



Donaldson  
FILTRATION SOLUTIONS

# Compressed Air Filtration

## Filter Housings Standard and Superplus

AG

### MAIN FEATURES & BENEFITS:

- Innovative filtration technology, high retention rate, low pressure loss
- Validated performance data acc. to ISO 12500-1 and ISO 12500-3, reliable achievement of compressed air quality acc. to ISO 8573-1
- Intelligent overall concept meet requirements of industrial air purification
- Flow-optimised design, minimum pressure loss for economic compressed air purification (saving of energy costs)
- Three-part housing with union nut, easy replacement of filter element



Version  
Superplus

### INDUSTRIES



- Chemical and pharmaceutical industry



- PCB assembly and CD manufacturing



- Surface finishing



- Machine building industry and plant engineering / construction



- Energy and power generation

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Donaldson®  
Ultrafilter

## PRODUCT DESCRIPTION

### Product Description:

AG Standard and Superplus housings are designed for the purification of compressed air and gases in an industrial operation. The housings are made out of three parts and due to an optimized construction offer low differential pressures at high flow rates and are either equipped with an Econometer/ float drain (Standard) or an Economizer/ electronically controlled drain (Superplus).

Between drain and housing a ball valve is installed. A multitude of various housings allow to match the requirements of the application, e.g. the compressor size.

This product series offers 3 different housings ranging from a volume flow of 1440 m<sup>3</sup>/h to 2880 m<sup>3</sup>/h (related to 7 bar (g) and 20°C).

The AG Standard and Superplus housings conform to the requirements of the European directive 97/23/EG for pressure vessels.



Version Standard with Econometer

**The AG filter is designed and developed for the following applications:**

- Central compressed air processing:**  
 Pre-filter for the protection of fridge dryers, high performance coalescence filter for the removal of oil and water aerosols as well as particles
- Downstream applications:**  
 Final filtration for control and process air
- Adsorption dryers:**  
 Pre-filter to protect adsorption dryers, dust filter downstream adsorption dryers
- Automotive industry:**  
 Purification of paint and lacquering finishing air

## PRODUCT SPECIFICATIONS

Features	Benefits
Validated performance data acc. to ISO 12500-1 and ISO 12500-3	Reliable achievement of compressed air quality acc. to ISO 8573-1
Intelligent overall concept	Flow range, filtration performance data, integrated control functions as well as automatic condensate drain perfectly meet the requirements of central and de-central compressed air applications
Flow-optimised design of filter housing and filter element	Low pressure losses, thereby saving of energy costs
Three-part housing design with union nut	Easy installation and service
Acoustic warning signal	Warning signal sounds during housing service when pressure is not completely released from housing falls - maximum safety
Superplus version with Economizer and electronic level-controlled condensate drain UFM-D	Economizer: Differential pressure indicator for determination of most economical for replacement of the filter element  UFM-D: No expensive compressed air losses, condensate drain depending on condensate demand, sensor detects each kind of condensate (even pure oil)

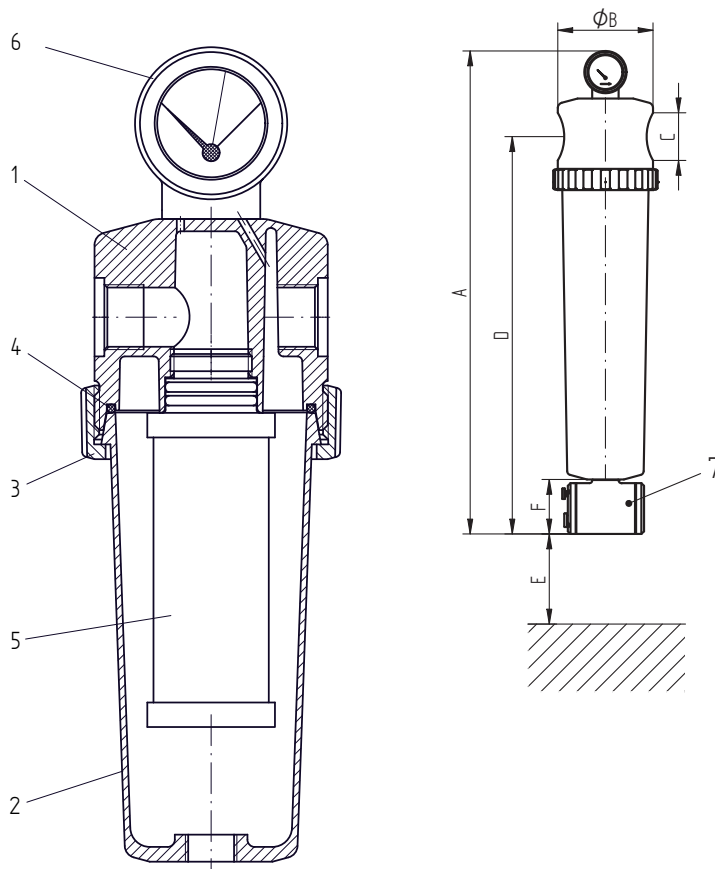
Technical Data	
Max. operating pressure:	16 bar
Test pressure:	22,88 bar
Perm. operating temperature:	+1°C / +65°C
Design temperature:	120°C

Filter Elements (for detailed performance data see separate data sheet)		
PE filter Particle filter	Initial differential pressure : 0,15 bar Efficiency : 100% related to 25 µm	1
SB filter Particle filter	Initial differential pressure : 0,12 bar Efficiency : 100% bezogen auf 25 µm	1
AK filter Activated carbon filter	Initial differential pressure : 0,13 bar Residual oil content (total) : 0,003 mg/m <sup>3</sup>	1 3
FF filter Coalescence filter / particle filter	Initial differential pressure : 0,11 bar Residual oil content (total) : < 0,2 mg/m <sup>3</sup>	1 2
M filter Coalescence filter / particle filter	Initial differential pressure : 0,11 bar Residual oil content (total) : < 0,03 mg/m <sup>3</sup>	1 3
S filter Coalescence filter / particle filter	Initial differential pressure : 0,13 bar Residual oil content (total) : < 0,01 mg/m <sup>3</sup>	1 3
1 related to nominal performance at 7 bar, dry condition 2 related to a inlet concentration of 3 mg/m <sup>3</sup> 3 when upstream connected a M or S filter		

OPTIONS

AG STANDARD 0144 - 0288

Pos.	Pcs.	Description
1	1	Filter head
2	1	Lower housing bowl
3	2	Screw-locking ring
4	1	Housing O-ring
5	1	Filter element
6	1	Econometer NG80
7	1	External automatic drain UFM-P



Materials filter housing	
Filter housing	Aluminium die cast
Econometer	Polymer
Float drain	Aluminium/ stainless steel
Sealings	Perbunan, compound-free
Coating	Polyester resin, powder coated

Classification acc. to 97 / 23 / EC for fluids group 2	
AG 0144 - 0192	Cat. I
AG 0288	Cat. II

Size housing/ element	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B mm	C	D mm	E mm	F mm	Element size
0144	1440	7,5	12,6	935	180	G 2 1/2	755	580	105	20/30
0192	1920	9,7	13,7	1185	180	G 3	1005	850	105	30/30
0288	2880	18,0	20,0	1195	210	G 3	1015	850	105	30/50

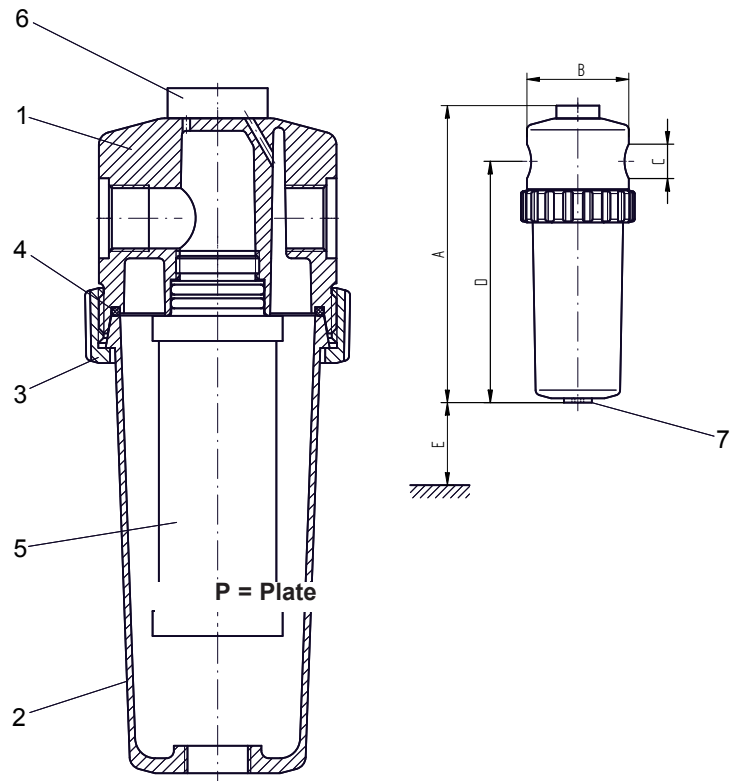
\* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

\*\* without filter element

MATERIALS/ DIMENSIONS

AG STANDARD 0144 A - 0288 A

Pos.	Pcs.	Description
1	1	Filter head
2	1	Lower housing bowl
3	2	Screw-locking ring
4	1	Housing O-ring
5	1	Filter element
6	1	Cap
7	1	Screw plug



Materials filter housing	
Filter housing	Aluminium die cast
Sealings	Perbunan, compound-free
Coating	Polyester resin, powder coated

Classification acc. to 97 / 23 / EC for fluids group 2	
AG 0144 - 0192	Cat. I
AG 0288	Cat. II

Size housing/element	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B mm	C	D mm	E mm	F mm	Element size
0144	1440	7,5	10,0	750	180	G 2 ½	665	580	20/30	20/30
0192	1920	9,7	11,1	1000	180	G 3	915	850	30/30	30/30
0288	2880	18,0	17,1	1010	210	G 3	925	850	30/50	30/50

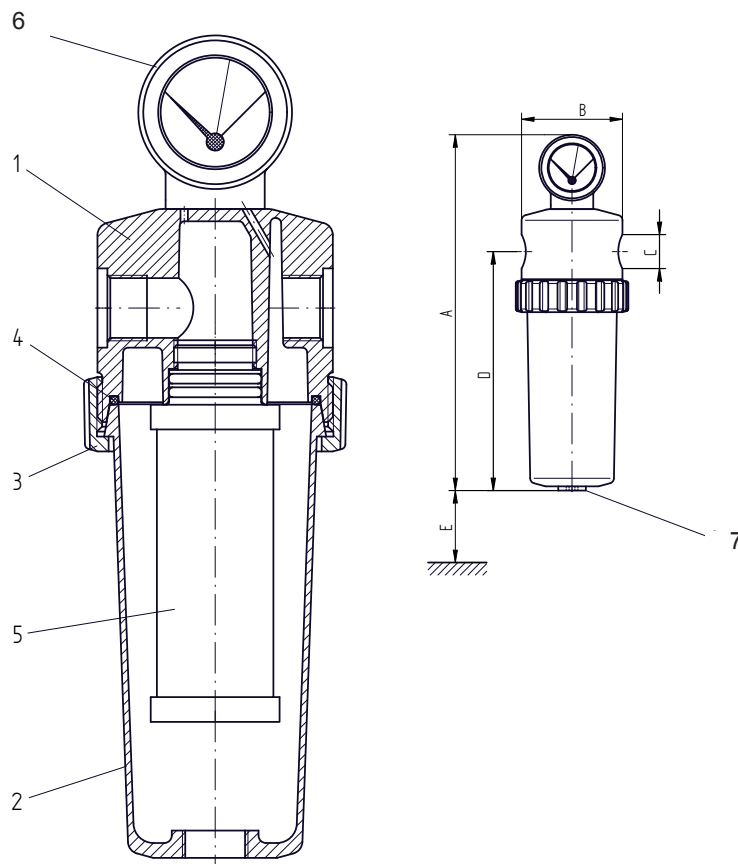
\* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

\*\* without filter element

MATERIALS/ DIMENSIONS AG

STANDARD 0144 S - 0288 S

Pos.	Pcs.	Description
1	1	Filter head
2	1	Lower housing bowl
3	2	Screw locking ring
4	1	Housing O-ring
5	1	Filter element
6	1	Econometer NG80
7	1	Screw plug



Materials filter housing	
Filter housing	Aluminium die cast
Econometer	Polymer
Sealings	Perbunan, compound-free
Coating	Polyester resin, powder coated

Classification acc. to 97 / 23 / EC for fluids group 2	
AG 0144 - 0192	Cat. I
AG 0288	Cat. II

Size housing/ element	Flow rate* m³/h	Volume (l)	Weight** (kg)	A mm	B mm	C	D mm	E mm	Element size
0144	1440	7,5	11,3	845	180	G 2 ½	665	580	20/30
0192	1920	9,7	12,4	1095	180	G 3	915	850	30/30
0288	2880	18,0	18,4	1105	210	G 3	925	850	30/50

\* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

\*\* without filter element

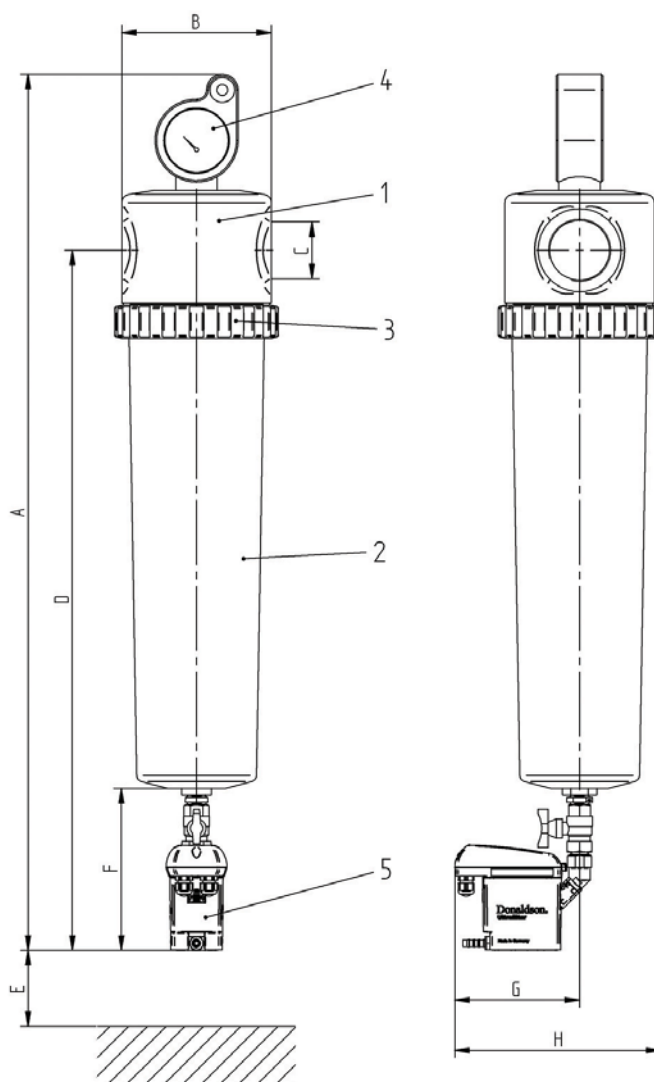
## MATERIALS/ DIMENSIONS

## AG SUPERPLUS 0144 SP - 0288 SP

Pos.	Pcs.	Description
1	1	Filter head
2	1	Lower housing bowl
3	2	Screw locking ring
4	1	Economizer NG 80
5	1	Condensate drain UFM-D03

Materials filter housing	
Filter housing	Aluminium die cast
Economizer	Polymer
UFM-D	Aluminium / fiber-glass reinforced plastic
Sealings	Perbunan, compound-free
Coating	Polyester resin, powder coated

Classification acc. to 97 / 23 / EC for fluids group 2	
AG 0144 - 0192	Cat. I
AG 0288	Cat. II



Size housing/element	Flow rate* m <sup>3</sup> /h	Volume (l)	Weight** (kg)	A mm	B mm	C	D mm	E mm	F mm	G mm	H mm	Element size
0144	1440	7,5	13,0	1055	180	G 2 1/2	845	580	195	150	250	20/30
0192	1920	9,7	14,1	1305	180	G 3	1095	850	195	150	250	30/30
0288	2880	18,0	20,4	1325	210	G 3	1110	850	195	150	265	30/50

\* Nominal flow at 7 bar g, m<sup>3</sup>/h related to 1 bar abs. and 20°C

\*\* without filter element

## Technical Data Sheet

Subject to technical change without prior notice  
R05/2014/02/14