EagleBurgmann
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RELY ON EXCELLENCE

Espey WD200/500

Carbon Floating Ring Seals | Shaft seals

Features

- Multi-part seal rings, radially cut on process side, overlapped mortised with gas tight joints on atmosphere side (adjusting)
- Split housing design
- Lowest possible operation gap - lowest leakage
- Dry running
- Self-adjusting seal rings
- Seal rings bear radial shaft movements
- Compensates axial shaft movements
- Short axial installation length
- No sealing components mounted on the shaft and hence no additional shaft vibrations

Advantages

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

Operating range

Shaft diameter:
d = 45 ... 340 mm (1.77" ... 13.89")
Operating pressure: p = vacuum ... 3 bar (44 PSI) abs. (depends on peripheral velocity)
Operating temperature: t = -120 °C ... +500 °C (-184 °F ... +932 °F) for carbon,
-120 °C ... +150 °C (-184 °F ... +302 °F) for PTFE compound
Sliding velocity:
vg = max. 40 m/s (131 ft/s)
Radial play: ±2.5 ... 5.0 mm (±0.1" ... 0.2")
Axial movement: theoretically unlimited
Recommended wear guard: >58 HRC

Materials

Seal ring: Carbon, PTFE compound
Housing: 1.4021, 1.4571, Hastelloy®, Titanium, Inconel®, others
Tension spring / detent: 1.4571, Hastelloy®, Titanium, Inconel®

Standards and approvals

- FDA
- Compliant to TA Luft (German Clean Air Act)*

(*) Carbon floating ring seals are not specifically mentioned in the TA Luft but may be a solution in certain applications. Their use must be verified with the approval authorities.

Recommended applications

- Gases
- Fumes and exhaust, solids containing, flammable (Atex), acid containing and toxic gases
- (Solids containing) steams / liquid mist
- Oil mist / penetrating oil
- Water
- Chemical industry
- Waste incineration and removal industry
- Metal production and processing
- Pulp and paper industry
- Lime, cement and gypsum industry
- Food processing industry
- Power plant technology
- Machinery and plant building
- CCUS
- Power generation
- CO2 transportation and storage
- Medium-sized and large fans / blowers
- Bearing seals (gear box, motors)
- Steam turbines
- Mixers, agitators, dryers
- Mills (ball, hammer, beater mills)
- Centrifuges

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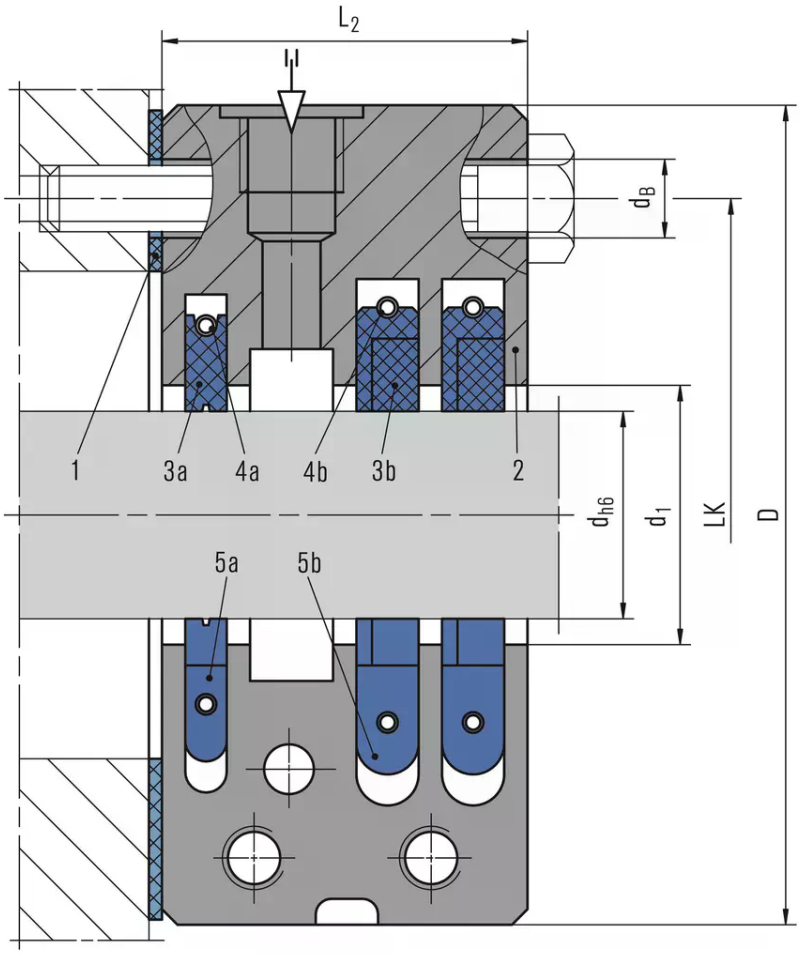
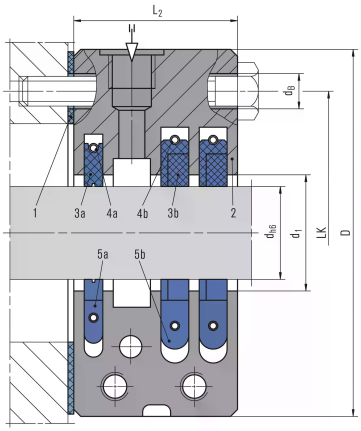


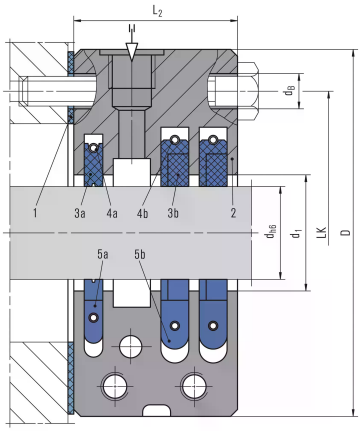
- Cantilever pumps

Item	Description
1	Flat seal
2	Housing, 2-piece
3a	Seal ring WD 200
3b	Seal ring WD 500
4a	Tension spring WD 200
4b	Tension spring WD 500
5a	Detent WD 200
5b	Detent WD 500

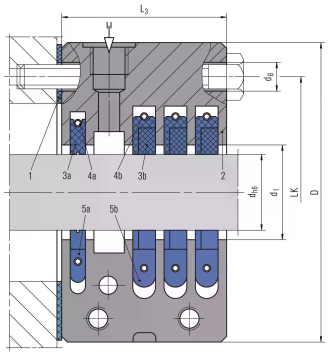
Product variants



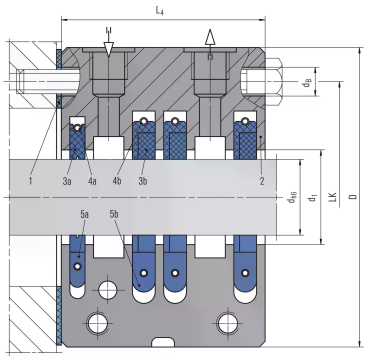
Espey WD200/500-WD1S1
with barrier gas port. The arrangement guarantees a focused barrier gas flow to the process side and keeps gases, solids and mists off the sealing area. In addition the leakage to the outside is reduced.



Espey WD200/500-WD1S2
with barrier gas port. The arrangement guarantees a focused barrier gas flow to the process side and keeps gases, solids and mists off the sealing area. In addition the leakage to the outside is reduced.



Espey WD200/500-WD1S3
with barrier gas port. The arrangement guarantees a focused barrier gas flow to the process side and keeps gases, solids and mists off the sealing area. In addition the leakage to the outside is reduced.



Espey WD 200/500-WD1S2A1
with barrier gas port and recirculation. The arrangement guarantees a focused barrier gas flow to the process side and keeps gases, solids and mists off the sealing area. In addition the leakage to the outside is reduced and residual gases and condensates will be purged.

Dimensions

d_{h6}	d_1	D	LK	n x Ød_B	S	V	L_1	L_2	L_3	L_4
45	50	175	135	4 x Ø15	1 x G1/2	1 x G1/2	45	55	70	85
50	58	180	140	4 x Ø15	1 x G1/2	1 x G1/2	45	55	70	85
60	70	190	150	4 x Ø15	1 x G1/2	1 x G1/2	45	55	70	85
70	80	200	160	4 x Ø15	1 x G1/2	1 x G1/2	45	55	70	85
80	90	210	170	4 x Ø15	1 x G1/2	1 x G1/2	45	55	70	85
90	100	220	180	4 x Ø15	1 x G1/2	1 x G1/2	45	55	70	85
100	110	230	190	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
110	120	240	200	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
120	130	250	210	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
130	140	260	220	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
140	150	270	230	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
150	160	280	240	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
160	170	290	250	4 x Ø15	1 x G1/2	1 x G1/2	50	60	75	90
170	180	300	260	6 x Ø19	1 x G1/2	1 x G1/2	50	60	75	90
180	190	310	270	6 x Ø19	1 x G1/2	1 x G1/2	50	60	75	90
190	200	320	280	6 x Ø19	1 x G1/2	1 x G1/2	50	60	75	90
200	210	340	290	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
210	220	350	300	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
220	230	360	310	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
230	240	370	320	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
240	250	380	330	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
250	260	390	340	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
260	270	400	350	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
270	280	410	360	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
280	290	420	370	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
290	300	430	380	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
300	310	440	390	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
310	320	450	400	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
320	330	460	410	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
330	340	470	420	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95
340	350	480	430	6 x Ø19	2 x G1/2	1 x G1/2	50	65	80	95

Dimensions in mm S = Barrier gas port A = Recirculation Special sizes on request.