

One Source

# Modular Dense Media Drum Separator Plants



# Modular dense media drum separator plants



FLSmidth supplies a comprehensive range of modular Wemco® Dense Media Drum Separator plants. Wemco systems are installed and operating on many different minerals ranging from coal, gypsum, magnesite, right through to fluorspar, iron ore, chromite, lead, zinc, silver, uranium ores, and diamonds.

Particle sizes up to 250 mm can be treated, depending upon the size of Wemco Dense Media Drum or Drums selected for incorporation into the plant. The lower particle size for DMS Drum separation is normally 3 mm.

The specific gravity of separation (cut point) can be obtained by using either magnetite or ferrosilicon media (or a mixture) depending upon the separation density required. The accuracy of separation can be controlled to +/- 0.01 SG units by incorporation of the Wemco automatic density control system which measures the circulating density of media and controls the circuit to operate at an adjustable pre-determined setting.

Wemco DMS Drum Separators are available in sizes up to 5,500 mm in diameter. They are acknowledged to be the most reliable, simplest to operate, and most cost-effective coarse material DMS Separator available.

Wemco plants incorporate a standard well-proven circuit in which the feed is well prepared, by washing and draining prior to DMS Drum treatment. The products are sprayed with intense washing jets to remove the magnetite or ferrosilicon media prior to outloading. The magnetic media is recovered by wet drum type Magnetic Separator. Media viscosity is controlled by special control bleed to the cleaning circuit.

Where necessary, high separation densities can be achieved, by thickening recovered media from the Magnetic Separators with special centrifugal or spiral-type Wemco Densifiers, prior to it being returned to the circuit.



# Complete HMS systems from FLSmidth

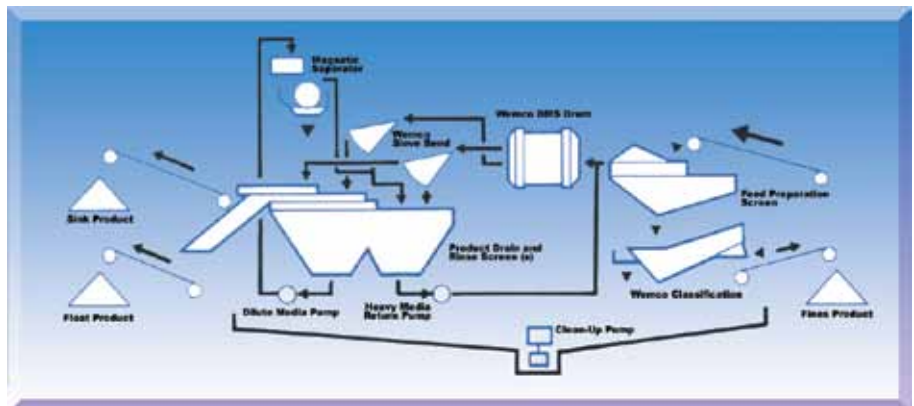
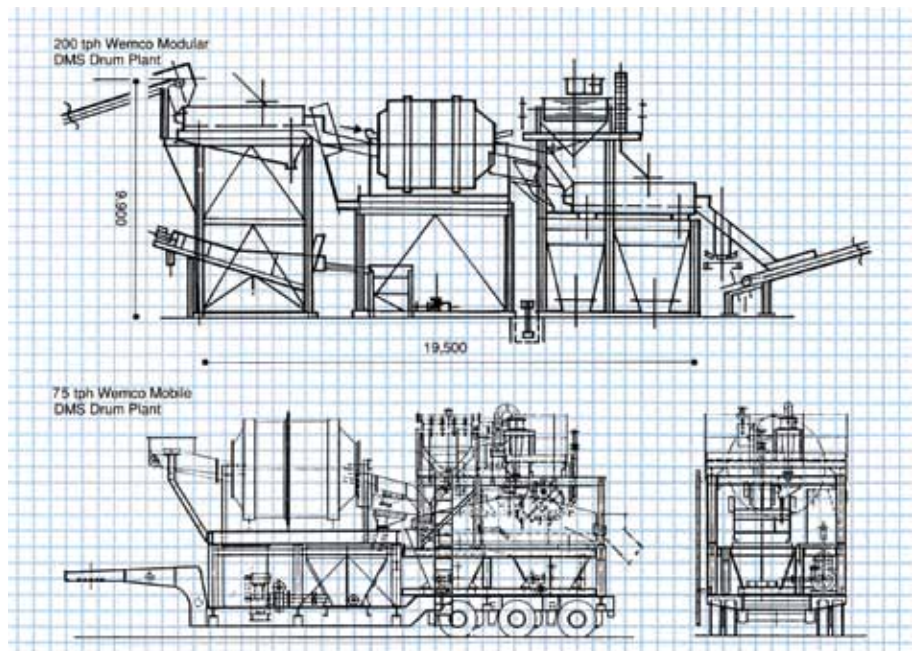
## A Wide Range of Plants Available

From the originators of the Wemco HMS Mobil-Mill® concept, a wide range of Wemco Drum Dense Media Separators is available which FLSmidth incorporates into a series of standard plants ranging in capacity from a few tph all the way up to 400 tph. Higher capacity plants can be supplied by utilising twin stream modules. Pilot Units are available for universities and research laboratories.

A combined Wemco Drum Separator and Cyclone Plant can be supplied enabling separation of 250 mm – 0.5 mm material.

## Complementary Equipment

FLSmidth supplies water clarification systems to complement their DMS Drum plants utilising Wemco® Spiral Classifiers or Cyclones for coarse material removal, followed by Dorr-Oliver Eimco conventional or E-Cat® Clarifier-Thickeners for water clarification and re-cycle, and Beltpresses or Filter Presses to produce the minus 0.5 mm material in cake form at a minimum moisture content for product blending or stocking-out. Where appropriate, small and fine material treatment circuits are incorporated utilising Wemco DMS Cyclones, Unisizers, Spiral Concentrators or Flotation Cells.



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