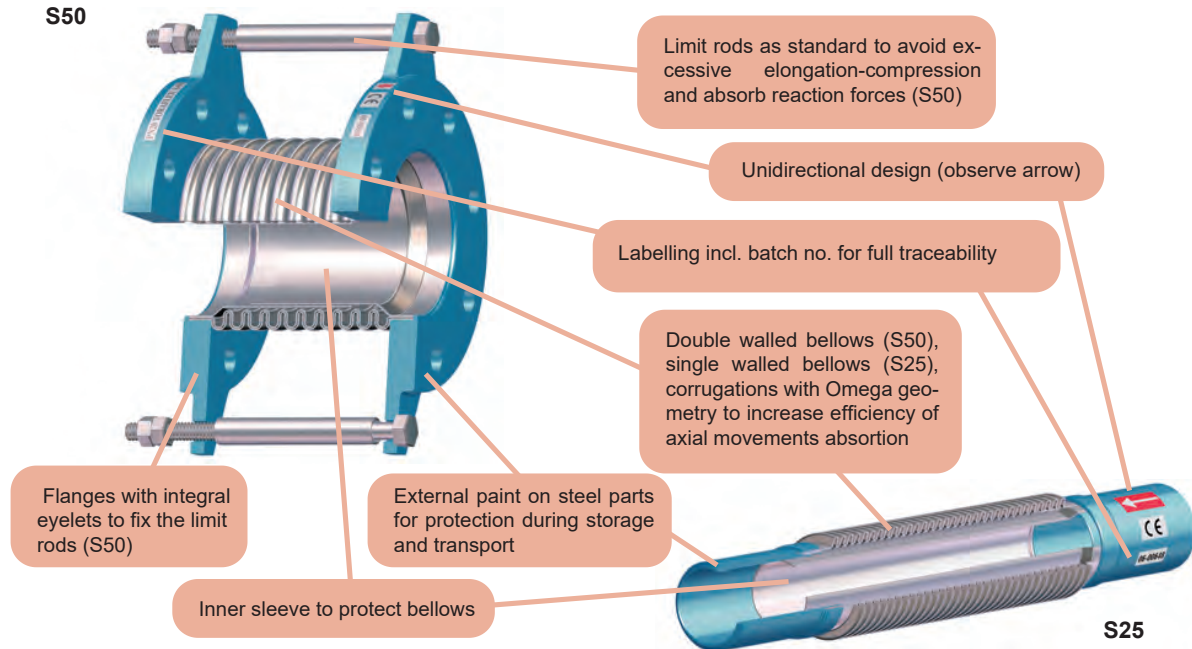


Metal Expansion compensators - SERIES TORAFLEX S25-S50

S25-50 Metal Compensators are flexible unions used on rigid pipe work systems to absorb axial thermal movements. They consist of a corrugated Omega shaped bellow, with welded ends (S25) or flanged ends (S50), and an internal sleeve, which protects the bellow from wear and turbulences. Additionally S50 type incorporates limit rods as standard. A correct pipe system arrangement and installation according to our Installation Operating and Maintenance Manual is essential to ensure a safe and efficient performance.



Main Features

Design: EJMA 9th Edition
 Nominal Pressure: S50 PN16 / S25 PN10
 Valve end connections: S50 - Drilled to EN1092-1 PN16 (valves DN65 with 4 holes as accepted variant in standard)
 S25 - Butt weld ends

Marking: EN 19
 Pressure Tests: EN 12266-1
 Steel parts painted in metal blue color for protection during storage and transport
 Product compliant with Pressure Equipment Directive PED, max. category I

Main Duties / Limits of use

Liquids compatible with materials of construction, acc. to PED Annex II tables 8 & 9 up to category I;
 Stable gases compatible with materials of construction, acc. to PED Annex II tables 6 & 7 up to category I

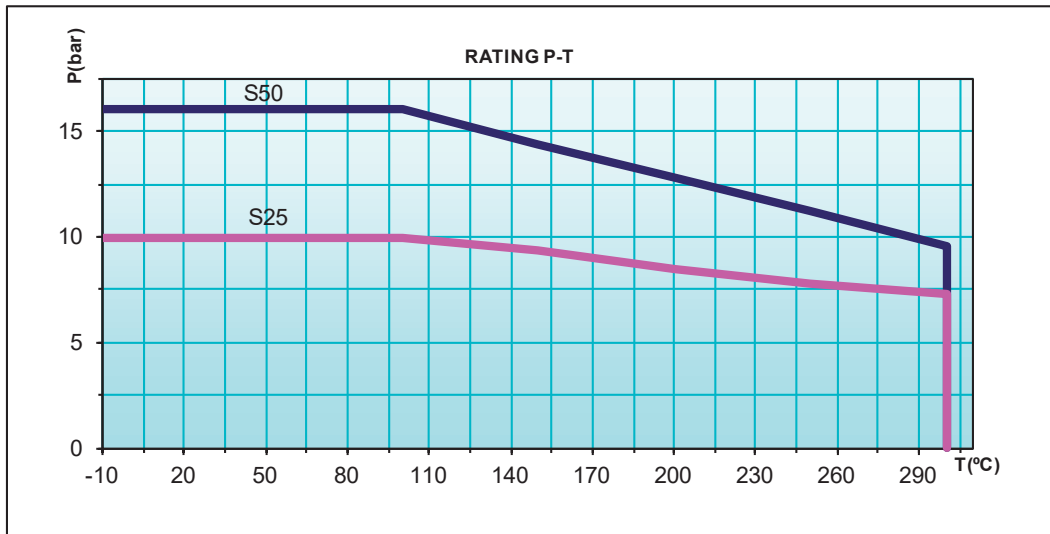
S50	S25
PS: 16 bar; TS: -10/300°C	PS: 10 bar; TS: -10/300°C
Table 6: PS 16 bar to DN50	Table 6: PS 10 bar to DN100 (no CE marking <=DN25)
PS 13 bar DN65	Table 7: PS 10 bar to DN300 (no CE marking <=DN100)
PS 10 bar DN80-100	Table 8: PS 10 bar to DN600 (no CE marking <=DN200)
Table 7: PS 16 bar to DN200 (no CE marking <=DN50)	Table 9: PS 10 bar to DN300 (no CE marking)
PS 13 bar DN250	
PS 10 bar DN300-350	
PS 6 bar DN400-500	
PS 3 bar DN600	
Table 8: PS 16 bar to DN125 (no CE marking)	
PS 13 bar DN150 (no CE marking)	
PS 10 bar DN200-600 (no CE marking <=DN200)	
Table 9: PS 16 bar to DN600 (no CE marking <=DN300)	

Questions referring to chemical resistance, please consult us
 Observe also pressure/temperature limits on diagram on next page

Options

Higher service temperatures, other designs and approvals; please consult us

Pressure/Temperature limits diagram



S50

P (bar)	16	16	14,4	12,8	11,2	9,6
T (°C)	-10	100	150	200	250	300

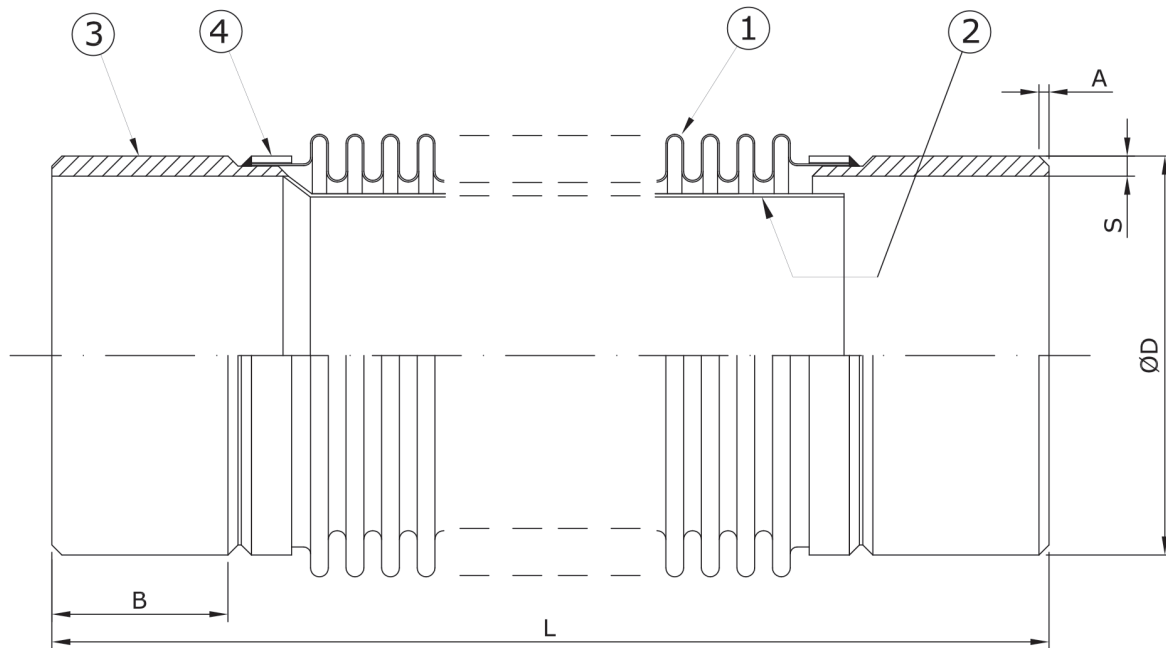
S25

P (bar)	10	10	9,4	8,5	7,8	7,3
T (°C)	-10	100	150	200	250	300

Metal Expansion compensators - SERIES TORAFLEX S25-S50

Main Parts and Materials

TYPE S25



N°	PART	MATERIAL
1	BELLOWS	St. Steel SS304
2	INTERNAL SLEEVE	St. Steel SS304
3	TUBE ENDS	S250_ Steel DIN St 44-2 S25L_ St. Steel SS304
4	SEAL RING	St. Steel SS304

Main Valve Parameters

DN	20	25	32	40	50	65
L	250	250	350	350	350	350
Axial Movement	+5, -25	+5, -25	+10, -40	+10, -40	+10, -40	+10, -40
No. of Corrugations	30	28	36	32	24	20
A	1,17	1,70	1,79	1,80	1,90	1,75
B	47,30	45,20	66,60	66,90	59,00	60,00
S	2,8	3,4	3,6	3,7	3,9	4,2
ØD	27,2	34	42,3	48,3	60,3	76,3
S	3	3	3	3	3,5	4
ØD	27,2	34	42,3	48,3	60,3	76,3
Effective Area	6	9	13	21	32	50
Approx. Weight	1	1	1	1,5	2	2,5

DN	80	100	125	150	200	250	300
L	350	350	350	350	350	350	350
Axial Movement	+10, -40	+10, -40	+10, -40	+10, -40	+10, -40	+10, -40	+10, -40
No. of Corrugations	20	16	15	14	13	12	12
A	2,20	2,30	2,50	-	-	3,75	3,75
B	58,70	65,50	62,10	-	-	60,10	59,50
S	4,2	4,5	5	5,5	6,5	6,3	7,9
ØD	89,1	114,3	139,8	168,3	219,1	273,1	323,9
S	4	4	5	5	6,5	6,5	6,5
ØD	89,1	114,3	139,8	168,3	219,1	273,1	323,9
Effective Area	67	110	182	259	417	661	907
Approx. Weight	2,5	4	5,5	6,5	8	11	17

Dimensions in mm subject to manufacturing tolerance / Effective Area in cm² / Weights in kg

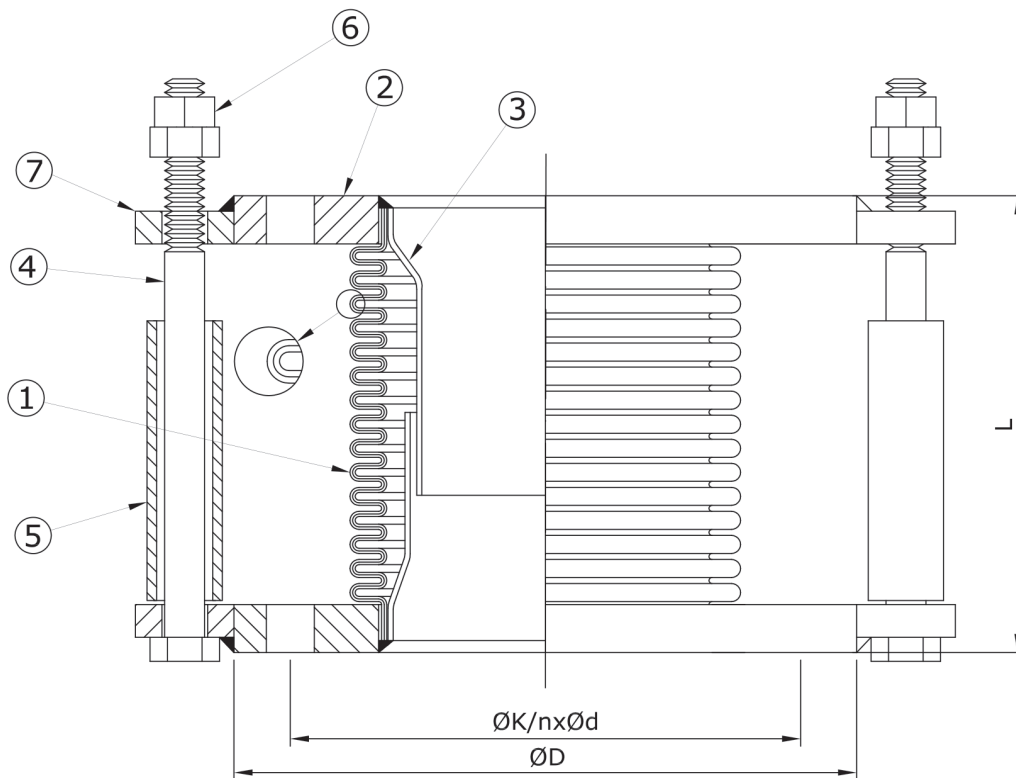
Information / restriction of technical rules need to be observed!

Installation, Operating and Maintenance Manual can be downloaded at www.comeval.es

The engineer, designing a system or a plant, is responsible for the selection of the correct valve
Product suitability must be verified, contact manufacturer for information

Main Parts and Materials

TYPE S50



N°	PART	MATERIAL
1	BELLOWS	St. Steel SS304
2	FLANGE	Steel DIN ST-37.2
3	INTERNAL SLEEVE	St. Steel SS304
4	LIMIT RODS	Steel DIN ST-44.2
5	LIMIT PIPE	St. Steel SS304
6	NUT	Steel DIN ST-44.2
7	LUG	Steel DIN ST-44.2

Main Valve Parameters

DN	32	40	50	65	80	100	125	150
L	150	150	150	150	150	150	150	150
Axial Movement	+10, -25	+10, -25	+10, -25	+10, -25	+10, -25	+10, -25	+10, -25	+10, -25
ØD	140	150	165	185	200	220	250	285
ØK	100	110	125	145	160	180	210	240
n	4	4	4	4	8	8	8	8
Ød	18	18	18	18	18	18	18	22
Effective Area	13	20	32	49	67	109	167	229
Weight	5	6	6,5	8	9	10	14	17,5

DN	200	250	300	350	400	450	500	600
L	200	200	200	200	200	200	200	250
Axial Movement	+10, -35	+10, -35	+10, -35	+10, -35	+10, -35	+10, -25	+10, -25	+10, -40
ØD	340	405	460	520	580	640	715	840
ØK	295	355	410	470	525	585	650	770
n	12	12	12	16	16	20	20	20
Ød	22	26	26	26	30	30	33	36
Effective Area	384	579	820	1171	1515	1886	2324	3274
Weight	23	33	37	77	92	107	129	185

Dimensions in mm subject to manufacturing tolerance / Effective Area in cm² / Weights in kg

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The engineer, designing a system or a plant, is responsible for the selection of the correct valve
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