

# INDUSTRIAL Air and Gas Filter Housings



CUNO's Air and Gas Filter Housings, Models 1AG1, 1B1G, 1B2G, 3F1G, and 6F1G, are designed for industrial air and gas filtration in pressure or vacuum applications. These filter housings can be used at point-of-use or at the air/gas source. Combined with a Micro-Klean III or Betapure filter cartridge, the air/gas housings can be used to remove moisture and solid contaminants from compressed air and gas for the protection of air powered tools and other sensitive equipment.

The 1AG1 MODEL Air and Gas Filter Housing is a two-piece, all-metal, die-cast aluminum housing, with a petcock drain. The 1AG1 Model allows flow rates of up to 31 SCFM at 1 psig, and accepts working pressures and temperatures up to 125 psig at 200°F. The 1AG1 Air and Gas Filter Housing uses one 1 7/8" long filter cartridge.

The 1B1G and 1B2G MODEL Air and Gas Filter Housings are three-piece, all-metal housings, featuring petcock drains and centerpost construction. The 1B1G and 1B2G Models have flow rates of up to 70 SCFM at 1 psig, and accept working pressures and temperatures up to 150 psig at 250°F. Both the 1B1G and 1B2G Model Air and Gas Filter Housings use one filter cartridge, 4 7/8" and 9 3/4" respectively.

The 3F1G and 6F1G MODEL Air and Gas Filter Housings are two-piece, all-metal housings, equipped with drain plugs. The 3F1G has flow rates of up to 390 SCFM at 1 psig, and the 6F1G Model has flow rates of up to 650 SCFM at 1 psig. Both models accept working pressures and temperatures up to 125 psig at 250°F. The 3F1G Air and Gas Filter Housing uses three 7 3/4" filter cartridges, and the 6F1G Model uses six 9 3/4" filter cartridges.

## APPLICABLE FILTER CARTRIDGES

| MODEL | FILTER CARTRIDGE |         |           |           |
|-------|------------------|---------|-----------|-----------|
|       | Micro-Klean®III  |         | Betapure® |           |
|       | 5 µ              | 25 µ    | 5 µ       | 20 µ      |
| 1AG1  | U15B31N          | U15F31N | AU02B11NN | AU02E11NN |
| 1B1G  | U39B31N          | U39F31N | AU05B11NN | AU05E11NN |
| 1B2G  | U78B31N          | U78F31N | AU09B11NN | AU09E11NN |
| 3F1G  | U62B31N          | U62F31N | AU08B11NN | AU08E11NN |
| 6F1G  | U78B31N          | U78F31N | AU09B11NN | AU09E11NN |

## DESIGN FEATURES

### All Models

- Generous area under cartridge for moisture and dirt collection.

### 1AG1 Model

- Construction - Die-cast aluminum. Design - Two-piece, all-metal housing with petcock drain.

### 1AG1 and 1B1G/1B2G Models

- Centerpost Construction - For fast cartridge changeout.
- Mounting Pads - Drilled and tapped on housing head for mounting bracket.

### Options

- A Mounting Bracket Kit, complete with self tapping screws, is available as an accessory; order separately, 35581-05.

### 1B1G/1B2G Models

- Construction - Cast iron and steel.
- Design - Three-piece housing with petcock drain.

### 3F1G/6F1G Models

- Construction - Cast Iron and Steel.
- Design - Two-piece housing with drain plug.
- Inlet and Outlet Openings - Conveniently located for installation of air lines close to ceiling.
- Each filter cartridge positioned on a separate rod for fast cartridge changeout.
- Bayonet Latches on Sump - For easy assembly or disassembly of sump.

## STANDARD MODEL SPECIFICATIONS

Tables 1, 2, and 3 list standard specifications for the 1AG1, 1B1G/1B2G, and 3F1G/6F1G Models, respectively. On the tables, the Maximum Operating Pressure is the rating from the housing only. Actual filter operating temperature depends on temperature capability of the filter cartridge.

## BENEFITS

### All Models

- Versatile
- Quick, Clean, and Convenient Cartridge Changeout

- Easy to Clean and Maintain

### 1AG1

- Lightweight
- Long Service Life

### 1AG1 and 1B1G/1B2G

- Easily Mounted

### 3F1G/6F1G

- Easy to Install



| Operating Data                             |  |
|--|--|
| Maximum Operating Pressure and Temperature | 125 psig @ 200°F   |
| Water Collection Capacity                  | 1/2 Pint   |
| Flow Rates                                 | See Table 5.   |
| Basic Materials of Construction            |  |
| Head and Sump                              | Die-Cast Aluminum  |
| Centerpost                                 | Stainless Steel  |
| Head Gasket                                | Buna N   |
| Cap-Nut Gasket                             | Fiber  |
| Connection Sizes                           |  |
| Inlet/Outlet                               | 3/8" NPTF  |
| Other Information                          |  |
| Cartridge Requirements                     | The 1AG1 uses one filter cartridge. See Table 4 for information on the filter cartridges that the model uses.                    |
| Options                                    | A Mounting Bracket Kit, complete with self-tapping screws, is available as an accessory; order separately, Part Number 35581-05. |

**TABLE 1 - 1AG1 SPECIFICATIONS**

| Operating Data                             |   |         |
|--|---|---------|
| Parameter                                  | 1B1G  | 1B2G    |
| Maximum Operating Pressure and Temperature | 150 psig @ 250°F  |         |
| Water Collection Capacity                  | 1 1/2 Pints   | 3 Pints |
| Flow Rates                                 | See Table 5.  |         |
| Basic Materials of Construction            |   |         |
| Head and Cover                             | Cast Iron   |         |
| Shell                                      | Steel   |         |
| Centerpost                                 | Steel   |         |
| Shell Gasket                               | Buna N & Cork   |         |
| Cap-Nut Gasket                             | Fiber   |         |
| Connection Sizes                           |   |         |
| Inlet/Outlet                               | 3/4" NPTF   |         |
| Other information                          |   |         |
| Cartridge Requirements                     | The 1B1G and 1B2G Models use one filter cartridge, which is available in 9 3/4" or 10" lengths. See Table 4 for information on the filter cartridges that the models use.   |         |
| Options                                    | A Mounting Bracket Kit, complete with self-tapping screws, is available as an accessory; order separately, 35581-05. Head gaskets are available in Viton, Rubber and Aramid Fiber, Neoprene, Teflon, and EPR; order separately. |         |

**TABLE 2- 1B1G AND 1B2G SPECIFICATIONS**

| Operating Data                             |   |               |
|--|---|---------------|
| Parameter                                  | 3F1G  | 6F1G          |
| Maximum Operating Pressure and Temperature | 125 psig @ 250°F  |               |
| Water Collection Capacity                  | 3/4 Gallon  | 1 1/2 Gallons |
| Flow Rates                                 | See Table 5   |               |
| Basic Materials of Construction            |   |               |
| Head                                       | Cast Iron   |               |
| Sump                                       | Steel   |               |
| Internal Components                        | Steel & Brass   |               |
| Head Gasket                                | Buna N / Cork   |               |
| Connection Sizes                           |   |               |
| Inlet/Outlet                               | 1/2" NPTF   | 2" NPTF       |
| Other Information                          |   |               |
| Cartridge Requirements                     | The 3F1G Model uses three filter cartridges; the 6F1G Model uses six filter cartridges. See Table 4 for information on the filter cartridges that the models use. |               |

**TABLE 3 - 3F1G AND 6F1G SPECIFICATIONS**

## CARTRIDGE REQUIREMENTS

The 1AG1 Model uses one filter cartridge. The 1B1G and 1B2G Models use one filter cartridge, which is available in 9 3/4" or 10" lengths. The 3F1G Model uses three filter cartridges, the 6F1G Model uses six filter cartridges. Table 4 lists the applicable filter cartridges for each model.

| MODEL | FILTER CARTRIDGE |         |           |           |
|-------|------------------|---------|-----------|-----------|
|       | Micro-Klean ®III |         | Betapure® |           |
|       | 5 µ              | 25 µ    | 5 µ       | 20 µ      |
| 1AG1  | U15B31N          | U15F31N | AU02B11NN | AU02E11NN |
| 1B1G  | U39B31N          | U39F31N | AU05B11NN | AU05E11NN |
| 1B2G  | U78B31N          | U78F31N | AU09B11NN | AU09E11NN |
| 3F1G  | U62B31N          | U62F31N | AU08B11NN | AU08E11NN |
| 6F1G  | U78B31N          | U78F31N | AU09B11NN | AU09E11NN |

**TABLE 4 - FILTER CARTRIDGES**

## HOUSING FLOW

Table 5 lists flow rates at varying line pressures for the Air and Gas Housings. The flow rates given are for both the housing and the cartridge.

| Housing Model | SCFM at 1 psid |         |         |          |          |
|---------------|----------------|---------|---------|----------|----------|
|               | Inlet Outlet   | 50 psig | 75 psig | 100 psig | 125 psig |
| 1AG1          | 3/8" NPTF      | 21      | 25      | 28       | 31       |
| 1B1G/1B2G     | 3/4" NPTF      | 47      | 55      | 62       | 70       |
| 3F1G          | 1 1/2" NPTF    | 265     | 310     | 350      | 390      |
| 6F1G          | 2" NPTF        | 430     | 510     | 580      | 650      |

**TABLE 5 - HOUSING FLOW RATES**

## STANDARD MODEL DIMENSIONS

Tables 6, 7, and 8 list dimensions in inches and shipping weight in pounds for the Air and Gas Housing Models. To find a dimension, locate the model in the left column and the selected dimension symbol in the top row. The square where the row and column meet is the selected dimension.

| Housing Model | A       | B        | C      | D* | Shipping Weight |
|---------------|---------|----------|--------|----|-----------------|
| 1AG1          | 6 3/16" | 4 15/16" | 3 1/2" | 1" | 3 lb            |

\* Clearance needed to remove sump.

**TABLE 6 - 1AG1 DIMENSIONS**

| Housing Model | A       | B       | C       | D* | Shipping Weight |
|---------------|---------|---------|---------|----|-----------------|
| 1B1G          | 12 7/8" | 11 1/4" | 4 3/16" | 2" | 8lb             |
| 1B2G          | 22 5/8" | 21"     |         |    | 11 lb           |

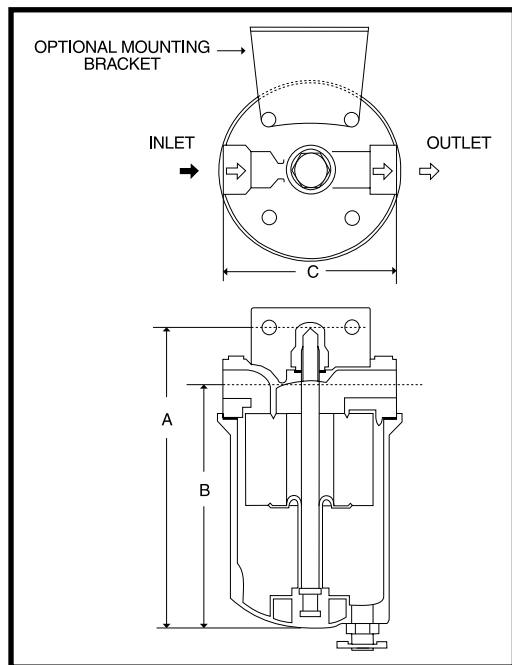
\* Clearance needed to remove sump.

**TABLE 7 - 1B1G/1B2G DIMENSIONS**

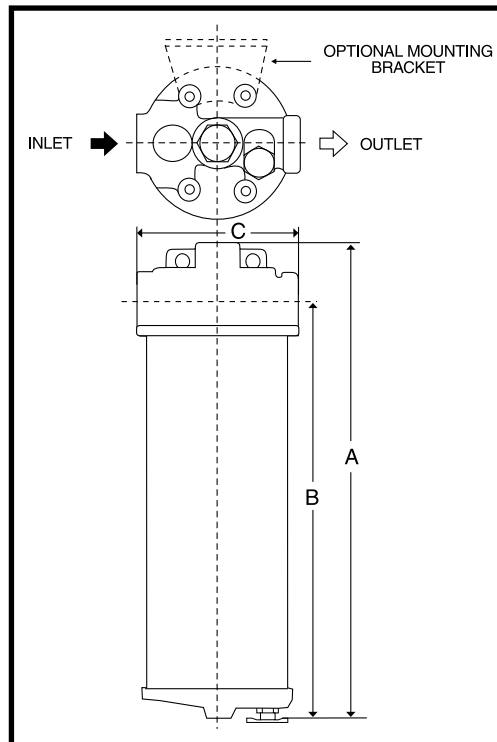
| Housing Model | A        | B         | C        | D*  | Shipping Weight |
|---------------|----------|-----------|----------|-----|-----------------|
| 3F1G          | 16 5/16" | 14 11/16" | 10 5/8"  | 8"  | 55lb            |
| 6F1G          | 18 9/16" | 16 11/16" | 14 9/16" | 10" | 90 lb           |

\* Clearance needed to remove sump.

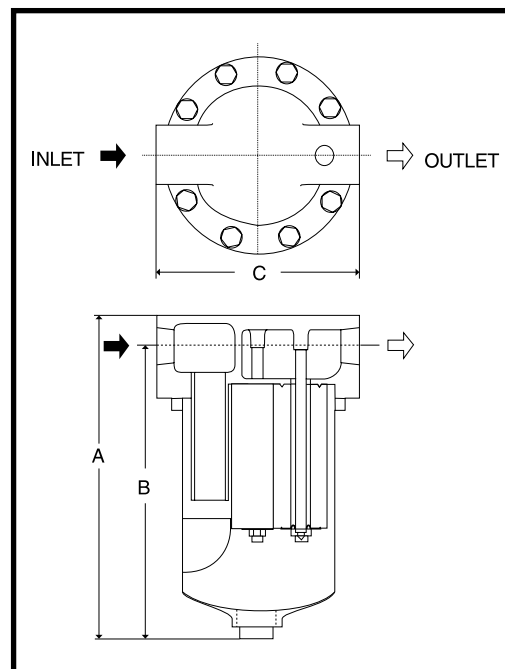
**TABLE 8 - 3F1G/6F1G DIMENSIONS**



**FIGURE 1. - 1AG1 MODEL HOUSING**



**FIGURE 2. - 1B1G/1B2G MODEL HOUSING**



**FIGURE 3. - 3F1G/6F1G MODEL HOUSINGS**

## 1AG1 MODEL ORDERING GUIDE

Plant Code 01 Product Code 020

| HOUSING MODEL | BASIC CATALOG NUMBER | MOUNTING BRACKET KIT* |
|---------------|----------------------|-----------------------|
| 1AG1          | 44110-01             | 35581-05              |

\*Order Separately

## 1B1G & 1B2G MODEL ORDERING GUIDE

Plant Code 01 Product Code 020

| HOUSING MODEL | BASIC CATALOG NUMBER | MOUNTING BRACKET KIT* |
|---------------|----------------------|-----------------------|
| 1B1G          | 40282-11             | 35581-05              |
| 1B2G          | 40282-12             |                       |

\*Order Separately

Your Area Distributor is:

## 3F1G & 6F1G MODEL ORDERING GUIDE

Plant Code 01 Product Code 020

| HOUSING MODEL | BASIC CATALOG NUMBER |
|---------------|----------------------|
| 3F1G          | 40300-01             |
| 6F2G          | 40301-01             |

## FILTER CARTRIDGE ORDERING GUIDE

| MODE L | FILTER CARTRIDGE |         |           |           |
|--------|------------------|---------|-----------|-----------|
|        | Micro-Klean ®III |         | Betapure® |           |
|        | 5 µ*             | 25 µ    | 5 m       | 20 µ      |
| 1AG1   | U15B31N          | U15F31N | AU02B11NN | AU02E11NN |
| 1B1G   | U39B31N          | U39F31N | AU05B11NN | AU05E11NN |
| 1B2G   | U78B31N          | U78F31N | AU09B11NN | AU09E11NN |
| 3F1G   | U62B31N          | U62F31N | AU08B11NN | AU08E11NN |
| 6F1G   | U78B31N          | U78F31N | AU09B11NN | AU09E11NN |

\* When used on air or gas service, finer filtration is exhibited, therefore removal of particles down to 1 µ is possible.

## WARRANTY

Seller warrants its equipment against defects in workmanship and material for a period of 12 months from date of shipment from the factory under normal use and service and otherwise when such equipment is used in accordance with instructions furnished by Seller and for purposes disclosed in writing at the time of purchase, if any. Any unauthorized alteration or modification of the equipment by Buyer will void this warranty. Seller's liability under this warranty shall be limited to the replacement or repair, F.O.B. point of manufacture, of any defective equipment or part which, having been returned to the factory, transportation charges prepaid, has been inspected and determined by the Seller to be defective. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR USE, OR ANY OTHER MATTER. Under no circumstances shall Seller be liable to Buyer or any third party for any loss of profits or other direct or indirect costs, expenses, losses or consequential damages arising out of or as a result of any defects in or failure of its products or any part or parts thereof or arising out of or as a result of parts or components incorporated in Seller's equipment but not supplied by the Seller.

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