IMPCO[®] Compaction Baffle Filters





Simply the Best Washer

The Compaction Baffle (CB) Filter stands second to none for removing dissolved solids from papermaking pulps. With its compact, pressurized design, the CB's advantages over other types of washers include a minimum total installed cost, an environmentally-conscious totally-enclosed operation, the highest washing efficiency available, and simple, low cost maintenance. The CB Filter achieves greater capacities compared to other types of drum filters because it uses higher feed consistencies and operating speeds. This makes the CB Filter a relatively compact machine requiring much less building space than conventional vacuum or pressure washers, yet delivering superior performance.

The Efficient Combination

The production of chemical pulps requires several unit operations involving washing dissolved solids from the pulp. Several washing stages in a countercurrent series recover cooking chemicals in the brownstock or redstock washing systems, while bleach washers remove residual chemicals and adjust pH between bleaching stages. Washing of dissolved solids can be accomplished either by dilution/extraction or by displacement. The CB Filter delivers a combination of the two operations in one machine. This is important because the dilution/extraction step helps to release dissolved solids trapped within the fibers, allowing the displacement step to remove this material from within the pulp matrix. This combination makes the CB Filter the most efficient washer at the lowest cost per ton of production.

GL&V Pulp and Paper Group Albia • Bagley & Sewall • Beloit-Jones • Beloit-Lenox • Black Clawson-Kennedy • Canron • Celleco • Dorr-Oliver • Downingtown • Hedemora • Impco • LaValley • National Refiner Plate • Sandy Hill



IMPCO[®] Compaction Baffle Filters



A Cycle Of Innovation

- Tapered Inlet Box Constant inlet pressure and uniform basis weight of the pulp sheet across the full length of the machine.
 - **Deflocculating Slice** Excellent sheet formation occurs because shear across the slice also disrupts the pulp flocs which normally occur in 4% consistency pulp.
 - Formation Zone Entering pulp slurry is dewatered through the perforations in the rotating drum and becomes the pulp mat.
 - Compaction Zone The pulp sheet is gently compressed by the primary and compaction baffles. Strong liquor from the pulp sheet is expressed through the perforations in the drum until the consistency is approximately 20%, completing the dilution/extraction portion of the wash cycle.
 - **Displacement Zone** The pulp emerges from the tip of the compaction baffle into the lower wash pond. Displacement wash liquor passes

uniformly through the entire pulp sheet. The wash pond can be split into separate upper and lower ponds for sequential addition of wash liquors, as is common in bleach washing.

- **Drying Zone** The pulp sheet rises out of the upper wash pond and is carried over the top of the cylinder where the hood overpressure dries it to a high consistency prior to discharge from the machine.
- Air Lift Take-Off A timing valve at the filtrate discharge end of the machine equalizes the pressure across the surface of the cylinder, allowing the pulp sheet to be positively removed by the air lift take-off assembly.
- Crumb Sluice Chamber and Cylinder Cleaning Showers The chamber between the air lift take-off and the inlet box is known as the crumb sluice chamber. Blower air enters here to lift the pulp mat and to simultaneously provide the hood overpressure. This chamber contains the high and low pressure cleaning showers.

GL&V Pulp Group Inc.

150 Burke Street, Nashua, NH 03060-4788 U.S.A. • Tel: +1-603-882-2711 • Fax: +1-603-598-7832 P.O. Box 100, S-129 22 Stockholm, Sweden • Tel: +46(8)522-444-00 • Fax: +46(8)522-444-99 1000 Laval Boulevard., Lawrenceville, GA 30043 U.S.A. • Tel: +1-770-963-2100 • Fax: +1-770-339-6132 Internet: www.glv.com • E-Mail: general@glv.com