SWECO® SEPARATOR SCREENS

Superior Screening Solutions
Supertaut Plus Screens

Upon their introduction, Supertaut Plus screens were a breakthrough in screen technology. With the continually improving screen design and our commitment to service, we can handle your most challenging screening requirements.

The patented adhesive, developed by SWECO engineers, is the key to the success of the Supertaut Plus screen. This pure white adherent combines FDA approved chemistry with the durability to withstand caustic and steam cleaning and severe environments. The adhesive holds the type 316 stainless steel wire cloth firmly in place.

The foundation of every Supertaut Plus screen is the tension-support ring. These lightweight, disposable rings are rolled from stainless steel and welded for maximum strength.

Uniform screen tension built into every Supertaut Plus screen yields higher throughputs and longer screen life. SWECO’s proprietary tension specifications result in greater consistency from screen to screen.

Each Supertaut plus comes with a pre-attached FDA food-grade-approved white gasket to speed screen changes.

SAFETY

For applications where the presence of static electricity is possible, SWECO offers a variety of solutions for grounding to enhance worker and equipment safety. Grounding straps or lugs can be applied to most mounting techniques. The proprietary C2 Gasket offers grounding in an FDA compliant construction or, alternatively, standard conductive EPDM/Neoprene is available.
Superiority of SWECO Screens

Fusion & Fusion Plus Screens

SWECO Fusion Screens are the latest in a long line of technologically advanced products from SWECO, the originator of the vibratory round separator and countless other innovations. Available in Fusion and Fusion Plus (FDA) construction, Fusion Screens have been designed to eliminate the use of adhesive, epoxy or silicone in screen manufacturing. Instead, the mesh is “fused” directly into the patented polymer construction tension ring. The repeatability of the robot construction assures precise tensioning, lower tolerances and smaller deviations of the screens. The robot construction also allows for rapid turnaround time so you get your screens faster.

Fusion’s unitary construction integrates the screen gasket directly into the tension ring. This design eliminates the handling and stocking of separate gaskets and provides a precision fit into the separator. This unitary design also reduces cracks and crevices, producing a more “cleanable” screen with less potential for cross contamination. The one-time use ring is disposable and recyclable.

Features & Benefits

- Repeatability of robot construction
- Precise tensioning
- Lower screen tolerances / smaller deviations
- Fast service / lead times
- Handling and stocking of separate screen gaskets is eliminated
- Totally sealed to minimize bacterial buildup
- Less potential for contamination
- Improved cleanability
- FDA approved construction on Fusion Plus
- Temperature limits
  - Fusion - 150°F (66°C) wet, 185°F (85°C) dry
  - Fusion Plus - 185°F (85°C) wet, 210°F (99°C) dry
- No adhesives, epoxies or silicones
SWECO Magnum Screens were designed for increased strength. The patented Magnum screen has shown significantly improved screen life over traditional designs. Customers have experienced increased screen life from 1.5 to 5 times with no catastrophic failures. Advanced mesh construction divides the screen into discrete zones, preventing propagation of most tears. The laminated mesh also enhances flow rates by stiffening the screen surface, which improves conveying. Available in 18 to 60 inch round and all sizes of rectangular and white water filter screens, the Magnum utilizes standard SWECO screen frames and FDA approved materials.

SWECO also offers welded screens for those applications where temperature or chemical exposure make epoxy mounting unsuitable.

Dura screens utilize a food grade coated ring and are available for customers’ processes where no metal contact is desirable.

Welded and Dura Screens are available in 18 through 72 inch round screen diameters.
Rectangular Screens

In addition to round screens, Supertaut Plus, Magnum, and Fusion mounting is also available on pre-tensioned rectangular screens. Fusion Rectangular Screens utilize a robust cage design offering durability with strength that conveys solids more efficiently than traditional rectangular screens. Fusion screens weigh less than metal-frame screens and are recyclable and disposable; reducing inventory and saving handling and shipping costs associated with rescreening.

SWECO can offer a customized screen solution for every application. Rectangular pre-tensioned screens offer ultra-tight mesh mounting in a variety of configurations, including the one-piece cartridge self-cleaning design which provides dynamic anti-blinding for wet and dry materials.

Hook & Bonded Edge Screens

SWECO offers SuperHook and SuperBond screens designed to fit virtually any rectangular vibratory separator and gyratory sifter on the market.

SuperHook screens are available in a variety of hook styles and configurations to meet the most stringent requirements. Standard hooks are galvanized steel or optional stainless steel and come in one- or two-piece designs in sizes up to 12 feet in length.

SuperBond Sifter screens are supplied in various sizes for general purpose applications and high-strength grommet styles for auto-tensioning units.

Most hook or sifter screen installations require edging or center strip materials to provide the best screen life. SWECO offers edging in FDA compliant canvas and vinyl edging for process temperatures up to 200°F (93°C). For applications over 200°F (93°C) a black high-temp edging is available.

OTHER REPLACEMENT SCREENS

SWECO manufactures screens to fit virtually all rectangular separators with options including stainless or standard galvanized material, special edgings such as plastic, fold-back or vinyl. SWECO also manufactures screens to fit virtually all gyratory sifters with offerings including edgings in canvas, high-temperature and clear vinyl.
Superiority of SWECO Cloth

CERTIFIED SCREEN PROGRAM
The Optical Screen Comparator is an imaging system which uses a high powered zoom lens to take a microscopic look at a screen mesh. The comparator is used in the SWECO Certified Screen Program to certify that a given screen corresponds to its stated screen mesh. This program is ideal for industries that demand exacting tolerances. After a screen is manufactured, it is scrutinized under the comparator to ensure the wire diameter and mesh openings are within specified tolerances. Only those screens that pass these rigid tests receive a certificate showing the exact measurements.

SCREEN MESH QUALITY
Incoming screen mesh quality is essential to providing good screen life and producing a final product that separates quickly and accurately. SWECO standards for wire mesh are some of the strictest in the industry. In addition to complying with ASTM E11 requirements, additional quality parameters are utilized based on decades of supplying process screens to a broad range of industries.

SCREEN CLEANER
As an additional service to our customers, SWECO Premium Screens are automatically cleaned and dried. This manufacturing method removes residual wire drawing oil and grease.

SPECIALTY CLOTH
430 STAINLESS STEEL MAGNETIC CLOTH
If your process utilizes magnets for removal of metallic objects prior to product packaging, then 430 Magnetic Stainless Steel Wire Cloth could be an option. The physical properties of this cloth allow it to be retrieved using magnets in the event of screen breakage. SWECO stocks a variety of meshes in this alloy, particularly in the Tensile Bolting Grades.

SYNTHETIC CLOTH
SWECO offers an alternative to stainless steel by supplying synthetic meshes constructed of polyester, nylon or polypropylene. These meshes are stocked at SWECO in a range from 4 to 600 mesh. Combining synthetic cloth with SWECO’s proprietary FDA Dura ring results in a screen assembly that limits stainless steel product contact.

We offer screens that meet specifications from these and other industry organizations.
Self Cleaning “Sandwich” Screens

SWECO Self Cleaning “Sandwich” Screens aid in screen cleaning and efficiencies. The sandwich design is comprised of a working mesh on top of the tension ring with a coarser mesh (support screen) attached to the bottom of the ring with sliders and/or balls placed between the meshes. The sliders and balls bounce off of the support screen and tap the top screen dislodging near size particles or fibers that tend to blind the screen and reduce screening area. Self cleaning screens provide better cleaning action than self cleaning kits at lower vertical machine amplitudes resulting in reduced stress on motors and increased screen life. This enhanced cleaning action is also a result of the cleaning devices (sliders and/or balls) being closer to the working mesh (top screen). Sandwich Screens perform at much lower decibel levels compared to perforated plates, and the cartridge construction is maintenance friendly.

Self Cleaning Accessories

Self-Cleaning Kits aid in screen cleaning for increased screening efficiencies. The devices are made up of a perforated plate mounted below the screen ring with sliders placed between the perforated plate and the working mesh. The sliders work to keep the working mesh clean by tapping out or shearing off lodged, near-size particles that tend to blind the screen and reduce screening area. When noise reduction is a priority, SWECO offers a Quiet Clean perforated plate in diameters up to 48” that significantly reduces the decibel levels compared to a self-cleaning kit using a standard perforated plate.

Ball Trays are available for those desiring a more conventional rubber ball anti-blinding arrangement. A coarse screen is mounted two inches below the sizing screen. Elastomeric balls are placed on this coarse support screen and the separator’s vibrating action bounces the balls against the underside of the screen cloth of the working mesh, dislodging any near-size particles.

Power Wheels, Power Wipers, and Power Necklaces are designed to sit atop the screen ultimately to increase throughput and improve efficiency and product yield. These top-side screen devices:

- Act as a barrier to discharge, resulting in longer residence times
- Provide a lightweight scrubbing action on the screen surface to keep dry material from sticking to the wires
- Act as a hammer to break up any agglomerated material and help it through the screen