**GKN Sinter Metals Filters,** the leading manufacturer of porous sinter metal products, offers a variety of solutions to fulfil customer requirements. We are familiar with various applications in almost every industrial branch. Our products are applied in gas- and liquid filtration, dampening, sparging, sensor protection, bulk handling and many more. We offer solutions for high temperature and corrosive environments. Sintered filter elements made of stainless steels, bronze, nickel based alloys, titanium and several special alloys can be manu-



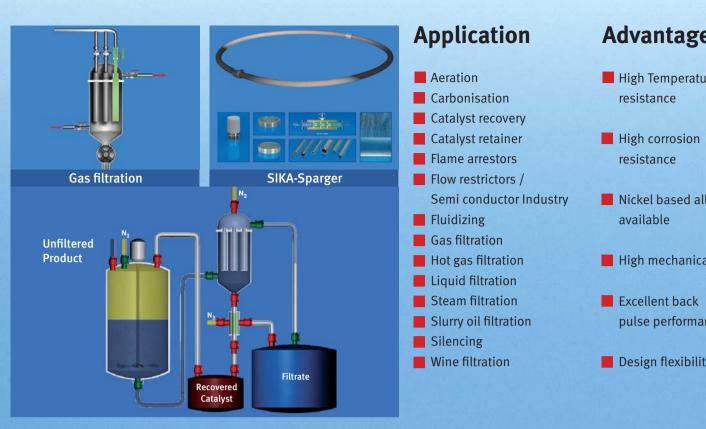
manufactured seamless up to 1,500 mm length and 320 mm OD. Larger elements will be assembled in our certified inhouse welding shop.

Our most innovative product for the chemical industry is the patented metallic membrane SIKA-R...AS.

The filter cartridges equipped with this state-of-the-art technology offer a flow rate up to 4 times higher compared to conventional sinter metal filter cartridges. Furthermore an excellent back flush performance is guaranteed. The filter active membrane layer with filter grades down to 0.1 µm absolute has a thickness of only 200 µm and is made of the same alloy as the coarse support material. The membrane is sinter bonded to the support and therefore cannot peel off.

Another innovation introduced by GKN is the sinter bonded joint of porous parts with solid fittings in order to avoid welding seams – the weak spot of all sintered cartridges of our competitors.

All sintered materials of GKN offer a self-supporting structure with high mechanical strength. We manufacture various filter grades with specified pore sizes and flow rates in order to have the appropriate solution for your requirements.





# Advantages

High Temperature

Nickel based alloys

High mechanical strength

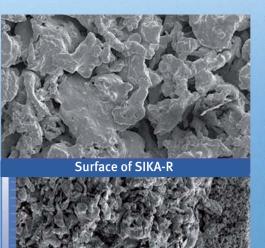
pulse performance

Design flexibility

Material	Name	Mat,-No,	SIKA-					Fe	Cr	Ni C Mo Miscellany		Miscellany	Max, Temperature °C		Keyword	
			IS	R <i>AX</i>		FIL	В		in Gewich	ts-% / in w	eight- %	1		Reducing	Oxidizing	
High alloyed material	AISI 304 L	1.4306	х	х	х			Bal.	18.0-20.0	8.0-12.0	<=0.03	0.5	N<=0.1	600	500	Standard for food application
	AISI 316 L	1.4404	х	х	х			Bal.	16.0-18.0	10.0-14.0	<=0.03	2.0-3.0	N<=0.1	540	400	
						х								380	320	
	AISI 904 L	1.4539	х	х	х			Bal.	19.0-21.0	24.0-26.0	<=0.02	4.0-5.0	N<=0.15 Cu 1.2-2.0	600	500	Resistant against sulphuric acid, phos- phoric and hydrochloric acid
	AISI 310	1.4841				х		Bal.	24.0-26.0	19.0-22.0	<=0.25	-	-	800	600	Heat resistant
	FeCrAl	1.4767 Mod.				х		Bal.	19.0-22.0	-	<0.10	-	Al 5.0-6.5 with rare earth elements	unfit	900	
	Hastelloy C 22	2.4602	х					2.0-6.0	20.0-22.5	Bal.	<0.02	12.0-14.5	W 2.0-3.5 Co 2.5	650	650	Corrosion resistant with various agressimedia. Duration application at > 400 °C
alloys <sup>4</sup>	Hastelloy C 276	2.4819	х	х				4.0-7.0	14.0-16.0	Bal.	<0.02	15.0-17.0	W 3.0-4.5	650	650	possible.
Nickel based alloys*	Hastelloy X	2.4665	х	х				17.0-20.0	20.5-23.0	Bal.	<0.15	8.0-10.0	Co 0.5-2.5 W 0.2-1.0	930	800	
	Inconel 600	2.4816	х	х	х			6.0-10.0	14.0-17.0	>=72.0	<0.15	-	-	700	600	
	Inconel 625	2.4856	х		х			<=5.00	20.0-23.0	>=58.0	<0.10	8.0-10.0	Nb 3.15-4.15	650	650	
	Monel 400	2.4360	х	х	х			<2.0	-	>=63.0	<0.30	-	Cu 28.0-34.0	500	500	Resistant against Cl-containing media
Bronze**	89/11 AK	-					x	-	-	-	-	-	Sn 9-11 < 2 % others Rest Cu	300	250	Typically used for hydraulic & pneumati
Titanium	Ti	-	х	х				-	-	-	-	-	Ti > 99 %	500	500	Medicine, acid, electrolysis

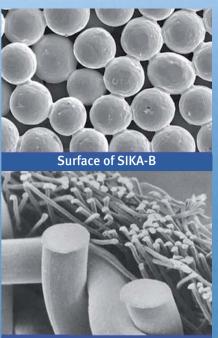
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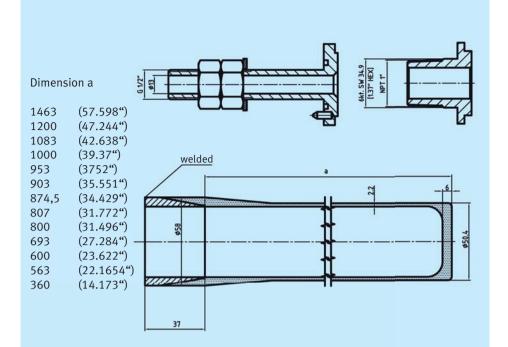
\* Nickel based AX-products only after consultation. Not all dimensions feasible. \*\* Nickel plating possible



#### Surface of SIKA-FIL

Surface of SIKA-R..AS

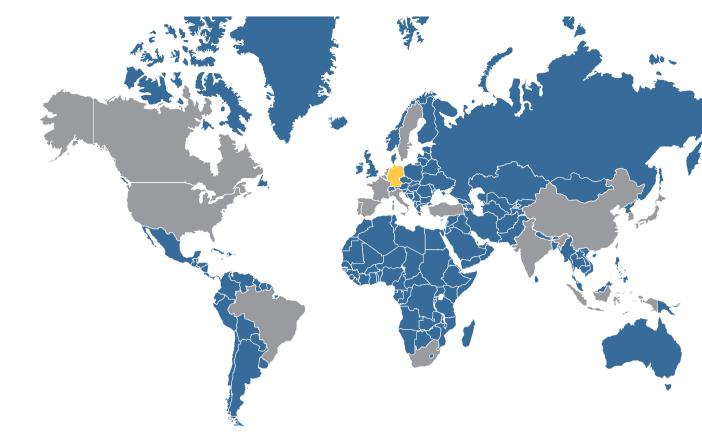




#### Questionnaire Liquid Filtration

Questionnaire Eigund Intracion									
Customer									
Address									
Contact person	Dept.								
Phone	Fax	E-mail							
1. Liquid									
Chem. Composition of Liquid									
Operating Temperature	min °C	min °F							

Operating temperature	max°C	max°F
Operating Pressure	bar (abs.)	psi
Flow Rate	m³/h	CFH
Liquid density (actual)	kg/m³	
Liquid viscosity (actual)	Pa s	
2. Solids in the fluid		
Chemical composition		
Particle concentration	g/m³N	lb/ft³
Particle size distribution	μm	
Solids Density	g/cm <sup>3</sup>	lb/ft³
3. Operating Parameter		
Mode of operation	continous	discontinous
Solids recovery	yes	no
Cleaning procedure	automatic	manual
Max. allowed Pressure Drop	mbar	psi
Particle size to be removed	μm	
Cycle of back washing		
Back washing media		
Back washing Pressure	bar (abs.)	psi
4. Filter Unit		
Material of Construction	o New Equipment	o Spare part
Connecting pipes	o Increase Capacity	o Pre/After filter
	o Resell	o Own requirements
5. Activities	o Offer	o Visit



### Unsere Standorte / Our Locations

Hauptsitz und Fertigung / Head Quarter and Manufacturing

Lokale Vertriebspartner / Local Sales Partners

#### **GKN Sinter Metals Filters GmbH**

Dahlienstraße 43 · D-42477 Radevormwald P.O. Box 1520 · D-42464 Radevormwald Phone: +49 (0) 2195-609-0 Fax: +49 (0) 2195-609-348 E-Mail: info@gkn-filters.com www.gkn.com/filters





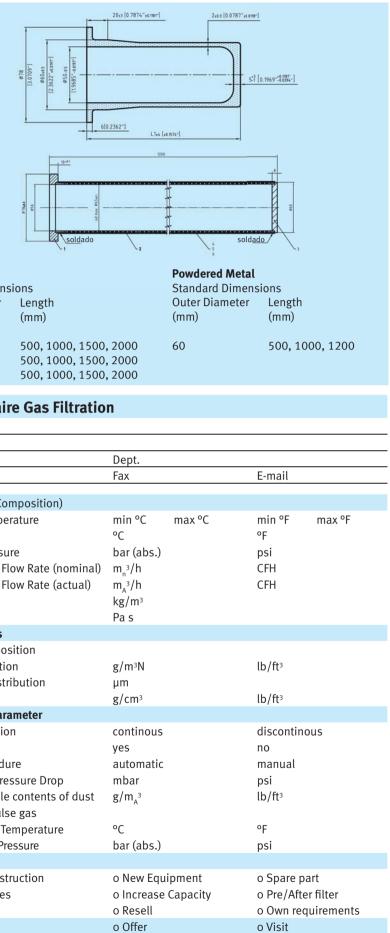
www.gkn.com/filters



# **THINK >** Filter Technology



## **Porous Metal Products**



Fibre felt		Po			
Standard Dimensions					
Outer Diameter	Length	Οι			
(mm)	(mm)	(m			
50	500, 1000, 1500, 2000	60			
90	500, 1000, 1500, 2000				
150	500, 1000, 1500, 2000				

#### **Questionnaire Gas Filtration**

Luestionnane Gas mitiatio	
Customer	
ddress	
Contact person	Dept.
hone	Fax
. Gas (Chem. Composition)	
Operating Temperature	min °C m
)ew point	°C
Operating Pressure	bar (abs.)
as Volumetric Flow Rate (nominal)	m <sub>n</sub> ³/h
as Volumetric Flow Rate (actual)	m <sub>A</sub> <sup>3</sup> /h
as density	kg/m³
as viscosity	Pa s
. Solids in Gas	
hemical composition	
oust concentration	g/m³N
Particle size distribution	μm
olids Density	g/cm <sup>3</sup>
. Operating Parameter	
Node of operation	continous
olids recovery	yes
leaning procedure	automatic
Nax. allowed Pressure Drop	mbar
Nax. permissible contents of dust	g/m <sup>3</sup>
ype of back pulse gas	
Back Pulse gas Temperature	°C
Back Pulse gas Pressure	bar (abs.)
. Filter Unit	
Naterial of Construction	o New Equipr
Connecting pipes	o Increase Ca
	o Resell
. Activities	o Offer