

STEAM Filter Cartridges

- steam filters
- 316L stainless steel



Steam is an often neglected part of a process, regarded as an add on to a customers liquid or gas filtration needs.

It has however, large specific applications in its own right and should be treated with the same level of importance as air, gas and liquid systems if long filter lifetimes and system cost effectiveness are to be achieved.

The quality of steam used within the food and dairy industries has been raised higher on the agenda in an ever increasing number of companies. Minimum acceptable standards are now being quoted on a more regular basis with particular reference to 'culinary grade' steam. Steam serves several purposes in the food & beverage industry. It is critical that this steam is of a high quality to ensure effective and continuous operation of the process.

Features and Benefits

- 316L stainless steel filter cartridges
- Exceptionally high flow rates
- Available in culinary grade 1 micron
- High dirt holding capacity
- 'JUMBO' filter configuration ensures maximum utilization of pipework capacity



Which Filter for Which Application ?



Specifications - PLEATED

Materials of Construction

■ Filtration Media:	316L Stainless Steel
■ Inner Support Core:	316L Stainless Steel
■ Outer Support Cage:	316L Stainless Steel
■ End Caps:	316L Stainless Steel
■ Standard o-rings/gaskets:	EPDM (standard) Silicone and Viton (options available)

Recommended Operating Conditions

The maximum differential pressure in direction of flow (outside to in) is 10 barg (145.03 psig).

The maximum differential pressure in direction of flow (in to outside) is 2 barg (29.00 psig).

The maximum recommended continuous operating temperature range is -75 °C (-103 °F) to +200 °C (392 °F).

Note: Temperature dependant on o-ring compound

Effective Filtration Area (EFA)

10" (250 mm) 0.15 m² (1.61 ft²)

Housing Materials of Construction

■ Material:	316L Stainless Steel
■ Surface Finish	
Single Internal:	Electropolished Ra 0.8
Single External:	Mechanical Polish (Commercial Bright)
Jumbo Internal:	Upstream - Beadblast
Jumbo External:	Outlet Assembly - Linished 180 grit Beadblast
■ Vent / Drain	
Single / Jumbo:	1/4" BSPP Female Thread
■ Seal Material:	EPDM Aseptic Seal

Housing Design Pressure and Temperature

Single: 16 barg (232 psig)
@ 200 °C (392 °F)

Jumbo: 7 barg (101 psig)
@ 170 °C (338 °F)

Figure	Housing Code	Connection Size	Capacity Kg / hr @ 1 barg	Overall Height	Replacement Filter Code
1	HBAHP01KY	1.5" (38.1 mm)	←100 mbar or 40 m / sec	14.8" (376 mm)	ZCHS-K-...C
1	HBAHP01C	2" (50.8 mm)	150	20.7" (526 mm)	ZCHS-1-...C
2	VISCE-01J-D	3" (50.8 mm)	280	30.0" (763 mm)	ZCHS-J-...3
2	VISCE-01J-E	4" (101.6 mm)	750	35.2" (895 mm)	ZCHS-J-...4
2	VISCE-03J-G	6" (152.4 mm)	1300	41.2" (1049 mm)	3 x ZCHS-J-...3
2	VISCE-03J-H	8" (203.2 mm)	2300	48.7" (1237 mm)	3 x ZCHS-J-...4
			3750		

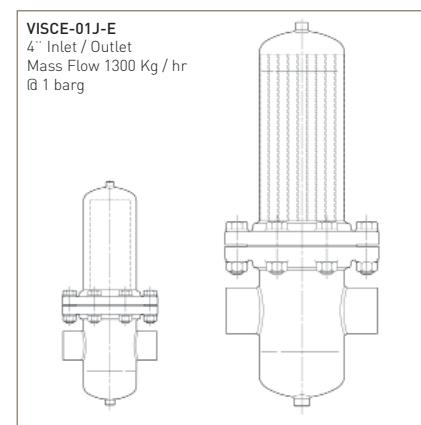
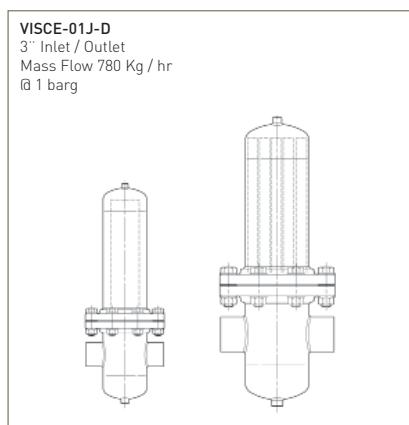
Note: For efficient steam distribution it is recommended that steam velocities are restricted to 25 m / sec⁻¹. For more information on the HBA range, please contact Parker domnick hunter.

Correction Factors

To use the table above, the steam flow rates must be at 1 barg (14.50 psig). For system flows at different line pressures, divide the system flow by the correction factor below to find the equivalent flow @ 1 barg (14.50 psig).

Steam Pressure Correction Factor	0	1	2	3	4	5	6	7	8	9	10
	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5

Table showing the relative system size difference between pleated cartridges left and sintered cartridges right.



Specifications - SINTERED

Materials of Construction

- Filtration Media: Sintered Stainless Steel (316L)
- End Caps: Stainless Steel (316L)
- Standard o-rings/gaskets: EPDM (standard)
Silicone and Viton (options available)

Recommended Operating Conditions

The maximum differential pressure in direction of flow (outside to in) is 10 barg (145.03 psig).

The maximum differential pressure in direction of flow (in to outside) is 5 barg (72.51 psig).

The maximum recommended continuous operating temperature range is -75 °C (-103 °F) to +200 °C (392 °F).

Note: Temperature dependant on o-ring compound

Housing Materials of Construction

- Material: 316L Stainless Steel
- Surface Finish: Electropolished Ra 0.8
- Internal: Mechanical Polish (Commercial Bright)
- External: $\frac{1}{4}$ BSPP Female Thread (Supplied with Plug)
- Vent / Drain: EPDM Aseptic Seal
- Seal Material: EPDM Aseptic Seal

Housing Design Pressure and Temperature

16 barg (232 psig) @ 200 °C (392 °F)

Figure	Housing Code	Connection Size	Capacity Kg / hr @ 1 barg	Overall Height	Replacement Filter Code
1	HBAHP01KY HBAHP01C HBAHP012C	1.5" (38.1 mm) 2" (50.8 mm) 2" (50.8 mm)	←100 mbar or 40 m / sec 1 μm 25 μm 21 45 40 160 82 280	14.8" (376 mm) 20.7" (526 mm) 30.5" (776 mm)	ZCSSK-...C ZCSS1-...C ZCSS2-...C
1					
1					

Note: For efficient steam distribution it is recommended that steam velocities are restricted to 25 m / sec⁻¹. For more information on the HBA range, please contact Parker domnick

Correction Factors

To use the table above, the steam flow rates must be at 1 barg (14.50 psig). For system flows at different line pressures, divide the system flow by the correction factor below to find the equivalent flow @ 1 barg (14.50 psig).

Steam Pressure	0	1	2	3	4	5	6	7	8	9	10
Correction Factor	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5

Ordering Information

SINTERED

ZCSS		-			
Code	Length (Nominal)	Code	Nominal Micron Rating (Steam)	Code	Endcap (10")
B	2.5" (65 mm)	001	1.0 μm (Culinary)	B	dh DOE
A	5" (125 mm)	025	25.0 μm	C	226 Bayonet
K	5" (125 mm)				
1	10" (250 mm)				
2	20" (500 mm)				
3	30" (750 mm)				

All cartridges supplied as single

PLEATED

ZCHS	-		-		
Code	Length (Nominal)	Code	Nominal Micron Rating (Steam)	Code	Endcap (10")
B	2.5" (65 mm)	001	1.0 μm (Culinary)	B	dh DOE
A	5" (125 mm)	005	5.0 μm	C	226 Bayonet
K	5" (125 mm)			3	3" JUMBO
1	10" (250 mm)			4	4" JUMBO
2	20" (500 mm)				
3	30" (750 mm)				
J	JUMBO				

All cartridges supplied as single

Code

Endcap (Demi)

T TRUESEAL

Z Demi A & B Std

Specifications - SINTERED retrofit cartridges

Materials of Construction

- Filtration Media: Sintered Stainless Steel (316L)
- End Caps: Stainless Steel (316L)
- Standard o-rings/gaskets: EPDM (standard)
Silicone and Viton (options available)

Recommended Operating Conditions

The maximum differential pressure in direction of flow (outside to in) is 10 barg (145.03 psig).

The maximum differential pressure in direction of flow (in to outside) is 5 barg (72.51 psig).

The maximum recommended continuous operating temperature range is -75 °C (-103 °F) to +200 °C (392 °F).

Note: Temperature dependant on o-ring compound

Ordering Information

SINTERED retrofit cartridges

Z							
Code Micron							
P	1 micron	02	2" (65 mm)	05	1"	UP	2 x o-ring
S	25 micron	03	3" (125 mm)	10	1"	UR	1 x o-ring & thread
	All cartridges supplied as single items.	04	4" (125 mm)	20	2"	UI	2 x o-ring & thread
		05	5" (250 mm)	25	2.5"		
		07	7" (500 mm)	30	3"		
		10	10" (750 mm)	50	5"		
		15	15" (750 mm)				
		20	20" (750 mm)				
		30	30" (750 mm)				

Description	L	D	Diagram	Description	L	D	Diagram	Description	L	D	Diagram
ZP/ZS 0310 UR	88	40		ZP/ZS 0210 UP	-			ZP/ZS 0205 UI	75	35	
ZP/ZS 0315 UR	88	40		ZP/ZS 0310 UP	86	35		ZP/ZS 0210 UI	93	35	
ZP/ZS 0415 UR	124	40		ZP/ZS 0305 UP	-	-		ZP/ZS 0305 UI	89	35	
ZP/ZS 0425 UR	125	54		ZP/ZS 0410 UP	114	35		ZP/ZS 0310 UI	93	35	
ZP/ZS 0525 UR	152	54		ZP/ZS 0420 UP	117	40		ZP/ZS 0410 UI	121	35	
ZP/ZS 0530 UR	148	76		ZP/ZS 0520 UP	141	40		ZP/ZS 0420 UI	127	40	
ZP/ZS 1030 UR	269	76		ZP/ZS 0525 UP	141	54		ZP/ZS 0520 UI	151	40	
ZP/ZS 1530 UR	405	76		ZP/ZS 0725 UP	193	54		ZP/ZS 0525 UI	151	54	
ZP/ZS 2030 UR	532	76		ZP/ZS 0730 UP	196	76		ZP/ZS 0725 UI	203	54	
ZP/ZS 3030 UR	784	76		ZP/ZS 1030 UP	269	76		ZP/ZS 0730 UI	206	76	
ZP/ZS 3050 UR	774	130		ZP/ZS 1530 UP	396	76		ZP/ZS 1030 UI	279	76	
				ZP/ZS 2030 UP	523	76		ZP/ZS 1530 UI	406	76	
				ZP/ZS 3030 UP	775	76		ZP/ZS 2030 UI	533	76	
				ZP/ZS 3050 UP	775	76		ZP/ZS 3030 UI	785	76	
								ZP/ZS 3050 UI	785	130	