



TECHNICAL INFORMATION

Piston Seals | Turcon® AQ-Seal®

Description

The Turcon® AQ-Seal® is a double-acting seal consisting of a seal ring of high-grade modified Turcon® material, a X-Ring Seal and an O-Ring as energizing element.

The Turcon® seal ring and the X-Ring Seal together assume the dynamic sealing function

whilst the O-Ring performs the static sealing function.

The AQ-Seal® is supplied as standard with radial notches on both sides. These ensure direct pressurizing of the seal under all operating conditions.

Advantages

- High sealing effect in applications requiring media separation, e.g. fluid/fluid or fluid/gas
- Double security through the combination of low-friction special materials with elastomer seals
- Simple groove design, small installation space, interchangeable with Turcon® Glyd Ring® T and Turcon® Stepseal® K installation according to ISO 7425-1
- Outstanding sliding properties, no stick-slip effect



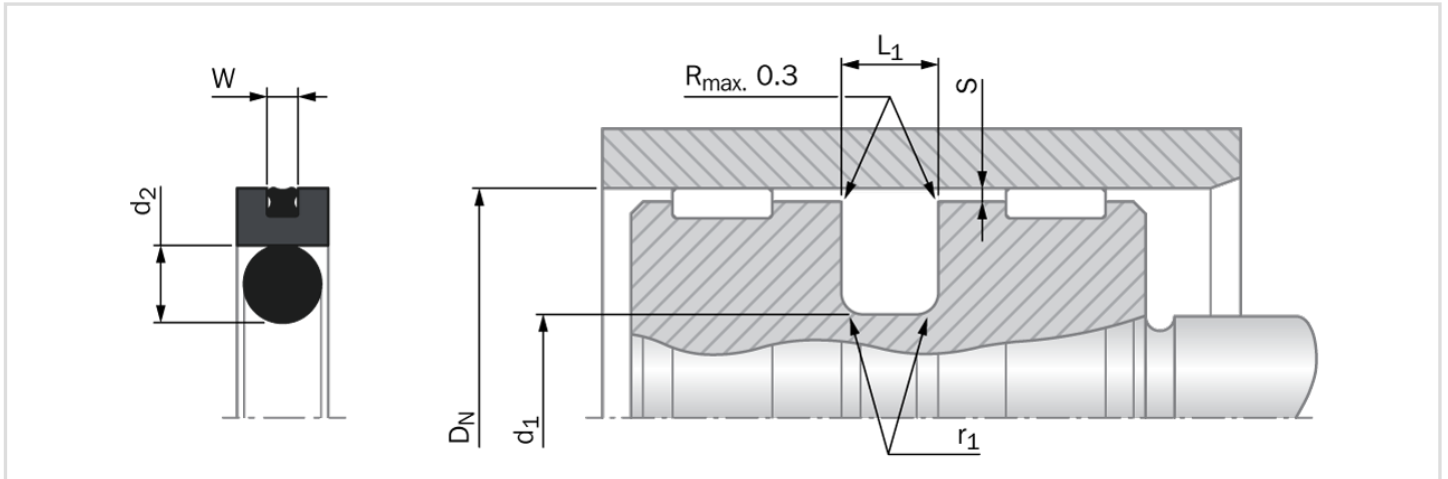
Technical Data

Pressure	: Up to 40 MPa
Speed	: Up to 2 m/s
Temperature	: -30 °C to +200 °C (depending on O-Ring and X-Ring material)
Media	: Mineral oil-based hydraulic fluids, flame retardant hydraulic fluids, environmentally safe hydraulic fluids (bio-oils), phosphate ester and others, depending on the seal, O-Ring and X-Ring Seal material compatibility
Clearance	: The maximum permissible radial clearance S_{max} is shown in the table on the next page as a function of the operating pressure and functional diameter.



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Installation dimensions - Standard recommendations

Bore Diameter D_N H9				Groove Diameter d_1 h9	Groove Width $L_1 +0.2$	Radius r_1	Radial Clearance $S_{max.}^*$			O-Ring Cross- Section d_2	X-Ring Seal Cross- Section W
Standard Application		Light Application					10 MPa	20 MPa	40 MPa		
Series No.	Diameter Range	Series No.	Diameter Range								
PQ12	15 - 39.9	PQ14	40 - 79.9	$D_N - 11.0$	4.2	1.0	0.25	0.15	0.10	3.53	1.78
PQ12	40 - 79.9	PQ14	80 - 132.9	$D_N - 15.5$	6.3	1.3	0.30	0.20	0.15	5.33	1.78
PQ22	80 - 132.9	PQ24	133 - 252.9	$D_N - 21.0$	8.1	1.8	0.30	0.20	0.15	7.00	2.62
PQ22	133 - 252.9	PQ24	-	$D_N - 24.5$	8.1	1.8	0.30	0.20	0.15	7.00	2.62
PQ32	253 - 462.9	-	-	$D_N - 28.0$	9.5	2.5	0.45	0.30	0.25	8.40	3.53
PQ52	463 - 700.0	-	-	$D_N - 35.0$	11.5	3.0	0.55	0.40	0.35	10.00	5.33

* For pressures from 40 MPa to the maximum specified, use diameter tolerance H8/f8 (bore/rod) in the area behind the seal. SLYDRING®/Wear Rings are not applicable at very small radial clearance S.

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.