



# Sintered metallic filters

STANDARD PRODUCTS



*100 references  
Permanently in stock  
Immediate delivery*

[www.amespore.com](http://www.amespore.com)

## Standard bronze and stainless steel filters



### Description

AmesPore® filters and mufflers are metallic components made of sintered bronze and stainless steel with high porosity (between 25% and 60% by volume). They are manufactured from metallic powder using the powder metallurgy technology.

### Service and availability

- Permanent stock.
- Immediate delivery.
- 100 standard references of various sizes and porosity grades.
- More than 180 distributors in Europe, America and Asia.
- Packaging in plastic bags with bar code.

### Applications

- **Fluid filtration:** automotive, marine, aeronautical, railways, industrial machinery, household appliances, heating, chemical and petrochemical industry, nuclear industry, food and beverage industry, water treatment, pharmaceutical and biotechnology industry, catalyst recovery, hydrogen purification, bacteria ultrafiltration, clinical analysis, boilers, packaging manufacture, etc.
- **Pressure drop:** pressure control in pneumatic and hydraulic circuits (compensators, drainers, regulators), noise absorption in gas piping (Mufflers), pneumatic cylinders, protection of sensors and manometers, gearboxes, moulds, measuring equipment, etc.
- **Flow control:** heat exchangers, medical gases, industrial gases, evaporators, scuba diving, sprayers, measuring equipment, etc.
- **Fluidization:** handling of powdered products like cement, alumina, ashes, toner powder, gasification, etc.
- **Condensation traps:** general drying, protection of electronic equipment, etc.
- **Flame suppressors:** boilers, gas burners, welding installations, etc.

### Performance

- **High filtering efficiency.** The microporosity and the filter depth provide high particles retention.
- **Very regular behaviour:** porosity is uniform throughout the filter volume.
- **High mechanical strength.** They can work under high **pressure** without deforming or degrading. They have a **high impact strength** (they are not brittle).
- **Thermal resistance** up to 600°C in an oxidizing atmosphere, and up to 850°C in a reducing atmosphere.
- **Good chemical resistance:** they resist corrosion under a wide range of liquids and gases, specially when the filters are made of stainless steel.
- They are **reusable**, and therefore have a **long useful life**. They can be cleaned using countercurrent or solvents.
- They are **weldable** and **machinable**, so they can be adapted to specific assemblies.
- They behave as **self-supporting structural elements** thanks to their great rigidity.

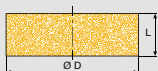
### Recommendations for use

- Keep AmesPore® filters and mufflers in their original packaging until the time of assembly.
- Protect AmesPore® filters and mufflers from impacts and dirt during handling.
- AmesPore® is a product designed for direct use. If it needs to be machined, it is not recommended to machine the functional surfaces: the pores close and the fluid flow decreases, so the filtering efficiency is reduced.

### Reference

An AmesPore® porous sintered disc of 89/11 bronze with an average pore size of 99 µm, an outer diameter of 12 mm and a length of 3 mm is referred to as:

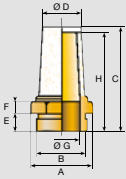
**AmesPore® B85 D-12-3** (The letter B indicates bronze and the letter D indicates disc)



Dimensions (mm)		Grade	Reference	Parts per bag
D = Ø outer	L = Length			
4	3	B40	B40 D-4-3	50
		B60	B60 D-4-3	50
		B85	B85 D-4-3	50
	4	B85	B85 D-4-4	50
5	3	B40	B40 D-5-3	50
		B60	B60 D-5-3	50
		B85	B85 D-5-3	50
6	3	B40	B40 D-6-3	50
		B60	B60 D-6-3	50
		B85	B85 D-6-3	50
	6	B85	B85 D-6-6	50
8	3	B40	B40 D-8-3	50
		B60	B60 D-8-3	50
		B85	B85 D-8-3	50
	10	B85	B85 D-8-10	50
10	3	B40	B40 D-10-3	50
		B60	B60 D-10-3	50
		B85	B85 D-10-3	50
	4	B85	B85 D-10-4	50
	10	B85	B85 D-10-10	50
12	3	B40	B40 D-12-3	50
		B60	B60 D-12-3	50
		B85	B85 D-12-3	50
	10	B85	B85 D-12-10	25
	12	B85	B85 D-12-12	25
	15	B85	B85 D-12-15	25
14	3	B40	B40 D-14-3	25
		B60	B60 D-14-3	25
		B85	B85 D-14-3	25
	10	B85	B85 D-14-10	25
16	10	B85	B85 D-16-10	25
21	3	B40	B40 D-21-3	25
		B60	B60 D-21-3	25
		B85	B85 D-21-3	25
28	3	B40	B40 D-28-3	25
		B60	B60 D-28-3	25
		B85	B85 D-28-3	25
38	3	B40	B40 D-38-3	15
		B60	B60 D-38-3	15
		B85	B85 D-38-3	15



## AmesPore® SLC mufflers with a BSP solid brass thread



### Reference

An AmesPore® sintered bronze muffler with a 1/2" solid brass thread is referred to as:

**AmesPore® SLC - 1/2** (the letters SLC indicate muffler with a solid brass thread)

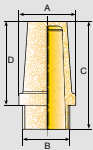
**Made of Bronze B85**



Type	A (mm)	B (in)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Useful surface in cm <sup>2</sup>	Parts per bag
M5	8	M5	19.0	5.4	4.0	3.0	3.0	17.3	1.50	10
1/8"	12	1/8"	23.5	7.8	5.0	3.5	5.1	21.5	3.10	10
1/8" BPC	12	1/8"	28.9	7.8	5.0	3.5	5.1	26.9	4.20	10
1/4"	15	1/4"	29.0	9.5	6.0	4.0	8.9	26.7	5.10	10
1/4" BPC	15	1/4"	36.4	9.5	6.0	4.6	7.1	34.1	6.90	10
3/8"	19	3/8"	36.8	12.6	7.0	5.5	9.0	34.2	8.60	10
3/8" BPC	19	3/8"	45.7	12.6	7.0	5.5	9.0	43.1	11.70	10
1/2"	23	1/2"	45.5	16.0	9.6	5.0	13.2	42.5	15.85	5
1/2" BPC	23	1/2"	57.1	16.0	8.5	6.2	13.2	54.1	21.40	5
3/4"	29	3/4"	56.3	20.4	10.0	7.0	17.6	52.8	26.10	5
3/4" BPC	29	3/4"	71.5	20.4	10.0	7.0	17.6	68.0	35.20	5
1"	36	1"	70.0	26.0	12.0	8.0	24.0	66.0	41.80	2



## AmesPore® STC mufflers with a self-locking thread



### Reference

An AmesPore® sintered bronze muffler with a 3/4" porous self-locking thread is referred to as:

**AmesPore® STC - 3/4** (the letters STC indicate muffler with a porous, self-locking thread)

**Made of Bronze B85**



Type	A (mm)	B (in)	C (mm)	D (mm)	Useful surface in cm <sup>2</sup>	Parts per bag
1/8"	11.0	1/8"	24	17.5	3.50	10
1/8" BPC	11.0	1/8"	30	23.5	4.40	10
1/4"	14.0	1/4"	27	18.5	6.00	10
1/4" BPC	14.0	1/4"	38	29.5	9.10	10
3/8"	17.5	3/8"	35	25.0	10.00	10
3/8" BPC	17.5	3/8"	46	36.0	14.80	10
1/2"	21.0	1/2"	44	33.0	18.00	5
1/2" BPC	21.0	1/2"	58	47.0	23.66	5
3/4"	26.8	3/4"	60	46.6	32.00	5
3/4" BPC	26.8	3/4"	69	55.5	37.00	5
1"	38.0	1"	71	56.0	45.00	2

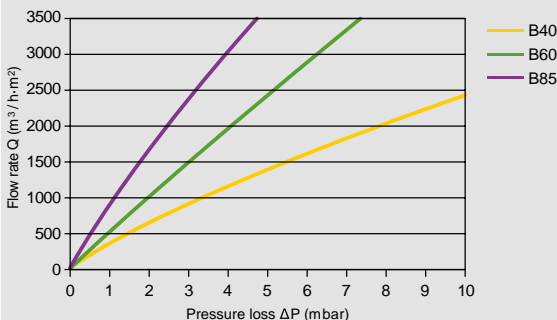


Material <sup>1</sup>	Grade	Total porosity (%)	Pore size (µm)		Filtering efficiency <sup>3</sup> x (T=98%) (µm)	Permeability $\alpha$ ( $10^{-12} \text{m}^2$ )	Shear strength (MPa)
			Average	Maximum <sup>2</sup>			
89/11 sintered bronze acc. to DIN 30910 standard Chemical composition: Sn 10.0-11.5%, others 2% max., Cu rest	B40	35	53	139	38	22.0	90
	B60	38	65	240	54	58.3	75
	B85	40	99	318	84	90.7	50

1. Not suitable for contact with food or sanitary water.
2. Equivalent to the bubble point, determined at a continuous flow rate of 5 ml/min.
3. Single-pass measurement in water at 1 bar and 1 m/s.

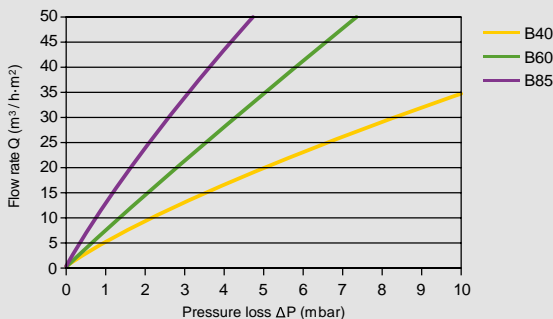
Coefficient of linear expansion:  $\approx 18 \cdot 10^{-6} \text{K}^{-1}$

## Air pressure loss



Air at 20°C Thickness: 3 mm

## Water pressure loss

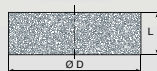


Water at 20°C Thickness: 3 mm

## Reference

An AmesPore® porous sintered disc of 316L stainless steel with an average pore size of 10.9 µm, an outer diameter of 16 mm and a length of 3 mm is referred to as:

**AmesPore® SSU10 D-16-3** (the letters SSU indicate uniaxially pressed stainless steel and the letter D indicates disc)



Dimensions (mm)		Grade	Reference	Parts per bag
D = Ø outer	L = Length			
3	3	SSU2	SSU2 D-3-3	50
		SSU5	SSU5 D-3-3	50
		SSU10	SSU10 D-3-3	50
		SSU25	SSU25 D-3-3	50
6	3	SSU2	SSU2 D-6-3	50
		SSU5	SSU5 D-6-3	50
		SSU10	SSU10 D-6-3	50
		SSU25	SSU25 D-6-3	50
		SSU60	SSU60 D-6-3	50
10	3	SSU2	SSU2 D-10-3	50
		SSU5	SSU5 D-10-3	50
		SSU10	SSU10 D-10-3	50
		SSU25	SSU25 D-10-3	50
		SSU60	SSU60 D-10-3	50
12,7	3	SSU2	SSU2 D-12,7-3	50
		SSU5	SSU5 D-12,7-3	50
		SSU10	SSU10 D-12,7-3	50
		SSU15	SSU15 D-12,7-3	50
		SSU25	SSU25 D-12,7-3	50
		SSU40	SSU40 D-12,7-3	50
		SSU60	SSU60 D-12,7-3	50
		SSU80	SSU80 D-12,7-3	50
16	3	SSU2	SSU2 D-16-3	25
		SSU5	SSU5 D-16-3	25
		SSU10	SSU10 D-16-3	25
		SSU25	SSU25 D-16-3	25
		SSU60	SSU60 D-16-3	25
20	3	SSU2	SSU2 D-20-3	25
		SSU5	SSU5 D-20-3	25
		SSU10	SSU10 D-20-3	25
		SSU25	SSU25 D-20-3	25
		SSU60	SSU60 D-20-3	25
25,4	3	SSU2	SSU2 D-25,4-3	25
		SSU5	SSU5 D-25,4-3	25
		SSU10	SSU10 D-25,4-3	25
		SSU25	SSU25 D-25,4-3	25
		SSU60	SSU60 D-25,4-3	25
30	3	SSU2	SSU2 D-30-3	25
		SSU5	SSU5 D-30-3	25
		SSU10	SSU10 D-30-3	25
		SSU25	SSU25 D-30-3	25
		SSU60	SSU60 D-30-3	25
38	3	SSU2	SSU2 D-38-3	15
		SSU5	SSU5 D-38-3	15
		SSU10	SSU10 D-38-3	15
		SSU15	SSU15 D-38-3	15
		SSU25	SSU25 D-38-3	15
		SSU40	SSU40 D-38-3	15
		SSU60	SSU60 D-38-3	15
		SSU80	SSU80 D-38-3	15
51	3	SSU2	SSU2 D-51-3	15
		SSU5	SSU5 D-51-3	15
		SSU10	SSU10 D-51-3	15
		SSU25	SSU25 D-51-3	15
		SSU60	SSU60 D-51-3	15



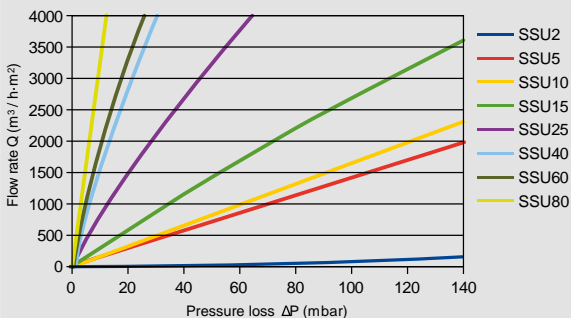
Material	Grade	Total porosity (%)	Pore size (µm)		Filtering efficiency <sup>2</sup> x (T=98%) (µm)	Permeability α (10 <sup>-12</sup> m <sup>2</sup> )	Shear strength (MPa)
			Average	Maximum <sup>1</sup>			
Sintered austenitic AISI 316L stainless steel  Cr: 16-18%, Ni: 11-14%, Mo: 2-3%, C: < 0.03%, Others: 2% max., Fe: Rest	SSU2	25	1.7	5	1	0.13	280
	SSU5	37	7.6	20	5	1.67	190
	SSU10	37	10.9	30	7	2.00	170
	SSU15	37	13.5	33	8,5	3.07	160
	SSU25	37	26.5	50	17	7.68	125
	SSU40	50	39.0	127	25	12.9	110
	SSU60	43	59.5	198	37	18.8	90
	SSU80	50	83.7	199	54	32.0	70

1. Equivalent to the bubble point, determined at a continuous flow rate of 5 ml/min.

2. Single-pass measurement in water at 1 bar and 1 m/s.

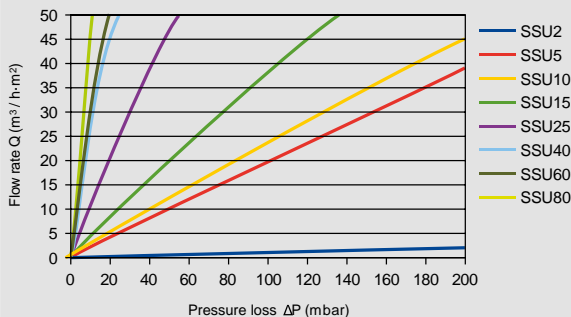
Coefficient of linear expansion:  $\approx 12 \cdot 10^{-6} \text{ K}^{-1}$

## Air pressure loss



Air at 20°C Thickness: 3 mm

## Water pressure loss



Water at 20°C Thickness: 3 mm



**AmesPore®**

[www.amespore.com](http://www.amespore.com)  
[www.ames-sintering.com](http://www.ames-sintering.com)

Product designed and manufactured  
by AMES in Spain (UE)

ISO 9001 – ISO 14001 – IATF 16949 certified

AmesPore® complies with the European Directives:  
ELV (2000/53/EC)  
RoHS (2011/65/EU)

AMES also manufactures bronze and stainless steel filters of different geometries and pore sizes to those indicated in this flyer. For further details, please contact us at [www.amespore.com](http://www.amespore.com).



Official distributor:

FOLL. AMESPORE 1220 - UK - 2.500

