



EKO, ES

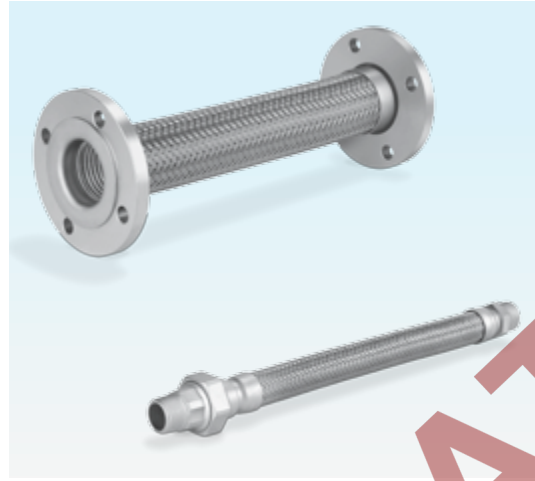
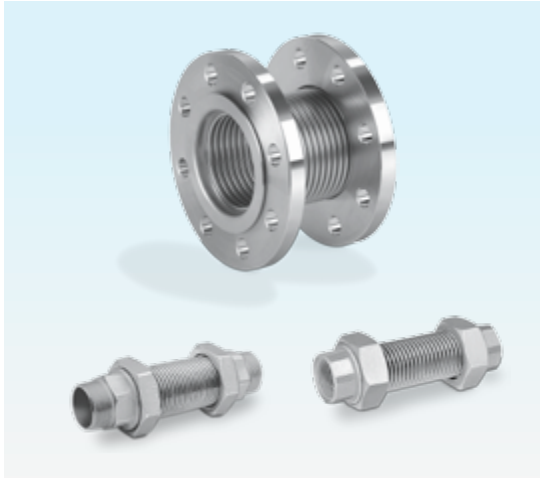
ERL CE

Stainless steel bellows units EKO

- Fault-free machine operation due to absorption of thermal and pressure expansions
- High bursting resistance due to multiple-layer bellows
- Axial and lateral movement absorption

Stainless steel flexible tubes ES

- Protection from material fatigue thanks to vibration absorption
- Angular and lateral movement absorption
- Compensation for installation tolerances due to optional lengths



*EKO:
Stainless steel bellows
units with threaded and
flanged connections*

*ES:
Stainless steel flexible
tubes with threaded and
flanged connections*

Application

EKO

The stainless steel bellows unit EKO is designed for stress-free and safe pipe installation and to prevent transmission of vibration in gas, air and water installations.

The stainless steel bellows unit EKO can compensate for thermal and pressure expansions in pipelines, disengage elastically-mounted units from the systems to which they are connected and compensate elastically for relative movements between system parts. This results in reduced forces and moments at the connections. The stainless steel bellows unit with its hot-galvanized flange permits the use of landfill gas.

Stainless steel bellows units EKO can optionally be supplied with an integrated restricting orifice for adjusting the gas and air flow rate for gas burners.

The stainless steel bellows unit EKO..R can be used in operating temperatures of up to 250°C. EKO..F, EKO..FZ can withstand high temperatures (HTB) in conjunction with WL-HT type flange seals.

ES

The stainless steel flexible tube ES is designed for stress-free and flexible connection of devices and pipes and to prevent transmission of vibration in gas, air and water installations.

The stainless steel flexible tube ES can absorb vibrations with a high frequency and low amplitude, e.g. in fuel pipes, reduce structure-borne noise in pipelines, for example, compensate for inaccuracies in installation between units and serve as a flexible pipe element on presses, for example. It can be fitted in places where no fixed points can be located.

The stainless steel flexible tube ES is optionally available in any length.



*Stainless steel flexible
tubes in the supply lines
of buildings*

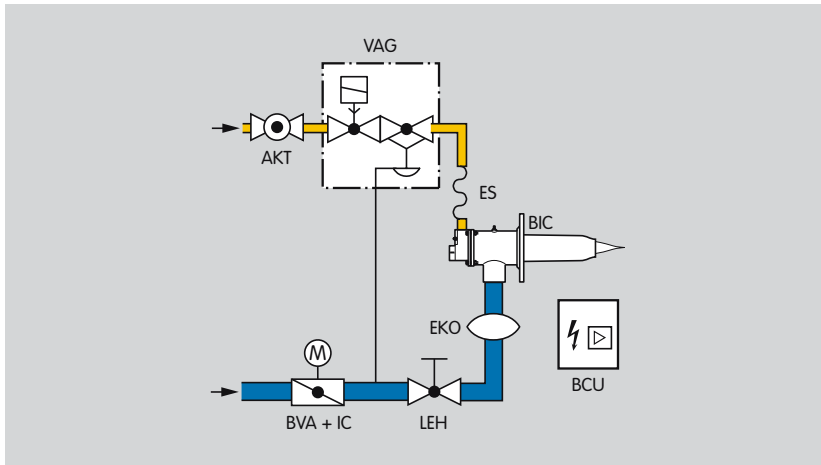


*Stainless steel flexible
tubes on gas engine sup-
ply lines*



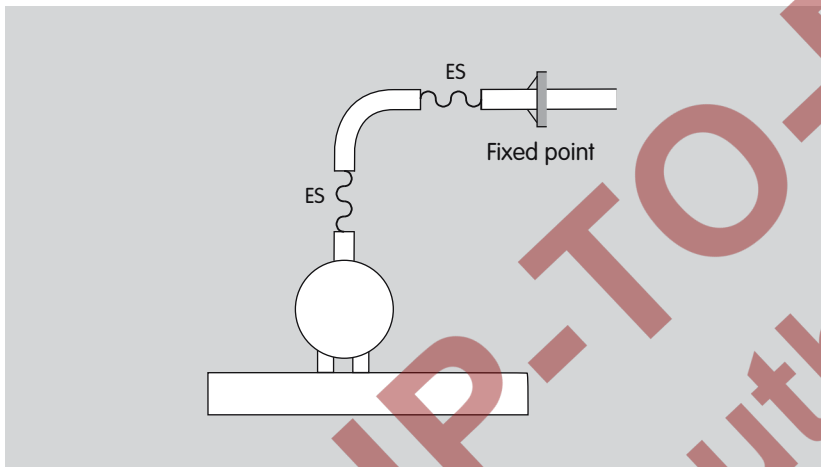
*Stainless steel flexible
tubes and bellows units
at the kiln in the brick-
works*

Examples of application



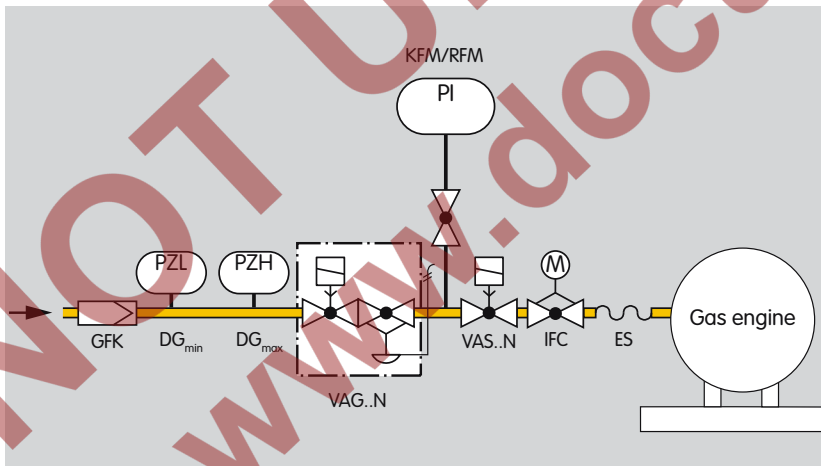
Gas and air supply to a drying kiln

Pressure and temperature factors from the burner influence the gas and air supply. The stainless steel flexible tube and bellows unit compensate for the pressure and thermal expansion in the pipelines. They ensure that the process is runs without any problem.



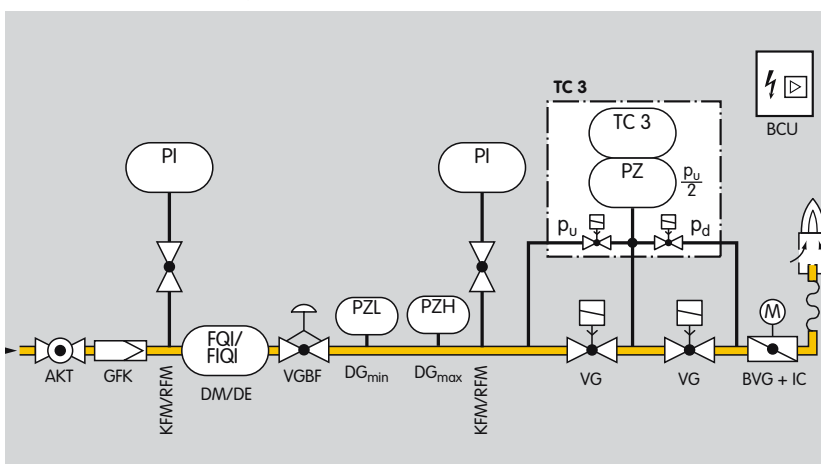
Exhaust gas system on a compressor

Two stainless steel flexible tubes mounted at right angles in the exhaust gas pipe reduce vibrations on all sides which the unit causes on the connected pipe.



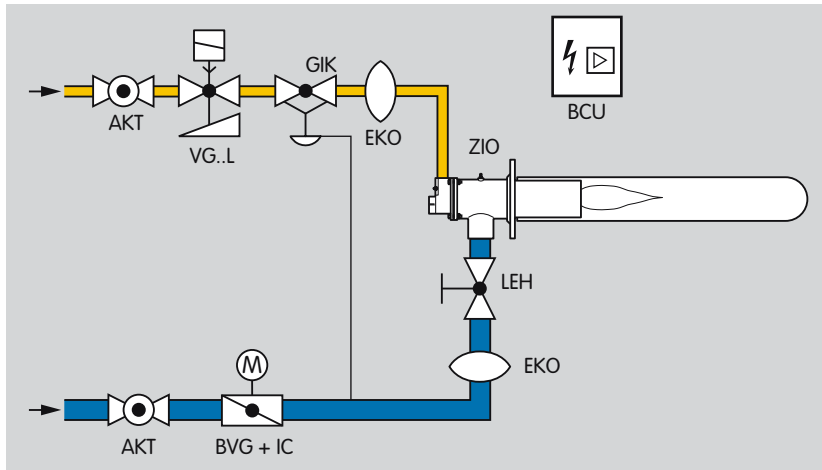
Fuel pipes on a gas engine

When a gas engine is connected to the fuel pipes, installation tolerances can occur at the connection points. The simple way to compensate for these is with stainless steel flexible tubes.



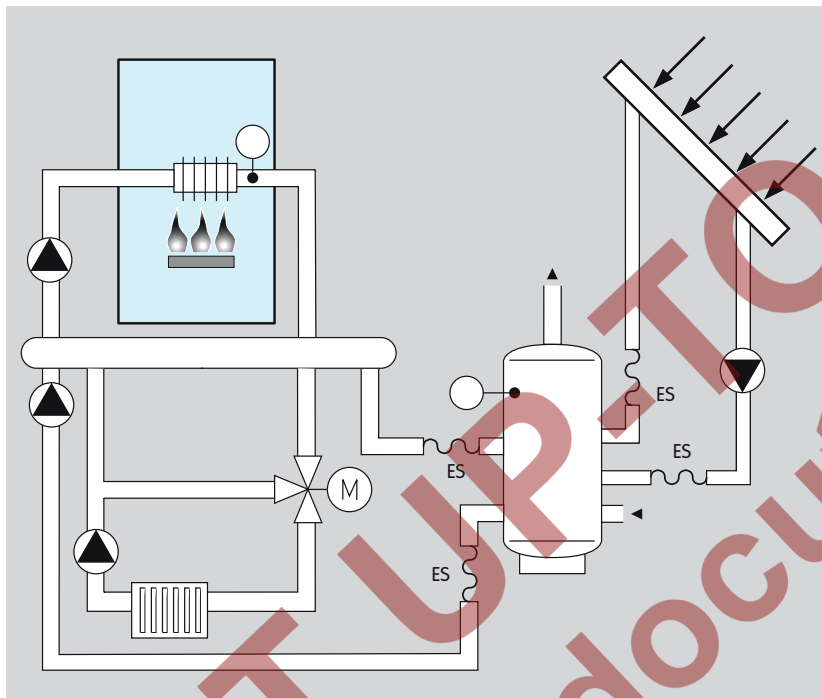
Gas pressure control, measuring and safety train

The stainless steel flexible tube offers an effective and cost-efficient solution for protecting gas lines, on thermal flue air purification systems for instance, against thermal expansion. It reduces structure-borne noise in the pipeline.



Gas and air supply to an aluminium smelting furnace

Pressure and temperature factors influence the gas and air supply. The stainless steel bellows units compensate for the pressure and thermal expansion in the pipelines. Stainless steel bellows units EKO..10P are specially designed to suit the Kromschröder ZIO burner for a high burner output at low operating pressure.



Pipes on a heating and solar system

The pipes between the collector, boiler and storage tank are adapted to the building architecture. Stainless steel flexible tubes are used to compensate favourably for inaccuracies in installation.

Selection

Stainless steel bellows unit with threaded connection EKO..R

	RI	RA
EKO 15	●	●
EKO 20	●	●
EKO 25	●	●
EKO 32	●	●
EKO 40	●	●
EKO 50	●	●

Order example

EKO 25RA

Type code Stainless steel bellows unit with threaded connection EKO..R

Code	Description
EKO	Stainless steel bellows unit
15, 20, 25, 32, 40, 50	Nominal diameter
RI	Rp internal thread
RA	R external thread

Stainless steel bellows unit with flanged connection EKO..F

	F	10P	100P	-Z
EKO 25	●			●
EKO 32	●			●
EKO 40	●			●
EKO 50	●			●
EKO 65	●			●
EKO 80	●			●
EKO 100	●			●
EKO 125	●			●
EKO 150	●			●
EKO 200	●		●	●
EKO 250	●	●		
EKO 350	●	●		

Order example

EKO 200F100P

Type code Stainless steel bellows unit with threaded connection EKO..F

Code	Description
EKO	Stainless steel bellows unit
25 – 350	Nominal diameter
F	Flange with hole pattern according to PN 10, $p_{U \max.}$ 10 bar
10P	Flange with hole pattern according to PN 16, $p_{U \max.}$ 1 bar
100P	Flange with hole pattern according to PN 16, $p_{U \max.}$ 16 bar
-Z	Hot-galvanized

Stainless steel flexible tube ES

	RA	F	500	800	1000
ES 8	●		●	●	●
ES 10	●		●	●	●
ES 16	●		●	●	●
ES 20	●		●	●	●
ES 25	●		●	●	●
ES 32	●		●	●	●
ES 40	●		●	●	●
ES 50	●		●	●	●
ES 65		●	●	●	●
ES 80		●	●	●	●
ES 100		●	●	●	●

Order example

ES 32RA800

Type code Stainless steel flexible tube ES

Code	Description
ES	Stainless steel flexible tube
8 – 100	Nominal diameter
RA	R external thread
F	Flange to EN 1092-1
500, 800, 1000	Length [mm]*

* Other lengths on request

Technical data

Media: all gases to DVGW Code of Practice G 260, air and water or gases to DVGW Code of Practice G 262.

EKO

The pressure loss at the EKO is approximately twice as high as that of a smooth pipe of the same length.

Stainless steel bellows 1.4571.

EKO..R

Clamping rings made of stainless steel 1.4301, fittings made of galvanized malleable cast iron REINZ-AFM 34 seal to DIN 3535-6, flat-sealing, resistant to high temperatures (HTB).

Operating temperature:

air: -20 to +250°C,
gas: -20 to +250°C,
water: 0 to +100°C.

Short-term temperature peaks of up to 300°C are admissible.

Max. inlet pressure MOP:

air and water: 10 bar,
gas: 5 bar.

Observe the maximum allowable inlet pressure for dynamic stress and increased temperature,

EKO..F

Bellows and flange made of stainless steel: 1.4571 up to DN 100, 1.4541 > DN 100.

Operating temperature:

air: -20 to +500°C,
gas: -20 to +150°C,
water: 0 to +100°C.

Max. inlet pressure MOP: 10 bar,
EKO 250F10P, EKO 350F10P: 1 bar.

Observe the maximum allowable inlet pressure for dynamic stress and increased temperature.

EKO..F: galvanized flange, EKO..FZ: hot-galvanized flange.

High temperature bearing in conjunction with WL-HT type flange seals only.

ES

The pressure loss is approx. twice to three times as high as that of a smooth pipe of the same length. When installed in a 90° bend, it increases at maximum by a factor of 2.

Material: 1.4541 stainless steel corrugated tube,
1.4301 stainless steel sheathing.

ES..RA

DN 8 to DN 25 connecting threads on both sides, made of machining steel 1.0718, from DN 32 made of steel 1.0037.

Connection:

1 x external thread, conically sealing union,
1 x hexagon nipple and external thread to EN 10226-1.

Welded stainless steel fittings.

Loose screw attachment parts made of galvanized malleable cast iron or cast steel.

Operating temperature:

air, gas, water: -10 to +300°C; the maximum admissible operating temperature may be reduced depending on the sealant selected.

Max. inlet pressure p_u :

air and water: 16 bar,
gas: 4 bar.

Observe the maximum allowable inlet pressure for dynamic stress and increased temperature.

ES..F

Welding flange made of stainless steel 1.4541, (loose flange made of steel, galvanized, PN 16 to DIN EN 1092-1).

Operating temperature:

air, gas, water: -10 to +300°C.

Max. inlet pressure p_u :

air, gas and water: 16 bar.

Observe the maximum allowable inlet pressure for dynamic stress and increased temperature.

Maintenance cycles

The stainless steel bellows unit EKO and the stainless steel flexible tube ES require little servicing.

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Technical Information bulletin for this product

www.docuthek.com
Search term: EKO, ES

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