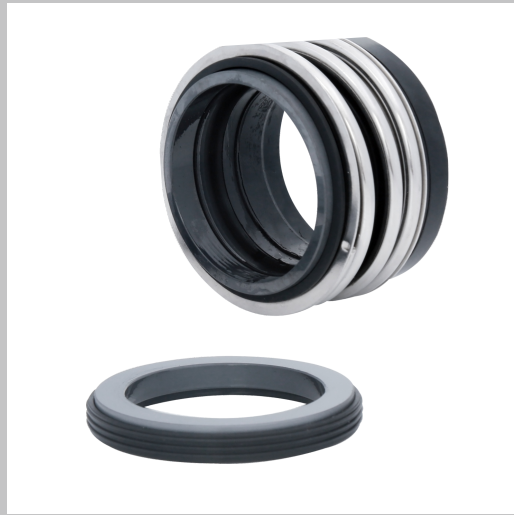


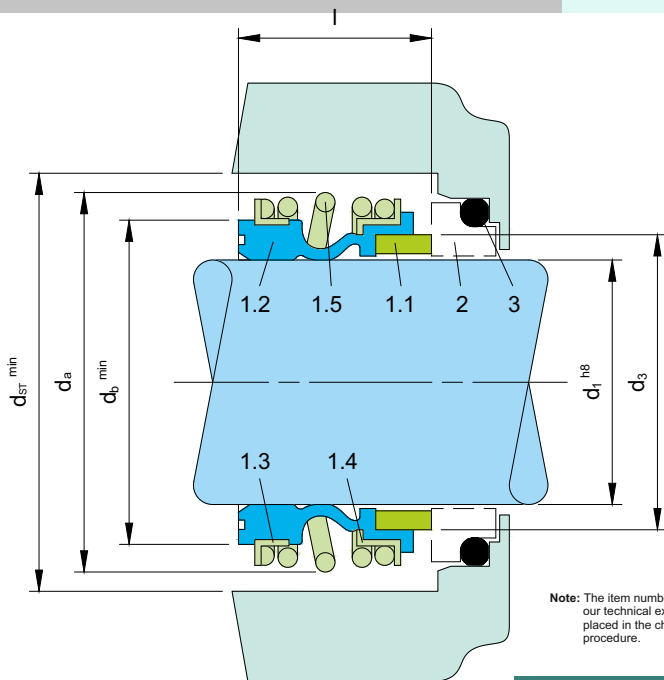


Product Description

1. Single seal configuration
2. Unbalanced design
3. Independent of direction of rotation
4. For plain shafts
5. Rotary elastomer bellows design

Technical Features

1. Low cost seal solution
2. Suitable for mild sterile applications
3. No damage to the shaft
4. Can be employed for low solids content
5. Multifaceted application usage



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.

Typical Industrial Applications

Chemical industry
Chemical standard pumps
Food Processing industry
Helical screw pumps
Pulp, Paper & Latex
Submersible pumps
Water, waste water and mild slurries

Performance Capabilities

Sizes:	d ₁ = Up to 100 mm (Up to 4.000")
Pressure:	p ₁ = 16 bar (230 PSI)
Vacuum:	0.5 bar (7.25 PSI), up to 1 bar (14.5PSI) with seat locking
Temperature:	t = -20°C...+140°C (-4°F...+284°F)
Speed:	= 10 m/s (33 ft/s)

Permissible axial movement:

±2.0 mm

Standards

EN 12756

Notes

The UG100 can also be used as a multiple seal in tandem or in a back-to-back arrangement. Installation proposals can be supplied on request. Dimension adaptations for specific conditions, e.g. shaft in inches or special seat dimensions are available on request.

Item	Part no.	Description
1.5	477	Spring
2	475	Seat
3	412	O-ring or cup rubber

DIN 24250

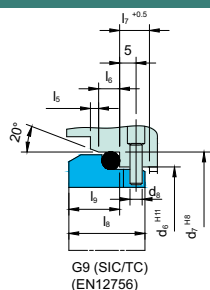
Item	Part no.	Description
1.1	472	Seal face
1.2	481	Bellows
1.3	484.2	L-ring (spring collar)
1.4	484.1	L-ring (spring collar)

DIN 24250

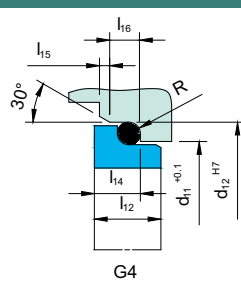
Materials

Seal face:	Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B), Silicon carbide (Q1), Tungsten carbide (U3)
Seat:	Silicon carbide (Q1, Q2), Tungsten carbide (U3), Special cast CrMo steel(S), Aluminium oxide (V)
Elastomer:	NBR (P), EPDM (E), FKM (V),
Metals:	CrNiMo steel (G), Hastelloy® C4 (M)

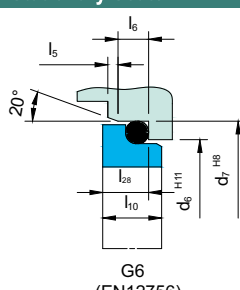
Stationary Seats



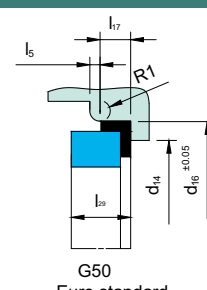
G9 (SiC/TC)
(EN12756)



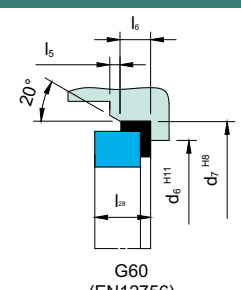
G4



G6
(EN12756)

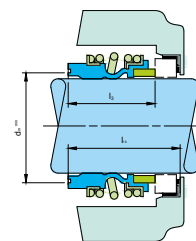
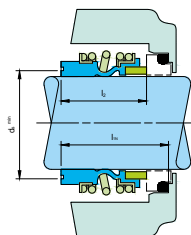
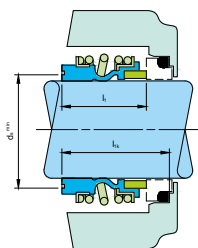


G50
Euro standard



G60
(EN12756)

Design Variations



UG120

Dimensions, items and designations same as for UG100, but with an extended bellows tail to achieve the fitting length l_{1k} according to EN 12756 in combination with seat G6 or G60 (d_a exceeds EN 12756).

UG130

Dimensions, items and designations same as for UG100, but with an extended bellows tail to achieve the fitting length l_{1n} according to EN 12756 in combination with seat G6 or G60 (d_a exceeds EN 12756).

UG100S20

Dimensions, items and designations same as for UG100, but with an extended bellows tail to achieve the special fitting length l_{1s} in combination with seat.

Dimensional Data

Dimensions in millimeter

d ₁	d ₃	d ₆	d ₇	d ₈	d ₁₁	d ₁₂	d ₁₄	d ₁₆	d _a	d _b ^{*)}	d _m ^{*)}	d _s ^{*)}	d _{ST}	l	l ₁	l _{1k}	l _{1N}	l _{1S}	l ₂	l ₃	l ₅	l ₆	l ₇	l ₈	l ₉	l ₁₀	l ₁₂	l ₁₄	l ₁₅	l ₁₆	l ₁₇	l ₂₈	l ₂₉	R	
10	15.7	17	21	3	15.5	19.2	11.0	24.60	22.5	20.5	18	18	24	14.5	25.9	32.5	40	34.0	33.4	25	1.5	4	8.5	17.5	10.0	7.5	7.5	6.6	1.2	3.8	7.5	6.6	9.0	1.2	
12	17.7	19	23	3	17.5	21.6	13.5	27.80	25.0	22.5	20	20	26	15.0	25.9	32.5	40	34.0	33.4	25	1.5	4	8.5	17.5	10.0	7.5	6.5	5.6	1.2	3.8	7.5	6.6	9.0	1.2	
14	19.7	21	25	3	20.5	24.6	17.0	30.95	28.5	26.5	22	22	30	17.0	28.4	35.0	40	35.5	33.4	25	1.5	4	8.5	17.5	10.0	7.5	6.5	5.6	1.2	3.8	9.0	6.6	10.5	1.2	
15	20.8	-	-	-	20.5	24.6	17.0	30.95	28.5	26.5	22	22	30	17.0	28.4	-	-	35.5	33.4	25	-	-	-	-	-	-	7.5	6.6	1.2	3.8	9.0	-	10.5	1.2	
16	21.0	23	27	3	22.0	28.0	17.0	30.95	28.5	26.5	22	22	30	17.0	28.4	35.0	40	35.5	33.4	25	1.5	4	8.5	17.5	10.0	7.5	8.5	7.5	1.5	5.0	9.0	6.6	10.5	1.5	
18	23.7	27	33	3	24.0	30.0	20.0	34.15	32.0	29.0	29	26	33	19.5	30.0	37.5	45	35.5	37.5	25	2.0	5	9.0	19.5	11.5	8.5	9.0	8.0	1.5	5.0	9.0	7.5	10.5	1.5	
19	26.7	-	-	-	-	-	20.0	34.15	37.0	33.0	33	28	38	21.5	30.0	-	-	35.5	37.5	25	-	-	-	-	-	-	-	-	-	-	-	9.0	-	10.5	-
20	26.7	29	35	3	29.5	35.0	21.5	35.70	37.0	33.0	33	28	38	21.5	30.0	37.5	45	35.5	37.5	25	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	9.0	7.5	10.5	1.5	
22	27.7	31	37	3	29.5	35.0	23.0	37.30	37.0	33.0	33	28	38	21.5	30.0	37.5	45	35.5	37.5	25	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	9.0	7.5	10.5	1.5	
24	31.2	33	39	3	32.0	38.0	26.5	40.50	42.5	38.0	38	32	44	22.5	32.5	40.0	50	35.5	42.5	25	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	9.0	7.5	10.5	1.5	
25	31.2	34	40	3	32.0	38.0	26.5	40.50	42.5	38.0	38	32	44	23.0	32.5	40.0	50	35.5	42.5	25	2.0	5	9.0	19.5	11.5	8.5	8.5	7.5	1.5	5.0	9.0	7.5	10.5	1.5	
28	35.0	37	43	3	36.0	42.0	29.5	47.65	49.0	44.0	37	37	50	26.5	35.0	42.5	50	45.0	42.5	33	2.0	5	9.0	19.5	11.5	8.5	10.0	9.0	1.5	5.0	10.5	7.5	12.0	1.5	
30	37.0	39	45	3	39.2	45.0	32.5	50.80	49.0	44.0	37	37	50	26.5	35.0	42.5	50	45.0	42.5	33	2.0	5	9.0	19.5	11.5	8.5	11.5	10.5	1.5	5.0	10.5	7.5	12.0	1.5	
32	40.2	42	48	3	42.2	48.0	32.5	50.80	53.5	46.0	41	41	55	27.5	35.0	42.5	55	45.0	47.5	33	2.0	5	9.0	19.5	11.5	8.5	11.5	10.5	1.5	5.0	10.5	7.5	12.0	1.5	
33	40.2	42	48	3	44.2	50.0	36.5	54.00	53.5	46.0	41	41	55	27.5	35.0	42.5	55	45.0	47.5	33	2.0	5	9.0	19.5	11.5	8.5	12.0	11.0	1.5	5.0	10.5	7.5	12.0	1.5	
35	43.2	44	50	3	46.2	52.0	36.5	54.00	57.0	50.0	44	44	59	28.5	35.0	42.5	55	45.0	47.5	33	2.0	5	9.0	19.5	11.5	8.5	12.0	11.0	1.5	5.0	10.5	7.5	12.0	1.5	
38	46.2	49	56	4	49.2	55.0	39.5	57.15	59.0	53.0	53	47	61	30.0	36.0	45.0	55	45.0	46.0	33	2.0	6	9.0	22.0	14.0	10.0	11.3	10.3	1.5	5.0	10.5	9.0	12.0	1.5	
40	48.8	51	58	4	52.2	58.0	42.5	60.35	62.0	55.0	55	49	64	30.0	36.0	45.0	55	45.0	46.0	33	2.0	6	9.0	22.0	14.0	10.0	11.8	10.8	1.5	5.0	10.5	9.0	12.0	1.5	
42	51.8	-	-	-	53.3	62.0	46.0	63.50	65.5	58.0	53	53	67	30.0	36.0	-	-	53.0	51.0	41	-	-	-	-	-	-	13.2	12.0	2.0	6.0	10.5	-	12.0	2.5	
43	51.8	54	61	4	53.3	62.0	46.0	63.50	65.5	58.0	53	53	67	30.0	36.0	45.0	60	53.0	51.0	41	2.0	6	9.0	22.0	14.0	10.0	13.2	12.0	2.0	6.0	10.5	9.0	12.0	2.5	
45	53.8	56	63	4	55.3	64.0	46.0	63.50	68.0	60.0	55	55	70	30.0	36.0	45.0	60	53.0	51.0	41	2.0	6	9.0	22.0	14.0	10.0	12.8	11.6	2.0	6.0	10.5	9.0	12.0	2.5	
48	56.8	59	66	4	59.7	68.4	49.0	66.70	70.5	63.0	58	58	74	30.5	36.0	45.0	60	53.0	51.0	41	2.0	6	9.0	22.0	14.0	10.0	12.8	11.6	2.0	6.0	10.5	9.0	12.0	2.5	
50	58.8	62	70	4	60.8	69.3	52.0	69.85	74.0	65.0	60	60	77	30.5	38.0	47.5	60	54.5	50.5	41	2.5	6	9.0	23.0	15.0	10.5	12.8	11.6	2.0	6.0	12.0	9.5	13.5	2.5	
53	62.2	65	73	4	63.8	72.3	55.5	73.05	78.5	70.0	63	63	81	33.0	36.5	47.5	70	54.5	59.0	41	2.5	6	9.0	23.0	15.0	12.0	13.5	12.3	2.0	6.0	12.0	11.0	13.5	2.5	
55	64.2	67	75	4	66.5	75.4	58.5	76.20	81.0	72.0	65	65	83	35.0	36.5	47.5	70	54.5	59.0	41	2.5	6	9.0	23.0	15.0	12.0	14.5	13.3	2.0	6.0	12.0	11.0	13.5	2.5	
58	67.2	70	78	4	69.5	78.4	61.5	79.40	85.5	75.0	68	68	88	37.0	41.5	52.5	70	54.5	59.0	41	2.5	6	9.0	23.0	15.0	12.0	14.5	13.3	2.0	6.0	12.0	11.0	13.5	2.5	
60	70.0	72	80	4	71.5	80.4	61.5	79.40	88.5	79.0	70	70	91	38.0	41.5	52.5	70	54.5	59.0	41	2.5	6	9.0	23.0	15.0	12.0	14.5	13.3	2.0	6.0	12.0	11.0	13.5	2.5	
65	75.0	77	85	4	76.5	85.4	68.0	92.10	93.5	84.0	77	77	96	40.0	41.5	52.5	80	65.0	69.0	49	2.5	6	9.0	23.0	15.0	12.0	14.2	13.0	2.0	6.0	14.5	11.0	16.0	2.5	
68	78.0	81	90	4	82.7	91.5	71.0	95.25	96.5	88.0	80	80	100	40.0	41.2	52.5	80	65.0	68.7	49	2.5	7	9.0	26.0	18.0	12.5	14.9	13.7	2.0	6.0	14.5	11.3	16.0	2.5	
70	80.0	83	92	4	83.0	92.0	71.0	95.25	99.5	90.0	82	82	103	40.0	48.7	60.0	80	65.0	68.7	49	2.5	7	9.0	26.0	18.0	12.5	14.2	13.0	2.0	6.0	14.5	11.3	16.0	2.5	
75	85.5	88	97	4	90.2	99.0	77.5	101.60	107.0	95.0	87	87	110	40.0	48.7	60.0	80	68.0	68.7	52	2.5	7	9.0	26.0	18.0	12.5	15.2	14.0	2.0	6.0	14.5	11.3	16.0	2.5	
80	90.5	95	105	4	95.2	104.0	84.0	114.30	112.0	100.0	92	92	116	40.0	48.0	60.0	90	76.0	78.0	56	3.0	7	9.0	26.2	18.2	13.0	16.2	15.0	2.0	6.0	18.5	12.0	20.0	2.5	
85	96.0	100	110	4	100.2	109.0	87.0	117.50	120.0	107.0	97	97	124	41.0	46.0	60.0	90	76.0	76.0	56	3.0	7	9.0	26.2	18.2	15.0	16.0	14.8	2.0	6.0	18.5	14.0	20.0	2.5	
90	102.0	105	115	4	105.2	114.0	93.5	123.85	127.0	114.0	104	104	131	45.0	51.0	65.0	90	79.0	76.0	59	3.0	7	9.0	26.2	18.2	15.0	16.0	14.8	2.0	6.0	18.5	14.0	20.0	2.5	
95	107.0	110	120	4	111.6	120.3	96.5	127.00	132.0	119.0	109	109	136	46.0	51.0	65.0	90	79.0	76.0	59	3.0	7	9.0	25.2	17.2	15.0	17.0	15.8	2.0	6.0	18.5	14.0	20.0	2.5	
100	112.0	115	125	4	114.5	123.3	103.0	133.35	137.0	124.0	114	114	140	47.0	51.0	65.0	90	82.0	76.0	62	3.0	7	9.0	25.2	17.2	15.0	17.0	15.8	2.0	6.0	18.5	14.0	20.0	2.5	

*) minimum diameter of the mating collar.

inch size available from size 0.375 to 4.000

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

The specifications, drawings, images etc included in this catalogue are intended to be generic and must be interpreted as equivalent or functionally equivalent, more specifically the performance capabilities mentioned in this catalogue is based on optimum values, however the performance of the product is dependent on size, material of construction, media, pressure, temperature, sliding velocity etc and it shall vary from size to size or application to application. Customers are requested to consult with Sealmatic before employing the product from this catalogue for any application.