



## Special expansion joints and plant engineering

### Components for plant engineering and pipeline construction

**HKS metal bellows expansion joints are combined with piping components to form a complete system with precisely defined requirements taking into account defined general conditions. Joining, adapting and optimising the individual technical components creates a ready to install assembly.**

We have been developing, planning and manufacturing system components for plant engineering and pipeline construction for over 30 years in the fields of process engineering, energy technology,

supply technology, production technology and mechanical engineering. Correct and proper planning for the installation of HKS metal bellows expansion joints into the existing pipeline and system concept

has a crucial influence on the long-term behaviour of pipes and valves. Planning for metal bellows expansion joints is treated with the same thoroughness as the actual pipes and valves.

#### Sectors of industry and trade

- › Mechanical engineering, ship building and plant engineering
- › Pipeline systems, exhaust technology
- › Gas and water supply
- › Energy and offshore technology
- › Steel, printing and paper industry
- › Chemical plants

#### Range of products and services for customer requirement

- › Comprehensive product range of standardised components
- › Development of complex solutions
- › Calculation and manufacturing according to national and international regulations
- › Manufacturing of special apparatus and custom designs for special applications according to customer requirements
- › Processing of all weldable materials
- › 2D and 3D CAD installation drawings
- › Finite element analysis

## Solutions

Extensive know-how and best service ensure individual system solutions on the highest technological level. Customer requirements are processed individually.

HKS is not striving for short-term success but rather for a long-term partnership with the aim of sustainable optimization for mutual benefit.

## Approvals/testing

- › Manufacturing in line with Pressure Equipment Directive 97/23/EC module H
- › Quality management in line with EN ISO 9001
- › Approvals from the notified bodies: ABS, BV, DNV, DVGW, GL, LRS, RINA, Roznador, TÜV
- › ASME Code Sec. VIII Div.1, with U designator (U stamp)

## Applied standards/guidelines

- › Pressure Equipment Directive 97/23/EC
- › Standards of EJMA (Expansion Joint Manufacturers Association, Inc.)
- › AD 2000 data sheets
- › EN 1092 – flanges
- › EN 10216/17 – steel tubes
- › EN 13445 – unfired pressure vessels
- › EN 13480 – metallic industrial piping
- › EN 14917 – metal bellows expansion joints
- › EN ISO 13920 – general tolerances for welding constructions
- › ISO 2768 – general tolerances
- › DIN 86044 – exhaust flanges ships
- › ISO 15348 – metal bellows expansion joints
- › Regulations from notified bodies
- › ASTM standards
- › EAC (GOST-R)

## Pipe components

