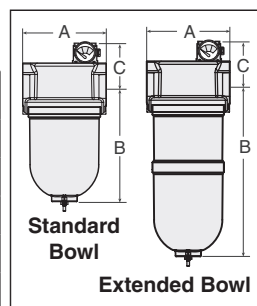
Port Size	Model Numbers <sup>1</sup> *		
	Internal Float Drain	Manual Drain	
	Metal Bowl	Metal Bowl	Extended Metal Bowl
1¼	5X00B7019	5032B7018	5032B7028
1½	5X00B8008	5032B8018	5032B8028

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5X00B7019. Models include 0.3-micron rated filter element.

Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
1¼, 1½	Standard	123-oz (3700-ml)	8.1 (204.7)	12.0 (305.1)	4.6 (117.4)	8.0 (203.2)	17.0 (7.8)
1¼, 1½	Extended	233-oz (7000-ml)	8.1 (204.7)	18.3 (465.1)	4.6 (117.4)	8.0 (203.2)	26.0 (11.8)

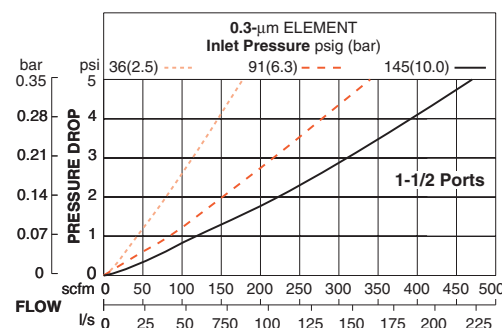
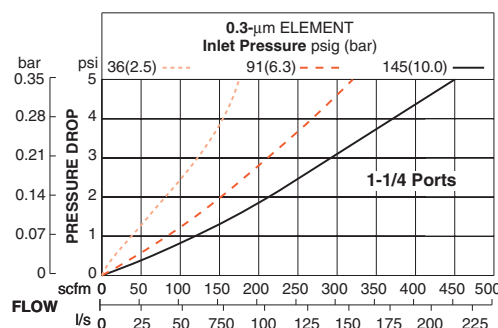


REPLACEMENT FILTER ELEMENTS			
Element Rating	Bowl Type	Element Material	Part Number
0.3-µm	Standard	Borosilicate-glass-fiber	952K77
	Extended	Borosilicate-glass-fiber	953K77
0.01-µm	Standard	Borosilicate-glass-fiber	R-A106-24E8
	Extended	Borosilicate-glass-fiber	R-A106-24LE8



E

FLOW CHARTS



Large dual face differential Pressure Gauge included.

Options: Differential Pressure Gauges: Small Slide, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.

Accessories ordered separately, refer to page E6.3-4.

### STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

Internal float drain model: 30 to 200 psig (2 to 14 bar).

Manual drain model: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated borosilicate-glass-fiber coalescing element; optional 0.01-micron rated element.

**Body:** Aluminum.

**Bowl:** Aluminum bowl, or extended aluminum bowl.

**V-Band:** Stainless steel.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.21

# Inline Coalescing Filters

## HIGH-CAPACITY Series

### Port Sizes: 2 – Flow to 840 scfm

Port Size	Model Numbers*	
	Internal Float Drain	Manual Drain
	Metal Bowl	Metal Bowl
2	5X00B9009	5032B9018

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5X00B9009.  
Models include 0.3-micron rated filter element.



Port Size	Bowl Type	Bowl Capacity	Dimensions inches (mm)				Weight lb (kg)
			A	B	C	Depth	
2	Aluminum	233-oz (7000-ml)	8.1 (204.7)	18.3 (465.1)	4.6 (117.4)	8.0 (203.2)	26.0 (11.8)

ISO Symbols  
Coalescing Filter

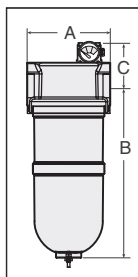


Automatic Drain

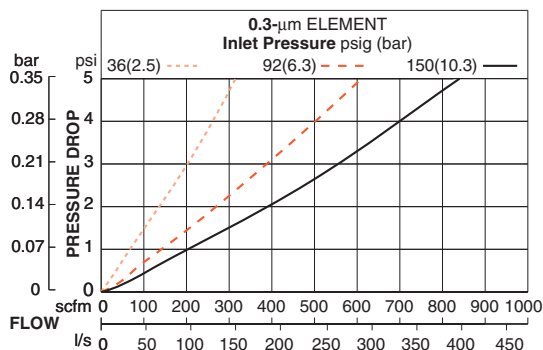


Manual Drain

REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
0.3-μm	Borosilicate-glass-fiber	953K77
0.01-μm	Borosilicate-glass-fiber	R-A106-24LE8



FLOW CHART



**Large dual face differential Pressure Gauge included.**

**Options: Differential Pressure Gauges: Small Slide, Large Dual Face with Reed Switch (NO-NC), refer to page E6.6.**

**Accessories ordered separately, refer to page E6.3-4.**

### STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:** 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

Internal float drain model: 30 to 200 psig (2 to 14 bar).

Manual drain model: 0 to 200 psig (0 to 14 bar).

**Filter Element:** 0.3-micron rated borosilicate-glass-fiber coalescing element; optional 0.01-micron rated element.

**Body:** Aluminum.

**Bowl:** Aluminum.

**V-Band:** Stainless steel.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

# Modular Oil Vapor Removal (Adsorbing) Filters

MD3™ Series

Port Sizes: 1/4, 3/8 & 1/2 – Flow to 125 scfm

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

MD3 **50P** **C** **4** **2**

BOWL SIZE	
Polycarbonate Bowl 5.1-oz (151-ml)	<b>50P</b>
Metal Bowl 6-oz (177-ml)	<b>50M</b>
Extended Metal Bowl 10-oz (295-ml)	<b>50E</b>

PIPE SIZE	
1/4 NPTF	<b>2</b>
3/8 NPTF	<b>3</b>
1/2 NPTF	<b>4</b>
1/4 BSPP	<b>B</b>
3/8 BSPP	<b>C</b>
1/2 BSPP	<b>D</b>

CAP COLOR	
Gold	<b>2</b>
Gray	<b>G</b>
Yellow	<b>Y</b>
Red	<b>R</b>
Blue	<b>B</b>



E1

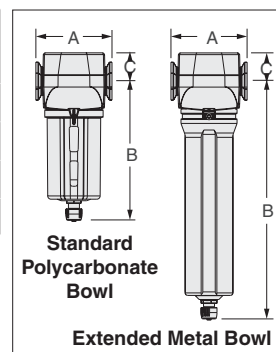
ISO Symbols  
Adsorbing Filter  
Manual Drain



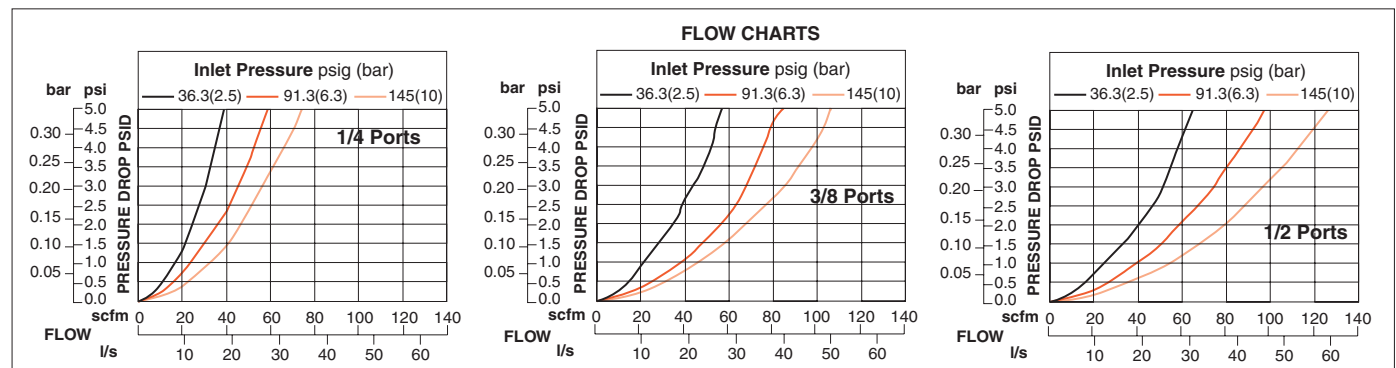
Bowl Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A	B*	C	Depth	
1/4, 3/8, 1/2	Polycarbonate	3.0 (76.2)	5.54 (140.6)	1.12 (28.3)	2.51 (63.8)	1.29 (0.59)
	Aluminum	3.0 (76.2)	6.42 (163.1)	1.12 (28.3)	2.76 (70.1)	1.41 (0.64)
	Extended Aluminum	3.0 (76.2)	9.51 (241.6)	1.12 (28.3)	2.76 (70.1)	1.54 (0.70)

\* Bowl removal clearance: add 3.1 (79). Extended Bowl removal clearance: add 6.1 (155).

REPLACEMENT FILTER ELEMENTS	
Bowl Type	Part Number
Polycarbonate	R-A60F-29E9
Metal	R-A60F-29E9
Extended Metal	R-A60F-32E9



E



Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

With polycarbonate bowl: 40° to 125°F (4° to 52°C).

With metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

With polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

With metal bowl: 0 to 250 psig (0 to 17 bar).

**Filter Element:** Activated carbon with urethane seals.

**Bowl Drain:** Manual drain.

**Body:** Die-cast zinc.

**Bowl:** Polycarbonate with nylon shatterguard, aluminum bowl with clear nylon sight glass, or extended aluminum bowl with clear nylon sight glass.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1.23

Port Sizes: 3/8, 1/2 & 3/4 – Flow to 165 scfm

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

**MD4** **50P** **B** **5** **2**

BOWL SIZE	
Polycarbonate Bowl 9-oz (270-ml)	<b>50P</b>
Metal Bowl 9-oz (270-ml)	<b>50M</b>
Extended Metal Bowl 15-oz (450-ml)	<b>50E</b>

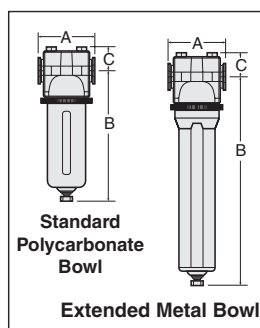
PIPE SIZE	
3/8 NPTF	<b>3</b>
1/2 NPTF	<b>4</b>
3/4 NPTF	<b>5</b>
3/8 BSPP	<b>C</b>
1/2 BSPP	<b>D</b>
3/4 BSPP	<b>E</b>

CAP COLOR	
Gold	<b>2</b>
Gray	<b>G</b>
Yellow	<b>Y</b>
Red	<b>R</b>
Blue	<b>B</b>



Bowl Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A	B*	C	Depth	
3/8, 1/2, 3/4	Polycarbonate	3.5 (88)	7.7 (195)	1.1 (28)	2.9 (73)	2.13 (0.97)
	Aluminum	3.5 (88)	7.6 (193)	1.1 (28)	3.1 (79)	2.13 (0.97)
	Extended Aluminum	3.5 (88)	11.2 (284)	1.1 (28)	3.1 (79)	2.31 (1.05)

\* Bowl removal clearance: add 3.1 (79). Extended Bowl removal clearance: add 6.1 (155).

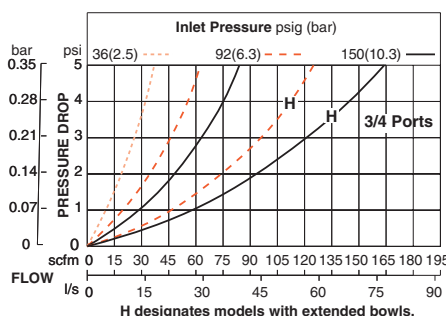
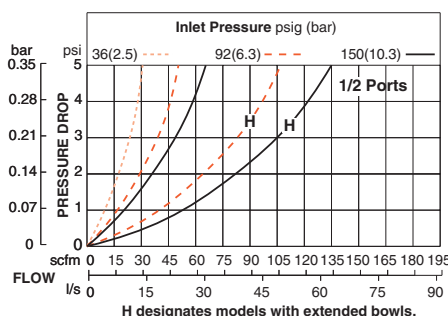
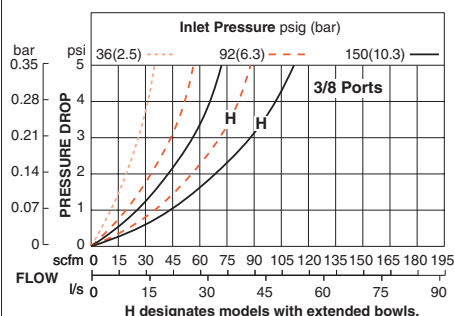


ISO Symbols  
Adsorbing Filter  
Manual Drain



REPLACEMENT FILTER CARTRIDGE		
Filter Rating	Bowl Type	Part Number
0.01-µm	Standard	R-A115-117E8
	Extended	R-A115-118E8

## FLOW CHARTS



Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Fiber.

**Ambient/Media Temperature:**

With polycarbonate bowl: 40° to 125°F (4° to 52°C).

With metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:**

With polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

With metal bowl: 0 to 200 psig (0 to 14 bar).

**Bowl Drain:** Manual.

**Filter Cartridge:** Activated carbon with urethane seals.

**Body:** Zinc.

**Bowl:** Polycarbonate bowl with steel shatterguard, aluminum bowl, or extended aluminum bowl.

**Bowl Ring:** Nylon.

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Port Sizes: 1/4, 3/8 & 1/2 – Flow to 125 scfm

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

MD3 CAP 1 A C 1 2 2 A 1

BOWL SIZE	
Polycarbonate Bowl 5.1-oz (151-ml)	1
Metal Bowl 6-oz (177-ml)	2
Extended Metal Bowl 10-oz (295-ml)	3

### COALESCING FILTER ELEMENT TYPE

0.3 µm Borosilicate glass	A
0.01 µm Borosilicate glass	B

### BOWL DRAIN

Manual Drain	1
Float Drain	F

### PIPE SIZE

1/4 NPTF	2
3/8 NPTF	3
1/2 NPTF	4
1/4 BSPP	B
3/8 BSPP	C
1/2 BSPP	D

### CAP COLOR

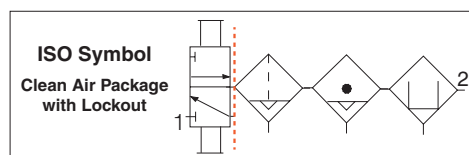
Gold	2
Gray	G
Yellow	Y
Red	R
Blue	B

### ADD on L-O-X® - Optional

L-O-X® on outlet side	1
L-O-X® on the inlet side	2
EEZ-ON® on outlet side	3
EEZ-ON® on inlet side	4
Blank - No L-O-X®	

### DIFFERENTIAL PRESSURE GAUGE

No Gauge (without gauge port)	A
Small Slide Gauge	S



REPLACEMENT COALESCING ELEMENTS		
Element Rating	Bowl Type	Part Number
0.3-µm	Polycarbonate	R-A60F-23
	Metal	R-A60F-29
	Extended Metal	R-A60F-32
0.01-µm	Polycarbonate	R-A60F-23E8
	Metal	R-A60F-29E8
	Extended Metal	R-A60F-32E8

REPLACEMENT ADSORBING ELEMENTS	
Bowl Type	Part Number
Polycarbonate	R-A60F-29E9
Metal	R-A60F-29E9
Extended Metal	R-A60F-29

REPLACEMENT FILTER ELEMENTS		
Element Rating	Element Material	Part Number
5-µm	Polyethylene	R-A60F-03PE5

Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Filter, Coalescing Filter - Fiber.

**Ambient/Media Temperature:**

With polycarbonate bowl: 40° to 125°F (4° to 52°C).

With metal bowl: 40° to 175°F (4° to 80°C).

With metal bowl & float drain: 40° to 175°F (4° to 80°C).

**Inlet Pressure - Automatic drain model:**

With polycarbonate bowl: 30 to 150 psig (2 to 10 bar).

With metal bowl: 30 to 200 psig (2 to 14 bar).

**Inlet Pressure - Manual drain model:**

With polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

With metal bowl: 0 to 250 psig (0 to 17 bar).

**Filter Element:** 5-µm-rated polyethylene.

**Coalescing Filter Element:** 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber.

**Adsorbing Filter Element:** Activated carbon with urethane seals.

**Bowl Drain:**

Filter and Coalescing Filter: Internal float drain or manual drain.

Adsorber Filter: Manual drain only.

**Body:** Die-cast zinc.

**Bowl:** Polycarbonate bowl with nylon shatterguard; aluminum bowl with clear nylon sight glass; extended aluminum bowl with clear nylon sight glass and higher flow filter element (for coalescing and adsorber filter only).

**Seals:** Nitrile.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

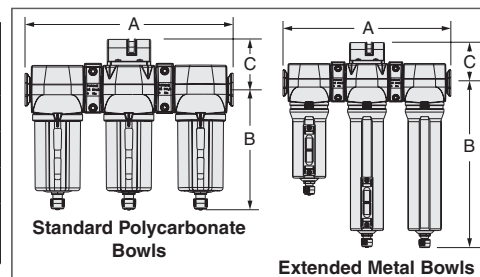
www.rosscontrols.com

E1.25

E1

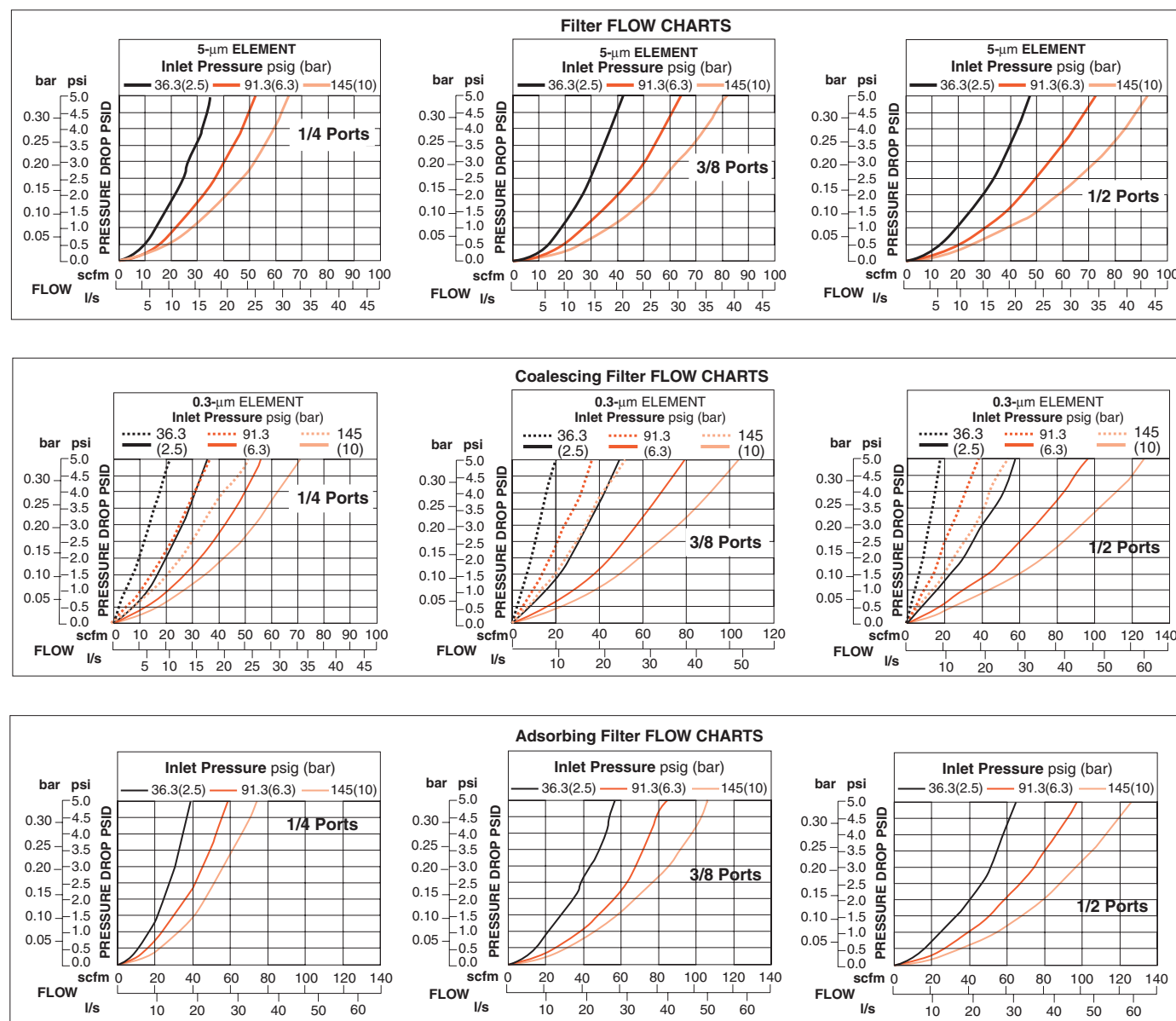
Bowl Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A*	B*	C	Depth	
1/4, 3/8, 1/2	Polycarbonate	9.58 (243.3)	5.54 (140.6)	2.38 (59.3)	2.51 (63.8)	4.3 (2.0)
	Aluminum	9.58 (243.3)	6.42 (163.1)	2.38 (59.3)	2.76 (70.1)	4.6 (2.1)
	Extended Aluminum	9.58 (243.3)	9.51 (241.6)	2.38 (59.3)	2.76 (70.1)	4.9 (2.2)

\* Lockout: With the lockout valve, add 2.3 (58) to dimension A.  
Bowl removal clearance: add 3.1 (79). Extended Bowl removal clearance: add 6.1 (155).



## AIR FLOW and CONSTRUCTION DATA

E



**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Port Sizes: 3/8, 1/2 & 3/4

## HOW TO ORDER

(Choose your options (in red) to configure your valve model number.)

MD4 CAP 1 A B 1 5 2 L

BOWL SIZE	
Three Polycarbonate Bowls 9-oz (266-ml)	1
Three Metal Bowls 9-oz (266-ml)	2
One Metal Bowl 9 oz (266-ml) and Two Metal Bowls 15-oz (443-ml)	3

COALESCING FILTER ELEMENT TYPE	
0.3 µm Borosilicate glass	A
0.01 µm Borosilicate glass	B

BOWL DRAIN	
Manual	1
Internal Automatic (not available on adsorber)	2
Internal Float drain	F

PIPE SIZE	
3/8 NPTF	3
1/2 NPTF	4
3/4 NPTF	5
3/8 BSPP	C
1/2 BSPP	D
3/4 BSPP	E

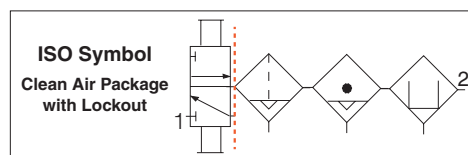
CAP COLOR	
Gold	2
Gray	G
Yellow	Y
Red	R
Blue	B

ADD on L-O-X® - Optional	
L-O-X® on outlet side	1
L-O-X® on the inlet side	2
EEZ-ON® on outlet side	3
EEZ-ON® on inlet side	4
Blank - No L-O-X®	

DIFFERENTIAL PRESSURE GAUGE	
No Gauge (without gauge port)	A
Large Dual Face Gauge	L
Small Slide Gauge	S
Large Dual Face Gauge with Normally Open Reed Switch	E
Large Dual Face Gauge with Normally Open Reed Switch	C



E1



REPLACEMENT FILTER ELEMENTS				
Filter Type	Element Rating	Bowl Type	Element Material	Part Number
Filter	5-µm	Standard	Polyethylene	R-A115-106PE5
Coalescing	0.3-µm	Standard	Borosilicate-glass-fiber	R-A115-117
Coalescing	0.3-µm	Extended	Borosilicate-glass-fiber	R-A115-118
Coalescing	0.01-µm	Standard	Borosilicate-glass-fiber	R-A115-117E8
Coalescing	0.01-µm	Extended	Borosilicate-glass-fiber	R-A115-118E8
Adsorbing	Standard Cartridge	Standard	Activated Carbon	R-A115-117E9
Adsorbing	Extended Standard Cartridge	Extended	Activated Carbon	R-A115-118E9

E

Accessories ordered separately, refer to page E6.3-5.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Filter, Coalescing Filter - Fiber.

With polycarbonate bowl: 40° to 125°F (4° to 52°C).

With metal bowl: 40° to 175°F (4° to 80°C).

**Fluid Media:** Compressed air.

**Inlet Pressure - Automatic drain model:**

With polycarbonate bowl: 15 to 150 psig (1 to 10 bar).

With metal bowl: 15 to 200 psig (1 to 14 bar).

**Inlet Pressure - Internal float drain model:**

With polycarbonate bowl: 30 to 150 psig (2 to 10 bar).

With metal bowl: 30 to 200 psig (2 to 14 bar).

**Inlet Pressure - Manual drain model:**

With polycarbonate bowl: 0 to 150 psig (0 to 10 bar).

With metal bowl: 0 to 200 psig (0 to 14 bar).

**Filter Drains:** Internal automatic drains for general purpose and coalescing filters; manual drain for adsorbing filter.

Optional internal float drain on polycarbonate bowl only, consult ROSS.

**Filter Elements:**

General Purpose: 5-micron rated polyethylene.

Coalescing: 0.3-micron rated or 0.01-micron rated borosilicate-glass-fiber; element.

Adsorbing: Activated carbon with urethane seals.

**Bowls:** Polycarbonate bowls with steel shatterguards; aluminum bowl with clear nylon sight glasses on general purpose and coalescing units, or extended aluminum bowls for coalescing and adsorbing filters.

**Seals:** Nitrile.



**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Online Version  
Rev. 05/16

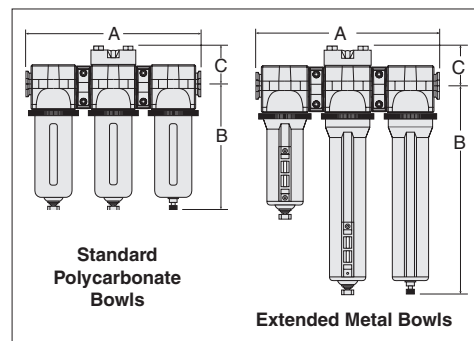
www.rosscontrols.com

E1.27

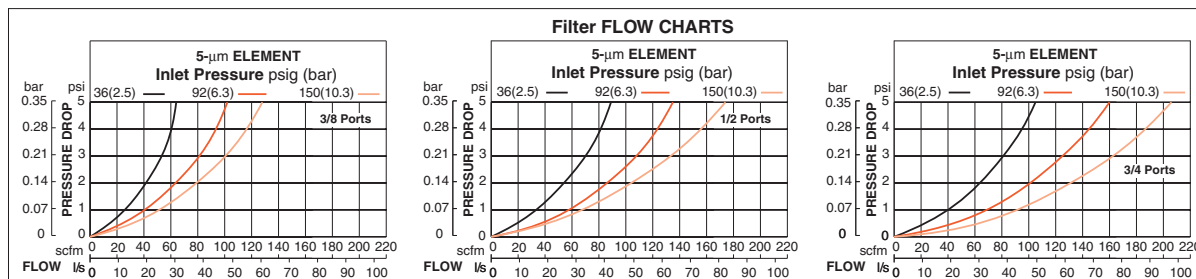
E1

Port Size	Bowl Type	Dimensions inches (mm)				Weight lb (kg)
		A*	B*	C	Depth	
3/8, 1/2, 3/4	Polycarbonate	10.9 (276)	7.7 (195)	2.2 (55)	2.9 (73)	6.63 (3.01)
	Aluminum	3.5 (88)	7.7 (195)	2.2 (55)	2.9 (73)	6.63 (3.01)
	Extended Aluminum	3.5 (88)	11.2 (284)	2.2 (55)	2.9 (73)	7.00 (3.18)

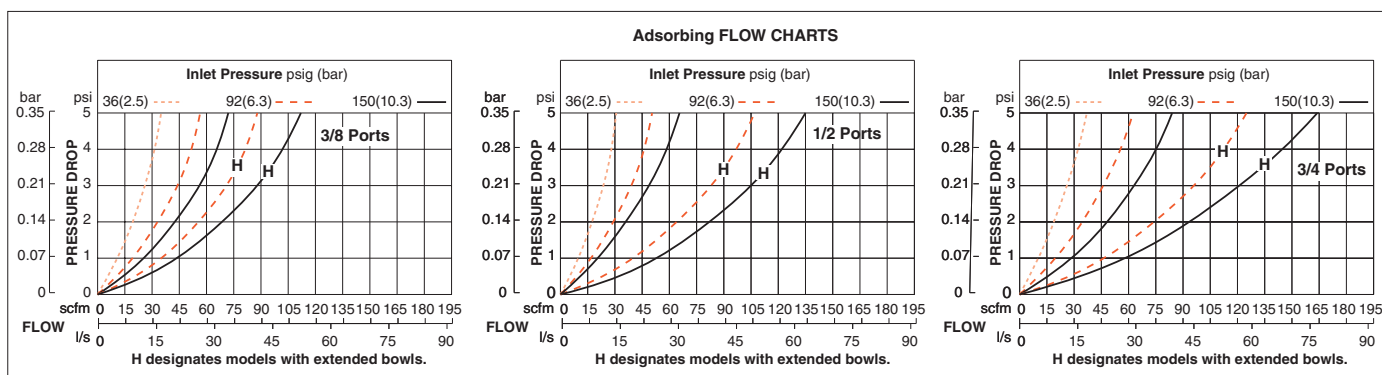
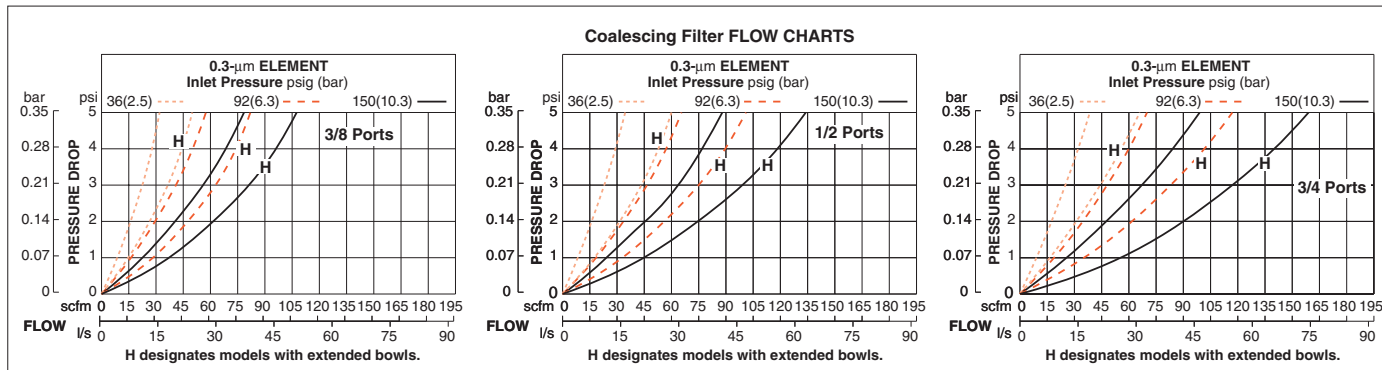
**\*\* Lockout:** With the lockout valve, add 2.3 (58) to dimension A.  
Bowl removal clearance: add 3.1 (79). Extended Bowl removal clearance: add 6.1 (155).



## AIR FLOW and CONSTRUCTION DATA



E



**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

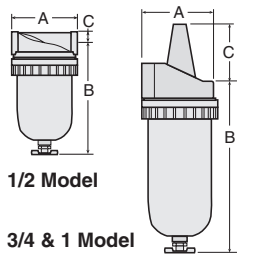
# Inline Silencers/Reclassifiers

## Port Sizes: 1/2, 3/4 & 1

Port Size	Bowl Type	Model Numbers*
1/2	Polycarbonate	5055B4009
3/4	Polycarbonate	5055B5009
1	Polycarbonate	5055B6009

\* NPT port threads. For BSPP threads add a "C" prefix to the model number e.g., C5055B4009.

Port Size	Dimensions inches (mm)				Weight lb (kg)
	A	B	C	Depth	
1/2	3.5 (89)	5.5 (140)	0.7 (18)	3.5 (89)	1.3 (0.59)
3/4	4.2 (107)	8.4 (213)	2.7 (69)	4.2 (107)	2.8 (1.27)
1	4.2 (107)	8.4 (213)	2.7 (69)	4.2 (107)	2.8 (1.27)



1/2 Model



3/4 & 1 Model

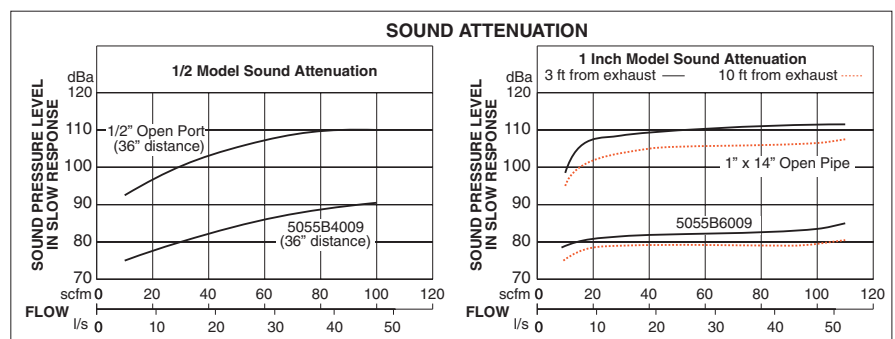
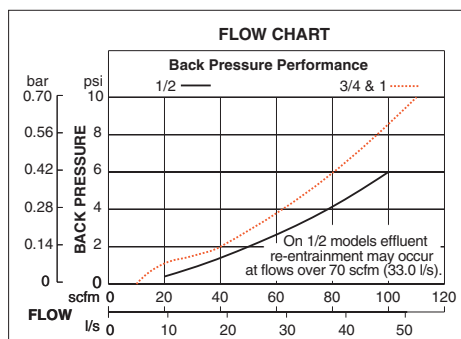
## REPLACEMENT FILTER ELEMENTS

Port Size	Element Rating	Element Material	Part Number
1/2	20-μm	Sintered Bronze	940K77
3/4, 1	100-μm	Sintered Bronze	981K77

## SOUND ATTENUATION DATA

Constant-flow tests - conducted in a 14' x 22' room with a 14' ceiling.

Sound pressure levels - recorded using a B & K precision impulse sound meter (model 22045), a 1-inch microphone (DB0375), a flexible extension rod (UA0196), and a random incidence corrector (UA0055). Test system was mounted on the 14-foot wall with exhaust port 4 feet from the 14-foot wall.



Accessories ordered separately, refer to page E6.3-4.

## STANDARD SPECIFICATIONS (for products on this page):

**Construction:** Sintered.

**Ambient/Media Temperature:** 40° to 125°F (4° to 51°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:** 5 to 150 psig (0.3 to 10 bar).

**Filter Element:** Sintered bronze.

**Bowl:** Polycarbonate.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



Online Version  
Rev. 05/16

www.rosscontrols.com

E1

## Port Sizes: 3/4, 1, 1¼, 1½ & 2

Port Size	Model Numbers*						
	with Drain-Cock		with Ball Valve				
	Bowl Capacity ounce (ml)						
	35 (1035)	62 (1833)	35 (1035)	62 (1833)	120 (3548)	230 (6801)	340 (10055)
3/4	RC012-01	RC012-01-62	RC012-01-BV	RC012-01-62-BV	—	—	—
1	RC013-01	RC013-01-62	RC013-01-BV	RC013-01-62-BV	—	—	—
1¼	RC014-01	RC014-01-62	RC014-01-BV	RC014-01-62-BV	—	—	—
1½	RC015-01	RC015-01-62	RC015-01-BV	RC015-01-62-BV	—	—	—
2		—		RC016-01-120	RC016-01-120	RC016-01-225	RC016-01

\* NPT port threads. For BSPP threads add a "D" suffix to the model number e.g., RC012-01D.

\* NPT port threads. For BSPP threads add a "D" suffix to the model number e.g., RC012-01D.

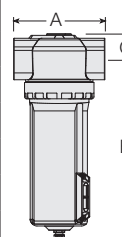
Port sizes  
3/4 thru 1½



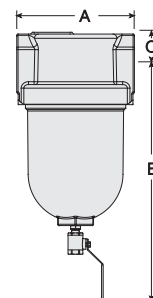
Port size 2



Port Size	Bowl Capacity ounce (ml)	Dimensions inches (mm)				Weight lb (kg)
		A	B*	C	Depth	
3/4	35 (1035)	4.5 (114)	10.6 (269)	0.81 (21)	4.2 (106)	4.25 (1.93)
	62 (1833)	4.5 (114)	16.2 (412)	0.81 (21)	4.2 (106)	5.00 (2.25)
1	35 (1035)	5.5 (140)	10.6 (269)	1.4 (36)	4.2 (106)	4.25 (1.93)
	62 (1833)	5.5 (140)	16.2 (412)	1.4 (36)	4.2 (106)	5.00 (2.25)
1¼	35 (1035)	5.5 (140)	11.2 (285)	1.4 (36)	4.2 (106)	4.50 (2.04)
	62 (1833)	5.5 (140)	16.7 (424)	1.4 (36)	4.2 (106)	5.81 (2.37)
1½	35 (1035)	5.5 (140)	11.2 (285)	1.4 (36)	4.2 (106)	4.50 (2.04)
	62 (1833)	5.5 (140)	16.7 (424)	1.4 (36)	4.2 (106)	5.81 (2.37)
2	120 (3548)	8.1 (206)	15.5 (394)	4.6 (117)	8.0 (203)	17.00 (7.72)
	230 (6801)	8.1 (206)	22.5 (572)	4.6 (117)	8.0 (203)	21.9 (9.82)
	340 (10055)	8.1 (206)	29.5 (749)	4.6 (117)	8.0 (203)	26.8 (11.92)



Port sizes  
3/4 thru 1½



Port size 2

ISO Symbols  
Filter  
Drip Leg Drain



\* Add 3.5 inches (89 mm) to Dimension "B" and 0.29 lb (0.13 kg) to weight for units with Ball valves (BV option).

The ROSS Drip Leg Drain replaces conventional welded drip legs through improvements in both performance and serviceability resulting in increased machine productivity.

The ROSS Drip Leg Drain has a baffling device that increases the contamination removal efficiency by requiring the air to make more direction changes than a standard drip leg drain. This efficiency gain puts less contamination at the point of filtration, allowing the filter to function longer before maintenance is necessary.

*Accessories ordered separately, refer to page E6.3-4.*

## STANDARD SPECIFICATIONS (for products on this page):

**Ambient/Media Temperature:** 40° to 175° F (4° to 79°C).

**Fluid Media:** Compressed air.

**Inlet Pressure:** 15 to 200 psig (1 to 14 bar).

**Filter Drain:** Drain-cock or Ball valve.

**Heads:** Aluminum.

**Bowl Rings:** Aluminum.

**Seals:** Nitrite.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

E1

E

E





**ROSS CONTROLS®**



---

**FILTER, REGULATOR, AND LUBRICATOR  
ACCESSORIES**

---



---

[www.rosscontrols.com](http://www.rosscontrols.com)

CONTENT	Page
Mounting Accessories	E6.3
Modular Assembly Components	E6.4
Clamp, Brackets, End Ports & Port Blocks	E6.5
Pressure Gauges	E6.6
External Drains, Silencers	E6.7

### Mounting Screws for BANTAM Models

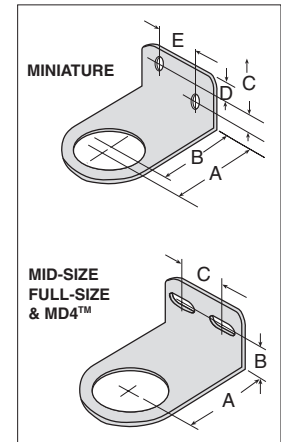
Usage Models	Kit Number
BANTAM	859K77

BANTAM models mounts with long screws that extend through end plates.

### Mounting Brackets for Regulators and Integrated Filter/Regulators

Regulators and integrated filter/regulators can be mounted to a surface with a bracket that attaches to the regulator. Brackets and mounting panel nuts can be ordered separately or in a kit which includes both bracket and mounting panel nut.

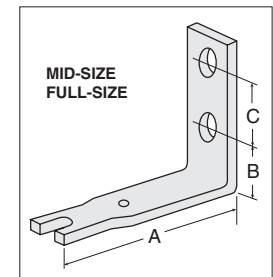
Usage Models	Part Number			Dimensions inches (mm)					
	Kit	Bracket	Panel Nut	A	B	C	D	E	Panel Mounting Hole Diameter
MINIATURE	873K77	872K77	874K77	1.375 (35)	1.125 (29)	0.31 (8)	0.31 (8)	0.69 (17)	1.19 (30)
MID-SIZE	876K77	875K77	877K77	2.38 (60)	1.00 (25)	1.50 (38)	—	—	1.56 (40)
MD3™	R-A127-11	—	R-127-11	2.38 (60)	1.00 (25)	1.50 (38)	—	—	1.56 (40)
FULL-SIZE, MD4™	879K77	878K77	880K77	2.38 (60)	1.00 (25)	1.50 (38)	—	—	2.06 (52)



### Modular Mounting Brackets for Filters, Regulators, Lubricators, FRL's, or Clean Air Packages

Two L-shaped metal brackets as shown at the right can be used for wall mounting of modular FRLs or Clean Air Packages. A single bracket can be used to mount individual filters or lubricators. Kits include two brackets and four screws for attaching the brackets to the modules.

Usage Models	Kit Number	Dimensions inches (mm)			
		A	B	C	D
MID-SIZE & FULL-SIZE	915K77	3.0 (76)	0.88 (22)	1.00 (25)	1.20 (31)

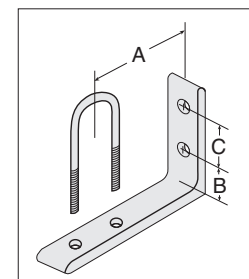


E

### FRLs Inline Mounting Pipe Brackets

Two pipe brackets can be used for wall mounting of FRLs assemblies that use pipe nipples to join the components. The bracket kits listed below include two sets of brackets.

Nipple Size	Kit Number	Dimensions inches (mm)		
		A	B	C
1/4	887K77	2.72 (28)	0.50 (13)	1.00 (25)
3/8	888K77	2.72 (28)	0.50 (13)	1.00 (25)
1/2	889K77	2.72 (28)	0.50 (13)	1.00 (25)
3/4	890K77	3.69 (94)	1.13 (29)	1.25 (32)
1	891K77	3.69 (94)	1.13 (29)	1.25 (32)



E6

### Bracket Assembly Kit for HIGH-RELIEF Pilot Operated Regulator

High-Relief Pilot Operated Regulator with 1/4- thru 1 1/4 inch ports can be mounted to a vertical surface using a bracket assembly kit.

Kit Number	R-A37-381
------------	-----------




**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

### MID-SIZE and FULL-SIZE Units

The modular designs of the MID-SIZE and FULL-SIZE series offer maximum flexibility in customizing FRLs assemblies. As shown at the right, connector kits are required to interconnect units. Various port kits (shown below) can be used to connect the assemblies to the inlet and outlet piping. Note that all FRLs components have threaded ports so that conventional pipe fittings may be used where desired.


#### Female Port Block

Used to connect to piping at inlet or outlet.

Port Size	Part Number		
	NPT Threads	BSPP Threads	
1/4	897K77	D897K77	
3/8	898K77	D898K77	
1/2	899K77	D899K77	
3/4	900K77	D900K77	

#### Male Port Block

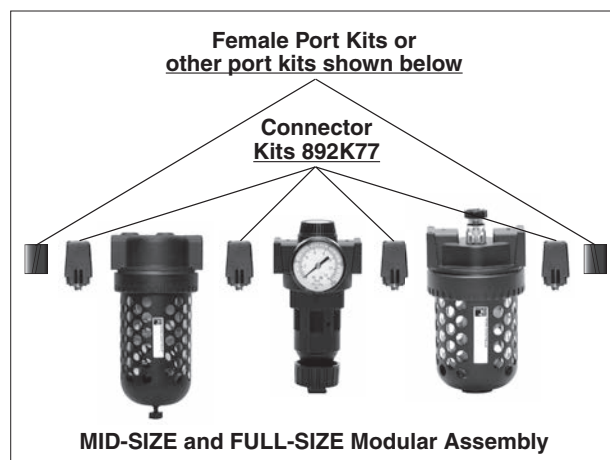
Used to connect modular to non-modular units.

Port Size	Part Number		
	NPT Threads	BSPP Threads	
1/4	893K77	D893K77	
3/8	894K77	D894K77	
1/2	895K77	D895K77	
3/4	896K77	D896K77	

#### Connector Kit

Used to connect units to one another as well as to any of the ports shown on this page.

Kit Number	892K77
------------	--------



### BANTAM Units

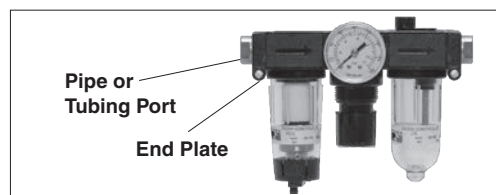
BANTAM modular units use end plates secured with screws to hold the pipe or tubing ports (see below), and also to serve as mounting brackets. Short screws are used to secure the end plates when a single BANTAM unit is used. If two or more units are combined, long screws extend through an end plate and thread into the next unit.

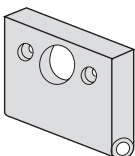
Screw kits required are as follows:

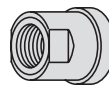
Single Unit: Two short screw kits.

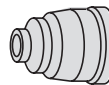
Two-Unit Combination: One each short screw kit and long screw kit.

Three-Unit Combination: Two long screw kits.



Pipe Ports		
Kit Description	Part Number	
END PLATE (1)	857K77	
Short Screw (2)	858K77	
Long Screw (2)	859K77	
Small O-Ring (for inlet or mating ports)	860K77	
Large O-Ring (for outlet or mating ports)	861K77	

Pipe Ports		
Port Size	Part Number	
1/8 NPT	862K77	
1/4 NPT	863K77	
1/8 BSPP	D864K77	
1/4 BSPP	D865K77	

Tube Ports		
Port Size	Part Number	
1/4	866K77	
3/8	867K77	
4 mm	868K77	
6 mm	869K77	
8 mm	870K77	
10 mm	871K77	

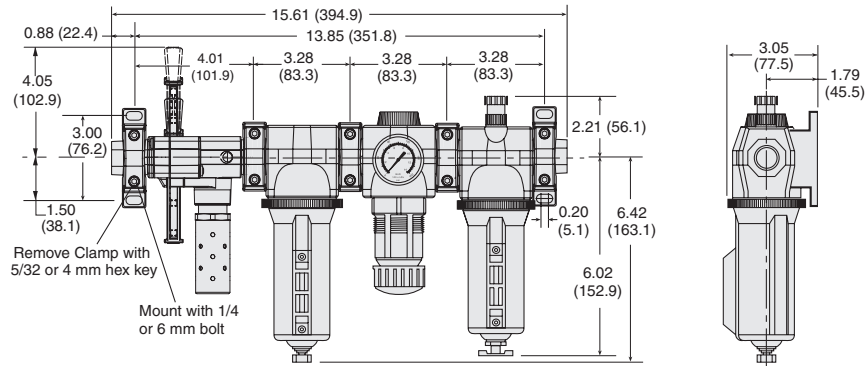
**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

# Modular Assemblies

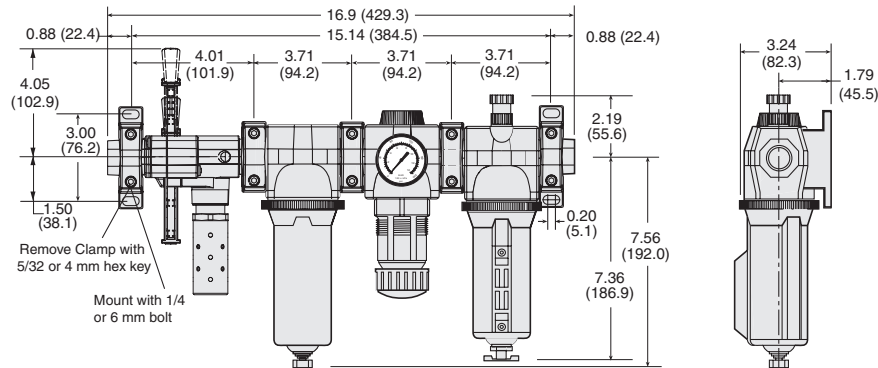
## Accessories: Clamp, Brackets, End Ports & Port Blocks

## MD Series

### MD3™ Series



### MD4™ Series



### Clamp for Module Connections

Specially designed clamps provide a quick and easy assembly or disassembly of MD modules. Two allen-head bolts quickly tighten or loosen the clamp using a 5/32 or 4mm hex key. The clamp contains a plate carrying two O-rings to provide positive sealing between modules.

Order clamp by part number **R-A118-105**.

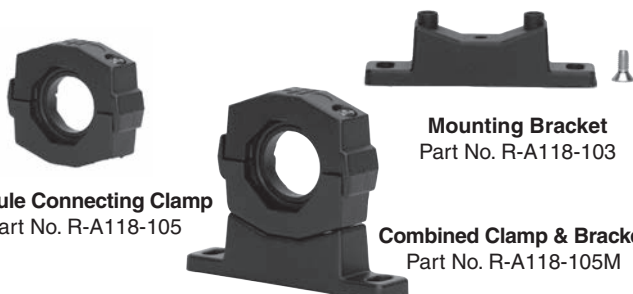
Combined clamp and bracket (below) can be ordered by part number **R-A118-105M**.

### Mounting Brackets

Two brackets are normally used to mount an FRL to a vertical surface. The mounting bracket attaches to the module connecting clamp (see above) with a single screw. Each bracket then employs two bolts (1/4" or 6mm) to connect the assembly to the mounting surface.

Order bracket and screw by part number **R-A118-103**.

Combined bracket and clamp (above) can be ordered by part number **R-A118-105M**.





**Module Connecting Clamp**  
Part No. R-A118-105

**Mounting Bracket**  
Part No. R-A118-103

**Combined Clamp & Bracket**  
Part No. R-A118-105M

### Male and Female End Ports


Either male or female end ports can be attached to threaded inlet and outlet lines. This allows all modules of an FRL assembly to be removed easily and quickly without having to unthread the end modules. The end ports are attached to the modules with clamps (see at left). End ports can be included in an assembled FRL or ordered separately by the following part numbers:

Port Size	Male Part Number*		Port Size	Female Part Number*	
1/4	R-118-109-2F		1/4	R-118-100-2	
3/8	R-118-109-3F		3/8	R-118-100-3	
1/2	R-118-109-4F		1/2	R-118-100-4	
3/4	R-118-109-6F		3/4	R-118-100-6	

\* For BSPP threads, add a "W" suffix to the model number, e.g., R-118-109-2FW.

### Extra Port Blocks

An extra port block can be placed between modules to provide two auxiliary 1/4 NPTF ports. Its mounting position can be rotated to obtain the most convenient operating orientation. If only one auxiliary port is to be used, the unused port must be closed with a pipe plug. (The inlet and outlet are not threaded.)


Port Size	Part Number*	
1/4	R-118-106-2	
3/8	R-118-106-3	
1/2	R-118-106-4	

\* For BSPP threads, add a "W" suffix to the model number, e.g., R-118-106-2W.

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



### Pressure Gauges

Port Size	Model Number*	Pressure Range psig (bar)	Case Diameter inches (mm)	
1/8	5400A1002	0-160 (0-11)	1.5 (38)	
1/4	5400A2010	0-60 (0-4)	2.0 (51)	
1/4	5400A2011	0-200 (0-14)	2.0 (51)	
1/4	5400A2012	0-300 (0-20)	2.0 (51)	
1/4	5400A2014**	0-160 (0-11)	2.5 (64)	
1/4	5400A2015***	0-160 (0-11)	2.0 (51)	






\* Center back mounting; male pipe threads.

\*\* 5400A2014 - Stainless steel case liquid filled.

\*\*\* 5400A2015 - Green shade between 40-70 psi (2.7-4.8 bar).



### Differential Pressure Gauges

	Small Slide Gauge	Small Slide Gauge	Large Dual Face Gauge	Large Dual Face Gauge with Reed Switch (Normally Open)	Large Dual Face Gauge with Reed Switch (Normally Closed)
DIFFERENTIAL PRESSURE GAUGE TYPE/SERIES	R-A60F-28	R-K103-151	R-106-35	R-106-35E	R-106-35C
					
<b>FILTERS</b>					
BANTAM	—	—	—	—	—
MINIATURE	—	—	—	—	—
MID-SIZE	—	—	—	—	—
MD3™		—	—	—	—
FULL-SIZE	—	—	—	—	—
MD4™	—				
HIGH-CAPACITY	—	—	—	—	—
<b>COALESCING FILTERS</b>					
BANTAM	—	—	—	—	—
MINIATURE	—	—	—	—	—
MID-SIZE		—	—	—	—
FULL-SIZE	—				
MD3™		—	—	—	—
MD4™	—				
HIGH-CAPACITY	—				
<b>OIL VAPOR REMOVAL (ADSORBING) FILTERS</b>					
MD3™	—	—	—	—	—
MD4™	—	—	—	—	—
<b>CLEAN AIR PACKAGES</b>					
MD3™		—	—	—	—
MD4™	—				

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

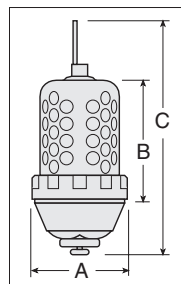
### External Automatic Drains

Pipe Size	Model Number*	
	Polycarbonate Bowl**	Metal Bowl
1/8	5057B1001	5058B1001
1/4*	5057B2001	5058B2001

\*Use 1/4 size with FULL-SIZE, HIGH-CAPACITY, MD3™ & MD4™ filters.  
Use kit 1076K77 to convert standard bowl to accept auto drain unit.

\*\*Available for FULL-SIZE filters only. Polycarbonate bowl includes metal bowl guard.

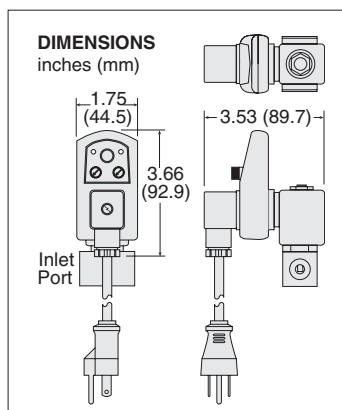
Port Size	Dimensions inches (mm)			Weight lb (kg)
	A	B	C	
1/8, 1/4	3.5 (89)	4.2 (107)	8.3 (211)	2.6 (1.2)



### Electronically Controlled Drain

Pipe Size	Voltage	Model Number**
1/4	110-120 volts AC, 50/60 Hz	R-DED-115V-2
3/8	110-120 volts AC, 50/60 Hz	R-DED-115V-3
1/2	110-120 volts AC, 50/60 Hz	R-DED-115V-4
1/4	24 volts DC	R-DED-24V-2
3/8	24 volts DC	R-DED-24V-3
1/2	24 volts DC	R-DED-24V-4

\*\* NPT port threads. For BSPP threads, add a "W" suffix to the model number, e.g., R-DED-115V-2W.



E

### STANDARD SPECIFICATIONS (for electronically controlled drain):

**Drain Time:** Adjustable 0.5 to 10 seconds.  
**Drain Interval:** Adjustable 0.5 to 45 minutes.  
**Current Consumption:** 4 ma maximum.  
**Ambient Temperature:** 35° to 130°F (2° to 54°C).  
**Media Temperature:** 35° to 190°F (2° to 88°C).

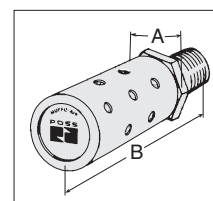
**Electrical Connection:** DIN 43650A, ISO 440/6952.  
**Valve Type:** 2/2 direct acting, normally closed.  
**Valve Body:** Forged brass; 3/16-inch (4.8 mm) orifice.  
**Maximum Pressure:** 230 psig (15.8 bar).

### Silencers



Port Size	Thread Type	Model Number*		Avg. C <sub>v</sub>	Dimensions inches (mm)		Weight lb (kg)
		NPT Threads	BSPT Threads		A	B	
3/8	Male	5500A3003	D5500A3003	4.3	1.3 (32)	3.5 (88)	0.2 (0.1)
3/4	Male	5500A5013	D5500A5013	5.1	1.3 (32)	3.6 (92)	0.2 (0.1)
3/4	Male	5500A5003	D5500A5003	11.5	2.0 (51)	5.3 (135)	0.6 (0.3)

**Flow Media:** Filtered air; 5 micron recommended.  
**Pressure Range:** 0 to 150 psig (0 to 10.3 bar) maximum.



E6



# Lubricants, Polycarbonate Bowl Cautions

## Compatible Lubricants

Although air line lubrication is not required for most ROSS valves, other mechanisms in the system may need such lubrication. When a lubricator is used, it should be supplied only with oils which are compatible with the materials used in the valves for seals and poppets. Generally speaking, these are petroleum base oils with oxidation inhibitors, and aniline point between 180°F (82°C) and 220°F (104°C) and an ISO 32, or lighter, viscosity. Oils with phosphate type additives, such as zinc dithiophosphate, must be avoided because they can harm polyurethane valve components. The best oils to use in pneumatic systems are those specifically compounded for air line lubricator service.

## Cautions on the Use of Polycarbonate Bowls

**Use Only with Compressed Air.** Filters and lubricators with polycarbonate bowls are specifically designed for compressed air service, and their use with any other fluid (liquid or gas) is a misapplication. The use with or injection of certain hazardous fluids in the system (e.g., alcohol or liquefied petroleum gas) could be harmful to the polycarbonate bowl or result in a combustible condition or hazardous leakage. Before using with a fluid other than air, or for nonindustrial applications, or for life support systems, consult ROSS.

**Use Metal Bowl Guard When Supplied.** A metal bowl guard is supplied with all but the smallest bowls, and must always be used to minimize danger from fragmentation in the event of failure of a polycarbonate bowl.

**Avoid Harmful Substances.** Some compressor oils, chemical cleaners, solvents, paints, and fumes will attack polycarbonate bowls and can cause bowl failure. Do not use with or near these materials. When a bowl becomes dirty, replace the bowl or wipe it with a clean dry cloth. Immediately replace any polycarbonate bowl which is crazed, cracked, or deteriorated.

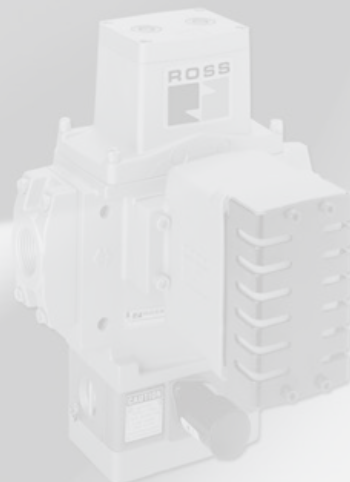
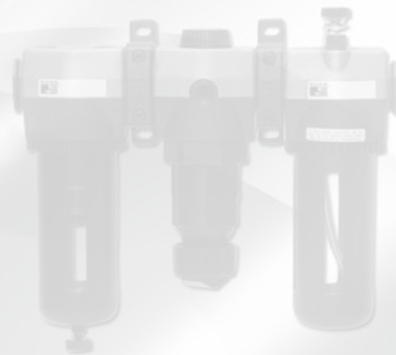
## Substances HARMFUL to Polycarbonate Bowls

Acetaldehyde	Carbon disulfide	Ethylene dichloride	Phosphorous trichloride
Acetic acid	Carbon tetrachloride	Ethylene glycol	Propionic acid
Acetone	Caustic potash solution	Formic acid	Pyridine
Acrylonitrile	Caustic soda solution	Freon (refrigerant & propellant)	Sodium hydroxide
Ammonia	Chlorobenzene	Gasoline (high aromatic)	Sodium sulfide
Ammonium fluoride	Chloroform	Hydrazine	Styrene
Ammonium hydroxide	Cresol	Hydrochloric acid	Sulfuric acid
Ammonium sulfide	Cyclohexanol	Lacquer thinner	Sulfural chloride
Anaerobic adhesives & sealants	Cyclohexanone	Methyl alcohol	Tetrahydronaphthalene
Antifreeze	Cyclohexene	Methylene chloride	Thiophene
Benzene	Dimethyl formamide	Methylene salicylate	Toluene
Benzoic acid	Dioxane	Milk of lime (CaOH)	Turpentine
Benzyl alcohol	Ethane tetrachloride	Nitric acid	Xylene
Brake fluids	Ethyl acetate	Nitrobenzene	Perchloroethylene
Bromobenzene	Ethyl ether	Nitrocellulose lacquer	
Butyric acid	Ethylamine	Phenol	
Carbolic acid	Ethylene chlorohydrin	Phosphorous hydroxyl chloride	

## Trade Names of Substances HARMFUL to Polycarbonate Bowls

- Atlas Perma-Guard • Buna N • Cellulube #150 & #220 • Crylex #5 cement • Eastman 910 • Garlock 98403 (polyurethane)
- Haskel 568-023 • Hilgard Company's hil phene • Houghton & Co. oil 1120, 1130, 1055 • Houtosafe 1000 • Kano Kroil
- Keystone penetrating oil #2 • Loctite 271, 290, 601 • Loctite Teflon sealant • Marvel Mystery Oil • Minn. Rubber 366Y
- National Compound N11 • Nylock VC-3 • Parco 1306 Neoprene • Permabond 910 • Petron PD287 • Prestone • Pydraul AC
- Sears Regular Motor Oil • Sinclair oil "Lily White" • Stauffer Chemical FYRQUEL 150 • Stillman SR 269-75 (polyurethane)
- Stillman SR 513-70 (neoprene) • Tannergas • Telar • Tenneco anderol 495 & 500 oils • Titon • Vibra-tite • Zerex

**IMPORTANT NOTE:** Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



E

# General Information

## Standard Specifications

The standard specifications for the products on each page of this catalog are given on the same page or referenced. For solenoid pilot valves, models with internal pilot supply are listed. Most models are also available for use with external pilot supply or have a built-in pilot supply selector valve.

The products in this catalog are intended for use in industrial pneumatic systems. Most products are adaptable to other uses and conditions not covered by the standard specifications given in this catalog. Weights shown are approximate and are subject to change. Dimensions given, unless otherwise noted, are envelope dimensions (not for mounting). Consult ROSS for further information.

## Port Threads

Ports of valves and bases described in this catalog have NPT (ANSI B2.1) threads. Other thread types can be specified by putting an appropriate prefix letter on the model or part number when ordering.

Thread Types by Model Prefix Letter

Pneumatic Port Threads	Prefix Letter	Threaded Electrical Opening
NPT (ANSI B2.1)	None	NPT
ISO 228 - DIN 259 Parallel, BSPP <sup>#</sup>	C*	—
ISO 228 - DIN 259 Parallel, BSPP <sup>#</sup>	D	G
ISO 228 - JIS B0203 Tapered <sup>#</sup>	J	ISO
SAE 1926- ISO 11926	S	NPT

\* Used only for filters, regulators, lubricators.

<sup>#</sup> ISO 228 threads supersedes BSPP, G and JIS thread types.

## Flow Ratings

Flow ratings are expressed as  $C_v$  where  $C_v = 1$  corresponds to a steady state air flow of approximately 32 scfm under the following conditions:

Inlet pressure = 100 psig (6.7 bar)  
Pressure drop = 10 psi (0.69 bar)  
Air temperature = 68°F (20°C)  
Relative humidity = 36 percent

**Note:** Because widely differing test standards are used to measure  $C_v$  values, the figures given in this catalog should not be used to compare ROSS valves with those of other makers. The  $C_v$  ratings given here are intended only for use with performance charts published by ROSS. The  $C_v$  ratings are averages for the various flow paths through the valve and are for steady flow conditions.

## Approvals and Certifications

ROSS products are designed to meet a number of industrial standards, including the Canadian Standards Association (C.S.A.) guidelines. For more information on specific product approvals, contact your local distributor or ROSS.

## Solenoids

All ROSS standard solenoids are rated for continuous duty (unless noted otherwise) and will operate the valve within the air pressure range specified in this catalog.

**Explosion-Proof Solenoid Pilot available, for more information consult ROSS.**

## Voltage & Hertz

When ordering a solenoid valve, also specify the desired solenoid voltage and hertz.

Voltage Types by Model Suffix Letter

Voltage	Suffix Letter
120 volts AC	Z
220 volts AC	Y
12 volts DC	H
24 volts DC	W
48 volts DC	M
90 volts DC	K
110 volts DC	P
125 volts DC	C

**Recommended Solenoid Voltages:** 100-110 volts, 50 Hz; 100-120 volts, 60 Hz; 24 volts DC; 110 volts DC.

In addition, the following voltages are available:

200, 220 volts, 50 Hz  
200, 240, 480 volts, 60 Hz  
24, 48, 220 volts, 50 Hz  
240 volts, 60 Hz  
200, 220 volts, 50 Hz  
200, 240 volts, 60 Hz.

For example: Model 2773B5001, 120 volts, 60 Hz.  
Model W6076B2401, 220 volts, 50 Hz.

**Please note that not all configurations are available for all models.**

*For additional information or help with voltage configuration, please contact your local distributor or ROSS.*

## Port Identification

Valve symbols in this catalog conform to the ISO 1219-1:1991 standard of the International Organization for Standardization (ISO) and the SAE J2051 standard of the Society of Automotive Engineers (SAE) respectively.

## Information or Technical Assistance

For additional information or application assistance concerning ROSS products, consult ROSS or your local ROSS distributor (see contact information on the back cover).

## Order Placement

**For order placement, consult ROSS or your local ROSS distributor.**

For a current list of countries and local distributors, visit ROSS' website at [www.rosscontrols.com](http://www.rosscontrols.com).

# CAUTIONS, WARNINGS and STANDARD WARRANTY

## PRE-INSTALLATION or SERVICE

1. Before servicing a valve or other pneumatic component, be sure that all sources of energy are turned off, the entire pneumatic system is shut off and exhausted, and all power sources are locked out (ref: OSHA 1910.147, EN 1037).
2. All ROSS products, including service kits and parts, should be installed and/or serviced only by persons having training and experience with pneumatic equipment. Because any installation can be tampered with or need servicing after installation, persons responsible for the safety of others or the care of equipment must check every installation on a regular basis and perform all necessary maintenance.
3. All applicable instructions should be read and complied with before using any fluid power system in order to prevent harm to persons or equipment. In addition, overhauled or serviced valves must be functionally tested prior to installation and use. If you have any questions, call your nearest ROSS location listed on the cover of this document.
4. Each ROSS product should be used within its specification limits. In addition, use only ROSS parts to repair ROSS products.

**WARNING:** *Failure to follow these directions can adversely affect the performance of the product or result in the potential for human injury or damage to property.*

## FILTRATION and LUBRICATION

5. Dirt, scale, moisture, etc. are present in virtually every air system. Although some valves are more tolerant of these contaminants than others, best performance will be realized if a filter is installed to clean the air supply, thus preventing contaminants from interfering with the proper performance of the equipment. ROSS recommends a filter with a 5-micron rating for normal applications.
6. All standard ROSS filters and lubricators with polycarbonate plastic bowls are designed for compressed air applications only. Do *not* fail to use the metal bowl guard, where provided, to minimize danger from high pressure fragmentation in the event of bowl failure. Do not expose these products to certain fluids, such as alcohol or liquefied petroleum gas, as they can cause bowls to rupture, creating a combustible condition, hazardous leakage, and the potential for human injury or damage to property. Immediately replace a crazed, cracked, or deteriorated bowl. When bowl gets dirty, replace it or wipe it with a clean dry cloth.

7. Only use lubricants which are compatible with materials used in the valves and other components in the system. Normally, compatible lubricants are petroleum based oils with oxidation inhibitors, an aniline point between 180°F (82°C) and 220°F (104°C), and an ISO 32, or lighter, viscosity. Avoid oils with phosphate type additives which can harm polyurethane components, potentially leading to valve failure which risks human injury, and/or damage to property.

## AVOID INTAKE/EXHAUST RESTRICTION

8. Do not restrict the air flow in the supply line. To do so could reduce the pressure of the supply air below the minimum requirements for the valve and thereby cause erratic action.
9. Do not restrict a valve's exhaust port as this can adversely affect its operation. Exhaust silencers must be resistant to clogging and must have flow capacities at least as great as the exhaust capacities of the valves. Contamination of the silencer can result in reduced flow and increased back pressure.

**WARNING:** *ROSS expressly disclaims all warranties and responsibility for any unsatisfactory performance or injuries caused by the use of the wrong type, wrong size, or an inadequately maintained silencer installed with a ROSS product.*

## POWER PRESSES

10. Mechanical power presses and other potentially hazardous machinery using a pneumatically controlled clutch and brake mechanism must use a press control double valve with a monitoring device. A double valve without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All double valve installations involving hazardous applications should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.

## ENERGY ISOLATION/EMERGENCY STOP

11. Per specifications and regulations, ROSS L-O-X® and L-O-X® with EEZ-ON® operation products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

## STANDARD WARRANTY

limited to repair or replacement of the product or refund of the purchase price paid solely at the discretion of ROSS and provided such product is returned to ROSS freight prepaid and upon examination by ROSS is found to be defective. This warranty becomes void in the event that product has been subject to misuse, misapplication, improper maintenance, modification or tampering.

THE WARRANTY EXPRESSED ABOVE IS IN LIEU OF AND EXCLUSIVE OF ALL OTHER WARRANTIES AND ROSS EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED WITH RESPECT TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ROSS MAKES NO WARRANTY WITH RESPECT TO ITS PRODUCTS MEETING THE PROVISIONS OF ANY GOVERNMENTAL OCCUPATIONAL SAFETY AND/OR HEALTH LAWS OR REGULATIONS. IN NO EVENT IS ROSS LIABLE TO PURCHASER, USER, THEIR EMPLOYEES OR OTHERS FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM A BREACH OF THE WARRANTY DESCRIBED ABOVE OR THE USE OR MISUSE OF THE PRODUCTS. NO STATEMENT OF ANY REPRESENTATIVE OR EMPLOYEE OF ROSS MAY EXTEND THE LIABILITY OF ROSS AS SET FORTH HEREIN.

All products sold by ROSS CONTROLS are warranted for a one-year period [with the exception of all Filters, Regulators and Lubricators ("FRLs") which are warranted for a period of seven years] from the date of purchase to be free of defects in material and workmanship. ROSS' obligation under this warranty is







**ROSS CONTROLS**  
U.S.A.

Tel: +1-248-764-1800  
Customer Svs. 1-800-GET-ROSS  
Technical Svs. 1-888-TEK-ROSS  
sales@rosscontrols.com  
www.rosscontrols.com

**ROSS EUROPA GmbH**  
Germany

Tel: +49-6103-7597-0  
sales@rosseuropa.com  
www.rosseuropa.com

**ROSS ASIA K.K.**  
Japan

Tel: +81-42-778-7251  
www.rossasia.co.jp

**ROSS UK Ltd.**  
United Kingdom

Tel: +44-1543-671495  
sales.uk@rosscontrols.com  
www.rossuk.co.uk

**ROSS CONTROLS INDIA Pvt. Ltd.**  
India

Tel: +91-44-2624-9040  
ross.chennai@rosscontrols.com

**ROSS SOUTH AMERICA Ltda.**  
Brazil

Tel: +55-11-4335-2200  
vendas@rosscontrols.com

**ROSS FRANCE S.A.S.**  
France

Tel: +33-1-49-45-65-65  
www.rossfrance.com

**ROSS CONTROLS(CHINA) Ltd.**  
China

Tel: +86-21-6915-7961  
sales@rosscontrols.com.cn  
www.rosscontrolschina.com

**ROSS CANADA**  
Canada

Tel: +1-416-251-7677  
sales@rosscanada.com  
www.rosscanada.com

6077170 CANADA INC.  
AN INDEPENDENT REPRESENTATIVE



## ***Full-Service Global Locations***

***There are ROSS Distributors Throughout the World***

*To meet your requirements across the globe, ROSS distributors are located throughout the world. Through ROSS or its distributors, guidance is available for the selection of ROSS products, both for those using pneumatic components for the first time and those designing complex pneumatic systems.*

*Other literature is available for engineering, maintenance, and service requirements. If you need products or specifications not shown here, please contact ROSS or your ROSS distributor. They will be happy to assist you in selecting the best product for your application.*

***For a current list of countries and local distributors, visit ROSS' website at [www.rosscontrols.com](http://www.rosscontrols.com).***