

Why do solar power plants need control valves?

Tailored control valves for solar applications Because of the unfavorable operating conditions in which they operate, control valves have a significant influence on the safety and availability of a solar power plant. Here are a few considerations to keep in mind when evaluating piping system components.

Can solar power be used for valve actuation?

An important factor when considering solar power for valve actuation applications is the potential for leaks. If the equipment is not properly designed for the environment, operating conditions, and pressure and temperature cycling, hydraulic systems can leak. In addition, the fluid itself needs attention.

Can solar control valves overcome the challenges inherent in solar power production?

The first part will focus on how specially tailored control valves can overcome the challenges inherent in solar power production. Solar energy is a viable alternative to fossil fuels and nuclear power. It's safe, climate-friendly and plentiful, especially in the Earth's sun belt.

How does a solar-powered valve actuator work?

The hydraulic pressure is used to hold the valve open and compress a powerful, self-contained spring. If valve closure is required, hydraulic pressure is released and the spring quickly closes the valve, preventing further loss of product. These are just two examples of the hundreds of viable applications for solar-powered valve actuators.

What is solar power used for?

In the early days, solar power was used in noncritical applications that required low power consumption, primarily to supply monitoring of valve-related and process data at remote locations. As solar power technology evolved, applications expanded along with the sophistication of the technology.

Should you consider solar power for an application?

ENERGY CONSUMPTION A key factor of whether or not to consider solar power for an application relates to available energy and consumption. Two examples would be a 36-inch valve or gate operating at 1,000 psi on a crude oil pipeline and a 96-inch sluice gate in 25 feet of head water at a remote dam site.

The use of solar power in industrial and municipal valve actuator applications goes back several decades; however, technological advances in solar power efficiency and storage mean that today, it has become a practical, ...

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In the power generation industry, precision, reliability, and safety are essential. Control valves play a critical role in managing the flow and pressure in the process, ensuring efficient and ...

We are helping to support customers in this sector by providing effective sealing options for pumps and valves operating with chemically aggressive and abrasive molten salt media in ...

Solar energy comes from the limitless power source that is the sun. It is a clean, inexpensive, renewable resource that can be harnessed virtually everywhere. Any point where sunlight hits the Earth's surface has the potential ...