Technology Offer

Innovative valve with potential in adhesive dispensing where the adhesive is a two-part system comprising a resin and hardener which require a certain mix ratio.

Summary

A UK company has developed a patent-protected flow-control valve allowing separation of different fluids into multiple chambers in dispensing syringes. Syringes fitted with the valve could revolutionise the packaging and subsequent dispensing/mixing of two-part adhesive systems for the end user. The company is looking for a license agreement with a partner experienced in the sale or manufacture of adhesives to manufacture the valve under license of the patent.

Expiration Date 25 January 2017
Reference TOUK20150730001
Profile link

Details

Description

The valve has the potential to revolutionise the delivery of two part adhesives in both industrial and commercial markets by enabling manufacturers to produce pre-filled delivery devices of different sizes ensuring the correct proportions of both the resin and hardener are delivered. As well as offering customers a new and novel delivery mechanism, it will enable adhesive manufacturers to promote the improved effectiveness of the adhesives, the reduced waste and improved simplicity of delivery.
The design comprises a simple two component valve which can be manufactured using high volume production techniques such as injection moulding. The size of the valve can be tailored to the application and various prototypes exist which have been designed and manufactured to be installed in syringes of various sizes ranging from 2.5ml to 20ml. The valve is typically installed halfway down a syringe to separate two liquids (prefilled) which can be separately and sequentially dispensed with application. By installing the valve the other way around (rotate through 180 degrees) a liquid and solid combination can be packaged within a syringe and reconstitution of the solid matter can therefore take place within the syringe.
The company is looking for a license agreement with a partner experienced in the sale or manufacture of adhesive products to manufacture the valve under license of the patent.

Advantages and Innovations

The company has used a patented valve to separate a syringe-like container into multiple chambers which could provide the following advantages over current practices for two-part adhesive systems:

1. Avoid mistakes in mix ratios
2. Avoid waste of the dispensed adhesive

3. Increase convenience for the end-user
4. Increase the recyclability of the packaging
5. Enable the manufacturer to offer the two part adhesive in a number of pre-filled syringes in different sizes

Stage of Development

Prototype available for demonstration

IPR Status

Patents granted

Keywords

Technology

02002007	Joining techniques (riveting, screw driving, gluing)
02007001	Adhesives

Market

07006	Other Consumer Related (not elsewhere classified)
08001007	Coatings and adhesives manufactures

NACE

C.20.5.2	Manufacture of glues

Open for EOI : Yes

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2010

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

The company is looking for a license agreement with a partner experienced in the sale or manufacture of adhesive products to manufacture the valve under license of the patent.

Type of partner sought: industry.
Specific area of activity of the partner: packaging manufacturer:
Adhesive delivery devices
Task to be performed: manufacture of the device under license of the patent.

Type and Size of Partner Sought

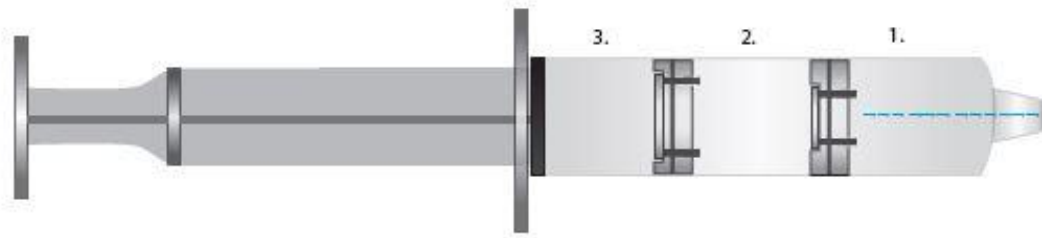
SME 11-50,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

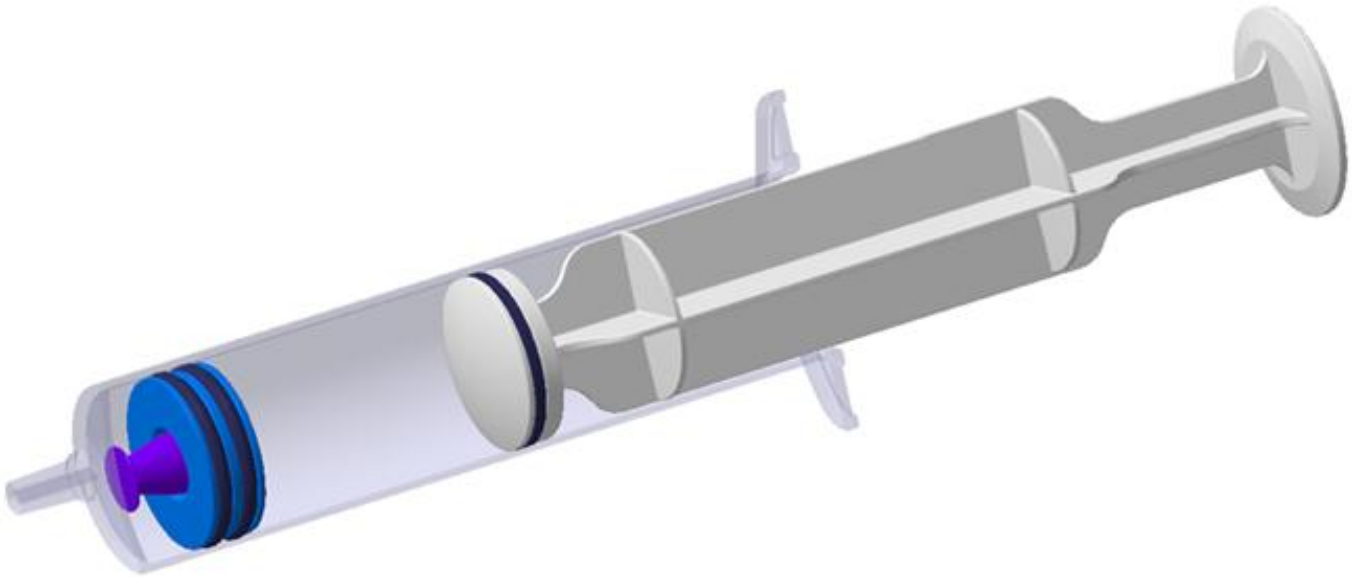
License agreement

Attachments

glue syringe.JPG



IsoViewSyringe.png



WorkingProto.jpg


ONCE

Technology Request

Light-weight, electric-driven actuator for the automotive industry sought

Summary

An Austrian company - a leading supplier in the automotive industry - is looking for new technologies in the area of innovative transmission solutions. This specific request involves a technical solution for a lightweight, electric-driven actuator for automotive applications. Clear advantages over current technologies must be demonstrated (especially with regard to power consumption and safety issues). All types of partner and cooperation will be considered with no geographical restrictions.

Expiration Date 26 October 2016
Reference TRAT20150415001
Profile link

Details

Description

The Austrian company has more than 15 years' experience in the development and supply of high-performance systems and components for the automotive industry. The focus is on offering high-quality, environmentally friendly technologies which meet excellent safety standards.

The company is currently involved in a long-term project examining a range of actuators and has isolated a need for an electric-driven, lightweight actuator to be employed in a number of different automotive applications. Power consumption when stationary must be low with only stand-by power requirement for the electronics. A fail-safe feature in the event of communication failure must also be included.

Development work to date has used state of the art mechanisms in terms of transmission and e-motors, but the company is interested in exploring alternative approaches using space memory alloys (SMA) and electroactive polymer (EAP).

The Austrian company would like to hear from partners who can offer technologies or expertise in this area. There are no geographical restrictions in terms of the partner sought and the Austrian company is also very flexible in terms of the types of cooperation considered.

Technical Specification or Expertise Sought

The actuator solution should include the following features:

- 12V power source (peak power consumption 50W)
- communication interface (detailed interface TBD)
- stand-by current < 20 mAmp
- 6 mm drive shaft
- max. torque 5 Nm

• angle of twist: 270°deg; twist velocity 90°deg/sec
• max. volume of 80 cm³ (without connector)
• max. weight of 150g
• operating temperature -40 to 140°C
• Technology Readiness Level (TRL) 2 or above, i.e. a solution which has already been tested in a scientific environment

Keywords

Technology

02009009	Sensors for cars and transport
02009010	Lightweight construction
02009013	Body and main parts
02009014	Automotive electrical and electronics
02009024	Powertrain and chassis

Market

08003006	Power transmission equipment (including generators & motors)

NACE

C.29.3.1	Manufacture of electrical and electronic equipment for motor vehicles

Open for EOI : Yes

Client

Type and Size of Organisation Behind the Profile

Industry >500 MNE

Year Established

0

Client Country

Austria

Partner Sought

Type and Role of Partner Sought

Partners of any size and type from all regions are sought, who can offer expertise and solutions in the area of lightweight, electric-driven actuators.

In the initial stages of collaboration, the focus would be on developing prototypes according to the requirements listed in the section "Technical Specification or Expertise sought". Once the prototype phase has been successfully concluded, several forms of cooperation are possible.

The focus is on finding an optimum match in terms of the technology, so the company is flexible on many other aspects including the type of cooperation considered.

Type and Size of Partner Sought

SME 11-50,University,Inventor,R&D Institution,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

Services agreement
License agreement
Financial agreement
Manufacturing agreement
Commercial agreement with technical assistance
Technical cooperation agreement
Joint venture agreement
Research cooperation agreement

Technology Request

Innovation challenge: methods to characterize the damage to an outer protective garment intended for extreme environments

Summary

A US national research and development (government) agency seeks assessment methodologies of the wear on textiles subject to harsh foreign climate conditions. The challenge sponsor desires to enter a financial agreement in the form of a cash prize and a license agreement for the selected technology.

Expiration Date 26 November 2016
Reference TRUS20151009001
Profile link

Details

Description

The deadline to respond to this challenge is December 3, 2015 at 5 pm Eastern Standard Time (EST). Expressions of Interest (EoIs) submitted through the EEN do not count as entries to the challenge. Full entries will require additional time and further instructions, which will be furnished upon submission of EoI. EoI deadline is November 24, 2015 to allow time for preparation of a complete entry.

A US national research and development (government) agency is searching for test methods or procedures to evaluate the deterioration of the fabric used in the outer layer of an environmental protection garment (EPG) when exposed to severe conditions including temperature and pressure differences and abrasion due to dust and dirt. The specific technical challenge lies in the novelty of the regolith materials to which the fabric will be subjected.

A total prize pool of US$15,000 is available in the form of three US$5,000 prizes. The sponsor will recognize prize winners through published announcements and individual profile stories. Successful applicants may also have the opportunity for future collaboration with the sponsor. Acceptance of prize grants the sponsor with an unlimited royalty-free license to use winning methodologies.

Technical Specification or Expertise Sought

Entries will serve as a non-confidential introduction to the respondent's technology and expertise and should address the following criteria:

The successful technology or procedure will:
- Provide a textile layup abrasion method capable of being performed with regolith.
- Indicate the size and quantity of particles that migrate through the different layers of the EPG.
- Provide a clearly defined method to catalog and quantify degradation of the layers including:

cuts, abrasion, color changes, reduction in tear or tensile strength, reduction in thermal insulation.
 Have a correlation between separate administrations of the test of 0.7 or higher.
 Have an absolute difference between two repeated test results that lies within a probability of 95%.

And preferably will:
 Require no more than an hour to complete the test and/or run autonomously
 Not require specific textile expertise to execute the testing or interpret the results

Possible approaches might include, but are not limited to:
 Tumbling device to expose a mounted sample to simulant
 Modification of standard wear testing devices such as the Taber wheel, the abrader, or gelbow tester.
 Modification of non-destructive examination (NDE) techniques for textile applications

Keywords

Technology

09001008	Other Non Destructive Testing

Market

08005	Other Industrial Products (not elsewhere classified)

NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering

Open for EOI : Yes

Client

Type and Size of Organisation Behind the Profile

R&D Institution

Year Established

0

Client Country

USA

Partner Sought

Type and Role of Partner Sought

Responses from companies (small to large), academic researchers, other research institutes, consultants, venture capitalists, entrepreneurs or inventors are welcome.

A total prize pool of US$15,000 is available in the form of three US$5,000 prizes. The sponsor will recognize prize winners through published announcements and individual profile stories. Successful applicants may also have the opportunity for future collaboration with the sponsor. Acceptance of prize grants the sponsor with an unlimited royalty-free license to use winning methodologies.

Type and Size of Partner Sought

SME 11-50,University,Inventor,R&D Institution,SME <10,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

License agreement
Financial agreement