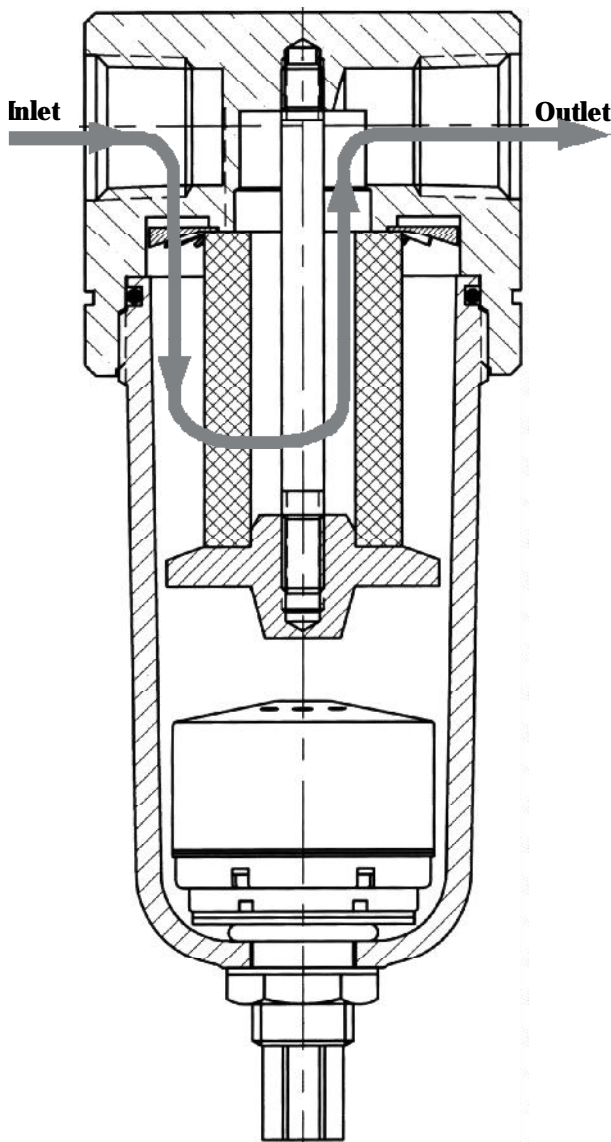


# airline FILTERS

Where Custom Solutions Become Standard



## Application

Monnier airline filters are built to ensure solid and liquid contaminant is removed from compressed airlines. Airline contaminants plug small orifices and cause wear and premature pneumatic machinery, valve and equipment failure. Filters are available in many standard and custom configurations to better meet customer requirements. Every product can be anodized in eight different colors to match your existing system colors.

## Function

All Monnier filters are engineered with the exclusive Whirl-Away design, which creates high centrifugal force with low pressure drop. The whirling action forces all liquids and solids against the bowl wall, where gravity takes over and causes them to run down below the quiet-zone baffle where they can be drained out. The leakproof drain cock has an O-ring seal that can be opened and closed without tools.

The air then flows through the element where the smaller particles are removed. The filtered air next passes downstream. The accumulated liquid must be removed before it reaches a level where it could recirculate into the air flow. This is accomplished by opening the drain on the bottom of the filter. The automatic drain option removes the unwanted material automatically.

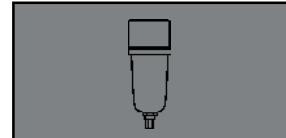
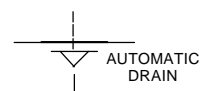
Sight levels are available in other materials for environments or fluids harmful to polycarbonate.

## Benefits

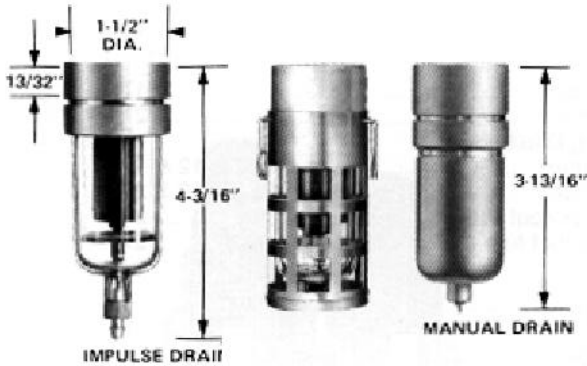
- Prolonged pneumatic machinery and tool life
- OEM identification and color-coding with anodizing
- Increased strength and corrosion resistance with anodizing
- Special porting and design can be accomplished with Monnier's flexible machining process
- New threaded bowl option on 8 oz bowls for easy maintenance and element changing

Visit Our Web Site at:

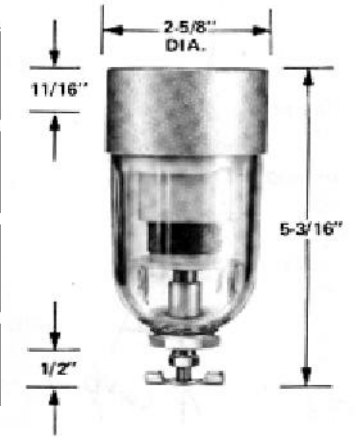
Location: <http://www.monnier.com>



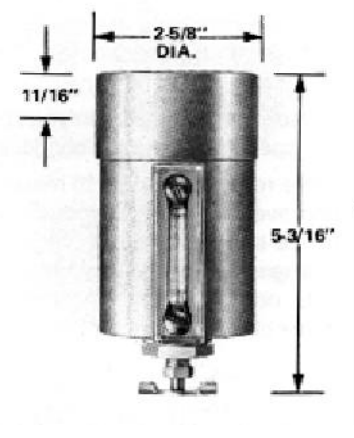
MINIATURE FILTERS  
1-OUNCE CAPACITY  
POLYCARBONATE OR METAL BOWL  
PIPE SIZE: 1/8 OR 1/4"



COMPACT FILTERS  
5-OUNCE CAPACITY  
POLYCARBONATE BOWL  
PIPE SIZE: 1/4, 3/8, 1/2"



COMPACT FILTERS  
5-OUNCE CAPACITY  
METAL BOWL  
PIPE SIZE: 1/4, 3/8, 1/2"



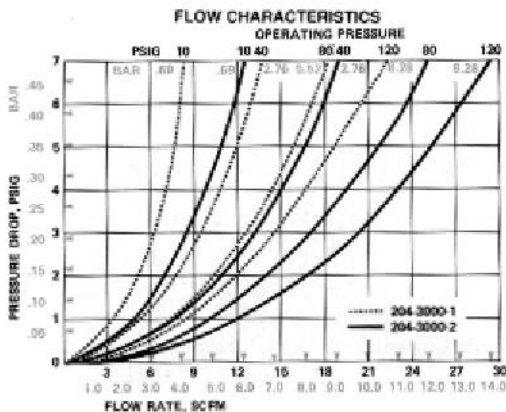
PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>POLYCARBONATE BOWL</b>		
<b>WITH BOWL GUARD (23,581)</b>		
	<b>20 MICRON (Std)</b>	
1/8"	204-3100-1	204-3000-1 23,004
1/4"	204-3100-2	204-3000-2
	<b>10 MICRON</b>	
1/8"	204-3101-1	204-3001-1 23,025
1/4"	204-3101-2	204-3001-2
	<b>3 MICRON</b>	
1/8"	204-3102-1	204-3002-1 23,024
1/4"	204-3102-2	204-3002-2
<b>METAL BOWL</b>		
	<b>20 MICRON (Std)</b>	
1/8"	204-3200-1	23,004
1/4"	204-3200-2	
	<b>10 MICRON</b>	
1/8"	204-3201-1	23,025
1/4"	204-3201-2	
	<b>3 MICRON</b>	
1/8"	204-3202-1	23,024
1/4"	204-3202-2	

To order with automatic drain, add suffix "D" for impulse drain.

PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>WITH BOWL GUARD (22,089)</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-2100-2	
3/8"	204-2100-3	22,205
1/2"	204-2100-4	
<b>10 MICRON</b>		
1/4"	204-2101-2	
3/8"	204-2101-3	22,033
1/2"	204-2101-4	
<b>3 MICRON</b>		
1/4"	204-2102-2	
3/8"	204-2102-3	22,032
1/2"	204-2102-4	
<b>WITHOUT BOWL GUARD</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-2000-2	
3/8"	204-2000-3	22,205
1/2"	204-2000-4	
<b>10 MICRON</b>		
1/4"	204-2001-2	
3/8"	204-2001-3	22,033
1/2"	204-2001-4	
<b>3 MICRON</b>		
1/4"	204-2002-2	
3/8"	204-2002-3	22,032
1/2"	204-2002-4	

PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>WITH SIGHT LEVEL (21,538)</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-2300-2	
3/8"	204-2300-3	22,205
1/2"	204-2300-4	
<b>10 MICRON</b>		
1/4"	204-2301-2	
3/8"	204-2301-3	22,033
1/2"	204-2301-4	
<b>3 MICRON</b>		
1/4"	204-2302-2	
3/8"	204-2302-3	22,032
1/2"	204-2302-4	
<b>WITHOUT SIGHT LEVEL</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-2200-2	
3/8"	204-2200-3	22,205
1/2"	204-2200-4	
<b>10 MICRON</b>		
1/4"	204-2201-2	
3/8"	204-2201-3	22,033
1/2"	204-2201-4	
<b>3 MICRON</b>		
1/4"	204-2202-2	
3/8"	204-2202-3	22,032
1/2"	204-2202-4	

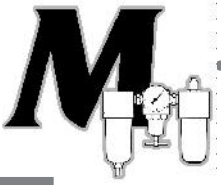
To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.



WARNING

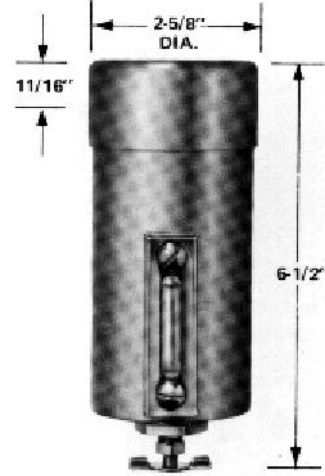
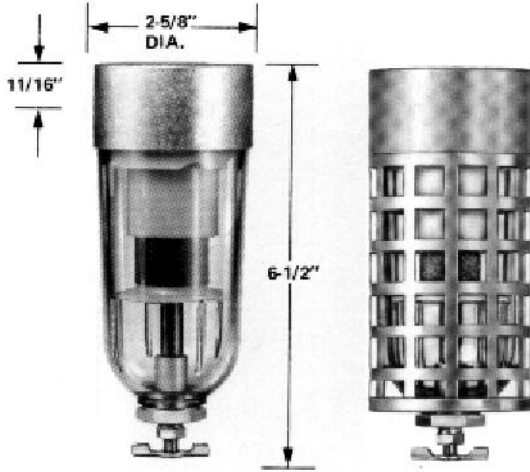
**POLYCARBONATE BOWLS CAN BE DAMAGED AND MAY FAIL IF THEY ARE EXPOSED TO, OR COME IN CONTACT WITH SOLVENTS, STRONG ALKALIES, FIRE RESISTANT AND/OR SYNTHETIC COMPRESSOR LUBRICANTS.**

**MAXIMUM PRESSURE AND TEMPERATURE IN POLYCARBONATE BOWL FILTERS IS 150 PSI AND 120°F. METAL BOWL: 250 PSI, 200°F.**



STANDARD FILTERS  
8-OUNCE CAPACITY  
POLYCARBONATE BOWL  
PIPE SIZE: 1/4, 3/8, 1/2"

STANDARD FILTERS  
8-OUNCE CAPACITY  
METAL BOWL  
PIPE SIZE: 1/4, 3/8, 1/2"

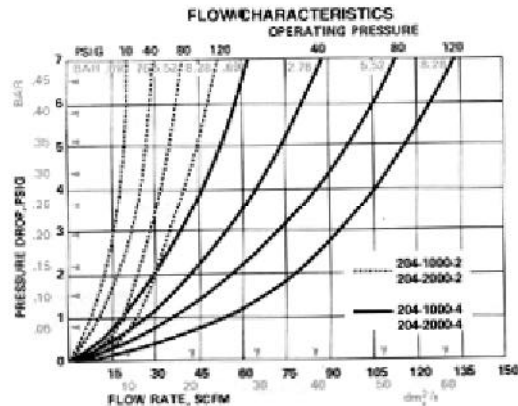


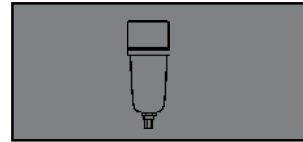
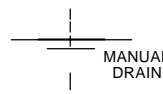
PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>WITH BOWL GUARD (21,088)</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-1100-2	21,205
3/8"	204-1100-3	
1/2"	204-1100-4	
<b>10 MICRON</b>		
1/4"	204-1101-2	21,036
3/8"	204-1101-3	
1/2"	204-1101-4	
<b>3 MICRON</b>		
1/4"	204-1102-2	21,037
3/8"	204-1102-3	
1/2"	204-1102-4	
<b>WITHOUT BOWL GUARD</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-1000-2	21,205
3/8"	204-1000-3	
1/2"	204-1000-4	
<b>10 MICRON</b>		
1/4"	204-1001-2	21,036
3/8"	204-1001-3	
1/2"	204-1001-4	
<b>3 MICRON</b>		
1/4"	204-1002-2	21,037
3/8"	204-1002-3	
1/2"	204-1002-4	

PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>WITH SIGHT LEVEL (21,538)</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-1300-2	21,205
3/8"	204-1300-3	
1/2"	204-1300-4	
<b>10 MICRON</b>		
1/4"	204-1301-2	21,036
3/8"	204-1301-3	
1/2"	204-1301-4	
<b>3 MICRON</b>		
1/4"	204-1302-2	21,037
3/8"	204-1302-3	
1/2"	204-1302-4	
<b>WITHOUT SIGHT LEVEL</b>		
<b>20 MICRON (Std)</b>		
1/4"	204-1200-2	21,205
3/8"	204-1200-3	
1/2"	204-1200-4	
<b>10 MICRON</b>		
1/4"	204-1201-2	21,036
3/8"	204-1201-3	
1/2"	204-1201-4	
<b>3 MICRON</b>		
1/4"	204-1202-2	21,037
3/8"	204-1202-3	
1/2"	204-1202-4	

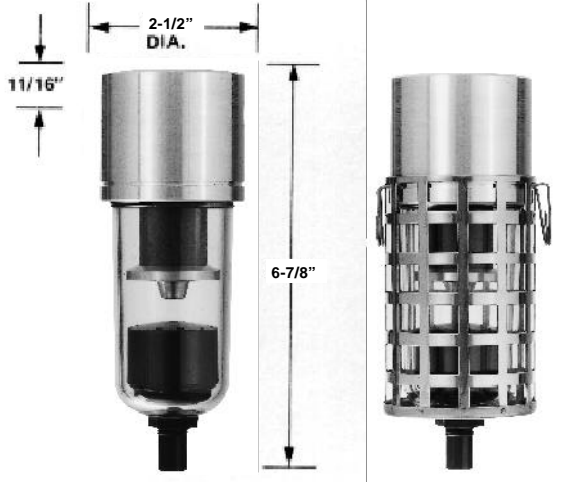
To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.

To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.

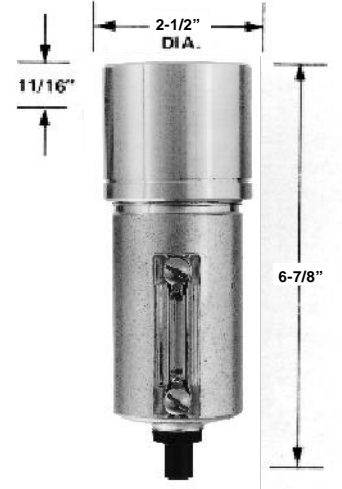




**STANDARD FILTERS  
THREADED BOWLS  
8-OUNCE CAPACITY  
POLYCARBONATE BOWL  
PIPE SIZE: 1/4, 3/8, 1/2"**



**STANDARD FILTERS  
THREADED BOWLS  
8-OUNCE CAPACITY  
METAL BOWL  
PIPE SIZE: 1/4, 3/8, 1/2"**

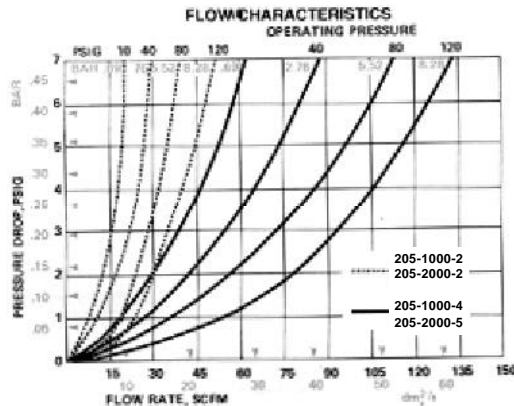


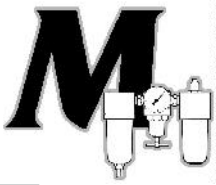
PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>WITH BOWL GUARD (21,088)</b>		
<b>20 MICRON (Std)</b>		
1/4"	205-1100-2	21,205
3/8"	205-1100-3	
1/2"	205-1100-4	
<b>10 MICRON</b>		
1/4"	205-1101-2	21,036
3/8"	205-1101-3	
1/2"	205-1101-4	
<b>3 MICRON</b>		
1/4"	205-1102-2	21,037
3/8"	205-1102-3	
1/2"	205-1102-4	
<b>WITHOUT BOWL GUARD</b>		
<b>20 MICRON (Std)</b>		
1/4"	205-1000-2	21,205
3/8"	205-1000-3	
1/2"	205-1000-4	
<b>10 MICRON</b>		
1/4"	205-1001-2	21,036
3/8"	205-1001-3	
1/2"	205-1001-4	
<b>3 MICRON</b>		
1/4"	205-1002-2	21,037
3/8"	205-1002-3	
1/2"	205-1002-4	

PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENTS
<b>WITH SIGHT LEVEL (21,538)</b>		
<b>20 MICRON (Std)</b>		
1/4"	205-1300-2	21,205
3/8"	205-1300-3	
1/2"	205-1300-4	
<b>10 MICRON</b>		
1/4"	205-1301-2	21,036
3/8"	205-1301-3	
1/2"	205-1301-4	
<b>3 MICRON</b>		
1/4"	205-1302-2	21,037
3/8"	205-1302-3	
1/2"	205-1302-4	
<b>WITHOUT SIGHT LEVEL</b>		
<b>20 MICRON (Std)</b>		
1/4"	205-1200-2	21,205
3/8"	205-1200-3	
1/2"	205-1200-4	
<b>10 MICRON</b>		
1/4"	205-1201-2	21,036
3/8"	205-1201-3	
1/2"	205-1201-4	
<b>3 MICRON</b>		
1/4"	205-1202-2	21,037
3/8"	205-1202-3	
1/2"	205-1202-4	

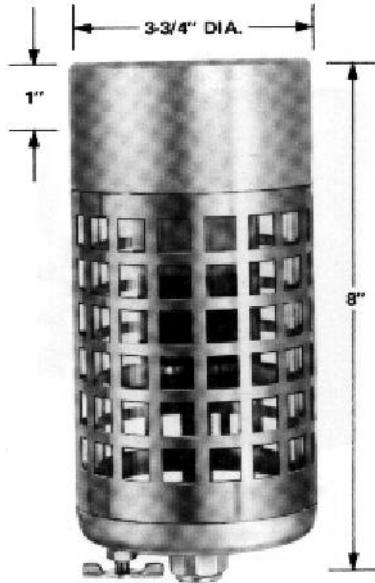
To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.

To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.

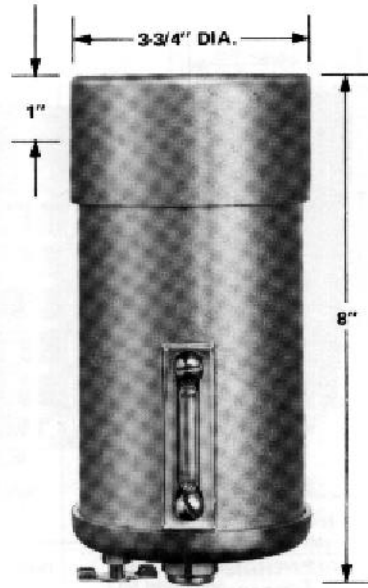




STANDARD FILTERS  
21-OUNCE CAPACITY  
POLYCARBONATE BOWL  
PIPE SIZE: 3/4 or 1"



STANDARD FILTERS  
21-OUNCE CAPACITY  
METAL BOWL  
PIPE SIZE: 3/4 or 1"

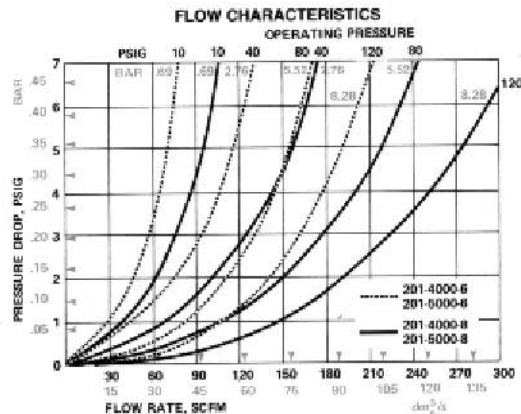


PIPE SIZE	ELEMENT RATING AND MODEL NO.		REPLACEMENT ELEMENTS
	WITH BOWL GUARD (25,057)	WITHOUT	
3/4"	<b>20 MICRON (Std)</b>		25,039
	201-5100-6	201-5000-6	
1"	201-5100-8		201-5000-8
	<b>10 MICRON</b>		25,029
3/4"	201-5101-6	201-5001-6	
1"	201-5101-8	201-5001-8	
3/4"	<b>3 MICRON</b>		25,028
	201-5102-6	201-5002-6	
1"	201-5102-8	201-5002-8	
3/4"	<b>100 MICRON</b>		25,086
	201-5103-6	201-5003-6	
1"	201-5103-8	201-5003-8	

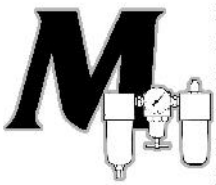
PIPE SIZE	ELEMENT RATING AND MODEL NO.		REPLACEMENT ELEMENTS
	WITH SIGHT LEVEL (21,538)	WITHOUT	
3/4"	<b>20 MICRON (Std)</b>		25,039
	201-5300-6	201-5200-6	
1"	201-5300-8		201-5200-8
	<b>10 MICRON</b>		25,029
3/4"	201-5301-6	201-5201-6	
1"	201-5301-8	201-5201-8	
3/4"	<b>3 MICRON</b>		25,028
	201-5302-6	201-5202-6	
1"	201-5302-8	201-5202-8	
3/4"	<b>100 MICRON</b>		25,086
	201-5303-6	201-5203-6	
1"	201-5303-8	201-5203-8	

To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.

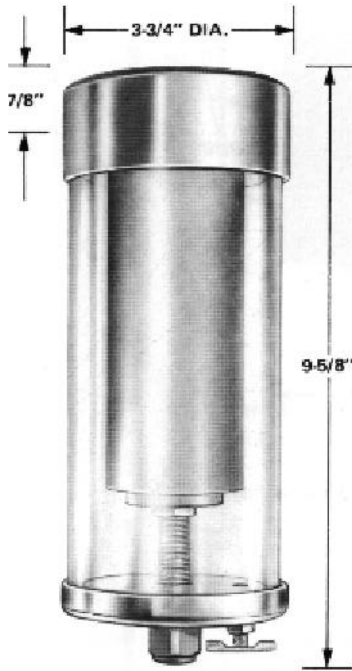
To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.







**OIL-BARRIER AIRLINE FILTERS**  
 32-OUNCE CAPACITY  
 POLYCARBONATE OR METAL BOWLS  
 PIPE SIZE: 1/4, 3/8, 1/2 OR 3/4"

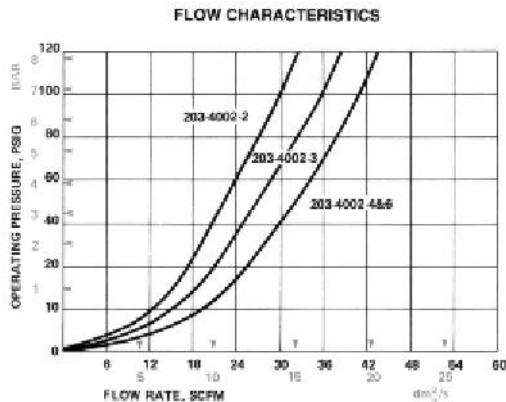


PIPE SIZE	ELEMENT RATING AND MODEL NO.	REPLACEMENT ELEMENT
<b>POLYCARBONATE BOWL WITH BOWL GUARD (24,023)</b>		
1/4"	203-4102-2	
3/8"	203-4102-3	24,020
1/2"	203-4102-4	
3/4"	203-4102-6	
<b>POLYCARBONATE BOWL WITHOUT BOWL GUARD</b>		
1/4"	203-4002-2	
3/8"	203-4002-3	24,020
1/2"	203-4002-4	
3/4"	203-4002-6	
<b>METAL BOWL WITH SIGHT LEVEL (21,538)</b>		
1/4"	203-4302-2	
3/8"	203-4302-3	24,020
1/2"	203-4302-4	
3/4"	203-4302-6	
<b>METAL BOWL WITHOUT SIGHT LEVEL</b>		
1/4"	203-4202-2	
3/8"	203-4202-3	24,020
1/2"	203-4202-4	
3/4"	203-4202-6	

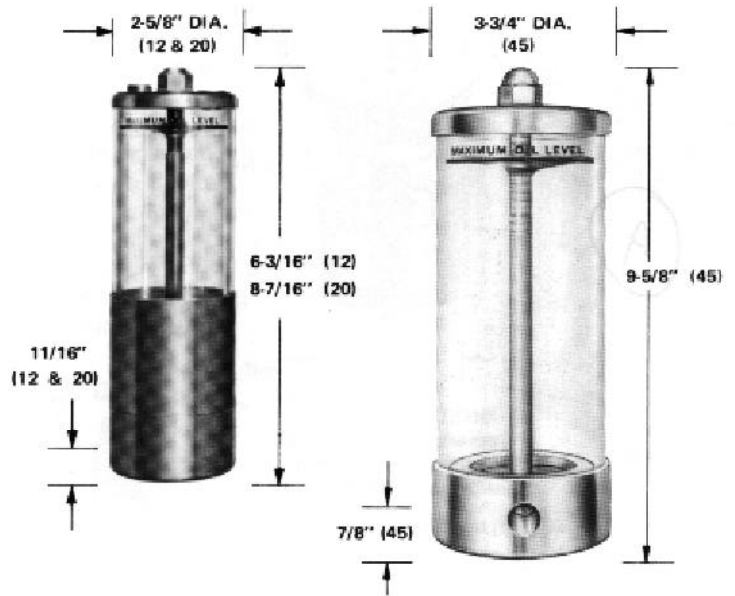
To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.

The Monnier Oil-Barrier Filter is a low-cost unit which offers thoroughly satisfactory performance in applications where oil droplets of sub-micron size are not harmful. The 3-micron filter element is of the saturable (not oil-coalescing) type, with a filtering surface 200 times the normal pipe area.

This filter provides an economical method for delivering virtually oil-free air to instruments and air-gauging, paint-spraying, and dry pneumatic cylinder and valve applications.



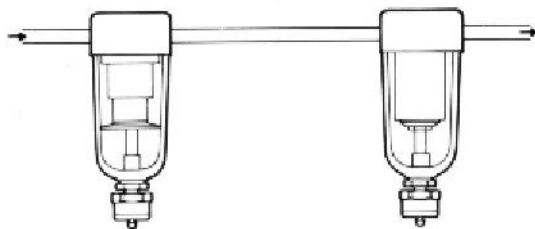
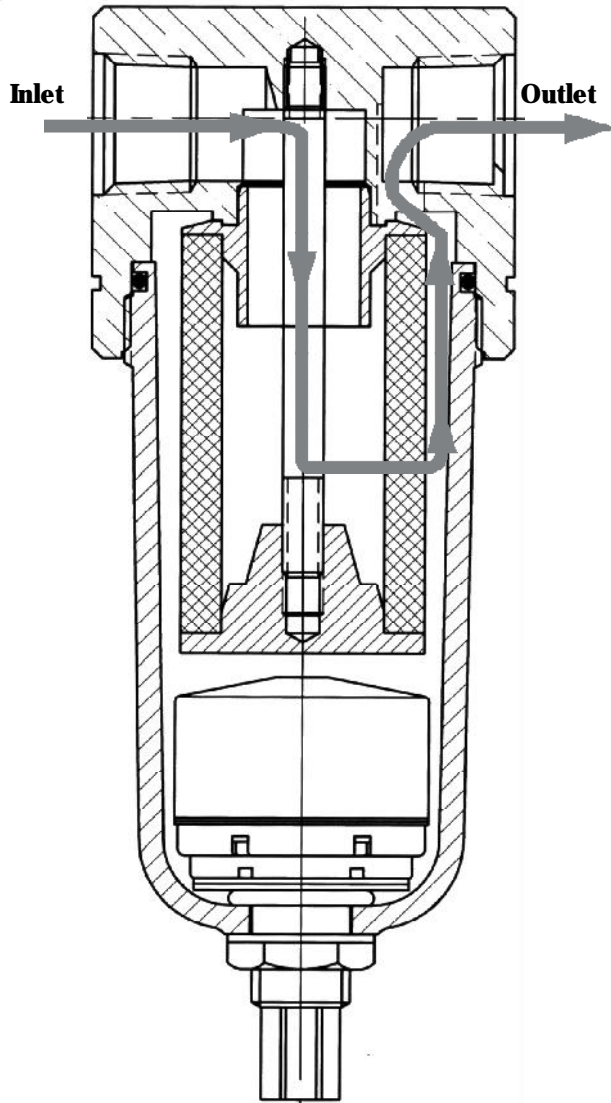
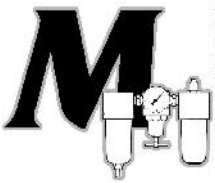
**PNEUMATIC AIR/OIL RESERVOIR**  
 12-, 20- & 45-CUBIC INCH CAPACITY  
 POLYCARBONATE BOWL



Designed for use in pneumatic circuits where air is used for power and oil for precision control of cylinder movement, the Monnier Pneumatic Air/Oil Reservoir is utilized to supply make-up oil in shock-absorber circuits. The unit has a 1/4" NPT air inlet at the top, and a 3/8" NPT oil outlet at the bottom. A filler hole, maximum oil level indicator, and a baffle to prevent aeration are provided.

Two types of mounting brackets are available to support these units. They are described on page 45 and must be ordered separately. These reservoirs come drilled and tapped to accommodate the use of either bracket type.

Capacity Cu. In.	Ounces	POLYCARBONATE BOWL		Mounting Brackets	Replacement Bowl Guard
		With Bowl Guard	Without Bowl Guard		
12	6.65	2-1100	2-1000	11,520 (Brkt. w/Stud)	21,055
20	11.08	2-1120	2-1020	11,038 (Angle Brkt.)	
45	24.93	2-1850	2-1750	11,520 (Brkt. w/Stud) 15,037 (Angle Brkt.)	24,023
		METAL BOWL			
		With Sight Level	Without Sight Level		
12	6.65	2-1300	2-1200	11,520 (Brkt. w/Stud)	21,055
20	11.08	2-1320	2-1220	11,038 (Angle Brkt.)	
45	24.93	2-1951	2-1950	11,520 (Brkt. w/Stud) 15,037 (Angle Brkt.)	24,023



Standard  
3-Micron Filter  
(such as Model #  
204-1002-2D)

Oil-Coalescing  
0.3-Micron Filter  
(such as Model #  
204-1009-2D)

For the cleanliest air possible and least maintenance cost, we recommend a standard 3-Micron Filter be installed directly upstream of an Oil-Coalescing Filter.

See page 43 and 45 in the **Accessories Section** for Information on Pressure Drop Indicators and Mounting Brackets for the Oil-Coalescing Filters.

## DRY SERVICE Application

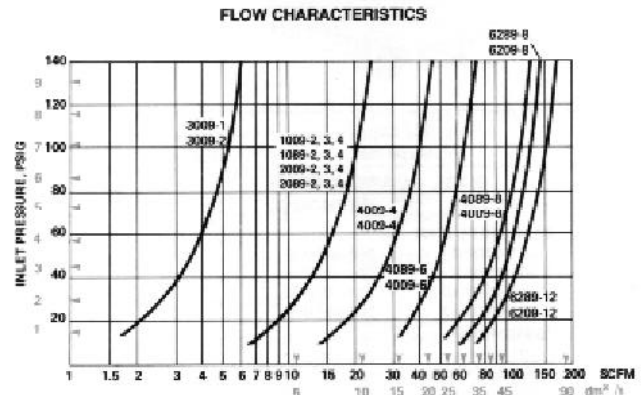
Monnier Oil-Coalescing Filters remove more than 99.95% of all oil and dirt from the air you use. Oil vapors and aerosols are removed by coalescent action, forming them into drops heavy enough to be separated by gravity. Unlike absorption filters, they do not become filled with oil, and will not clog on oil alone. If dirt particles are removed upstream, these filters will separate oil from air indefinitely.

## Function

Oil-Coalescing filters work properly only when air velocity through them is within design limits. As a result, oil coalescing filter housings are larger than those of standard air filters for the same air flow. Use the flow chart below to select a model that will handle the maximum anticipated flow rate.

## Benefits

- Remove 99.95% of all oil droplets and aerosols
- Trap 99.95% of all solids down to 0.3 micron size
- Removes odors and vapors



### MAXIMUM RECOMMENDED FLOW RATES

Data represents flows through saturated elements at 2 psi pressure drop, the maximum permissible for proper oil-coalescing action.

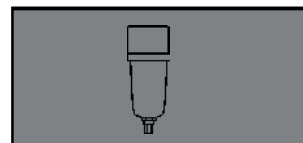
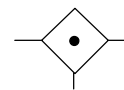


WARNING

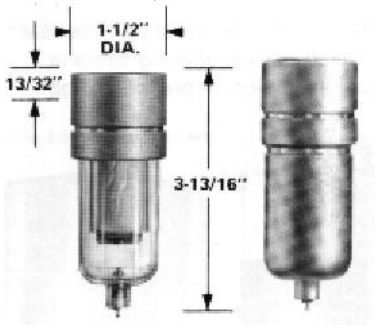


**POLYCARBONATE BOWLS CAN BE DAMAGED AND MAY FAIL IF THEY ARE EXPOSED TO, OR COME IN CONTACT WITH SOLVENTS, STRONG ALKALIES, FIRE RESISTANT AND/OR SYNTHETIC COMPRESSOR LUBRICANTS.**

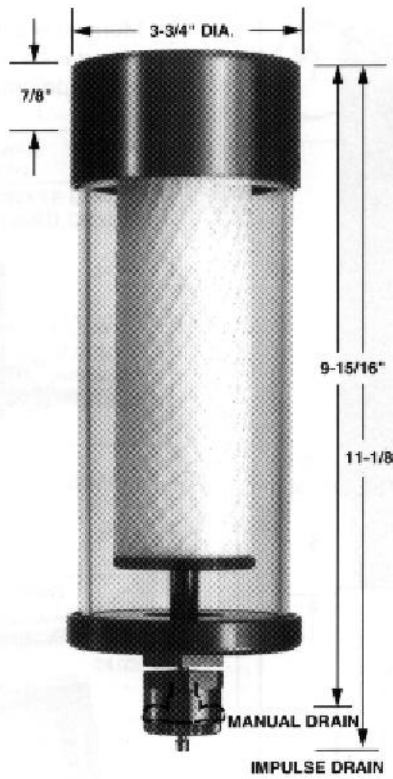
**MAXIMUM PRESSURE AND TEMPERATURE IN POLYCARBONATE BOWL FILTERS IS 150 PSI AND 120°F. METAL BOWL: 250 PSI, 200°F.**



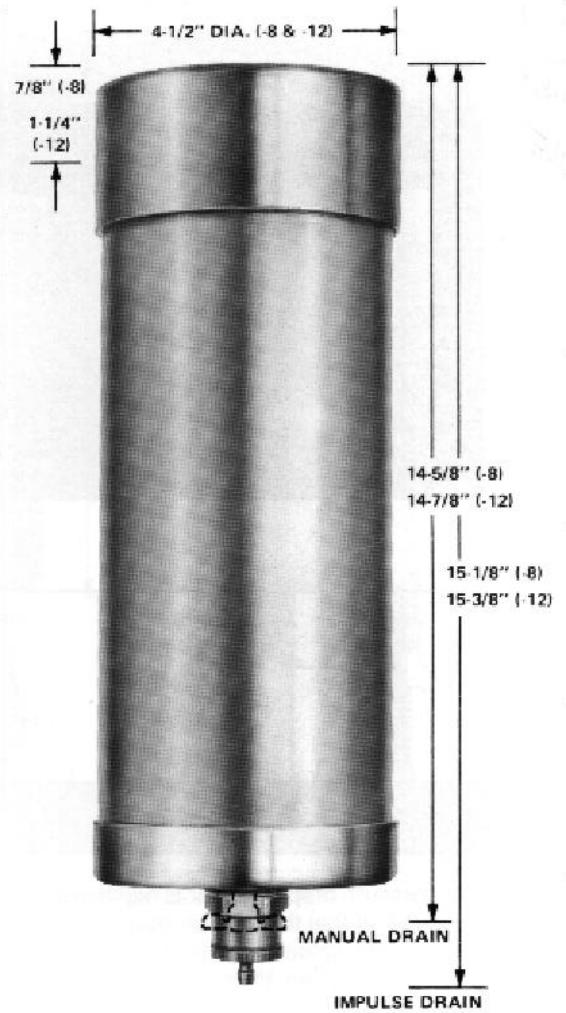
1-OUNCE CAPACITY  
1/4" NPT



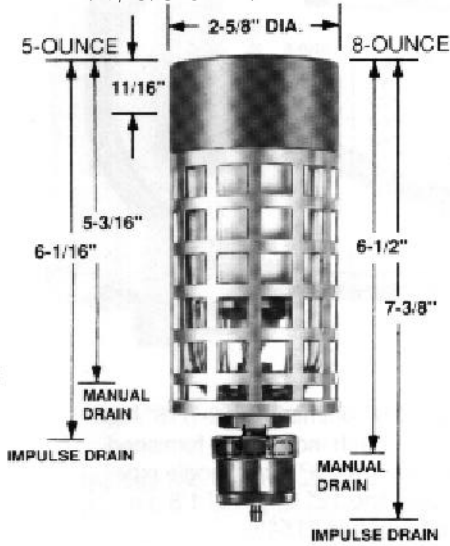
32-OUNCE CAPACITY  
3/4 & 1" NPT



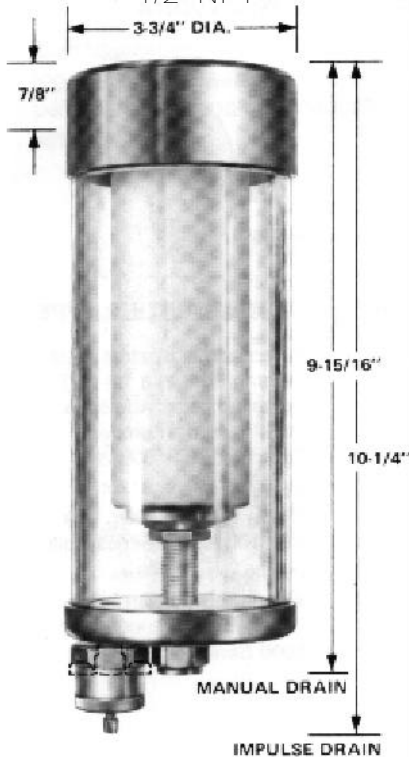
64-OUNCE CAPACITY  
1 & 1-1/2" NPT



5 & 8 OUNCE CAPACITY  
1/4, 3/8 OR 1/2" NPT



32-OUNCE CAPACITY  
1/2" NPT



**Bowl guards** are recommended on all polycarbonate bowl filters.

**All aluminum parts are green anodized** as standard except metal bowls which may be ordered anodized at additional cost.

FILTER SIZE	POLYCARBONATE BOWL		METAL BOWL		REPLACEMENT		
	WITH Bowl Guard	WITHOUT Bowl Guard	WITH Sight Level	WITHOUT Sight Level	Element	Bowl Guard	
<b>1 oz</b>	1/8" NPT	204-3109-1	204-3009-1	N/A	204-3209-1	23,543	23,581
	1/4" NPT	204-3109-2	204-3009-2		204-3209-2		
<b>5 oz</b>	1/4" NPT	204-2109-2	204-2009-2	204-2309-2	204-2209-2	21,545	22,089
	3/8" NPT	204-2109-3	204-2009-3	204-2309-3	204-2209-3		
	1/2" NPT	204-2109-4	204-2009-4	204-2309-4	204-2209-4		
<b>8 oz</b>	1/4" NPT	204-1109-2	204-1009-2	204-1309-2	204-1209-2	21,545	21,088
	3/8" NPT	204-1109-3	204-1009-3	204-1309-3	204-1209-3		
	1/2" NPT	204-1109-4	204-1009-4	204-1309-4	204-1209-4		
<b>32 oz</b>	1/2" NPT	204-4109-4	204-4009-4	204-4309-4	204-4209-4	24,547	24,023
	3/4" NPT	204-4109-6	204-4009-6	204-4309-6	204-4209-6	24,548	24,023
	1" NPT	204-4109-8	204-4009-8	204-4309-8	204-4209-8	24,548	24,023
<b>64 oz</b>	1" NPT	N/A	N/A	204-6309-8	204-6209-8	26,550	N/A
	1-1/2" NPT			204-6309-12	204-6209-12		

- To order with automatic drain, add suffix "D" for impulse drain or suffix "F" for float drain.
- To order with a Pressure Drop Indicator - change the sixth digit to an "8".