THINK Filter Technology

Seamless Standard Filter

ENGINEERING THAT MOVES THE WORLD
GKN Sinter Metals Filters, the leading manufacturer of porous sinter metal products, offers a variety of solutions to fulfill customer requirements.

We are familiar with various applications in almost every industrial branch.

GKN’s filter cartridges are manufactured by an isostatic compaction process, which results in outstanding homogenous pore size distribution with excellent mechanical properties.

Seamless designs can be produced up to 1,850 mm (72.8”) length and 320 mm (12.6”) OD. Larger elements (like for cross flow or triad design application) will be assembled in our certified in-house welding shop.

We offer custom made solutions that may be fitted into your existing plant without any modifications.

Further information – including 3D laser sintering – are available on GKN’s homepage www.gknpm.com/filters.
GKN Double Open End (DOE) and Hex-Nippel (HN) filters are 1:1 interchangeable with most other suppliers’ media.

### Applications
- Sparging
- Carbonisation
- Catalyst recovery
- Catalyst retainer
- Flame arrestors
- Flow restrictors /
- Semiconductor industry
- Fluidizing / bulk handling
- Gas filtration
- (Hot) gas filtration
- Liquid filtration
- Steam filtration
- Slurry oil filtration
- Silencing
- Wine filtration
- Gas stripping
- Oxygen filtration
- ...

### Advantages
- High temperature resistance
- High corrosion resistance
- Nickel based alloys available
- High mechanical strength
- Excellent back pulse performance
- Design freedom
- Seamless filter body
- Cryogen application possible

### GKN Standard HN-Filter

Further to our fully customized solutions with diameters available from 4 - 320 mm (0.15”-12”), we can now offer shorter delivery times for the most common standard dimensions (acc. to above sketch) made of AISI 316L.

### Fitting Matrix

- **1 1/2”**
  - Ø 76 mm
  - Ø 3"

- **1”**
  - Ø 64 mm
  - Ø 2.5"

- **1/2”**
  - Ø 50 mm
  - Ø 2.25"

- **Max. 1,000 mm**
  - Ø 38 mm
  - Ø 1.5"
Filter grades available are in a range from 0.1 μm to 200 μm.
ASymmetric membrane SIKA R...AS out-in-filter

SIKA-R AS membranes show up a double-layer construction with a thin filter-active membrane applied on top of a coarse carrier material. Filter grades available are in a range from 0.1 \( \mu \)m to 3 \( \mu \)m. SIKA-R AS can be manufactured of all standard alloys available, membrane and carrier are always made of the same alloy.

Main field of application for metallic membranes are catalyst recovery (Raney Nickel, Pd-, Pt-catalysts) and gas filtration finer than 5 \( \mu \)m.
# Basic information for designing a filter

## 1. Customer’s information

<table>
<thead>
<tr>
<th>Enquiry date:</th>
<th>Company name:</th>
<th>Contact name:</th>
<th>Street address:</th>
<th>ZIP:</th>
<th>Town, US State:</th>
<th>Country:</th>
<th>Email:</th>
<th>Phone:</th>
<th>Mobile:</th>
</tr>
</thead>
</table>

## 2. The planned application of the SIKA element?

<table>
<thead>
<tr>
<th>Filtration</th>
<th>Equalizing</th>
<th>Fluidising</th>
<th>Others</th>
<th>Separation</th>
<th>Silencing</th>
<th>Sparging</th>
<th>Others</th>
<th>Throttling</th>
<th>Protecting</th>
<th>Degassing</th>
</tr>
</thead>
</table>

## 3. What kind of gas or liquid will flow through the SIKA element?

<table>
<thead>
<tr>
<th>Medium specification</th>
<th>Operation density</th>
<th>Dynamic viscosity</th>
<th>Operation temperature</th>
<th>Operation flow rate</th>
<th>Absolute pressure before the SIKA element</th>
<th>Wanted or permissible pressure drop of clean filter</th>
<th>Max permissible pressure drop of used filter</th>
</tr>
</thead>
</table>

## 4. Which particles must be retained by a SIKA element?

<table>
<thead>
<tr>
<th>Kind</th>
<th>Size of the particle</th>
<th>Shape of the particle</th>
<th>Filter grade</th>
</tr>
</thead>
</table>

## 5. How will the SIKA element be applied?

<table>
<thead>
<tr>
<th>Shape of the element</th>
<th>Tube</th>
<th>Cartridge</th>
<th>Sheet</th>
<th>Disc</th>
<th>Other</th>
<th>Sheet</th>
<th>Flange</th>
<th>Other</th>
<th>Thread</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecting element</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing diameter</th>
<th>Quantity</th>
</tr>
</thead>
</table>

## 6. Short description of the process:

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