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## Press release

### **Clean air by filter manufacturing using the Roth Minipleat System MPS**

*Efficient hotmelt application system enables  
savings of hotmelt material*

**Steffenberg/Burgwald. For the manufacture of filters being used wherever the air has to be particularly clean, Roth Composite Machinery located in Burgwald offers minipleat systems. The filters having been manufactured by this are suitable for ventilation systems in residential and public buildings, in hospitals as well as for vacuum cleaners, gas masks or exhaust systems.**

The minipleat system MPS takes endlessly folded material from a pleating machine, stretches it out again and is coating it to the left and the right side by using so-called hotmelt beads. These are beads of hotmelt materials achieving a permanent bonding when cooling. Being raised to a bellow, the hotmelt beads come into contact and stick together. So, the sensitive filter material is protected and stabilized.

The minipleat system of Roth Composite Machinery can apply either solid or foamed hotmelt beads. The use of foamed beads is realizing savings of up to 50 percent hotmelt due to the small air bubbles being integrated in the hotmelt. A later retrofit of the machines being supplied can be carried out easily and cost-effectively.

### **Technology in detail**

The minipleat machine of Roth Composite Machinery is processing material widths of 600 to 1200 millimeters.

The application system is a hotmelt tank unit with heated hoses and two multiple bead heads, being able to intermit every single bead for coatings on the left and the right side, where the bead distance could be 25 mm or 25,4mm. On request, special dimensions as to the working widths and bead distances can be realized.

The machine is suitable for pleat heights of up to 240 millimetres when having a working speed of about 15 metres per minute, depending on the material and pleat height. The minipleat system can be positioned after any kind of pleating machine. The feeding area is equipped with various guide rollers for optimal guiding of the filter material. For adapting the hotmelt temperature at the time of the pleat gathering, a height-adjustable roller is integrated.

Gathering rollers enable the material transport through the machine and the raising of the pleats. For transportation of the endless glued and gathered pleat pack, a transport belt and a hold-down device are integrated. An outlet table offers possibilities for further working processes. The control is effected via an industrial PC with touch panel. The velocity of the system can be adjusted according the production

process.

Besides the minipleat systems, Roth offers a broad range of mechanically controlled and servo-driven knife pleating machines as well as rotary pleating equipment. The know-how of the engineers working for Roth Composite Machinery is based on an experience of more than 30 years in the manufacture of pleating machines. The company offers worldwide service from one provider.

### **One brand – many strengths**

Roth Composite Machinery designs and builds components, machines as well as complete production lines in the business fields "Filament Winding & Prepeg", "Pleating & Coating" as well as "Brushes & Brooms". The company's headquarters are situated in Steffenberg, additional locations are in Burgwald and Dautphetal.

Originated from the merger of the two special machinery manufacturers EHA and Schlesinger, Roth Composite Machinery belongs to the family company Roth Industries GmbH & Co. KG having approximately 1,250 employees all over the world. Roth Industries is one of the most innovative companies in the area building and industrial engineering.

## DATA & FACTS

### Modular Hotmelt Application System Minipleat MPS

**Working widths:**

600 - 1200 mm or according to the customer's request

**Application system:** hotmelt heads being able to intermit

**Bead distance:**

25 mm, 25.4 mm or according to the customer's request

**Pleat heights:** 20 – 240 mm

**Speed:** approx. 15 m/minute, depending on the pleat height and material

**Hotmelt:** standard EVA, other types upon request



**Image capture for file RCM\_Minipleat\_MPS.jpg**

The minipleat machine MPS of Roth Composite Machinery with modular hotmelt application system enables savings of hotmelt material of up to 50 percent when using foamed hotmelt.

### **About Roth Composite Machinery**

Roth Composite Machinery is an expert in the field of special machinery construction – the company develops, designs and builds components, machines as well as complete production lines in the business areas

- Filament Winding & Prepreg
- Pleating & Coating
- Brushes & Brooms

### **About Roth Industries**

Roth Industries GmbH & Co. KG comprising various firms and around 1,250 employees all over the world is one of the most innovative companies in the areas

- Building Solutions - Divisions: Energy Systems, Sanitary Systems, Environmental Systems
- Industrial Solutions – Divisions: Composite Technology, Plastic Technology, Hydraulic Technology

The head office of the medium-sized traditional company is located in Dautphetal, Hesse. While the company's strategic direction, the controlling, auditing as well as the balance and financial planning is effected from there, the local employees are responsible for the development, production and marketing of the products.

27 production and sales companies of Roth Industries are acting all over the world - in core segments as world market leader.

Roth Industries bundles all activities of the companies belonging to the group in Germany and abroad. The company is owned by the Roth family to 100 %.

**Competence in**  
● energy ● water ● plastics

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