

include data communication networks, data terminals, microcomputers, local area networks (interfacing, systems design), and fiber-optics modems.

Keywords: 5 = Communications; 7 = Electronics; 17 = Software Services; Consulting = 7; Solid State Devices = 7; Microprocessors = 7; Interfacing = 5; Network Systems = 5; Programming = 17; Environmental Programming = 17; Avionics Programming = 17; Data Communications = 17; Data Acquisition = 17; Monitoring Systems = 17; Control Systems = 17; Data Terminals = 17; Systems Design = 5, 7; Telephone Communications = 5; Design to Requirements = 17; Transportation Control Systems = 17; Analog = 5, 7; Digital = 5, 7.

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UDT INDUSTRIES Inc

Code: UDT

Address: 2125 East, St-Catherine East
Montreal, Quebec, Canada H2K 2H9

Contact: Mr. Alberto Stagnaro, Purchasing Agent -
(514) 526-9454

History: UDT was incorporated in 1942 under the name of Universal Die & Tool. Name was changed to UDT Industries Inc in 1975 to reflect more accurately their machine shop business. The company is Canadian owned and there are no other Canadian or US subsidiaries.

Capability: UDT's major product is machined parts ranging from light-medium to hard core items, such as fittings, splice plates, hinges, bulkheads, slat-tracts, spars, dog legs, spar caps, leg assemblies, etc., made from plate stock, forgings, extrusions, aluminum alloys, steels, titanium, etc. CNC and conventional equipment are utilized.

Aluminum alloys heat treating electrical air furnace is part of UDT's capability, 5 ft diameter by 18 ft high, it is continuously performing quench & age hardening of major structural parts for McDonnell Douglas & Lockheed Aircraft from AL-AL 7075 T 411 & 2014 T 411 condition F to T6 or T73 condition. UDT works to MIL-Q-9858A and DND 1016. Tolerances are maintained as per customer's requirements.

Average Work Force: Engineers - 1
Inspectors - 5
Machinists - 40
Programmers - 3
Others - 24

Gross Sales: 1979 - \$3.6M
1980 - \$4.4M
1981 - \$3.8M

Plant Size: 81,000 sq ft

Equipment: NC equipment includes vertical machining centers, horizontal machining center, vertical profiling milling machines, vertical profiler bed type (3 & 4 axis).

Experience: UDT's customers include McDonnell Douglas Canada Ltd (DC 9 & DC 10), Canadair (from T33 to Challenger), Enheat, deHavilland Aircraft, Fleet Industries (Lockheed Product), NATO, USAF, CCC, DND, Rohr, Research & Development Canada (Propulsion Pod), ITT Gilfillan (Antenna Radar), McDonnell Douglas Corporation - St Louis (F-18), and Grumman Aerospace.

Keywords: 12 = Machining; Precision Machining = 12; Metalworking = 12; Heat Treating = 12; Specialized Coating = 12; Coating = 12; Parts = 12.

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ULTRA LASERTECH Inc

Code: ULI

Address: 6415-2 Viscount Road
Mississauga, Ontario, Canada L4V 1K8

Contact: Dr R A Crane, Director, Science & Technology -
(416) 677-8091

History: Ultra Lasertech is a small high technology company incorporated in 1979 with a laser technology base and licensing derived from RCA. There are no other Canadian divisions and no US subsidiaries.

Capability: Ultra Lasertech is engaged in the design and manufacture of custom CO₂ lasers and wave guide lasers. They are involved in R&D associated with laser photo-acoustics, laser spectroscopy, and laser communications & radar. Other areas of expertise include remote sensing, pollution detection, ultra high power laser modeling and design, and laser applications. Their product line includes sealed, continuous wave, isotopic CO₂ lasers; tuneable CO₂ lasers; a CO₂ laser optoacoustic detector; industrial type sealed CO₂ lasers; laser power supplies; and mirror mounts.

Average Work Force: Total - 7 full-time
3 part-time

Gross Sales: 1980 - \$300K
1981 - \$422K
1982 - \$320K

Plant Size: 3,000 sq ft (R&D Laboratories)
1,000 sq ft (Production Facility)

Experience: Since their start in 1979, Ultra Lasertech has been engaged in the development of a laser optoacoustic trace gas analyzer, a commercial laser cavity enclosure, and an industrial CO₂ laser. Other projects have included determining the laser optoacoustic signatures of PCBs, developing a tuneable sealed ¹³CO₂ laser system, a sealed ¹⁴CO₂ laser tube, and a balanced dual spectrophone chamber and measuring water vapor absorption at isotopic CO₂ laser wavelengths. Their optoacoustic trace gas analyzer is being designed specifically to measure nitric acid vapor, although it is applicable to a large number of contaminants of environmental concern. Their analyzer is being designed to detect the acidic vapor down to the lower limit of less than 1 ppb for field operational use. The present status is detection at 10 ppb. Other gases studied during development include several freons, sulfur hexafluoride, ethylene, ammonia, butane, some explosives, PCBs, Jet A fuel, and several other hydrocarbons. It is anticipated this technique will be suitable for detection of hydrazine.

Keywords: 9 = Environment; 11 = Lasers; 15 = Radar; CO₂ Lasers = 11; Waveguide Lasers = 11; Photoacoustics = 11; Spectroscopy = 11; Communications = 11; Remote Sensing = 9; Pollution Detection = 9; Ultra High Power Modeling = 11; Ultra High Power Design = 11; Applications = 11; Sealed CO₂ = 11; Continuous Wave CO₂ = 11; Tuneable CO₂ = 11; Isotopic CO₂ = 11; CO₂ Optoacoustic Detector = 11; Mirror Mounts = 11; Optoacoustic Trace Gas Analyzer = 9, 11; Cavity Enclosure = 11; Trace Gas Detection = 9; Toxic Gas Detection = 9; Power Supplies = 11; Hazardous Gas Detection = 9; Modeling = 11; Design = 11; Radar = 15; Lasers = 11, 15.

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URBAN TRANSPORTATION DEVELOPMENT CORP Ltd

Code: UTD