

AKW

AKW provides both mini and large cyclones. These are used in a number of applications. For instance, desliming of raw phosphate is an expedient prior to filtration or centrifuging. The hydrocyclones are used in degritting where the removal of a coarse fraction from a wide spectrum of suspended particles aims to improve product quality to meet certain demands. One example is solvent cleaning with high pressurized AKA Vortex cyclones. Twenty-inch hydrocyclones are used ahead of clarifying thickeners and achieving a reduction in torque load. Examples are crystal products, potash salts, saline salts, mine dumps, sands, chemical gypsum, mineral concentrates, granulates and polymers.

BMA

BMA's automatic batch centrifugals G 2100 are suited to handle all white and high-rax masscutes produced in the sugar industry. They are also employed in other sectors of the food and chemical industries for separation of crystalline solid/liquid mixtures, e.g., for dextrose, fructose, sodium sulfate, citric acid and monosodium glutamate.

Bird

Bird featured its Process 2000™ Vertical Peeler Centrifuge at Achema. Designed to meet the needs of the high value added pharmaceutical and fine chemical markets, the Process 2000 incorporates Pentium-based, computer drive, process controls to maximize yields and product flexibility.

The Process 2000 offers high separation forces for reduced cycle times and product moistures. A full opening case for quick and complete CIP validation and the patented Centrifeed™ System that assures even cake distribution. Bird says that the Process 2000 can exceed the performance of existing inverting filter centrifuges (IFC) and horizontal peeler technologies in most applications at a lower invested cost.

CEPA

The company supplies basket centrifuges and specializes in applications in the chemical and

the pharmaceutical industry. The equipment is used in a number of sterile applications.

Dorr-Oliver

Dorr-Oliver had a separate booth, even though it is a member of the Krauss-Maffei Group. It operates 11 subsidiary companies in Australia, Belgium, Chile, China, France, Germany, Mexico, The Netherlands, Spain and the United Kingdom, and has two manufacturing plants, one in the U.S. and the other in Germany. The company employs approximately 500 people. Dorr-Oliver sales volume exceeded U.S. \$170 million. It was featuring its MERCO® Disc Nozzle Centrifuges at the show. These are used for high speed operations in separation, washing, concentration, soluble recovery, classification and clarification. There are five sizes with capacities from 1 up to 100 gpm.

FILAC

Filac is located in Monza, near Milan, Italy. FILAC's primary activity is the manufacturing of sieves and filtering elements for a wide range of applications and equipment with special emphasis on the pusher centrifuge technology.

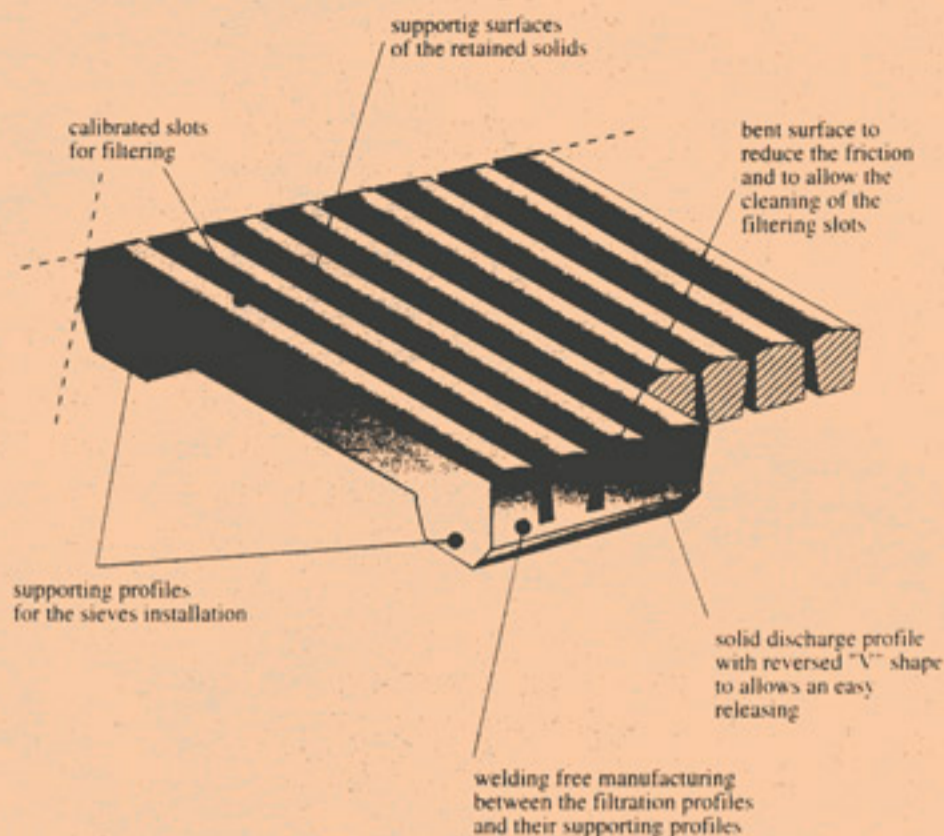
FILAC has applied a procedure of machining to produce filtering elements of which the single pieces are without welds, have non-clogging profiles promoting the sliding of the retained solids and discharging profiles that make the release of particles easy once they have passed through the slots.

FILAC says the primary advantages offered by the filtering elements are the ease of installation, abrasion reduction, cost minimization and reduced downtime which result in greater production capability. These filtering elements come in a variety of shapes to serve specific applications and are manufactured in a wide variety of metallurgies and slot widths (see Figure 5).

FIMA

The centrifuge dryer offered by the company, has the advantage of separating centrifugation and drying in one device. This is more and more important for cleanliness-conscious pharma-

FIGURE 5



atmosphere in an open system. The type of gas and the quantities required depend on the type of product. The method of jet pulse drying permits the utilization of the surface evaporation limit temperature which considerably reduces the time needed for drying. The temperature of the discharged gas is directly related to the temperature of the product and serves as the control point. FIMA can deliver the whole plant including all equipment and controls for the TZT system with either open loop or closed loop processing.

Flottweg

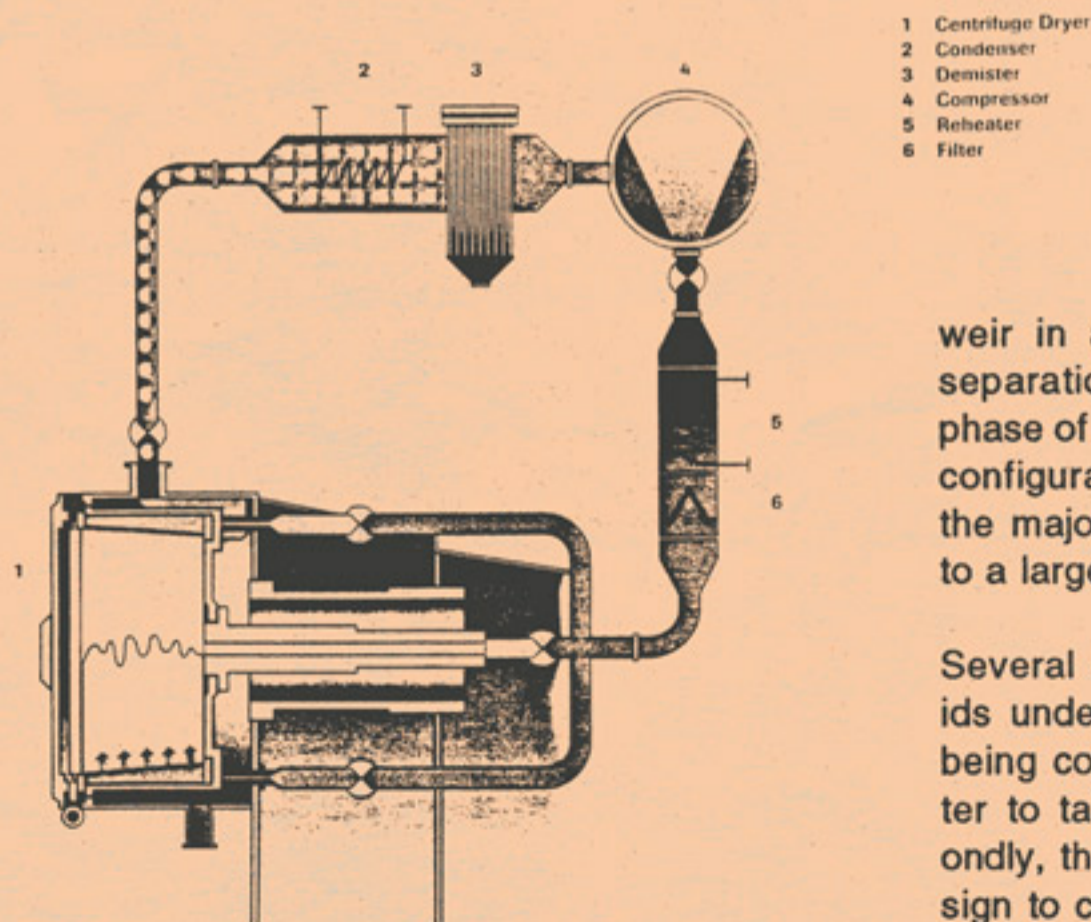
This subsidiary of Krauss-Maffei also had its own separate stand where it featured two new types of centrifuges. The SEDICANTER is used for clarifying media with minimal density differences. This includes proteins, starches and fermentation liquids.

ceutical and chemical plants who must ensure that there is no contamination of the product. As shown in Figure 6, (1) is a centrifuge dryer, (2) is the condenser, (3) the demister, (4) the compressor, (5) reheater and (6) is a filter.

The gas used for drying may be recycled in a closed gas loop or it may be discharged to

Typically decanter centrifuges have been applied to slurries whose solids once settled and compacted exhibit enough body or firmness to be conveyed easily from the machine. Products such as yeast, proteins, metal hydroxides, fermentation products and biological waste sludges which resist compaction and once settled exhibit more fluid-like than solid-like properties. These properties create conveying problems as the solids are conveyed in the conical section of decanters.

FIGURE 6



Research showed that the semi-fluids could easily be conveyed underneath a dip weir in a fashion similar to that used for the separation of two immiscible liquids. The final phase of development was a bowl with a dual cone configuration. The significant development was the major cone being one from a small diameter to a large diameter.

Several distinct benefits are created. First, solids under the influence of the scroll are literally being conveyed downhill, i.e., to a larger diameter to take advantage of centrifugal force. Secondly, the dual cone allows a concurrent flow design to create minimum shear or resuspension of

from 400 mm x 400 mm up to 1500 x 200 mm — shortly up to 2000 mm x 2000 mm. They manufacture filter elements for all press designs and shifting systems.

The company offers recognized high-level engineering, well-founded application advice and test filtration (including high pressure up to 25 bar) for all those cases where customer-specified criteria challenge them especially or where they realize good changes for optimization. As a matter of fact, they collaborate worldwide with internationally renowned filtration experts with whom they maintain a good relationship.

Polynova[®], Filter Cloths Developed in Cooperation with End Users

Polynova[®]- filter cloths from Verseidag-Techfab GmbH, were developed in close cooperation with machine-manufacturers and end-users for very special applications on filter presses. This is especially true for the chemical industry as well as for municipal and industrial wastewater treatment.

Because of the great variety of chemical and thermal working conditions, as well as the required, fine filtration, the company offers the Polynova[®] fabrics made from different synthetic yarns: polyamide, polyester and polypropylene.

Filter cloth is made to dimensions: their modern making-up facilities provide the conditions for professional and optimal production of easy-to-fit filter cloths.

Computer-controlled production enables and ensures absolute dimensional accuracy. The laser cut guarantees precision cut surfaces and welded edges.

Advantages provided are long service life, easy cake release, excellent dimensions stability and easy cleaning.

Pulp and Paper Filtering Sieves Provided by Filac

F.I.L.A.C. sas, Milan, Italy, provides filtering

sieves for pulp and paper production for filtration to purify recycled waste paper stocks and virgin fibers from polluting particles.

They offer metallic filtering sieves without weldings. Production is from solid metallic machined parts. Modular design is used to create cylindrical filtering surfaces of wide sizes. There is very easy and fast installation, thanks to the peculiar design of the overlapping edges.

The advantages of Filac design are longer life (20 - 50 percent depending on the product), the basket is easily efficient, the basket always meets the production needs, total or partial replacement of the filtering elements, supply of space elements in reduced times, always reusable supporting structure, low maintenance costs, customers need to stock only few elements for emergency and complete lack of weldings.

Innovatec Manufactures High-Quality Melt-Blown Products

Innovatec Kunststoffverarbeitung GmbH manufactures high-quality melt-blown products for diverse applications.

Versatile melt-blown technology offers the greatest possible degree of economy, which is greatly appreciated by their customers from various sectors.

The Innovatec melt-blown technique facilities processing of all free-flowing thermoplastics, e. g., PP, PE, PET, PS, PA, PBT and PUR. The wide range of optional properties conferred on the products and the added batches including various colors, hydrophilic or hydrophobic properties, anti-static and UV-stabilized finish. All Innovatec products are manufactured by using nonpolluting methods and can be recycled easily.

The Innovatec assortment of products reflects the wide range of possible applications for melt-blown products. For example, as filters — the special melt-blown products used as air and liquid filters (e.g., also as blood filters) are characterized by their excellent filtration