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Berkeley Nucleonics Corporation Quantum Design

Control Plus Quantum Detectors

DECTRIS USA Rayonix, LLC

Edwards Vacuum SAES

FMB Oxford Limited Scienta Omicron, Inc.

GoEngineer SPECS-TII Inc.

Hitachi High-Tech America Inc. Starrett Tru-Stone Technologies

Huber Diffraction USA Surface Measurement Systems

InSync, Inc.

TDK Lambda Americas

KA Imaging Teledyne Princeton Instruments

KETEK GmbH Televac-The Fredericks Company

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In 2001, attocube systems AG was founded in Munich, Germany and is recognized internationally for innovation and excellence in the development, the production, and the distribution of cutting-edge solutions for the most challenging nanotechnology applications in research and industry. Since our early days, the portfolio includes ultra precise nano drives, compatible with extreme environmental conditions such as UHV, magnetic field, radiation exposure, as well as cryogenic to elevated operating temperatures. They can be used for highly accurate positioning tasks and can be combined with the ultra-precise displacement sensor IDS. Our business sector 'Nanoscale Analytics' (also known as neaspec) develops and produces innovative solutions for nanoscale imaging and spectroscopy. The neaSCOPE system is an ultra-stable, easy-to-use instrument for tipenhanced optical measurements with remarkable scientific impact. We also offer a broad selection of customizable liquid and dry cryostats that work at the very edge of technical and physical feasibility and are predestined to be combined with our microscopes, nanopositioners, cryogenic objectives, and interferometric sensors. Our customized engineering solutions are developed for cutting-edge applications, always optimized for the specific customer requirements.

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April 2022, started our new 2024 Medium-Term Management Plan. Whatever happens in the world around us, our core technologies in observation, measurement, and analysis (measurement and analysis technologies), which are our strength, possess the potential to solve many different types of social issues. By maximizing our utilization of digital technology and bringing ourselves face-to-face with the needs and issues faced by our society and our customers, we will create new value by strengthening existing businesses and creating new businesses and make significant contributions to solving social issues through our capabilities in observation, measurement, and analysis technologies. We also seek to evolve our business structure into one that will allow us to further leverage our strengths, seek our own evolution without fear of change and become a company where every employee has a real sense that they are personally contributing to society through our business. The Hitachi High-Tech Group's basic philosophy

We at the Hitachi High-Tech Group have, as of

The Hitachi High-Tech Group's basic philosophy is to become "a successful enterprise trusted by all our stakeholders and contribute to social progress through business activities that emphasize value creation through high-tech solutions." Every employee keeps this philosophy in mind at all times. Furthermore, we at the Hitachi High-Tech Group strive to remain a company deemed essential by our society by tying together all businesses to sustainability, and creating societal issue-driven value, thereby contributing to the realization of a sustainable society.

HUBER DIFFRACTION (Huber Diffraction, GmbH & Co. KG) is a manufacturer of precise positioning and diffraction equipment for laboratory, synchrotron, and neutron applications. The all-in-house manufacturing covers rotary stages (goniometers), segment stages and linear stages of different size and load capacity. The Huber standard stages can be widely customized and combined to multi axis positioning systems or complete diffractometers. InSync, Inc. has been supplying "state of the art' synchrotron optics since 1993. It is a continuing goal of InSync, Inc. to satisfy changing light source needs by working with the synchrotron community and adjusting capabilities. InSync, Inc. is a custom, high-tech, optical manufacturing company, specializing in unique super polished optics up to 1500mm in size. Capabilities: Computer Design, Finite Element Analysis, Slicing, Grinding, Feature Machining, Etching, Bonding, Lapping, Polishing, Coating, and Metrology Polished Shapes: Cylindrical, Spherical, and FlatSubstrate Designs: Internally Cooled, Externally Cooled, Uncooled,

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At Mirion Technologies, we partner with industry leaders to advance radiation safety and empower the next wave of critical innovation. From detection and measurement to monitoring and analysis, we empower innovators across industries — in leading-edge R&D labs, critical nuclear facilities, and on the front lines — with radiation safety technologies that operate with the



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MiTeGen designs, manufactures, and distributes tools for crystallization, crystallography, cryo-EM and X-ray diffraction. We work with researchers and labs from around the world to improve their workflow and ability to solve structures. Our tools have been mentioned over 5000 times in scholarly papers and are trusted by researchers. Let us help you with your research.

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others. Currently there are OMS products in use around the world, on every continent and several countries, supporting mission critical applications. OMS products are proven and help enable the creation of great products and processes. OMS Motion's products were designed to be easy to commission while providing superior performance. The use of advanced components allows OMS to avoid excess overhead and produce very effective performance. The company's strong commitment to their customers success has manifested the support of some individual product applications for more than 28 years, which is no easy task. OMS Motion firmly believes in doing the right thing, which is a testament to how they have had 40-years of success.

With US headquarters in Nashua, NH and global headquarters in Asslar, Germany, Pfeiffer Vacuum is one of the world's leading providers of vacuum solutions. In addition to a full range of hybrid and magnetically levitated turbopumps, the product portfolio comprises backing pumps, measurement and analysis devices, components as well as vacuum chambers and systems. Founded in 1890, Pfeiffer Vacuum is active throughout the world today. The company employs a workforce of some 4,000 people and has more than 23 subsidiaries. Pfeiffer Vacuum, Inc. is part of Pfeiffer Vacuum Technology AG.

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Quantum Design Inc. (QD) is the manufacturing arm of QDI. Located in San Diego, California, QD is the leading commercial source for automated materials characterization systems incorporating superconducting technology. QD instruments may be found in the world's leading research institutions and have become the reference standard for a variety of magnetic and physical property measurements. Quantum Design instruments are cited in, and provide the data for, more scientific publications than any other instrument in the fields of magnetics and materials characterization. This means that each year, literally hundreds of scientific publications. advancing the science of materials, use data generated from QD instruments. Quantum Design then expanded its product line beyond material characterization, to include instruments such as: a 7T magneto-optical cryostat (OptiCool®) for experiments that use light and other forms of radiant energy to probe

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# SAES

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laser furnace for the creation of new materials; and a full line of NexGen Liquefiers and Helium Recovery Systems for the conservation and recycling of helium (a vital and increasingly scarce resource essential for cryogenic research and instrumentation). Very recently, Quantum Design introduced an innovative correlative AFM/SEM microscope platform (FusionScope®) that was designed from the ground up to harness the benefits of using SEM with AFM microscopy while offering a wide range of AFM measurement

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Rayonix L.L.C. has 25 years history of supplying state-of-the-art Xray area detectors to synchrotron and XFEL beamlines worldwide, as well as university and industry laboratories. The MX-HS high-speed, high-resolution X-ray detectors have no count rate limitation, no gaps in the imaging area and only 1 msec dead time. These are integrating X-ray area detectors, based on the Rayonix high speed frame-shift CCD technology. LX-HS geometries allow the direct beam to pass, for simultaneous SAXS/WAXS data collection. For XFEL applications MX-HS detectors with a beam tunnel through the center of the imaging area allow beam diagnostics simultaneously with data collection. This configuration also eliminates the need for a beam stop in front of the detector. Rayonix is currently commercializing a new integrating pixel array Xray detector with auto-gain-changing capability, based on the ePix10K ASIC invented by the SLAC detector group.

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# **Starrett Tru-Stone Technologies**

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### **Surface Measurement Systems**

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Teledyne Princeton Instruments (TPI), a business unit of Teledyne Digital Imaging US, Inc, designs and manufactures high-performance CCD, sCMOS, ICCD, EMCCD, emICCD, and InGaAs cameras; spectrographs; and optics-based solutions for the scientific research, industrial imaging, and OEM communities. We take pride in partnering with our customers to solve their most

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# Televac-The Fredericks Company

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The Televac brand of The Fredericks Company designs and manufactures vacuum sensors, gauges, and control instrumentation for the most demanding applications. We offer full range measurement solutions from 1E-11 Torr to 1E4 Torr, primarily based on thermocouple/convection/Pirani and cold cathode technology. Our industry-leading gauging is radiation resistant with high bakeout temperatures, and our 7FCS cold cathode has UHV quick start capability. Our controllers offer the most modern electronics and communications, and with our in-house ISO 17025 vacuum calibration accreditation, you'll know that you're receiving the most accurate measurements from our products. Televac guarantees customer satisfaction, and our "not too big, not too small" operation is what enables us to offer a true partnership experience. For over 85 years we've been working side-by-side with customers across the world in numerous industries and literally hundreds of applications, and we're ready to bring that experience to your next project. We develop high quality, costeffective products to solve your most challenging design goals. Fredericks is proud to be a Women-Owned Small Business (WOSB) with ISO 9001:2015 certification and ISO 17025 accreditation for vacuum calibration, while also being registered with the U.S. State Department as ITAR compliant. All of our products are designed and manufactured at our facility in Huntingdon Valley, PA.

# Tibidabo Scientific Industries

14 New Rd. Madison, CT 06443 203-484-2011 https://tibidaboscientific.com/ Tibidabo Scientific Industries leads the way in highly differentiated technology for scientific and medical research, life sciences, aerospace, defense and security, and industrial applications. A wide range of products including high-speed, highperformance, intensified cameras, vacuum based tubes and camera systems for photon detection, x-ray irradiation cabinets, phosphors and scintillators, and Laue diffraction systems enables



next-generation innovation. We succeed by helping customers push boundaries with cutting edge products and solutions that drive innovation for new and existing technologies.

# Vacuum One

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https://www.vacuumone.com/



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### VAT Group

655 River Oaks Pkwy. San Jose, CA 95134 Tel: 408-375-5567 https://www.vatvalve.com/



Innovation and engineering excellence is the driving force behind VAT's technology solutions and services. A high degree of customization on any VAT product or service signifies our strong focus to provide customers solutions without compromise. Over the last 50 years this has earned us the world leading position in vacuum valves and related technologies. VAT's products and services are mainly required in semiconductor, display and solar panel manufacturing as well as in a wide range of industry and research applications that operate under special vacuum conditions.

### XIA, LLC

2744 E 11th St., Ste. H2 Oakland, CA 94601 Tel: 510-401-5760 https://xia.com/



XiA LLC invents, develops, and markets advanced digital data acquisition and processing systems for high-rate x-ray spectroscopy at synchrotron facilities and other radiation detector applications in university research, national laboratories, and industry. Our core technology of high-rate digital signal processing is applied to a diverse range of products from large multichannel systems to benchtop units and compact low power processor cards for handheld instrumentation. Our product features include high-rate elemental fast mapping, and data output rates more than 5 Mcps (FalconX). In addition to x-ray detector electronics, XIA offers a parallel product line of high-speed digital signal processors for gamma detectors used for spectroscopy, timing and coincidence measurements. XIA is based in Oakland, California, on the east side of San Francisco Bay. Our multi-lingual staff currently supports product sales in over 30 countries on six continents.