

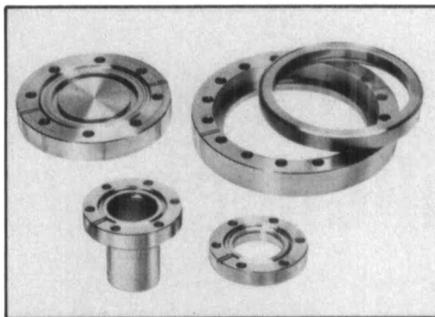
RESEARCH RESOURCES

A summary of new products and services for materials research...

Rotary Feedthrough with Straight-Through Hollow Shaft: Patented eccentric cam design activates the bellows-sealed rotary motion of the VF-118 feedthrough, enabling the hollow shaft to extend from atmosphere straight through to vacuum. The rotatable, straight-through hollow shaft can then be used as an additional coaxial port. Users can introduce virtually anything into the vacuum that can be fed through a tube with an inner diameter of 0.245 inches (larger on request). The VF-118 can also be combined with any other device that can be mounted on a 2.75-in. flange to perform a wide range of secondary functions, for example, another rotary motion at a different speed or in a different direction, a linear motion, an electrical or instrumentation feedthrough, a liquid or gas feedthrough, or a cold finger. Huntington Mechanical Laboratories Inc., 1040 L'Avenida, Mountain View, California 94043; (800) 227-8059, or in California, (415) 964-3323.

Vacuum Valves and Control Systems: Free catalog describes a full line of vacuum valves and valve control systems for all applications, from coarse vacuum to extreme UHV. The catalog also describes a wide range of gate valves, rectangular slit valves, minigate valves, all metal bakeable gate valves for maintenance-free 10,000 cycle operation, angle valves, closed-loop control valves for downstream pressure control, and fast-closing systems for beam lines. The catalog features the new Monovat valves, which provide shock-free, friction-free, and virtually particle-free actuation for more than one million cycles. The Vatterfly valves, which are similar to butterfly valves but have no seal friction during closing, also are featured, as are full technical data, drawings, and specifications. VAT Incorporated, 600 West Cummings Park, Woburn, MA 01801; (617) 935-1446 or 1-800-VATLOCK.

Vacuum Components Catalog: 334-page catalog provides detailed descriptions of the company's entire line of vacuum components, including the complete vacuum pump product line (i.e., rotary vane, roots, turbomolecular, oil diffusion, cryo and titanium sublimation pumps), valves, UHV systems components, total pressure gauges and switching units, leak detectors, and quadrupole mass spectrometers. Each product section provides data on product performance, technical specifications, ordering, applications, and accessories. Catalog Dept., Balzers, 8 Sagamore Park Road, Hudson, NH 03051; (603) 889-6888.



Stainless Vacuum Fittings

Stainless Vacuum Fittings: Stainless steel CF fittings feature low leak rates of less than 2×10^{-11} torr l/s, low outgassing, bakeability to 500°C, and vacuum tightness to 10^{-9} mbar. Leybold Vacuum Products Inc., 5700 Mellon Road, Export, PA 15632; (412) 327-5700.

High Vacuum Products Catalog: Free 92-page high vacuum products catalog provides operating principles, applications, specifications, and ordering information on the company's complete line of high vacuum products. Products include mechanical and diffusion vacuum pumps; fluids and greases; valves, baffles and traps; power supplies; vacuum process controllers; and vacuum gauges and tubes. A thin film coating service and a line of ellipsometers, for precise thin film measurement of thickness and refractive index, are new features. CVC Products, Inc., 525 Lee Road, P.O. Box 1886, Rochester, NY 14603; (716) 458-2550.

Portable Rotary Vacuum Pumps: Small, lightweight pumps, geared to a variety of scientific, laboratory and analytical applications, provide a good ultimate vacuum and low working temperature for heavy-duty use with displacement from 4 to 57 cfm. The Vacsound line of pumps features a built-in lubricating pump and high pumping speed at all working pressures, from 1000 mbr down. Pumps come with either single- or three-phase American motors and feature hydraulically operated isolation valves to avoid pressure rise or suction line contamination. High gas ballast flow gives the pumps increased capacity to handle condensable gases and vapors. Pumps have no copper or copper alloy parts and employ fluorinated elastomer gaskets. Parts are interchangeable, and the entire inner pump module can be easily replaced. Galileo Vacuum Systems, 64 Field Road, Unit 3B, P.O. Box 868, Somers, Connecticut 06071; (203) 763-4004.

Nonmagnetic X-Y Positioning System: Nonmagnetic, high vacuum positioning system incorporates synthetic and nonferrous components so only a small (less than ± 10 milligauss) magnetic field disturbance is created at the work area. The Model 4024 provides more than an eight-inch X-Y motion, includes only high vacuum compatible lubrication, and is designed for rapid high vacuum pump down. Servo motor drives and their rotating magnetic fields are placed outside the vacuum chamber wall; power is transferred through the wall via ferrofluid-type vacuum feedthroughs. The Model 4024 is available with a variety of closed-loop servo controls and transducer resolution options, and in a semiferrous design. Anorad Corporation, 110 Oser Ave., Hauppauge, NY 11788; (516) 231-1995.

Turbomolecular Vacuum Pumping System: Highly mobile, turnkey MINI-TOPS™ 50 Turbomolecular Vacuum Pumping System includes pumps, gauge controller, pump frame and KF® fittings. The system was engineered especially for hydrocarbon-free high and ultrahigh vacuum applications, such as atomic and molecular beam systems, spectroscopy, electron tube production, microbalances, thin film deposition by evaporation or sputter coating, surface physics, and laboratory pump systems. Leybold Vacuum Products Inc., 5700 Mellon Road, Export, PA 15632; (412) 327-5700. □



Turbomolecular Vacuum Pumping System