## BIRNS, INC

lydro

# Half a Century of Depth Perception







diving decompression usage.

BIRNS, Inc. is an ISO 9001:2008-certified designer and manufacturer of unique lines of high-performance lights, connectors, penetrators and custom cable assemblies for some of the planet's most demanding environments. The company has more than fifty years of expertise in developing solutions tailored for exceptionally rigorous applications, including oceanic deep submergence and

BIRNS is privately owned and operated and was founded by Jack Birns and Clifford Sawyer in 1954. The company, then called Birns & Sawyer, became a pioneer in the underwater film industry, developing the first closed-reflector underwater light and specialised lights used to record the finds of the Titanic. BIRNS has since supplied lights for the navies of the US, UK, Canada, Israel, Chile, Sri Lanka and Brazil. "We've been honoured with the responsibility of providing products that illuminate everything from the ocean floor to NASA launch pads," said the late Chairman Jack Birns. "We are proud to play an integral role in the development of new technologies exploring these incredible depths and heights."

### Lighting up Depths

In the 1970s, BIRNS produced lights to meet the extreme depth applications of the offshore oil and deep-sea exploration industry - some tested to an equivalent depth of 42,000FSW (13km). The company became BIRNS, Inc in 1978 and later developed the revolutionary, and now ubiquitous, self-contained underwater Magnetic Particle Inspection (MPI) system, allowing a single diver to detect oil leaks or weld defects in underwater steel structures.

BIRNS' ongoing mission is to provide zero-defect lighting and connector products, on time, at prices that represent the industry's highest value-for-money, while consistently exceeding its customers' expectations. In addition to its ground-breaking marine lighting solutions, BIRNS develops and manufactures a wide range of sophisticated products, including custom electro-optical and electro-coax hybrid connectors. It achieved ISO 9001:2008 certification in 2009, and has a diverse team of expert electrical technicians - certified IPC Specialists per J-STD-001, and ETA-I certified optical technicians.

Recently BIRNS has expanded further, and its management structure evolved from single point to include autonomous middle management for individual departments. Running lean with a team of 25 in 2008, the company's revenue grew more than 80% from the previous year.

### **Worldwide Customers**

BIRNS continues its legacy of global partnerships in both lighting and connectors, with approximately 1/3 of its business with international customers, including entities in China, Japan and Singapore. For example, BIRNS recently delivered a major shipment of 50 ultra-high performance 1kW lights, operable in air or underwater to 150m, to the government of Israel, and regularly supplies engineers at a range of facilities like Lockheed Martin, the US military, Hawaii Undersea Research Lab, and Johns Hopkins University.

#### Innovative

BIRNS' products are developed and tested to meet the changing needs of ROV (Remote Operated Vehicles), PVHO (Pressure Vehicles for Human Occupancy,) AUV (Autonomous Underwater Vehicles) and other complex submersible designers - who require increasingly compact, powerful solutions. BIRNS' products undergo rigors like open faced saltwater hydrostatic pressure testing, and the company's intricate connector systems achieve the lowest optical losses (>0.2dB at depths of 6km) in the industry. "My philosophy is that change is fundamental to the long-term growth and success of this organisation," says CEO Eric Birns, who took the helm in 2000. "The industry is rapidly evolving, and there's a huge demand for sophisticated products that are lighter, cheaper and provide more bandwidth with less noise. Plus, we're finding that engineers are no longer satisfied with two or three separate connectors for electric systems and for fibre optics, so there's an increasing demand for unique hybrid solutions."

### **Towards Tomorrow**

BIRNS plans to eventually introduce standardised, affordable electro-optical hybrid connectors in addition to its wide range of custom

connector lines, and will be launching an exponentially increased testing capacity and capability for its man-rated electrical penetrator offerings in 2010 - which will more than quadruple its current capabilities. The company also intends to quadruple its inside sales department in the coming years, to achieve its aggressive sales goals. "We've evolved into a fully integrated provider, agile enough to anticipate a myriad of our customers' changing requirements," says Birns. "This is an exciting point in both our company's development, and that of the industry."

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