

RELY ON EXCELLENCE

## MD251

Mechanical Seals | Mechanical seals for pumps | Standard Cartridge seals



### Features

- Cartridge design
- Balanced
- Double seal
- Independent of direction of rotation
- Springs do not contact the liquid
- Inboard seal can withstand both forward and back pressure

### Advantages

- Equipped with flushing, quenching, and drainports as standard
- PTFE backup ring as standard

### Operating range

Pressure:  $p = \text{vacuum} \dots 16 \text{ bar (232 PSI)}$

Temperature:

$t = -20 \text{ °C} \dots 160 \text{ °C} (-4 \text{ °F} \dots 320 \text{ °F})$  (oil),

$0 \text{ °C} \dots 80 \text{ °C} (32 \text{ °F} \dots 176 \text{ °F})$  (water)

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

Viscosity:  $\dots 1 \text{ Pa}\cdot\text{s}$

Solids content:  $\dots 7 \%$

### Materials

Seal face (inboard side): Silicon carbide (Q1)

Seal face (atmosphere side): High density carbon graphite

Seat: Silicon carbide (Q1)

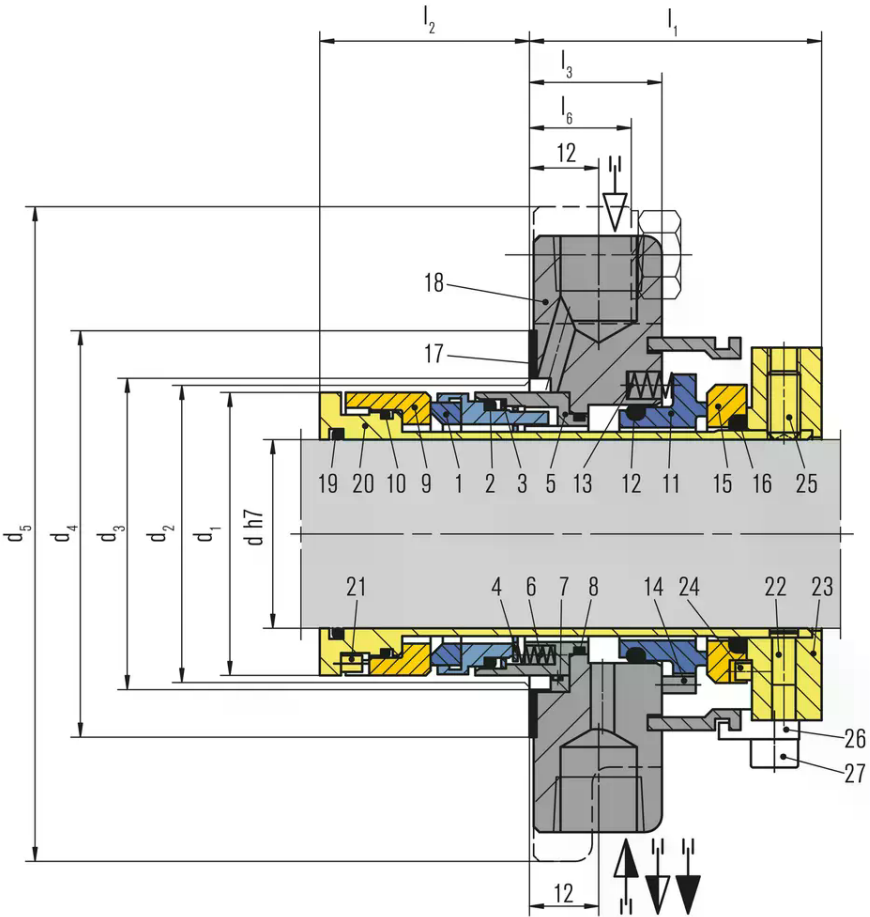
Metal parts: CrNiMo steel (G)

Secondary seals: FKM (V)

### Recommended applications

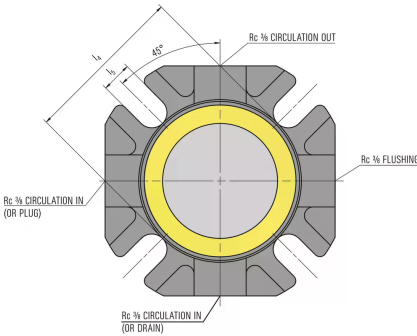
- Acids
- Alkaline solutions
- Salt solutions
- Low viscosity oils
- Monomers
- Hydrocarbons
- Water
- Seawater
- Petrochemical industry
- Chemical industry
- Pharmaceutical industry
- Pulp and paper industry
- Water and waste water technology
- Food and beverage industry
- Metal production and processing
- Chemical pumps
- Process pumps

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Item	Description
1, 11	Seal face
2, 8, 10, 12, 16, 19	O-Ring
3	Spacer
4	Thrust ring
5	Collar
6, 13	Spring
7, 14, 21, 22, 24	Pin
9, 15	Seat
17	Gasket
18	Seal cover
20	Shaft sleeve
23	Drive collar
25	Set screw
26	Assembly fixture
27	HSH cap screw

**Installation, details, options**



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### Dimensions

d	d <sub>s1</sub>	d~2 min.~	d~2 max.~	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>6</sub>
20	34	36	51	38	58	104	49	42	23	60	12	18
25	39	41	51	43	58	104	49	42	23	60	12	18
30	44	46	56	48	63	108	49	42	23	65	12	18
35	49	51	66	53	73	118	49	42	23	75	14	16
40	56	58	66	60	73	118	49	42	23	75	14	16
45	61	63	71	65	78	128	49	42	23	80	14	16
50	68	70	81	72	88	138	51	42	23	90	14	16
55	73	75	81	77	88	138	51	42	23	90	14	16
60	78	80	96	82	103	164	54	45	23	105	18	14
65	84	86	96	88	103	164	54	45	23	105	18	14
70	90	92	102	94	109	178	54	45	23	111	18	14
75	99	102	114	104	121	193	57	45	23	123	18	14
80	104	107	114	109	121	193	57	45	23	123	18	14
85	109	112	124	114	131	208	57	45	23	133	20	13
90	114	117	124	119	131	208	57	45	23	133	20	13
95	119	122	134	124	141	218	57	45	23	143	20	13
100	124	127	134	129	141	218	57	45	23	143	20	13

Dimensions in Millimeter