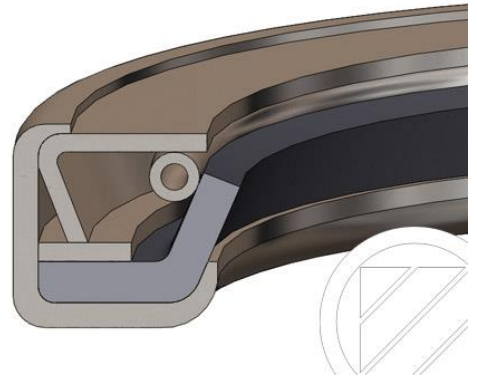


# WCL



Rotary shaft seal with a spring-energised elastomer sealing lip clamped between two metal cages. Non-mould production.

## DESCRIPTION

**Product group:** Rotary shaft seal

**Design:** C = outer surface metal and stiffening ring

**Model:** L = elastomer sealing lip  
R = protective lip

**Seal material:** NBR 70, FKM 75

**Colour:** black

**Metal cages:** steel EN 10139

**Stiffening ring:** non-alloy steel according to DIN EN 10139

**Tension spring:** non-alloy spring steel according to DIN EN 10270-1

## AREAS OF APPLICATION

Sealing of rotating machine elements, such as shafts, hubs and axles at high pressures. Good chemical resistance and higher temperature resistance is achieved with a sealing lip made of FKM. As a result of its greater rigidity the WCL is particularly suitable for larger dimensions as well as difficult installation conditions and severe operating conditions.

## FUNCTION

The WCL is a single-action rotary shaft seal for rotating or pivoting shafts. The elastomer sealing lip with its prestressed spring guarantees good sealing. It is suitable for higher pressure loads of up to 10 bar. The additional

metal insert provides greater rigidity. Tight and accurate fitting is achieved by the metal outer casing. The WCL model has limited sealing action with thin fluid or gaseous media and with split housings. To guarantee a high degree of static sealing on the outer surface, better surface treatment of the housing bore is required or an additional coat of paint should be applied to the outer casing.

## MEDIA

NBR: Good chemical resistance to many mineral oils and greases.

FPM: Mineral oils and greases, synthetic oils and greases, engine, transmission and ATF oils, fuels, aromatic and chlorinated hydrocarbons, broad chemicals and solvents resistance.

## OPERATIONAL APPLICATION LIMIT

Pressure (Mpa/bar): 0.05/0.5

Optionally up to 1Mpa/10 bar

Temperature (°C):

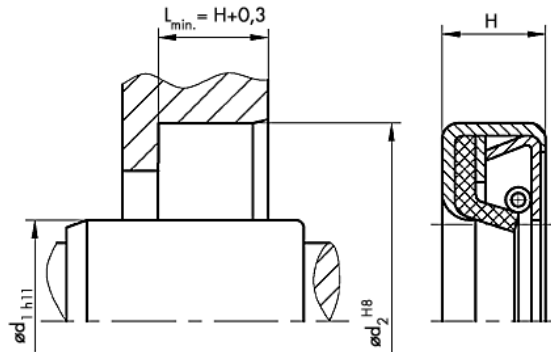
NBR -40 to +100

FPM -30 to + 200

Peripheral speed (m/s): NBR ≤ 12, FPM ≤ 36

## INSTALLATION

The outer diameter of the metal outer casing is centralised in the housing by press-fitting. The installation housing tolerances are in accordance with those in DIN 3760. Suitable tools should be used for installation. It is recommended that the installation housing is designed to provide the rotary shaft seal with axial support. The elastomer sealing lip must not be damaged during installation. For this reason, we recommend using an installation cone.



## REMARKS

The nominal widths mentioned on the following pages represent the standard dimensions. Other dimensions and different designs, e.g. dust protection lip, energised springs or metal cages made of other steel grades can be produced as well as some special designs. Thanks to the non-mould production, delivery at short notice and small quantities are possible.