



EXPANSION JOINTS: BALANCE SERIES

BALANCE IX TWIN: DN80-1200



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 IX TWIN: DN80-1200

The Balance® IX Twin is a relatively long stainless steel expansion joint with twin bellows construction and rotatable flanges. It is used for compensating movements and misalignments in exhaust systems. The Balance® IX Twin is used to compensate large lateral movements. Due to the double ply bellows this compensator is more flexible in comparison to similar single ply compensators. The Balance® IX Twin is supplied at pre-stressed length in order to reduce the reaction forces to the foundation in operating conditions (high temperature). The maximum operating temperature of the Balance® IX is +550 °C, the maximum working pressure 2,5 bar (120 °C).

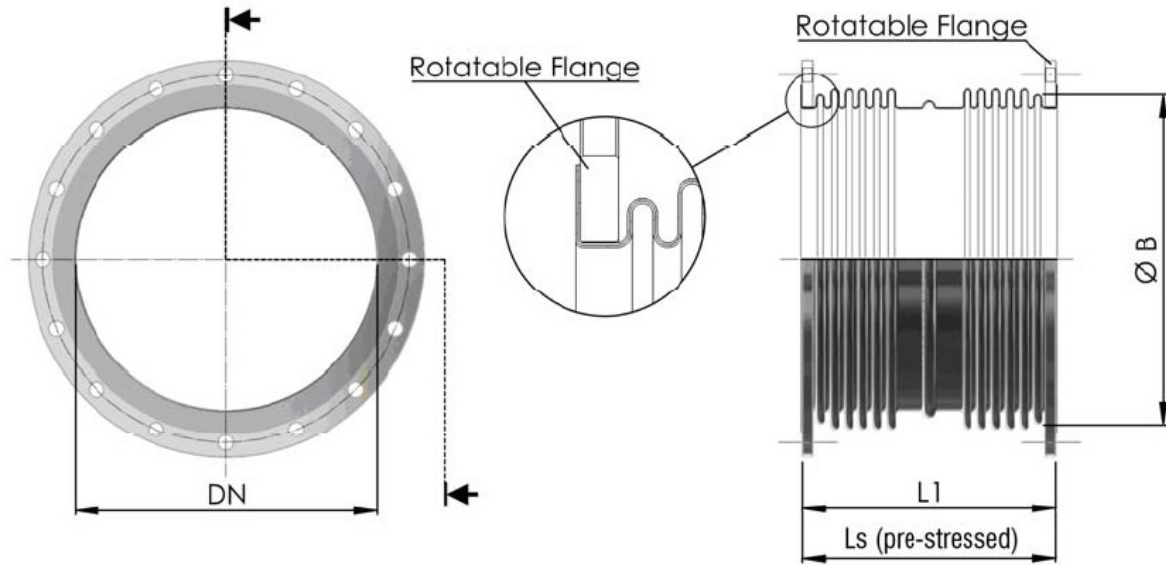
APPROVALS

Approved by Bureau Veritas and Germanischer Lloyd.

CHARACTERISTICS

- Stainless steel expansion joint AISI 321
- With rotatable flanges acc. DIN 86044
- Twin bellows construction
- Double ply bellows material
- Standard length
- Max. temperature: 550 °C
- Max. pressure: 2,5 bar (120 °C)
- Alternative flange dimensions available
- Stock item
- Supplied at pre-stressed length





Dimensions in millimeters (mm)

TECHNICAL DATA

Article No.	DN	L1	Ls	Bellows (material: AISI 321)			Movements ¹ (mm)		Springrate (N/mm)		Flange (Carbon steel)		
				B (mm)	Plies	Thickness (mm)	Axial +/-	Lateral +/-	Axial +/-	Lateral +/-	D outside	Bolt circle	Holes x d
300 270 080	80	340	365	100	2	0,3	38	63	54	5	200	160	8 x 18
300 270 100	100	290	315	152	2	0,3	36	42	37	9	220	180	8 x 18
300 270 125	125	285	305	182	2	0,3	32	30	77	39	250	210	8 x 18
300 270 150	150	340	370	208	2	0,3	45	46	53	25	285	240	8 x 22
300 270 175	175	345	375	238	2	0,3	44	40	100	48	315	270	8 x 22
300 270 200	200	335	365	258	2	0,4	49	40	64	46	320	280	8 x 18
300 270 250	250	335	365	315	2	0,4	47	30	77	85	375	335	12 x 18
300 270 300	300	310	345	368	2	0,4	50	26	64	134	440	395	12 x 22
300 270 350	350	310	345	409	2	0,4	50	24	71	176	490	445	12 x 22
300 270 400	400	375	425	466	2	0,4	73	35	53	113	540	495	16 x 22
300 270 450	450	380	430	520	2	0,4	71	30	59	151	595	550	16 x 22
300 270 500	500	350	390	571	2	0,4	62	24	69	224	645	600	20 x 22
300 270 550	550	360	400	623	2	0,4	62	22	74	284	703	650	20 x 22
300 270 600	600	440	490	675	2	0,4	72	31	78	228	754	700	20 x 22
300 270 700	700	465	520	773	2	0,4	79	31	88	296	856	800	24 x 22
300 270 800	800	465	520	873	2	0,5	79	27	98	434	958	900	24 x 22
300 270 900	900	465	520	983	2	0,5	79	25	109	622	1060	1010	28 x 22
300 271 000	1000	465	520	1083	2	0,5	79	21	119	843	1162	1110	32 x 22
300 271 100	1100	465	520	1183	2	0,6	79	19	130	1117	1266	1210	32 x 22
300 271 200	1200	465	520	1283	2	0,6	79	17	140	1429	1366	1310	36 x 22

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



Version 06
April 2012

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