



VALVE AND FLOW CONTROL SPECIALISTS
SERVICE AND RELIABILITY

Single Sphere Flanged Rubber Expansion Joint

Size Range from 25mm to 3200mm

Pressure Range 25mm to 300mm 1600kpa, 350mm to 450mm 1000kpa, 500mm to 3200mm 600kpa.

For pressure / temperature ranges or axial distortion outside this product type consider the metal convoluted Expansion Bellows design also available as a manufactured item to suit specific applications.

Functions and advantages

- ▶ Compensate for thermal elongation.
- ▶ Isolate vibrations.
- ▶ Absorb water hammers.
- ▶ Compensate misalignments.
- ▶ Ensure sealing of the pipe.

Stainless steel vacuum ring

The vacuum ring is recommended when the expansion joint is used in negative pressure (pumps, etc).

Available in stainless steel 316 Ti.

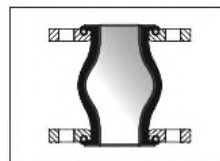
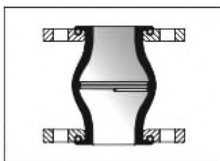
PTFE lining

PTFE lining is recommended for acids and strong and/or condensed bases.










Movements allowed by the expansion joints are then reduced by 50 %.

The use in negative pressure is forbidden.

Maximal pressure: 6 bar.



Materials and applications

Color stripe	Inner tube	Outer cover	Working temperature	Applications
RE 	EPDM	EPDM	- 35/+ 90 °C	WATER Hot water, cooling water with salt solutions, chlorine solutions, esters and ketones.
HP 	EPDM HP	EPDM	- 35/+ 130 °C	STEAM 130 °C Hot water, steam, hot air up to 130 °C.
DW 	EPDM ACS	EPDM	- 25/+ 90 °C	ACS Drinkable water (ACS certificate: 15 MAT LY 018).
WH 	NITRILE WHITE	ECO	- 25/+ 90 °C	FOOD Food and beverages. Including fats and oils.
YE 	ECO	ECO	- 25/+ 90 °C	OIL Water, saline solutions, alkalis, mineral oils, vegetable or animal oils, oils aerosols, propane and butane gas, etc.
HO 	HNBR	HNBR	- 25/+ 120 °C	OIL 120 °C Oil, mix of water and oils, mix of compressed air and oils, etc.
BL 	SBR	CR	- 35/+ 90 °C	ABRASION Abrasive materials, suspended stones, mud, calcium, etc.
GR 	CSM	CR	- 25/+ 90 °C	CHEMICALS Strong and concentrated acids, etc. Compressed air that bears oil aerosols.
FP 	Viton®	Viton®	- 15/+ 150 °C	CHEMICAL HIGH TEMPERATURE Chemical products highly aggressive with high temperature up to 150 °C.

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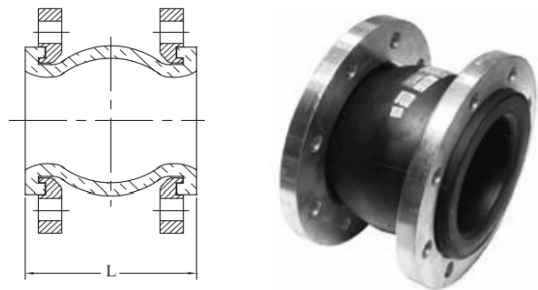
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Flanged ends are available in AS2129 E or D, ANSI 150 and cross over AS2129 E to BS4504 PN16 and BS4504 PN 16 to ANSI 150

Rubber Bellow (Table E)								
STANDARD ELASTOMER CODES		IMPERIAL SIZE	L	AXIAL COMPRESSION	AXIAL STRETCH	LATERAL DISPLACEMENT	ANGULAR DEFLECTION	APPROX. KG/PC
EPDM	NBR							
RB32		1 1/4	95	9	6	9	15°	2.3
RB40		1 1/2	95	10	6	9	15°	2.75
RB50	RB50N	2	105	10	7	10	15°	3
RB65	RB65N	2 1/2	115	13	7	11	15°	4.1
RB80	RB80N	3	135	15	8	12	15°	5.2
RB100	RB100N	4	135	19	10	13	15°	6
RB125		5	165	19	12	14	15°	10.3
RB150	RB150N	6	180	20	12	22	15°	11.6
RB200		8	190	25	16	22	15°	16
RB250		10	230	25	16	22	15°	24
RB300		12	245	25	16	22	15°	27
RB350		14	265	25	16	22	15°	41
RB400		16	265	25	16	22	15°	50
RB450		18	265	25	16	22	15°	80
RB500		20	265	25	16	22	15°	75
RB600		24	265	25	16	22	15°	120



Site engineers or installers to ensure Lateral Angular Deformation is not to exceed 15 Degrees on sizes up to 600mm on standard single sphere rubber joints, along with design Axial extension and Compression compliances. Always ensure the material grades suit the application.

Fixed length sizes from 25mm to 300mm of 130mm made to order.
 Other variants such as double sphere and those with compression limiters, control tie rods etc also available to manufacture.

For further details please contact your local VCS office ensuring you have all the system requirements.

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