



Screens for the third millennium

TABLE OF CONTENTS

Industrial screens

Basic technical terminology	3
Fixing the screens in th screening machine	4
The types of hooks.....	5
Accessories.....	6
Wire screens.....	7
Finger screens	9
Harp screens	10
Polyurethane screens	12
Membrane screens	13
Elastic cable screen.....	14
Air springs.....	14
Liwell® sorting machines	15
Rubber screens	15
Conveyor rollers	15
Cyclones.....	16
Spiral concentrators	16

Technical cloths

Definition.....	17
Types of cloth	18
Technical cloths.....	19
Fastening of screens into the frame	22
Laboratory sieves and devices	23
Technical cloths – application	25

Perforated sheets

Perforated sheets.....	26
Expanded metals.....	29
Expanded metals for architecture	32
Conidur®	36
Floor grids.....	38
Strair treads	39

Conveyor belts

Materials used for conveyor belts production	40
Conveyor belts.....	41

Filters

Filters made of technical cloths and perforated sheets.....	47
Pleated filters, Dust and air filters.....	48
Wire baskets and inserts.....	48
Wedge wire screens.....	49
Curved wedge wire screens	50
Cylindrical wedge wire screens	50
Screens for separators.....	51
Epoxy coated technical cloth.....	51

Farm animal screens

Hexagonal screens.....	52
Welded screens	52
Insect screens	53
Pet screen	54
Aluminium screens	54
Varnished steel mesh	55

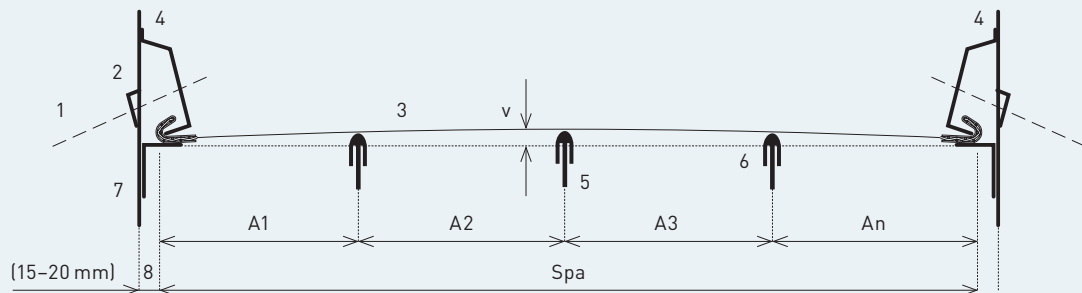
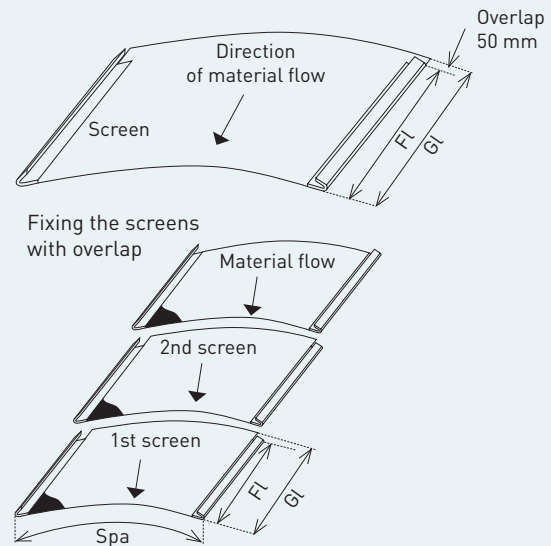
BASIC TECHNICAL TERMINOLOGY

Mesh size	the main determining feature of the screen - indicates the internal dimension of the screen opening (mm)
Mesh shape	square, rectangular or slotted
Wire diameter	wire thickness in mm
Screen dimension	width and length - given in mm
Fixing of the screens	the screens are clamped or tensioned in the sorting machine
Open area	percentage of all apertures in the total area of the screen: $Fo = w^2 / (w + d)^2 \times 100 (\%)$ where w is the mesh size (mm) and d is the wire diameter (mm)
Screening deck	screening area, (sieve) along which the sorted material moves
Wet sorting	sorting in which the screen surface with the sorted material is intensively showered with water
Overflow edge	the end of the screening deck where the sorted material leaves it.
Cut point	the size in mm, according to which the material is divided into overflow and underflow material
Overflow material	the proportion of grains larger than the sorting limit
Underflow material	the proportion of grains smaller than the sorting limit
Accuracy of screening	the accuracy with which grains of different sizes are separated from each other
Excitation mechanism	sets the screen housing in an oscillating motion
Shapes of oscillating motion	rectilinear, circular, elliptical and combined motion
Total amplitude	the distance of the extreme positions of the screening deck measured in the direction of oscillation
Amplitude	a half of the total amplitude
Angle of inclination	the angle that the screening deck makes with the horizontal plane

FIXING THE SCREENS IN THE SCREENING MACHINE

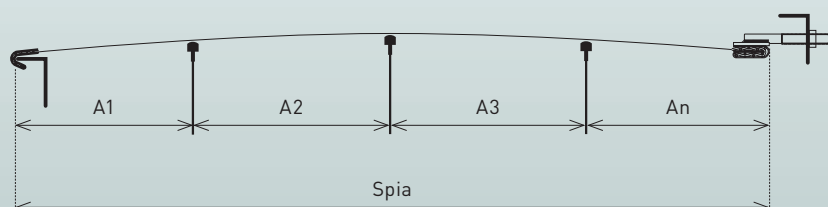
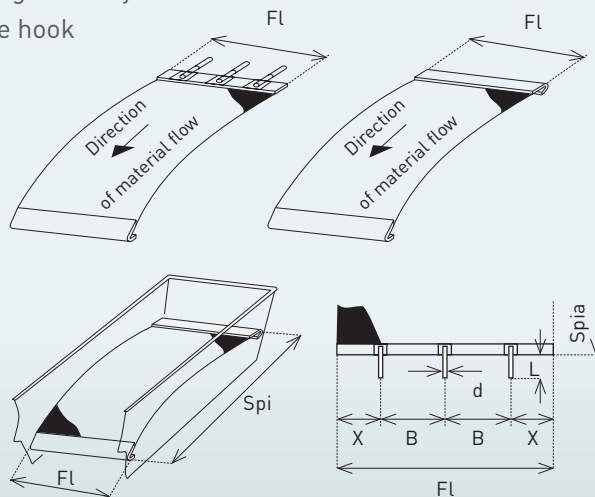
CROSS TENSIONED SCREENS

- 1: fixing screws
- 2: bevelled washer
- 3: screen with the hook
- 4: metal tensioning bar
- 5: screen supports (supporting beams in the screening machine)
- 6: protective rubber profile
- 7: sidewall of the screening machine
- 8: clearance required to tension the screen
- Spa (mm): width of the tensioned screen measured outside the hook
- Fl (mm): length of the hook
- Gl (mm): overall length of the screen incl. overlap
- A1, A2... (mm): spacing of the screen supports
- v: vertical interval



LONGITUDINALLY TENSIONED SCREEN

- Spi (mm): length of the screen measured longitudinally from the inside to the inside of the hook
- Spia (mm): length of the screen measured longitudinally from the inside to the outside of the hook
- Fl (mm): length of the hook
- X (mm): distance of the screw axis from the edge of the screen
- B (mm): screw spacing
- L (mm): screw length
- d (mm): screw diameter (M12-M20)
- A1, An... (mm): the spacing of the screen supports

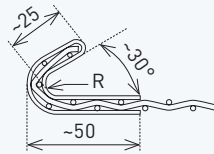


THE TYPES OF HOOKS

THE TYPES OF HOOKS

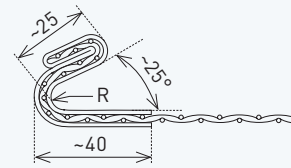
A-hooks

R: hooks radius
(standard R-6 mm)



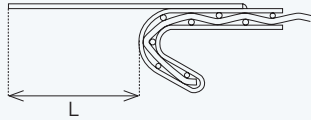
Double A-hooks

R: hooks radius
(standard R-6 mm)



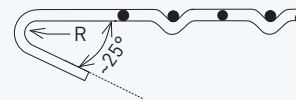
A-hooks with the overlapping sheet

L: length of the
overlapping
sheet metal



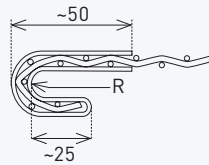
A-hooks – bent wires

R: hooks radius



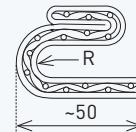
B-hooks

R: hooks radius
(standard R-6 mm)



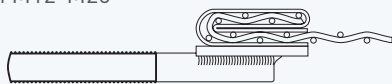
Double B-hooks

R: hooks radius



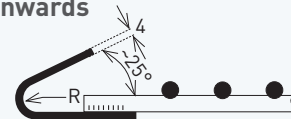
C-hooks

Thread from M12-M20



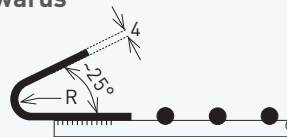
A-hooks welded downwards

R: hooks radius



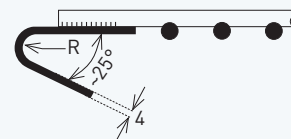
A-hooks welded upwards

R: hooks radius

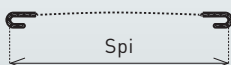


A-hooks for longitudinal tensioning

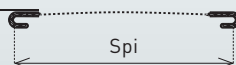
R: hooks radius



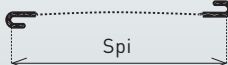
Longitudinally tensioned
screen with the B-hooks



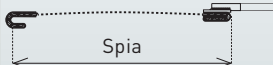
Longitudinally tensioned
screen with the
transition sheet metal
on the B-hooks



Longitudinally tensioned
screens with the -
B hooks in „s“ position



Longitudinally tensioned
screen with the B+C-
hooks and tensioning
screws



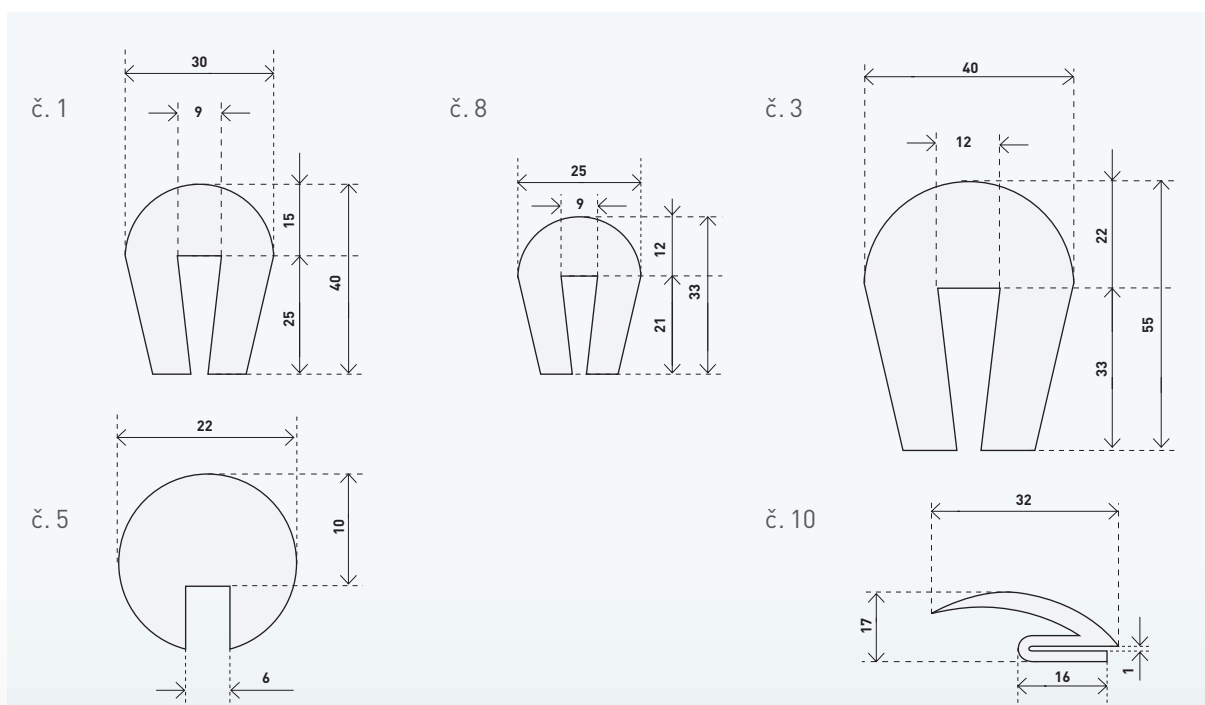
ACCESSORIES

PROTECTIVE RUBBER PROFILES

to support and protect the screens at the point of contact with the support beams

Material

black rubber (profile number 10 also in silicone design)



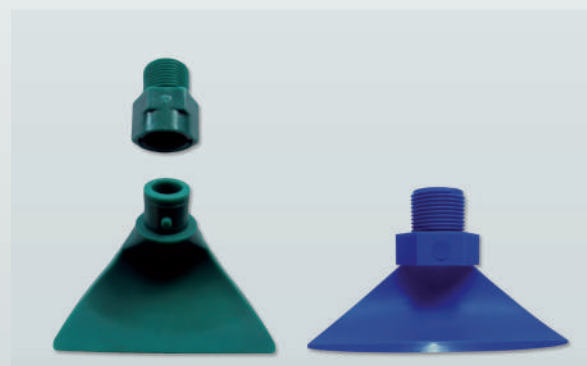
TENSIONING LINERS

- for mounting of the cross tensioned screens into the screening machine
- they are supplied in various lengths and designs with or without openings for tensioning screws



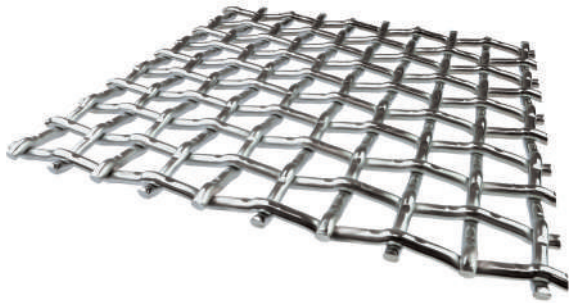
SPRAY NOZZLES

- for wet sorting
- material: polyurethane
- with 6 sizes of openings: diameter 4, 5, 7, 9, 11 and 25 mm
- mounting screwed fitting has an external thread 3/4"
- can be supplied with bayonet and quick coupling with internal or external thread 3/4"



WIRE SCREENS

WIRE SCREEN DOUBLE CREPE WITH SQUARE MESH (RECTANGULAR)



Characteristics

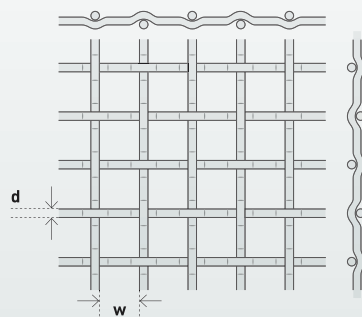
- more precise mesh shape
- more accurate sorting
- stronger screen structure
- suitable for sorting of larger cut fractions
- in heavier designs, the welt can be welded
- folded for lengthwise and transverse tensioning

Material and format

- spring steel
- constructional steel
- spring stainless steel
- stainless steels of other grades
- rolls or formats, width up to 2000 mm
- folding up to the welt length of 3000 mm

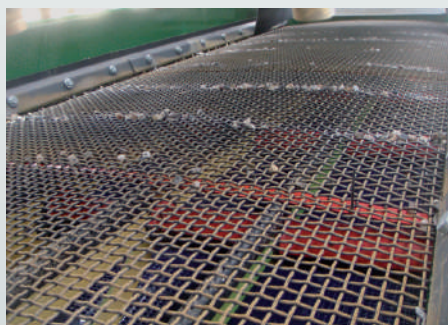
Mesh size

- 9–100 mm depending on the wire thickness
- square mesh
- rectangular mesh

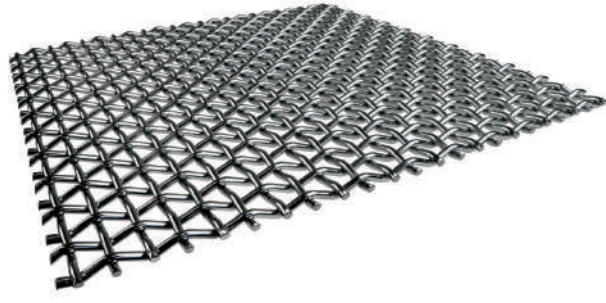


Wire diameter
2.5–12.5 mm

Legend
w: mesh size
d: wire diameter



WIRE SCREEN SINGLE CREPE WITH SQUARE MESH (RECTANGULAR)



Characteristics

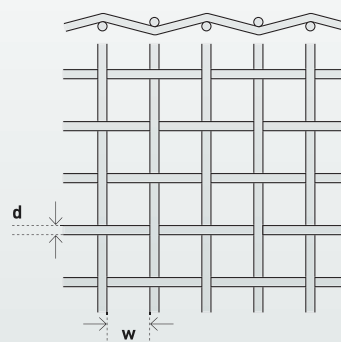
- single crepe
- especially for sorting smaller grain fractions in drier materials
- folded for lengthwise and transverse tensioning

Material and format

- spring steel
- constructional steel
- spring stainless steel
- stainless steels of other grades
- rolls or formats, width up to 2000 mm
- folding up to the welt length of 3000 mm

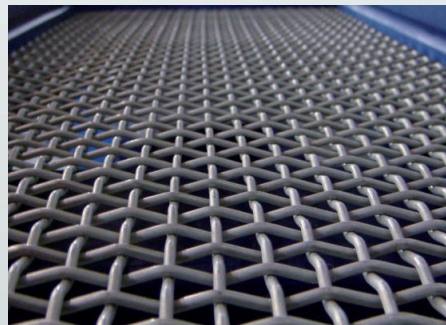
Mesh size

- 1.25–26 mm depending on the wire thickness
- square mesh
- rectangular mesh



Wire diameter
· 0.8–6 mm

Legend
· w: mesh size
· d: wire diameter



WIRE SCREENS

WIRE SCREEN ONE-SIDEDLY SMOOTH WITH SQUARE (RECTANGULAR) MESH



Characteristics

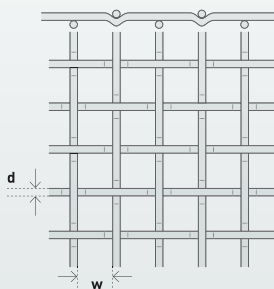
- stronger screen structure
- suitable for screening both on the smooth and coarse side of the screen
- can be used as the underlying screen for technical fabrics

Material and format

- spring steel
- constructional steel
- spring stainless steel
- stainless steels of other grades
- rolls or formats, width up to 2000 mm
- folding up to the welt length of 3000 mm

Mesh size

- 5–150 mm
- square mesh
- rectangular mesh



Wire diameter

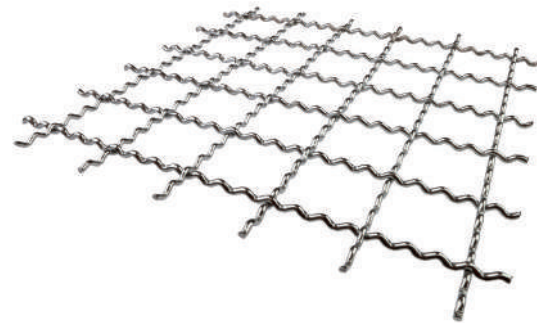
- 1.5–12.5 mm

Legend

- w: mesh size
- d: wire diameter



WIRE SCREEN WITH INTERMEDIATE CRIMP WITH SQUARE (RECTANGULAR) MESH



Characteristics

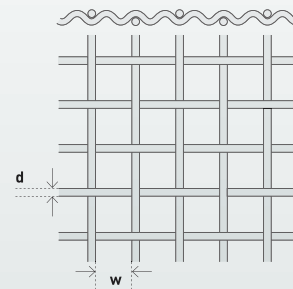
- looser screen structure
- large proportion between mesh size and wire diameter
- usually used in frames (grids, fences, casings, barriers)

Material and format

- spring steel
- constructional steel
- spring stainless steel
- stainless steels of other grades
- rolls or formats, width up to 2000 mm

Mesh size

- 8–150 mm
- square mesh
- rectangular mesh



Wire diameter

- 1.25–10 mm

Legend

- w: mesh size
- d: wire diameter



WIRE SCREEN PRESSURE WELDED WITH SQUARE (RECTANGULAR) MESH



Characteristics

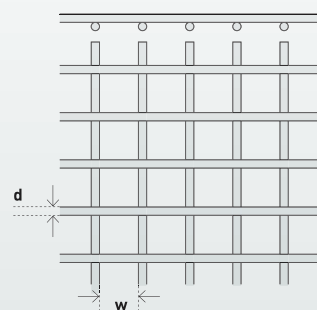
- precise mesh size
- firm screens structure
- orientation of wires along or across the material flow, according to the customer's requirements
- in heavier designs, the welt can be welded

Material and format

- abrasion-resistant manganese steel
- formats are folded for lengthwise or cross tensioning up to the welt length 3 000 mm
- dimensions according to the customer's requirement

Mesh size

- 15–135 mm
- square mesh
- rectangular mesh



Wire
diameter
5–20 mm

Legend
w: mesh size
d: wire diameter



FINGER SCREENS



Characteristics

- the screen module consists of separately placed wires (fingers) in the polyurethane bed, which allows them to oscillate and thus to have self-cleaning effect
- the screens are mounted in beams which are installed between the sides of the screening machine

Material and format

- spring steel
- in the case that the longer service life is required, the fingers can be coated with a layer of polyurethane
- screen modules can be supplied separately or including a supporting beam

Slot size

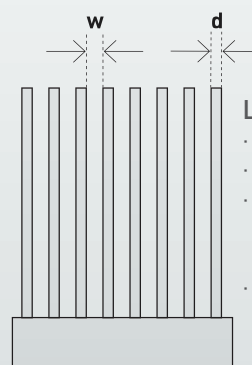
- 5–76 mm

Wire diameter

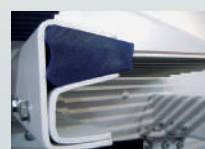
- 10–16 mm

Dimensions

- the maximum width of the supporting beam can be 1600 mm (in wider designs structural modification is necessary)
- the maximum length of free wires 450 mm

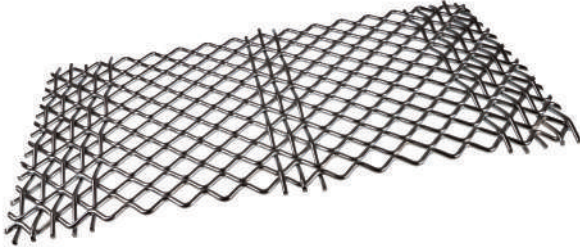


Legend
· w: slot size
· d: wire diameter
· L: wire length including bedding
· P: free length of the wire



WIRE SCREENS

HARP SCREEN WITH HORIZONTALLY CRIMPED WIRES



Characteristics

- due to the possibility of oscillation of horizontally crimped wires self-cleaning effect is created
- for greater stability and longer service life, the interlacings can be casted with polyurethane reinforcement

Material and format

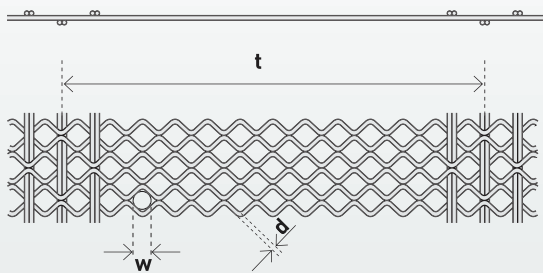
- spring steel
- spring stainless steel
- stainless steels of other grades
- folding up to the welt length of 2000 mm

Mesh size

- 1.25–38 mm
- longitudinal horizontally crimped wires create square mesh

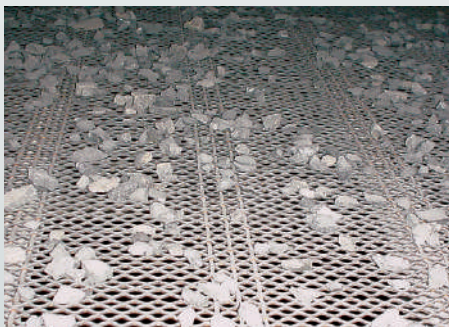
Wire diameter

- 1–5 mm



Legend

- w: mesh size
- d: wire diameter
- t: pitch of transverse wires



HARP SCREEN WITH VERTICALLY CRIMPED WIRES



Characteristics

- due to the possibility of oscillation of longitudinal wires self-cleaning effect is created
- for greater stability and longer service life, the interlacings lying on supports can be casted with polyurethane reinforcement

Material and format

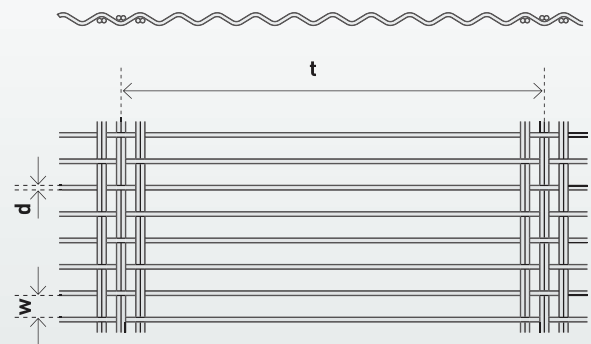
- spring steel
- spring stainless steel
- stainless steels of other grades
- folding up to the welt length of 2000 mm

Mesh size

- width 0.7–40 mm
- length depending on the distance of the interlacings
- vertically crimped wires form rectangular mesh with the interlacings

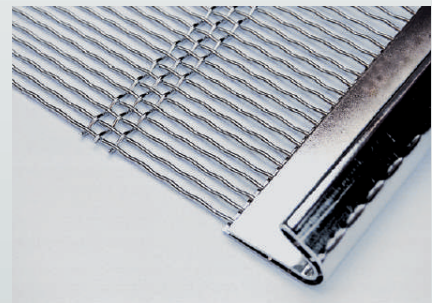
Wire diameter

- 0.8–8 mm

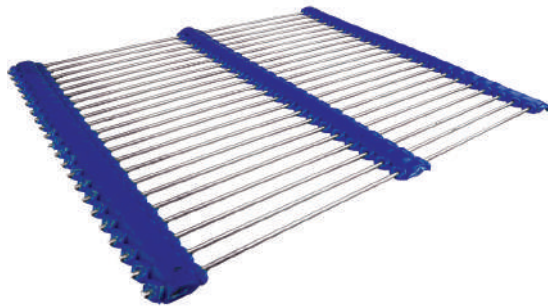


Legend

- w: mesh size
- d: wire diameter
- t: pitch of transverse wires



HARP SCREEN WITH STRAIGHT WIRES AND POLYURETHANE REINFORCEMENT



Characteristics

- large open area
- high screening performance
- due to the oscillation of longitudinal wires self-cleaning effect is created
- for greater stability and longer service life, the interlacings can be casted with polyurethane reinforcement

Material and format

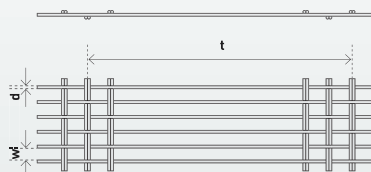
- spring steel
- constructional steel
- spring stainless steel
- stainless steels of other grades
- folding up to the welt length of 2000 mm

Mesh size

- 1.25–16 mm
- longitudinal straight wires form long rectangular mesh together with interlacings

Wire diameter

- 0.8–4 mm

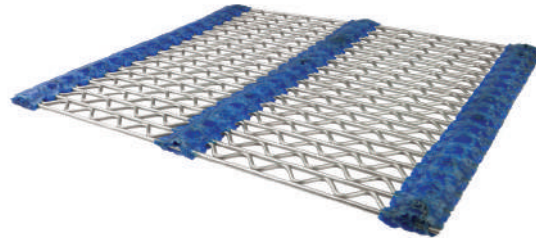


Legend

- w: mesh size
- d: wire diameter
- t: pitch of transverse wires



DOSER HARP SCREEN



Characteristics

- due to the oscillation of longitudinal wires self-cleaning effect is created
- for greater stability and longer service life, the interlacings lying on supports can be casted with polyurethane reinforcement
- straight wire prevents the screen from over-tensioning

Material and format

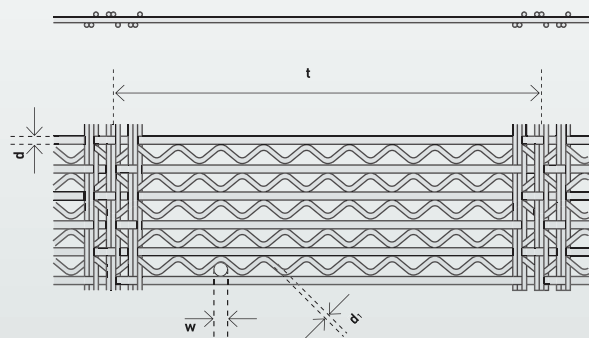
- spring steel
- constructional steel
- spring stainless steel
- stainless steels of other grades
- folding up to the welt length of 2000 mm

Mesh size

- 2–18 mm
- horizontally crimped wires together with straight wires form long triangular mesh

Wire diameter

- 1–4 mm
- the diameter of straight wires is bigger than the diameter of the crimped ones



Legend

- w: mesh size
- d: wire diameter
- d1: longitudinal crimped wire diameter
- t: pitch of transverse wires

POLYURETHANE SCREENS

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

FILTERS

THE CLIP-TEC POLYURETHANE SYSTEM



Characteristics

Suitable for both dry and wet sorting and for dewatering. The screen panels are installed onto supporting beams of the sorting machine with the help of universal adapter bars and secured with wedges.

Mesh size

0.3–200 mm (square and rectangular mesh)

Screen thickness

30–60 mm

Material

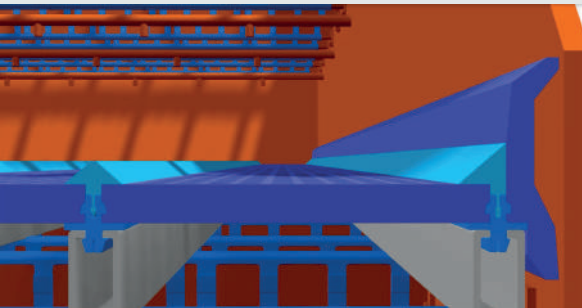
polyurethane elastomer in the hardness range 55 to 85 Shore

Screen construction

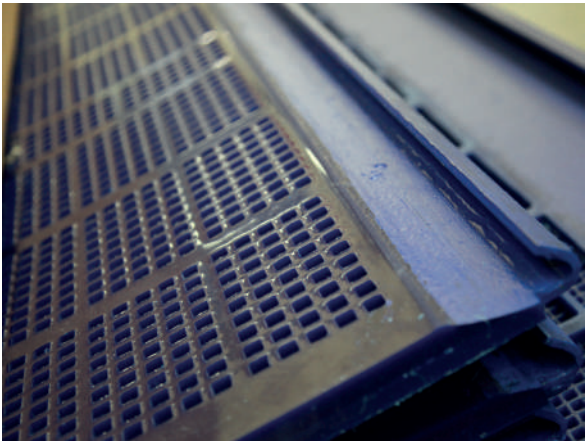
transverse inner reinforcement

Dimensions

standard 300 x 1000 mm,
maximum 400 x 1500 mm



POLYURETHANE SCREENS - TENSIONED



Characteristics

The screen is cast as a whole, including the fastening hooks for clamping into the sorting machine (for either transverse or longitudinal tensioning).

Mesh size

2.5–130 mm (square or rectangular mesh)
can be produced with thermoplastic fields with slot openings of 0.2–2 mm

Screen thickness

25–60 mm

Material

Type A polyurethane elastomer in the hardness range 55 to 85 Shore, inner reinforcement of steel cords

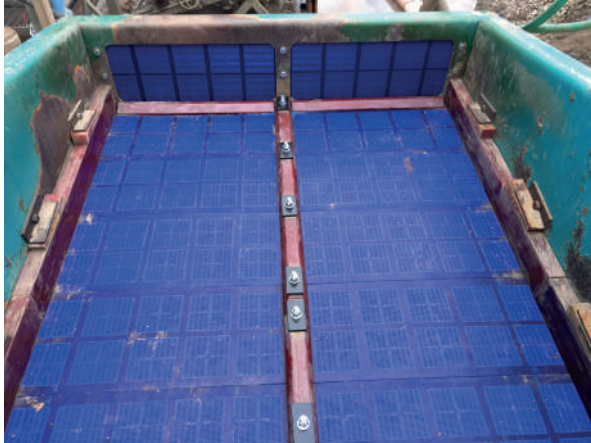
Dimensions

maximum width (FL) of one screen: 1500 mm
maximum length (SPI/SPA)
of one screen: 3000 mm



POLYURETHANE SCREENS

POLYURETHANE SCREENS - CLAMPED



Characteristics

The screen is cast as a whole, its reinforcement is provided by the supporting frame. It is installed either with the help of bolts (through the clamping holes) or with the help of sidebars and wedges, depending upon the sorting machine construction.

Mesh size

2.5–130 mm (square or rectangular mesh) can be produced with thermoplastic fields with slot openings of 0.2–2 mm

Screen thickness

25–60 mm

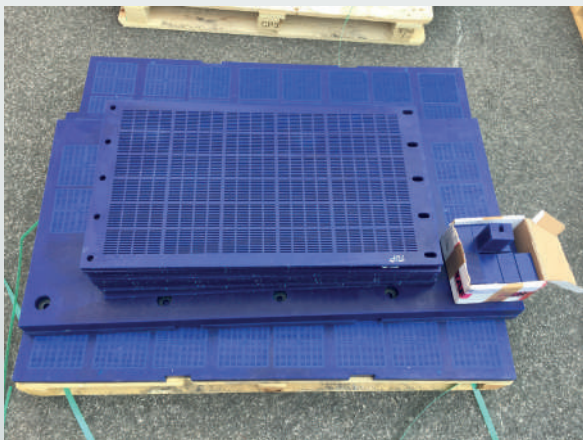
Material

Type A polyurethane elastomer in the hardness range 55 to 85 Shore, inner reinforcement of steel cords

Dimensions

maximum width (FL) of one screen is 1500 mm

maximum length (SPI/SPA) of one screen is 3000 mm



MEMBRANE SCREENS



Characteristics

polyurethane membrane in the hardness range 55–85 Shore A and thickness of 3–5 mm

Mesh size

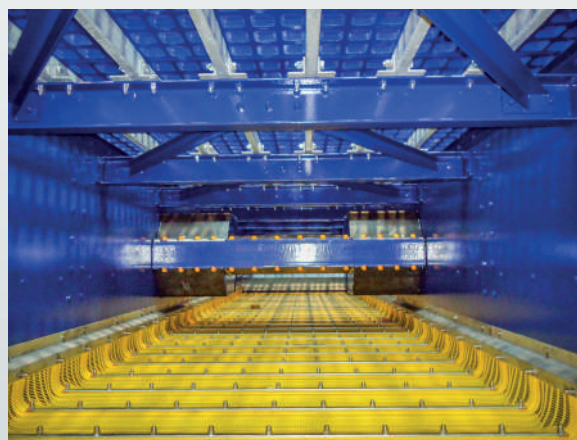
2–40 mm

Dimensions

maximum size 1000 x 2000 mm

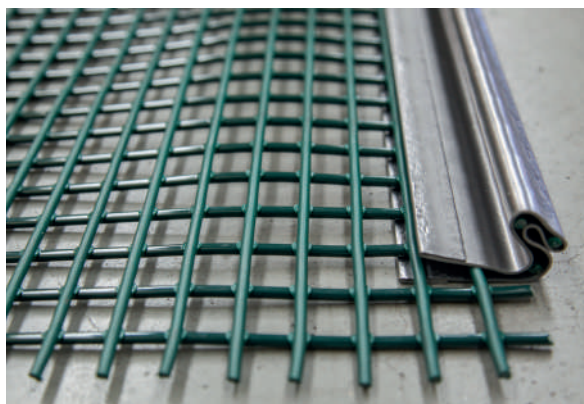
Application

Sorting of difficult-to-sort wet materials, both fine and coarser. Screens for the Liwell sorting machine.



OTHERS

ELASTIC CABLE SCREEN

**Characteristics**

For sorting loose crushed or sticky materials up to the grain size of approximately 25 mm. Big open area, great performance, long durability.

Installation instructions: transverse or longitudinal tensioning, always with the use of hooks the sorting machine must be equipped with supporting beams with an elevation of approximately 20 mm per 1 metre of the sorting machine width, with protective profiles the tensioning torque in relation to the PUR wire thickness ranges from 20 to 35 Nm, the screen will stretch by approximately 0,5 %

Mesh size

5–25 mm

Cord diameter

2.5–5 mm

Material

metal and Kevlar cords in polyurethane elastomer

Dimensions

depending on the frame of the sorting machine, maximum length Fl 1600 mm x width Spi 2850 mm



AIR SPRINGS



This system of air springs equipped with a control box ensures a smooth running of the sorting machine as well as a perfect insulation of the supporting structures from vibrations. It is adapted to the dimensions, weight and seating of the sorting machine. These are always two independent spring circuits synchronized by the control unit. The reconstruction does not exceed two days, and if it does not achieve the desired effect, it is possible to restore the sorting machine to its original condition.

**Main advantages of air springs**

- Reduction of vibrations into construction
- Elimination of undesirable vibrations of the sorting machine
- Noise reduction up to 50 %
- Significant maintenance costs reduction



OTHERS

LIWELL SORTING MACHINE



The Liwell is a special two-case sorting machine fitted with membrane screens for sorting naturally loose materials highly prone to sticking (such as natural mined sands or coal) and loose crushed materials that are prone to sticking or wedging of grains into the screen. A great advantage is the possibility of sorting small grains (1 to 4 mm) which easily cause screen clogging when being sorted by conventional machines.

LIWELL LF

A sorting machine either produced as single-deck (type LF ED) or double-deck (type LF DD). In both versions, the sorting areas are equipped with a special LIWELL membrane system. These sorting machines are produced in the width from 1.0 to 3.0 m and in the length from 2.52 to 8.82 m.

LIWELL KT

A sorting machine with standard sorting screens on the top deck (usually a polyurethane modular system) and a special LIWELL membrane system on the bottom deck.

**RUBBER SCREENS – TENSIONED AND CLAMPED****Characteristics**

The tensioned screen is produced as a whole including the fastening hooks for clamping into the sorting machine (either transversely or longitudinally). The clamped screen can be reinforced with a supporting frame. The screen is installed into the sorting machine with the help of bars, wedges or fastening pins.

Mesh size

5–200 mm (square mesh)

Screen thickness

6–60 mm

Material

vulcanized rubber compound, or a perforated rubber board of hardness 65 Shore

Dimensions

maximum width of one screen (FL): 1500 mm

maximum length of one screen (SPI/SPA): 3000 mm

panels 500 x 500 mm

**PLASTIC CONVEYOR ROLLER (PCR) DESIGN**

The body of the standard PCR is made of polyethylene pipe of 12 or 15 mm wall thickness. We supply PCRs with 89 and 108 mm diameters of any length up to 750 mm. The steel shaft with 20 mm diameter is fitted with 6204 2 RS bearings which are coated in plastic on both sides. The polyamide lid with an inner labyrinth covers the bearing on the outside and prevents dirt from penetrating inside the PCR. The conical shape of the lid prevents sticking of foreign objects between the lid and the bench of the conveyor.



OTHERS

CYCLONES



Multotec hydrocyclones are used across the world for applications in mineral processing, manufacturing, food processing, waste water treatment and other industries.

This industry-proven product range of classification, dense medium and tailings dam cyclones has been optimised over hundreds of applications across the world to improve classification efficiency, provide greater lifespan and reduce energy requirements.

- Scrolled evolute design improves capacity and reduces wear rates compared to regular hydrocyclone inlets
- Customised cyclone designs according to your unique specifications
- Designed for fine and accurate cut-points
- Innovative designs reduce misplacement of product; rubber lips prevent spillage
- Abrasion and heat resistant materials reduce wear
- Innovative weep holes reduce downtime

Our broad and varied selection of standard cyclones includes units sized from 25 to 1450 mm. Our cyclones are designed by an experienced team of experts to meet the requirements of our customers in the best possible way. If you need tailor-made solutions for specialised applications, we will design and produce our cyclones to match the specific requirement.



SPIRAL CONCENTRATORS



The proven technology sorts different materials according to their density using the centrifugal flow. The lighter particles are thus flushed outward and the heavier particles inward. Our spirals are simple to install, are distinguished by their long service life and, as a static system with no moving parts, energy and maintenance costs are reduced to a minimum.

Multotec-designed spiral concentrators are used across the world in coal, gold, iron ore, mineral sands, platinum and chrome processing plants and other minerals.

We manufacture a wide range of spiral sizes and configurations that can be optimised to your application.

The benefits of the Multotec Spiral Concentrator:

- Beneficiate material between 38 and 2000 μ m, depending on ore type
- Available in single, double and triple starts
- Spirals range between small diameter (+/- 560 mm) and large diameter (+/- 950 mm)
- 3 to 12 turn spirals as required by your application
- High separation efficiency reduces the number of stages on a plant, reducing overall footprint
- Sliding or auxiliary splitters can be used to achieve targeted grades and recoveries
- Auto Reject Channel® offers excellent removal of unsuitable particles
- Trough surfaces are sprayed with polyurethane to required thickness to improve the service life of the spirals

DEFINITION

The term technical cloth refers to all flat screens produced from rectangular crossed metal wires or plastic materials made in the form of wire, whose finish is similar to cloth. As the result of the way of manufacturing and formation their application field is very broad, e.g. filters, screens, sorters, conveyor belts, protective equipment, reinforcements, supports etc.

BASIC TERMINOLOGY

Warp and weft

Warp is wires placed in the cloth in lengthwise direction.
Weft is wires placed transversely.

Mesh shapes

According to various arrangement of wire crossing the cloths are formed with square mesh or with so called zero mesh.

Square mesh: The distance between warp and weft meshes is the same.
(see pict. 1)

Rectangular mesh: Lengthwise mesh refers to the cases where the distance between warp wires is smaller than the distance of weft wires. Otherwise we talk about wide mesh (see pict. 2).

Zero mesh: Warp wires are placed in certain distances. Weft wires are placed close to each other (see pict. 3), however it is also possible to lay weft wires in certain free distances.

Parameters of the cloth

Length of mesh: Clear length of mesh "w" or in case of rectangular mesh "w1" and "w2" is the distance of warp or weft (see pict. 4). Distances are given in mm or in μm .

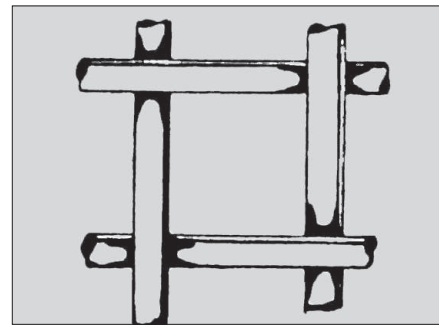
Thickness of wires: Thickness of wires "d" or "d1" and "d2" is defined by diameter for round wires (\emptyset) (see pict. 4). It is given in mm and for the wire of diameter bigger than 1 mm may be measured by slide gauge and by micrometer if wire diameter is under 1 mm. Wire diameter measured in the cloth may sometimes be lower than their nominal diameter.

Spacing: Spacing "t" or "t1" and "t2" is a distance between warp or weft wires from the adjacent wire (see pict. 4). The formula $t = w + d$ is used for calculation of necessary amount of wires, e.g. for the distance of 10 mm or 1 inch and portion of this spacing m and found number of wires $n \cdot t = m/n$.

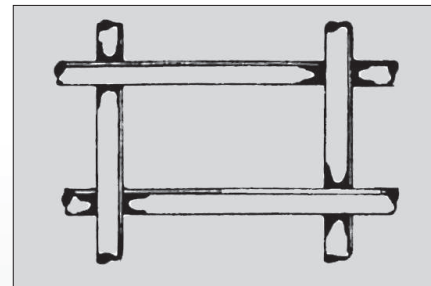
Open spaces: Open spaces F_o stated in % show percentage share of all meshes in the total cloth area and are calculated as follows:

$$F_o = \frac{w^2}{t^2} \cdot 100 \text{ event. } \frac{w^2}{(w+d)^2} \cdot 100 \text{ v } \%$$

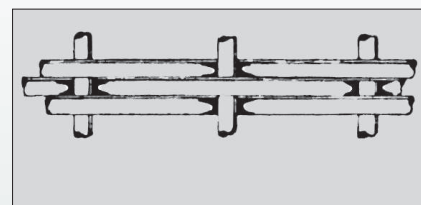
Amount of "mesh": Amount of "mesh" shows number of apertures in English inches (= 25.4 mm).



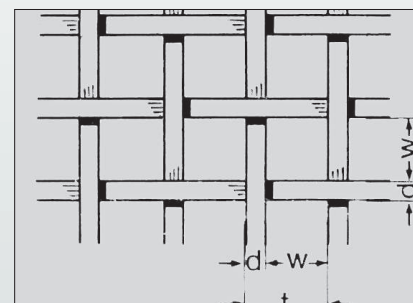
pict. 1



pict. 2



pict. 3



pict. 4

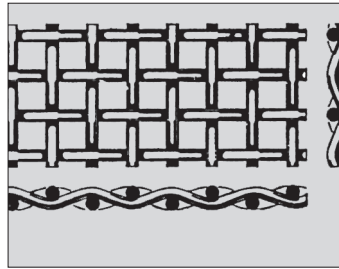
TYPES OF CLOTH

TYPES OF CLOTH

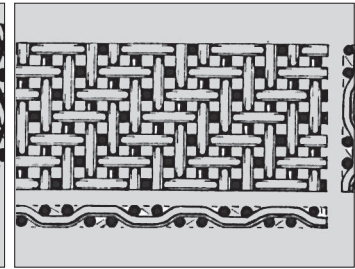
Types of cloths depend on the way of weave arrangement. The term weave refers to regular, repeating alternation of warp and weft wires in lengthwise and transverse direction of the cloth.

Smooth weave

This is the most common way of cloth making. Each wire is bent either in the warp or in the weft and this arrangement alternates regularly. (see pict. 1)



pict. 1



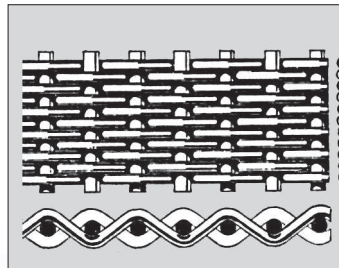
pict. 2

Twilled weave

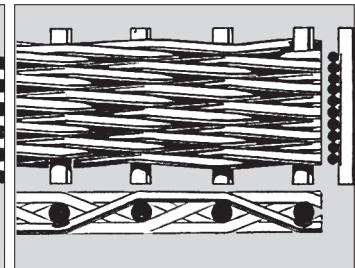
Two wires are always bent with consequential overlap by one wire (see pict.). This weave is chosen mainly in cases where the wire is too thick in relation to the mesh size or where the cloth is so fine that the bent wire does not keep in the woven weave. (see pict. 2)

Filter cloths – in smooth weave

Weft wires are so close to each other that "zero openings" are formed. Warp wires are thicker than weft wires. Main advantage of this type of cloths is good flow capacity, which is enabled by even openings, and easy cleaning. (see pict. 3)



pict. 3



pict. 4

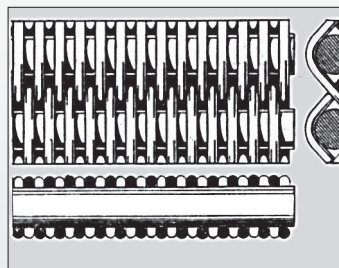
Twilled filter cloths

(impervious to light)

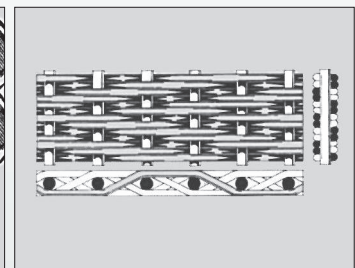
Weft wires are placed tightly to each other in the twilled weave. One weft wire always lies over the warp wire and another one is below it. In comparison with smooth weave it contains double amount of wires (see pict. 4).

Armoured filter cloths, or reversed belt

In contrast to the belt of woven weave most wires are placed in the warp system. Therefore weft wires are considerably thicker than warp wires. This special construction is characterised by great stability and ensures good flow capacity. (see pict. 5)



pict. 5



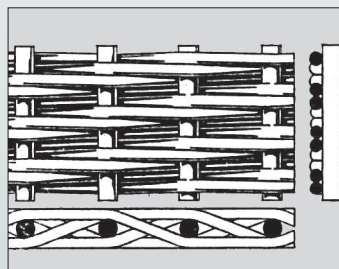
pict. 6 a

Open filter cloth

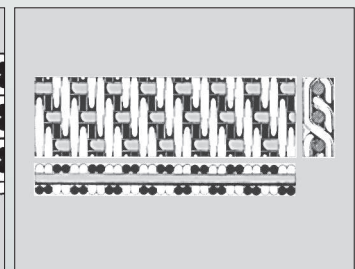
This filter cloth is produced in the same way as common belts. Weft wires are not laid so tightly to each other but in the certain distance which increases flow capacity of the cloth. Its disadvantage is smaller evenness of the openings. (see pict. 6a, 6b) Open filter cloth is produced: a) in smooth weave b) in twilled weave

Twilled-armoured filter cloths

Technical cloths with the combination of twilled weave and placing of most wires in the warp, which due to high stability and strength enables application in extremely demanding environment. (see pict. 7).



pict. 6 b



pict. 7

TECHNICAL CLOTHS

Application field: chemical and pharmaceutical industry, food industry and production of drinks, heating, air-conditioning and sanitary technology, agriculture and forestry, household equipment production, manufacturing of cargo trucks, aircraft industry, engineering industry and device production, electro-technical industry, civil engineering, screening, sorting, abrasive materials industry, rubber industry, processing and recycling of plastics, and many further ones...

Rolls: Standard width of the roll is 1 m. Maximum roll width is 3 m. Standard length of the material in the roll up to the wire diameter 0.9 mm is 25 m, 10 m for the diameter bigger than 1 m.

Cut-into-pieces cloths: On demand of the customer we supply flat cut-into-pieces cloths, i.e. screens, tables or plates and also ones in the form of strips rolled onto the spools, which enables easier manipulation for our customers.

Small final products: On the basis of our long-standing production (know-how) and modern equipment we supply various forms of the cloths of a high quality. e.g. round, square, rectangular, trapezoidal, polygonal, cylindrical, conical. The mentioned products may be produced by use of the following mechanical processes: pressing, gripping, spot welding, seam welding, tilting, ultra sound welding.

Standard cloth programme – metal wires [mm]		
Mesh width W	Wire diameter d	Amount of „mesh“
10	2.5	2
	1.8	2.1
	1.4	2.2
9	2.2	2.3
	2.0	2.5
8	1.6	2.6
	1.0	2.7
7.1	1.8	2.9
	1.4	3
6.3	1.8	3.1
	1.4	3.3
	1.25	3.4
	1.0	3.5
5.6	1.6	3.5
	1.25	3.7
	1.12	3.8
5.0	1.6	3.8
	1.25	4.1
	1.0	4.3
4.5	1.4	4.3
	0.8	4.8
4	1.4	4.7
	1.0	5.1
	0.71	5.4
3.55	1.25	5.3
	0.9	5.7
	0.8	5.8
3.35	0.9	6
	1.25	5.8
3.15	0.8	6.4
	0.56	6.8
2.8	1.12	6.5
	1.0	7.3
2.5	0.71	7.9
	0.5	8.5
	0.9	8.1
2.24	0.63	8.9
	0.36	9.8
2	1.0	8.5
	0.9	8.8
	0.63	9.7
	0.56	9.9
1.8	0.32	10.9
	0.8	9.8s
	0.32	12
1.6	1.0	9.8 (10)
	0.8	10.4
	0.5	12.1 (12)
	0.36	13
	0.28	13.5 (14)
1.5	0.22	14
	0.63	11.9 (12)

Standard cloth programme – metal wires [mm]		
Mesh width W	Wire diameter d	Amount of „mesh“
1.4	0.71	12
	0.45	13.7 (14)
	0.25	15.4 (15)
	0.22	15.7 (16)
1.32	0.5	14
	0.8	12.4
1.25	0.63	13.5
	0.4	15.4
	0.25	16.9 (17)
	0.22	17.3 (17)
1.18	0.63	14
	0.22	18.1 (18)
1.12	0.56	15.1 (15)
	0.45	16.2 (16)
	0.36	17.2
	0.25	18.5 (19)
1.06	0.22	19
	0.22	19.8 (20)
1	0.63	15.6 (16)
	0.56	16.3 (16)
	0.5	16.9 (17)
	0.4	18.1 (18)
	0.32	19.2 (19)
0.950	0.22	21
	0.2	22
0.900	0.5	18.1 (18)
	0.36	20
0.850	0.2	23
	0.5	18.8
	0.4	20
0.800	0.2	24
	0.5	19.5
	0.32	23
0.750	0.2	25
	0.18	27
	0.45	22
	0.36	24
0.710	0.28	26
	0.18	29
0.670	0.16	31
	0.4	25
	0.28	28
	0.25	29
0.630	0.16	32
	0.4	25
	0.16	33
0.600	0.4	25
	0.16	33

Marked articles are kept in the store

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

FILTERS

TECHNICAL CLOTHS

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

FILTERS

Standard cloth programme – metal wires [mm]		
Mesh width W	Wire diameter d	Mesh width W
0.560	0.36	28
	0.28	30
	0.16	35
0.530	0.16	37
0.500	0.32	31
	0.25	34
	0.16	38
0.475	0.16	40
0.450	0.28	35
	0.2	39
	0.14	43
0.425	0.28	36
	0.14	45
0.400	0.25	39
	0.22	41
	0.18	44
	0.14	47
0.375	0.14	49
0.355	0.22	44
	0.18	47
	0.14	51
0.335	0.14	53
0.32	0.2	49
	0.16	53
	0.112	59
0.300	0.2	51
	0.112	62
0.280	0.22	51
	0.18	55
	0.112	65
0.265	0.1	70
0.250	0.2	56
	0.16	62
	0.1	73
0.236	0.1	76
0.224	0.18	63
	0.16	66
	0.1	78
0.212	0.14	72
	0.09	84
0.200	0.16	71
	0.14	75
	0.125	78
	0.09	88
0.190	0.09	91
0.180	0.14	79
	0.125	83
	0.09	94
0.160	0.125	89
	0.112	93
	0.1	98
	0.071	110
0.150	0.1	102
0.140	0.112	101
	0.1	106
	0.09	110
	0.063	125

Standard cloth programme – metal wires [mm]		
Mesh width W	Wire diameter d	Mesh width W
0.125	0.09	118
	0.08	124
	0.063	135
0.118	0.056	146
0.112	0.08	132
	0.071	139
0.106	0.063	150
	0.05	163
0.100	0.063	156
	0.05	169
0.095	0.045	181
0.09	0.063	166
	0.056	174
	0.04	195
0.085	0.04	205
0.080	0.056	181
	0.05	195
0.075	0.05	205
	0.036	230
0.071	0.045	210
0.063	0.045	235
	0.04	245
	0.036	255
0.056	0.04	265
	0.036	275
	0.032	290
0.053	0.04	275
	0.036	285
0.050	0.04	280
	0.036	295
	0.03	320
0.045	0.036	315
	0.032	330
0.042	0.036	325
0.040	0.032	355
	0.025	390
0.038	0.025	405
0.036	0.028	395
0.032	0.025	445
0.025	0.025	510
0.02	0.02	635

Marked articles are kept in the store

TECHNICAL CLOTHS

Filter cloths – metal wires		
The fineness of the filter is absolute [it is measured as 1. bubble according to the „scatter bubble filter test“]		
Fineness of the filter (microns)	marking of the cloth	diameter of the wire – warp and weft (mesh)
40 - 45	80 x 400	0.125 / 0.071
55 - 60	50 x 250	0.14 / 0.112
70 - 75	40 x 200	0.18 / 0.14
90 - 100	30 x 150	0.23 / 0.18
115 - 125	24 x 110	0.36 / 0.26
150 - 160	20 x 150	0.25 / 0.18
215 - 235	14 x 88	0.5 / 0.33
265 - 285	12 x 64	0.6 / 0.42
320 - 340	8 x 85	0.36 / 0.32

Filter cloths – smooth open weave with open space up to 50%		
Fineness of the filter (microns)	marking of the cloth	diameter of the wire – warp and weft (mesh)
10	154 x 1740	0.18 / 0.14
25	120 x 930	0.23 / 0.18
34	80 x 700	0.36 / 0.26
48	60 x 460	0.25 / 0.18
60	50 x 400	0.5 / 0.33
78	40 x 340	0.6 / 0.42
84	28 x 268	0.36 / 0.32

Twilled filter cloths - metal		
Fineness of the filter (microns)	marking of the cloth	diameter of the wire – warp and weft (mesh)
7 - 8	375 x 2300	0.035 / 0.025
8 - 9	325 x 2300	0.038 / 0.025
9 - 10	325 x 1900	0.038 / 0.03
11 - 12	250 x 1400	0.055 / 0.04
12 - 14	200 x 1400	0.07 / 0.04
16 - 18	165 x 1400	0.07 / 0.04
24 - 26	165 x 800	0.07 / 0.05
35 - 40	80 x 700	0.1 / 0.076
65 - 70	40 x 560	0.18 / 0.1
90 - 100	30 x 360	0.25 / 0.15
110 - 120	20 x 250	0.25 / 0.2

Armoured filter cloths - metal		
Fineness of the filter (microns)	marking of the cloth	diameter of the wire – warp and weft (mesh)
17	625 x 130	0.04 / 0.13
25	625 x 102	0.042 / 0.16
40	290 x 72	0.09 / 0.2
60	175 x 50	0.15 / 0.3
80	132 x 36	0.2 / 0.4
150	86 x 24	0.3 / 0.4

Twilled-armoured filter cloths - metal		
Fineness of the filter (microns)	marking of the cloth	diameter of the wire – warp and weft (mesh)
17	325 x 39	0.15 / 0.3
25	260 x 40	0.15 / 0.22
40	152 x 24	0.3 / 0.32
60	132 x 17	0.3 / 0.45
80	72 x 15	0.5 / 0.504

FASTENING OF SCREENS INTO THE FRAME

FASTENING OF SCREENS INTO THE FRAME

We offer fastening of the screens directly into the frames of the sorting machines including the possibility of production of new frames of round, rectangular and square shapes.

The principle of fastening: The technology of fastening of a screen into the special equipment involves fastening of the technical cloths in four directions due to special arrangement of this equipment. The strength of tension is measured in every direction with torque pre-stress. This ensures equal tension moment in more screens of the same size and type of technical cloth.

Specification of the environment: It is essential to specify the environment of a screen application at the beginning of the process. On the basis of this specification there will be defined suitable technology of the fastening screen into the frame.

Basic differentiation:

- a) food industry
 - sticking (fastening)
 - brazing
 - soldering
- b) other application
 - brazing
 - clinching
 - sticking with resin

Note: In food industry recommended materials are provided with the certificate

Used shapes and sizes of frames:

Jäckel profile frames are usually made in the following sizes:

- 20 x 20 x 1.25
- 25 x 25 x 1.25
- 30 x 30 x 1.5-1.75

Material 1.4301 DIN (17240 CSN)

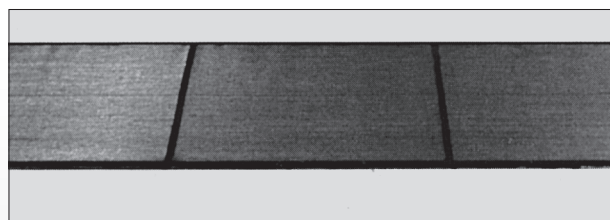
- a) Round screens in the frame, usually produced Ø in mm: 600, 950, 1200, 1600, 1800, 2000, 2100, 2300, 2600

- b) Rectangular and square screens with the frame of the maximum size 2800 x 2800 mm

Note: We offer shouldering of screens for the machines of type ALLGAIER in the whole range of required sizes including the possibility to produce the frame (min. Ø 600 mm and max. Ø 2600 mm). For inquiries of a different material or different size of Jäckel we will make a concrete offer.

The service of screen fastening, which we provide, includes the following:

- a) screen tensioning into customer's frames
 - removing of the old technical cloth
 - frame sanding
 - frame tinning
 - tensioning of the new technical cloth
 - fastening of the new technical cloth
- b) technical cloth tensioning including frame production
 - production of the frame of the given diameter
 - frame sanding
 - frame tinning
 - tensioning of the new technical cloth
 - fastening of the new technical cloth



LABORATORY SIEVES AND DEVICES

LABORATORY SIEVES AND DEVICES

Our offer of laboratory programme is focused on machines and devices which are used for sieve analysis of particle sizes and related activities. On your demand we will work out the project and we will supply essential equipment for granule analysis exactly according to your requirements.

We offer:

- analytical sieves
- sorting laboratory machines (sifters)
- scales
- mills and grinders
- ultrasonic screen cleaners
- sample separating machines (quartation devices)

We distinguish analytical sieves first and foremost according to the material and the manufacturing method. Our standard supply includes the sieves, which comply with the requirements of the DIN ISO 3310 standard. We also can offer you sieves made on the basis of different standards (ASTM E, TYLER, FEPA, AFNOR etc.)

Mostly we use sieves with the sorting surface made of stainless wire cloth with square mesh. We also offer analytical sieves with the sorting surface made of stainless or zinc-coated perforated metal plate.

Round sieves are provided with stainless, brass or aluminium frames. The diameters of our standard supply are 200, 300 and 400 mm. (The inner diameter of the upper part of the sieve from the frame to the frame is measured). It is also possible to order sieves whose diameter is given in English inches.

We offer square analytical sieves of dimensions
300 x 300 mm
or 500 x 500 mm.

Our offer also includes covers, screen pans, intermediate pans and circular rings for dry and wet sorting.

Our offer of laboratory sieves is wide. Consultancy service is free. Tell us what we can do for you...



Pict. 1.



Pict. 2.



Pict. 3.



Pict. 4.

Picture 1. - The group of sieves from our offer

Picture 2. - Sieves with varnished aluminium frames

Picture 3. - Stainless sieve with perforated metal sheet

Picture 4. - Stainless sieve with technical cloth

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

FILTERS

LABORATORY SIEVES AND DEVICES

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

FILTERS

Standard line of sieves according to the standard DIN ISO 3310 (round sieves of diameter 200, 300 and 400 mm)		
Mesh size (mm)	Sorting area	
	Cloth	Metal sheet
125	•	•
112	•	•
106	•	•
100	•	•
90	•	•
80	•	•
75	•	•
71	•	•
63	•	•
56	•	•
53	•	•
50	•	•
45	•	•
40	•	•
37.5	•	•
35.5	•	•
31.5	•	•
28	•	•
26.5	•	•
25	•	•
22.4	•	•
20	•	•
19	•	•
18	•	•
16	•	•
14	•	•
13.2	•	•
12.5	•	•
11.2	•	•
10	•	•
9.5	•	•
9	•	•
8	•	•
7.1	•	•
6.7	•	•
6.3	•	•
5.6	•	•
5	•	•
4.75	•	•
4.5	•	•
4	•	•
3.55	•	
3.35	•	
3.15	•	
2.8	•	
2.5	•	
2.36	•	
2.24	•	
2	•	
1.8	•	
1.7	•	
1.6	•	

Marked positions – basic line of sieves

Standard line of sieves according to the standard DIN ISO 3310 (round sieves of diameter 200, 300 and 400 mm)		
Mesh size (mm)	Sorting area	
	Cloth	Metal sheet
1.4	•	
1.25	•	
1.18	•	
1.12	•	
1	•	
0.9	•	
0.85	•	
0.8	•	
0.71	•	
0.63	•	
0.6	•	
0.56	•	
0.5	•	
0.45	•	
0.425	•	
0.4	•	
0.355	•	
0.315	•	
0.3	•	
0.28	•	
0.25	•	
0.224	•	
0.212	•	
0.2	•	
0.18	•	
0.16	•	
0.15	•	
0.14	•	
0.125	•	
0.112	•	
0.106	•	
0.1	•	
0.09	•	
0.08	•	
0.075	•	
0.071	•	
0.063	•	
0.056	•	
0.053	•	
0.05	•	
0.045	•	
0.04	•	
0.038	•	
0.036	•	
0.032	•	
0.025	•	
0.02	•	

Further we offer:
round sives of diameter 76, 100, 150, 203 mm, square
sieves 300 x 300 mm, 500 x 500 mm, sieves ALPINE of old
and new generation (200/203 mm).

TECHNICAL CLOTHS - APPLICATION

APPLICATION



INDUSTRIAL
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AND DEVICES

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SHEETS

CONVEYOR
BELTS

FILTERS

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INDUSTRIAL
SCREENS

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CLOTHS

LABORATORY SIEVES
AND DEVICES

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SHEETS

CONVEYOR
BELTS

FILTERS

PERFORATED SHEETS

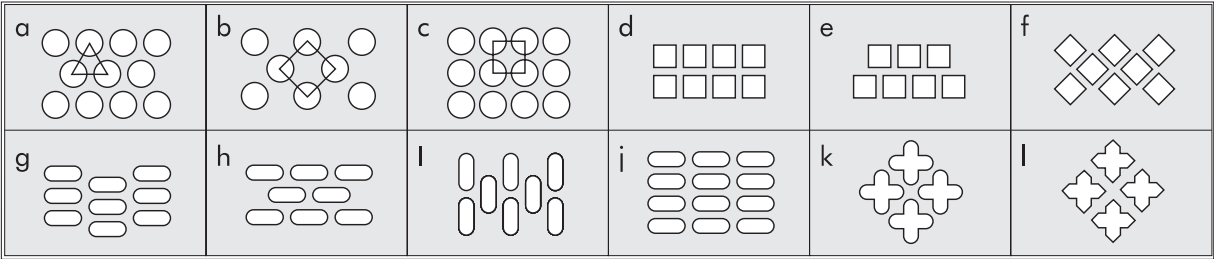
Production method: Perforated sheets are produced from metal plates or metal sheet rolls which are perforated on high-pressure punch presses by means of special tools. The type of the tool is chosen according to the required perforation method. The holes are usually flame cut in case of metal plates more than 10 mm thick.

Sizes: standard size 1000 x 2000 mm, maximum size is 1500 x 3000 mm. The thickness of metal sheet is from 0.5 to 10 mm (in case of stainless steel only up to 6 mm thickness).

Use: sorting surfaces, filtration baskets, covers, bulkhead, fillers, architectural elements, acoustical insulation, in air-conditioning

Quality and design: structural carbon steel of class 11 (CSN), galvanized, aluminium. Stainless steel sheet of class 17 (CSN). On the request of the customer it is possible to use other non-standard materials (copper, brass etc.). Special orders are possible to be executed according to the given drawing.

Overview of perforation methods



Basic types of perforation

OFFSET ROUND HOLES

- usually supplied with 60° offset
- standard design c=t-d
- open space calculation Fo: (%)

$$Fo = \frac{d^2}{t^2} \cdot 90.7$$

IN-LINE SQUARE HOLES

- open space calculation Fo: (%)

$$Fo = \frac{a^2}{t^2} \cdot 100$$

IN-LINE OVAL HOLES

- open space calc. Fo: (%)
- c = t₁ - a (mm)

$$Fo = \frac{a \cdot b - 0.215 a^2}{t_1 \cdot t_2} \cdot 100$$

IN-LINE OVAL HOLES

- open space calc. Fo: (%)
- c = t₁ - a (mm)

$$Fo = \frac{a \cdot b - 0.215 a^2}{t_1 \cdot t_2} \cdot 100$$

PERFORATED SHEETS

Round and square perforation in the metal sheet of standard thickness											
Perforation type	Mesh (mm)	Spacing (mm)	Open space (%)	Sheet thickness (mm)							
				0.5	0.7	0.8	1.0	1.5	2.0	3.0	5.0
Rv	0.50	1.25	15	•							
Rv	0.80	1.60	23	•							
		2.00	15	•		•					
Rv	1.00	2.00	23	•	•	•	•				
Rv	1.25	2.30	27				•				
Rv	1.50	2.60	30		•		•	•			
		2.80	26				•				
		3.00	23				•	•			
Rv	2.00	2.50	58				•				
		3.50	30	•		•	•	•	•		
		4.00	23				•	•	•		
Rv	2.50	3.50	46				•		•		
		4.00	35				•	•	•		
Rv	3.00	4.00	51				•	•			
		5.00	33	•		•	•	•	•	•	
Rv	3.50	5.00	44					•			
Rv	4.00	6.00	40	•		•	•	•	•	•	
		6.50	34				•	•	•		
		7.00	30					•	•	•	
Rv	5.00	7.00	46				•	•			
		8.00	35			•	•	•	•	•	•
Rv	6.00	9.00	40			•	•	•	•	•	
Rv	7.00	10.00	44				•				
Rv	8.00	11.00	48				•	•	•	•	
		12.00	40			•	•	•	•	•	•
Rv	10.00	13.00	54				•	•			
		14.00	46				•	•	•		
		15.00	40				•	•	•	•	•
Rv	12.00	15.00	58				•				
		16.00	51				•	•	•	•	
Rv	15.00	20.00	51				•		•	•	
		22.00	42				•	•	•		
Rv	20.00	27.00	50				•	•	•		
		28.00	46				•	•	•	•	•
Qg	3.00	5.00	36				•				
Qg	5.00	7.00	51			•	•	•			
		8.00	39				•	•	•		
Qg	6.00	9.00	44				•	•			
Qg	8.00	11.00	53			•	•	•			
		12.00	44				•	•	•		
Qg	9.00	12.50	52				•	•			
Qg	10.00	12.00	69				•	•			
		14.00	51				•	•	•		
		15.00	44				•	•	•		
Qg	15.00	20.00	56					•			

Rv = round offset, Qg = square in-line

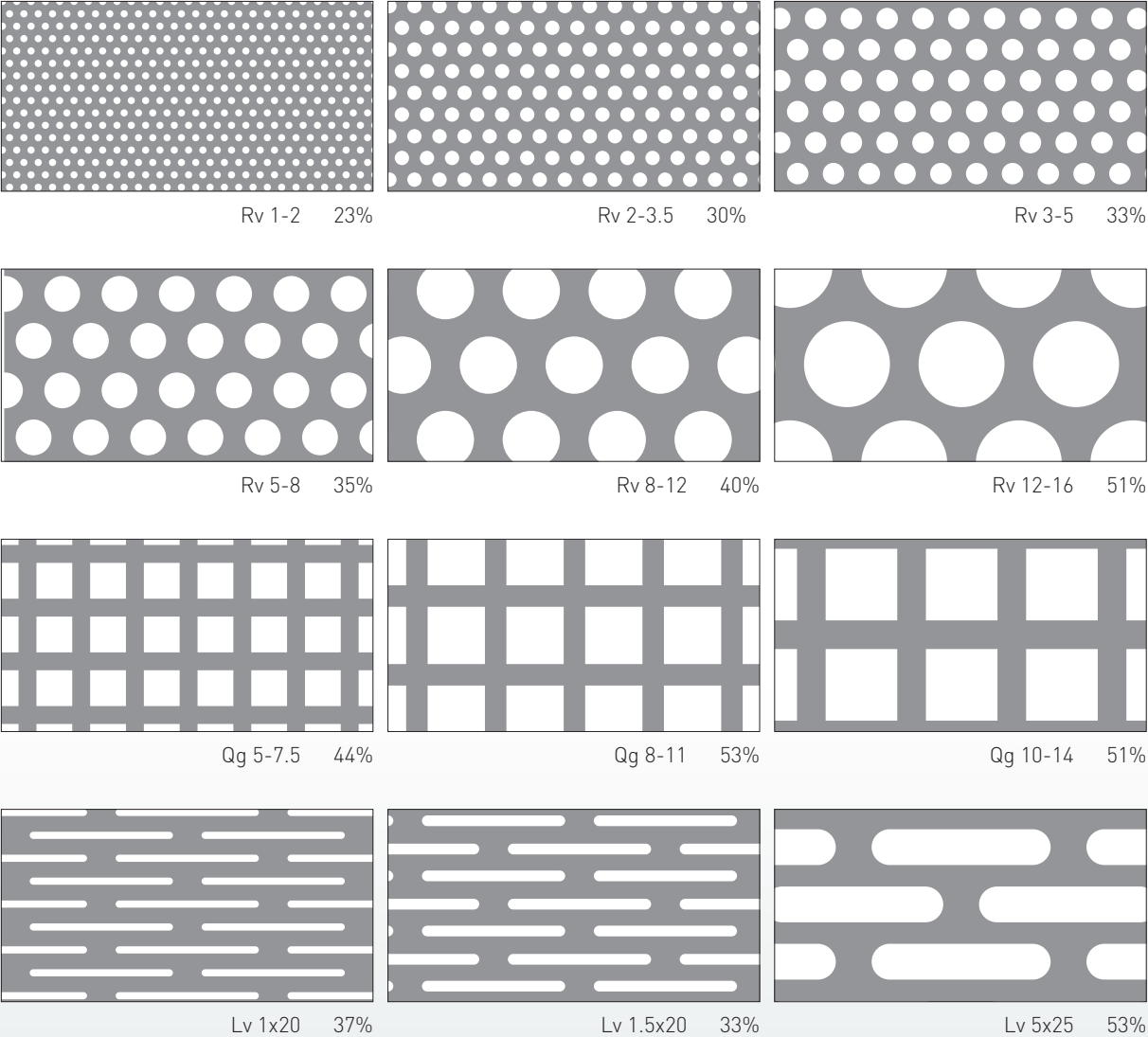
INDUSTRIAL
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AND DEVICESPERFORATED
SHEETSCONVEYOR
BELTS

FILTERS

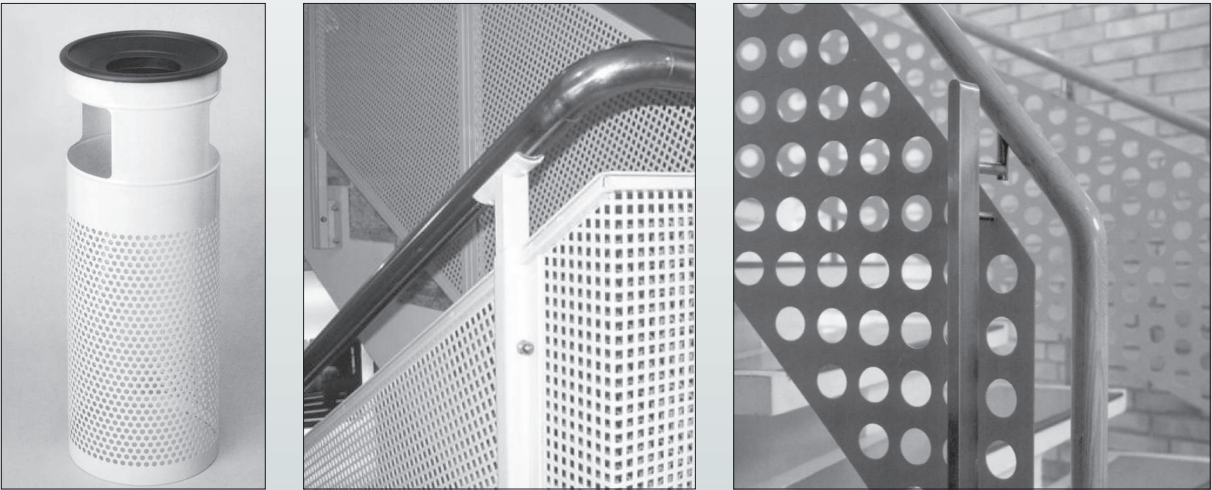
PERFORATED SHEETS

PERFORATED SHEETS

Perforation samples in the scale 1 : 1



Examples of use



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AND DEVICES

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SHEETS

CONVEYOR
BELTS

FILTERS

PERFORATED SHEETS

EXPANDED METAL

Production of expanded metal: Expanded metal is produced in the following way - the row of mesh is cut into the roll or sheet and then the material is expanded. This procedure is repeated until the product gets its final shape. Expanded material produced in this way has a slightly crimped surface as the material while being drawn turns slightly vertically. That is why subsequently it is possible to press expanded metal in order to get even surface.

Standard dimensions: in sheets (1000 x 2000 mm), in rolls (the width 1000 mm – different lengths). On the customer's demand it is possible to supply exact dimensions.

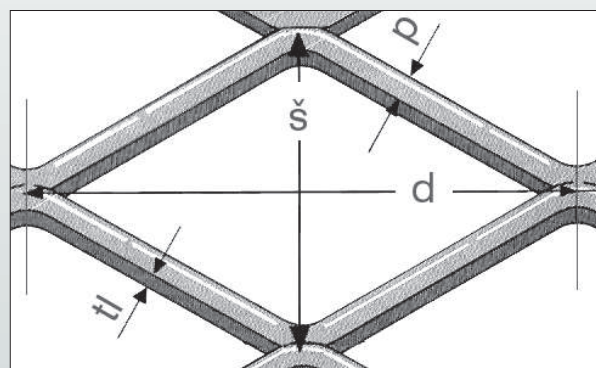
Basic materials: steel of the class 11 (CSN) and 17 (CSN), zinc-coated, aluminium. On the customer's demand it is possible to produce sheets of non-standard materials (brass, bronze, copper).

Finish: rolled, unrolled.

Application: decorative and safety covers, architectural elements, bulkhead, fillers, grids and reinforcers, staircases, grates, acoustical insulation.

Order particulars: mesh length, mesh width (not essential), material thickness (metal sheet), shift (bridge thickness), sheet format, the type of the material, quantity.

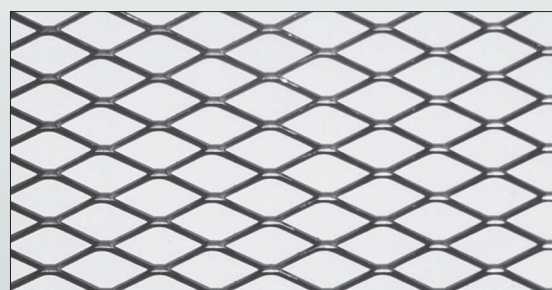
Overview of standard dimensions of rhombic expanded metal				
Mesh size	Mesh length x width	Shift x thickness of the material	kg/m ²	Max. width
MR 0.6	0.6 x 0.5	0.17 x 0.15	0.7	200
MR 1	1 x 0.75	0.25 x 0.15	0.75	200
		0.25 x 0.2	1	200
MR 1.5	1.5 x 1	0.25 x 0.15	0.6	300
		0.35 x 0.25	1.3	300
MR 2	2 x 1.3	0.25 x 0.15	0.45	500
		0.35 x 0.25	1	500
MR 3	3 x 1.8	0.35 x 0.3	1	1000
		0.5 x 0.4	1.8	1000
MR 4	4 x 2	0.5 x 0.4	1.6	1000
		0.6 x 0.5	2.4	1000
MR 6	6 x 3	0.7 x 0.3	1	1250
		0.8 x 0.5	1.8	1250
MR 8	8 x 4	0.8 x 0.5	1.6	1250
		0.8 x 0.8	2.4	1250
		1 x 0.8	2.8	1250
MR 10	10 x 5	1 x 0.5	1.5	1250
		1 x 0.8	2.2	1250
		1.2 x 1	3.2	1250
MR 12.5	12.5 x 7	1 x 0.5	1.25	1250
		1 x 0.8	2	1250
		1.2 x 1	2.8	1250



MR – marking of the rhombic expanded metal
d- mesh length, s – mesh width, tl – sheet thickness, p – shift

Overview of standard dimensions of rhombic expanded metal				
Mesh size	Mesh length x width	Shift x thickness of the material	kg/m ²	Max. width
MR 16	16 x 8	1 x 0.5	1	1250
		1.3 x 0.8	2.5	1250
		2.5 x 1	4	1250
MR 20	20 x 10	1.5 x 0.8	1.9	1250
		1.8 x 1	2.4	1250
MR 29	29 x 10	1.5 x 0.8	1.9	1250
		1.5 x 1	2.4	1250
		1.5 x 1.5	3.6	1250
MR 32	32 x 12	1.5 x 1	2	1250
		1.5 x 1.5	3	1250
		2 x 1.5	4	1250
MR 43	43 x 12	2.5 x 1	2.9	1250
		2.5 x 1.5	4.4	1500
		3 x 2	7.4	1500
		3 x 3	11	1500
		3 x 1.5	3	2400
MR 62	62 x 20	3 x 2	4.8	2000
		3 x 3	6	1500
		4.5 x 3	8.5	1500
		6 x 3	11.5	1500
		3 x 3	4.4	1800
MR 90	90 x 33	6 x 3	9	1800
		5 x 4	9.7	1500
		3 x 3	3.8	2500
MR 115	115 x 40	4.5 x 3	5	2500
		6 x 3	6.5	2500

All data in the table are given in millimeters.



This type of the expanded metal is the most widespread

PERFORATED SHEETS

EXPANDED METALS

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LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

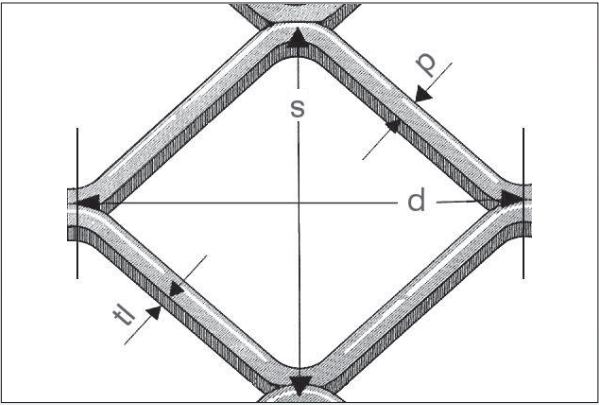
CONVEYOR
BELTS

FILTERS

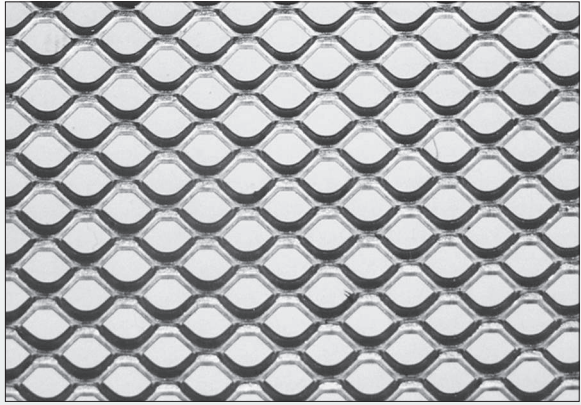
Overview of standard dimensions of square expanded metal				
Mesh size	Mesh length x width	Shift x thickness of the material	kg/m ²	Max. width
MQ 2	2 x 1.5	0.3 x 0.3	1	500
		0.4 x 0.4	1.4	500
		0.5 x 0.4	1.7	500
MQ 4	4 x 3	0.4 x 0.4	0.8	1000
		0.5 x 0.5	1.4	1000
		0.6 x 0.6	1.9	1000
MQ 6	6 x 4.5	0.5 x 0.5	0.8	1250
		0.6 x 0.6	1.2	1250
		0.8 x 0.8	2.2	1250
MQ 8	8 x 6	0.6 x 0.5	0.8	1250
		0.8 x 0.8	1.6	1250
		1 x 1	2.3	1250
MQ 10	10 x 8	0.6 x 0.5	0.6	1250
		0.8 x 0.8	1.3	1250
		1 x 1	2	1250
MQ 12	12 x 9	0.8 x 0.8	1.2	1250
		1 x 1	1.6	1250
		1.5 x 1.5	3.8	1250

Overview of standard dimensions of square expanded metal				
Mesh size	Mesh length x width	Shift x thickness of the material	kg/m ²	Max. width
MQ 14	14 x 11	0.8 x 0.8	1	1250
		1 x 1	1.5	1250
		1.5 x 1.5	3.3	1250
MQ 16	16 x 12	0.8 x 0.8	0.9	1250
		1 x 1	1.3	1250
		1.5 x 1.5	2.8	1250
MQ 20	20 x 16	0.8 x 0.8	0.7	1250
		1 x 1	1	1250
		1.7 x 1.5	2.4	1250
MQ 30	30 x 23	1 x 1	0.7	1250
		1.5 x 1.5	1.6	1250
		2 x 2	2.9	1250
MQ 50	50 x 37	4 x 2.5	4.2	1250
		4.5 x 3	5.5	1250
MQ 60	60 x 45	4 x 2.5	4	1500
		4.5 x 3	4.8	1500
MQ 100	100 x 75	6 x 3	3.8	1500
		6 x 4	5	1500

All data in the table are given in millimeters.

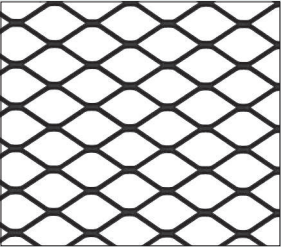


MQ – marking of square expanded materials
d – mesh length, s – mesh width,
tl – thickness of the material, p – shift

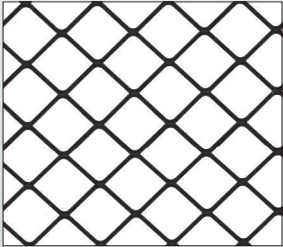


Due to the price they successfully
substitute perforated sheets with square
mesh.

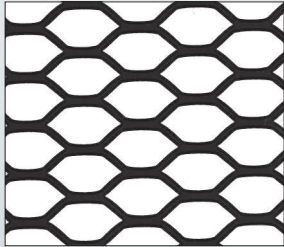
Basic types of expanded metal:



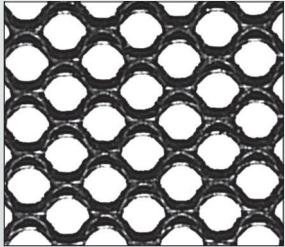
expanded material
with rhombic mesh



expanded material
with square mesh



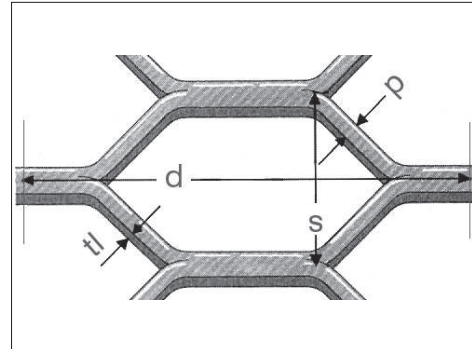
expanded material
with hexagonal mesh



expanded material
with round mesh

EXPANDED METALS

Overview of standard dimensions of hexagonal expanded metal				
The type of mesh	Mesh length x width	Shift x thickness of the material	kg/m ²	Max. width
ME 4	4 x 3	0.6 x 0.5	2	500
		0.8 x 0.6	3	500
ME 6	6 x 3.5	0.8 x 0.6	2.2	1000
		1 x 0.8	3.5	1000
ME 8	8 x 4.5	0.8 x 0.5	1.8	1250
		0.8 x 0.8	2.5	1250
		1 x 1	4	1250
		0.8 x 0.5	1.3	1250
		0.8 x 0.8	2	1250
		1 x 1	3.2	1250
		1 x 0.8	1.8	1250
		1 x 1	2.2	1250
		1.2 x 1	2.7	1250
		1.5 x 1	1.6	1250
		1.5 x 1.5	2.4	1250
		2 x 2	4	1250
		2 x 1.5	3.2	1500
		2 x 2	3.9	1500
		2.5 x 2	4.5	1500



ME – identification of hexagonal expanded metal

d – mesh length

s – mesh width

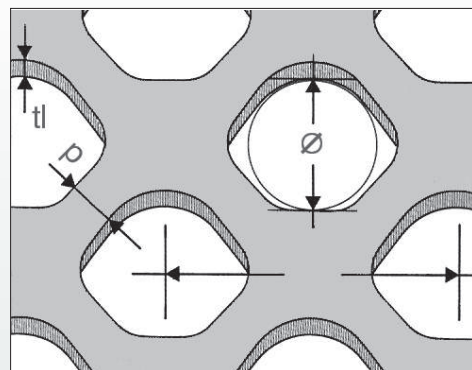
tl – thickness of the material

p – shift



Overview of standard dimensions of hexagonal expanded metal				
The type of mesh	Mesh length x width	Shift x thickness of the material	kg/m ²	Max. width
MT 4	1.5	1 x 0.5	2.6	1000
		1 x 0.6	3.1	1000
		1 x 0.8	4.2	1000
MT 8	3	1.5 x 0.6	2.3	1250
		1.5 x 0.8	3	1250
		1.5 x 1	3.7	1250
MT 10	5	1.8 x 0.8	3	1250
		1.8 x 1	3.7	1250
		1.8 x 1.5	5	1250
MT 14	7	3 x 0.8	3.2	1250
		3 x 1	4	1250
		3 x 1.5	6	1250
MT 16	8	3 x 1	3.8	1250
		3 x 1.5	5.5	1250
		3 x 2	7	1250
MT 20	10	3.2 x 1	3.2	1250
		3.2 x 1.5	4.8	1250
		3.2 x 2	6.4	1250

This type successfully substitutes more expensive perforated metal sheets with round mesh.



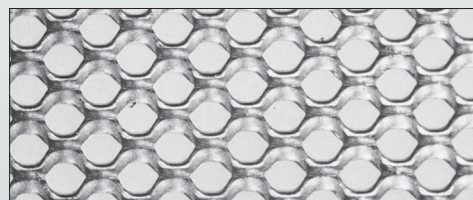
MT – identification of round expanded metal

d – spacing

Ø – diameter

tl – thickness of the material

p – shift



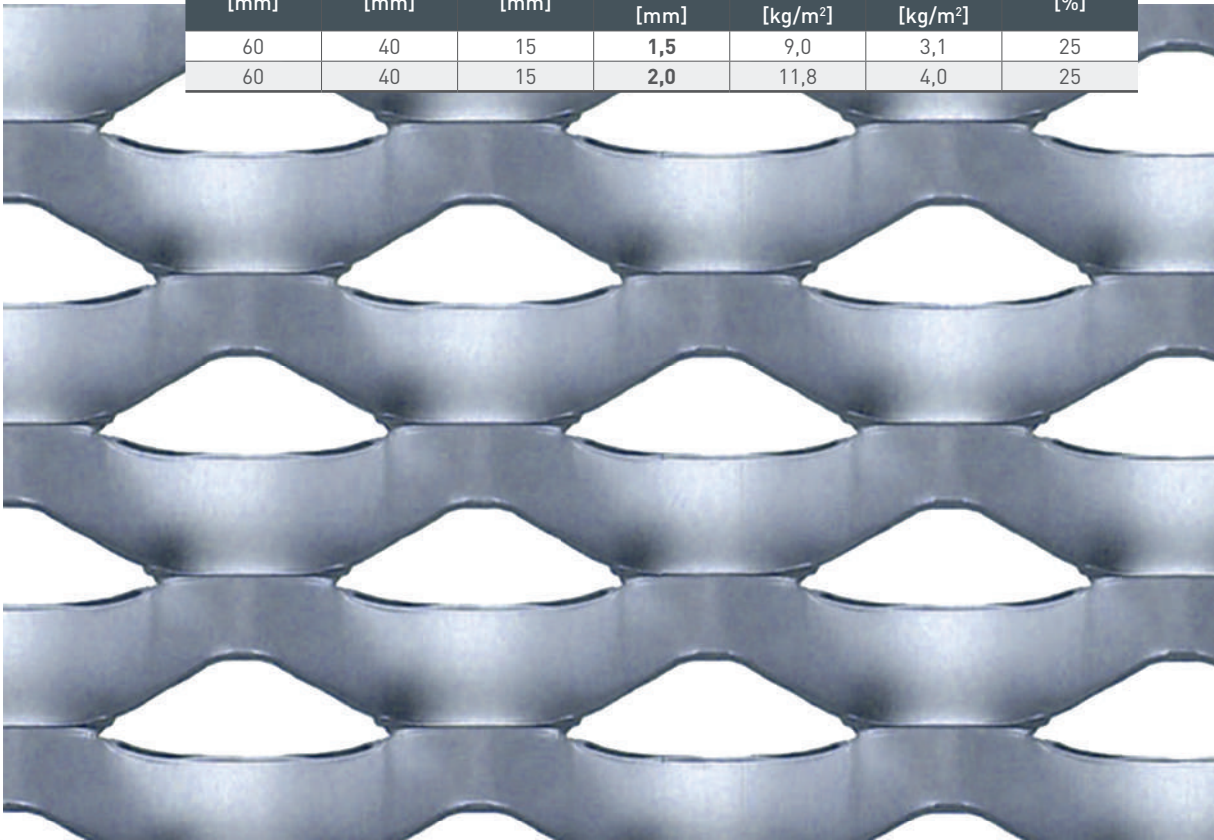
Round expanded metal is always rolled. It is possible to produce this type of expanded metal of stainless steel.

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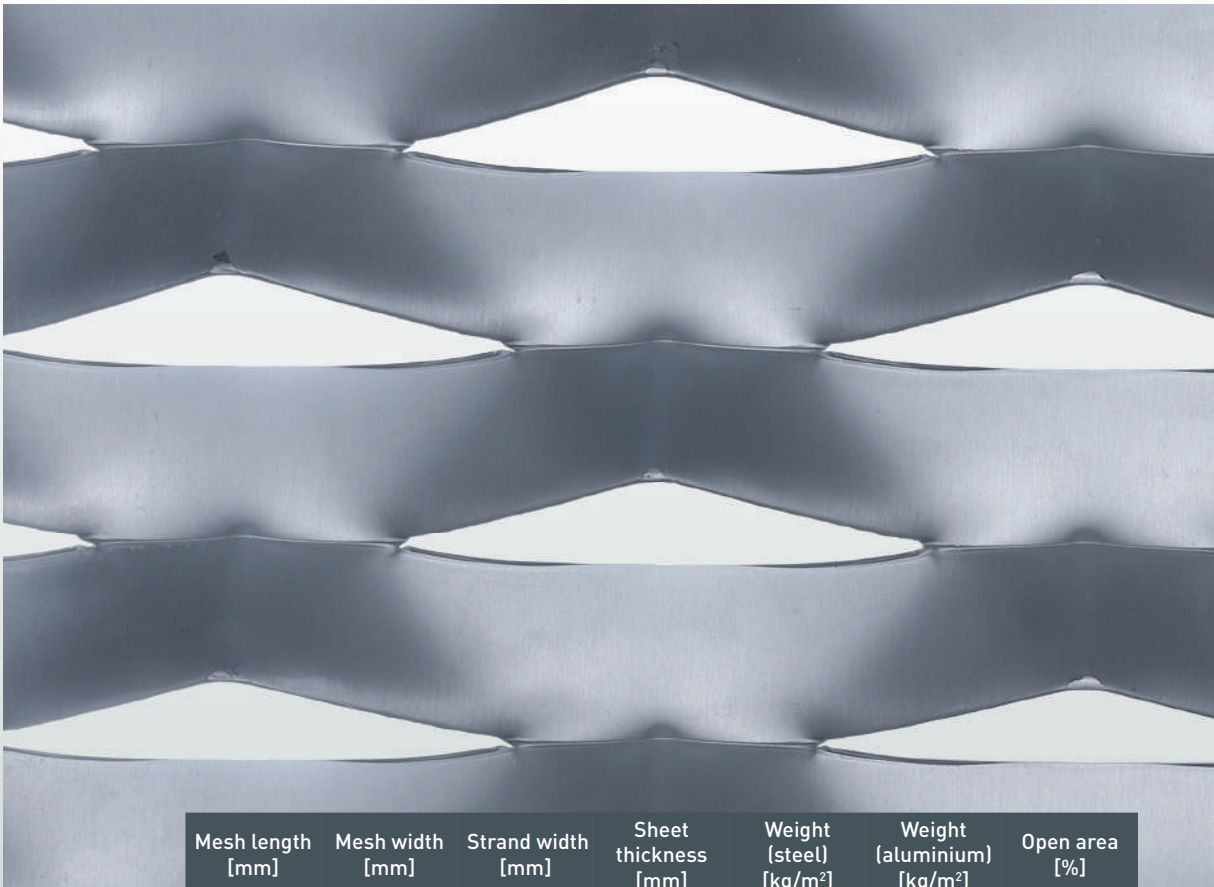
FILTERS

EXPANDED METALS FOR ARCHITECTURE

Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m²]	Weight (aluminium) [kg/m²]	Open area [%]
60	40	15	1,5	9,0	3,1	25
60	40	15	2,0	11,8	4,0	25



Samples in the scale 1:1



Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m²]	Weight (aluminium) [kg/m²]	Open area [%]
112	52	24	1,5	10,8	3,7	8 %

INDUSTRIAL
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AND DEVICES

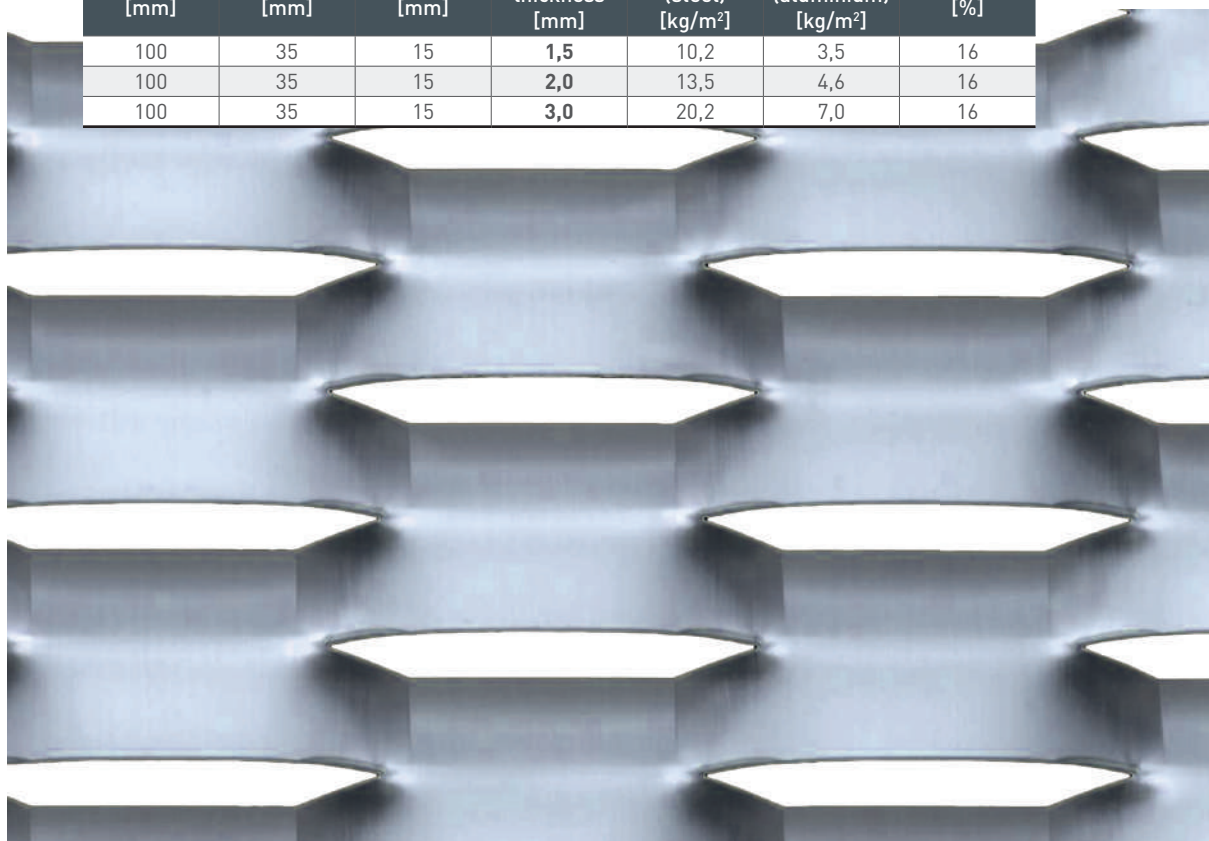
PERFORATED
SHEETS

CONVEYOR
BELTS

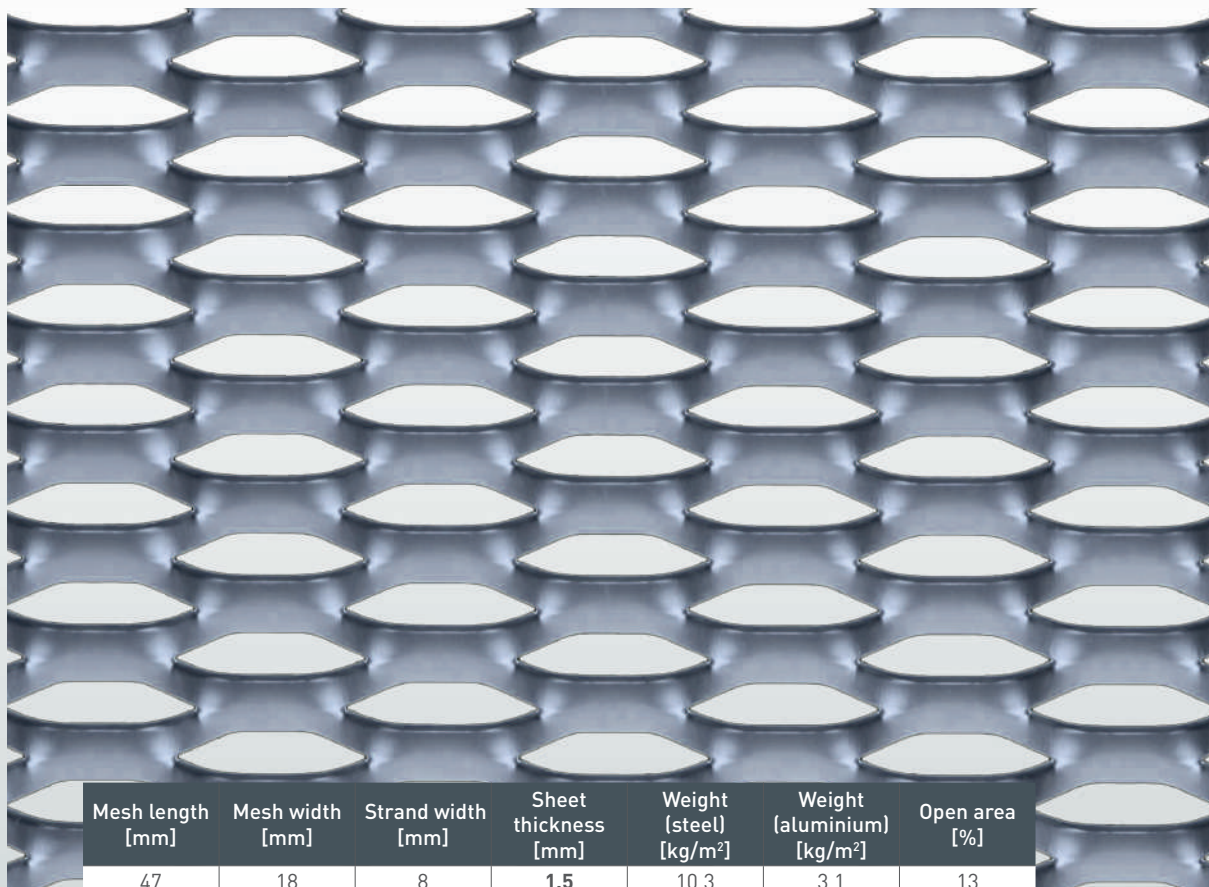
FILTERS

EXPANDED METALS FOR ARCHITECTURE

Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m ²]	Weight (aluminium) [kg/m ²]	Open area [%]
100	35	15	1,5	10,2	3,5	16
100	35	15	2,0	13,5	4,6	16
100	35	15	3,0	20,2	7,0	16



Samples in the scale 1:1



Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m ²]	Weight (aluminium) [kg/m ²]	Open area [%]
47	18	8	1,5	10,3	3,1	13
47	18	8	2,0	12,8	3,9	13

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BELTS

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EXPANDED METALS FOR ARCHITECTURE

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

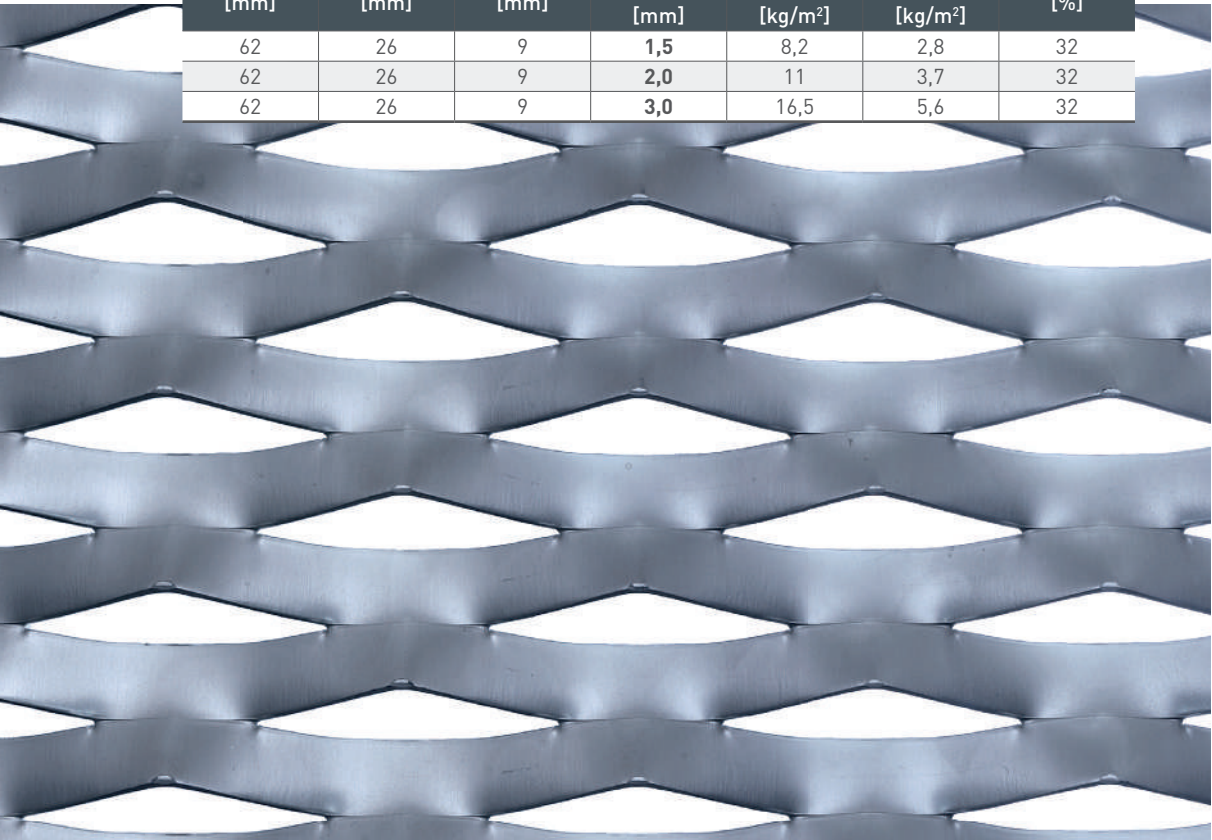
LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

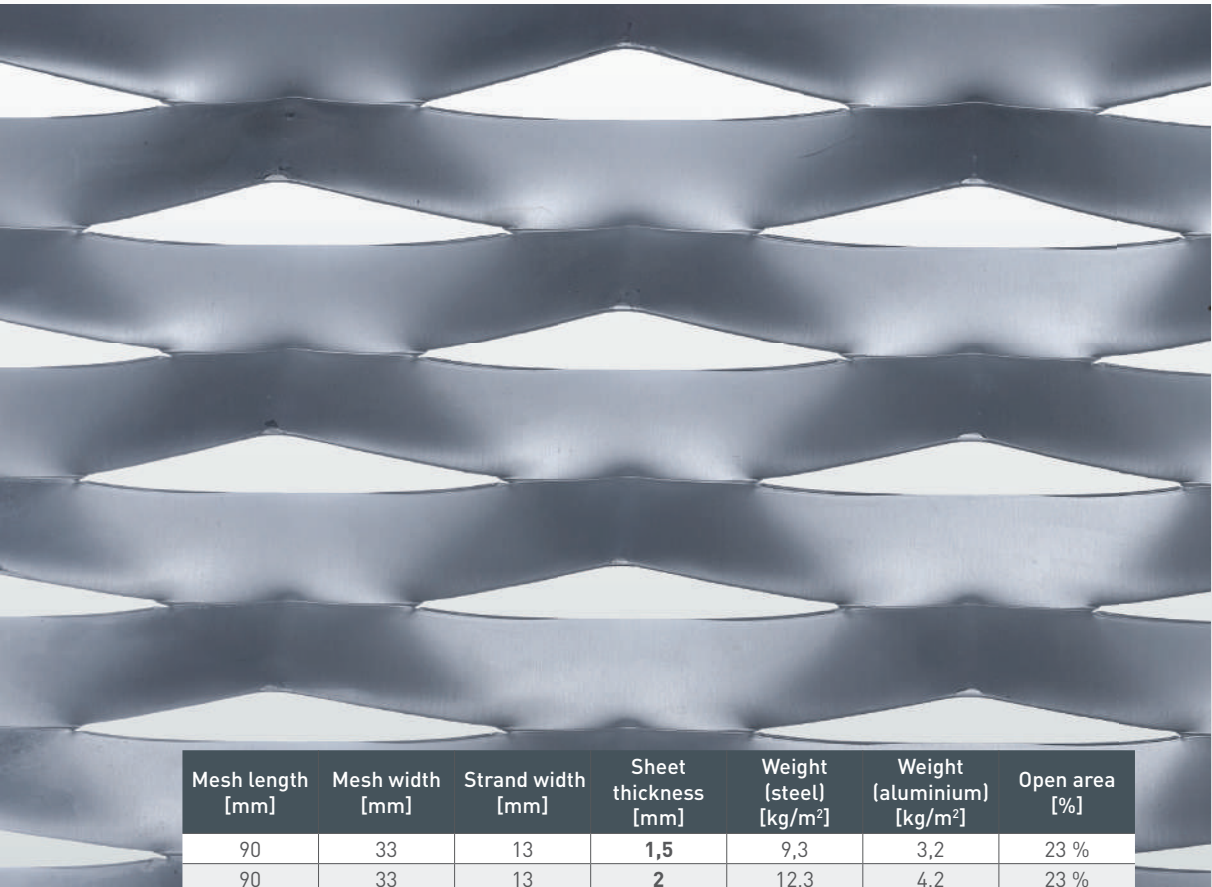
CONVEYOR
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Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m²]	Weight (aluminium) [kg/m²]	Open area [%]
62	26	9	1,5	8,2	2,8	32
62	26	9	2,0	11	3,7	32
62	26	9	3,0	16,5	5,6	32



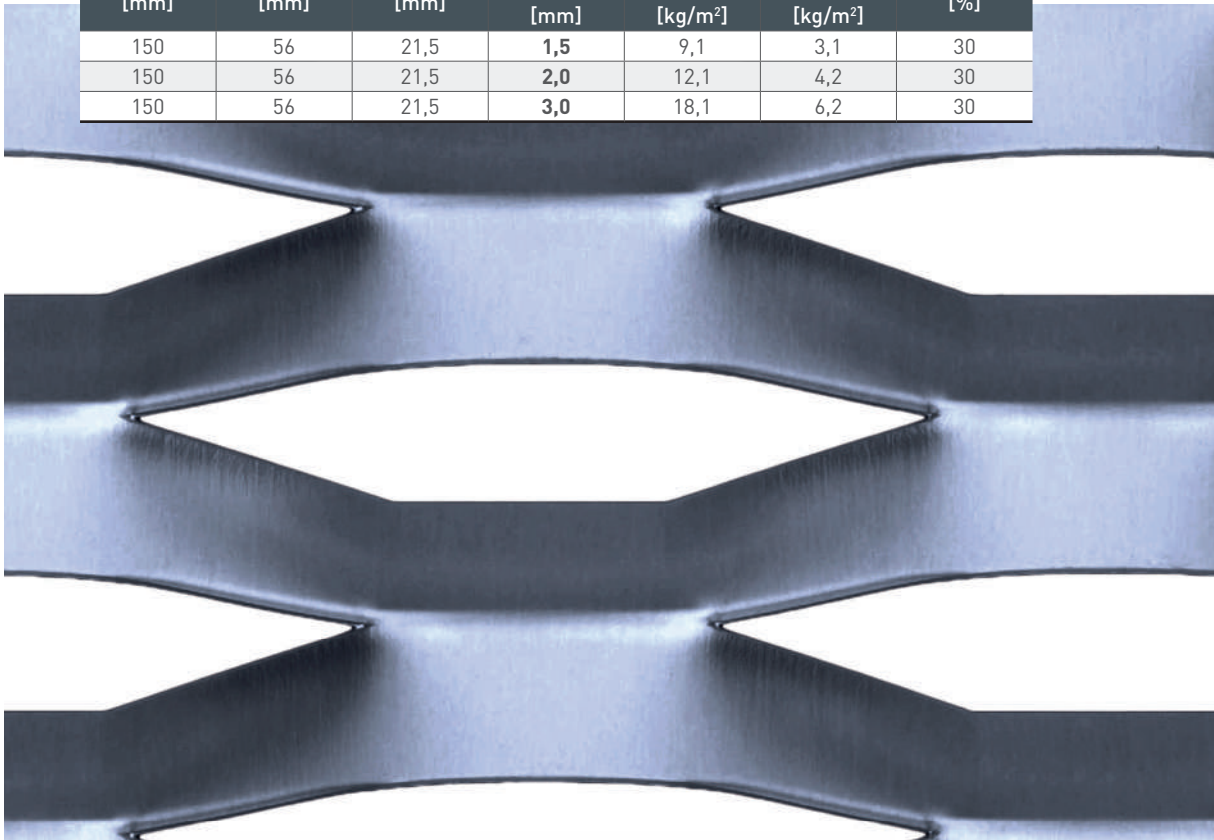
Samples in the scale 1:1



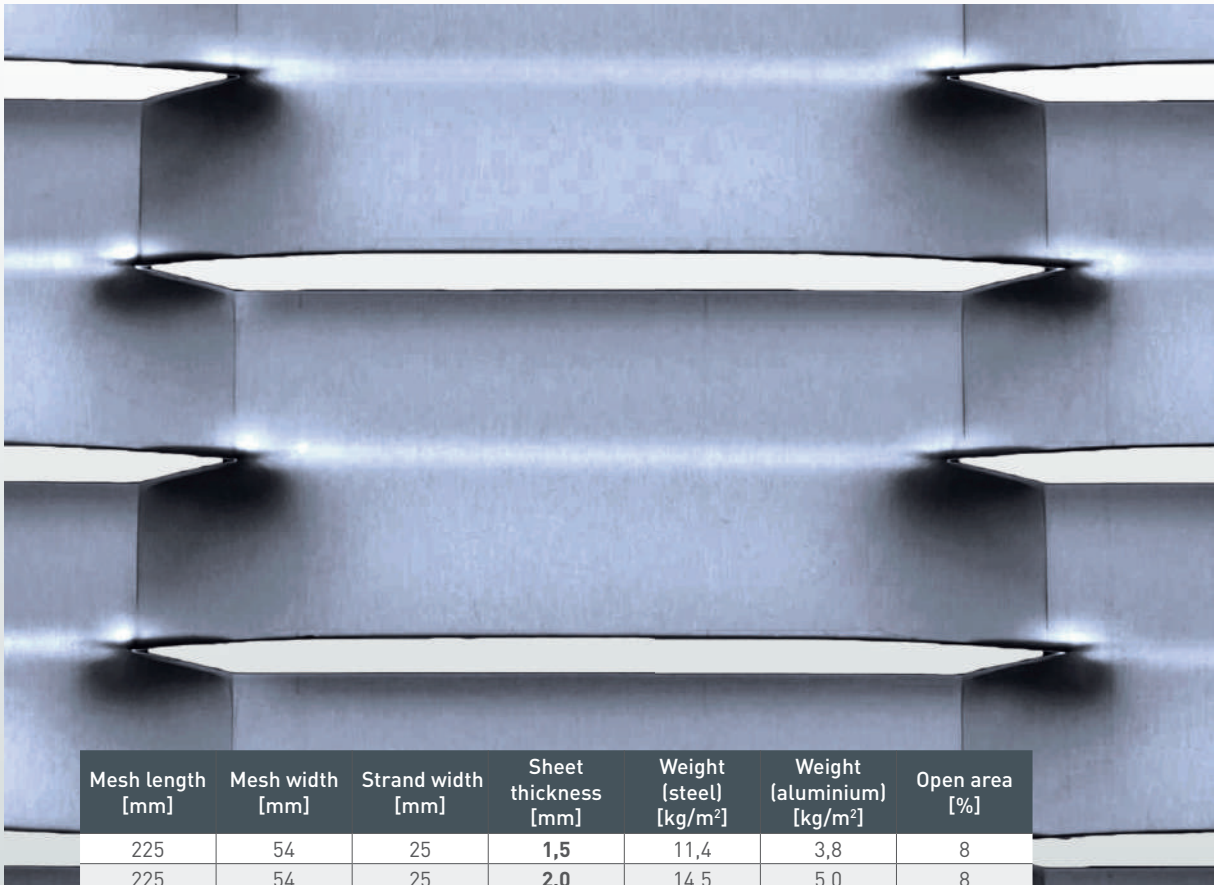
Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m²]	Weight (aluminium) [kg/m²]	Open area [%]
90	33	13	1,5	9,3	3,2	23 %
90	33	13	2	12,3	4,2	23 %
90	33	13	3	18,5	6,3	23 %

EXPANDED METALS FOR ARCHITECTURE

Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m ²]	Weight (aluminium) [kg/m ²]	Open area [%]
150	56	21,5	1,5	9,1	3,1	30
150	56	21,5	2,0	12,1	4,2	30
150	56	21,5	3,0	18,1	6,2	30



Samples in the scale 1:1



Mesh length [mm]	Mesh width [mm]	Strand width [mm]	Sheet thickness [mm]	Weight (steel) [kg/m ²]	Weight (aluminium) [kg/m ²]	Open area [%]
225	54	25	1,5	11,4	3,8	8
225	54	25	2,0	14,5	5,0	8
225	54	25	3,0	21,8	7,5	8

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

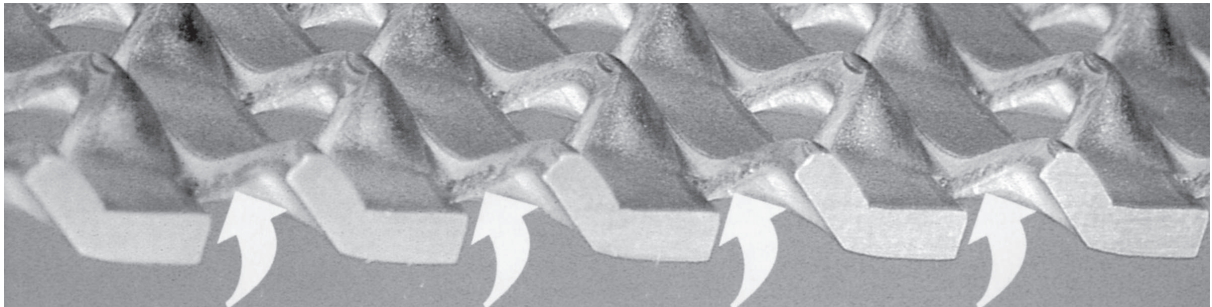
FILTERS

CONIDUR®

THE CONIDUR® PERFORATED SHEETS

The CONIDUR® perforated sheets have openings of a special shape. In contrast with common round or oval holes, the CONIDUR® openings look rather triangular to semi-elliptical with an oblique, strongly conical perforation in the direction of the flow.

The CONIDUR® perforated sheets are produced using a special method. This method allows for the finest possible perforation with the thickness of the sheet being a multiple of the hole's open area.



Thanks to cold hardening, the wear resistance of CONIDUR® perforated sheets is very good and can be even further improved by additional surface treatment.

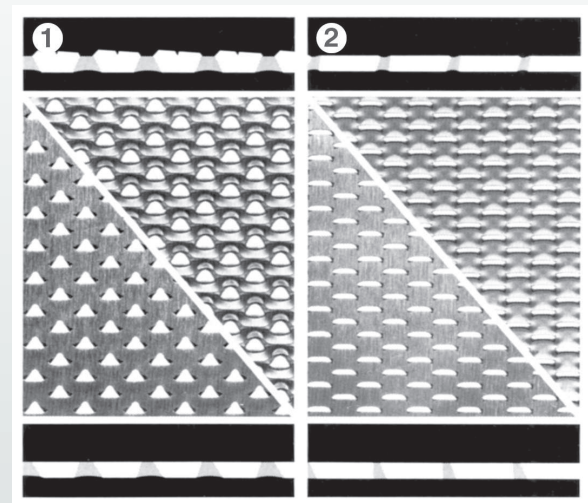
Due to their properties the CONIDUR® perforated sheets are optimally suited for sorting of even abrasive materials. Their strongly conical holes allow low passage resistance and high performance.

The CONIDUR® perforated sheets can be used for processing dry, wet and even very wet loose material of nearly any chemical and physical nature.

Types of the CONIDUR® perforated sheets

- 1) Fine Hole Sheets, flattened/grinded
- 2) Slotted Hole Sheets, flattened/grinded

The difference between those two types is in the shape of their openings. The Fine Hole Sheets have rather triangular to semi-elliptical openings. The Slotted Hole Sheets, in contrast, have oblong perforation creating bigger open area than the Fine Hole Sheets.



CHOOSING THE RIGHT CONIDUR® FINE HOLE SHEETS

The CONIDUR® Fine Hole Sheets can be produced with various size of holes as well as with various open area. Decisive for the correct selection of the CONIDUR® Fine Hole Sheets are primarily the volume flow of air (gas) in m³/h in relation to the working area, the maximum permissible perforation, the temperature of the flowing air, etc.

The CONIDUR® Fine Hole Sheets production possibilities

The CONIDUR® Fine Hole Sheets can be made of:

a) Material: non-alloy steel, copper, brass, aluminium

b) Material: stainless steel
(special materials upon request)

Sheet thickness [mm]	The CONIDUR® fine perforation [mm]
0,50	0,10 – 0,50
0,75	0,15 – 1,00
1,00	0,20 – 1,30
1,25	0,30 – 1,50
1,50	0,35 – 2,00
2,00	0,40 – 6,50
3,00 max.	upon request

Maximum length 2500 mm
Maximum width 650 mm

Sheet thickness [mm]	The CONIDUR® fine perforation [mm]
0,20	0,05 – 0,25
0,25	0,06 – 0,25
0,35	0,06 – 0,35
0,50	0,08 – 0,50
0,75	0,15 – 1,00
1,00	0,20 – 2,00
1,50	0,50 – 4,00
2,00	upon request
2,50 max.	upon request

The maximum length and width depend upon the sheet thickness, perforation, pitch of the holes and surface treatment

The CONIDUR® Slotted Hole Sheets production possibilities

The CONIDUR® Slotted Hole Sheets can be made of:

a) Material: non-alloy steel, copper, brass, aluminium

b) Material: stainless steel
(special materials upon request)

Sheet thickness [mm]	The CONIDUR® fine perforation [mm]
0,50	0,06 x 2,00 – 0,20 x 2,00
	0,08 x 3,00 – 0,80 x 3,00
	0,15 x 4,00 – 0,80 x 4,00
0,75	0,20 x 3,00 – 0,80 x 3,00
	0,20 x 4,00 – 1,00 x 4,00
1,00	0,25 x 3,00 – 0,60 x 3,00
	0,25 x 4,00 – 1,00 x 4,00
1,25	0,25 x 4,00 – 1,00 x 4,00

Maximum length 2500 mm
Maximum width 650 mm

Sheet thickness [mm]	The CONIDUR® fine perforation [mm]
0,20 – 0,25	0,05 x 1,00 – 0,15 x 1,00
	0,05 x 2,00 – 0,15 x 2,00
0,20 – 0,35	0,05 x 2,00 – 0,30 x 2,00
	0,05 x 2,50 – 0,20 x 2,00
0,25 – 0,35	0,06 x 2,00 – 0,30 x 2,00
	0,06 x 3,00 – 0,30 x 3,00
	0,06 x 4,00 – 0,35 x 4,00
0,50	0,08 x 2,00 – 0,20 x 2,00
	0,08 x 3,00 – 0,50 x 3,00
	0,15 x 4,00 – 0,60 x 4,00
0,75	0,20 x 3,00 – 0,80 x 3,00
	0,20 x 4,00 – 0,90 x 4,00

The maximum length and width depend upon the sheet thickness, the slotted perforation and surface treatment. The length of the hole is always parallel to the width of the sheet.

Application of the CONIDUR® perforated sheets

Chemical industry (filter plates; screens in centrifuges; mill screens for crushing processes; fluidized cooling)

Food-processing industry (screens for sugar and starch centrifuges (continuous and discontinuous); mill screens, screens for pressing moulds in the process of cheese production; fluid-bed drying)

Processing technique (crushing plastics; fodder processing)

General application (various filters; screens in fine coal centrifuges)

PERFORATED SHEETS

FLOOR GRIDS

INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

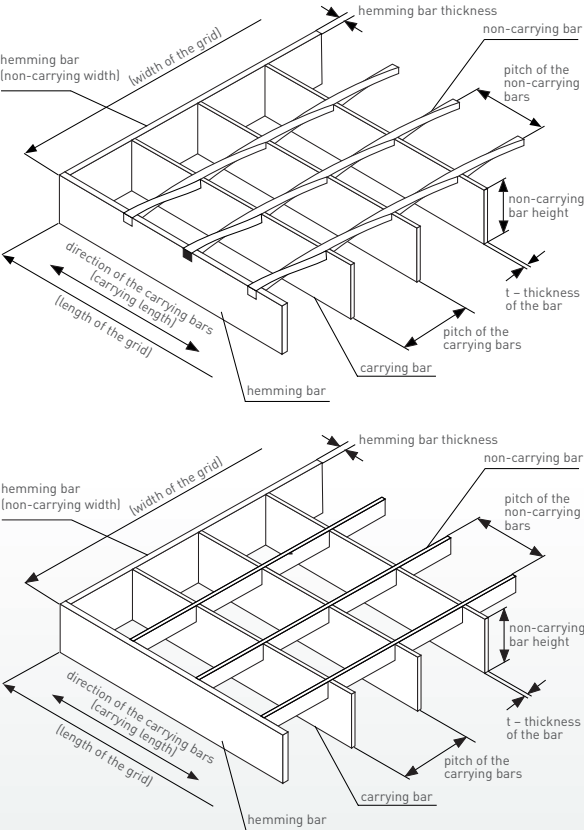
CONVEYOR
BELTS

FILTERS

FLOOR GRIDS

Our product portfolio includes a wide range of floor grid applications, from grids designed for people to walk on to grids designed for heavy cargo transportation. They are used for various platforms, footbridges, loading ramps, shelves, fencings and hole covers.

The grids are made of structural carbon steel class 11, either with hot-dip galvanized surface or without galvanization. We also supply grids made of stainless materials with natural or chemically pickled surface.



SP Floor Grids

The SP floor grids are made of transversely laid non-carrying bars pressure welded onto carrying bars. Their construction is highly resistant against deformation even under heavy load.

Carrying bars: 25/2 to 60/4.

Maximum dimensions:
carrying length 3050 mm,
non-carrying width 1000 mm.

Pressed Floor Grids

The pressed floor grids consist of carrying bars and transversely laid non-carrying bars. The grids can be produced with or without borders, with standard or anti-slip finish (either one-sided or both sides). The grids are manufactured according to drawings supplied by the customer.

Carrying bars: 20/2 to 120/5.

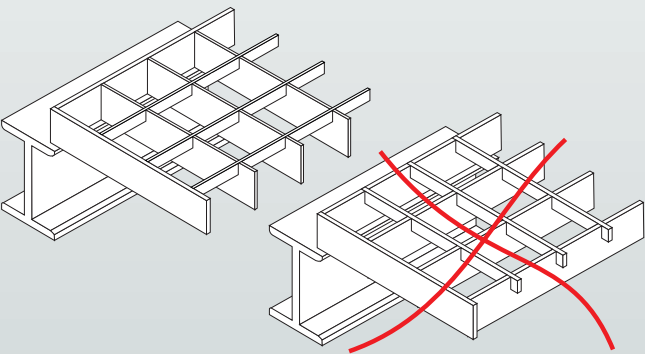
Maximum dimensions:
carrying length 2000 mm,
non-carrying width 2000 mm.

Basic mesh dimensions of pressed floor grids

mesh type A x B [mm]	carrying bar [mm]	load [kg/m ²]
20 x 20	20 x 2	23
	30 x 2	34
	40 x 2	43
	70 x 3	105
30 x 10	30 x 2	30
	40 x 2	37
30 x 30	30 x 2	23
	30 x 3	31
	40 x 2	30
	40 x 3	40
30 x 60	30 x 2	12
	30 x 3	20

Placing the grid on supports

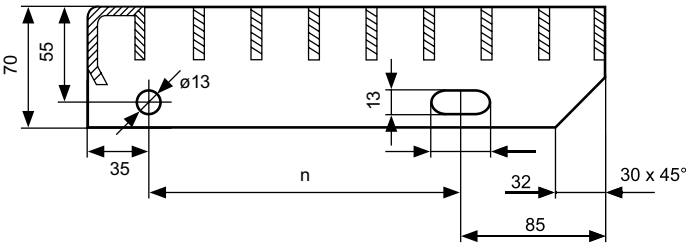
Since the carrying bars carry the load, their ends have to be placed onto a stable construction.



STAIR TREADS

The stair treads are formed by grids whose nosings are reinforced with a special anti-slip profile. There are holes drilled into the sides of the panels for fastening to the construction (see the picture).

It is possible to supply stair treads with other mesh size, too, and with either flat or anti-slip surface as per the client 's request. The stair treads can also be produced with a different carrying bar profile. The dimensions of the treads can be adjusted according to client's needs. There are recommended dimensions for the lengths of the treads, but we are able to supply other dimensions as well.



l	s	h x t	n	Weight [kg]
600	240	30 x 2	120	4,5
	270	30 x 2	150	4,9
	305	30 x 2	180	5,3
800	240	30 x 2	120	5,6
	270	30 x 2	150	6,1
	305	30 x 2	180	6,6
1000	240	30 x 3	120	8,6
	270	30 x 3	150	9,6
	305	30 x 3	180	10,6
1200	240	30 x 3	120	10,2
	270	30 x 3	150	11,3
	305	30 x 3	180	12,4



CONVEYOR BELTS

CONVEYOR BELTS

MATERIALS USED FOR CONVEYOR BELTS PRODUCTION

Material description	C	Si	Mn	Cr	Mo	Ni	Others	Working temperature	Maximal temperature	Temperature range of embrittlement hazard (Sigma fase)
SM – mild steel and galvanised	max. 0,12	trace amount	max.0,50				P,S max.0,05	500 ¹⁾	500 ¹⁾	
ZH – mild steel and galvanised	0,18–0,23	0,10–0,30	0,30–0,60				P,S max.0,04	550 ¹⁾	580 ¹⁾	
Spring steel	cca. 0,60	0,20–0,30	0,30–0,70				P,S max.0,04			
Heat resistant steel Chrome 5	0,05–0,15	0,35–0,45	0,30–0,45	4,50–5,50	0,40–0,60	0,30–0,35		650	700	
1.3401	1,10–1,30	0,30–0,50	12,0–13,0	max. 1,50			P,S max.0,04			
1.4016	max. 0,08	max. 1,00	max. 1,00	15,50–17,50						
1.4301	max. 0,07	max. 1,00	max. 2,00	17,00–19,50		8,50–10,00				
1.4310	0,08–1,14	max. 1,50	max. 2,00	16,00–18,00		6,50–9,00				
1.4401	max. 0,07	max. 1,00	max. 2,00	16,50–18,50	2,00–2,50	10,50–13,50				
1.4541	max. 0,08	max. 1,00	max. 2,00	17,00–19,00	–	9,00–11,50	Ti 5 x %C			
1.4571	max. 0,08	max. 1,00	max. 2,00	16,50–18,50	2,00–2,50	10,50–13,50	Ti 5 x %C			
1.4878	max. 0,10	max. 1,00	max. 2,00	17,00–19,00	–	9,00–11,50	Ti 4 x %C	800	800	
1.4828	max. 0,20	1,50–2,50	max. 2,00	19,00–21,00	–	11,00–13,00		900–1050	1100 ²⁾	600–900
1.4841	max. 0,20	1,50–2,50	max. 2,00	24,00–26,00	–	19,00–21,00		900–1100	1200 ²⁾	
1.4843	max. 0,20	1,50–2,50	max. 2,00	22,00–25,00	–	19,00–22,00		900–1100	1200 ²⁾	
1.4864	max. 0,15	1,00–2,00	max. 2,00	15,00–17,00	–	33,00–37,00		1100	1100 ²⁾	
1.4887	max. 0,15	1,00–2,00	max. 2,00	20,00–23,00	–	33,00–37,00	1,0–1,5 % Nb	1100	1100 ²⁾	

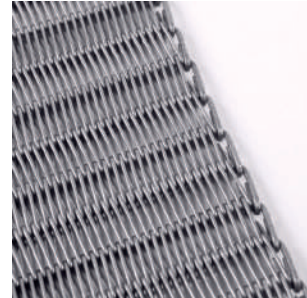
Other materials upon request 1) Not valid for galvanised material 2) Ordinary shielding gas

CONVEYOR BELTS

TYPE 200

Description

This belt is made of densely wound wire of a round section spiral. The alternating left and right spirals are joined by perpendicular transverse wires. Standard edging of this belt is either by loops, bending the transverse wires inwards the belt or by welding. The type of edging usually depends upon the diameter of the transverse wires: loops or bending for thinner wires, welding for thicker ones. Upon the client's request, the belt is equipped by side plates or chain.



Characteristics

- direct run of the belt
- suitable for transportation of small products due to high density of the belt
- long working life
- serrated transverse wires prevent shifting of the spiral wires along the transverse wire
- in case of the loop edging it is possible to flatten the ends of transverse wires (S)
- not suitable for transportation of products that leave residues on the belt, which may lead to clogging and decreasing its function

Application

Mainly as a belt for baking ovens, as a washing belt for fruits and vegetables, as a cooling belt in the confectionery and chocolate industry, as a conveyor belt in the chemical industry, as a cooling belt for rubber and plastic products, as a conveyor belt for hot castings, as a belt for quenching and tempering furnaces etc.

TYPE 300

Description

The belt is made of broadly wound wire of a flat section spiral. The alternating left and right spirals are joined with the help of crimped transverse wires. The standard edging of the belt is by welding, however, for selected types it is possible to carry on loops or bending, if requested. The crimped transverse wires prevent slipping of the spiral wires and therefore preserve the original structure of the belt even in tension.



Characteristics

- direct run of the belt
- smooth belt surface allowing transportation of products with small contact area
- suitable for washing or drying of products thanks to big open area
- long working life
- relatively low price in comparison with other belt types
- not the best solution for transportation of products that leave residues on the belt, leading to clogging and decreasing its function

Application

As a cooling belt in glassworks and ceramics factories, as a conveyor belt in the confectionery and chocolate industry, as a conveyor belt in the chemical industry, as a drying belt for veneer in the lumber industry etc.

CONVEYOR BELTS

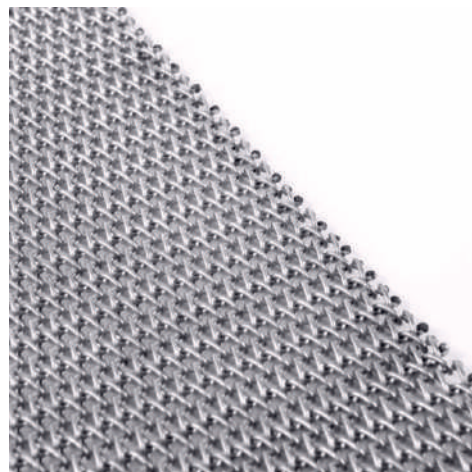
TYPE 400

Description

The belt is made of broadly wound wire of a round section spiral. The alternating left and right spirals are joined by crimped transverse wires. The standard edging is by loops, by bending the transverse wires inwards the belt or by welding. Upon the client's request, the belt can be equipped by side plates or chains. The crimped transverse wires help to maintain the original structure of the belt in tension since they prevent the spiral wires from shifting.

Characteristics

- direct run of the belt
- the most common and frequently used type of belt
- suitable for washing or drying products thanks to big open area
- long working life
- relatively low price in comparison to other types of belts
- not the best solution for transportation of products that leave residues on the belt, leading to clogging and decreasing its function



Application

As a cooling belt for glassworks and ceramics factories, as a conveyor belt in the confectionery and chocolate industry, as a conveyor belt in the chemical industry, as a washing belt in the drinks and canning industry, as a drying belt in the lumber industry, as a conveyor belt for foil packing machines etc.

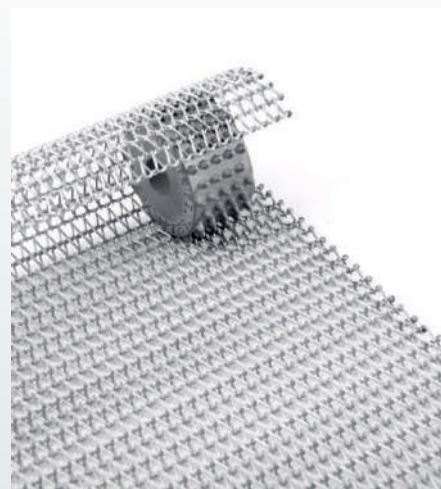
TYPE 400 CTR

Description

The belt is made of broadly wound wire of a round section spiral. The alternating left and right spirals are joined by crimped transverse wires. The standard and only possible edging is by welding. The crimped transverse wires help to maintain the original structure of the belt in tension, since they prevent the spiral wires from shifting. This belt is produced in only a few versions which can be driven by special cog wheels.

Characteristics

- suitable for conveyors with a small transition edge (the so-called knife edge)
- direct run of the belt
- zero back slip
- suitable for drying products thanks to big open area
- long working life
- not the best solution for transportation of products leaving residues on the belt, which may lead to clogging and decreasing its function
- not suitable for heavy loads



Application

As a drying belt in the food industry, as a conveyor belt in the sterilization process in the pharmaceutical industry, as a transfer belt between separate technologic lines, for example between the proving and baking ovens.

CONVEYOR BELTS

TYPE 330, 340, 430, 440

Description

Alike the Type 300 or 400, these belts are made of broadly wound spiral wire. However, in order to obtain the maximum density of the belt, this type is manufactured with several transverse wires per pitch (3 or 4). The transverse wires are ended by welding or by side plates. The spiral wire is of a flat section. Those belts are very dense and hold heat well.

Characteristics

- direct run of the belt
- smooth belt surface allows transportation of products with small contact area
- small open area allowing transportation of small products
- high density of the belt leads to good heat accumulation and preservation
- long working life

Application

As a cooling and discharge belt for glassworks, as a conveyor belt for hardening and tempering furnaces, as a conveyor belt in the food-processing industry, as a conveyor belt in the electrotechnical and engineering industry etc.

TYPE 500

Description

The belt is made of one-sided spiral wires (either left or right) that are, in addition, entwined with each other. These spirals are joined by transverse wires edged by welding. The Type 502 represents another variant of this belt made of doubled spirals.

Characteristics

- suitable for heavy loads and high temperatures
- longer working life comparing to the Type 400 if in the same working environment
- very sensitive during setting and running, suitable only for low speeds

Application

As a conveyor belt for quenching and tempering furnaces as well as for other heat processing up to 1200 °C.

TYPE Z-BELT

Description

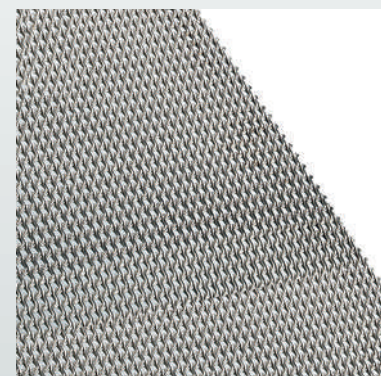
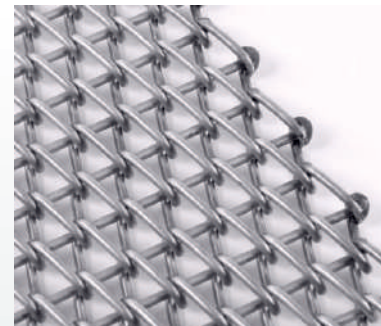
Type Z-Belt is with subsequently compressed spiral wires. This leads to a good belt strength and toughness. The belt is made of one-sided wire spirals which are intertwined together and compressed. The belt is edged by welding. This belt is also known under the name Rolled Baking Oven Belt.

Characteristics

- low weight
- big open area
- compatible with the CLEANBELT automatic cleaning device
- direct run of the belt

Application

As a baking belt for various small sweet and salty biscuits.

INDUSTRIAL
SCREENSTECHNICAL
CLOTHSLABORATORY SIEVES
AND DEVICESPERFORATED
SHEETSCONVEYOR
BELTS

FILTERS

CONVEYOR BELTS

TYPE 600

Description

This belt is made of transverse bars, which are alternately intertwined with steel cords in the direction of the belt movement. The transverse bars can be either straight or crimped. Their ends at the edges of the belt are either loose or welded.

Characteristics

- although it has a big open area, the belt is quite strong
- its big open area allows washing or drying products on the belt
- low weight
- easy to clean, does not get clogged
- the belt has to be produced exactly to length - once made it cannot be shortened or extended
- repairs are difficult - the belt is no longer functional when the cords are worn out



Application

As a washing or drying belt in the food-processing industry, particularly for drying fruits and vegetables, as a dewatering belt for the confectionery industry, as a drying belt in the chemical and ceramics industries etc.

TYPE 700

Description

The belt is made of bent wires that are entwined with each other. The wires are bent both horizontally and vertically in order for the belt to run smoothly even over a small transition edge, but this is possible only in the correct direction. Incorrect installation (the other way round) may lead to permanent deformation and damage of the belt. The belt is edged either by small meshes and loops, or just loops. Connecting tubes are a part of the delivery, drive wheels are supplied upon the client's request.

Characteristics

- direct run of the belt
- zero belt slip
- suitable for washing or drying products on the belt thanks to big open area
- when operated in a bath, it does not carry the contents of the bath out
- small contact area with the product
- low weight
- easy to clean, does not get clogged
- highly prone to damage, regular care and maintenance required



Application

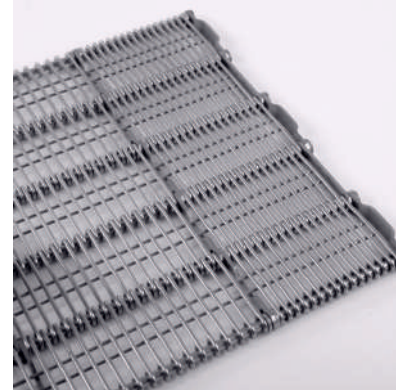
As a baking and drying belt in the food-processing industry, namely in bakeries, confectioneries and in the chocolate industry, as a conveyor belt in the chemical and engineering industries etc.

CONVEYOR BELTS

TYPE 800

Description

This belt is made of transverse wires on which short longitudinal wires are threaded in various densities according to the client's request. The density of the belt is determined by the distance between the individual longitudinal wires, from the largest, when the longitudinal wires are next to each other, to the smallest, when the distance between them is given by from below welded transverse wires or, alternatively, by rollers or springs. As reinforcement and the main carrying element of the belt there are flat steel plates at the edges and in between the longitudinal wires. The belt is edged by welding, but it can also be edged by side plates or chain. Upon the client's request we supply also drive wheels or entire drive rollers.



Characteristics

- direct run of the belt
- zero belt slip
- suitable for washing or drying products on the belt thanks to big open area
- small contact area between the belt and the product
- high strength, resistance and working life
- easy to clean, does not get clogged

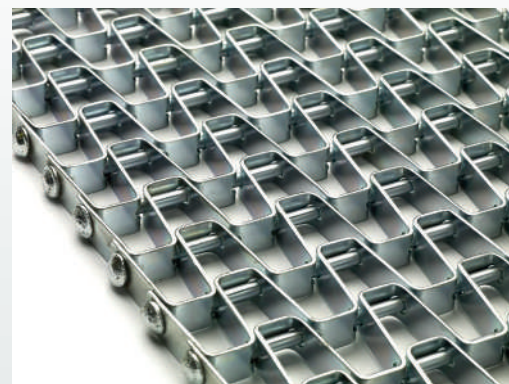
Application

As a baking and drying belt in the food-processing industry, particularly in bakeries, confectioneries and in the chocolate industry, as a conveyor and washing belt in the chemical and engineering industries, as a cooling belt for rubber and plastic products etc.

TYPE 900

Description

The belt is made of transverse wires on which bent flat steel profiles (honeycombs) are threaded, thus determining the size of the mesh. The belt is edged by welding or bending. Drive wheels are delivered upon the client's request.



Characteristics

- direct run of the belt
- zero belt slip
- suitable for washing or drying products on the belt thanks to big open area
- small contact area between the belt and the product
- high strength, resistance and working life

Application

As a drying or washing belt in the food-processing industry, as a conveyor and washing belt in the chemical and engineering industries, as a cooling belt for rubber and plastic products etc.

INDUSTRIAL
SCREENSTECHNICAL
CLOTHSLABORATORY SIEVES
AND DEVICESPERFORATED
SHEETSCONVEYOR
BELTS

FILTERS

CONVEYOR BELTS

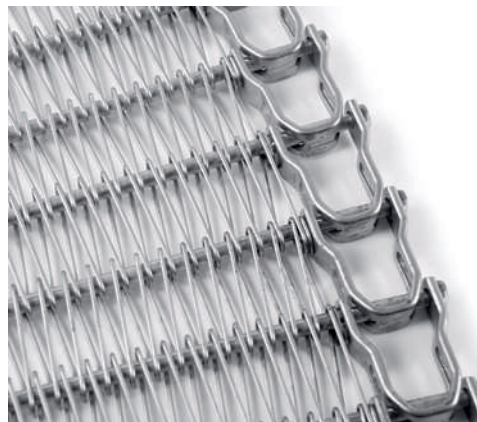
TYPE 1000

Description

The basic construction of this belt is a standard design of spiral wires joined together by straight transverse wires. However, due to its special chain link edges, the belt is able to curve with the help of special guides. This belt can be produced with or without the spiral wires. Drive wheels are delivered upon the client's request.

Characteristics

- direct run of the belt
- zero belt slip
- the belt can be guided into a curve or up a rising spiral
- a large open area enabling easy air penetration
- a very low weight
- long service life



Application

As a spiral belt for freezing and cooling tunnels, as a conveyor belt in the confectionery and chocolate industry, as a cooling belt in bakeries, as a conveyor belt in the chemical industry, as a carrying belt in special dryers; as a conveyor discharge belt for special unloading towers in harbours and airports etc.

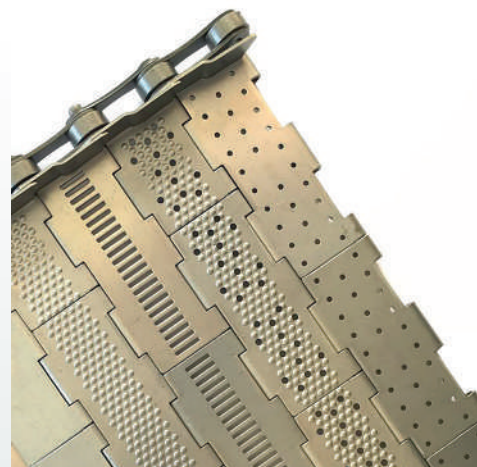
TYPE 1500

Description

This belt is made of metal plates joined together by transverse rods threaded through their edges. The belt is always edged with a roller chain and it can be equipped with side plates or carriers. The belt can be without perforation, perforated or stamped, which prevents sticking of the transported goods to its surface. The belt is delivered including connecting segments and, upon the client's request, also chain wheels.

Characteristics

- direct run of the belt
- zero back slip
- can be easily adjusted for transportation of products in an incline
- suitable for transportation of small products thanks to its small open area
- good strength and long working life
- choice of five basic pitches according to the chain type



Application

As a discharge belt in automated press shops and machine shops; as a special baking belt; as a conveyor belt in the chemical industry etc.

FILTERS

Filters are an important part of technological processes in various sectors of economy.

They are used for the filtration of liquids in the food and chemical industry, in water management, for the purification and separation of oils, various waste products and the like.

Filters made of technical cloths and perforated sheets

We produce common cylindrical, flat, conical filters of technical metal cloths.

Our filters may consist of one to five layers of cloths with supporting bearing layers of perforated sheets.

Their most common design is made of stainless steel of various qualities. They usually have flanges made of flat sheet metal; the bottoms are filtering, solid or even through.



FILTERS

Pleated filters

Pleated filters work the same way as multi-layer filters and their structure is also similar. However, there is a significant difference in the need of achieving a higher filter capacity in comparison to the standard filters. The filtering area is increased by pleating and the filtering layer is thus enlarged. The most common materials are DIN 1.4301 and DIN 1.4401.

We make substitutes (aftermarket) of the original OEM filters in the required quality.



Dust and air filters

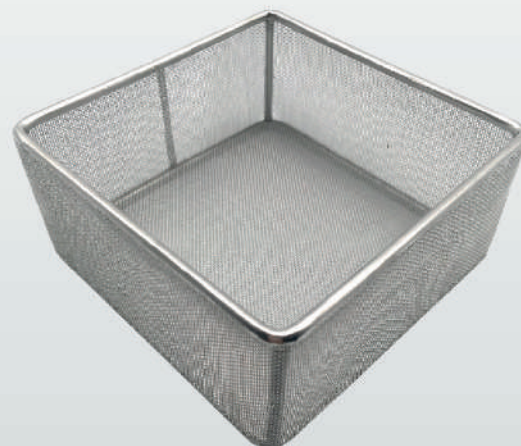
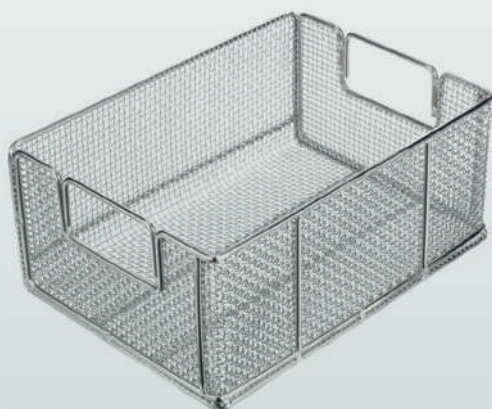
Unlike the other types of filters, dust and air filters are provided with filtering layer made of polyester or waterproof paper. The greatest advantage of these filters is a favorable price comparing to filters made of steel, and also their ability to provide a very fine filtration (even particles below 1 μm). This category includes flat filters, pocket filters, filter cartridges, filters with activated carbon, filters for separators etc.



Wire baskets and inserts

These filters are made of woven or welded screens with square or rectangular mesh, of technical cloths, slotted screens, of metal sheets with or without perforation, expanded metals or of a combination of those products.

They are often used in goods storage, for degreasing, in galvanizing processes, in quenching furnaces etc. The most common materials are DIN 1.4301, DIN 1.4401, DIN 1.4841, DIN 1.4845 and DIN 1.4864 (depending on the application).



WEDGE WIRE SCREENS

They are used as screening decks for technological applications and processes in thickening, dewatering, extrusion, drying and fermentation in the food and processing industries.

The screens are made of steel wires of triangular profile; they are mainly welded, occasionally looped.



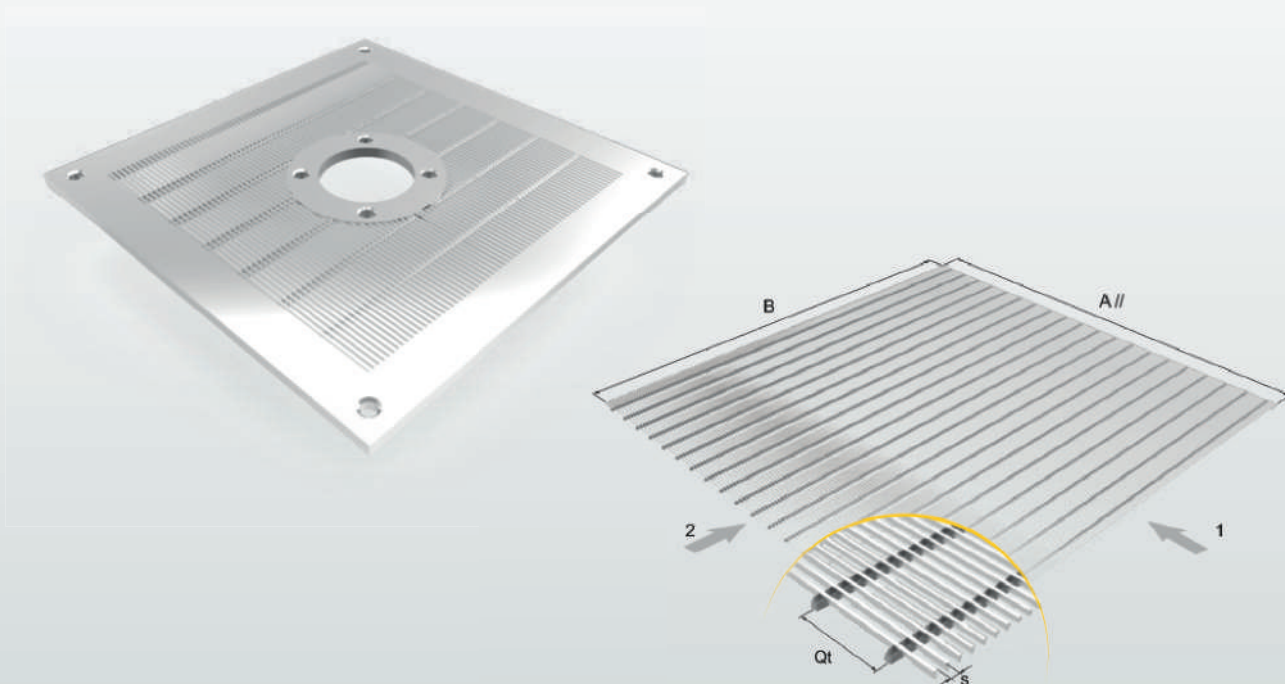
Flat wedge wire screens

This is the most commonly used type among welded wedge wire screens. It is delivered separately or in a frame, according to the client's request. Screens in the form of round bottoms are often used in the brewing industry where they are indispensable.

Slot size: from 0.05 to approx. 10 mm.

Maximum screen size: 2000 x 4500 mm.

The section of the wedge wire is chosen according to the type and abrasiveness of the sorted material.



FILTERS

Curved wedge wire screens

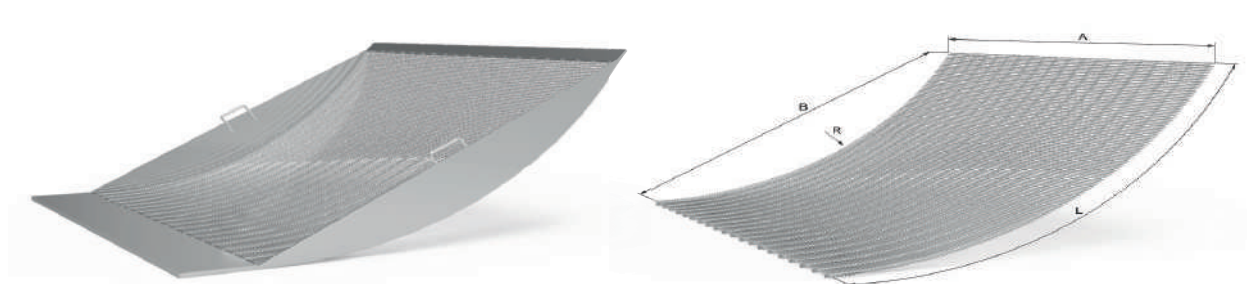
The screen surface is formed by wedge-sectioned wires welded to transverse wires. These screens are most often used in the processing industry, the sugar industry and in wastewater treatment.

These screens are designed mainly for dewatering and sludge removal from sand, fine aggregates, coal and other wet materials.

Slot size: from 0.05 to approx. 10 mm.

The screens can be produced separately, armoured or as a part of a complete case.

The section of the wedge wire is chosen according to the type and abrasiveness of the sorted material.



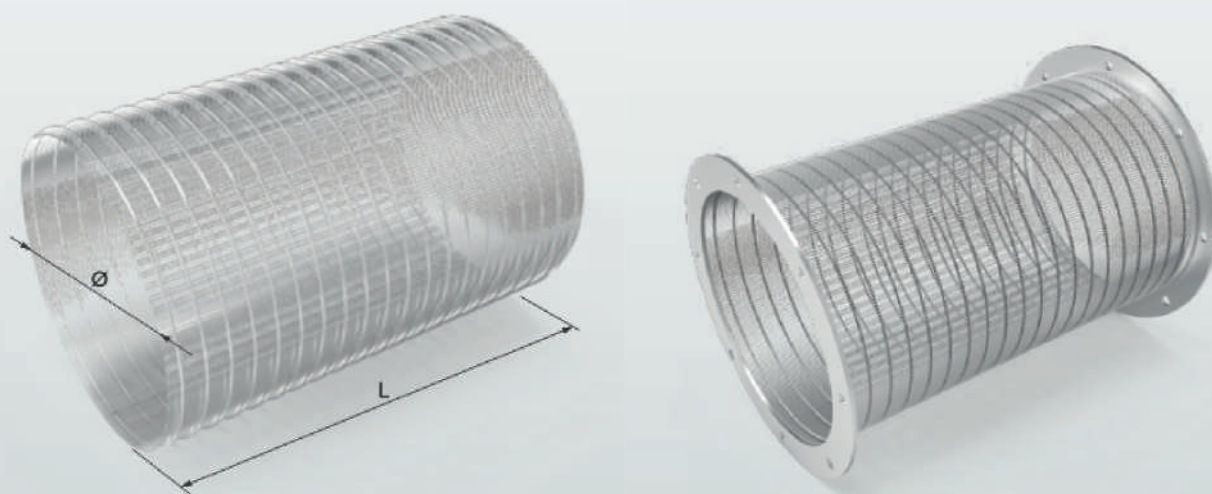
Cylindrical wedge wire screens

The wedge wire screens sorting screens, both loop and welded, can be shaped variably. This makes it possible to produce various cylinders, baskets or other specially shaped screens according to the requirements of specific technological applications.

Such screens are irreplaceable especially in the processes of dewatering, thickening, filtration and separation e.g. in the sugar industry and in other food-processing branches (breweries, chocolate factories, the meat-processing industry etc.), in the chemical industry as so-called passive filters, in the pharmaceutical and processing industries (reactors and so on) and in many other processes, such as in coal cleaning plants and in preparation plants for other solid minerals and materials, for thickening suspensions and sludge in purification plants and so on.

Slot size: from 0.05 to approx. 10 mm.

The section of the wedge wire is chosen according to the type and abrasiveness of the sorted material.



SCREENS FOR SEPARATORS

We supply wedge wire screens for the PSS and other separators.

The screens are supplied in two basic designs, according to the client's request.

These screens are used mainly in agriculture for the separation of solids and liquids (pig and beef dung) and as parts of biogas plants. The products supplied by us are fully comparable with original spare parts.



EPOXY COATED TECHNICAL CLOTHS

Black steel technical cloth covered with resin, which is used as a supporting grid in the manufacture of pleated filters as a supporting part of the filter layer.

The technical cloth is very flexible, it can be well processed. Unlike the galvanized technical cloth, it is more environmentally friendly and cheaper.

The standard design is the technical cloth in the roll 30 meters long with the rectangular mesh 1.2 x 1.6 mm and in widths of 1 000 and 1 220 mm.

At present, its parameters show to replace the galvanized technical cloths to a much greater extent.



FARM ANIMAL SCREENS

HEXAGONAL SCREENS

Multi-purpose screens for domestic animal rearing (rabbits, poultry) and as a protection against pests.

Application

Simple fences, pens and enclosures for domestic animals, barriers against rodents, rabbit hutches, protection of tree roots and seedlings, protection of tree trunks from biting, reinforcement of plasters, thermal insulation of buildings, insulation of hot water pipes, arranging of flowers and decorations.

Galvanized

ROLL WIDTH	ROLL LENGTH	MESH SIZE	MATERIAL
1 m and 0.5 m	50 rm and 10 rm	13-25 mm	galvanized wire

Plastic-coated

ROLL WIDTH	ROLL LENGTH	MESH SIZE	MATERIAL
1 m and 0.5 m	25 rm and 10 rm	13-25 mm	galvanized wire coated with green PVC



WELDED SCREENS

Multi-purpose screens for domestic animal rearing (rabbits, poultry) and as a protection against pests.

Application

Welded screens are used as various covers, for the production of cages and aviaries, simple fences for domestic animals, rabbit hutches, run fencing, reinforcements, wire baskets and other similar products.

Galvanized

ROLL WIDTH	ROLL LENGTH	MESH SIZE	WIRE DIAMETER	MATERIAL
1 m	25 rm	6,3–25 mm	0.55–2.05 mm	wire - galvanized after welding

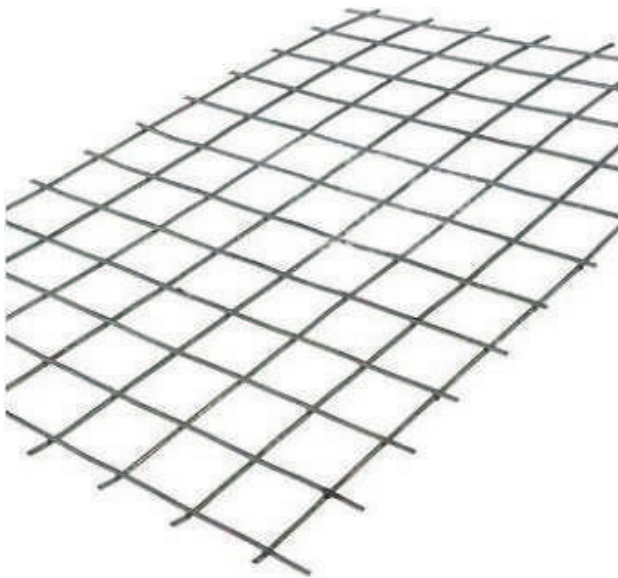
Plastic-coated

ROLL WIDTH	ROLL LENGTH	MESH SIZE	WIRE DIAMETER	MATERIAL
1 m	25 rm	12,7–25 mm	1,2–2 mm	steel wire coated with green PVC

Stainless

ROLL WIDTH	ROLL LENGTH	MESH SIZE	WIRE DIAMETER	MATERIAL
1 m	25 rm	6–25 mm	0,5–2 mm	1.4301

FARM ANIMAL SCREENS



INSECT SCREENS

Fiberglass

These screens are used in the windows and doorways to keep bothersome insects outside.

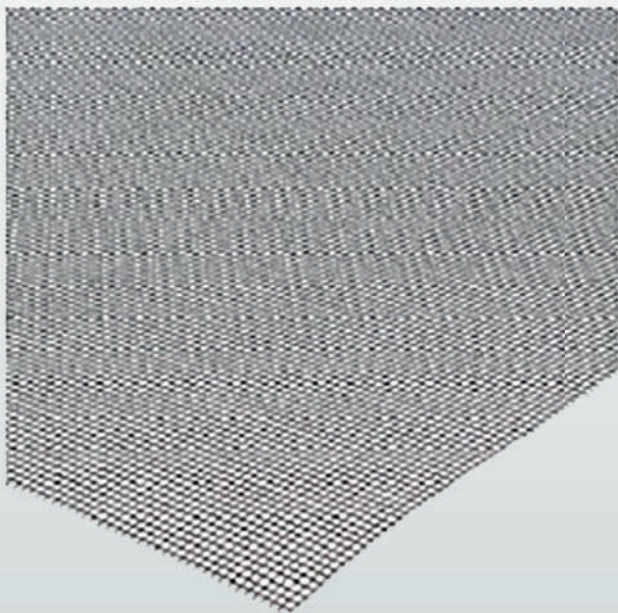
Application

Fiberglass mesh is used as a protection against bothersome insects in the windows and doorways.

Description

The glass fiber is made of glass cullet molten under high temperature and subsequently coated in PVC (polyvinylchloride). Once the screens are woven they are pulled through a furnace where thermal fixation takes place. The main advantages of fiberglass are its stable mechanical and physical properties (it does not stretch, shrink, it always maintains its shape under any conditions, it does not respond to air humidity or sunlight).

ROLL WIDTH	ROLL LENGTH	MESH SIZE	FIBRE DIAMETER	MESH	COLOURS
600–1800 mm	30 m	1,4 mm	0,28 mm	18 x 16	grey, black, white



INDUSTRIAL
SCREENS

TECHNICAL
CLOTHS

LABORATORY SIEVES
AND DEVICES

PERFORATED
SHEETS

CONVEYOR
BELTS

FILTERS

FARM ANIMAL SCREENS

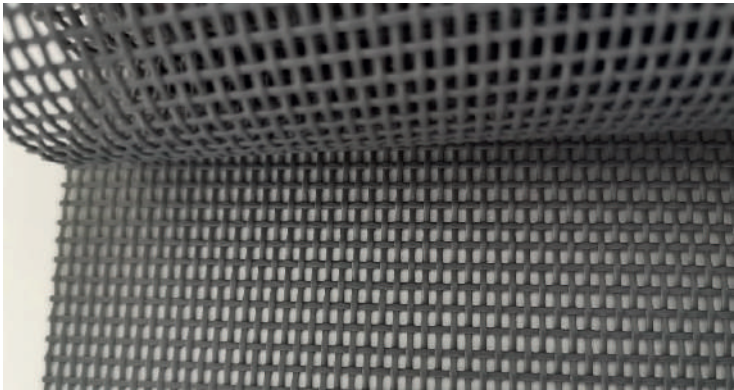
PET SCREEN

A reinforced screen that withstands pet claws, too.

Application

The PET SCREEN is used as a protection against bothersome insects but it can withstand the claws of pets, too.

ROLL WIDTH	ROLL LENGTH	FIBRE DIAMETER	MESH	COLOUR
1200–1500 mm	30 rm	0,6 mm	15 x 10	grey



ALUMINIUM

These screens are used in the windows and doorways to keep bothersome insects outside.

Application

These screens are placed as a protection against bothersome insects in the windows or doorways. They are often used by architects in modern interiors and can also be used as a protection against rodents.

Description

A woven mesh made of aluminium wire. Comparing to fibreglass this material is not strong in its joints and has a woven-in edge, therefore it is not advisable to cut it.

ROLL WIDTH	ROLL LENGTH	MESH SIZE	FIBRE DIAMETER	MESH	COLOUR
1000 or 1200 mm	30 rm	1,4 mm	0,25 mm	18 x 16	silver



FARM ANIMAL SCREENS

VARNISHED STEEL MESH

A stronger insect screen which can also be used against rodents.

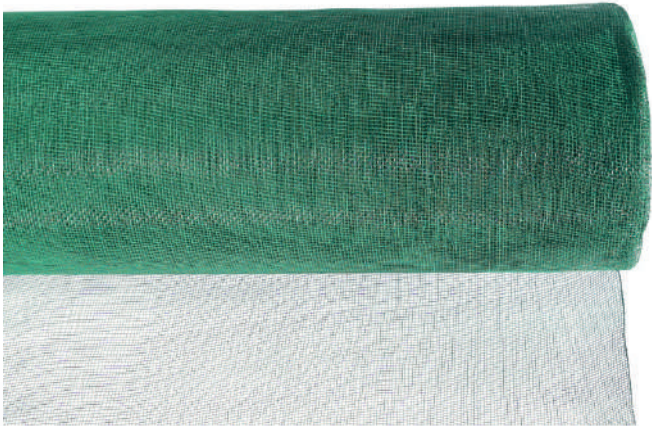
Application

Mostly used by breeders for crickets and grasshoppers terrariums. Thanks to its strength it can also be used against rodents.

Description

It is a stronger insect screen, woven of steel wire and subsequently painted in green. This screen has a woven-in edge.

ROLL WIDTH	ROLL LENGTH	FIBRE DIAMETER	MESH	COLOUR
1000 mm	30 m	0,21 mm	15 x 13	green



Insect screens

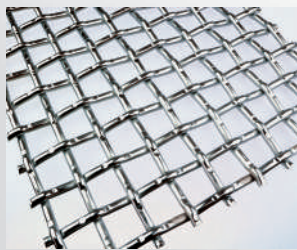


Welded screens

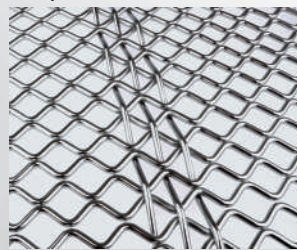


ASSORTMENT RANGE

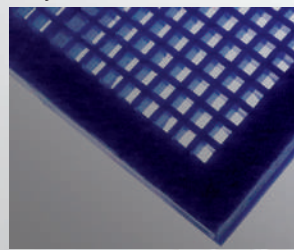
Wire screens



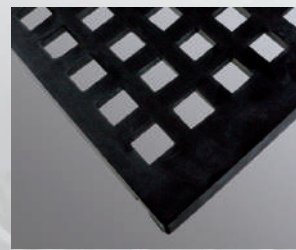
Harp screens



Polyurethane screens



Rubber screens



Welded screens



Wedge wire screens



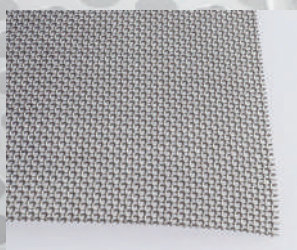
Laboratory sieves and devices



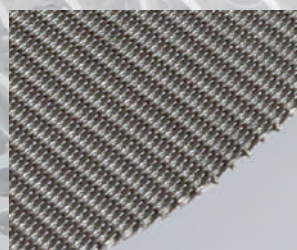
Conveyor rollers



Technical cloths



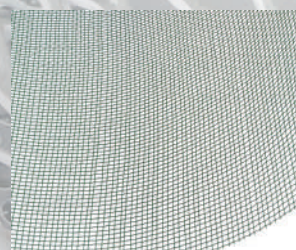
Filtration cloths



Filters



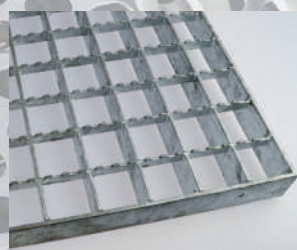
Insect screens



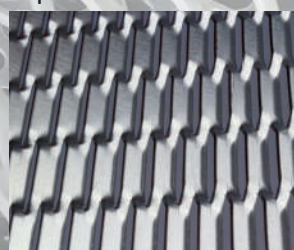
Conveyor belts



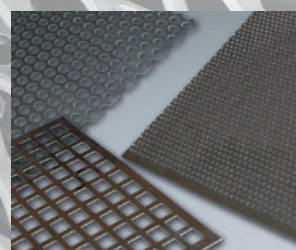
Stair treads



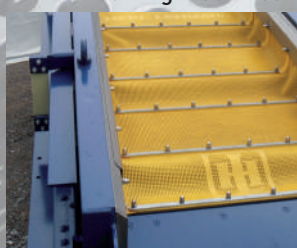
Expanded metals



Perforated sheets



LIWELL sorting machines



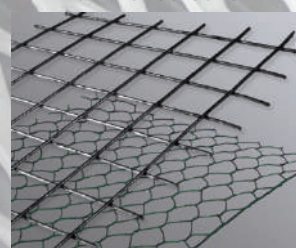
Fence systems



Wire baskets



Farm animal screens



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