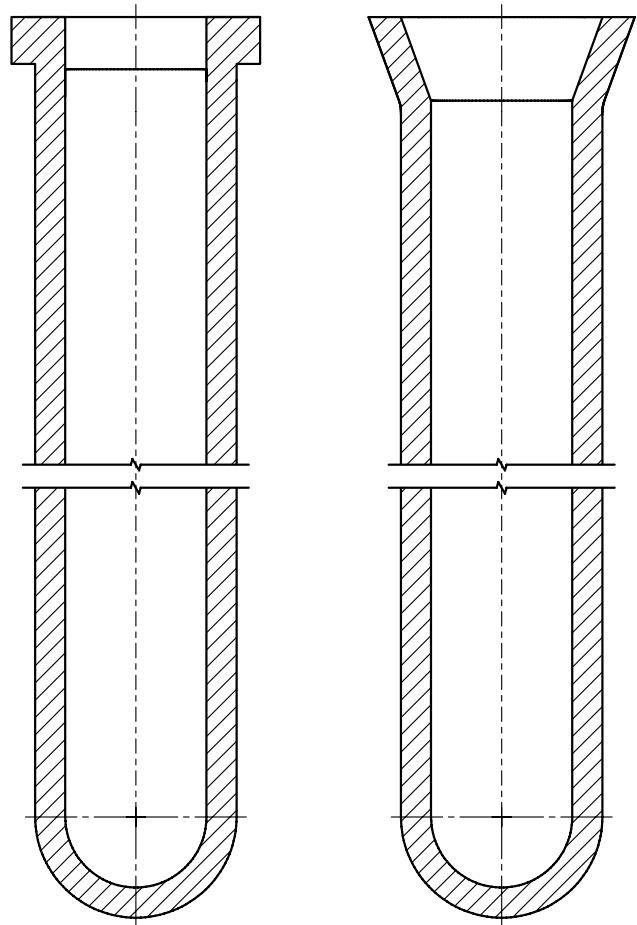


FILTRATH®

Ceramic Filter Elements
for Filtration of Hot Gases



RATH

Rath
extends
Hot Gas
Filtration

OUTSTANDING INSIDE
Refractory Solutions

RATH

FILTRATH® FILTER ELEMENTS

FILTRATH® ceramic filter elements are made of low-density, high temperature, vacuum-formed wool and have been developed specifically for the filtration of hot gases.



The ultra-high porosity of FILTRATH® provides excellent filtration performance enabling:


- › COMPLIANCE with toughest emissions standards
- › PROTECTION of downstream plant/equipment
- › RECOVERY of valuable process/ scrap materials

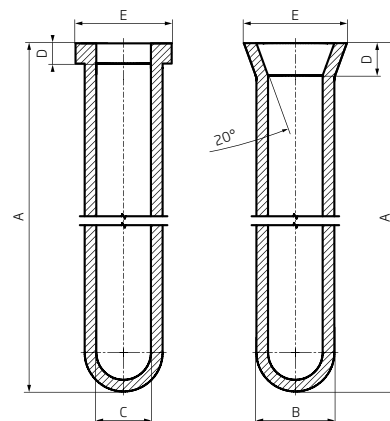
- › Designed for high temperatures
- › 100% spark resistant
- › Extremely lightweight
- › Strong and durable
- › Dust emission values < 1 mg/Nm³
- › Highly efficient
- › Acid gas control capability (with direct sorbent injection - DSI)

FILTRATH® Filter Element - Standard Sizes (other dimensions available on request)

[Information](#) «

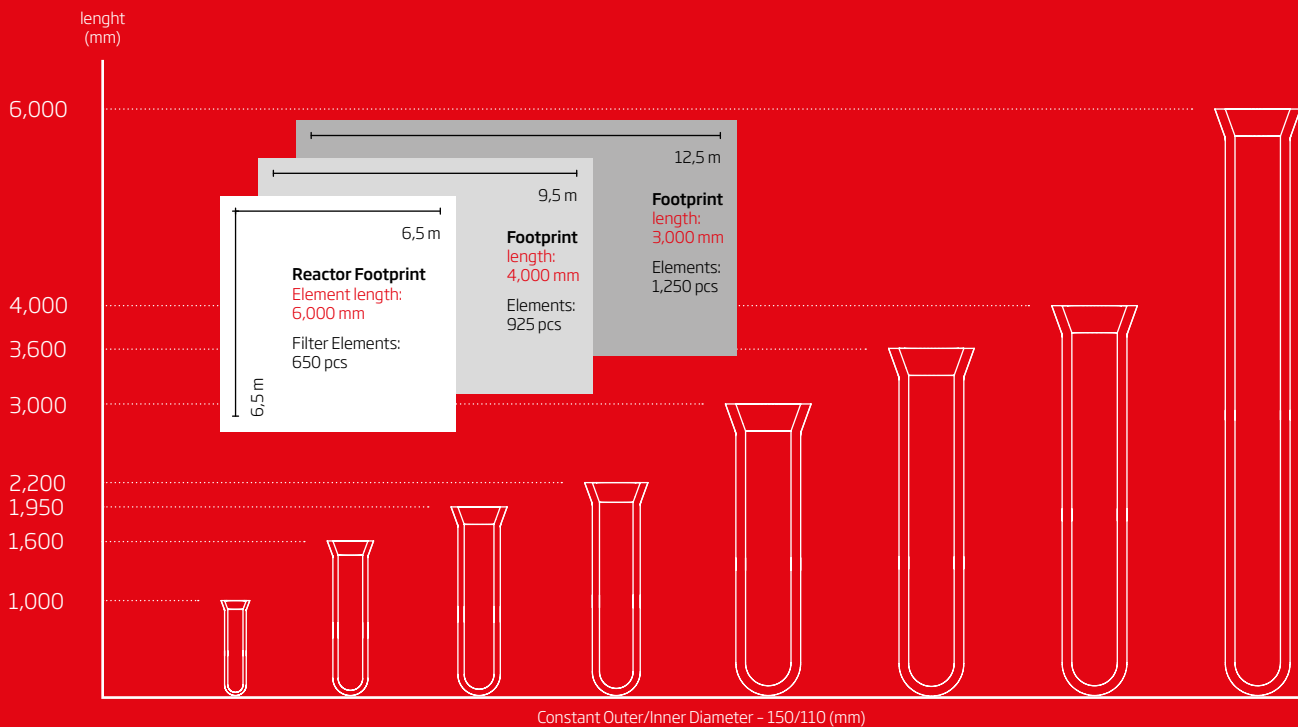
Dimensions / Flange Geometry		T 		T or V 					
Length (A)	[mm]	1,000	1,500	1,000	1,600	1,800	1,950	2,200	3,000
Sections (Delivered)	[#]	1		1					
Outer/Inner Diameter (B/C)	[mm]	60/40		150/110					
Flange Length (D)	[mm]	20		30 or 65					
Flange Outer Diameter (E)	[mm]	80		195 or 205					
Filtration Area	[m ²]	0.19	0.28	0.50	0.78	0.87	0.95	1.06	1.44
Weight-FILTRATH®	[kg]	0.4	0.6	2.0	3.8	4.6	5.2	5.6	6.5

Dimensions / Flange Geometry		T or V 			
Length (A)	[mm]	3,600	4,000	4,500	6,000
Sections (Delivered)	[#]	1 or 2		2	2 or 3
Outer/Inner Diameter (B/C)	[mm]	150/110			
Flange Length (D)	[mm]	30 or 65			
Flange Outer Diameter (E)	[mm]	195 or 205			
Filtration Area	[m ²]	1.72	1.91	2.12	2.83
Weight-FILTRATH®	[kg]	7.5	8.3	9.5	12.8



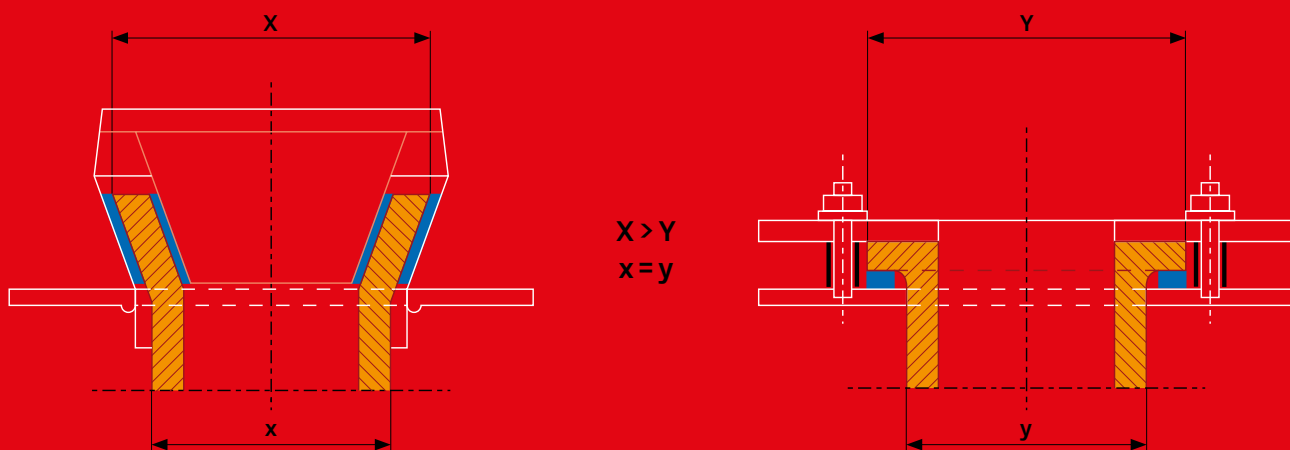
FILTRATH® Filter Element Length

Available as single elements up to lengths of 4,000 mm - and up to 6,000 mm as jointed parts connected via a novel, easy to assemble, ceramic-based screw and glue system. Extended lengths mean less overall system footprint - and hence less cost



Flange Design

FILTRATH® filter elements are designed with either T- or V-flanges. Details of associated gaskets and clamping systems are available upon request.



Mounting assemblies, gaskets, etc. are also available from Rath Filtration upon request

COMPETENCE IN HOT GAS FILTRATION

FILTRATH® - Scope of Supply & Service

- › Application consulting
- › Engineering and supply of complete filter systems
- › Supply of ceramic filter elements (initial assembly and retrofit)
- › Analytical services
- › Assembly and maintenance support at site

FILTRATH® - Filter Elements

- › Non-flammable and spark-resistant
- › Low and uniform differential pressure
- › High mechanical stability
- › Excellent durability
- › Extended lifespan
- › Bio-persistent material also available

FILTRATH® - Advantages & Benefits

- › Compliance with most stringent emission limits
- › Protection of downstream processes and equipment
- › Recovery of valuable scrap / waste materials
- › Usage of valuable waste heat energy
- › Dry dedusting without the use of water
- › Avoidance of waste water disposal costs
- › Compatible with upstream dry sorbent injection (DSI) process
- › Compact design owing to extended filter lengths
- › Lower CAPEX costs
- › Excellent reverse jet-pulse cleaning performance
- › High mechanical stability and corrosion resistance
- › Long service life
- › Best price / performance ratio
- › Also available in bio-soluble alkaline earth silicate wool form

FILTRATH® - Competence

- › Long experience with high temperature applications
- › Synergy from manufacture of high temperature wool and filter elements under one roof
- › Experienced product development team
- › Long-standing partnerships with research institutes and system suppliers

FILTRATH® - Industrial Applications

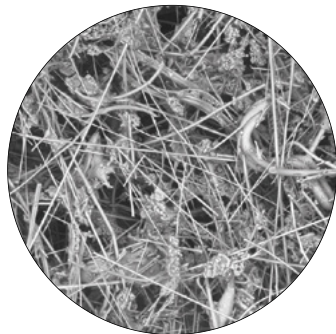
- › Glass manufacturing
- › Cement manufacturing
- › Metals' processing
- › Heat and power generation
- › Waste and biomass incineration
- › Pyrolysis, gasification and combustion processes
- › Chemical and petrochemical industry
- › Environmental protection

FILTRATH® Candle filter elements are available in two grades

Information «

Grade	Raw Material Base	Chemical Composition		Max. Application Temperature*
		weight %		
FILTRATH® ASW	Aluminum Silicate Wool (ASW)	Al ₂ O ₃	44	1,000 °C
		SiO ₂	56	
FILTRATH® AES	Alkali Earth (Calcium/Magnesium) Silicate (AES) Wool	CaO/MgO	25	950
		SiO ₂	75	

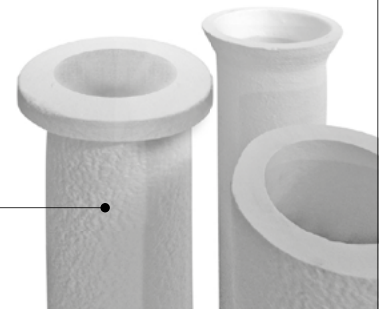
* the maximum temperature limit depends on the application conditions. For support/clarification please contact Rath.



SEM PICTURE

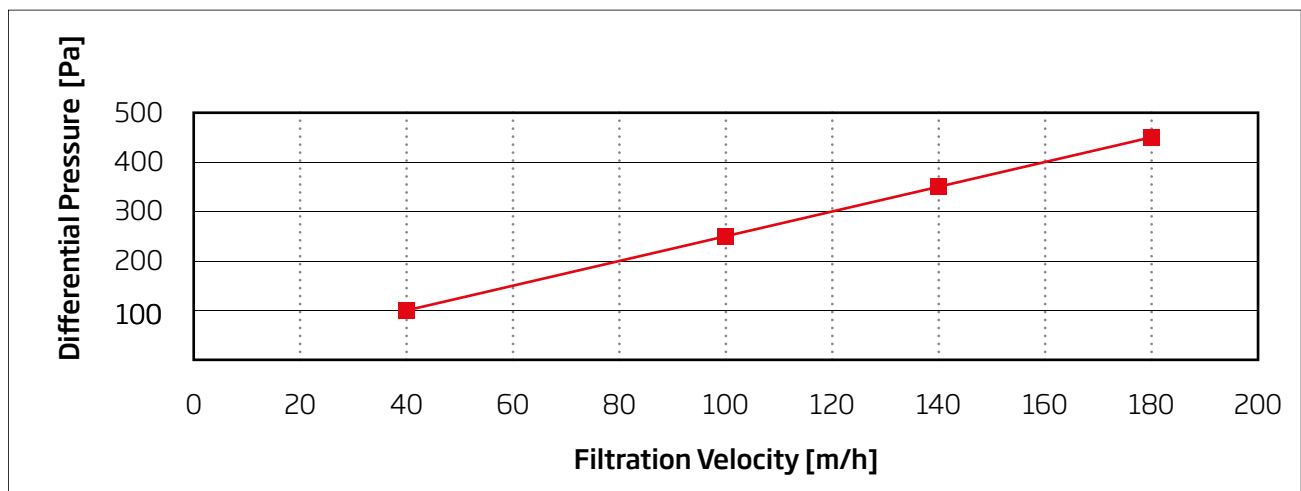
PHYSICAL PROPERTIES

Max. Application temperature*	1,000 °C
Bulk density	0.30-0.35 g/cm³
Porosity	<90 %
Velocity	until 3 m/min
Typical particulate emission	<1 mg/m³



* Max. operating temperature depends to a high degree on the application

FILTRATH®: DIFFERENTIAL PRESSURE



RATH GROUP

OUR SALES OFFICES

AUSTRIA

RATH BUSINESS SERVICES GMBH

Walfischgasse 14

A-1015 Vienna

T: +43 (1) 513 44 27-0

RATH AG

Walfischgasse 14

A-1015 Vienna

T: +43 (1) 513 44 27-0

F: +43 (1) 513 44 27-2187

AUG. RATH JUN. GMBH

Hafnerstrasse 3

A-3375 Krummnussbaum

T: +43 (2757) 2401-0

F: +43 (2757) 2401-2286

HUNGARY

RATH HUNGÁRIA KFT.

Porcelán utca 1

H-1106 Budapest

T: +36 (1) 433 00 40

F: +36 (1) 261 90 52

POLAND

RATH POLSKA SP. Z O.O.

ul. Budowlanych 11

PL-41 303 Dąbrowa Górnicza

T: +48 (32) 268 47 01

F: +48 (32) 268 47 02

GERMANY

RATH SALES GMBH & CO KG

Ossietzkystrasse 37/38

D-01662 Meissen

T: +49 (3521) 46 45 41-0

F: +49 (3521) 46 45 41-86

Krefelder Strasse 680-682

D-41066 Mönchengladbach

T: +49 (2161) 96 92 42-0

F: +49 (2161) 96 92 42-61

Leulitzer Strasse 6A

D-04828 Bennewitz

T: +49 (3425) 89 48 43-0

F: +49 (3425) 89 48-4313

CZECH REPUBLIC

RATH ŽÁROTECHNIKA SPOL. SR.O.

Vorlesská 290

CZ-544 01 Dvur Králové n. L.

T: +420 (499) 32 15 77

F: +420 (499) 32 10 03

UKRAINE

RATH UKRAINA GMBH

ul. Schevchenko 37

UA-49044 Dnepr

T: +380 (56) 785 30 35

F: +380 (50) 368 98 98

USA

RATH INC.

290 Industrial Park Drive

Milledgeville, GA 31061, USA

T: +1 (478) 452 00-15

F: +1 (478) 452 00-70

100 Commerce Drive, Suite 303,

Newark, DE 19713, USA

T: +1 (302) 294 44-46

F: +1 (302) 249 44-51

MEXICO

RATH GROUP S. DE R.L. DE C.V.

Poniente 1, 206

64103, Monterrey, Nuevo Leon, Mexico

T: +52 (1) 81 26 76 04 77

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