

# V3110 Single Seals

## Standard Mechanical Seals - Pusher Seals



### Product Description

1. Single seal configuration
2. Unbalanced Design
3. Dependent of direction of rotation
4. For plain shafts
5. Torque transmission is through the conical spring

### Technical Features

1. Low cost seal solution
2. No damage to the shaft
3. Short installation length available on request

### Typical Industrial Applications

Chemical industry  
 Food and beverage industry  
 Food processing  
 Pulp and paper industry  
 Water and waste water technology

### Standards

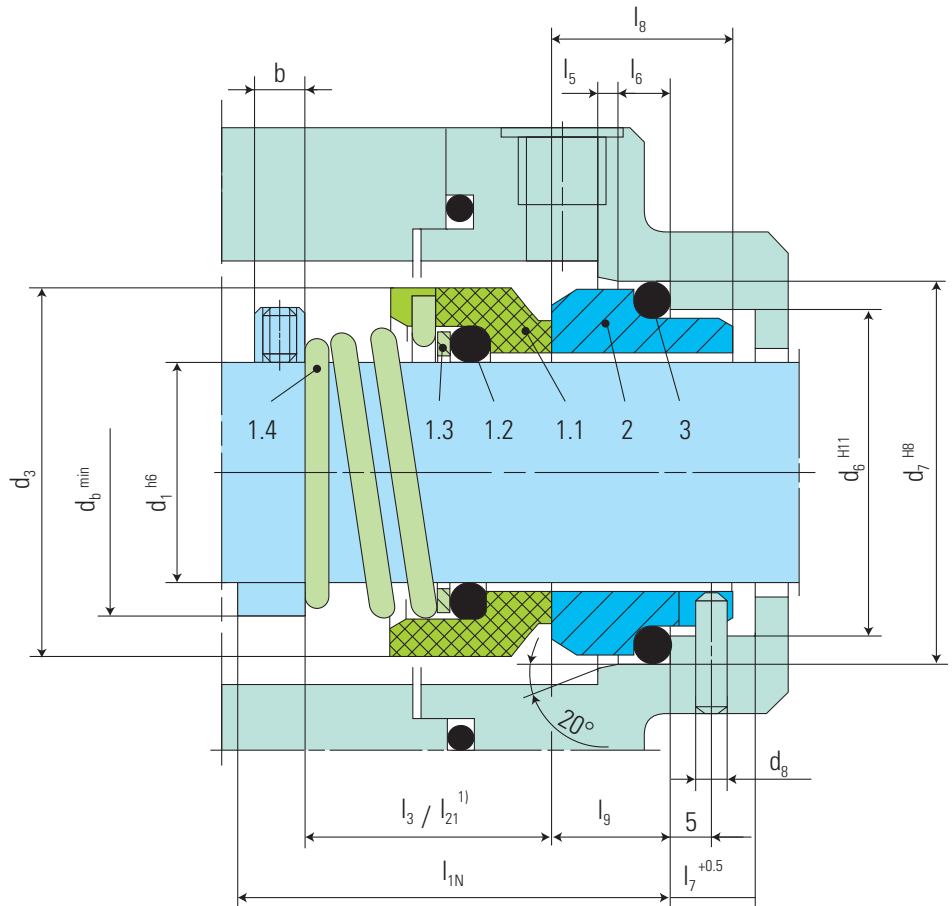
EN 12756

### Performance Capabilities

Shaft diameter:  $d_1 =$  Upto 38 mm (Upto 1.500")  
 Pressure:  $p_1 =$  10 bar (145 PSI)  
 Temperature:  $t = -20\text{ }^\circ\text{C} \dots +140\text{ }^\circ\text{C}$   
 (- 4 °F ... + 284 °F)  
 Speed = 15 m/s (50 ft/s)  
 Permissible axial movement:  $\pm 1.0$  mm

### Notes

Seal face: Carbon graphite resin impregnated (B)  
 Seat G9 : Silicon carbide (Q1, Q2),  
 Special cast CrMo steel (S), Aluminium oxide (V)

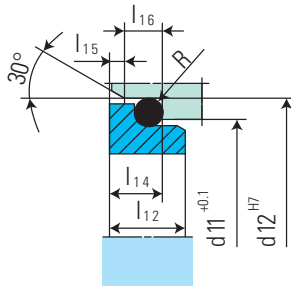


**Note:** The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

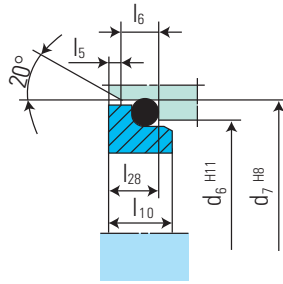
Item	Part no.	Description
1.1	472	Seal face
1.2	412.1	O-ring
1.3	474	Thrust ring
1.4	478	Right hand spring
1.4	479	Left hand spring
2	475	Seat (G9)
3	412.2	O-ring
<b>DIN 24250</b>		



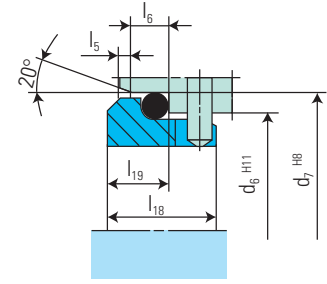
## Stationary Seats



**G4**



**G6**  
(EN 12756)



**G16**  
(EN 12756)

## Design Variations

### U200

Rotating unit U200 with seat G4 or G16 (shorter installation length).  
 Seal face: Carbon graphite resin impregnated (B)  
 Seat G4 : Silicon carbide (Q1), Special cast CrMo steel (S)  
 Seat G16 : Silicon carbide (Q1, Q2), Special cast CrMo steel (S),  
 Aluminium oxide (V)

### U200N4

Rotating unit U200 with seat G6.  
 Seal face: Carbon graphite resin impregnated (B)  
 Seat G6: Silicon carbide (Q1), Special cast CrMo steel (S)

## Dimensional Data

### Dimensions in millimeter

d1	d3	d6	d7	d8	d11	d12	db	l1N	l3 <sup>1)</sup>	l5	l6	l7	l8	l9	l10	l12	l14	l15	l16	l18	l19	l21 <sup>1)</sup>	l28	b	R
6	15	-	-	-	11.8	16.0	8	-	-	-	-	-	-	-	-	6.5	5.6	1.2	3.8	-	-	10.9	-	-	1.2
8	18	-	-	-	15.5	19.2	11	-	-	-	-	-	-	-	-	8.0	7.0	1.2	3.8	-	-	15.5	-	-	1.2
10	20	17	21	3	15.5	19.2	13	40	17.5	1.5	4	8.5	17.5	10.0	7.5	7.5	6.6	1.2	3.8	-	-	15.9	6.6	8	1.2
12	22	19	23	3	17.5	21.6	16	40	17.5	1.5	4	8.5	17.5	10.0	7.5	8.0	7.0	1.2	3.8	-	-	16.0	6.6	8	1.2
14	25	21	25	3	20.5	24.6	18	40	17.5	1.5	4	8.5	17.5	10.0	7.5	8.0	7.0	1.2	3.8	-	-	16.0	6.6	8	1.2
15	27	-	-	-	20.5	24.6	19	-	-	-	-	-	-	-	-	7.5	6.6	1.2	3.8	-	-	17.4	-	-	1.2
16	27	23	27	3	22.0	28.0	21	40	19.5	1.5	4	8.5	17.5	10.0	7.5	8.5	7.5	1.5	5.0	-	-	19.0	6.6	8	1.5
18	30	27	33	3	24.0	30.0	23	45	20.5	2.0	5	9.0	19.5	11.5	8.5	9.0	8.0	1.5	5.0	15	7	20.5	7.5	8	1.5
20	32	29	35	3	29.5	35.0	26	45	22	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	15	7	22.0	7.5	8	1.5
22	35	31	37	3	29.5	35.0	28	45	23.5	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	15	7	23.5	7.5	8	1.5
24	38	33	39	3	32.0	38.0	30	50	25	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	15	7	25.0	7.5	8	1.5
25	40	34	40	3	32.0	38.0	31	50	26.5	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	15	7	26.5	7.5	8	1.5
26	41	-	-	-	34.0	40.0	32	-	-	-	-	-	-	-	-	9.0	8.0	1.5	5.0	-	-	26.5	-	-	1.5
28	43	37	43	3	36.0	42.0	35	50	26.5	2.0	5	9.0	19.5	11.5	8.5	10.0	9.0	1.5	5.0	15	7	26.5	7.5	8	1.5
30	47	-	-	-	39.2	45.0	37	-	-	-	-	-	-	11.5	-	11.5	10.5	1.5	5.0	15	7	25.0	-	-	1.5
32	48	-	-	-	42.2	48.0	39	-	-	-	-	-	-	11.5	-	13.0	10.5	1.5	5.0	15	7	28.5	-	-	1.5
35	53	-	-	-	46.2	52.0	43	-	-	-	-	-	-	11.5	-	13.5	11.0	1.5	5.0	15	7	28.5	-	-	1.5
38	56	-	-	-	49.2	55.0	47	-	-	-	-	-	-	14.0	-	13.0	10.3	1.5	5.0	16	8	32.0	-	-	1.5

1) l<sub>3</sub> valid for U200N, l<sub>21</sub> valid for U200

According to EN 12756

inch sizes also available from size 0.250 to 1.500

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