Attrition Scrubbers

Attrition scrubbing is the process where a mineral is scrubbed primarily by the action of the slurry particles impacting one another. This type of particle scrubbing achieves the desired “cleaned” particles while minimizing wear on the equipment.

Results of scrubbing:

- Exposes fresh surface of particles to reagents
- Cleans particle surface of contaminants, oxides, slimes, clay and calcium
- Reduces particle size

As mixing specialists, we at Hayward Gordon can choose the optimum impeller style from our large selection and identify the spacing and number of blades most suitable for your application. In addition, ideal cell and baffle geometry and configuration is selected by our experienced mixing application engineers.

Heavy duty agitator drives with years of proven reliability on tough mineral processing services.

Properly sized and located baffling ensures optimal mixing and no low velocity zones.

Impellers are selected for the best shear and flow characteristics for the application. Opposing flows maximize particle to particle scrubbing, polishing and/or disintegration.

Scrubber drive, support structure and cell roof are removed as one piece along with the shaft and impellers for easy maintenance and installation.

Each cell has individual inspection access.

Impeller blades are bolted to each of the hub ears allowing easy replacement of blades.

Abrasion resistant coverings include soft natural rubber and urethane. Shaft and impellers are typically carbon steel or stainless steel. Hard metal, high chrome blades (600+ BHN) are also available.
APPLICATIONS

POTASH PROCESSING
Cleaning of potash crystals of clay and other surface contaminants, which is essential to flotation recovery. Scrubbing also reduces the crystal size which is required before washing.

CLEANING OF SILICA SAND FOR GLASS MAKING
Removes calcium, iron oxide and other surface contaminants from the silica particles, improving the clarity of the finished glass.

PHOSPHATE PROCESSING
Particle cleaning reduces reagent consumption and improves recovery in flotation operation.

SOIL REMEDIATION
Washing of soil particles.

KAOLIN PROCESSING
Dispersion of agglomerated clay.

CLEANING OF FILTERING SANDS
Removes surface contaminants.

PLATINUM PROCESSING
Gangue quartz is the host material for platinum ore, attrition scrubbing abrades the quartz exposing the mineral to reagents for processing through the flotation cells.

NICKEL, COPPER & COBALT PROCESSING
Particle cleaning reduces reagent consumption and increases recovery in the flotation operation.