

LENS

Expansion Joints

Lens bellows can be the right solution to piping, ducting and vessel thermal growth problems compared to conventional thin walled metal bellows.

Thick-wall expansion joints are used primarily in heat exchangers and large diameter piping systems where thin-wall expansion joints would not be sufficient.

Advantages

- » Dents and gouges create stress risers in thin ply bellows which result in fatigue cracks over time
- » Lens bellows have the advantage of holding up to mechanical damage better than thin wall bellows
- » Sizes from DN200-DN8000
- » Thicker wall of lens bellows holds up better to corrosion attacks
- » Weld repair can be performed by plant maintenance staff on thick walled bellows
- » Drain couplings can be added to the bottom of the convolution to prevent condensate build up
- » Common use of carbon steel material
- » Limitless convolution height
- » Thick walled, high convolution is durable and lasts for a long time

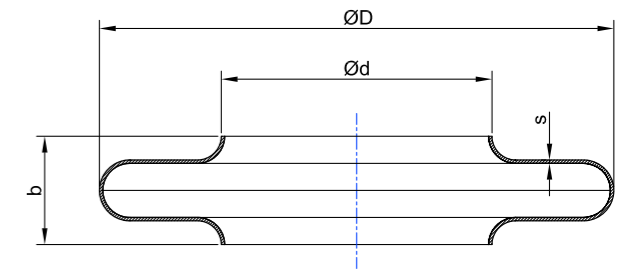
Applications

- » Iron and Steel Industry
- » Mining Industry
- » Chemical Industry
- » Power Stations
- » Cement Industry



DESIGN VALUES

DN	300-8000
Bellows Material	304, 316, 321, P265GH, 16Mo3, etc
Connection Material	Carbon Steel, Stainless Steel



Nominal Diameter (DN)		Ød (mm)	ØD (mm)	b (mm)	Thickness (s) (mm)
300	12"	306	550	120-160	2-4
400	16"	408	700	120-160	2-4
500	20"	508	800	120-160	2-4
600	24"	610	900	120-160	2-4
700	28"	711	1000	120-160	2-4
800	32"	813	1100	120-160	2-4
900	36"	914	1200	120-160	2-4
1000	40"	1016	1300	120-160	2-4
1100	44"	1120	1480	160	2-4
1200	48"	1220	1580	160	2-4
1300	52"	1320	1680	160	2-4
1400	56"	1420	1780	160	2-4
1500	60"	1520	1880	160	2-4
1600	64"	1620	2020	160	2-4
1700	68"	1720	2120	160	2-4
1800	72"	1820	2220	160	2-4
1900	76"	1920	2320	160	2-4
2000	80"	2020	2500	160	2-6
2100	84"	2120	2600	160	2-6
2200	88"	2220	2700	160	2-6
2300	92"	2320	2800	160	2-6
2400	96"	2420	2900	160	2-6
2500	100"	2520	3000	160	2-6
2600	104"	2620	3100	160	2-6
2700	108"	2720	3200	160	2-6
2800	112"	2820	3300	160	2-6
2900	116"	2920	3400	160	2-6
3000	120"	3020	3500	160	2-6

Please consult with our technical department for different working conditions and design parameters.