

Factors Design; Graphics Editor; Touch Screen; Flight Control Interfaces; Out-of-Window Displays; Tactical Simulation; Performance Evaluation; Prototyping (Rapid).

REVISED: January 88

VORTEK INDUSTRIES Ltd

ADDRESS: 1820 Pandora Street
Vancouver, British Columbia, Canada
V5L 1M5

CONTACT: Dr G G Albach, President - (604) 251-2451

HISTORY: Vortek is a private Canadian company, incorporated in 1975 in the Province of British Columbia, with no other branches or US subsidiaries.

CAPABILITY: Vortek designs and manufactures the world's most powerful arc lamps and related optical systems. Production lamps are available with input powers up to 300,000 watts, using a patented internal cooling method. Radiant heating systems using these lamps are sold for production-line semiconductor processing, large-area sunlight simulation, industrial heat-treating, laser damage studies and advanced thermal testing. Lamp production includes material handling, precision machining, electrical and mechanical assembly and final testing. In-house R&D facilities are used for testing new product designs and for development of specialized lamp systems on a contract basis.

AVERAGE WORK FORCE: Scientists & Engineers - 5
Others - 15

GROSS SALES: No Data

PLANT SIZE: 10,000 Sq Ft

EQUIPMENT: The company has developed sophisticated fabrication techniques for liquid-cooled tungsten electrodes, and operates the only commercial tungsten electrode fabrication facility in Canada. Engineering of large, high-power optical systems is done using an in-house computer system. The company fabricates liquid-cooled optical assemblies, and maintains a large area rhodium metal plating facility for reflector production.

EXPERIENCE: The company is an OEM supplier of ultra-power arc lamps and optics to Eaton Corp in Boston, for use in semiconductor annealing equipment. USAF, NASA and DNA use Vortek lamps for laser development and radiation testing. Large area solar simulators are installed in Canada and Europe.

KEYWORDS: Electrodes; Heating; High Intensity Light Source; Lamps (High Power); Laser Simulation; Lighting (High Power); Optics; Semiconductor Processing; Solar Simulation.

REVISED: February 88

WARDROP ENGINEERING Inc

ADDRESS: 6725 Airport Road, Suite #600
Mississauga, Ontario, Canada
L4V 1V2

CONTACT: Mr Ernie Card, Vice President - (416) 673-3788

HISTORY: Wardrop Engineering Inc is a Canadian multi-disciplinary engineering company. Founded in 1955, it has grown to be a major engineering company providing diversified engineering services across Canada and internationally.

CAPABILITY: Wardrop Engineering provides a multi-disciplinary engineering service to aerospace and other high technology industries. Throughout our 30-year history, we have worked hard to maintain our position on the leading edge of technology, striving for excellence in our service, our products, and our people. Wardrop offers a complete range of engineering services from our four offices across

Canada, as well as international project offices, to a wide variety of clients. These services include feasibility studies, conceptual designs, prototyping, development, detailed design, fabrication, commissioning, and operating assistance. In addition, Wardrop designs, prototypes and develops specialized components, systems and mechanisms for the aerospace and related industries. We also provide systems integration, numerical analyses (stress, thermal and seismic), reliability analyses, as well as failure and maintainability analyses. In addition, we have expertise in electronics, instrumentation and control systems, as well as software engineering. Areas of specialization within the aerospace industry include ground support equipment, integration and test facilities, equipment and facilities for microgravity research, environmental test facilities, robotics, and automated remote handling.

AVERAGE WORK FORCE: Professional Engineers - 72
Technicians & Technologists - 76
Others - 22

PLANT SIZE: 30,000 Sq Ft

EQUIPMENT: Wardrop Engineering employs VAX and IBM in-house computer systems for engineering, analysis, engineering computations, as well as computer aided design and drafting.

EXPERIENCE: Wardrop Engineering has over 30 years experience providing engineering services to high-technology industries within Canada and internationally. Representative projects undertaken by our staff in the aerospace field include:

- Conceptual design of mechanical ground support equipment and integration and test facilities for the mobile servicing system - Canada's contribution to NASA's Space Station.
- Detailed design of mechanical ground support equipment for ANIK-E Communications Satellite.
- Design for furnace and other facilities for materials processing and manufacturing in micro-gravity.
- Design, development and supply of ground support equipment and integration and test facilities for the Space Shuttle Remote Manipulator System (CANADARM).
- Preliminary design of STARLAB - the Australian/Canada/US Space Telescope.

Design, analysis, prototyping, development and supply of various mechanisms, rigs, fixtures and components for the aerospace industry.

KEYWORDS: Engineering Services; Feasibility Studies; Project Management; Computer Analysis; Software Engineering; Systems Engineering; Systems Integration; Reliability Analysis; Failure & Maintainability Analysis; Ground Support Equipment; Integration and Test Facilities; Microgravity Equipment; Environmental Testing; Robotics; Remote Handling; Prototyping; O&M Planning; Automation.

REVISED: January 88

WESTERN AEROSPACE TECHNOLOGY Ltd

ADDRESS: 170 - 393 Palmer Road N E
Calgary, Alberta, Canada
T2E 7G4

CONTACT: Mr E L Bunnell, President - (403) 291-3323

HISTORY: Western Aerospace Technology Ltd is a privately-owned aerospace company incorporated 6 January 87 with facility locations in Edmonton and Calgary, Alberta. The company specializes in repair, overhaul and maintenance of transport and military aircraft.

CAPABILITY: Western Aerospace Technology Ltd is primarily involved in heavy maintenance, repair and modification of 727, 737, 707, C130, Electra and DC-8 aircraft. The military oriented activity