

## TENUTE TDE oil film bearing seals

TENUTE TDE model is a seal studied for the Oil Film Bearings sealing arrangements, interchangeable with original parts.

TENUTE TDE has been studied and produced thanks to a close cooperation between TENUTE R&D Department, lab engineers and some important clients/users who tested it on their machinery.

TENUTE TDE seal, is an external seal ring characterized by a solid NBR body and a particularly flexible lip.

The spring in TDE-STP version is in addition hot-sealed with a proper elastomer.

This special treatment prevents the spring from coming out of the groove accidentally during the assembling phase.



Picture 1

TENUTE has the complete size of seals starting from 36" to size 82".

In order to help our Customer, here below we are summarizing important data for the right choice of the seal. Pay attention to the quote "A" Roll Neck, as well as  $\varnothing$ "D" on the Seal & Plate.

Quote	$\varnothing$ A	$\varnothing$ D	B	E	C
<b>Nominal Size of Bearing</b>	<b>Roll Neck diameter</b>	<b>Seal &amp; Plate diameter</b>	<b>Distance from the Barrel to the <math>\varnothing</math>"A"</b>	<b>Distance of the cone from the Barrel</b>	<b>Sleeve distance to the barrel</b>
42"	739.76	896	139.7	120.65	95.2
44"	775	927	135	117	95
46"	810	968.6	145	126	102.7
48"	850	1006.5	145	122	95
50"	885	1041.5	150	124.4	99
52"	920	1075.5	145	122	99
54"	955	1113	150	126	100
56"	1015	1168	150	127	100
60"	1095	1248.5	150	122	100

## MATERIALS

The standard production is in nitrile elastomer NBR, but for particular working conditions, TDE seals can be produced also in other materials or combination of materials. Table 1 shows working temperature ranges ( minimum, maximum, peak) applicable to the standard NBR compound.

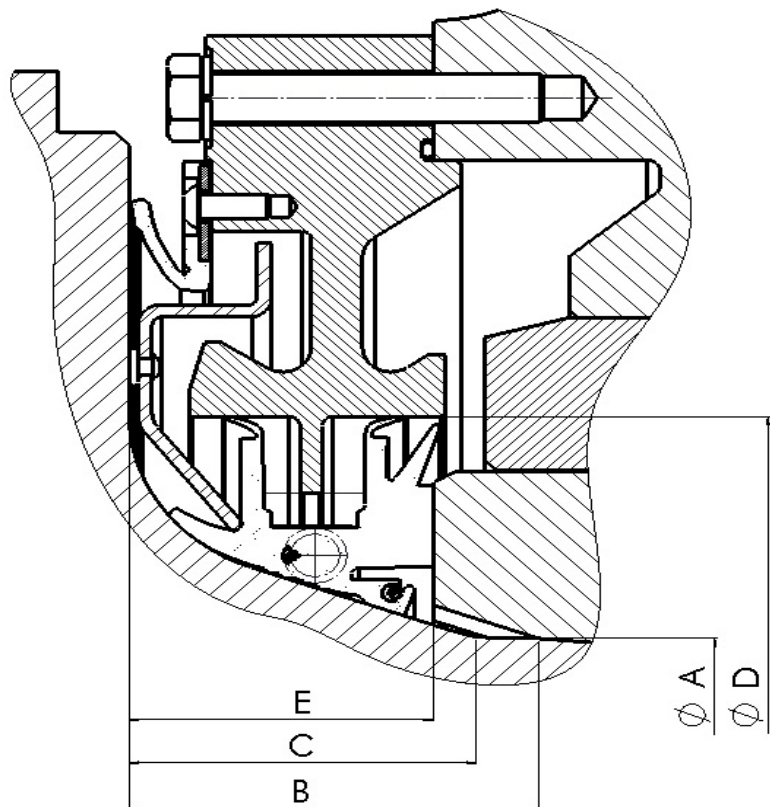
MATERIAL	TEMPERATURE C°	STANDARD SPRING
NBR	-30° +100°(120°)	Carbon Steel

Table 1

## Assembly of TDE sealing ring

Picture 2 shows details of the oil film bearing seal assembly where TDE is mounted.

For the detail dimensions, of the roll neck, sleeve position, seal inner ring and seal end plate, are to be agreed with our Technical Department.



Picture 2

## Shaft and housing surface finishing

A roughness of Ra 0.2/0.6  $\mu\text{m}$  is recommended for the Seal & Plate sliding surfaces. TENUTE does not recommend to use ceramic coated on these surface. TENUTE suggest a Nitreg® treatment with this surface hardness of minimum Hrc.

We suggest to ask our Technical Department for more information about assembling and applications. All information mentioned in this data-sheet are given as an indication. TENUTE Technical Department reserves the right to change and improve its products according to application specifications and test results.