



**Donaldson**  
FILTRATION SOLUTIONS

## AG-Z SERIES

### CYCLONE WATER SEPARATORS

Process Filtration

**Donaldson® cyclone water separators are designed for removal of liquid water and particulate from compressed air and gases.**

Donaldson cyclone water separators are available in two sizes, depending on the flow rate. The AG-Z is a three-piece aluminum housing that includes swirl vanes allowing for efficient liquid removal with low pressure drop. The AG-Z is available in two housing sizes for flows up to 1,400 scfm.

#### HOW IT WORKS

The swirl vanes force the compressed air to change direction and swirl. During this swirling action, water and oil droplets cannot remain entrained in the compressed air stream because they are too heavy. The dry, compressed air exits through the center of the AG-Z while the previously aerosolized droplets are collected in the bottom of the housing to be drained away.



**AG-Z Series**

#### SPECIFICATIONS

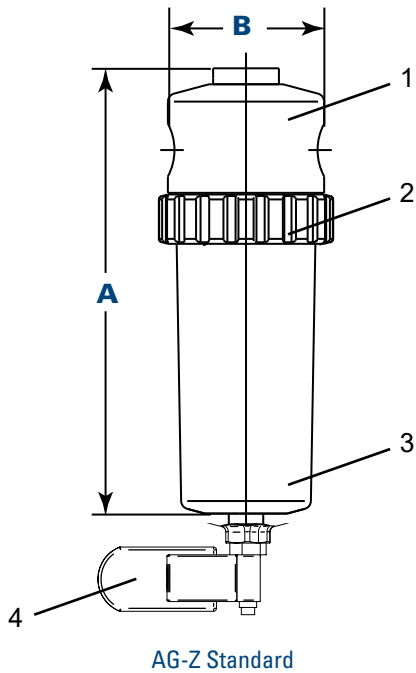
| MATERIALS          |                          |
|--------------------|--------------------------|
| Filter Housing     | Aluminum                 |
| Surface Finish     | Polyester powder coating |
| Timer - Drain UF-Z | Brass                    |
| Housing Gasket     | Buna                     |

| DESIGN PRESSURE AND TEMPERATURE    |            |
|------------------------------------|------------|
| Minimum/Maximum Design Temperature | 34°F/150°F |
| Design Pressure                    | 250 psig   |

| RETENTION RATE                          |
|---|
| 99% for particles $\geq 10 \mu\text{m}$ |

| CAPACITY CORRECTION FACTORS |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Operating Pressure (psig)   | 15   | 30   | 45   | 60   | 75   | 90   | 100  | 115  | 130  | 150  | 175  | 200  | 220  | 230  |
| Correction Factor           | 0.26 | 0.39 | 0.52 | 0.65 | 0.78 | 0.91 | 1.00 | 1.13 | 1.27 | 1.44 | 1.66 | 1.87 | 2.09 | 2.31 |

## DIMENSIONS



| No. | Description              |
|-----|--------------------------|
| 1   | Upper housing bowl       |
| 2   | Screw locking ring       |
| 3   | Lower housing bowl       |
| 4   | Drain - UF-Z timer drain |

| Model     | Capacity <sup>1</sup><br>(scfm) | Connection<br>(FNPT) | Dimensions<br>(inches) |            |              | Weight<br>(lbs) |
|-----------|---------------------------------|----------------------|------------------------|------------|--------------|-----------------|
|           |                                 |                      | Height<br>A            | Width<br>B | Conn. Height |                 |
| AG-Z 0144 | 900                             | 2½"                  | 25                     | 8          | 22           | 19.8            |
| AG-Z 0192 | 1,400                           | 3"                   | 25                     | 8          | 22           | 19.6            |

<sup>1</sup> Capacity based on 100 psig inlet pressure; 14.7 psia, 68°F ambient conditions, and 1" psid.



**Important Notice**

Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, specifications, availability and data are subject to change without notice, and may vary by region or country.



**Donaldson Company, Inc.**  
**Minneapolis, MN**  
[donaldson.com](http://donaldson.com)  
[shop.donaldson.com](http://shop.donaldson.com)

**Australasia** 61-02-4350-2066  
 marketing.australia@donaldson.com  
**Brazil** 55-11-4894-6035  
 vendas.brasil@donaldson.com  
**China** 86-400-921-7032  
 info.cn@donaldson.com  
**EMEA** 49-2129-569-0  
 cap-europe@donaldson.com

**India** 91-124-4807-400  
 indiaenquiries@donaldson.com  
**Japan** 81-42-540-4123  
 ndi-ultrafilter-web@donaldson.com  
**Korea** 82-2-517-3333  
 cap-kr@donaldson.com  
**Latin America** 52-449-300-2442  
 industrialair@donaldson.com  
**North America** 800-543-3634  
 processfilters@donaldson.com  
**South Africa** 27-11-997-6000  
 samarketing@donaldson.com  
**Southeast Asia** 65-6311-7373  
 sea.salesenquiry@donaldson.com

**F117038 ENG (05/19) AG-Z Series Cyclone Water Separators**

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