Non-contact seals

Labyrinth Metal Seal
Type L

Item number 301285

Technical data

- Outer ring material*: Aluminum (GD AlSi 12)
- Inner ring material: Unalloyed construction steel
- Inner diameter ID: 110 mm
- Outer diameter OD: 130 mm
- Installed width W: 15 mm
- Sealing gap: Horizontal
- Axial play $S_{ax}$**: 0.7 mm
- Radial play $S_{rad}$**: $S_{rad} = S_{ax} / \tan (42.5^\circ)$
- Gap diameter $e$: 125 mm
- Gap height: Constant 0.2–0.5 mm (depending upon size)
- Speed limit: 11500 rpm
- Weight: 0.2851 kg
- Operating temperature $t$: -40° - 200°C

*Aluminum outer ring
The aluminum outer ring can be slightly non-round as supplied. By pressing in the seal, the relatively easily deformable ring fits the roundness of the hub. The outer ring can be up to 0.1 mm wider than the inner ring due to manufacturing. GMN metal labyrinth seals are pressed through a calibration ring ('zero dimension'). The outer ring then springs back due to its elasticity.

**Entire movability from one end position to the other.

Installation

"l" Length (chamfering of shaft and housing) depending on the width W: $l = 0.1 \times B$

Component tolerances

- Surrounding structure (mating parts)
  - Housing: K7 / Shaft: h6
  - Surface quality: $R_z \leq 16 \mu m; \ R_a \leq 3.2 \mu m$