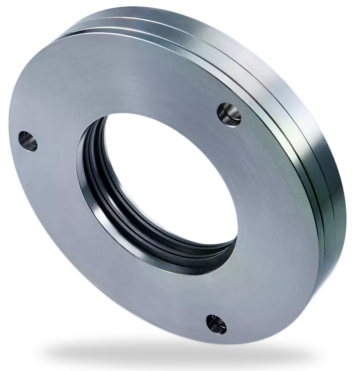
EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

Espey WKA300

Carbon Floating Ring Seals | Shaft seals



Features

- Multi-part seal rings, radially cut
- Chamber seal (modular design – can be combined in any order)
- 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

Advantages

- Segmented seal rings for easy replacement
- High reliability
- Log-term operation time
- Maintainability

Operating range

Shaft diameter:
d = 20 ... 340 mm (0.79" ... 13.39")
Operating pressure:
p = vacuum ... 1.5 bar (22 PSI) abs.
Operating temperature: t = -120 °C ... +500 °C (-184 °F ... +932 °F) for carbon, max. 225 °C (437 °F) for PTFE compound, max. 300 °C (572 °F) with grease
Sliding velocity:
vg = max. 150 m/s (492 ft/s) for carbon,
max. 40 m/s (131 ft/s) for PTFE compound
Radial play: ±2.0 mm (±0.08")
Axial movement: theoretically unlimited
Recommended wear guard: >300 HB

Materials

Seal ring: carbon, PTFE compound
Chamber parts: 1.4571, Hastelloy®, Titanium, Inconel®, others
Tension spring: 1.4571, Hastelloy®, Titanium, Inconel®

Standards and approvals

- FDA

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
- Metal production and processing
- Pulp and paper industry
- Food processing industry
- Power plant technology
- Machinery and plant building
- CO2 transportation and storage
- Small and medium-sized fans / blowers
- Bearing seals (gear box, motors)
- Mixers, agitators, mills, dryers

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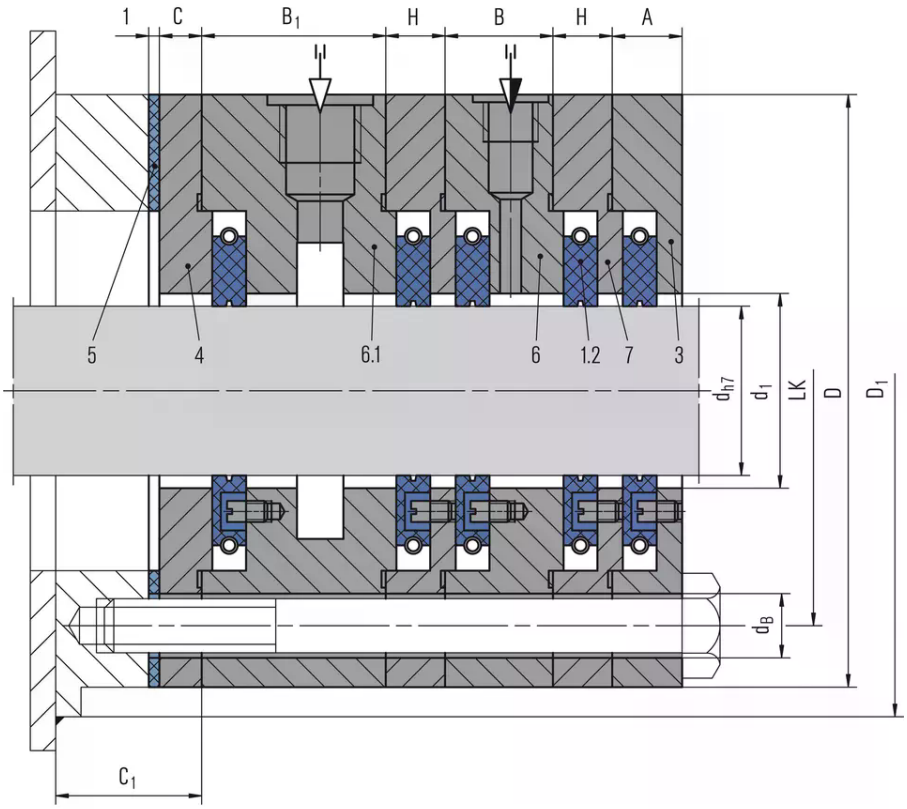
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. Subject to change.



Item	Description
1	Seal ring
2	Tension spring
3	Chamber
4	End ring
4.1	Welding ring (as alternative)
5	Flat seal
6	Grease chamber
6.1	Barrier gas, suction chamber
7	Intermediate chamber

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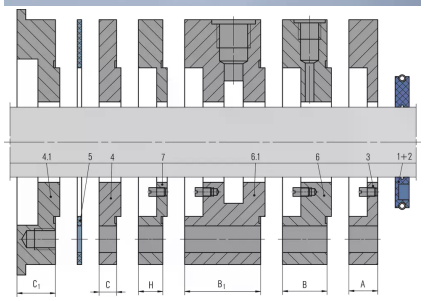
Installation, details, options



Seal ring Espey WKA300 (3-part, radial cut)

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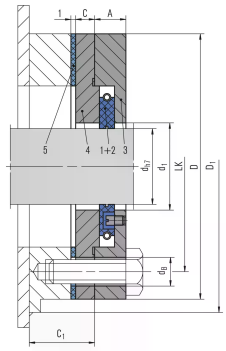
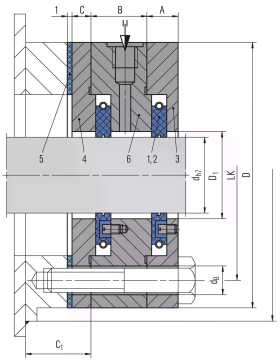
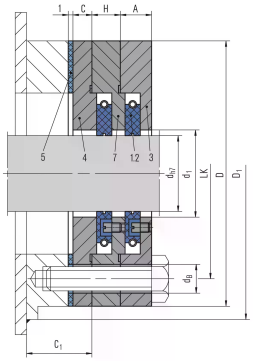
Product variants



Espey WKA301/4
(up up to 225 °C (437 °F)) or
Espey WKA302/4
(up to 500 °C (932 °F)) for clean media, not for solids containing gases



Espey WKA303/4
(up up to 225 °C (437 °F)) or
Espey WKA304/4
(up to 500 °C (932 °F)) with grease barrier for clean media, not for solids containing gases



Espey WKA303.1/4
(up up to 225 °C (437 °F)) or
Espey WKA304.1/4
(up to 500 °C (932 °F)) with grease barrier for clean media, not for solids containing gases

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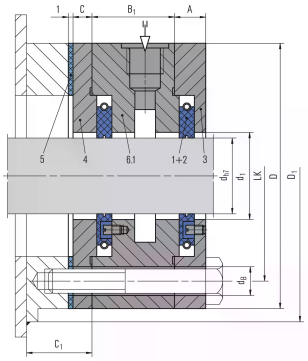
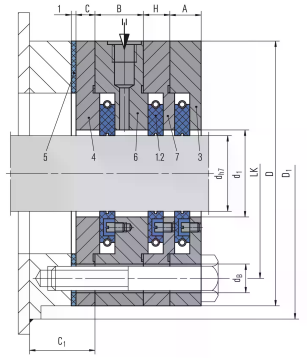
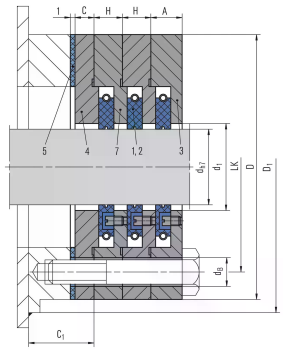


Espey WKA303.2/4
(up to 225 °C (437 °F)) or
Espey WKA304.2/4
(up to 500 °C (932 °F)) with barrier gas port for toxic and solids containing media as well as Atex applications, on special request.



Espey WKA305/4
(up to 225 °C (437 °F)) or
Espey WKA306/4
(up to 500 °C (932 °F)) with grease barrier for clean media, not for solids containing gases



Espey WKA305.1/4
(up to 225 °C (437 °F)) or
Espey WKA306.1/4
(up to 500 °C (932 °F)) for clean media, not for solids containing gases

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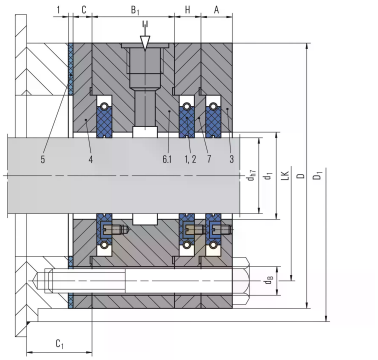

Espey WKA305.2/4
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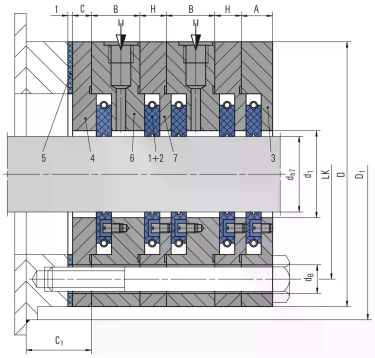
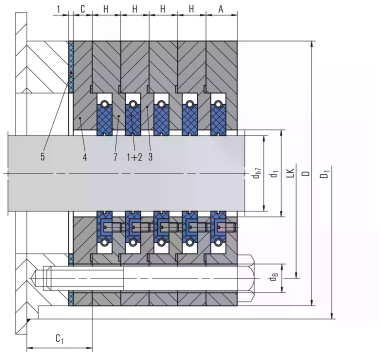
(up to 500 °C (932 °F)) with barrier gas port for toxic and solids containing media as well as Atex applications, on special request.



Espey WKA308/4
(up to 225 °C (437 °F) or
Espey WKA309/4
(up to 500 °C (932 °F)) with grease barrier for clean media, not for solids containing gases



Espey WKA308.1/4
(up to 225 °C (437 °F)) or
Espey WKA309.1/4
(up to 500 °C (932 °F)) for clean media, not for solids containing gases

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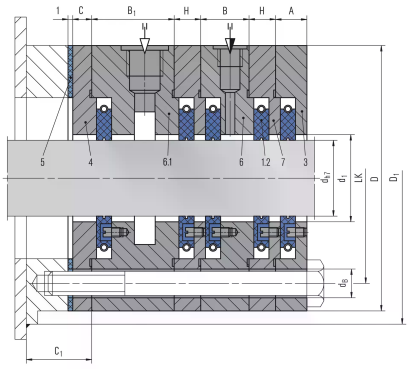

Espey WKA308.2/4
(up to 225 °C (437 °F)) or
Espey WKA309.2/4
(up to 500 °C (932 °F)) with barrier gas port for toxic and solids containing media as well as Atex applications, on special request.

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Dimensions

d_{h7}	d_1	d_B	D	D_1	LK	A	B	B_1	C	C_1	H
20	24	10	95	110	75	12	21	38	5	21	10
25	29	10	100	115	80	12	21	38	5	21	10
30	34	10	105	120	85	12	21	38	5	21	10
35	39	10	110	125	90	12	21	38	5	21	10
40	44	10	115	130	95	12	21	38	5	21	10
45	49	12	130	145	105	12	21	38	5	30	10
50	54	12	140	155	115	12	21	38	5	30	10
55	59	12	145	160	120	12	21	38	5	30	10
60	64	12	150	165	125	12	21	38	5	30	10
65	69	12	155	170	130	12	21	38	5	30	10
70	74	12	160	175	135	12	21	38	5	30	10
75	79	12	165	180	140	12	21	38	5	30	10
80	84	12	170	185	145	12	21	38	5	30	10
85	89	12	175	190	150	12	21	38	5	30	10
90	94	12	180	195	155	12	21	38	5	30	10
95	99	12	185	200	160	12	21	38	5	30	10
100	104	12	190	205	165	12	21	38	5	30	10
105	109	12	195	210	170	12	21	38	5	30	10
110	114	12	200	215	175	12	21	38	5	30	10
120	124	14	220	235	190	14	23	40	7	30	12
130	134	14	230	245	200	14	23	40	7	30	12
140	144	14	240	255	210	14	23	40	7	30	12
150	154	14	250	265	220	14	23	40	7	30	12
160	164	14	260	275	230	14	23	40	7	30	12
170	174	14	270	285	240	14	23	40	7	30	12
180	184	14	280	295	250	14	23	40	7	30	12
190	194	14	290	305	260	14	23	40	7	30	12
200	204	14	300	315	270	14	23	40	7	30	12
210	214	14	310	325	280	16	23	40	10	30	14
220	224	14	320	335	290	16	23	40	10	30	14
230	234	14	330	345	300	16	23	40	10	30	14
240	244	14	340	355	310	16	23	40	10	30	14
250	254	14	350	365	320	16	23	40	10	30	14
260	264	14	360	375	330	16	23	40	10	30	14
270	274	14	370	385	340	16	23	40	10	30	14
280	284	14	380	395	350	16	23	40	10	30	14
290	294	14	390	405	360	16	23	40	10	30	14
300	304	14	400	415	370	16	23	40	10	30	14

Dimensions in mm Special sizes on request.

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