



High Precision Filter Tubes.

**Spirally Wound Welded
Wedge Wire Screens**

 **STEINHAUS**

Design



Radial slot execution

Picture 1

Design: FOTI
(=Filtration from outside to inside)
External working surface

The wound slot performing triangular profiles are welded to the internal support bars with the V-shaped side. The external working surface is smooth.



Picture 2

Design: FITO
(=Filtration from inside to outside)
Internal working surface

The wound slot performing triangular profiles are welded to the internal support bars with the flat side. The smooth internal working surface is interrupted by the support bars.



Axial slot execution

Picture 3

For filtration from the inside to the outside

In this axial execution the slot performing profiles are parallel to the length of the slotted screen cylinder.

The support bars are wound around the profiles from the outside and - as in the radial slot execution - are heat resistance welded. The internal working surface is smooth.

The information and illustrations in this product information are non-binding and only represent an approximate description. The properties are not guaranteed. Designs other than those shown here are available on request. Subject to change serving technical progress without notice.

The Slotted Filter Tube

Reinforced execution

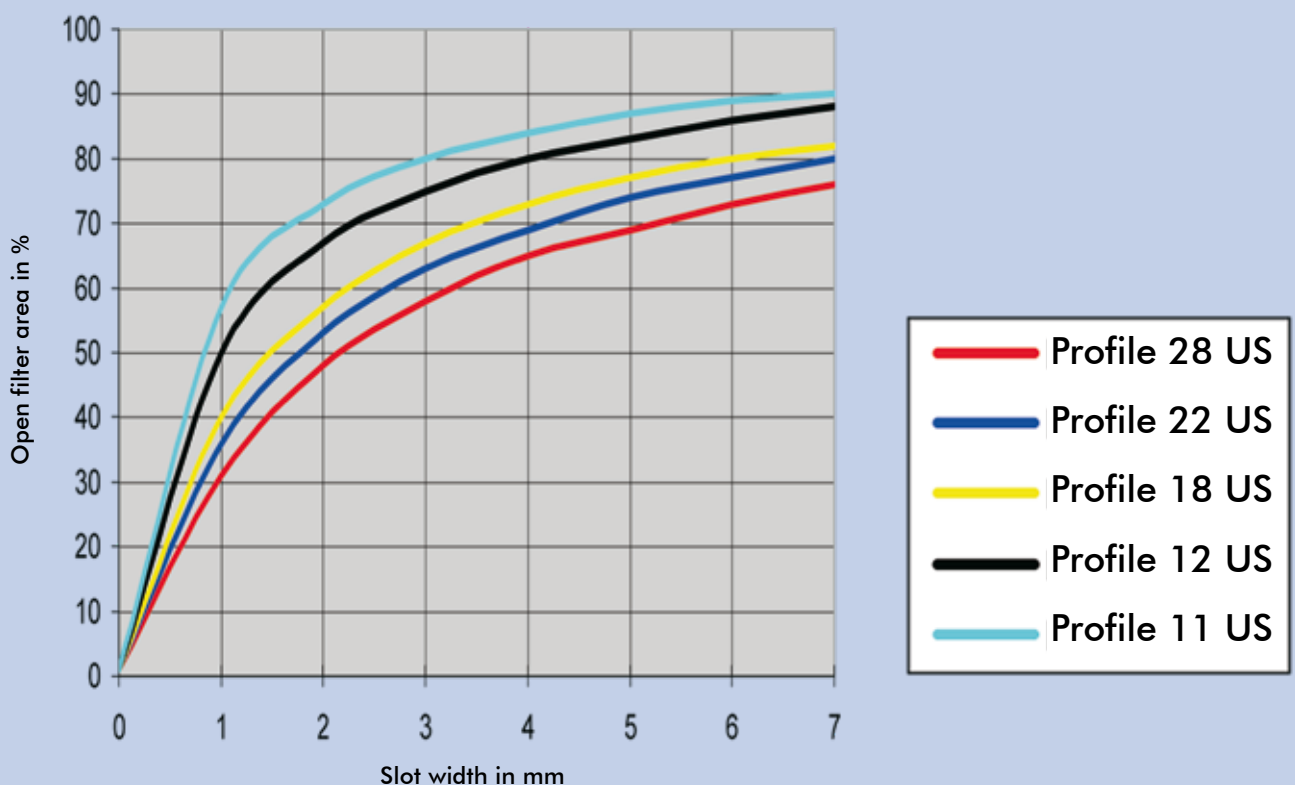
Slotted filter tubes with internal spiral support made of rectangular wires for high differential pressure. With this "heavy" design operational performance of the slotted filter tube can be further improved.

Special remark

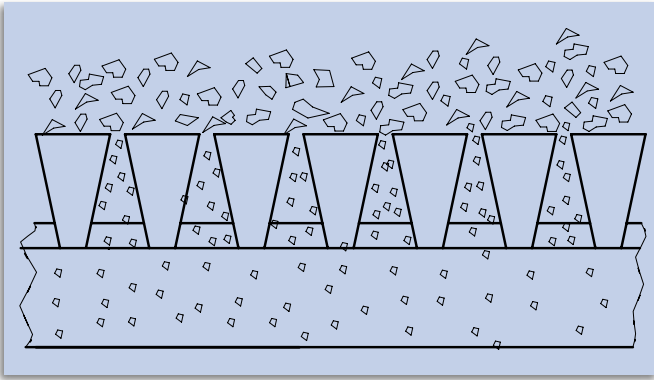
Varying slot widths can also be combined, if required, within one filter tube. In these cases, the lengths of each zone and the specific slot widths must be stated with the dimensions concerned.

Slot widths and open area

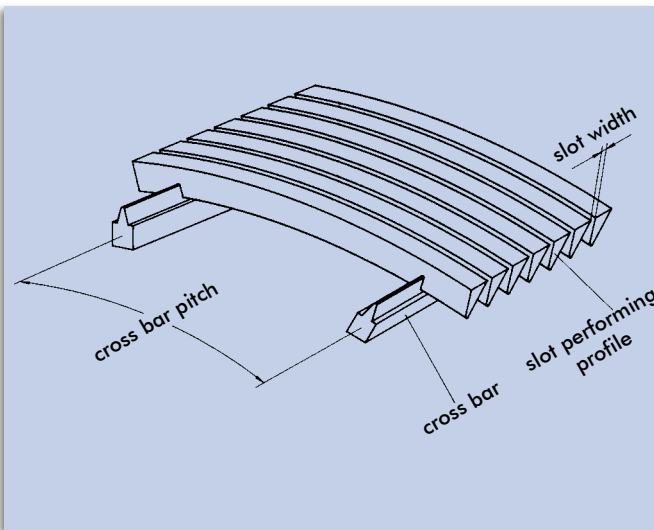
The smallest slot width is 0.01 mm, gradually increasing. The open screen areas depend on the profile and slot width selected, as illustrated in the following table.



Principal Functioning



The triangular shape of the slot performing profiles used means blockage of the individual slots is practically avoided. Slot enlargement in the direction of flow largely precludes jamming of critical size particles.



Construction type example

11 US / Q 25 x 8

11 US = profile with 0.75 mm head width and 1.8 mm height

Q 25 = support cross bar with 2 mm width and 3 mm height

8 = number of cross bars equally spread around the circumference.

Profiles

| | Type | 10 US | 11 US | 12 US | 18 US | 22 US | 28 US | | 18 USC |
|--|--------|-------|-------|-------|-------|-------|-------|--|--------|
| | W (mm) | 0.75 | 0.75 | 1.0 | 1.5 | 1.8 | 2.2 | | 1.5 |
| | H (mm) | 1.4 | 1.8 | 2.0 | 2.5 | 3.7 | 4.5 | | 2.5 |

Cross bars

| | Type | Q 25 | Q 35 |
|--|--------|------|------|
| | W (mm) | 2.0 | 3.0 |
| | H (mm) | 3.0 | 5.0 |

Standard quality

DIN 1.4435 - AISI 316 L

Other qualities and / or surface treatments are available on request.

Our high precision filter tubes consist of triangular wound profiles connected to the cross bars by heat resistance welding to form a rigid and stable construction element with very precise slots being maintained at the same time.

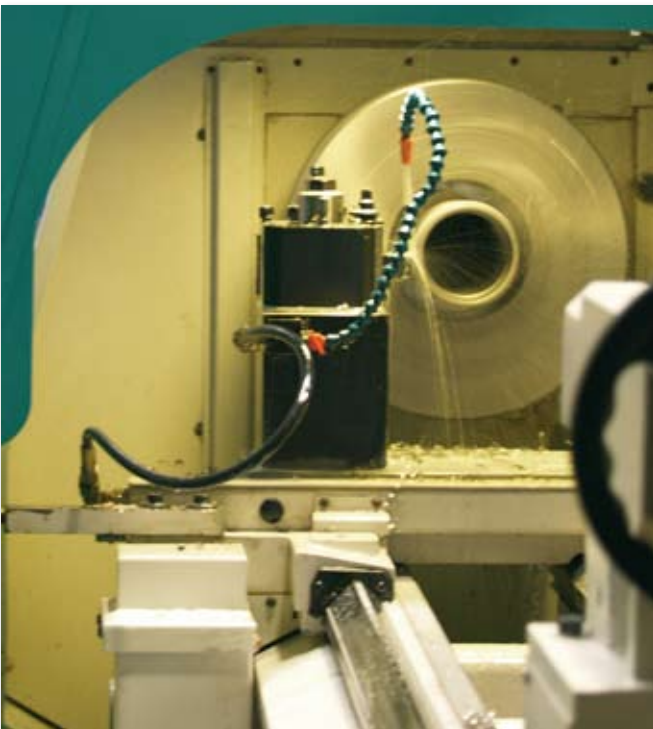
Production



The profile wires are welded on computer-controlled spiral welding machines, designed for this specific purpose, to form a solid filter unit.



High precision filter tubes with diameters up to 305 mm can be produced. For larger diameters our welded wedge wire cylinders type OPTIMA-SPIRAL are used.



End pieces for small and medium series are produced on our own modern CNC equipment.



The high precision filter tubes can also be manufactured with necessary reinforcements like end pieces, rings or flanges etc., in cases provided by the clients themselves.

Filtering With Maximum Precision

Our high precision filter tubes comply with outstandingly high quality standards. We thus meet requirements optimally adapted to applications in filtration technology.

In most cases it is used as a direct filter element, but can also work as a support structure for fine filter materials such as filter cloth (metal or plastic) and fleece.

Main sectors of industries

Chemical industry, cement industry, power stations, hydraulic industry, mechanical engineering, crude oil production, recycling plants, paint industry, food processing, water treatment/management, marine industry, beverage industry, etc.

Possible applications

Dewatering pipes, well filters, filter candles, feed and discharge filters, support screens, drainage elements and a great deal more.

Specifications

With your inquiries and orders we need the following information:

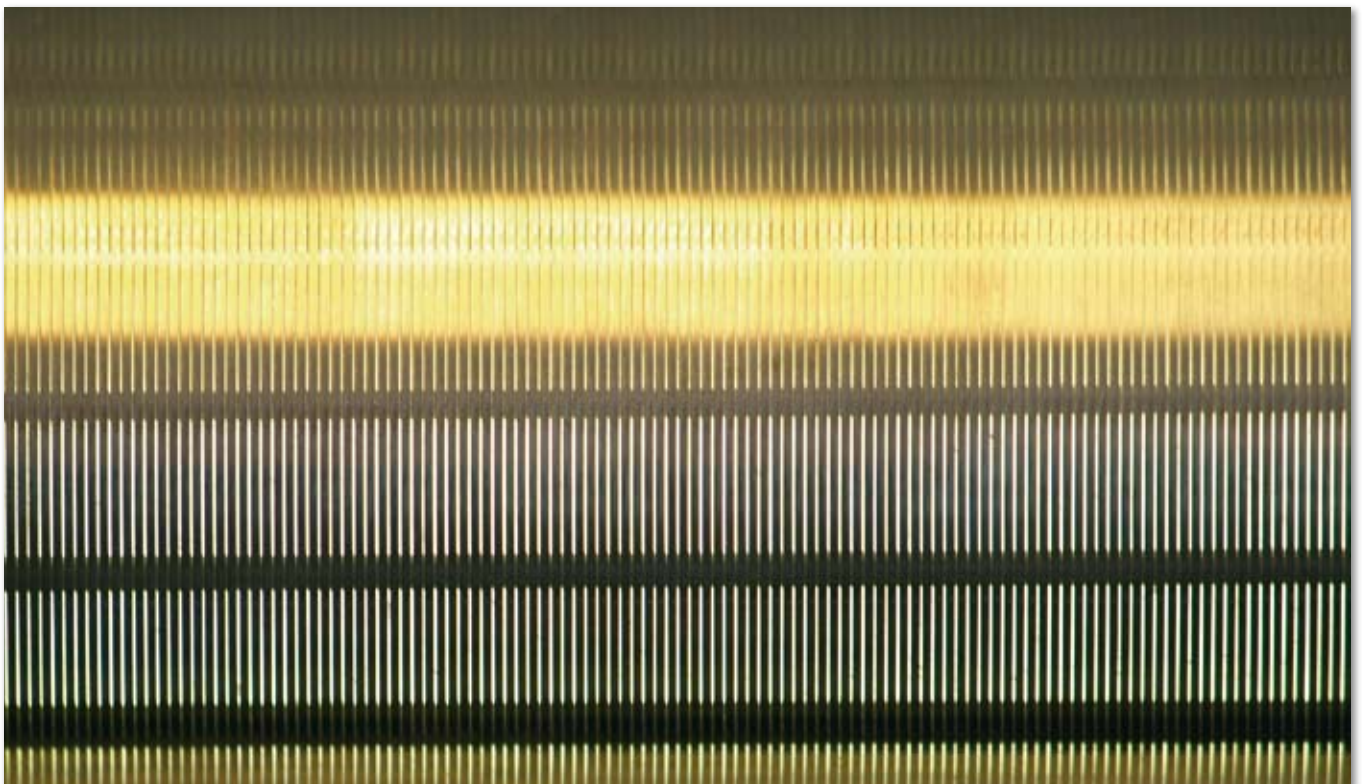
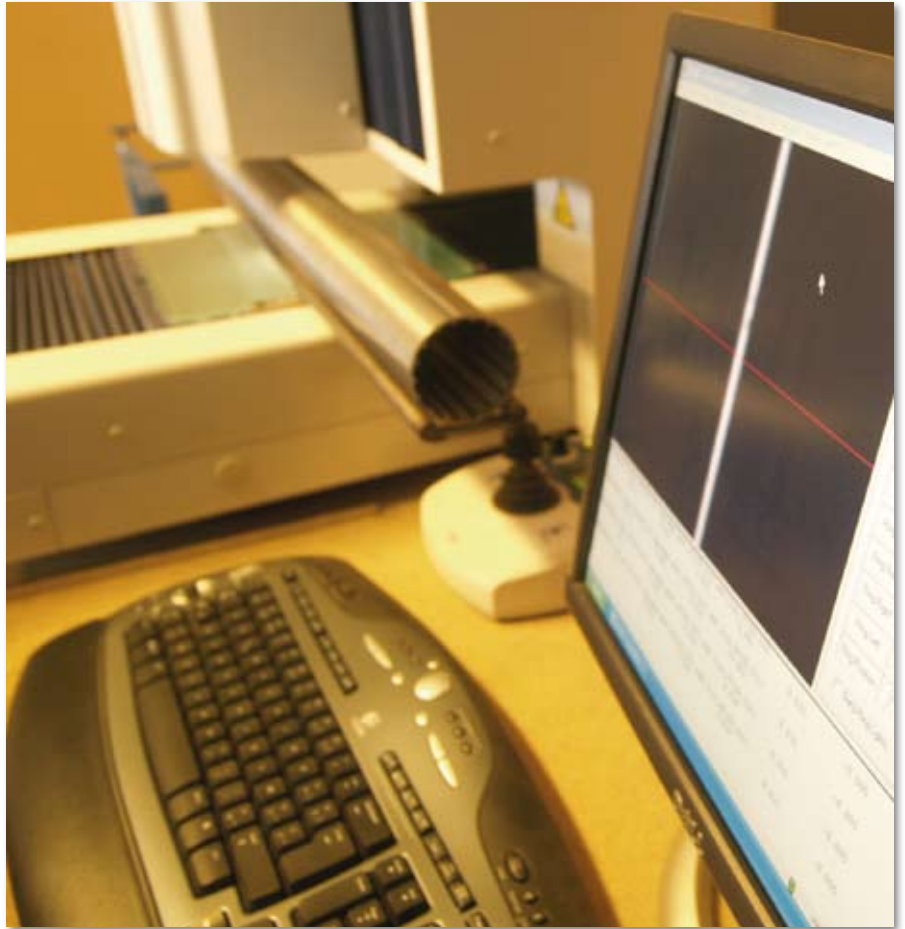
- diameter
- slot performing profile
- cross bar type
- slot width (or in special executions several slot width sections within one filter tube)
- qualities for profiles and cross bars
- length of the slotted filter tube
- working surface outside with radial slot
working surface inside with radial slot
working surface inside with axial slot
- reinforcements such as flanges, supports, etc., if necessary by including drawings with the proper dimensions.



Quality assurance

An absolute must for maintaining optimum and constant quality on a high level is testing the surface quality of the profiles and their dimensions as well as the particular steel grades involved. In addition to our permanent inspections, we also issue test reports for our customers, if requested, in accordance with EN 10204.

On state-of-the-art measuring instruments random-sampling of slot deviations is done and recorded.



High precision filter tube with 10 µm slot width



Screen Panels

Screen panels made of steel and polyurethane, system screen segments, wire cloth, perforated plates



Slotted Screen Panels

Slotted screen panels made of wear resistant, alloyed, corrosion resistant steel grades, with and without reinforcement, in welded and looped execution.



Wire Conveyor Belts

Wire conveyor belts, woven and braided, belt tracking device



Filter Media

Filter cloth, hoses, bags made of textile fibres, form filters and filter fabrics made of metals and synthetics, high precision filter tubes

