

Co-operation profile details from Enterprise Europe Scotland

12 GB 403U 3PDH - Enhanced mechanical properties for armour through controlled pre-stress Technology collaboration OFFER

Abstract

A South East UK SME has developed and applied for patents on a technology that greatly enhances the ability of structures to withstand external blast forces and/or static pressures. The company is now offering the technology and seeking a partner company that can fabricate and test armour plate items for sale primarily into defence and armoured civilian vehicle markets.

Description

This novel technology has been found to be applicable to many types of materials, including metals, laminates and composites. The methodology is deemed to be particularly applicable to lighter weight and better performing types of armour plate. Having established the basic principles and developed software models that prove them, the UK Company is now looking for partners with whom to fabricate actual parts and to test them against the effects of explosives in a realistic environment. They are looking for someone to develop armour structured components to be put into service as soon as possible.

Other applications have been identified in ship and submersible construction, and aerospace and automotive manufacturing. The company is now looking for a partner or partners with manufacturing and testing capability and the means to bring real products to market. It is likely that the partner will already be familiar with and operating in one or more of the cited application sectors.

Innovative Aspects:

While the beneficial effects of linear pre-stress are very well established in the construction of concrete bridges and buildings, it has been found possible to achieve dramatic improvements in both static and dynamic performance by applying other distributions of pre-stress. In addition, stiffness can also be greatly enhanced, and it is possible to ensure that, following temporary distortion, pre-stress can be used to ensure that structures return to their original forms.

Target partner expertise sought:

- Type of partner sought: Company in the defence or manufacturing sector

- Specific area of activity of the partner:

1. Manufacturing capability with metals and/or composites.
2. Available or good access to explosive testing facilities.
3. Familiarity with and the means to access one or more relevant market sectors.

- Task to be performed by the partner sought:

1. Collaboration in further R&D.
2. Manufacturing and testing.
3. Market access/development and sales.
4. Key markets: defence and armoured civilian vehicles, aerospace, marine and automotive-other.

Key information:

Country of origin: UNITED KINGDOM

Listed under: Industrial Manufacture \ Materials \ Transport & Logistics \ Aeronautics and Space \ Industrial Design

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To find out more, contact Enterprise Europe Scotland on 0141 228 2797 or email us at info@enterprise-europe-scotland.com quoting ref 12 GB 403U 3PDH