Recirculating Vacuum Pump

American Leistritz Extruder Corp. has introduced a recirculating oil-sealed vacuum pump package for use with its range of twin-screw extruders and other type/model extruders. The recirculating oil ring pump replaces once-through water-sealed vacuum pumps to pull vacuum from extruder vents for enhancement of devolatilization efficiencies. The vacuum pump typically can be operated two to six months before the oil must be replaced. The major advantage of the oil-sealed design is that it eliminates the environmental concerns associated with water disposal from the water-sealed pump.

The system includes a TEFC motor and an oil reservoir with built-in baffles equipped with filter, sight glass, and drain valve. The oil is cooled using a rear-mounted heat exchanger with the fan driven by the pump motor. The oil-return line includes a temperature gauge and fixed-orifice flow-control valve. The vacuum line has a shutoff valve, check valve, and gauge. A knockout pot with filter is situated between the extruder and pump, and all components are mounted on a steel base plate.

American Leistritz Extruder Corp.; 908-685-2333; www.leistritz-extrusion.com

Faster Router

Thermwood debuted its Model 90 five-axis CNC router at the annual SPE Thermoforming Division Conference. Equipped with the company's impact-resistant head—which allows a lighter, stiffer structure that seldom if ever needs realignment—the Model 90 is described as providing exceptionally high-speed trimming of three-dimensional parts. Cycle times are reportedly to be dramatically faster than those of traditional five-axis CNC routers as the result of improvements in overall mechanical design that enable the Model 90 to handle quick motions that could slow or shake comparable machines.

Additionally, it offers features such as advanced drive systems and quick-change vacuum for part hold-down fixtures. The router's mechanical structures were designed using finite element analysis, a sophisticated CAD technology that analyzes strength, stiffness, deformation, and dynamics of machine structure, resulting in a stout lower gantry design with a wide base structure that creates a stiff and rigid platform.

Thermwood; 800-533-6901; www.thermwood.com

Portable Trimming

Robotic Production Technology (RPT) has introduced the RoboTrim RT-400 System—a portable, pre-engineered router trimming and knife deflashing system designed specifically for the plastics industry—at the recent Thermoforming Conference sponsored by SPE's Thermoforming Division. According to RPT, thermoformers, injection molders, blow molders, and rotational molders who manufacture small parts can use the RoboTrim RT-400 System, which features a servo-controlled table that has the ability to rotate the part as the robot is trimming, allowing each side of the part to be trimmed in a very compact work cell. This modular system is mounted on a single base and can be easily moved to various locations around a manufacturing facility for quick setup.

Robotic Production Technology; 248-829-2800; www.rpt.net

Centrifugal Sifter

Wedco Processing Services specializes in the size reduction of thermoplastics and other materials into custom powders that are used in numerous applications. The company uses its particle size reduction processes to produce granular to submicron particles from an array of materials (e.g., polyolefins, engineering resins, fluoropolymers, and waxes) in lab-size volume to thousands of tons per year.

Wedco’s capabilities include those of production-scale ambient and cryogenic mechanical grinding and jet pulverizing, batch and continuous blending, product testing and analysis, and research and development. To maintain the flexibility necessary to address many types of custom processing requirements, Wedco utilizes its own equipment and equipment sourced from suppliers.

In one line, the company integrated a continuous heat treater/mixer, the Wedco Polisher, with a Centri-Sifter MO centrifugal screener from Kason Corp. The Polisher controls the level of heat and energy impacted to a powder to yield uniform flow and moisture properties. It is also used to mix in performance-enhancing additives on a continuous or batch basis. In addition to screening particles to size, the Centri-Sifter unit discharges any agglomerates generated by the process.

Wedco Processing Services, a subsidiary of ICO Polymers North America, Inc.; 908-479-2010; www.icopolymers.com