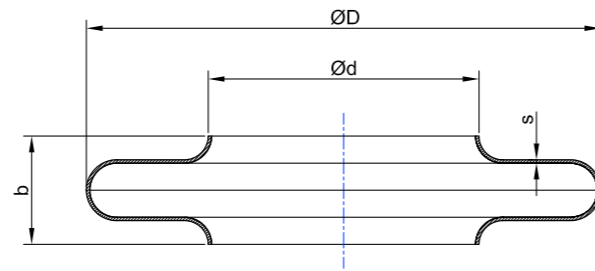


LENS

Expansion Joints



DESIGN VALUES

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



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



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.

KLINGER Limited

AUSTRALIA

Western Australia - Head Office
38 McDowell Street
Welshpool WA 6106

Queensland
Unit 3, 5-7 Roseanna Street
Gladstone QLD 4680

Tel: 1300 798 279
(calls within Australia)

Tel: +61 8 92511688
(calls outside Australia)

NEW ZEALAND

Tel: +64 272 735 045

SINGAPORE

105 Cecil Street #07-01, The Octagon
Singapore 069534
Tel: +65 6827 9045

KLINGER Thailand

501/2 Moo 2, Tambol Mabyangporn
Amphur Ruak Daeng
Rayong 21140 Thailand
Tel: +66 3306 0154