

LENS GASKETS.

DESCRIPTION

Lens gaskets, also known as sealing lenses or high-pressure lenses are fully metallic, turned sealing elements. Lens gaskets are mainly used in high pressure applications and specifically in pipeline flanges. The machined flange surfaces form a cone segment with an opening angle of 140°. The spherical zone of the lens connects here to the cone surfaces of the flange. Lens gaskets are not sensitive to overloading; an increase of the forces leads to an increase of sealing surface, which means that the surface pressure does not increase proportionally. It is recommended that the hardness of the gasket is lower than that of the flange since the lens sealing surfaces easily deform. Experience has shown that even if the materials are the same, the plasticity of the lens gaskets is significantly more pronounced. Normally, the welding neck flange of the associated pressure stage specified in DIN EN 1092-1 is used; other, equivalent flanges are, however, permissible. A roughness of $R_z \leq 6.3$ in radial direction is necessary for the sealing surfaces. The flange and the gaskets have to have an accurately treated surface without scratches and damage. In addition to the standardised lens gaskets specified in DIN 2696, an additional system with spherical zones as sealing surfaces is used - mostly in the chemical sector and device construction. Detailed information about this system can be found in the respective company standard.

PROPERTIES

- High technical tightness
- Complies with TA Luft 2002 [VDI 2440/2200] leakage requirements
- Good handling, mechanically stable
- Blow-out resistant
- Very good handling during transport, installation and dismantling
- Individual marking of each gasket on the outer edge

APPLICATIONS

- For pipeline and device construction
- For high internal pressures and/or high temperatures
- For flanges from DN 10-200 and PN 63-400
- For vacuum

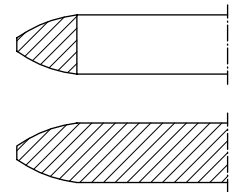
PRODUCT RANGE & DESIGNS

The geometry of lens gaskets is described in DIN 2696. There are two lens gasket series specified that correspond with the two series of pipe connection dimensions.

- Series 1
 - For flanges following DIN EN 1092-1, DIN 2627, DIN 2628, DIN 2629 or DIN 2638 in areas from DN10 to DN 200 and PN 63 to PN 400
- Series 2
 - For flanges following DIN 2636, DIN 2637, DIN 2638, DIN 2628 or DIN 2629 in areas from DN 10 to DN 200 and PN 64 to PN 320

Standard designs

- LD01: Lens gasket
- LD10: Blind lens gasket



Additionally: IDT Profile Overview | LD Series

MATERIALS

SHORT NAME	MATERIAL NUMBER	NORM
C22.8	1.0460	DIN 17243
P245GH	1.0352	DIN EN 10222-2
X6CrNi MoTi 7-12-2	1.4571	DIN EN 10088-1
X6CrNiTi18-10	1.4541	DIN EN 10088-1

Additional materials upon request

MARKING

- Manufacturer symbol
- Series
- Nominal width
- Pressure stage
- Material

