

If you support this message, upload a photo of yourself with the slogan  
**USE THE SUN FIRST!** from your holiday destinations

Filter **UNEP** help

- Narrow by Region**
- Africa (183)
  - Antarctica (3)
  - Asia (456)
  - Europe (1057)
  - Latin Americas (200)
  - North Americas (726)
  - Oceania (92)

- Narrow by Key Pillars**
- Awareness Raising (884)
  - Certification (107)
  - Finance and Incentives (567)
  - Policy (365)
  - Standards (174)
  - Training and Education (257)

- Narrow by Market Sectors**
- Air Heating (81)
  - District Heating (164)
  - Domestic Hot Water and Heating (987)
  - Heat Storage (74)
  - Pool Heating (81)
  - Process Heat (156)
  - Solar Cooling (185)
  - Solar Thermal Power (262)
  - Water Treatment/Desalination (38)

- Narrow by News**
- News (827)
  - Product News (16)
  - Industry News (58)
  - Technology Trends (14)

**Who's online**

There are currently *1 user* and *479 guests* online.

**Online users**

- Baerbel Epp



Home News & Events Most popular

Home

**Norway: Infrared Welding Machine Completes Automated Polymer Absorber Production**

Submitted by **Baerbel Epp** on February 2, 2013



**Aventa's automated production line for polymer-based solar thermal absorbers is now complete. Austrian machinery supplier FILL has just delivered the last component to the Norwegian company: an infrared welding machine, which is used to join the extruded absorber sheets to the injection-moulded end caps and form a 100 % polymer absorber. According to a press release from the middle of January, the machine has an annual capacity of 40,000 m<sup>2</sup> of collector area per shift.**  
 Photo: Aventa

The press release also described the development of the production line as very demanding. "Even after a few years of technological 'renaissance' in the infrared welding of plastics, repetitively joining polymer sheets to large extruded absorber panels represented a considerable challenge," Jörg Vetter, materials and process specialist at FILL, confirms. It took two years to design and install the machine in Aventa's Holmestrand factory.

The machine makes the most important process of solar collector production fully automated: the joining of end-caps and absorbers (see the photos below). Both parts come from OEM suppliers specialised in polymer process extrusion and injection moulding. Using an infrared welding technology based on medium wave metal-foil emitters reduces the time for the entire process to around two minutes per panel. The challenge was to design a welding machine which could process large absorbers, because Aventa focuses on solutions with absorber lengths of up to 6 m.



A Web Community for Solar Thermal Professionals

Advanced search enhanced by Google™

**Highlights**

**Solarthermalworld.org**  
**Free Webinars**  
 Click here to see upcoming webinars and webcast of previous ones

**Featured items**



Latest News	Directory
Wish List	Calendar
Incentives	Solar Cooling

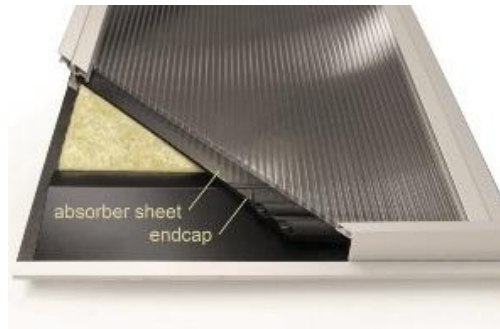


Photo: Aventa

Aventa's company director, John Rekstad, has been satisfied with the cooperation between FILL and his company. "We needed to increase our production speed and, at the same time, move away from manual processes. We now have a very efficient production process, which always guarantees a 100 % product," says Rekstad.

Aventa was founded in 2005. The company provides integrated solar heating systems for a wide range of applications. The manufacturing process developed in cooperation with Chevron Phillips Chemicals, Belgium, and Kayserberg Plastics, France, allows Aventa to offer solar collectors made of high-performing plastic materials, called Polyphenylene Sulphide (PPS).

FILL is a leading international machine and plant manufacturing company whose now more than 550 employees offer solutions to many business segments, such as to metal, plastics and wood in the automotive industry, to aerospace development, to the renewable energy, the sports and the construction sector. The company is the global market leader in ski/snowboard production machines.

More information:  
[www.fill.co.at](http://www.fill.co.at)  
[www.avena.no](http://www.avena.no)

*News Norway Austria Belgium France  
 polymer absorber production automation infrared welding  
 high-performing plastic materials PPS Aventa FILL  
 Chevron Phillips Chemicals Kayserberg Plastics*

[+](#) Share / Save [f](#) [t](#) [g+](#) [d](#)

[Add new comment](#)

[Printer-friendly version](#)

**terms of use**

**Latest news**

**Germany: Vacuum Super Insulation Reduces Heat Losses at Long-term Storage**

**Germany: Create Live Schemas and Performance Diagrams on VBus.net**

**India: Federal Subsidy Scheme Is High Financial Burden for Channel Partners**

**Norway: Infrared Welding Machine Completes Automated Polymer Absorber Production**

**Taiwan/Germany: Newly Founded Joint Venture for Blue Coatings**

**Latest uploads**

**Germany: Vacuum Super Insulation Reduces Heat Losses at Long-term Storage**

**Germany: Create Live Schemas and Performance Diagrams on VBus.net**

**India: Federal Subsidy Scheme Is High Financial Burden for Channel Partners**

**Norway: Infrared Welding Machine Completes Automated Polymer Absorber Production**

**Taiwan/Germany: Newly Founded Joint Venture for Blue Coatings**



**Sponsors**



**Recent comments**

- **Solar Thermal is bankable**  
Ed Murray  
2013-01-08 18:04
- **clairification on topic**  
John Hollick  
2013-01-08 15:39
- **intrested in**  
VEMULA RAJAMOULI  
2013-01-08 11:11
- **Considering that thermosiphon**  
Marc  
2013-01-08 09:47
- **Add new comment | Solarthermalworld**  
reverse osmosis  
2013-01-01 17:42
- **Industrial Perspectives in Solar (2012)**  
Olivier Drücke  
2012-12-21 19:45
- **UK subsidies**  
heinbloed  
2012-12-16 23:10
- **Instead of selling energy for**  
heinbloed  
2012-12-16 23:09
- **Solar thermal systems provide**  
φωτοβολταικά  
2012-12-14 11:03
- **mismatched presentation**  
Matt Carlson  
2012-12-12 20:14

Solarthermalworld  
**solarthermal**  
**solarthermal** Germany: Create Live Schemas and Performance Diagrams on **VBus.net**: At the end of January, German cont... [bit.ly/VJaHVb](http://bit.ly/VJaHVb)  
 7 hours ago · [reply](#) · [retweet](#) · [favorite](#)

### Related content

- **Norway: Building Cooperative OBOS invests into Collector Manufacturer Aventa**
- **European Solar Days: Around 6,600 Events in 17 European Countries**
- **Baxi Group: US\$ 3 million for a New Collector Production in Turkey**
- **Sonnenkraft: "We Have a Responsibility to Innovate and Develop Solar Energy"**
- **Europe: 2011 Conferences dedicated to Solar Heating and Cooling**

**solarthermal** India: Federal Subsidy Scheme Is High Financial Burden for Channel Partners: There are always two sides to each ... [bit.ly/11CU1PG](http://bit.ly/11CU1PG)  
19 hours ago · reply · retweet · favorite

**solarthermal** Norway: Infrared Welding Machine Completes Automated Polymer Absorber Production: Aventa's automated production ... [bit.ly/WNkOcf](http://bit.ly/WNkOcf)  
yesterday · reply · retweet · favorite

**solarthermal** Taiwan/Germany: Newly Founded Joint Venture for Blue Coatings: Until recently, a handful of German manufacturers... [bit.ly/UaKMZE](http://bit.ly/UaKMZE)  
2 days ago · reply · retweet · favorite



Join the conversation