NINGBO GUOWEI MECHANICAL SEALS FACTORY

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NINGBO GUOWEI MECHANICAL SEALS FACTORY

公司简介 Brief Introduction

Ningbo GuoWei Mechanical Seals Factory is specialized in the design,development, manufacture,sale of various mechanical seals business.The design of the products accord with DIN24960,ISO9001 ...They can be used to chemical industry,food industry,sewage treatment,petroleum and so on.

Our main products include high technology products widely applied in Flygt pump series,Grundfos pump seal,metal bellows seals and cartridge types seals,which can replace John Crane and Burgmann products.Meanwhile,we can also supply spare parts with material silicon carbide,Tungsten carbide,Ceramic and Carbon.

Plant Series complete product specifications,not only inclusive of the major domestic and foreign mechanical seal series of models,but will have a certain amount of mapping,prototype development capabilities,The material quality is vital to the capability,performance and life of a seal.So we use high quality material.Our operator's slogan: "Operators letter–based,customer wounded world,enterprises willing honest".The spirit of enterprise credibility with the customers,and mutually beneficial common.We will supply with our best professional service to customers.

Gaining mutual benefits with our customers

企业文化 Company conception

诚信 创新 发展 双赢

Core values

People–oriented,integrity and pragmatic,deep plowing,continued pursuit of better management,training to work for music staff,to create the most competitive team.
Business people,work education,respect for communication.
Respect the spirit of contract,down–to–earth,down–to–earth to do every thing.
Continue to try and sum up, precipitation accumulation, and strive to walk in the industry technical tip.
To manage the benefits, there is no best only better, from the perspective of standardization,refinement, zero defect to the pursuit of excellence is a long–term basic task.
To create a good working and living environment, let all employees a degree of relaxation, and work, enjoying a based on family and career achievement sense.
Enterprise competition is ultimately reflected in the talent competition, with the most competitive team is the enterprise survival and development of a reliable guarantee.

Company mission

To constantly improve themselves, to create value for all partners.
Through continuous learning and growth, for customers, employees, suppliers, shareholders, society to create the value of sustained growth.

企业证书 Enterprise certificate

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GUOWEI	AES	VULCAN	BURGMANN	CRANE	ROTEN	STERLING	FLOWSERVE	PAGE
Stationary Seat Series								
GWG6/GWG606	S03	8DINS	G6/G606					001
GWG4	S01	8.STD	G4					002
GWT24DINS	S06	24DINS	–					003
GWB0	S03		–	BO				004
GWBS			–	BS				005
GWG13			G13					006
GWT12/12DIN		8DIN/8DINL	–					007
GW7D			–					008
GWBC			–	BC				009
GWG9/G92	S02	8DINL	G9/G92					010
GWG16		–	G16					011
GWG46		–	G46					012
GW24DINL	S05	24DINL	–					013
GWN		–	–	PG				014
GWT20	S07/S070	21	–	W				015
GWT21		31		W				016
GWCG60	S040U	–	G60					017
GWCT20		20	G50					018
GWCT20–1		20(inch)						019
GWCT24	S04U	24						020
GWT11		11		NG				021
GWL210		–		M				022
GWBP	S010	–		BP				023
GW16	S09U	–		AG				024
GW25	S08/S080	25						025
GW27		27						026
Single Spring Mechanical Seals								
GW17D		7D						027
GW41		–						028
GW80	T01	8	M32/M377		L4B	SM32	38	029
GW80D	T01D	8.DIN	M32N/M377N		–	SM32N	38D	030
GW120	T03	12	BT–RN		2	SR2	42	031
GW120D	T03D	12.DIN	BT–RN.NU		UNITEN2	SU2	42D	032
GW155/155A	T04		BT–FN		–		43	033
GWM2N	T07D		M2N		UNITEN22			034
GWM3/M3A	–		M3N					035
GWM37/M37G	–		M37/M37G					036
GW250	–							037
GW950	P08	95						038
GW960	–	96						039
GW970	–	97						040
GW980	P080	98						041
GW1527	–							042
GWUS2								043
GW80B	T02	8B						044
Multi–Spring Mechanical Seals								
GW8–1	M01S	1609S		8–1	290S			045
GW8–1T	M05S	1645S		8–1T	294S			046
GW8B1	M02S	1609BS		8B1	290BS			047
GW8BT	–	–		8B1T	–			048
GW40		40		–	–			049
GWSAI	DIN SAI							050
GW58B	M04S	1659BS	BT–C5.KB	58B	259BS			051

GUOWEI	AES	VULCAN	BURGMANN	CRANE	ROTEN	STERLING	FLOWSERVE	PAGE
Multi–Spring Mechanical Seals								
GW58U	M03S	1659S	BT–C5.KU	58U	259S			052
GW9	M01	1609		9	90	290		053
GW9B	M02	1609B		9B		290B		054
GW9T	M06	1645B		9BT		294B		055
GW9BT	M05	1645		9T		294		056
GW59B	M03	1659		59U		259		057
GW59U	M04	1659B		59B		259B		058
GW491								059
GW591								060
GW891								061
GWRO–A							RO	062
GWRO–B								063
GWRO–C								064
GWM74			M74					065
GWH75			H75					066
Wave Spring Mechanical Seals								
GW67	W07DM		1677	M78N			270	067
GW68	W01		1688				280	068
GW68A	W01–TL		–	M7KS60			–	069
GW68B	W03		1688W		87	7K	280W	069
GW68C	W02		1688L			UNITEN 7K	280L	070
GW68D	W03S						282	071
GW68E	W04		1688Y				280Y	071
GW82	–							072
GWGNZ						GNZ		073
GW92N/97GN	M010		HJ92N					074
GWMTN			M7N					075
GWHTN			H7N					076
GWM74A			M74–D					077
GWM74D			H74–D					078
Elastomer Bellow Mechnical Seals								
GW1	P01	A5	MG901	1			51	079
GW1A	–	–	–	1A				080
GW1B	–	–	–	1B				081
GW2	P04U	A4	–	2			52	082
GW20/20T	P02/P02T	20	MG920	2(N SEAT)	21	212	200	083
GW21/21T	P04/P04T	11	–	21	21A	212A	110	084
GW10		10	–	521	52	522	240	085
GW24	P03	24	MG912					086
GW560A	–		–					087
GWFBD	–		–					088
GWBIA	–		–					089
GWMG912	–		MG9					090–091
GW6			–					092
GW60/65	B04/B04U	60/65	BT–PNT	106	16	216/217	160	092
GW140/142/143	–	14/142/143	–			–		093
GW150	BP02	1520	MG1S20			152	150	094
GW150A	BP02	1520	MG1S20					095
GW151/152	BP04/BP05	1511/1522	–			151A/152A	151/152	096
GW210/210K/210N	B05	14DIN	–	2100		540	140	097
GWMG1/MG12/ MG13/S20	B02/B012/ B013	19/192/193	MG1/12/13/S20		L3/L3K	SMG1	190/192/193	098
GW192K		192K						099

型号对照表 Model Comparison Table

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GUOWEI	AES	VULCAN	BURGMANN	CRANE	ROTEN	STERLING	FLOWSERVE	PAGE
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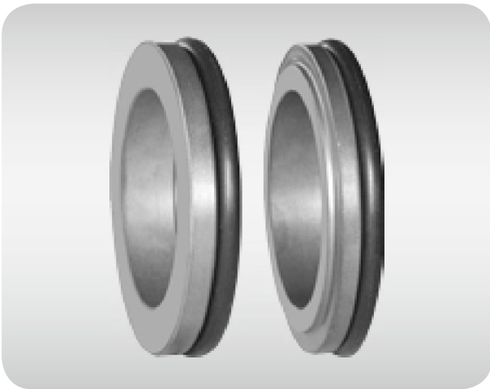
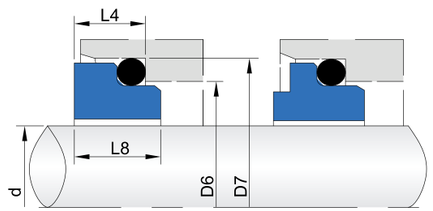
GWG6/GWG606

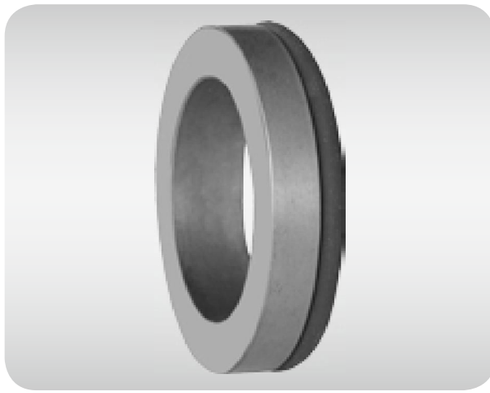


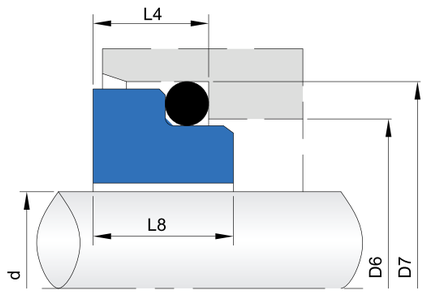


O–ring mounted seat,according with DIN 24960 standard.
Material: V1, Q1, Q2, U2 A.B

Seal Size d	D6	D7	L4	L8
10	17	21	6.6	7.5
12	19	23	6.6	7.5
14	21	25	6.6	7.5
16	23	27	6.6	7.5
18	27	33	7.5	8.5
20	29	35	7.5	8.5
22	31	37	7.5	8.5
24	33	39	7.5	8.5
25	34	40	7.5	8.5
28	37	43	7.5	8.5
30	39	45	7.5	8.5
32	42	48	7.5	8.5
33	42	48	7.5	8.5
35	44	50	7.5	8.5
38	49	56	9.0	10.0
40	51	58	9.0	10.0
43	54	61	9.0	10.0
45	56	63	9.0	10.0
48	59	66	9.0	10.0
50	62	70	9.5	10.5
53	65	73	11.0	12.0
55	67	75	11.0	12.0
58	70	78	11.0	12.0
60	72	80	11.0	12.0
63	75	83	11.0	12.0
65	77	85	11.0	12.0
68	81	90	11.3	12.5
70	83	92	11.3	12.5
75	88	97	11.3	12.5
80	95	105	12.0	13.0
85	100	110	14.0	15.0
90	105	115	14.0	15.0
95	110	120	14.0	15.0
100	115	125	14.0	15.0

GWG4

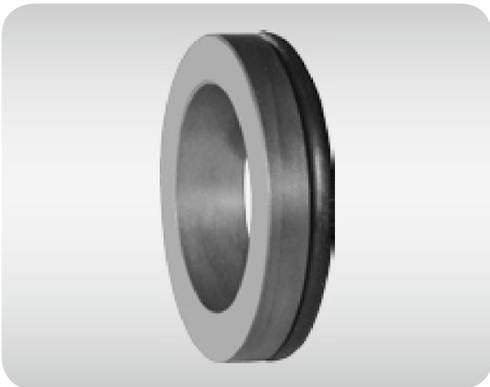


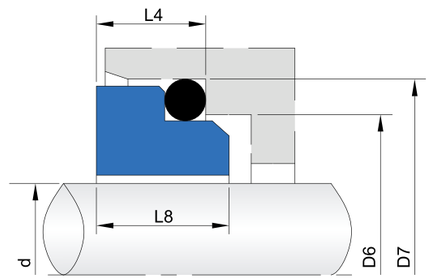


O–ring mounted seats.with standard dimensions.
Material: V1, Q1, Q2, U2 A.B

Seal Size d	D6	D7	L4	L8
10	15.5	19.2	6.6	7.5
12	17.5	21.6	5.6	6.6
14	20.5	24.6	6.6	6.5
15	20.5	24.6	5.6	7.5
16	22.0	28.0	6.6	8.5
18	24.0	30.0	7.5	9.0
20	29.5	35.0	8.0	8.5
22	29.5	35.0	7.5	8.5
24	32.0	38.0	7.5	8.5
25	32.0	38.0	7.5	8.5
26	34.0	40.0	8.0	9.0
28	36.0	42.0	9.0	10.0
30	39.2	45.0	10.5	11.5
32	42.2	48.0	10.5	11.5
33	44.2	50.0	11.0	12.0
35	46.2	52.0	11.0	12.0
38	49.2	55.0	10.3	11.3
40	52.5	58.0	10.8	11.8
42	53.3	62.0	12.0	13.2
43	53.3	62.0	12.0	13.2
45	55.3	64.0	11.6	12.8
48	59.7	68.4	11.6	12.8
50	60.8	69.3	11.6	12.8
53	63.8	72.3	12.3	13.5
55	66.5	75.4	13.3	14.5
58	69.5	78.4	13.3	14.5
60	71.5	80.4	13.3	14.5
63	74.5	83.4	13.3	14.2
65	76.5	85.4	13.0	14.2
68	82.7	91.5	13.7	14.9
70	83.0	92.0	13.0	14.2
75	90.2	99.0	14.0	15.2
80	95.2	104.0	15.0	16.2
85	100.2	109.0	14.8	16.0
90	105.2	114.0	14.8	16.0
95	111.6	120.3	15.8	17.0
100	114.5	123.3	15.8	17.0

GWT24DINS

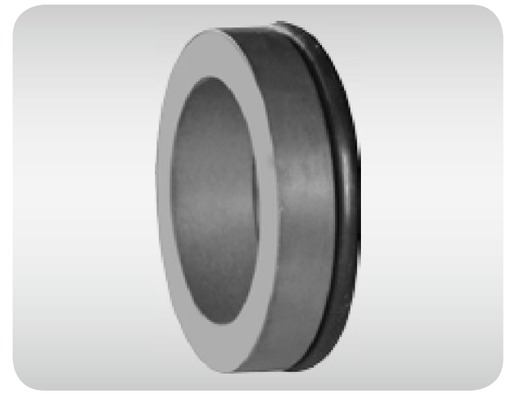


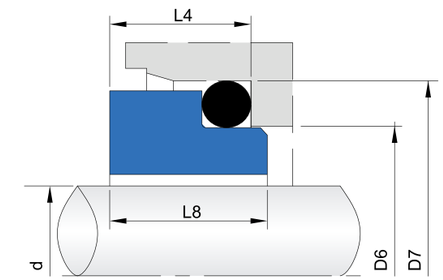


O–ring mounted seat,according with DIN 24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4	L8
10	17	21	8.6	10.0
12	19	23	8.6	10.0
14	21	25	8.6	10.0
16	23	27	8.6	10.0
18	27	33	10.0	11.5
20	29	35	10.0	11.5
22	31	37	10.0	11.5
24	33	39	10.0	11.5
25	34	40	10.0	11.5
28	37	43	10.0	11.5
30	39	45	10.0	11.5
32	42	48	10.0	11.5
33	42	48	10.0	11.5
35	44	50	10.0	11.5
38	49	56	11.0	12.5
40	51	58	11.0	12.5
43	54	61	11.0	12.5
45	56	63	11.0	12.5
48	59	66	11.0	12.5
50	62	70	13.0	14.5
53	65	73	13.0	14.5
55	67	75	13.0	14.5
58	70	78	13.0	14.5
60	72	80	13.0	14.5
63	75	83	13.0	14.5
65	77	85	13.0	14.5
68	81	90	15.3	16.5
70	83	92	15.3	16.5
75	88	97	15.3	16.5
80	95	105	15.7	17.5
85	100	110	15.7	17.5
90	105	115	15.7	17.5
95	110	120	15.7	17.5
100	115	125	15.7	17.5

GWBO

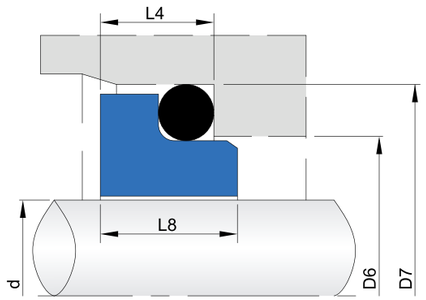




O–ring mounted seats. according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4	L8
14	21	25	12.0	12.8
16	23	27	12.0	12.8
18	27	33	13.5	14.5
20	29	35	13.5	14.5
22	31	37	13.5	14.5
24	33	39	13.3	14.3
25	34	40	13.0	14.0
28	37	43	12.5	13.5
30	39	45	12.0	13.0
32	42	48	12.0	13.0
33	42	48	12.0	13.0
35	44	50	12.0	13.0
38	49	56	13.0	14.0
40	51	58	13.0	14.0
43	54	61	13.0	14.0
45	56	63	13.0	14.0
48	59	66	13.0	14.0
50	62	70	13.5	14.5
53	65	73	13.5	14.5
55	67	75	13.5	14.5
58	70	78	13.5	14.2
60	72	80	13.5	14.2
63	75	83	13.5	14.2
65	77	85	13.5	14.2
68	81	90	13.5	14.2
70	83	92	14.5	15.2
75	88	97	14.5	15.2
80	95	105	15.0	15.7
85	100	110	15.0	15.7
90	105	115	15.0	15.7
95	110	120	15.0	15.7
100	115	125	15.0	15.7

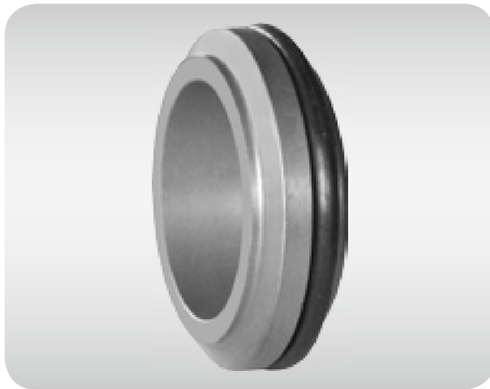
GWBS

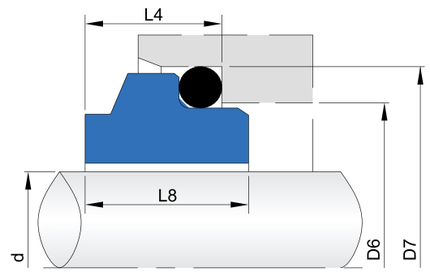


O–ring mounted seats.with short design according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4	L8
12	19	23	6.0	6.8
14	21	25	6.0	6.8
16	23	27	6.0	6.8
18	27	33	6.0	7.0
20	29	35	6.0	7.0
22	31	37	6.0	7.0
24	33	39	6.0	7.0
25	34	40	6.0	7.0
28	37	43	6.0	7.0
30	39	45	7.0	8.0
32	42	48	7.0	8.0
33	42	48	7.0	8.0
35	44	50	8.0	9.0
38	49	56	8.0	9.0
40	51	58	8.0	9.0
43	54	61	8.0	9.0
45	56	63	8.0	9.0
48	59	66	10.0	11.0
50	62	70	10.0	11.0
53	65	73	10.0	11.0
55	67	75	10.0	11.0
58	70	78	10.0	11.0
60	72	80	12.0	12.7
63	75	83	12.0	12.7
65	77	85	12.0	12.7
68	81	90	12.0	12.7
70	83	92	12.0	12.7
75	88	97	12.0	12.7
80	95	105	12.5	13.2
85	100	110	12.5	13.2
90	105	115	12.5	13.2
95	110	120	12.5	13.2
100	115	125	12.5	13.2

GWG13

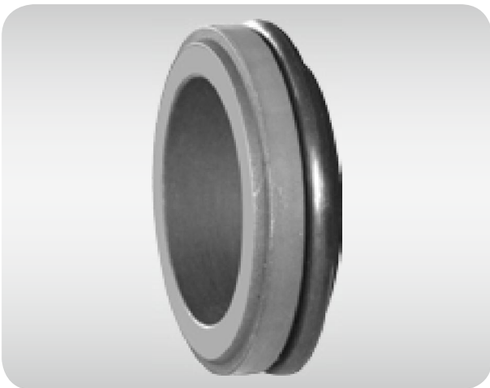


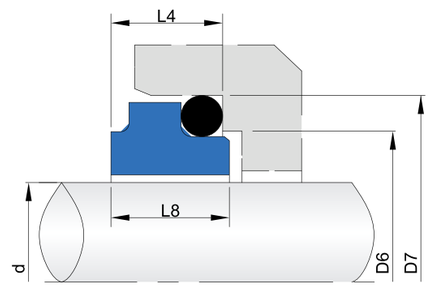


O–ring mounted seats. with a short axial dimension.
Material: V1, Q1, Q2, U2 A.B

Seal Size d	D6	D7	L4	L8
10	15.5	19.2	7.1	9.0
12	17.5	21.6	7.6	10.0
14	20.5	24.6	7.6	10.0
15	20.5	24.6	8.6	11.0
16	22.0	28.0	9.0	11.5
18	24.0	30.0	10.0	12.5
20	29.5	35.0	9.5	12.5
22	29.5	35.0	9.5	12.5
24	32.0	38.0	9.5	12.5
25	32.0	38.0	9.5	12.5
26	34.0	40.0	10.0	13.0
28	36.0	42.0	11.0	14.0
30	39.2	45.0	11.0	14.0
32	42.2	48.0	11.0	14.0
33	44.2	50.0	11.5	14.5
35	46.2	52.0	11.5	14.5
38	49.2	55.0	11.5	14.5
40	52.2	58.0	11.5	14.5
42	53.3	62.0	14.3	17.0
43	53.3	62.0	14.3	17.0
45	55.3	64.0	14.3	17.0
48	59.7	68.4	14.3	17.0
50	60.8	69.3	14.3	17.0
53	63.8	72.3	14.3	17.0
55	66.5	75.4	15.3	18.0
58	69.5	78.4	15.3	18.0
60	71.5	80.4	15.3	18.0
63	74.5	83.4	15.3	18.0
65	76.5	85.4	15.3	18.0
68	82.7	91.5	16.0	19.0
70	83.0	92.0	15.3	18.0
75	90.2	99.0	15.3	18.0
80	95.2	104.0	16.3	19.0
85	100.2	109.0	16.3	19.0
90	105.2	114.0	16.3	19.0
95	111.6	120.3	17.3	20.0
100	114.5	123.3	17.3	20.0

GWT12/12DIN



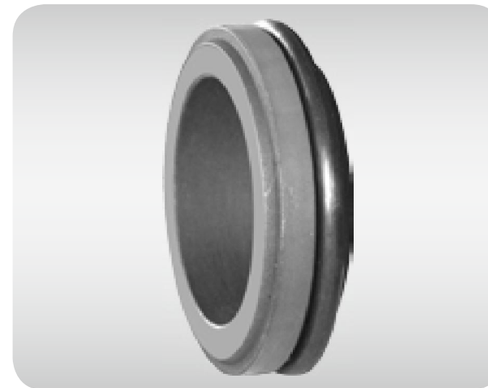


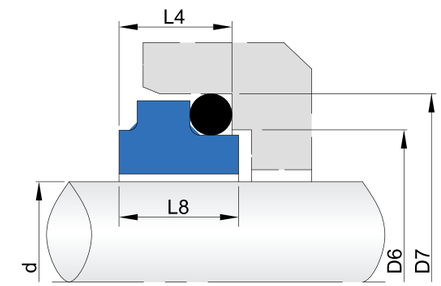
O–ring mounted seats. with a standard dimensions.
Material: V1, Q1, Q2, U2 A.B

Seal Size d	GWT12				GWT12DIN			
	D7	D6	L4	L8	D7	D6	L4	L8
10	18.1	14.0	5.5	7.0	21.0	17.0	7.0	10.0
11	20.6	16.5	5.5	7.0	–		–	10.0
12	20.6	16.5	5.5	7.0	23.0	19.0	7.0	10.0
13	23.1	19.0	6.0	7.5	–		–	10.0
14	23.1	19.0	6.0	7.5	25.0	21.0	7.0	12.6
15	26.9	21.0	7.0	9.0	–		–	12.6
16	26.6	21.0	7.0	9.0	27.0	23.0	7.0	12.6
17	26.9	25.0	7.0	9.0	–		–	12.6
18	30.9	25.0	8.0	9.5	33.0	27.0	10.0	12.6
19	30.9	25.0	8.0	9.5	–		–	12.6
20	30.9	30.0	8.0	9.5	35.0	29.0	10.0	12.6
21	35.4	30.0	8.0	9.5	–		–	12.6
22	35.4	30.0	8.0	9.5	37.0	31.0	10.0	12.6
23	35.4	30.0	8.0	9.5	–			12.6
24	35.4	30.0	8.0	9.5	39.0	33.0	10.0	12.6
25	38.2	33.0	8.5	9.5	40.0	34.0	10.0	12.6
26	38.2	33.0	8.5	11.0	–		–	12.6
28	43.3	38.0	9.0	11.0	43.0	37.0	10.0	12.6
30	43.3	38.0	9.0	11.0	45.0	39.0	10.0	12.6
32	43.3	38.0	9.0	11.0	48.0	42.0	10.0	12.6
33	53.5	45.0	11.5	13.0	48.0	42.0	10.0	12.6
35	53.5	45.0	11.5	13.0	50.0	44.0	10.0	12.6

Seal Size d	GWT12				GWT12DIN			
	D7	D6	L4	L8	D7	D6	L4	L8
38	60.5	52.0	11.5	13.0	56.0	49.0	13.0	15.4
40	60.5	52.0	11.5	13.0	58.0	51.0	13.0	15.4
42	60.5	52.0	11.5	13.0	–		–	15.4
43	60.5	52.0	11.5	13.0	61.0	54.0	13.0	15.4
44	65.5	57.0	11.5	13.0			–	15.4
45	65.5	57.0	11.5	13.0	63.0	56.0	13.0	15.4
48	65.5	57.0	11.5	13.5	66.0	59.0	13.0	15.4
50	72.5	64.0	11.5	13.5	70.0	62.0	14.0	16.6
53				13.5	73.0	65.0	14.0	16.6
55	72.5	72.0	11.5	13.5	75.0	67.0	14.0	16.6
58				13.5	78.0	70.0	14.0	16.6
60	79.3	72.0	11.5	13.5	80.0	72.0	14.0	16.6
63				13.5	83.0	75.0	14.0	16.6
65	84.5	77.0	11.5	13.5	85.0	77.0	14.0	17.1
68				13.5	90.0	81.0	14.0	18.6
70	89.5	82.0	11.5	13.5	92.0	83.0	16.0	18.3
75	94.5	87.0	11.5	13.5	97.0	88.0	16.0	18.3
80	99.5	92.0	11.5	13.5	105.0	95.0	18.0	20.0
85	105.5	98.0	13.5	15.5	110.0	100.0	18.0	20.0
90	111.5	105.0	13.5	15.5	115.0	105.0	18.0	20.0
95	116.5	110.0	13.5	15.5	120.0	110.0	18.0	20.0
100	119.5	114.0	13.5	15.5	125.0	115.0	18.0	20.0

GW7D

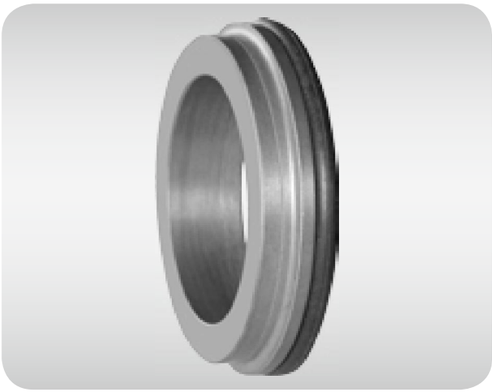


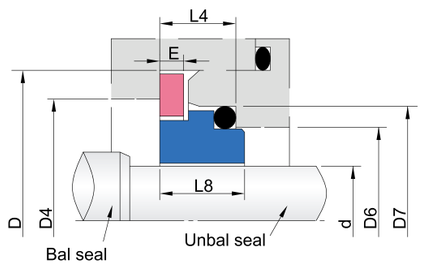


O–ring mounted seats. with a standard dimensions.
Material: V1, Q1, Q2, U2 A.B

Seal Size d	D6	D7	L4	L8
10	17	21	7.0	8.5
12	19	23	7.0	8.5
14	21	25	7.0	8.5
16	23	27	7.0	8.5
18	27	33	10.0	12.0
20	29	35	10.0	12.0
22	31	37	10.0	12.0
24	33	39	10.0	12.0
25	34	40	10.0	12.0
28	37	43	10.0	12.0
30	39	45	10.0	12.0
32	42	48	10.0	11.5
33	42	48	10.0	11.5
35	44	50	10.0	11.5
38	49	56	13.0	15.0
40	51	58	13.0	15.0
43	54	61	13.0	14.5
45	56	63	13.0	14.5
48	59	66	13.0	15.0
50	62	70	14.0	16.0
53	65	73	14.0	16.0
55	67	75	14.0	16.0
58	70	78	14.0	16.0
60	72	80	14.0	16.0
63	75	83	14.0	16.0
65	77	85	14.0	16.0
68	81	90	16.0	18.0
70	83	92	16.0	18.0
75	88	97	16.0	18.0
80	95	105	18.0	20.0
85	100	110	18.0	20.0
90	105	115	18.0	20.0
95	110	120	18.0	20.0
100	115	125	18.0	20.0

GWBC

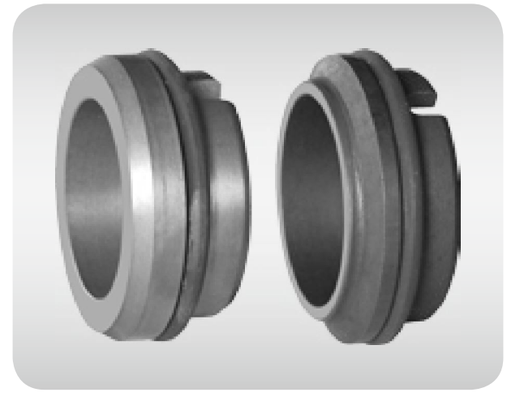


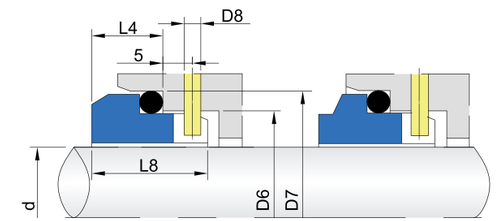


O–ring mounted seats. according with DIN 24960 standard.
with seat blocked ring and suitable for vacuum application.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4	L8	E
14	21	25	12.0	12.8	4.0
16	23	27	12.0	12.8	4.0
18	27	33	13.5	14.5	4.0
20	29	35	13.5	14.5	4.0
22	31	37	13.5	14.5	4.0
24	33	39	13.3	14.3	4.0
25	34	40	13.0	14.0	4.0
28	37	43	12.5	13.5	4.0
30	39	45	12.0	13.0	4.0
32	42	48	12.0	13.0	4.0
33	42	48	12.0	13.0	4.0
35	44	50	12.0	13.0	4.0
38	49	56	13.0	14.0	6.0
40	51	58	13.0	14.0	6.0
43	54	61	13.0	14.0	6.0
45	56	63	13.0	14.0	6.0
48	59	66	13.0	14.0	6.0
50	62	70	13.5	14.5	6.0
53	65	73	13.5	14.5	6.0
55	67	75	13.5	14.5	6.0
58	70	78	13.5	14.2	6.0
60	72	80	13.5	14.2	6.0
65	77	85	13.5	14.2	6.0
68	81	90	13.5	14.2	6.0
70	83	92	14.5	15.2	6.0
75	88	97	14.5	15.2	6.0
80	95	105	15.0	15.7	6.0
85	100	110	15.0	15.7	6.0
90	105	115	15.0	15.7	6.0
95	110	120	15.0	15.7	6.0
100	115	125	15.0	15.7	6.0

GWG9/G92

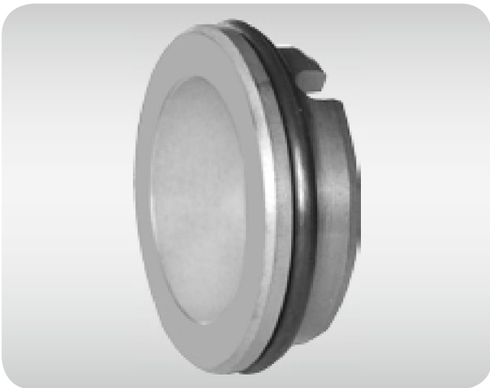


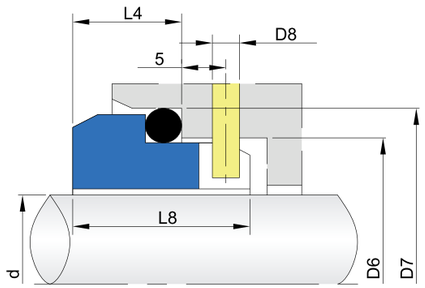


O–ring mounted seats.with anti–rotation pin, according with DIN24960 standard.
Material: V1, Q1, Q2, U2 A.B

Seal Size d	D6	D7	L4	L8	D8
10	17	21	10.0	17.5	3
12	19	23	10.0	17.5	3
14	21	25	10.0	17.5	3
16	23	27	10.0	17.5	3
18	27	33	11.5	19.5	3
20	29	35	11.5	19.5	3
22	31	37	11.5	19.5	3
24	33	39	11.5	19.5	3
25	34	40	11.5	19.5	3
28	37	43	11.5	19.5	3
30	39	45	11.5	19.5	3
32	42	48	11.5	19.5	3
33	42	48	11.5	19.5	3
35	44	50	11.5	19.5	3
38	49	56	14.0	22.0	4
40	51	58	14.0	22.0	4
43	54	61	14.0	22.0	4
45	56	63	14.0	22.0	4
48	59	68	14.0	22.0	4
50	62	70	15.0	23.0	4
53	65	73	15.0	23.0	4
55	67	75	15.0	23.0	4
58	70	78	15.0	23.0	4
60	72	80	15.0	23.0	4
63	75	83	15.0	23.0	4
65	77	85	15.0	23.0	4
68	81	90	18.0	26.0	4
70	83	92	18.0	26.0	4
75	88	97	18.0	26.0	4
80	95	105	18.2	26.2	4
85	100	110	18.2	26.2	4
90	105	115	18.2	26.2	4
95	110	120	17.2	25.2	4
100	115	125	17.2	25.2	4

GWG16

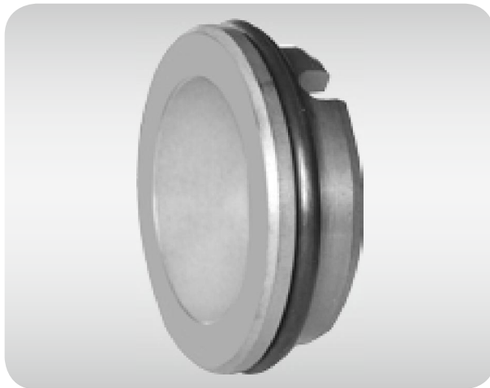


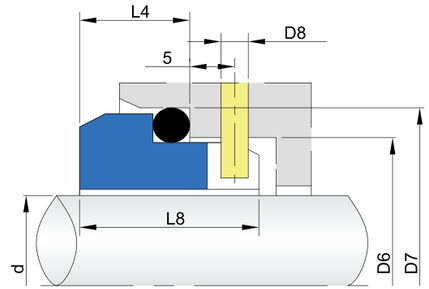


O–ring mounted seats. with anti–rotation pin, according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	D8	L4	L8
18	27	33	3.0	7.0	15.0
20	29	35	3.0	7.0	15.0
22	31	37	3.0	7.0	15.0
24	33	39	3.0	7.0	15.0
25	34	40	3.0	7.0	15.0
28	37	43	3.0	7.0	15.0
30	39	45	3.0	7.0	15.0
32	42	48	3.0	7.0	15.0
33	42	48	3.0	7.0	15.0
35	44	50	3.0	7.0	15.0
38	49	56	4.0	8.0	16.0
40	51	58	4.0	8.0	16.0
43	54	61	4.0	8.0	16.0
45	56	63	4.0	8.0	16.0
48	59	66	4.0	8.0	16.0
50	62	70	4.0	9.5	17.0
53	65	73	4.0	9.5	17.0
55	67	75	4.0	9.5	17.0
58	70	78	4.0	10.5	18.0
60	72	80	4.0	10.5	18.0
63	75	83	4.0	10.5	18.0
65	77	85	4.0	10.5	18.0
68	81	90	4.0	11.0	18.5
70	83	92	4.0	11.5	19.0
75	88	97	4.0	11.5	19.0
80	95	105	4.0	11.5	19.0
85	100	110	4.0	11.5	19.0
90	105	115	4.0	13.0	20.5
95	110	120	4.0	13.0	20.5
100	115	125	4.0	13.0	20.5

GWG46

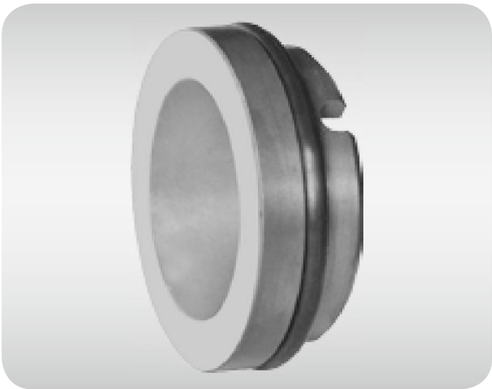


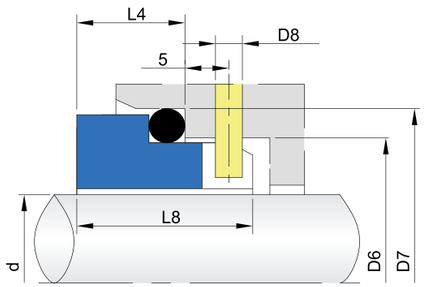


O–ring mounted seats. with anti–rotation pin, according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	D8	L4	L8
18	27	33	3.0	9.0	17.0
20	29	35	3.0	9.0	17.0
22	31	37	3.0	9.0	17.0
24	33	39	3.0	9.0	17.0
25	34	40	3.0	9.0	17.0
28	37	43	3.0	9.5	17.5
30	39	45	3.0	9.5	17.5
32	42	48	3.0	9.5	17.5
33	42	48	3.0	9.5	17.5
35	44	50	3.0	9.5	17.5
38	49	56	4.0	10.5	18.5
40	51	58	4.0	10.5	18.5
43	54	61	4.0	10.5	18.5
45	56	63	4.0	10.5	18.5
48	59	66	4.0	10.5	18.5
50	62	70	4.0	12.0	19.5
53	65	73	4.0	12.0	19.5
55	67	75	4.0	12.0	19.5
58	70	78	4.0	13.0	20.5
60	72	80	4.0	13.0	20.5
63	75	83	4.0	13.0	20.5
65	77	85	4.0	13.0	20.5
68	81	90	4.0	13.5	21.0
70	83	92	4.0	14.0	21.5
75	88	97	4.0	14.0	21.5
80	95	105	4.0	14.0	21.5
85	100	110	4.0	14.0	21.5
92	105	115	4.0	15.5	23.0
95	110	120	4.0	15.5	23.0
100	115	125	4.0	15.5	23.0

GW24DINL

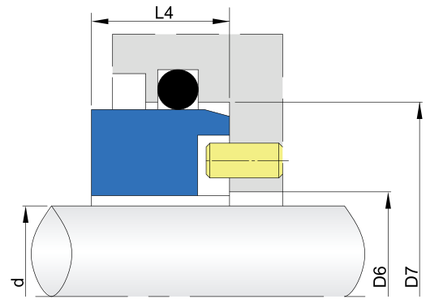




O–ring mounted seats. with anti–rotation pin, according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	D8	L4	L8
10	17	21	3	8.6	15.0
12	19	23	3	8.6	15.0
14	21	25	3	8.6	15.0
16	23	27	3	8.6	15.0
18	27	33	3	10.0	17.0
20	29	35	3	10.0	17.0
22	31	37	3	10.0	17.0
24	33	39	3	10.0	17.0
25	34	40	3	10.0	17.0
28	37	43	3	10.0	17.0
30	39	45	3	10.0	17.0
32	42	48	3	10.0	17.0
33	42	48	3	10.0	17.0
35	44	50	3	10.0	17.0
38	49	56	4	11.0	18.0
40	51	58	5	11.0	18.0
43	54	61	4	11.0	18.0
45	56	63	4	11.0	18.0
48	59	66	4	11.0	18.0
50	62	70	4	13.0	20.0
53	65	73	4	13.0	20.0
55	67	75	4	13.0	20.0
58	70	78	4	13.0	20.0
60	72	80	4	13.0	20.0
63	75	83	4	13.0	20.0
65	77	85	4	13.0	20.0
68	81	90	4	15.3	22.0
70	83	92	4	15.3	22.0
75	88	97	4	15.3	22.0
80	95	105	4	15.7	22.5
85	100	110	4	15.7	22.5
90	105	115	4	15.7	22.5
95	110	120	4	15.7	22.5
100	115	125	4	15.7	22.5

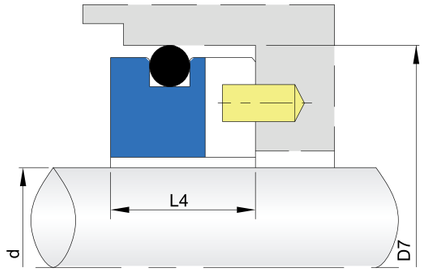
GWN



O–ring mounted seats. according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Inches Size d	D6	D7	L4
0.500	14.00	25.60	7.92
0.625	17.50	31.95	10.31
0.750	21.00	35.12	10.31
0.875	24.00	38.30	10.31
1.000	27.50	41.48	11.10
1.125	30.50	44.65	11.10
1.250	33.50	47.83	11.10
1.375	37.00	51.00	11.10
1.500	40.00	54.18	11.10
1.625	43.50	60.53	12.70
1.750	46.50	63.70	12.70
1.875	49.50	66.88	12.70
2.000	53.00	70.05	12.70
2.125	56.00	76.40	14.27
2.250	59.00	79.58	14.27
2.375	62.50	82.75	14.27
2.500	65.50	85.93	14.27
2.625	68.50	85.93	15.88
2.750	72.00	89.10	15.88
2.875	75.00	95.45	15.88
3.000	78.50	98.63	15.88
3.125	81.50	101.80	19.84
3.250	84.50	104.98	19.84
3.375	88.00	108.15	19.84
3.500	91.00	111.33	19.84
3.625	94.00	114.50	19.84
3.750	97.50	117.68	19.84
3.875	100.50	120.85	19.84
4.000	103.50	124.03	19.84

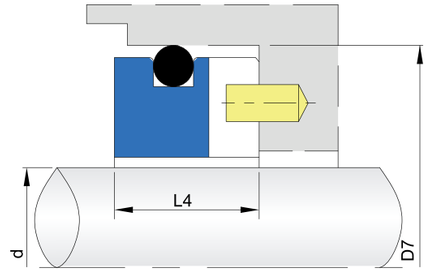
GWT20



O–ring mounted seats.with anti–rotation slot, can apply to common Euripean standard seals housing dimensions.
Material: V1, Q1, Q2, U2

Inches Size	D7	L4
0.375	24.60	8.70
0.500	27.79	8.70
0.625	30.95	10.30
0.750	34.15	10.30
0.875	37.30	10.30
1.000	40.50	10.30
1.125	47.63	11.90
1.250	50.80	11.90
1.375	53.98	11.90
1.500	57.15	11.90
1.625	60.35	11.90
1.750	63.50	11.90
1.875	66.70	11.90
2.000	69.85	13.50
2.125	73.05	13.50
2.250	76.20	13.50
2.375	79.40	13.50
2.500	82.55	13.50
2.625	92.10	15.90
2.750	95.25	15.90
2.875	98.45	15.90
3.000	101.65	15.90

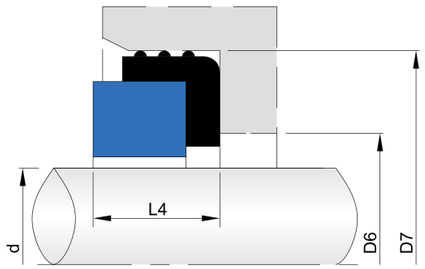
GWT21



O–ring mounted seats.with anti–rotation slot, can apply to American standard seals housing dimensions.
Material: V1, Q1, Q2, U2

Inches Size	D7	L4
0.375	22.22	7.95
0.500	25.40	7.95
0.625	31.75	10.30
0.750	34.93	10.30
0.875	38.10	10.30
1.000	41.28	11.10
1.125	44.44	11.10
1.250	47.63	11.10
1.375	50.80	11.10
1.500	53.98	11.10
1.625	60.33	12.70
1.750	63.50	12.70
1.875	66.68	12.70
2.000	69.85	12.70
2.125	76.20	14.30
2.250	79.30	14.30
2.375	82.55	14.30
2.500	85.73	14.30
2.625	85.73	15.90
2.750	88.90	15.90
2.875	95.25	15.90
3.000	98.43	15.90
3.125	101.60	19.84
3.250	104.78	19.84
3.375	107.95	19.84
3.500	111.13	19.84
3.625	114.30	19.84
3.750	117.48	19.84
3.875	120.65	19.84
4.000	123.83	19.84

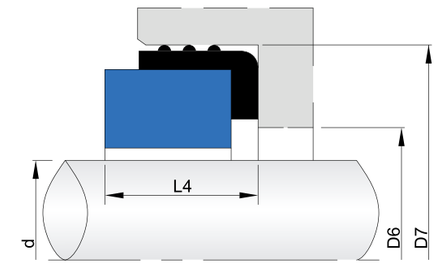
GWCG60



Cup mounted seats,according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4
10	17	21	6.6
12	19	23	6.6
14	21	25	6.6
16	23	27	6.6
18	27	33	7.5
20	29	35	7.5
22	31	37	7.5
24	33	39	7.5
25	34	40	7.5
28	37	43	7.5
30	39	45	7.5
32	42	48	7.5
33	42	48	7.5
35	44	50	7.5
38	49	56	9.0
40	51	58	9.0
43	54	61	9.0
45	56	63	9.0
48	59	66	9.0
50	62	70	9.5
53	65	73	11.0
55	67	75	11.0
58	70	78	11.0
60	72	80	11.0
63	75	83	11.0
65	77	85	11.0
68	81	90	11.3
70	83	92	11.3
75	88	97	11.3
80	95	105	12.0
85	100	110	14.0
90	105	115	14.0
95	110	120	14.0
100	115	125	14.0

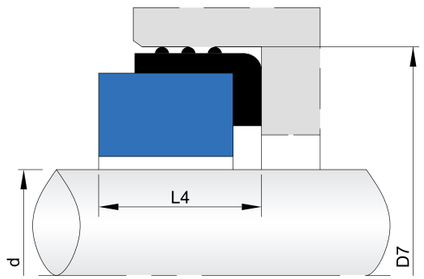
GWCT20



Cup mounted seats,according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4
10	11.0	24.60	9.0
12	13.5	27.80	9.0
14	17.0	30.95	10.5
15	17.0	30.95	10.5
16	17.0	30.95	10.5
18	20.0	34.15	10.5
19	20.0	34.15	10.5
20	21.5	35.70	10.5
22	23.0	37.30	10.5
24	26.5	40.50	10.5
25	26.5	40.50	10.5
28	29.5	47.65	12.0
30	32.5	50.80	12.0
32	32.5	50.80	12.0
33	36.5	54.00	12.0
35	36.5	54.00	12.0
38	39.5	57.15	12.0
40	42.5	60.35	12.0
42	46.0	63.50	12.0
43	46.0	63.50	12.0
45	46.0	63.50	12.0
48	49.0	66.70	12.0
50	52.0	69.85	13.5
53	55.5	73.05	13.5
55	58.5	76.20	13.5
58	61.5	79.40	13.5
60	61.5	79.40	13.5
65	68.0	92.10	16.0
68	71.0	95.25	16.0
70	71.0	95.25	16.0
75	77.5	101.60	16.0
80	84.0	114.30	20.0
85	87.0	117.50	20.0
90	93.5	123.85	20.0
95	96.5	127.00	20.0
100	103.0	133.35	20.0

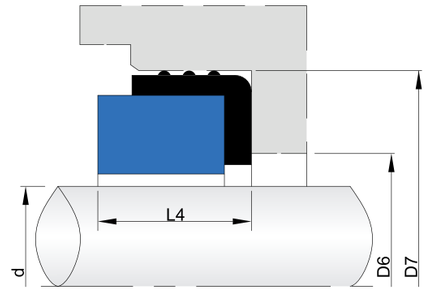
GWCT20-1



Cup mounted seats,according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size	d	D7	L4
0.375	9.5	24.60	8.7
0.500	12.7	27.80	8.7
0.625	15.8	30.95	10.3
0.750	19.0	34.15	10.3
0.813	20.6	35.70	10.3
0.875	22.2	37.30	10.3
1.000	25.4	40.50	10.3
1.125	28.5	47.65	11.9
1.250	31.7	50.80	11.9
1.375	34.9	54.00	11.9
1.500	38.1	57.15	11.9
1.625	41.2	60.35	11.9
1.750	44.4	63.50	11.9
1.875	47.6	66.70	11.9
2.000	50.8	69.85	13.5
2.125	53.9	73.05	13.5
2.250	57.1	76.20	13.5
2.375	60.3	79.40	13.5
2.500	63.5	82.55	13.5
2.625	66.6	92.05	15.9
2.750	69.8	95.25	15.9
2.875	73.0	98.45	15.9
3.000	76.2	101.65	15.9
3.125	79.3	111.15	20.0
3.250	82.5	114.30	20.0
3.375	85.7	117.50	20.0
3.500	88.9	120.65	20.0
3.625	92.0	123.85	20.0
3.750	95.2	127.00	20.0
3.875	98.4	130.20	20.0
4.000	101.6	133.35	20.0

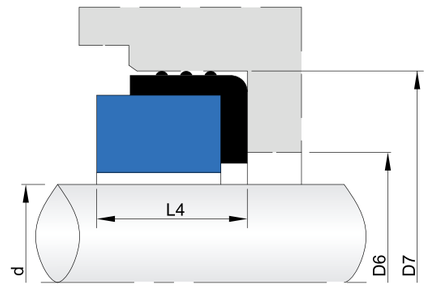
GWCT24



Cup mounted seats,according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4
12	19	23	8.6
14	21	25	8.6
16	23	27	10.0
18	27	33	10.0
20	29	35	10.0
22	31	37	10.0
24	33	39	10.0
25	34	40	10.0
28	37	43	10.0
30	39	45	10.0
32	42	48	10.0
33	42	48	10.0
35	44	50	10.0
38	49	56	11.0
40	51	58	11.0
43	54	61	11.0
45	56	63	11.0
48	59	66	11.0
50	62	70	13.0
53	65	73	13.0
55	67	75	13.0
58	70	78	13.0
60	72	80	13.0
63	75	83	13.0
65	77	85	13.0
68	81	90	13.0
70	83	92	15.3
75	88	97	15.3
80	95	105	15.3
85	100	110	15.7
90	105	115	15.7
95	110	120	15.7
100	115	125	15.7

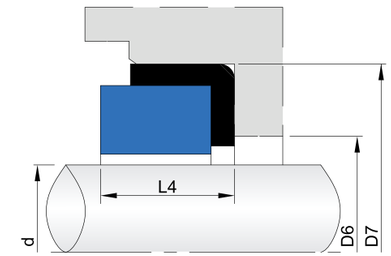
GWT11



Cup mounted seats,according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Inches Size	Metric Size	D6	D7	L4
0.375	9.50	15.88	22.23	7.95
0.500	12.70	19.05	25.40	7.95
0.625	15.80	23.80	31.75	10.31
0.750	19.00	26.97	34.93	10.31
0.875	22.20	30.15	38.10	10.31
1.000	25.40	33.32	41.28	11.10
1.125	28.50	36.50	44.45	11.10
1.250	31.70	39.70	47.63	11.10
1.375	34.90	42.85	50.80	11.10
1.500	38.10	46.05	53.98	11.10
1.625	41.20	50.80	60.33	12.70
1.750	44.40	53.97	63.50	12.70
1.875	47.60	57.15	66.60	12.70
2.000	50.80	60.33	69.85	12.70
2.125	53.90	60.33	76.20	14.27
2.250	57.10	61.90	79.38	14.27
2.375	60.30	65.10	82.55	14.27
2.500	63.50	68.25	85.73	14.27
2.625	66.60	71.42	85.73	15.88
2.750	69.80	74.60	88.90	15.88
2.875	73.00	77.77	95.25	15.88
3.000	76.20	80.95	98.43	15.88

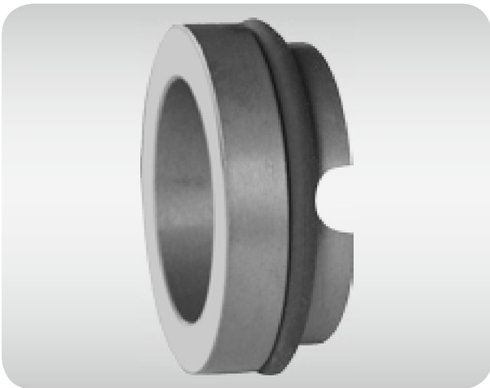
GWL210

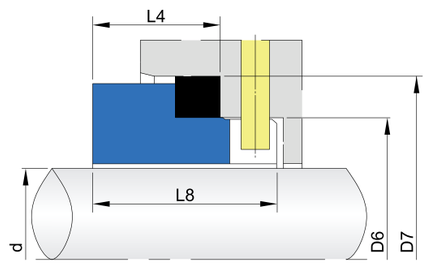


Cup mounted seats,according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4
10	15	21	5.0
12	17	23	6.0
14	19	25	6.0
15	20	26	6.0
16	23	27	6.0
18	25	33	6.0
20	27	35	6.0
22	29	37	6.0
24	31	39	6.0
25	32	40	6.0
28	35	43	6.0
30	37	45	7.0
32	40	48	7.0
33	40	48	7.0
35	42	50	8.0
38	47	56	8.0
40	49	58	8.0
43	52	61	8.0
45	54	63	8.0
48	57	66	10.0
50	60	70	10.0
53	63	73	10.0
55	65	75	10.0
58	68	78	10.0
60	70	80	12.0
63	73	83	12.0
65	75	85	12.0
68	79	90	12.0
70	81	92	12.0
75	88	97	12.0
80	92	105	12.5
85	97	110	12.5
90	102	115	12.5
95	117	120	12.5
100	122	125	12.5

GWBP

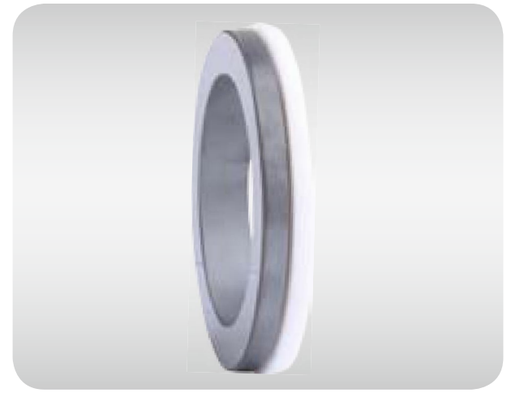


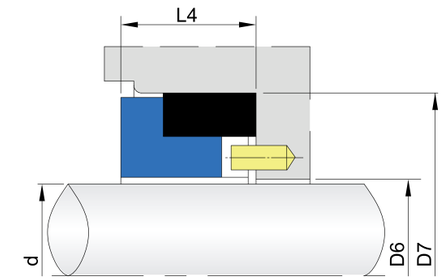


PTFE rectangular ring mounted seats. with anti–rotation pin, according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Seal Size d	D6	D7	L4	L8
14	21	25	12.0	18.5
16	23	27	12.0	18.5
18	27	33	13.5	20.5
20	29	35	13.5	20.5
22	31	37	13.5	20.5
24	33	39	13.3	20.3
25	34	40	13.0	20.0
28	37	43	12.5	19.5
30	39	45	12.0	19.0
32	42	48	12.0	19.0
33	42	48	12.0	19.0
35	44	50	12.0	19.0
38	49	56	13.0	20.0
40	51	58	13.0	20.0
43	54	61	13.0	20.0
45	56	63	13.0	20.0
48	59	66	13.0	20.0
50	62	70	13.5	20.5
53	65	73	13.5	20.5
55	67	75	13.5	20.5
58	70	78	13.5	20.5
60	72	80	13.5	20.5
63	75	83	13.5	20.5
65	77	85	13.5	20.5
68	81	90	13.5	20.5
70	83	92	14.5	21.5
75	88	97	14.5	21.5
80	95	105	15.0	22.0
85	100	110	15.0	22.0
90	105	115	15.0	22.0
95	110	120	15.0	22.0
100	115	125	15.0	22.0

GW16

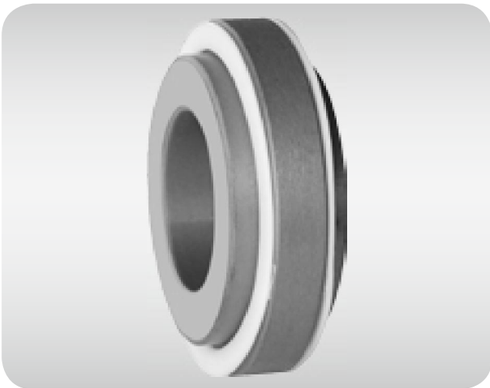


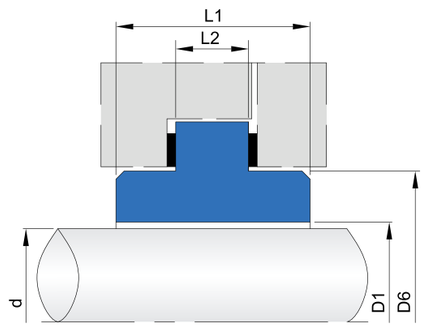


PTFE rectangular ring mounted seats. with anti–rotation pin, according with DIN24960 standard.
Material: V1, Q1, Q2, U2

Inches Size d	Metric Size	D6	D7	L4
0.250	6.3	7.1	19.1	7.9
0.375	9.5	10.2	22.2	7.9
0.500	12.7	13.4	25.4	7.9
0.625	15.8	16.6	31.8	10.3
0.750	19.0	19.7	34.9	10.3
0.875	22.2	22.9	38.1	10.3
1.000	25.4	26.1	41.3	11.1
1.125	28.5	29.3	44.5	11.1
1.250	31.7	32.4	47.6	11.1
1.375	34.9	35.6	50.8	11.1
1.500	38.1	38.8	54.0	11.1
1.625	41.2	42.4	60.3	12.7
1.750	44.4	45.5	63.5	12.7
1.875	47.6	48.7	66.7	12.7
2.000	50.8	51.9	69.9	12.7
2.125	53.9	55.0	76.2	14.3
2.250	57.1	58.2	79.4	14.3
2.375	60.3	61.4	82.6	14.3
2.500	63.5	64.6	85.7	14.3
2.625	66.6	67.7	85.7	15.9
2.750	69.8	70.9	88.9	15.9
2.875	73.0	74.1	95.3	15.9
3.000	76.2	77.3	98.4	15.9
3.125	79.3	80.5	101.6	19.8
3.250	82.5	83.6	104.8	19.8
3.375	85.7	86.8	108.0	19.8
3.500	88.9	90.0	111.1	19.8
3.625	92.0	93.1	114.3	19.8
3.750	95.2	96.3	117.5	19.8
3.875	98.4	99.5	120.7	19.8
4.000	101.6	102.7	123.8	19.8
4.125	104.7	106.3	130.2	19.8
4.250	107.9	109.5	133.4	19.8
4.375	111.1	112.7	136.5	19.8
4.500	114.3	115.9	139.7	19.8
4.625	117.4	119.0	142.9	19.8
4.750	120.6	122.2	146.1	19.8
4.875	123.8	125.4	149.2	19.8
5.000	127.0	128.6	152.4	19.8

GW25

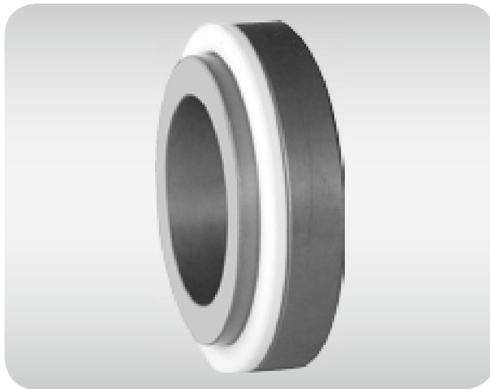


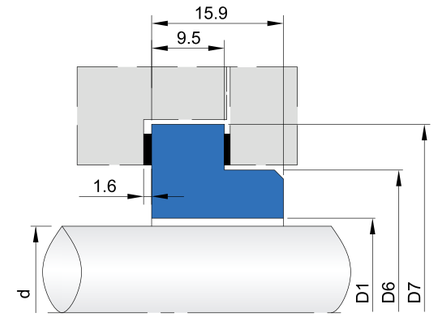


The seat with two PTFE gaskets should be clamped structure.
Material: V1, Q1, Q2

Inches Size d	D1	D6	L1	L2
0.500	13.7	29.1	17.4	7.9
0.625	16.8	33.0	17.4	7.9
0.750	20.0	36.2	17.4	7.9
0.875	23.2	39.9	17.4	7.9
1.000	26.4	42.6	17.4	7.9
1.125	29.6	45.7	26.9	11.1
1.250	32.7	50.5	26.9	11.1
1.375	36.0	53.7	26.9	11.1
1.500	39.1	56.9	26.9	11.1
1.625	42.2	63.2	26.9	11.1
1.750	45.4	66.4	26.9	11.1
1.875	49.0	69.6	26.9	11.1
2.000	51.8	72.7	26.9	11.1
2.125	54.9	79.1	33.3	14.3
2.250	58.1	82.3	33.3	14.3
2.375	61.3	85.4	33.3	14.3
2.500	64.5	88.6	33.3	14.3
2.625	67.6	91.8	33.3	14.3
2.750	71.0	94.9	33.3	14.3
2.875	74.0	98.1	33.3	14.3
3.000	77.2	99.7	33.3	14.3
3.125	80.4	102.9	33.3	14.3
3.500	89.9	114.0	34.3	14.3
3.750	96.3	120.4	34.3	14.3
4.000	102.6	126.7	34.3	14.3
4.125	106.0	139.9	36.0	16.0
4.500	115.3	139.4	34.3	14.3
5.000	140.7	177.5	36.0	16.0

GW27

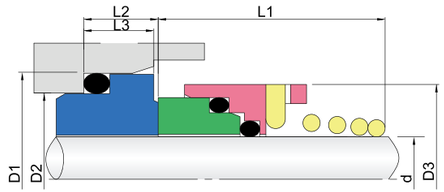




The seat with two PTFE gaskets design with L–shape profile.
It can be fitted in Multiple–Spring balanced seals.
Material: V1, Q1, Q2

Inches Size d	D1	D6	D7
0.750	21.6	34.8	44.5
0.875	24.8	38.0	47.7
1.000	28.0	41.2	50.8
1.125	31.1	44.3	54.0
1.187	32.7	45.9	55.6
1.250	34.3	47.5	57.2
1.375	37.5	50.7	60.3
1.500	40.7	57.0	66.7
1.625	43.8	60.2	69.9
1.750	47.0	63.4	76.2
1.875	50.2	66.5	79.4
2.000	53.4	69.7	82.6
2.125	56.5	72.9	88.9
2.250	59.7	76.1	92.1
2.375	62.9	79.2	95.3
2.500	66.0	82.4	101.5
2.625	69.2	85.6	104.8
3.000	78.0	93.5	121.0

GW17D



Operational Conditions:

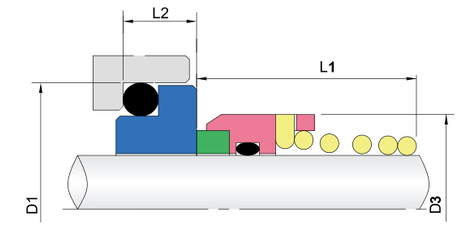
- Temperature: –30℃ to +200℃
- Pressure: ≤ 0.8MPa • Speed: ≤ 18m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
10	21.0	17.0	19.0	15.0	7.0	4.0
12	23.0	19.0	21.0	18.0	7.0	4.0
14	25.0	21.0	23.0	22.0	7.0	4.0
16	27.0	23.0	26.0	23.0	7.0	4.0
18	33.0	27.0	29.0	24.0	10.0	5.0
20	35.0	29.0	31.0	25.0	10.0	5.0
22	37.0	31.0	33.0	25.0	10.0	5.0
24	39.0	33.0	35.0	27.0	10.0	5.0
25	40.0	34.0	36.0	27.0	10.0	5.0
28	43.0	37.0	40.0	29.0	10.0	5.0
30	45.0	39.0	43.0	30.0	10.0	5.0
32	48.0	42.0	46.0	30.0	10.0	5.0
33	48.0	42.0	46.0	39.0	10.0	5.0
35	50.0	44.0	49.0	39.0	10.0	5.0
38	56.0	49.0	53.0	42.0	13.0	6.0
40	58.0	51.0	56.0	42.0	13.0	6.0
43	61.0	54.0	59.0	47.0	13.0	6.0
45	63.0	56.0	61.0	47.0	13.0	6.0
48	66.0	59.0	64.0	47.0	13.0	6.0
50	70.0	62.0	66.0	46.0	14.0	6.0
53	73.0	65.0	69.0	56.0	14.0	6.0
55	75.0	67.0	71.0	56.0	14.0	6.0
58	78.0	70.0	76.0	56.0	14.0	6.0
60	80.0	72.0	78.0	56.0	14.0	6.0
63	83.0	75.0	81.0	56.0	14.0	6.0
65	85.0	77.0	84.0	66.0	14.0	6.0
68	90.0	81.0	88.0	64.0	16.0	7.0
70	92.0	83.0	89.6	64.0	16.0	7.0
75	97.0	88.0	98.0	64.0	16.0	7.0
80	105.0	95.0	100.0	72.0	18.0	7.0
85	110.0	100.0	107.5	72.0	18.0	7.0
90	115.0	105.0	111.0	72.0	18.0	7.0
95	120.0	110.0	119.0	72.0	18.0	7.0
100	125.0	115.0	123.8	72.0	18.0	7.0

GW41



Operational Conditions:

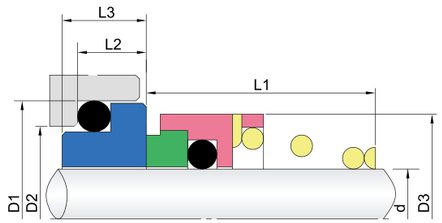
- Temperature: –20℃ to +180℃
- Pressure: ≤ 0.8MPa • Speed: ≤ 18m/s

Material:

- Rotary Ring: Carbon / SiC/TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L2	L1
8	16.0	17.1	5.5	15.2
10	17.5	18.1	5.5	15.2
12	20.0	20.6	5.5	18.2
14	23.0	23.1	6.0	22.2
15	24.0	26.9	7.0	22.2
16	26.0	26.9	7.0	23.2
17	27.0	26.9	7.0	23.2
18	29.0	30.9	8.0	24.2
19	30.0	30.9	8.0	25.2
20	30.0	30.9	8.0	25.2
22	34.0	35.4	8.0	25.2
24	35.0	35.4	8.0	27.2
25	37.0	38.2	8.5	27.2
26	38.0	38.2	8.5	27.2
28	42.0	43.3	9.0	29.2
30	43.0	43.3	9.0	30.2
32	45.0	43.3	9.0	30.2
33	48.0	53.5	11.5	39.2
35	50.0	53.5	11.5	39.2
38	54.0	60.5	11.5	39.2
40	56.0	60.5	11.5	39.2
42	59.0	60.5	11.5	39.2
43	60.0	60.5	11.5	39.2
45	64.0	65.5	11.5	41.2
48	68.0	65.5	11.5	41.2
50	69.0	72.5	11.5	45.2
55	74.0	72.5	11.5	47.2
60	80.0	79.3	11.5	49.2
65	87.0	84.5	11.5	51.2
70	92.0	89.5	11.5	51.2
75	97.0	94.5	11.5	57.2
80	102.0	99.5	11.5	59.2
85	110.0	105.5	13.5	59.2
90	117.0	111.5	13.5	62.2
95	122.0	116.5	13.5	62.2
100	127.0	119.5	13.5	75.2

GW80



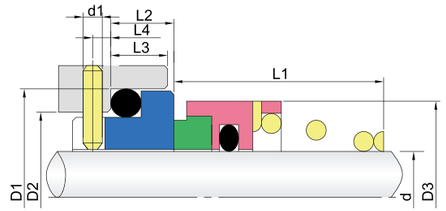
Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 20m/s

Stationary Seat:
- GWG6

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
10	21.0	17.0	19.0	15.5	6.6	7.5
12	23.0	19.0	21.0	15.5	6.6	7.5
14	25.0	21.0	23.0	15.5	6.6	7.5
16	27.0	23.0	26.0	17.5	6.6	7.5
18	33.0	27.0	29.0	18.5	7.5	8.5
20	35.0	29.0	31.0	20.0	7.5	8.5
22	37.0	31.0	33.0	21.5	7.5	8.5
25	40.0	34.0	36.0	24.5	7.5	8.5
28	43.0	37.0	40.0	24.5	7.5	8.5
30	45.0	39.0	43.0	24.5	7.5	8.5
32	48.0	42.0	46.0	28.0	7.5	8.5
35	50.0	44.0	49.0	28.0	7.5	8.5
38	56.0	49.0	53.0	31.0	9.0	10.0
40	58.0	51.0	56.0	34.0	9.0	10.0
43	61.0	54.0	59.0	35.0	9.0	10.1
45	63.0	56.0	61.0	36.5	9.0	10.0
48	66.0	59.0	64.0	42.0	9.0	10.0
50	70.0	62.0	66.0	43.0	9.5	10.5
55	75.0	67.0	71.0	47.0	11.0	12.0
58	78.0	70.0	76.0	50.0	11.0	12.0
60	80.0	72.0	78.0	51.0	11.0	12.0
65	85.0	77.0	84.0	52.0	11.0	12.0
68	90.0	81.0	88.0	53.0	11.3	12.5
70	92.0	83.0	90.0	54.0	11.3	12.5
75	97.0	88.0	98.0	55.0	11.3	13.0
80	105.0	95.0	100.0	58.0	12.0	15.0

GW80D



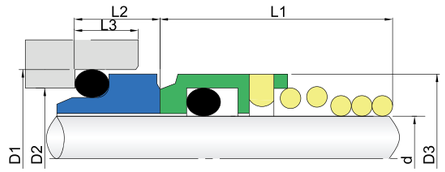
Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 20m/s

Stationary Seat:
- GWG9

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
10	21.0	17.0	19.0	15.5	10.0	5.5
12	23.0	19.0	21.0	16.0	10.0	5.5
14	25.0	21.0	23.0	16.5	10.0	5.5
16	27.0	23.0	26.0	18.0	10.0	5.5
18	33.0	27.0	29.0	19.5	11.5	7.0
20	35.0	29.0	31.0	22.0	11.5	7.0
22	37.0	31.0	33.0	21.5	11.5	7.0
24	39.0	33.0	35.0	23.5	11.5	7.0
25	40.0	34.0	36.0	26.5	11.5	7.0
28	43.0	37.0	40.0	26.5	11.5	7.0
30	45.0	39.0	43.0	26.5	11.5	7.0
32	48.0	42.0	46.0	28.5	11.5	7.0
35	50.0	44.0	49.0	28.5	11.5	7.0
38	56.0	49.0	53.0	33.5	14.0	8.0
40	58.0	51.0	56.0	36.0	14.0	8.0
43	61.0	54.0	59.0	38.5	14.0	8.0
45	63.0	56.0	61.0	39.5	14.0	8.0
48	66.0	59.0	64.0	46.0	14.0	8.0
50	70.0	62.0	66.0	45.0	15.0	8.5
53	73.0	65.0	69.0	47.0	15.0	8.5
55	75.0	67.0	71.0	49.0	15.0	8.5
58	78.0	70.0	76.0	55.0	15.0	8.5
60	80.0	72.0	78.0	55.0	15.0	8.5
65	85.0	77.0	84.0	55.0	15.0	8.5
68	90.0	81.0	88.0	55.0	18.0	9.5
70	92.0	83.0	90.0	57.0	18.0	9.5
75	97.0	88.0	98.0	62.0	18.0	9.5
80	105.0	95.0	100.0	61.8	18.2	10.0

GW120



Operational Conditions:

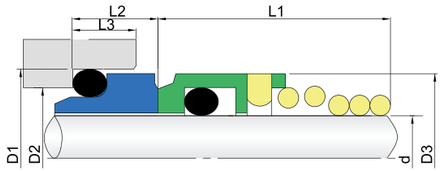
- Temperature: –40℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: SUS304 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
10	18.1	14.0	19.0	15.0	5.5	4.0
11	20.6	16.5	21.0	18.0	5.5	4.0
12	20.6	16.5	21.0	18.0	5.5	4.0
13	23.1	19.0	23.0	22.0	6.0	4.0
14	23.1	19.0	23.0	22.0	6.0	4.0
15	26.9	21.0	24.0	22.0	7.0	5.0
16	26.9	21.0	26.0	23.0	7.0	5.0
17	30.9	25.0	29.0	24.0	7.0	5.0
19	30.9	25.0	31.0	25.0	8.0	5.0
20	30.9	25.0	31.0	25.0	8.0	5.0
21	35.4	30.0	33.0	25.0	8.0	5.5
22	35.4	30.0	33.0	25.0	8.0	5.5
23	35.4	30.0	35.0	27.0	8.0	5.5
24	35.4	30.0	35.0	27.0	8.0	5.5
25	38.2	33.0	36.0	27.0	8.5	5.5
26	38.2	33.0	36.0	27.0	8.5	5.5
28	43.3	38.0	40.0	29.0	9.0	5.5
30	43.3	38.0	43.0	30.0	9.0	5.5
32	43.3	38.0	46.0	30.0	9.0	5.5
33	53.5	45.0	46.0	39.0	11.5	7.5
34	53.5	45.0	49.0	39.0	11.5	7.5
35	53.5	45.0	49.0	39.0	11.5	7.5
36	53.5	45.0	49.0	39.0	11.5	7.5
37	53.5	45.0	49.0	39.0	11.5	7.5
38	60.5	52.0	53.0	39.0	11.5	7.5
40	60.5	52.0	56.0	39.0	11.5	7.5
42	60.5	52.0	59.0	39.0	11.5	7.5
43	60.5	52.0	59.0	39.0	11.5	7.5
44	65.5	57.0	61.0	41.0	11.5	7.5
45	65.5	57.0	61.0	41.0	11.5	7.5
48	65.5	57.0	64.0	41.0	11.5	7.5
50	72.5	64.0	66.0	45.0	11.5	7.5
55	72.5	64.0	71.0	47.0	11.5	7.5
60	79.3	72.0	78.0	49.0	11.5	7.5
65	84.5	77.0	84.0	51.0	11.5	7.5
70	89.5	82.0	89.0	51.0	11.5	7.5
75	94.5	87.0	98.0	57.0	11.5	7.5
80	99.5	92.0	100.0	59.0	11.5	7.5
85	105.5	98.0	107.5	59.0	13.5	8.0
90	111.5	105.0	111.0	62.0	13.5	8.0
95	116.5	110.0	119.0	62.0	13.5	8.0
100	119.5	114.0	123.8	75.0	13.5	8.0

GW120D



Operational Conditions:

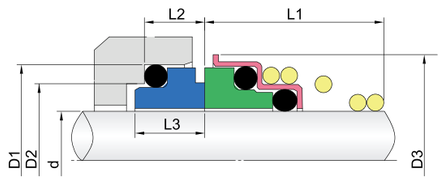
- Temperature: –40℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: SUS304 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
10	21.0	17.0	19.0	15.0	7.0	4.0
12	23.0	19.0	21.0	18.0	7.0	4.0
14	25.0	21.0	23.0	22.0	7.0	4.0
16	27.0	23.0	26.0	23.0	7.0	4.0
18	33.0	27.0	29.0	24.0	10.0	5.0
20	35.0	29.0	31.0	25.0	10.0	5.0
22	37.0	31.0	33.0	25.0	10.0	5.5
24	39.0	33.0	35.0	27.0	10.0	5.5
25	40.0	34.0	36.0	27.0	10.0	5.5
28	43.0	37.0	40.0	29.0	10.0	5.5
30	45.0	39.0	43.0	30.0	10.0	5.5
32	48.0	42.0	46.0	30.0	10.0	5.5
33	48.0	42.0	46.0	39.0	10.0	5.5
35	50.0	44.0	49.0	39.0	10.0	5.5
38	56.0	49.0	53.0	42.0	13.0	6.0
40	58.0	51.0	56.0	42.0	13.0	6.0
43	61.0	54.0	59.0	47.0	13.0	6.0
45	63.0	56.0	61.0	47.0	13.0	6.0
48	66.0	59.0	64.0	47.0	13.0	6.0
50	70.0	62.0	66.0	46.0	14.0	6.0
53	73.0	65.0	69.0	56.0	14.0	6.0
55	75.0	67.0	71.0	56.0	14.0	6.0
58	78.0	70.0	76.0	56.0	14.0	6.0
60	80.0	72.0	78.0	56.0	14.0	6.0
63	83.0	75.0	81.0	56.0	14.0	6.0
65	85.0	77.0	84.0	66.0	14.0	6.0
68	90.0	81.0	88.0	64.0	16.0	7.0
70	92.0	83.0	89.6	64.0	16.0	7.0
75	97.0	88.0	98.0	64.0	16.0	7.0
80	105.0	95.0	100.0	72.0	18.0	7.0
85	110.0	100.0	107.5	72.0	18.0	7.0
90	115.0	105.0	111.0	72.0	18.0	7.0
95	120.0	110.0	119.0	72.0	18.0	7.0
100	125.0	115.0	123.8	72.0	18.0	7.0

GW155/155A



Operational Conditions:

- Temperature: –20℃ to +150℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 10m/s

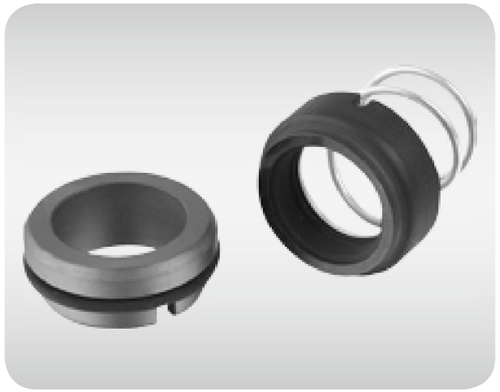
Material:

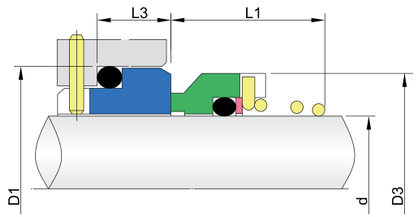
- Rotary Ring: 99% Ceramic / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L2	L3
10	20.0	14.0	18.1	15.0	5.5	7.0
11	22.0	16.5	20.6	18.0	5.5	7.0
12	22.0	16.5	20.6	18.0	5.5	7.0
13	25.0	19.0	23.1	22.0	6.0	7.5
14	25.0	19.0	23.1	22.0	6.0	7.5
15	29.0	21.0	26.9	22.0	7.0	9.2
16	29.0	21.0	26.9	23.0	7.0	9.2
17	29.0	21.0	26.9	23.0	7.0	9.2
18	33.0	25.0	30.9	24.0	8.0	10.0
19	33.0	25.0	30.9	25.0	8.0	10.0
20	33.0	25.0	30.9	25.0	8.0	10.0
21	38.0	30.0	35.4	25.0	8.0	10.0
22	38.0	30.0	35.4	25.0	8.0	10.0
23	38.0	30.0	35.4	27.0	8.0	10.0
24	38.0	30.0	35.4	27.0	8.0	10.0
25	40.0	33.0	38.2	27.0	8.5	10.0
28	46.0	38.0	43.3	29.0	9.0	11.0
29	46.0	38.0	43.3	30.0	9.0	11.0
30	46.0	38.0	43.3	30.0	9.0	11.0
32	46.0	38.0	43.3	30.0	9.0	11.0
33	48.0	45.0	53.5	39.0	11.5	13.0
35	50.0	45.0	53.5	39.0	11.5	13.0
38	56.0	52.0	60.5	39.0	11.5	13.0
40	58.0	52.0	60.5	39.0	11.5	13.0

(155A)d	D2	D1	L2	L3
10.0	17	21	7	8.5
12.0	19	23	7	8.5
14.0	21	25	7	8.5
16.0	23	27	7	8.5
18.0	27	33	10	12.0
20.0	29	35	10	12.0
22.0	31	37	10	12.0
24.0	33	39	10	12.0
25.0	34	40	10	12.0
28.0	37	43	10	12.0
30.0	39	45	10	12.0
32.0	42	48	10	11.5
33.0	42	48	10	11.5
35.0	44	50	10	11.5
38.0	49	58	13	15.0
40.0	51	58	13	15.0

GWM2N





Operational Conditions:

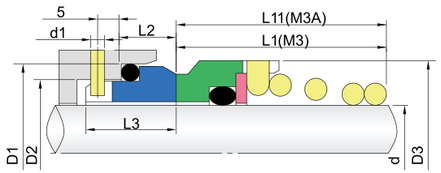
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L1	L3
10	20.0	21.0	17.5	10.0
12	22.0	23.0	17.5	10.0
14	25.0	25.0	17.5	10.0
16	27.0	27.0	19.5	10.0
18	30.0	33.0	20.5	11.5
20	32.0	35.0	22.0	11.5
22	35.0	37.0	23.5	11.5
24	38.0	39.0	25.0	11.5
25	40.0	40.0	26.5	11.5
28	43.0	43.0	26.5	11.5
29	45.0	40.0	26.5	11.5
30	47.0	45.0	25.0	11.5
32	48.0	48.0	28.5	11.5
35	53.0	50.0	28.5	11.5
38	56.0	56.0	32.0	14.0

GWM3/M3A



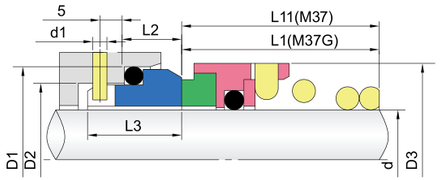
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWG6,GWG13

Material:
- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L11	L2	L3
10	19.0	17.0	21.0	3.0	15.5	15.5	10.0	17.5
12	21.0	19.0	23.0	3.0	16.0	15.5	10.0	17.5
14	23.0	21.0	25.0	3.0	16.5	15.5	10.0	17.5
16	26.0	23.0	27.0	3.0	18.0	17.5	10.0	17.5
18	29.0	27.0	33.0	3.0	19.5	18.5	11.5	19.5
20	31.0	29.0	35.0	3.0	22.0	20.0	11.5	19.5
22	33.0	31.0	37.0	3.0	21.5	21.5	11.5	19.5
24	35.0	33.0	39.0	3.0	23.5	23.0	11.5	19.5
25	36.0	34.0	40.0	3.0	26.5	24.5	11.5	19.5
28	40.0	37.0	43.0	3.0	26.5	24.5	11.5	19.5
30	43.0	39.0	45.0	3.0	26.5	24.5	11.5	19.5
32	46.0	42.0	48.0	3.0	28.5	28.0	11.5	19.5
33	47.0	42.0	48.0	3.0	28.5	–	11.5	19.5
35	49.0	44.0	50.0	3.0	28.5	28.0	11.5	19.5
38	53.0	49.0	56.0	4.0	33.5	31.0	14.0	22.0
40	56.0	51.0	58.0	4.0	36.0	34.0	14.0	22.0
43	59.0	54.0	61.0	4.0	38.5	–	14.0	22.0
45	61.0	56.0	63.0	4.0	39.5	36.5	14.0	22.0
48	64.0	59.0	66.0	4.0	46.0	42.0	14.0	22.0
50	66.0	62.0	70.0	4.0	45.0	43.0	15.0	23.0
53	69.0	65.0	73.0	4.0	47.0	–	15.0	23.0
55	71.0	67.0	75.0	4.0	49.0	47.0	15.0	23.0
58	76.0	70.0	78.0	4.0	55.0	50.0	15.0	23.0
60	78.0	72.0	80.0	4.0	55.0	51.0	15.0	23.0
63	83.0	75.0	83.0	4.0	55.0	–	15.0	23.0
65	84.0	77.0	85.0	4.0	55.0	52.0	15.0	23.0
68	88.0	81.0	90.0	4.0	55.0	53.0	18.0	26.0
70	90.0	83.0	92.0	4.0	57.0	54.0	18.0	26.0
75	98.0	88.0	97.0	4.0	62.0	55.0	18.0	26.0
80	100.0	95.0	105.0	4.0	61.8	58.0	18.2	26.2

GWM37/M37G

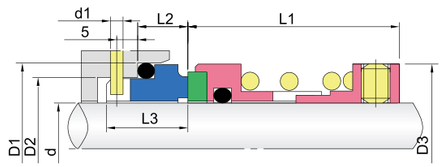


Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s
- The items descriptions as GWM3,but with the face insert

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L11	L2	L3
10	20.0	17.0	21.0	16.9	16.5	10.0	17.5
12	22.0	19.0	23.0	17.4	16.5	10.0	17.5
14	24.0	21.0	25.0	17.4	16.5	10.0	17.5
16	26.0	23.0	27.0	19.5	16.0	10.0	17.5
18	31.0	27.0	33.0	20.5	18.0	11.5	19.5
20	34.0	29.0	35.0	22.0	19.0	11.5	19.5
22	36.0	31.0	37.0	23.5	20.5	11.5	19.5
24	38.0	33.0	39.0	25.0	22.0	11.5	19.5
25	39.0	34.0	40.0	26.5	23.5	11.5	19.5
28	42.0	37.0	43.0	26.5	24.5	11.5	19.5
30	44.0	39.0	45.0	25.0	24.5	11.5	19.5
32	46.0	42.0	48.0	28.5	28.0	11.5	19.5
33	47.0	42.0	48.0	28.5	28.0	11.5	19.5
35	49.0	44.0	50.0	28.5	28.0	11.5	19.5
38	54.0	49.0	56.0	32.2	31.0	14.0	22.0
40	56.0	51.0	58.0	34.7	34.0	14.0	22.0
43	59.0	54.0	61.0	34.7	34.0	14.0	22.0
45	61.0	56.0	63.0	39.2	36.5	14.0	22.0
48	64.0	59.0	66.0	44.7	42.0	14.0	22.0
50	66.0	62.0	70.0	45.7	43.0	15.0	23.0
53	69.0	65.0	73.0	45.7	43.0	15.0	23.0
55	71.0	67.0	75.0	49.0	47.0	15.0	23.0
58	78.0	70.0	78.0	52.0	50.0	15.0	23.0
60	79.0	72.0	80.0	53.0	51.0	15.0	23.0
63	83.0	75.0	83.0	53.0	51.0	15.0	23.0
65	85.0	77.0	85.0	54.3	52.0	15.0	23.0
68	88.0	81.0	90.0	55.3	52.7	18.0	26.0
70	90.0	83.0	92.0	56.3	54.0	18.0	26.0
75	98.0	88.0	97.0	56.3	54.0	18.0	26.0
80	103.0	95.0	105.0	59.3	58.0	18.2	26.2

GW250



Operational Conditions:

- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

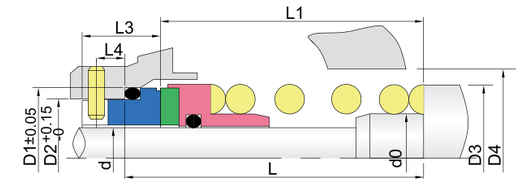
Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L2	L3
20	34.0	29.0	35.0	3.0	41.0	13.0	21.0
22	36.0	31.0	37.0	3.0	41.0	13.0	21.0
24	38.0	33.0	39.0	3.0	43.0	13.0	21.0
25	39.0	34.0	40.0	3.0	43.0	13.0	21.0
28	42.0	37.0	43.0	3.0	45.0	13.0	21.0
30	44.0	39.0	45.0	3.0	45.0	13.0	21.0
32	46.0	42.0	48.0	3.0	45.0	13.0	21.0
34	47.0	42.0	48.0	3.0	45.0	13.0	21.0
35	49.0	44.0	50.0	3.0	49.0	13.0	21.0
38	54.0	50.0	56.0	4.0	53.0	13.0	21.0
40	56.0	52.0	58.0	4.0	55.0	13.0	21.0
43	59.0	55.0	61.0	4.0	55.0	13.0	21.0
45	61.0	57.0	63.0	4.0	55.0	13.0	21.0
48	64.0	60.0	66.0	4.0	55.0	13.0	21.0
50	66.0	62.0	68.0	4.0	60.0	13.0	21.0
53	69.0	65.0	71.0	4.0	61.0	13.0	21.0
55	71.0	67.0	73.0	4.0	61.0	13.0	21.0
58	76.0	70.0	79.0	4.0	63.0	16.0	24.0
60	78.0	72.0	81.0	4.0	63.0	16.0	24.0
63	81.0	75.0	84.0	4.0	63.0	16.0	24.0
65	83.0	77.0	86.0	4.0	67.0	16.0	24.0
68	87.0	81.0	90.0	4.0	67.0	16.0	24.0
70	90.0	83.0	92.0	4.0	68.0	16.0	24.0
75	95.0	83.0	97.0	4.0	72.0	16.0	24.0
80	100.0	96.0	105.0	4.0	72.0	16.0	24.0
85	105.0	101.0	110.0	4.0	77.0	16.0	24.0
90	112.0	106.0	115.0	4.0	77.0	16.0	24.0
95	119.0	111.0	120.0	4.0	82.0	16.0	24.0
100	124.0	116.0	125.0	4.0	82.0	16.0	24.0

GW950

GW950,GW960 and GW970 only differ with the drive mechanism from the shaft to the rotary seal face.
GW950 is drive directly from the shaft.



Operational Conditions:

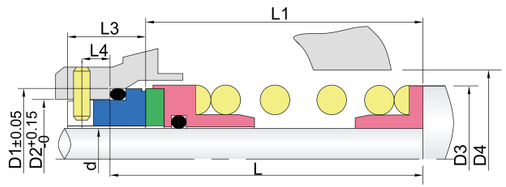
- Temperature: –50℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 20m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	D4	L	L1	L3	L4	d0
20	33.32	29.06	34.50	37.00	36.50	27.50	15.00	4.00	24.00
25	39.85	33.84	41.00	43.00	40.00	30.00	16.00	4.00	28.57
28	43.05	37.01	42.00	46.00	41.50	31.50	16.00	4.00	31.75
30	44.63	38.61	45.50	47.50	41.50	31.50	16.00	4.00	33.32
32	46.32	40.28	47.00	49.00	44.50	34.50	16.00	4.00	34.92
35	49.48	43.46	50.00	52.50	47.50	37.50	16.00	4.00	38.10
38	52.56	46.63	53.00	55.50	47.50	37.50	16.00	4.00	42.88
40	54.25	48.13	55.00	57.00	47.50	37.50	16.00	4.00	44.45
42	55.83	49.81	55.50	58.50	47.50	37.50	16.00	4.00	46.02
45	59.02	52.98	60.00	62.00	47.50	37.50	16.00	4.00	49.20
50	65.37	59.33	66.00	68.50	55.50	45.50	18.00	5.00	53.97
55	70.03	64.01	71.00	73.00	57.00	47.00	18.00	5.00	58.72
60	76.38	70.36	77.00	81.00	60.50	50.50	18.00	5.00	65.07
65	81.23	75.21	82.00	85.50	63.50	53.50	18.00	5.00	69.85
70	85.90	79.88	87.00	90.50	63.50	53.50	18.00	5.00	74.60
75	90.77	84.73	91.50	97.00	66.60	56.60	18.00	5.00	79.37
80	100.29	94.26	99.50	103.00	73.00	63.00	18.00	5.00	85.73
85	104.77	98.93	105.50	108.00	73.00	63.00	18.00	5.00	90.00
90	109.82	103.78	110.50	114.50	78.00	68.00	18.00	5.00	95.25
95	114.30	108.46	115.50	119.00	78.00	68.00	18.00	5.00	100.00
100	119.33	113.31	120.00	124.00	78.00	68.00	18.00	5.00	104.77
105	127.00	121.16	128.00	132.00	82.50	72.50	18.00	5.00	111.00
110	131.77	126.01	133.00	137.00	82.50	72.50	18.00	5.00	116.00
115	136.52	130.68	137.50	142.00	82.50	72.50	18.00	5.00	121.00
120	142.87	137.03	144.00	147.00	89.00	79.00	18.00	5.00	126.00

GW960



Operational Conditions:

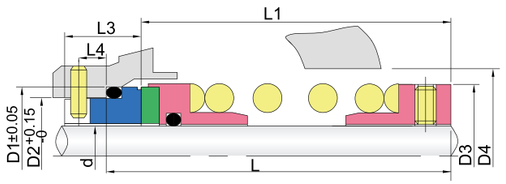
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 20m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	D4	L	L1	L3	L4
20	33.32	29.06	34.50	37.00	38.00	29.90	15.00	4.00
25	39.85	33.84	41.00	43.00	41.50	31.50	16.00	4.00
28	43.05	37.01	42.00	46.00	43.00	33.00	16.00	4.00
30	44.63	38.61	45.50	47.50	43.00	33.00	16.00	4.00
32	46.32	40.28	47.00	49.00	46.00	36.00	16.00	4.00
35	49.48	43.46	50.00	52.50	49.00	39.00	16.00	4.00
38	52.56	46.63	53.00	55.50	49.00	39.00	16.00	4.00
40	54.25	48.13	55.00	57.00	49.00	39.00	16.00	4.00
42	55.83	49.81	55.50	58.50	49.00	39.00	16.00	4.00
45	59.02	52.98	60.00	62.00	49.00	39.00	16.00	4.00
50	65.37	59.33	66.00	68.50	57.00	47.00	18.00	5.00
55	70.03	64.01	71.00	73.00	58.50	48.50	18.00	5.00
60	76.38	70.36	77.00	81.00	62.00	52.00	18.00	5.00
65	81.23	75.21	82.00	85.50	65.00	55.00	18.00	5.00
70	85.90	79.88	87.00	90.50	65.00	55.00	18.00	5.00
75	90.77	84.73	91.50	97.00	70.00	60.00	18.00	5.00
80	100.29	94.26	99.50	103.00	76.00	66.00	18.00	5.00
85	104.77	98.93	105.50	108.00	76.00	66.00	18.00	5.00
90	109.82	103.78	110.50	114.50	81.00	71.00	18.00	5.00
95	114.30	108.46	115.50	119.00	81.00	71.00	18.00	5.00
100	119.33	113.31	120.00	124.00	81.00	71.00	18.00	5.00
105	127.00	121.16	128.00	132.00	85.50	75.50	18.00	5.00
110	131.77	126.01	133.00	137.00	85.50	75.50	18.00	5.00
115	136.52	130.68	137.50	142.00	85.50	75.50	18.00	5.00
120	142.87	137.03	144.00	147.00	92.00	82.00	18.00	5.00

GW970



Operational Conditions:

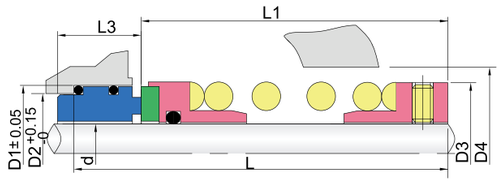
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 20m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	D4	L	L1	L3	L4
20	33.32	29.06	34.50	37.00	44.50	35.50	15.00	4.00
25	39.85	33.84	41.00	43.00	49.00	39.00	16.00	4.00
28	43.05	37.01	42.00	46.00	51.00	41.00	16.00	4.00
30	44.63	38.61	45.50	47.50	51.00	41.00	16.00	4.00
32	46.32	40.28	47.00	49.00	54.00	44.00	16.00	4.00
35	49.48	43.46	50.00	52.50	57.00	47.00	16.00	4.00
38	52.56	46.63	53.00	55.50	57.00	47.00	16.00	4.00
40	54.25	48.13	55.00	57.00	57.00	47.00	16.00	4.00
42	55.83	49.81	55.50	58.50	57.00	47.00	16.00	4.00
45	59.02	52.98	60.00	62.00	57.00	47.00	16.00	4.00
50	65.37	59.33	66.00	68.50	68.50	58.50	18.00	5.00
55	70.03	64.01	71.00	73.00	70.00	60.00	18.00	5.00
60	76.38	70.36	77.00	81.00	73.00	63.00	18.00	5.00
65	81.23	75.21	82.00	85.50	76.00	66.00	18.00	5.00
70	85.90	79.88	87.00	90.50	76.00	66.00	18.00	5.00
75	90.77	84.73	91.50	97.00	81.00	71.00	18.00	5.00
80	100.29	94.26	99.50	103.00	87.50	77.50	18.00	5.00
82	104.77	98.93	105.50	108.00	87.50	77.50	18.00	5.00
90	109.82	103.78	110.50	114.50	92.00	82.00	18.00	5.00
95	114.30	108.46	115.50	119.00	92.00	82.00	18.00	5.00
100	119.33	113.31	120.00	124.00	92.00	82.00	18.00	5.00
105	127.00	121.16	128.00	132.00	98.50	88.50	18.00	5.00
110	131.77	126.01	133.00	137.00	85.50	88.50	18.00	5.00
115	136.52	130.68	137.50	142.00	85.50	88.50	18.00	5.00
120	142.87	137.03	144.00	147.00	105.00	95.00	18.00	5.00

GW980



Operational Conditions:

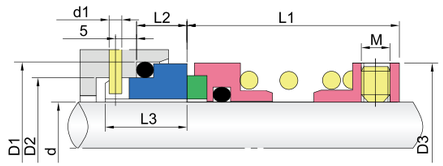
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 20m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	D4	L	L1	L3
20	37.0	31.0	34.5	40.0	61.0	38.0	24.0
22	39.0	33.0	34.9	42.0	61.0	38.0	24.0
25	40.0	34.0	41.0	45.0	61.0	38.0	24.0
28	44.0	38.0	42.0	48.0	63.0	40.0	24.0
30	47.0	41.0	45.5	53.0	64.0	40.0	26.0
32	48.0	42.0	47.0	55.0	64.0	40.0	26.0
35	51.0	45.0	50.0	58.0	64.0	40.0	26.0
38	54.0	48.0	53.0	62.0	69.0	45.0	26.0
40	57.0	51.0	55.0	64.0	69.0	45.0	26.0
42	60.5	54.5	55.5	66.0	74.0	50.0	26.0
45	61.0	55.0	60.0	69.0	74.0	50.0	26.0
48	64.0	58.0	61.9	72.0	79.0	55.0	26.0
50	67.0	61.0	66.0	75.0	79.0	55.0	26.0
52	70.0	64.0	68.0	77.0	82.0	58.0	26.0
55	73.0	67.0	71.0	80.0	82.0	58.0	26.0
58	76.0	70.0	74.0	83.0	82.0	58.0	26.0
60	80.0	74.0	77.0	85.0	86.0	60.0	28.0
62	83.0	77.0	78.0	87.0	86.0	60.0	28.0
65	86.0	80.0	82.0	90.0	88.0	62.0	28.0
68	89.0	83.0	84.0	93.0	88.0	62.0	28.0
70	89.0	83.0	87.0	95.0	91.0	65.0	28.0
75	95.0	89.0	91.5	100.0	91.0	65.0	28.0
80	99.0	93.0	99.5	110.0	96.0	70.0	28.0
85	105.0	99.0	105.5	115.0	96.0	70.0	28.0
90	111.0	105.0	110.5	120.0	96.0	70.0	28.0
95	114.0	108.0	115.5	130.0	101.0	75.0	28.0
100	118.0	112.0	120.0	135.0	101.0	75.0	28.0
105	132.0	126.0	128.0	140.0	103.0	75.0	30.0
110	137.0	131.0	133.0	145.0	108.0	80.0	30.0
115	140.0	134.0	137.5	150.0	108.0	80.0	30.0
120	147.0	141.0	144.0	160.0	113.0	85.0	30.0
125	150.0	144.0	149.0	165.0	113.0	85.0	30.0
130	156.0	150.0	154.0	170.0	113.0	85.0	30.0

GW1527



Operational Conditions:

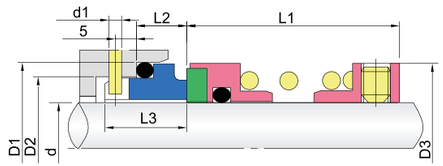
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L2	L3
18	32.0	27.0	33.0	3.0	35.0	10.0	17.0
20	34.0	29.0	35.0	3.0	35.0	10.0	17.0
22	36.0	31.0	37.0	3.0	35.0	10.0	17.0
24	38.0	33.0	39.0	3.0	40.0	10.0	17.0
25	39.0	34.0	40.0	3.0	40.0	10.0	17.0
28	42.0	37.0	43.0	3.0	40.0	10.0	17.0
30	44.0	39.0	45.0	3.0	40.0	10.0	17.0
32	46.0	42.0	48.0	3.0	45.0	10.0	17.0
33	47.0	42.0	48.0	3.0	45.0	10.0	17.0
35	49.0	44.0	50.0	3.0	45.0	10.0	17.0
38	54.0	49.0	56.0	4.0	44.0	11.0	18.0
40	56.0	51.0	58.0	4.0	44.0	11.0	18.0
43	59.0	54.0	61.0	4.0	49.0	11.0	18.0
45	61.0	56.0	63.0	4.0	49.0	11.0	18.0
48	64.0	59.0	66.0	4.0	49.0	11.0	18.0
50	66.0	62.0	70.0	4.0	47.0	13.0	20.0
53	69.0	65.0	73.0	4.0	57.0	13.0	20.0
55	71.0	67.0	75.0	4.0	57.0	13.0	20.0
58	78.0	70.0	78.0	4.0	57.0	13.0	20.0
60	80.0	72.0	80.0	4.0	57.0	13.0	20.0
63	83.0	75.0	83.0	4.0	57.0	13.0	20.0
65	85.0	77.0	85.0	4.0	67.0	13.0	20.0
68	88.0	81.0	90.0	4.0	64.7	15.3	22.0
70	90.0	83.0	92.0	4.0	64.7	15.3	22.0
75	99.0	88.0	97.0	4.0	64.7	15.3	22.0
80	104.0	95.0	105.0	4.0	74.3	15.7	22.5
85	109.0	100.0	110.0	4.0	74.3	15.7	22.5
90	114.0	105.0	115.0	4.0	74.3	15.7	22.5
95	119.0	110.0	120.0	4.0	74.3	15.7	22.5
100	124.0	115.0	125.0	4.0	74.3	15.7	22.5

GWUS2



Operational Conditions:

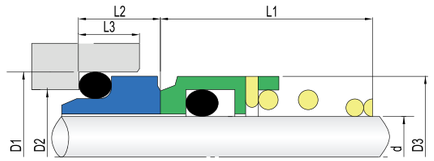
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L2	L3
20	34.5	29.1	33.3	37.3	7.2	11
25	41.0	33.8	39.7	40.0	9.2	12
30	45.5	38.6	44.5	41.6	9.2	12
35	50.0	43.5	49.2	48.0	9.2	12
38	53.0	46.3	52.0	62.3	9.2	12
40	55.0	48.1	54.0	48.0	9.2	12
45	60.0	53.0	58.7	48.0	9.2	12
50	66.0	59.3	65.1	59.1	9.2	12
55	71.0	64.0	69.9	60.7	9.2	16
60	77.0	70.4	76.2	63.8	9.2	16
65	82.0	75.2	81.0	67.0	9.2	16
70	88.0	79.9	85.7	67.0	9.2	16
75	92.0	84.7	90.5	71.8	9.2	16
80	99.5	92.6	98.4	78.1	9.2	16
85	105.5	98.9	104.8	78.1	9.2	16
90	110.5	103.8	109.5	82.9	9.2	16
95	115.5	108.5	114.3	82.9	9.2	16
100	121.0	113.3	119.1	82.9	9.2	16
105	129.0	121.2	127.0	89.2	9.2	16
110	134.0	126.0	131.8	89.2	9.2	16
115	139.0	130.7	136.5	89.2	9.2	16
120	144.0	137.0	142.9	95.5	9.2	16

GW80B



Operational Conditions:

- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 20m/s

Material:

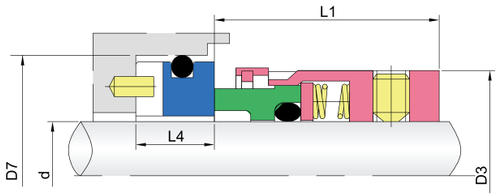
- Rotary Ring: SUS304 / SUS316
- Stationary Ring: Carbon
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D3	L1	L2
10	19.2	19.0	15.5	7.1
12	21.6	21.0	15.5	7.6
14	24.6	23.0	15.5	7.6
15	24.6	24.0	15.5	8.6
16	28.0	26.0	17.5	9.0
18	30.0	29.0	18.5	10.0
19	31.0	31.0	20.0	9.0
20	35.0	31.0	20.0	9.5
22	35.0	33.0	21.5	9.5
24	38.0	35.0	23.0	9.5
25	38.0	36.0	24.5	9.5
26	40.0	37.0	24.5	10.0
28	42.0	40.0	24.5	11.0
30	45.0	43.0	24.5	11.0
32	48.0	46.0	28.0	11.0
35	52.0	49.0	28.0	11.5
38	55.0	53.0	31.0	11.5
40	58.0	56.0	34.0	11.5
42	62.0	59.0	35.0	14.3
43	62.0	59.0	35.0	14.3
45	64.0	61.0	36.5	14.3
48	68.4	64.0	42.0	14.3
50	69.3	66.0	43.0	14.3
55	75.4	71.0	47.0	15.3
60	80.4	78.0	51.0	15.3
65	85.4	84.0	52.0	15.3
68	91.5	88.0	53.0	16.0
70	92.0	90.0	54.0	15.3
75	99.0	98.0	55.0	15.3
80	104.0	100.0	58.0	16.3

Multi - Spring Mechanical Seals

GW8-1

Features of structure: Adopt o–ring,applied in varies hydraulic liquid.Rotary ring connected by circlip. Used for various rotating equipments,such as centrifugal agitators and agitator crushers. Minimize the shaft and sleeve fretting.Multi–spring and unbalance.



Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

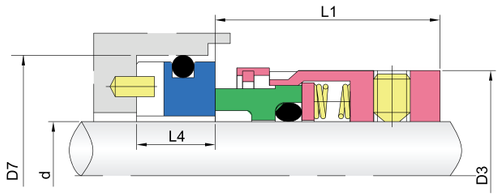
Stationary Seat:
- GWT21

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	D3	D7	L1	L4
0.500	26.19	25.40	20.62	7.92
0.625	30.15	31.75	19.05	10.31
0.750	33.32	34.93	22.23	10.31
0.875	36.50	38.10	23.80	10.31
1.000	39.67	41.28	25.40	11.10
1.125	42.85	44.45	26.97	11.10
1.250	47.63	47.63	26.97	11.10
1.375	50.80	50.80	28.58	11.10
1.500	53.98	53.98	28.58	11.10
1.625	60.33	60.33	34.93	12.70
1.750	63.50	63.50	34.93	12.70
1.875	66.68	66.68	34.93	12.70
2.000	69.85	69.65	34.93	12.70
2.125	76.20	76.20	42.85	14.27
2.250	79.38	79.38	42.85	14.27
2.375	82.55	82.55	42.85	14.27
2.500	85.73	85.73	42.85	14.27
2.625	88.90	85.73	42.85	15.88
2.750	92.08	88.90	42.85	15.88
2.875	95.25	95.25	42.85	15.88
3.000	96.82	98.63	42.85	15.88
3.125	100.00	101.60	42.85	19.84
3.250	104.78	104.78	42.85	19.84
3.375	107.95	107.95	42.85	19.84
3.500	111.13	111.13	42.85	19.84
3.625	114.30	114.30	42.85	19.84
3.750	117.48	117.48	42.85	19.84
3.875	120.65	120.65	42.85	19.84
4.000	123.83	123.83	42.85	19.84

GW8-1T

Features of structure: Adopt o–ring,applied in varies hydraulic liquid.Rotary ring connected by circlip.Used for various rotating equipments,such as centrifugal agitators and agitator crushers. Minimize the shaft and sleeve fretting.Multi–spring and unbalance.



Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWT21

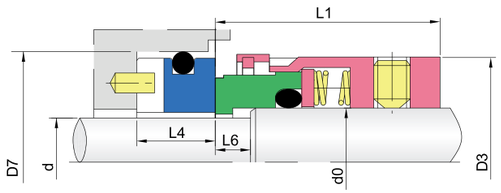
Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	D3	D7	L1	L4
0.500	23.80	25.40	23.80	7.92
0.625	26.97	31.75	23.80	10.31
0.750	30.15	34.93	23.80	10.31
0.875	33.32	38.10	23.80	10.31
1.000	36.50	41.28	25.40	11.10
1.125	39.67	44.45	25.40	11.10
1.250	42.85	47.63	25.40	11.10
1.375	49.20	50.80	34.93	11.10
1.500	49.20	53.98	28.58	11.10
1.625	57.15	60.33	29.36	12.70
1.750	58.72	63.50	34.93	12.70
1.875	63.50	66.68	34.93	12.70
2.000	66.68	69.65	34.93	12.70
2.125	71.42	76.20	42.85	14.27
2.250	72.21	79.38	34.93	14.27
2.375	76.20	82.55	42.85	14.27
2.500	79.38	85.73	34.93	14.27
2.625	82.55	85.73	42.85	15.88
2.750	85.73	88.90	42.85	15.88
2.875	88.90	95.25	42.85	15.88
3.000	92.08	98.63	42.85	15.88
3.125	95.25	101.60	42.85	19.84
3.250	98.43	104.78	42.85	19.84
3.375	101.60	107.95	42.85	19.84
3.500	104.78	111.13	42.85	19.84
3.625	107.95	114.30	42.85	19.84
3.750	111.13	117.48	42.85	19.84
3.875	114.30	120.65	42.85	19.84
4.000	117.48	123.83	42.85	19.84

Multi - Spring Mechanical Seals

GW8B1

Features of structure: Adopt o–ring,applied in varies hydraulic liquid.Rotary ring connected by circlip. Used for various rotating equipments,such as centrifugal agitators and agitator crushers. Minimize the shaft and sleeve fretting.Multi–spring and unbalance.



Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

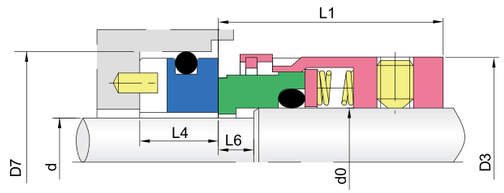
Stationary Seat:
- GWT21

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d0 (inches)	d	d0	D3	D7	L1	L4	L6
1.000	22.20	25.40	39.67	41.28	33.32	11.10	8.00
1.125	25.40	28.58	42.85	44.45	34.93	11.10	7.90
1.250	28.50	31.75	47.63	47.63	34.93	11.10	7.90
1.375	28.50	34.93	50.80	50.80	36.50	11.10	8.70
1.500	31.70	38.10	53.98	53.98	36.50	11.10	8.70
1.625	34.90	41.28	60.33	60.33	44.45	12.70	8.70
1.750	38.10	44.45	63.50	63.50	44.45	12.70	9.50
1.875	41.20	47.63	66.68	66.68	44.45	12.70	9.50
2.000	44.40	50.80	69.85	69.65	44.45	12.70	9.50
2.125	47.60	53.98	76.20	76.20	52.37	14.27	11.10
2.250	50.80	57.15	79.38	79.38	52.37	14.27	11.10
2.375	53.90	60.33	82.55	82.55	52.37	14.27	11.10
2.500	57.10	63.50	85.73	85.73	52.37	14.27	11.10
2.625	60.30	66.68	88.90	85.73	52.37	15.88	11.10
2.750	63.50	69.85	92.08	88.90	52.37	15.88	11.10
2.875	66.60	73.03	95.25	95.25	52.37	15.88	11.10
3.000	69.80	76.20	96.82	98.63	52.37	15.88	11.10
3.125	73.00	79.38	100.00	101.60	52.37	19.84	11.10
3.250	76.20	82.55	104.78	104.78	52.37	19.84	14.30
3.375	79.30	85.73	107.95	107.95	52.37	19.84	14.30
3.500	82.50	88.90	111.13	111.13	52.37	19.84	14.30
3.625	85.70	92.08	114.30	114.30	52.37	19.84	14.30
3.750	88.90	95.25	117.48	117.48	52.37	19.84	14.30
3.875	92.00	98.43	120.65	120.65	52.37	19.84	14.30
4.000	95.20	101.60	123.83	123.83	52.37	19.84	14.30

GW8BT

Features of structure: Adopt o–ring,applied in varies hydraulic liquid.Rotary ring connected by circlip.Used for various rotating equipments,such as centrifugal agitators and agitator crushers. Minimize the shaft and sleeve fretting.Multi–spring and unbalance.



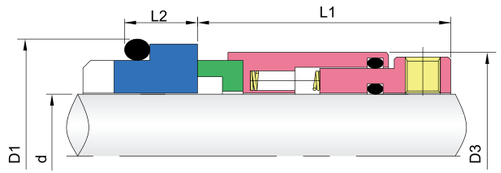
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWT21

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d0(inches)	d	D3	d0	D7	L1	L4	L6
1.000	22.20	36.50	25.40	41.28	33.32	11.10	8.70
1.125	25.40	39.67	28.58	44.45	34.93	11.10	8.70
1.250	28.50	42.85	31.75	47.63	34.93	11.10	8.70
1.375	28.50	49.20	34.93	50.80	42.85	11.10	8.70
1.500	31.70	49.20	38.10	53.98	36.50	11.10	8.70
1.625	34.90	57.15	41.28	60.33	40.46	12.70	11.10
1.750	38.10	58.72	44.45	63.50	44.45	12.70	11.10
1.875	41.20	63.50	47.63	66.68	44.45	12.70	11.10
2.000	44.40	66.68	50.80	69.65	44.45	12.70	11.10
2.125	47.60	71.42	53.98	76.20	52.37	14.27	12.70
2.250	50.80	72.21	57.15	79.38	44.45	14.27	12.70
2.375	53.90	76.20	60.33	82.55	52.37	14.27	12.70
2.500	57.10	79.38	63.50	85.73	44.45	14.27	12.70
2.625	60.30	82.55	66.68	85.73	52.37	15.88	12.70
2.750	63.50	85.73	69.85	88.90	52.37	15.88	12.70
2.875	66.60	88.90	73.03	95.25	52.37	15.88	12.70
3.000	69.80	92.08	76.20	98.63	52.37	15.88	12.70
3.125	73.00	95.25	79.38	101.60	52.37	19.84	14.30
3.250	76.20	98.43	82.55	104.78	52.37	19.84	14.30
3.375	79.30	101.60	85.73	107.95	52.37	19.84	14.30
3.500	82.50	104.78	88.90	111.13	52.37	19.84	14.30
3.625	85.70	107.95	92.08	114.30	52.37	19.84	14.30
3.750	88.90	111.13	95.25	117.48	52.37	19.84	14.30
3.875	92.00	114.30	98.43	120.65	52.37	19.84	14.30
4.000	95.20	117.48	101.60	123.83	52.37	19.84	14.30

GW40



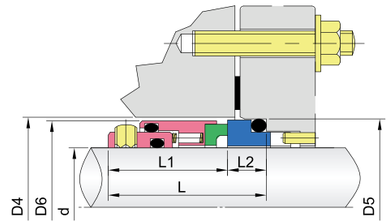
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GW24DINL

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	Inch Size	D3	D1	L1	L2
18		32.5	33.0	30.0	10.0
19	0.750	33.5	35.0	30.0	10.0
20		34.5	35.0	30.0	10.0
22		36.5	37.0	30.0	10.0
24	0.875	38.5	39.0	30.0	10.0
25		39.5	40.0	30.0	10.0
	1.000	39.5	43.0	30.0	10.0
28		42.5	43.0	32.5	10.0
	1.125	42.5	45.0	32.5	10.0
30		44.5	45.0	32.5	10.0
32	1.250	46.0	48.0	32.5	10.0
33		47.0	48.0	32.5	10.0
35	1.375	48.0	50.0	32.5	10.0
38	1.500	52.0	56.0	34.0	11.0
40		56.0	58.0	34.0	11.0
42	1.625	56.0	61.0	34.0	11.0
43		59.0	61.0	34.0	11.0
44–45	1.750	59.0	63.0	34.0	11.0
48	1.875	62.4	66.0	34.0	11.0
50	2.000	65.6	70.0	34.0	13.0
53	2.125	68.8	73.0	34.5	13.0
55		70.8	75.0	34.5	13.0
	2.250	71.9	78.0	34.5	13.0
58		75.2	78.0	34.5	13.0
60	2.375	75.2	80.0	34.5	13.0
63		78.3	83.0	34.5	13.0
	2.500	78.3	85.0	34.5	13.0
65		84.2	85.0	36.5	13.0
68	2.625	85.5	90.0	36.5	15.3
70	2.750	87.4	92.0	36.5	15.3
73	2.875	90.6	97.0	36.5	15.3
75		92.7	97.0	36.5	15.3
	3.000	93.7	105.0	36.5	15.7
80	3.125	100.0	105.0	36.5	15.7
	3.250	100.0	110.0	36.5	15.7
85	3.375	103.3	110.0	36.5	15.7

GWSAI



Operational Conditions:
- Temperature: –50℃ to +200℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

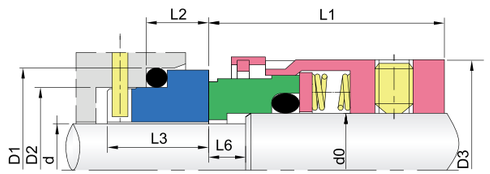
Stationary Seat:
- GW24DINL,GW24DINS

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	L1	L	L2	D5	D6	D4
18	27.9	37.5	9.6	33	32.0	34.0
20	27.9	37.5	9.6	35	34.0	36.0
22	27.9	37.5	9.6	37	36.0	38.0
24	30.0	40.0	10.1	39	38.0	40.0
25	30.0	40.0	10.1	40	39.0	41.0
28	32.4	42.5	10.1	43	42.0	44.0
30	32.4	42.5	10.1	45	44.0	46.0
32	32.4	42.5	10.1	48	46.0	48.0
33	32.4	42.5	10.1	48	47.0	49.0
35	32.4	42.5	10.1	50	49.0	51.0
38	33.9	45.0	11.1	56	54.0	58.0
40	33.9	45.0	11.1	58	56.0	60.0
43	33.9	45.0	11.1	61	59.0	63.0
45	33.9	45.0	11.1	63	61.0	65.0
48	33.9	45.0	11.1	66	64.0	68.0
50	34.4	47.5	11.1	70	66.0	70.0
53	34.4	47.5	13.1	73	69.0	73.0
55	34.4	47.5	13.1	75	71.0	75.0
58	38.9	52.5	13.1	78	78.0	83.0
60	38.9	52.5	13.6	80	80.0	85.0
63	38.9	52.5	13.3	83	83.0	88.0
65	38.9	52.5	13.3	85	85.0	90.0
68	37.4	52.5	15.1	90	88.0	93.0
70	44.9	60.0	15.1	92	90.0	95.0
75	44.9	60.0	15.1	97	99.0	104.0
80	44.2	60.0	15.8	105	104.0	119.0
85	44.2	60.0	15.8	110	109.0	114.0
90	49.2	65.0	15.8	115	114.0	119.0
95	49.2	65.0	15.8	120	119.0	124.0
100	49.2	65.0	15.8	125	124.0	129.0

GW58B

Features of structure: With rubber o–ring ,balanced mechanical seal



Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

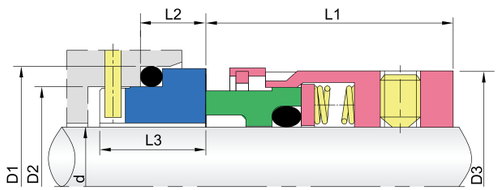
Stationary Seat:
- GWBP

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	d0	D3	D2	D1	L1	L2	L3	L6
14	18.0	32.0	21.0	25.0	30.5	12.0	18.5	6.0
16	20.0	34.0	23.0	27.0	30.5	12.0	18.5	6.0
18	22.0	36.0	27.0	33.0	31.5	13.5	20.5	6.5
20	24.0	38.0	29.0	35.0	31.5	13.5	20.5	6.5
22	26.0	40.0	31.0	37.0	31.5	13.5	20.5	6.5
24	28.0	42.0	33.0	39.0	34.2	13.3	20.3	6.7
25	30.0	44.0	34.0	40.0	34.5	13.0	20.0	7.0
28	33.0	47.0	37.0	43.0	37.5	12.5	19.5	7.5
30	35.0	49.0	39.0	45.0	38.0	12.0	19.0	8.0
32	38.0	54.0	42.0	48.0	38.0	12.0	19.0	8.0
33	38.0	54.0	42.0	48.0	38.0	12.0	19.0	8.0
35	40.0	56.0	44.0	50.0	38.0	12.0	19.0	8.0
38	43.0	59.0	49.0	56.0	39.5	13.0	20.0	10.0
40	45.0	61.0	51.0	58.0	39.5	13.0	20.0	10.0
43	48.0	64.0	54.0	61.0	39.5	13.0	20.0	10.0
45	50.0	66.0	56.0	63.0	39.5	13.0	20.0	10.0
48	53.0	69.0	59.0	66.0	39.5	13.0	20.0	10.0
50	55.0	71.0	62.0	70.0	44.0	13.5	20.5	11.5
53	58.0	78.0	65.0	73.0	44.0	13.5	20.5	11.5
55	60.0	80.0	67.0	75.0	44.0	13.5	20.5	11.5
58	63.0	83.0	70.0	78.0	49.0	13.5	20.5	11.5
60	65.0	85.0	72.0	80.0	49.0	13.5	20.5	11.5
63	68.0	88.0	75.0	83.0	49.0	13.5	20.5	11.5
65	70.0	90.0	77.0	85.0	49.0	13.5	20.5	11.5
70	75.0	95.0	83.0	92.0	55.5	14.5	21.5	13.5
75	80.0	104.0	88.0	97.0	55.5	14.5	21.5	13.5
80	85.0	109.0	95.0	105.0	55.0	15.0	22.0	13.0
85	90.0	114.0	100.0	110.0	60.0	15.0	22.0	13.0
90	95.0	119.0	105.0	115.0	60.0	15.0	22.0	13.0
95	100.0	124.0	110.0	120.0	60.0	15.0	22.0	13.0
100	105.0	129.0	115.0	125.0	60.0	15.0	22.0	13.0

GW58U

Features of structure: With rubber o–ring , unbalanced mechanical seal



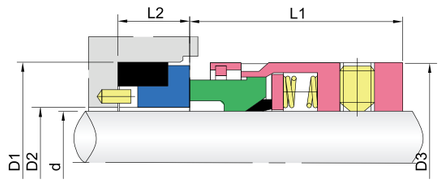
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWBP

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L2	L3
14	24.0	21.0	25.0	23.0	12.0	18.5
16	26.0	23.0	27.0	23.0	12.0	18.5
18	32.0	27.0	33.0	24.0	13.5	20.5
20	34.0	29.0	35.0	24.0	13.5	20.5
22	36.0	31.0	37.0	24.0	13.5	20.5
24	38.0	33.0	39.0	26.5	13.5	20.3
25	39.0	34.0	40.0	27.0	13.0	20.0
28	42.0	37.0	43.0	30.0	12.5	19.5
30	44.0	39.0	45.0	30.5	12.0	19.0
32	46.0	42.0	48.0	30.5	12.0	19.0
33	47.0	42.0	48.0	30.5	12.0	19.0
35	49.0	44.0	50.0	30.5	12.0	19.0
38	54.0	49.0	56.0	32.0	13.0	20.0
40	56.0	51.0	58.0	32.0	13.0	20.0
43	59.0	54.0	61.0	32.0	13.0	20.0
45	61.0	56.0	63.0	32.0	13.0	20.0
48	64.0	59.0	65.0	32.0	13.0	20.0
50	66.0	62.0	70.0	34.0	13.5	20.5
53	69.0	65.0	73.0	34.0	13.5	20.5
55	71.0	67.0	75.0	34.0	13.5	20.5
58	78.0	70.0	78.0	39.0	13.5	20.5
60	80.0	72.0	80.0	39.0	13.5	20.5
63	83.0	75.0	83.0	39.0	13.5	20.5
65	85.0	77.0	85.0	39.0	13.5	20.5
68	88.0	81.0	90.0	39.0	13.5	20.5
70	90.0	83.0	92.0	45.5	14.5	21.5
75	99.0	88.0	97.0	45.5	14.5	21.5
80	104.0	95.0	105.0	45.0	15.0	22.0
85	109.0	100.0	110.0	45.0	15.0	22.0
90	114.0	105.0	115.0	50.0	15.0	22.0
95	119.0	110.0	120.0	50.0	15.0	22.0
100	124.0	115.0	125.0	50.0	15.0	22.0

GW9



Operational Conditions:

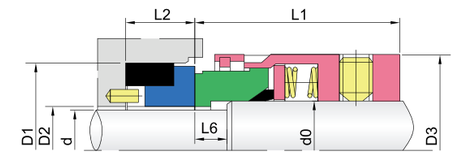
- Temperature: –40℃ to +250℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	d	D3	D2	D1	L1	L2
0.500	12.70	26.70	13.40	25.40	20.62	7.90
0.625	15.80	30.66	16.60	31.75	19.05	10.30
0.750	19.00	33.83	19.70	34.93	22.23	10.30
0.875	22.20	37.00	22.90	38.10	23.80	10.30
1.000	25.40	40.10	26.10	41.28	25.40	11.10
1.125	28.50	43.36	29.30	44.45	26.97	11.10
1.250	31.70	48.13	32.40	47.63	26.97	11.10
1.375	34.90	51.30	35.60	50.80	28.58	11.10
1.500	38.10	54.48	38.80	53.98	28.58	11.10
1.625	41.20	60.83	42.40	60.33	34.93	12.70
1.750	44.40	64.00	45.50	63.50	34.93	12.70
1.875	47.60	66.68	48.70	66.68	34.93	12.70
2.000	50.80	70.36	51.90	69.85	34.93	12.70
2.125	53.90	76.70	55.00	76.20	42.85	14.30
2.250	57.10	79.88	58.20	79.38	42.85	14.30
2.375	60.30	83.06	61.40	82.55	42.85	14.30
2.500	63.50	86.23	64.60	85.73	42.85	14.30
2.625	66.60	89.40	67.70	85.73	42.85	15.90
2.750	69.80	92.58	70.90	88.90	42.85	15.90
2.875	73.00	95.76	74.10	95.25	42.85	15.90
3.000	76.20	97.33	77.30	98.43	42.85	15.90
3.125	79.30	100.50	80.50	101.60	42.85	19.80
3.250	82.50	105.28	83.60	104.78	42.85	19.80
3.375	85.70	108.46	86.80	107.95	42.85	19.80
3.500	88.90	111.63	90.00	111.13	42.85	19.80
3.625	92.00	114.80	93.10	114.30	42.85	19.80
3.750	95.20	117.98	96.30	117.48	42.85	19.80
3.875	98.40	121.16	99.50	120.65	42.85	19.80
4.000	101.60	124.33	102.70	123.83	42.85	19.80

GW9B



Operational Conditions:

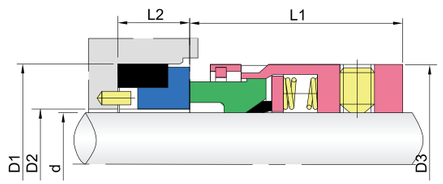
- Temperature: –40℃ to +250℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	d0	d	D3	D2	D1	L1	L2	L6
1.000	25.40	22.20	40.10	22.90	38.10	33.32	10.30	6.40
1.125	28.50	25.40	43.36	26.10	41.28	34.93	11.10	7.90
1.250	31.70	28.50	48.13	29.30	44.45	34.93	11.10	7.90
1.375	34.90	28.50	51.30	29.30	44.45	36.50	11.10	8.70
1.500	38.10	31.70	54.48	32.40	47.63	36.50	11.10	8.70
1.625	41.20	34.90	60.83	35.60	50.80	44.45	11.10	8.70
1.750	44.40	38.10	64.00	38.80	53.98	44.45	11.10	9.50
1.875	47.60	41.20	66.68	42.40	60.33	44.45	12.70	9.50
2.000	50.80	44.40	70.36	45.50	63.50	44.45	12.70	9.50
2.125	53.90	47.60	76.70	48.70	66.68	52.37	12.70	11.10
2.250	57.10	50.80	79.88	51.90	69.85	52.37	12.70	11.10
2.375	60.30	53.90	83.06	55.00	76.20	52.37	14.30	11.10
2.500	63.50	57.10	86.23	58.20	79.38	52.37	14.30	11.10
2.625	66.60	60.30	89.40	61.40	82.55	52.37	14.30	11.10
2.750	69.80	63.50	92.58	64.60	85.73	52.37	14.30	11.10
2.875	73.00	66.60	95.76	67.70	85.73	52.37	15.90	11.10
3.000	76.20	69.80	97.33	70.90	88.90	52.37	15.90	11.10
3.125	79.30	73.00	100.50	74.10	95.25	52.37	15.90	11.10
3.250	82.50	76.20	105.28	77.30	98.43	52.37	15.90	14.30
3.375	85.70	79.30	108.46	80.50	101.60	52.37	19.80	14.30
3.500	88.90	82.50	111.63	83.60	104.78	52.37	19.80	14.30
3.625	92.00	85.70	114.80	86.80	107.95	52.37	19.80	14.30
3.750	95.20	88.90	117.98	90.00	111.13	52.37	19.80	14.30
3.875	98.40	92.00	121.16	93.10	114.30	52.37	19.80	14.30
4.000	101.60	95.20	124.33	96.30	117.48	52.37	19.80	14.30

GW9T



Operational Conditions:

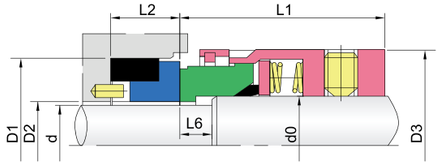
- Temperature: –40℃ to +250℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	d	D3	D2	D1	L1	L2
0.500	12.70	23.80	13.40	25.40	23.80	7.90
0.625	15.80	26.97	16.60	31.75	23.80	10.30
0.750	19.00	30.15	19.70	34.93	23.80	10.30
0.875	22.20	33.32	22.90	38.10	23.80	10.30
1.000	25.40	36.50	26.10	41.28	25.40	11.10
1.125	28.50	39.67	29.30	44.45	25.40	11.10
1.250	31.70	42.85	32.40	47.63	25.40	11.10
1.375	34.90	49.20	35.60	50.80	34.93	11.10
1.500	38.10	49.20	38.80	53.98	28.58	11.10
1.625	41.20	57.15	42.40	60.33	29.36	12.70
1.750	44.40	58.72	45.50	63.50	34.93	12.70
1.875	47.60	63.50	48.70	66.68	34.93	12.70
2.000	50.80	66.68	51.90	69.85	34.93	12.70
2.125	53.90	71.42	55.00	76.20	42.85	14.30
2.250	57.10	72.21	58.20	79.38	34.93	14.30
2.375	60.30	76.20	61.40	82.55	42.85	14.30
2.500	63.50	79.38	64.60	85.73	34.93	14.30
2.625	66.60	82.55	67.70	85.73	42.85	15.90
2.750	69.80	85.73	70.90	88.90	42.85	15.90
2.875	73.00	88.90	74.10	95.25	42.85	15.90
3.000	76.20	92.08	77.30	98.43	42.85	15.90
3.125	79.30	95.25	80.50	101.60	42.85	19.80
3.250	82.50	98.43	83.60	104.78	42.85	19.80
3.375	85.70	101.60	86.80	107.95	42.85	19.80
3.500	88.90	104.78	90.00	111.13	42.85	19.80
3.625	92.00	107.95	93.10	114.30	42.85	19.80
3.750	95.20	111.13	96.30	117.48	42.85	19.80
3.875	98.40	114.30	99.50	120.65	42.85	19.80
4.000	101.60	117.48	102.70	123.83	42.85	19.80

GW9BT



Operational Conditions:

- Temperature: –40℃ to +250℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

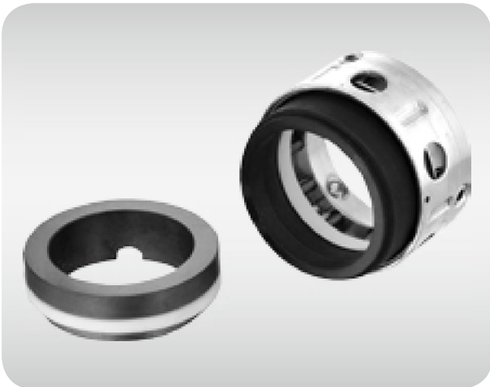
Material:

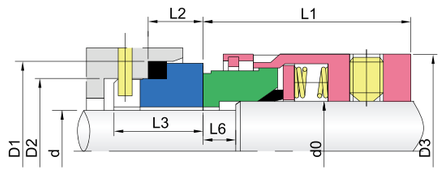
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	d0	d	D3	D2	D1	L1	L2	L6
1.000	25.40	22.20	36.50	22.90	38.10	33.32	10.30	8.70
1.125	28.50	25.40	39.67	26.10	41.28	34.93	11.10	8.70
1.250	31.70	28.50	42.85	29.30	44.45	34.93	11.10	8.70
1.375	34.90	28.50	49.20	29.30	44.45	42.85	11.10	8.70
1.500	38.10	31.70	49.20	32.40	47.63	36.50	11.10	8.70
1.625	41.20	34.90	57.15	35.60	50.80	40.46	11.10	11.10
1.750	44.40	38.10	58.72	38.80	53.96	44.45	11.10	11.10
1.875	47.60	41.20	63.50	42.40	60.33	44.45	12.70	11.10
2.000	50.80	44.40	66.68	45.50	63.50	44.45	12.70	11.10
2.125	53.90	47.60	71.42	48.70	66.68	52.37	12.70	12.70
2.250	57.10	50.80	72.21	51.90	69.85	44.45	12.70	12.70
2.375	60.30	53.90	76.20	55.00	76.20	52.37	14.30	12.70
2.500	63.50	57.10	79.38	58.20	79.38	44.45	14.30	12.70
2.625	66.60	60.30	82.55	61.40	82.55	52.37	14.30	12.70
2.750	69.80	63.50	85.73	64.60	85.73	52.37	14.30	12.70
2.875	73.00	66.60	88.90	67.70	85.73	52.37	15.90	12.70
3.000	76.20	69.80	92.08	70.90	88.90	52.37	15.90	12.70
3.125	79.30	73.00	95.25	74.10	95.25	52.37	15.90	14.30
3.250	82.50	76.20	98.43	77.30	98.43	52.37	15.90	14.30
3.375	85.70	79.30	101.60	80.50	101.60	52.37	19.80	14.30
3.500	88.90	82.50	104.78	83.60	104.78	52.37	19.80	14.30
3.625	92.00	85.70	107.95	86.80	107.95	52.37	19.80	14.30
3.750	95.20	88.90	111.13	90.00	111.13	52.37	19.80	14.30
3.875	98.40	92.00	114.30	93.10	114.30	52.37	19.80	14.30
4.000	101.60	95.20	117.48	96.30	117.48	52.37	19.80	14.30

GW59B

Features of structure: With rubber o–ring ,balanced mechanical seal





Operational Conditions:
- Temperature: –40℃ to +250℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

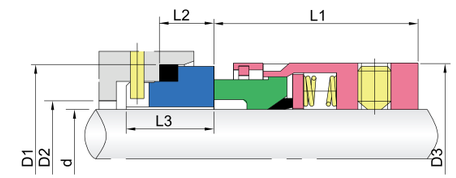
Stationary Seat:
- GWBP

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	d0	D3	D2	D1	L1	L2	L3	L6
14	18.0	32.0	21.0	25.0	30.5	12.0	18.5	6.0
16	20.0	34.0	23.0	27.0	30.5	12.0	18.5	6.0
18	22.0	36.0	27.0	33.0	31.5	13.5	20.5	6.5
20	24.0	38.0	29.0	35.0	31.5	13.5	20.5	6.5
22	26.0	40.0	31.0	37.0	31.5	13.5	20.5	6.5
24	28.0	42.0	33.0	39.0	34.2	13.3	20.3	6.7
25	30.0	44.0	34.0	40.0	34.5	13.0	20.0	7.0
28	33.0	47.0	37.0	43.0	37.5	12.5	19.5	7.5
30	35.0	49.0	39.0	45.0	38.0	12.0	19.0	8.0
32	38.0	54.0	42.0	48.0	38.0	12.0	19.0	8.0
33	38.0	54.0	42.0	48.0	38.0	12.0	19.0	8.0
35	40.0	56.0	44.0	50.0	38.0	12.0	19.0	8.0
38	43.0	59.0	49.0	56.0	39.5	13.0	20.0	10.0
40	45.0	61.0	51.0	58.0	39.5	13.0	20.0	10.0
43	48.0	64.0	54.0	61.0	39.5	13.0	20.0	10.0
45	50.0	66.0	56.0	63.0	39.5	13.0	20.0	10.0
48	53.0	69.0	59.0	66.0	39.5	13.0	20.0	10.0
50	55.0	71.0	62.0	70.0	44.0	13.5	20.5	11.5
53	58.0	78.0	65.0	73.0	44.0	13.5	20.5	11.5
55	60.0	80.0	67.0	75.0	44.0	13.5	20.5	11.5
58	63.0	83.0	70.0	78.0	49.0	13.5	20.5	11.5
60	65.0	85.0	72.0	80.0	49.0	13.5	20.5	11.5
63	68.0	88.0	75.0	83.0	49.0	13.5	20.5	11.5
65	70.0	90.0	77.0	85.0	49.0	13.5	20.5	11.5
70	75.0	95.0	83.0	92.0	55.5	14.5	21.5	13.5
75	80.0	104.0	88.0	97.0	55.5	14.5	21.5	13.5
80	85.0	109.0	95.0	105.0	55.0	15.0	22.0	13.0
85	90.0	114.0	100.0	110.0	60.0	15.0	22.0	13.0
90	95.0	119.0	105.0	115.0	60.0	15.0	22.0	13.0
95	100.0	124.0	110.0	120.0	60.0	15.0	22.0	13.0
100	105.0	129.0	115.0	125.0	60.0	15.0	22.0	13.0

GW59U

Features of structure: With rubber o–ring , unbalanced mechanical seal



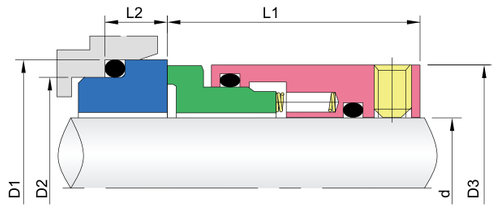
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWBP

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L2	L3
14	24	21	25	23.0	12.0	18.5
16	26	23	27	23.0	12.0	18.5
18	32	27	33	24.0	13.5	20.5
20	34	29	35	24.0	13.5	20.5
22	36	31	37	24.0	13.5	20.5
24	38	33	39	26.7	13.3	20.3
25	39	34	40	27.0	13.0	20.0
28	42	37	43	30.0	12.5	19.5
30	44	39	45	30.5	12.0	19.0
32	46	42	48	30.5	12.0	19.0
33	47	42	48	30.5	12.0	19.0
35	49	44	50	30.5	12.0	19.0
38	54	49	56	32.0	13.0	20.0
40	56	51	58	32.0	13.0	20.0
43	59	54	61	32.0	13.0	20.0
45	61	56	63	32.0	13.0	20.0
48	64	59	66	32.0	13.0	20.0
50	66	62	70	34.0	13.5	20.5
53	69	65	73	34.0	13.5	20.5
55	71	67	75	34.0	13.5	20.5
58	78	70	78	39.0	13.5	20.5
60	80	72	80	39.0	13.5	20.5
63	83	75	83	39.0	13.5	20.5
65	85	77	85	39.0	13.5	20.5
68	88	81	90	39.0	13.5	20.5
70	90	83	92	45.5	14.5	21.5
75	95	88	97	45.5	14.5	21.5
80	104	95	105	45.0	15.0	22.0
85	109	100	110	45.0	15.0	22.0
90	114	105	115	50.0	15.0	22.0
95	119	110	120	50.0	15.0	22.0
100	124	115	125	50.0	15.0	22.0

GW491



Operational Conditions:

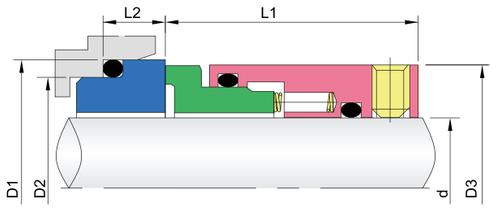
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2
16	27	23	29.0	30.0	6.6
18	33	27	32.3	30.0	7.5
20	35	29	34.3	30.0	7.5
22	37	31	36.3	30.0	7.5
24	39	33	38.3	30.0	7.5
25	40	34	39.3	30.0	7.5
28	43	37	42.3	35.0	7.5
30	45	39	44.3	35.0	7.5
32	48	42	46.3	35.0	7.5
33	48	42	47.9	35.0	7.5
35	50	44	49.5	35.0	7.5
38	56	49	54.3	35.0	9.0
40	58	51	56.1	35.0	9.0
43	61	54	59.1	35.0	9.0
45	63	56	61.1	35.0	9.0
48	66	59	64.1	35.0	9.0
50	70	62	66.1	35.0	9.5
53	73	65	71.0	35.0	11.0
55	75	67	71.1	35.0	11.0
60	80	72	77.1	35.0	11.0
65	85	77	83.0	35.0	11.0
68	90	81	91.0	35.0	11.3
70	92	83	86.1	35.0	11.3
75	97	88	98.4	48.0	11.3
80	105	95	104.8	48.0	12.0
85	110	100	108.0	48.0	12.0
90	115	105	114.3	48.0	14.0
100	125	115	123.8	48.0	14.0

GW591



Operational Conditions:

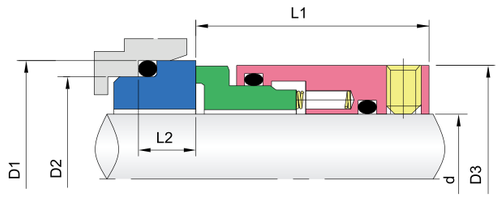
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L2
16	32	23	27	20.5	6.6
18	34	27	33	20.5	7.5
20	36	29	35	22.5	7.5
22	38	31	37	22.5	7.5
24	40	33	39	22.5	7.5
25	42	34	40	22.5	7.5
28	45	37	43	22.5	7.5
30	47	39	45	22.5	7.5
32	49	42	48	22.5	7.5
33	50	42	48	22.5	7.5
35	52	44	50	22.5	7.5
38	55	49	56	22.5	9.0
40	47	51	58	22.5	9.0
43	60	54	61	28.5	9.0
45	62	56	63	28.5	9.0
48	65	59	66	28.5	9.0
50	67	62	70	28.5	9.5
53	70	65	73	28.5	11.0
55	72	67	75	28.5	11.0
60	77	72	80	28.5	11.0
65	82	77	85	28.5	11.0
70	87	83	92	30.5	11.3
75	93	88	97	30.5	11.3
80	98	95	105	30.5	11.3
85	103	100	110	30.5	12.0
90	108	105	115	30.5	12.0
95	113	110	120	30.5	14.0
100	118	115	125	30.5	14.0

GW891



Operational Conditions:

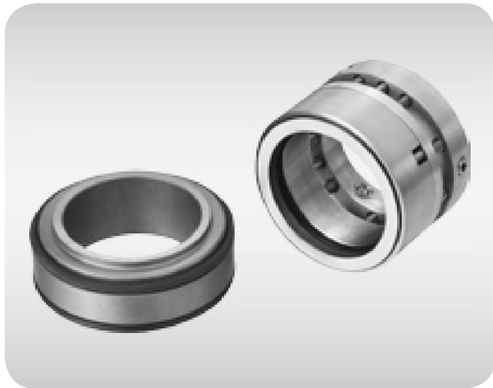
- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

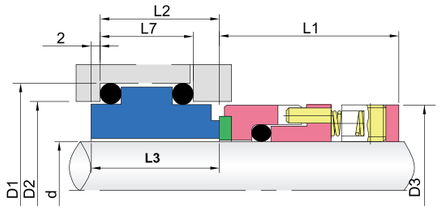
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	Inches Size	D3	D1	D2	L1	L2
18		32.28	33	27	34.90	7.5
20		34.29	35	29	34.90	7.5
22		36.30	37	31	34.90	7.5
24		38.30	39	33	34.90	7.5
25	1.000	39.29	40	34	34.90	7.5
28	1.125	42.29	43	37	34.90	7.5
30		44.30	45	39	34.90	7.5
32	1.250	46.30	48	42	44.45	7.5
33		47.90	48	42	44.45	7.5
35	1.375	49.48	50	44	44.45	7.5
38	1.500	54.28	56	49	44.45	9.0
40		56.08	58	51	44.45	9.0
42	1.625	57.61			44.45	
43		59.08	61	54	44.45	9.0
45	1.750	60.78	63	56	44.45	9.0
48	1.875"	64.10	66	59	44.45	9.0
50	2.000	66.09	70	62	44.45	9.5
53	2.125	69.80	73	65	44.45	11.0
55		71.00	75	67	44.45	11.0
58	2.250	73.48	78	70	44.45	11.0
60	2.375	76.20	80	72	44.45	11.0
63	2.500	79.40	83	75	44.45	11.0
65	2.625	82.60	85	77	44.45	11.0
70		85.70	92	83	44.45	11.3
	2.750	92.08			50.80	11.3
	2.875	95.25			50.80	11.3
75	3.000	98.43	97	88	50.80	11.3
	3.125	101.60			50.80	11.3
80	3.250	104.78	105.0	95	50.80	12.0
85	3.375	107.95	110.0	100	50.80	14.0
	3.500	111.30			50.80	14.0
90	3.625	114.30	115.0	105	50.80	14.0
95	3.750	117.48	120.0	110	50.80	14.0
	3.875	120.65			50.80	14.0
100	4.000	123.83	125.0	115	50.80	14.0

GWRO-A





Operational Conditions:

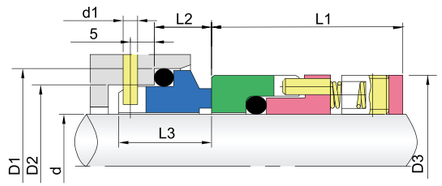
- Temperature: –20℃ to +150℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L7	L1	L2	L3
20	34	36	42	18	35	23	25
22	36	38	44	18	35	23	25
24	38	40	46	18	35	23	25
25	39	41	47	18	35	23	25
28	42	44	50	18	35	23	25
30	44	46	52	18	35	23	25
32	46	48	54	18	35	23	25
33	47	49	55	18	35	23	25
35	49	51	57	18	35	23	25
38	54	58	64	20	38	25	27
40	56	60	66	20	38	25	27
42	58	62	68	20	38	25	27
43	59	63	69	20	38	25	27
45	61	65	71	20	38	25	27
48	64	68	74	20	38	25	27
50	66	70	76	20	39	25	27
52	68	72	78	20	40	25	27
53	69	73	79	20	40	25	27
55	71	75	81	20	40	25	27
58	76	83	89	22	41	28	30
60	78	85	91	22	41	28	30
62	80	87	93	22	41	28	30
63	81	88	94	22	41	28	30
65	83	90	96	22	41	28	30
68	86	93	99	24	41	30	32
70	90	95	101	24	42	30	32
75	95	104	110	24	42	30	32
80	100	109	115	25	42	31	33
85	105	114	120	25	43	31	33
90	110	119	125	25	45	31	33
95	115	124	130	25	45	31	33
100	120	129	135	25	45	31	33

GWRO-B



Operational Conditions:

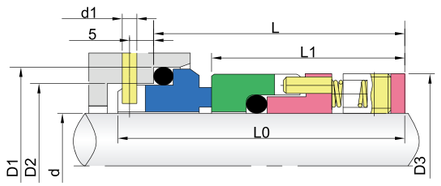
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	D3	D2	D1	L1	L2	L3
20	34	29	35	35	13	21
22	36	31	37	35	13	21
24	38	33	39	35	13	21
25	39	34	40	35	13	21
28	42	37	43	35	13	21
30	44	39	45	35	13	21
32	46	42	48	35	13	21
33	47	42	48	35	13	21
35	49	44	50	35	13	21
38	54	50	56	38	13	21
40	56	52	58	38	13	21
43	59	55	61	38	13	21
45	61	57	63	38	13	21
48	64	60	66	38	13	21
50	66	62	68	39	13	21
53	69	65	71	40	13	21
55	71	67	73	40	13	21
58	76	70	79	41	16	24
60	78	72	81	41	16	24
63	81	75	84	41	16	24
65	83	77	86	41	16	24
68	86	81	90	41	16	24
70	90	83	92	42	16	24
75	95	88	97	42	16	24
80	100	96	105	42	16	24
85	105	101	110	43	16	24
90	110	106	115	45	16	24
95	115	111	120	45	16	24
100	120	116	125	45	16	24

GWRO-C



Operational Conditions:

- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

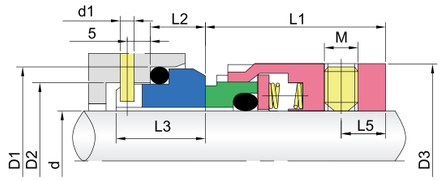
Material:

- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR. EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d(inches)	D3	D2	D1	L0	L	L1
20	34	29	35	51	44	31
22	36	31	37	51	44	31
24	38	33	39	51	44	31
25	39	34	40	51	44	31
28	42	37	43	53	46	33
30	44	39	45	53	46	33
32	46	42	48	56	49	36
33	47	42	48	56	49	36
35	49	44	50	56	49	36
38	54	49	56	62	55	40
40	56	51	58	62	55	40
43	59	54	61	64	57	42
45	61	56	63	64	57	42
48	64	59	66	64	57	42
50	66	62	70	65	58	42
53	69	65	73	65	58	42
55	71	67	75	65	58	42
58	78	70	78	66	59	43
60	80	72	80	66	59	43
63	83	75	83	66	59	43
65	85	77	85	66	59	43
68	88	81	90	68	61	43
70	90	83	92	69	62	44
75	99	88	97	69	62	44
80	104	95	105	74	67	49
85	109	100	110	74	67	49
90	114	105	115	74	67	49
95	119	110	120	74	67	49
100	124	115	125	74	67	49
105	129	120	130	74	67	49
110	138	125	136	74	67	49
115	143	130	141	74	67	49
120	148	135	146	74	67	49

GWM74

Features of structure: GWM74 Multiple Spring



Operational Conditions:
- Temperature: –20℃ to +190℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

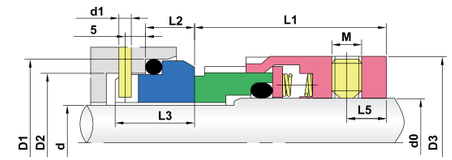
Stationary Seat:
- GWG9

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, PTFE Wrapped, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L2	L3	L5	M
14	25	21	25	3	25.0	10.0	17.5	6	M5
16	27	23	27	3	25.0	10.0	17.5	6	M5
18	33	27	33	3	26.0	11.5	19.5	7	M5
20	35	29	35	3	26.0	11.5	19.5	7	M5
22	37	31	37	3	26.0	11.5	19.5	7	M5
24	39	33	39	3	28.5	11.5	19.5	8	M5
25	40	34	40	3	28.5	11.5	19.5	8	M5
28	43	37	43	3	31.0	11.5	19.5	8	M6
30	45	39	45	3	31.0	11.5	19.5	8	M6
32	47	42	48	3	31.0	11.5	19.5	8	M6
33	48	42	48	3	31.0	11.5	19.5	8	M6
35	50	44	50	3	31.0	11.5	19.5	8	M6
38	55	49	56	4	31.0	14.0	22.0	8	M6
40	57	51	58	4	31.0	14.0	22.0	8	M6
43	60	54	61	4	31.0	14.0	22.0	8	M6
45	62	56	63	4	31.0	14.0	22.0	8	M6
48	65	59	66	4	31.0	14.0	22.0	8	M6
50	67	62	70	4	32.5	15.0	23.0	8	M6
53	70	65	73	4	32.5	15.0	23.0	8	M6
55	72	67	75	4	32.5	15.0	23.0	8	M6
58	79	70	78	4	37.5	15.0	23.0	9	M8
60	81	72	80	4	37.5	15.0	23.0	9	M8
63	84	75	83	4	37.5	15.0	23.0	9	M8
65	86	77	85	4	37.5	15.0	23.0	9	M8
68	89	81	90	4	34.5	18.0	26.0	9	M8
70	91	83	92	4	42.0	18.0	26.0	9	M8
75	99	88	97	4	42.0	18.0	26.0	10	M8
80	104	95	105	4	41.8	18.2	26.2	10	M8
85	109	100	110	4	41.8	18.2	26.2	10	M8
90	114	105	115	4	46.8	18.2	26.2	10	M8
95	119	110	120	4	47.8	17.2	25.2	10	M8
100	124	115	125	4	47.8	17.2	25.2	10	M8

GWH75

Features of structure: GWH75 Multiple Spring



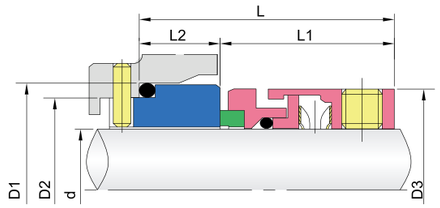
Operational Conditions:
- Temperature: –20℃ to +190℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWG9

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, PTFE Wrapped, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	d0	D3	D2	D1	d1	L1	L2	L3	L6	L5	M
14	18	33	21	25	3	32.5	10.0	17.5	8.0	6.0	M5
16	20	35	23	27	3	32.5	10.0	17.5	8.0	6.0	M5
18	22	37	27	33	3	33.5	11.5	19.5	8.5	7.0	M5
20	24	39	29	35	3	33.5	11.5	19.5	8.5	5.5	M5
22	26	41	31	37	3	33.5	11.5	19.5	8.5	8.0	M5
24	28	43	33	39	3	36.0	11.5	19.5	8.5	5.5	M6
25	30	45	34	40	3	36.0	11.5	19.5	8.5	5.5	M6
28	33	48	37	43	3	38.5	11.5	19.5	8.5	8.0	M6
30	35	50	39	45	3	38.5	11.5	19.5	8.5	8.0	M6
32	38	55	42	48	3	38.5	11.5	19.5	8.5	8.0	M5
33	38	55	42	48	3	38.5	11.5	19.5	8.5	8.0	M6
35	40	57	44	50	3	38.5	11.5	19.5	8.5	8.0	M6
38	43	60	49	56	4	38.5	14.0	22.0	9.0	8.0	M6
40	45	62	51	58	4	38.5	14.0	22.0	9.0	8.0	M6
43	48	65	54	61	4	38.5	14.0	22.0	9.0	8.0	M6
45	50	67	56	63	4	38.5	14.0	22.0	9.0	8.0	M6
48	53	70	59	66	4	38.5	14.0	22.0	9.0	8.0	M6
50	55	72	62	70	4	42.5	15.0	23.0	10.0	8.0	M6
53	58	79	65	73	4	42.5	15.0	23.0	10.0	9.0	M8
55	60	81	67	75	4	42.5	15.0	23.0	10.0	9.0	M8
58	63	84	70	78	4	47.5	15.0	23.0	10.0	9.0	M8
60	65	86	72	80	4	47.5	15.0	23.0	10.0	9.0	M8
63	68	89	75	83	4	47.5	15.0	23.0	10.0	9.0	M8
65	70	91	77	85	4	47.5	15.0	23.0	10.0	9.0	M8
70	75	99	83	92	4	52.0	18.0	26.0	10.0	10.0	M8
75	80	104	88	97	4	52.0	18.0	26.0	10.0	10.0	M8
80	85	109	95	105	4	51.8	18.2	26.2	9.8	10.0	M8
85	90	114	100	110	4	56.8	18.2	26.2	9.8	10.0	M8
90	95	119	105	115	4	56.8	18.2	26.2	9.8	10.0	M8
95	100	124	110	120	4	57.8	17.2	25.2	10.8	10.0	M8
100	105	129	115	125	4	57.8	17.2	25.2	10.8	10.0	M8

GW67



Operational Conditions:

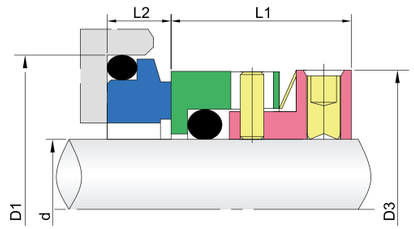
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99%Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L
14	25.0	21.0	24.0	25.0	10.0	35.0
16	27.0	23.0	26.0	25.0	10.0	35.0
18	33.0	27.0	32.0	26.0	11.5	37.5
20	35.0	29.0	34.0	26.0	11.5	37.5
22	37.0	31.0	36.0	26.0	11.5	37.5
24	39.0	33.0	38.0	28.5	11.5	40.0
25	40.0	34.0	39.0	28.5	11.5	40.0
28	43.0	37.0	42.0	31.0	11.5	42.5
30	45.0	39.0	44.0	31.0	11.5	42.5
32	48.0	42.0	46.0	31.0	11.5	42.5
33	48.0	42.0	47.0	31.0	11.5	42.5
35	50.0	44.0	49.0	31.0	11.5	42.5
38	56.0	49.0	54.0	31.0	14.0	45.0
40	58.0	51.0	56.0	31.0	14.0	45.0
43	61.0	54.0	59.0	31.0	14.0	45.0
45	63.0	56.0	61.0	31.0	14.0	45.0
48	66.0	59.0	64.0	31.0	14.0	45.0
50	70.0	62.0	66.0	32.5	15.0	47.5
53	73.0	65.0	69.0	32.5	15.0	47.5
55	75.0	67.0	71.0	32.5	15.0	47.5
58	78.0	70.0	78.0	37.5	15.0	52.5
60	80.0	72.0	80.0	37.5	15.0	52.5
63	83.0	75.0	83.0	37.5	15.0	52.5
65	85.0	77.0	85.0	37.5	15.0	52.5
68	90.0	81.0	88.0	34.5	18.0	52.5
70	92.0	83.0	90.0	42.0	18.0	60.0
75	97.0	88.0	99.0	42.0	18.0	60.0
80	105.0	95.0	104.0	41.8	18.2	60.0
85	110.0	100.0	109.0	41.8	18.2	60.0
90	115.0	105.0	114.0	46.8	18.2	65.0
95	120.0	110.0	119.0	47.8	17.2	65.0
100	125.0	115.0	124.0	47.8	17.2	65.0

GW68



Operational Conditions:

- Temperature: –40℃ to +200℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 18m/s

Stationary Seat:

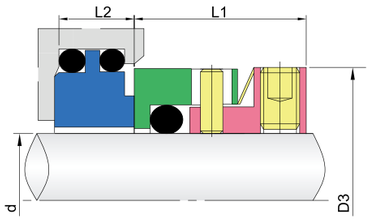
- GWG9

Material:

- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D3	L1	L2
15.8	28.5	27.0	19.1	6.3
16.0	28.5	27.0	19.1	6.3
19.1	31.7	30.0	19.1	6.3
24.0	35.4	34.1	19.1	7.6
28.0	42.0	40.0	19.1	7.6
28.6	41.2	39.5	19.1	7.6
30.0	42.7	41.0	19.1	7.6
31.7	44.2	42.4	19.1	7.6
32.0	44.4	42.4	19.1	7.6
35.0	47.6	45.5	19.1	7.6
38.0	53.9	51.8	21.1	8.1
44.4	60.3	58.2	21.1	8.1
47.6	63.5	61.4	21.1	8.1
50.0	63.9	61.9	21.1	8.1
50.8	66.6	64.6	22.1	9.6
53.9	73.0	71.0	22.1	9.6
54.0	73.9	71.0	22.1	9.6
54.6	75.0	72.0	22.1	9.6
55.0	75.0	72.0	22.1	9.6
63.0	83.0	79.3	25.8	9.1
63.5	88.9	79.3	25.8	9.1
69.8	95.2	88.9	25.8	9.1
73.0	98.4	94.0	25.8	9.1
75.0	100.4	96.0	25.8	9.1

GW68A



Operational Conditions:

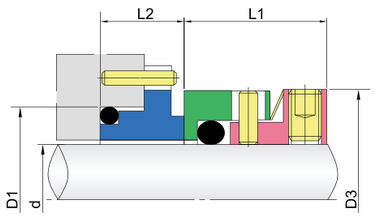
- Temperature: –40℃ to +200℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 18m/s

Material:

- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

PUMP ref:	Size	D3	L1	L2
10	30	41.0	19.1	10.3
20	35	45.5	19.1	12.0
30	50	61.9	21.1	12.0

GW68B



Operational Conditions:

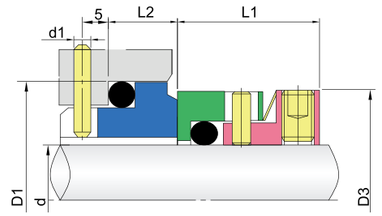
- Temperature: –40℃ to +200℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 18m/s

Material:

- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

PUMP ref:	Size	D1	D3	L1	L2
SR1	20	30.0	31.0	19.1	10.7
SR2	30	41.0	41.0	19.1	10.9
SR3	35	47.0	45.5	21.1	12.2
SR4	45	58.0	58.2	21.1	11.6
SR5	55	70.0	72.0	22.1	13.0
SR6	75	92.0	96.0	25.8	14.5

GW68C



Operational Conditions:

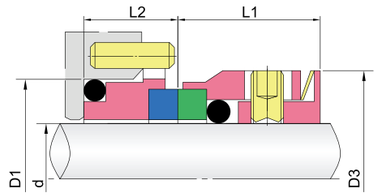
- Temperature: –40℃ to +200℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 18m/s

Material:

- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D3	d1	L1	L2
16	27	27.0	4.0	19.1	8.6
20	35	31.0	5.0	19.1	10.0
22	37	33.0	5.0	19.1	10.0
24	39	34.1	5.0	19.1	10.0
25	40	35.2	5.0	19.1	10.0
28	43	40.0	5.0	19.1	10.0
30	45	41.0	5.0	19.1	10.0
32	48	42.4	5.0	19.1	10.0
33	48	44.0	5.0	19.1	10.0
35	50	45.5	5.0	19.1	10.0
38	56	51.8	5.0	21.1	11.0
40	58	53.8	5.0	21.1	11.0
43	61	56.0	5.0	21.1	11.0
45	63	58.2	5.0	21.1	11.0
48	66	61.4	5.0	21.1	11.0
50	70	61.9	5.0	21.1	13.0
55	75	72.0	5.0	22.1	13.0
60	80	76.0	5.0	25.8	13.0
63	83	79.3	5.0	25.8	13.0
65	85	82.3	5.0	25.8	13.0
70	92	88.9	5.0	25.8	15.3
75	97	96.0	5.0	25.8	15.3

GW68D



Operational Conditions:

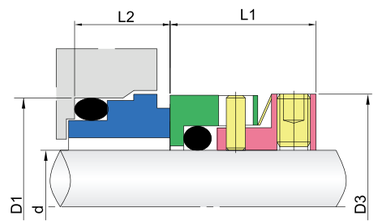
- Temperature: –40℃ to +200℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 18m/s

Material:

- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

PUMP ref:	Seal Size	D1	D3	L1	L2
SR1	20	30.0	32.4	20.0	10.7
SR2	30	41.3	44.0	21.4	10.9
SR3	35	47.0	50.8	22.0	12.2
SR4	45	58.3	62.4	22.9	11.6
SR5	55	69.6	76.0	29.3	13.0
SR6	75	92.2	99.2	31.1	14.5

GW68E



Operational Conditions:

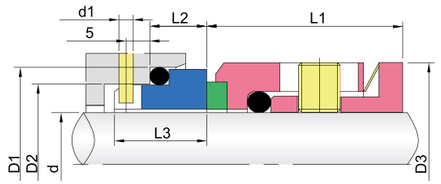
- Temperature: –40℃ to +200℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 18m/s

Material:

- Rotary Ring: SUS304 / SUS316 / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

PUMP ref:	Seal Size	D1	D3	L1	L2
10	30	40.0	41.0	19.1	9.3
20	35	44.5	45.5	19.1	9.2
30	50	62.0	61.9	21.1	10.4
40	70	85.0	88.9	25.8	14.1
50	80	95.0	101.0	25.8	16.2

GW82



Operational Conditions:

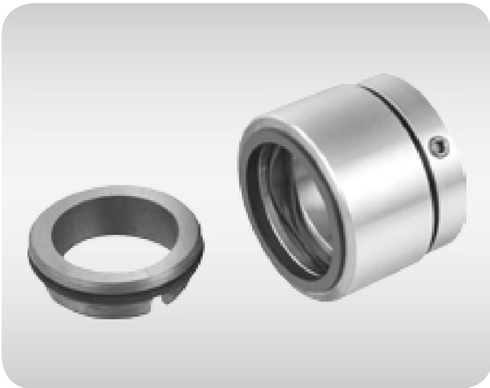
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

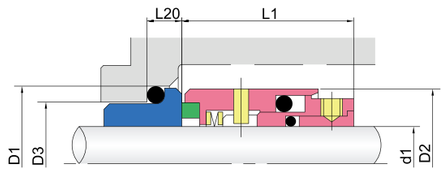
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L2	L3
16	26	23	27	3	19.1	8.6	15.0
18	29	27	33	3	19.1	10.0	17.0
20	32	29	35	3	19.1	10.0	17.0
22	35	31	37	3	19.1	10.0	17.0
24	37	33	39	3	19.1	10.0	17.0
25	37	34	40	3	19.1	10.0	17.0
28	41	37	43	3	19.1	10.0	17.0
30	43	39	45	3	19.1	10.0	17.0
32	47	42	48	3	19.1	10.0	17.0
33	48	42	48	3	19.1	10.0	17.0
35	49	44	50	3	19.1	10.0	17.0
38	53	49	56	4	21.1	11.0	18.0
40	55	51	58	4	21.1	11.0	18.0
43	60	54	61	4	21.1	11.0	18.0
45	60	56	63	4	21.1	11.0	18.0
48	65	59	66	4	21.1	11.0	18.0
50	65	62	70	4	21.1	13.0	20.0
53	74	65	73	4	22.1	13.0	20.0
55	74	67	75	4	22.1	13.0	20.0
58	79	70	78	4	25.8	13.0	20.0
60	79	72	80	4	25.8	13.0	20.0
63	87	75	83	4	25.8	13.0	20.0
65	87	77	85	4	25.8	13.0	20.0
68	93	81	90	4	25.8	15.3	22.0
70	93	83	92	4	25.8	15.3	22.0
75	98	88	97	4	25.8	15.3	22.0
80	104	95	105	4	25.8	15.7	22.5
85	108	100	110	4	25.8	15.7	22.5
90	113	105	115	4	25.8	15.7	22.5
95	118	110	120	4	25.8	15.7	22.5
100	123	115	125	4	25.8	15.7	22.5

GWGNZ





Operational Conditions:

- Temperature: –20℃ to +100℃
- Pressure: ≤ 1.3MPa
- Speed: ≤ 15m/s

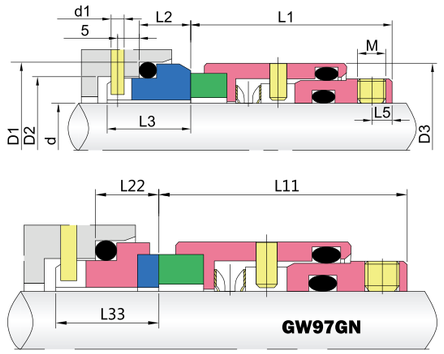
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99%Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D2	D1	D3	L1	L20
14	24.0	25.0	21.0	32.5	5.5
16	26.0	27.0	23.0	34.5	5.5
18	32.0	33.0	27.0	30.5	7.0
20	34.0	35.0	29.0	30.5	7.0
24	38.0	39.0	33.0	33.0	7.0
25	39.0	40.0	34.0	33.0	7.0
28	42.0	43.0	37.0	35.5	7.0
30	44.0	45.0	39.0	35.5	7.0
32	47.0	48.0	42.0	35.5	7.0
33	47.0	48.0	42.0	35.5	7.0
35	49.0	50.0	44.0	35.5	7.0
38	54.0	56.0	49.0	37.0	8.0
40	56.0	58.0	51.0	37.0	8.0
43	59.0	61.0	54.0	37.0	8.0
45	61.0	63.0	56.0	37.0	8.0
50	66.0	70.0	62.0	38.0	9.5
53	68.5	73.0	65.0	38.0	9.5
60	80.0	80.0	72.0	42.0	10.5
65	85.0	85.0	77.0	42.0	10.5
70	90.0	92.0	83.0	48.5	11.5
75	99.0	97.0	88.0	48.5	11.5
80	104.0	105.0	95.0	48.5	11.5
95	119.0	120.0	110.0	52.0	13.0
100	124.0	125.0	115.0	52.0	13.0

GW92N/GW97GN

GW97GN dimensions as for GW92N,but with the seal face and the stationary seat made of silicon carbide and shrink–fitted,the stationary seat is type G46.



Operational Conditions:

- Temperature: –20℃ to +180℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:

- GWG16

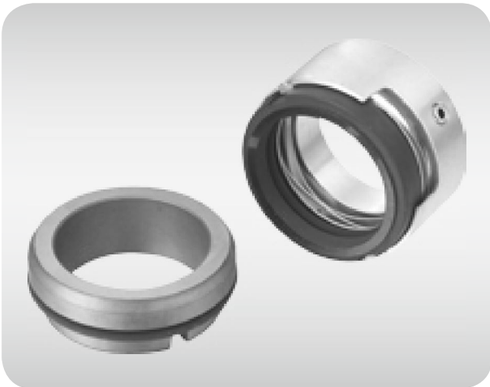
Material:

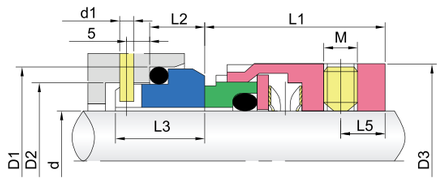
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L2	L3	L5	M	L11	L22	L33
18	32	27	33	3	30.5	7.0	15.0	3.0	M4	28.5	9.0	17.0
20	34	29	35	3	30.5	7.0	15.0	3.0	M4	28.5	9.0	17.0
22	36	31	37	3	30.5	7.0	15.0	3.0	M4	28.5	9.0	17.0
24	38	33	39	3	33.0	7.0	15.0	3.5	M5	31.0	9.0	17.0
25	39	34	40	3	33.0	7.0	15.0	3.5	M5	31.0	9.0	17.0
28	42	37	43	3	35.5	7.0	15.0	3.5	M5	33.0	9.5	17.5
30	44	39	45	3	35.5	7.0	15.0	3.5	M5	33.0	9.5	17.5
32	47	42	48	3	35.5	7.0	15.0	3.5	M5	33.0	9.5	17.5
33	47	42	48	3	35.5	7.0	15.0	3.5	M5	33.0	9.5	17.5
35	49	44	50	3	35.5	7.0	15.0	3.5	M5	33.0	9.5	17.5
38	54	49	56	4	37.0	8.0	16.0	4.0	M5	34.5	10.5	18.5
40	56	51	58	4	37.0	8.0	16.0	4.0	M5	34.5	10.5	18.5
43	59	54	61	4	37.0	8.0	16.0	4.0	M5	34.5	10.5	18.5
45	61	56	63	4	37.0	8.0	16.0	4.0	M5	34.5	10.5	18.5
48	64	59	66	4	37.0	8.0	16.0	4.0	M5	34.5	10.5	18.5
50	66	62	70	4	38.0	9.5	17.0	4.5	M6	35.5	12.0	19.5
53	69	65	73	4	38.0	9.5	17.0	4.5	M6	35.5	12.0	19.5
55	71	67	75	4	38.0	9.5	17.0	4.5	M6	35.5	12.0	19.5
58	78	70	78	4	42.0	10.5	18.0	4.5	M6	39.5	13.0	20.5
60	80	72	80	4	42.0	10.5	18.0	4.5	M6	39.5	13.0	20.5
63	83	75	83	4	42.0	10.5	18.0	4.5	M6	39.5	13.0	20.5
65	85	77	85	4	42.0	10.5	18.0	4.5	M6	39.5	13.0	20.5
68	88	81	90	4	41.5	11.0	18.5	4.5	M6	39.0	13.5	21.0
70	90	83	92	4	48.5	11.5	19.0	5.0	M6	46.0	14.0	21.5
75	99	88	97	4	48.5	11.5	19.0	5.5	M8	46.0	14.0	21.5
80	104	95	105	4	48.5	11.5	19.0	5.5	M8	46.0	14.0	21.5
85	109	100	110	4	48.5	11.5	19.0	5.5	M8	46.0	14.0	21.5
90	114	105	115	4	52.0	13.0	20.5	5.5	M8	49.5	15.5	23.0
95	119	110	120	4	52.0	13.0	20.5	5.5	M8	49.5	15.5	23.0
100	124	115	125	4	52.0	13.0	20.5	5.5	M8	49.5	15.5	23.0

GWMTN

Features of structure: GWMTN Wave spring,GWM74 Multiple Spring





Operational Conditions:
- Temperature: –20℃ to +190℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

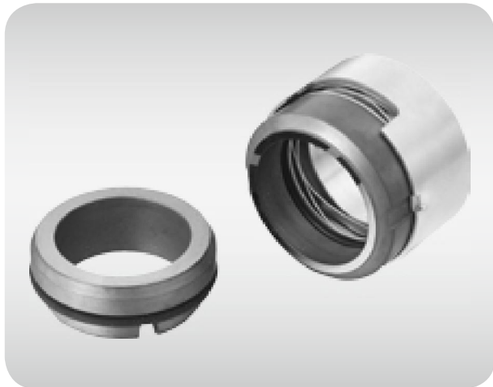
Stationary Seat:
- GWG9

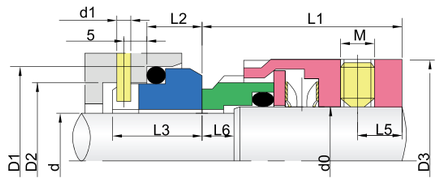
Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	d1	L1	L2	L3	L5	M
14	25	21	25	3	25.0	10.0	17.5	6	M5
16	27	23	27	3	25.0	10.0	17.5	6	M5
18	33	27	33	3	26.0	11.5	19.5	7	M5
20	35	29	35	3	26.0	11.5	19.5	7	M5
22	37	31	37	3	26.0	11.5	19.5	7	M5
24	39	33	39	3	28.5	11.5	19.5	8	M5
25	40	34	40	3	28.5	11.5	19.5	8	M5
28	43	37	43	3	31.0	11.5	19.5	8	M6
30	45	39	45	3	31.0	11.5	19.5	8	M6
32	47	42	48	3	31.0	11.5	19.5	8	M6
33	48	42	48	3	31.0	11.5	19.5	8	M6
35	50	44	50	3	31.0	11.5	19.5	8	M6
38	55	49	56	4	31.0	14.0	22.0	8	M6
40	57	51	58	4	31.0	14.0	22.0	8	M6
43	60	54	61	4	31.0	14.0	22.0	8	M6
45	62	56	63	4	31.0	14.0	22.0	8	M6
48	65	59	66	4	31.0	14.0	22.0	8	M6
50	67	62	70	4	32.5	15.0	23.0	8	M6
53	70	65	73	4	32.5	15.0	23.0	8	M6
55	72	67	75	4	32.5	15.0	23.0	8	M6
58	79	70	78	4	37.5	15.0	23.0	9	M8
60	81	72	80	4	37.5	15.0	23.0	9	M8
63	84	75	83	4	37.5	15.0	23.0	9	M8
65	86	77	85	4	37.5	15.0	23.0	9	M8
68	89	81	90	4	34.5	18.0	26.0	9	M8
70	91	83	92	4	42.0	18.0	26.0	9	M8
75	99	88	97	4	42.0	18.0	26.0	10	M8
80	104	95	105	4	41.8	18.2	26.2	10	M8
85	109	100	110	4	41.8	18.2	26.2	10	M8
90	114	105	115	4	46.8	18.2	26.2	10	M8
95	119	110	120	4	47.8	17.2	25.2	10	M8
100	124	115	125	4	47.8	17.2	25.2	10	M8

GWHTN

Features of structure: GWHTN Wave spring,GWH75 Multiple Spring





Operational Conditions:
- Temperature: –20℃ to +190℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

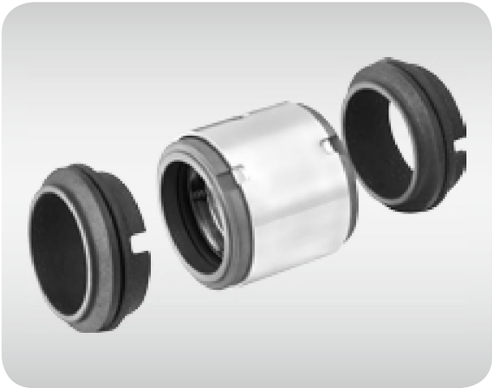
Stationary Seat:
- GWG9

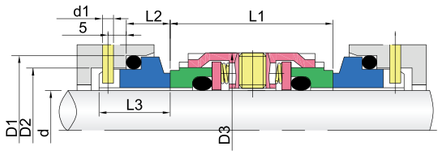
Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	d0	D3	D2	D1	d1	L1	L2	L3	L6	L5	M
14	18	33	21	25	3	32.5	10.0	17.5	8.0	6.0	M5
16	20	35	23	27	3	32.5	10.0	17.5	8.0	6.0	M5
18	22	37	27	33	3	33.5	11.5	19.5	8.5	7.0	M5
20	24	39	29	35	3	33.5	11.5	19.5	8.5	5.5	M5
22	26	41	31	37	3	33.5	11.5	19.5	8.5	8.0	M5
24	28	43	33	39	3	36.0	11.5	19.5	8.5	5.5	M6
25	30	45	34	40	3	36.0	11.5	19.5	8.5	5.5	M6
28	33	48	37	43	3	38.5	11.5	19.5	8.5	8.0	M6
30	35	50	39	45	3	38.5	11.5	19.5	8.5	8.0	M6
32	38	55	42	48	3	38.5	11.5	19.5	8.5	8.0	M5
33	38	55	42	48	3	38.5	11.5	19.5	8.5	8.0	M6
35	40	57	44	50	3	38.5	11.5	19.5	8.5	8.0	M6
38	43	60	49	56	4	38.5	14.0	22.0	9.0	8.0	M6
40	45	62	51	58	4	38.5	14.0	22.0	9.0	8.0	M6
43	48	65	54	61	4	38.5	14.0	22.0	9.0	8.0	M6
45	50	67	56	63	4	38.5	14.0	22.0	9.0	8.0	M6
48	53	70	59	66	4	38.5	14.0	22.0	9.0	8.0	M6
50	55	72	62	70	4	42.5	15.0	23.0	10.0	8.0	M6
53	58	79	65	73	4	42.5	15.0	23.0	10.0	9.0	M8
55	60	81	67	75	4	42.5	15.0	23.0	10.0	9.0	M8
58	63	84	70	78	4	47.5	15.0	23.0	10.0	9.0	M8
60	65	86	72	80	4	47.5	15.0	23.0	10.0	9.0	M8
63	68	89	75	83	4	47.5	15.0	23.0	10.0	9.0	M8
65	70	91	77	85	4	47.5	15.0	23.0	10.0	9.0	M8
70	75	99	83	92	4	52.0	18.0	26.0	10.0	10.0	M8
75	80	104	88	97	4	52.0	18.0	26.0	10.0	10.0	M8
80	85	109	95	105	4	51.8	18.2	26.2	9.8	10.0	M8
85	90	114	100	110	4	56.8	18.2	26.2	9.8	10.0	M8
90	95	119	105	115	4	56.8	18.2	26.2	9.8	10.0	M8
95	100	124	110	120	4	57.8	17.2	25.2	10.8	10.0	M8
100	105	129	115	125	4	57.8	17.2	25.2	10.8	10.0	M8

GWM74A

Features of structure: GWM74 Multiple Spring. Double Mechanical seal





Operational Conditions:
- Temperature: –20℃ to +190℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

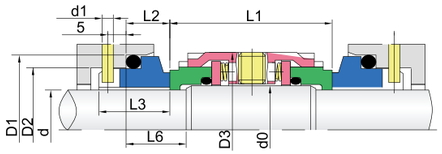
Stationary Seat:
- GWG92

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D2	D1	D3	d1	L1	L2	L3
18	27.0	33.0	33.0	3.0	38.0	11.5	19.5
20	29.0	35.0	35.0	3.0	38.0	11.5	19.5
22	31.0	37.0	37.0	3.0	38.0	11.5	19.5
24	33.0	39.0	39.0	3.0	38.0	11.5	19.5
25	34.0	40.0	40.0	3.0	38.0	11.5	19.5
28	37.0	43.0	43.0	3.0	39.0	11.5	19.5
30	39.0	45.0	45.0	3.0	39.0	11.5	19.5
32	42.0	48.0	47.0	3.0	39.0	11.5	19.5
33	42.0	48.0	48.0	3.0	39.0	11.5	19.5
35	44.0	50.0	50.0	3.0	39.0	11.5	19.5
38	49.0	56.0	55.0	4.0	41.0	14.0	22.0
40	51.0	58.0	57.0	4.0	42.0	14.0	22.0
43	54.0	61.0	60.0	4.0	42.0	14.0	22.0
45	56.0	63.0	62.0	4.0	42.0	14.0	22.0
48	59.0	66.0	65.0	4.0	42.0	14.0	22.0
50	62.0	70.0	67.0	4.0	43.0	15.0	23.0
53	65.0	73.0	70.0	4.0	43.0	15.0	23.0
55	67.0	75.0	72.0	4.0	43.0	15.0	23.0
58	70.0	78.0	79.0	4.0	56.0	15.0	23.0
60	72.0	80.0	81.0	4.0	56.0	15.0	23.0
63	75.0	83.0	84.0	4.0	55.0	15.0	23.0
65	77.0	85.0	86.0	4.0	55.0	15.0	23.0
68	81.0	90.0	89.0	4.0	55.0	18.0	26.0
70	83.0	92.0	91.0	4.0	56.0	18.0	26.0
75	88.0	97.0	99.0	4.0	56.0	18.0	26.0
80	95.0	105.0	104.0	4.0	56.0	18.2	26.2
85	100.0	110.0	109.0	4.0	56.0	18.2	26.2
90	105.0	115.0	114.0	4.0	56.0	18.2	26.2
95	110.0	120.0	119.0	4.0	56.0	17.2	25.2
100	115.0	125.0	124.0	4.0	56.0	17.2	25.2

GWM74D

Features of structure: GWM74D Multiple Spring. Double Mechanical seal



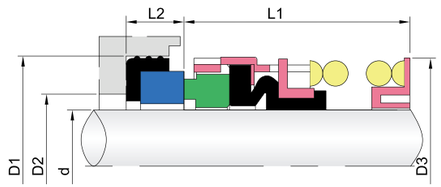
Operational Conditions:
- Temperature: –20℃ to +190℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWG92

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	d0	D3	D2	D1	L6	L1	L2	L3
14	18	33.0	21.0	25.0	18.0	53.0	10.0	17.5
16	20	35.0	23.0	27.0	18.0	53.0	10.0	17.5
18	22	37.0	27.0	33.0	20.0	53.0	11.5	19.5
20	24	39.0	29.0	35.0	20.0	53.0	11.5	19.5
22	26	41.0	31.0	37.0	20.0	53.0	11.5	19.5
24	28	43.0	33.0	39.0	20.0	54.0	11.5	19.5
25	30	45.0	34.0	40.0	20.0	54.0	11.5	19.5
28	33	48.0	37.0	43.0	20.0	54.0	11.5	19.5
30	35	50.0	39.0	45.0	20.0	54.0	11.5	19.5
32	38	55.0	42.0	48.0	20.0	56.0	11.5	19.5
33	38	55.0	42.0	48.0	20.0	56.0	11.5	19.5
35	40	57.0	44.0	50.0	20.0	57.0	11.5	19.5
38	43	60.0	49.0	58.0	23.0	57.0	14.0	22.0
40	45	62.0	51.0	58.0	23.0	57.0	14.0	22.0
43	48	65.0	54.0	61.0	23.0	57.0	14.0	22.0
45	50	67.0	56.0	63.0	23.0	56.0	14.0	22.0
48	53	70.0	59.0	65.0	23.0	56.0	14.0	22.0
50	55	72.0	62.0	70.0	25.0	63.0	15.0	23.0
53	58	79.0	65.0	73.0	25.0	67.0	15.0	23.0
55	60	81.0	67.0	75.0	25.0	67.0	15.0	23.0
58	63	84.0	70.0	78.0	25.0	74.0	15.0	23.0
60	65	86.0	72.0	80.0	25.0	74.0	15.0	23.0
63	68	89.0	75.0	83.0	25.0	79.0	15.0	23.0
65	70	91.0	77.0	85.0	25.0	68.0	15.0	23.0
70	75	99.0	83.0	92.0	28.0	76.4	18.0	26.0
75	80	104.0	88.0	97.0	28.0	76.4	18.0	26.0
80	85	109.0	95.0	105.0	28.0	76.0	18.2	26.2
85	90	114.0	100.0	110.0	28.0	76.0	18.2	26.2
90	95	119.0	105.0	115.0	28.0	76.0	18.2	26.2
95	100	124.0	110.0	120.0	28.0	76.0	17.2	26.2
100	105	129.0	115.0	125.0	28.0	76.0	17.2	26.2

GW1



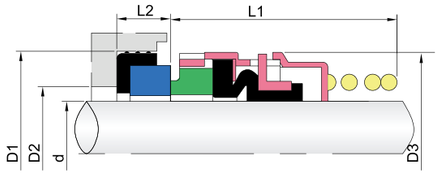
Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.4MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWT11

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size	Metric Size	D1	D2	D3	L1	L2
0.500	12	25.40	19.05	23.80	30.16	7.93
	14	31.75	23.80	27.76	33.32	10.28
0.625	16	31.75	23.80	27.76	33.32	10.28
0.750	18	34.93	26.98	30.94	33.32	10.28
	20	38.10	30.15	34.11	34.93	10.28
0.875	22	38.10	30.15	34.11	34.93	10.28
	24	41.28	33.32	38.10	39.67	11.10
1.000	25	41.28	33.32	38.10	39.67	11.10
1.125	28	44.44	36.50	41.28	41.28	11.10
	30	47.63	37.90	46.02	41.28	11.10
1.250	32	47.63	37.90	46.02	41.28	11.10
	33	50.80	42.84	48.68	42.85	11.00
1.375	35	50.80	42.84	48.68	42.85	11.00
1.500	38	53.98	46.05	51.85	42.85	11.00
1.625	40	60.38	50.80	58.10	50.80	12.70
	43	63.50	53.97	61.27	50.80	12.70
1.750	45	63.50	53.97	61.27	50.80	12.70
1.875	48	66.68	57.15	64.44	53.98	12.70
	48	69.85	60.32	67.21	53.98	12.70
2.000	50	69.85	60.32	67.21	53.98	12.70
2.125	53	76.20	60.32	72.02	60.33	14.28
2.250	55	79.38	61.90	75.30	60.33	14.28
2.375	60	82.55	67.39	78.30	63.50	14.28
2.500	63	85.73	68.25	81.54	63.50	14.28
2.625	65	85.73	71.24	86.22	69.85	15.90
2.750	70	88.90	74.60	89.40	73.03	15.90
2.875	73	95.25	77.77	92.57	73.03	15.90
3.000	75	98.43	80.95	95.75	73.03	15.90
3.125	–	101.60	–	101.60	79.38	19.84
3.250	–	104.78	–	104.80	79.38	19.84
3.375	–	107.95	–	107.90	79.38	19.84
3.500	–	111.13	–	111.00	79.38	19.84
3.625	–	114.30	–	114.30	82.55	19.84
3.750	–	117.48	–	117.48	82.55	19.84
3.875	–	120.65	–	120.65	85.73	19.84
4.000	–	123.83	–	123.80	85.73	19.84

GW1A



Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.4MPa
- Speed: ≤ 15m/s

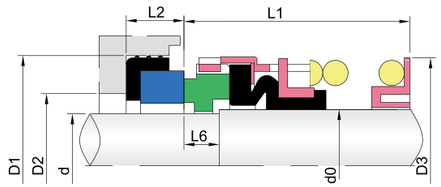
Stationary Seat:
- GWCT20–1

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size	d	D3	D2	D1	L1	L2
0.500	12.7	25.0	13.5	27.8	44.0	8.7
0.625	15.8	29.0	17.0	31.0	44.0	10.3
0.750	19.0	32.0	20.0	34.2	44.0	10.3
0.813	20.6	33.0	21.5	35.7	44.0	10.3
0.875	22.2	35.0	23.0	37.3	44.0	10.3
1.000	25.4	38.0	26.5	40.5	44.0	10.3
1.125	28.5	46.0	29.5	47.7	60.0	11.9
1.250	31.7	49.0	32.5	50.8	60.0	11.9
1.375	34.9	52.0	36.5	54.0	60.0	11.9
1.500	38.1	56.0	39.5	57.2	60.0	11.9
1.625	41.2	59.0	42.5	60.4	60.0	11.9
1.750	44.4	62.0	46.0	63.5	71.0	11.9
1.875	47.6	65.0	49.0	66.7	71.0	11.9
2.000	50.8	68.0	52.0	69.9	71.0	13.5
2.125	53.9	71.0	55.5	73.1	71.0	13.5
2.250	57.1	75.0	58.5	76.2	71.0	13.5
2.375	60.3	78.0	61.5	79.4	71.0	13.5
2.500	63.5	81.0	65.0	82.6	71.0	13.5
2.625	66.6	86.0	68.0	92.1	70.0	15.9
2.750	69.8	89.0	71.0	95.3	70.0	15.9
2.875	73.0	92.0	74.5	98.5	73.0	15.9
3.000	76.2	95.0	77.5	101.6	73.0	15.9
3.125	79.3	102.0	80.5	111.2	79.0	19.9
3.250	82.5	105.0	84.0	114.3	79.0	19.9
3.375	85.7	108.0	87.0	117.5	79.0	19.9
3.500	88.9	111.0	90.5	120.7	79.0	19.9
3.625	92.0	114.0	93.5	123.9	83.0	19.9
3.750	95.2	117.0	96.5	127.0	83.0	19.9
3.875	98.4	121.0	100.0	130.2	86.0	19.9
4.000	101.6	124.0	103.0	133.4	86.0	19.9

Metric Size d	D3	L1
16	29	44.0
18	32	44.0
19	32	44.0
20	33	44.0
24	38	44.0
25	38	44.0
27	46	60.0
28	46	60.0
29	46	60.0
30	49	60.0
32	49	60.0
34	52	71.0
35	52	71.0
38	56	71.0
40	59	71.0
42	62	71.0
45	62	71.0
48	65	71.0
50	68	70.0
54	71	70.0
55	75	73.0
60	78	73.0
65	86	79.0
70	89	79.0
73	92	79.0
75	95	79.0
80	105	83.0
90	114	83.0
95	118	86.0
100	124	86.0

GW1B



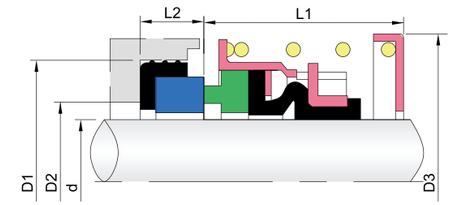
Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWT11

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size	d0	d	D3	D2	D1	L1	L2	L6
1.000	25.40	22.20	38.10	33.32	41.28	47.63	10.31	8.70
1.125	28.50	25.40	41.28	36.50	44.44	49.20	11.10	8.70
1.250	31.70	28.50	46.02	39.70	47.63	49.20	11.10	8.70
1.375	34.90	31.70	47.63	42.84	50.80	50.80	11.10	8.70
1.500	38.10	34.90	50.80	46.05	53.98	50.80	11.10	8.70
1.625	41.20	38.10	57.15	50.80	60.33	60.33	12.70	11.10
1.750	44.40	41.20	60.33	53.97	63.50	60.33	12.70	11.10
1.875	47.60	44.40	63.50	57.15	66.68	63.50	12.70	11.10
2.000	50.80	47.60	66.68	60.32	69.85	63.50	12.70	11.10
2.125	53.90	50.80	71.42	60.32	76.20	69.85	14.27	12.70
2.250	57.10	53.90	74.60	61.90	79.38	69.85	14.27	12.70
2.375	60.30	57.10	77.77	67.39	82.55	73.03	14.27	12.70
2.500	63.50	60.30	80.95	68.25	85.73	73.03	14.27	12.70
2.625	66.60	63.50	85.73	71.42	85.73	79.38	15.88	14.27
2.750	69.80	66.60	88.90	74.60	88.90	79.38	15.88	14.27
2.875	73.00	69.80	92.08	77.77	95.25	82.55	15.88	14.27
3.000	76.20	73.00	95.25	80.95	98.43	82.55	15.88	14.27
3.125	79.30	76.20	101.60	84.12	101.60	88.90	19.84	15.88
3.250	82.50	79.30	104.78	87.30	104.78	88.90	19.84	15.88
3.375	85.70	82.50	107.95	90.47	107.95	88.92	19.84	15.88
3.500	88.90	85.70	111.13	93.65	111.13	88.90	19.84	15.88
3.625	92.00	88.90	114.30	96.82	114.30	92.08	19.84	15.88
3.750	95.20	92.00	117.48	100.00	117.48	92.08	19.84	15.88
3.875	98.40	95.20	120.65	103.17	120.65	95.25	19.84	15.88
4.000	101.60	98.40	123.83	106.35	123.85	95.25	19.84	15.88

GW2



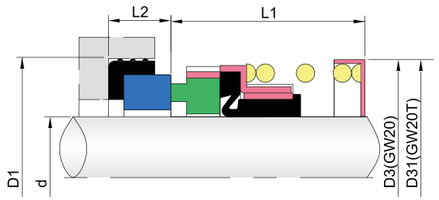
Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.4MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWT11

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size	Metric Size	D1	D2	D3	L1	L2
0.500	12	25.40	19.05	30.14	20.64	7.93
	14	31.75	23.80	33.32	22.23	10.28
0.625	16	31.75	23.80	33.32	22.23	10.28
0.750	18	34.93	26.98	36.50	22.23	10.28
	20	38.10	30.15	39.67	23.80	10.28
0.875	22	38.10	30.15	39.67	23.80	10.28
	24	41.28	33.32	45.50	25.40	11.10
1.000	25	41.28	33.32	45.50	25.40	11.10
1.125	28	44.44	36.50	48.50	26.97	11.10
	30	47.63	37.90	52.37	26.97	11.10
1.250	32	47.63	37.90	52.37	26.97	11.10
	33	50.80	42.84	56.00	28.58	11.00
1.375	35	50.80	42.84	56.00	28.58	11.00
1.500	38	53.98	46.05	59.20	28.58	11.00
1.625	40	60.38	50.80	67.00	34.93	12.70
	43	63.50	53.97	69.85	34.93	12.70
1.750	45	63.50	53.97	69.85	34.93	12.70
1.875	48	66.68	57.15	73.03	38.10	12.70
	48	69.85	60.32	73.03	38.10	12.70
2.000	50	69.85	60.32	76.20	38.10	12.70
2.125	53	76.20	60.32	82.55	42.85	14.28
2.250	55	79.38	61.90	85.73	42.85	14.28
2.375	60	82.55	67.39	88.90	46.02	14.28
2.500	63	85.73	68.25	92.08	46.02	14.28
2.625	65	85.73	71.24	98.43	49.20	15.90
2.750	70	88.90	74.60	101.60	49.20	15.90
2.875	73	95.25	77.77	104.78	52.37	15.90
3.000	75	98.43	80.95	107.95	52.37	15.90
3.125	–	115.87	–	101.60	55.55	19.84
3.250	–	119.00	–	104.80	55.55	19.84
3.375	–	122.23	–	107.90	55.55	19.84
3.500	–	125.40	–	111.00	55.55	19.84
3.625	–	130.20	–	114.30	58.73	19.84
3.750	–	133.35	–	117.48	58.73	19.84
3.875	–	138.10	–	120.65	58.73	19.84
4.000	–	141.30	–	123.80	58.73	19.84

GW20/20T



Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Stationary Seat:
- CWCT20

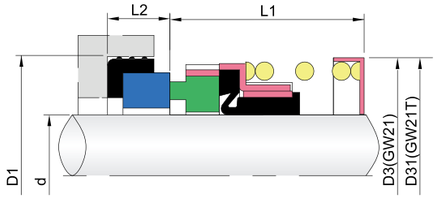
Material:
- Rotary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Stationary Ring: 99% Ceramic / SiC / TC
- Spring and Metal Parts: SUS304 / SUS316

Seal Size	D3	D31	D1	L2	L1
12	23.90	22.80	27.79	8.74	25.60
13	23.90	24.00	27.79	8.74	25.60
14	26.70	26.70	30.95	10.32	25.60
15	26.70	26.70	30.95	10.32	25.60
16	31.10	30.40	34.15	10.32	25.60
18	31.10	30.40	34.15	10.32	25.60
19	33.40	30.40	35.70	10.32	25.60
20	33.40	33.40	37.30	10.32	25.60
22	39.20	33.40	40.50	10.32	25.60
24	39.20	38.00	40.50	10.32	25.60
25	46.30	39.30	47.63	10.32	25.60
28	49.40	42.00	50.80	11.99	33.54
30	49.40	43.90	50.80	11.99	33.54
32	49.40	45.80	53.98	11.99	33.54
33	52.60	45.80	53.98	11.99	33.54
35	52.60	49.30	53.98	11.99	33.54
38	55.80	52.80	57.15	11.99	33.54
40	62.20	55.80	60.35	11.99	33.54
42	66.00	58.80	63.50	11.99	40.68
43	66.00	58.80	63.50	11.99	40.68
44	66.00	58.80	63.50	11.99	40.68
45	66.00	61.00	63.50	11.99	40.68
48	66.60	64.00	66.70	11.99	40.68
50	71.65	66.00	69.85	13.50	40.68
53	73.30	71.50	73.05	13.50	41.20
55	78.40	71.50	76.00	13.50	41.20
58	82.00	79.60	79.40	13.50	41.20
60	82.00	79.60	79.40	13.50	41.20
63	84.90	81.50	82.50	13.50	41.20
65	88.40	84.60	92.10	15.90	49.20
70	92.60	90.00	95.52	15.90	49.20
73	94.85	92.00	98.45	15.90	49.20
75	101.90	96.80	101.65	15.90	49.20
80	104.00	–	114.30	20.00	56.00
85	108.00	–	117.50	20.00	56.00
90	112.00	–	123.85	20.00	59.00
95	119.00	–	127.00	20.00	59.00
100	124.00	–	133.35	20.00	62.00

Inches Size d	D3	D31	D1	L2	L1
0.375	22.95	20.00	24.60	8.74	25.60
0.500	23.90	22.80	27.79	8.74	25.60
0.625	26.70	26.70	30.95	10.32	25.60
0.750	31.10	30.40	34.15	10.32	25.60
0.875	33.40	33.40	37.30	10.32	25.60
1.000	43.20	39.30	40.50	10.32	25.60
1.125	46.30	42.00	47.63	11.99	33.54
1.250	49.40	45.80	50.80	11.99	33.54
1.375	52.60	49.30	53.98	11.99	33.54
1.500	55.80	52.80	57.15	11.99	33.54
1.625	62.20	55.50	60.35	11.99	33.54
1.750	66.00	61.00	63.50	11.99	40.68
1.875	66.60	64.00	66.70	11.99	40.68
2.000	73.00	66.00	69.85	13.50	40.68
2.125	73.30	71.50	73.05	13.50	41.20
2.250	78.40	79.60	76.20	13.50	41.20
2.375	82.00	79.60	79.40	13.50	41.20
2.500	84.90	81.50	82.55	13.50	41.20
2.625	88.40	84.60	92.11	15.90	49.20
2.750	92.60	90.00	95.25	15.90	49.20
2.785	94.85	92.00	98.45	15.90	49.20
3.000	102.70	96.80	101.65	15.90	49.20
3.125	104.00	–	111.15	20.00	56.00
3.250	104.00	–	114.30	20.00	56.00
3.375	108.00	–	117.50	20.00	56.00
3.500	112.00	–	120.65	20.00	56.00
3.625	114.00	–	123.85	20.00	59.00
3.750	119.00	–	127.00	20.00	59.00
3.875	121.00	–	130.20	20.00	62.00
4.000	124.00	–	133.35	20.00	62.00

GW21/21T

Desifn Feature: singgle spring, rubber bellow seal.
John crane types W and WM seal can be provided



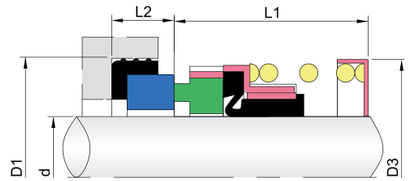
Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWT11

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size	Metric Size	D3	D31	D1	L1	L2
0.500	12.7	24.00	22.80	25.40	20.62	7.95
0.625	15.8	26.70	26.70	31.75	22.23	10.31
0.750	19.1	31.20	30.40	34.93	22.23	10.31
0.875	22.2	33.50	33.40	38.10	23.80	10.31
1.000	25.4	43.20	39.30	41.28	25.40	11.10
1.125	28.6	46.50	42.00	44.45	26.97	11.10
1.250	31.7	49.50	45.80	47.63	26.97	11.10
1.375	34.9	52.70	49.30	50.80	28.58	11.10
1.500	38.1	56.00	52.80	53.98	28.58	11.10
1.625	41.2	62.20	55.50	60.33	34.93	12.70
1.750	44.4	66.00	61.00	63.50	34.93	12.70
1.875	47.6	66.00	64.00	66.68	38.10	12.70
2.000	50.8	73.00	66.00	69.85	38.10	12.70
2.125	53.9	73.50	71.50	76.20	42.85	14.27
2.250	57.1	79.60	79.60	79.38	42.85	14.27
2.375	60.3	82.00	79.60	82.55	46.05	14.27
2.500	63.5	85.00	81.50	85.73	46.05	14.27
2.625	66.6	88.50	84.60	85.73	49.20	15.88
2.750	69.8	92.70	90.00	88.90	49.20	15.88
3.000	76.2	102	96.8	98.4	52.37	15.88

GW10



Operational Conditions:

- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Stationary Seat:

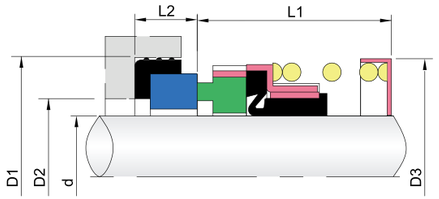
- CWCT20

Material:

- Rotary Ring: Carbon / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Stationary Ring: 99% Ceramic / SiC / TC
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D3	L1	L2
12	27.79	23.50	43.66	8.74
13	27.79	23.50	43.66	8.74
14	30.95	27.00	43.66	10.32
15	30.95	27.00	43.66	10.32
16	30.95	27.00	43.66	10.32
18	34.15	30.70	43.66	10.32
19	34.15	30.70	43.66	10.32
20	35.70	33.40	43.66	10.32
22	37.30	33.40	43.66	10.32
24	40.50	39.20	43.66	10.32
25	40.50	39.20	43.66	10.32
28	47.63	45.60	60.33	11.99
29	47.63	45.60	60.33	11.99
30	50.80	47.40	60.33	11.99
32	50.80	47.40	60.33	11.99
33	53.98	52.00	60.33	11.99
34	53.98	52.00	60.33	11.99
35	53.98	52.00	60.33	11.99
38	57.15	55.60	60.33	11.99
40	60.33	59.20	60.33	11.99
41	60.35	59.20	60.33	11.99
42	63.50	65.10	70.64	11.99
43	63.50	65.10	70.64	11.99
44	63.50	65.10	70.64	11.99
45	63.50	65.10	70.64	11.99
48	66.68	66.70	70.64	11.99
50	69.85	71.00	70.64	13.50
53	76.20	73.30	70.64	13.50
55	79.38	78.60	70.64	13.50
58	79.38	82.10	70.64	13.50
60	79.38	82.10	70.64	13.50
63	82.55	84.60	70.64	13.50
65	92.08	88.60	69.85	15.90
70	95.25	90.00	69.85	15.90
75	101.60	102.70	73.03	15.90
80	114.30	104.00	79.39	19.90
85	117.48	108.00	79.38	19.90
90	123.83	112.00	79.38	19.90
95	127.00	119.00	82.55	19.90
100	133.35	124.00	85.73	19.90

GW24



Operational Conditions:

- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Stationary Seat:

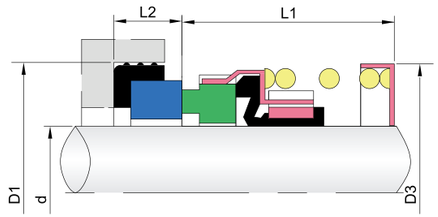
- GWCT24

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L2
12	21.70	19	23	23.9	8.6
14	24.00	21	25	26.4	8.6
16	26.65	23	27	26.4	8.6
18	30.35	27	33	27.5	10.0
20	33.50	29	35	27.5	10.0
22	33.55	31	37	27.5	10.0
24	38.00	33	39	30.0	10.0
25	39.50	34	40	30.0	10.0
28	42.20	37	43	32.5	10.0
30	43.95	39	45	32.5	10.0
32	46.00	42	48	32.5	10.0
33	46.00	42	48	32.5	10.0
35	49.10	44	50	32.5	10.0
38	53.00	49	56	34.0	11.0
40	56.00	51	58	34.0	11.0
43	58.80	54	61	34.0	11.0
45	61.20	56	63	34.0	11.0
48	64.00	59	66	34.0	11.0
50	66.00	62	70	34.5	13.0
53	70.65	65	73	34.5	13.0
55	71.65	67	75	34.5	13.0
58	79.60	70	78	39.5	13.0
60	78.40	72	80	39.5	13.0
63	81.50	75	83	39.5	13.0
65	84.30	77	85	39.5	13.0
68	89.65	81	90	37.2	15.3
70	89.65	83	92	44.7	15.3
75	96.80	88	97	44.7	15.3
80	104.00	95	105	44.3	15.7
85	107.95	100	110	44.3	15.7
90	111.10	105	115	49.3	15.7
95	119.00	110	120	49.3	15.7
100	124.00	115	125	49.3	15.7

GW560A



Operational Conditions:

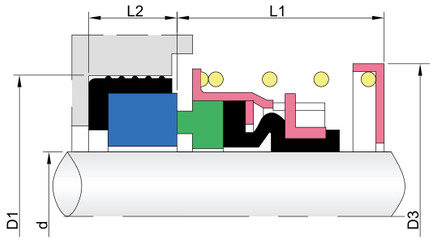
- Temperature: –20℃ to +120℃
- Pressure: ⩽ 1.0MPa
- Speed: ⩽ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99%Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L2	L1
10	20.6	24	7	16.2
11	20.6	24	7	16.2
12	21.8	26	7	17.2
13	21.8	26	7	17.2
14	26.4	28	7	18.2
15	26.4	28	7	18.2
16	26.4	32	8	19.2
17	29.5	32	8	19.2
18	29.5	35	8	19.2
19	29.5	35	8	19.2
20	31.6	38	8	20.2
22	33.6	40	8	20.2
25	39.6	44	9	20.2
28	45	46	9	21.2
30	46.6	50	9	22.2
32	46.6	54	9	24.2
35	50.8	58	10	26.2
38	54.3	60	10	27.2
40	57.3	64	10	28.2
45	61.3	66	10	30.2
50	67.8	72	10	32.2

GWFBD



Operational Conditions:

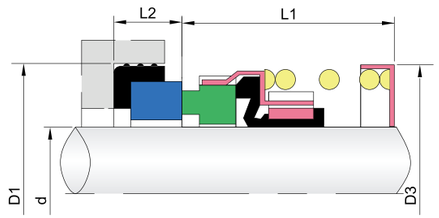
- Temperature: –20℃ to +120℃
- Pressure: ⩽ 1.0MPa
- Speed: ⩽ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L1	L2
16	34.00	30	25	8.0
18	36.80	32	25	8.0
20	38.80	34	25	8.0
22	41.50	36	25	8.0
25	44.80	39	26	8.0
28	48.50	43	26	8.0
30	52.00	48	26	8.0
35	57.00	53	30	10.0
40	67.00	58	34	10.0
45	73.00	63	36	10.0
50	79.00	68	41	10.0
55	84.00	73	41	12.0
60	90.00	79	41	12.0
65	98.50	86	49	12.0
70	103.50	91	52	12.0
75	110.50	96	52	12.0
80	120.00	105	56	14.0
85	125.00	110	56	14.0
90	132.00	115	56	14.0
95	137.00	120	56	14.0
100	144.00	125	62	14.0
110	157.00	135	62	16.0
120	169.50	145	72	16.0

GWBIA



Operational Conditions:

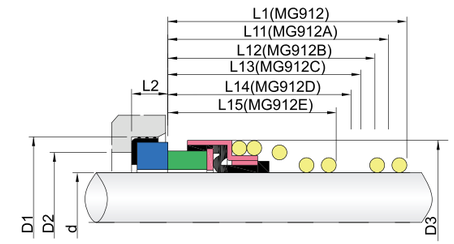
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99%Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L1	L2
14	27.5	30	19.0	5.0
16	28.5	32	21.0	5.0
18	31.2	35	22.5	7.5
20	31.7	35	21.0	8.0
25	40.2	40	25.5	8.0
28	44.1	43	25.5	8.0
30	45.1	45	25.5	9.0
32	49.0	48	33.5	9.0
33	49.0	48	33.5	9.0
35	50.2	50	33.5	9.0
38	55.3	56	33.5	9.0
40	57.0	58	33.5	9.0
43	60.7	61	36.5	9.5
45	62.5	63	38.0	9.5
48	66.5	66	38.0	9.5
50	68.6	70	38.0	9.5
53	70.8	73	41.0	9.5
55	72.4	75	41.0	9.5
58	80.0	78	42.0	9.5
60	83.0	80	42.0	9.5
65	87.2	85	42.0	10.0
70	91.6	92	45.0	11.0
75	99.4	97	47.0	12.0
80	104.6	104	55.0	12.0
85	111.0	109	64.0	12.0
90	113.0	114	66.0	12.0

GWMG912



Operational Conditions:

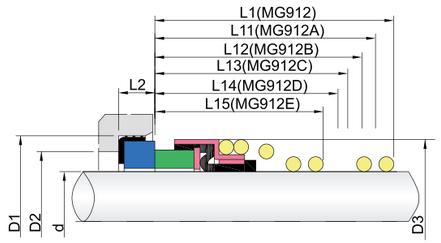
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 10m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size d	D3	D2	D1	L1	L11	L14	L15	L2
0.375	18.80	15.88	22.23	44.00	30.15	25.00	20.63	7.95
0.500	22.30	19.05	25.40	44.00	30.15	25.00	20.63	7.95
0.625	26.50	23.80	31.75	44.00	33.33	25.00	22.23	10.31
0.750	29.50	26.97	34.93	44.00	33.33	25.00	22.23	10.31
0.875	33.00	30.15	38.10	44.00	34.93	25.00	23.80	10.31
1.000	38.00	33.32	41.28	44.00	39.70	25.00	25.40	11.10
1.125	41.50	36.50	44.45	60.00	41.27	33.00	27.00	11.10
1.250	45.00	39.70	47.63	60.00	41.27	33.00	27.00	11.10
1.375	48.00	42.85	50.80	60.00	42.85	33.00	28.57	11.10
1.500	52.50	46.05	53.98	60.00	42.85	33.00	28.57	11.10
1.625	57.00	50.80	60.33	60.00	50.80	33.00	34.93	12.70
1.750	60.50	53.97	63.50	71.00	50.80	41.00	34.93	12.70
1.875	64.00	57.15	66.68	71.00	53.98	41.00	38.10	12.70
2.000	66.00	60.33	69.85	72.50	53.98	42.50	38.10	12.70
2.125	71.00	60.33	76.20	71.00	60.33	41.00	42.85	14.27
2.250	76.50	61.90	79.38	71.00	60.33	41.00	42.85	14.27
2.375	78.50	65.10	82.55	71.00	63.50	41.00	46.06	14.27
2.500	82.00	68.25	85.73	71.00	63.50	41.00	46.06	14.27
2.625	84.00	71.42	85.73	70.00	69.85	49.00	49.19	15.88
2.750	89.00	74.60	88.90	70.00	69.85	49.00	49.19	15.88
2.875	92.50	77.77	95.25	73.00	73.02	52.00	52.37	15.88
3.000	95.50	80.95	98.43	73.00	73.02	52.00	52.37	15.88
3.125	101.60	84.12	101.60	79.00	79.37	56.00	55.55	19.84
3.250	–	87.30	104.78	79.00	79.37	56.00	55.55	19.84
3.375	–	90.47	107.95	79.00	79.37	56.00	55.55	19.84
3.500	111.50	93.65	111.13	79.00	79.37	56.00	55.55	19.84
3.625	–	96.82	114.30	83.00	82.55	59.00	58.72	19.84
3.750	118.00	100.00	117.48	83.00	82.55	59.00	58.72	19.84
3.875	–	103.17	120.65	86.00	85.72	62.00	61.90	19.84
4.000	125.00	106.35	123.83	86.00	85.72	62.00	61.90	19.84

GWMG912



Operational Conditions:

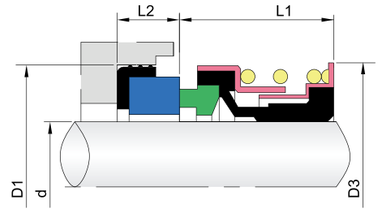
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 10m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L12	L13	L14	L2
10	19.6	17.0	21.0	44.0	33.4	25.9	25.0	6.6
12	21.6	19.0	23.0	44.0	33.4	25.9	25.0	6.6
14	24.0	21.0	25.0	44.0	33.4	28.4	25.0	6.6
15	25.0	–	–	44.0	–	–	25.0	–
16	26.5	23.0	27.0	44.0	33.4	28.4	25.0	6.6
18	29.0	27.0	33.0	44.0	37.5	30.0	25.0	7.5
20	31.5	29.0	35.0	44.0	37.5	30.0	25.0	7.5
22	33.0	31.0	37.0	44.0	37.5	30.0	25.0	7.5
24	37.0	33.0	39.0	44.0	42.5	32.5	25.0	7.5
25	38.0	34.0	40.0	44.0	42.5	32.5	25.0	7.5
28	41.0	37.0	43.0	60.0	42.5	35.0	33.0	7.5
30	43.0	39.0	45.0	60.0	42.5	35.0	33.0	7.5
32	45.0	42.0	48.0	60.0	47.5	35.0	33.0	7.5
33	46.0	42.0	48.0	60.0	47.5	35.0	33.0	7.5
35	48.0	44.0	50.0	60.0	47.5	35.0	33.0	7.5
38	52.5	49.0	56.0	60.0	46.0	36.0	33.0	9.0
40	55.5	51.0	58.0	60.0	46.0	36.0	33.0	9.0
43	58.5	54.0	61.0	71.0	51.0	36.0	41.0	9.0
45	60.5	56.0	63.0	71.0	51.0	36.0	41.0	9.0
48	64.0	59.0	66.0	71.0	51.0	36.0	41.0	9.0
50	66.0	62.0	70.0	72.5	50.5	38.0	42.5	9.5
53	69.0	65.0	73.0	71.0	59.0	36.5	41.0	11.0
55	71.0	67.0	75.0	71.0	59.0	36.5	41.0	11.0
58	76.0	70.0	78.0	71.0	59.0	41.5	41.0	11.0
60	78.0	72.0	80.0	71.0	59.0	41.5	41.0	11.0
63	82.0	75.0	83.0	–	59.0	41.5	–	11.0
65	84.0	77.0	85.0	70.0	69.0	41.5	49.0	11.0
68	87.0	81.0	90.0	70.0	68.7	41.2	49.0	11.3
70	89.0	83.0	92.0	70.0	68.7	48.7	49.0	11.3
75	95.0	88.0	97.0	73.0	68.7	48.7	52.0	11.3
80	101.5	95.0	105.0	79.0	78.0	48.0	56.0	12.0
85	–	100.0	110.0	79.0	76.0	46.0	56.0	14.0
90	111.5	105.0	115.0	83.0	76.0	51.0	59.0	14.0
95	–	110.0	120.0	83.0	76.0	51.0	59.0	14.0
100	122.5	115.0	125.0	86.0	76.0	51.0	62.0	14.0

GW6



Operational Conditions:

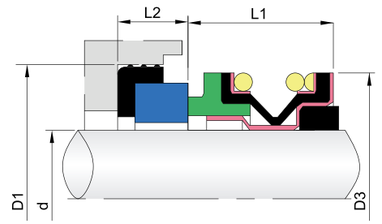
- Temperature: –20℃ to +120℃
- Pressure: ≤ 0.5MPa
- Speed: ≤ 10m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size d	D3	D1	L1	L2
0.375	23.29	22.23	16.66	7.14
0.500	23.29	25.40	16.66	6.35
0.625	30.10	31.75	18.24	10.31
0.750	33.07	34.93	18.24	10.31
0.875	36.30	38.10	20.63	10.31
1.000	39.42	41.28	20.63	11.10

GW60/65



Operational Conditions:

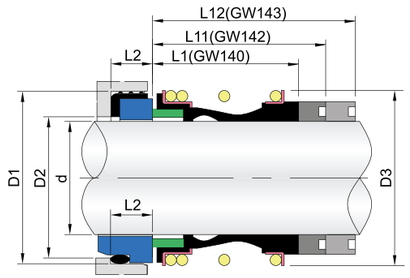
- Temperature: –20℃ to +120℃
- Pressure: ≤ 0.5MPa
- Speed: ≤ 10m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L1	L2
0.375	24.00	22.20	16.00	6.20
0.500	27.00	25.40	16.60	6.20
0.625	31.00	31.80	18.70	10.31
0.750	34.20	34.90	18.70	10.31
1.000	43.00	41.30	20.60	11.10

GW140/142/143



Operational Conditions:

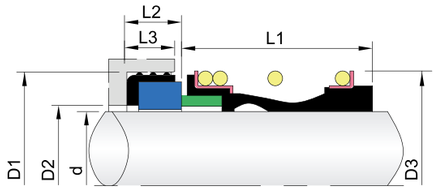
- Temperature: –40℃ to +150℃
- Pressure: ≤ 0.5MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L11	L12	L2
10	21.0	17.0	20.0	13.4	25.9	33.4	6.6
12	23.0	19.0	22.0	14.4	25.9	33.4	6.6
14	25.0	21.0	24.0	14.4	28.4	33.4	6.6
15	27.0	23.0	25.0	14.4	28.4	33.4	6.6
16	27.0	23.0	26.0	14.4	28.4	33.4	6.6
18	33.0	27.0	32.0	18.5	30.0	37.5	7.5
20	35.0	29.0	34.0	18.5	30.0	37.5	7.5
22	37.0	31.0	36.0	18.5	30.0	37.5	7.5
24	39.0	33.0	38.0	18.5	32.5	42.5	7.5
25	40.0	34.0	39.0	18.5	32.5	42.5	7.5
28	43.0	37.0	42.0	24.5	35.0	42.5	7.5
30	45.0	39.0	44.0	25.5	35.0	42.5	7.5
32	48.0	42.0	46.0	25.5	35.0	47.5	7.5
33	48.0	42.0	47.0	25.5	35.0	47.5	7.5
35	50.0	44.0	49.0	26.5	35.0	47.5	7.5
38	56.0	49.0	54.0	29.0	36.0	46.0	9.0
40	58.0	51.0	56.0	29.0	36.0	46.0	9.0
43	61.0	54.0	59.0	29.0	36.0	51.0	9.0
45	63.0	56.0	61.0	29.0	36.0	51.0	9.0
48	66.0	59.0	64.0	31.0	36.0	51.0	9.0
50	70.0	62.0	66.0	30.5	38.0	50.5	9.5
53	73.0	65.0	69.0	29.0	36.5	59.0	11.0
55	75.0	67.0	71.0	29.0	36.5	59.5	11.0
58	78.0	70.0	78.0	32.0	41.5	59.5	11.0
60	80.0	72.0	80.0	34.0	41.5	59.5	11.0
65	85.0	77.0	85.0	34.0	41.5	69.0	11.0
68	90.0	81.0	88.0	33.7	41.2	68.7	11.3
70	92.0	83.0	90.0	33.7	48.7	68.7	11.3
75	97.0	88.0	99.0	40.7	48.7	68.7	11.3
80	105.0	95.0	104.0	40.5	48.0	78.0	12.0
85	110.0	100.0	109.0	38.5	46.0	76.0	14.0
90	115.0	105.0	114.0	38.5	51.0	76.0	14.0
95	120.0	110.0	119.0	38.5	51.0	76.0	14.0
100	125.0	115.0	124.0	38.5	51.0	76.0	14.0

GW150



Operational Conditions:

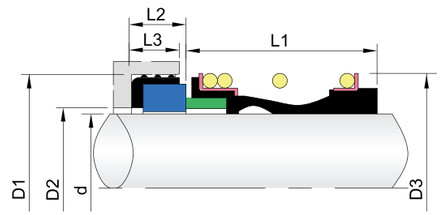
- Temperature: –40℃ to +150℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
10	24.60	16.00	20.00	25.40	8.74	7.47
12	27.79	19.05	22.00	25.40	8.74	7.47
13	27.79	19.05	22.00	25.40	8.74	7.47
14	30.95	22.23	24.00	25.40	10.32	8.97
15	30.95	22.23	25.00	25.40	10.32	8.97
16	30.95	22.23	26.00	25.40	10.32	8.97
18	34.15	25.40	32.00	25.40	10.32	8.97
19	34.15	25.40	32.00	25.40	10.32	8.97
20	35.70	26.99	34.00	25.40	10.32	8.97
22	37.30	28.58	36.00	25.40	10.32	8.97
24	40.50	31.75	38.00	25.40	10.32	8.97
25	40.50	31.75	39.00	25.40	10.32	8.97
28	47.63	35.72	42.00	33.34	11.99	10.46
30	50.80	38.89	44.00	33.34	11.99	10.46
32	50.80	38.89	46.00	33.34	11.99	10.46
33	53.98	42.07	47.00	33.34	11.99	10.46
34	53.98	42.07	49.00	33.34	11.99	10.46
35	53.98	42.07	49.00	33.34	11.99	10.46
38	57.15	45.24	54.00	33.34	11.99	10.46
40	60.35	48.82	56.00	33.34	11.99	10.46
42	63.50	51.59	59.00	40.48	11.99	10.46
43	63.50	51.59	59.00	40.48	11.99	10.46
44	63.50	51.59	61.00	40.48	11.99	10.46
45	63.50	51.59	61.00	40.48	11.99	10.46
48	66.70	54.75	64.00	40.48	11.99	10.46
50	69.85	58.00	66.00	40.48	13.50	10.46
53	73.05	62.00	69.00	41.00	13.50	11.96
55	76.20	65.00	71.00	41.00	13.50	11.96
58	79.40	68.00	78.00	41.00	13.50	11.96
60	79.40	68.00	80.00	41.00	13.50	11.96
63	82.55	71.20	83.00	41.00	13.50	11.96
65	92.10	78.35	85.00	49.00	15.90	14.50
70	95.25	81.10	90.00	49.00	15.90	14.50
73	98.45	84.50	96.00	49.00	15.90	14.50
75	101.65	88.10	99.00	49.00	15.90	14.50
80	114.30	97.00	104.00	56.00	20.00	18.50
85	117.50	100.00	109.00	56.00	20.00	18.50
90	123.85	107.00	114.00	59.00	20.00	18.50
95	127.00	110.00	119.00	59.00	20.00	18.50
100	133.35	116.00	124.00	62.00	20.00	18.50

GW150A



Operational Conditions:

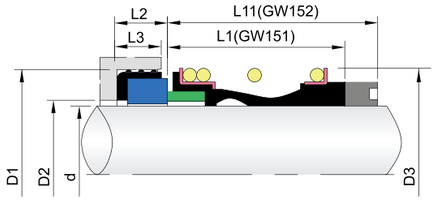
- Temperature: –40℃ to +150℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
0.375	24.60	16.00	20.00	25.40	8.74	7.47
0.500	27.79	19.05	22.00	25.40	8.74	7.47
0.625	30.95	22.23	26.00	25.40	10.32	8.97
0.750	34.15	25.40	32.00	25.40	10.32	8.97
0.875	37.30	28.58	36.00	25.40	10.32	8.97
1.000	40.50	31.75	39.00	25.40	10.32	8.97
1.125	47.63	35.72	42.00	33.34	11.99	10.46
1.250	50.80	38.89	46.00	33.34	11.99	10.46
1.375	53.98	42.07	49.00	33.34	11.99	10.46
1.500	57.15	45.24	54.00	33.34	11.99	10.46
1.625	60.35	48.42	56.00	33.34	11.99	10.46
1.750	63.50	51.59	61.00	40.48	11.99	10.46
1.875	66.70	54.75	64.00	40.48	11.99	10.46
2.000	69.85	58.00	66.00	40.48	13.50	11.96
2.125	73.05	62.00	69.00	41.00	13.50	11.96
2.250	76.20	65.00	78.00	41.00	13.50	11.96
2.375	79.40	68.00	80.00	41.00	13.50	11.96
2.500	82.55	71.20	83.00	41.00	13.50	11.96
2.625	92.10	78.35	85.00	49.00	15.90	14.50
2.750	95.25	81.10	90.00	49.00	15.90	14.50
2.875	98.45	84.50	96.00	49.00	15.90	14.50
3.000	101.65	88.10	99.00	49.00	15.90	14.50
3.125	111.15	93.68	104.00	56.00	20.00	18.50
3.250	114.30	96.85	104.00	56.00	20.00	18.50
3.375	117.50	100.00	109.00	56.00	20.00	18.50
3.500	120.65	103.18	114.00	56.00	20.00	18.50
3.625	123.85	106.35	114.00	59.00	20.00	18.50
3.750	127.00	109.52	119.00	59.00	20.00	18.50
3.875	130.20	112.65	122.00	62.00	20.00	18.50
4.000	133.35	115.88	124.00	62.00	20.00	18.50

GW151/152



Operational Conditions:

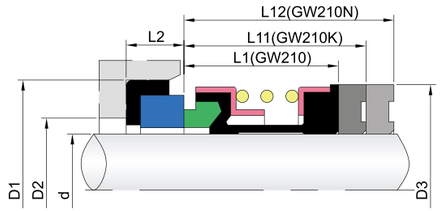
- Temperature: –40℃ to +150℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inch Size d	Metric Size	D1	D2	D3	L1	L11	L2	L3
0.500	12	25.40	19.05	22.00	20.62	31.75	7.93	6.35
	14	31.75	23.80	24.00	22.22	34.93	10.28	8.71
0.625	16	31.75	23.80	26.00	22.22	34.93	10.28	8.71
0.750	18	34.93	26.98	32.00	22.22	34.93	10.28	8.71
	20	38.10	30.15	34.00	23.80	36.50	10.28	8.71
0.875	22	38.10	30.15	36.00	23.80	36.50	10.28	8.71
	24	41.28	33.32	38.00	25.40	41.28	11.1	9.53
1.000	25	41.28	33.32	39.00	25.40	41.28	11.1	9.53
1.125	28	44.44	36.50	42.00	26.97	42.85	11.1	9.53
	30	47.63	37.90	44.00	29.97	42.85	11.1	9.53
1.250	32	47.63	37.90	46.00	26.97	42.85	11.1	9.53
	33	50.80	42.84	47.00	28.58	42.85	11.1	9.53
1.375	35	50.80	42.84	49.00	28.58	42.85	11.1	9.53
1.500	38	53.98	46.05	54.00	28.58	42.85	11.1	9.53
1.625	40	60.33	50.80	56.00	34.93	50.80	12.7	11.1
	43	63.50	53.97	59.00	34.93	50.80	12.7	11.1
1.750	44	63.50	53.97	61.00	34.93	50.80	12.7	11.1
1.875	45	66.68	57.15	61.00	38.10	53.98	12.7	11.1
	48	69.85	60.32	64.00	38.10	53.98	12.7	11.1
2.000	50	69.85	60.32	66.00	38.10	53.98	12.7	11.1
2.125	53	76.20	60.32	69.00	42.88	60.32	14.28	12.7
2.250	55	79.38	61.90	78.00	42.88	60.32	14.28	12.7
	58	82.55	67.39	78.00	46.02	63.50	14.28	14.7
2.375	60	82.55	67.39	80.00	46.02	63.50	14.28	12.7
2.500	63	85.73	68.25	83.00	46.02	63.50	14.28	12.7
2.625	65	85.73	71.24	85.00	49.20	69.85	15.9	14.5
	68	88.90	74.60	88.00	49.20	69.85	15.9	14.5
2.750	70	88.90	74.60	90.00	49.20	69.85	15.9	14.5
2.875	73	95.25	77.77	96.00	52.37	73.03	15.9	14.5
3.000	75	98.43	80.95	99.00	52.37	73.03	15.9	14.5

GW210/210K/210N



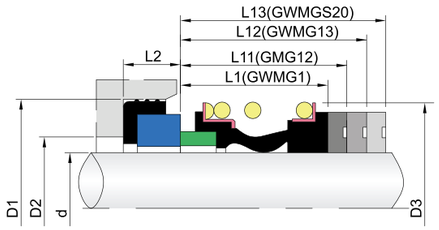
Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.8MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWL210

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L11	L12	L2
10	20	15	21	15	27.5	35.0	5.0
12	22	17	23	15	26.5	34.0	6.0
14	24	19	25	15	29.0	34.0	6.0
15	25	20	26	15	29.0	34.0	6.0
16	26	23	27	15	29.0	34.0	6.0
18	32	25	33	20	31.5	39.0	6.0
20	34	27	35	20	31.5	39.0	6.0
22	36	29	37	20	31.5	39.0	6.0
24	38	31	39	20	34.0	44.0	6.0
25	39	32	40	20	34.0	44.0	6.0
28	42	35	43	26	36.5	44.0	6.0
30	44	37	45	26	35.5	43.0	7.0
32	46	40	48	26	35.5	48.0	7.0
33	47	40	48	26	35.5	48.0	7.0
35	49	42	50	26	34.5	47.0	8.0
38	54	47	56	30	37.0	47.0	8.0
40	56	49	58	30	37.0	47.0	8.0
43	59	52	61	30	37.0	52.0	8.0
45	61	54	63	30	37.0	52.0	8.0
48	64	57	66	30	35.0	50.0	10.0
50	66	60	70	30	37.5	50.0	10.0
53	69	63	73	30	37.5	60.0	10.0
55	71	65	75	30	37.5	60.0	10.0
58	78	68	78	33	42.5	60.0	10.0
60	80	70	80	33	40.5	58.0	12.0
63	83	73	83	33	40.5	58.0	12.0
65	85	75	85	33	40.5	68.0	12.0
68	88	79	90	33	40.5	68.0	12.0
70	90	81	92	33	48.0	68.0	12.0
75	99	86	97	40	48.0	68.0	12.0
80	104	92	105	40	47.5	77.5	12.5
85	109	97	110	40	47.5	77.5	12.5
90	114	102	115	40	52.5	77.5	12.5
95	119	117	120	40	52.5	77.5	12.5
100	124	122	125	40	52.5	77.5	12.5

GWMG1/MG12/MG13/MGS20



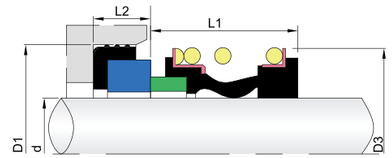
Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Stationary Seat:
- GWCG60

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D2	D1	L1	L11	L12	L13	L2
10	22.5	17.0	21.0	14.5	25.9	33.4	25.0	6.6
12	25.0	19.0	23.0	15.0	25.9	33.4	25.0	6.6
14	28.5	21.0	25.0	17.0	28.4	33.4	25.0	6.6
15	28.5	–	–	17.0	28.4	33.4	25.0	–
16	28.5	23.0	27.0	17.0	28.4	33.4	25.0	6.6
18	32.0	27.0	33.0	19.5	30.0	37.5	25.0	7.5
19	37.0	–	–	21.5	30.0	37.5	25.0	–
20	37.0	29.0	35.0	21.5	30.0	37.5	25.0	7.5
22	37.0	31.0	37.0	21.5	30.0	37.5	25.0	7.5
24	42.5	33.0	39.0	22.5	32.5	42.5	25.0	7.5
25	42.5	34.0	40.0	23.0	32.5	42.5	25.0	7.5
28	49.0	37.0	43.0	26.5	35.0	42.5	33.0	7.5
30	49.0	39.0	45.0	26.5	35.0	42.5	33.0	7.5
32	53.5	42.0	48.0	27.5	35.0	47.5	33.0	7.5
33	53.5	42.0	48.0	27.5	35.0	47.5	33.0	7.5
35	57.0	44.0	50.0	28.5	35.0	47.5	33.0	7.5
38	59.0	49.0	56.0	30.0	36.0	46.0	33.0	9.0
40	62.0	51.0	58.0	30.0	36.0	46.0	33.0	9.0
42	65.5	–	–	30.0	36.0	51.0	41.0	–
43	65.5	54.0	61.0	30.0	36.0	51.0	41.0	9.0
45	68.0	56.0	63.0	30.0	36.0	51.0	41.0	9.0
48	70.5	59.0	66.0	30.5	36.0	51.0	41.0	9.0
50	74.0	62.0	70.0	30.5	38.0	50.5	41.0	9.5
53	78.5	65.0	73.0	33.0	36.5	59.0	41.0	11.0
55	81.0	67.0	75.0	35.0	36.5	59.0	41.0	11.0
58	85.5	70.0	78.0	37.0	41.5	59.0	41.0	11.0
60	88.5	72.0	80.0	38.0	41.5	59.0	41.0	11.0
65	93.5	77.0	85.0	40.0	41.5	69.0	49.0	11.0
68	96.5	81.0	90.0	40.0	41.2	68.7	49.0	11.3
70	99.5	83.0	92.0	40.0	48.7	68.7	49.0	11.3
75	107.0	88.0	97.0	40.0	48.7	68.7	52.0	11.3
80	112.0	95.0	105.0	40.0	48.0	78.0	56.0	12.0
85	120.0	100.0	110.0	41.0	46.0	76.0	56.0	14.0
90	127.0	105.0	115.0	45.0	51.0	76.0	59.0	14.0
95	132.0	110.0	120.0	46.0	51.0	76.0	59.0	14.0
100	137.0	115.0	125.0	47.0	51.0	76.0	62.0	14.0

GW192K

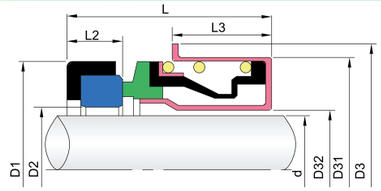


Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D3	D1	L1	L2
16	26.0	27.0	22.2	8.6
22	36.0	37.0	25.5	12.1
28	47.0	43.0	36.4	14.4
38	58.0	56.0	42.0	13.2
48	69.0	66.0	50.5	9.6

GW70



Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 0.6MPa
- Speed: ≤ 15m/s

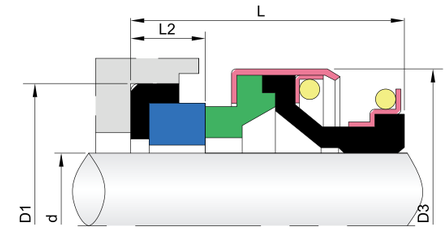
Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	Model	D3	D31	D1	L	L2	L3
10	10	29.00	24.00	23.00	17.00	4.00	7.00
12	12S	32.00	28.55	25.00	18.20	5.00	8.00
12	12M	35.00	30.00	24/23	18.00	5.00	8.00
12	12L	38.00	33.40	25.00	18.00	5.00	6.70
16	16	41.50	36.45	31.00	19.80	5.00	8.00
16	16L	43.50	38.10	31.00	19.80	5.00	8.00
16	16LD	43.50	38.10	31.00	19.80	5.00	8.00
20	20S	43.80	38.00	35.00	20.50	5.00	9.50
20	20	43.80	40.00	35.00	20.50	5.00	9.50
25	25S	51.00	46.00	44.00	25.00	7.00	10.00
25	25M	51.00	47.00	44.00	25.00	7.00	12.00
25	25L	57.00	52.00	48.00	25.00	7.00	12.00
30	30	57.00	52.00	48.00	27.00	8.00	11.00
12.7	1/2"	35.00	30.00	25.40	19.20	6.20	8.00
15.8	5/8"	41.50	36.45	31.75	25.00	10.30	8.00
19.05	3/4"	43.80	40.00	34.93	25.80	10.30	9.50
25.4	1"	51.00	47.00	41.28	29.00	11.10	12.00

GW301

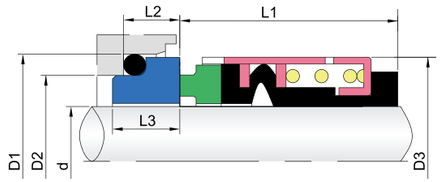
Operational Conditions:
- Temperature: –30℃ to +120℃
- Pressure: ≤ 0.6MPa
- Speed: ≤ 15m/s

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316



Seal Size d	D3	D1	L	L2
10	24	26.0	21.0	8.0
11	24	26.0	21.0	8.0
12	24	25.0/26.0	21.0	8.0
13	24	26.0	19.5	5.5/8.0
13L	28	28.0	21.0	8.0
13H	32	29.5	30.5	8.0
14	28	28.0/28.5	21.0	8.0
14L	32	29.5	21.0	8.0
15S	28	28.5/30.0	21.0	8.0
15M	32	30.0/29.5	21.0	8.0
15L	39	38.0	21.0	8.0
16S	28	29.5/30.0	21.0	8.0
16M	32	29.5	21.0	8.0
16L	39	38.0	21.0	8.0
16H	32	30.0	21.0	10.0
17	39	42.0	21.0	8.0
18	39	42.0	21.0	8.0
19	39	42.0	21.0	8.0
20	39	42.0	21.0	8.0
20L	42	45.0	23.0	10.0
22S	36	45.0	26.5	10.0
22L	42	45.0	23.0	10.0
23	47	50.0	23.5	10.0
24	47	50.0	23.5	10.0
25	42	50.0	23.5	10.0
25L	47	50.0	23.5	10.0
26	47	50.0	23.5	10.0
27	47	50.0	23.5	10.0
28	54	57.0	25.0	10.0
30	54	57.0	25.0	10.0
32	54	57.0	25.0	10.0
35	60	63.0	26.0	10.0
38	65	68.0	30.0	12.0
40	65	68.0	30.0	12.0
45	70	73.0	32.0	12.0
50	85	88.0	38.0	15.0
55	85	88.0	38.0	15.0
60	105	110.0	45.0	15.0

GW502



Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Stationary Seat:
- GWBO

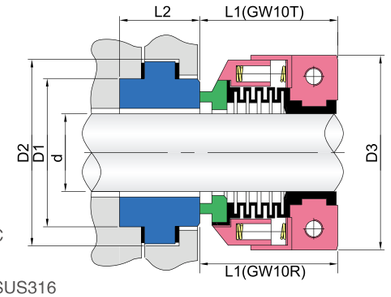
Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D1	D2	D3	L1	L2	L3
14	25	21	24	23.0	12.0	12.8
16	27	23	26	23.0	12.0	12.8
18	33	27	32	24.0	13.5	14.5
20	35	29	34	24.0	13.5	14.5
22	37	31	36	24.0	13.5	14.5
24	39	33	38	26.7	13.3	14.3
25	40	34	39	27.0	13.0	14.0
28	43	37	42	30.0	12.5	13.5
30	45	39	44	30.5	12.0	13.0
32	48	42	46	30.5	12.0	13.0
33	48	42	47	30.5	12.0	13.0
35	50	44	49	30.5	12.0	13.0
38	56	49	54	32.0	13.0	14.0
40	58	51	56	32.0	13.0	14.0
43	61	54	59	32.0	13.0	14.0
45	63	56	61	32.0	13.0	14.0
48	66	59	64	32.0	13.0	14.0
50	70	62	66	34.0	13.5	14.5
53	73	65	69	34.0	13.5	14.5
55	75	67	71	34.0	13.5	14.5
58	78	70	78	39.0	13.5	14.2
60	80	72	80	39.0	13.5	14.2
63	83	75	83	39.0	13.5	14.2
65	85	77	85	39.0	13.5	14.2
68	90	81	88	39.0	13.5	14.2
70	92	83	89	45.5	14.5	15.2
75	97	88	96	45.5	14.5	15.2
80	105	95	104	45.0	15.0	15.7
85	110	100	108	45.0	15.0	15.7
90	115	105	114	50.0	15.0	15.7
95	120	110	118	50.0	15.0	15.7
100	125	115	124	50.0	15.0	15.7

GWW10R/10T

Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 0.5MPa
- Speed: ≤ 10m/s

Material:
- Rotary Ring: Filled PTFE / SiC
- Stationary Ring: 99% Ceramic / SiC
- Secondary Seal: PTFE
- Spring and Metal Parts: SUS304 / SUS316

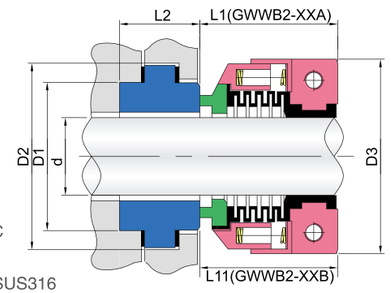


Size	D3	D2	D1	L2	L1
25.40	60	54	42.86	17.6	33.2
28.60	67	65	50.80	27.0	33.2
31.75	69	68	53.98	27.0	37.2
34.93	72	71	57.15	27.0	38.2
38.10	76	78	63.50	27.0	38.2
41.28	80	81	66.68	27.0	40.2
44.45	84	84	69.85	27.0	40.2
47.63	86	87	73.03	27.0	43.2
50.80	90	97	79.38	33.3	43.2

GWWB2

Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 0.5MPa
- Speed: ≤ 10m/s

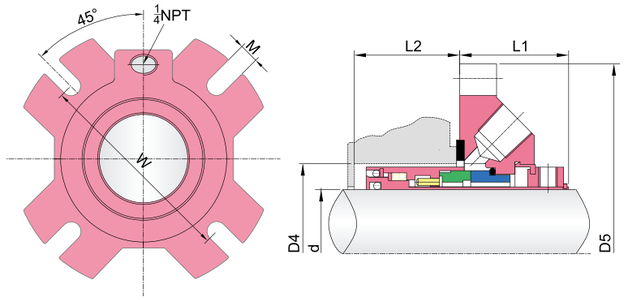
Material:
- Rotary Ring: Filled PTFE / SiC
- Stationary Ring: 99% Ceramic / SiC
- Secondary Seal: PTFE
- Spring and Metal Parts: SUS304 / SUS316



Metric Size	D3	D2	D1	L2	L1	L11
25	60	60	47	27	42	45
30	67	67	53	27	42	45
32	69	64	50.7	27	42	45
35	72	70	57	27	42	45
40	78	76	62	26	42	45
45	84	82	67	27	44	46
50	88	86	72	27	46	46
55	95	90	77	27	46	46
60	100	95	82	27	46	46
65	105	100	87	27	46	46

Inches Size	D3	D2	L2	L1	L11
25.40	60	54	17.50	42	45
28.60	67	60	27.00	42	45
31.75	69	65	27.00	42	45
34.93	72	68	27.00	42	45
38.10	76	71	27.00	42	45
41.28	80	78	27.00	42	45
44.45	84	81	27.00	44	46
47.63	86	84	27.00	44	46
50.80	90	87	27.00	46	46
53.98	95	97	33.50	46	46
57.15	98	100	33.50	46	46
60.30	100	103	33.50	46	46

GWGU



Operational Conditions:

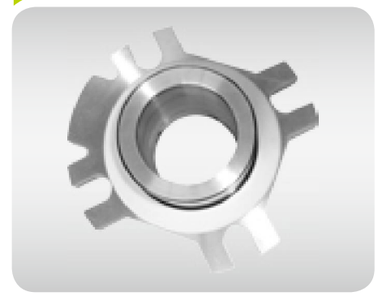
- Temperature: –30℃ to +120℃
- Pressure: ≤ 1.5MPa
- Speed: ≤ 20m/s

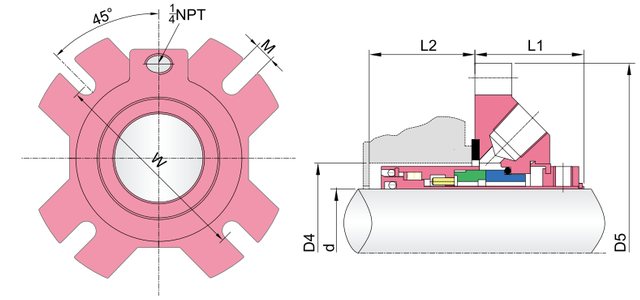
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

Size(Metric)	D4		D5	L1	L2	W		M
	MIN	MAX			MIN	MIN	MAX	
24	40.0	49.2	104.8	37.5	32.0	66.7	95.3	11.1
25	41.0	49.2	104.8	37.5	32.0	66.7	95.3	11.1
28	44.0	52.4	108.0	37.5	32.0	69.9	98.4	11.1
30	46.0	55.6	111.0	37.5	32.0	73.0	101.6	11.1
32	47.6	55.6	111.0	37.5	32.0	73.0	101.6	11.1
33	49.0	58.7	114.3	37.5	32.0	77.8	104.8	11.1
35	50.8	58.7	114.3	37.5	32.0	77.8	104.8	11.1
38	57.2	63.5	127.0	38.5	33.0	87.3	114.3	14.3
40	60.0	63.5	127.0	38.5	33.0	87.3	114.3	14.3
43	63.0	66.7	133.4	38.5	33.0	90.5	120.7	14.3
45	63.5	66.7	133.4	38.5	33.0	90.5	120.7	14.3
48	66.7	76.2	139.7	38.5	33.0	98.4	127.0	14.3
50	69.8	76.2	139.7	38.5	33.0	98.4	127.0	14.3
53	73.0	84.1	146.0	38.5	33.0	111.1	130.2	17.5
55	73.0	84.1	146.0	38.5	33.0	111.1	130.2	17.5
58	79.4	90.5	152.4	38.5	33.0	117.5	136.5	17.5
60	79.4	90.5	152.4	38.5	33.0	117.5	136.5	17.5
63	82.6	98.4	158.8	39.0	36.0	123.8	142.9	17.5
65	88.9	98.4	158.8	39.0	36.0	123.8	142.9	17.5
70	95.0	98.4	158.8	39.0	36.0	123.8	142.9	17.5
75	101.6	114.3	206.0	46.0	42.5	145.0	167.0	20.6
80	108.0	120.6	206.0	46.0	42.5	151.0	167.0	20.6
85	111.0	123.8	206.0	46.0	42.5	154.0	167.0	20.6
90	117.5	130.0	216.0	46.0	42.5	160.0	177.0	20.6
95	120.7	133.4	246.0	46.0	42.5	164.0	207.0	20.6
100	127.0	140.0	246.0	46.0	42.5	171.0	207.0	20.6
105	133.4	150.0	246.0	62.0	44.0	181.0	223.0	20.6
110	139.7	155.0	246.0	62.0	44.0	188.0	223.0	20.6
115	139.7	155.0	246.0	62.0	44.0	188.0	223.0	20.6
120	146.1	162.0	266.0	62.0	44.0	194.0	223.0	20.6
125	160.0	176.0	266.0	62.0	44.0	210.0	253.0	20.6
130	160.0	176.0	266.0	62.0	44.0	210.0	253.0	20.6
135	174.0	190.0	299.0	62.0	44.0	226.0	275.0	23.8
140	174.0	190.0	299.0	62.0	44.0	226.0	275.0	23.8

GWGU





Operational Conditions:

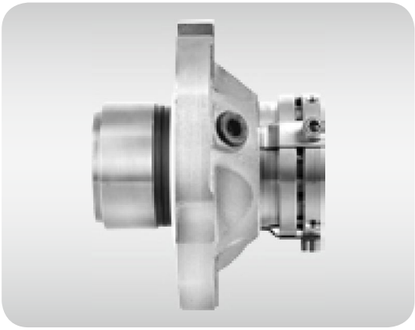
- Temperature: –30℃ to +120℃
- Pressure: ≤ 1.5MPa
- Speed: ≤ 20m/s

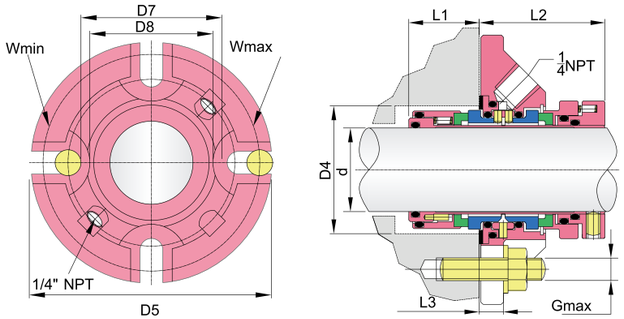
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

Size(Inch)	D4		D5	L1	L2	W		M
	MIN	MAX			MIN	MIN	MAX	
1.000	1.615	1.940	4.125	1.476	1.260	2.620	3.750	0.437
1.125	1.730	2.060	4.250	1.476	1.260	2.750	3.870	0.437
1.250	1.875	2.190	4.370	1.476	1.260	2.870	4.000	0.437
1.375	2.000	2.310	4.500	1.476	1.260	3.060	4.120	0.437
1.500	2.250	2.500	5.000	1.516	1.299	3.430	4.500	0.563
1.625	2.360	2.500	5.000	1.516	1.299	3.430	4.500	0.563
1.750	2.500	2.625	5.250	1.516	1.299	3.560	4.750	0.563
1.875	2.625	3.000	5.500	1.516	1.299	3.870	5.000	0.563
2.000	2.750	3.000	5.500	1.516	1.299	3.870	5.000	0.563
2.125	2.875	3.310	5.750	1.516	1.299	4.370	5.120	0.563
2.250	3.000	3.310	5.750	1.516	1.299	4.370	5.120	0.689
2.375	3.130	3.560	6.000	1.516	1.299	4.620	5.370	0.689
2.500	3.250	3.875	6.250	1.535	1.417	4.870	5.620	0.689
2.625	3.500	3.875	6.250	1.535	1.417	4.870	5.620	0.689
2.750	3.740	3.875	6.250	1.535	1.417	4.870	5.620	0.689
2.875	4.000	4.500	8.110	1.811	1.673	5.710	6.590	0.811
3.000	4.000	4.500	8.110	1.811	1.673	5.710	6.590	0.811
3.125	4.252	4.748	8.110	1.811	1.673	5.940	6.590	0.811
3.250	4.252	4.748	8.110	1.811	1.673	5.940	6.590	0.811
3.375	4.370	4.874	8.110	1.811	1.673	6.060	6.590	0.811
3.500	4.500	5.000	8.504	1.811	1.673	6.220	6.980	0.811
3.625	4.626	5.118	8.504	1.811	1.673	6.300	6.980	0.811
3.750	4.752	5.252	9.685	1.811	1.673	6.460	8.170	0.811
3.875	4.874	5.374	9.685	1.811	1.673	6.570	8.170	0.811
4.000	5.000	5.512	9.685	1.811	1.673	6.730	8.170	0.811
4.125	5.252	5.906	9.685	2.441	1.732	7.130	8.800	0.811
4.250	5.252	5.906	9.685	2.441	1.732	7.130	8.800	0.811
4.375	5.500	6.102	9.685	2.441	1.732	7.400	8.800	0.811
4.500	5.500	6.102	9.685	2.441	1.732	7.400	8.800	0.811
4.625	5.752	6.378	10.472	2.441	1.732	7.640	8.800	0.811
4.750	5.752	6.378	10.472	2.441	1.732	7.640	8.800	0.811
4.875	6.299	6.929	10.472	2.441	1.732	8.270	9.980	0.811
5.000	6.299	6.929	10.472	2.441	1.732	8.270	9.980	0.811
5.125	6.299	6.929	10.472	2.441	1.732	8.270	9.980	0.811
5.250	6.850	7.480	11.654	2.441	1.732	8.900	10.840	0.937
5.375	6.850	7.480	11.654	2.441	1.732	8.900	10.840	0.937
5.500	6.850	7.480	11.654	2.441	1.732	8.900	10.840	0.937
5.625	6.850	7.480	11.654	2.441	1.732	8.900	10.840	0.937

GWGU0





Operational Conditions:

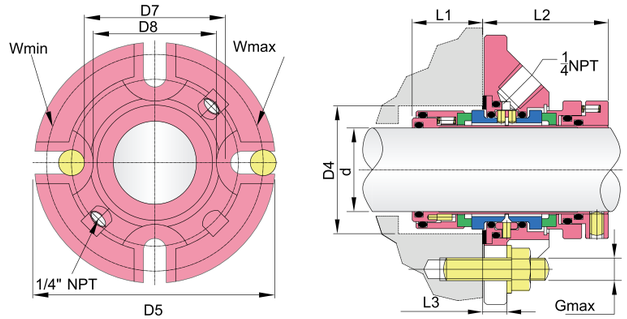
- Temperature: –20℃ to +220℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D5	D7	D8	L3	D4		W		L1	L2
					min	max	min	max		
24	104.8	54.0	49.2	13.2	40.0	46.0	67.0	90.5	32.5	52.4
25	104.8	54.0	49.2	13.2	41.0	49.0	67.0	90.5	32.5	52.4
28	108.0	57.2	52.4	13.2	44.0	52.3	70.3	93.6	32.5	52.4
30	111.0	60.4	55.6	13.2	46.0	55.5	73.5	96.8	32.5	52.4
32	111.0	60.4	55.6	13.2	48.0	55.5	73.5	96.8	32.5	52.4
33	111.0	60.4	55.6	13.2	49.0	55.5	73.5	96.8	32.5	52.4
35	111.0	63.5	58.8	13.2	51.0	57.5	76.6	96.8	32.5	54.0
38	127.0	71.5	65.0	16.4	57.2	60.3	85.7	114.3	33.3	54.0
40	127.0	71.5	65.0	16.4	58.0	60.4	85.7	114.3	33.3	54.0
43	127.0	71.5	65.0	16.4	61.0	63.5	85.7	114.3	33.3	54.0
45	139.7	81.0	71.4	16.4	63.0	69.9	95.3	127.0	33.3	54.0
48	1397.0	81.0	71.4	16.4	66.7	73.0	95.3	127.0	33.3	54.0
50	139.7	81.0	71.4	16.4	68.0	73.0	95.3	127.0	33.3	54.0
53	152.4	90.5	77.8	16.4	71.0	76.0	104.8	139.7	35.0	54.0
55	152.4	90.5	77.8	16.4	74.0	79.4	104.8	139.7	35.0	54.0
58	165.1	96.8	84.1	16.4	76.2	82.5	114.3	149.2	35.0	54.0
60	165.1	96.8	84.1	16.4	79.4	85.7	114.3	149.2	35.0	60.3
63	177.8	109.5	96.8	19.6	85.8	92.1	127.0	160.3	38.1	60.3
65	177.8	109.5	96.8	19.6	88.9	95.3	127.0	160.3	38.1	60.3
68	177.8	109.5	96.8	19.6	92.1	98.4	127.0	160.3	38.1	60.3
70	177.8	109.5	96.8	19.6	92.1	98.4	127.0	160.3	38.1	60.3
75	190.5	125.4	108.0	19.6	98.5	108.0	142.9	173.0	38.1	60.3
80	190.5	125.4	108.0	19.6	101.6	111.1	142.9	173.0	38.1	60.3
85	203.2	135.0	117.5	19.6	108.0	117.5	155.6	182.5	38.1	60.3
90	215.9	150.8	127.0	19.6	114.3	127.0	171.5	195.2	38.1	60.3
95	215.9	150.8	127.0	19.6	117.5	130.2	171.5	195.2	38.1	60.3
100	228.6	168.3	136.5	19.6	123.9	139.7	189.0	208.0	38.1	60.3
105	228.6	168.3	136.5	19.6	130.1	149.2	189.0	208.0	38.1	60.3
110	241.3	177.8	146.2	19.6	136.5	158.8	198.4	220.6	38.1	60.3
115	254.0	186.6	155.8	19.6	142.9	168.3	211.1	230.2	38.1	60.3
120	254.0	186.6	155.8	19.6	142.9	168.3	211.1	230.2	38.1	60.3
125	254.0	186.6	155.8	19.6	149.2	168.3	211.1	230.2	38.1	60.3

GWGU0



Operational Conditions:

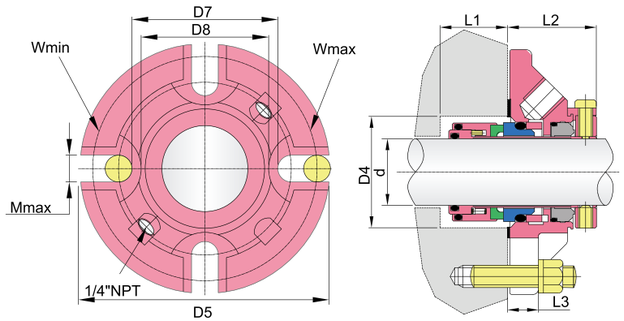
- Temperature: –20℃ to +220℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

Inches Size d	D5	D7	D8	L3	D4		W		L1	L2
					min	max	min	max		
1.000	4.125	2.125	1.937	0.591	1.625	1.937	2.687	3.562	1.281	2.062
1.125	4.250	2.250	2.063	0.591	1.750	2.062	2.812	3.617	1.281	2.062
1.250	4.375	2.375	2.187	0.591	1.875	2.187	2.937	3.812	1.281	2.062
1.375	4.375	2.500	2.312	0.591	2.000	2.250	3.062	3.812	1.281	2.062
1.500	5.000	2.812	2.562	0.644	2.250	2.375	3.375	4.437	1.312	2.125
1.625	5.000	2.812	2.562	0.644	2.375	2.500	3.375	4.437	1.312	2.125
1.750	5.500	3.187	2.812	0.644	2.500	2.750	3.750	4.937	1.312	2.125
1.875	5.500	3.187	2.812	0.644	2.625	2.875	3.750	4.937	1.312	2.125
2.000	6.000	3.562	3.063	0.644	2.750	3.000	4.125	5.437	1.380	2.125
2.000–AC	5.250	3.450	3.035	0.644	2.750	3.000	4.000	4.750	1.380	2.125
2.125	6.000	3.562	3.063	0.644	2.875	3.125	4.125	5.437	1.380	2.125
2.250	6.500	3.812	3.312	0.644	3.000	3.250	4.500	5.812	1.380	2.125
2.375	6.500	3.812	3.312	0.644	3.125	3.375	4.500	5.812	1.380	2.125
2.500	7.000	4.312	3.812	0.769	3.375	3.625	5.000	6.312	1.500	2.375
2.625	7.000	4.312	3.812	0.769	3.500	3.750	5.000	6.312	1.500	2.375
2.750	7.000	4.312	3.812	0.769	3.625	3.875	5.000	6.312	1.500	2.375
2.875	7.500	4.937	4.250	0.769	3.750	4.125	5.625	6.812	1.500	2.375
3.000	7.500	4.937	4.250	0.769	3.875	4.250	5.625	6.812	1.500	2.375
3.125	7.500	4.937	4.250	0.769	4.000	4.375	5.625	6.812	1.500	2.375
3.250	8.000	5.312	4.625	0.769	4.125	4.500	6.125	7.187	1.500	2.375
3.375	8.000	5.312	4.625	0.769	4.250	4.625	6.125	7.187	1.500	2.375
3.500	8.000	5.312	4.625	0.769	4.375	4.750	6.125	7.187	1.500	2.375
3.625	8.500	5.937	5.000	0.769	4.500	5.000	6.750	7.687	1.500	2.375
3.750	8.500	5.937	5.000	0.769	4.625	5.125	6.750	7.687	1.500	2.375
3.875	8.500	5.937	5.000	0.769	4.750	5.250	6.750	7.687	1.500	2.375
4.000	9.000	6.625	5.375	0.769	4.875	5.500	7.437	8.187	1.500	2.375
4.125	9.000	6.625	5.375	0.769	5.125	5.875	7.437	8.187	1.500	2.375
4.250	9.000	6.625	5.375	0.769	5.125	5.875	7.437	8.187	1.500	2.375
4.375	9.500	7.000	5.750	0.769	5.375	6.250	7.812	8.687	1.500	2.375
4.500	9.500	7.000	5.750	0.769	5.375	6.250	7.812	8.687	1.500	2.375
4.625	10.000	7.345	6.125	0.769	5.625	6.625	8.312	9.062	1.500	2.375
4.750	10.000	7.345	6.125	0.769	5.625	6.625	8.312	9.062	1.500	2.375
4.875	10.000	7.345	6.125	0.769	5.875	6.625	8.312	9.062	1.500	2.375
5.000	10.000	7.345	6.125	0.769	5.875	6.625	8.312	9.062	1.500	2.375

GWGU1



Material:

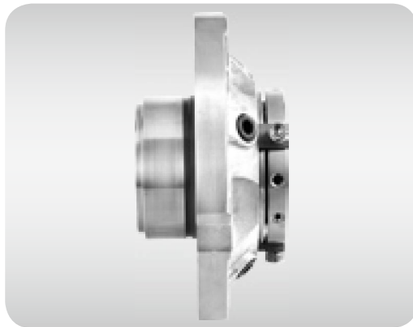
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

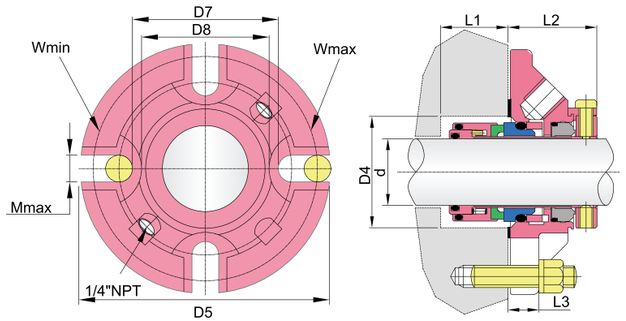
Operational Conditions:

- Temperature: –20℃ to +220℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Seal Size d	D5	D7	D8	L3	D4		W		L1	L2
					min	max	min	max		
24	104.8	54.0	49.2	13.2	40.0	46.0	67.0	90.5	28.6	40.5
25	104.8	54.0	49.2	13.2	41.0	49.0	67.0	90.5	28.6	40.5
28	108.0	57.2	52.4	13.2	44.0	52.3	70.3	93.6	28.6	40.5
30	111.0	60.4	55.6	13.2	46.0	55.5	73.5	96.8	28.6	40.5
32	111.0	60.4	55.6	13.2	48.0	55.5	73.5	96.8	28.6	40.5
33	111.0	60.4	55.6	13.2	49.0	55.5	73.5	96.8	28.6	40.5
35	111.0	63.5	58.8	13.2	51.0	57.5	76.6	96.8	28.6	40.5
38	127.0	71.5	65.0	16.4	57.2	60.4	85.7	114.3	28.6	44.5
40	127.0	71.5	65.0	16.4	58.0	60.4	85.7	114.3	28.6	44.5
43	139.7	81.0	71.4	16.4	61.0	69.9	95.3	127.0	28.6	44.5
45	139.7	81.0	71.4	16.4	63.5	69.9	95.3	127.0	28.6	44.5
48	139.7	81.0	71.4	16.4	66.7	73.0	95.3	127.0	28.6	44.5
50	152.4	90.5	77.8	16.4	68.0	76.2	104.8	139.7	28.6	44.5
53	152.4	90.5	77.8	16.4	71.0	76.2	104.8	139.7	28.6	44.5
55	165.1	96.8	84.1	16.4	74.0	82.5	114.3	149.2	28.6	44.5
58	165.1	96.8	84.1	16.4	76.2	82.6	114.3	149.2	28.6	44.5
60	165.1	96.8	84.1	16.4	79.4	85.7	114.3	149.2	28.6	44.5
63	177.8	109.5	96.8	19.6	85.8	92.1	127.0	160.3	31.8	47.7
65	177.8	109.5	96.8	19.6	88.9	95.3	127.0	160.3	31.8	47.7
68	177.8	109.5	96.8	19.6	92.1	98.4	127.0	160.3	31.8	47.7
70	177.8	109.5	96.8	19.6	92.1	98.4	127.0	160.3	31.8	47.7
75	190.5	125.4	108.0	19.6	98.5	108.0	142.9	173.0	31.8	47.7
80	190.5	125.4	108.0	19.6	101.6	111.1	142.9	173.0	31.8	47.7
85	203.2	135.0	117.5	19.6	108.0	117.5	155.6	182.5	31.8	47.7
90	215.9	150.8	127.0	19.6	114.3	127.0	171.5	195.2	31.8	47.7
95	215.9	150.8	127.0	19.6	117.5	130.2	171.5	195.2	31.8	47.7
100	228.6	168.3	136.5	19.6	123.9	139.7	188.9	207.9	31.8	47.7
105	228.6	168.3	136.5	19.6	130.1	149.2	189.0	208.0	31.8	47.7
110	241.3	177.8	146.1	19.6	136.5	158.8	198.4	220.6	31.8	47.7
115	254.0	186.6	155.6	19.6	142.9	168.3	211.1	230.2	31.8	47.7
120	254.0	186.6	155.6	19.6	142.9	168.3	211.1	230.2	31.8	47.7
125	254.0	186.6	155.6	19.6	142.9	168.3	211.1	230.2	31.8	47.7

GWGU1





Material:

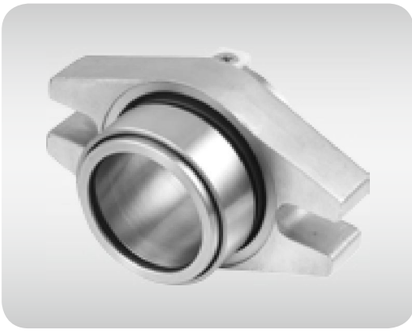
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

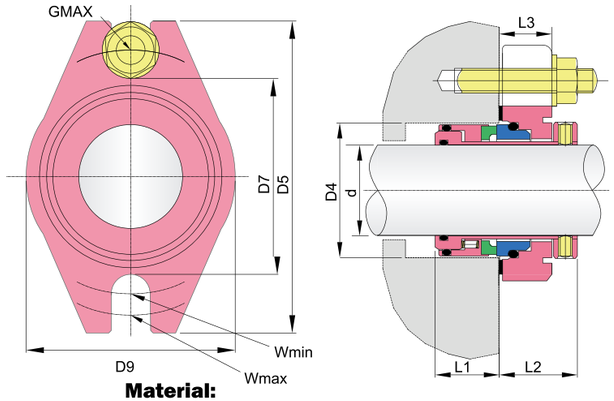
Operational Conditions:

- Temperature: –20℃ to +220℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Inches Size d	D5	D7	D8	L3	D4		W		L1	L2
					min	max	min	max		
1.000	4.125	2.125	1.937	0.591	1.625	1.937	2.687	3.562	1.125	1.590
1.125	4.250	2.250	2.063	0.591	1.750	2.062	2.812	3.687	1.125	1.590
1.250	4.375	2.375	2.187	0.591	1.875	2.187	2.937	3.812	1.125	1.590
1.375	4.375	2.500	2.312	0.591	2.000	2.250	3.062	3.812	1.125	1.590
1.500	5.000	2.812	2.562	0.644	2.250	2.375	3.375	4.437	1.125	1.752
1.625	5.000	2.812	2.562	0.644	2.375	2.500	3.375	4.437	1.125	1.752
1.750	5.500	3.187	2.812	0.644	2.500	2.750	3.750	4.937	1.125	1.752
1.875	5.500	3.187	2.812	0.644	2.625	2.875	3.750	4.937	1.125	1.752
2.000	6.000	3.562	3.063	0.644	2.750	3.000	4.125	5.437	1.125	1.752
2.000–AC	5.250	3.450	3.035	0.644	2.750	3.000	4.000	4.750	1.125	1.752
2.125	6.000	3.562	3.063	0.644	2.875	3.125	4.125	5.437	1.125	1.752
2.250	6.500	3.812	3.312	0.644	3.000	3.250	4.500	5.812	1.125	1.752
2.375	6.500	3.812	3.312	0.644	3.125	3.375	4.500	5.812	1.125	1.752
2.500	7.000	4.312	3.812	0.769	3.375	3.625	5.000	6.312	1.250	1.877
2.625	7.000	4.312	3.812	0.769	3.500	3.750	5.000	6.312	1.250	1.877
2.750	7.000	4.312	3.812	0.769	3.625	3.875	5.000	6.312	1.250	1.877
2.875	7.500	4.937	4.250	0.769	3.750	4.125	5.625	6.812	1.250	1.877
3.000	7.500	4.937	4.250	0.769	3.875	4.250	5.625	6.812	1.250	1.877
3.125	7.500	4.937	4.250	0.769	4.000	4.375	5.625	6.812	1.250	1.877
3.250	8.000	5.312	4.625	0.769	4.125	4.500	6.125	7.187	1.250	1.877
3.375	8.000	5.312	4.625	0.769	4.250	4.625	6.125	7.187	1.250	1.877
3.500	8.000	5.312	4.625	0.769	4.375	4.750	6.125	7.187	1.250	1.877
3.625	8.500	5.937	5.000	0.769	4.500	5.000	6.750	7.687	1.250	1.877
3.750	8.500	5.937	5.000	0.769	4.625	5.125	6.750	7.687	1.250	1.877
3.875	8.500	5.937	5.000	0.769	4.750	5.250	6.750	7.687	1.250	1.877
4.000	9.000	6.625	5.375	0.769	4.875	5.500	7.437	8.187	1.250	1.877
4.125	9.000	6.625	5.375	0.769	5.125	5.875	7.437	8.187	1.250	1.877
4.250	9.000	6.625	5.375	0.769	5.125	5.875	7.437	8.187	1.250	1.877
4.375	9.500	7.000	5.750	0.769	5.375	6.250	7.812	8.687	1.250	1.877
4.500	9.500	7.000	5.750	0.769	5.375	6.250	7.812	8.687	1.250	1.877
4.625	10.000	7.345	6.125	0.769	5.625	6.625	8.312	9.062	1.250	1.877
4.750	10.000	7.345	6.125	0.769	5.625	6.625	8.312	9.062	1.250	1.877
4.875	10.000	7.345	6.125	0.769	5.875	6.625	8.312	9.062	1.250	1.877
5.000	10.000	7.345	6.125	0.769	5.875	6.625	8.312	9.062	1.250	1.877

GWGU2





Material:

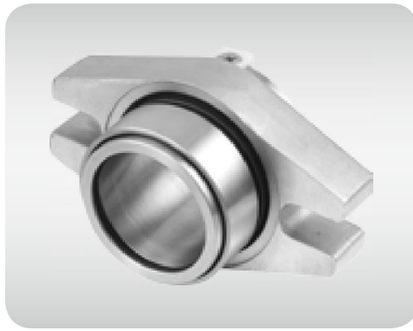
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

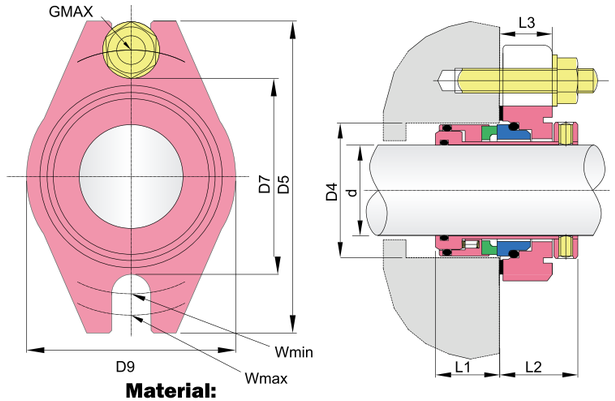
Operational Conditions:

- Temperature: –20℃ to +220℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Seal Size d	D5	D7	D9	L3	D4		W		L1	L2
					min	max	min	max		
24	101.6	55.6	20.7	56.1	40.0	48.0	69.9	88.9	28.6	31.8
25	101.6	55.6	20.7	56.1	41.0	48.0	69.9	88.9	28.6	31.8
28	104.8	58.8	20.7	59.3	44.0	50.0	73.1	92.1	28.6	31.8
30	108.0	61.9	20.7	62.4	46.0	54.0	76.2	95.3	28.6	31.8
32	108.0	61.9	20.7	62.4	48.0	54.0	76.2	95.3	28.6	31.8
33	108.0	61.9	20.7	62.4	49.0	55.0	76.2	95.3	28.6	31.8
35	108.0	66.7	20.7	67.2	51.0	59.0	81.0	95.3	28.6	31.8
38	114.3	71.5	22.3	72.0	57.2	62.0	85.8	101.6	28.6	33.4
40	114.3	71.5	22.3	72.0	58.0	64.0	85.8	101.6	28.6	33.4
43	120.7	74.6	22.3	75.1	61.0	67.0	88.9	108.0	28.6	33.4
45	127.0	77.8	23.8	78.3	63.5	69.0	92.1	114.3	30.2	35.0
48	133.4	81.0	23.8	81.5	66.7	72.0	95.3	120.7	30.2	35.0
50	133.4	81.0	23.8	81.5	68.0	74.0	95.3	120.7	30.2	35.0
53	139.7	84.2	25.4	84.7	71.0	77.0	101.6	123.9	30.2	36.5
55	146.1	87.3	25.4	87.8	74.0	79.0	104.8	130.2	30.2	36.5
58	165.1	95.3	25.4	98.9	79.4	85.7	115.9	146.0	30.2	36.5
60	165.1	95.3	25.4	98.9	79.4	85.7	115.9	146.0	30.2	36.5
63	177.8	111.2	25.4	121.2	85.8	101.6	131.8	158.7	28.6	41.2
65	177.8	111.2	25.4	121.2	88.9	101.6	131.8	158.7	28.6	41.2
68	177.8	111.2	25.4	121.2	92.1	101.6	131.8	158.7	28.6	41.2
70	177.8	111.2	25.4	121.2	92.1	101.6	131.8	158.7	28.6	41.2
75	190.5	125.4	31.7	130.7	98.5	114.3	146.1	171.4	30.2	50.8
80	190.5	125.4	31.7	130.7	101.6	114.3	146.1	171.4	30.2	50.8
85	203.2	135.0	31.7	140.2	108.0	123.8	155.6	184.1	30.2	50.8
90	215.9	144.5	31.7	149.7	114.3	133.3	165.1	196.8	30.2	50.8
95	215.9	144.5	31.7	149.7	117.5	133.3	165.1	196.8	30.2	50.8
100	228.6	154.0	31.7	156.1	123.9	139.7	174.7	209.5	30.2	50.8

GWGU2





Material:

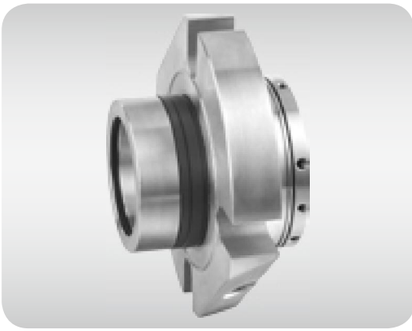
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

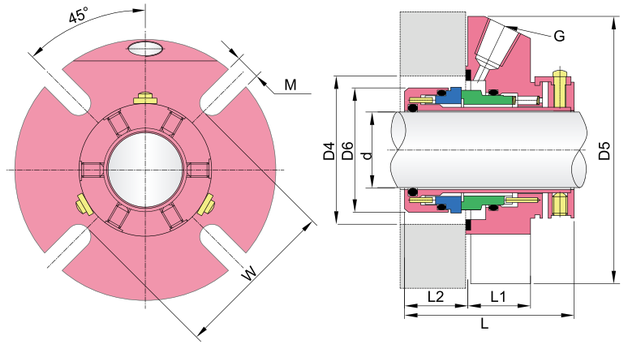
Operational Conditions:

- Temperature: –20℃ to +220℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 15m/s

Inches Size d	D5	D7	D9	L3	D4		W		L1	L2
					min	max	min	max		
1.000	4.000	2.187	0.812	2.208	1.625	1.875	2.750	3.500	1.125	1.250
1.125	4.125	2.312	0.812	2.333	1.750	2.000	2.875	3.625	1.125	1.250
1.250	4.250	2.437	0.812	2.458	1.875	2.125	3.000	3.750	1.125	1.250
1.375	4.250	2.625	0.812	2.645	2.000	2.250	3.187	3.750	1.125	1.250
1.500	4.500	2.812	0.875	2.833	2.250	2.500	3.375	4.000	1.125	1.312
1.625	4.750	2.937	0.875	2.958	2.375	2.625	3.500	4.250	1.125	1.312
1.750	5.000	3.062	0.937	3.083	2.500	2.750	3.625	4.500	1.187	1.375
1.875	5.250	3.187	0.937	3.207	2.625	2.875	3.750	4.750	1.187	1.375
2.000	5.500	3.312	1.000	3.333	2.750	3.000	4.000	4.875	1.187	1.437
2.125	5.750	3.437	1.000	3.458	2.875	3.125	4.125	5.125	1.187	1.437
2.250	6.500	3.750	1.000	3.895	3.000	3.375	4.562	5.750	1.187	1.437
2.375	6.500	3.750	1.000	3.895	3.125	3.375	4.562	5.750	1.187	1.437
2.500	7.000	4.375	1.000	4.770	3.375	4.000	5.187	6.250	1.125	1.625
2.625	7.000	4.375	1.000	4.770	3.500	4.000	5.187	6.250	1.125	1.625
2.750	7.000	4.375	1.000	4.770	3.625	4.000	5.187	6.250	1.125	1.625
2.875	7.500	4.937	1.250	5.145	3.750	4.500	5.750	6.750	1.187	2.000
3.000	7.500	4.937	1.250	5.145	3.875	4.500	5.750	6.750	1.187	2.000
3.125	7.500	4.937	1.250	5.145	4.000	4.500	5.750	6.750	1.187	2.000
3.250	8.000	5.312	1.250	5.520	4.125	4.875	6.125	7.250	1.187	2.000
3.375	8.000	5.312	1.250	5.520	4.250	4.875	6.125	7.250	1.187	2.000
3.500	8.000	5.312	1.250	5.520	4.375	4.875	6.125	7.250	1.187	2.000
3.625	8.500	5.687	1.250	5.895	4.500	5.250	6.500	7.750	1.187	2.000
3.750	8.500	5.687	1.250	5.895	4.625	5.250	6.500	7.750	1.187	2.000
3.875	8.500	5.687	1.250	5.895	4.750	5.250	6.500	7.750	1.187	2.000
4.000	9.000	6.062	1.250	6.145	4.875	5.500	6.875	8.250	1.187	2.000

GWCARTEX





Operational Conditions:

- Temperature: –20℃ to +150℃
- Pressure: ≤ 2.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316

Seal Size d	D6	D5	L	L2	D4		L1	W	M	G
					min	max				
25	43.0	105.0	67.0	24.6	44.0	51.5	25.4	62.0	13.2	1/4"
28	46.0	105.0	67.0	24.6	47.0	52.0	25.4	62.0	13.2	1/4"
30	48.0	105.0	67.0	24.6	49.0	56.0	25.4	65.0	13.2	1/4"
32	49.8	108.0	67.0	24.6	51.0	57.0	25.4	67.0	13.2	1/4"
33	49.8	108.0	67.0	24.6	51.0	57.0	25.4	67.0	13.2	1/4"
35	53.0	113.0	67.0	24.6	54.0	61.5	25.4	70.0	13.2	1/4"
38	56.0	123.0	67.0	24.6	57.0	66.0	25.4	75.0	13.2	1/4"
40	58.0	123.0	67.0	24.6	59.0	68.0	25.4	75.0	14.2	3/8"
42	60.5	133.0	67.0	24.6	61.5	69.5	25.4	80.0	14.2	3/8"
43	60.5	133.0	67.0	24.6	61.5	70.5	25.4	80.0	14.2	3/8"
45	62.5	138.0	67.0	24.6	64.0	73.0	25.4	81.0	14.2	3/8"
48	65.6	138.0	67.0	24.6	67.0	75.0	25.4	84.0	14.2	3/8"
50	68.0	148.0	67.0	24.6	69.0	78.0	25.4	87.0	14.2	3/8"
53	72.0	148.0	67.0	24.6	73.0	87.0	25.4	97.0	18.0	3/8"
55	73.0	148.0	67.0	24.6	74.0	83.0	25.4	90.0	18.0	3/8"
60	78.0	157.0	67.0	24.6	79.0	91.0	25.4	102.0	18.0	3/8"
65	84.8	163.0	67.0	24.6	85.7	98.5	25.4	109.0	18.0	3/8"
70	93.0	178.0	67.0	24.6	95.0	108.0	25.4	118.0	18.0	3/8"
75	100.0	190.0	84.0	26.6	101.6	118.0	28.0	129.0	18.0	3/8"
80	106.4	195.0	84.0	26.6	108.0	124.0	28.0	135.0	18.0	3/8"
85	109.5	198.0	84.0	26.6	111.1	128.0	28.0	139.0	22.0	3/8"
90	115.9	205.0	84.0	26.6	117.5	135.0	28.0	145.0	22.0	3/8"
95	119.1	208.0	84.0	26.6	120.7	138.0	28.0	148.0	22.0	3/8"
100	125.4	218.0	84.0	26.6	127.0	144.0	28.0	154.0	22.0	3/8"

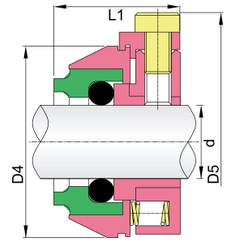
GWL9

Operational Conditions:

- Temperature: –50℃ to +204℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 15m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316



Size(Metric)	L1	D4	D5
20	27.91	45.30	59.80
22	27.91	47.30	61.80
24	27.90	49.30	63.80
25	27.90	50.30	64.80
28	27.91	53.30	67.80
30	27.91	55.30	69.80
32	27.91	57.30	71.80
33	27.90	58.30	72.80
35	27.91	60.30	74.80
38	27.91	63.30	77.80
40	27.91	65.30	79.80
42	27.90	67.30	81.80
43	27.90	68.30	82.80
45	27.91	70.30	84.80
48	27.91	73.30	87.80
50	27.90	75.30	89.80
53	27.91	78.30	92.80
55	27.90	80.30	94.80
60	27.91	85.30	99.70
65	30.30	96.50	111.00
70	30.28	101.50	116.00
75	30.28	106.50	121.00
80	30.28	111.50	126.00
85	30.28	116.50	131.00
90	30.28	121.50	136.00
95	30.30	126.50	141.00
100	30.28	131.50	146.00

Size(Inch)	L1	D4	D5
0.625"	1.098	1.622	2.192
0.750"	1.098	1.747	2.317
0.875"	1.098	1.872	2.442
1.000"	1.098	1.997	2.567
1.125"	1.098	2.122	2.692
1.250"	1.098	2.247	2.817
1.375"	1.098	2.372	2.942
1.500"	1.098	2.497	2.067
1.625"	1.098	2.622	3.192
1.750"	1.098	2.747	3.317
1.875"	1.098	2.872	3.442
2.000"	1.098	2.997	3.567
2.125"	1.098	3.122	3.692
2.250"	1.098	3.247	3.817
2.375"	1.098	3.372	3.942
2.500"	1.098	3.497	4.067
2.625"	1.192	3.866	4.436
2.750"	1.192	3.991	4.561
2.875"	1.192	4.116	4.686
3.000"	1.192	4.241	4.811
3.125"	1.192	4.366	4.936
3.250"	1.192	4.491	5.061
3.375"	1.192	4.616	5.186
3.500"	1.192	4.741	5.311
3.625"	1.192	4.866	5.436
2.750"	1.192	4.991	5.561
2.875"	1.192	5.116	5.686
4.000"	1.192	5.241	5.811

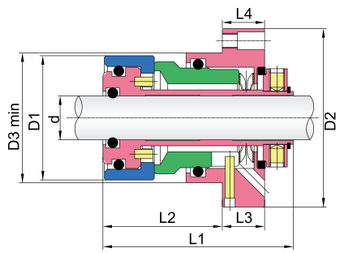
GWPCM

Operational Conditions:

- Temperature: –20℃ to +150℃
- Pressure: ≤ 2.0MPa
- Speed: ≤ 15m/s

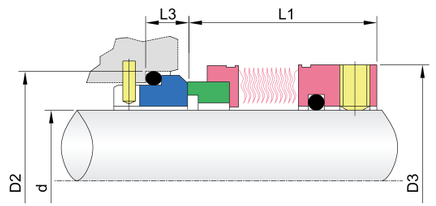
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- O–Ring: VITON, EPDM, Kalrez
- Spring and Metal Parts: SUS304 / SUS316



Seal Size d	D1	D2	D3 min	L1	L2	L3	L4
35	62	80	64	63	39	24	14
60	88	129	92	91	57	34	22
80	113	185	140	102	36	66	52

GW685



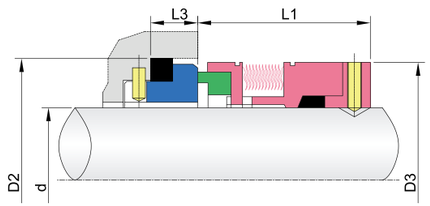
Operational Conditions:
- Temperature: –20℃ to +200℃
- Pressure: ≤ 2.1MPa
- Speed: ≤ 23m/s

Stationary Seat:
- GWG9

Material:
- Rotary Ring: Carbon / SiC / TC
- Bellow: AM350
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size	D3	D2	L1	L3
16	30.0	27.0	32.5	10.0
18	32.0	33.0	30.5	11.5
20	33.5	35.0	30.5	11.5
22	36.5	37.0	30.5	11.5
24	39.0	39.0	28.5	11.5
25	39.6	40.0	28.5	11.5
28	42.8	43.0	31.0	11.5
30	45.0	45.0	31.0	11.5
32	46.0	48.0	31.0	11.5
33	48.0	48.0	31.0	11.5
35	49.2	50.0	31.0	11.5
38	52.3	56.0	31.0	14.0
40	55.5	58.0	31.0	14.0
43	57.5	61.0	31.0	14.0
45	58.7	63.0	31.0	14.0
48	61.9	66.0	31.0	14.0
50	65.0	70.0	32.5	15.0
53	68.2	73.0	32.5	15.0
55	70.0	75.0	32.5	15.0
58	71.7	78.0	37.5	15.0
60	74.6	80.0	37.5	15.0
63	79.0	83.0	37.5	15.0
65	84.1	85.0	37.5	15.0
68	87.3	90.0	34.5	18.0
70	87.3	92.0	42.0	18.0
75	95.0	97.0	42.0	18.0
80	98.4	105.0	41.8	18.2
85	104.7	110.0	41.8	18.2
90	111.0	115.0	46.8	18.2
95	114.0	120.0	47.8	17.2
100	117.4	125.0	47.8	17.2

GW686



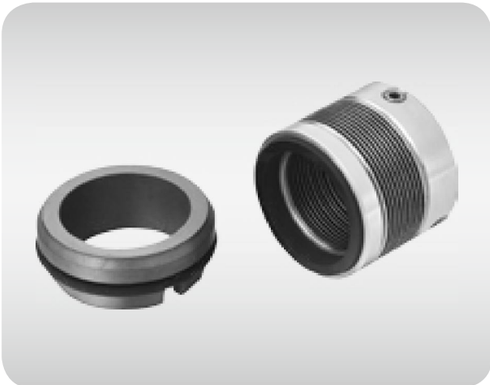
Operational Conditions:
- Temperature: –20℃ to +370℃
- Pressure: ≤ 2.1MPa
- Speed: ≤ 23m/s

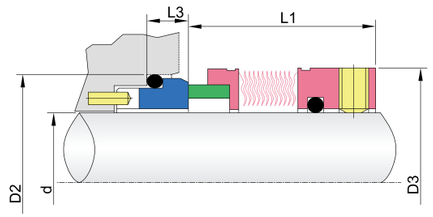
Stationary Seat:
- GWG9

Material:
Rotary Ring: Carbon / SiC / TC
- Bellow: AM350
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: Encasulated Ring,Expanded Graphite
- Spring and Metal Parts: SUS304 / SUS316

Seal Size	D3	D2	L1	L3
16	38	35.0	46.7	10.0
18	40	37.0	46.7	11.5
20	42	40.0	46.7	11.5
22	44	43.0	46.7	11.5
24	46	43.0	46.7	11.5
25	47	45.0	46.7	11.5
28	50	48.0	46.7	11.5
30	52	50.0	46.7	11.5
32	54	56.0	46.7	14.0
33	55	56.0	46.7	14.0
35	57	58.0	46.7	14.0
38	60	61.0	46.7	14.0
40	66	63.0	47.7	14.0
43	69	66.0	47.7	14.0
45	71	70.0	47.7	15.0
48	74	73.0	47.7	15.0
50	76	75.0	47.7	15.0
53	79	78.0	47.7	15.0
55	81	80.0	47.7	15.0
58	85	83.0	53.2	15.0
60	87	85.0	53.2	15.0
63	90	90.0	53.2	18.0
65	92	92.0	53.2	18.0
68	95	97.0	53.2	18.0
70	97	97.0	53.2	18.0
75	102	105.0	53.0	18.2
80	107	110.0	53.0	18.2
85	112	115.0	53.0	18.2
90	117	120.0	54.0	17.2
95	122	125.0	54.0	17.2
100	127	134.3	54.2	20.0

GW687





Operational Conditions:
- Temperature: –75℃ to +200℃
- Pressure: ≤ 2.1MPa
- Speed: ≤ 23m/s

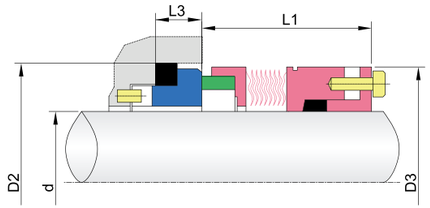
Stationary Seat:
- GWG9

Material:
- Rotary Ring: Carbon / SiC / TC
- Bellow: AM350
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: VITON, Encasulated Ring, EPDM
- Spring and Metal Parts: SUS304 / SUS316

Inches Size	D3	L1
0.750	1.312	1.250
0.875	1.437	1.250
0.937	1.500	1.250
1.000	1.562	1.250
1.125	1.687	1.250
1.250	1.812	1.312
1.375	1.937	1.437
1.500	2.063	1.437
1.625	2.187	1.437
1.750	2.312	1.437
1.875	2.437	1.500
2.000	2.562	1.500
2.125	2.687	1.500
2.250	2.812	1.562
2.375	2.937	1.562
2.500	3.187	1.562
2.625	3.312	1.625
2.750	3.437	1.625
2.875	3.625	1.687
3.000	3.750	1.687
3.125	3.875	1.750
3.250	4.000	1.750
3.375	4.125	1.750
3.500	4.250	1.875
3.625	4.375	1.875
3.750	4.500	1.875
3.880	4.625	1.875
4.000	4.750	1.875

Seal Size	D3	L1
18	32.00	27.70
20	33.30	27.70
22	36.00	27.70
24	38.10	30.20
25	39.00	30.20
28	42.00	32.70
30	44.00	32.70
32	46.00	32.70
33	47.00	32.70
35	49.20	32.70
38	52.40	34.20
40	55.60	34.20
43	58.70	34.20
45	58.70	34.20
48	61.90	34.20
50	65.10	34.70
53	68.30	34.70
55	71.00	34.70
60	74.60	39.70
65	84.10	39.70
70	87.30	45.20
75	95.30	45.20
80	98.40	44.70
85	104.80	44.70
90	108.00	49.70
95	114.30	49.70

GW688



Operational Conditions:
- Temperature: –75℃ to +370℃
- Pressure: ≤ 2.1MPa
- Speed: ≤ 23m/s

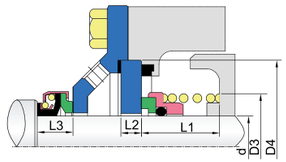
Stationary Seat:
- GWG9

Material:
Rotary Ring: Carbon / SiC / TC
- Bellow: AM350
- Stationary Ring: 99% Ceramic / SiC / TC
- O–Ring: Encasulated Ring,Expanded Graphite
- Spring and Metal Parts: SUS304 / SUS316

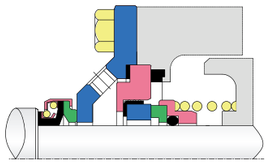
Seal Size d	D3	L1
25.40	41.28	38.95
28.58	44.45	39.87
31.75	47.63	40.66
34.93	50.80	40.66
38.10	53.98	40.66
41.28	57.15	40.66
44.45	60.33	41.48
47.63	63.50	41.48
50.80	66.68	42.26
53.98	69.85	42.26
57.15	73.03	43.86
60.33	76.20	43.86
63.50	82.55	44.65
66.68	85.73	45.44
69.85	88.90	45.44
73.03	93.65	47.83
76.20	96.82	47.83
79.38	101.60	47.83
82.55	104.78	47.83
85.73	107.95	47.83
88.90	111.13	47.83
92.08	114.30	47.83
95.25	117.48	47.83
98.43	120.65	47.83
101.60	123.83	47.83

GW260

GW260 Seals used on the 1.0" and 1.5" shaft APV Puma pumps



260-001



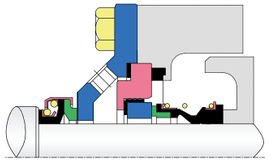
260-002

Material:
- a.d.Rotary Ring: Carbon
- b.c.Stationary Ring: SUS304 / SUS316 / Ceramic / Sic
- Secondary Seal: VITON,NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

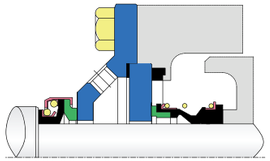
Seal Size:
- 1.0"
- 1.5"

GW260A

GW260 Seals used on the 1.0" and 1.5" shaft APV Puma pumps



260A-001



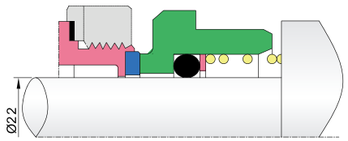
260A-002

Material:
- a.d.Rotary Ring: Carbon
- b.c.Stationary Ring: SUS304 / SUS316 / SiC
- Secondary Seal: VITON,NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 1.0"
- 1.5"

GW91-22

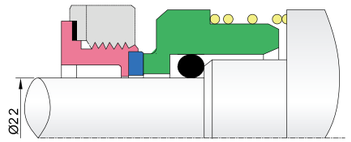
GW91–22 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW91B-22

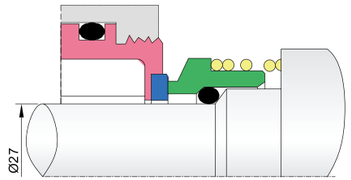
GW91B–22 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW92-27

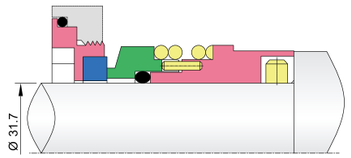
GW92–27 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW92-35

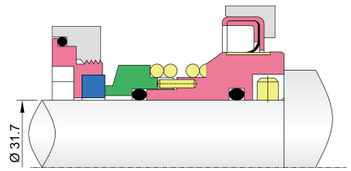
GW92–35 Seal for Alfa Laval Pumps with single seals



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW92A-35

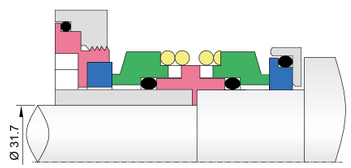
Sleeve with Stainless steel spray chromium oxide
GW92A–35 Seal for Alfa Laval Pumps with flushed seals fitted



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW92B-35

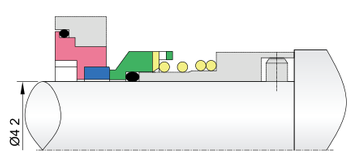
GW92B–35 Seal for Alfa Laval Pumps with double seals



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW92-42

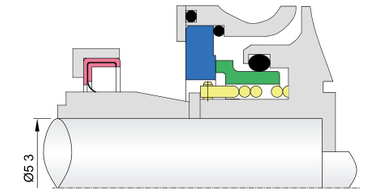
GW92–42 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW92-53

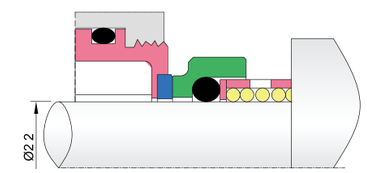
GW92–53 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / Ceramic
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GWT93-22

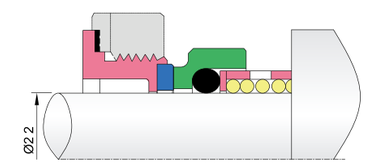
GWT93–22 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

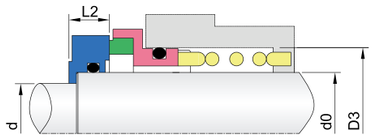
GWT93B-22

GWT93B–22 Seal for Alfa Laval Pumps



Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

GW94



Operational Conditions:

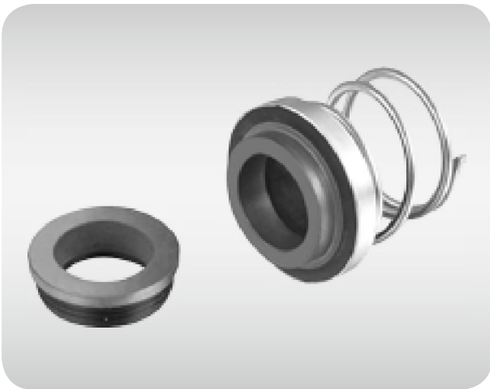
- Temperature: –20℃ to +200℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 20m/s

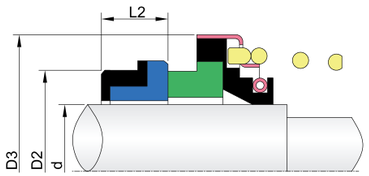
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	d0	D3	L2
12	16	30	7
18	25	50	11
21	25	50	11
28	36	50	11
40	50	64	14

GW290





Operational Conditions:

- Temperature: –40℃ to +180℃
- Pressure: ≤ 0.8MPa
- Speed: ≤ 15m/s

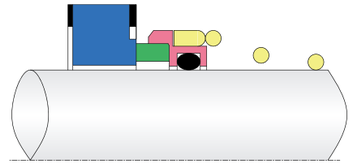
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	D2	D3	L2
20	30.0	40.6	9.8
25	35.0	45.4	9.8
30	42.0	57.0	13.0

GW160

GW160 Seal suit APV World Pumps in shingle configuration



Material:

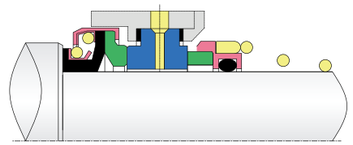
- Rotary Ring: Carbon / SiC
- Stationary Ring: SiC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:

- 25MM
- 35MM

GW160A

GW160A Seal suit APV World Pumps in shingle configuration



Material:

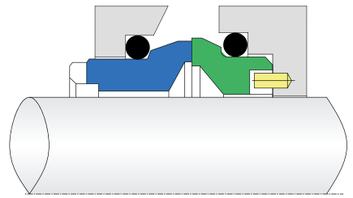
- Rotary Ring: Carbon / SiC
- Stationary Ring: SiC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:

- 25MM
- 35MM

GW160B

GW160B Seal suit APV World + Pumps



Material:

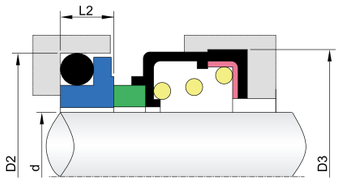
- Rotary Ring: Carbon / SiC
- Stationary Ring: SiC / Carbon
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:

- 25MM
- 35MM
- 55MM

GW28

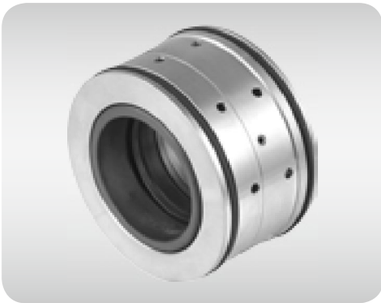
GW28 Seals For Common O.E.M Pumps, the type suit imperial Machine Company waste–disposal units

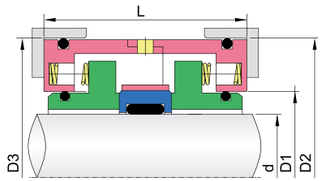


Material:
- Rotary Ring: Carbon / SiC
- Stationary Ring: SiC / SUS304 / SUS316
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 44.4MM

GWEMLL





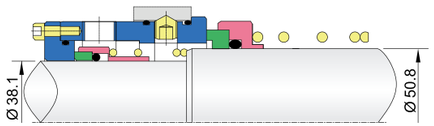
Operational Conditions:
- Temperature: –40℃ to +200℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 20m/s

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	D1	D2	D3	L
35	47.0	72.0	72.0	47
50	63.0	90.0	92.0	52
75	95.0	128.0	130.0	75

GWHOM2

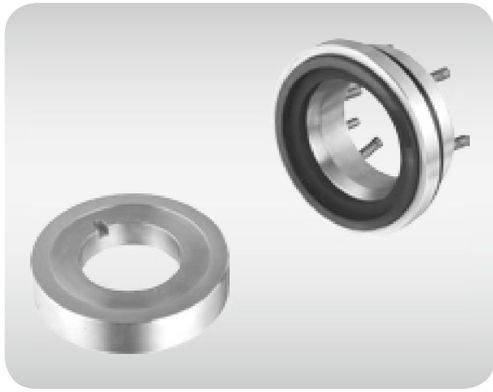
GWHOM2 Seals For Alfa Laval Contherm scraped surface heat exchangers

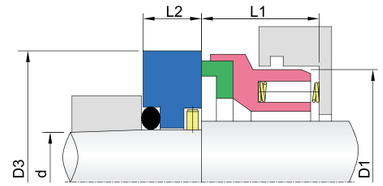


Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / SUS304 / SUS316 / SiC / pray chromium oxide / TC
- Secondary Seal: VITON,EPDM
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 38.1MM/50.8MM

GWT50

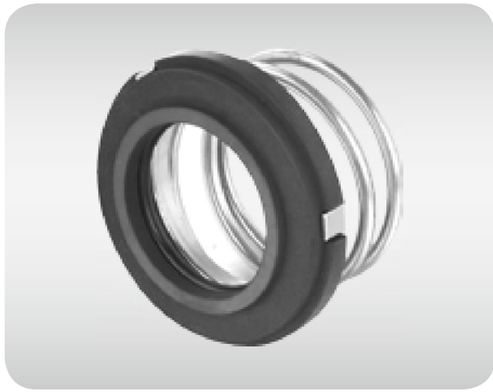


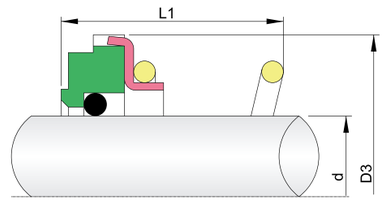


Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SUS304 / SUS316 / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	D3	D1	L1	L2
15.8	44.5	36.1	24.0	10.5
25.4	53.5	44.0	24.0	10.0
38.1	74.0	64.0	28.0	15.5

GW293



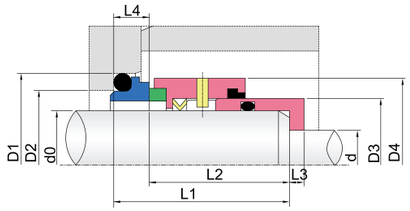


Operational Conditions:
- Temperature: –30℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / SUS / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	D3	L1
1.000	39.50	47.00
1.125	53.95	39.00
1.500	66.60	33.50

GWAK5M



Operational Conditions:

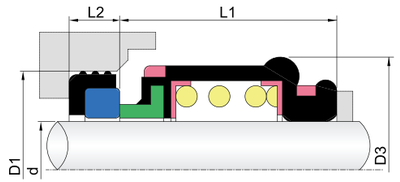
- Temperature: –10℃ to +100℃
- Pressure: ≤ 1.6MPa
- Speed: ≤ 10m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / SiC
- Secondary Seal: EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d0	d	D1	D2	D3	D4	L1	L2	L3	L4
38	29.00	56.00	49.00	44.20	54.00	45.00	36.00	3.80	9.00
48	39.00	66.00	59.00	54.20	64.00	45.00	36.00	3.80	9.00
53	43.00	73.00	65.00	59.20	68.50	47.50	36.50	3.50	11.00
65	56.00	85.00	77.00	72.70	85.00	52.50	41.50	3.50	11.00
90	81.00	115.00	105.00	98.00	114.00	65.00	51.00	18.00	14.00

GWKB



Operational Conditions:

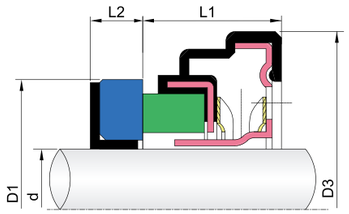
- Temperature: –30℃ to +200℃
- Pressure: ≤ 1.0MPa
- Speed: ≤ 13m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Ceramic / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	D3	D1	L1	L2
28	50.00	44.00	30.00	10.00
35	64.00	54.00	35.00	10.50
50	74.50	70.00	45.20	12.20
1–1/8"	50.00	44.50	30.00	11.10
1–1/2"	66.00	53.90	35.50	10.00
2"	75.50	69.80	45.20	13.00

GWGCS



Operational Conditions:

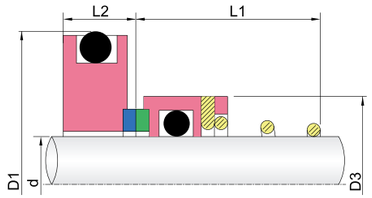
- Temperature: –30℃ to +120℃
- Pressure: ≤ 1.5MPa
- Speed: ≤ 13m/s

Material:

- Rotary Ring: Carbon
- Stationary Ring: SUS
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304 / SUS316

Size d	D3	D1	L1	L2
40	68.00	58.00	12.00	5.00
50	80.00	70.00	13.00	5.00
58	88.00	75.00	18.00	7.00
90	130.00	112.00	20.00	8.50
100	140.00	122.00	20.00	7.00

GW8W



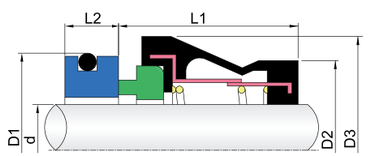
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:

- 15MM
- 20MM

GW17B



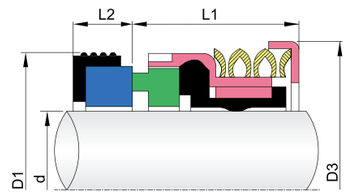
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:

- 20MM
- 30MM
- 40MM

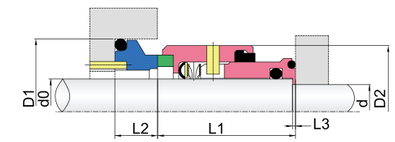
GW1577



Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Ceramic / SiC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 50MM
- 65MM

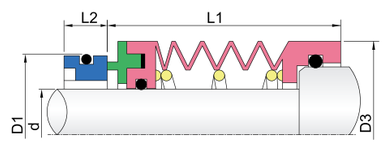
GWBS2



Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 19MM
- 28MM
- 38MM

GWWB3



Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Ceramic / SiC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

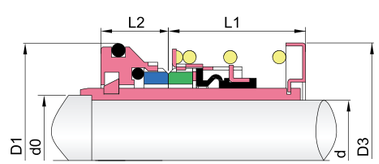
Seal Size:
- 25MM

GWSB01

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 22MM

GWNULL

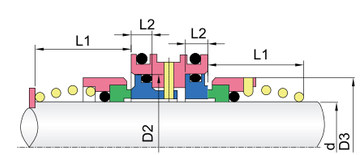


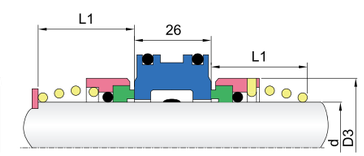
Material:
- Rotary Ring: TC
- Stationary Ring: TC
- Secondary Seal: VITON,EPDM,NBR
- Spring and Metal Parts: SUS304 / SUS316

Seal Size:
- 1.5"
- 1.875"
- 2.75"

GW208

Inboard Rotary and seat , Outboard Rotary and Seat

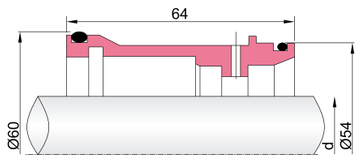




Material:
- Carbon / SiC / TC

Seal Size:
- 30MM
- 35MM

GW208/01



GW208/01 sleeve for GW208 seals

Material:
- SUS304 / SUS316

Length:
- **64MM**

GW208/11

Inboard rotary ,with base plate

Material:
- SUS304 / SUS316 / SiC / Carbon / TC

Size:
- **22MM,30MM,35MM**

GW208/12

Inboard rotary ,no base plate

Material:
- SUS304 / SUS316 / SiC / Carbon / TC

Size:
- **22MM,30MM,35MM**

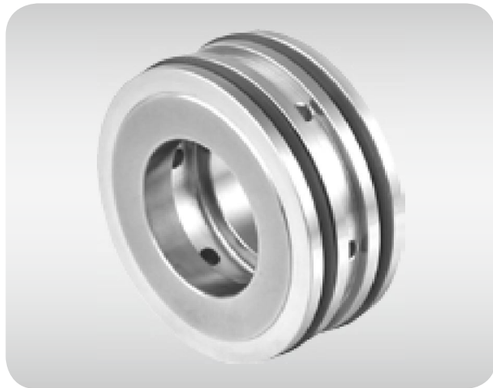
GW208/1

Centre collet, to accept inboard and outboard seals

Material:
- SUS304 / SUS316

Size:
- **30MM,35MM**

GW208/2

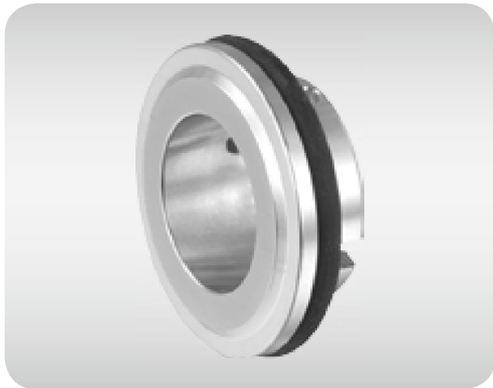


Centre seat with lapped face

Material:
- SUS304 / SUS316 / SiC

Size:
- **30MM,35MM**

GW208/11B



Inboard pinned–seal

Material:
- SUS304 / SUS316 / SiC / TC

Size:
- **22MM,30MM,35MM**

GW208/12B

Outboard seal

Material:
- SUS304 / SUS316 / SiC / Carbon / TC

Size:
- **22MM,30MM,35MM**

Grundfos Pump Mechanical Seals

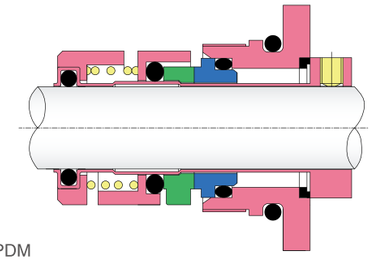
GWGLF-1

GWGLF–1 is original Grundfos seal, single spring o–ring, mounted semi–cartridge seals with threaded Hex–head. suit for Grundfos CR,CRN and CRI 1, 3 , 10, 15, 20 and 5 series Pump.

Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 25m/s

Seal Size:
- 12MM,16MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC / CAR
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304



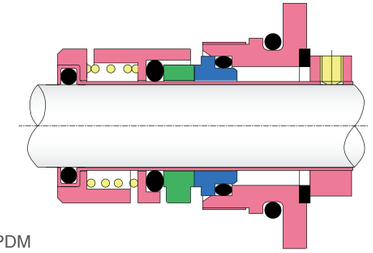
GWGLF-2

GWGLF–2 is single spring o–ring, mounted semi–cartridge seals with threaded Hex–head. suit for Grundfos CR,CRN and CRI 1, 3 , 10, 15, 20 and 5 series Pump.

Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 25m/s

Seal Size:
- 12MM,16MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC / CAR
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304



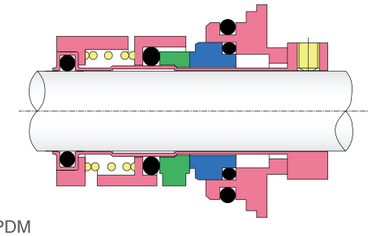
GWGLF-3

GWGLF–3 is Original Grundfos, single spring o–ring, mounted semi–cartridge seals with push–fit head.Suit for Grundfos Pumps CR,CRI, CRN32, 45, 64 Series.

Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 25m/s

Seal Size:
- 22MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC / CAR
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304



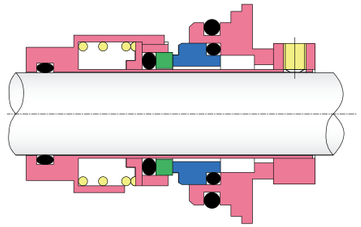
GWGLF-4

GWGLF–4 is single spring o–ring, mounted semi–cartridge seals with push–fit head.Suit for Grundfos Pumps CR,CRI, CRN32, 45, 64 Series.

Operational Conditions:
- Temperature: –30℃ to +200℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 25m/s

Seal Size:
- 22MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC / CAR
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304



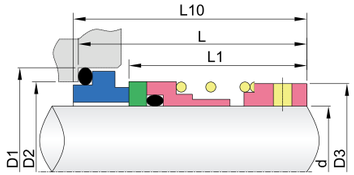
GWGLF-5

GWGLF–5 is an orignal Grundfos seal with single spring o–ring mounted seals for Grundfos pumps.

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 15m/s

Seal Size:
- 12MM,16MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304



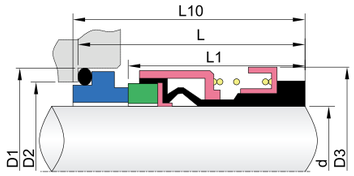
GWGLF-6

GWGLF–6 is ruber bellow seals with warm,soapy water.Suit for Grundfos Pumps CR2,CR4 The rubber bellow design short and long two type.

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 12MM,16MM

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304



GWGLF-7

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 22MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-8

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 12MM,16MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-9

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 12MM

Material:
- Rotary Ring: SiC / TC / Ceramic
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-10

GWGLF–10 is single spring o–ring, mounted semi–cartridge seals with push–fit head.

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 22MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-11

GWGLF–11 is single spring o–ring, mounted semi–cartridge seals with push–fit head.

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 22MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-12

GWGLF–12 is single spring o–ring, mounted semi–cartridge seals with push–fit head.

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 22MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-13

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 22MM,32MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-14

Operational Conditions:
- Temperature: –20℃ to +120℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 12MM,16MM

Material:
- Rotary Ring: SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-15

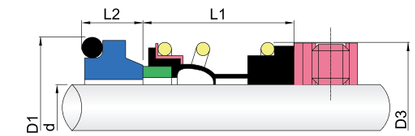
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 32MM,38MM,50MM,65MM

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-16

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

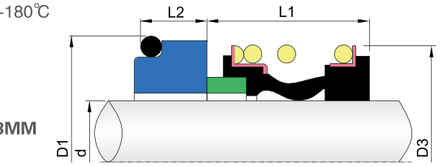


Seal Size:
- 16MM

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-17

Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s



Seal Size:
- 12MM,16MM,22MM,33MM

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

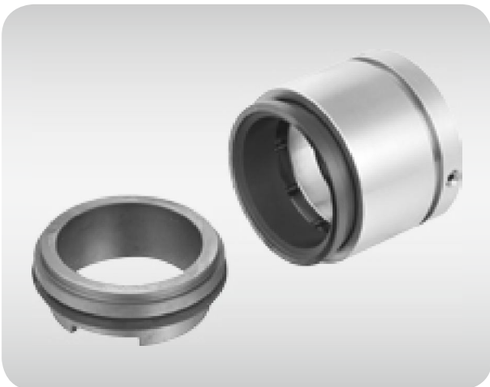
GWGLF-18

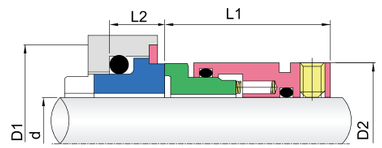
Operational Conditions:
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:
- 65MM

Material:
- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-19





Operational Conditions:

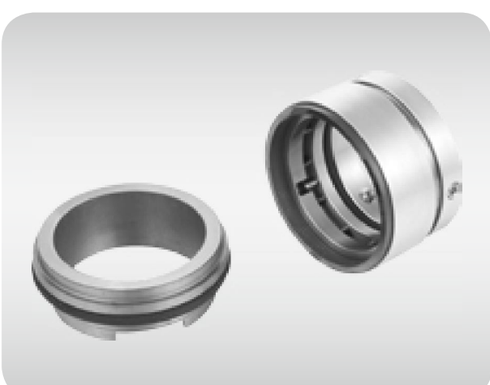
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

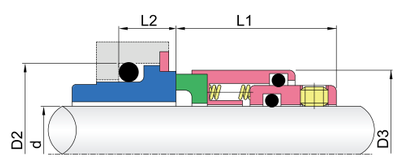
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

Seal Size d	D1	D2	L1	L2
32.0	46.0	46.0	34.0	11.0
38.0	54.0	53.0	34.0	11.2
50.0	66.0	65.6	34.5	14.0
65.0	85.0	84.2	66.0	15.3

GWGLF-20





Operational Conditions:

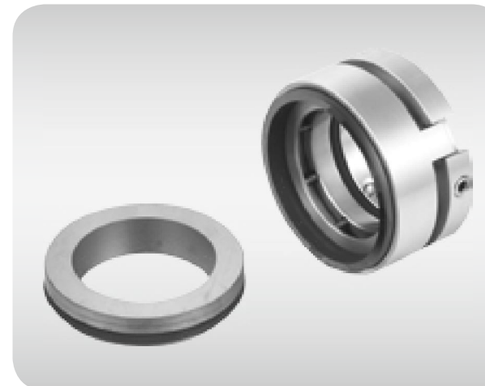
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

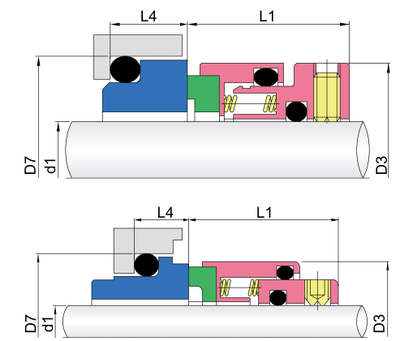
Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

Metric Size d	D2	D3	L1	L2
25.0	39.0	38.0	29.9	9.6
32.0	46.0	48.0	32.4	11.0
38.0	54.0	55.0	33.9	11.2
50.0	66.0	69.3	34.4	14.0
65.0	85.0	85.4	38.9	15.3

GWGLF-21





Operational Conditions:

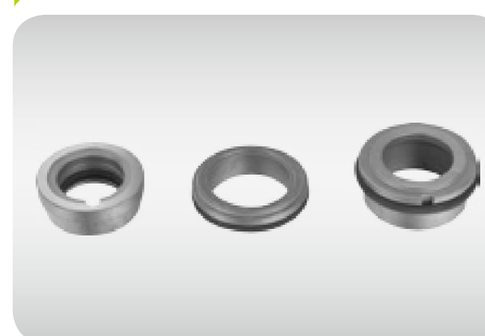
- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

Metric Size d1	D7	D3	L1	L4
30.0	46.0	45.0	24.0	10.0
38.0	58.0	56.0	27.0	11.0
50.0	70.0	70.0	27.0	13.0
60.0	90.0	85.0	32.0	13.0

GWGLF-22



Operational Conditions:

- Temperature: –20℃ to +180℃
- Pressure: ≤ 1.2MPa
- Speed: ≤ 10m/s

Seal Size:

- **16MM,25MM,38MM**

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: Carbon / SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

GWGLF-23

Operational Conditions:

- Temperature: –30℃ to +200℃
- Pressure: ≤ 2.5MPa
- Speed: ≤ 25m/s

Seal Size:

- **12MM,16MM,22MM**

Material:

- Rotary Ring: Carbon / SiC / TC
- Stationary Ring: SiC / TC
- Secondary Seal: VITON, NBR.EPDM
- Spring and Metal Parts: SUS304

Seal Coding System

GW05M – U2U2P – 35 – L

- Position
- Size Code
- Elastomer Material
- Seat Material
- Rotary Material
- Seal Type

EXAMPLES

Seal Code GW05A - BFP - 22 - U

Seal Type	Material Code	Size Code	Position
GW05A	**B** – Carbon(Rotary) **F** – Stainless Steel Seat **P** – Nitrile	**22** =22mm	**U** =Upper Seal

Seal Code GW05P - BU2P - 60 - U

Seal Type	Material Code	Size Code	Position
GW05P	**B** – Carbon(Rotary) **U2** – Tungsten Carbide Seat **P** – Nitrile	**60** =60mm	**U** =Upper Seal

Seal Code GW05T - U2U2P - 120 - L

Seal Type	Material Code	Size Code	Position
GW05T	**U2** – Tungsten Carbide Rotary **U2** – Tungsten Carbide Seat **P** – Nitrile	**120** =120mm	**L** =Lower Seal

MATERIAL CODE (Rotary & Seat)	MATERIAL CODE (Elastomer)	SIZE CODE	POSITION
B=Carbon	P=Nitrile	35=35mm	L=Lower
Q2=Silicon Carbide			U=Upper
F=Stainless Steel			
U2=Tungsten Carbide			

GW05 Cross Reference Charts

FLYGT Unit Type Model Version	GWSEAL Alternative Upper(inner)	Size	GWSEAL Alternative Lower(outer)	Size
600	GW05Q	60mm	GW05Q	60mm
605	GW05S	90mm	GW05S	80mm
615	GW05S	90mm	GW05S	80mm
665	GW05S	90mm	GW05S	80mm
670	GW05S	90mm	GW05S	80mm
680	GW05S	90mm	GW05S	80mm
705	GW05S	90mm	GW05S	80mm
705	GW05S	90mm	GW05T	120mm
705	GW05S	90mm	GW05U	90mm
715	GW05S	90mm	GW05S	80mm
715	GW05S	90mm	GW05T	120mm
715	GW05S	90mm	GW05U	90mm
720	GW05S	90mm	GW05S	80mm
720	GW05S	90mm	GW05T	120mm
720	GW05S	90mm	GW05U	90mm
721	GW05S	90mm	GW05S	80mm
721	GW05S	90mm	GW05T	120mm
721	GW05S	90mm	GW05U	90mm
735	GW05S	90mm	GW05S	80mm
735	GW05S	90mm	GW05T	120mm
735	GW05S	90mm	GW05U	90mm
745	GW05S	90mm	GW05S	80mm
745	GW05S	90mm	GW05T	120mm
745	GW05S	90mm	GW05U	90mm
760	GW05S	90mm	GW05S	80mm
760	GW05S	90mm	GW05T	120mm
760	GW05S	90mm	GW05U	90mm
765	GW05S	90mm	GW05S	80mm
765	GW05S	90mm	GW05T	120mm
765	GW05S	90mm	GW05U	90mm
770	GW05S	90mm	GW05S	80mm
770	GW05S	90mm	GW05T	120mm
770	GW05S	90mm	GW05U	90mm
775	GW05S	90mm	GW05S	80mm
775	GW05S	90mm	GW05T	120mm
775	GW05S	90mm	GW05U	90mm
805			GW05T	120mm
820	GW05S	90mm	GW05S	80mm
820	GW05S	90mm	GW05T	120mm
820	GW05S	90mm	GW05U	90mm
835			GW05T	120mm
840	GW05S	90mm	GW05S	80mm
840	GW05S	90mm	GW05T	120mm
840	GW05S	90mm	GW05U	90mm
841	GW05S	90mm	GW05S	80mm
841	GW05S	90mm	GW05T	120mm
841	GW05S	90mm	GW05U	90mm
860	GW05S	90mm	GW05S	80mm
860	GW05S	90mm	GW05T	120mm
860	GW05S	90mm	GW05U	90mm
865			GW05T	120mm
880	GW05S	90mm	GW05S	80mm
880	GW05S	90mm	GW05T	120mm
880	GW05S	90mm	GW05U	90mm

FLYGT Unit Type Model Version	GWSEAL Alternative Upper(inner)	Size	GWSEAL Alternative Lower(outer)	Size
881	GW05S	90mm	GW05S	80mm
881	GW05S	90mm	GW05T	120mm
881	GW05S	90mm	GW05U	90mm
900	GW05S	90mm	GW05S	80mm
900	GW05S	90mm	GW05T	120mm
900	GW05S	90mm	GW05U	90mm
905			GW05T	120mm
935			GW05T	120mm
2004	GW05D	15mm	N/A	
2008	GW05D	15mm	N/A	
2012	GW05D	15mm	N/A	
2016	GW05D	15mm	N/A	
2024	GW05A	20mm	GW05A	20mm
2040	GW05C or GW05F	22mm	GW05C or GW05F	22mm
2050	GW05D	15mm	N/A	
2052	GW05D	15mm	N/A	
2060	GW05G	20mm	GW05G	20mm
2066	GW05A	20mm	GW05A	20mm
2070	GW05E	22mm	GW05E	22mm
2071	GW05F	22mm	GW05F	22mm
2075	GW05A	20mm	GW05A	20mm
2082	GW05I	28mm	GW05I	28mm
2084	GW05K	35mm	GW05L	35mm
2090	GW05I	28mm	GW05I	28mm
2101	GW05A	20mm	GW05A	20mm
2102–210	GW05C or GW05F	22mm	GW05C or GW05F	22mm
2102–040	GW05E	22mm	GW05E	22mm
2102–041	GW05C or GW05F	22mm	GW05C or GW05F	22mm
2102–220	GW05C or GW05F	22mm	GW05C or GW05F	22mm
2125	GW05I	28mm	GW05I	28mm
2135	GW05K	35mm	GW05L	35mm
2140	GW05I	28mm	GW05I	28mm
2151–010	GW05K	35mm	GW05K	35mm
2151–011	GW05K	35mm	GW05L	35mm
2151–050	GW05K	35mm	GW05L	35mm
2201–430	GW05N	45mm	GW05N	35mm
2201–320	GW05N	45mm	GW05N	35mm
2201–010	GW05O	45mm	GW05K	35mm
2201–011 HT	GW05O	45mm	GW05N	35mm
2201–011 LT	GW05O	45mm	GW05O	45mm
2201–011 MT	GW05O	45mm	GW05N	35mm
2201 –480	GW05N	45mm	GW05N	35mm
2201 –590	GW05N	45mm	GW05N	35mm
2201 –690	GW05N	45mm	GW05N	35mm
2250	GW05P	60mm	GW05P	60mm
2290	GW05P	60mm	GW05P	60mm
2400	GW05R	60mm	GW05R	60mm
2540			GW05R	60mm
3041–171	GW05G	20mm	GW05G or GW05H	20mm
3041–180	GW05G	20mm	GW05G or GW05H	20mm
3041–281	GW05G	20mm	GW05G	20mm
3057	GW05G	20mm	GW05G or GW05H	20mm
3060	GW05G	20mm	GW05G	20mm
3065	GW05A Lower	20mm	GW05A	20mm

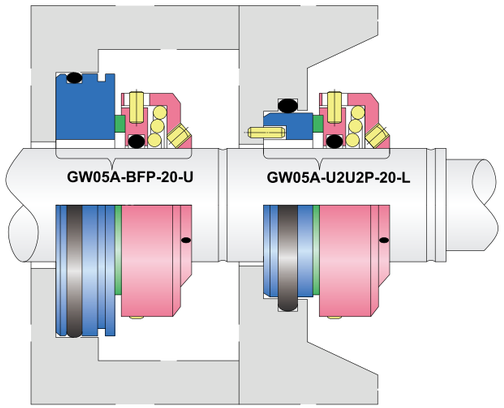
GW05 Cross Reference Charts

FLYGT Unit Type Model Version	GWSEAL Alternative Upper(inner)	Size	GWSEAL Alternative Lower(outer)	Size
3066	GW05G	20mm	GW05GorGW05H	20mm
3067–890	GW05G	20mm	GW05GorGW05H	20mm
3067–690	GW05G	20mm	GW05GorGW05H	20mm
3067–590	GW05G	20mm	GW05GorGW05H	20mm
3067–250	GW05G	20mm	GW05G	20mm
3067–170	GW05G	20mm	GW05G	20mm
3067–090	GW05G	20mm	GW05GorGW05H	20mm
3067–180	GW05G	20mm	GW05GorGW05H	20mm
3068	GW05G	20mm	GW05G	20mm
3080	GW05A	20mm	GW05A	20mm
3082	GW05E	20mm	GW05E	22mm
3085–290	GW05G	20mm	GW05H	20mm
3085–280	GW05G	20mm	GW05H	20mm
3085–091	GW05G	20mm	GW05G	20mm
3085–092	GW05G	20mm	GW05GorGW05H	20mm
3085–120	GW05G	20mm	GW05GorGW05H	20mm
3085–170	GW05G	20mm	GW05GorGW05H	20mm
3085–171	GW05G	20mm	GW05GorGW05H	20mm
3085–172	GW05G	20mm	GW05GorGW05H	20mm
3085–180	GW05G	20mm	GW05GorGW05H	20mm
3085–181	GW05G	20mm	GW05GorGW05H	20mm
3085–182	GW05G	20mm	GW05GorGW05H	20mm
3085–890	GW05G	20mm	GW05G	20mm
3085–891	GW05G	20mm	GW05GorGW05H	20mm
3101	GW05B	28mm	GW05B	28mm
3102	GW05J	25mm	GW05J	25mm
3126–290	GW05K	35mm	GW05M	35mm
3126–280	GW05K	35mm	GW05M	35mm
3126–181	GW05M	35mm	GW05M	35mm
3126–090	GW05K	35mm	GW05K	35mm
3126–091	GW05K	35mm	GW05M	35mm
3126–180	GW05K	35mm	GW05K	35mm
3127	GW05M	35mm	GW05M	35mm
3140	GW05O	45mm	GW05O	45mm
3152	GW05O	45mm	GW05O	45mm
3170	GW05Q	60mm	GW05Q	60mm
3200	GW05P	60mm	GW05P	60mm
3201	GW05Q	60mm	GW05Q	60mm
3230	GW05S	90mm	GW05S	80mm
3300–091	GW05S	90mm	GW05S	80mm
3300–181	GW05S	90mm	GW05S	80mm
3300–280	GW05S	90mm	GW05S	80mm
3300–980	GW05S	90mm	GW05S	80mm
3305	GW05S	90mm	GW05S	80mm
3310	GW05S	90mm	GW05T	120mm
3311	GW05S	90mm	GW05T	120mm
3312	GW05S	90mm	GW05T	120mm
3350	GW05S	90mm	GW05T	120mm
3351	GW05S	90mm	GW05T	120mm
3355	GW05S	90mm	GW05S	80mm
3356	GW05S	90mm	GW05S	80mm
3357	GW05S	90mm	GW05S	80mm
3400	GW05S	90mm	GW05U	90mm
3500	GW05S	90mm	GW05T	120mm

FLYGT Unit Type Model Version	GWSEAL Alternative Upper(inner)	Size	GWSEAL Alternative Lower(outer)	Size
3501	GW05S	90mm	GW05T	120mm
3530	GW05S	90mm	GW05T	120mm
3531	GW05S	90mm	GW05T	120mm
3600	GW05S	90mm	GW05T	120mm
3601	GW05S	90mm	GW05T	120mm
3602	GW05S	90mm	GW05T	120mm
4351	GW05G	20mm	GW05H	20mm
4352	GW05G	20mm	GW05H	20mm
4400	GW05G	20mm	GW05H	20mm
4410	N/A		GW05Q	60mm
4430	N/A		GW05Q	60mm
4440	GW05M	35mm	GW05M	35mm
4650	GW05O	45mm	GW05O	45mm
4660	GW05O	45mm	GW05O	45mm
4670	GW05Q	60mm	GW05Q	60mm
4680	GW05Q	60mm	GW05Q	60mm
5100	GW05O	45mm		
5520			GW05J	25mm
5530	GW05M	35mm	GW05M	35mm
5540	GW05O	45mm		
5550	GW05Q	60mm		
5560	GW05S	90mm		
7045	GW05Q	60mm	GW05Q	60mm
7050	GW05S	90mm	GW05S	80mm
7051	GW05S	90mm	GW05S	80mm
7055	GW05S	90mm	GW05S	80mm
7060	GW05S	90mm	GW05S	80mm
7061	GW05S	90mm	GW05S	80mm
7076	GW05S	90mm	GW05S	80mm
7080	GW05S	90mm	GW05S	80mm
7080	GW05S	90mm	GW05T	120mm
7081	GW05S	90mm	GW05U	90mm
7101	GW05S	90mm	GW05U	90mm
7115	GW05S	90mm	GW05T	120mm
7556	GW05S	90mm	GW05S	80mm
7570	GW05S	90mm	GW05T	120mm
7585	GW05S	90mm	GW05T	120mm
Ready 4	GW05D	15mm	N/A	
Ready 8	GW05D	15mm	N/A	
Ready 12	GW05D	15mm	N/A	
Ready 16	GW05D	15mm	N/A	
Ready 24	GW05A	20mm	GW05A	20mm
Ready 40	GW05CorGW05F	22mm	GW05CorGW05F	22mm
Ready 56	GW05CorGW05F	22mm	GW05CorGW05F	22mm
Ready 90	GW05I	28mm	GW05I	28mm
Ready 7	GW05G	20mm	GW05G	20mm

Grindex Pump	GWSEAL Alternative Upper(inner)		GWSEAL Alternative Lower(outer)
Maxi	GW05O		GW05N
All other pumps	GW05Z		GW05Z

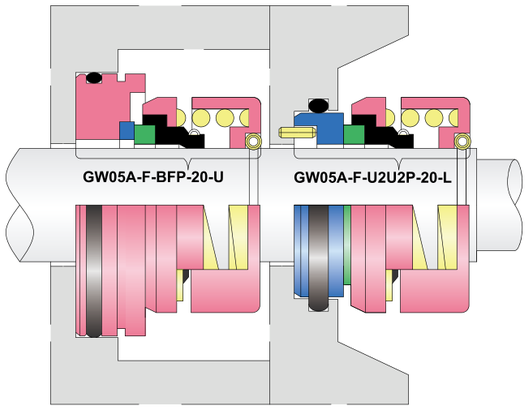
GW05A



GW05A seal instead of AES T05A seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation

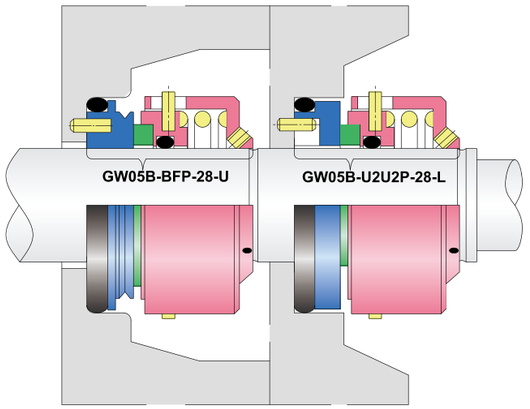
GW05A - F



GW05A–F seal instead of original Flygt seal used for Flygt pump no: 2024/2066/2075/2101/3065/3080/Ready 24

- Monolithic stationary faces
- Supplied with removable setting clip

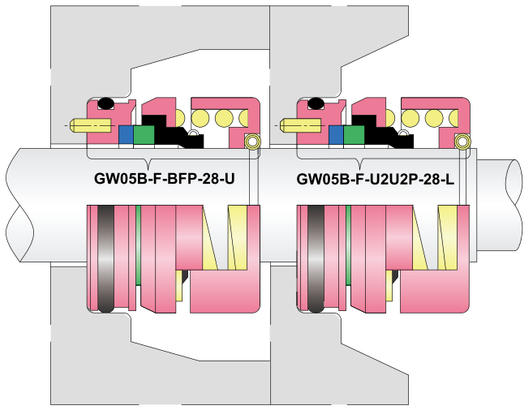
GW05B



GW05B seal instead of AES T05B seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation

GW05B - F

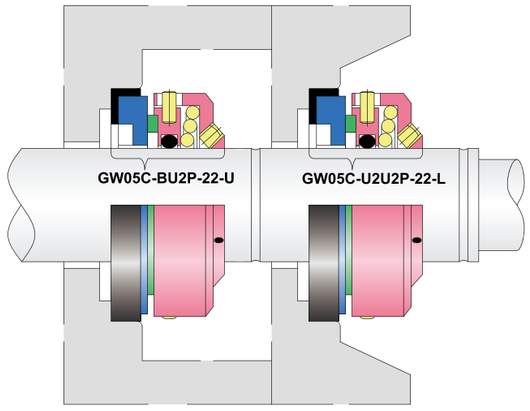


GW05B–F seal instead of original Flygt seal used for Flygt pump no: 3101

- Monolithic stationary faces
- Supplied with removable setting clip

Flygt Pump Mechanical Seals

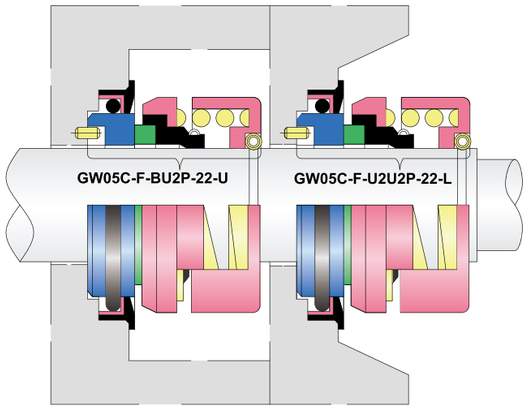
GW05C



GW05C seal instead of AES T05C seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- Unitised rotary,no loose faces to fall out during installation
- Monolithic stationary faces

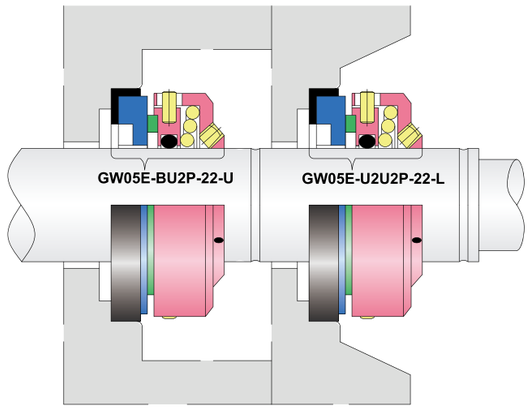
GW05C - F



GW05C–F seal instead of original Flygt seal used for Flygt pump no:2040/2102–210/2102–041/2102–220/Ready 40/ Ready 56

- Seats designed to replace original seat&wear protector
- Supplied with removable setting clip
- No plastic parts

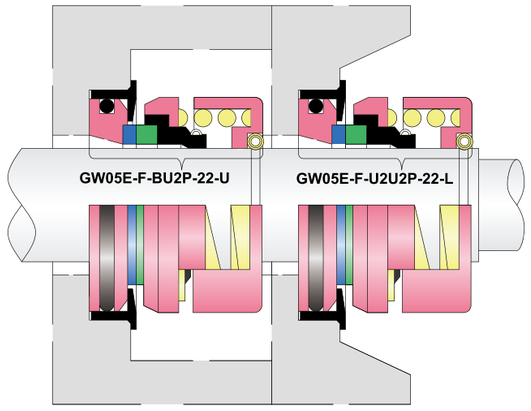
GW05E



GW05E seal instead of AES T05E seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation

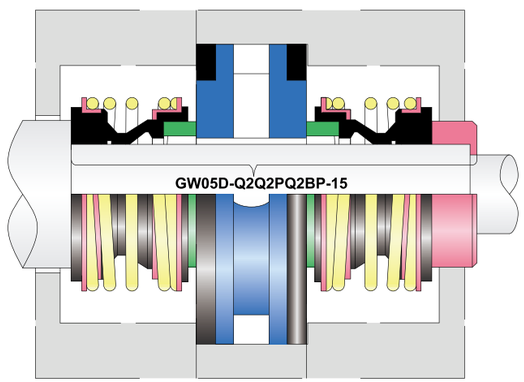
GW05E - F



GW05E–F seal instead of original Flygt seal used for Flygt pump no: 2070/2102–040/3082

- Monolithic stationary faces
- Supplied with removable setting clip

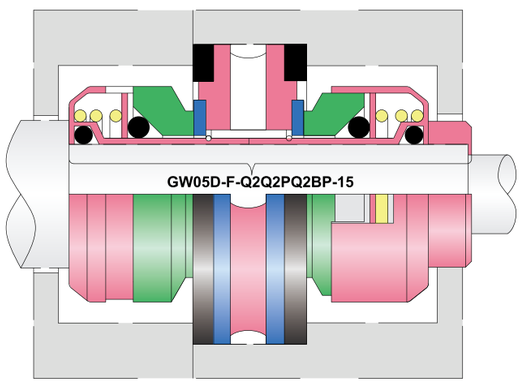
GW05D



GW05D seal instead of AES T05D seal

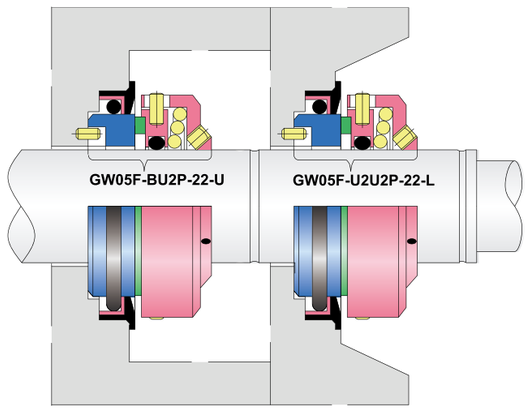
- Enclosed Bellows rotary design
- Stainless Steel metal parts
- Monolithic stationary faces
- Supplied with setting collar

GW05D - F



GW05D–F seal instead of original Flygt seal used for Flygt pump no: 2004/2008/2012/2016/2050/2052/Ready 4/Ready 8/Ready 12/Ready 16

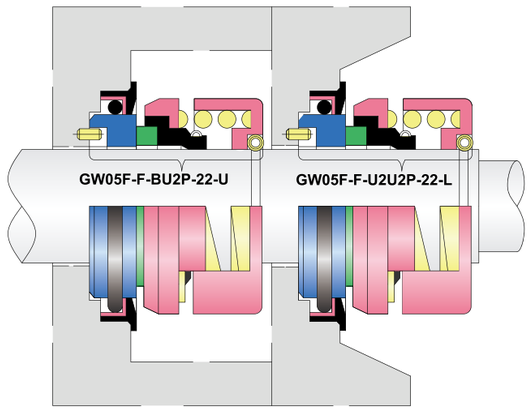
GW05F



GW05F seal instead of AES T05F seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation

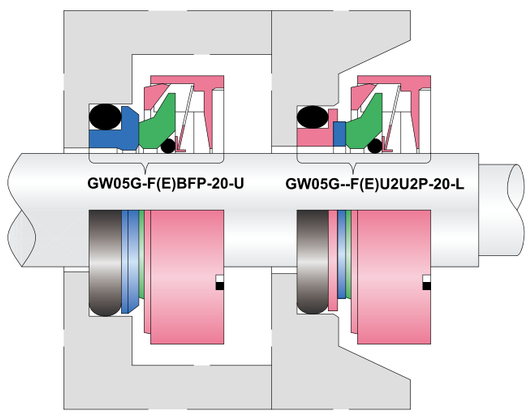
GW05F - F



GW05F–F seal instead of original Flygt seal used for Flygt pump no: 2040/2071/2102–210/2102–041/2102–220/Ready 40/Ready 56

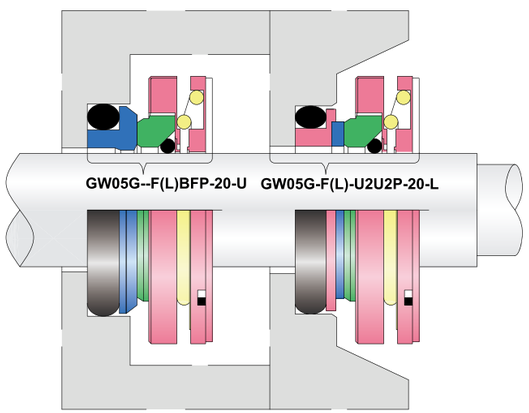
- Monolithic stationary faces
- Supplied with removable setting clip

GW05G - F(E)

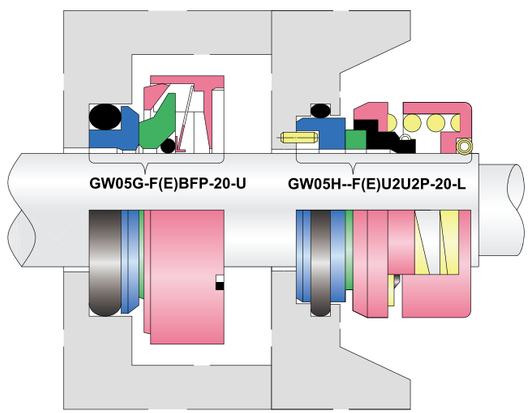


GW05G–F(E) seal and GW05G–F(L) seal instead of original Flygt seal used for Flygt pump no: 2060/3041–171/3041–180/3041–281/3057/3060/3066/3067–890/3067–690/3067–590/3067–250/3067–170/3067–090/3067–180/3068/3085–091/3085–092/3085–120/3085–170/3085–171/3085–172/3085–180/3085/–181/3085–182/3085–890/3085–891/Steady 7

GW05G - F(L)

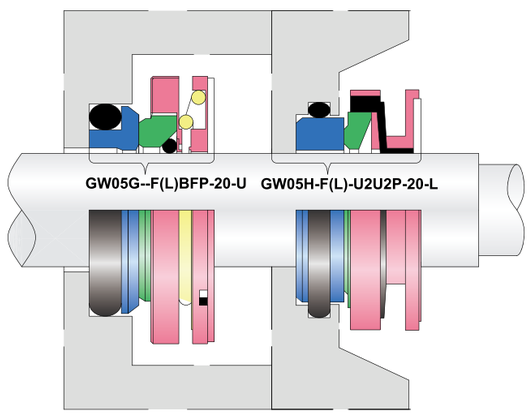


GW05GH - F(E)

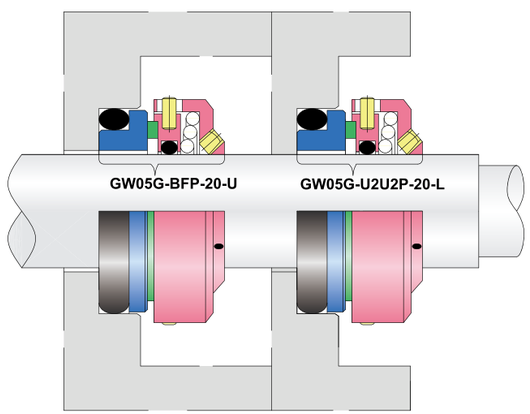


GW05GH–F(E) seal and GW05GH–F(L) seal instead of original Flygt seal used for Flygt pump no: 3041–171/3041–180/3057/3066/3067–890/3067–690/3067–590/3067–090/3067–180/3085–290/3085–280/3085–092/3085–120/3085–170/3085–171/3085–172/3085–180/3085/–181/3085–182/3085–891/4351/4352/4400

GW05GH - F(L)



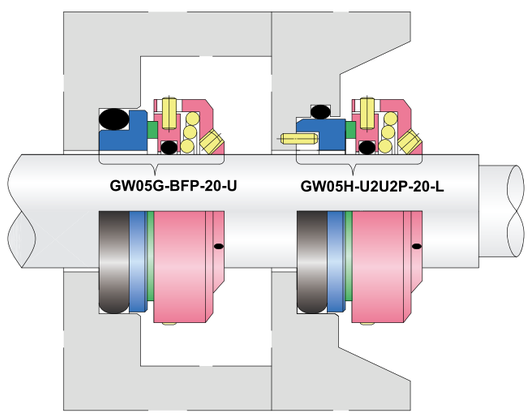
GW05G



GW05G seal instead of AES T05G seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Monolithic stationary faces
- Supplied with removable setting clip
- No special fitting tool required

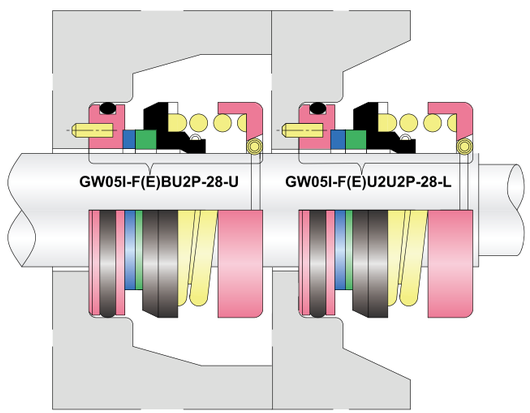
GW05GH



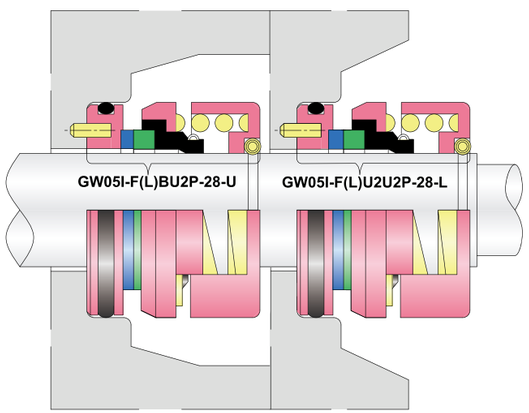
GW05GH seal instead of AES T05GH seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Monolithic stationary faces
- Supplied with removable setting clip
- No special fitting tool required

GW05I - F(E)

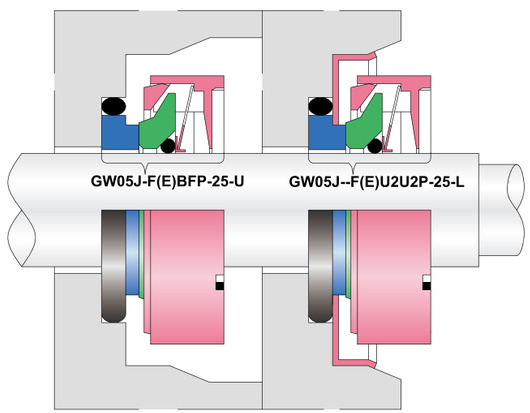


GW05I - F(L)

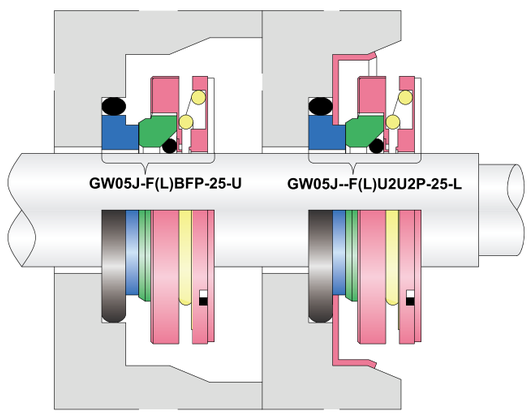


GW05I–F(E) seal and GW05I–F(L) seal instead of original Flygt seal used for Flygt pump no: 2082/2090/2125/2140/Ready 90

GW05J - F(E)

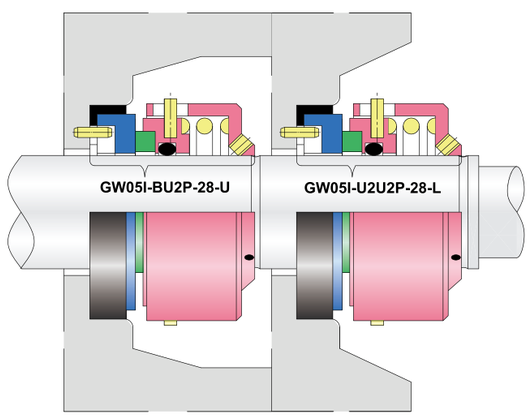


GW05J - F(L)



GW05J–F(E) seal and GW05J–F(L) seal instead of original Flygt seal used for Flygt pump no: 3102

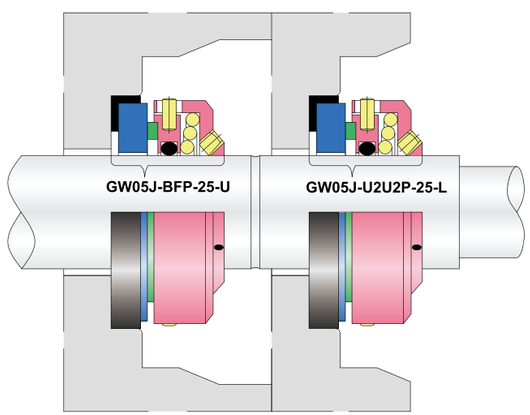
GW05I



GW05I seal instead of AES T05I seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation
- Monolithic stationary faces
- Boot mounted seats for improved sealing in worn or corroded housings
- Supplied with removable setting clip

GW05J

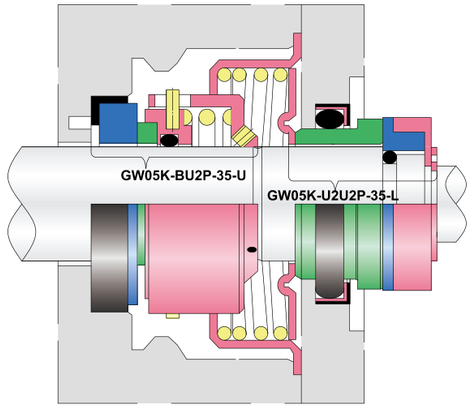


GW05J seal instead of AES T05J seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Monolithic stationary faces
- Boot mounted seats for improved sealing in worn or corroded housings
- Supplied with removable setting clip
- No special fitting tool required

Flygt Pump Mechanical Seals

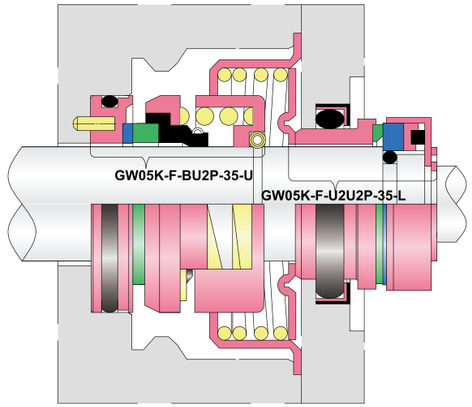
GW05K



GW05K seal instead of AES T05K seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation
- Monolithic stationary faces

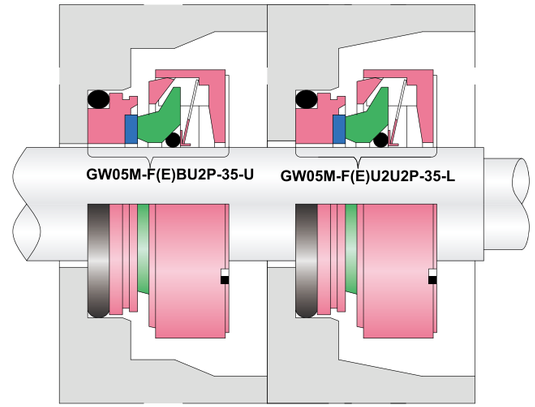
GW05K - F



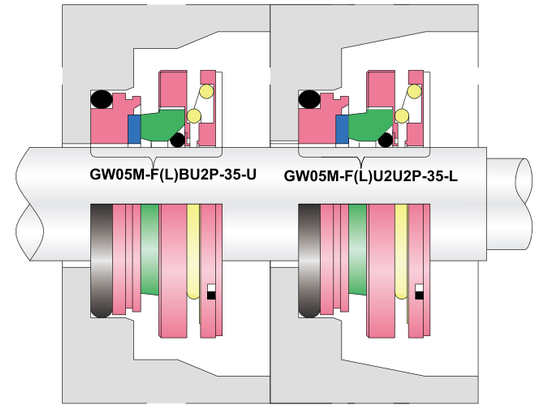
GW05K–F seal instead of original Flygt seal used for Flygt pump no: 2151–010/3126–090/3126–180

- Boot mounted seats for improved sealing in worn or corroded housings
- Stainless Steel metal parts
- No pressed steel parts
- Monolithic stationary faces

GW05M - F(E)

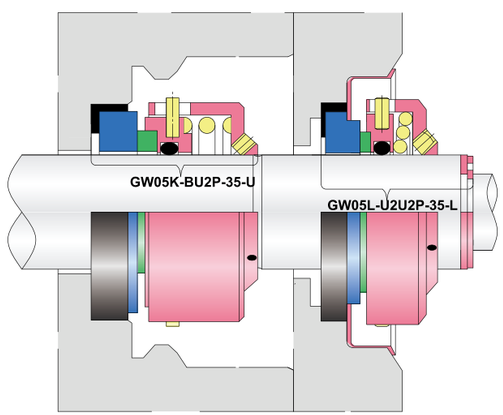


GW05M - F(L)



GW05M–F(E) seal and GW05M–F(L) seal instead of original Flygt seal used for Flygt pump no: 3126–181/3127/4440/5530

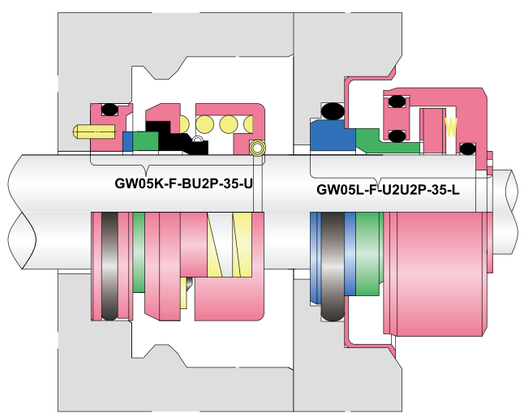
GW05KL



GW05KL seal instead of AES T05KL seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- Unitised rotary,no loose faces to fall out during installation
- No plastic parts
- Monolithic stationary faces

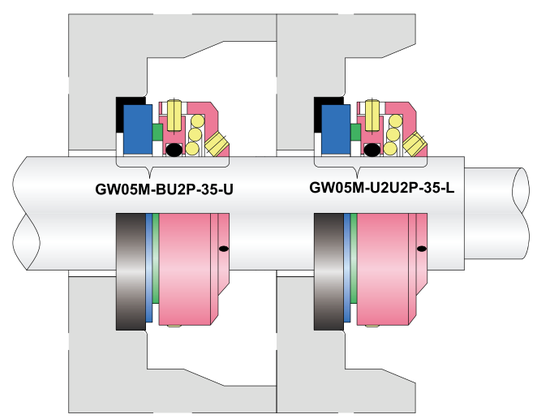
GW05KL - F



GW05KL–F seal instead of original Flygt seal used for Flygt pump no:2084/ 2135/2151–011/2151–050

- Boot mounted seats for improved sealing in worn or corroded housings
- Supplied with removable setting clip

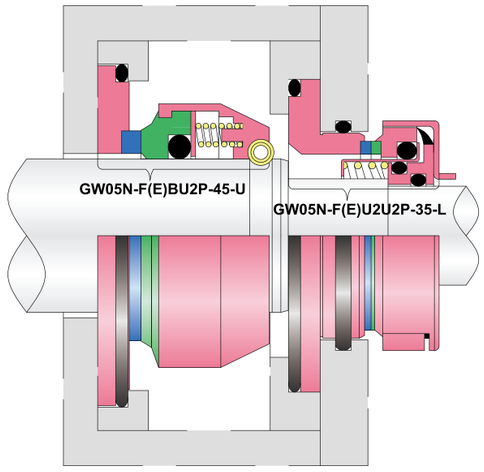
GW05M



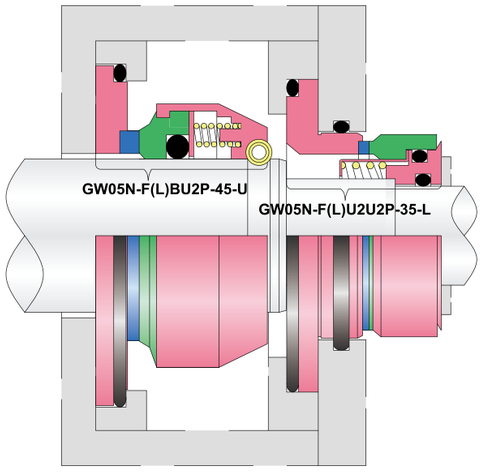
GW05M seal instead of AES T05M seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Monolithic stationary faces
- Boot mounted seats for improved sealing in worn or corroded housings
- Supplied with removable setting clip
- No special fitting tool required

GW05N - F(E)

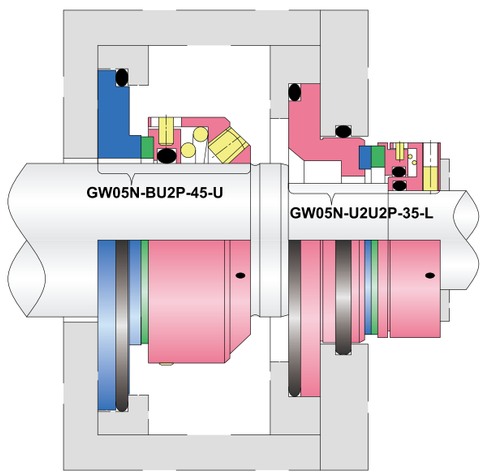


GW05N - F(L)



GW05N–F(E) seal and GW05N–F(L) seal instead of original Flygt seal used for Flygt pump no:2201–430/2201–320/2201–480/2201–590/2201–690

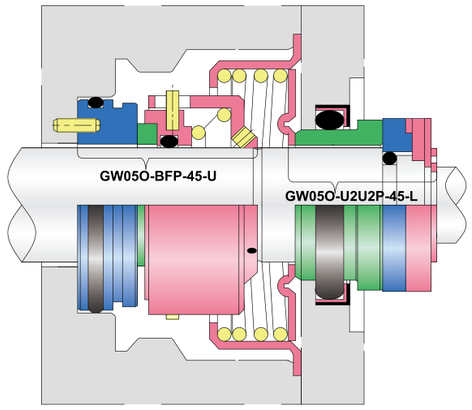
GW05N



GW05N seal instead of AES T05N seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation
- Supplied with removable setting clip(Upper)

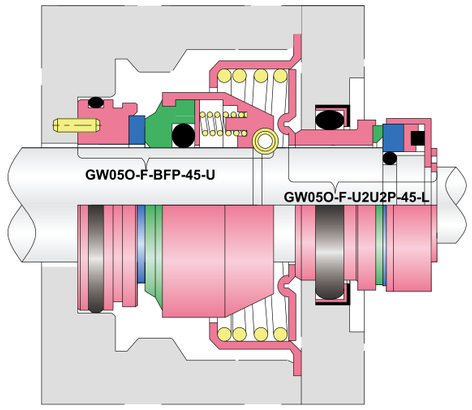
GW05O



GW05O seal instead of AES T05O seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No plastic parts
- Monolithic stationary faces
- Supplied with removable setting clip

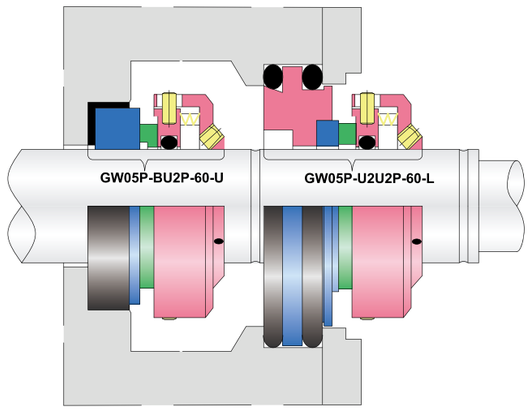
GW05O - F



GW05O–F seal instead of original Flygt seal used for Flygt pump no:2201–011 LT/3140/3152/4650/4660

- Unitised rotary,no loose faces to fall out during installation
- Stainless Steel metal parts
- No pressed steel parts
- Monolithic seal faces

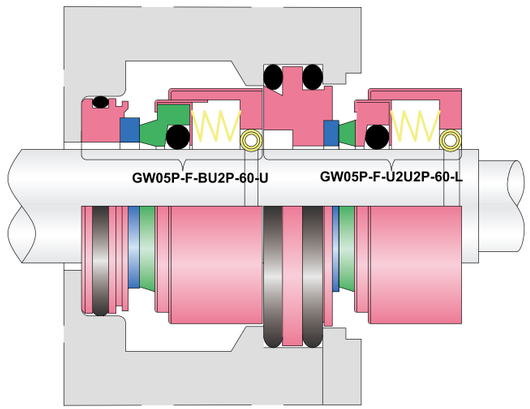
GW05P



GW05P seal instead of AES T05P seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No pressed steel parts
- Monolithic stationary faces(Upper)

GW05P - F

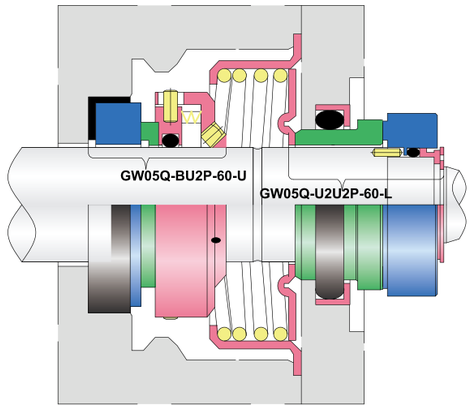


GW05P–F seal instead of original Flygt seal used for Flygt pump no:2250/2290/3200

- Boot mounted seats for improved sealing in worn or corroded housings(Upper)
- Supplied with removable setting clip

Flygt Pump Mechanical Seals

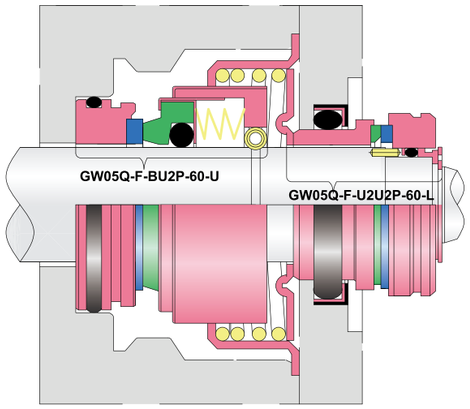
GW05Q



GW05Q seal instead of AES T05Q seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No pressed steel parts
- Monolithic stationary faces
- Boot mounted seats for improved sealing in worn or corroded housings

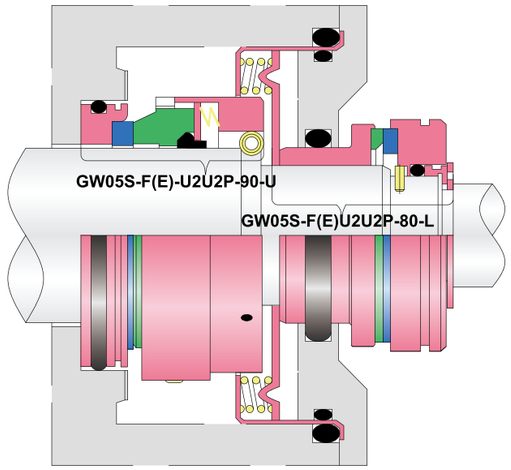
GW05Q - F



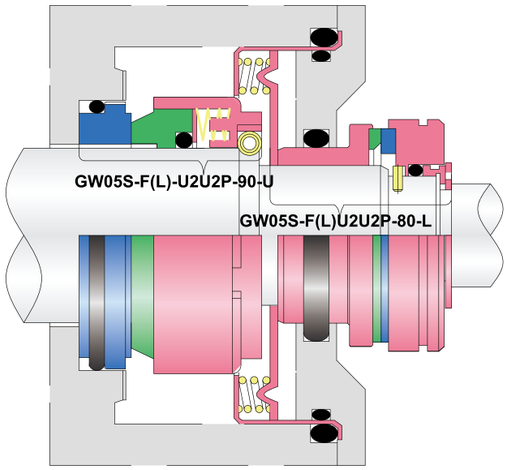
GW05Q–F seal instead of original Flygt seal used for Flygt pump no:600/3170/3201/4670/4680/7045

- Supplied with removable setting clip
- Stainless Steel metal parts
- Monolithic seal faces

GW05S - F(E)

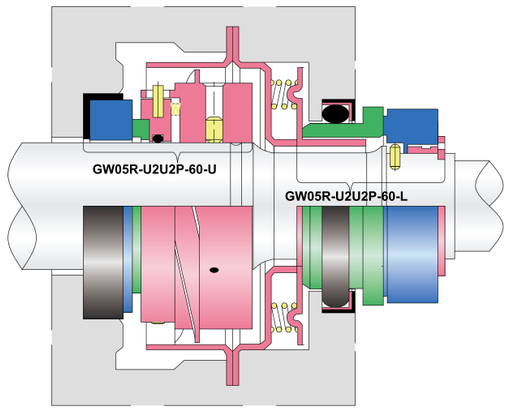


GW05S - F(L)



GW05S–F(E) seal and GW05S–F(L) seal instead of original Flygt seal used for Flygt pump no:605/615/665/670/680/705/715/720/721/735/745/760/765/770/775/820/840/841/860/880/881/900/3230/3300–091/3300–181/3300–280/3300–980/3305/3355/3356/3357/7050/7051/7055/7060/7061/7076/70807556

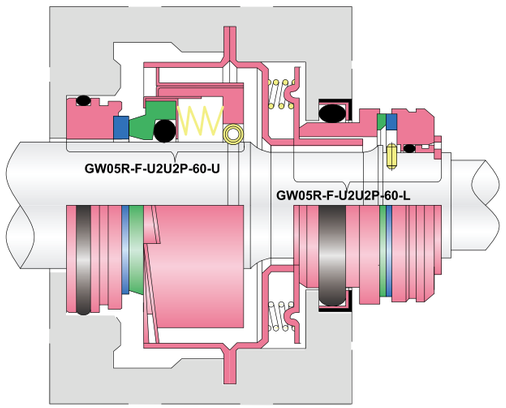
GW05R



GW05Rseal instead of AES T05R seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No pressed steel parts
- Fully machined impeller
- Monolithic stationary faces

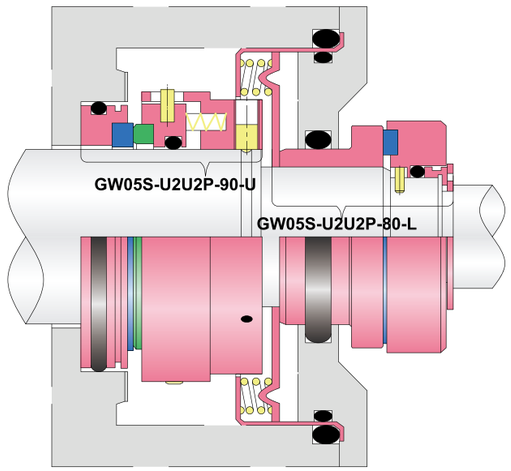
GW05R - F



GW05R–F seal instead of original Flygt seal used for Flygt pump no:2400

- Boot mounted seats for improved sealing in worn or corroded housings
- Supplied with removable setting clip
- Stainless Steel metal parts
- Monolithic seal faces

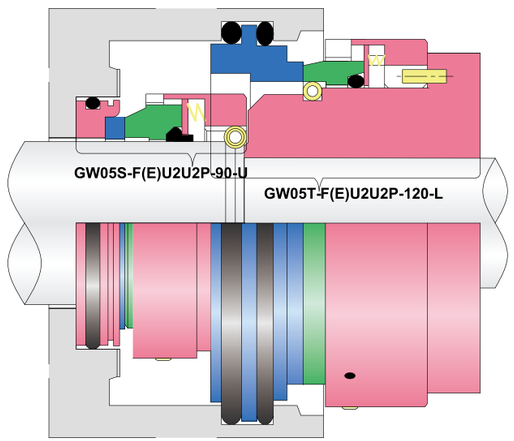
GW05S



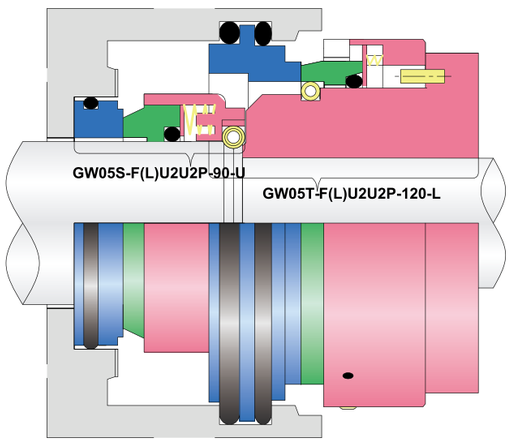
GW05S seal instead of AES T05S seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No pressed steel parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation
- Monolithic stationary faces

GW05ST - F(E)

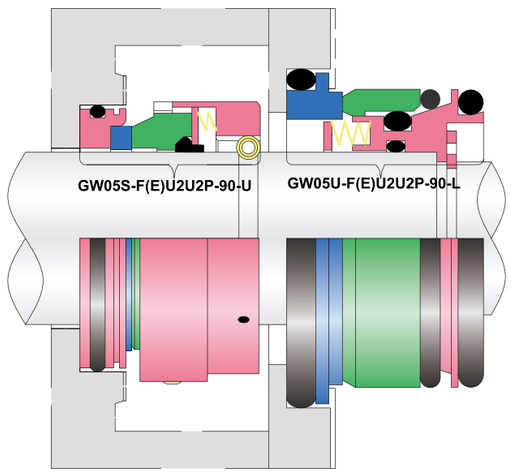


GW05ST - F(L)

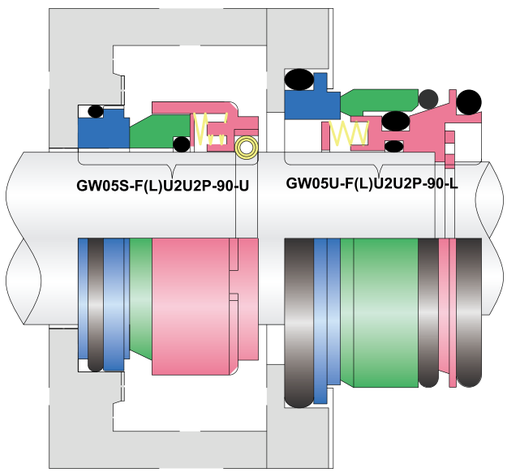


GW05ST–F(E) seal and GW05ST–F(L) seal instead of original Flygt seal used for Flygt pump no:705/715/720/721/735/745/760/765/770/775/820/840/841/860/880/881/900/3310/3311/3312/3350/3351/3500/3501/3530/3531/3600/3601/3602/7080/7115/7570/7585

GW05SU - F(E)

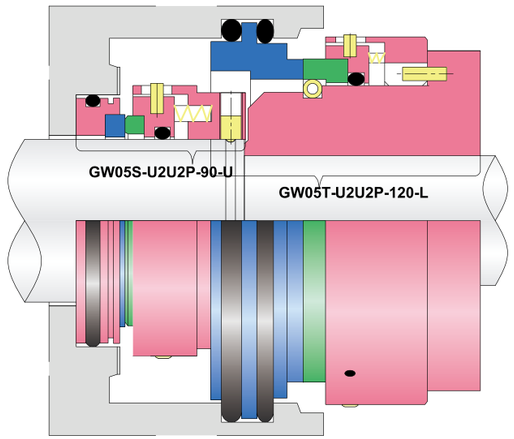


GW05SU - F(L)



GW05SU–F(E) seal and GW05SU–F(L) seal instead of original Flygt seal used for Flygt pump no:705/715/720/721/735/745/760/765/770/775/820/840/841/860/880/881/900/3400/7081/7101

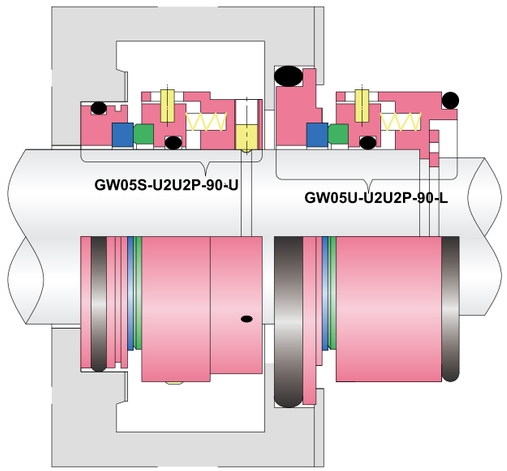
GW05ST



GW05ST seal instead of AES T05ST seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No pressed steel parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation
- Monolithic stationary faces

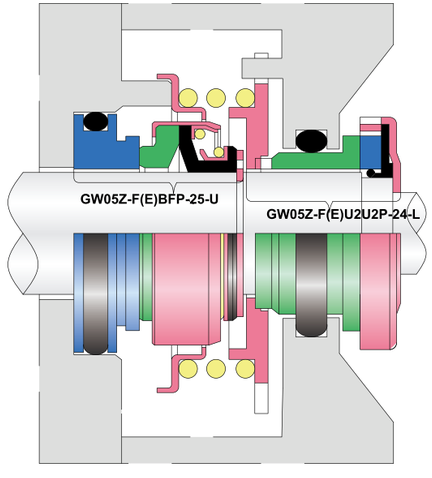
GW05SU



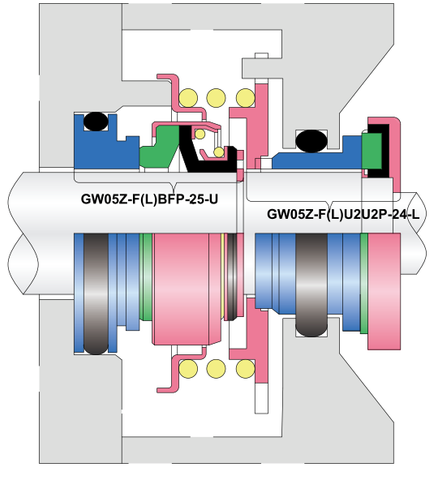
GW05SU seal instead of AES T05SU seal

- Robust&compact rotary design
- Grub/set screwed(Allen Key included)
- Stainless Steel metal parts
- No pressed steel parts
- No plastic parts
- Unitised rotary,no loose faces to fall out during installation

GW05Z - F(E)

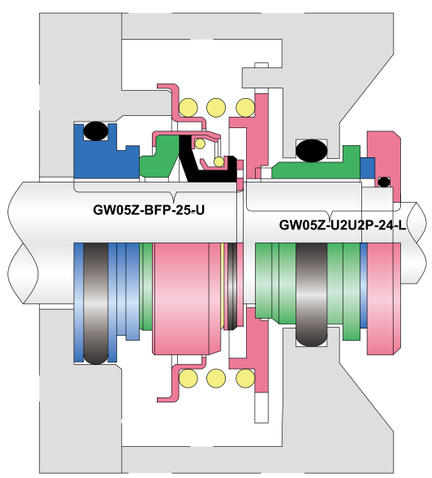


GW05Z - F(L)



GW05Z–F(E) seal and GW05SU–F(L) seal instead of original Flygt seal used for Flygt pump no:All other pumps

GW05Z



GW05Z seal instead of AES T05Z seal

- Simple&compact rotary design
- Stainless Steel metal parts
- Monolithic stationary faces
- Unitised rotary,no loose faces to fall out during installation

Flygt Plug-In Cartridge Seal

GW CODE	AES CODE	Size	FLYGT PUMP CODE
GW05VC–020	N–T05VC–020	20MM	2610,2620,2630,2640,4610 & 4620
GW05VC–025	N–T05VC–025	25MM	4630&4640
GW05VC–035	N–T05VC–035	35MM	2670,3153,5100,.210, 5100.220
GW05VC–045	N–T05VC–045	45MM	3,137,465,046,605,100.00
GW05VC–060	N–T05VC–060	60MM	3202.4670,4680,5100.300,5150.300
GW05VC–090	N–T05VC–090	90MM	3301,5150.350 & 5150.360

GW05VC-020

GW05VC-025

GW05VC-035

GW05VC-045

GW05VC-060

GW05VC-090

Tungsten Carbide

Tungsten Carbide is widely used as seal faces with resinstan–wearing,high fractural Strength,high thermal conductivity, small heat expansion coefficient.It is the best material to resist heat and fracture in all hard face materials.

碳化钨的主要技术参数 / Main Tchnology Data of Tungsten Carbide(TC)

牌号 Brand No	YG6	YG8	YG15	YGN8
密度 Density	14.6–15.0	14.5–14.9	13.9–14.2	14.4–14.8
洛氏硬度 HRA	89.5	89	87	88
抗弯强度 Bending Stength	1421	1470	2058	1470
线胀性 Linear Expansivity(10–6/k(20C–500C)	5	5.1	6.3	5.3
介质 Medium	Resistant against:Oil, sewage water, weak acid/alkali ect.			Strong erosive medium

Ceramic

Ceramic seal faces have the property of the resistant–high–temperature, resistant–corrosion, resistand–wearing and good sealing and are wideky used in spacer craft, machinery, metallurgy, pringting and dyeing, food stuff, pharmaceutical, auto industry and so on.

陶瓷的主要寄出性能 / Main performance Index of Ceramic

Technical Parameter	Unit	95%	99%	99.50%
Content of Al203	%	⩾ 95	⩽ 99	⩽ 99
Density	g/cm^3	3.7	3.88	3.9
Hardness	HRA	85	88	90
Porosity Rate	%	< 0.4	< 0.2	< 0.15
Fractural Strength	MPa	250	310	350
Coefficient of Heat Expansion	10–6/K	5.5	5.3	5.2
Therrmal Conductivity	W/M.K	27.8	26.7	26

Silicon Carbide

They have the property excellent resistant–corrosion,high mechanical strength, high thermal conducticity, good self–lubrication, used as seal faces, bearings and tubes in pacecraft, machinery, metallurgy, printing and dyeing. food stuff, auto industry industry, phamaceutical and so on.When the sic faces are combined with graphite faces the friction is the smallest and they can be made into mechanical seals which are able to work in highext working requirements.

碳化硅的主要寄出性能 / Main performance Index of Silicon Carbide

Item	unit	Reaction Silicon CarbideSiC(反应碳化硅)	Sintered Silicon Carbide SSiC(无压碳化硅)
纯净度 Purity	%	⩾ 90	⩾ 98
密度 Density	g/cm^3	3.05	3.1
肖氏硬度 Shore Hardness	HS	110–125	120–130
弹性模量 Elastic Modulus	Mpa	4.12*105	4.12*105
抗拉强度 Tensile Strength	Mpa	2.75*102	2.8*102
抗弯强度 Bending Strength	Mpa	4.41*102	4.9*102
抗压强度 Compression Strength	Mpa	2.94*103	3.0*103
热导性 Thermal Conductivity	W/m.k	141 (W/m.k)	147 (W/m.k)
热膨胀系数 Coefficient of Tahermal Expansion	I/℃	4.3*10–6	4.0*10–6
抗热性 Heat Resistance	℃	1600℃	1650℃
热冲击系数 Thermal Impact Coefficient	cal/cm.sec	46.5	200
耐酸性 Acid Resistance		5 times higher than the usual TC	Resist chemical media

Carbon

Graphite had the good property of good resistant–corrosion, high thermal conductivity and lower friction good self–lubrication, the smaller expansion. They can be made into the seal faces, bearings and so on. It is ideal to choose it as the frictional mating rings.

石墨性能表 / Carbon Performance Index

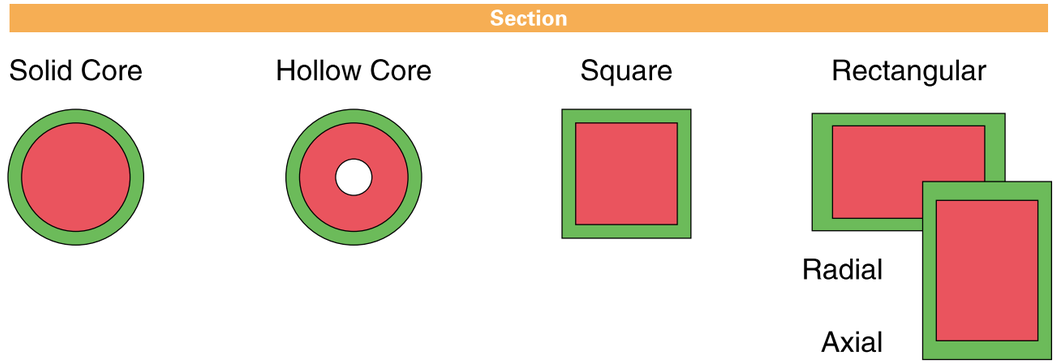
类型 Type	M106H	M120H	M106K	M120K	M106F	M120F	M106D	M120D	M254D
牌号 Brand	Impregnated Epoxy Resin(B1)		Impregnated Furan Resin(B)		Impregnated Phenol Aldehyde Resin(B2)		Antimony Carbon (A)		
Density (g/cm^3)	1.75	1.7	1.75	1.7	1.75	1.7	2.3	2.3	2.3
Fractural Strength (MPa)	65	60	67	62	60	55	65	60	55
Compressive Strength (MPa)	200	180	200	180	200	180	220	220	210
Hardness	85	80	90	85	85	80	90	90	65
Porosity	< 1	< 1	< 1	< 1	< 1	< 1	< 1.5	< 1.5	< 1.5
Temperatures (℃)	250	250	250	250	250	250	400	400	450

Rubber

橡胶种类特性 / Rubber Classification&Features

Rubber Variety	Main Feature and Suitable Scope
VITON	**Resistant against:**heat,oil,reagents,Suitable for high temperature and vacuum equipment. **Application temperature:**–30℃ ––––+210℃
EPDM	**Resistant against:**chemical reagents,Suitable for hydraulic oil of orgnaic phosphate. **Application temperature:**–50℃ ––+150℃
NBR	**Resistant against:**oil,pressure,abrasion.Hig elasticity and mechancal strength. Suitable for general hydraulic and pneumati seal;Unsuitable for working under sunlight and ultraviolet. **Application temperature:**–20℃ ––––+120℃
SILICON RUBBER	**Resistant against:**hear,freeze,low mechanical strength,bad bending and abrasion.Suitable for fixed seal resistant to heat and freeze. Unsuitable for working under high mchanical strength. **Application temperature:**–80℃ ––––+200℃
CR	**Resistant against:**oil,abrasion,efflorescence good bending.Especially suitable for pneuma machine and hydraulic fluid at high aniline po. **Application temperature:**–40℃ ––––+120℃
HNBR	**Resistant against:**gasoline.Freon,oil,acid,zoone,alkali,heating and freeze. High mechanical stength high avrasion. **Application temperature:**–20℃ ––––+180℃

Encapsulated Rings



塑料 (FEP/PFA)
橡胶 (三元乙丙胶 / 氟胶 / 硅胶)

包覆橡胶圈 / Encapsulated Rings

Product Type
包 PTFE 的 O 型圈 /PTFE Encapsulated o–rings
包 FEP 的 O 型圈 /FEP encapsulated o–rings
包 PFA 的 O 型圈 /PFA Encapsulted O–rings
方形密封圈 /Square Cross –section Ring Seals
长方形密封圈 /Rectangular Cross–Section Ring Seals

FFKM

Perfluoroelastomer (FFKM) is synthetic elastomer,without C–H linkage.This kind of ruber,which can effectively work under the max temperature of 327℃ and bear corrosion of any chemical mediator,has perfect tolerance to oil,chemical & heat. Fluocarbon linkage is the main reason tohigh stability perfomance.The refractory compression permanent deformation performance of Perfluoroelastomer is superior to that of Viton.It is widely used in semiconductor manufacture,petrochemical, gas extraction,medical food and aerospace industries because of the champion nature.

全氟醚橡胶（FFKM）是一种合成弹性体，一种完全不含 C–H 键的橡胶。该橡胶有很强的耐油类。化学品性能，最高可在327℃温度下有效工作，几乎能承受一切化学介质的腐蚀。氟碳键的高键能是全氟醚橡胶具有高稳定性的主要原因。
全氟醚橡胶的耐高温压缩永久变形性能优于氟橡胶。全氟醚橡胶因为具有优异特性被广泛用于半导体制造、石油化工、天然气开采、医药食品、航空航天领域。

全氟醚橡胶 / FFKM

Dupont–Kalrez			
Property	Unit	Kalrez 6375	Kalrez 4079
Tensile Strength @ Break	Mpa	15.1	16.9
kgf/cm Modulous @100%	154Mpa	172 / 7.2	7.3
kgf/cm^2	73.4	74	/
Elongation percentage@Break	%	160	150
Hardness	HS	75	75
Heat Resistance Temperature	℃	275	316
70 hr in room temperature	/	/	22
70 ht ar 204℃	/	30	25

China –FFKM		
Property	unit	
Hardness	HS	72
Tensile Strength @ Break	Mpa	20
Enlogation Percentage @ Break	%	175
Modulous @100%	Mpa	10.5
Heat Resistance Temperature	℃	270℃
70 hr in room temperature	/	19
70 hr at 204 ℃	/	49

Installation Instructions

Preperation:

1. Shaft Outside Diameter is within tolerance +–0.05mm
2. Shaft run out <0.1mm
3. Shaf end float <0.13mm
4. No sharp edges on the shaft over the o ring

Note:

During the installation,don't scratch or damage the o ring.If anything is damaged,please contact with our local agents to replace a new one.

Installation in strucstions:

1. The full set of cartridge seal is cleaned and exactly passed leakage examine before sale.In order to avoid damage,don't disassemble and clean the parts again before fixing.
2 .The fitting allowance between the seal and shaft is dl h6 0.8,and there should be leading–in edge at the end of shaft.The outside diameter of shaft at the position of screw should be 01¯0.2 mm smaller,resisting the screw over–tighten.Lubricate the shaft with oil.
3. Place the cartridge seal into the pump chamber,then:
   A: Tighter four screw bolts of flanges,ensuring the medium leading in hole"G"at the top Position.
   B : Tighter four set screws and position the shaft sleeve on the shaft.
   C: Remove four gauge plates.Please keep them and they will be used in future installation and disassemble.
   D: Connect the medium lead–in pipe with hole"G"in order to flush away the friction heat and flushing the seal chamber when pump running.

Note:

After complete the installation,turning the shaft by hand to check for the rotation.
If the shaft could not rotate smoothly,seal had been improperly installed.