

# C851-E Dual Seals

## Standard Mechanical Seals - Pusher Seals



### Product Description

1. Dual seal configuration
2. Balanced design
3. Independent of direction of rotation
4. For stepped shafts
5. Rotary unit with multiple springs
6. Pumping device available for increased efficiency in circulation (B740F-D)

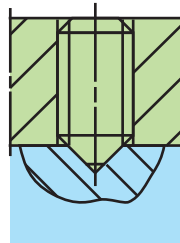
### Technical Features

1. Versatile torque transmission available
2. Capable of self cleaning
3. Multifaceted application usage
4. Pumping device to increase efficiency in circulation for media with higher viscosity available
5. Short installation length available
6. Suitable for media with low solids content
7. EN 12756 (For connection dimensions  $d_1$  up to 100 mm)

### Typical Industrial Applications

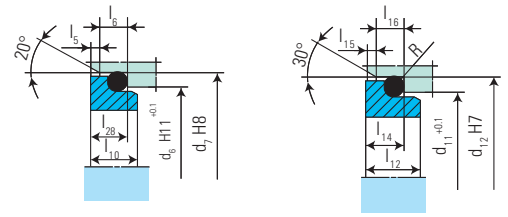
Adhesives  
 Chemical industry  
 Media with poor lubrication properties  
 Media with low solids content and abrasive particles  
 Process industry  
 Toxic and hazardous media  
 Chemical standard pumps

### Torque Transmission



$d_2 > 105$  mm VIA 4 set screws with cone points. (standard arrangement)

### Stationary Seats



G6 (EN 12756)

G4

### Performance Capabilities

Sizes:  $d_1$  = Upto 200 mm (Upto 7.875")  
 Pressure:  
 $p_1 = 80$  bar (1160 PSI) for  $d_1 = 14 \dots 100$  mm,  
 $p_1 = 25$  bar (363 PSI) for  $d_1 = 100 \dots 200$  mm,  
 $p_1 = 16$  bar (232 PSI) for  $d_1 > 200$  mm  
 Temperature:  $t = -50 \text{ }^\circ\text{C} \dots +220 \text{ }^\circ\text{C}$   
 (-58  $^\circ\text{F} \dots +428 \text{ }^\circ\text{F}$ )  
 Speed = 20 m/s (66 ft/s)  
 Permissible axial movement:  
 $d_1$  up to 100 mm:  $\pm 0.5$  mm  
 $d_1$  from 100 mm:  $\pm 2.0$  mm

### Materials

Seal face: Silicon carbide (Q1, Q2),  
 Carbon graphite antimony impregnated (A),  
 Aluminium oxide (V), Special cast CrMo steel (S)  
 Seat G9: Carbon graphite antimony impregnated (A),  
 Carbon graphite resin impregnated (B),  
 Silicon carbide (Q1\*, Q2\*)  
 Secondary seals: EPDM (E), NBR (P),  
 FKM (V), FFKM (K)  
 Springs: CrNiMo steel (G)  
 Metal parts: CrNiMo steel (G), Duplex (G1)

1) $d_1 > 100$ mm: 2 mm x 30°
2) $d_1 > 100$ mm: 30°
3) $d_1 > 100$ mm: H7
4) $d_1 > 100$ mm: +0.1

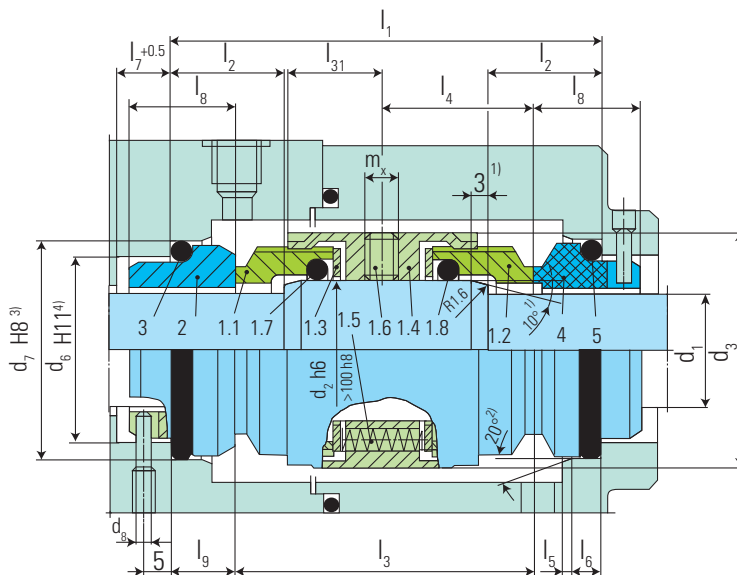
\* Cannot be combined with seal face made of S

### Standards

EN 12756

Item	Part no.	Description
1.1	472.1	Seal face
1.2	472.2	Seal face
1.3	474	Thrust ring
1.4	485	Drive collar
1.5	477	Spring
1.6	904	Set screw
1.7	412.1	O-ring
1.8	412.2	O-ring
2	475.1	Seat (G9)
3	412.3	O-ring
4	475.2	Seat (G9)
5	412.4	O-ring

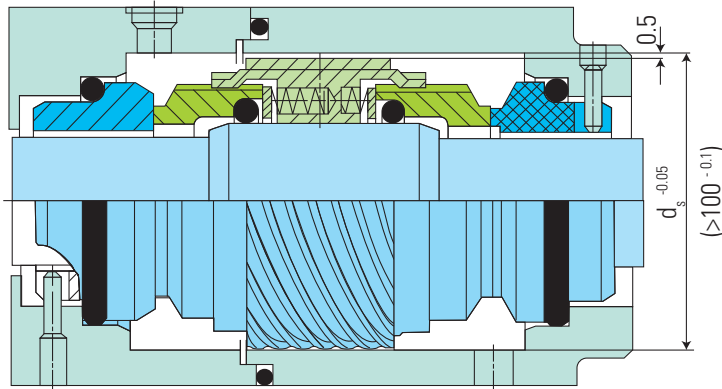
**DIN 24250**



**Note:** The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.



## Design Variations



### B740F-D

Dimensions, items and descriptions as for B740-D, but with pumping screw (Item no. 1.4)  
Dependent on direction of rotation.

## Dimensional Data

### Dimensions in millimeter

d1	d2	d3	d6	d7	d8	d11	d12	d <sub>s</sub>	l1	l2	l3	l4	l5	l6	l7	l8	l9	l10	l12	l14	l15	l16	l28	l31	m <sub>x</sub>	R	
14	18	33	21.0	25	3	24.0	30.0	-	73	18	53	26.5	1.5	4	8.5	17.5	10	7.5	6.5	5.6	1.5	5	6.6	17	M5	1.2	
16	20	35	23.0	27	3	29.5	35.0	-	73	18	53	26.5	1.5	4	8.5	17.5	10	7.5	8.5	7.5	1.5	5	6.6	17	M5	1.5	
18	22	37	27.0	33	3	29.5	35.0	42	76	20	53	26.5	2	5	9	19.5	11.5	8.5	9	8	1.5	5	7.5	17	M5	1.5	
20	24	39	29.0	35	3	32.0	38.0	44	76	20	53	26.5	2	5	9	19.5	11.5	8.5	8.5	7.5	1.5	5	7.5	17	M5	1.5	
22	26	41	31.0	37	3	32.0	38.0	45	76	20	53	26.5	2	5	9	19.5	11.5	8.5	8.5	7.5	1.5	5	7.5	17	M5	1.5	
24	28	43	33.0	39	3	36.0	42.0	47	77	20	54	27	2	5	9	19.5	11.5	8.5	8.5	7.5	1.5	5	7.5	17.5	M6	1.5	
25	30	45	34.0	40	3	39.2	45.0	49	77	20	54	27	2	5	9	19.5	11.5	8.5	8.5	7.5	1.5	5	7.5	17.5	M6	1.5	
28	33	48	37.0	43	3	42.2	48.0	51	77	20	54	27	2	5	9	19.5	11.5	8.5	10	9	1.5	5	7.5	17.5	M6	1.5	
30	35	50	39.0	45	3	44.2	50.0	54	77	20	54	27	2	5	9	19.5	11.5	8.5	11.5	10.5	1.5	5	7.5	17.5	M6	1.5	
32	38	55	42.0	48	3	46.2	52.0	59	79	20	56	28	2	5	9	19.5	11.5	8.5	11.5	10.5	1.5	5	7.5	18.5	M6	1.5	
33	38	55	42.0	48	3	49.2	55.0	59	79	20	56	28	2	5	9	19.5	11.5	8.5	12	10.5	1.5	5	7.5	18.5	M6	1.5	
35	40	57	44.0	50	3	52.2	58.0	61	80	20	57	28.5	2	5	9	19.5	11.5	8.5	12	11	1.5	5	7.5	19	M6	1.5	
38	43	60	49.0	56	4	53.3	62.0	65	85	23	57	28.5	2	6	9	22	14	10	11.3	10.3	2	6	9	19	M6	1.5	
40	45	62	51.0	58	4	55.3	64.0	66	85	23	57	28.5	2	6	9	22	14	10	11.8	10.8	2	6	9	19	M6	1.5	
43	48	65	54.0	61	4	59.7	68.4	69	85	23	57	28.5	2	6	9	22	14	10	13.2	12	2	6	9	19	M6	2.5	
45	50	67	56.0	63	4	60.8	69.3	71	84	23	56	28	2	6	9	22	14	10	12.8	11.6	2	6	9	19.5	M6	2.5	
48	53	70	59.0	66	4	63.8	72.3	75	84	23	56	28	2	6	9	22	14	10	12.8	11.6	2	6	9	19.5	M6	2.5	
50	55	72	62.0	70	4	66.5	75.4	76	93	25	63	31.5	2.5	6	9	23	15	10.5	12.8	11.6	2	6	9.5	19.5	M6	2.5	
53	58	79	65.0	73	4	69.5	78.4	83	97	25	67	33.5	2.5	6	9	23	15	12	13.5	12.3	2	6	11	23.5	M8	2.5	
55	60	81	67.0	75	4	71.5	80.4	85	97	25	67	33.5	2.5	6	9	23	15	12	14.5	13.3	2	6	11	23.5	M8	2.5	
58	63	84	70.0	78	4	74.5	83.4	88	104	25	74	37	2.5	6	9	23	15	12	14.5	13.3	2	6	11	24.5	M8	2.5	
60	65	86	72.0	80	4	76.5	85.4	95	104	25	74	37	2.5	6	9	23	15	12	14.5	13.3	2	6	11	24.5	M8	2.5	
63	68	89	75.0	83	4	82.7	91.5	93	109	25	79	39.5	2.5	6	9	23	15	12	14.2	13.3	2	6	11	24.5	M8	2.5	
65	70	91	77.0	85	4	83.0	92.0	95	98	25	68	34	2.5	6	9	23	15	12	14.2	13	2	6	11	23.5	M8	2.5	
70	75	99	83.0	92	4	90.2	99.0	105	112.5	28	76.4	38.2	2.5	7	9	26	18	12.5	14.9	13.7	2	6	11.3	25.5	M8	2.5	
75	80	104	88.0	97	4	95.2	104.0	109	112.5	28	76.4	38.2	2.5	7	9	26	18	12.5	14.2	13	2	6	11.3	25.5	M8	2.5	
80	85	109	95.0	105	4	100.2	109.0	114	112.5	28	76	38	3	7	9	26.2	18.2	12.5	15.2	14	2	6	11.3	25	M8	2.5	
85	90	114	100.0	110	4	105.2	114.0	119	112.5	28	76	38	3	7	9	26.2	18.2	13	16.2	15	2	6	12	25.5	M8	2.5	
90	95	119	105.0	115	4	111.6	120.3	124	112.5	28	76	38	3	7	9	26.2	18.2	15	16	14.8	2	6	14	25	M8	2.5	
95	100	124	110.0	120	4	114.5	123.3	129	110.5	28	76	38	3	7	9	25.2	17.2	15	16	14.8	2	6	14	25	M8	2.5	
100	105	129	115.0	125	4	-	-	134	110.5	28	76	38	3	7	9	25.2	17.2	15	17	15.8	-	-	14	25.5	M8	2.5	
105	115	148	122.2	134.3	5	-	-	153	122	32	82	41	2	10	-	30	20	15	17	15.8	-	-	14	31.5	M8	2.5	
110	120	153	128.2	140.3	5	-	-	158	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
115	125	158	136.2	148.3	5	-	-	163	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
120	130	163	138.2	150.3	5	-	-	168	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
125	135	168	142.2	154.3	5	-	-	173	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
130	140	173	146.2	158.3	5	-	-	178	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
135	145	178	152.2	164.3	5	-	-	183	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
140	150	183	156.2	168.3	5	-	-	188	122	32	82	41	2	10	-	30	20	-	-	-	-	-	-	31.5	M8	-	
145	155	191	161.2	173.3	5	-	-	196	133	34	93	46.5	2	10	-	30	20	-	-	-	-	-	-	35.5	M8	-	
150	160	196	168.2	180.3	5	-	-	201	137	36	93	46.5	2	10	-	32	22	-	-	-	-	-	-	35.5	M8	-	
155	165	201	173.2	185.3	5	-	-	206	141	38	93	46.5	2	12	-	34	24	-	-	-	-	-	-	35.5	M8	-	
160	170	206	178.2	190.3	5	-	-	211	141	38	93	46.5	2	12	-	34	24	-	-	-	-	-	-	35.5	M8	-	
165	175	211	183.2	195.3	5	-	-	216	141	38	93	46.5	2	12	-	34	24	-	-	-	-	-	-	35.5	M8	-	
170	180	216	188.2	200.3	5	-	-	221	141	38	93	46.5	2	12	-	34	24	-	-	-	-	-	-	35.5	M8	-	
175	185	221	193.2	205.3	5	-	-	226	141	38	93	46.5	2	12	-	34	24	-	-	-	-	-	-	35.5	M8	-	
180	190	226	207.5	219.3	5	-	-	231	149	42	93	46.5	2	12	-	38	28	-	-	-	-	-	-	35.5	M8	-	
185	195	231	212.5	224.3	5	-	-	236	149	42	93	46.5	2	12	-	38	28	-	-	-	-	-	-	35.5	M8	-	
190	200	236	217.5	229.3	5	-	-	241	149	42	93	46.5	2	12	-	38	28	-	-	-	-	-	-	35.5	M8	-	
195	205	245	222.5	234.3	5	-	-	250	151	43	95	47.5	2	12	-	38	28	-	-	-	-	-	-	M10	-	-	
200	210	250	227.5	239.3	5	-	-	255	151	43	95	47.5	2	12	-	38	28	-	-	-	-	-	-	-	-	-	-

d<sub>1</sub> > 200 on request

inch size available from size 0.625 to 7.875

Note: Additional technical & dimensional information will be provided on request.