KISTLER®

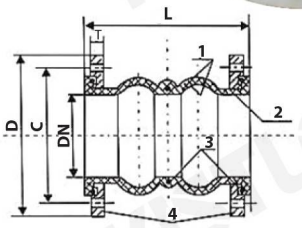
DOUBLE-SPHERE HIGH PRESSURE RUBBER EXPANSION JOINT WITH RING

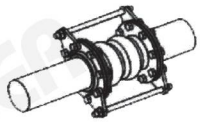
With Floating Flanges

KISTLER Series KDR

Double sphere are designed for piping systems to absorb pipe movements, relieve stress, reduce system noise/vibration, compensate for misalignment/offset and to protect rotating mechanical equipment against start-up surge forces. The KSITLER Series KDR rubber expansion joint can be made from different rubber materials depending on media and application. They are desiged to take up axial, lateral, angular and torsional movements along with vibrations in piping. KISTLER Engineers can solve anticipated problems of vibration, noise, shock, corrosion, abrasion, stresses and space by incorporating rubber expansion joints into designed piping systems. The steel flanges easily rotate on the bellows which makes it easier to line up the bolt holes during installation when mating flanges are out of line. With a temperature rating of -20°C to 100°C, the standard size range from 1.1/2" to 12" I.D. can be with the working pressure at 300 psi. and size 14" to 48" have working pressure at 150 psi.

Fig. KDR





WITH CONTROL RODS

MATERIALS

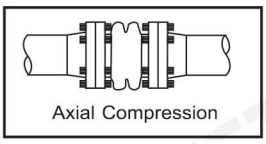
ITEM NO.	DESCRIPTION	MATERIAL
1	Outer Cover, Inner Tube	Synthetic Rubber (EPDM)
2	Reinforcing Fabric	Synthetic Fiber
3	Wire, Reinforcing Ring	Carbon Steel Wire
4	Flange	Carbon Steel / Stainless Steel

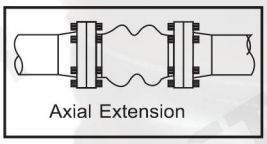
TECHNICAL CONDITION

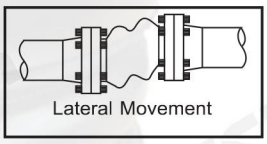
Model	KDR	
Size I.D.	1.1/2" - 12"	14" - 48"
Working Pressure	300 psi	150 psi
Burst Pressure	625 psi	342 psi
Vacuum Rating	650 mm/Hg	
Temperature	-20°C to 100°C	

Installed with control rods to prevent internal pressure and motion by over limit usage and vacuum dropping. Control rods and reinforcing ring unit must be installed when pressure (test surge, operating, starting a pump, etc.) exceeds the rating.

Allowable Movements


Axial Compression


Axial Extension


Lateral Movement

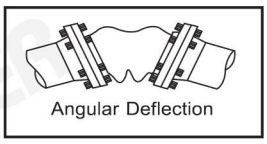

Angular Deflection

TABLE OF MAIN PARAMETERS OF NORMAL CORE DIAMETER, LENGTH, DISPLACEMENT VALUE

Normal core diameter DN		Length (L) (mm.)	Axial displacement		Lateral (mm.)	Angular
(mm.)	(inch.)		Compression (mm.)	Extension (mm.)		
40	1.1/2"	165	20	10	20	30°
50	2"	165	20	10	20	30°
65	2.1/2"	170	20	10	20	30°
80	3"	175	20	10	20	30°
100	4"	225	30	15	25	30°
125	5"	225	30	15	25	30°
150	6"	225	30	15	25	30°
200	8"	325	40	20	30	30°
250	10"	325	40	20	30	30°
300	12"	325	40	20	30	30°
350	14"	340	40	20	30	30°
400	16"	350	40	20	30	30°
450	18"	350	45	25	30	30°
500	20"	350	45	25	30	30°
600	24"	400	45	25	30	30°
700	28"	400	45	25	30	20°
800	32"	400	45	25	30	20°
900	36"	400	45	25	30	20°
1000	40"	400	45	25	30	20°
1200	48"	400	45	25	30	20°

NOTE : 1. Standard material is EPDM. The products are not applicable to oil. Other kinds of rubber material are optional.
2. Standard rated working pressure is 20 bars (up to 300 mm.) and 10 bars (for larger size than 300 mm.)
3. Applicable fluids : Air, Compressed air, water, sea water, hot water, weak acid, alkalis, etc.
4. Flange drilling : JIS, DIN, ANSI, BS and other standard drilling for your specification.
5. Tolerances for installation should not over 30% of Allowable movements.