

## UDT INDUSTRIES Inc

**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 products are 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.

An 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-I-45208 and DND AQAP-4 & 6. Tolerances are maintained as per customer's requirements.

**AVERAGE WORK FORCE:** Engineers - 1  
Inspectors - 5  
Machinists - 60  
Programmers - 2  
Others - 24

**GROSS SALES:** 1986 - \$11.2M  
1987 - \$11.6M

**PLANT SIZE:** 100,000 Sq Ft

**EQUIPMENT:** NC equipment includes vertical machining centers, horizontal machining center, vertical profiling milling machines, vertical profiler bed type (3 & 4 axis), a 5 axis machining center, and a 3 spindle, 5 axis, 2 gantry profiler with a 90 ft bed.

**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:** CNC Machining; Heat Treating; Machining; Precision Machining.

**REVISED:** January 88

## ULTRA LASERTECH Inc

**ADDRESS:** 6415 Viscount Road  
Mississauga, Ontario, Canada  
L4V 1K8

**CONTACT:** Mr T F E Loster, VP, Marketing & Sales - (416) 677-8091

**HISTORY:** Ultra Lasertech is a 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 CO<sub>2</sub> lasers and wave guide lasers. They are involved in R&D associated with laser photoacoustics, 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 CO<sub>2</sub> lasers; tuneable CO<sub>2</sub>

lasers; a CO<sub>2</sub> laser optoacoustic detector; industrial type sealed CO<sub>2</sub> lasers; laser stabilizers; laser power supplies; mirror mounts; stark cell frequency controller; frequency stabilizer and NH<sub>3</sub> laser.

**AVERAGE WORK FORCE:** Total - 13 (4 Part Time)

**GROSS SALES:** 1986 - \$600K  
1987 - \$600K

**PLANT SIZE:** 3,000 Sq Ft (R&D Laboratories)  
1,000 Sq Ft (Production Facility)

**EQUIPMENT:** A laser based optoacoustic facility for measuring absorption co-efficients of gases and vapors in the 9 - 12 um region. Measurements can be made at reliable pressure and temperature. A facility for fabricating hard seals required for CO<sub>2</sub> laser structures of glass and ceramic materials. These seals can be made between various thermally mismatched materials.

**EXPERIENCE:** From it's principals, the company has a background of some 12 years experience in sealed CO<sub>2</sub> laser technology and ultra high power, fast flow CO<sub>2</sub> laser development. Since its founding in 1979, Ultra Lasertech has continued developments in long life, sealed CO<sub>2</sub> laser systems, tunable and non-tunable, to power ranges from 5-90 watts CW and with various CO<sub>2</sub> isotopes. These projects include the development of the <sup>13</sup>CO<sub>2</sub>, <sup>14</sup>CO<sub>2</sub> and <sup>18</sup>CO<sub>2</sub> laser systems covering the 8.9 to 12.1 um range; a folded 75 watt system, a feedback stabilization system based on the optogalvanic effect for controlling the laser to a line center or off-set; a stark cell frequency controller for shifting waveguide lasers by +500 MHz; and a variety of customized laser systems for special research applications. Presently under development is a compact CW or pulsed air cooled, sealed CO<sub>2</sub> laser and a compact excimer laser for medical applications. Also ULI has, since 1979, a continuing program in laser based optoacoustic research and development. These projects include the development of CO<sub>2</sub> laser optoacoustic trace gas analyzer for detecting ambient nitric acid vapors to the 1 ppb level; a balanced dual spectro-phone chamber; a stark modulated optoacoustic detector that can detect amonia of concentrations of 0.2 ppb in air; the measurement of the optoacoustic signatures of 30 hazardous gases of environmental and industrial concern - it is anticipated that this technique is suitable for the detection of hydrazine at low ppb levels; the investigation concerning detection of PCBs and explosive vapors; and precise measurements of water vapor at various partial pressures and temperatures in the 9 to 12 um region.

ULI has delivered laser system to companies around the world. Among these are NASA, JPL, Vought Aerospace, NOAA, McDonnell Douglas, Naval Research Labs, Brookhaven, Max Planck Institute, Horiba & Sumitomo. ULI has also performed contract research for the Department of National Defense, National Research Council and Atmospheric Environment Service.

**KEYWORDS:** CO<sub>2</sub> Lasers; CO<sub>2</sub> Optoacoustic Detector; Continuous Wave CO<sub>2</sub>; Eximer Laser; Frequency Stabilizers; Isotopic CO<sub>2</sub>; Laser Controllers; Lasers; Mirror Mounts; Optoacoustic Trace Gas Analyzer; Photoacoustics; Pollution Detection; Power Supplies; Sealed CO<sub>2</sub>; Spectroscopy; Stark Cell; Tuneable CO<sub>2</sub>; Waveguide Lasers.

**REVISED:** January 88

## UNISYS CANADA Inc

**ADDRESS:** 50 O'Connor, Suite #1302  
Ottawa, Ontario, Canada  
K1P 6L2

**CONTACT:** Mr R Y Guimond, Director, Marketing & Program Management (613) 563-4903

**HISTORY:** Unisys Canada Inc Defence Systems was established in Canada in 1977. It is a diverse Canadian company providing systems and products to the Canadian government and major defense contractors. It specializes in the manufacture of ruggedized electronic hardware and is the supplier of the Canadian navy standard computer. Since its beginning, Unisys has grown in annual sales to more than \$35 million (US) in 1987.