Intersolar Europe 2012

The optimal hydraulic drive for parabolic troughs

Hydraulic systems are the ideal choice for driving the parabolic troughs of solar-thermal power plants. The size and weight of the troughs are such that the advantages of the hydraulic systems can be utilized to the utmost: namely, their ability to apply great force with high precision within a small space exactly when it is needed.

HAWE Hydraulik SE in Munich develops complete parabolic trough drives consisting of a compact power pack, control valves, over-center valves, two cylinders, and the screw connections and hoses for connecting these components. At Intersolar Europe 2012, the company’s hydraulics experts will be informing visitors about their new approaches to providing customized and optimized matches of drive system to individual plants. Plant operators can profit from the increased lifespan of their drive, less time spent on commissioning and maintenance, and lower energy requirements.

These optimization measures consist of specially designed hydraulic controls, sophisticated logistics for integrating the solution in the pylon on site, and many other technical details. HAWE Hydraulik will have a demonstration model at its exhibition booth to illustrate a variety of its innovations: for example, the degree to which the size of drive cylinders can be reduced by raising the operating pressure with a high-power pump.

The company is currently delivering 500 hydraulic drives for a solar-thermal trough power plant with a capacity of 50 MW in the Indian state of Rajasthan. When the power plant is completed, 500 compact power pack, 1,000 cylinders, and the same number of over-center valves will enable the troughs to hold position and track the sun securely and reliably.

HAWE Hydraulik at Intersolar Europe 2012 (June 13-15, 2012)
Hall C2, Booth 255, Messe München
Press Release
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Reader information and free documentation:
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Photo:
Messe_Solar_CSP_3.rgb.100x100.jpg:
The demonstration model shows the compact dimensions of the hydraulic drive. The power pack is directly mounted on one of the cylinders.