

ROTARY SCRUBBERS



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Rotary Scrubber



Rotary Scrubbers



Solid Shell Scrubber - Flow Through



Solid Shell Scrubber - Counter-Flow

When you install a machine into a critical part of your operation, it must be reliable and able to withstand the rigors of continuous operation, sometimes 24 hours a day, seven days a week. McLanahan understands these needs and that is why McLanahan Rotary Scrubbers are built to last. Building its first rotary equipment in 1895, McLanahan has earned the reputation for being “reliable, rugged, stout and designed to last forever.” However, that is not enough! McLanahan has pushed ahead with new innovative designs and process ideas, always searching for ways to include modern componentry and features that make your operation more profitable. Rotary Scrubbers come in many styles and configurations. Partner with McLanahan and its vast rotary experience to ensure that the correct machine is selected for your application.



The continuous lifting and dropping action in rotary equipment helps abrade, scrub and break-down soluble contaminants in the feed material. Rotary Scrubbers can handle large feed sizes and high tonnages in comparison to other types of washing equipment. As an added benefit, they are lower in operating and maintenance costs. Minus 1/4" (6mm) material should be removed prior to Scrubbers in order to achieve an aggressive washing action on the coarse rock. This can be done with conventional screens ahead of the Scrubber or through a built-in desander section. If Sand Equivalency (SE) needs to be improved, then the fines can be left in the feed and coarse rock will wash the finer material.

Solid Shell Scrubbers

These units are primarily used to remove water soluble clays, deleterious materials and coatings from crushed or natural rock. A single or double shell trommel extension can be added to dewater the material and provide a rough separation of material sizes.

Combination Scrubber Screens

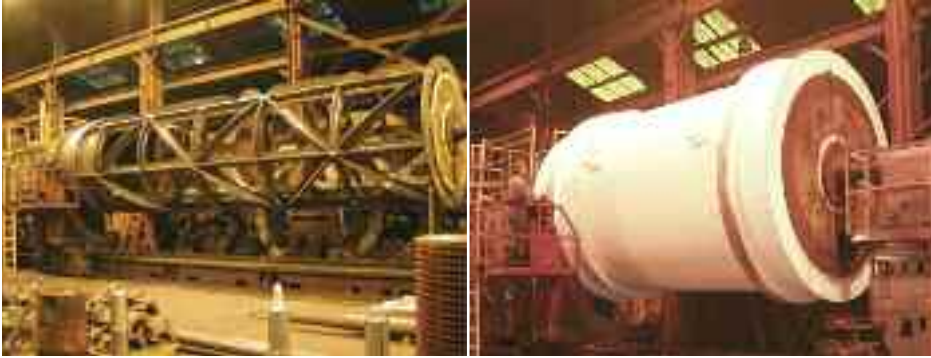
Half Solid Shell Scrubber and half Trommel Screen, these units are used to wash, dewater, and then screen material more efficiently than a trommel extension. The length of the solid shell and trommel area are designed according to the application.

Trommel Scrubbers

Consisting of a full length screening area, these units are designed to remove fines from a slurry and/or wash coarse size material.

MACHINING

All McLanahan Rotary Scrubbers run perfectly true. Why? After the cylinder is fabricated, the unit is mounted on McLanahan's in-house lathe where all critical surfaces are machined perfectly concentric. This lathe can turn cylinders up to 14' (4m) in diameter by 35' (10m) long in one set-up. In operation, your Scrubber runs quieter and smoother with reduced tire and bearing maintenance, which ultimately means longer life and lower cost per ton products!



Steel Lifters



Rubber Lifters

CYLINDER FRAME CONSTRUCTION

In a solid shell Scrubber, large sectional sheets of rolled plate are electrically welded at all seams to form a circular drum capable of withstanding continual shock loads. In Trommel Scrubber units, the frame is designed to incorporate renewable screen panels.

DESIGN OPTIONS

Liners And Lifters

McLanahan Solid Shell Scrubbers incorporate A.R. steel or thick rubber liners to prevent wear to the cylinder shell. All liners are bolted securely to the rolled shell with special washers that prevent drum leakage. Lifter shelves are available in structural steel or rubber bars and can vary in height and arrangement. Adjustable lifter shelves can be furnished to increase or decrease retention time. Screen sections utilize easy to replace urethane panels or screen cloth.

Dewatering

The optional single or double shell extension on the end of a Solid Shell Scrubber helps dewater material; however, it should not be used for accurate product separation. Extensions can be made from either an abrasion-resistant, perforated rolled plate or a replaceable urethane screen panel system.

Drives

McLanahan Scrubber and Trommel Screens are driven by either a Chain & Sprocket or the latest field-proven design – Pedestal Mount Hydraulic Motors.

- Chain & Sprocket is the standard method of power transmission. This incorporates an engineered single, double or triple pitch chain that wraps around the cylinder. The rotation pulls down, ensuring the most efficient and powerful transfer of power. A fluid coupling is used to protect the drive train and provide added torque for the occasional full-load start-up.
- Utilizing the most advanced engineering and componentry, Pedestal Mount Hydraulic Motors are alignment free, don't require gears, couplings or a chain and are extremely quiet with adjustable speeds. All this means less maintenance for your operation!



Dewatering Extension



Chain Drive



Hydraulic Motors



Tires



Guards



Base Frame



Desander Section



Spray Bar

Tires And Trunnion Rollers

The main drum tires are wide faced. They are one piece locomotive steel that are shrunk fit to the machined tire bases. Trunnion rollers also incorporate renewable, locomotive-steel tires. Each trunnion roller is supported by two heavy, shaft-mounted pillow block roller bearings.

Options

- **Guards** not only provide protection from rotating equipment, but are a chute to capture material passing through screen openings.
- **Full Base Frames** provide easy set-up and alignment in the field to ensure a level operating condition.
- **Built-in desander** section helps remove 1/4" (6mm) material in order to aide coarse scrubbing.
- **Spray Bars** help push material out of the desander section, add operational water and/or provide a final rinse.

McLanahan specializes in custom engineered process solutions and can provide longer lengths, larger diameters, rubber and urethane components, renewable tires, and many more features to meet the specific needs of your operation.

**McLANAHAN OFFERS PARTS AND SERVICE
24 HOURS A DAY, EVERY DAY!**

Offering The Widest Range Of Processing Equipment Available From A Single Manufacturer

Bulk Material Handling | Contaminant Removal | Crushing | Feed Preparation
Density Separation | Dewatering | Fines Recovery | Lab Testing | Mixing/Blending
Sampling | Sand Processing | Scrubbing | Sizing/Screening | Washing/Classifying
Water Management

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