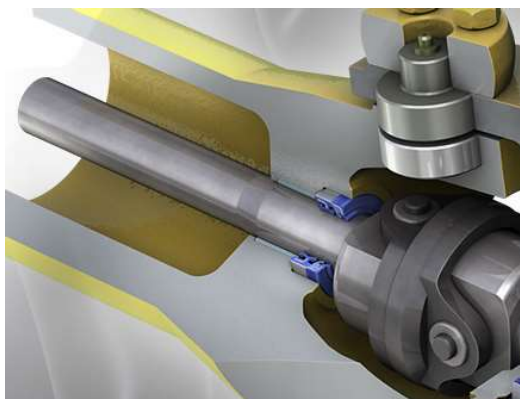


# COMBI-SF19



## PRODUCT PURPOSE

**COMBI seal** is used where during the rotation there is combination of an axial displacement. COMBI dust lips, during the axial movement have to wipe out the dirt from the shaft surface.

The Freudenberg **COMBI-SF19** is our best in class COMBI seal solution for shafts requiring axial movement during rotation.

The **COMBI-SF19** was developed for the harshest operating conditions.

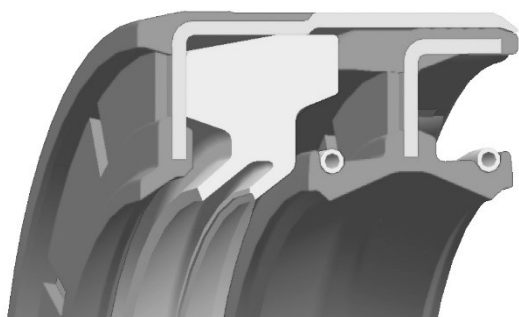
Dirt protection has been improved compared to the standard Freudenberg COMBI designs, as shown by successfully completed benchmark and field mud tests.

In addition to robust dirt protection, COMBI-SF19 is designed to perform in severe application requirements: axial strokes and rotational speed.

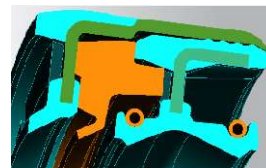
The **COMBI-SF19** is also equipped with a Freudenberg proprietary compound.

## VALUES FOR THE CUSTOMER

- Improved dirt protection due to the external wiper material compared to previous COMBI solutions (Freudenberg proprietary compound).
- Longer seal life in application compared to previous Freudenberg COMBI designs.



## COMBI-SF19 Seal



## FEATURES AND BENEFITS

### COMBI-SF19 FEATURES

#### Static sealing function:

- OD: rubber + metal

#### Dynamic sealing function:

- Freudenberg-designed FKM/NBR rubber lip
- Axial displacement admitted
- Bidirectional rotation

#### Dirt exclusion function:

- From low to high dirt protection
- Outer wiper dust lip made of proprietary Freudenberg compound
- Spring loaded dust lip

### COMBI-SF19 BENEFITS

- Higher dirt exclusion
- Increased lifetime in application

## COMBI-SF19



### PERFORMANCE COMPARISON

Seal performances in accelerated muddy water test

