



## TECHNICAL INFORMATION

# Scrapers | Turcon® Excluder® F

### Description

The Turcon® Excluder® F is a double-acting scraper with two geometrically different scraper lips, which are positioned back-to-back. The scraper is always installed with 2 O-Rings as elastic energizing elements in one groove. The scraper function itself is performed by the Excluder® F, Turcon® element. The O-Rings maintains the pressure of the scraper lips against the sliding surface and compensates deflections of the piston rod.

Excluder® F has two functions:

- Scrape particles from the retracting piston rod and thus to protect the system from contamination
- Hold back the residual oil film on the

extending piston rod on the medium side.

- Excluder® F is preferably used in conjunction with our rod seals Turcon® Stepseal® 2K or Zurcon® Rimseal, i.e. Seals with a hydrodynamic back-pumping function.

The Excluder® F is used from medium to “light-heavy” duty applications in:

- Light construction machinery
- Truck crane
- Agriculture machines
- Hydraulic presses
- Injection moulding machines
- Hydraulic actuators

### Advantages

- Outstanding sliding properties
- Stick-slip-free, no sticking for Turcon® materials
- Can compensate for deflections of the piston rod or plunger
- Very good scraping effect even against firmly adhered dirt, etc.
- Very good sealing effect from the inside against the residual oil film adhering to the surface of the piston rod
- Very high resistance to hydraulic media
- Available for diameters from 19 up to 250 mm
- ISO/DIN 6195 Type D installation on recommended dimensions from ø40 to ø140 mm



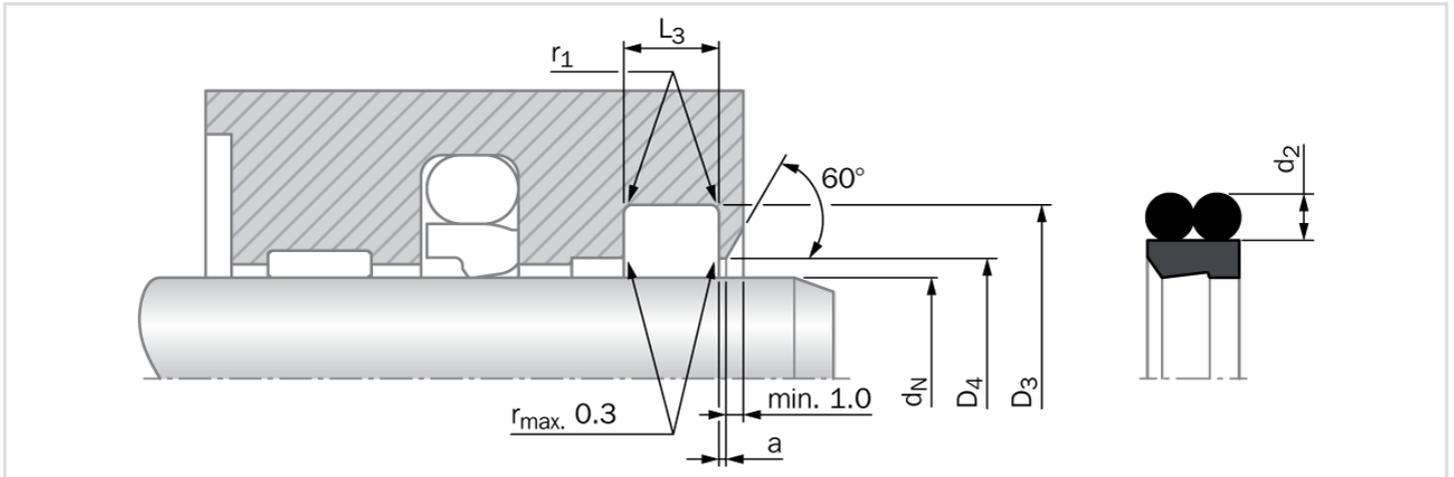
### Technical Data

Speed	: Up to 15 m/s
Temperature	: -30 °C to +200 °C (depending on O-Ring material)
Media	: Mineral oil-based hydraulic fluids, flame retardant hydraulic fluids, environmentally safe hydraulic fluids (bio-oils), phosphate ester and others, depending on scraper and O-Ring material compatibility.



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### Installation dimensions - Standard recommendations

Series No.	Rod $d_N$ f8/h9		Groove Diameter $D_3$ H9	Groove Width $L_3 + 0.2$	Bore Diameter $D_4$ H11	Radius $r_1$ max.	Step Width a min.	O-Ring Cross-Section $d_2$
	Recommended Range	Available Range						
WEF0	19.0 - 39.9	19.0 - 130.0	$d_N + 7.6$	4.2	$d + 1.0$	0.4	3.0	1.78
WEF1	40.0 - 69.9	30.0 - 250.0	$d_N + 8.8$	6.3	$d + 1.5$	1.0	3.0	2.62
WEF2	70.0 - 139.9	50.0 - 450.0	$d_N + 12.2$	8.1	$d + 2.0$	1.2	4.0	3.53
WEF3	140.0 - 399.9	80.0 - 650.0	$d_N + 16.0$	11.5	$d + 2.0$	2.0	5.0	5.33
WEF4	400.0 - 649.9	180.0 - 650.0	$d_N + 24.0$	15.5	$d + 2.5$	2.5	8.0	7.00
WEF5	650.0 - 999.9	300.0 - 999.9	$d_N + 27.3$	18.0	$d + 2.5$	2.5	10.0	8.40

### Important Note

Installation suggestions, material recommendations, parameters and further data provided are always subject to the particular field of use and the application in which the seal is intended to be used, in particular the interaction of the seal with other components of the application. Therefore they neither constitute an agreement on the legal and factual nature nor a guarantee of quality. Technical changes and errors remain reserved.