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www.advanced-blast.com
(Company)

Top Skills

Aerospace
Military
R&D

Roger Sloman

Managing Director of the ABBS Group
Greater Derby Area

Summary

Profile

Founded the Advanced Composites Group in 1975 by introducing carbon fibre into F1 motor racing. Developed the business into a global operation based on novel prepreg materials for the tooling, aerospace, and motor racing markets. Business sold in 2004, and new business group set up in 2008, dealing with Active Armoured Vehicle Mine Protection (AMPS™) technology and Helicopter Crash Protection Systems.

Advanced Blast & Ballistic Systems (ABBS) Group Company Profiles
ABBS is developing and marketing the AMPS™ technology for armoured vehicles. The system uses ultra-fast-reaction, very high impulse Linear Rocket Motors (LRM™) which directly counteract the mine blast forces to eliminate the global acceleration of vehicles hit by mines. A unique new VIP vehicle design with high levels of blast and ballistic protection is being developed.

Advanced Reaction Motor Systems Ltd. (ARMS)

ARMS has been established to develop and manufacture rocket motor propellant and rocket motors, especially the novel patented Linear Rocket Motors (LRM™) which can very rapidly (e.g. 20 milliseconds) deliver massive amounts of impulse to counteract the lifting forces on a vehicle hit by an under-belly mine.

Active VTOL Crash Prevention Ltd. (AVCP) - eVTOL and Helicopter Crash Prevention System.

Slower burn versions of the unique LRM's are used for the AVCP eVTOL and Helicopter Crash Prevention system. This application is now seeing very rapid evolution due to the worldwide interest in developing the aircraft/car systems for the 'On-demand autonomous personal aircraft' paradigm which will undoubtedly come to fruition shortly. The key issue for certification to carry passengers currently is the lack of a good safety case for the 0-30m altitude where a ballistic parachute is not effective, and the only solution is an active impulse-generating system. The AVCP/ARMS system is covered by

various patents, and is the perfect solution for this problem, being the best that physics allows.

Experience

Advanced Blast & Ballistic Systems Ltd.

Managing Director

November 2010 - Present (11 years 10 months)

Developing novel active blast protection systems for armoured vehicles, and lightweight ballistic systems.

Active VTOL Crash Prevention Ltd

Managing Director

January 2015 - Present (7 years 8 months)

Derbyshire

ARMS has been set up to manufacture rocket motor propellant and rocket motors, especially the novel patented Linear Rocket Motors (LRM) which can very rapidly (e.g. 20 milliseconds) deliver massive amounts of impulse to counteract the lifting forces on a vehicle hit by an under-belly mine.

Somewhat slower versions of these unique motors are also essential to the performance of the Helicopter Crash Prevention system being developed jointly between ABBS and ARMS. This application is now seeing very rapid evolution due to the worldwide interest in developing the aircraft/car systems for the 'On-demand autonomous personal aircraft' paradigm which will undoubtedly come to fruition in some form within a few years. The key issue currently is the lack of a good safety case for the 0 -30m altitude where a parachute is not effective, and the only solution is an active impulse-generating system. The ABBS/ARMS system is the perfect solution for this problem.

Advanced Ceramic Technology & Structures Ltd.

Managing Director

January 2010 - Present (12 years 8 months)

Manufacturer of low cost 1000C-capable reinforced ceramic components.
Lightweight structural insulation systems.

Sloman & Associates Ltd.

Owner

March 2000 - Present (22 years 6 months)

Conceptual R&D, consultancy, and IP protection.

The Advanced Composites Group.

Chairman/Chief Executive

1975 - 2000 (25 years)

Founder of company, ran it for 25 years, eventually sold to Umeco for £45 million, now bought by Cytec for £275 million.

1971 - B.Sc. Organic & Polymer Chemistry.

1972 - R&D in Advanced Composite Materials (Fothergill & Harvey Ltd.)

1975 - Founded what became the Advanced Composites Group (ACG).

1976 - Introduced Carbon Fibre into F1 Motor Racing.

1980 - Developed novel lower temp. cure (LTM/MTM) prepreg concepts, materials and applications – F1 chassis, composite moulds, defence and aerospace structures.

1981 - Identified cause of springback mechanism in composites and implemented R&D to develop a numerical, predictive compensation method.

Education

University of Hertfordshire

Macromolecular Chemistry, Polymer Chemistry · (1968 - 1971)