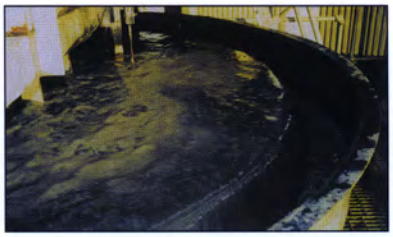
Simple, Effective Separation.

CMI CENTRIFUGAL & MECHANICAL INDUSTRIES

IBS Teeter Bed Separator

Simple,
The Teeter Bed Operating Principle.



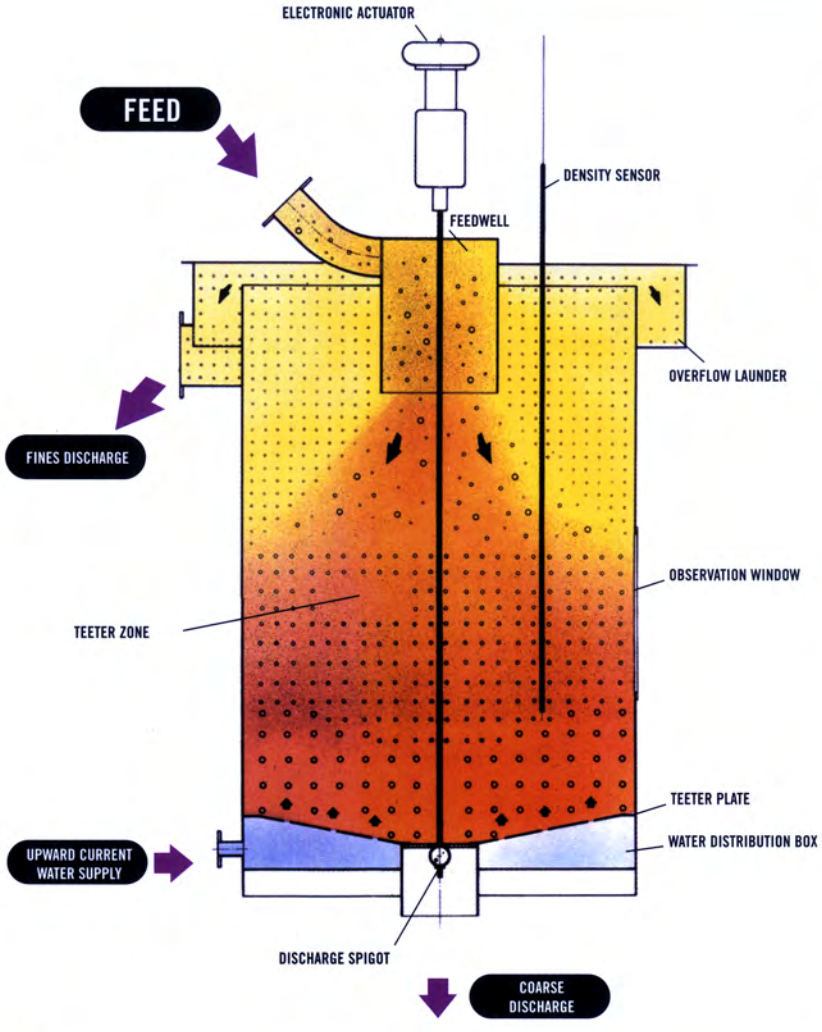
The CMI-Stokes TBS is a Teetered Bed Separator, also known as a hindered settling classifier. It uses a continuous upward current of water to suspend particles of a predetermined size or gravity (density). The feed material builds into a bed within the cell, creating a teeter-zone. As more material is introduced the clean material is elevated and overflows into the upper launder. Material larger in size, or heavier in weight not supported by the upward current water settles out of the teeter-zone and is discharged at the bottom of the machine.

The density within the TBS cell is constantly monitored and automatically controlled, requiring little operator attention. Automatic electronic controls respond to variations in feed, providing greater flexibility than other separation equipment.

Mobile On-site Testing

The fundamental operation of the TBS is so simple it is sometimes difficult for operators to envision the exacting results. That's why we offer our TBS Test Pilot Program. With a completely mobile, self-contained trailer-mounted TBS-600, CMI Engineers can provide on-site testing. This allows you to see first-hand how simple and effective the TBS is.

Testing is accomplished in nearly any operation, although some facilities may require minor outside assistance (electrical service, pumps, etc.). Without disruption to normal plant operations, CMI Engineers can divert a small amount of feed, perform testing on that material, and return the feed to a point within your circuit.



The design of the TBS is based on the Stokes Hydrosizer, which is used worldwide for the separation and/or cleaning of materials in a wide variety of industries. Some improvements were made to the U.S. and North American versions.

Effective, High efficiency & ease of operation.

The TBS offers many distinct benefits:

- The computerized electronic control system automatically monitors the TBS operating conditions and makes necessary adjustments to maintain efficiency in separation. This allows the TBS to accommodate variations in feed composition without impacting the end product.
- The TBS utilizes the Teeter Plate system, which provides even distribution of the upward current water. Throughout operation, the TBS maintains a controlled and steady condition within the vessel, thereby providing maximum efficiency.
- The TBS is available in sizes ranging from 2 ft. in diameter (TBS 600) to 10 ft. in diameter (TBS 3000). Regardless of the application or the tonnage requirements, CMI can offer a TBS Model to accommodate your needs.
- Unique circular design of the process vessel allows for consistent operation throughout the vessel.
- Discharge spigot ball valve design is not prone to blocking, ensuring continuous efficiency in operation.
- Using specific gravities for separation requires no outside chemicals or reagents, reducing overall operating costs.
- The TBS requires minimal maintenance and operator attention.
- With low operating, maintenance, and energy requirements, the cost-savings to be realized are significant.
- Highly efficient separation with material between 2-3mm and 100 mesh.
- Low capital cost and small footprint make the TBS the logical choice for your separation equipment needs.

Separation,
Two Distinct Applications– One Expected Result

The CMI-Stokes TBS offers both versatility and value. Installed worldwide in a number of different applications, the TBS has proven itself time and again. Many industries successfully utilize the TBS for its two different types of separation; gravity (density) and size. Either method is extremely efficient, achieving up to 99% effective separation.

Separation by Specific Gravity: In applications requiring separation of two materials of differing specific gravities (density), the TBS provides exceptional results. By establishing upward current water flow sufficient to suspend particles that are lighter in specific gravity, heavier material will be settled out of the material bed and discharged through the discharge spigot. This type of separation is ideal when removing lignite from sand or rock and ash particles from coal.

Separation by Size: When separation is required by size of the same or similar materials, the TBS provides superior results. In these applications, upward current water is used to suspend the smaller particles, while the larger particles are settled out through the vessel. Separation by size is extremely useful in sizing of sands, tin and zinc dressing, and other closely graded materials.

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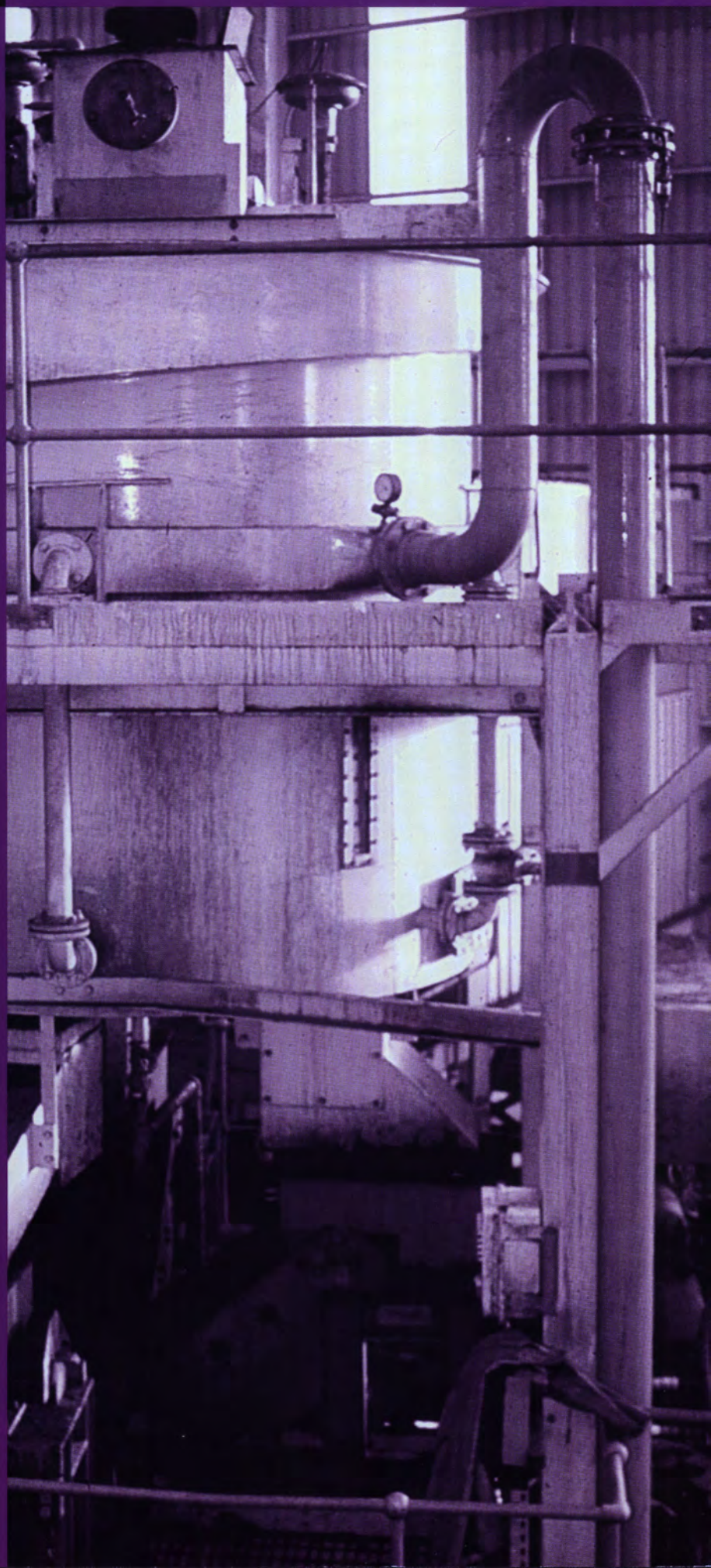

The CMI-STOKES TBS Teeter Bed Separator

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