

# NON-CONTACT SEALS



**GMN**

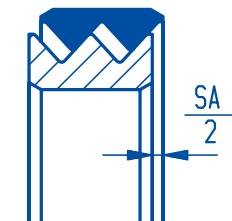
## LABYRINTH SEALS

Labyrinth Seals are non separable units of a steel inner ring and an aluminium outer ring ready for installation. Due to the very special production process both rings carry absolute identical profiles which result in a perfect gap between both rings.

- Diameter range (shaft)  $d = 15$  to  $210$  mm
- Width - depending on size  $10 / 14 / 15 / 20 / 22$  mm
- Against fine or coarse granular contamination
- Against heavy splashing liquids
- Almost no speed limit
- Maximum temperature  $170^{\circ}\text{C} / 340^{\circ}\text{F}$

### Axial and Radial Clearance

The information on axial end play refers to the total axial movement of the seal's inner and outer ring in relation to each other; from one end position to the other. Normally the seal should be installed in flush position - thus the axial allowance would be half the value in either direction. Axial and radial clearance are almost of the same size. They interfere each other.



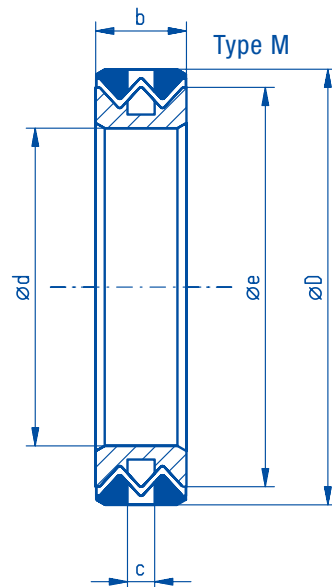
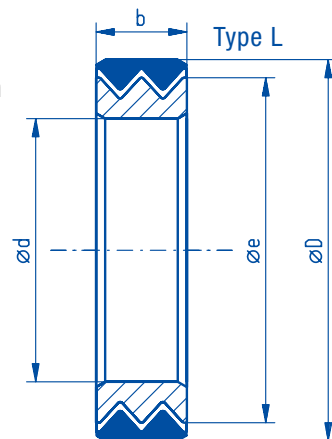
### Specials - Customer oriented seals

On request we will be pleased to suggest and produce special seals for special applications. If necessary we will produce special sizes - seals made of special material (e.g. rust proof inner rings) - or seals with increased end play. Please contact our technical staff at no obligation.

### Labyrinth Seals - Examples

GMN Labyrinth Seals may especially be used for sealing fast turning machine parts like in:

- Machine tools
- Driving units
- Packaging equipment
- Textile machines
- Testing equipment
- Conveyer systems



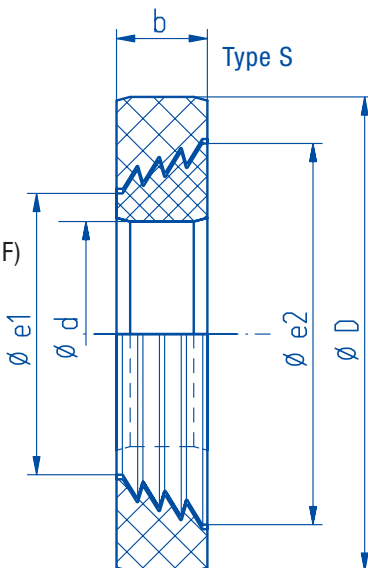
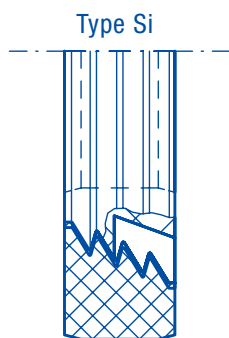
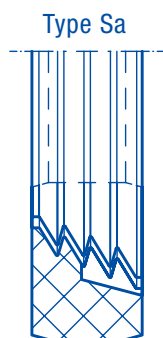
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## GAP SEALS

Gap Seals are made from high quality plastic material whose major benefit is the extreme resistance against lots of chemicals, bacteria and fungi. It is resistant against splashing water as well. The second important benefit of the Gap Seal is the conical envelop of the labyrinth gap which leads eventually penetrating liquids back due to centrifugal force.

- Diameter range (shaft)  $d = 10$  to  $160$  mm
- Width – depending on size  $10 / 12 / 15$  mm
- Against heavy contamination and lightly splashing liquids
- Suitable for rotating shaft and/or housings
- Temperature range  $-40^{\circ}\text{C}$  to  $60^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $140^{\circ}\text{F}$ )
- Resistant against a large variety of chemicals



### Specials - Customer oriented seals

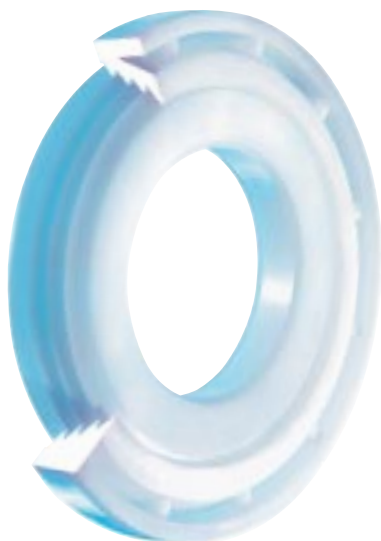
On request we will be pleased to suggest and produce special seals for special applications, e.g. special dimensions. For slightly higher temperatures than the limit of  $60^{\circ}\text{C}$  up to  $80^{\circ}\text{C}$  ( $140^{\circ}\text{F}$  up to  $180^{\circ}\text{F}$ ) we offer a special design with O-rings at the inner and/or outer ring to increase the reliability of the press fit. Please contact our technical staff at no obligation.



### Gap Seals - Examples

Gap Seal may especially be used by sealing high speed machine parts and to seal against a large variety of chemicals, bacteria and fungi like in:

- Machine tools
- Driving units
- Food processing machines
- Packaging machines for food
- Packaging machines
- Textile machines
- Testing equipment
- Conveyor systems



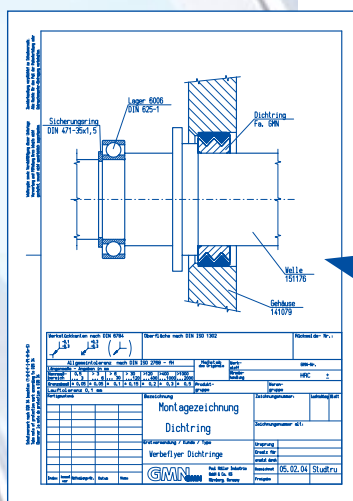
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**Detailed information about our extensive delivery program could be found in the Internet**

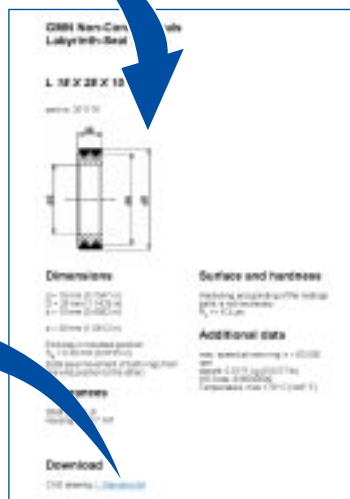
**www.gmn.de**



**Catalog Download**



**CAD-Drawings Download (DXF)**



**Data Sheets**

On request we produce customer oriented specials in many variations based on the users requirements. Please contact our technical staff:

Paul Müller Industrie GmbH & Co. KG

Driving Technologie

Contact:

Product manager: Herr Karl, Phone +49 (0) 911/5691-417

R&D: Herr Elbacher, Phone +49 (0) 911/5691-414

Herr Studtrucker, Phone +49 (0) 911/5691-243

Äußere Bayreuther Str. 230 · 90411 Nürnberg

Fax +49 (0) 911/5691-569

vertrieb.at@gmn.de · www.gmn.de

Sales:



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