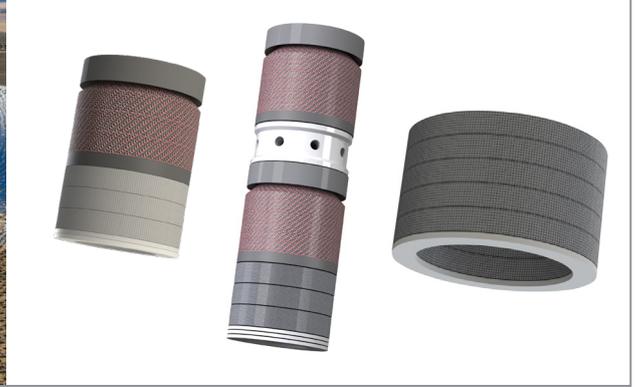


POWERPACK 9020 & 9021-HMS, 1220-MS

Case Study: Valve Manufacturer for Solar Power Plants



Industry

Energy - Solar power plants

Customer

The customer is a valve manufacturer focused on metal-to-metal sealing valves. The customer's business areas include chemical industries and solar power plants.

Background

The customer produces valves for solar power plants. Concentrated Solar Power (CSP) systems generate energy by heating up a media with mirrors. The heated media can store the energy so that the power plant can convert this heat into electricity over an entire day.

Challenges faced

The starting point was that the customer had problems with a competitor's gland packing product. The packing's lifetime was very short, especially in the tower. Also, the supplier's support did not meet the customer's expectations. For this reason an alternative packing with a longer lifetime and a supplier with better customer support was sought.

Design Conditions

1. HTF: Molten salts
2. Design Pressure: 150 bar
Working Pressure: 40 bar
3. Temperature hot salts: up to 585 °C
Temperature cold salts: up to 430 °C
4. Valves: class #600 and class #900

Solution and Benefits

The customer came into contact with Garlock. As the best solutions POWERPACK 9020-HMS, 9021-HMS and 1220-MS were presented by Garlock. In addition FLEXSEAL® Spiral Wound Gaskets with THERMa-PUR® were offered, which withstand extremely high temperatures.

It was also important for the customer that the packing sets are approved for the Chinese market. After ensuring that all requirements were met, the Garlock solutions were implemented.

Current status: the sets are still in use after 2 years and the design is the standard for the application.

For more information, please visit:

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