

CULINARY STEAM FILTER ISC16 – ISC16I

DESCRIPTION

The ISC16 high efficiency filters are used to remove contaminated particles from gases such as steam and compressed air.

The optimized construction of these units offers low differential pressure at high flow rates.

All sizes are built in two halves. Up to DN 3" / DN80 they are joined by a food industry fitting according to DIN 11851 and the larger sizes DN100 to DN200 by flat flanges fixed with bolts and nuts.

The filter elements (replaceable) are made of sintered austenitic stainless steel.

MAIN FEATURES

Several retention rates available.

Good durability against aggressive gases.

Porosity level is more than 50% ensuring high particle and dirt load capacity as well as good flow rate at a low differential pressure.

Regeneration by ultrasonic bath.

STANDARD SURFACE FINISH

Internal parts: ≤ 0,8 microns Ra.

External : Satin bead blast finish – 1,6 microns Ra.

Mechanical polished as option.

OPTIONS: Different kind of connections and dimensions.

USE: Steam, compressed air and other gases (Group 2).

AVAILABLE MODELS: ISC16 – 1.4301 (AISI 304).
ISC16I – 1.4404 (AISI 316L).

RETENTION RATES: 1, 5 and 25 micron.

SIZES: DN1/4" to DN 3" threaded.
DN10 to DN 80 flanged.
DN100 to DN 200 flanged on request.

PIPE CONNECTIONS: Threaded BSP or NPT.
Flanged EN PN16 or ANSI class 150lbs.
Welded ends and other connections on request.

INSTALLATION: Horizontal installation always with the drain connection pointing downwards. See IMI, installation and maintenance instructions.



CE MARKING (PED - European Directive)		
Ps 16 bar	Ps 12 bar	Category
DN10 to DN40 ; DN1/4" to DN 11/2"	/	SEP
DN50L to DN80L ; DN2"L to DN3"L	/	1
/	DN80H ; DN 3"H	2

CE Marking: This product has been designed for use on water, steam, air and other gases which are in Group 2 of the European PED-Pressure Equipment Directive in use and it complies with those requirements. The product carries the CE mark when falling in category 1 and above.

STEAM FILTER DATA INQUIRY	
Steam flow rate	Kg/h
Saturated steam operating pressure	bar
Allow able pressure drop (0,07 bar max. recommended)	bar
Housing material	1.4301 or 1.4404
Size	DN
Pipe connections	BSP, Flanged PN16,...
Filter element retention rate	1, 5 or 25 micron

LIMITING CONDITIONS		
Maximum allow able pressure	DN10-80L	16 bar
	DN80H	12 bar
Maximum allow able temperature		200 °C
Minimum allow able temperature		-20 °C
Maximum operating pressure	EPM	8,5 bar @ 178 °C
	FLUORAZ	10 bar @ 200 °C
Minimum operating temperature		0 °C
Maximum differential pressure		5 bar
Max. cold hydraulic test pressure	DN10-80L	20,8 bar
	DN80H	15,6 bar

APPROXIMATE DIMENSIONS (mm)											
SIZE DN a)	A Screwed	A Tube weld	A Flanged PN16	A Flanged 150lbs	B	C	D	E	F	VOL. * dm3	WGT ** Kg
08 - 1/4"	108	108	/	/	220	55	70	112	1/4"	0,6	1,8
10 - 3/8"	108	108	180	/	248	55	70	112	1/4"	0,7	1,9
15 - 1/2"	108	108	180	203	248	55	70	112	1/4"	0,7	2
20 - 3/4"	125	125	202	230	272	55	70	112	1/4"	0,8	2,2
25 - 1"	125	125	212	247	298	74	85	127	1/4"	1,3	2,8
32 - 1 1/4"	140	140	220	254	350	74	85	127	1/4"	1,6	3,2
40 - 1 1/2"	170	170	254	294	388	93	104	148	1/4"	2,8	4,6
50L-2"L	170	170	260	297	463	93	104	148	1/4"	3,2	4,7
50H - 2"H	170	170	260	297	590	93	104	148	1/4"	4,5	5,3
65 - 2 1/2"	216	216	306	356	740	107	129	178	1/4"	8,9	8,3
80L - 3"L	216	216	316	356	1002	111	129	178	1/4"	12,2	9,7
80H - 3"H	240	240	340	380	1027	113	154	210	1/4"	17,8	13,3

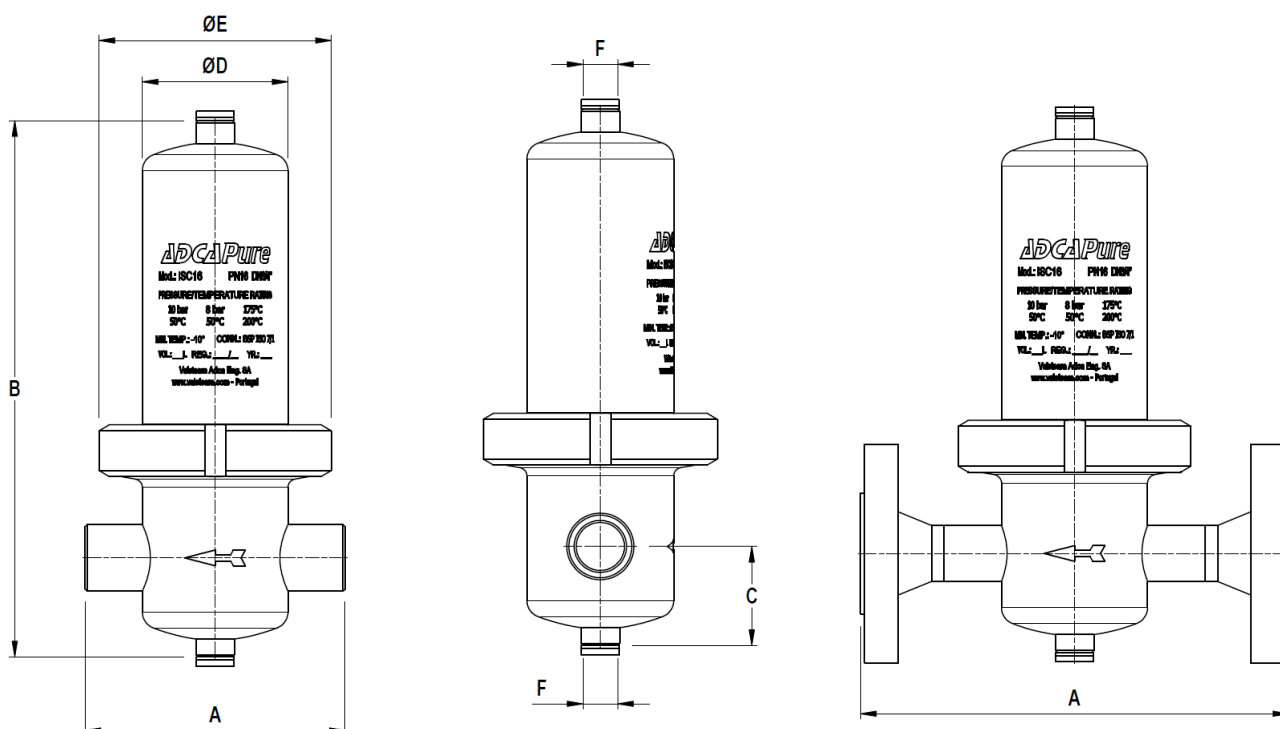
Larger sizes up to DN 200 on request.

a) Suffix L corresponds to low capacity design; suffix H corresponds to high capacity .

* Volume correspond to the class PN16 design.

** Weight correspond to the class PN16 design.

Consult factory for certified dimensions. Dimensions subject to change without notice.



MATERIALS			
POS.	DESIGNATION	ISC16	ISC16I
1	Filter housing bowl	AISI 304 / 1.4301	AISI 316L / 1.4404
1	Flanges	a) AISI 304 / 1.4301	a) AISI 316L / 1.4404
2	Filter housing cover	AISI 304 / 1.4301	AISI 316L / 1.4404
3	* Seal	EPM, FLUORAZ	EPM , FLUORAZ
4	Closing ring	AISI 304 / 1.4301	AIS 304 / 1.4301
5	* Filter element	Sintered AISI 316L	Sintered AISI 316L
	Filter end caps	AISI 304 / 1.4301	AISI 304 / 1.4301
6	* Filter seal o-rings (2)	EPM , FLUORAZ	EPM , FLUORAZ
7	Plug	AISI 304 / 1.4301	AISI 304 / 1.4301
8	Gasket	PTFE	PTFE

* Available spare parts.

a) Can also be supplied with following materials:

ISC16-1.4307 / AISI304L; 1.4541 / AISI321; 1.4401 / AISI 316;

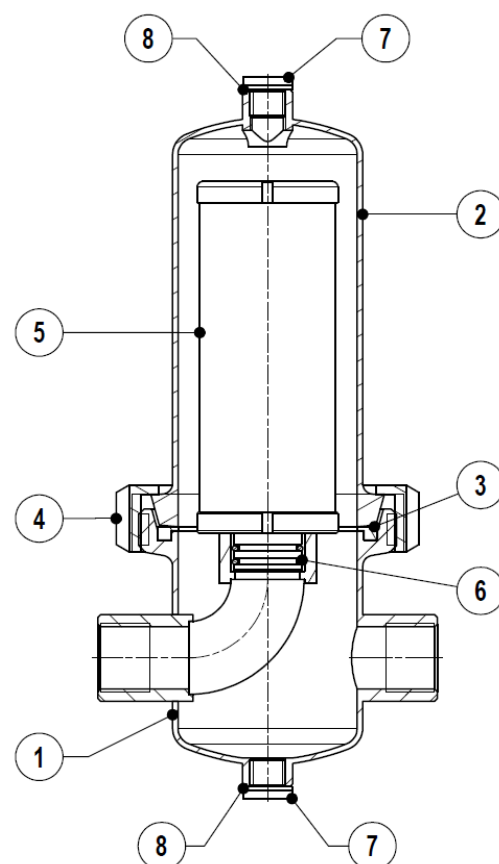
1.4404 / AISI316L; 1.4571 / AISI316Ti.

ISC16I - 1.4404 / AISI316L; 1.4571 / AISI316Ti.

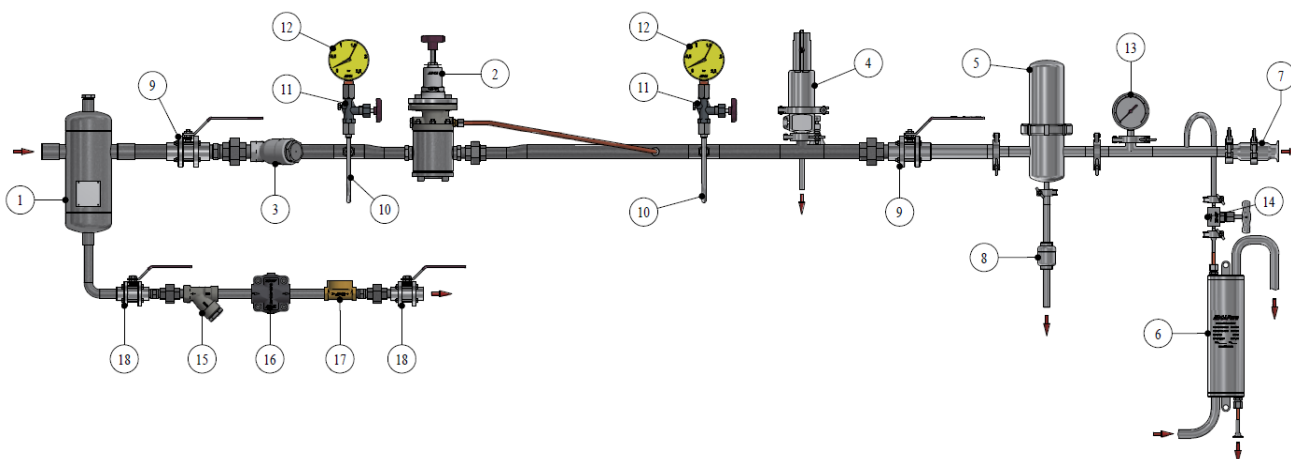
FDA seals certificate available if requested along with the order.

Remarks: FDA seals certificate on request.

All filters have a serial number. In case of non-standard filter this number must be supplied if spare parts are ordered.



TYPICAL INSTALLATION – FILTERED STEAM PRESSURE REDUCING STATION



MATERIALS			
POS.	DESIGNATION	POS.	DESIGNATION
1	ADCA S16S Steam centrifugal humidity separator	10	ADCA GSU Gauge siphon
2	ADCA PRV47 Pilot operated pressure regulator	11	ADCA GC-400 Gauge cock
3	ADCA IS140 Y Strainer	12	ADCA MAN-100 Pressure gauge
4	ADCAPure SRV6 Safety valve	13	ADCAPure MAN10P Pressure gauge
5	ADCAPure ISC16 Culinary steam filter	14	ADCAPure NV400P Sanitary needle valve
6	ADCAPure SC32P Sample cooler	15	ADCA IS140 Y Strainer
7	Sanitary check valve	16	ADCA FLT17 Float and thermostatic steam trap
8	ADCA TSS22 Steam trap	17	ADCA SW12 Sight glass
9	ADCA M3S1 Three piece ball valve	18	ADCA M3S1 Three piece ball valve



ORDERING CODES ISC16 FILTER HOUSING							
Filter Model	ISC16	.	P	A	.	08	
ISC16 Filter housing AISI 304 - 1.4301	ISC16						
ISC16I Filter housing AISI 316L - 1.4404	ISC16I						
Housing seal material							
EPM (up to 180 °C)			P				
FLUORAZ (up to 200 °C)			F				
Pipe connection							
Threaded BSP ISO 7/1 Rp				A			
Threaded NPT ANSI B1.20.1				C			
Tube weld				H			
Flanged EN1092-1 PN16				L			
Flanged ANSI B16.5 150#				U			
Size							
DN 08 or DN 1/4"						08	
DN 10 or DN 3/8"						10	
DN 15 or DN 1/2"						15	
....						...	
DN 50L or DN 2" L						50L	
DN 50H or DN 2" H						50H	
...						...	
Special / Extras a)							E

a) Full description or additional codes have to be added in case of non-standard combination.

ORDERING CODES - FILTER ELEMENT							
Filter Element Model	ISFE	.	P	0310	.	01	
ISFE Filter element AISI 316L - 1.4404	ISFE						
Filter to Housing Sealing O-rings							
Without sealing o-rings			(1)				
EPM (up to 180 °C)			P				
FLUORAZ (up to 200 °C)			F				
Filter Size According to Housing DN Connection							
DN 08 - 1/4"				0310			
DN 10 - 3/8"				0410			
DN 15 - 1/2"				0420			
DN 20 - 3/4"				0520			
DN 25 - 1"				0525			
DN 32 - 1 1/4"				0725			
DN 40 - 1 1/2"				0730			
DN 50 L - 2" L				1030			
DN 50H - 2" H				1530			
DN 65 - 2 1/2"				2030			
DN80 L - 3" L				3030			
DN 80H - 3" H				3050			
Retention Rate							
1 micron						01	
5 micron						05	
25 micron						25	
Special / Extras b)							E

b) Full description or additional codes have to be added in case of non-standard combination.

(1) Omitted ; Order example:

1 Adcapture filter housing ISC16 EPM seals DN 2" L threaded BSP DN 2"

Code: ISC16.PA.50L

1 ISFE filter element with 5 micron retention rate for the above mention filter

Code: ISFE.P1030.05

Note: we recommend a second filter element as a spare part to ensure a minimum downtime when replacing the one in use after saturation.