

S10-15

Rubber joints Single Sphere type

Attributes of Design

8 Light and easy to install, little installation space required, easy maintenance of replaceable bellows.

1 Spherical design for better strength and efficiency.



7 - 4 different allowable movements: axial compression and expansion, lateral and angular deflection.

2 Precision injection moulded of synthetic rubber and nylon.

6 Loose flanges for easy assembly, specially machined to accept the full turned rubber, with standard execution in zinc plated steel.

3 Outer layer protects the bellows surface from eventual ozone attack, strikes and other environmental aggressions.

5 Full turned rubber design, self-sealing, no additional gaskets are required; it prevents electrolytic corrosion.



4 Rugged design with high burst pressure, to absorb noise and vibration and withstand water hammers to a certain extent by:

- Inner Reinforcement placed in between the outer and inner layers. Made of Nylon plaited fabrics as standard, which provide high shell moulding resistance.
- End Bellows Reinforcement. Hardened steel wires to provide a greater consistence to the bellows outer neck.

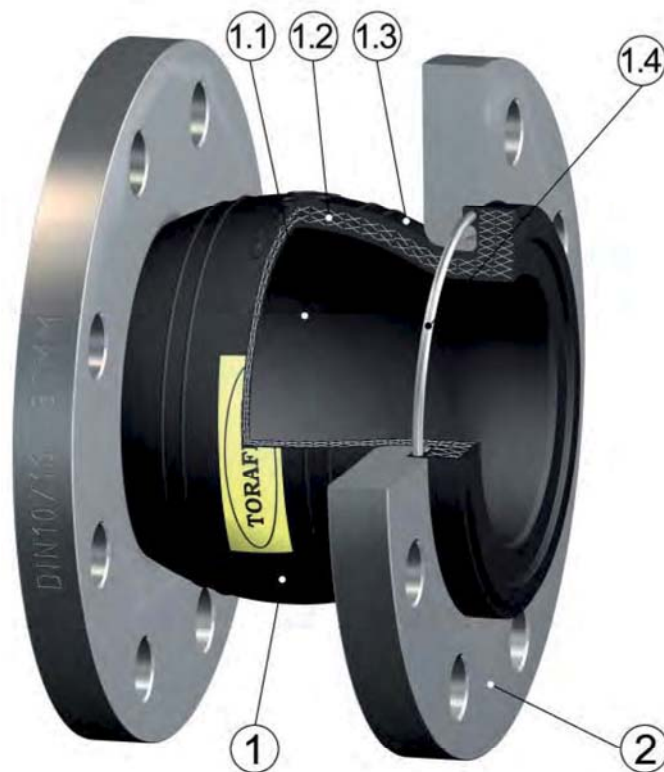
9 Lot number punched for full traceability purpose.



10 Rubber material identification and maximum service temperature.

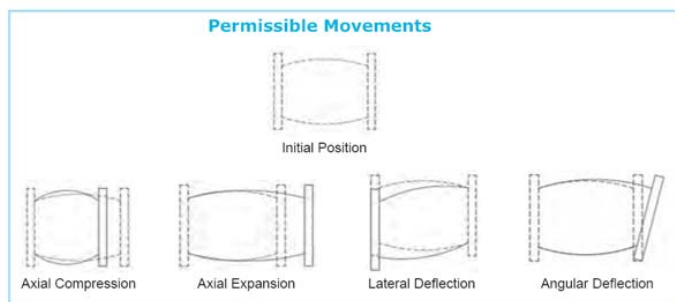
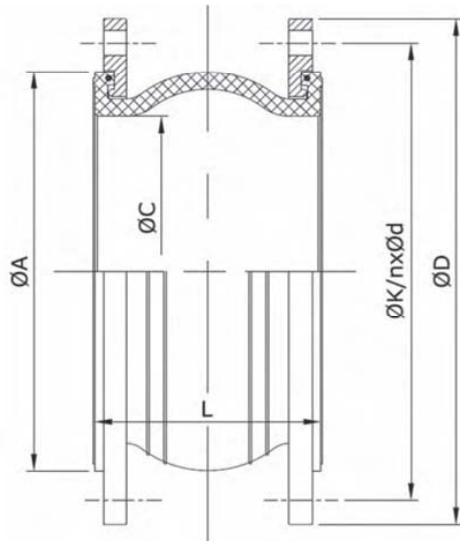


Parts and materials



1- Vulcanised Rubber Bellow:	1.1 Rubber core (inner)
	1.2 Nylon tire cord
	1.3 Rubber cover (outer)
	1.4 Hard Steel Wire
Rubber options: EPDM, NBR, Hypalon, Neoprene, Viton, Butyl Rubber, Natural Rubber, PTFE/EPDM	
2- Loose Flanges:	
Standard Material: Carbon Steel Zinc Plated S235JR to EN10025 (old St 37-2 to DIN 17100)	
Flange Options: Stainless Steel AISI 304, AISI 316, etc.	

S10 Joint dimensions and permissible movements



DN	BUILDING LENGTH (mm)	MAX. MOVEMENTS ALLOWED FROM INITIAL POSITION*						ΦA (mm)	ΦC (mm)	Approx. Weight (kg)	
		INITIAL (L)	TOLERANCE INSTALLED (min-max)	AXIAL COMPRESSION (mm)	AXIAL EXPANSION (mm)	LATERAL DEFLECTION (mm)	ANGULAR DEFLECTION			PN10	PN16/ASA150
1.1/4"	32	95	89-97	8	4	8	15°	68	35	3,2	3,2
1.1/2"	40	95	89-97	8	5	8	15°	68	37	4	4
2"	50	105	99-107	8	6	8	15°	86	50	5	5
2.1/2"	65	115	107-118	12	6	10	15°	106	65	6	6
3"	80	130	122-133	12	10	10	15°	118	72	8	8
4"	100	135	122-140	18	10	12	15°	152	98	9	9
5"	125	170	156-175	18	10	12	15°	182	122	11	11
6"	150	180	167-185	18	10	12	15°	213	146	13	13
8"	200	205	186-212	25	14	22	15°	262	194	19	19
10"	250	240	221-247	25	14	22	15°	323	245	24	27
12"	300	260	241-267	25	14	22	15°	372	295	29	33
14"	350	265	246-273	25	14	22	15°	409	320	39	48
16"	400	265	246-273	25	14	22	15°	471	365	48	62
18"	450	265	246-273	25	14	22	15°	520	420	56	73
20"	500	265	246-273	25	14	22	15°	572	480	69	111
24"	600	265	246-273	25	14	22	15°	690	585	71	138

Dimensions are expressed in mm, and subjected to manufacturing tolerances. Data can be altered without notice by our Design Department for the product benefit.

* The stated movements are solely valid with the joint subject to a single movement direction. Values are proportionally reduced along with the movement combination.

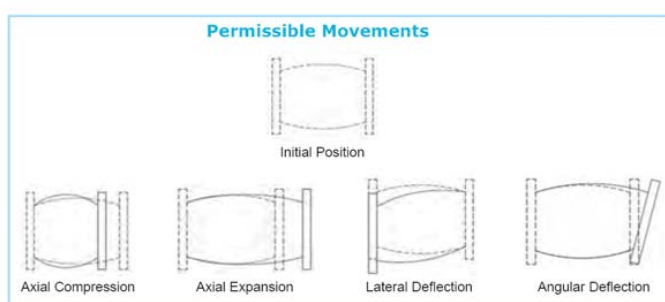
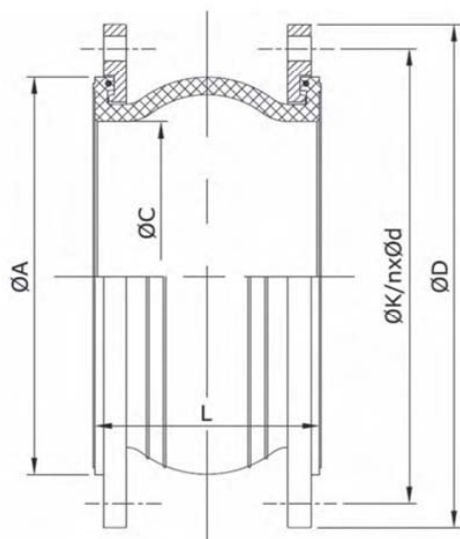
* Given tolerance installed and movements allowed are valid for rubber bellows. For bellows with PTFE sleeve, values must be reduced by 1/2.

* Increasing temperatures reduce the permissible movements capacity and number of cycles.

Manufacture Design Standards

- QA certified to EN ISO 9001 procedures.
- Testing procedure according to EN12266-1.
- Marking according to EN19.
- Flanges drilled to EN1092-1 PN10, PN16, or ASME B16.5 ASA150.
- Rubber Joints are excluded from the Pressure Equipment Directive PED 97/23/CE, according to its article 1.3-15.

S15 Joint dimensions and permissible movements



DN	BUILDING LENGTH (mm)		MAX. MOVEMENTS ALLOWED FROM INITIAL POSITION*				ΦA (mm)	ΦC (mm)	Approx. Weight (kg)		
	Inch	mm	INITIAL (L)	TOLERANCE INSTALLED (min-max)	AXIAL COMPRESSION (mm)	AXIAL EXPANSION (mm)			LATERAL DEFLECTION (mm)	ANGULAR DEFLECTION	PN10
1"	25	130	122-133	30	20	30	35°	60	25	4	4
1.1/4"	32	130	122-133	30	20	30	35°	68	35	4	4
1.1/2"	40	130	122-133	30	20	30	35°	68	37	4,5	4,5
2"	50	130	122-133	30	20	30	35°	86	50	5,5	5,5
2.1/2"	65	130	122-133	30	20	30	30°	106	65	7	7
3"	80	130	122-133	30	20	30	30°	118	72	8	8
4"	100	130	122-133	30	20	30	25°	152	98	9	9
5"	125	130	122-133	30	20	30	25°	182	122	11	11
6"	150	130	122-133	30	20	30	15°	213	146	13	13
8"	200	130	122-133	30	20	30	15°	262	194	19	19
10"	250	130	122-133	30	20	30	10°	323	245	24	27
12"	300	130	122-133	30	20	30	10°	372	295	29	33

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