

Product Code	Definition
DB30 - KB	Externally Pressurised Expansion Joint Welding Ends Axial 30mm Expansion
DB60 - KB	Externally Pressurised Expansion Joint Welding Ends Axial 60mm Expansion
DB90 - KB	Externally Pressurised Expansion Joint Welding Ends Axial 90mm Expansion
DB120 - KB	Externally Pressurised Expansion Joint Welding Ends Axial 120mm Expansion

GENERAL

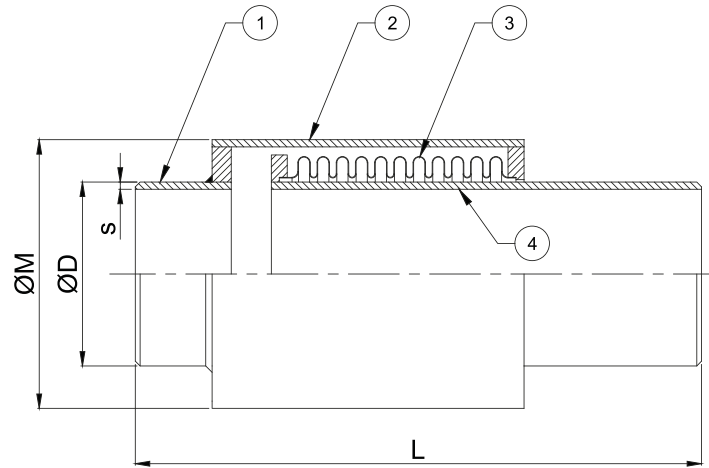
External pressurized axial metal expansion joints are specially designed for use in pipe systems where high amounts of axial compression and elongation occur. Due to the structure of the external pressurized axial metal expansion joints, the flow and pressure of the media is given to the outer surface of the bellows. Outer pressurization of the bellows eliminates pressure instabilities and allows the absorption of large amounts of axial expansion. In this way, the amount of expansion joint used in the system is minimized.



Standard Product Materials		Optional Product Materials
Bellows	1.4301 (AISI 304)	1.4541 / 1.4401 / Titanium / Incoloy 800H / Inconel etc.
Inside / Outside Pipe	1.0038 (St 37-2)	Stainless Steel
Welding Ends	1.0038 (St 37-2)	Stainless Steel

Design Parameters	
Design Pressure	16 Bar (1 Bar...64 Bar Optional)
Design Temperature	+20 °C (-90°C...+550 °C Optional)
Diameters	DN25 (1")...DN2500 (100")
Movements	30mm (-20, +10) / 60mm (-40, +20) / 90mm (-70, +20) / 120mm (-90, +30)
Design Standards	EJMA, EN 14917
Certifications	TSE, CE - Module H (Optional) - EAC

**Please contact our sales team for your special requests.



Part Number	Specifications	
	Name	Material
1	Welding Ends	1.0038 (S235JR / St37-2)
2	Outside Pipe	1.0038 (S235JR / St37-2)
3	Bellows	1.4301 (AISI 304)
4	Inside Pipe	1.0038 (S235JR / St37-2)

Diameters		LENGTH (L = mm)				ØD (mm)	s (mm)	ØM (mm)	Effective Area (cm ²)	Axial Spring Rate (N/mm)			
		DB30-KB	DB60-KB	DB90-KB	DB120-KB					X:30mm	X:60mm	X:90mm	X:120mm
		X:30mm	X:60mm	X:90mm	X:120mm								
DN25	1"	295	395	490	530	33,7	3,2	88,9	19,0	183,0	122,0	97,6	86,1
DN32	1 1/4"	305	405	500	530	42,4	3,2	88,9	19,0	183,0	122,0	97,6	86,1
DN40	1 1/2"	315	415	515	530	48,3	3,2	88,9	24,7	146,5	102,6	73,2	60,3
DN50	2"	320	440	520	540	60,3	3,6	88,9	38,7	132,2	80,8	66,1	51,9
DN65	2 1/2"	335	440	535	550	76,1	3,6	114,3	58,0	361,8	221,2	165,8	61,3
DN80	3"	335	445	550	570	88,9	4	139,7	80,5	220,8	138,0	92,0	73,6
DN100	4"	340	445	580	600	114,3	4,5	165	129,0	233,7	133,5	85,0	66,7
DN125	5"	355	465	580	600	139,7	5	219,1	191,8	166,2	95,0	66,5	51,1
DN150	6"	365	480	605	625	165,1	5	273	262,7	289,2	165,2	110,1	96,4
DN200	8"	415	540	680	700	219,1	6,3	323,9	453,5	157,8	97,1	63,1	60,1
DN250	10"	440	580	730	750	273	6,3	387	698,4	151,7	75,8	50,5	39,9
DN300	12"	330	440	520	650	323,9	7,1	420	967,0	297,4	185,9	123,9	92,9
DN350	14"	400	500	675	750	355,6	8	455	1149,6	405,4	231,7	147,4	114,8
DN400	16"	425	525	700	775	406,4	8	525	1517,7	356,5	178,2	118,8	89,1
DN450	18"	450	550	725	800	457	8	580	1884,2	414,2	207,1	138,0	103,5
DN500	20"	475	575	750	825	508	8	635	2282,5	522,4	313,4	195,9	156,7

** X value represents axial movement. Please contact our technical department for different movement requirements.