

RELY ON EXCELLENCE

## HA211

Mechanical Seals | Mechanical seals for pumps | Pusher seals



### Operating range

Pressure:  $p = 12$  bar (174 PSI)  
Temperature:  
 $t = -20$  °C ...  $160$  °C ( $-4$  °F ...  $+320$  °F)  
Sliding velocity: ...  $20$  m/s (66 ft/s)  
Viscosity: ...  $300$  Pa·s  
Solids content: ...  $7$  %

### Materials

Seal face: Silicon carbide (Q1)  
Seat: Silicon carbide (Q1)  
Secondary seals: EPDM (E), FKM (V)  
Metal parts: CrNiMo steel (G)

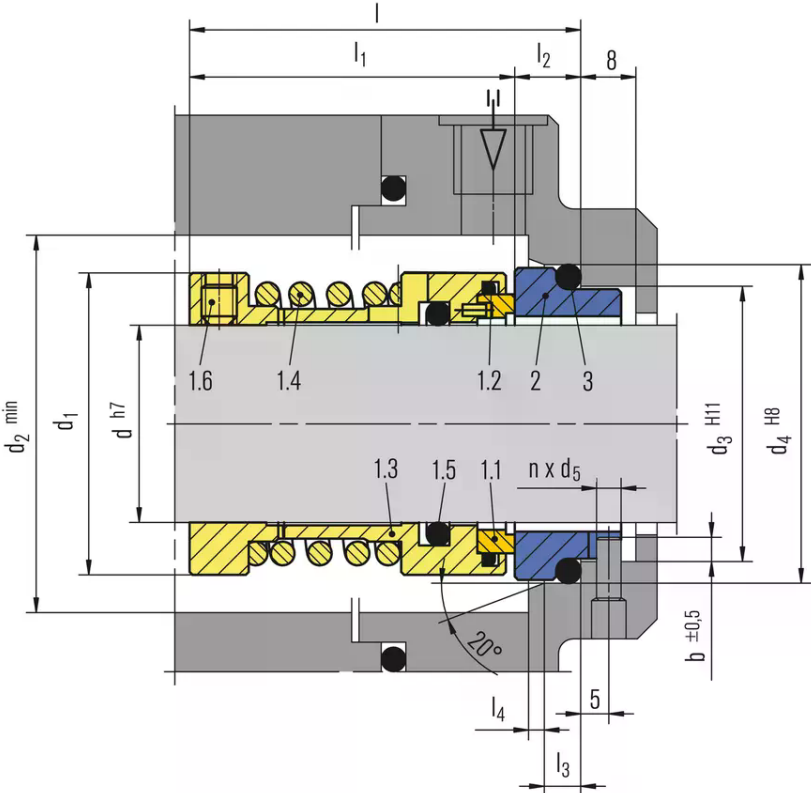
### Recommended applications

- High-viscosity liquids
- Pulp suspensions
- Pulp and paper industry
- Water and waste water technology
- Process pumps
- Pulp pumps

### Features

- Single seal
- Unbalanced
- Independent of direction of rotation
- Positive torque transmission due to bayonet drive between seal head and drive collar
- O-Ring groove for ventilation prevents solids build-up and enhances flexibility

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Item	Description
1.1	Seal face
1.2	O-Ring
1.3	Drive collar
1.4	Spring
1.5	O-Ring
1.6	Set screw
2	Seat
3	O-Ring

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### Dimensions

d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	l	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	b
20	34	36	29	35	3	51	41	10.0	5,5	2.0	3.5
24	38	40	33	39	3	53	43	10.0	5,5	2.0	3.5
25	39	41	34	40	3	53	43	10.0	5,5	2.0	3.5
28	42	44	37	43	3	55	45	10.0	5,5	2.0	3.5
30	44	46	39	45	3	55	45	10.0	5,5	2.0	3.5
32	46	48	42	48	3	55	45	10.0	5,5	2.0	3.5
33	47	49	42	48	3	55	45	10.0	5,5	2.0	3.5
35	49	51	44	50	3	59	49	10.0	5,5	2.0	3.5
38	54	58	49	56	4	64	53	11.0	6	2.0	4.0
40	56	60	51	58	4	66	55	11.0	6	2.0	4.0
43	59	63	54	61	4	66	55	11.0	6	2.0	4.0
45	61	65	56	63	4	66	55	11.0	6	2.0	4.5
48	64	68	59	66	4	66	55	11.0	6	2.0	4.5
50	66	70	62	70	4	73	60	13.0	6	2.5	4.5
53	69	73	65	73	4	74	61	13.0	6	2.5	5.0
55	71	75	67	75	4	74	61	13.0	6	2.5	5.0
60	78	85	72	80	4	76	63	13.0	6	2.5	5.0
63	81	88	75	83	4	76	63	13.0	6	2.5	5.0
65	84	90	77	85	4	80	67	13.0	6	2.5	5.0
70	90	95	83	92	4	83	68	15.0	7	2.5	5.0
75	95	104	88	97	4	87	72	15.0	7	2.5	5.0
80	100	109	95	105	4	87.5	72	15.5	7	3.0	6.0
85	107	114	100	110	4	92.5	77	15.5	7	3.0	6.0
90	112	119	105	115	4	92.5	77	15.5	7	3.0	6.0
95	119	124	110	120	4	97.5	82	15.5	7	3.0	6.0
100	124	129	115	125	4	97.5	82	15.5	7	3.0	6.0

Dimensions in millimeter