

Compensator



Describe

A compensator is a device that absorbs deformation or displacement in pipelines and equipment caused by temperature changes, pressure, vibration, or settlement. It reduces stress, prevents damage, and ensures stable operation, extending the service life of pipelines. Compensators are used in various industries like thermal engineering, water and gas supply, petrochemicals, and power equipment. They come in different types, such as metal bellows, expansion joints, and rubber compensators, based on the specific needs.

Product Features

- **Absorbs Expansion and Contraction:** The compensator absorbs pipeline expansion or contraction caused by temperature changes, maintaining system stability and preventing breakage or joint damage.
- **Reduces Vibration and Noise:** In high temperature and pressure environments, the compensator minimizes mechanical stress from vibration, reducing noise and ensuring smooth system operation.
- **Strong Adaptability:** Suitable for various pipeline specifications and pressure levels, the compensator effectively handles extreme temperature changes, displacement, and equipment settlement.
- **Corrosion and High-Temperature Resistance:** Metal compensators are made from materials resistant to corrosion and high temperatures, ideal for industries like petrochemicals, metallurgy, and electricity.
- **Simple Structure and Easy Installation:** The compensator's simple design allows for easy installation and quick commissioning, reducing the project timeline.
- **Long-Term Stability:** Designed for longevity, the compensator performs reliably in harsh conditions and minimizes maintenance needs.

Technical parameters

Material	Carbon steel, stainless steel, alloy steel, copper alloy, etc. The specific material is selected according to the use environment and requirements.
Operating temperature	-40° C ~ 800°C (depending on the specific type and material, the applicable temperature range varies)
Work Pressure	Can be designed according to different working pressure requirements, common range is from PN6 to PN160
size	Applicable to DN15 ~ DN3000 (customized according to customer needs)
Connection type	Flange connection, threaded connection, welding connection, etc. Axial, lateral, angular compensators, etc.
journey	The stroke of the compensator can be adjusted according to different working conditions such as temperature difference and displacement.