



Donaldson
FILTRATION SOLUTIONS

Compressed Air Filtration

AG / SG / HD

Depth Filter / Particle filter

SB

MAIN FEATURES & BENEFITS:

- Pre-filter / particle filter for the retention of oil and water aerosols as well as particles from compressed air or gases in industrial applications
- Innovative filtration technology; highly porous sintered bronze filter medium with high dirt-holding capacity; achievement of high retention rates with low differential pressure
- Validated performance data; reliable achievement of compressed air quality acc. to ISO 8573-1
- Flow-optimised design, minimum pressure loss for economic compressed air purification (saving of energy costs)
- Possible regeneration of the sintered bronze filter medium



Depth filter SB

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

The SB prefilter contains a highly porous sinter bronze filter medium.

It ensures the retention of coarse solid and liquid particles.

By utilising various filtration mechanisms such as retention by direct impact, sieve effect and diffusion effect, liquid aerosols and solid particles will be retained in the filter down to a 25 µm particle size.

The high-grade sinter bronze medium guarantees not only a high load of contaminants but also the regeneration of the filter element.



Cross section of the depth filter

The SB filter element is designed and developed for the following applications:

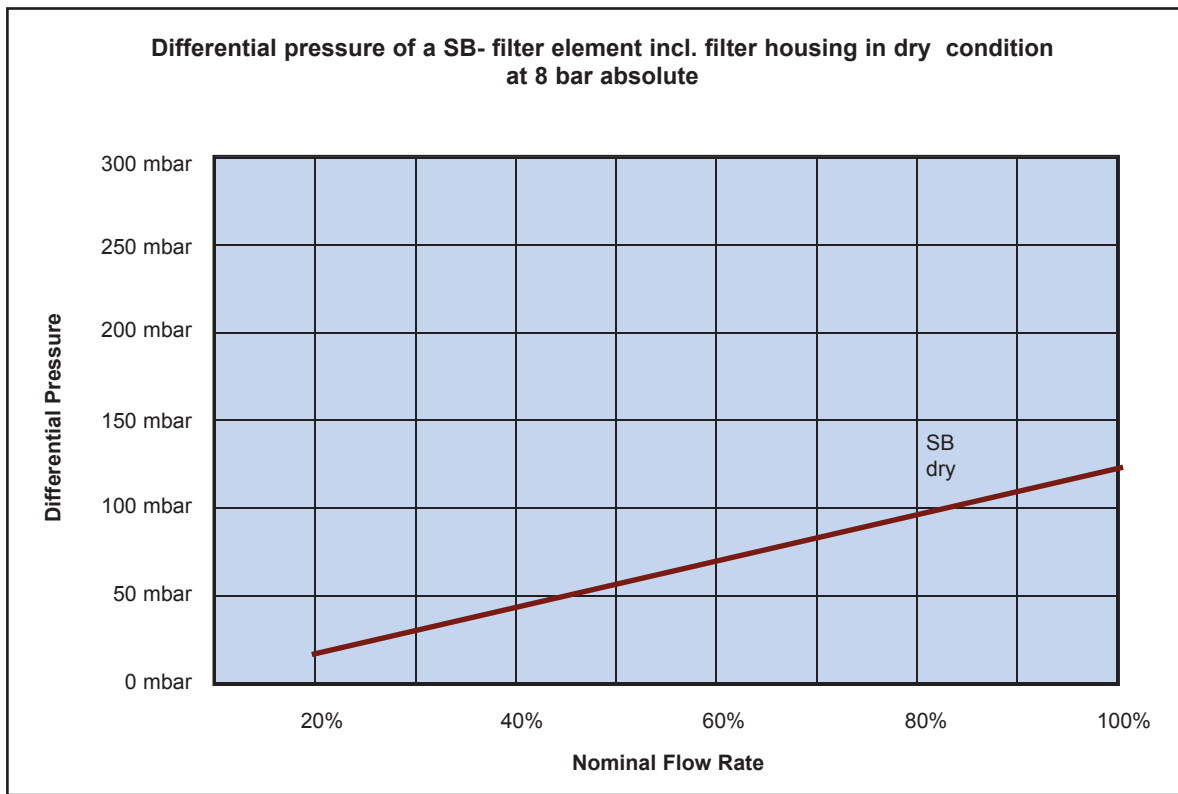
- **Central compressed air processing:**
 - Particle filtration downstream cyclone separators
 - Prefilter upstream filter stages
 - “MF and “SMF”
- **Adsorption dryers / Activated carbon adsorbers:**
 - Particle filter for the retention of adsorbent abrasion
- **Automotive industry:**
 - Purification of paint- and lacquering finishing air

PRODUCT SPECIFICATIONS

Features	Benefits
Intelligent overall concept	Flow range, filtration grades, efficiencies and available options perfectly meet requirements of air purification
Flow-optimised Design	Minimum pressure losses, thereby savings of energy costs
Void volume: porosity grade larger than 60%	High dirt holding capacity: lower differential pressure
Regenerative- repeatable regeneration possible, combined with exact retention rates	Economical, longer service life time
Removal of contaminants down to 25 µm	Guaranteed retention rates

Materials	
Filter medium	Pure, sintered bronze material no. 2.1052
End caps	Aluminium
O-rings	NBR: silicone free and free of compound (Standard)
Bonding	Polyurethane

PERFORMANCE DATA



Operating pressure bar g	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor fp	0,25	0,38	0,50	0,63	0,75	0,88	1,00	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13

Element Type	Nominal Flow Rate at 7 bar g m³/h*	Sizing example for pressure which deviates from nominal pressure
02/05	20	$V_{nom} = 192 \text{ m}^3/\text{h}$, operating pressure = 9 bar (g) $V_{korr} = \frac{V_{nom}}{fp}$ $V_{korr} = \frac{192 \text{ m}^3/\text{h}}{1,25} = 153,6 \text{ m}^3/\text{h}$ Calculated size: Type 05/20
03/05	40	
03/10	60	
04/10	90	
04/20	120	
05/20	180	
05/25	270	
07/25	360	
07/30	480	
10/30	720	
15/30	1080	
20/30	1440	
30/30	1920	
30/50	2880	

* m³ related to 1 bar abs. and 20°C

CERTIFICATE

Certificate of compliance with the orderaccording to
DIN EN 10204 2.2

Confirmation of Design and Performance Data with Test Report.

Filter type	SB	Filter size	02/05 - 30/50
Retention of particles			
Particle diameter [µm]		25	
Particle retention rate at 8 bar absolute [%]		100	

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