REF. 1551

CARBON STELL METAL EXPANSION JOINT WITH STAINLESS STEEL BELLOW FEMALE BSP

Carbon steel metal expansion joint with stainless steel bellow threaded female BSP for high temperature networks.
Axial movement only.
With internal liner.

CE TÜV AUSTRIA PED 2014/68/UE

Size :	DN1/2" to DN2"
Connection :	Female BSP
Min Temperature :	-20°C
Max Temperature :	+300°C
Max Pressure :	16 Bars
Specifications :	Axial movement Stainless steel bellow With internal liner
Materials :	Carbon steel ends

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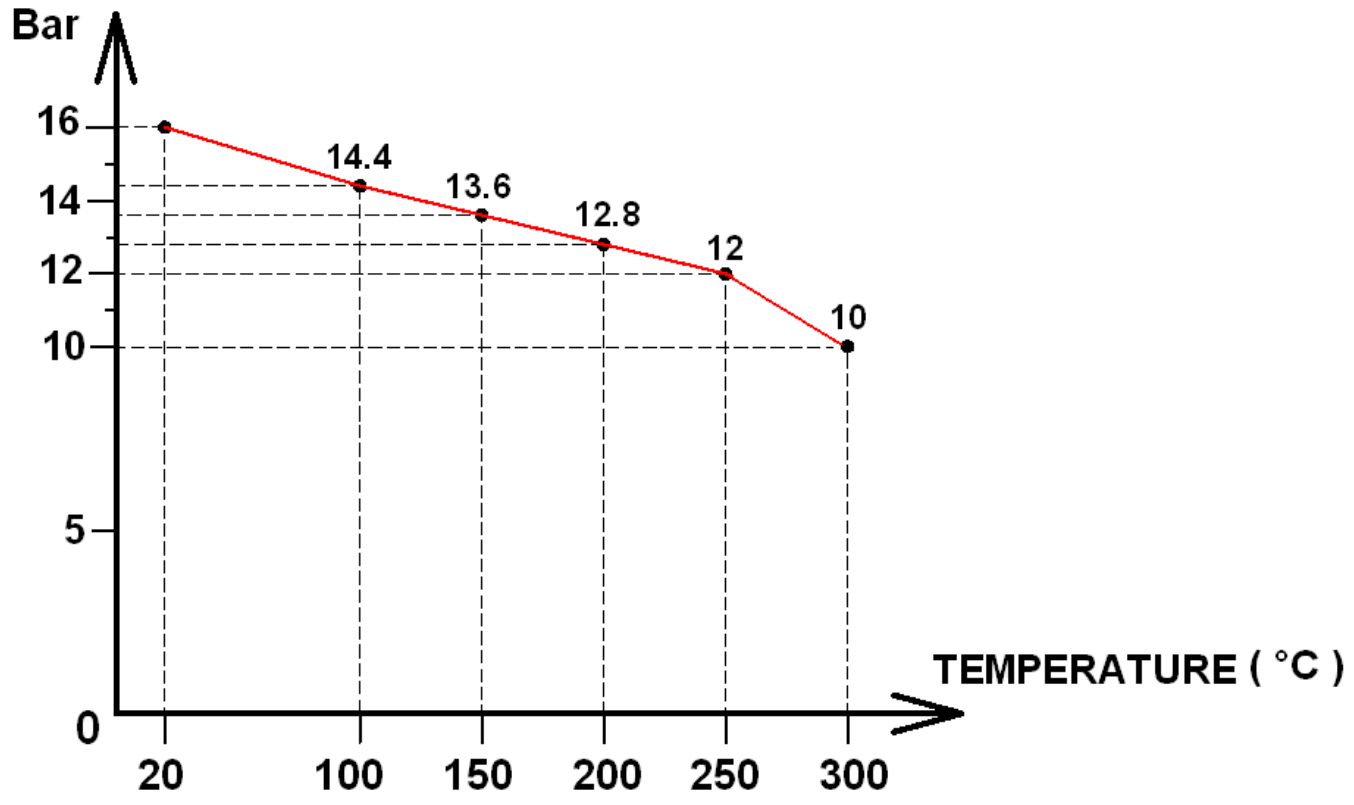
SPECIFICATIONS :

- Axial movement
- Respect the flow direction indicated by the arrow
- Horizontal or vertical position
- External protection
- Internal liner
- Threaded BSP ends
- For vertical heating networks

USE :

- For common fluids of 2nd group
- Min Temperature Ts : - 20°C
- Max Temperature Ts :+ 300°C
- Max Pressure Ps : 16 bars (see graph)
- Axial movement only

PRESSURE / TEMPERATURE GRAPH (STEAM EXCLUDED) :



MOVEMENTS (in mm) :

DN	1/2"	3/4"	1"	1"1/4	1"1/2	2"
Axial Movement	± 25	± 25	± 25	± 25	± 25	± 25

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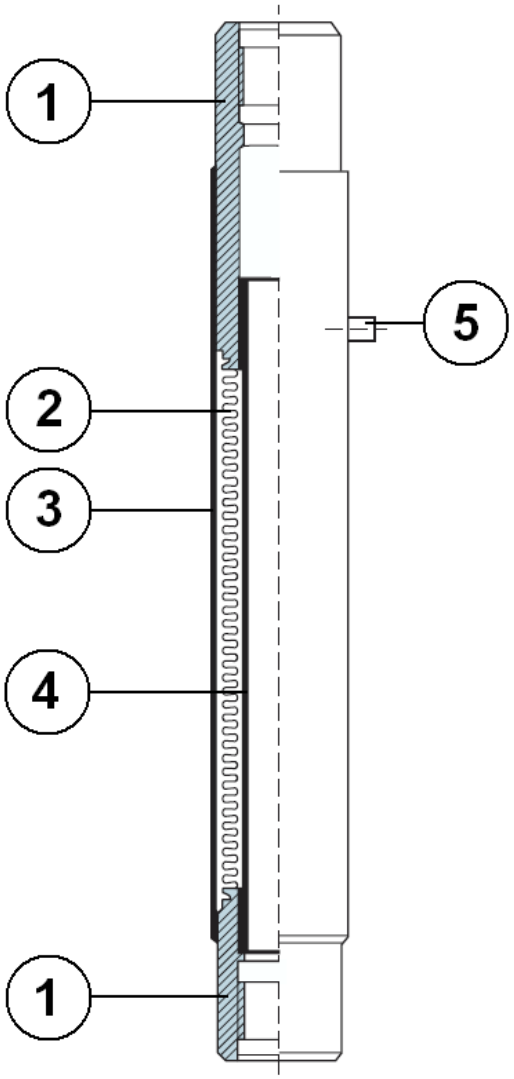
RANGE :

- Expansion joint threaded BSP ends from DN 1/2“ to DN 2“

MATERIALS :



Item	Designation	Materials
1	Ends	Steel St 37.2
2	Bellow	AISI 316 Ti
3	External protection	Aluminium
4	Internal liner	Steel St 37.2
5	Pin	

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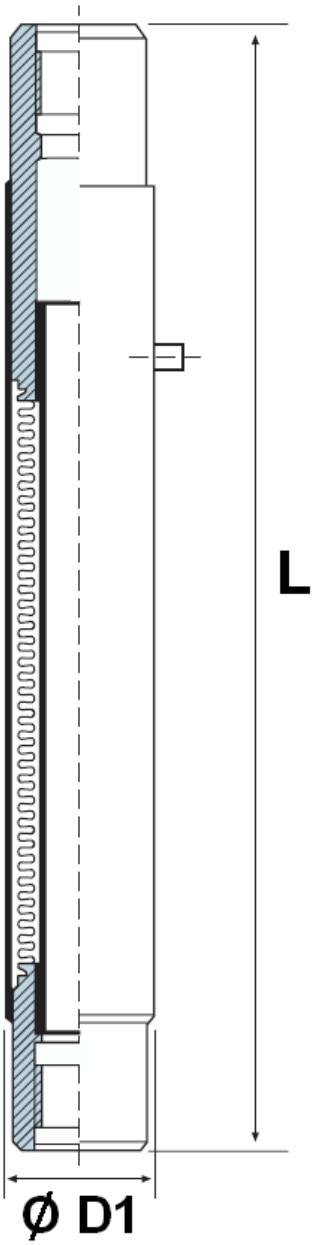
SIZE (in mm) :



DN	1/2"	3/4"	1"	1"1/4	1"1/2	2"
L	240	240	265	300	300	300
Ø D1	38	38	48.3	60.3	75	75
Weight (Kg)	0.73	0.66	0.96	1.7	2.99	2.55
Ref.	1551004	1551005	1551006	1551007	1551008	1551009

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STANDARDS :

- Manufacturer certified ISO 9001 : 2015
- DIRECTIVE 2014/68/EU : CE N° 0408
  Risk category II Module A2- C2
- Threaded ends BSP cylindrical according to EN 10226-1 Rp

ADVICE : Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.

CARBON STELL METAL EXPANSION JOINT WITH STAINLESS STEEL BELLOW FEMALE BSP

INSTALLATION INSTRUCTION :

Stainless steel compensators are designed for the absorption of previously specified movements under specific pressure and temperature conditions.
So that the maximum service life is achieved, the following items must be observed during installation.

1. Pipeline:

Prior to fitment of the compensator it must be ensured that:

- The route of the pipeline is straight.
- The expansion tallies with that of the chosen compensator.
- The fixed points are dimensioned so that they can absorb the reaction forces and stiffness rate that arise during use.
- The pipeline is limited by fixed points.
- Only one compensator is not subjected to torsion.

2. Pipe route:

The fixed points and route bearings must be located so that:

- The compensator is not subjected to the weight of the pipeline.
- Sagging is prevented by the inclusing of fixed or loose bearings.
- Suspension in self-aligning bearings is avoided. Plain or roller bearings are to be used as the guide bearings.

3. Location of the guide bearings:

- The distance between the compensator and the 1st bearing may be a maximum of 4 times the pipe diameter.
- The distance between the 1st and the 2nd bearing may be a maximum of 14 times the pipe diameter.
- The distance between the remaining pipe bearings may be a maximum of 21 times the pipe diameter. This distance may have to be reduced, where this is required for the inherent stability of the pipe.

4. The following items must be taken into account during installation:

- The possibily provided protective covering of the bellows may only be removed after installation.
- Possible pretensioning devices may only be removed after installation.
- On compensators fitted with an arrow, check that the direction of the arrow matches the direction of flow.
- The bellows must be protected from welding, plaster and mortar spatter.
- During handling, ensure that the bellows does not come into contact with tools or lifting equipment. All lifting must take place by means of the eyes, welded ends or flanges.
- The installation length must agree with the installation gap.
- When insulating the pipeline, the bellows must be previously sheathed with a thin sheet of stainless steel.

5. Trasportation and storage of the compensator:

- During transportation and storage, the compensator must be protected from moisture and all manner of fouling.
- Storage must take place on a flat, firm timber base.
- Bending due to heavy connections components must be prevented by timber supports (not in way of the bellows).

MAINTENANCE OF THE COMPENSATORS

A correctly dimensioned and fitted compensator requires no special maintenance. It is however recommended that specific characteristics be observed during routine inspections, so as to avoid severe damage.

1. Transportation and handling damage:

- Dents, abrasion and scratching due to incorrect handling.
- Corrosion due to unexpected environmental effects, such as salts, chemicals, etc.

2. Damage due to assembly faults:

- Fitment of the compensator at a different position to that initially intended.
- Greater inaccuracies in the pipeline run than presumed.
- Premature or delayed removel of the assembly aids.
- Fitment of the compensator with baffle againts the direction of flow.
- Belows damaged by welding spatter.

3. Damage during use:

- Corrosion damage due to environmental effects, e.g. chloride.
- Corrosion damage, respectively limited movement due to a collection of firmly adhering dirt or due to hardening of the medium in the shafts.
- Fatigue failure due to unforeseen vibration or movement.

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