



# EXPANSION JOINTS: BALANCE SERIES

BALANCE V: DN40-400



## INTRODUCTION

Pipeline systems are exposed to temperature variations, settling 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 has designed and manufactured 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 as 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 pipelines.

## BALANCE V: DN40-400

The Balance® V is a stainless steel expansion joint with fixed carbon steel flanges according to DIN PN 10. It is used for compensating movements and misalignments in exhaust systems in situations with relatively 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® V is +550 °C, the maximum working pressure 2,5 bar (20 °C).

## DESCRIPTION

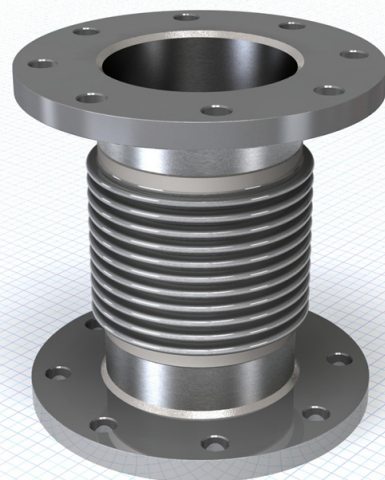
Stainless steel expansion joint AISI 321. Double ply bellows.  
Fixed carbon steel flanges (DIN PN 10)

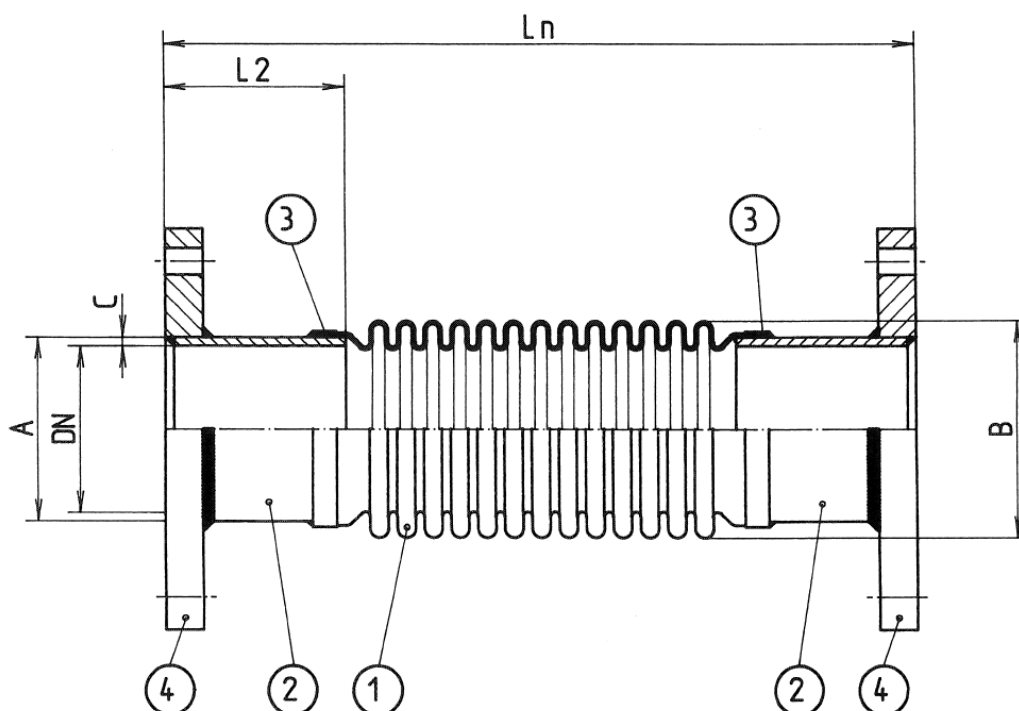
## APPROVALS

Approved by Bureau Veritas and Germanischer Lloyd.

## CHARACTERISTICS

- Stainless steel expansion joint AISI 321
- Double ply bellows material
- Standard length
- Fixed carbon steel flanges according to DIN PN 10
- Max. temperature: 550°C
- Max. pressure: 2,5 bar (20°C)
- Stock item





Dimensions in millimeters (mm)

Pos.	Quantity	Description	Material	Dimensions
1	1	Bellows	AISI 321	
2	2	Weld end	Carbon steel	
3	2	Weld strip	AISI 321	
4	2	Flange	Carbon steel	DIN PN 10

## TECHNICAL DATA

Article No.	DN	L <sub>n</sub>	Bellows (material: AISI 321)				Welding ends (material: carbon steel)			Movements <sup>1</sup> (mm)		Springrate (N/mm)	
			B (mm)	Conv.	Plies	Thickness (mm)	A (mm)	S2 (mm)	L2 (mm)	Axial +/-	Lateral +/-	Axial +/-	Lateral +/-
330 410 040	40	215	60,3	22	1	0,3	48,3	2,6	55	28	15	36	143
330 410 050	50	255	78,3	13	2	0,3	60,3	2,9	68	28	15	49	214
330 410 065	65	255	96,7	13	2	0,3	76,1	2,9	68	28	14	40	206
330 410 080	80	255	109,7	13	2	0,3	88,9	3,2	68	28	13	46	261
330 410 100	100	255	140,5	11	2	0,3	114,3	3,6	68	35	10	35	281
330 410 125	125	255	165,7	11	2	0,3	139,7	3,6	68	35	9	42	389
330 410 150	150	255	200,5	9	2	0,3	168,3	4	68	35	9	35	365
330 410 200	200	255	251,1	9	2	0,3	219,1	4,5	68	35	6	43	610
330 410 250	250	255	305,2	9	2	0,3	273,0	5	68	35	5	54	924
330 410 300	300	305	360,9	9	2	0,3	323,9	5,6	80	40	6	42	698
330 410 350	350	305	392,6	9	2	0,3	355,6	5,6	80	40	5	48	870
330 410 400	400	305	443,4	9	2	0,3	406,4	5,6	80	40	3	52	1157

<sup>1</sup> 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 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



Version 02  
November 2011

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