

CULINARY STEAM FILTER ISC20I

DESCRIPTION

The ISC20I 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, joined by a sanitary clamp ferrule according to DIN 32676 Series A, with drain connection on bottom. The replaceable filter elements 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: $\leq 0,76$ micron Ra – SF3.
External: Satin bead blast finish – 1,6 micron Ra.
Other surface conditions see IS PV20.00 E – Technical information.

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

AVAILABLE MODELS: ISC20I – AISI 316L / 1.4404 stainless steel.

RETENTION RATES: 1, 5 and 25 micron.

SIZES: 1/4" to 3"; DN 10 to DN 80.

CONNECTIONS: Female threaded ISO 7 Rp or NPT.
Flanged EN 1092-1 PN 16.
Flanged ASME B16.5 Class 150.
Others on request.

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



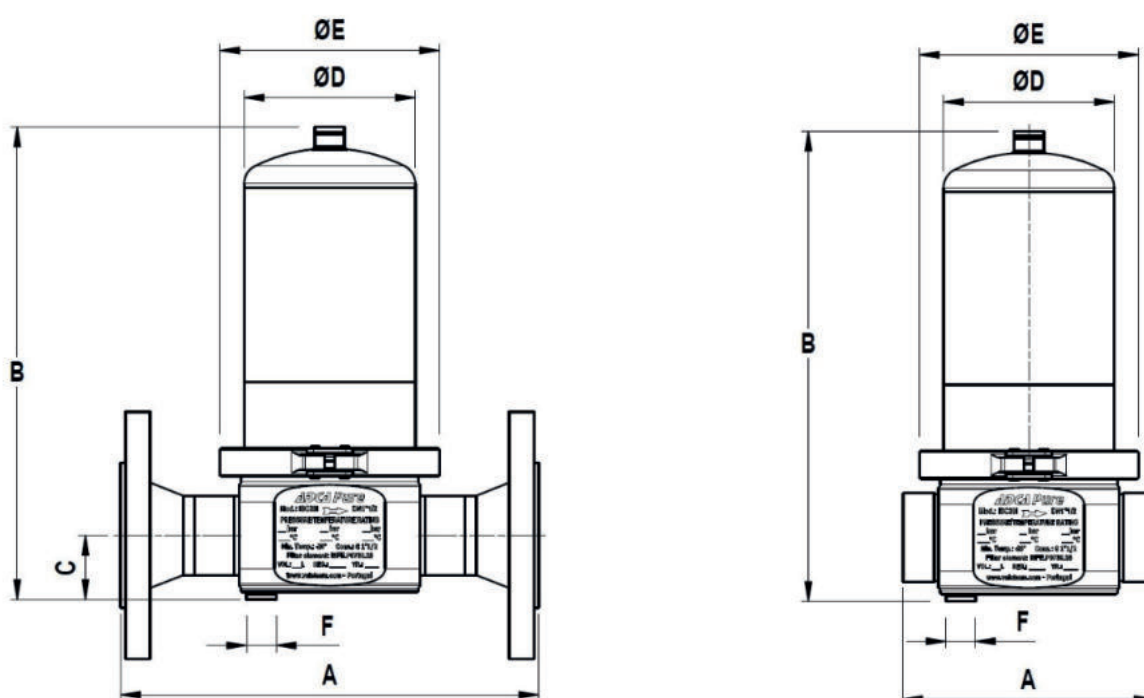
CE MARKING – GROUP 2 (PED – European Directive)

Ps 16 bar	Ps 12 bar	Category
1/4" to 1 1/2" – DN 10 to DN 40	–	SEP
2"L to 2 1/2" – DN 50L to DN 65	–	1
–	3" – DN 80	2

LIMITING CONDITIONS

Maximum allowable pressure	DN 10 to 65	16 bar
	DN 80	12 bar
Maximum allowable temperature	200 °C	
Minimum allowable 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	
Maximum cold hydraulic test pressure	DN 10 to 65	20,8 bar
	DN 80	15,6 bar

Remark: maximum recommended pressure drop of 0,07 bar.



DIMENSIONS (mm)

SIZE *	A THREADED	A TUBE WELD	A PN 16	A CLASS 150	B	C	D	E	F	VOL. ** (L)	WEIGHT ** (kg)
1/4" – DN 08	99	99	–	–	143	22,5	70	104	1/4"	0,34	2,3
3/8" – DN 10	101	101	180	–	173	22,5	70	104	1/4"	0,45	3,7
1/2" – DN 15	107	107	180	203	180	24,5	70	104	1/4"	0,48	4,25
3/4" – DN 20	130	130	202	230	210	27,5	70	118	1/4"	0,88	6,0
1" – DN 25	136	136	212	247	217	30,5	85	118	1/4"	0,94	6,9
1 1/4" – DN 32	142	142	220	254	279	36	85	118	1/4"	1,05	8,9
1 1/2" – DN 40	154	154	254	294	287	39	104	133	1/4"	2,12	10,6
2"L – DN 50L	163	163	260	297	374	45,5	104	133	1/4"	2,79	13,0
2"H – DN 50H	163	163	260	297	501	45,5	104	133	1/4"	3,81	14,0
2 1/2" – DN 65	–	216	306	356	644	52	129	170	1/4"	8,11	21,7
3"L – DN 80L	–	240	340	380	911	59	129	170	1/4"	11,0	28,6
3"H – DN 80H	–	240	340	380	924	59	154	198	1/4"	16,0	30,4

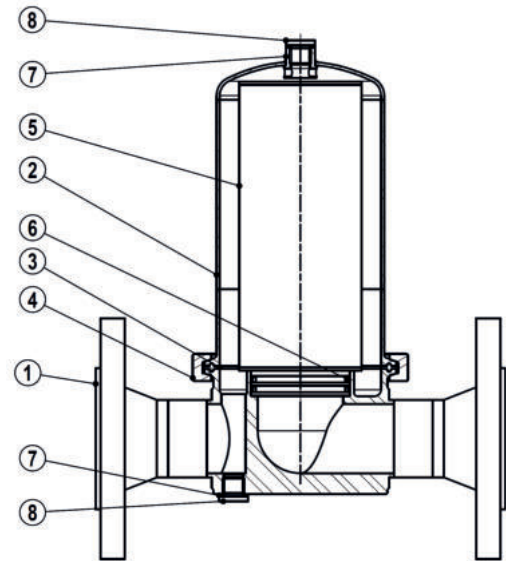
* Suffix L corresponds to low capacity design; suffix H corresponds to high capacity design.

** Volume and weight correspond to flanged EN 1092-1 PN 16 design. Other designs may have slightly different values.

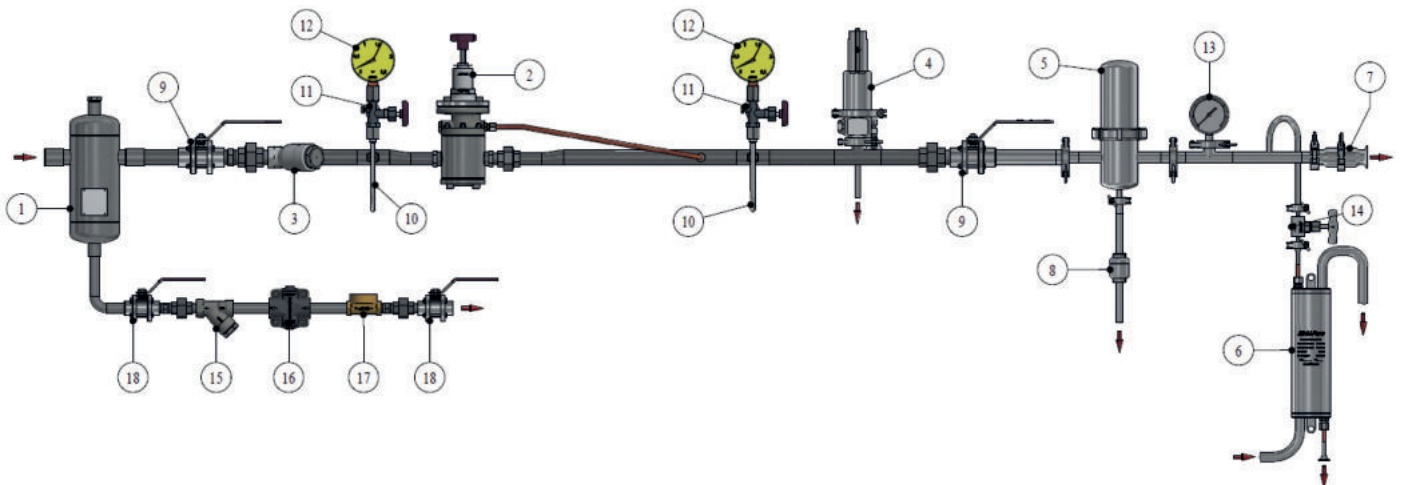
Remark: other sizes on request.

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Filter housing	AISI 316L / 1.4404
2	Filter housing cover	AISI 316L / 1.4404
3	* Seal	PTFE / TFM® Envelope gasket
4	Closing ring	AISI 304 / 1.4301
5	* Filter element	Sintered AISI 316L
	Filter end caps	AISI 304 / 1.4301
6	* Filter seal o-rings (2)	EPDM, EPM, FLUORAZ
7	Gasket	PTFE
8	Plug	AISI 304 / 1.4301

* Available spare parts.
 FDA / USP Class VI 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. N°	DESIGNATION	POS. N°	DESIGNATION
1	ADCA S16S Steam centrifugal humidity separator	10	ADCA GSU Gauge siphon
2	ADCA PRV47 Pilot operated pressure regulator	11	ADCA GC400 Gauge cock
3	ADCA IS140 Y Strainer	12	ADCA MAN100 Pressure gauge
4	ADCA Safety valve	13	ADCAPure SMAN-63R Pressure gauge
5	ADCAPure Culinary steam filter	14	ADCAPure NV400P Sanitary needle valve
6	ADCAPure SC32P Sample cooler	15	ADCA IS140 Y Strainer
7	ADCAPure SRT10	16	ADCA FLT17 Float and thermostatic steam trap
8	ADCA TSS22 Steam trap	17	ADCA SW12 Sight glass
9	ADCA M3i1 Three piece ball valve	18	ADCA M3S1 Three piece ball valve

ORDERING CODES – ISC20I FILTER HOUSING							
Filter model	ISC20I	.	T	A	.	08	
ISC20I – AISI 316L / 1.4404 filter housing	ISC20I						
Housing seal material							
PTFE / TFM (envelope gasket)			T				
Pipe connection							
Female threaded ISO 7 Rp (only available from 1/4" up to 2")				A			
Female threaded NPT ASME B1.20.1 (only available from 1/4" up to 2")				C			
Tube weld				H			
Flanged EN 1092-1 PN 16				L			
Flanged ASME B16.5 Class 150				U			
Size							
1/4" or DN 08						08	
3/8" or DN 10						10	
1/2" or DN 15						15	
...						...	
2"L or DN 50L						50L	
2"H or DN 50H						50H	
...						...	
3"L or DN 80L						80L	
3"H or DN 80H						80H	
Special / Extras							
Full description or additional codes have to be added in case of non-standard combination							E

ORDERING CODES – FILTER ELEMENT							
Filter element model	ISFE	.	P	1030	.	01	
ISFE – AISI 316L / 1.4404 filter element	ISFE						
Filter to housing sealing o-rings							
Without sealing o-rings			X				
EPM (up to 180 °C)			P				
FLUORAZ (up to 200 °C)			F				
Filter size according to housing DN connection							
1/4" or DN 08				0310			
3/8" or DN 10				0410			
1/2" or DN 15				0420			
3/4" or DN 20				0520			
1" or DN 25				0525			
1 1/4" or DN 32				0725			
1 1/2" or DN 40				0730			
2"L or DN 50L				1030			
2"H or DN 50H				1530			
2 1/2" or DN65				2030			
3"L or DN 80L				3030			
3"H or DN80H				3050			
Retention rate							
1 micron						01	
5 micron						05	
25 micron						25	
Special / Extras							
Full description or additional codes have to be added in case of non-standard combination							E

Order example:

1 ADCAPure filter housing ISC20I with PTFE/TFM seals, threaded NPT, 2"L – Code: ISC20I.TC.50L

1 ISFE filter element with 5 micron retention rate for the above mentioned filter – Code: ISFE.P1030.05

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