

For Steam Control Valves

Krytox[™] grease meets the need for a continuous lubrication cycle.

Steam control valve application at a geothermal power plant

The power plant, located in Iceland, utilizes hot steam from the earth, containing 1–4% gas, mostly carbon dioxide and hydrogen disulfide, in temperatures ranging from 120–200 °C (248–392 °F). A standard hydrocarbon-based grease was unsatisfactory for lubricating bushings for valves that control the flow of high temperature steam containing corrosive gases.

The Challenge

The geothermal power plant needed a lubricant that:

- Is able to withstand presence of acidic gases in high temperature steam
- Has low friction for accurate control of the valve position
- Can work in a self-greasing system



The Solution

Krytox GPL 206 grease met the challenge for lubrication of the steam valve bushing. It provided the low static friction and no stick-slip that is required for accurate position control. Krytox GPL 206, like all Krytox oils and greases, can withstand very high temperatures, is nonflammable, inert, and has a low environmental footprint. The power plant now enjoys reduced maintenance, thanks to high performance Krytox lubricants—standing up to tough conditions.

2 1 22 8 7 6 5 12 9 11 20 19 13 14 Body Body with Integral Bonnet

Grease lubrication to bushes—items 7 and 8

Other Valve Applications

Any valve-handling that could react with, degrade, or dissolve standard lubricants. Examples include:

- Steam
- Aggressive/reactive gases
- Chemicals

Fluorinated lubricants from Chemours can also be used successfully in other types of applications. These synthetic oils and greases are ideal for many conditions, such as:

- Continuous high temperatures up to 288 °C (550 °F)
- Use around hazardous chemicals
- Need for low friction coefficient
- Where flammability is a concern, including reactive gases and oxygen service

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