

# Espey WDKS-Eco



## Operating range

Shaft diameter:  
 $d = 45 \dots 160 \text{ mm} (1.77'' \dots 6.3'')$   
 Operating pressure:  
 $p = \text{vacuum} \dots 1.5 \text{ bar} (22 \text{ PSI}) \text{ abs.}$   
 Operating temperature:  $t = -120 \text{ °C} \dots +500 \text{ °C}$   
 (-184 °F ... +932 °F) for carbon,  
 max. 225 °C (437 °F) for PTFE compound,  
 max. 300 °C (572 °F) with grease  
 Sliding velocity:  $v_g = \text{max. } 150 \text{ m/s} (492 \text{ ft/s})$  for carbon,  
 max. 40 m/s (131 ft/s) for PTFE compound  
 Radial play:  $\pm 2.5 \dots 5.0 \text{ mm} (\pm 0.1'' \dots 0.2'')$   
 Axial movement: theoretically unlimited  
 Recommended wear guard: >300 HB (low pressure)

## Recommended applications

- Chemical industry
- Metal production and processing
- Pulp and paper industry
- Food processing industry
- Power plant technology
- (Solids containing) gases
- (Solids containing) steams / liquid mist
- Oil mist / penetrating oil
- Water
- Small and medium-sized fans / blowers
- Bearing seals (gear box, motors)
- Mixers, agitators, mills, dryers

## Features

- Multi-part seal rings, radially cut
- Split housing design
- Very small operation gap - low leakage
- Dry running
- Self-adjusting seal rings
- Seal rings bear radial shaft movements
- Compensates axial shaft movements
- No sealing components mounted on the shaft and hence no additional shaft vibrations
- Seal rings running contact-free - sliding faces and machine consume no additional power

## Materials

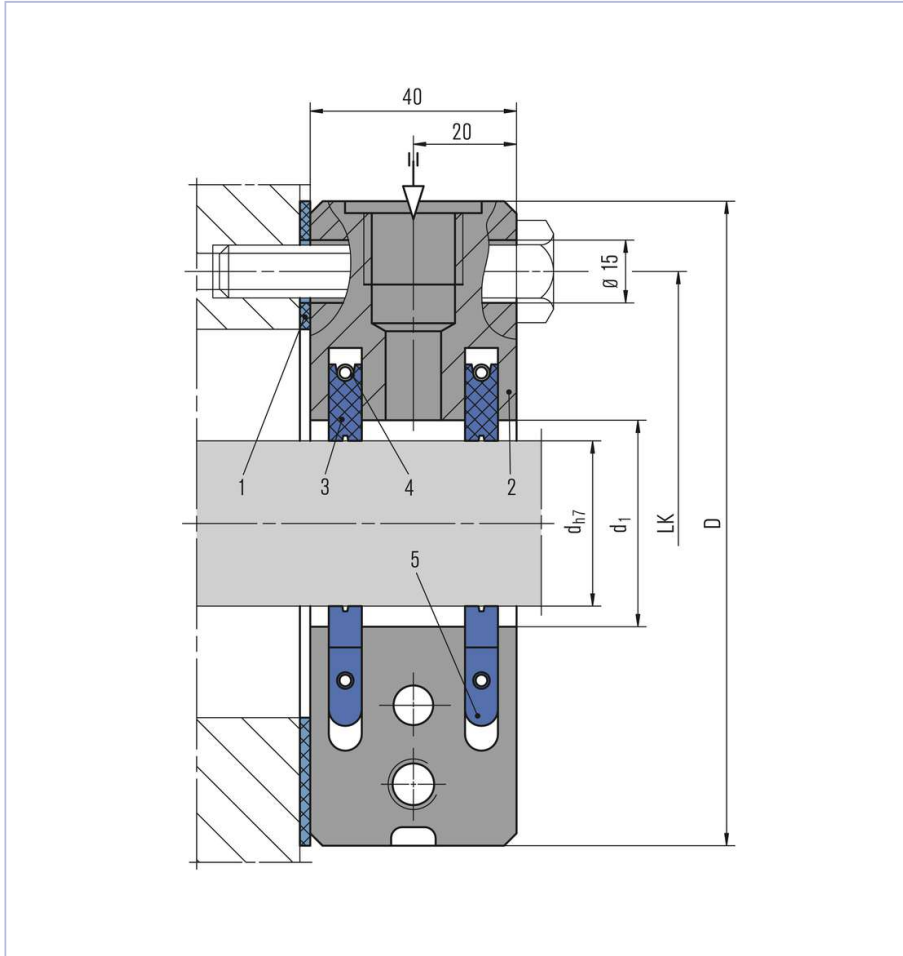
Seal ring: Carbon, PTFE compound  
 Housing: 1.4021, 1.4571  
 Tension spring / detent: 1.4571

## Standards and approvals

- FDA

## Advantages

- Easy installation by split housing design (shaft removal not required)
- Long-term operation time
- Maintainability
- Segmented seal rings for easy replacement

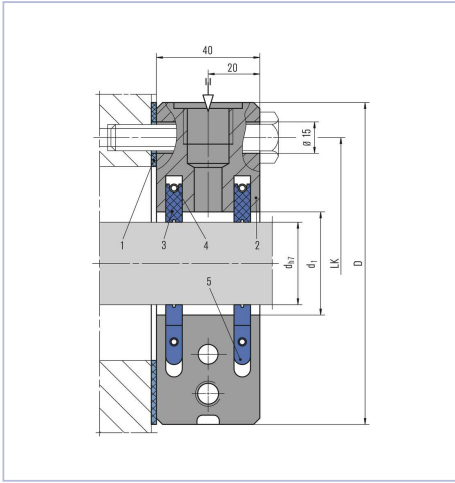
**Item Description**

- 1 Flat seal
- 2 Housing, 2-piece
- 3 Seal ring
- 4 Tension spring
- 5 Detent

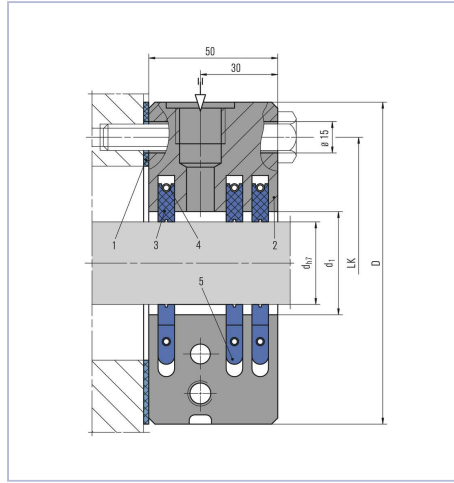
**Installation, details, options**

Seal ring Espey WD200 (3-part, radial cut)

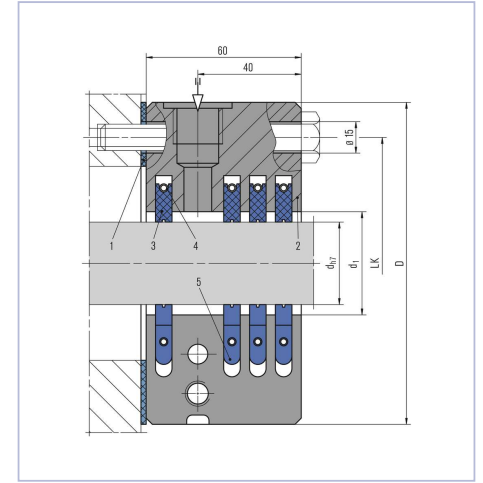
## Product variants



**Espey WDKS-Eco**  
with 2 seal rings



**Espey WDKS-Eco**  
with 3 seal rings



**Espey WDKS-Eco**  
with 4 seal rings

## Dimensions

| $d_{h7}$ | $d_1$ | D   | LK  |
|----------|-------|-----|-----|
| 45       | 50    | 165 | 135 |
| 50       | 58    | 170 | 140 |
| 60       | 68    | 180 | 150 |
| 70       | 78    | 190 | 160 |
| 80       | 90    | 200 | 170 |
| 90       | 100   | 210 | 180 |
| 100      | 110   | 220 | 190 |
| 110      | 120   | 230 | 200 |
| 120      | 130   | 240 | 210 |
| 130      | 140   | 250 | 220 |
| 140      | 150   | 260 | 230 |
| 150      | 160   | 270 | 240 |
| 160      | 170   | 280 | 250 |

Dimensions in mm  
Special sizes on request.