



EXPANSION JOINTS: BALANCE SERIES

BALANCE I WITH INNER SLEEVE: DN450-1000



LOGGERS



INTRODUCTION

Pipeline systems are exposed to temperature variations, setting in foundations, forces and deformations causing movement and/or stress in the system. To ensure flawless operation of the system it is necessary to insert flexible parts to absorb the movements preventing structural damage.

To provide excellent vibration isolation and flexibility to the pipeline system Loggers delivers top of the line stainless steel expansion joints, the Balance® series. With the Balance® series Loggers offers a complete program of expansion joints for various applications including one or more approvals by certification authorities like ABS, Bureau Veritas, and German Lloyds. For each situation we can offer you solutions (without affecting the pipeline system) with Loggers qualified expansion joints that:

- Compensate movement
- Compensate expansion
- Absorb stress in the system
- Reduce noise transmissions
- Reduce vibration
- Compensate ground and foundation settling
- Compensate inaccurate assembly
- Serve as dismantling joints on fittings

Our complete portfolio consists of standard expansion joints as well as our special customized expansion joints. Balance® series expansion joints are used worldwide for various applications like exhaust gas lines, low and high pressure pipe systems.

BALANCE I WITH INNER SLEEVE: DN450-1000

The Balance® I with inner sleeve is a stainless steel expansion joint with carbon steel weld ends and a stainless steel inner sleeve. It is used for compensating movements and misalignments in exhaust systems with large diameters and small lateral movements. Due to the double ply bellows this compensator is more flexible in comparison to similar single ply compensators. The maximum operating temperature of the Balance® I with inner sleeve is +550 °C, the maximum working pressure 2,5 bar (50 °C).

DESCRIPTION

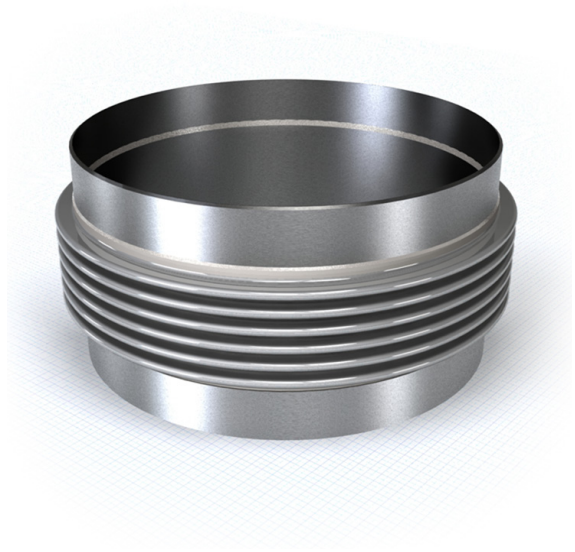
Stainless steel expansion joint AISI 321. Double ply bellows.
Carbon steel weld ends.

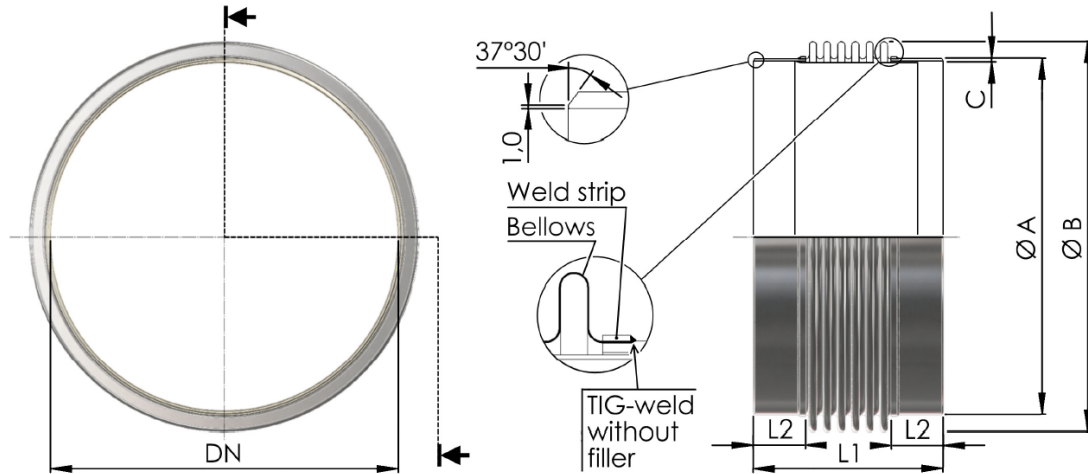
APPROVALS

Approved by Bureau Veritas.

CHARACTERISTICS

- Stainless steel expansion joint AISI 321
- Double ply bellows material
- Standard length
- Stainless steel inner sleeve
- Carbon steel weld ends
- Max. temperature: 550 °C
- Max. pressure: 2,5 bar (50 °C)
- Stock item





Dimensions in millimeters (mm)

TECHNICAL DATA

Article No.	DN	L1	Bellows (material: AISI 321)			Welding ends (material: carbon steel)			Movements ¹ (mm)		Springrate (N/mm)	
			B (mm)	Plies	Thickness (mm)	A (mm)	C (mm)	L2 (mm)	Axial +/-	Lateral +/-	Axial +/-	Lateral +/-
330 010 450	450	300	509,2	2	0,4	457,2	8	65	40	3	26	575
330 010 500	500	340	564	2	0,4	508	8	65	48	3	21	437
330 010 600	600	340	669,6	2	0,4	609,6	8	65	48	3	20	452
330 010 700	700	380	779	2	0,4	711	8	105	36	3	25	739
330 010 800	800	380	889	2	0,4	813	8	105	36	3	21	629
330 010 900	900	380	998	2	0,4	914	8	105	36	3	22	737
330 011 000	1000	380	1108	2	0,5	1016	8	105	36	3	19	628

¹ Movements (axial/lateral) are not in combination.

ABOUT LOGGERS

Loggers is **thought leader** and international recognized solution provider in the field of shock, vibration and noise control. With **excellent technical know-how** in combination with proven market knowledge and experience Loggers designs, develops and engineers **innovative solutions** for the most complex and challenging situations for leading clients worldwide for over 90 years.

Loggers understands all difficulties in the area of vibration, shock and noise control entirely.

We bring up the best and most cost effective solution for every challenge, regardless of its complexity. Loggers defines and engineers all deliverables necessary for solving your problem, ranging from standard to tailor-made solutions. Loggers' state-of-the-art portfolio contains all products and services to provide you with the optimal solution for relatively simple as well as the most complex challenges.

Products

- Vibration mounts
- Expansion joints
- Shock mounts

Services

- Assessment of current situation (on site)
- Analysis design including construction drawings
- Structural design and stress analysis
- Vibration measurement, calculation and analysis, if needed on site
- Solution definition based on:
 - standard products
 - customized products, or even
 - tailor-made new products, including prototyping
- Complete simulation of solution to ensure its effectiveness
- Testing including certification by independent certification authorities
- On site support during installation

Loggers understands both business and technology and brings both worlds together in satisfying customers' needs in rapidly changing environments. By working closely with clients Loggers enables them to realize their strategic targets through solving specific operational issues in the following market segments:

- Shipbuilding
- Dredging
- Defense
- Machinery
- Offshore
- Transportation



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