

RELY ON EXCELLENCE

## HJ92N

Mechanical seals | Mechanical seals for pumps | Pusher seals



### Features

- For unstepped shafts
- Single seal
- Balanced
- Independent of direction of rotation
- Encapsulated rotating spring

### Advantages

- Especially designed for solids containing and highly viscous media
- Springs are protected from the product
- Rugged and reliable design
- No damage of the shaft by dynamically loaded O-Ring
- Universal application
- Variant for operation under vacuum available
- Variants for sterile operation available

### Operating range

Shaft diameter:

$d_1 = 18 \dots 100 \text{ mm (0.625" ... 4")}$

Pressure:

$p_1^*) = 0.8 \text{ abs.} \dots 25 \text{ bar (12 abs. ... 363 PSI)}$

Temperature:

$t = -50 \text{ °C ... } +220 \text{ °C (-58 °F ... } +430 \text{ °F)}$

Sliding velocity:  $v_g = 20 \text{ m/s (66 ft/s)}$

Axial movement:  $\pm 0.5 \text{ mm}$

\* An integral stationary seat lock is not needed within the permissible low pressure range. For prolonged operation under vacuum it is necessary to arrange for quenching on the atmospheric side.

### Materials

Seal face: Carbon graphite antimony impregnated (A),  
Carbon graphite resin impregnated (B)  
Seat G16: Silicon carbide (Q1)

### Standards and approvals

- EN 12756

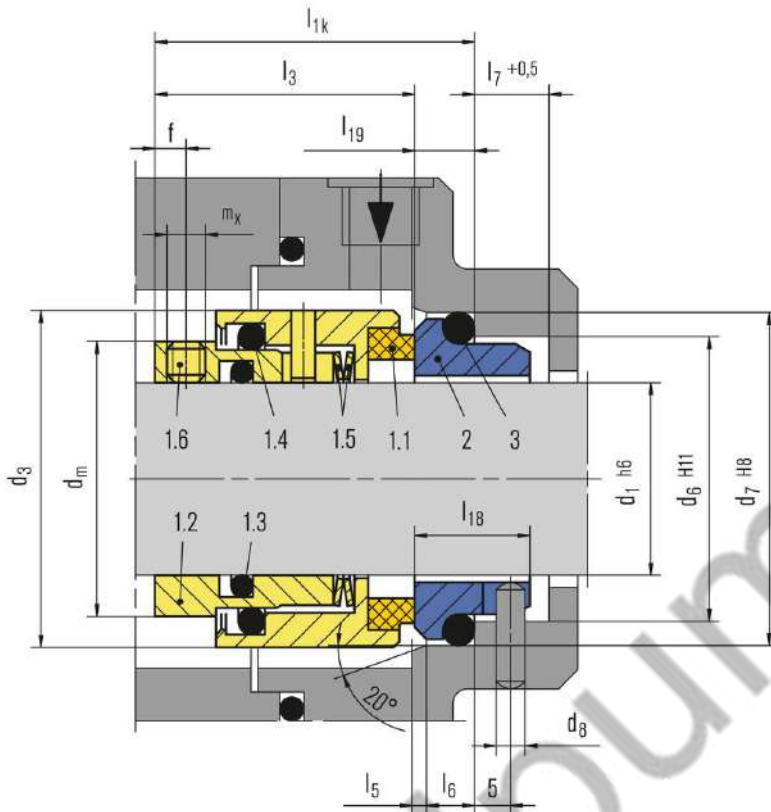
### Notes

Variant for sterile applications available. Please inquire.

### Recommended applications

- Pharmaceutical industry
- Power plant technology
- Pulp and paper industry
- Water and waste water technology
- Mining industry
- Food and beverage industry
- Sugar industry
- Dirty, abrasive and solids containing media
- Thick juice (70 ... 75 % sugar content)
- Raw sludge, sewage slurries
- Raw sludge pumps
- Thick juice pumps
- Conveying and bottling of dairy products

RELY ON EXCELLENCE

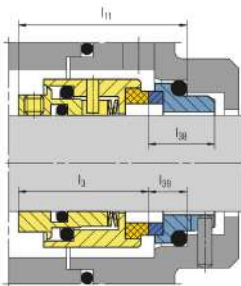


**Item Part no. to Description**  
**DIN 24250**

1.1	472/473	Seal face
1.2	485	Drive collar
1.3	412.2	O-Ring
1.4	412.1	O-Ring
1.5	477	Spring
1.6	904	Set screw
2	475	Seat (G16)
3	412.3	O-Ring

RELY ON EXCELLENCE

## Product variants



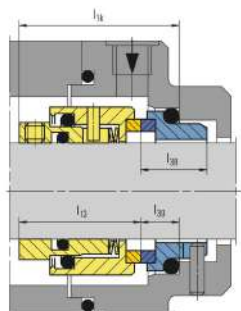
### HJ927GN

Items and description as HJ92N.

Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)

Seat G46: Silicon carbide (Q12)

Installation length  $l_{11}$  ( $= l_3 + l_{39}$ ) is longer than  $l_{1K}$ .



### HJ977GN

Items and description as HJ92N.

Seal face: Silicon carbide (Q12)

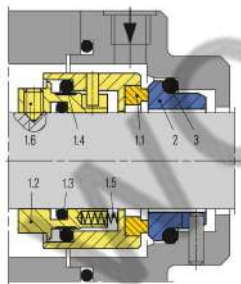
Seat G46: Silicon carbide (Q12)

Installation length  $l_{1K}$

Operating range:

Temperature:  $t = -20\text{ °C} \dots +180\text{ °C}$  ( $-4\text{ °F} \dots +356\text{ °F}$ )

Sliding velocity:  $v_g = 10\text{ m/s}$  (33 ft/s)



### HJ4...

Mechanical seals with product-protected multiple springs, for high pressure applications.

Pressure:  $p = \text{max. } 50\text{ bar}$  (725 PSI)

Shaft diameter:  $d_1 > 100\text{ mm}$  (3.94").

Smaller diameters and higher pressures on request.

## RELY ON EXCELLENCE

### HJ97GN5

Items and description as HJ92N.

Seal face: Silicon carbide (Q12)

Seat G16: Silicon carbide (Q1)

Installations length  $l_{12}$  (=  $l_{13} + l_{19}$ ) is shorter than  $l_{1k}$ .

### Dimensions

d <sub>1</sub>	d <sub>3</sub>	d <sub>6</sub>	d <sub>7</sub>	d <sub>8</sub>	d <sub>m</sub>	l <sub>1k</sub>	l <sub>3</sub>	l <sub>5</sub>	l <sub>6</sub>	l <sub>7</sub>	l <sub>18</sub>	l <sub>19</sub>	l <sub>11</sub> <sup>1)</sup>	l <sub>12</sub> <sup>2)</sup>	l <sub>13</sub>	l <sub>38</sub>	l <sub>39</sub>	f	m <sub>x</sub>
18	32	27	33	3	26.0	37.5	30.5	2.0	5	9	15.0	7.0	39.5	35.5	28.5	17.0	9.0	3.0	M4
20	34	29	35	3	28.0	37.5	30.5	2.0	5	9	15.0	7.0	39.5	35.5	28.5	17.0	9.0	3.0	M4
22	36	31	37	3	30.0	37.5	30.5	2.0	5	9	15.0	7.0	39.5	35.5	28.5	17.0	9.0	3.0	M4
24	38	33	39	3	32.5	40.0	33.0	2.0	5	9	15.0	7.0	42.0	38.0	31.0	17.0	9.0	3.5	M5
25	39	34	40	3	33.5	40.0	33.0	2.0	5	9	15.0	7.0	42.0	38.0	31.0	17.0	9.0	3.5	M5
28	42	37	43	3	36.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	40.0	33.0	17.5	9.5	3.5	M5
30	44	39	45	3	38.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	40.0	33.0	17.5	9.5	3.5	M5
32	47	42	48	3	41.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	40.0	33.0	17.5	9.5	3.5	M5
33	47	42	48	3	41.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	40.0	33.0	17.5	9.5	3.5	M5
35	49	44	50	3	43.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	40.0	33.0	17.5	9.5	3.5	M5
38	54	49	56	4	47.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5
40	56	51	58	4	49.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5
43	59	54	61	4	52.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5
45	61	56	63	4	54.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5
48	64	59	66	4	57.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5
50	66	62	70	4	59.5	47.5	38.0	2.5	6	9	17.0	9.5	50.0	45.0	35.5	19.5	12.0	4.5	M6
53	69	65	73	4	62.5	47.5	38.0	2.5	6	9	17.0	9.5	50.0	45.0	35.5	19.5	12.0	4.5	M6
55	71	67	75	4	64.5	47.5	38.0	2.5	6	9	17.0	9.5	50.0	45.0	35.5	19.5	12.0	4.5	M6
58	78	70	78	4	68.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	50.0	39.5	20.5	13.0	4.5	M6
60	80	72	80	4	70.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	50.0	39.5	20.5	13.0	4.5	M6
63	83	75	83	4	73.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	50.0	39.5	20.5	13.0	4.5	M6
65	85	77	85	4	75.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	50.0	39.5	20.5	13.0	4.5	M6
68	88	81	90	4	78.5	52.5	41.5	2.5	7	9	18.5	11.0	55.0	50.0	39.0	21.0	13.5	4.5	M6
70	90	83	92	4	80.5	60.0	48.5	2.5	7	9	19.0	11.5	62.5	57.5	46.0	21.5	14.0	5.0	M6
75	99	88	97	4	89.0	60.0	48.5	2.5	7	9	19.0	11.5	62.5	57.5	46.0	21.5	14.0	5.5	M8
80	104	95	105	4	94.0	60.0	48.5	3.0	7	9	19.0	11.5	62.5	57.5	46.0	21.5	14.0	5.5	M8
85	109	100	110	4	99.0	60.0	48.5	3.0	7	9	19.0	11.5	62.5	57.5	46.0	21.5	14.0	5.5	M8
90	114	105	115	4	104.0	65.0	52.0	3.0	7	9	20.5	13.0	67.5	62.5	49.5	23.0	15.5	5.5	M8
95	119	110	120	4	109.0	65.0	52.0	3.0	7	9	20.5	13.0	67.5	62.5	49.5	23.0	15.5	5.5	M8
100	124	115	125	4	114.0	65.0	52.0	3.0	7	9	20.5	13.0	67.5	62.5	49.5	23.0	15.5	5.5	M8

Dimensions in millimeter