



BARREL WASHERS

are designed as heavy-duty equipment, for the vigorous washing of coarse/medium size materials-mineral ores, rocks and aggregates, with the presence of clay-based agglomerates and/or contaminated by clay or other contaminants.

They are used in a variety of applications, such as: washing of low-quality aggregates with adhered clay and high soluble material content; liberation of clay and pulping of clay agglomerates; and the treatment of porous minerals.









CONSTRUCTION

The Drum is manufactured under strict quality control from thick rolled steel plate, able to withstand the high mechanical operating stresses from extreme heavy duty operation. Its interior is protected against abrasion by removable elastomer or AR steel liners, and equipped with mixing/lifting bars of specially designed profile and section, and optional advancing/extracting blades. The Bedframe that supports the entire undercarriage is built of welded steel beam sections, forming a highly rigid, compact assembly. The Drive system consists of independent power units equipped with high load capacity tyres, with oversized motor reducers for continuous 24/7 operation, with independent support units mounted on fixed axles, equipped with tapered roller bearings and identical tyres. To prevent axial movement, the drum has rubber-tyred guide wheels to contact the transverse discs on the drum.

A pre-screening trommel, at the discharge end of the drum, may be supplied as an option, to separate the water from clays or other contaminants in the processed material. This does not preclude the subsequent installation of other equipment for more effective screening.

The drum may be constructed for either parallel flow or counterflow operation, water being directed in the same or the opposite direction as the material. The counterflow version is recommended for washing materials that are particularly difficult to process.

ERAL UK has different pilot plant models and configurations applicable to field testing works to reproduce a washing process and with results obtained extrapolate data for industrial scale.

SIGNIFICANT ADVANTAGES OF BARREL WASHING DRUMS

The barrel washing drums have the following advantages in comparison with most other brands:

- Robust construction for round-the-clock operation, with drive mechanisms designed for smooth, gradual start-up at full load.
- Silent, vibration-free operation with a low dynamic load
- · Long service life of the tyres.
- Easy to transport and install at the site, as the unit is supplied in two sections.
- Simple maintenance, consisting primarily of monitoring the oil in the motor reducers, and tyre pressures.
- Fast and easy replacement of liners, drum internals and other parts, as the machine is assembled with standard components.
- Optional, automatic control system and regulation of tyre pressures.

BARREL WASHING DRUM APPLICATION

The processing of aggregate materials in washing drums requires a considerable amount of water to ensure that the infeed, contaminated by clay and other unwanted materials, is subjected to the necessary preparation, dilution and mixing, to achieve thorough washing. For all applications, as a first step, we carefully consider and analyse all operational criteria in detail before we specify and size the optimum equipment for the most suitable process. We tailor the specific equipment to the infeed, taking into account the slurry volume and the fine particles content treated inside the drum, and considering the subsequent product washing and classification treatment stages within the process circuit. This ensures that the aggregates and sands are properly washed with no loss of desirable fines, whilst recovering the maximum volume of water necessary for re-use in other process stages.









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