

RELY ON EXCELLENCE

Espey WKA802HD

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
- Balanced seal ring inside chamber
- 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:
 $d = 20 \dots 200 \text{ mm} (0.79" \dots 7.87")$
 Operating pressure:
 $p = \text{vacuum} \dots 140 \text{ bar} (2031 \text{ PSI}) \text{ abs.}$
 Operating temperature:
 $t = -120 \text{ °C} \dots +225 \text{ °C} (-184 \text{ °F} \dots +437 \text{ °F})$
 Sliding velocity:
 $vg = \text{max. } 240 \text{ m/s} (787 \text{ ft/s})$
 Radial play: $\pm 1.0 \text{ mm} (\pm 0.04")$
 Axial movement: theoretically unlimited
 Recommended wear guard: $>58 \text{ HRC}$

Materials

Seal ring: Carbon with titanium bandage
 Chamber and housing parts: 1.4021, 1.4571, Hastelloy®, Titan, Inconel®, others
 Secondary seal (elastomer): Fluorocarbon rubber (Viton®), Nitrile-butadiene-rubber (Perbunan®), Perfluorocarbon rubber (Kalrez®)
 Secondary seal (flat gasket): Statotherm®-HT/HD, KSiL C 4400

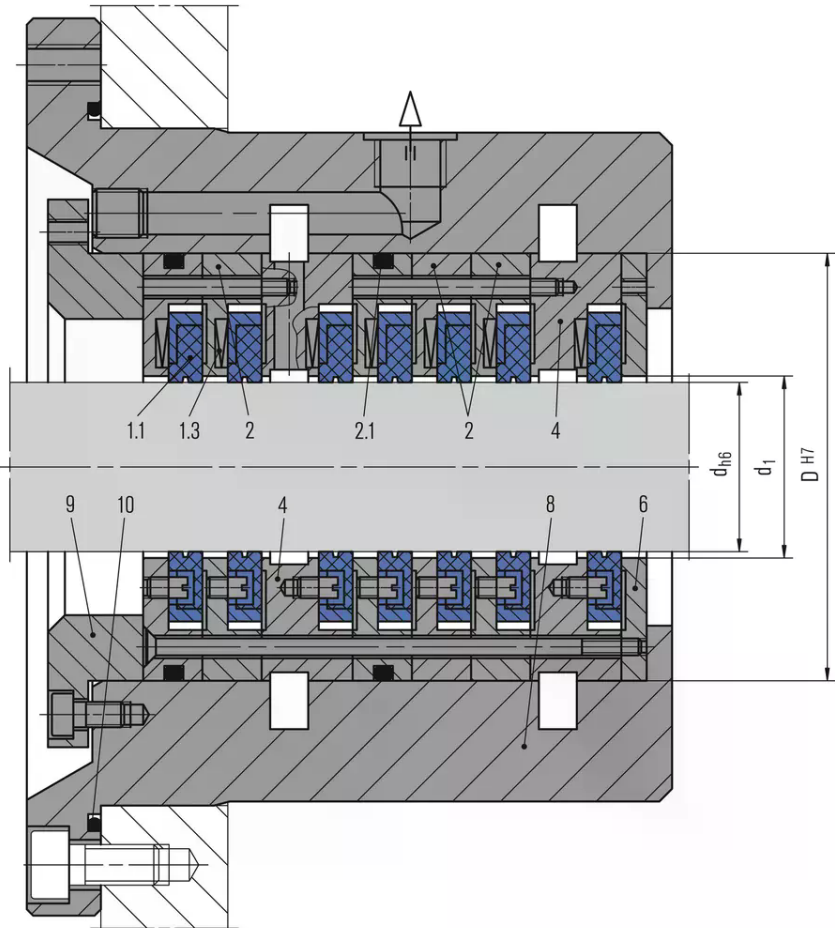
Standards and approvals

- 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
- Steam turbines
- Air regulating devices

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Item	Description	Variable for width
1.1	Seal ring	
1.3	Pressure spring	
2	Chamber	A
2.1	Chamber with O-Ring	A
3	Barrier gas chamber	B
3.1	Barrier gas chamber with O-Rings	B
4	Lantern chamber	C
4.1	Lantern chamber with O-Ring	C
5	Lantern thin	E
5.1	Lantern wide	F
6	End ring	G
7	Flat seal	H
8*	Housing	
9*	Lid	
10*	O-Ring housing	
11*	Flat seal housing	

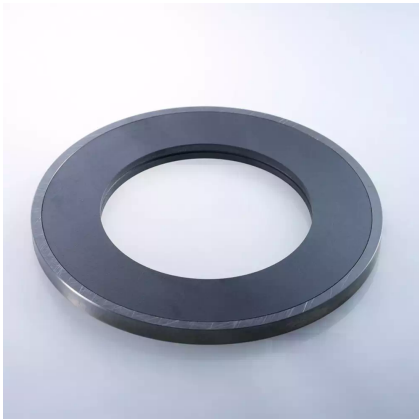
* On request

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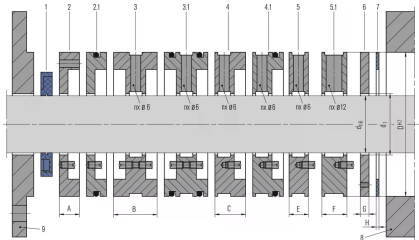
Installation, details, options



Chamber parts



Seal ring Espey WKA802 (one-piece with titanium bandage)



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Dimensions

d _{h6}	DH7	d ₁	A	B	C	E	F	G	H
20	80	22	10	21	16	11	17	5	1
25	85	27	10	21	16	11	17	5	1
30	90	32	10	21	16	11	17	5	1
35	95	37	10	21	16	11	17	5	1
40	100	42	10	21	16	11	17	5	1
45	105	47	10	21	16	11	17	5	1
50	110	52	10	21	16	11	17	5	1
55	115	57	10	21	16	11	17	5	1
60	120	62	10	21	16	11	17	5	1
65	125	67	10	21	16	11	17	5	1
70	130	72	10	21	16	11	17	5	1
75	135	77	10	21	16	11	17	5	1
80	140	82	10	21	16	11	17	5	1
85	145	87	10	21	16	11	17	5	1
90	150	92	10	21	16	11	17	5	1
95	155	97	10	21	16	11	17	5	1
100	160	102	10	21	16	11	17	5	1
105	165	107	10	21	16	11	17	5	1
110	170	112	10	21	16	11	17	5	1
115	175	117	10	21	16	11	17	5	1
120	190	122	12	27	19	15	20	8	2
130	200	132	12	27	19	15	20	8	2
140	210	142	12	27	19	15	20	8	2
150	220	152	12	27	19	15	20	8	2
160	230	162	14	31	21	15	20	8	2
170	240	172	14	31	21	15	20	8	2
180	250	182	14	31	21	15	20	8	2
190	260	192	14	31	21	15	20	8	2
200	270	202	14	31	21	15	20	8	2
210	280	212	14	31	21	15	20	8	2
220	290	222	14	31	21	15	20	8	2
230	300	232	14	31	21	15	20	8	2
240	310	242	14	31	21	15	20	8	2
250	320	252	14	31	21	15	20	8	2
260	330	262	14	31	21	15	20	8	2
270	340	272	14	31	21	15	20	8	2
280	350	282	14	31	21	15	20	8	2
290	360	292	14	31	21	15	20	8	2
300	370	302	14	31	21	15	20	8	2

Dimensions in mm. Special sizes on request.