Seal data sheet

TR/8/M

The TR/8/M seal is a double acting axial seal commonly used in iron and steel applications, specifically in rolling mill plants. These seals are generally assembled on static flanges. The two the sealing lips provide the sealing function on the rotating flanges, thus preventing leakage of lubricating oil and/or water.

In many rolling mill plants, the TR/8/M model is successfully used for high-speed rotations.

The TR/8/M seals are locked inside the housing by a crude steel ring, which is inserted during the assembling of the seals on the flange.

The TR/8/M seals is applicable for many applications and can be modified according to the application needs in relation to abrasion resistance, temperature, chemical resistance, etc. Therefore it is essential to know the exact working conditions the seal needs to cope with.

Exclusive features of TR/8/M seals are:

- Metal ring band to lock the seal in the housing
- Double acting axial seal function to the oil and water side
- Improved lip profile to increase seal life time
- Reduced friction and consequent temperature decrease
- Absence of external metallic parts and consequent prevention of damages to housing bore

Possible size range for TR/8/M seals: $ØC_{min}$ = 105 mm; $ØC_{max}$ = 300 mm (please also see the drawing at the next page).

Materials

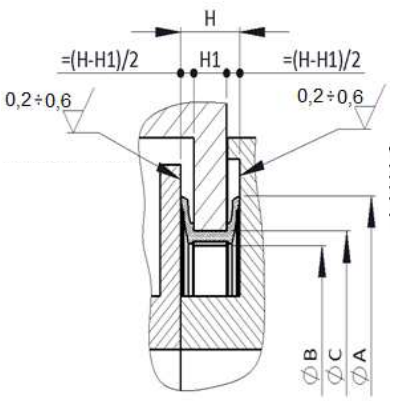
The table below shows working temperature ranges (minimum, maximum, peak (*)) applicable to each type of compound as well as coefficient of friction and the maximum recommended circumferential speed. Specific application requirements are to be aligned with the TENUTE Technical Department / SKF Seals Application Engineering.

Material	**Temperature**		**Recommended circumferential shaft speed**
	min	max	max
	°C	°C (*)	m/s
NBR	-30	+100 (+120)	40
HNBR	-40	+150 (+175)	90
FKM	-20	+200 (+225)	90

Assembly of TR/8/M seals

The drawing shows the details of the housing dimensions and the assembly of the TR/8/M seal.

Particular applications or requirements different from those details shall be agreed with the TENUTE Technical Department / SKF Seals Application Engineering.



Housing height tolerances

Housing height	Tolerance
	mm
H	+0,2 / 0
H1	0 / -0,1

Housing bore tolerance

Housing bore	Tolerance
ØC	H8

Shaft and housing surface finishing

A roughness of Ra from 0,2 to 0,6 µm is recommended for the shaft in standard applications, while in case of high speeds, a finishing to Ra from 0,2 to 0,4 µm is recommended. Plunge grinding is required. For the housing bore a finish turning is sufficient.

We recommend a chrome plating or a gas nitriding heat-treating process with the minimal hardness shown in the table below.

Shaft hardness

	Water and oil side
Up to 120 m/s	50 HRC and above

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