

BLADE MILLS

EIW Blade Mills are designed to liberate light, loamy clay and dirt from coarse aggregate before further processing.

Blade Mills resemble Coarse Material Washers but function differently, primarily because of their installed position/slope. With higher capacities than Coarse Material Washers of the same size, they are used to break down soluble/friable deleterious material before classification. Their alternating paddle and flight arrangement creates shear and attrition, removing many coatings and loosening compacted particles.

Installed at a 0° to 5° incline, the equipment conveys material through continuous agitation, discharging solids and water at the opposite end in a 65% to 75% solids slurry. Since all material remains in suspension, Blade Mills discharge directly to downstream processing or dewatering equipment.

The washing process uses alternating paddles and screw flights along the shaft to scour, abrade and break down deleterious material, loosening coatings and clay while separating unwanted fines. Shafts can be configured in various ways to meet application needs. For effective washing in a Blade Mill the water needed is an additional one-third of the weight of the material being processed.

Typically, Blade Mills are placed ahead of wash screens to remove soluble coatings from coarse rock before screening. For finer materials, they can be positioned before a screen, Sand Classifying Tank or Fine Material Washer to further break down some unsound materials before classification. Their ability to agitate and moderately scrub material enhances separation in downstream equipment.



Design Features

Pre-scrubs raw feeds with high silt content	Designed to scrub material up to 3" (75 mm) minus
Improves sand equivalency levels	Increases screening efficiency
Equipped with full-depth wear shoes cast from EIW abrasion-resistant Eagle Armor alloy	Reversible paddles increase retention time
Water enters through the rising current manifold and discharged along with the product	

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Blade Mill Size and Capacity Chart

	Size (Dia. x Length)	Shaft (RPM)	Electric Motor	Maximum Capacity	Maximum Feed Size
Single Shaft	22" x 18' (558.8 mm x 5.5 m)	40	15 HP (11.2 kW)	70 STPH (63.5 MTPH)	2.0" (50.8 mm)
	24" x 18' (609.6 mm x 5.5 m)	40	20 HP (14.9 kW)	90 STPH (81.6 MTPH)	2.0" (50.8 mm)
	30" x 18' (762.0 mm x 5.5 m)	35	30 HP (22.4 kW)	155 STPH (140.6 MTPH)	2.5" (63.5 mm)
	36" x 18' (914.4 mm x 5.5 m)	32	40 HP (29.8 kW)	230 STPH (208.7 MTPH)	2.5" (63.5 mm)
	44" x 20' (1,117.6 mm x 6.1 m)	26	50 HP (37.3 kW)	300 STPH (272.2 MTPH)	3.0" (76.2 mm)
Double Shaft	30" x 18' (762.0 mm x 5.5 m)	35	2 x 30 HP (22.4 kW)	310 STPH (281.2 MTPH)	2.5" (63.5 mm)
	36" x 18' (914.4 mm x 5.5 m)	32	2 x 40 HP (29.8 kW)	460 STPH (417.3 MTPH)	2.5" (63.5 mm)
	44" x 20' (1,117.6 mm x 6.1 m)	26	2 x 50 HP (37.3 kW)	600 STPH (544.3 MTPH)	3.0" (76.2 mm)
	48" x 24' (1,219.2 mm x 7.3 m)	26	2 x 75 HP (55.9 kW)	770 STPH (698.5 MTPH)	3.0" (76.2 mm)

