

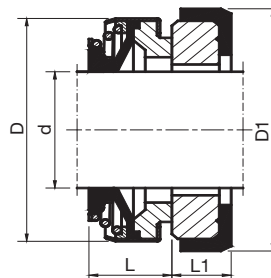
## METRIC SIZES

### Type VGMA

Similar To:

AES B01, BT/Burgmann AR

Roten 37B, Vulcan 18



### Features

Single Seal - Unbalanced

Bi-Directional

Elastomer Bellows

### Materials\*

Carbon Rotating Face

Ceramic Mating Ring

Buna Elastomer

304SS Metallurgy

Shaft Dia. d	Head OD D	Oper. Hgt. L	Mating Ring OD D1	Mating Ring Thick L1	Value Guard Part No.
6	18	8	22.0	4.0	VGM-8062
8a	20	11	26.0	4.0	VGM-8063
8b	20	11	22.0	4.0	VGM-8064
8c	24	11	26.0	8.0	VGM-8065
9	24	11	26.0	8.0	VGM-8020
10	24	11	26.0	8.0	VGM-8021
11	24	11	26.0	8.0	VGM-8022
12a	24	13	26.0	8.0	VGM-8066
12b	24	13	26.0	8.0	VGM-8060
12c	32	13	35.0	8.0	VGM-8067
13	24	13	26.0	8.0	VGM-8023
14a	28	13	25.0	7.0	VGM-8068
14b	28	13	28.5	8.0	VGM-8024
14c	32	13	29.5	8.0	VGM-8070
14d	32	13	35.0	8.0	VGM-8071
15a	32	13	29.5	8.0	VGM-8025
15b	32	13	38.0	8.0	VGM-8072
15c	35	13	38.0	8.0	VGM-8073
16a	32	13	29.5	8.0	VGM-8026
16b	35	13	38.0	8.0	VGM-8074
16c	39	13	38.0	8.0	VGM-8075
16d	39	13	42.0	8.0	VGM-8076
17	39	13	42.0	8.0	VGM-8027
18	39	13	42.0	8.0	VGM-8028
19	39	13	42.0	8.0	VGM-8029
20a	39	13	42.0	8.0	VGM-8077
20b	42	13	45.0	10.0	VGM-8078
22	42	13	45.0	10.0	VGM-8030
23	47	14	50.0	10.0	VGM-8079
24	47	14	50.0	10.0	VGM-8031
25a	42	14	50.0	10.0	VGM-8032
25b	47	14	50.0	10.0	VGM-8080
26	47	14	50.0	10.0	VGM-8081
28	54	15	57.0	10.0	VGM-8033
30	54	15	57.0	10.0	VGM-8034
32	54	15	57.0	10.0	VGM-8035
35	60	16	63.0	10.0	VGM-8082
38	65	18	68.0	12.0	VGM-8036
40	65	18	68.0	12.0	VGM-8037
45	70	20	73.0	12.0	VGM-8083
50	85	23	88.0	15.0	VGM-8084
55	85	23	88.0	15.0	VGM-8085
60	105	30	110.0	15.0	VGM-8086
65	105	32	110.0	15.0	VGM-8098
70	105	32	110.0	15.0	VGM-8087



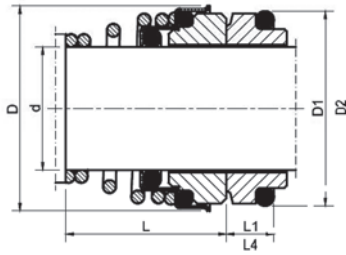
155 Pierce Street, Somerset, NJ 08873

Tel 800-243-5489 • Fax 877-849-7325 • www.ussealmfg.com

\* Other materials available upon request \*

## METRIC SIZES

### Type VGMB



Similar To:  
 AES T04, BT/ Burgmann FN  
 Roten 3, Vulcan 13



### Features

D2 and L4 columns refer to DIN 24960  
 (Corresponding Part Numbers end in D)

Single Seal - Unbalanced  
 Uni-Directional  
 Conical Spring

### Materials\*

Ceramic Rotating Face  
 Carbon Mating Ring  
 Buna Elastomer  
 304SS Metallurgy

Shaft Dia. d	Head OD D	Oper. Hgt. L	Mating Ring OD D1	Mating Ring OD D2	Mating Ring Thick L1	Mating Ring Thick L4	Value Guard Part No.
10	20	15	18.1	—	5.5	—	VGM-8000
10	20	15	—	21	—	7.0	VGM-8000D
11	22	18	20.6	—	5.5	—	VGM-8001
12	22	18	20.6	—	5.5	—	VGM-8002
12	22	18	—	23	—	7.0	VGM-8002D
13	25	22	23.1	—	6.0	—	VGM-8003
14	25	22	23.1	—	6.0	—	VGM-8004
14	25	22	—	25	—	7.0	VGM-8004D
15	29	22	26.9	—	7.0	—	VGM-8005
16	29	23	26.9	—	7.0	—	VGM-8006
16	29	23	—	27	—	7.0	VGM-8006D
17	29	23	26.9	—	7.0	—	VGM-8007
18	33	24	30.9	—	8.0	—	VGM-8008
18	33	24	—	33	—	10.0	VGM-8008D
19	33	25	30.9	—	8.0	—	VGM-8009
20	33	25	30.9	—	8.0	—	VGM-8010
20	33	25	—	35	—	10.0	VGM-8010D
22	38	25	35.4	—	8.0	—	VGM-8011
22	38	25	—	37	—	10.0	VGM-8011D
24	38	27	35.4	—	8.0	—	VGM-8012
24	38	27	—	39	—	10.0	VGM-8012D
25	40	27	38.2	—	8.5	—	VGM-8013
25	40	27	—	40	—	10.0	VGM-8013D
28	46	29	43.3	—	9.0	—	VGM-8014
28	46	29	—	43	—	10.0	VGM-8014D
30	46	30	43.3	—	9.0	—	VGM-8015
30	46	30	—	45	—	10.0	VGM-8015D
32	46	30	43.3	—	9.0	—	VGM-8016
32	46	30	—	48	—	10.0	VGM-8016D
33	48	39	53.5	—	11.5	—	VGM-8099
33	48	39	—	48	—	10.0	VGM-8099D
35	50	39	53.5	—	11.5	—	VGM-8017
35	50	39	—	50	—	10.0	VGM-8017D
38	55	39	60.5	—	11.5	—	VGM-8018
38	55	39	—	56	—	13.0	VGM-8018D
40	55	39	60.5	—	11.5	—	VGM-8019
40	55	39	—	58	—	13.0	VGM-8019D

\* Other materials available upon request \*

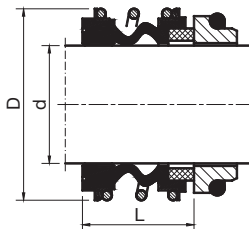
## METRIC SIZES

### Types VGMC-1 and VGMC-12

Similar To:

AES B02 & BO12, Burgmann MG1 & MG12

Vulcan 19 & 192



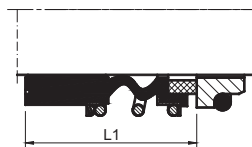
### Features

To DIN 24960 (VGMC-12)

Single Seal - Unbalanced

Bi-Directional

Elastomer Bellows



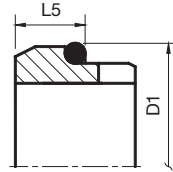
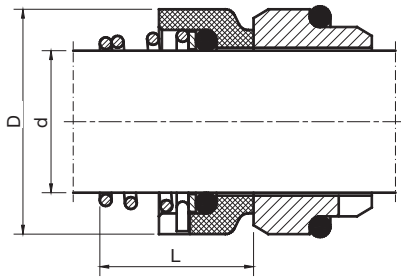
Shaft Dia. d	Head OD D
10	22.5
12	25.0
14	28.5
15	28.5
16	28.5
18	32.0
20	37.0
22	37.0
24	42.5
25	42.5
28	49.0
30	49.0
32	53.5
33	53.5
35	57.0
38	59.0
40	62.0
42	65.5
43	65.5
45	68.0
48	70.5
50	74.0
53	78.5
55	81.0
58	85.5
60	88.5
65	93.5
68	96.5
70	99.5
75	107.0
80	112.0
85	120.0
90	127.0
95	132.0
100	137.0

For Mating Ring Part Numbers, See Pages 164-165					
VGMC-1 Oper. Hgt. L	VGMC-1 Head Part No. Buna / Carbon	VGMC-1 Head Part No. Viton® / SC	VGMC-12 Oper. Hgt. L1	VGMC-12 Head Part No. Buna / Carbon	VGMC-12 Head Part No. Viton® / SC
14.5	HD-8090M	HD-8125M	25.9	HD-8154M	HD-8189M
15.0	HD-8091M	HD-8126M	25.9	HD-8155M	HD-8190M
17.0	HD-8092M	HD-8127M	28.4	HD-8156M	HD-8191M
17.0	HD-8093M	HD-8128M	28.4	HD-8157M	HD-8192M
17.0	HD-8094M	HD-8129M	28.4	HD-8158M	HD-8193M
19.5	HD-8095M	HD-8130M	30.0	HD-8159M	HD-8194M
21.5	HD-8096M	HD-8131M	30.0	HD-8160M	HD-8195M
21.5	HD-8097M	HD-8132M	30.0	HD-8161M	HD-8196M
22.5	HD-8098M	HD-8133M	32.5	HD-8162M	HD-8197M
23.0	HD-8099M	HD-8038M	32.5	HD-8163M	HD-8198M
26.5	HD-8100M	HD-8046M	35.0	HD-8164M	HD-8199M
26.5	HD-8101M	HD-8134M	35.0	HD-8165M	HD-8200M
27.5	HD-8102M	HD-8135M	35.0	HD-8166M	HD-8201M
27.5	HD-8103M	HD-8136M	35.0	HD-8167M	HD-8202M
28.5	HD-8104M	HD-8137M	35.0	HD-8168M	HD-8203M
30.0	HD-8105M	HD-8138M	36.0	HD-8169M	HD-8204M
30.0	HD-8106M	HD-8139M	36.0	HD-8170M	HD-8205M
30.0	HD-8107M	HD-8140M	36.0	HD-8171M	HD-8206M
30.0	HD-8108M	HD-8141M	36.0	HD-8172M	HD-8207M
30.0	HD-8109M	HD-8047M	36.0	HD-8173M	HD-8208M
30.5	HD-8110M	HD-8142M	36.0	HD-8174M	HD-8209M
30.5	HD-8111M	HD-8048M	36.0	HD-8175M	HD-8210M
33.0	HD-8112M	HD-8143M	36.5	HD-8176M	HD-8211M
35.0	HD-8113M	HD-8144M	36.5	HD-8177M	HD-8212M
37.0	HD-8114M	HD-8145M	41.5	HD-8178M	HD-8213M
38.0	HD-8115M	HD-8146M	41.5	HD-8179M	HD-8214M
40.0	HD-8116M	HD-8147M	41.5	HD-8180M	HD-8215M
40.0	HD-8117M	HD-8148M	41.5	HD-8181M	HD-8216M
40.0	HD-8118M	HD-8049M	48.7	HD-8182M	HD-8217M
40.0	HD-8119M	HD-8050M	48.7	HD-8183M	HD-8218M
40.0	HD-8120M	HD-8149M	48.0	HD-8184M	HD-8219M
41.0	HD-8121M	HD-8150M	46.0	HD-8185M	HD-8220M
45.0	HD-8122M	HD-8151M	51.0	HD-8186M	HD-8221M
46.0	HD-8123M	HD-8152M	51.0	HD-8187M	HD-8222M
47.0	HD-8124M	HD-8153M	51.0	HD-8188M	HD-8223M

\* Other materials available upon request \*

**METRIC SIZES**

**Type VGMD**



Similar To:  
 Burgmann M2



Shaft Dia. d	Head OD D	Oper. Hgt. L
6	15	-
8	18	-
10	20	17.5
12	22	17.5
14	25	17.5
15	27	-
16	27	19.5
18	30	20.5
20	32	22.0
22	35	23.5
24	38	25.0
25	40	26.5
26	41	-
28	43	26.5
30	47	-
32	48	-
35	53	-
38	56	-

G9 Mating Ring	
Mating Ring OD D1	Mating Ring Thick L5
-	-
-	-
21	10.0
23	10.0
25	10.0
27	10.0
27	10.0
33	11.5
35	11.5
37	11.5
39	11.5
40	11.5
43	11.5
45	11.5
48	11.5
48	11.5
50	11.5
56	14.0

Specify Rotation	
Right Hand Rotary Viton® / Carbon	Left Hand Rotary Viton® / Carbon
HD-8224MRH	HD-8224MLH
HD-8225MRH	HD-8225MLH
HD-8226MRH	HD-8226MLH
HD-8227MRH	HD-8227MLH
HD-8228MRH	HD-8228MLH
HD-8229MRH	HD-8229MLH
HD-8230MRH	HD-8230MLH
HD-8231MRH	HD-8231MLH
HD-8232MRH	HD-8232MLH
HD-8233MRH	HD-8233MLH
HD-8234MRH	HD-8234MLH
HD-8235MRH	HD-8235MLH
HD-8236MRH	HD-8236MLH
HD-8237MRH	HD-8237MLH
HD-8238MRH	HD-8238MLH
HD-8239MRH	HD-8239MLH
HD-8240MRH	HD-8240MLH
HD-8241MRH	HD-8241MLH

**Features**

To DIN 24960  
 Single Seal - Unbalanced  
 Uni-Directional  
 Conical Spring

**Mating Ring Information**

Mating Rings sold seperately.  
 Seal also uses Mating Ring styles  
 VGM-G4 and VGM-G6.

See pages 164-165  
 for part numbers.

**Materials \***

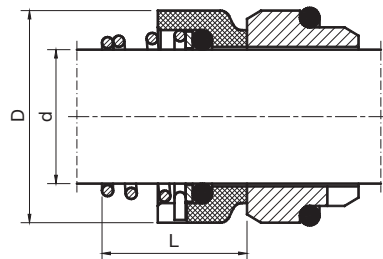
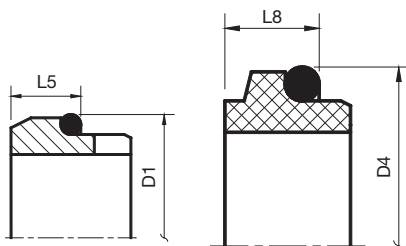
Carbon Rotating Face  
 Silicon Carbide Mating Ring  
 Viton® Elastomer  
 304SS Metallurgy

\* Other materials available upon request \*

## METRIC SIZES

### Type VGME-1

Similar To:  
AES T02, Burgmann M3N  
Vulcan 8B



Shaft Dia. d	Head OD D	Oper. Hgt. L
10	19	15.5
12	21	16.0
14	23	16.5
15	24	18.0
16	26	18.0
18	29	19.5
20	31	22.0
22	33	21.5
24	35	23.5
25	36	26.5
28	40	26.5
30	43	26.5
32	46	28.5
33	47	28.5
35	49	28.5
38	53	33.5
40	56	36.0
42	59	37.5
43	59	38.5
45	61	39.5
48	64	46.0
50	66	45.0
53	69	47.0
55	71	49.0
58	76	55.0
60	78	55.0
65	84	55.0
68	88	55.0
70	90	57.0
75	98	62.0
80	100	61.8

G-9 Mating Ring		G-13 Mating Ring	
Mating Ring OD D1	Mating Ring Thick L5	Mating Ring OD D4	Mating Ring Thick L8
21	10.0	19.2	7.1
23	10.0	21.6	7.6
25	10.0	24.6	7.6
27	10.0	24.6	8.6
27	10.0	28.0	9.0
33	11.5	30.0	10.0
35	11.5	35.0	9.5
37	11.5	35.0	9.5
39	11.5	38.0	9.5
40	11.5	38.0	9.5
43	11.5	42.0	11.0
45	11.5	45.0	11.0
48	11.5	48.0	11.0
48	11.5	50.0	11.5
50	11.5	52.0	11.5
56	14.0	55.0	11.5
58	14.0	58.0	11.5
61	14.0	60.0	14.3
61	14.0	62.0	14.3
63	14.0	64.0	14.3
66	14.0	68.4	14.3
70	15.0	69.3	14.3
73	15.0	72.3	15.3
75	15.0	75.4	15.3
78	15.0	78.4	15.3
80	15.0	80.4	15.3
85	15.0	85.4	15.3
90	18.0	91.5	16.0
92	18.0	92.0	15.3
97	18.0	99.0	15.3
105	18.2	104.0	16.3

Specify Rotation	
Right Hand Rotary Viton® / 304SS	Left Hand Rotary Viton® / 304SS
HD-8242MRH	HD-8242MLH
HD-8243MRH	HD-8243MLH
HD-8244MRH	HD-8244MLH
HD-8245MRH	HD-8245MLH
HD-8246MRH	HD-8246MLH
HD-8247MRH	HD-8247MLH
HD-8248MRH	HD-8248MLH
HD-8249MRH	HD-8249MLH
HD-8250MRH	HD-8250MLH
HD-8251MRH	HD-8251MLH
HD-8252MRH	HD-8252MLH
HD-8253MRH	HD-8253MLH
HD-8254MRH	HD-8254MLH
HD-8255MRH	HD-8255MLH
HD-8256MRH	HD-8256MLH
HD-8257MRH	HD-8257MLH
HD-8258MRH	HD-8258MLH
HD-8259MRH	HD-8259MLH
HD-8260MRH	HD-8260MLH
HD-8261MRH	HD-8261MLH
HD-8262MRH	HD-8262MLH
HD-8263MRH	HD-8263MLH
HD-8264MRH	HD-8264MLH
HD-8265MRH	HD-8265MLH
HD-8266MRH	HD-8266MLH
HD-8267MRH	HD-8267MLH
HD-8268MRH	HD-8268MLH
HD-8269MRH	HD-8269MLH
HD-8270MRH	HD-8270MLH
HD-8271MRH	HD-8271MLH
HD-8272MRH	HD-8272MLH

### Features

To DIN 24960  
Single Seal - Unbalanced  
Uni-Directional  
Conical Spring

### Mating Ring Information

Mating Rings sold seperately.  
See pages 164-165 for part numbers.

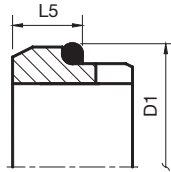
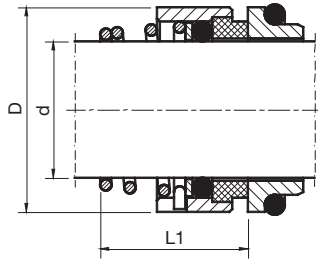
### Materials \*

304SS Rotating Face  
Carbon Mating Ring  
Viton® Elastomer  
304SS Metallurgy

\* Other materials available upon request \*

## METRIC SIZES

### Type VGME-2



Similar To:  
Burgmann M32



Shaft Dia. d	Head OD D	Oper. Hgt. L1
10	19	16.9
12	21	17.4
14	23	17.4
15	24	17.4
16	26	19.5
18	29	20.5
20	31	22.0
22	33	23.5
24	35	25.0
25	36	26.5
28	40	26.5
30	43	25.0
32	46	28.5
33	47	28.5
35	49	28.5
38	53	32.2
40	56	34.7
42	59	37.3
43	59	37.3
45	61	39.2
48	64	44.7
50	66	45.7
53	69	49.0
55	71	49.0
58	76	52.0
60	78	55.0
65	84	54.3
68	88	55.3
70	90	56.3
75	98	56.3
80	100	59.3

G9 Mating Ring	
Mating Ring OD D1	Mating Ring Thick L5
21	10.0
23	10.0
25	10.0
27	10.0
27	10.0
33	11.5
35	11.5
37	11.5
39	11.5
40	11.5
43	11.5
45	11.5
48	11.5
48	11.5
50	11.5
56	14.0
58	14.0
61	14.0
61	14.0
63	14.0
66	14.0
70	15.0
73	15.0
75	15.0
78	15.0
80	15.0
85	15.0
90	18.0
92	18.0
97	18.0
105	18.2

Specify Rotation	
Right Hand Rotary Viton® / Carbon	Left Hand Rotary Viton® / Carbon
HD-8088MRH	HD-8088MLH
HD-8089MRH	HD-8089MLH
HD-8320MRH	HD-8320MLH
HD-8321MRH	HD-8321MLH
HD-8322MRH	HD-8322MLH
HD-8323MRH	HD-8323MLH
HD-8324MRH	HD-8324MLH
HD-8325MRH	HD-8325MLH
HD-8326MRH	HD-8326MLH
HD-8327MRH	HD-8327MLH
HD-8328MRH	HD-8328MLH
HD-8329MRH	HD-8329MLH
HD-8330MRH	HD-8330MLH
HD-8331MRH	HD-8331MLH
HD-8332MRH	HD-8332MLH
HD-8333MRH	HD-8333MLH
HD-8334MRH	HD-8334MLH
HD-8335MRH	HD-8335MLH
HD-8336MRH	HD-8336MLH
HD-8337MRH	HD-8337MLH
HD-8338MRH	HD-8338MLH
HD-8339MRH	HD-8339MLH
HD-8340MRH	HD-8340MLH
HD-8341MRH	HD-8341MLH
HD-8342MRH	HD-8342MLH
HD-8343MRH	HD-8343MLH
HD-8344MRH	HD-8344MLH
HD-8345MRH	HD-8345MLH
HD-8346MRH	HD-8346MLH
HD-8347MRH	HD-8347MLH
HD-8348MRH	HD-8348MLH

**Features**  
 To DIN 24960  
 Single Seal - Unbalanced  
 Uni-Directional  
 Conical Spring

**Mating Ring Information**  
 Mating Rings sold separately.  
 Seal also uses Mating Ring styles  
 VGM-G4 and VGM-G6.  
 See pages 164-165  
 for part numbers.

**Materials \***  
 Shrink-Fitted Carbon Rotating Face  
 Silicon Carbide Mating Ring  
 Viton® Elastomer  
 304SS Metallurgy

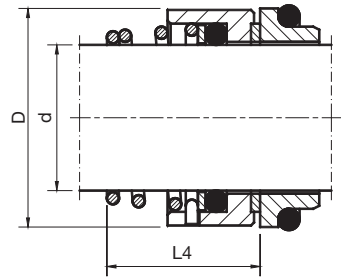
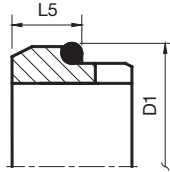
\* Other materials available upon request \*



## METRIC SIZES

### Type VGME-3

Similar To:  
AES T01 DIN,  
Vulcan 8 DIN,  
Burgmann 37G



Shaft Dia. d	Head OD D	Oper. Hgt. L4
10	19	-
12	21	-
14	23	16.5
15	24	16.5
16	26	16.5
18	29	18.0
20	31	19.0
22	33	20.5
24	35	22.0
25	36	23.5
28	40	24.5
30	43	24.5
32	46	28.0
33	47	28.0
35	49	28.0
38	53	31.0
40	56	34.0
42	59	35.0
43	59	36.0
45	61	36.5
48	64	42.0
50	66	43.0
53	69	43.0
55	71	47.0
58	76	50.0
60	78	51.0
65	84	52.0
68	88	52.7
70	90	54.0
75	98	54.0
80	100	58.0

G-9 Mating Ring	
Mating Ring OD D1	Mating Ring Thick L5
21	10.0
23	10.0
25	10.0
27	10.0
27	10.0
33	11.5
35	11.5
37	11.5
39	11.5
40	11.5
43	11.5
45	11.5
48	11.5
48	11.5
50	11.5
56	14.0
58	14.0
61	14.0
61	14.0
63	14.0
66	14.0
70	15.0
73	15.0
75	15.0
78	15.0
80	15.0
85	15.0
90	18.0
92	18.0
97	18.0
105	18.2

Specify Rotation	
Right Hand Rotary Viton® / SC	Left Hand Rotary Viton® / SC
HD-8349MRH	HD-8349MLH
HD-8350MRH	HD-8350MLH
HD-8351MRH	HD-8351MLH
HD-8352MRH	HD-8352MLH
HD-8353MRH	HD-8353MLH
HD-8354MRH	HD-8354MLH
HD-8355MRH	HD-8355MLH
HD-8356MRH	HD-8356MLH
HD-8357MRH	HD-8357MLH
HD-8358MRH	HD-8358MLH
HD-8359MRH	HD-8359MLH
HD-8360MRH	HD-8360MLH
HD-8361MRH	HD-8361MLH
HD-8362MRH	HD-8362MLH
HD-8363MRH	HD-8363MLH
HD-8364MRH	HD-8364MLH
HD-8365MRH	HD-8365MLH
HD-8366MRH	HD-8366MLH
HD-8367MRH	HD-8367MLH
HD-8368MRH	HD-8368MLH
HD-8369MRH	HD-8369MLH
HD-8370MRH	HD-8370MLH
HD-8371MRH	HD-8371MLH
HD-8372MRH	HD-8372MLH
HD-8373MRH	HD-8373MLH
HD-8374MRH	HD-8374MLH
HD-8375MRH	HD-8375MLH
HD-8376MRH	HD-8376MLH
HD-8377MRH	HD-8377MLH
HD-8378MRH	HD-8378MLH
HD-8379MRH	HD-8379MLH

Features
To DIN 24960
Single Seal - Unbalanced
Uni-Directional
Conical Spring

Mating Ring Information
Mating Rings sold separately.
Seal also uses Mating Ring styles VGM-G4 and VGM-G6.
See pages 164-165 for part numbers.

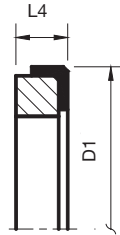
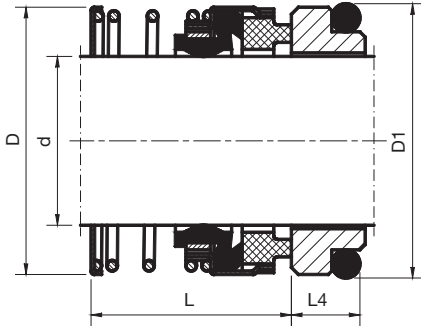
Materials *
Shrink-Fitted Silicon Carbide
Rotating Face
Silicon Carbide Mating Ring
Viton® Elastomer
304SS Metallurgy

\* Other materials available upon request \*



## METRIC SIZES

### Type VGMH



Similar To:  
AES PO3, Sealol Type 43  
Vulcan 24



Shaft Dia. d	Head OD D	Oper. Hgt. L
12	22.8	23.9
14	22.8	26.4
16	26.4	26.4
18	29.5	27.5
20	33.6	27.5
22	33.6	27.5
24	39.1	30.0
25	39.1	30.0
28	42.5	32.5
30	45.6	32.5
32	45.6	32.5
33	49.0	32.5
35	49.0	32.5
38	52.0	34.0
40	57.2	34.0
43	60.6	34.0
45	60.6	34.0
48	63.8	34.0
50	65.6	34.5
55	76.9	34.5
58	78.4	39.5
60	78.4	39.5
63	81.2	39.5
65	84.5	39.5
68	89.6	37.2
70	89.6	44.7
75	96.6	44.7

Mating Ring OD D1	Mating Ring Thick L4
23	6.6
25	6.6
27	6.6
33	6.6
35	7.5
37	7.5
39	7.5
40	7.5
43	7.5
45	7.5
48	7.5
48	7.5
50	7.5
56	9.0
58	9.0
61	9.0
63	9.0
66	9.0
70	9.5
75	11.0
78	11.0
80	11.0
83	11.0
85	11.0
90	11.3
92	11.3
97	11.3

Rotary Part No. Buna / Carbon	Rotary Part No. Viton® / SC
HD-8273M	HD-8293M
HD-8274M	HD-8294M
HD-8275M	HD-8295M
HD-8276M	HD-8296M
HD-8039M	HD-8297M
HD-8277M	HD-8298M
HD-8040M	HD-8299M
HD-8041M	HD-8300M
HD-8278M	HD-8301M
HD-8042M	HD-8302M
HD-8279M	HD-8303M
HD-8280M	HD-8304M
HD-8281M	HD-8305M
HD-8282M	HD-8306M
HD-8283M	HD-8307M
HD-8043M	HD-8308M
HD-8284M	HD-8309M
HD-8285M	HD-8310M
HD-8286M	HD-8311M
HD-8044M	HD-8312M
HD-8287M	HD-8313M
HD-8045M	HD-8314M
HD-8288M	HD-8315M
HD-8289M	HD-8316M
HD-8290M	HD-8317M
HD-8291M	HD-8318M
HD-8292M	HD-8319M

**Features**

- To DIN 24960
- Single Seal - Unbalanced
- Bi-Directional
- Elastomer Bellows

**Mating Ring Information**

Mating Rings sold separately.  
Seal shown with Mating Ring styles VGM-G6 and VGM-G60.

See pages 164-165 for part numbers.

**Materials \***

- Carbon or Silicon Carbide Rotating Face
- Silicon Carbide Mating Ring
- Buna or Viton® Elastomer
- 304SS Metallurgy

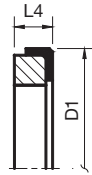
\* Other materials available upon request \*

### METRIC SIZES

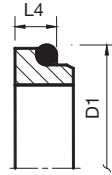
#### Type VGM-G Mating Rings

**Standard Materials:**  
**VGM-G60, VGM-G6 & VGM-G9,**  
**Viton® / Silicon Carbide**

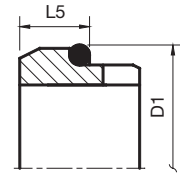
**VGM-G9 also available in**  
**Viton® / Carbon**



G60



G6



G9

#### Features

To DIN 24960

Shaft Dia. d	Mating Ring OD D1	Mating Ring Thick L4	VGM-G60 Viton® / SC Part No.	VGM-G6 Viton® / SC Part No.
10	21	6.6	STG60VSC10	STG6VSC10
12	23	6.6	STG60VSC12	STG6VSC12
14	25	6.6	STG60VSC14	STG6VSC14
15	27	6.6	STG60VSC15	STG6VSC15
16	27	6.6	STG60VSC16	STG6VSC16
18	33	7.5	STG60VSC18	STG6VSC18
20	35	7.5	STG60VSC20	STG6VSC20
22	37	7.5	STG60VSC22	STG6VSC22
24	39	7.5	STG60VSC24	STG6VSC24
25	40	7.5	STG60VSC25	STG6VSC25
28	43	7.5	STG60VSC28	STG6VSC28
30	45	7.5	STG60VSC30	STG6VSC30
32	48	7.5	STG60VSC32	STG6VSC32
33	48	7.5	STG60VSC33	STG6VSC33
35	50	7.5	STG60VSC35	STG6VSC35
38	56	9.0	STG60VSC38	STG6VSC38
40	58	9.0	STG60VSC40	STG6VSC40
42	61	9.0	STG60VSC42	STG6VSC42
43	61	9.0	STG60VSC43	STG6VSC43
45	63	9.0	STG60VSC45	STG6VSC45
48	66	9.0	STG60VSC48	STG6VSC48
50	70	9.5	STG60VSC50	STG6VSC50
53	73	11.0	STG60VSC53	STG6VSC53
55	75	11.0	STG60VSC55	STG6VSC55
58	78	11.0	STG60VSC58	STG6VSC58
60	80	11.0	STG60VSC60	STG6VSC60
65	85	11.0	STG60VSC65	STG6VSC65
68	90	11.3	STG60VSC68	STG6VSC68
70	92	11.3	STG60VSC70	STG6VSC70
75	97	11.3	STG60VSC75	STG6VSC75
80	105	12.0	STG60VSC80	STG6VSC80
85	110	14.0	STG60VSC85	STG6VSC85
90	115	14.0	STG60VSC90	STG6VSC90
95	120	14.0	STG60VSC95	STG6VSC95
100	125	14.0	STG60VSC100	STG6VSC100

Mating Ring OD D1	Mating Ring Thick L5	VGM-G9 Viton® / Carbon Part No.	VGM-G9 Viton® / SC Part No.
21	10.0	STG9VCA10	STG9VSC10
23	10.0	STG9VCA12	STG9VSC12
25	10.0	STG9VCA14	STG9VSC14
27	10.0	STG9VCA15	STG9VSC15
27	10.0	STG9VCA16	STG9VSC16
33	11.5	STG9VCA18	STG9VSC18
35	11.5	STG9VCA20	STG9VSC20
37	11.5	STG9VCA22	STG9VSC22
39	11.5	STG9VCA24	STG9VSC24
40	11.5	STG9VCA25	STG9VSC25
43	11.5	STG9VCA28	STG9VSC28
45	11.5	STG9VCA30	STG9VSC30
48	11.5	STG9VCA32	STG9VSC32
48	11.5	STG9VCA33	STG9VSC33
50	11.5	STG9VCA35	STG9VSC35
56	14.0	STG9VCA38	STG9VSC38
58	14.0	STG9VCA40	STG9VSC40
61	14.0	STG9VCA42	STG9VSC42
61	14.0	STG9VCA43	STG9VSC43
63	14.0	STG9VCA45	STG9VSC45
66	14.0	STG9VCA48	STG9VSC48
70	15.0	STG9VCA50	STG9VSC50
73	15.0	STG9VCA53	STG9VSC53
75	15.0	STG9VCA55	STG9VSC55
78	15.0	STG9VCA58	STG9VSC58
80	15.0	STG9VCA60	STG9VSC60
85	15.0	STG9VCA65	STG9VSC65
90	18.0	STG9VCA68	STG9VSC68
92	18.0	STG9VCA70	STG9VSC70
97	18.0	STG9VCA75	STG9VSC75
105	18.2	STG9VCA80	STG9VSC80
110	18.2	STG9VCA85	STG9VSC85
115	18.2	STG9VCA90	STG9VSC90
120	17.2	STG9VCA95	STG9VSC95
125	17.2	STG9VCA100	STG9VSC100

\* Other materials available upon request \*

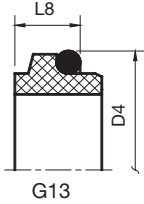
## METRIC SIZES

### Type VGM-G Mating Rings

**Standard Materials:**

**VGM-G50 & VGM-G4, Viton® / Silicon Carbide**

**VGM-G13 & VGM-G606, Viton® / Carbon**



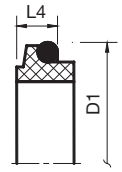
G13



G50



G4



G606

Shaft Dia. d	Seat OD D4	Mating Ring Thick L8	Mating Ring OD D2	Mating Ring Thick L6	VGM-G13 Viton® / Carbon Part No.	VGM-G50 Viton® / SC Part No.
10	19.2	7.1	24.60	9.0	STG13VCA10	STG50VSC10
12	21.6	7.6	27.80	9.0	STG13VCA12	STG50VSC12
14	24.6	7.6	30.95	10.5	STG13VCA14	STG50VSC14
15	24.6	8.6	30.95	10.5	STG13VCA15	STG50VSC15
16	28.0	9.0	30.95	10.5	STG13VCA16	STG50VSC16
18	30.0	10.0	34.15	10.5	STG13VCA18	STG50VSC18
20	35.0	9.5	35.70	10.5	STG13VCA20	STG50VSC20
22	35.0	9.5	37.30	10.5	STG13VCA22	STG50VSC22
24	38.0	9.5	40.50	10.5	STG13VCA24	STG50VSC24
25	38.0	9.5	40.50	10.5	STG13VCA25	STG50VSC25
28	42.0	11.0	47.65	12.0	STG13VCA28	STG50VSC28
30	45.0	11.0	50.80	12.0	STG13VCA30	STG50VSC30
32	48.0	11.0	50.80	12.0	STG13VCA32	STG50VSC32
33	50.0	11.5	54.00	12.0	STG13VCA33	STG50VSC33
35	52.0	11.5	54.00	12.0	STG13VCA35	STG50VSC35
38	55.0	11.5	57.15	12.0	STG13VCA38	STG50VSC38
40	58.0	11.5	60.35	12.0	STG13VCA40	STG50VSC40
42	60.0	14.3	63.50	12.0	STG13VCA42	STG50VSC42
43	62.0	14.3	63.50	12.0	STG13VCA43	STG50VSC43
45	64.0	14.3	63.50	12.0	STG13VCA45	STG50VSC45
48	68.4	14.3	66.70	12.0	STG13VCA48	STG50VSC48
50	69.3	14.3	69.85	13.5	STG13VCA50	STG50VSC50
53	72.3	15.3	73.05	13.5	STG13VCA53	STG50VSC53
55	75.4	15.3	76.20	13.5	STG13VCA55	STG50VSC55
58	78.4	15.3	79.40	13.5	STG13VCA58	STG50VSC58
60	80.4	15.3	79.40	13.5	STG13VCA60	STG50VSC60
65	85.4	15.3	92.10	16.0	STG13VCA65	STG50VSC65
68	91.5	16.0	95.25	16.0	STG13VCA68	STG50VSC68
70	92.0	15.3	95.25	16.0	STG13VCA70	STG50VSC70
75	99.0	15.3	101.60	16.0	STG13VCA75	STG50VSC75
80	104.0	16.3	114.30	20.0	STG13VCA80	STG50VSC80
85	INQ	INQ	117.50	20.0	STG13VCA85	STG50VSC85
90	INQ	INQ	123.85	20.0	STG13VCA90	STG50VSC90
95	INQ	INQ	127.00	20.0	STG13VCA95	STG50VSC95
100	INQ	INQ	133.35	20.0	STG13VCA100	STG50VSC100

Mating Ring OD D3	Mating Ring Thick L7	VGM-G4 Viton® / SC Part No.
19.2	6.6	STG4VSC10
21.6	5.6	STG4VSC12
24.6	5.6	STG4VSC14
24.6	6.6	STG4VSC15
28.0	7.5	STG4VSC16
30.0	8.0	STG4VSC18
35.0	7.5	STG4VSC20
35.0	7.5	STG4VSC22
38.0	7.5	STG4VSC24
38.0	7.5	STG4VSC25
42.0	9.0	STG4VSC28
45.0	10.5	STG4VSC30
48.0	10.5	STG4VSC32
50.0	11.0	STG4VSC33
52.0	11.0	STG4VSC35
55.0	10.3	STG4VSC38
58.0	10.8	STG4VSC40
60.0	12.0	STG4VSC42
62.0	12.0	STG4VSC43
64.0	11.6	STG4VSC45
68.4	11.6	STG4VSC48
69.3	11.6	STG4VSC50
72.3	12.3	STG4VSC53
75.4	13.3	STG4VSC55
78.4	13.3	STG4VSC58
80.4	13.3	STG4VSC60
85.4	13.0	STG4VSC65
91.5	13.7	STG4VSC68
92.0	13.0	STG4VSC70
99.0	14.0	STG4VSC75
104.0	15.0	STG4VSC80
109.0	14.8	STG4VSC85
114.0	14.8	STG4VSC90
120.3	15.8	STG4VSC95
123.3	15.8	STG4VSC100

Mating Ring OD D1	Mating Ring Thick L4	VGM-G606 Viton® / Carbon Part No.
21	6.6	STG606VCA10
23	6.6	STG606VCA12
25	6.6	STG606VCA14
27	6.6	STG606VCA15
27	6.6	STG606VCA16
33	7.5	STG606VCA18
35	7.5	STG606VCA20
37	7.5	STG606VCA22
39	7.5	STG606VCA24
40	7.5	STG606VCA25
43	7.5	STG606VCA28
45	7.5	STG606VCA30
48	7.5	STG606VCA32
48	7.5	STG606VCA33
50	7.5	STG606VCA35
56	9.0	STG606VCA38
58	9.0	STG606VCA40
61	9.0	STG606VCA42
61	9.0	STG606VCA43
63	9.0	STG606VCA45
66	9.0	STG606VCA48
70	9.5	STG606VCA50
73	11.0	STG606VCA53
75	11.0	STG606VCA55
78	11.0	STG606VCA58
80	11.0	STG606VCA60
85	11.0	STG606VCA65
90	11.3	STG606VCA68
92	11.3	STG606VCA70
97	11.3	STG606VCA75
105	12.0	STG606VCA80
110	14.0	STG606VCA85
115	14.0	STG606VCA90
120	14.0	STG606VCA95
125	14.0	STG606VCA100

\* Other materials available upon request \*