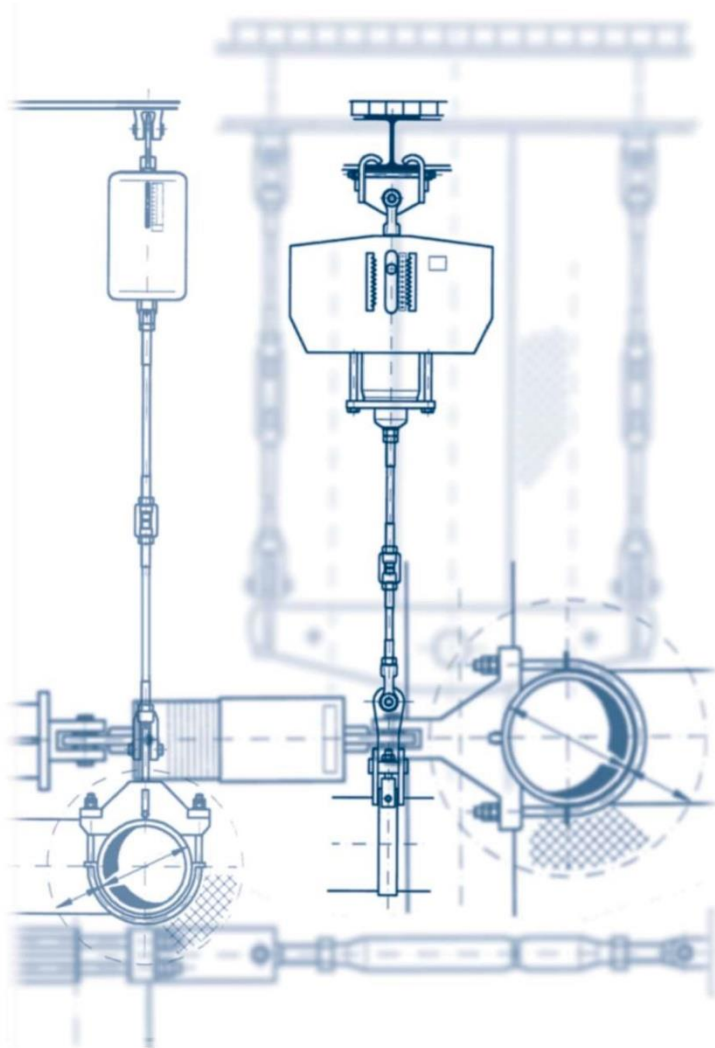


## Spring hanger Catalog



KARAJET

We are utilizing the newest designing, modern manufacturing processes and optimized solutions for developing various piping supports and related equipment in KARAJET Company.





### **Application & Necessity**

Every piping system in different industries such as power plants in which has thermal deviations, leads to thermal stresses and deformations, and must be under good compensation and treatment to balance the forces and displacements of the whole system. Otherwise the piping system will be depreciated due to the thermal deformations, and make a lot of money and equipment loss in a long life period. So there is an urgent necessity in various industries to have deformation controller in their piping system.

After designing and locating of a pipe system, the related forces and deflections due to the thermal deviations, could be computed by analyzing in the real operational condition using available software packages. Then we can pick out the appropriate support type in every single point of the piping set, to stabilize and consolidate the whole system.

### **Product Classes**

We have sorted our products in several divisions to give our customers flexible and different choices.

#### **Variable Force Equipment (Class KJ-01)**

The forces in the pipe lines are often statically inherently. The reaction forces that must compensate the system, will be supplied by a compressive coil spring, in the whole displacement range. It is obvious that spring forces due to the displacements, is variable and relates to each other linearly. The variable force in the displacement range, limits use of the support to a specific level of operation. So this type of supports are almost used for small deflections.

Spring hanger Catalog



KARAJET

Spring hanger



Spring support



## Spring hanger Catalog

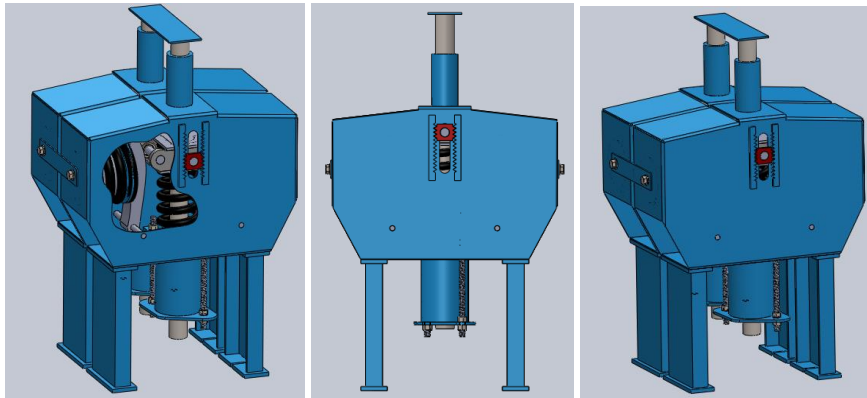


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### Constant Force Equipment (Class KJ-2)

For bigger deflections and forces, using constant force support is recommended, and in some situation is the only solution. Using this support mechanism, it produces a constant force resulting from interaction of several springs, and eliminates the need to construction of big springs for stabilizing big forces and deflections.

Constant hanger



Constant support

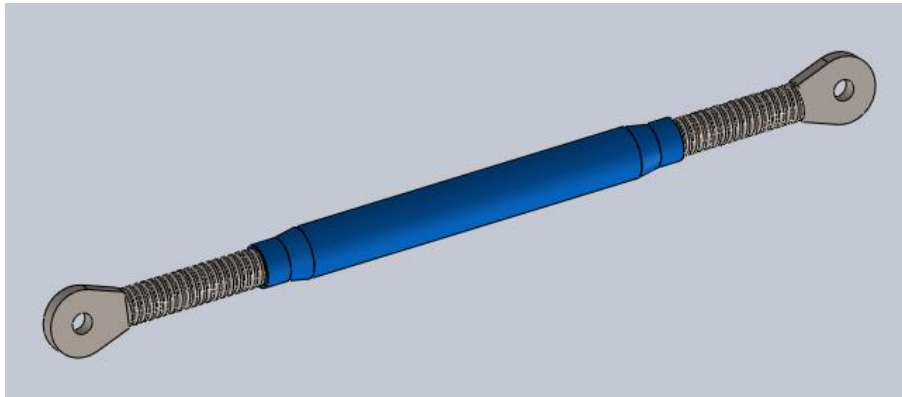


### Rigid Support (Class KJ-3)

## Spring hanger Catalog



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### Installation and Connecting Equipment (Class KJ-4)

Threaded component

Pipe clamp

#### **Scope**

We can provide all demands in different locating situations, loads, deflections and functional temperatures that every piping system might experience, up to 1000 kN nominal load, 900 mm deflection and 650°C working temperature.

#### **Design features**

- Optimum weight
- Best materials and construction process
- High operational accuracy
- Long endurance
- Optional and exclusive design

#### **Standard conformity**

Design process, materials, tolerances, fabrication items, inspection, surface treatment and all other characteristics of our products, are under precise accordance to pipe hangers and supports standards (MSS-SP 58, VGB-R510L, DIN EN 13480-TS)

#### **Design process**

- **Cataloged products**

## Spring hanger Catalog



KARAJET

We have sorted usual displacement and force range occurs in pipelines, in several divisions that make it possible for customers to have suitable support according to maximum force and deflection they need to balance, in shorter time.

- **Exclusive design**

After receiving functional characteristics (including deflection range, operational temperature, force variation type, installation condition) and environment condition from costumers, we start designing and construction procedure. The final product will be the best equipment you need to balance your piping system.

### **Treatment against corrosion**

The supports might be used in specific environment and atmosphere, and should be well suited against corrosion and chemical conditions. The surface of products are covered due to the conditional characteristics, with corrosion resistant coatings and will be prepared to operate in corrosive situations.