EagleBurgmann
a member of EKK and FREUDENBERG

RELY ON EXCELLENCE

Espey WKA1100HP

Carbon Floating Ring Seals | Shaft seals

Features

- Chamber seal (modular design - can be combined in any order), optional with housing and lid
- Very small operation gap - low leakage
- Dry running
- 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
- One-piece seal ring with titanium bandage
- Both side balanced seal ring inside chamber for short-term backpressure operation
- Seal ring axially spring-loaded – no swinging up at pressure-less machine operation

Advantages

- High reliability
- Long-term operation time
- Maintainability

Operating range

Shaft diameter:
d = 20 ... 200 mm (0.79" ... 7.87")
Operating pressure:
p = vacuum ... 250 bar (3,626 PSI) abs.
Operating temperature:
t = -120 °C ... +225 °C (-184 °F ... +437 °F)
Sliding velocity:
vg = max. 240 m/s (787 ft/s)
Radial play: ±1.0 mm (±0.04")
Axial movement: theoretically unlimited
Recommended wear guard: >58 HRC

Materials

Seal ring: Carbon with titanium bandage
Chamber and housing parts: 1.4021, 1.4571, Hastelloy®, Titan, Inconel®, others
Secondardy seal (elastomer): Fluorocarbon rubber (Viton®), Nitrile-butadiene-rubber (Perbunan®), Perfluorocarbon rubber (Kalrez®)
Secondary seal (flat gasket): Statotherm®-HT/HD, KSiL C 440

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
- Oil and gas industry
- Refining technology
- Chemical industry
- Petrochemical industry
- Pulp and paper industry
- Metal production and processing
- Power plant technology
- CO2 transportation and storage
- Integral-gear compressors (one or multi-stage)
- Screw and chiller compressors

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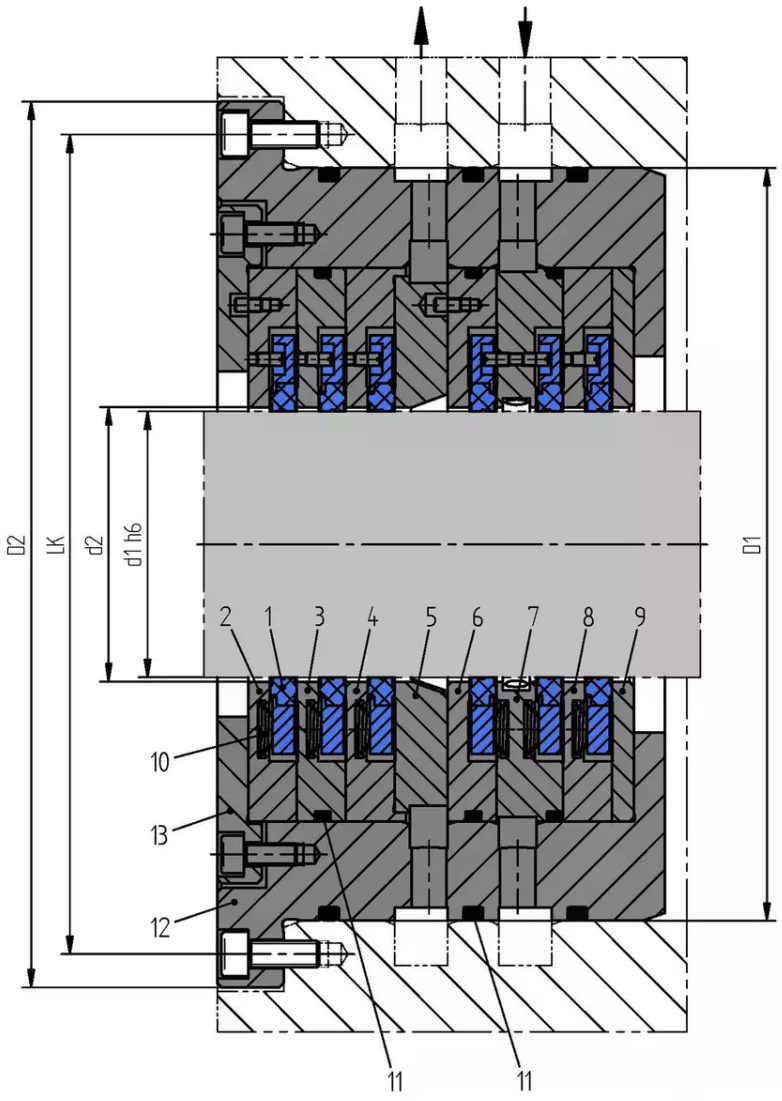
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications means, however, that they can serve only as guide values.
We must be notified of the exact conditions of application before we can provide any guarantee for a specific case.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



Item	Description
1	Seal ring
2	Chamber
3	Chamber
4	Chamber
5	Lantern
6	Chamber
7	Barrier gas chamber
8	Chamber
9	End ring
10	Pressure spring
11	O-Ring
12	Housing
13	Lid

Wellendichtung Espey WKA1100HP
Shaft Seal Espey WKA1100HP

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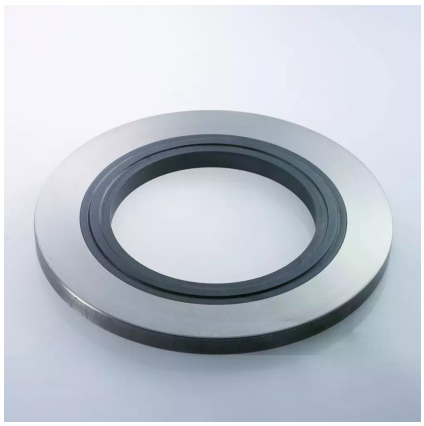
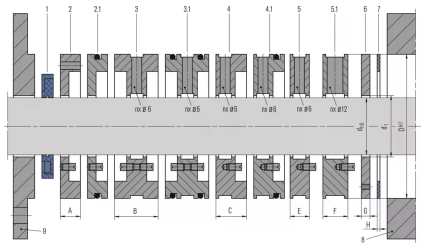
Installation, details, options



Seal ring Espey WKA1100 (one-piece with titanium bandage)

Chamber parts



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Dimensions

d1 h6	d2	D1	D2	LK
20	22	125	165	145
25	27	130	170	150
30	32	135	175	155
35	37	140	180	160
40	42	145	185	165
45	47	150	190	170
50	52	155	195	175
55	57	160	200	180
60	62	165	205	185
65	67	170	210	190
70	72	175	215	195
75	77	180	220	200
80	82	185	225	205
85	87	190	230	210
90	92	195	235	215
95	97	200	240	220
100	102	205	245	225
105	107	210	250	230
110	112	215	255	235
115	117	220	260	240
120	122	225	265	245
125	127	230	270	250
130	132	235	275	255
135	137	240	280	260
140	142	245	285	265
145	147	250	290	270
150	152	255	295	275
155	157	260	300	280
160	162	265	305	285
165	167	270	310	290
170	172	275	315	295
175	177	280	320	300
180	182	285	325	305
185	187	290	330	310
190	192	295	335	315
195	197	300	340	320
200	202	305	345	325

d_{h6}	DH6	d_1	A	E	G	H
20	85	22	11	12	5	1
25	90	27	11	12	5	1
30	95	32	11	12	5	1
35	100	37	11	12	5	1
40	105	42	11	12	5	1
45	110	47	11	12	5	1
50	115	52	11	12	5	1
55	120	57	11	12	5	1
60	125	62	11	12	5	1

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d_{h6}	DH6	d_1	A	E	G	H
65	130	67	11	12	5	1
70	135	72	11	12	5	1
75	140	77	11	12	5	1
80	145	82	11	12	5	1
85	150	87	11	12	5	1
90	155	92	11	12	5	1
95	160	97	11	12	5	1
100	165	102	11	12	5	1
105	170	107	11	12	5	1
110	175	112	11	12	5	1
115	180	117	11	12	5	1

Dimensions in mm Special sizes on request.

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