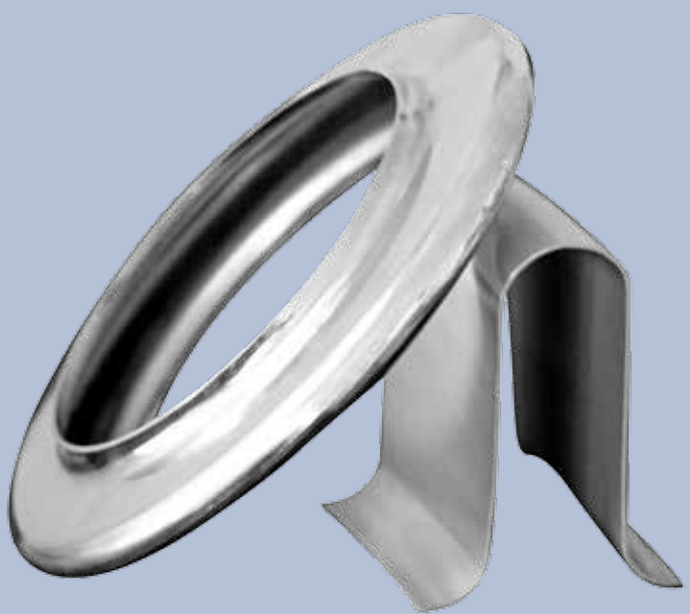
LENS
Expansion Joints

Lens bellows are manufactured from various grades of carbon and stainless steels, nickel alloys up to DN8000. Each convolution is manufactured individually and then welded circumferentially. They are single layer bellows and bellows thickness can be up to 6mm thick.



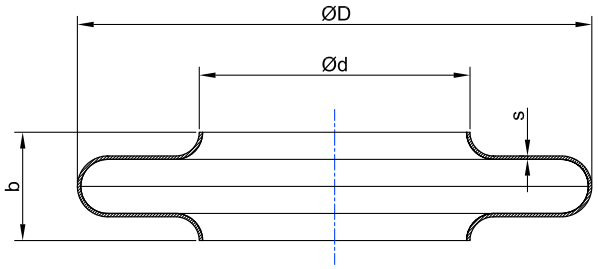
Applications include heat exchangers, large diameter piping systems, cement industries and chemical industries.

They have several advantages over U shape longitudinally welded thin bellows;

- Thin walled bellows can easily be damaged during shipping, installation and operation causing stress risers ending up shortened bellows life or even failure. Since lens bellows are manufactured from thick materials, they are extremely durable and resistant to damage.
- Their thicker walls allow using carbon steel materials and hold up to corrosion better than thin walled bellows
- Drain couplings can be added at the lower extremities of convolutions to allow drainage
- Weld repairs can be performed easily in field.
- Very flexible manufacturing range due its manufacturing technique
- They can be assembled in field.

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.