

RELY ON EXCELLENCE

## Espey WDB200

Carbon Floating Ring Seals | Shaft sleeves



### Features

- Torque transmission depending on application with set screw or as shrink fit
- Metallic coating (FMP 84) basically for applications without high oxidation
- Ceramic coating (EMP 98) basically for applications with high oxidation
- Design one- or two-piece

### Advantages

- Easy installation by split design (2-piece version)
- High reliability
- Long-term operation time
- Maintainability

### Operating range

#### FMP 84 (metallic coating)

General description: chromium carbide  
 Coating process: flame spray technique (no influence on material structure)  
 Shrink acceptability: very good  
 Shaft diameter:  $d = 45 \dots 340 \text{ mm}$  (1.77" ... 13.39")  
 Operating temperature:  $t = \text{max. } 1,000 \text{ }^\circ\text{C}$  (1,832 °F)  
 Peripheral velocity:  $v_u = \text{max. } 240 \text{ m/s}$  (787 ft/s)  
 Hardness: >65 HRC

#### EMP 98 (ceramic coating)

General description: chromium oxide (ceramic)  
 Coating process: flame spray technique (no influence on material structure)  
 Shrink acceptability: with restrictions

Shaft diameter:  
 $d = 45 \dots 340 \text{ mm}$  (1.77" ... 13.39")  
 Operating temperature:  
 $t = \text{max. } 600 \text{ }^\circ\text{C}$  (1,112 °F)  
 Peripheral velocity:  
 $v_u = \text{max. } 150 \text{ m/s}$  (492 ft/s)  
 Hardness: >58 HRC

### Materials

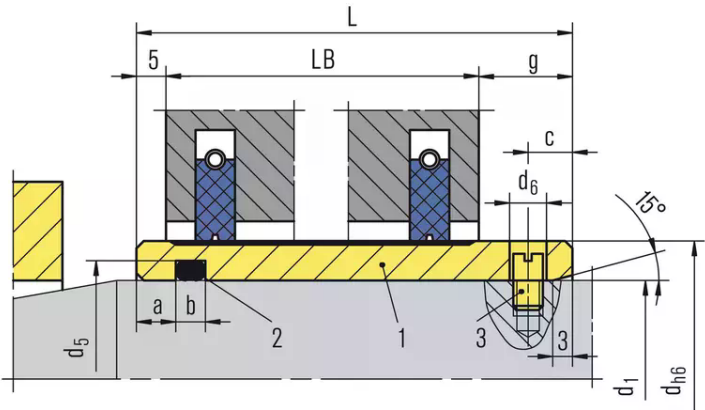
1.4021-FMP, 1.4086, 1.4462-FMP, 1.4571-FMP, others

### Standards and approvals

- DIN 42955

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Item	Description
1	Shaft sleeve
2	O-Ring
3	Set screw



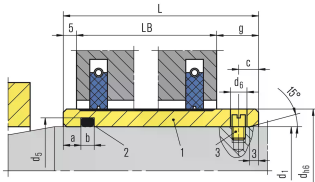
### Installation, details, options

2-piece shaft sleeve



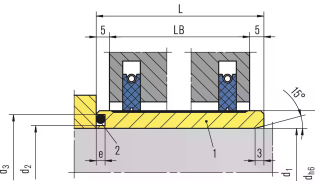
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## Product variants



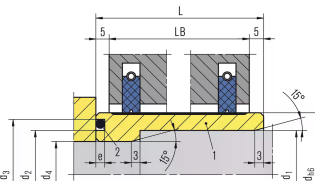
**Espey WDB210/4**  
with fit bore shaft sleeve / diameter shaft H6/h6 for low loaded seals e.g. in slow running fans, agitators or

**Espey WDB213/4**  
with fit bore shaft sleeve / diameter shaft M5/h6 for high loaded seals e.g. in turbo compressors, turbines



**Espey WDB211/4**  
with fit bore shaft sleeve / diameter shaft H6/h6 for low loaded seals e.g. in slow running fans, agitators or

**Espey WDB214/4**  
with fit bore shaft sleeve / diameter shaft M5/h6 for high loaded seals e.g. in turbo compressors, turbines



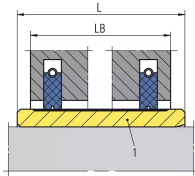
**Espey WDB212/4**  
with fit bore shaft sleeve / diameter shaft H6/h6 for low loaded seals e.g. in slow running fans, agitators or

**Espey WDB215/4**  
with fit bore shaft sleeve / diameter shaft M5/h6 for high loaded seals e.g. in turbo compressors, turbines

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### Espey WDB 216/4

with fit bore shaft sleeve / diameter shaft according to operating conditions and customer specifications e.g. for high pressure turbo compressors and turbines



## Dimensions

d <sub>h6</sub>	d <sub>1</sub> *	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	d <sub>6</sub>	a	b	c	e	f	g
45	35	37	42	25.5	38.5	6	5	3	8	1.5	20	15
50	40	42	47	30.5	43.5	6	5	3	8	1.5	20	15
60	50	52	57	40.5	53.5	6	5	3	8	1.5	20	15
70	55	60	67	45.5	60.4	6	5	4	8	2.4	20	15
80	65	70	77	55.5	70.4	6	5	4	8	2.4	20	15
90	75	80	87	65.5	80.4	6	5	4	8	2.4	20	15
100	85	89	97	75.5	91.3	6	7	4.5	8.5	2.8	20	17
110	90	99	107	75.5	96.3	7	7	4.5	8.5	2.8	20	17
120	100	109	117	85.5	106.3	7	7	4.5	8.5	2.8	20	17
130	110	119	127	95.5	116.3	7	7	4.5	8.5	2.8	20	17
140	120	129	137	105.5	126.3	7	7	4.5	8.5	2.8	20	17
150	130	138	146	115.5	136.3	7	7	4.5	8.5	2.8	20	17
160	140	148	156	125.5	146.3	9	7	4.5	9.5	2.8	20	19
170	150	158	166	135.5	156.3	9	7	4.5	9.5	2.8	20	19
180	160	168	176	145.5	166.3	9	7	4.5	9.5	2.8	20	19
190	170	178	186	155.5	176.3	9	7	4.5	9.5	2.8	20	19
200	180	188	196	165.5	186.3	9	7	4.5	9.5	2.8	20	19
220	195	206	215	175.5	202.2	11	8	5	11	3.2	25	22
240	215	226	235	195.5	222.2	11	8	5	11	3.2	25	22
260	235	246	255	215.5	242.2	11	8	5	11	3.2	25	22
280	255	266	275	235.5	262.2	11	8	5	11	3.2	25	22
300	275	286	295	255.5	282.2	11	8	5	11	3.2	30	22
320	295	306	315	275.5	302.2	11	8	5	11	3.2	30	22
340	315	326	335	295.5	322.2	11	8	5	11	3.2	30	22

Dimensions in mm Special sizes on request. \* Consider selection of fits