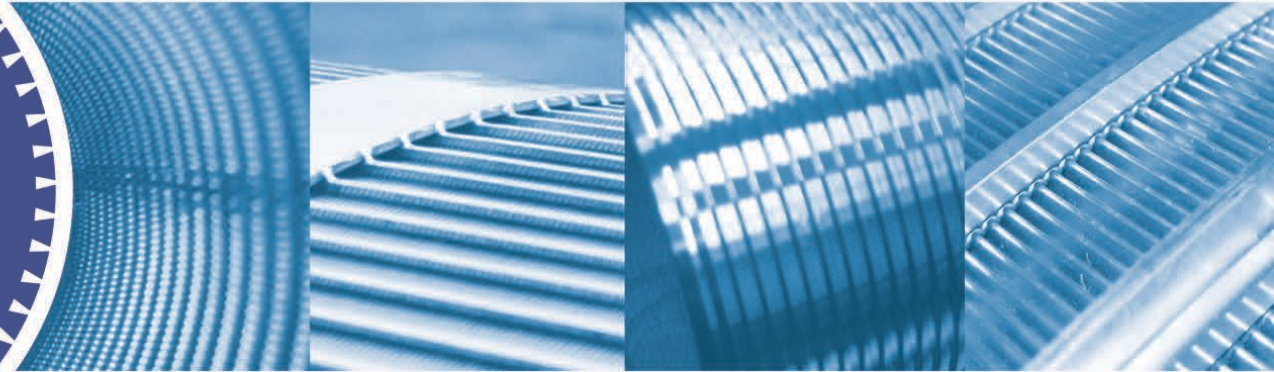


con-slot[®] SCREENs

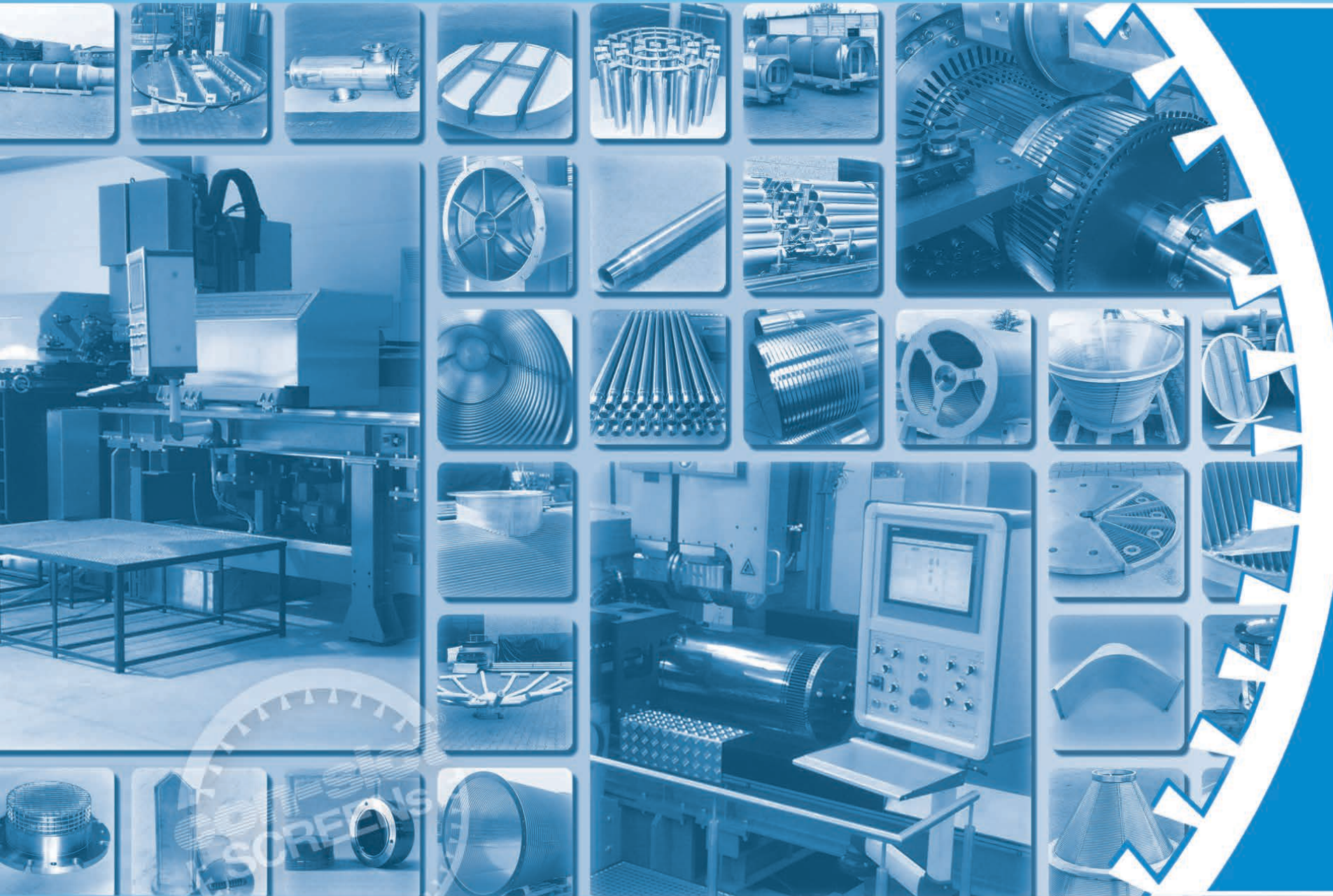
**DEVELOPMENT & TRADING ENTWICKLUNGS-
UND VERTRIEBSGESELLSCHAFT MBH**



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FORMATIONLINK™



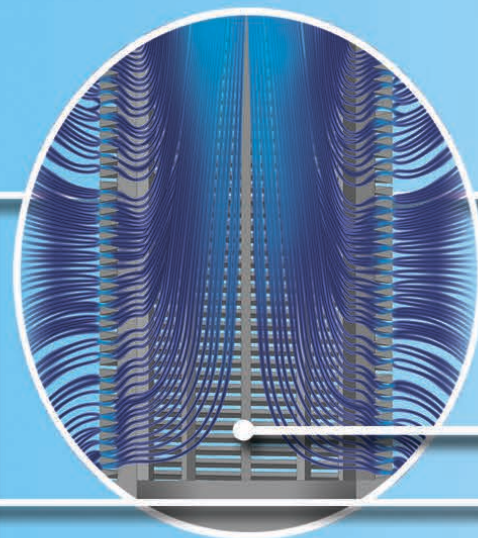
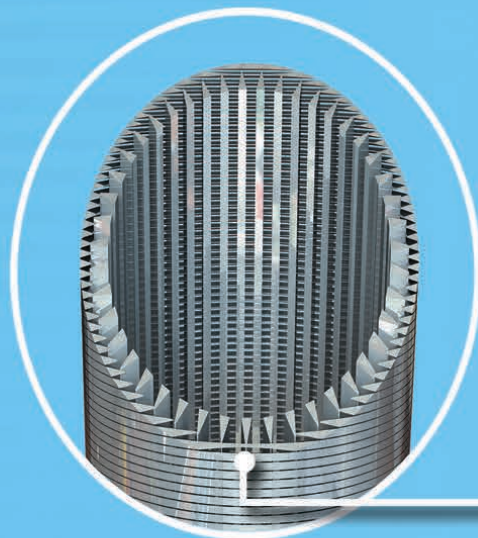
Con-Slot SCREENS Development & Trading Entwicklungs- und Vertriebsgesellschaft mbH is modern and fast growing company founded in 1973. The company deals with designing, manufacture, and supplies of welded slotted products and filters used in industrial filtration and separation equipment for production, transportation and refining of oil/gas, purification of water, other liquid and gaseous media, as well as in other processes of filtration, dewatering, deslimation, and separation.

All Con-Slot SCREENS GmbH production facilities are located in the industrial district of Wittingen on the banks of the Elbe channel, which means that the port of Hamburg can be easily accessed if necessary.

With vast knowledge and experience accumulated by Con-slot SCREENS GmbH over the years, as well as availability of all required production equipment, technical and intellectual resources, to the company solves a variety of challenging tasks at different stages of design and assembly, taking into account the peculiarities of processes and requirements of the customers.

Starting from 1992 and until present days, our company, within the framework of joint research projects and with the help of financial support of the European Commission, in conjunction with Technische Universität München, Technische Universität Bergakademie Freiberg, and Fraunhofer-Institut für Keramische Technologien und Systeme IKTS, conducts various researches and tests. Based on the results of these researches and tests, we developed and introduced special software which allows for accurate mechanical and hydraulic calculations of various slotted surfaces for the purpose of optimal selection of design and effective operation of equipment.

High German quality of Con-Slot SCREENS GmbH products is confirmed by positive feedback and certificates (ISO 9001, TUV, GAZPROMSERT, etc.).



One of the key products produced by Con-Slot SCREENS is FORMATIONLINK™ innovative slotted well filters.

FORMATIONLINK™ Well Filters

FORMATIONLINK™ Well Filters are manufactured by spiral winding of profiled wire on supporting elements of different sections, joined by contact welding at every point of its crossing.

This type of filter has no additional frame in the form of a perforated pipe, at the same time offering better strength characteristics than framed filters.

Specific Design Features

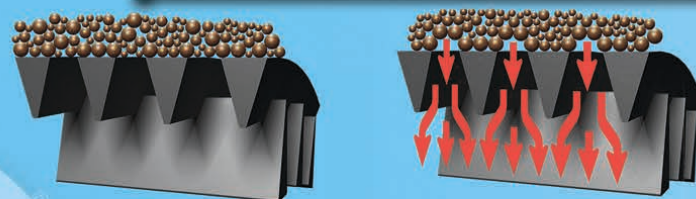
Specific design feature of FORMATIONLINK™ filters is single filtering surface, which promotes straight radial filtration of reservoir fluid and prevents formation of stagnant zones, excluding the mudding (clogging) of a filter and its erosion damage, as well as reduces hydraulic losses during the influx of fluid into the well.

Advantages of this design:

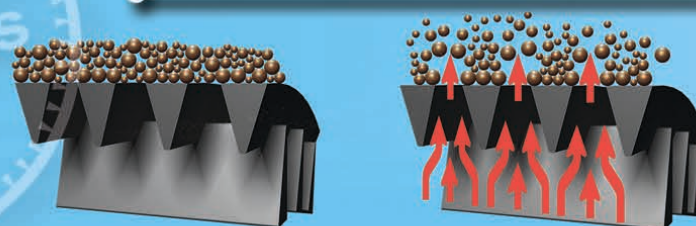
- Maximum possible open surface keeping sufficient strength characteristics of the filter.
- Provision of laminar flow of media, filtered by the filter..
- Formation of natural gravel filter.
- Provision of minimum hydraulic resistance.
- Provision of conditions for reverse circulation.

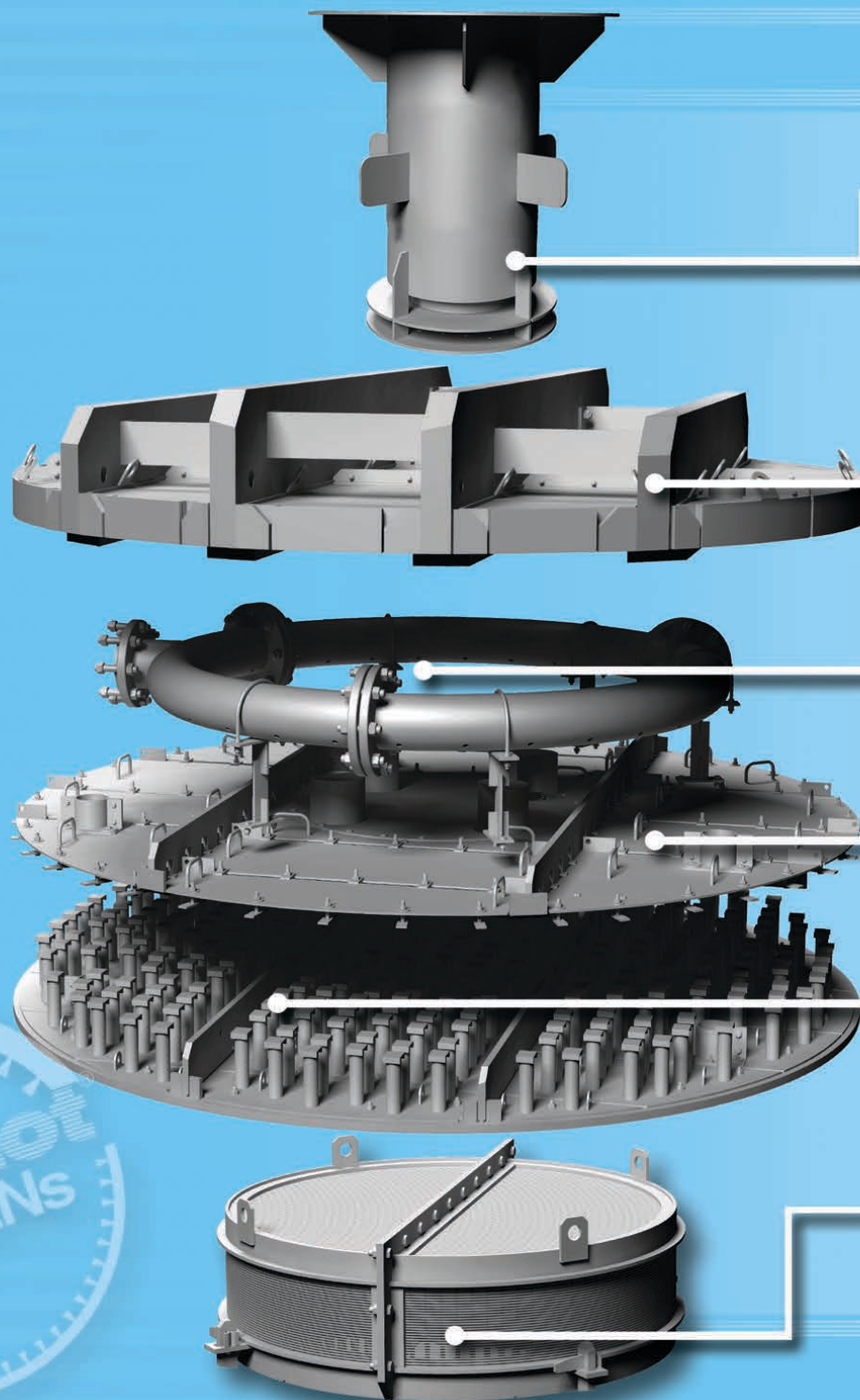
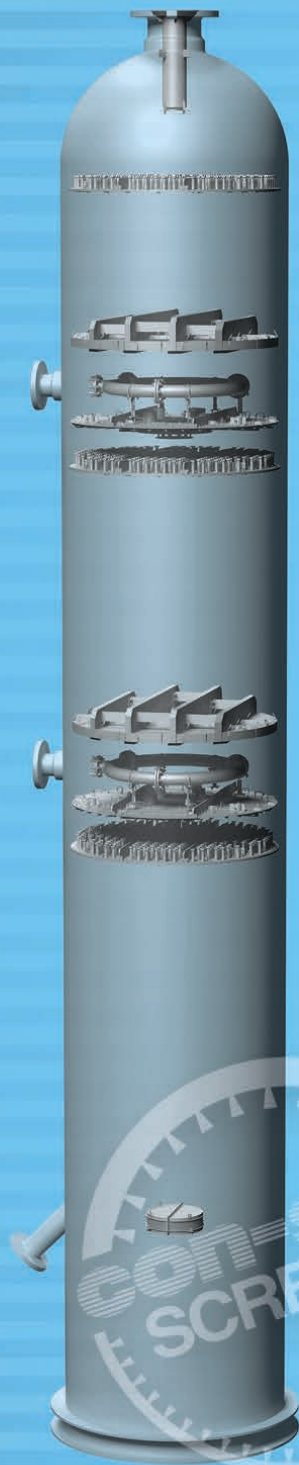
FORMATIONLINK™ well filters are used for completion (equipping) of oil and gas wells (casing column, open hole, open hole with gravel jacket) in vertical, controlled directional, and horizontal wells, underground gas storage facilities wells, as well as during sidetracking.

Filter operation



Filter blowing





Switch Gear

Switch gear is designed for reduction of the velocity of product inlet into the reactor, while protecting the catalyst layer against washout and destruction of the trays. Can have a variety of design.

Support Grid of Catalyst Layer

It is designed to hold a catalyst inside the reactors with axial flow movement. It is a structure of flat screens and beams that support it..

Quench Ring (Quench Pipe)

It is designed for the supply of flow to the area of Quench zone of the reactor. It is manufactured both in the form of a ring and in the form of a collector with bells.

The separating tray with Quench chest

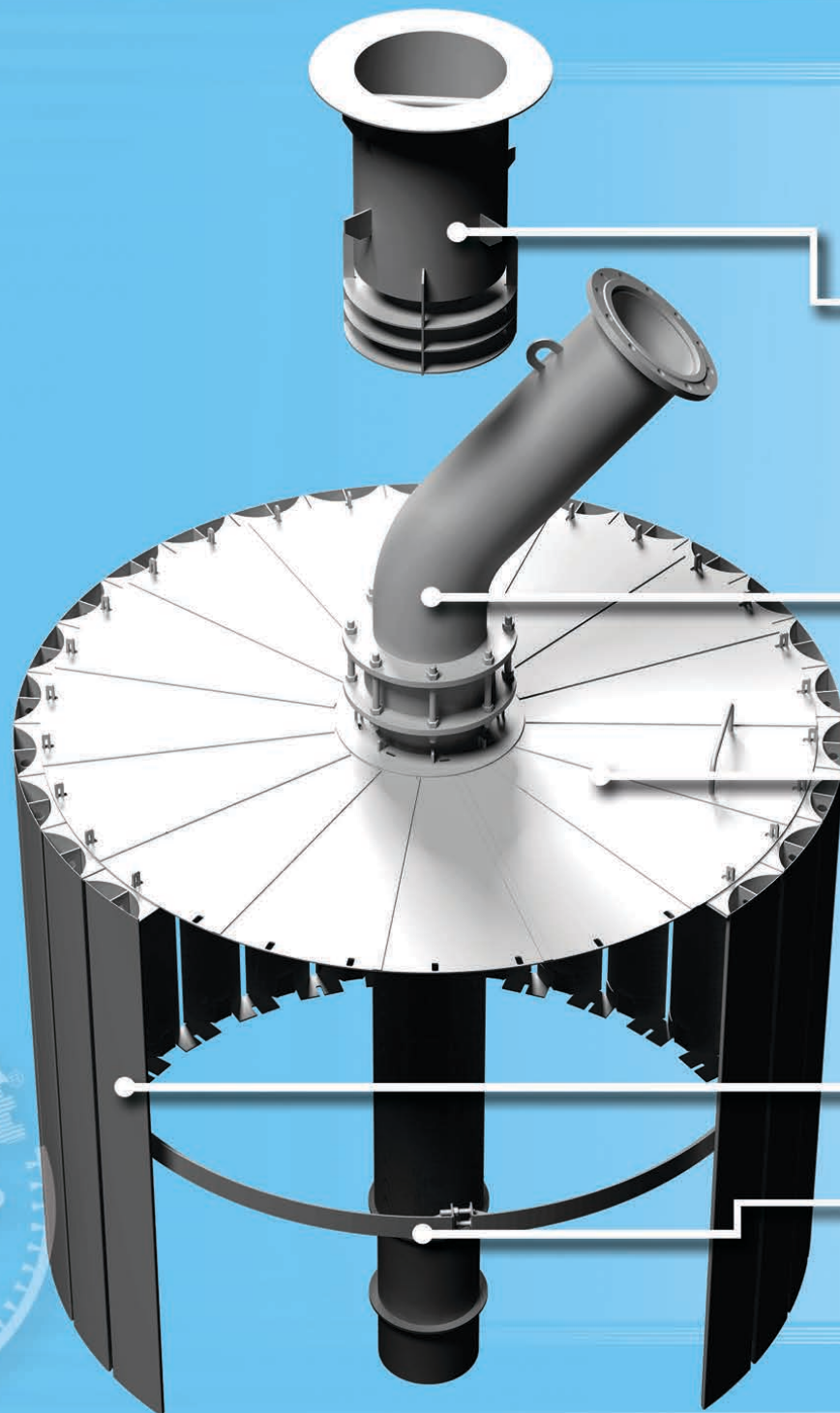
It is designed for separation of inner space of the reactor by reaction zones.

Dead Tray

It is designed for even distribution of the liquid phase flow across the entire surface of the catalyst layer. It catches corrosion products. It is made of segments which could be quickly and easily installed in a reactor.

Outlet Collector

It is designed to hold a catalyst inside the reactors with axial flow movement.



Many years of experience in production of internal devices of axial and radial type reactors enables us to offer high-quality products intended for long service life.

Switch Gear

Switch gear is designed for reduction of the velocity of product inlet into the reactor, while protecting the catalyst layer against washout and destruction of the trays.

Central Pipe

It serves for removal of the product from the reactor and to hold the catalyst inside the reactor. The pipe is perforated. The filter element is a slotted screen.

Separating Tray

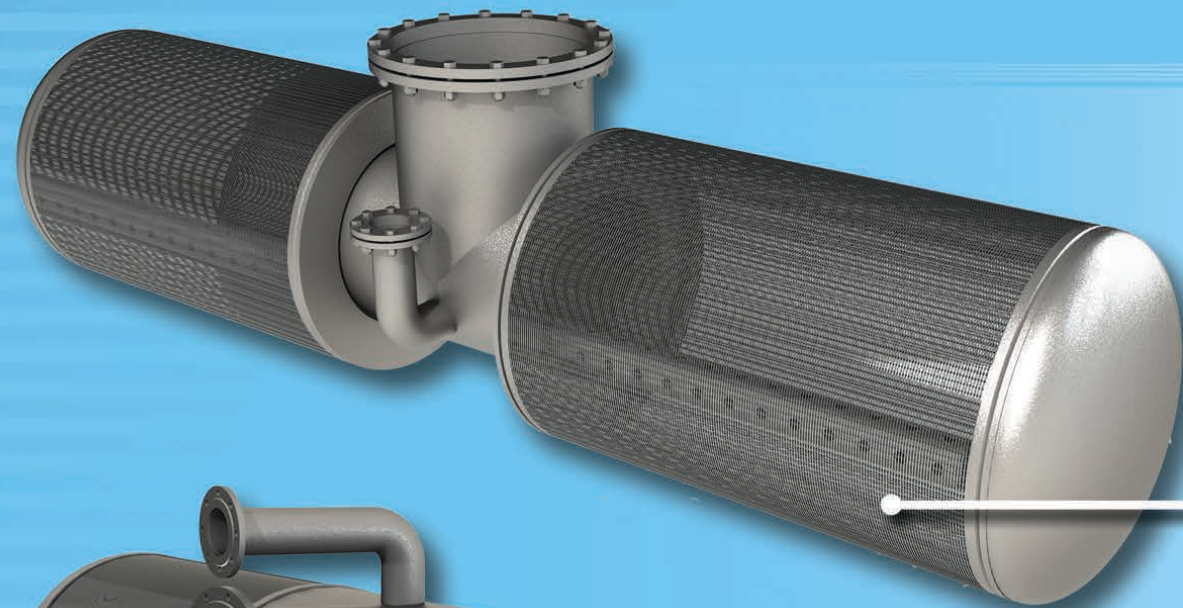
It is designed for separation of the inner space of the reactor into the reaction zone and flow formation zone.

Scallops

Scallops are designed to provide a uniform distribution of the liquid phase along the catalytic layer. Scallops entrap corrosion products. Scallops are a construction manufactured using a slotted screen that has a positive effect on throughput capacity and extends equipment lifespan.

Spacing Ring

It is intended for fixing the scallops inside the reactor.

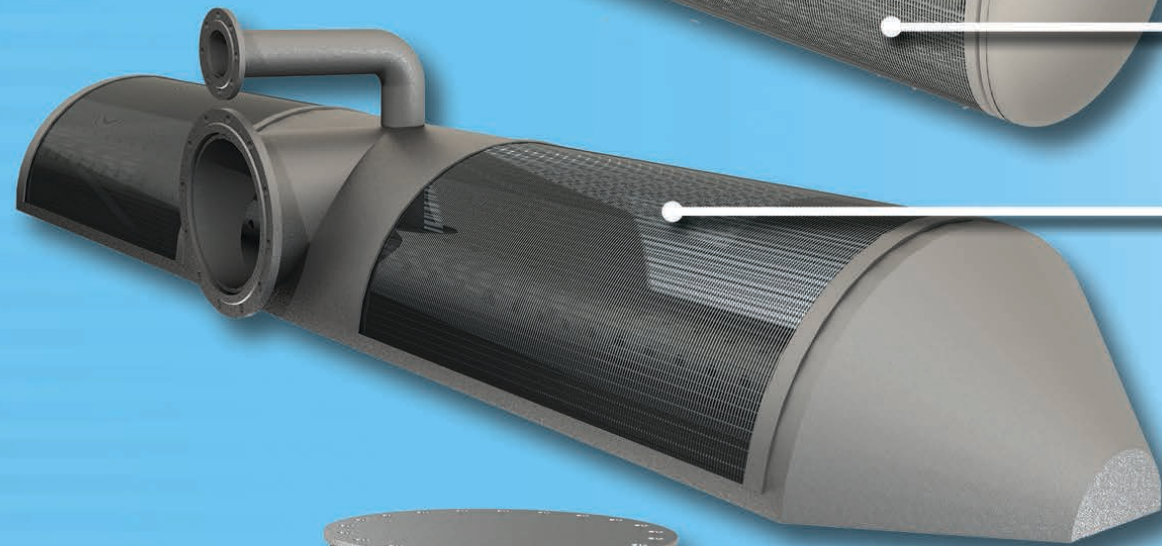


Water-Intake Filters

Con-Slot SCREENS produces a complete set of water-intake equipment. Our filters are used to purify large volumes of water injected from lakes, rivers, and the sea, and for the purpose of its further supply to power plants, water distilling units, and enterprises providing industrial water treatment services and water purification companies.

Water-intake filters are intended to be installed in open waters (rivers and lakes) and serve to remove dirt, sand, and other particles.

Design of water-intake filter is a stainless steel case with the attachment flange and a purge system. These filters have long lifespan due to the use of the slotted stainless steel element and come with a fish protection function.

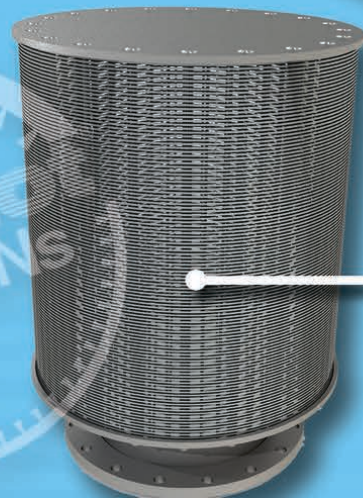


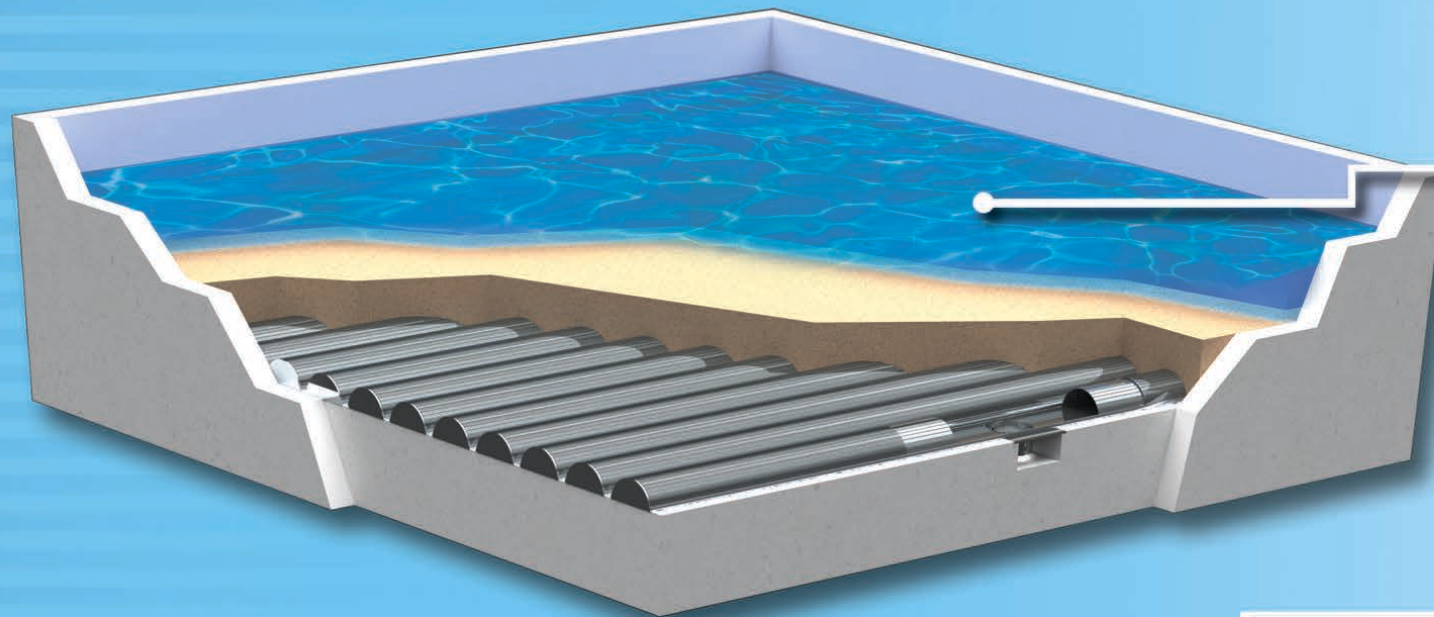
Low-profile Water-Intake Filters

These water-intake filters are designed to be installed in water bodies, such as shallow rivers and streams. Tip design allows for installation at the bottom, while the cleaning system keeps the filtering surface from getting clogged during operation and provides maximum intake of purified water.

Vertical and Horizontal Water-Intake Filters

These filters are designed to be installed in small tanks, but can also be used in small open water bodies.





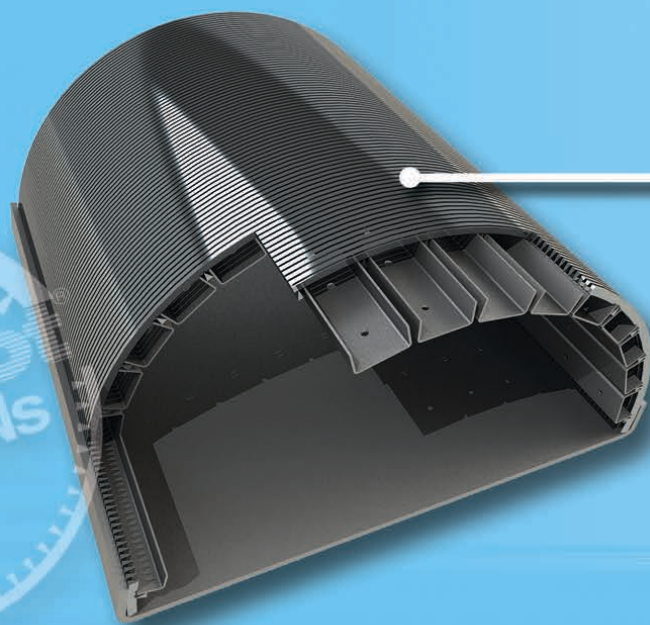
Slotted Gutters in Filtration Chambers

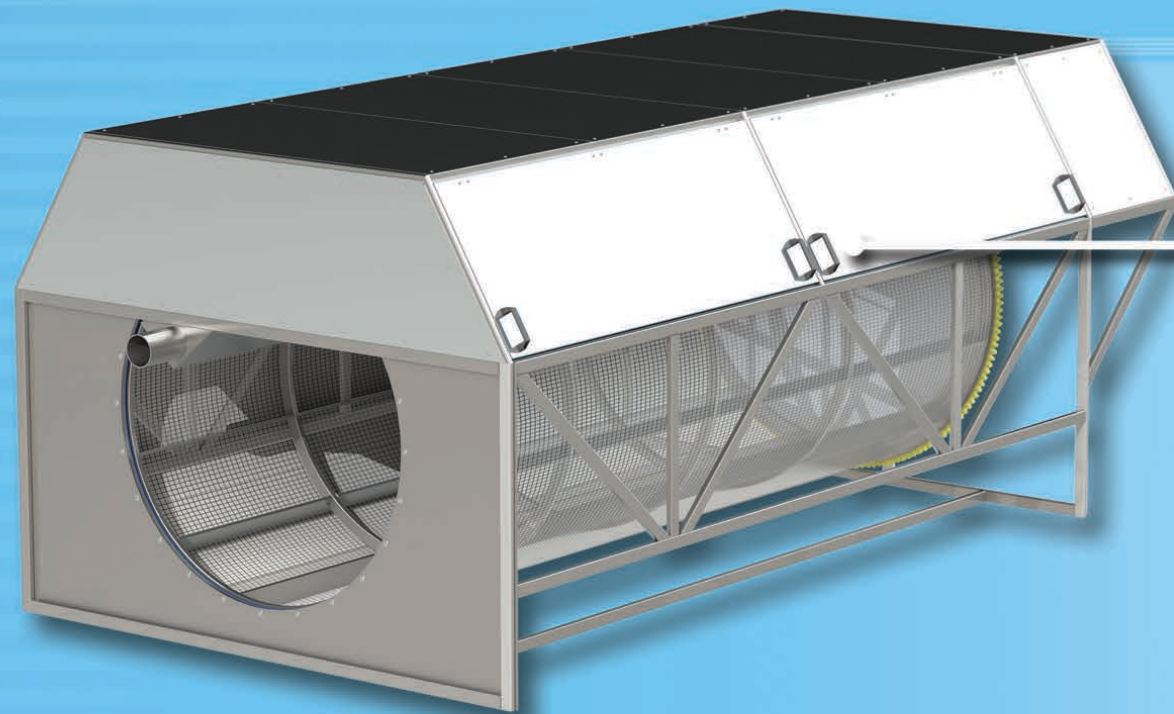
Filtration chambers (non-pressure, with one/multilayer resin charge) are used at the purification of extracted and recycled water stage, in filtering units of industrial enterprises and urban farms.

Application of slotted gutters produced by our company in filtration chambers allows to substantially increase the amount of filtration cycles, simplify installation and maintenance, and, at the same time, achieve high degree of water purification.

The design proposed by our company has a number of indisputable advantages:

- Filter elements manufactured in the form of a gutter with a semicircular filtering part have a maximum open sectional area and are easy to install.
- Application of V-shaped profiles during flushing/purging creates the Venturi effect, which positively affects the cleaning slotted surface.
- Design of filter elements allows the use of the two-layer load (1st layer - sand with the fraction of 0.6-0.8 mm, 2nd layer - anthracite of 0.8-2.2 mm) due to which the minimum load height is maintained.
- Application during manufacture of filter elements made exclusively of stainless steels increase the lifespan of the filtration chambers internal parts manifold.





Microsheer Drum Filters

These filters are ideal for filtering wastewater that flows from the purification units. Filters of this design are widely used in paper, textile industries, fishing farms, as well as for water filtration at heat power plants, and wastewater treatment.

These filters are used as the last (third) stage of mechanical filtration, which allows to get the required quality of purified water.

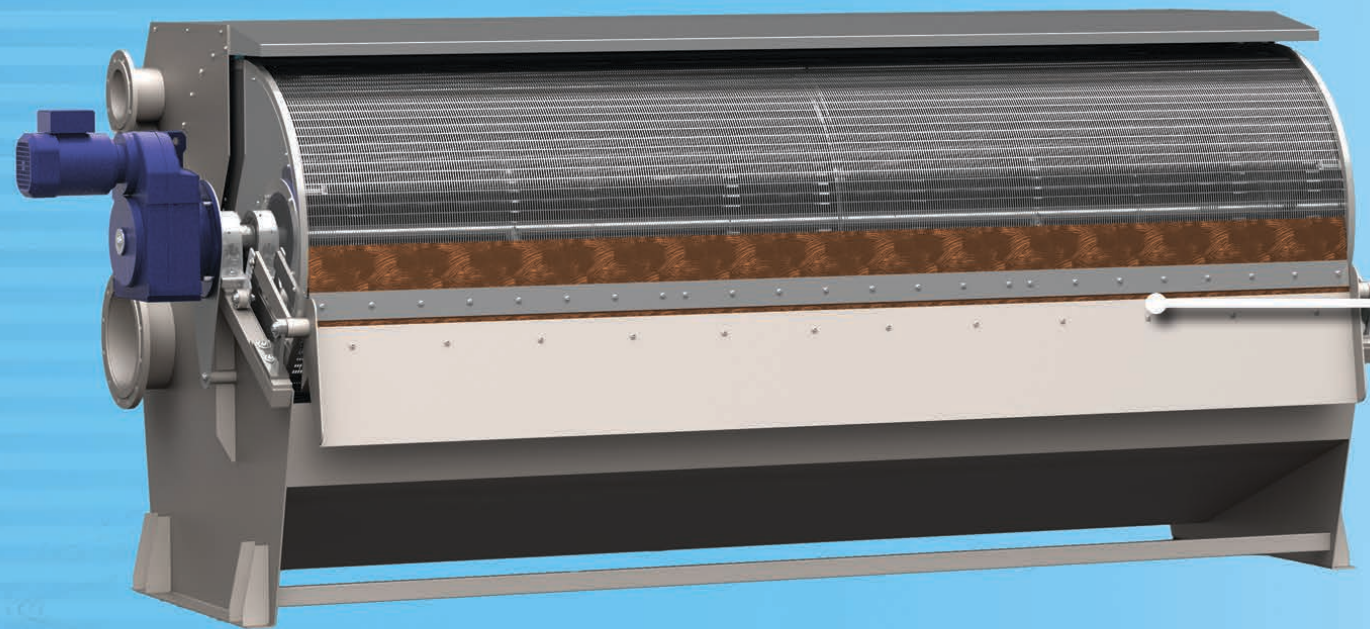
Arch Screens

These screens are widely used in all industries. The main consumers of this product are ore mining and food processing industry enterprises. Furthermore, arch screens can be successfully used for the treatment of waste and circulation water.

Arch screens are characterized by ease of maintenance, possibility of continuous operation, high performance, no energy consumption at minimum manufacturing costs.

In order to improve the efficiency of enrichment (separation) in certain industries, slotted screens can be made of the angled profile wire or wire of special section, which constitute ribbed working surface.





Mechanical Drum Filters

Mechanical drum filters are the optimal water and other liquids pre-treatment solution. Water and liquids are cleaned from impurities, and there are a number of advantages in comparison to vibrating grates and sloping (arch) screens.

This equipment has been successfully applied in various industries, including the food and paper industries.

Currently, our enterprise produces drum filters of 2 major types with different modifications. We offer the possibility of tailoring the optimal solution for each customer:

- mechanical direct-action drum filters.

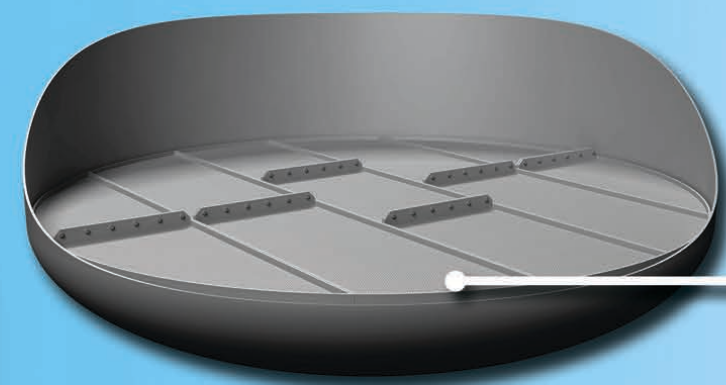
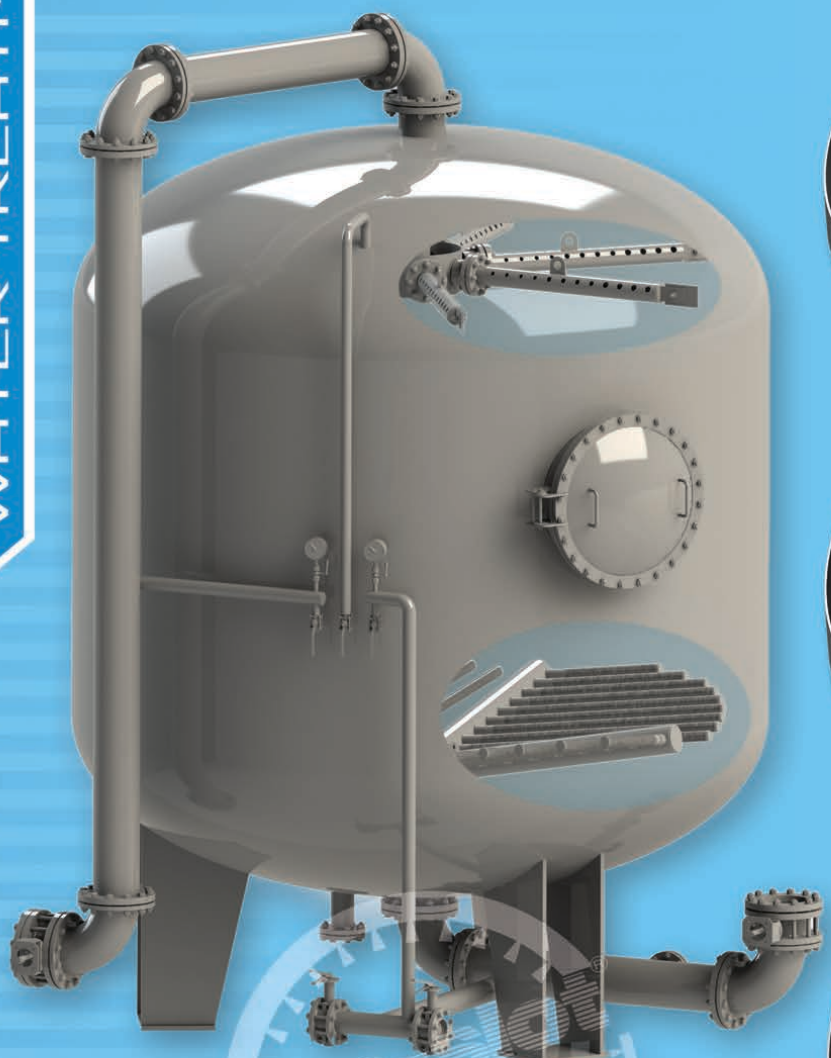
produced in 16 versions.

- mechanical back-action drum filters

produced in 9 versions.

Our company will be happy to replace the filter element of mechanical drum filter upon request.

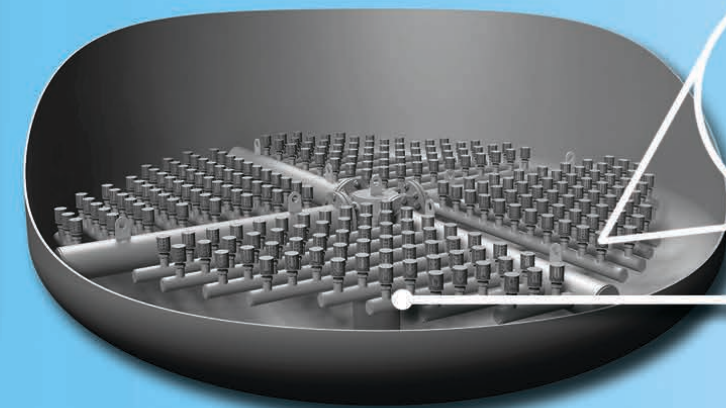




Bottom Switch Gear of False Bottom Type

Con-slot SCREENS has a wealth of experience in production of various switch gears for purified water export in pressure filters (pressure-operated vessels).

We can offer you a variety of designs that will meet your highest expectations.



Bottom Nozzle Switch Gear

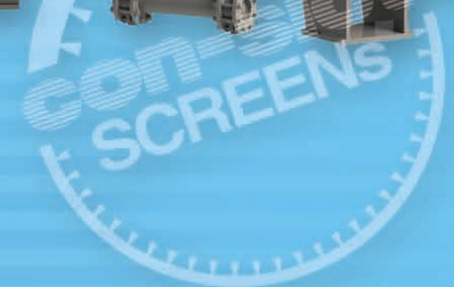
This structure represents flat slotted screens interconnected without clearance and supported by bearing frame. It ensures maximum open surface, possibility of quick removal of cation exchange resin, as well as simple repair and replacement of the filtering surface..

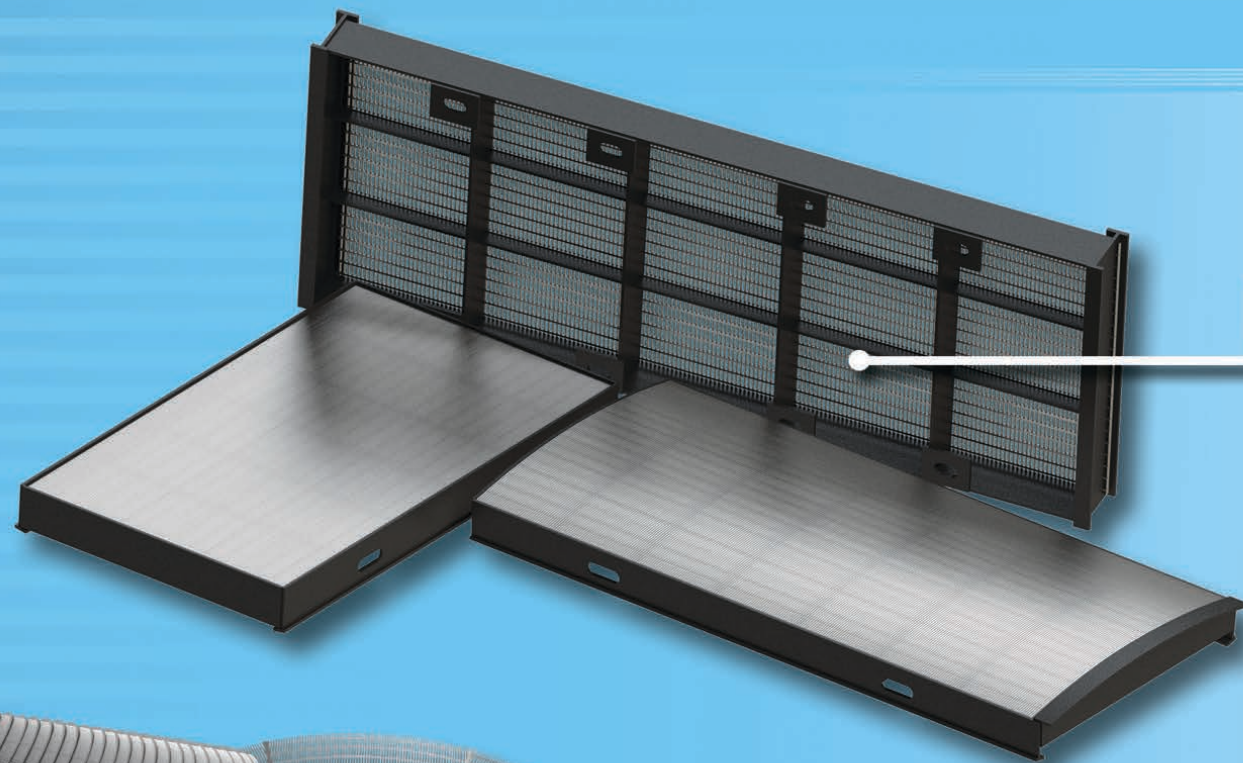


Bottom Beam Switch Gear

This structure is comprised of a collector, distribution beams, and nozzels of the required shape and size. Due to such structure, there are no more unreachable unwashable zones, maximum rigidity and structural strength are ensured, repair costs are reduced.

It consists of the vertical collector and horizontal or bottom-copying distribution beams on which the beam filters are fixed. Filters can be welded tight or removable.

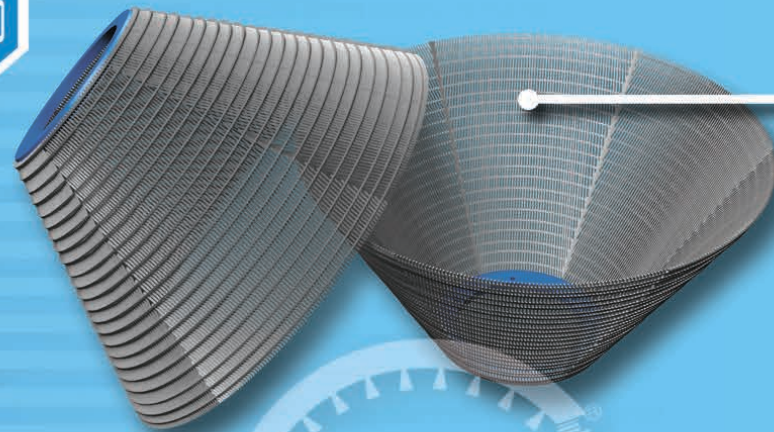




Flat Screens

This product is most often used in the mining and processing industry, although flat screens found their application in other areas, such as oil refining, food processing industry, paper industry, etc.

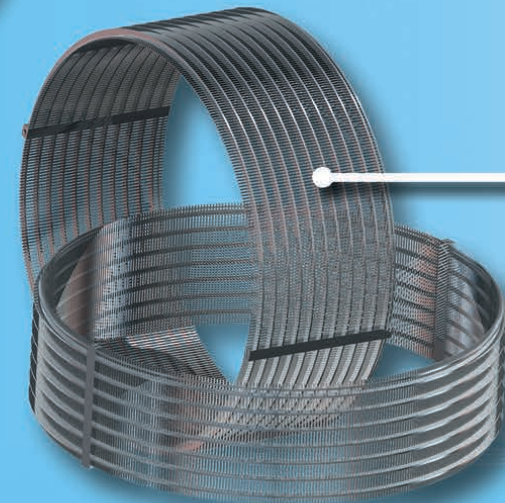
As a rule, flat slotted screens have smooth working surface formed by the V-shaped triangular shaped profiles welded by contact-press welding at the cross points. Moreover, in certain industries, slotted screens can be made of the angled profile wire or wire of special section, which constitute ribbed working surface.

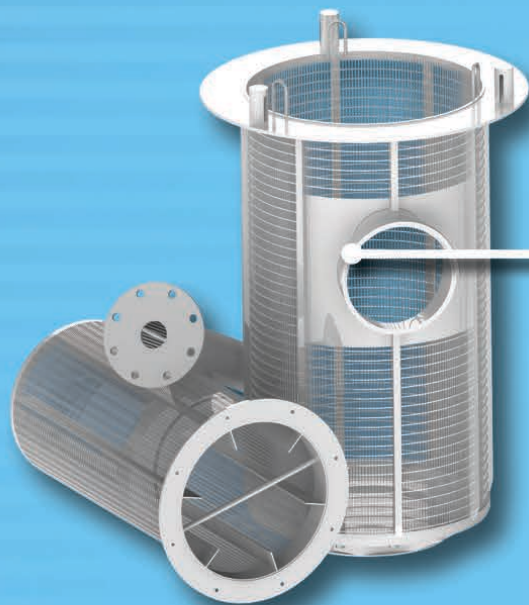


Centrifugal Rotors

Con-Slot SCREENS can produce a wide range of both conical (TEMA, HSG ...) and cylindrical (Krauss Maffei etc.) centrifugal rotors.

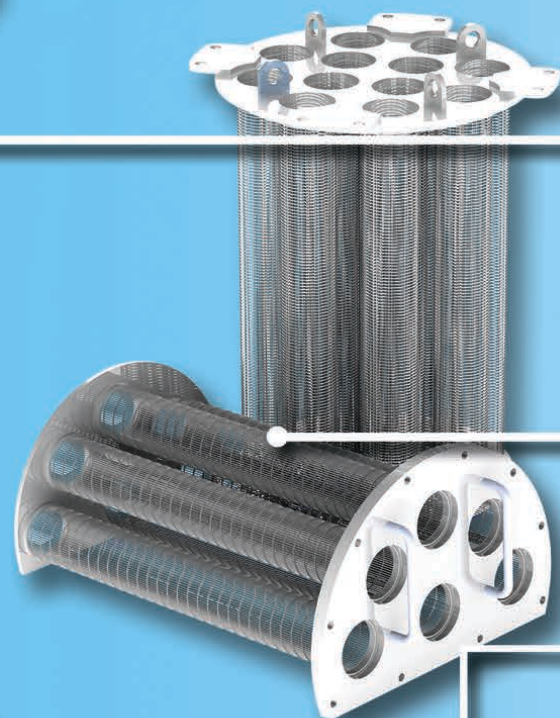
Application of high-precision profile wire of both triangular and special section in the production of centrifugal rotors allows to get a high degree of separation. Additional coverage of the working surface with chrome or ceramic plating prolongs the lifespan of rotors manifold, thereby reducing maintenance cycle frequency and equipment downtime.





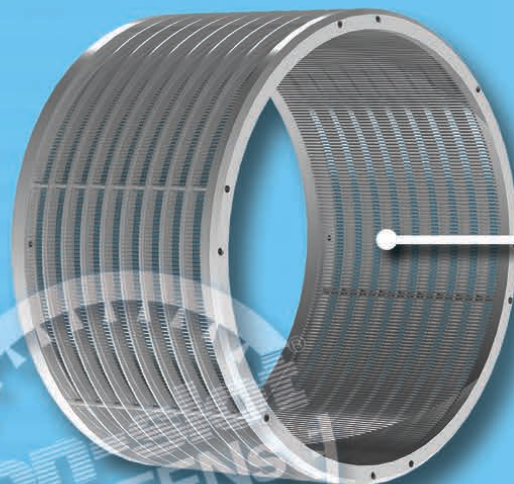
Basket-shaped Filter (Cartridge Filter)

Basket-shaped filters are a weldment consisting of the filter element, attachment flange, and other structural elements. These filters are used in many industries and have a variety of designs.



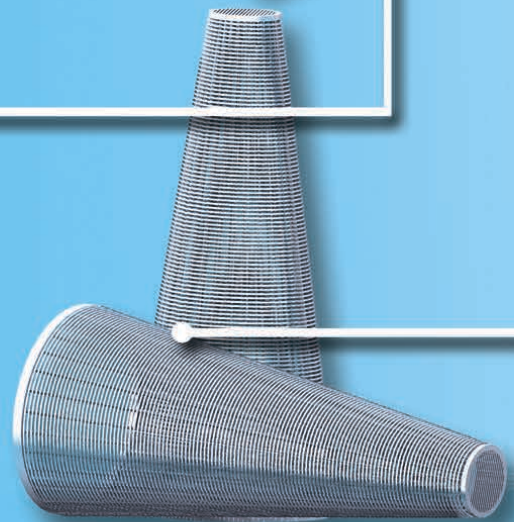
Cassette Filters

Cassette filters are a weldment consisting of several filter elements. They are designed to replace the obsolete filter cartridges manufactured using mesh grid. These filters are produced with both FITO and FOTI filtration.



Drum Filters (Drums)

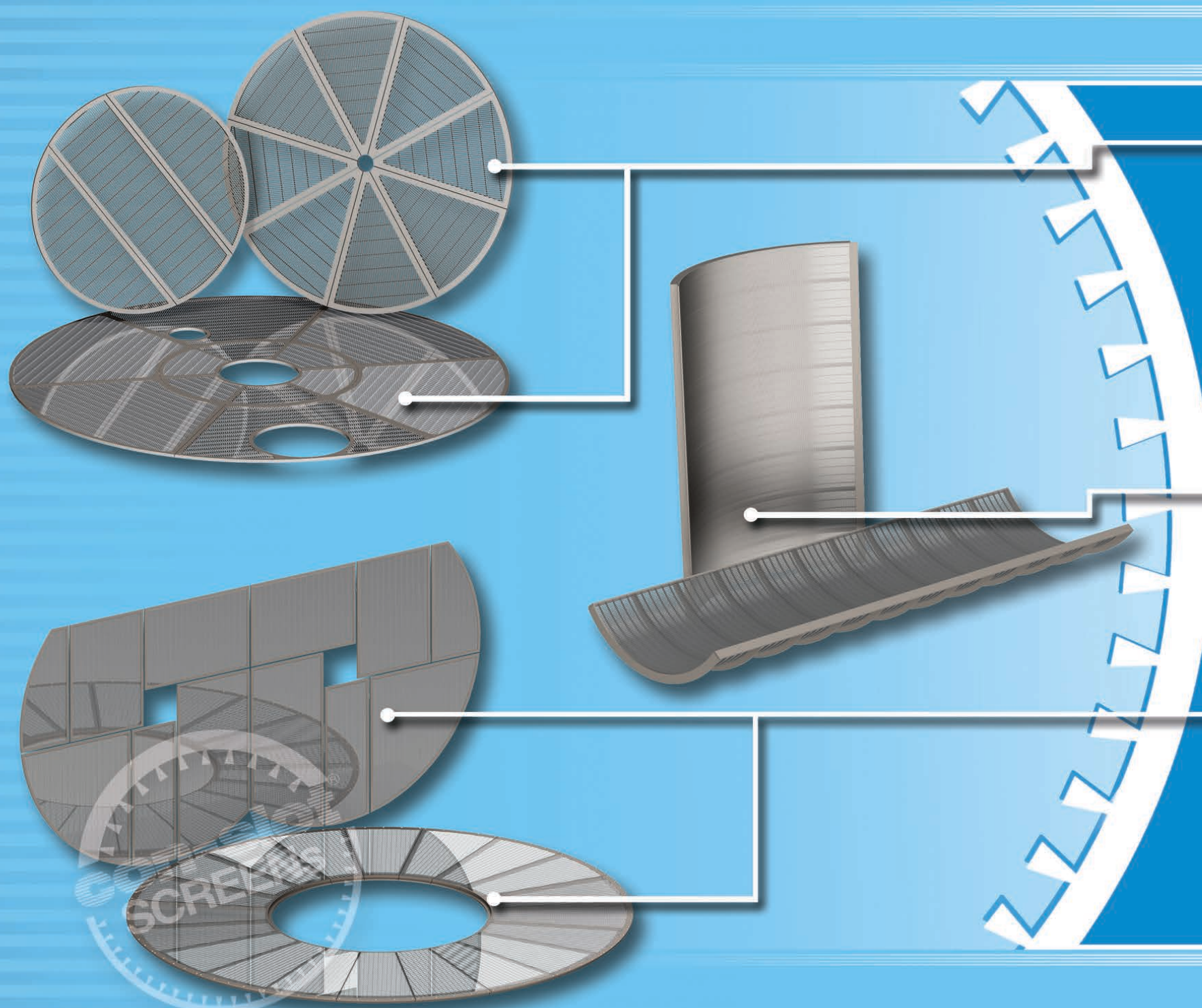
Drum filters are mainly used in slotted drum presses, sorting units (paper industry), mechanical drum and rotary filters for water purification.



Cone Filters

These filters are installed in main gas and oil pipelines, technological infrastructure, etc.

The design of cone filters allows to use the actual cross-sectional area of the pipeline more efficiently and, at the same time, it perfectly copes with the task of purification of product from mechanical impurities when moving through the pipeline.



Filter-Tank Filter Screen

Filter-tank is used in the brewing industry for separation of mash from the wort. Quality of beer wort directly depends on the quality of the filter screen used. Application of the slotted filter element produced by Con-slot SCREENS when manufacturing of filter-tanks filter screens allows to increase the cross-section wet area by more than 15% (compared to the traditional ones), evenly distributing the flow of raw materials along the filtering zone.

At the same time, it allows to avoid the stagnant zone (which improves the quality of the end product) and increase permissible load on the filter surface.

Arch and Under-Screw Screens

Screens (arch and cylindrical) for press and screw separators designed for continuous separation by liquid and solid fraction are used at production lines of various industries.

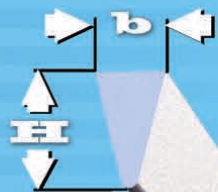
This structure is less prone to clogging, unlike perforated screens, and has larger open surface, which positively affects the separation efficiency.

Diffusion Screens.

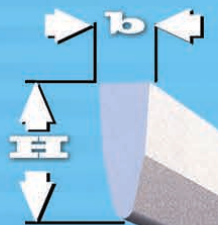
Diffusion machines (extractors) of various types and forms (inclined, column, rotary) are widely used in the sugar industry.

Technological feature of the diffusion screens operation is aggressive media and high mechanical loads. Con-slot SCREENS manufactures these screens using a triangular profile of alloy steels that can significantly increase the lifespan of diffusion screens and improve their performance. Performance increase is achieved due to the larger open surface as compared to the standard perforated or milled screens.

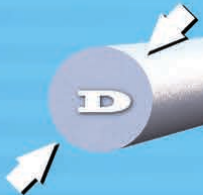
V, Sb-Profile



Sbb-Profile



R-Profile



I-Profile



Type of profile	Height, b mm	Width, H mm
V10	1,00	2,00
V15	1,50	2,50
V20	2,00	3,00
V23	2,28	3,55
V25	2,50	3,50
V30	3,00	4,00
V35	3,50	5,00
V40	4,00	6,00
V45	4,50	8,50
V50	5,00	10,00
17,5Sb	1,75	5,00
28Sb	2,20	4,50
34Sb	2,80	5,00
42Sb	3,40	6,50
W15	1,50	2,50
34Sbb/W22	2,20	5,00
W25	2,50	4,00
42Sbb	2,80	6,50
W30	3,00	4,55
R20	2,00	
R30	3,00	
R34	3,40	
R40	4,00	
R(42)	4,20	
R46	4,60	
R50	5,00	
R60	6,00	
I 8,0x2,0	8,00	8,00
I 8,0x3,0	8,00	3,00
I 10,0x2,0	10,00	2,00
I 12,5x2,0	12,50	2,00
I 20,0x2,0	20,00	2,00
I 25,0x2,0	25,00	2,00
I 25,0x3,0	25,00	3,00
I 30,0x3,0	30,00	3,00
I 35,0x3,0	35,00	3,00



The unique method of contact welding used in the manufacture of slatted products makes allows to achieve the homogeneity of the material at profile junction points.

In order to achieve maximum strength and maximum possible open surface, slotted products design is competently selected (using working and reference supporting profiles). Main types and sizes of the profiles are presented in the table.

Slotted products using other types of profiles (profile wire) can be manufactured upon request. Products manufactured by Con-Slot SCREENS have excellent anti-corrosive properties due to the use of stainless steels.

V2A - Cr-Ni			
1.4301	X5CrNi18-10	AISI 304	UNS S30400
1.4306	X2CrNi19-11	AISI 304L	UNS S30403
1.4541	X6CrNiTi18-10	AISI 321	UNS S32100
V4A - Cr-Ni-Mo			
1.4404	X2CrNiMo17-12-2	AISI 316L	UNS S31603
1.4571	X6CrNiMoTi17-12-2	AISI 316Ti	UNS S31635
1.4370	X15CrNiMn18-8	ER 307	S 98
1.4410	X2CrNiMoN25-7-4	Alloy 2507	UNS S32750
1.4462	X2CrNiMoN22-5-3	AISI 318LN	UNS S31803 / SAF 2205 / F51
1.4501	X2CrNiMoCuWN25-7-4	Zeron 100	UNS S32760 / F 55
1.4529	X1NiCrMoCuN25-20-7	Alloy 926	UNS N08926
1.4539	X1NiCrMoCu25-20-5	AISI 904L	UNS N08904 / Uranus B6
2.4360	NiCu30Fe	Monel 400	UNS N04400 / Alloy 400
2.4816	NiCr15Fe	Inconel 600	UNS N06600 / Alloy 600
2.4819	NiMo16Cr15W	Hastelloy C276	UNS N10276 / Alloy C 276
2.4856	NiCr22Mo9Nb	Inconel 625	UNS N6625
2.4858	NiCr21Mo	Incoloy 825	UNS N08825 / Alloy 825
3.7035	Ti 2	Titan 994	UNS R50400

In order to increase the lifespan of products, such as centrifugal rotors and slotted drums, our company covers the working surface with chrome or ceramic plating.

and much more