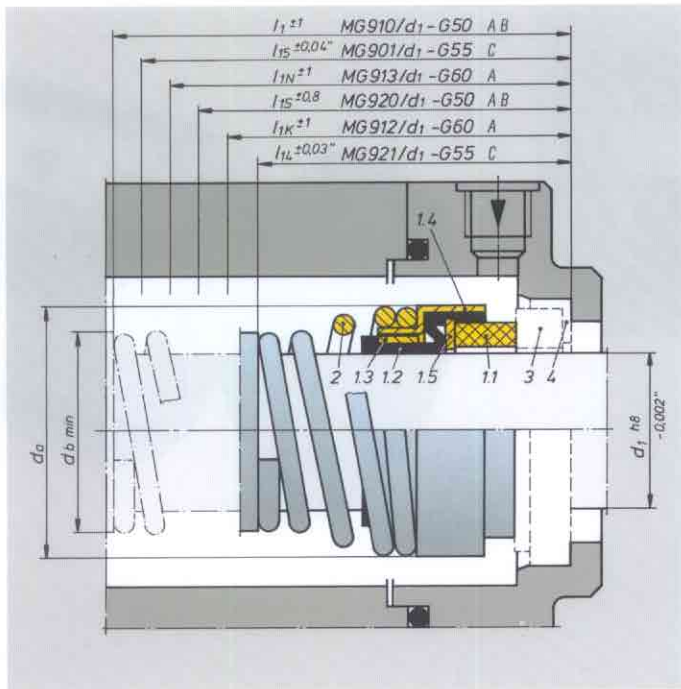


MG9



- ▶ **Single seal**
- ▶ **Unbalanced**
- ▶ **Independent of direction of rotation**
- ▶ **Elastomer bellows**

The MG9 is designed for medium-range pressures and loads. Within its operating limits it can be put to universal use in pumps thanks to the following attributes:

- for all fitting lengths only one bellows unit for each size of diameter
- length compensation by means of a conical spring of required length, with single easy-to-fit clamp-type connector
- no need to change existing pump installation spaces
- smallest external diameter of all bellows seals on the world market
- no torsion on bellows and spring
- no adhesive joints
- self-centering conical spring (supported directly on the shaft collar without an additional washer)
- technical approval issued by a top-name, global pump manufacturer
- compact, unsplit bellows unit with stationary seal face for reliable installation and operation (deposits between the bellows and the seal face are impossible, ruling out all risk of misalignment)

MG9

Item	Part No.	Description
	DIN 24250	
1.1	472	Seal face
1.2	481	Bellows
1.3	485	Driver collar
1.4	484.1	"L" ring
1.5	474	Washer
2	477	Spring
3	475	Seat
4	412	Corner sleeve

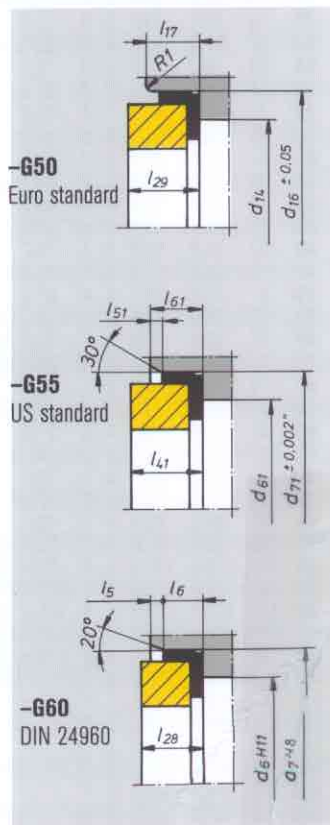
Operating limits

$d_1 = 10 \dots 100 \text{ mm}$ 0.375 ... 4"
 $p_1^* = 8 \text{ (12) bar}$ 116 (174) PSI
 $t^* = -20 \dots +90 \text{ (140) }^\circ\text{C}$
 $-4 \dots 194 \text{ (284) }^\circ\text{F}$
 $v_g = 10 \text{ m/s}$ 33 ft/s
 permissible axial movement: $\pm 0.5 \text{ mm}$
 *) dependent on the medium, size and materials

Materials

Seal component	Material (DIN)	Standard	Special
Seal face	Carbon (B) SiC (Q1)	●	●
Seat	Ceramic (V) SiC (Q1)	●	●
Bellows / Corner sleeve	Perbunan (P) Viton® (V) EPDM (E)	●	●
Spring	1.431 B (F) 1.4571 (G)	●	●
Driver collar / "L" ring	1.4301 (F) 1.4571 (G) 1.4401	●	●

Seats



MG9 ... the alternative

A																Burgmann*				Crane*		Sealot*	Dimensions		Table
	d ₁	d ₆	d ₇	d ₁₄	d ₁₆	d _a	d _b	l ₁	l _{1K}	l _{1N}	l _{1S}	l ₅	l ₆	l ₁₇	l ₂₈	l ₂₉									
10	17	21	11.0	24.60	19.6	13.0	53.0	32.5	40	34.0	1.5	4	7.5	6.6	9.0	MG910/d ₁ -G50	1A	43 CE long	Zoll / mm			B			
12	19	23	13.5	27.80	21.6	15.0	53.0	32.5	40	34.0	1.5	4	7.5	6.6	9.0		1A	43 CE long	mm			A			
14	21	25	17.0	30.95	24.0	18.0	54.5	35.0	40	35.5	1.5	4	9.0	6.6	10.5										
15	-	-	17.0	30.95	25.0	19.0	54.5	-	-	35.5	-	-	9.0	-	10.5	MG920/d ₁ -G50	2	43 CE short	Zoll / mm			B			
16	23	27	17.0	30.95	26.5	20.0	54.5	35.0	40	35.5	1.5	4	9.0	6.6	10.5		2	43 CE short	mm			A			
18	27	33	20.0	34.15	29.0	22.0	54.5	37.5	45	35.5	2.0	5	9.0	7.5	10.5										
20	29	35	21.5	35.70	31.5	24.5	54.5	37.5	45	35.5	2.0	5	9.0	7.5	10.5	MG901/d ₁ -G55	1	43 CU long	Zoll (nur USA)			C			
22	31	37	23.0	37.30	33.0	27.0	54.5	37.5	45	35.5	2.0	5	9.0	7.5	10.5										
24	33	39	26.5	40.50	37.0	29.0	54.5	40.0	50	35.5	2.0	5	9.0	7.5	10.5	MG921/d ₁ -G55	2	43 CU short	Zoll (nur USA)			C			
25	34	40	26.5	40.50	38.0	30.0	54.5	40.0	50	35.5	2.0	5	9.0	7.5	10.5		21	43 CU short	Zoll (nur USA)			C			
28	37	43	29.5	47.65	41.0	34.0	72.0	42.5	50	45.0	2.0	5	10.5	7.5	12.0										
30	39	45	32.5	50.80	43.0	36.0	72.0	42.5	50	45.0	2.0	5	10.5	7.5	12.0	MG912/d ₁ -G60	502	43 DIN	mm			A			
32	42	48	32.5	50.80	45.0	38.0	72.0	42.5	55	45.0	2.0	5	10.5	7.5	12.0		521	43 DIN	mm			A			
33	42	48	36.5	54.00	46.0	39.0	72.0	42.5	55	45.0	2.0	5	10.5	7.5	12.0		2100-I _{1K}	43 DIN	mm			A			
35	44	50	36.5	54.00	48.0	41.0	72.0	42.5	55	45.0	2.0	5	10.5	7.5	12.0										
38	49	56	39.5	57.15	52.5	44.5	72.0	45.0	55	45.0	2.0	6	10.5	9.0	12.0	MG913/d ₁ -G60	2100-I _{1N}		mm			A			
40	51	58	42.5	60.35	55.5	47.5	72.0	45.0	55	45.0	2.0	6	10.5	9.0	12.0										
43	54	61	46.0	63.50	58.5	50.5	83.0	45.0	60	53.0	2.0	6	10.5	9.0	12.0										
45	56	63	46.0	63.50	60.5	52.5	83.0	45.0	60	53.0	2.0	6	10.5	9.0	12.0										
48	59	66	49.0	66.70	64.0	56.0	83.0	45.0	60	53.0	2.0	6	10.5	9.0	12.0										
50	62	70	52.0	69.85	66.0	58.0	84.5	47.5	60	54.5	2.5	6	12.0	9.5	13.5										
53	65	73	55.5	73.05	69.0	61.0	84.5	47.5	70	54.5	2.5	6	12.0	11.0	13.5										
55	67	75	58.5	76.20	71.0	63.0	84.5	47.5	70	54.5	2.5	6	12.0	11.0	13.5										
58	70	78	61.5	79.40	76.0	66.0	84.5	52.5	70	54.5	2.5	6	12.0	11.0	13.5										
60	72	80	61.5	79.40	78.0	68.0	84.5	52.5	70	54.5	2.5	6	12.0	11.0	13.5										
63	75	83	-	-	82.0	71.5	-	52.5	70	-	2.5	6	-	11.0	-										
65	77	85	68.0	92.10	84.0	73.5	86.0	52.5	80	65.0	2.5	6	14.5	11.0	16.0										
68	81	90	71.0	95.25	87.0	76.5	86.0	52.5	80	65.0	2.5	7	14.5	11.3	16.0										
70	83	92	71.0	95.25	89.0	79.0	86.0	60.0	80	65.0	2.5	7	14.5	11.3	16.0										
75	88	97	77.5	101.60	95.0	85.0	89.0	60.0	80	68.0	2.5	7	14.5	11.3	16.0										
80	95	105	84.0	114.30	101.5	91.5	99.0	60.0	90	76.0	3.0	7	18.5	14.0	20.0										
85	100	110	87.0	117.50	-	-	99.0	60.0	90	76.0	3.0	7	18.5	14.0	20.0										
90	105	115	93.5	123.85	111.5	103.0	103.0	65.0	90	79.0	3.0	7	18.5	14.0	20.0										
95	110	120	96.5	127.00	-	-	103.0	65.0	90	79.0	3.0	7	18.5	14.0	20.0										
100	115	125	103.0	133.35	122.5	114.0	106.0	65.0	90	82.0	3.0	7	18.5	14.0	20.0										

MG9

* identical fitting dimensions

B Dimensions in inches / mm

d ₁	d ₆	d ₇	d ₁₄	d ₁₆	d _a	d _b	l ₁	l _{1S}	l ₁₇	l ₂₉
0.375"	9.53	11.0	24.60	18.8	12.5	53.0	34.0	7.5	9.0	
0.500"	12.70	13.5	27.80	22.3	16.0	53.0	34.0	7.5	9.0	
0.625"	15.88	17.0	30.95	26.5	20.0	54.5	35.5	9.0	10.5	
0.750"	19.05	20.0	34.15	29.5	23.0	54.5	35.5	9.0	10.5	
0.875"	22.23	23.0	37.30	33.0	27.0	54.5	35.5	9.0	10.5	
1.000"	25.40	26.5	40.50	38.0	30.5	54.5	35.5	9.0	10.5	
1.125"	28.58	29.5	47.65	41.5	34.5	72.0	45.0	10.5	12.0	
1.250"	31.75	32.5	50.80	45.0	38.0	72.0	45.0	10.5	12.0	
1.375"	34.93	36.5	54.00	48.0	41.0	72.0	45.0	10.5	12.0	
1.500"	38.10	39.5	57.15	52.5	44.5	72.0	45.0	10.5	12.0	
1.625"	41.28	42.5	60.35	57.0	48.5	72.0	45.0	10.5	12.0	
1.750"	44.45	46.0	63.50	60.5	51.5	83.0	53.0	10.5	12.0	
1.875"	47.63	49.0	66.70	64.0	55.0	83.0	53.0	10.5	12.0	
2.000"	50.80	52.0	69.85	66.0	58.0	84.5	54.5	12.0	13.5	
2.125"	53.98	55.5	73.05	71.0	61.5	84.5	54.5	12.0	13.5	
2.250"	57.15	58.5	76.20	76.5	65.0	84.5	54.5	12.0	13.5	
2.375"	60.33	61.5	79.40	78.5	68.5	84.5	54.5	12.0	13.5	
2.500"	63.50	65.0	82.55	82.0	72.0	84.5	54.5	12.0	13.5	
2.625"	66.68	68.0	92.10	84.0	75.0	86.0	65.0	14.5	16.0	
2.750"	69.85	71.0	95.25	89.0	79.0	86.0	65.0	14.5	16.0	
2.875"	73.03	74.5	98.45	92.5	82.0	89.0	68.0	14.5	16.0	
3.000"	76.20	77.5	101.60	95.5	85.5	89.0	68.0	14.5	16.0	
3.125"	79.38	80.5	111.15	101.5	91.0	99.0	76.0	18.5	20.0	
3.250"	82.55	84.0	114.30	-	-	99.0	76.0	18.5	20.0	
3.375"	85.73	87.0	117.50	-	-	99.0	76.0	18.5	20.0	
3.500"	88.90	90.5	120.65	111.5	100.0	99.0	76.0	18.5	20.0	
3.625"	92.08	93.5	123.85	-	-	103.0	79.0	18.5	20.0	
3.750"	95.25	96.5	127.00	118.0	108.0	103.0	79.0	18.5	20.0	
3.875"	98.43	100.0	130.20	-	-	106.0	82.0	18.5	20.0	
4.000"	101.60	103.0	133.35	125.0	116.0	106.0	82.0	18.5	20.0	

C Dimensions in inches

d ₁	d ₆	d ₇	d _a	d _b	l ₁₄	l ₁₅	l ₄₁	l ₅₁	l ₆₁
0.375	0.625	0.875	0.740	0.492	1.125	1.500	0.313	0.050	0.250
0.500	0.750	1.000	0.878	0.630	1.125	1.500	0.313	0.050	0.250
0.625	0.937	1.250	1.043	0.787	1.281	1.718	0.406	0.050	0.344
0.750	1.062	1.375	1.161	0.905	1.281	1.718	0.406	0.050	0.344
0.875	1.187	1.500	1.299	1.063	1.343	1.781	0.406	0.050	0.344
1.000	1.312	1.625	1.496	1.200	1.437	2.000	0.437	0.050	0.375
1.125	1.437	1.750	1.634	1.358	1.500	2.062	0.437	0.050	0.375
1.250	1.563	1.875	1.772	1.496	1.500	2.062	0.437	0.050	0.375
1.375	1.687	2.000	1.890	1.614	1.562	2.124	0.437	0.050	0.375
1.500	1.813	2.125	2.067	1.752	1.562	2.124	0.437	0.050	0.375
1.625	2.000	2.375	2.244	1.909	1.875	2.500	0.500	0.050	0.437
1.750	2.125	2.500	2.382	2.028	1.875	2.500	0.500	0.050	0.437
1.875	2.250	2.625	2.520	2.165	2.000	2.625	0.500	0.050	0.437
2.000	2.375	2.750	2.598	2.283	2.000	2.625	0.500	0.050	0.437
2.125	2.375	3.000	2.795	2.421	2.249	2.937	0.562	0.050	0.500
2.250	2.437	3.125	2.992	2.559	2.249	2.937	0.562	0.050	0.500
2.375	2.563	3.250	3.071	2.697	2.375	3.062	0.562	0.050	0.500
2.500	2.687	3.375	3.228	2.834	2.375	3.062	0.562	0.050	0.500
2.625	2.812	3.375	3.307	2.953	2.562	3.375	0.625	0.100	0.562
2.750	2.937	3.500	3.504	3.110	2.562	3.375	0.625	0.100	0.562
2.875	3.062	3.750	3.642	3.228	2.687	3.500	0.625	0.100	0.562
3.000	3.187								