

CARTRIDGE FILTER

TYPE VPF

adequate for all gases acc. to "DVGW Arbeitsblatt" (work sheet) G260
and for all non-aggressive special gases.

CARTRIDGE FILTER TYPE VPF

CHARACTERISTICS

- »Efficient dust filtration
- »High separation rate (efficiency)
- »Filter efficiency tested
- »Long service life of the filter elements
- »Upstream coarse particle separation
- »For all gases according to G260
- »For non-aggressive special gases

OPTIONS

- »Custom design for various design codes (ASME, EN 13445, SVTI, AS1210, PD5500, etc.)
- »Customer acceptance test
- »Customized tests
- »Application for sour gas
- »Design for low temperature till -50 ° C
- »Design pressure up to 300 bar
- »Design temperature up to 250 ° C
- »Custom nozzle arrangement

GENERAL

Cartridge filters are used to clean the gas from dry dirt particles.

The design is carried out as a steel welding design.

FUNCTION

The gas flows through the inlet nozzle into the filter housing. Coarse particles are filtered out of the gas stream by gravity. This is effected by diversion and velocity reduction of the gas flow. The particles are collected in the lower filter part. Fine dust particles are filtered from downstream filter elements. The cleaned gas flows through the outlet nozzle.

The filter element contamination shall monitored with a differential pressure gauge measurement.

QUALITY MANAGEMENT

»DIN EN ISO 9001 certified

»Our standard equipment has been tested in accordance with AD 2000 regulations and CE-certified in accordance with the Pressure Equipment Directive EG / PED 2014/68 / EU. The test is carried out by authorized inspectors (TÜV, Lloyd's Register, etc.).

»Test and material certificates are prepared by the inspectors in accordance with the design regulations.

ACCESSORIES

- »Quick release
- »Lid pivoting device
- »Differential Pressure Gauge DP900
- »Mounting kit without bypass
- »Mounting kit with bypass
- »Accessories for DP900, e.g. reed contact
- »Div. Instrumentation

TECHNICAL DATA (STANDARD DESIGN)

Design + manufacture design pressure	AD 2000 + CE
design temperature	16 bar g
Housing material	-10 / + 50 ° C
Preliminary Approval	Carbon Steel
material certificates	TÜV Inspector
	EN 10204 / 3.1

Radiographic examination	Acc. design code
dye penetrant	Acc. design code
US test	On demand
Water pressure test	p x 1,43
Leak testing	Factory acceptance test 6 bar g
EC / PED 2014/68 / EU	CE certified
Separation Dust:	99,9 ≥ 1µm

CUSTOM SPECIFIC DEMANDS FOR RFQ & ORDERS:

Design Data:					
Design Code	<input type="checkbox"/> AD 2000	<input type="checkbox"/> ASME	<input type="checkbox"/> EN 13445	<input type="checkbox"/>	Bitte angeben
Tests / Options	<input type="checkbox"/> CE / PED	<input type="checkbox"/> U-Stamp	<input type="checkbox"/> NACE	<input type="checkbox"/>	Bitte angeben
Design Pressure	PN	bar	corrosion allowance	C ₂	mm
Design Temperature	DT	min. / max.	°C	design orientation	<input type="checkbox"/> vertical <input type="checkbox"/> horizontal
Nozzles / Connections:	Bitte angeben		flow direction	<input type="checkbox"/> li / re <input type="checkbox"/> re / li	
Nozzle DN <small>Please, announce on demand</small>	<input checked="" type="checkbox"/> inlet	<input checked="" type="checkbox"/> outlet	<input checked="" type="checkbox"/> drainage	<input checked="" type="checkbox"/> vent	<input checked="" type="checkbox"/> DP
Nozzle DN, additional	<input type="checkbox"/> PI	<input type="checkbox"/> TI	<input type="checkbox"/> purge	<input type="checkbox"/>	Please, announce
Berechnungsdaten:					
Medium	<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Biogas	<input type="checkbox"/> Sour Gas	<input type="checkbox"/>	Please, announce
Density (Gas Analysis)	ρ _{ni}	kg/m ³	Efficiency Dust	% ≥	µm
flow rate, nominal	V _n	Nm ³ /h / SCFM			
Operational Pressure	P _i	min. / max.	bar		
Operational Temperature	θ _i	min. / max.	°C	Material Contaminations	Please, announce - as far as known

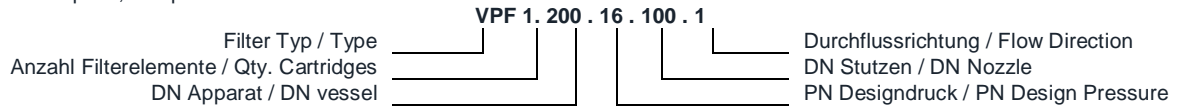
TYPE SELECTIONS & DIMENSIONS (valid for AD2000 up to PN40)

Each filter is equipped as standard with 2 differential pressure and one G ½ "vent port. According to the direction of flow, these are arranged forward. The drainage nozzles DN2 are normally closed with a blanking plug or blind cover.

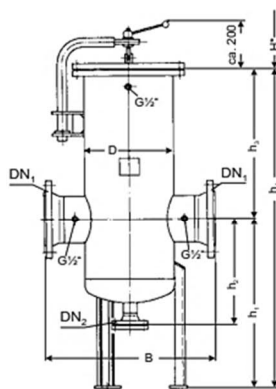
The table values are based on the following design criteria:

Design according to AD 2000; Gas velocity $v = 20 \text{ m/s}$ in the inlet and outlet connection; Design pressure PN 16 - PN 40

Type-Description, sample:

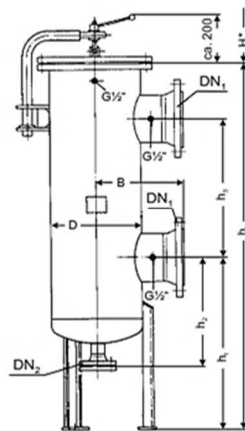


Ausführung/Type: 1



Grund-Typ Basic Type	Filter Patr. Anz. no. of filter cartr.	Filter-Patronen Filter cartridges	D [mm]	B [mm]	h_1 [mm]	h_2 [mm]	h_3 [mm]	h_4 [mm]	H* [mm]	DN 1 [mm]	DN 2 [mm]	Menge Rate of flow [m³/h]
VPF 1.150	1	60/200	168.3	450	-	300	320	-	300	50	G1"	200
VPF 1.200	1	90/400	219.1	550	-	350	530	-	500	80	G1"	400
VPF 1.250	1	120/600	273.0	650	-	350	750	-	700	100	G1"	800
VPF 1.300	1	170/800	323.9	700	700	500	980	1680	900	150	50	1.600
VPF 2.400	2	220/500	406.4	820	700	500	1200	1900	600	200	80	2.500
VPF 2.500	2	270/600	508.0	960	800	600	1440	2240	700	250	100	4.000
VPF 2.600	2	350/600	600.0	1100	900	700	1500	2400	700	300	100	5.000
VPF 4.700	4	170/800	700.0	1200	900	700	1100	2000	900	300	100	6.500
VPF 6.800	6	220/500	800.0	1300	1000	800	1400	2400	600	400	150	9.000
VPF 6.900	6	270/600	900.0	1500	1000	800	1850	2850	700	500	150	12.000
VPF 10.1000	10	220/500	1050.0	1600	1200	950	1600	2800	600	500	150	14.000

Ausführung/Type: 2



Grund-Typ Basic Type	Filter Patr. Anz. no. of filter cartr.	Filter-Patronen Filter cartridges	D [mm]	B [mm]	h_1 [mm]	h_2 [mm]	h_3 [mm]	h_4 [mm]	H* [mm]	DN 1 [mm]	DN 2 [mm]	Menge Rate of flow [m³/h]
VPF 1.150	1	60/200	168.3	225	-	300	340	-	300	50	G1"	200
VPF 1.200	1	90/400	219.1	275	-	350	580	-	500	80	G1"	400
VPF 1.250	1	120/600	273.0	325	-	350	820	-	700	100	G1"	800
VPF 1.300	1	170/800	323.9	350	700	500	1080	1980	900	150	50	1.600
VPF 2.400	2	220/500	406.4	410	700	500	1320	2280	600	200	80	2.500
VPF 2.500	2	270/600	508.0	480	800	600	1580	2680	700	250	100	4.000
VPF 2.600	2	350/600	600.0	550	900	700	1640	2870	700	300	100	5.000
VPF 3.700	3	170/800	700.0	580	800	650	1220	2350	900	300	100	5.500
VPF 6.800	6	220/500	800.0	650	1000	800	1510	2880	600	400	150	9.000
VPF 7.900	7	170/800	900.0	750	1200	950	1420	3100	900	500	150	12.000

CONTACT

THIELMANN ENERGIETECHNIK GmbH
Dormannweg 48
D-34123 Kassel

Tel +49 561 50785-0
Fax +49 561 50785-20

Email info@gts-thielmann.de



www.gts-thielmann.de