SIMO SCREENS

INDUSTRIAL SCREENS

Precision filtration technology for crucial industrial use

- PRECISION FILTRATION
- STRENGTH AND DURABILITY
- NON-CLOGGING OPEN AREA
- RESISTANCE WELDED
- STAINLESS AND SPECIAL ALLOYS
- ENGINEERED TO ORDER



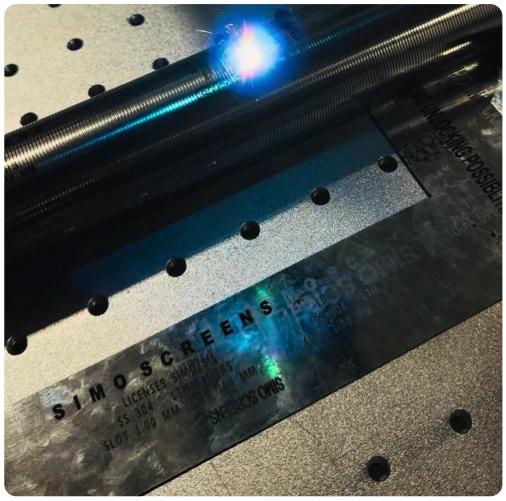
ABOUT US

Engineered in Nagpur, built for the process

At SIMO Screens, every screen begins with the process it will serve. Our engineers start from the customer's drawing, process data or the screen being replaced, and choose the slot, profile wire, support rod, flow direction and alloy to suit it.

We form our own profile wire, resistance weld it at every intersection, and fabricate and inspect each screen at our works in MIDC Butibori, Nagpur, under an ISO 9001:2015 quality system. Since 2023 our screens have gone to water, sugar, mining, oil and gas, chemical and power plants across India, and to customers in Bangladesh, Indonesia, the UAE, Canada and Australia.

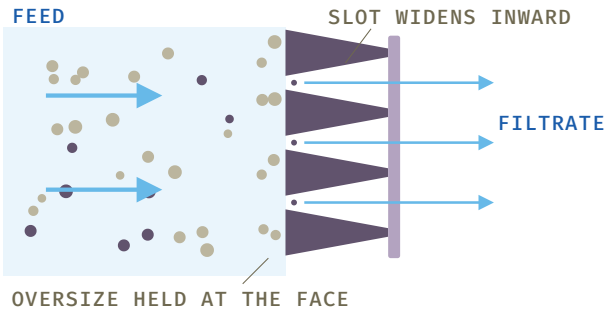
SIMO Screens is the filtration brand of SIMO WiroTEK Private Limited.



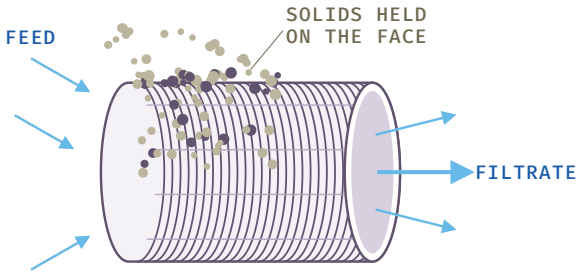
Laser marking at our Nagpur works, where the client requires it. Every screen carries a QR-coded identification tag.

WHY WEDGE WIRE

A slot that cannot trap what passes through it



Oversize is held at the face; the slot widens inward, so whatever passes cannot lodge.



On a cylinder, flow passes from outside to inside and solids stay on the slot face.

Non-clogging geometry

The V-profiled wire meets an oversize particle at two points, and the slot widens inward, so what passes the face cannot lodge behind it.

One rigid structure

Resistance welds at every wire and rod intersection resist thermal cycling and pressure transients up to 300 PSI.

More open area

Continuous slots give more open area than mesh or perforated plate at the same aperture, for capacity with low pressure drop.

INDUSTRIES WE SERVE

- WATER AND WASTEWATER TREATMENT
- WATER WELLS AND GROUNDWATER
- SUGAR AND DISTILLERY
- BREWING, MALTING AND BEVERAGES
- FOOD PROCESSING
- MINING AND MINERALS
- OIL, GAS AND PETROCHEMICALS
- CHEMICALS, FERTILISERS AND PHARMA
- POWER GENERATION
- PULP AND PAPER

WHY SIMO SCREENS

Engineered to keep the plant running

A screen is rarely the expensive part of a process. The shutdown built around a failed one is. At SIMO Screens, every screen is engineered to hold its slot, carry its load and fit the equipment already in place, so it runs from one planned shutdown to the next.

V-PROFILED WIRE

Resists clogging. Carries the pressure. Opens more area.

The wire meets a particle at two points and the slot widens behind the face, so what passes cannot lodge.

WELDED AT EVERY JUNCTION

Holds its slot under load.

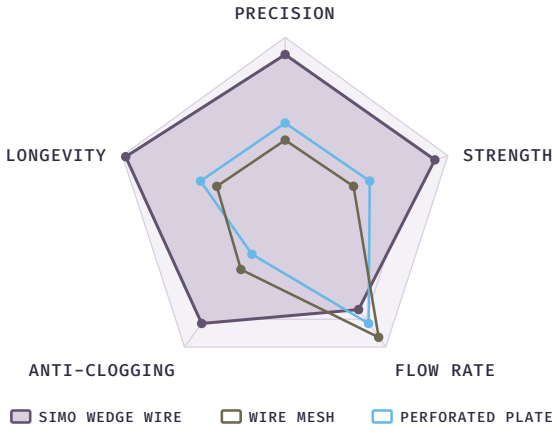
Each wire is resistance welded to every support rod, so the screen resists pressure transients up to 300 PSI and thermal cycling without stretching or tearing.

BUILT TO YOUR EQUIPMENT

Fits at the first shutdown.

Made to your drawing, sample or vessel, in the alloy the medium calls for, so it drops into the equipment already in place.





THE PERFORMANCE GAP

Mesh tears, plate blinds, V-profiled wire holds

Wire mesh stretches and tears under pressure; perforated plate restricts flow and blinds. A V-profiled wire screen holds the balance: a precise slot that resists clogging, on a welded structure that carries the load.

MEDIA	CLOGGING RISK	STRUCTURAL LOAD
SIMO wedge wire	**Near zero**	**Excellent**
Wire mesh	High	Poor
Perforated plate	Moderate	Good

Relative comparison at the same aperture, from our engineering experience.

TECHNICAL CAPABILITIES

Materials	SS 304, SS 316L, Duplex 2205, Super Duplex 2507, Hastelloy C-276, Monel
Slot openings	25 microns (0.025 mm) to 25 mm, held to plus or minus 5 percent
Dimensions	Diameters 25 to 800 mm; lengths up to 6,000 mm; flat panels up to 2,400 x 4,000 mm
Wire profiles	Light, standard, heavy duty and custom, 12SB to 56SB

ADVANCED SUPPORT

Our engineers predict pressure drop with Computational Fluid Dynamics (CFD) and validate custom designs for strength with Finite Element Analysis (FEA).

CERTIFIED QUALITY

Every SIMO product is supplied with a Mill Test Certificate and passes dimensional inspection at each stage; the inspection report and QAP are available on request.

Screening and filtration



01. Flat screens and false bottoms

Panels, false bottoms and screen decks for mining, lauter tuns, drying floors and process screening, up to 2,400 × 4,000 mm in one piece.



02. Candle filter elements

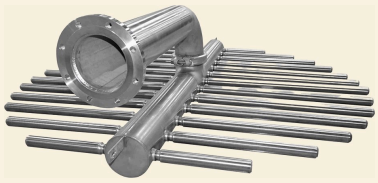
Fine solid and liquid separation under pressure, with slots from 25 microns and threaded or flanged ends.



03. Centrifuge baskets

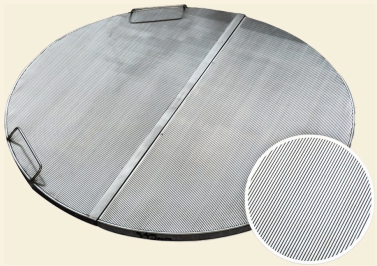
Complete screens and baskets for sugar, coal, mineral and chemical centrifugals, built to each machine.

Vessel internals and distribution



04. Header and hub laterals

Underdrains for ion exchange, DM, softener and filter vessels that hold the media and spread flow evenly.



05. Support grids

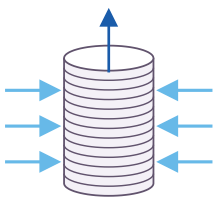
Bed supports for reactors and vessels, segmented to pass the manway and checked by FEA against the load.



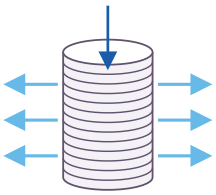
06. Filter nozzles

Nozzles for sand, carbon and multigrade filters, including long-tail air scour nozzles made to drawing.

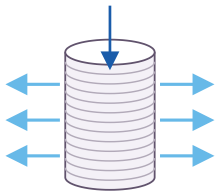
FLOW CONFIGURATIONS



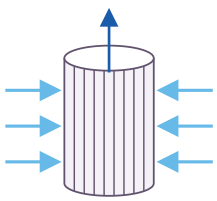
RADIAL EXTERNAL
Flow outside to inside



RADIAL EXTERNAL
Flow inside to outside



RADIAL INTERNAL
Flow inside to outside



AXIAL EXTERNAL
Flow outside to inside

MATERIALS

SS 304 / 304L / 316L	Duplex 2205	Super Duplex 2507	Hastelloy C-276, Monel
Fresh and process water, food, brewing, moderate chlorides	Higher chlorides, brackish water and abrasive slurries	Seawater and high-chloride, high-temperature service	Strong acids and aggressive chemical service

Process protection



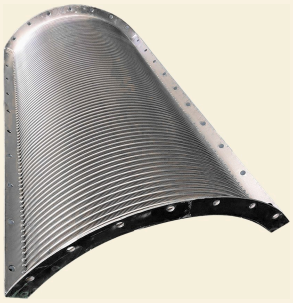
07. Resin traps

Inline traps on vessel outlets that stop escaped resin and media before they reach pumps and downstream units.



08. Outlet baskets and collectors

Cylindrical baskets that keep media in the vessel and protect the equipment after it.



09. Sieve bend (DSM) screens

Static curved screens for dewatering, desliming and fibre recovery, with no drive and reversible decks.

Heavy industrial dewatering



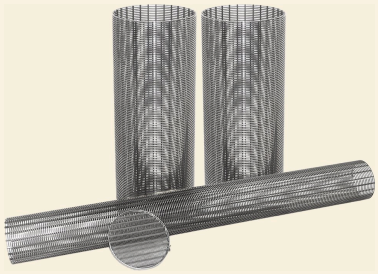
10. Pressure screen baskets

Baskets for stock preparation and fibre recovery in pulp and paper, with contoured profiles developed to order.



11. Screw press screens

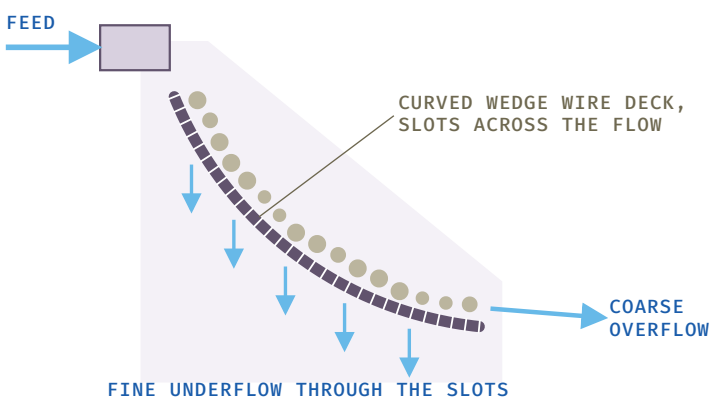
Reinforced screens that carry the compression and torque of sludge and process dewatering presses.



12. Screen cylinders

Inside or outside profile cylinders made to drawing, in lengths up to 6,000 mm.

HOW A SIEVE BEND WORKS



MADE TO YOUR DIMENSIONS

SLOT OPENINGS
25 microns to 25 mm

SLOT TOLERANCE
Plus or minus 5 percent

DIAMETERS
25 to 800 mm

LENGTHS
Up to 6,000 mm

Also engineered to order: water well screens to IS 8110:2019, screen tubes and pipes, sand control screens, passive intake screens, rotary drum screens and basket strainers. Grates, pool and flooring panels are in our Buildings and drainage brochure.

ENGINEERING DATA

Wrap wire and support rod sizes

SHAPES



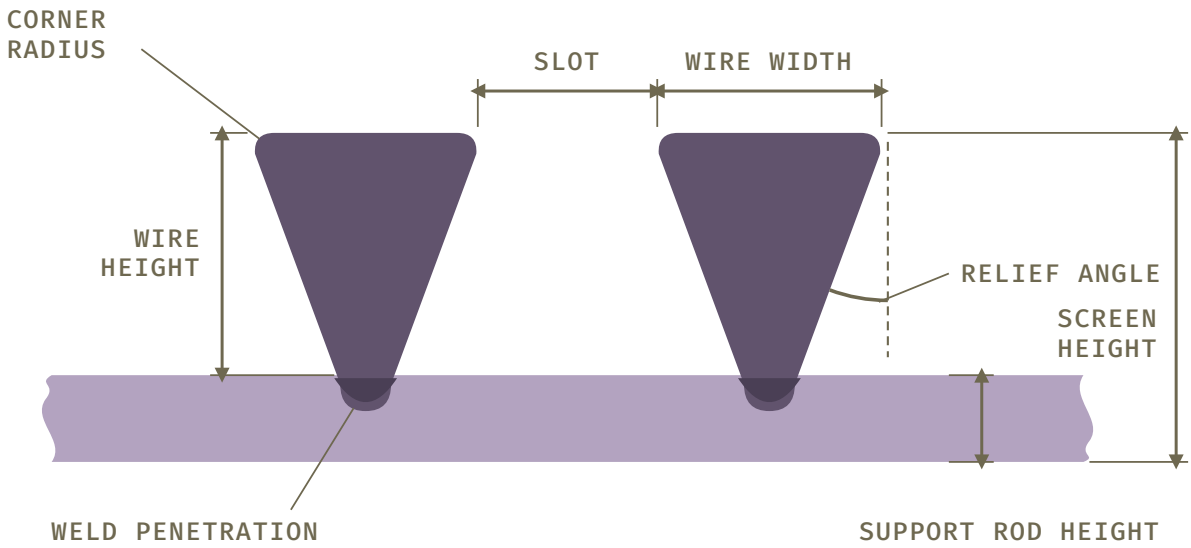
Profile wire	12SB	15SB	18SB	28SB	35SB	35SSB	42SB	55SB	56SB
Width (mm)	1	1.52	1.8	2.2	3	2.6	3.3	5	5
Height (mm)	2	2.7	3	4.5	5	5.5	6.4	5	6.5

SHAPES



Support rod	Q23	Q35	Q55	35SB	F123	F203	F253	120	140
Width (mm)	2	3	4	3	3	3	3	Φ3.15	Φ3.6
Height (mm)	3	5	7	5	12	20	25		

STANDARD WELDED CONSTRUCTION



The terms our engineers use on drawings and datasheets. The slot is set at the face; the relief angle opens it behind.

OPEN AREA

$$\text{Open area (\%)} = \frac{S \times 100}{S + W}$$

S = slot width, W = wire width at the face, both in mm

Open area sets flow capacity and pressure drop. Worked example:

```
0.5 mm slot on 15SB wire (1.52 mm)
0.5 x 100 / (0.5 + 1.52) = 24.8%
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ENGINEERING

From your requirement to a documented screen

Our engineers start from your drawing, process data or the screen being replaced, and choose the slot, profile wire, support rod, flow direction and alloy to suit. Every screen is resistance welded, fabricated and inspected at our works in MIDC Butibori, Nagpur, under an ISO 9001:2015 quality system.

01
Share the requirement
Drawing, sample or process data

02
Engineering review
Slot, profile, rod, material and flow

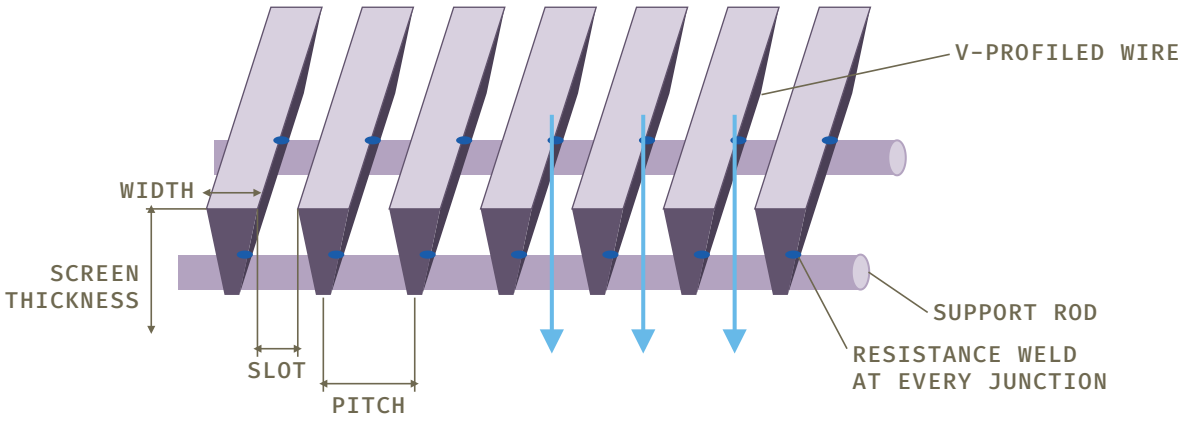
03
CFD and FEA
Pressure drop and strength, where required

04
Drawing approval
GA drawing and datasheet approved

05
Manufacture
Resistance welded and fully inspected

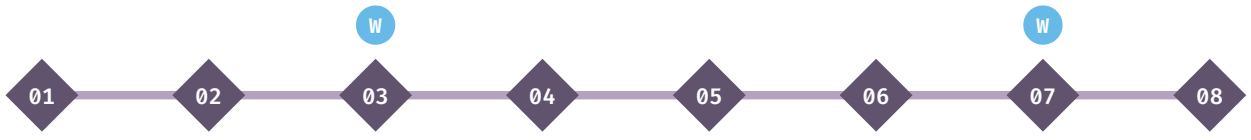
06
Dispatch
Mill Test Certificate with every product

RELIABLE CONSTRUCTION



V-profiled wire wound over the support rods and resistance welded at every junction, so the screen works as one rigid structure.

INSPECTION AND TEST PLAN



Material in — Certificate check grade identified

Wire forming — Profile size checked

Welding — Slot at set-up, run and end

Forming — Diameter, ovality, straightness

Fabrication — Weld visual, DPT *

Cleaning — Pickling and passivation *

Final — Full dimensional, slot sample

Dispatch — MTC, report, marking

◆ Record kept for every order ● Witness point for buyer inspection * where the specification calls for it

IS 8110:2019

ISO 9001:2015 quality system
Water well screens to IS 8110:2019 under BIS licence

MAKE IN INDIA

SIMO SCREENS

Engineered guidance, reliable solutions

At SIMO Screens, our engineers work with you to understand the process, recommend the right design and stand behind its performance. Our engineers will connect with you within a working day.

01. Send a drawing

A drawing or a datasheet line is enough to begin.

02. Replace an existing screen

Send the screen, photographs with dimensions or its part number.

03. Start from process data

Flow, pressure, temperature, particle size and medium.

CUSTOMERS INCLUDE

ENGINEERS INDIA LIMITED · IndianOil · JINDAL STEEL · meil · MOIL LIMITED · NIPPON STEEL · NMDC · ONGC · सेल SAIL · TATA CHEMICALS LIMITED · TATA STEEL · THERMAX

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IS 8110:2019

MAKE IN INDIA

ISO 9001:2015 quality system
Water well screens to IS 8110:2019

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SEND YOUR SPECIFICATION

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