

## CONCEPT AND METHOD OF FUNCTIONING

Shaft seals to seal against the ingress of foreign matter from the ambient surroundings into the medium being pumped and for sealing against the possibility of the pumped medium escaping to the outside. They are used to seal the gap between a rotor or shaft which rotates relative to stationary housing by means of seals located after each other in the axial direction of the rotor. The installation takes place in a split housing. In order to seal and isolate the pumped medium the use of a barrier gas is preferred. In certain cases barrier grease is used as an alternative or as an additional safeguard. In the cases of a pumped medium which is free of solid particles a return of the medium into circulation by means of a vacuum system is possible.

## APPLICATIONS

Designed for application areas with high and low temperatures, chemical industry, food industry pharmaceutical applications and for pumps etc. Developed for sealing of shaft openings in radial and axial ventilators, mills, mixers, centrifuges, shaft seals to AD 200 are used both for rotating machines, e.g. turbo machines as well as for axial movement such as piston rods.

## APPLICATION AREA

Material:	A49	A10K
Operating temperature:	max. 220° C	max. 500° C
Operating pressure:	-0,9 to 20 bar	-0,9 to 20 bar
Circumferential velocity:	max. 40 m/s	max. 150 m/s
Shaft diameter:	20...400 mm	20...600 mm
Radial gap:	1...5 mm	1...5 mm

(possible deflection between seal housing and shaft)  
max 0,5 pressure when using grease as a barrier material

## FEATURES

Thanks to the multiple part design an easy assembly of the seals is ensured. Because of the design concept of a minimal play on contact locations after the initial running wear has taken place, gap sealing with minimal leakage and by this means a highly effective sealing effect.

In comparison to contact seals higher sliding velocities and higher pressures can be achieved. As the seals are arranged to have movement in a radial direction it is possible to compensate for radial displacement and fitting tolerances.

## SCOPE OF DELIVERY

Seal multiple-part made from:	impregnated carbon, PTFE, PEEK, Bronze
Spring:	Stainless Steel, Titanium, Hastelloy, Inconel etc.
Locking/Anti-rotation:	Stainless Steel, Titanium, Hastelloy, Inconel etc.
Housing:	Stainless Steel, Titanium, Hastelloy, PTFE



Wipperfurther Str. 24  
51429 Bergisch Gladbach  
Phone: 022 04 / 480 15-0  
Fax: 022 04 / 480 15-55  
[www.abacus-seals.de](http://www.abacus-seals.de)  
[info@abacus-seals.de](mailto:info@abacus-seals.de)

