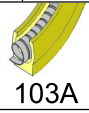
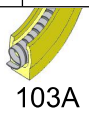
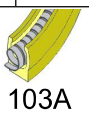


Variseals Series

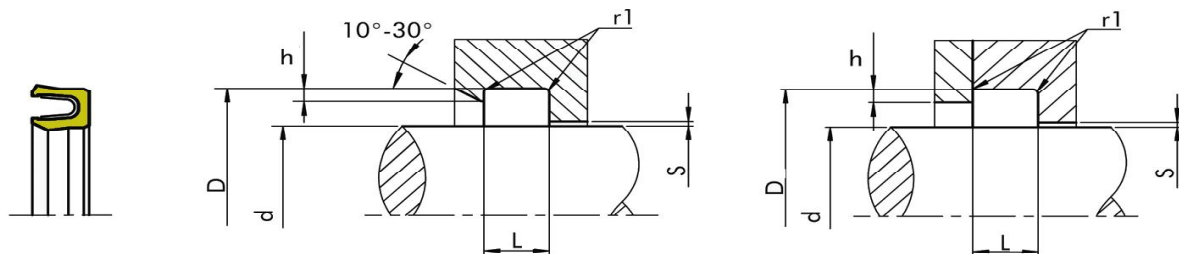
Standard Groove					Widen groove				
Technical Data					Technical Data				
Temp. Range °C		Speed ≤m/s		Pressure≤MPa	Temp. Range °C		Speed ≤m/s		Pressure≤MPa
-40/+260		15		45	-40/+260		15		45
Type	Code				Type	Code			
Rod and Piston	DEPA				Rod and Piston	DEPB			
Rod	DRPA				Rod	DRPB			
Piston	DEGA				Piston	DEGB			
Material		PTFE and Spring			Material		PTFE and Spring		
Application		Food machinery/General machinery			Application		Food machinery/General machinery		
Action		Single			Action		Single		
Page		153							

Rotary Variseal					Face variseal				
Technical Data					Technical Data				
Temp. Range °C		Speed ≤m/s		Pressure≤MPa	Temp. Range °C		Speed ≤m/s		Pressure≤MPa
-40/+260		15		45	-40/+260		-		45
Type	Code				Type	Code			
Equal Altitude Lips/Rod	DTVA				Inner Seal	DDVI			
High and Low Lips/Rod	DTVB				Lateral Seal	DDVO			
Material		PTFE and Spring			Material		PTFE and Spring		
Application		Standard hydraulic cylinder/General machinery			Application		Seal joint/General machinery		
Action		Rotary			Action		Static		
Page		159							



1. Installation Recommendation

Standard Groove					Widen groove				
Type	Code				Type	Code			
Rod and Piston	DEPA				Rod and Piston	DEPB			
Rod	DRPA				Rod	DRPB			



2. Installation Sizes

Rod Diameter d h9	Groove Diameter D H9	Groove Width L+0.2	Radius r_1	Step Height h	Radial Clearance S max.			
					2MPa	10MPa	20MPa	40MPa
3.0-9.9	C+2.9	2.4	0.4	0.4	0.20	0.10	0.08	0.05
10.0-19.9	C+4.5	3.6	0.4	0.6	0.25	0.15	0.10	0.07
20.0-39.9	C+6.2	4.8	0.6	0.7	0.35	0.20	0.15	0.08
40.0-119.9	C+9.4	7.1	0.8	0.8	0.50	0.25	0.20	0.10
120.0-630.0	C+12.2	9.5	0.8	0.8	0.60	0.30	0.25	0.12

3. Application and properties

Applicable to harsh conditions and some special media requirements, it is a recommended seal for applications that do not crawl, chemical resistant, and resistant to most media applications. Could be used for reciprocating and rotary motion, with small friction coefficient, wear resistance and dimensional stability.

4. Standard materials

Sealing ring: filled PTFE / PU

Spring: stainless steel



DRP/DEP

5. Working Conditions

Working Conditions				
Diameter Range	Pressure Range	Temperature Range	Speed	Medium
3-1000mm	0—45MPa	-40℃ +260℃	15 m/s	all liquids, chemicals, and gases

6. Installation Dimensions

Rod Dia.	Groove Dia.	Groove Width	Order No.
d h9	D H9	L +0.2	
3	5.9	2.4	DRP3*5.9*2.4
4	6.9	2.4	DRP4*6.9*2.4
5	7.9	2.4	DRP5*7.9*2.4
6	8.9	2.4	DRP6*8.9*2.4
8	10.9	2.4	DRP8*10.9*2.4
10	14.5	3.6	DRP10*14.5*3.6
12	16.5	3.6	DRP12*16.5*3.6
14	18.5	3.6	DRP14*18.5*3.6
15	19.5	3.6	DRP15*19.5*3.6
16	20.5	3.6	DRP16*20.5*3.6
18	22.5	3.6	DRP18*22.5*3.6
20	26.2	4.8	DRP20*26.2*4.8
22	28.2	4.8	DRP22*28.2*4.8
25	31.2	4.8	DRP25*31.2*4.8
28	34.2	4.8	DRP28*34.2*4.8
30	36.2	4.8	DRP30*36.2*4.8
32	38.2	7.1	DRP32*38.2*7.1
35	41.2	7.1	DRP35*41.2*7.1
36	42.2	7.1	DRP36*42.2*7.1
40	49.4	7.1	DRP40*49.4*7.1
42	51.4	7.1	DRP42*51.4*7.1
45	54.4	7.1	DRP45*54.4*7.1
48	57.4	7.1	DRP48*57.4*7.1
50	59.4	7.1	DRP50*59.4*7.1
52	61.4	7.1	DRP52*61.4*7.1
55	64.4	7.1	DRP55*64.4*7.1
56	65.4	7.1	DRP56*65.4*7.1
60	69.4	7.1	DRP60*69.4*7.1
63	72.4	7.1	DRP63*72.4*7.1
65	74.4	7.1	DRP65*74.4*7.1
70	79.4	7.1	DRP70*79.4*7.1
75	84.4	7.1	DRP75*84.4*7.1
80	89.4	7.1	DRP80*89.4*7.1



DRP/DEP

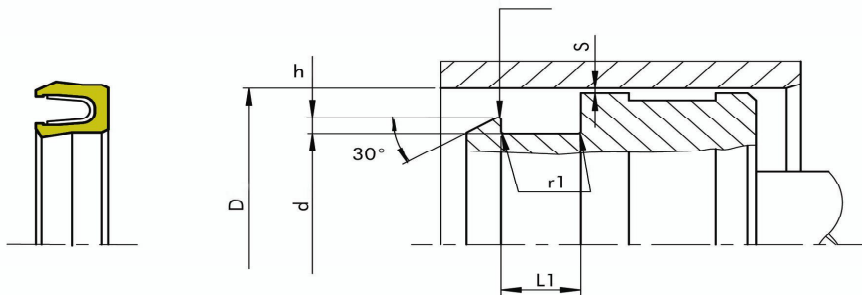
Rod Dia.	Groove Dia.	Groove Width	Order No.
d h9	D H9	L +0.2	
85	94.4	7.1	DRP85*94.4*7.1
90	99.4	7.1	DRP90*99.4*7.1
95	104.4	7.1	DRP95*104.4*7.1
100	109.4	7.1	DRP100*109.4*7.1
105	114.4	7.1	DRP105*114.4*7.1
110	119.4	7.1	DRP110*119.4*7.1
115	124.4	7.1	DRP115*124.4*7.1
120	132.4	7.1	DRP120*132.4*7.1
125	137.2	9.5	DRP125*137.2*9.5
130	142.2	9.5	DRP130*142.2*9.5
135	147.2	9.5	DRP135*147.2*9.5
140	152.2	9.5	DRP140*152.2*9.5
150	162.2	9.5	DRP150*162.2*9.5
160	172.2	9.5	DRP160*172.2*9.5
170	182.2	9.5	DRP170*182.2*9.5
180	192.2	9.5	DRP180*192.2*9.5
190	202.2	9.5	DRP190*202.2*9.5
200	212.2	9.5	DRP200*212.2*9.5
210	222.2	9.5	DRP210*222.2*9.5
220	232.2	9.5	DRP220*232.2*9.5
230	242.2	9.5	DRP230*242.2*9.5
240	252.2	9.5	DRP240*252.2*9.5
250	262.2	9.5	DRP250*262.2*9.5
280	292.2	9.5	DRP280*292.2*9.5
300	312.2	9.5	DRP300*312.2*9.5
350	362.2	9.5	DRP350*362.2*9.5
400	412.2	9.5	DRP400*412.2*9.5



DEG/DEP

1. Installation Recommendation

Standard Groove					Widen groove				
Type	Code				Type	Code			
Rod and Piston	DEPA				Rod and Piston	DEPB			
Piston	DEGA				Rod	DEGB			



2. Installation Sizes

Bore Diameter	Groove Diameter	Groove Width	Radius	Step Height	Radial Clearance S max.			
D H9	d h9	$L_1+0.2$	r_1	h	2MPa	10MPa	20MPa	40MPa
6.0-19.9	B-2.9	2.4	0.4	0.4	0.20	0.10	0.08	0.05
14.0-24.9	B-4.5	3.6	0.4	0.6	0.25	0.15	0.10	0.07
25.0-45.9	B-6.2	4.8	0.6	0.7	0.35	0.20	0.15	0.08
46.0-124.9	B-9.4	7.1	0.8	0.8	0.50	0.25	0.20	0.10
125.0-999.9	B-12.2	9.5	0.8	0.8	0.60	0.30	0.25	0.12

3. Application and properties

Applicable to harsh conditions and some special media requirements, it is a recommended seal for applications that do not crawl, chemical resistant, and resistant to most media applications. Could be used for reciprocating and rotary motion, with small friction coefficient, wear resistance and dimensional stability

4. Standard materials

Sealing ring: filled PTFE

Spring: stainless steel



DEG/DEP

5. Working Conditions

Working Conditions				
Diameter Range	Pressure Range	Temperature Range	Speed	Medium
3-1000mm	0—45MPa	-40℃ +260℃	15 m/s	all liquids, chemicals, and gases

6. Installation Dimensions

Rod Dia.	Groove Dia.	Groove Width	Order No.
D H9	d h9	L +0.2	
6	3.1	2.4	DEG6*3.1*2.4
8	5.1	2.4	DEG8*5.1*2.4
10	7.1	2.4	DEG10*7.1*2.4
12	9.1	2.4	DEG12*9.1*2.4
14	9.5	3.6	DEG14*9.5*3.6
15	10.5	3.6	DEG15*10.5*3.6
16	11.5	3.6	DEG16*11.5*3.6
18	13.5	3.6	DEG18*13.5*3.6
20	15.5	3.6	DEG20*15.5*3.6
22	17.5	3.6	DEG22*17.5*3.6
25	18.8	4.8	DEG25*18.8*4.8
28	21.8	4.8	DEG28*21.8*4.8
30	23.8	4.8	DEG30*23.8*4.8
32	25.8	4.8	DEG32*25.8*4.8
35	28.8	4.8	DEG35*28.8*4.8
40	33.8	4.8	DEG40*33.8*4.8
42	35.8	4.8	DEG42*35.8*4.8
45	38.8	4.8	DEG45*38.8*4.8
48	38.6	7.1	DEG48*38.6*7.1
50	40.6	7.1	DEG50*40.6*7.1
52	42.6	7.1	DEG52*42.6*7.1
55	45.6	7.1	DEG55*45.6*7.1
56	46.6	7.1	DEG56*46.6*7.1
60	50.6	7.1	DEG60*50.6*7.1
63	53.6	7.1	DEG63*53.6*7.1
65	55.6	7.1	DEG65*55.6*7.1
70	60.6	7.1	DEG70*60.6*7.1
75	65.6	7.1	DEG75*65.6*7.1
80	70.6	7.1	DEG80*70.6*7.1
85	75.6	7.1	DEG85*75.6*7.1
90	80.6	7.1	DEG90*80.6*7.1
95	85.6	7.1	DEG95*85.6*7.1
100	90.6	7.1	DEG100*90.6*7.1



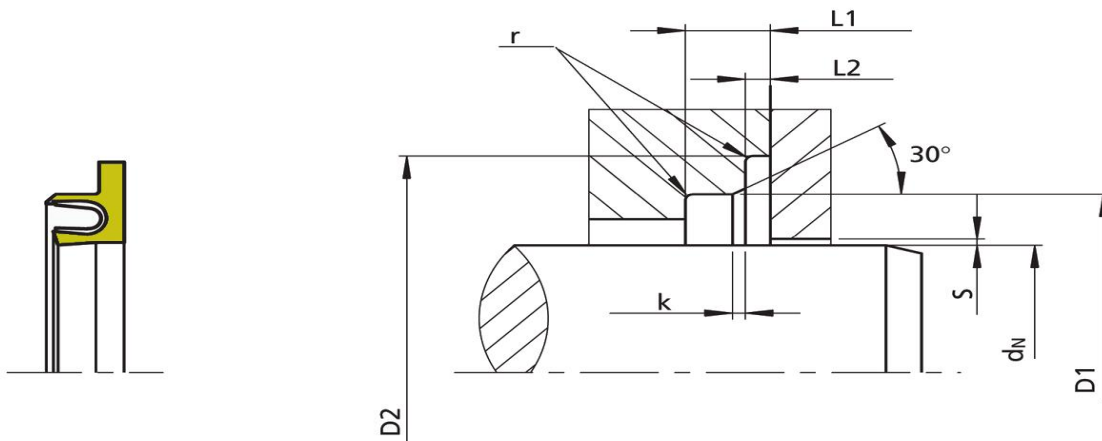
DEG/DEP

Rod Dia.	Groove Dia.	Groove Width	Order No.
d h9	D H9	L +0.2	
110	100.6	7.1	DEG110*100.6*7.1
115	105.6	7.1	DEG115*105.6*7.1
120	110.6	7.1	DEG120*110.6*7.1
125	112.8	9.5	DEG125*112.8*9.5
130	117.8	9.5	DEG130*117.8*9.5
135	122.8	9.5	DEG135*122.8*9.5
140	127.8	9.5	DEG140*127.8*9.5
150	137.8	9.5	DEG150*137.8*9.5
160	147.8	9.5	DEG160*147.8*9.5
170	157.8	9.5	DEG170*157.8*9.5
180	167.8	9.5	DEG180*167.8*9.5
190	177.8	9.5	DEG190*177.8*9.5
200	187.8	9.5	DEG200*187.8*9.5
210	197.8	9.5	DEG210*197.8*9.5
220	207.8	9.5	DEG220*207.8*9.5
230	217.8	9.5	DEG230*217.8*9.5
240	227.8	9.5	DEG240*227.8*9.5
250	237.8	9.5	DEG250*237.8*9.5
280	267.8	9.5	DEG280*267.8*9.5
300	287.8	9.5	DEG300*287.8*9.5
320	307.8	9.5	DEG320*307.8*9.5
350	337.8	9.5	DEG350*337.8*9.5
400	387.8	9.5	DEG400*387.8*9.5
420	407.8	9.5	DEG420*407.8*9.5
450	437.8	9.5	DEG450*437.8*9.5
480	467.8	9.5	DEG480*467.8*9.5
500	487.8	9.5	DEG500*487.8*9.5



1. Installation Recommendation

Standard Groove					Widen groove				
Type	Code				Type	Code			
Equal Altitude Lips/Rod	DTVA				High and Low Lips/Rod	DTVB			



2. Installation Sizes

Rod Diameter	Groove Diameter		Groove Width	Radius	Step Height	Radial Clearance S max.		
	D ₁ H9	D ₂ H9				2MPa	10MPa	20MPa
d _N f8	d _N +5.0	d _N +9.0	L ₁ +0.2	r ₁	h	0.25	0.15	0.10
5.0-19.9	d _N +5.0	d _N +9.0	3.6	0.8	0.3	0.25	0.15	0.10
20.0-39.9	d _N +7.0	d _N +12.5	4.8	1.1	0.4	0.35	0.20	0.15
40.0-399.9	d _N +10.5	d _N +17.5	7.1	1.4	0.5	0.50	0.25	0.20
400.0-999.9	d _N +14.0	d _N +22.0	9.5	1.6	0.6	0.60	0.30	0.25

3. Application and properties

Suitable for rotating, reciprocating, static sealing applications. Single action seals for rotating shafts. It is widely used in various hydraulic systems and chemical, pharmaceutical and food industries. Excellent scraping effect, no creeping phenomenon, good abrasion resistance and dimensional stability.

4. Standard materials

Sealing ring: filled PTFE

Spring: stainless steel



DTV

5. Working Conditions

Working Conditions				
Diameter Range	Pressure Range	Temperature Range	Speed	Medium
3-1000mm	0—25MPa	-40℃ +260℃	2 m/s	all liquids, chemicals, and gases

6. Installation Dimensions

Rod Dia.	Groove Dia.		Groove Width	Order No.
d f8	D1 H9	D2 H9	L1 +0.2	
5	10	14	3.6	DTV5*14*3.6
6	11	15	3.6	DTV6*15*3.6
8	13	17	3.6	DTV8*17*3.6
10	15	19	3.6	DTV10*19*3.6
12	17	21	3.6	DTV12*21*3.6
14	19	23	3.6	DTV14*23*3.6
15	20	24	3.6	DTV15*24*3.6
16	21	25	3.6	DTV16*25*3.6
18	23	27	3.6	DTV18*27*3.6
20	27	32.5	4.8	DTV20*32.5*4.8
22	29	34.5	4.8	DTV22*34.5*4.8
25	32	37.5	4.8	DTV25*37.5*4.8
28	35	40.5	4.8	DTV28*40.5*4.8
30	37	42.5	4.8	DTV30*42.5*4.8
32	39	44.5	4.8	DTV32*44.5*4.8
35	42	47.5	4.8	DTV35*47.5*4.8
36	43	48.5	4.8	DTV36*48.5*4.8
40	50.5	57.5	7.1	DTV40*57.5*7.1
42	52.5	59.5	7.1	DTV42*59.5*7.1
45	55.5	62.5	7.1	DTV45*62.5*7.1
48	58.5	65.5	7.1	DTV48*65.5*7.1
50	60.5	67.5	7.1	DTV50*67.5*7.1
52	62.5	69.5	7.1	DTV52*69.5*7.1
55	65.5	72.5	7.1	DTV55*72.5*7.1
56	66.5	73.5	7.1	DTV56*73.5*7.1
60	70.5	77.5	7.1	DTV60*77.5*7.1
63	73.5	80.5	7.1	DTV63*80.5*7.1
65	75.5	82.5	7.1	DTV65*82.5*7.1
70	80.5	87.5	7.1	DTV70*87.5*7.1
75	85.5	92.5	7.1	DTV75*92.5*7.1
80	90.5	97.5	7.1	DTV80*97.5*7.1
85	95.5	102.5	7.1	DTV85*102.5*7.1
90	100.5	107.5	7.1	DTV90*107.5*7.1



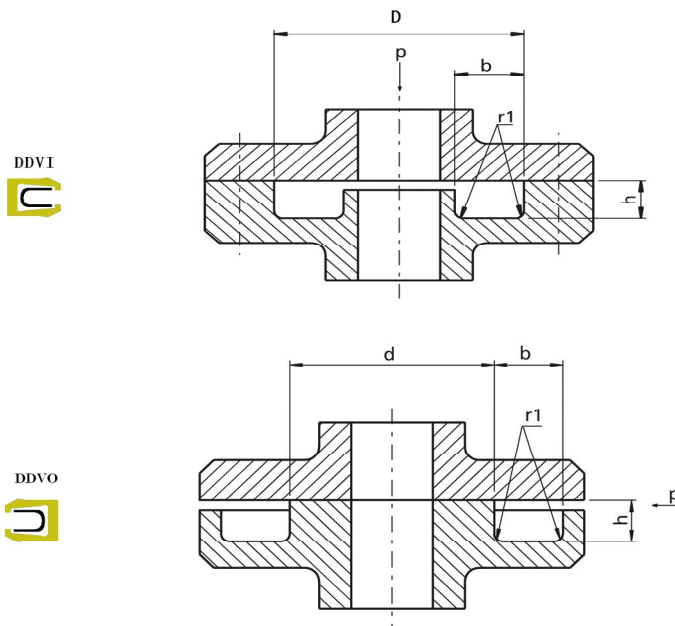
Rod Dia.	Groove Dia.		Groove Width	Order No.
	D1 H9	D2 H9	L1 +0.2	
d f8				
95	105.5	112.5	7.1	DTV95*112.5*7.1
100	110.5	117.5	7.1	DTV100*117.5*7.1
105	115.5	122.5	7.1	DTV105*122.5*7.1
110	120.5	127.5	7.1	DTV110*127.5*7.1
115	125.5	132.5	7.1	DTV115*132.5*7.1
120	130.5	137.5	7.1	DTV120*137.5*7.1
125	135.5	142.5	7.1	DTV125*142.5*7.1
130	140.5	147.5	7.1	DTV130*147.5*7.1
135	145.5	152.5	7.1	DTV135*152.5*7.1
140	150.5	157.5	7.1	DTV140*157.5*7.1
150	160.5	167.5	7.1	DTV150*167.5*7.1
160	170.5	177.5	7.1	DTV160*177.5*7.1
170	180.5	187.5	7.1	DTV170*187.5*7.1
180	190.5	197.5	7.1	DTV180*197.5*7.1
190	200.5	207.5	7.1	DTV190*207.5*7.1
200	210.5	217.5	7.1	DTV200*217.5*7.1
210	220.5	227.5	7.1	DTV210*227.5*7.1
220	230.5	237.5	7.1	DTV220*237.5*7.1
230	240.5	247.5	7.1	DTV230*247.5*7.1
240	250.5	257.5	7.1	DTV240*257.5*7.1
250	260.5	267.5	7.1	DTV250*267.5*7.1
280	290.5	297.5	7.1	DTV280*297.5*7.1
300	310.5	317.5	7.1	DTV300*317.5*7.1
320	330.5	337.5	7.1	DTV320*337.5*7.1
350	360.5	367.5	7.1	DTV350*367.5*7.1
360	370.5	377.5	7.1	DTV360*377.5*7.1
400	410.5	417.5	7.1	DTV400*417.5*7.1
420	434	442	9.5	DTV420*442*9.5
450	464	472	9.5	DTV450*472*9.5
480	494	502	9.5	DTV480*502*9.5
500	514	522	9.5	DTV500*522*9.5
600	614	622	9.5	DTV600*622*9.5
700	714	722	9.5	DTV700*722*9.5



DDV

1. Installation Recommendation

Standard Groove					Widen groove				
Type	Code				Type	Code			
Inner Seal	DDVI				Lateral Seal	DDVO			



2. Application and properties

Suitable for single operation, high pressure, static seal and pressure outside. For lighter gases, refrigerant and vacuum have a good sealing effect. It is widely used in various static and slow sealing occasions. It has good leakage resistance and excellent sealing ability on undesirable surface.

3. Standard materials

Sealing ring: filled PTFE

Spring: stainless steel

4. Working Conditions

Working Conditions				
Diameter Range	Pressure Range	Temperature Range	Speed	Medium
3-1000mm	0—45MPa	-40℃ +260℃	-	all liquids, chemicals, and gases



DDV

5. Installation Dimensions

Inner Side of End Face Spring Seal						
Lateral Dia. of grooves D H11		Groove Width	Groove Depth		Radius	Order No.
Standard Range	Range of Application	min.	h	Tol.	Max.	
10-13.9	10-40	2.4	1.45	0.03	0.4	DDVI10
14-24.9	13-200	3.6	2.25	0.05	0.4	DDVI11
25-45.9	18-400	4.8	3.10	0.08	0.6	DDVI12
46-124.9	28-700	7.1	4.70	0.10	0.8	DDVI13
125-999.9	45-1000	9.5	6.10	0.15	0.8	DDVI14

Lateral Side of End Face Spring Seal						
Lateral Dia. of grooves D H11		Groove Width	Groove Depth		Radius	Order No.
Standard Range	Range of Application	min.	h	Tol.	Max.	
3-9.9	3-40	2.4	1.45	0.03	0.4	DDVO0
10-19.9	8-200	3.6	2.25	0.05	0.4	DDVO1
20-39.9	12-400	4.8	3.10	0.08	0.6	DDVO2
40-119.9	20-700	7.1	4.70	0.10	0.8	DDVO3
120-999.9	35-1000	9.5	6.10	0.15	0.8	DDVO4