

A Stellar Career in Aviation and Aerospace



Sylvain Forgues, our 2015 Shot Peener of the Year, with Shockform's FlapSpeed® Pro.

SYLVAIN FORGUES is a dynamic contributor to the advancement of shot peening in aerospace and aviation. He is the founder and President of Shockform Aeronautique Inc. in Boisbriand, QC, Canada, where he is responsible for Research and Development, Strategic Orientation, Business Development and Product Development. Shockform has launched many innovative products since the company's inception in 2006, including intelligent tools for repair peening, surface inspection devices and customized robotic shot peening systems. Shockform's popular FlapSpeed® PRO for rotary-flap peening is widely used by aircraft maintenance, repair and overhaul facilities, airlines, original equipment manufacturers and the United States military. "Although peening is a mature market, it offers many opportunities for innovative products. We have a great team at Shockform and we are working on many exciting projects that will significantly improve the peening experience," said Sylvain.

Sylvain's ability to oversee the introduction of successful products for the aerospace industry is based on an impressive career path. He started his career in 1993 at Bombardier Aerospace where he worked on the Aircraft Structural Integrity Program of the CF-18 fighter program. His work included Stress and Fatigue Analysis and R&D on Probabilistic Crack Growth, Cold Working and Shot Peening.

After five years, he transferred to the commercial division of Bombardier where he was in charge of structural in-service issues for the fuselage of the CRJ-200 fleet.

In 2002, he became Section Chief of the R&D, Robotics and Software department at L-3 MAS, one of Canada's leading providers of maintenance, repair and overhaul services for military and commercial aircraft. At L-3 MAS, his team developed and marketed a novel robotic shot peening system to reshape and peen critical internal structures directly on the CF-18 and Bombardier CRJ-700 with minimal disassembly.

Sylvain received his degree in Mechanical Engineering from the University of Ottawa in 1990 followed by a Master's degree in Applied Mechanics from the Ecole Polytechnique in Montreal. For his Master's degree, he studied the beneficial effects of hole cold expansion through 3D non-linear finite element analysis, residual stress measurement by x-ray diffraction and experimental fatigue testing.

Sylvain has applied his impressive academic background and work experience to authoring more than 15 papers and articles on shot peening and fatigue life improvements. "I first met Sylvain in 2005 at the Ninth International Conference on Shot Peening in France where he presented his paper titled *Evolution of Shot Peening On the CF-18—From OEM to Robotic*," said Tom Brickley, Vice President of Electronics Inc. "I was impressed that he took a difficult problem and developed a solution that benefited a real-life commercial process. He was very good at explaining complex theories so a layman could understand. It's no wonder his ideas work on the shop floor," he added.

Sylvain is an active member of the Society of Automotive Engineers Surface Enhancement Committee where he has introduced new specifications for processes such as needle peening for aero engine repairs. He is also a Lead Trainer for the Electronics Inc. Shot Peening Training division. Over the last five years, he has provided on-site rotary flapper peening training in French and English to more than 350 students in Canada, USA, Brazil, Dubai, Germany and France. For the last 10 years, he has taught specialized classes at the Electronics Inc. USA shot peening workshops.

The Shot Peener staff is pleased to give the 2015 **Shot Peener of the Year** award to Sylvain and we look forward to further accomplishments from this energetic and innovative industry leader.

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