POLYTUBES

Polymer micro-tubes & tubular micro-components

Newsletter

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http://www.polytubes.net

Editorial

June 2010

Welcome to the first edition of the POLYTUBES Newsletter.
This Newsletter will give you information about POLYTUBES, the European FP7 NMP Project that aims to the development of equipment and processes for the manufacturing of micro-tubular components for medical and non-medical applications (Project No: NMP2-SE-2009-229266).

Three times a year, POLYTUBES will inform SMEs, researchers, potential investors and potential users about the progress of the research, the consortium and all issues related to the implementation of this 3 years project.

To make sure that you receive all issues of the POLYTUBES Newsletter, please visit and subscribe at the project Web site:
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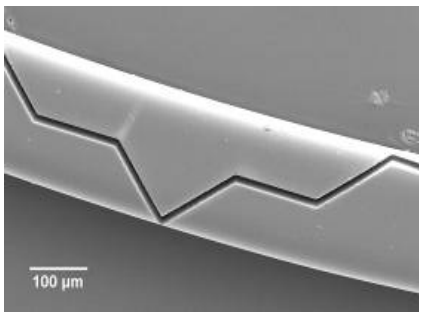


A Process chain and Equipment for Volume Production of Polymeric Micro-tubular Components for Medical and Non-Medical Device Applications

With a total budget of 5 million Euros, the three-year EU project POLYTUBES is an FP7 NMP Collaborative project targeted to SMEs, which started in July of 2009

The overall objective of the project is to develop a process chain and a corresponding micro-manufacturing platform for the manufacture of polymer-micro-tubes and tubular micro-components for medical and non-medical applications.

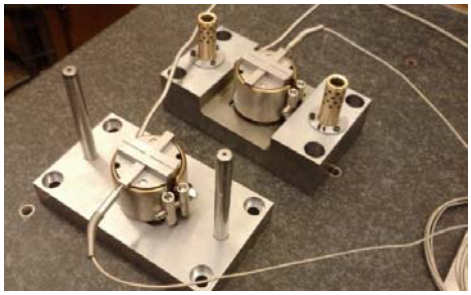
The proposed development aims to create new markets for EU SMEs with innovative and economically competitive micro-products and micro-manufacturing equipment to meet the needs for a wide range of emerging applications. The development will also support the SMEs to increase business opportunities with new volume production capabilities in micro-manufacturing.

The proposed development could place EU in a pole position in the manufacture and innovative applications of micro-tubular products.

The specific S&T objectives of the project are the following:

- To implement a Design for Manufacturing Methodology for design and manufacture of polymer-micro-tubes and tubular micro-components for volume production (from hundreds microns overall sizes to 2-3 microns inner channels), and to validate the methodology and the prototype-products by the end-users.
- To transfer laboratory processes and equipment to the volume production of the tubular micro-components.
- To integrate the individual equipments into a process chain and implement it in a manufacturing platform, by adapting a Process Transfer Strategy (Maturity Model), which integrates the business cases into the process chain, together with advanced IT integration and logistics integration.
- To demonstrate the technical and commercial viability of the volume production on a full industrial scale by manufacturing prototype products which meet all functional requirements for applications (both for the medical and the non-medical sectors).

Project Activities Update



For the first period of the project (Month 1 to Month 12), the project development has focused on:

- Product designs for mass productions of polymer micro-tubes and tubular micro-components.
- Designs for the first functional prototypes for medical and non-medical applications.
- Manufacturing systems and platform design for volume production of polymer micro-tubes and tubular micro-components.
- Process transfer strategy (Maturity Model). Process optimization/customization for product development.
- Micro-Tooling for Manufacture of Tubular Components.
- Polymer micro-tubes manufacturing system.
- Polymer micro-tube shaping machine system.
- Polymer micro-tube rolling machine system.
- Polymer micro-tube expansion/inflation machine.
- Laser sizing, trimming, drilling systems.
- Web-based Collaboration platform, project web-site, development of specification for e-tool for manufacturing information capture and assessment.
- Monitoring of technology development and market, dissemination of the project information.

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Partnership – Collaboration

If you would like to know more about POLYTUBES or submit a request of collaboration, please visit:

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SEVENTH FRAMEWORK PROGRAMME