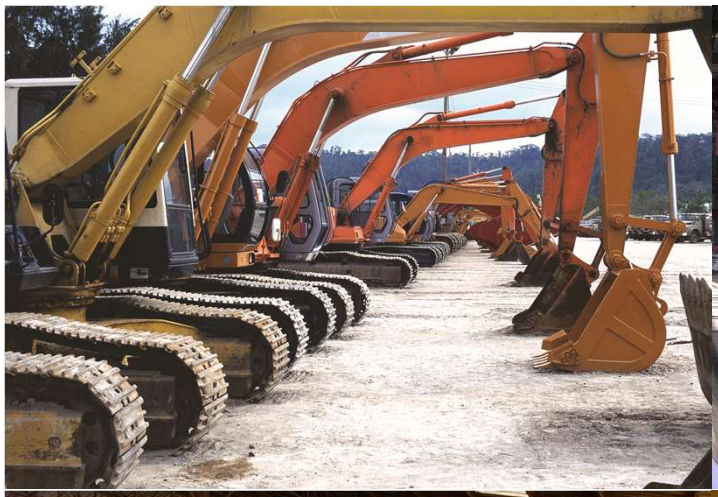
ISO 9001:2000 GB/T I9001-2008

KINTOWE SEALS

High quality supplier

Hydraulic Seals System Solution



KINTOWE ENGINEERING PLASTIC CO.,LTD

www.kintowe.com



Company Profile

KINTOWE ENGINEERING PLASTIC Co.,Ltd was founded in 1986, We have been specializing in the design、development、production and marketing of guide components and sealing system products for more than 36 years. Through products and service innovation in response to changing customer needs .KINTOWE has became one of the capitalized sealing element manufactures in China and always been widely praised by overseas customers. The company's new factory has 27000 square meters with more than 200 sets of professional production equipment and total assets more than 150 million RMB. Our company has three manufacturing center with thermosetting products(phenolic laminated & polyester laminated cloth)、PTFE products(seals & billets) and Thermoplastic composite products(polyurethane seals and thermoplastic products) .The endow company with the capacity of highly concentrated supply and professional technology development and product test .

WARNING:

Failure, improper selection or improper use of the products and / or systems described herein or related items can cause death, personal injury or property damage.

NOTICE:

This document , along with other information from Kintowe Engineering Plastic Co., Ltd, its subsidiaries and authorized distributors, provides product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or systems ,the user, through his or her own analysis and testing ,is solely responsible for making the final selection of the products and warning requirements of the application are met . The products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, products features, specifications, designs, availability and pricing, are subject to change by Kintowe Engineering Plastic Co., Ltd at any time without notice.

Issue Date:2022-01-28

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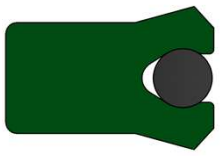
Series	Kintowe®type	Material	Profie	Maximum Pressure Bar	Temperature Range ℃	Maximum Speed m/sec
Single Acting Rod and Piston Seals	K513	PU_KINTOWE®01+NBR		350	-40℃~+110℃	0.5
	K601	PU_KINTOWE®01		400	-45℃~+110℃	1.0
Rod Seals	DF016	PTFE+NBR		300	-30℃~+100℃	4.0
	K605	PU_KINTOWE®01		400	-45℃~+110℃	1.0
	K652	PU_KINTOWE®01+POM		700	-45℃~+110℃	1.0
	K653	PU_KINTOWE®01+POM		700	-45℃~+110℃	1.0
	K663	PU_KINTOWE®04		400	-45℃~+110℃	1.0
Single Lip Rod Seals	K673	PU_KINTOWE®05		400	-45℃~+110℃	1.0
Double Acting Piston Seals	DF054	PTFE+NBR		350	-30℃~+100℃	4.0
	K730	PU_KINTOWE®04+NBR+POM		700	-40℃~+110℃	0.3
	K735	PTFE+NBR+POM		500	-40℃~+120℃	1.5
	K754	PU_KINTOWE®03+NBR		350(PU55D material) 500(PU72D material)	-40℃~+110℃	1.0
	K780	NBR+TPE+POM		400	-30℃~+100℃	0.5
Single Acting Piston Seals	K606	PU_KINTOWE®01		400	-45℃~+110℃	1.0
	K659	PU_KINTOWE®01		400	-45℃~+110℃	1.0
Wipers	K038	PU_KINTOWE®03+NBR		NA	-40℃~+120℃	4.0
	DF335	PTFE+NBR		NA	-30℃~+100℃	5.0
	K834	PU_KINTOWE®01		NA	-45℃~+110℃	4.0
	K839	PU_KINTOWE®01		NA	-45℃~+110℃	4.0
	K842	PU_KINTOWE®01		NA	-45℃~+110℃	4.0
	K864	PU_KINTOWE®06		NA	-45℃~+110℃	1.0
	K080	PU_KINTOWE®01		350	-30℃~+80℃	0.1
Swivel Seals	DF310	PTFE+NBR		300	-30℃~+100℃	0.5
	PZ0800	PU_KINTOWE®01+POM		350	-30℃~+80℃	0.2

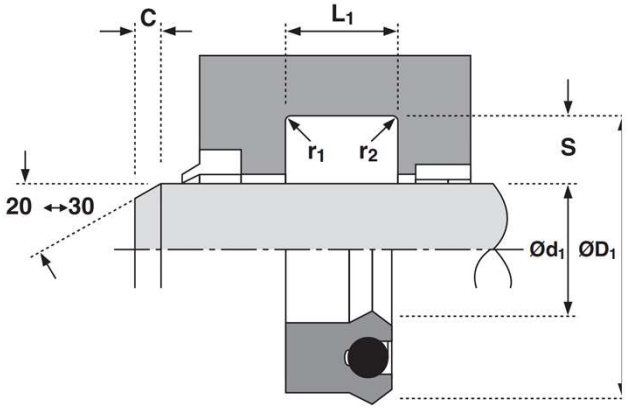
Rod & Piston Seals

Technical details

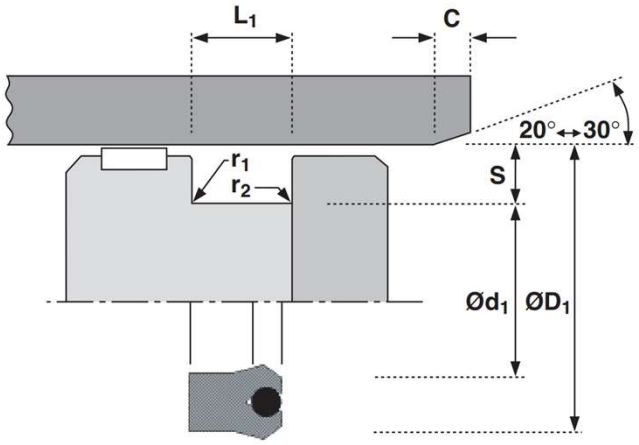
	Metric			Inch		
Operating conditions						
Maximum Speed	0.5 m/sec			1.5 ft/sec		
Temperature Range	-40°C +110°C			-40°F +230°F		
Maximum Pressure	350 bar			5000 p.s.i.		
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.**					
(1/4" section and above)						
Pressure bar	160	250	350			
Pressure p.s.i.	2400	3750	5000			
Maximum Gap in	0.024	0.020	0.016			
Surface roughness	µmRa	µmRt		µinCLA	µinRMS	
Dynamic Sealing Face $Ød_1$	0.1 <> 0.4	4 max		4 <> 16	5 <> 18	
Static Sealing Face $ØD_1$	1.6 max	10 max		63 max	70 max	
Static Housing Faces L_1	3.2 max	16 max		125 max	140 max	
Chamfers & Radii						
Groove Section ≤ S in	0.125	0.187	0.250	0.312	0.375	0.500
Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.187
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032	0.032	0.032
Max Fillet Rad r_2 in	0.016	0.016	0.032	0.047	0.047	0.047



K513



Rod Seal



Piston Seal

Design

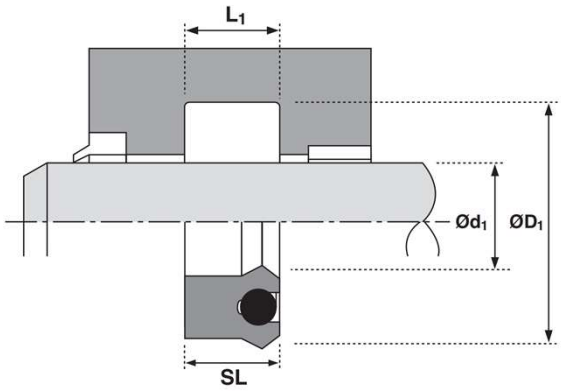
The K513 is a symmetrical squeeze seal suitable for rod and piston rod seal applications. Its rectangular cross section ensures the stability of the gland and the sharp hypotenuse is trimmed by precision trimming equipment.

The K513 seal can be used as a separate seal or in series with a buffer seal. In piston applications, the model will function as a one-way seal. This model cannot be installed back-to-back and pressure traps may occur under bidirectional forces.

Features

*Flexible for easy installation
*Excellent resistance to abrasion
*Positive lip actuation
*Knife trimmed precision sealing lips
*Wide range of size
*Insensitivity to shock and pressure peaks
*Ideal sealing performance under no-load and low temperature conditions

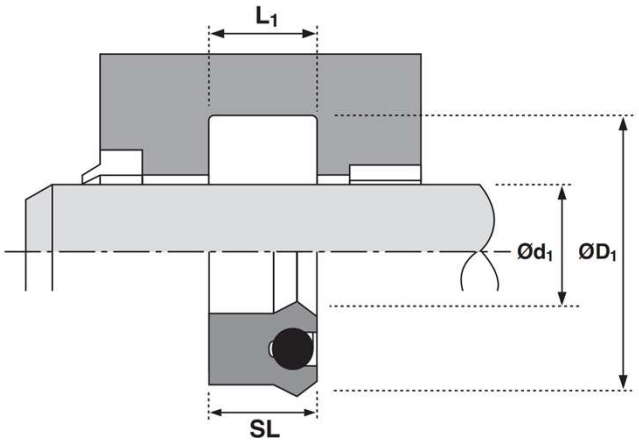
K513



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
13	20	5.00	5.50	5130130		30	38	5.70	6.30	5130300
13	23	7.30	8.00	5130131		30	38	7.00	7.70	5130301
14	22	5.70	6.30	5130140		30	40	7.00	7.70	5130302
14	24	7.30	8.00	5130141		30	40	7.50	8.30	5130303
15	23	5.70	6.30	5130150		30	42	10.00	11.00	5130304
16	24	5.70	6.30	5130160		30	45	8.00	8.80	5130305
16	26	7.30	8.00	5130161		30	45	11.40	12.50	5130306
18	24	5.00	5.50	5130180		32	40	5.70	6.30	5130320
18	26	5.70	6.30	5130181		32	40	6.00	6.60	5130321
18	28	7.30	8.00	5130182		32	42	6.30	6.90	5130322
19	29	7.30	8.00	5130190		32	42	7.30	8.00	5130323
20	28	5.50	6.00	5130200		32	47	11.40	12.50	5130324
20	28	5.70	6.30	5130201		35	43	5.70	6.30	5130350
20	28	6.50	7.20	5130202		35	43	6.50	7.20	5130351
20	30	7.30	8.00	5130203		35	45	8.00	8.80	5130352
20	32.7	9.50	10.50	5130204		35	45	10.00	11.00	5130353
22	30	5.70	6.30	5130220		35	47	10.00	11.00	5130354
22	32	7.30	8.00	5130221		35	50	11.40	12.50	5130355
24	30	5.00	5.50	5130240		36	44	5.70	6.30	5130360
24	32	7.00	7.70	5130241		36	46	7.30	8.00	5130361
25	33	5.70	6.30	5130250		36	51	11.40	12.50	5130362
25	35	7.30	8.00	5130251		38	50	7.00	7.70	5130380
25	40	10.00	11.00	5130252		40	48	5.70	6.30	5130400
28	35	6.50	7.20	5130280		40	50	7.30	8.00	5130401
28	36	5.70	6.30	5130281		40	50	10.00	11.00	5130402
28	38	7.30	8.00	5130282		40	52	10.00	11.00	5130403

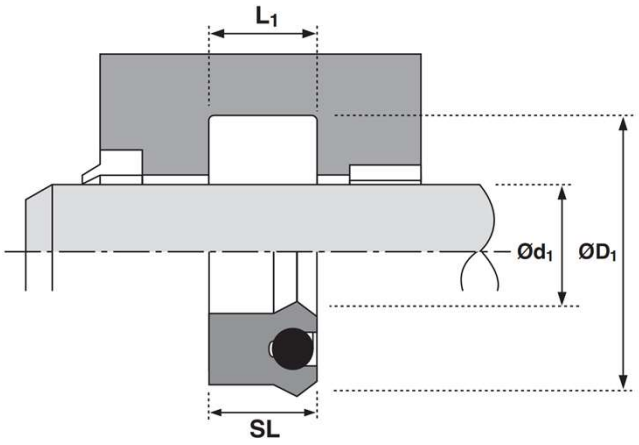
K513



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
40	55	10.00	11.00	5130400		55	65	11.00	12.10	5130551
40	55	11.40	12.50	5130401		55	70	11.00	12.10	5130552
42	50	6.50	7.20	5130420		55	75	14.50	16.00	5130553
45	53	7.30	8.00	5130450		56	66	10.00	11.00	5130560
45	55	7.30	8.00	5130451		56	71	11.40	12.50	5130561
45	55	8.00	8.80	5130452		56	76	14.60	16.00	5130562
45	55	10.00	11.00	5130453		60	68	7.00	7.70	5130600
45	60	11.40	12.50	5130454		60	68	11.40	12.50	5130601
45	65	11.40	12.50	5130455		60	68	13.00	14.50	5130602
48	60	10.00	11.00	5130480		60	70	7.30	8.00	5130603
50	58	8.00	8.80	5130500		60	70	10.50	11.60	5130604
50	60	7.30	8.00	5130501		60	70	12.00	13.20	5130605
50	60	7.50	8.30	5130502		60	72	9.00	9.90	5130606
50	60	10.00	11.00	5130503		60	72	10.00	11.00	5130607
50	60	11.40	12.50	5130504		60	75	13.50	14.90	5130608
50	62	9.50	10.50	5130505		60	80	12.00	13.20	5130609
50	63	10.00	11.00	5130506		60	80	14.00	15.40	5130610
50	65	11.40	12.50	5130507		63	73	5.50	6.00	5130630
50	70	14.60	16.10	5130508		63	75	8.70	9.60	5130631
52	62	7.30	8.00	5130520		63	78	11.40	12.50	5130632
53	63	7.30	8.00	5130530		63	83	14.50	16.00	5130633
54	63.5	6.80	7.50	5130540		64	80	12.00	13.20	5130640
54	63.5	9.50	10.50	5130541		65	73	7.00	7.70	5130650
54	66.7	9.50	10.50	5130542		65	75	10.00	11.00	5130651
54	69.9	12.70	14.00	5130543		65	85	12.00	13.20	5130652
55	65	7.30	8.00	5130550		65	85	15.00	16.50	5130653

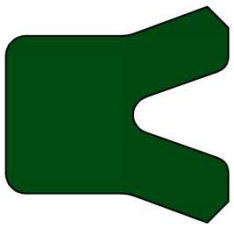
K513



Specification table

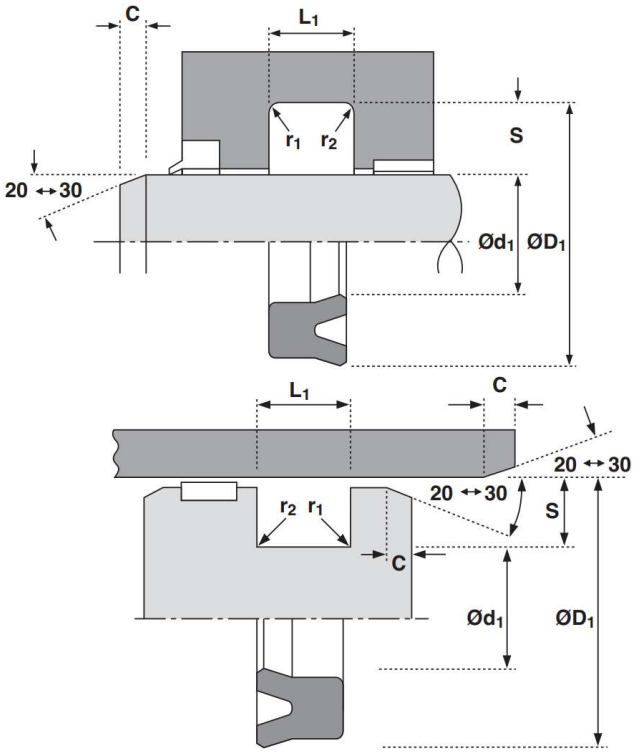
Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
68	88	15.00	16.50	5130680		82.6	95.3	9.50	10.50	51308260
70	80	11.40	12.50	5130700		82.6	101.6	12.70	14.00	51308261
70	82	8.70	9.60	5130701		82.6	101.6	15.90	17.50	51308262
70	82	9.50	10.50	5130702		85	95	9.50	10.50	5130850
70	85	9.50	10.50	5130703		85	100	9.50	10.50	5130851
70	85	11.40	12.50	5130704		85	100	12.00	13.20	5130852
70	90	12.00	13.20	5130705		85	105	14.50	16.00	5130853
70	90	14.50	16.00	5130706		85.7	95.3	9.50	10.50	51308570
73	80	7.00	7.70	5130730		85.7	101.6	12.80	14.10	51308571
73	82.6	6.80	7.50	5130731		85.7	104.8	15.90	17.50	51308572
73	82.6	9.50	10.50	5130732		88.5	108.5	15.00	16.50	51308850
73	85.7	9.50	10.50	5130733		88.9	98.4	9.50	10.50	51308890
75	83	6.50	7.20	5130750		88.9	101.6	9.50	10.50	51308891
75	85	10.50	11.60	5130751		88.9	108	15.90	17.50	51308892
75	90	11.40	12.50	5130752		90	100	11.40	12.50	5130900
78	86	13.00	14.50	5130780		90	105	11.40	12.50	5130901
80	88	6.50	7.20	5130800		90	110	12.00	13.20	5130902
80	90	11.40	12.50	5130801		90	110	14.50	16.00	5130903
80	92	9.00	9.90	5130802		94	108.5	12.70	14.00	5130940
80	92.7	9.50	10.50	5130803		95	105	11.40	12.50	5130950
80	95	11.40	12.50	5130804		95	110	11.40	12.50	5130951
80	100	9.50	10.50	5130805		100	108	6.50	7.20	5131000
80	100	12.00	13.20	5130806		100	110	11.40	12.50	5131001
80	100	13.50	14.80	5130807		100	115	11.00	12.10	5131002
80	100	15.00	16.50	5130808		100	120	12.00	13.20	5131003
82	92	10.00	11.00	5130820		100	120	14.50	16.00	5131004

Rod & Piston Seals



K601

Technical details	Metric			Inch		
Operating conditions						
Maximum Speed	1.0 m/sec			3.0 ft/sec		
Temperature Range	-45°C +110°C			-50°F +230°F		
Maximum Pressure	400 bar*			6,000 p.s.i.*		
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side, for rod seals using minimum rod Ø and maximum clearance Ø and for piston seals using the minimum clearance Ø and maximum bore Ø**					
Pressure bar	160		250		400	
Maximum Gap mm	0.6		0.5		0.4	
Pressure p.s.i.	2400		3750		6000	
Maximum Gap in	0.024		0.020		0.016	
Surface roughness	µmRa		µmRt		µinCLA	µinRMS
Dynamic Sealing Face – Rod $Ød_1$	0.1 <> 0.4		4 max		4 <> 16	5 <> 18
Static Sealing Face – Rod $ØD_1$	1.6 max		10 max		63 max	70 max
Dynamic Sealing Face – Piston $ØD_1$	0.1 <> 0.4		4 max		4 ⇨ 16	5 <> 18
StaticSealing Face – Piston $Ød_1$	1.6 max		10 max		63 max	70 max
Static Housing Faces L_1	3.2 max		16 max		125 max	140 max
Chamfers & Radii						
Groove Section≤S mm	4.0	5.0	7.5	10.0	12.5	15.0	20.0
Min Chamfer C mm	3.0	3.5	5.0	6.5	7.0	8.0	10.0
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8	1.2	1.6	1.6
Max Fillet Rad r_2 mm	0.4	0.8	1.2	1.2	1.6	2.4	2.4
Groove Section≤ S in	0.125	0.187	0.250	0.312	0.375	0.500	
Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.217	
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032	0.032	0.032	
Max Fillet Rad r_2 in	0.016	0.016	0.032	0.047	0.047	0.047	
Tolerances	$Ød_1$		$ØD_1$		L_1 mm	L_1 in
Rod	f9		Js11		+0.25 -0	+0.010 -0
Piston	js11		H9		+0.25 -0	+0.010 -0



Rod Seal

Piston Seal

Design

K601 is a high performance general purpose seal suitable for rod and piston use.

K601 is made of excellent imported sealing polyurethane material **Kintowe®01.**

It's engineered to effect a good seal in most industrial cylinder applications.

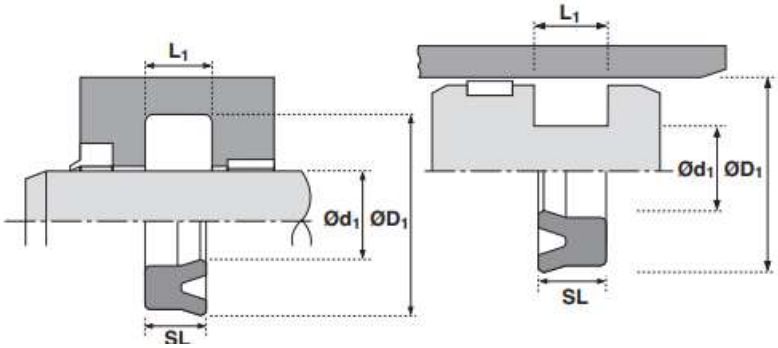
The sealing lips are accurately machine trimmed to ensure good low pressure sealing while the material resists extrusion at high pressures.

The K601 is preferred for sealing back-to-back applications.

Features

*Easy installation
*General purpose seal
*Excellent temperature resistance

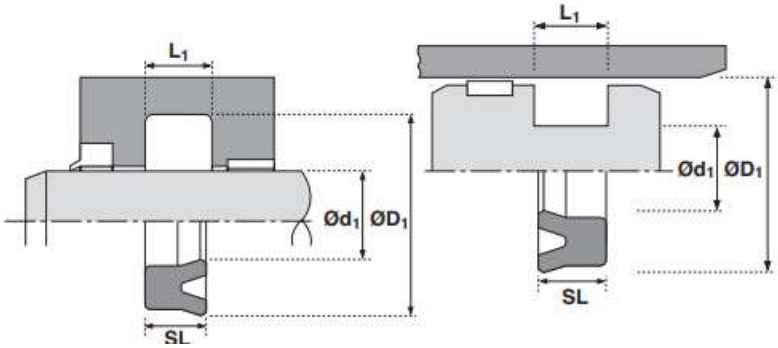
K601



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
4.5	12.5	4.40	5.00	6010045		20	30	8.00	9.00	6010202
5	12	5.50	6.50	6010050		20	40	12.00	13.00	6010203
6	13	8.00	9.00	6010060		22	30	4.40	5.00	6010220
10	18	6.00	6.60	6010100		22	35	10.00	11.00	6010221
10	20	8.00	9.00	6010101		22	40	10.00	11.00	6010222
12	18	6.00	7.00	6010120		22.4	30	5.00	5.70	60102240
12	20	4.40	5.00	6010121		22.4	32.4	8.00	9.00	60102241
12	25	8.00	9.00	6010122		23.5	31.5	5.00	5.70	60102350
14	22	4.40	5.00	6010140		25	33	4.40	5.00	6010250
14	22	5.00	5.70	6010141		25	33	5.00	5.70	6010251
14	24	8.00	9.00	6010142		25	35	8.00	9.00	6010252
15	25	8.00	9.00	6010150		25	35	10.00	11.00	6010253
16	24	4.40	5.00	6010160		25	38	8.00	9.00	6010254
16	24	5.00	5.70	6010161		25	38	10.00	11.00	6010255
16	26	8.00	9.00	6010162		25	40	10.00	11.00	6010256
18	26	4.40	5.00	6010180		26	40	9.00	10.00	6010260
18	26	5.00	5.70	6010181		28	35.5	5.00	5.70	6010280
18	28	7.30	8.00	6010182		28	36	6.50	7.10	6010281
18	28	8.00	9.00	6010183		28	38	5.60	6.30	6010282
20	28	4.40	5.00	6010200		28	40	10.00	11.00	6010283
20	28	5.00	5.70	6010201		28	43	10.00	11.00	6010284

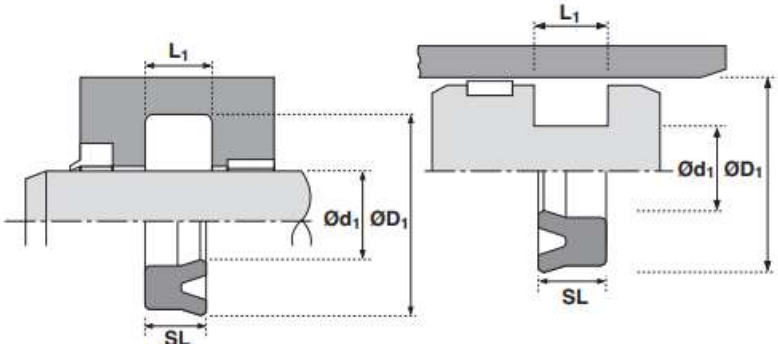
K601



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
30	40	5.6	6.3	6010300		40	50	5.6	6.3	6010400
30	40	6	7	6010301		40	50	6	7	6010401
30	40	8	9	6010302		40	50	10	11	6010402
30	40	10	11	6010303		40	55	10	11	6010403
30	45	10	11	6010304		40	60	12	13	6010404
31.5	41.5	6	7	60103150		45	55	5.6	6.3	6010450
32	42	5.6	6.3	6010320		45	55	6	7	6010451
32	42	6	7	6010321		45	55	10	11	6010452
32	42	10	11	6010322		45	56	7	8	6010453
32	47	10	11	6010323		45	60	10	11	6010454
35	45	6	7	6010350		45	65	10	11	6010455
35	45	7	8	6010351		46	56	6	7	6010460
35	48	10	11	6010352		48	63	10	11	6010480
35	50	10	11	6010353		50	60	5.6	6.3	6010500
35.5	45	6	7	60103550		50	60	6	7	6010501
35.5	50.5	10	11	60103551		50	60	10	11	6010502
36	46	5.6	6.3	6010360		50	65	10	11	6010503
38	48	6	7	6010380		50	70	12	13	6010504
38	50	9	10	6010381		52	62	10	11	6010520
38	55	9.7	11	6010383		53	63	6	7	6010530

K601



Specification table

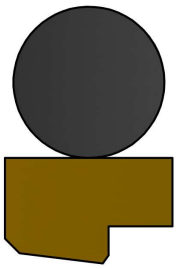
Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
55	65	6	7	6010550		71	80	6	7	6010710
55	75	12	13	6010551		75	85	6	7	6010750
56	66	6	7	6010560		75	85	11.8	13	6010751
56	71	8.4	9.5	6010561		75	95	12	13	6010752
56	76	12	13	6010562		75	100	22	24	6010753
60	70	6	7	6010600		80	90	6	7	6010800
60	70	10	11	6010601		80	90	8	8.7	6010801
60	71	7	8	6010602		80	90	11.8	13	6010802
60	76	12	13	6010603		80	95	8.4	9.5	6010803
60	80	12	13	6010604		80	100	12	13	6010804
63	73	6	7	6010630		85	100	8.9	10	6010850
63	73	11.8	13	6010631		85	105	12	13	6010851
63	78	8.4	9.5	6010632		90	100	11.8	13	6010900
65	75	6	7	6010650		90	105	8.4	9.5	6010901
65	80	8.4	9.5	6010651		90	105	8.9	10	6010902
65	85	12	13	6010652		90	110	12	13	6010903
70	80	6	7	6010700		95	110	8.9	10	6010950
70	80	11.8	13	6010701		95	115	12	13	6010951
70	85	8.4	9.5	6010702		100	115	8.9	10	6011000
70	90	12	13	6010703		100	120	11	12.5	6011001
70	92	12	13	6010704		100	120	12	13	6011002

KINTOWE

Technical details	Metric			Inch
Operating conditions				
Maximum Speed	4.0 m/sec			12.0 ft/sec
Temperature Range	-30°C + 100°C			-22°F + 212°F
Maximum Pressure	300 bar			4500 p.s.i.
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section.**			
Pressure bar	100	150	250	300
Maximum Gap mm	0.6	0.5	0.45	0.4
Pressure p.s.i.	1500	2400	3750	4500
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $ØD_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

Chamfers & Radii					
Groove Section ≤ S mm	3.75	5.50	7.75	10.50	12.25
Min Chamfer C mm	2.0	3.0	5.0	7.5	8.0
Max Fillet Rad r_1 mm	0.4	0.8	1.2	1.6	1.6

Tolerances	$Ød_1$	$ØD_1$	L_1 mm
	f9	H11	+0.2 -0

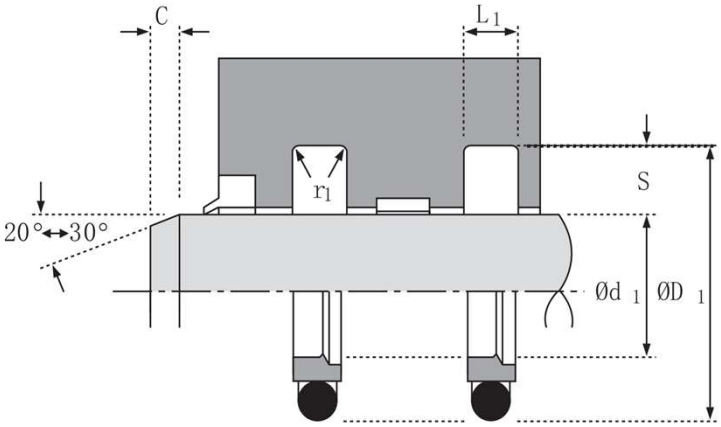


DF016

Design

Kintowe DF016 is a single acting rod seal, It comprises a PTFE face ring, strengthened with additives to resist creep, which is pre-loaded by an O-ring to be effective for the operating pressure range recommended. Elastomer as a static seal at the bottom of the groove plays a sealing role while providing a pretightening force for the surface ring, so that the PTFE face ring close to the piston rod. When the pressure increases, the elastomer produces deformation of the PTFE surface ring compression, so that the sealing force of the surface ring on the piston rod is enhanced to achieve a good sealing effect.

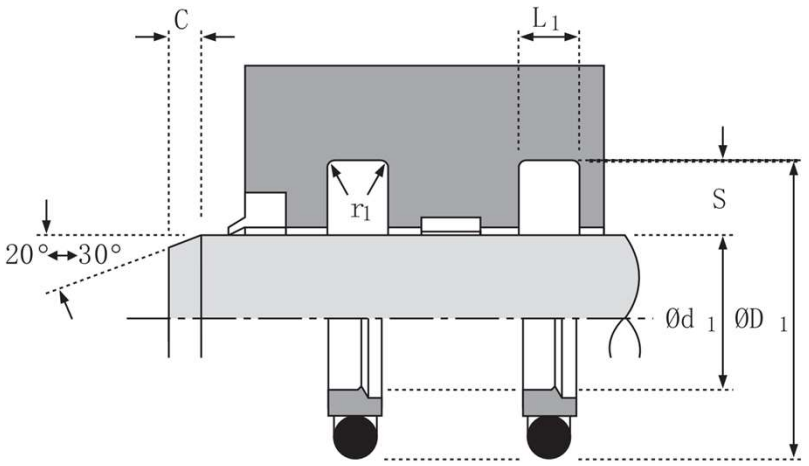
PTFE surface ring made of proprietary formula material has strong abrasion resistance, extrusion resistance and long service life.



Features

***Ultra low friction**
***Compact housing**
***Excellent abrasion resistance and extrusion resistance**
*** High pressure resistant, can be used as a buffer seal**

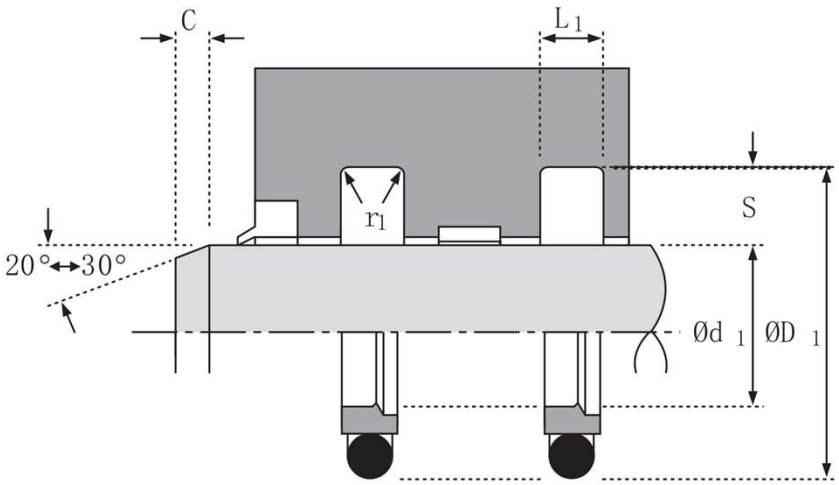
DF016



Specification table

Φd1	ΦD1	L1	O-Ring	PART No.		Φd1	ΦD1	L1	O-Ring	PART No.
8	12.9	2.2	9.66*1.78	JT0080		35	42.3	3.2	37.77*2.62	JT0351
10	14.9	2.2	11.11*1.78	JT0100		36	46.7	4.2	40.87*3.53	JT0360
12	19.3	3.2	13.95*2.62	JT0120		36	43.3	3.2	39.34*2.62	JT0361
14	21.3	3.2	17.13*2.62	JT0140		38	48.7	4.2	40.87*3.53	JT0380
16	23.3	3.2	18.72*2.62	JT0160		40	55.1	6.3	43.82*3.53	JT0400
18	25.3	3.2	20.29*2.62	JT0180		40	50.7	4.2	44.45*3.53	JT0401
18	22.9	2.2	18.77*1.78	JT0181		45	60.1	6.3	50.16*5.33	JT0450
20	30.7	4.2	24.99*3.53	JT0200		45	55.7	4.2	50.39*3.53	JT0451
20	27.3	3.2	22.22*2.62	JT0201		48	63.1	6.3	53.34*5.33	JT0480
22	33.7	4.2	26.58*3.53	JT0220		48	58.7	4.2	50.80*3.53	JT0481
22	29.3	3.2	25.07*2.62	JT0221		50	65.1	6.3	56.52*5.33	JT0500
25	35.7	4.2	31.34*3.53	JT0250		50	60.7	4.2	53.57*3.53	JT0501
25	32.3	3.2	28.25*2.62	JT0251		52	62.7	4.2	56.74*3.53	JT0520
26	36.7	4.2	31.34*3.53	JT0260		52	67.1	6.3	56.52*5.33	JT0521
28	38.7	4.2	32.92*3.53	JT0280		55	60.1	6.3	50.16*5.33	JT0550
28	35.3	4.2	29.82*2.62	JT0281		56	71.1	6.3	59.69*5.33	JT0560
30	40.7	4.2	34.52*3.53	JT0300		56	66.7	4.2	59.92*3.53	JT0561
30	37.3	3.2	33*2.62	JT0301		60	75.1	6.3	66.04*5.33	JT0600
32	42.7	4.2	36.09*3.53	JT0320		60	70.7	4.2	63.09*3.53	JT0601
32	39.3	3.2	34.59*3.53	JT0321		63	78.1	6.3	69.22*5.33	JT0630
35	45.7	4.2	37.69*3.53	JT0350		63	73.7	4.2	66.04*3.53	JT0631

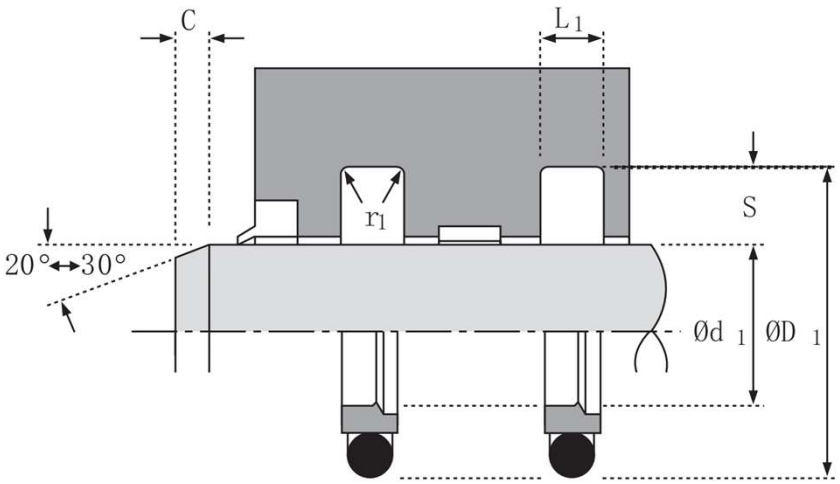
DF016



Specification table

Φd1	ΦD1	L1	O-Ring	PART No.		Φd1	ΦD1	L1	O-Ring	PART No.
65	80.1	6.3	69.22*5.33	JT0650		110	120.7	4.2	113.89*3.53	JT1102
67	80.1	6.3	72.40*5.33	JT0670		115	130.1	6.3	120.02*5.33	JT1150
68	80.1	6.3	72.40*5.33	JT0680		120	135.1	6.3	126.57*5.33	JT1200
68	78.7	6.3	72.62*3.53	JT0681		125	140.1	6.3	130.18*5.33	JT1250
70	85.1	6.3	75.57*5.33	JT0700		125	145.5	8.1	132.72*6.99	JT1251
70	80.7	4.2	75.59*3.53	JT0701		130	145.1	6.3	135.89*5.33	JT1300
73	88.7	6.3	78.74*5.33	JT0730		130	150.5	8.1	139.07*6.99	JT1301
75	90.1	6.3	81.92*5.33	JT0750		135	150.1	6.3	137.70*5.33	JT1350
80	95.1	6.3	85.09*5.33	JT0800		138	153.1	6.3	142.24*5.33	JT1380
80	90.7	4.2	85.32*3.53	JT0801		140	155.1	6.3	145.42*5.33	JT1400
85	100.1	6.3	91.44*5.33	JT0850		145	160.1	6.3	151.77*5.33	JT1450
90	105.1	6.3	94.67*5.33	JT0900		150	165.1	6.3	151.77*5.33	JT1500
95	110.1	6.3	100.97*5.33	JT0950		150	170.5	8.1	158.12*6.99	JT1501
95	115.1	8.1	104.14*6.99	JT0951		155	170.1	6.3	161.30*5.33	JT1550
100	115.1	6.3	107.32*5.33	JT1000		160	175.1	6.3	164.47*5.33	JT1600
100	110.7	4.2	104.37*3.53	JT1001		160	180.5	8.1	164.47*6.99	JT1601
105	125.5	8.1	113.67*6.99	JT1050		165	180.5	6.3	170.82*5.33	JT1650
105	120.1	6.3	110.49*5.33	JT1051		170	185.1	6.3	177.17*5.33	JT1700
110	125.1	6.3	116.84*5.33	JT1100		170	190.5	8.1	177.17*6.99	JT1701
110	130.5	8.1	116.84*6.99	JT1101		175	190.1	6.3	177.17*5.33	JT1750

DF016

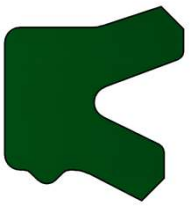


Specification table

Φd1	ΦD1	SL	O-Ring	PART No.		Φd1	ΦD1	SL	O-Ring	PART No.
180	195.1	6.3	183.52*5.33	JT1800		310	334	8.1	316.87*6.99	JT3100
185	200.1	6.3	189.87*5.33	JT1850		320	344	8.1	329.57*6.99	JT3200
190	205.1	6.3	196.22*5.33	JT1900		330	354	8.1	342.27*6.99	JT3300
192	207.1	6.3	196.22*5.33	JT1920		340	364	8.1	354.97*6.99	JT3400
195	210.1	6.3	202.57*5.33	JT1950		345	369	8.1	354.97*6.99	JT3450
200	220.5	8.1	208.92*6.99	JT2000		350	374	8.1	354.97*6.99	JT3500
210	230.5	8.1	215.27*6.99	JT2100		360	384	8.1	367.67*6.99	JT3600
215	235.5	8.1	227.97*6.99	JT2150		370	394	8.1	380.37*6.99	JT3700
220	240.5	8.1	227.97*6.99	JT2200		380	404	8.1	393.07*6.99	JT3800
225	245.5	8.1	240.67*6.99	JT2250		390	414	8.1	405.26*6.99	JT3900
230	250.5	8.1	240.67*6.99	JT2300		400	424	8.1	417.96*6.99	JT4000
235	255.5	8.1	240.67*6.99	JT2350		405	429	8.1	417.96*6.99	JT4050
240	260.5	8.1	240.67*6.99	JT2400		420	444	8.1	430.66*6.99	JT4200
245	265.5	8.1	253.57*6.99	JT2450		430	454	8.1	443.36*6.99	JT4300
250	270.5	8.1	253.57*6.99	JT2500		450	474	8.1	468.76*6.99	JT4500
260	284	8.1	266.07*6.99	JT2600		460	484	8.1	468.76*6.99	JT4600
260	280.5	8.1	266.07*6.99	JT2601		470	494	8.1	481.46*6.99	JT4700
270	294	8.1	278.77*6.99	JT2700		480	504	8.1	494.16*6.99	JT4800
275	299	8.1	291.47*6.99	JT2750		490	514	8.1	506.86*6.99	JT4900
280	304	8.1	291.47*6.99	JT2800		500	524	8.1	506.86*6.99	JT5000
285	309	8.1	291.47*6.99	JT2850		510	534	8.1	532.26*6.99	JT5100
290	314	8.1	297.88*6.99	JT2900		520	544	8.1	532.26*6.99	JT5200
295	319	8.1	304.17*6.99	JT2950		530	554	8.1	532.26*6.99	JT5300
300	324	8.1	316.78*6.99	JT3000		550	574	8.1	557.66*6.99	JT5500
300	320.5	8.1	304.17*6.99	JT3001		570	594	8.1	582.68*6.99	JT5700

KINTOWE

Technical details	Metric			Inch		
Operating conditions						
Maximum Speed	1.0 m/sec			3.0 ft/sec		
Temperature Range	-45°C +110°C			-50°F +230°F		
Maximum Pressure	400 bar*			6000 p.s.i.*		
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.**					
Pressure bar	160	250	400			
Maximum Gap mm	0.6	0.5	0.4			
Pressure p.s.i.	2400	3750	6000			
Maximum Gap in	0.024	0.020	0.016			
Surface roughness	µmRa	µmRt		µinCLA	µinRMS	
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max		4 < > 16	5 < > 18	
Static Sealing Face $ØD_1$	1.6 max	10 max		63 max	70 max	
Static Housing Faces L_1	3.2 max	16 max		125 max	140 max	
Chamfers & Radii						
Groove Section ≤ S mm	4.0	5.0	7.5	10.0	12.5	15.0
Min Chamfer C mm	3.0	3.5	5.0	6.5	7.0	8.0
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8	1.2	1.6
Max Fillet Rad r_2 mm	0.4	0.8	1.2	1.2	1.6	2.4
Groove Section ≤ S in	0.125	0.187	0.250	0.312	0.375	0.500
Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.217
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032	0.032	0.032
Max Fillet Rad r_2 in	0.016	0.016	0.032	0.047	0.047	0.047
Tolerances	$Ød_1$ f9		$ØD_1$ Js11	L_1 mm +0.25 -0		L_1 in +0.010 -0



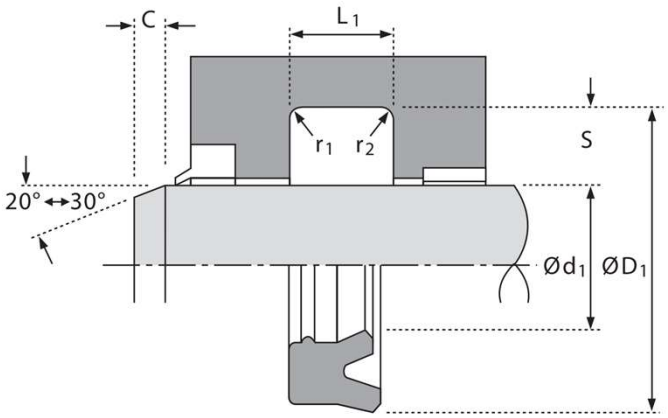
K605

Design

Kintowe K605 is an asymmetric seal offering superlative dry rod sealing for light and medium duty applications.

The DESIGN of the K605 is based on Hallite 605, Parker BS and other major sealing companies in the market .

Manufactured in **Kintowe®**01, K605 is a strong flexibility seal making installation very easy.

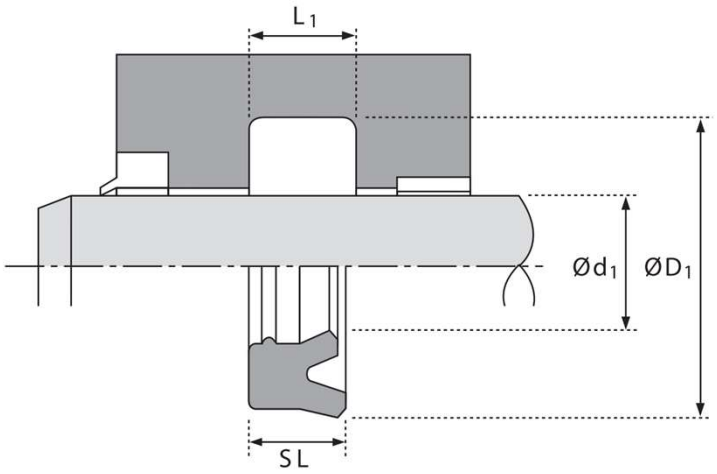


Features

*Twin lip design offering lower friction, improved sealing

*Easy installation

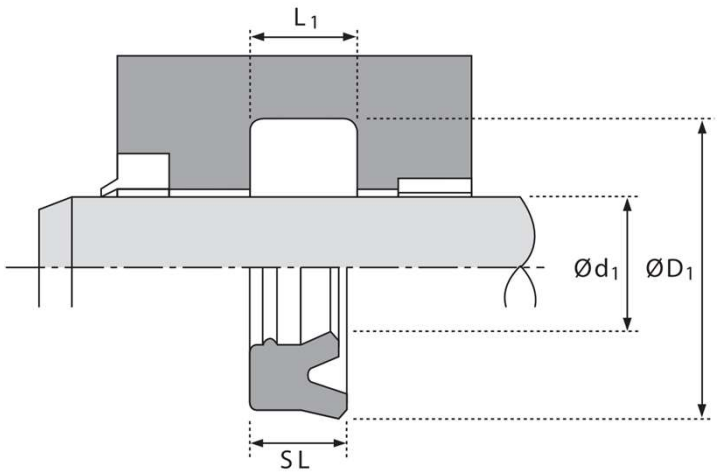
K605



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
6	15	7.3	8.0	6050060		18	26	5.0	5.7	6050182
6	16	7.0	8.0	6050061		18	26	5.7	6.3	6050183
8	18	7.0	8.0	6050080		18	26	6.0	7.0	6050184
10	15	3.6	4.0	6050100		18	26	8.2	9.0	6050185
12	18	4.0	4.5	6050120		18	28	7.7	9.0	6050186
12	18	5.7	6.3	6050121		20	25	3.2	3.5	6050200
12	19	4.5	5.0	6050122		20	26	5.0	5.5	6050201
12	19	5.1	5.6	6050123		20	26	6.5	7.6	6050202
12	20	5.7	6.3	6050124		20	27	6.1	6.7	6050203
12	22	7.3	8.0	6050125		20	28	5.0	5.7	6050204
12	22	7.7	9.0	6050126		20	28	5.7	6.3	6050205
12.7	18	5.5	6.0	60501270		20	28	6.3	7.0	6050206
13	20	4.5	5.0	6050130		20	30	6.0	7.0	6050207
14	21	5.1	5.6	6050140		20	30	7.3	8.0	6050208
14	22	5.7	6.3	6050141		20	30	7.7	9.0	6050209
14	24	7.3	8.0	6050142		20	30	10.0	11.0	6050210
15	22	5.7	6.3	6050150		22	30	5.0	5.7	6050220
15.37	25.5	6.4	7.4	60501537		22	30	5.7	6.3	6050221
16	22	4.5	5.0	6050160		22	30	7.3	8	6050222
16	22	5.0	6.0	6050161		22	32	7.3	8	6050223
16	24	5.8	6.3	6050162		22	32	8.2	9	6050224
16	26	7.7	9.0	6050163		22	32	10	11	6050225
18	24	4.5	5.0	6050180		22.4	30	5	5.7	60502240
18	25	5.0	6.0	6050181		22.4	30	8	9	60502241

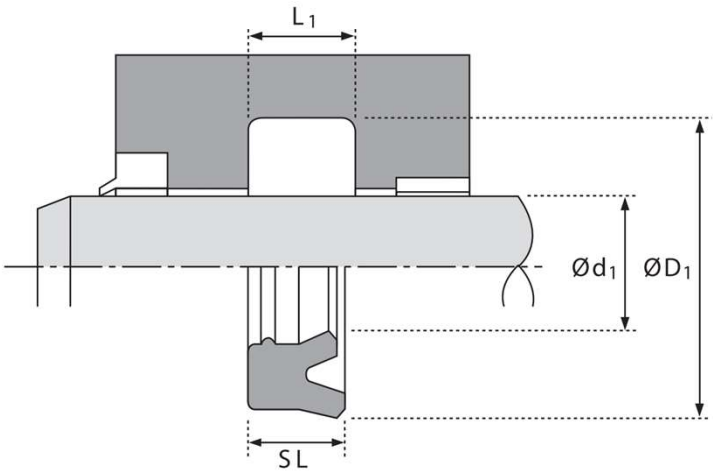
K605



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
24	30	4.5	5	6050240		30	42	10.9	12	6050307
25	33	5	5.7	6050250		30	43	10	11	6050308
25	33	5.7	6.3	6050251		30	45	9	10	6050309
25	33	6.8	7.5	6050252		30	45	10	11	6050310
25	33	8	9	6050253		30	50	10	11	6050311
25	33	10	11	6050254		32	40	6	7	60503200
25	35	7.3	8	6050255		32	40	6.7	7.7	60503201
25	35	7.7	9	6050256		32	40	7.7	9	60503202
25	35	10	11	6050257		32	41.5	7.9	8.9	60503203
25	37	10	11	6050258		32	42	5.7	6.3	60503204
25	40	10	11	6050259		32	42	6	7	60503205
26	36	7	8	6050260		32	42	7.0	8.0	60503206
28	35.5	5	7	6050280		32	42	10.0	11.0	60503207
28	36	5.7	6.3	6050281		32	45	10.0	11.0	60503208
28	38	7.3	8	6050282		32	47	9.1	10.0	60503209
28	43	11.4	12.5	6050283		32	47	10.0	11.0	60503210
30	38	5.7	6.3	6050300		32	48	10.0	11.0	60503211
30	38	6.3	7	6050301		35	43	5.7	6.3	6050350
30	40	6	7	6050302		35	43	6.3	7.0	6050351
30	40	7	7.7	6050303		35	43	8.2	9.0	6050352
30	40	7.3	8	6050304		35	45	6.0	7.0	6050353
30	40	8.5	9.5	6050305		35	45	7.0	8.0	6050354
30	40	10	11	6050306		35	45	7.7	9.0	6050355

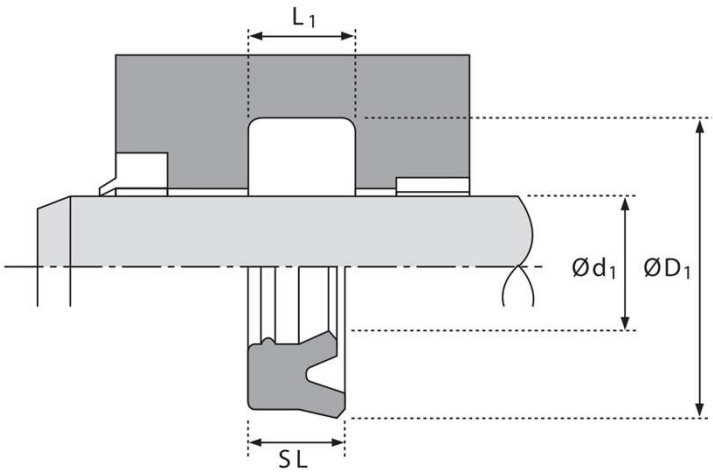
K605



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
35	45	10.0	11.0	6050356		40	55	9.0	10.0	60504009
35	50	9.0	10.0	6050357		40	55	10.0	11.0	60504010
35	50	10.0	11.0	6050358		40	55	11.4	12.5	60504011
35.5	45	6.0	7.0	60503550		42	50	5.7	6.3	6050420
35.5	50.5	10.0	11.0	60503551		42	50	7.5	8.0	6050421
36	44	6.4	7.5	6050360		42	52	6.0	7.0	6050423
36	44	8.2	9.0	6050361		42	52	10.0	11.0	6050424
36	46	5.7	6.3	6050362		42	53	6.0	7.0	6050425
36	46	10.0	11.0	6050363		45	53	7.3	8.0	60504500
36	51	10.0	11.0	6050364		45	53	8.1	9.0	60504501
37	47	10.0	11.0	6050370		45	53	11.8	13.0	60504502
38	48	8.0	9.0	6050380		45	55	5.6	6.3	60504503
38	48	10.0	11.0	6050381		45	55	6.0	7.0	60504504
38	50	10.0	11.0	6050382		45	55	7.3	8.0	60504505
38	53	10.0	11.0	6050383		45	55	8.0	9.0	60504506
40	48	5.7	6.3	60504000		45	55	10.0	11.0	60504507
40	48	8.2	9.0	60504001		45	57.7	9.5	10.5	60504508
40	49.52	9.5	10.5	60504002		45	60	10.0	11.0	60504509
40	50	6.0	7.0	60504003		45	60	11.4	12.5	60504510
40	50	7.3	8.0	60504004		45	65	10.0	11.0	60504511
40	50	9.0	10.0	60504005		47	56.33	9.0	10.0	6050470
40	50	10.0	11.0	60504006		48	60	10.0	11.0	6050480
40	52	10.9	12.0	60504007		50	57	9.0	10.0	60505000
40	55	7.3	8.0	60504008		50	60	6.0	7.0	60505001

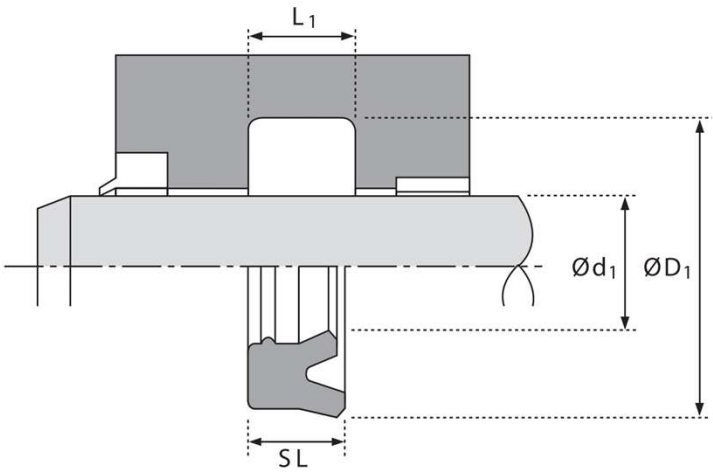
K605



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
50	60	7.3	8.0	60505002		55	75	12.0	13.0	60505510
50	60	8.2	9.0	60505003		56	66	10.0	11.0	6050560
50	60	10.0	11.0	60505004		56	71	10.0	11.0	6050561
50	60	11.8	13.0	60505005		56	71	11.4	12.5	6050562
50	62.7	9.5	10.5	60505006		60	68	11.4	12.5	60506000
50	63	10.0	11.0	60505007		60	70	6.0	7.0	60506001
50	65	9.0	10.0	60505008		60	70	7.3	8.0	60506002
50	65	9.5	10.5	60505009		60	70	10.0	11.0	60506003
50	65	10.0	11.0	60505010		60	70	11.8	13.0	60506004
50	65	10.9	12.0	60505011		60	71	7.0	8.0	60506005
50	65	11.4	12.5	60505012		60	72	10.0	11.0	60506006
50	70	12.0	13.0	60505013		60	73	10.0	11.0	60506007
53	63	6.0	7.0	6050530		60	75	9.0	10.0	60506008
53	65	9.0	10.0	6050531		60	75	10.0	11.0	60506009
55	63	8.2	9.0	60505500		60	75	11.4	12.5	60506010
55	65	6.0	7.0	60505501		60	75	11.8	13.0	60506011
55	65	7.3	8.0	60505502		60	75	20.5	22.5	60506012
55	65	8.2	9.0	60505503		60	76	10.0	11.0	60506013
55	65	10.0	11.0	60505504		60	80	11.4	12.5	60506014
55	65	11.8	13.0	60505505		60	80	12.0	13.0	60506015
55	68	10.0	11.0	60505506		63	73	6.0	7.0	60506300
55	70	9.0	10.0	60505507		63	73	11.8	13.0	60506301
55	70	11.8	13.0	60505508		63	78	10.0	11.0	60506302
55	71	12.0	13.0	60505509		63	78	11.4	12.5	60506303

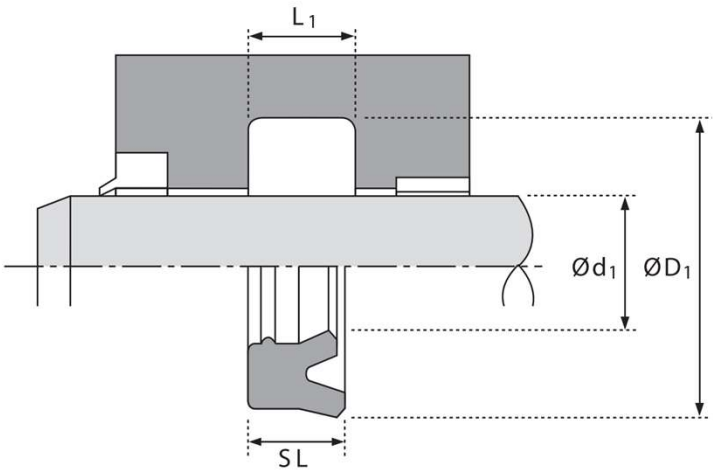
K605



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
63	83	11.8	13.0	60506304		75	88	10.0	11.0	60507504
65	75	7.7	9.0	6050650		75	90	9.0	10.0	60507505
65	75	11.8	13.0	6050651		75	90	10.0	11.0	60507506
65	77	9.0	10.0	6050652		75	90	11.4	12.5	60507507
65	77.7	9.5	10.5	6050653		75	95	12.0	13.0	60507508
65	78	10.0	11.0	6050654		77	87	11.8	13.0	6050770
65	85	12.0	13.0	6050655		78	86	11.4	12.5	6050780
67	77	6.0	7.0	6050670		80	88	10.9	12.0	60508000
68.5	76.5	8.0	9.0	60506850		80	90	6.0	7.0	60508001
70	78	11.4	12.5	60507000		80	90	10.0	11.0	60508002
70	80	6.0	7.0	60507001		80	90	11.8	13.0	60508003
70	80	11.4	12.5	60507002		80	92	8.7	9.6	60508004
70	80	11.8	13.0	60507003		80	93	10.0	11.0	60508005
70	82	8.7	9.6	60507004		80	95	9.0	10.0	60508006
70	82	10.0	11.0	60507005		80	95	10.0	11.0	60508007
70	83	10.0	11.0	60507006		80	95	11.4	12.5	60508008
70	85	10.0	11.0	60507007		80	95	11.8	13.0	60508009
70	85	11.4	12.5	60507008		80	100	12.0	13.0	60508010
70	85	20.5	22.5	60507009		80	100	14.5	16.0	60508011
70	90	12.0	13.0	60507010		80	110	16.4	18.0	60508012
75	83	11.4	12.5	60507500		85	93	8.2	9.0	6050850
75	85	6.0	7.0	60507501		85	93	10.0	11.0	6050851
75	85	11.4	12.5	60507502		85	93	11.4	12.5	6050852
75	85	11.8	13.0	60507503		85	95	11.8	13.0	6050853

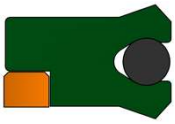
K605



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
85	100	10.0	11.0	6050854		105	120	9.0	10.0	6051051
85	100	11.8	13.0	6050855		105	120	10.0	11.0	6051052
85	105	12.0	13.0	6050856		105	120	14.5	16.0	6051053
90	98	11.4	12.5	6050900		105	125	14.5	16.0	6051054
90	100	6.8	7.5	6050901		108	123	10.9	12.0	6051080
90	100	9.0	10.0	6050902		110	123	9.0	10.0	6051100
90	100	11.4	12.5	6050903		110	125	9.0	10.0	6051101
90	100	11.8	13.0	6050904		110	125	11.0	12.0	6051102
90	102	8.7	9.6	6050905		110	125	14.5	16.0	6051103
90	105	10.0	11.0	6050906		110	130	11.8	13.0	6051104
90	105	11.4	12.0	6050907		110	130	14.5	16.0	6051105
90	110	12.0	13.0	6050908		110	135	14.5	16.0	6051106
95	103	11.4	12.5	6050950		112	125	9.0	10.0	6051120
95	110	9.0	10.0	6050951		115	125	11.0	12.0	6051150
95	110	10.0	11.0	6050952		115	130	9.0	10.0	6051151
95	110	11.8	13.0	6050953		115	130	10.9	12.0	6051152
95	115	12.0	13.0	6050954		115	130	14.5	16.0	6051153
96	104	10.9	12.0	6050960		120	128	11.4	12.5	6051200
98	112	8.5	9.5	6050980		120	130	10.9	12.0	6051201
100	108	10.9	12.0	6051000		120	135	9.0	10.0	6051202
100	110	10.9	12.0	6051001		120	140	12.0	13.0	6051203
100	115	9.0	10.0	6051002		120	140	14.5	16.0	6051204
100	115	10.0	11.0	6051003		124	134	6.0	7.0	60501240
100	115	11.8	13.0	6051004		125	133	10.0	11.0	60501250
100	120	11.8	13.0	6051005		125	133	11.4	12.5	60501251
100	120	14.5	16.0	6051006		125	140	9.0	10.0	60501252
105	115	13.2	14.5	6051050		125	140	10.0	11.0	60501253

Technical details

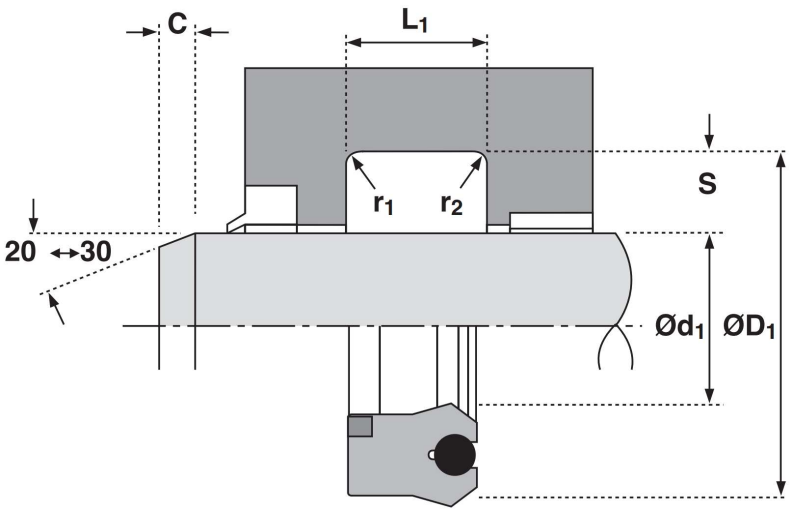


K652

	Metric					Inch	
Operating conditions							
Maximum Speed	1.0 m/sec					3.0 ft/sec	
Temperature Range	-45°C + 110°C					-50°F + 230°F	
Maximum Pressure	700 bar					10,000 p.s.i.	
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.**						
Pressure bar	160	250	400	500	700		
Maximum Gap mm	1.0	0.8	0.6	0.4	0.25		
Pressure p.s.i.	2400	3750	6000	7500	10,000		
Surface roughness	µmRa		µmRt			µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4		4 max			4 < > 16	5 < > 18
Static Sealing Face $ØD_1$	1.6 max		10 max			63 max	70 max
Static Housing Faces L_1	3.2 max		16 max			125 max	140 max
Chamfers & Radii							
Groove Section ≤ S mm	4.0	5.0	7.5	10.0	12.5	15.0	
Min Chamfer C mm	3.0	3.5	5.0	6.5	7.0	8.0	
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8	1.2	1.6	
Max Fillet Rad r_2 mm	0.4	0.8	1.2	1.2	1.6	2.4	
Tolerances	$Ød_1$		$ØD_1$		L_1 mm		
	f9		Js11		+0.25 -0		

Design

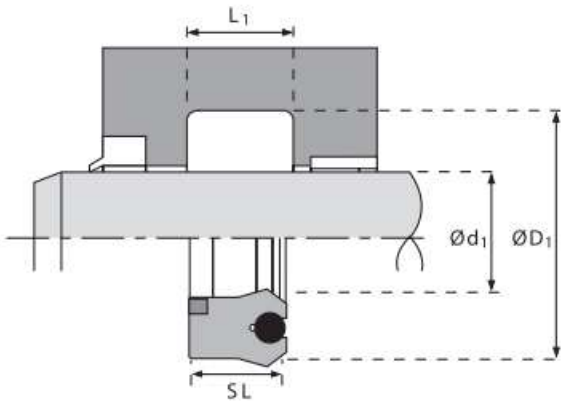
Kintowe K652 is a high pressure rod seal designed specifically for longwall mining applications.
The seal design comprises three elements: a polyurethane shell , an O-ring energizer and a polyacetal / PFC anti-extrusion ring.
The shell is manufactured in **Kintowe®**01 to provide flexibility for installation and responsiveness to the sealing lip .
The rubber energizer ensures complete lip actuation under all pressure conditions and cushions the seal against shock loadings.
The anti-extrusion ring enables the seal to with stand side loads and extreme pressure peaks during operation , even with the extrusion gaps which are the result of using remote plastic bearing strip such as Kintowe PFC .



Features

***High pressure/ shock load capability**
***Polyacetal anti-extrusion ring**
***Responsive sealing**

K652

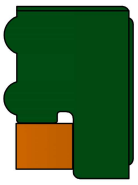


Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
32	44	8.7	9.6	6520320		128	143	14.5	16.0	6051280
40	52	8.7	9.6	6520400		130	145	14.5	16.0	6051300
50	62	8.7	9.6	6520500		135	155	13.6	15.0	6051350
60	69.8	11.4	12.5	6520600		140	155	14.5	16.0	6051400
60	72	8.7	9.6	6520601		150	165	14.5	16.0	6051500
60	75	11.9	13.0	6520602		160	175	11.7	12.8	6051600
63	75	8.7	9.6	6520630		160	175	14.5	16.0	6051601
70	82	8.7	9.6	6520700		160	177	14.5	16.0	6051602
75	95	12.5	14.0	6520750		160	185	18.8	20.0	6051603
80	95	14.5	16.0	6520800		165	182	14.5	16.0	6051650
80	95	11.8	13.0	6520801		170	185	14.5	16.0	6051700
85	97	8.7	9.6	6520850		177	192	14.5	16.0	6051770
90	105	14.5	16.0	6520900		180	195	14.5	16.0	6051800
100	115	11.0	12.0	6521000		185	200	14.5	16.0	6051850
100	115	14.5	16.0	6521001		185	210	18.0	20.0	6051851
105	120	11.8	13.0	6521050		190	205	14.5	16.0	6051900
105	120	14.5	16.0	6521051		195	210	14.5	16.0	6051950
110	125	14.5	16.0	6521100		195	215	14.5	16.0	6051951
115	130	14.5	16.0	6521150		200	220	14.5	16.0	6052000
120	135	14.5	16.0	6521200		205	220	14.5	16.0	6052050
125	140	14.5	16.0	6521250		210	230	14.5	16	6052100

Technical details

	Metric				Inch
Operating conditions					
Maximum Speed	1.0 m/sec				3.0 ft/sec
Temperature Range	-45°C + 110°C				-50°F + 230°F
Maximum Pressure	700 bar				10,000 p.s.i.



K653

Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**				
Pressure bar	160	250	400	500	700
Maximum Gap (S <=6) mm	0.6	0.5	0.4	0.3	0.2
Maximum Gap (S > 6) mm	1.0	0.8	0.6	0.4	0.25
Pressure p.s.i.	2400	3750	6000	7500	10,000
Maximum Gap (S <=0.250) in	0.024	0.020	0.016	0.012	0.008
Maximum Gap (S >0.250) in	0.040	0.032	0.024	0.016	0.010

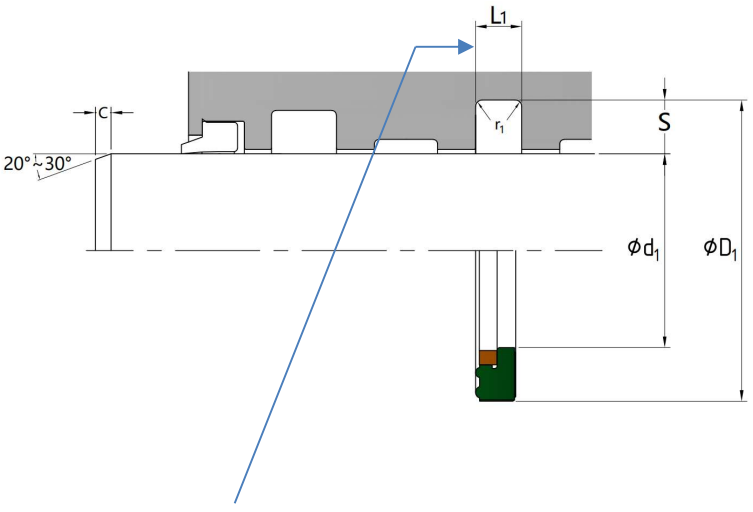
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød$_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face L$_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces ØD$_1$,L$_1$	3.2 max	16 max	125 max	140 max
Chamfers & Radii				
Groove Section ≤ S mm	3.75	5.50	7.75	10.50
Min Chamfer C mm	3.00	3.50	5.00	7.50
Max Fillet Rad r$_1$ mm	0.50	0.70	1.20	1.60
Groove Section ≤ S in	0.150	0.215	0.306	0.413
Min Chamfer C in	0.125	0.140	0.200	0.300
Max Fillet Rad r$_1$ in	0.020	0.028	0.047	0.062

Tolerances	Ød$_1$	ØD$_1$	L$_1$
mm	f9	H10	+0.25 -0
in	f9	Js11	+0.010 -0

Design

Kintowe K653 is a buffer seal developed to work in conjunction with high performance rod seals, such as the Kintowe K605. It' s also interchangeable with common PTFE buffer seal housings.

The seal which is manufactured in **KINTOWE®01,** is designed to provide a valve action to prevent excessive pressure build up in the cavity between the buffer seal and the rod seal. A polyacetal/PFC anti-extrusion ring is fitted to provide maximum extrusion resistance against shock pressure loads.

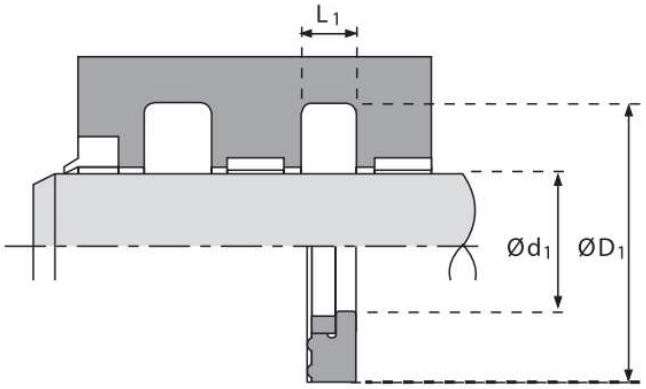


Noted: This is sealing surface

Features

*Easy installation
*long using life
*Prevents inter-seal pressure build up
*Interchangeable with common PTFE buffer seal housings
*Excellent temperature range

K653



Specification table

Φd1	ΦD1	L1	PART No.
40	55.5	6.3	6530400
45	56	4.2	6530450
45	60.5	6.3	6530451
50	65.5	6.3	6530500
55	70.5	6.3	6530550
60	75.5	6.3	6530600
63	78.5	6.3	6530630
65	80.5	6.3	6530650
70	85.5	6.3	6530700
75	90.5	6.3	6530750
80	95.5	6.3	6530800
85	100.5	6.3	6530850
90	105.5	6.3	6530900
95	110.5	6.3	6530950
100	115.5	6.3	6531000
110	125.5	6.3	6531100
124	139.5	6.3	6531240
125	140.5	6.3	6531250
130	145.5	6.3	6531300
135	150.5	6.3	6531350
140	155.5	6.3	6531400
150	165.5	6.3	6531500
150	170	10.0	6531501
155	170.5	6.3	6531550
160	175.5	6.3	6531600
170	185.5	6.3	6531700
180	195.5	6.3	6531800
186	201.5	6.3	6531860
215	236	8.1	6532150

Rod Seals

K663

Operating conditions				
Maximum Speed	1.0 m/sec		3.0 ft/sec	
Temperature Range	-45°C +110°C		-50°F +230°F	
Maximum Pressure	400 bar		6000 p.s.i.	
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**			
Pressure bar	160	250	400	
Maximum Gap mm	0.6	0.5	0.4	
Pressure p.s.i.	2400	3750	6000	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $ØD_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

Chamfers & Radii				
Groove Section ≤ S mm	4.0	5.0	7.5	10
Min Chamfer C mm	3.0	3.5	5.0	6.5
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8
Max Fillet Rad r_2 mm	0.4	0.8	1.2	1.2

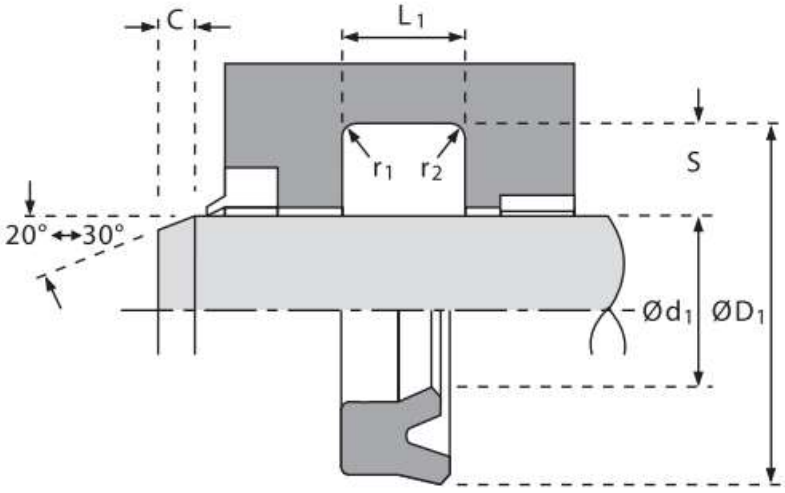
Tolerances	$Ød_1$	$ØD_1$	L_1 mm
	f9	Js11	+0.25 -0

Design

Kintowe K663 is an asymmetric seal offering superlative dry rod sealing for light and medium duty applications.

The seal is a single lip modification of the well established Kintowe K605 profile and is ideal for applications which require a double lip wiper such as the Kintowe K839 .

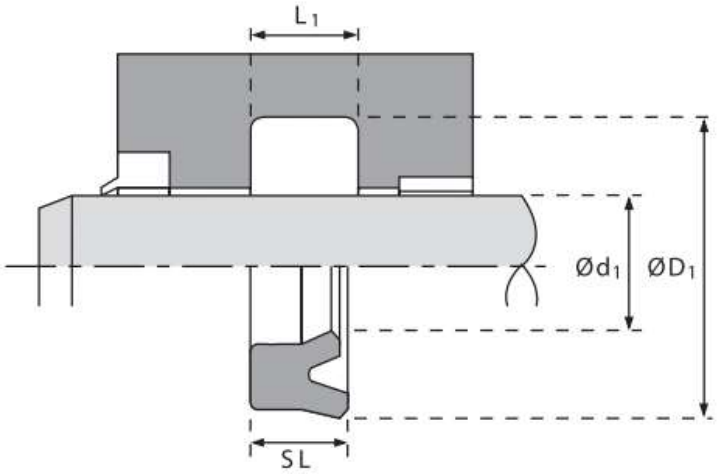
Manufactured in **Kintowe®**01, the Kintowe K663 is an extremely flexible seal making installation very easy .The Kintowe K663 is also available in **Kintowe®**06 material .



Features

***Easy installation**
***Dry rod sealing performance when used with Kintowe K839 wipers.**

K663



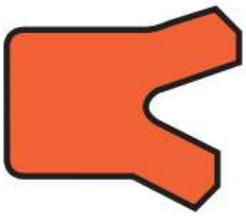
Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
12	22	7.3	8.0	6630120		45	55	7.3	8.0	6630451
14	24	8.2	9.0	6630140		45	55	10.3	11.0	6630452
16	24	5.7	6.3	6630160		50	57	9.0	10.0	6630500
16	26	7.3	8.0	6630161		50	58	8.2	9.0	6630501
18	26	5.7	6.3	6630180		50	60	7.3	8.0	6630502
20	28	5.7	6.3	6630200		50	60	10.0	11.0	6630503
20	30	7.3	8.0	6630201		50	65	11.4	12.5	6630504
22	32	7.3	8.0	6630220		54	64	10.0	11.0	6630540
24	34	7.8	8.5	6630240		55	65	10.0	11.0	6630550
25	33	5.7	6.3	6630250		55	67	10.0	11.0	6630551
25	35	7.3	8.0	6630251		56	67	10	11	6630560
25	40	10.0	11.0	6630252		56	66	10	11	6630561
26	36	10.0	11.0	6630260		60	68	8	9	6630600
28	36	5.7	6.3	6630280		60	70	7.3	8	6630601
30	38	5.7	6.3	6630300		60	70	10	11	6630602
30	38	8.2	9.0	6630301		60	75	11.4	12.5	6630603
30	40	7.3	8.0	6630302		65	75	11.8	13	6630650
30	45	10.0	11.0	6630303		65	80	11.4	13	6630651
32	40	5.7	6.3	6630320		70	80	6	7	6630700
32	42	7.3	8.0	6630321		70	85	11.4	13	6630701
35	43	5.7	6.3	6630350		75	95	14.5	16	6630750
35	45	7.3	8.0	6630351		80	90	11.8	13	6630800
35	45	10.0	11.0	6630352		80	100	14.5	16	6630801
36	44	5.8	6.3	6630360		85	97	8.7	9.6	6630850
36	44	8.0	9.0	6630361		85	100	11.8	13	6630851
36	46	7.3	8.0	6630362		95	110	9	10	6630950
40	48	5.7	6.3	6630400		100	115	9	10	6631000
40	48	8.2	9.0	6630401		100	115	11.8	13	6631001
40	50	7.3	8.0	6630402		140	155	9	10	6631400
40	50	8.2	9.0	6630403		160	175	9	10	6631600
40	50	10.0	11.0	6630404		170	185	9	10	6631700
45	53	8.2	9.0	6630450		180	200	12	13	6631800

Single Lip Rod Seal

技术参数 Technical Details

	公制 Metric	英制 Inch
工作条件 Operating Conditions		
最大速度 Maximum Speed	1.0 m/sec	3.0 ft/sec
温度范围 Temperature Range	-45°C + 110°C	-50 °F + 230 °F
最大压力 Maximum Pressure	400 bar*	6,000 p.s.i.*

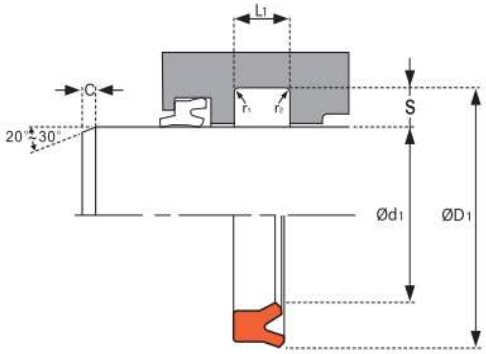


K673

最大挤出间隙 Maximum extrusion gap

最大挤出间隙值显示了最大的单边允许间隙，最小活塞杆直径和最大间隙。参考沟槽设计部分。

Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.Refer to Housing Design section.



压力 Pressure bar	160	250	400
最大间隙 Maximum Gap mm	0.6	0.5	0.4
压力 Pressure p.s.i.	2400	3750	6000
最大间隙 Maximum Gap in	0.024	0.020	0.016

表面粗糙度 Surface Roughness	**µmRa**	**µmRt**	**µinCLA**	**µinRMS**
动密封面 Dynamic Sealing Face $Ød_1$	0.1< >0.4	4max	4< >16	5< >18
静密封面 Static Sealing Face $ØD_1$	1.6 max	10 max	63 max	70 max
静态沟槽面 Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

斜面和半径 Chamfers & Radii

沟槽截面 Groove Section≤S mm	4.0	5.0	7.5	10.0	12.5	15
最小倒角 Min Chamfer C mm	3.0	3.5	5.0	6.5	7.0	8.0
最大圆角半径 Max Fillet Rad $r_1$mm	0.2	0.4	0.8	0.8	1.2	1.6
最大圆角半径 Max Fillet Rad $r_2$mm	0.4	0.8	1.2	1.2	1.6	2.4
沟槽截面 Groove Section≤S in	0.125	0.187	0.250	0.312	0.375	0.500
最小倒角 Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.217
最大圆角半径 Max Fillet Rad $r_1$in	0.008	0.008	0.016	0.032	0.032	0.032
最大圆角半径 Max Fillet Rad $r_2$in	0.016	0.016	0.032	0.047	0.047	0.047

公差 Tolerances	**$ød_1$**	**$øD_1$**	**L_1 mm**	**L_1 in**
	f9	Js11	+0.25-0	+0.010 -0

Design

Kintowe 673 is an asymmetric seal offering superlative dry rod sealing for medium and heavy duty applications.

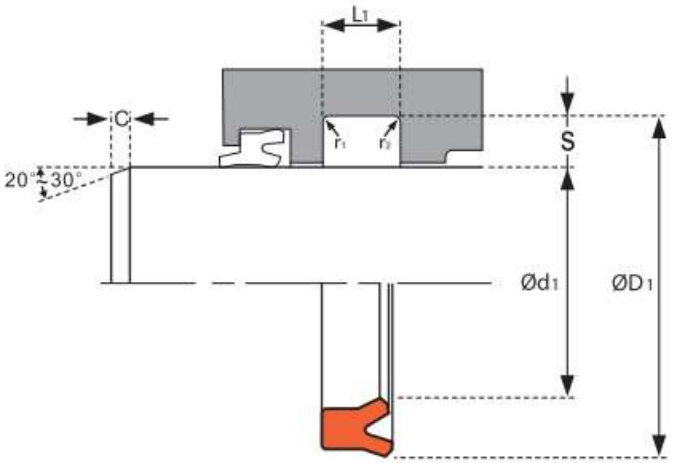
The seal is a single lip design and is ideal for applications which require a double lip wiper such as the Kintowe K864 or K839.

Manufactured in **Kintowe**®05, the Kintowe K673 is an extremely flexible seal making installation very easy. The Kintowe K673 is also available in **Kintowe**®01.

Features

* Easy installation
* Dry rod sealing performance when used with Kintowe K864 or K839 wipers.

K673

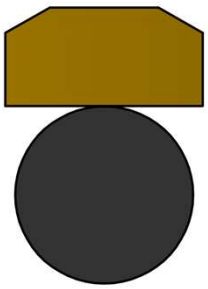


Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
30	43	10.0	11.0	6730300		70	83	10.0	11.0	6730700
30	45	10.0	11.0	6730301		70	85	9.0	10.0	6730701
32	42	6.0	7.0	6730320		75	88	10.0	11.0	6730750
35	45	6.0	7.0	6730350		75	90	9.0	10.0	6730751
35	50	10.0	11.0	6730351		75	90	10.0	11.0	6730752
40	50	6.0	7.0	6730400		80	93	10.0	11.0	6730800
40	50	9.0	10.0	6730401		80	95	9.0	10.0	6730801
40	55	6.0	7.0	6730402		80	95	10.0	11.0	6730802
40	55	10.0	11.0	6730403		80	100	12.0	13.0	6730803
50	60	8.0	9.0	6730500		85	100	9.0	10.0	6730850
50	63	9.0	10.0	6730501		85	100	10.0	11.0	6730851
50	65	8.0	9.0	6730502		85	105	12.0	13.0	6730852
50	65	10.0	11.0	6730503		90	105	9.0	10.0	6730900
55	68	10.0	11.0	6730550		90	105	10.0	11.0	6730901
55	70	9.0	10.0	6730551		90	110	12.0	13.0	6730902
60	73	10.0	11.0	6730600		95	110	9.0	10.0	6730950
60	75	9.0	10.0	6730601		95	110	10.0	11.0	6730951
60	75	10.0	11.0	6730602		95	115	12.0	13.0	6730952
60	78	10.0	11.0	6730603		100	115	9.0	10.0	6731000
65	80	9.0	10.0	6730650		100	115	10.0	11.0	6731001
65	80	10.0	11.0	6730651		100	120	12.0	13.0	6731002

Piston Seals

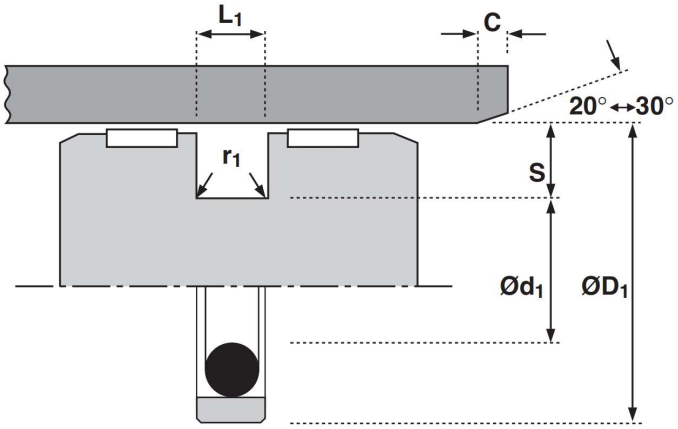
Technical details	Metric				Inch
Operating conditions					
Maximum Speed	4.0 m/sec				12.0 ft/sec
Temperature Range	-30°C +100°C				-22°F +212°F
Maximum Pressure	350 bar				5000 p.s.i.
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section.**				
Pressure bar	100	160	250	350	
Maximum Gap mm	0.60	0.50	0.45	0.35	
Pressure p.s.i.	1500	2400	3750	5250	
Maximum Gap in	0.024	0.020	0.018	0.014	
Surface roughness	µmRa	µmRt		µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 < > 0.4	4 max		4 < > 16	5 < > 18
Static Sealing Face $Ød_1$	1.6 max	10 max		63 max	70 max
Static Housing Faces L_1	3.2 max	16 max		125 max	140 max
Chamfers & Radii					
Groove Section ≤ S mm	3.75	5.50	7.75	10.50	12.25
Min Chamfer C mm	2.00	2.50	5.00	7.50	10.00
Max Fillet Rad r_1 mm	0.40	0.80	1.20	1.60	2.00
Groove Section ≤ S in	0.147	0.216	0.305	0.413	0.483
Min Chamfer C in	0.093	0.125	0.156	0.187	0.305
Max Fillet Rad r_1 in	0.016	0.016	0.032	0.032	0.032
Tolerances	$ØD_1$	$Ød_1$	L_1		
mm	H9	h9	+0.2 -0		
in	H9	h9	+0.008 -0		



DF054

Design

Kintowe DF054 double acting piston seal provides the designer with a compact, low friction seal for light to medium duty hydraulic cylinders. It comprises a PTFE face ring, strengthened with additives to resist creep, which is pre-loaded by an O-ring to be effective for the operating pressure range recommended. As the pressure rises the O-ring deforms and compresses the PTFE face ring against the tube wall increasing the sealing force and the effectiveness of the seal. As only the PTFE face ring is in contact with the sliding surface , friction is very low and stick-slip movement is eliminated. The housing width allows the designer to use a narrow width piston, but it is recommended an adequate bearing is mounted either side of the seal as shown. Different kinds of material options for PTFE face ring can be provide to extend operating conditions . Kintowe DF054 seal is not recommended for applications where it is necessary for the pressurized cylinder to maintain the load in a set position.



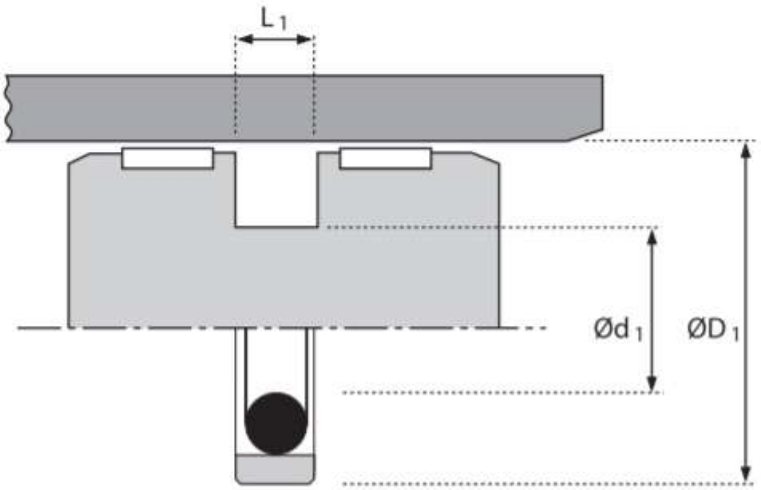
Features

***High maximum speed**
***Compact piston design**
***Low breakout & running friction**
***Low stick/slip**
***Any size can be machined**

Materials

PTFE + O-RING
15%Glass/PTFE+NBR
15%Glass/PTFE+FKM
40%Bronze/PTFE+NBR
40%Bronze/PTFE+FKM

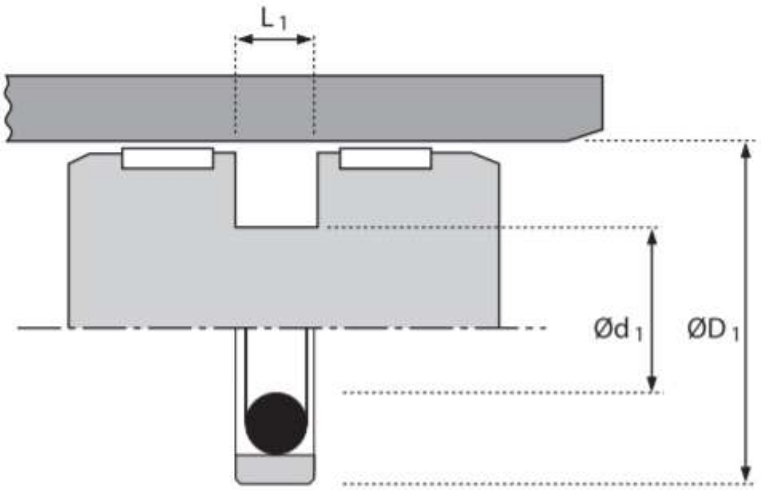
DF054



Specification table

ΦD1	Φd1	L1	O-Ring	PART No.		ΦD1	Φd1	L1	O-Ring	PART No.
10	5.1	2.2	4.76*1.78	DF540100		75	64	4.2	63.09*3.53	DF540750
12	7.1	2.2	6.75*1.78	DF540120		75	59.5	6.3	56.52*5.33	DF540751
15	7.5	3.2	7.59*2.62	DF540150		80	59	8.1	58.00*6.99	DF540800
16	8.5	3.2	7.59*2.63	DF540160		80	64.5	6.3	62.87*5.33	DF540801
20	12.5	3.2	12.37*2.62	DF540200		80	69	4.2	66.27*3.53	DF540802
25	14	4.2	13.87*3.53	DF540250		85	64	8.1	63.00*7.00	DF540850
25	17.5	3.2	17.12*2.62	DF540251		85	74	4.2	73.03*3.53	DF540851
32	21	4.2	20.22*3.53	DF540320		85	69.5	6.3	69.22*5.33	DF540852
32	24.5	3.2	23.47*2.62	DF540321		90	74.5	6.3	72.04*5.33	DF540900
35	30.1	2.2	29.87*1.78	DF540350		90	69	8.1	68.20*6.99	DF540901
35	27.5	3.2	26.64*2.62	DF540351		95	79.5	6.3	78.74*5.33	DF540950
40	32.5	3.2	31.42*2.62	DF540400		100	79	8.1	77.00*7.00	DF541000
40	29	4.2	28.17*3.53	DF540401		100	89	4.2	88.50*3.53	DF541001
40	24.5	6.3	23.17*5.33	DF540402		100	84.5	6.3	81.92*5.33	DF541002
45	34	4.2	32.92*3.53	DF540450		105	89.5	6.3	88.27*5.33	DF541050
48	37	4.2	36.10*3.53	DF540480		110	89	8.1	88.00*6.99	DF541100
50	39	4.2	37.69*3.53	DF540500		110	99	4.2	98.02*3.53	DF541101
55	44	4.2	44.04*3.53	DF540550		110	94.5	6.3	91.44*5.33	DF541102
60	44.5	6.3	43.82*5.33	DF540600		115	94	8.1	92.00*7.00	DF541150
60	49	4.2	47.22*3.53	DF540601		115	99.5	6.3	97.79*5.33	DF541151
63	52	4.2	50.39*3.53	DF540630		120	104.5	6.3	100.97*5.33	DF541200
63	47.5	6.3	47.00*5.33	DF540631		120	99	8.1	97.00*7.00	DF541201
63	55.5	3.2	55.25*2.62	DF540632		125	104	8.1	102.00*7.00	DF541250
65	49.5	6.3	48.50*5.33	DF540650		125	114	4.2	113.90*3.53	DF541251
65	54	4.2	53.57*3.53	DF540651		125	109.5	6.3	107.32*5.33	DF541252
68	57	4.2	56.74*3.53	DF540680		130	109	8.1	107.00*7.00	DF541300
70	54.5	6.3	53.34*5.33	DF540700		130	114.5	6.3	113.67*5.33	DF541301
70	59	4.2	56.74*3.53	DF540701		140	119	8.1	116.84*6.99	DF541400

DF054



Specification table

ΦD1	Φd1	L1	O-Ring	PART No.		ΦD1	Φd1	L1	O-Ring	PART No.
140	124.5	6.3	123.19*5.33	DF541401		265	244	8.1	240.67*6.99	DF542650
140	129	4.2	126.60*3.53	DF541402		270	249	8.1	240.67*6.99	DF542700
145	124	8.1	123.19*6.99	DF541450		275	254	8.1	247.00*6.99	DF542750
150	129	8.1	126.37*6.99	DF541500		280	259	8.1	253.57*6.99	DF542800
155	134	8.1	132.72*6.99	DF541550		300	279	8.1	278.77*6.99	DF543000
160	139	8.1	135.89*6.99	DF541600		305	284	8.1	278.77*6.99	DF543050
165	144	8.1	142.24*6.99	DF541650		310	289	8.1	278.77*6.99	DF543100
170	149	8.1	148.59*6.99	DF541700		330	305.5	8.1	304.17*6.99	DF543300
180	159	8.1	158.12*6.99	DF541800		340	315.5	8.1	316.87*6.99	DF543400
185	164	8.1	161.90*6.99	DF541850		350	325.5	8.1	316.87*6.99	DF543500
185	169.5	6.3	164.47*5.33	DF541851		360	335.5	8.1	329.57*6.99	DF543600
190	169	8.1	164.47*6.99	DF541900		370	345.5	8.1	342.27*6.99	DF543700
315	294	8.1	291.47*6.99	DF543150		380	355.5	8.1	354.90*6.99	DF543800
320	295.5	8.1	291.47*6.99	DF543200		390	365.5	8.1	354.90*6.99	DF543900
320	299	8.1	291.47*6.99	DF543201		400	375.5	8.1	367.67*6.99	DF544000
325	304	8.1	297.88*6.99	DF543250		420	395.5	8.1	393.07*6.99	DF544200
195	174	8.1	170.82*6.99	DF541950		430	405.5	8.1	405.26*6.99	DF544300
200	179	8.1	177.17*6.99	DF542000		440	415.5	8.1	405.26*6.99	DF544400
200	184.5	6.3	183.52*5.33	DF542001		450	425.5	8.1	417.96*6.99	DF544500
205	184	8.1	183.52*6.99	DF542050		460	435.5	8.1	430.66*6.99	DF544600
210	189	8.1	183.52*6.99	DF542100		470	445.5	8.1	443.36*6.99	DF544700
215	194	8.1	189.87*6.99	DF542150		480	455.5	8.1	456.06*6.99	DF544800
220	199	8.1	196.22*6.99	DF542200		500	475.5	8.1	468.76*6.99	DF545000
225	204	8.1	202.57*6.99	DF542250		520	495.5	8.1	494.16*6.99	DF545200
230	209	8.1	202.57*6.99	DF542300		530	505.5	8.1	494.16*6.99	DF545300
240	219	8.1	215.27*6.99	DF542400		540	515.5	8.1	506.86*6.99	DF545400
245	224	8.1	221.62*6.99	DF542450		550	525.5	8.1	506.86*6.99	DF545500
250	229	8.1	227.97*6.99	DF542500		560	535.5	8.1	532.26*6.99	DF545600
260	239	8.1	234.32*6.99	DF542600		580	555.5	8.1	532.26*6.99	DF545800
						600	575.5	8.1	557.66*6.99	DF546000

Piston Seals

K730

Technical details	Metric		Inch	
Operating conditions				
Maximum Speed	0.3 m/sec		1.0 ft/sec	
Temperature Range	-40°C +110°C		-40°F + 230°F	
Maximum Pressure	700 bar		10,000 p.s.i.	
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**			
Pressure bar	160	250	500	700
Maximum Gap mm	1.00	0.80	0.40	0.25
Pressure p.s.i.	2400	3750	7500	10,000
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $Ød_1$ $Ød_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

Chamfers & Radii				
Groove Section ≤ S mm	7.5	10.0	12.5	15.0
Min Chamfer C mm	8.0	10.0	13.0	15.0
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8

Tolerances	$ØD_1$	$Ød_1$	L_1
mm	H10	h9	+0.2 -0

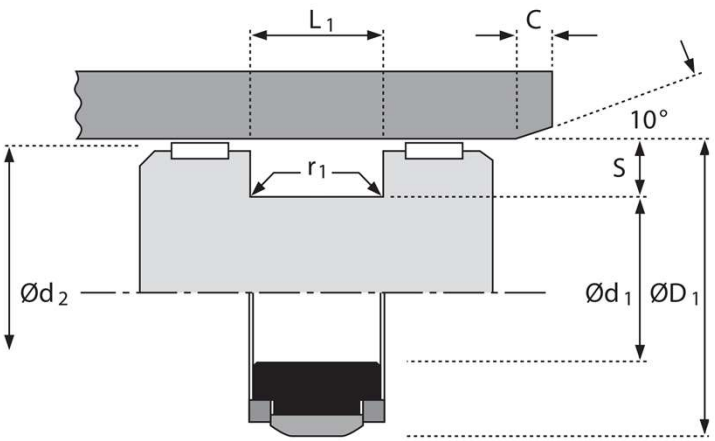
Design

Kintowe K730 is a top of the range double acting piston seal. It is constructed with a tough wear resistant thermoplastic polyester(TPE) face , which is loaded by a profiled nitrile energizer . Material options can be provided for the sealing face, including lubricated polyester and PTFE , All designs have rectangular polyacetal anti-extrusion rings . The TPE face is suitable for both roller-burnished and honed tubing .

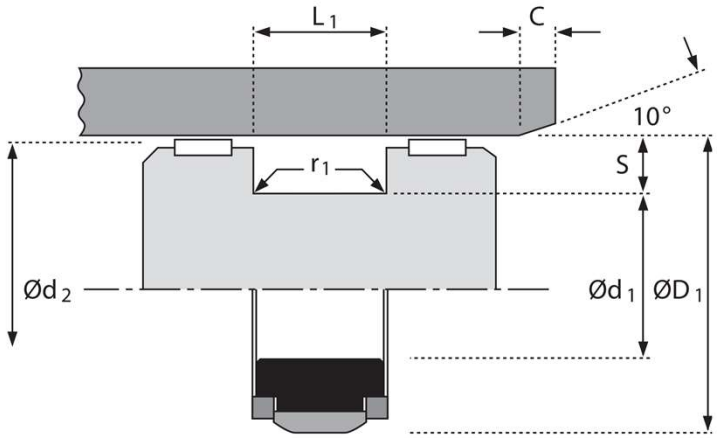
The above operating conditions are for the HFA medium (water based) in the long arm mining hydraulic support.

Features

*High pressure capability
*High shock load capability
*Proven on both roller-burnished and tubing



K730



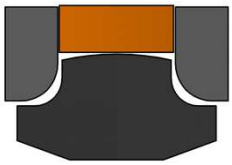
Specification table

Φd1	ΦD1	L1	PART No.		Φd1	ΦD1	L1	PART No.
200	180	16	7302000		260	235	25	7302601
200	180	20	7302001		275	250	25	7302750
200	183	20	7302002		280	255	25	7302800
210	190	16	7302100		285	260	25	7302850
210	190	20	7302101		290	265	25	7302900
215	195	16	7302150		300	275	25	7303000
215	195	20	7302151		305	280	25	7303050
220	195	16	7302200		310	285	25	7303100
220	195	22	7302201		320	290	25	7303200
220	195	25	7302202		340	310	30	7303400
220	200	20.5	7302203		345	315	30	7303450
224	204	20.5	7302240		350	320	30	7303500
225	205	16	7302250		360	330	30	7303600
225	205	20	7302251		360	330	31.5	7303601
230	210	16	7302300		370	340	30	7303700
230	210	20	7302301		380	350	32	7303800
240	215	25	7302400		400	370	32	7304000
240	220	25	7302401		410	380	32	7304100
245	220	25	7302450		420	390	32	7304200
250	225	25	7302500		440	410	32	7304400
255	230	25	7302550		450	410	32	7304500
260	230	30	7302600		500	470	32	7305000

Piston Seals

Technical details

	Metric			Inch
Operating conditions				
Maximum Speed	1.5 m/sec			4.5 ft/sec
Temperature Range	-40°C +120°C			-40°F +250°F
Maximum Pressure	500 bar			7500 p.s.i.



K735

Maximum extrusion gap — **Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**

Pressure bar	160	250	400	500
Maximum Gap mm	1.0	0.8	0.6	0.5
Pressure p.s.i.	2400	3750	6000	7500
Maximum Gap in	0.040	0.030	0.024	0.020

Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $Ød_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

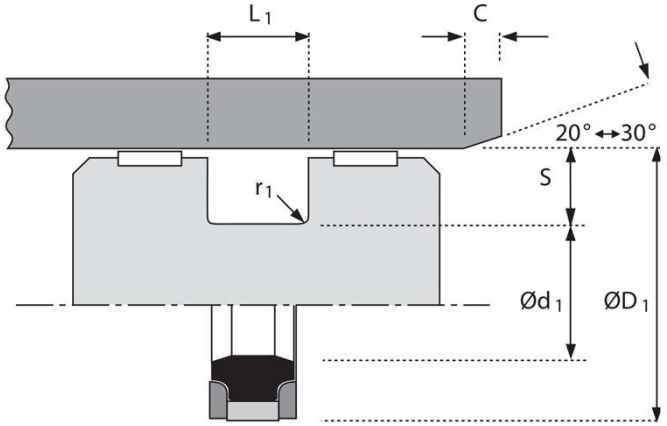
Chamfers & Radii				
Groove Section ≤ S mm	7.0	7.5	11.5	14.0
Min Chamfer C mm	4.0	5.0	7.0	8.0
Max Fillet Rad r_1 mm	0.8	0.8	0.8	0.8
Groove Section ≤ S in	0.187	0.240	0.365	0.470
Min Chamfer C in	0.160	0.200	0.250	0.280
Max Fillet Rad r_1 in	0.016	0.016	0.032	0.032

Tolerances	$ØD_1$	$Ød_1$	L_1
mm	H9	+0 -0.2	+0.2 -0
in	H9	*see below	+0.01 -0
$ØD_1$ in	≤ 3.000	≤ 4.500	> 4.500
$Ød_1$ Tol	+0 – 0.002	+0 – 0.003	+0 – 0.004

Design

Kintowe K735 is a compact double acting piston seal assembly designed for one piece pistons and suitable for low to high pressure, medium to heavy duty applications. The assembly comprises as standard a self lubricating wear resistant bronze filled or glass/MoS2 filled PTFE cap ring, which is loaded by a NBR energizer . Thermoplastic split anti-extrusion ring support the seal on both sides and prevent contamination of the energizer and cap ring .

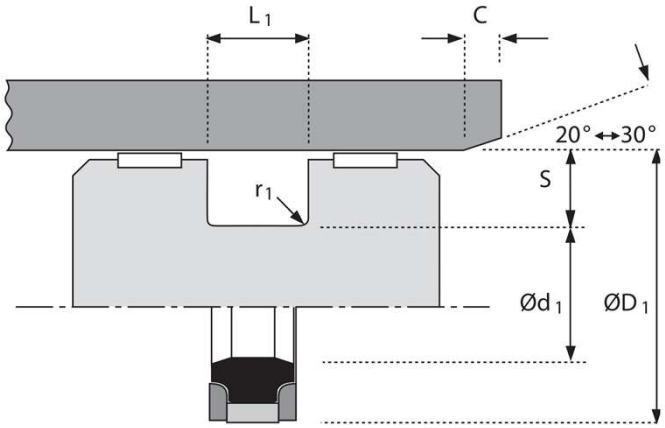
Kintowe K735 piston seal is designed to be used in a variety of equipment and is particularly suited to use in earthmoving and other off-highway equipment.



Features

***High pressure capability**
***Heavy duty**
***Low friction**
***Long life**
***Variety range of material options to extend service temperature range**

K735

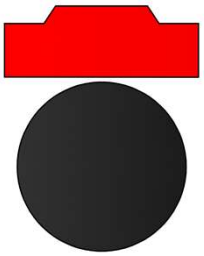


Specification table

ΦD1	Φd1	L1	PART No.		ΦD1	Φd1	L1	PART No.
50	36	9.0	7350500		165	142	16.0	7351650
60	46	9.0	7350600		170	147	16.0	7351700
63	48	11.0	7350630		175	152	16.0	7351750
65	50	11.0	7350650		180	157	16.0	7351800
70	55	11.0	7350700		185	162	16.0	7351850
75	60	11.0	7350750		190	167	16.0	7351900
80	65	11.0	7350800		200	177	16.0	7352000
85	70	11.0	7350850		210	187	16.0	7352100
90	75	11.0	7350900		215	192	16.0	7352150
95	80	11.0	7350950		220	197	16.0	7352200
100	85	12.5	7351000		225	202	16.0	7352250
105	90	12.5	7351050		230	207	16.0	7352300
110	95	12.5	7351100		240	217	16.0	7352400
115	100	12.5	7351150		250	222	17.5	7352500
120	105	12.5	7351200		260	232	17.5	7352600
125	102	16.0	7351250		270	242	17.5	7352700
130	107	16.0	7351300		280	252	17.5	7352800
135	112	16.0	7351350		290	262	17.5	7352900
140	117	16.0	7351400		300	272	17.5	7353000
145	122	16.0	7351450		320	292	17.5	7353200
150	127	16.0	7351500		330	302	17.5	7353300
160	137	16.0	7351600		350	322	17.5	7353500
					400	372	17.5	7354000

Piston Seals

Technical details	Metric			Inch
Operating conditions				
Maximum Speed	1.0 m/sec			3ft/sec
Temperature Range	-40°C +110°C			40°C+230°F
Maximum Pressure	350 bar- standard 55D material			5000 p.s.i
	500 bar- 72D material			7500 p.s.i
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using maximum clearance Ø and maximum bore Ø. Refer to Housing Design section**			



DF754

Polyester elastomer - standard (red 55D)				
Pressure bar	100	160	250	350
Maximum Gap (S>7) mm	1.0	0.8	0.6	0.4
Maximum Gap (S<7) mm	0.8	0.6	0.5	0.3
Pressure p.s.i	1500	2400	3750	5000

Hydrolysis stabilised polyester elastomer (dark red 72D)				
Pressure bar	160	250	400	500
Maximum Gap (S>7) mm	1.0	0.8	0.6	0.4
Maximum Gap (S<7) mm	0.8	0.6	0.4	0.2
Pressure p.s.i	2400	3750	6000	7500

Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $Ød_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

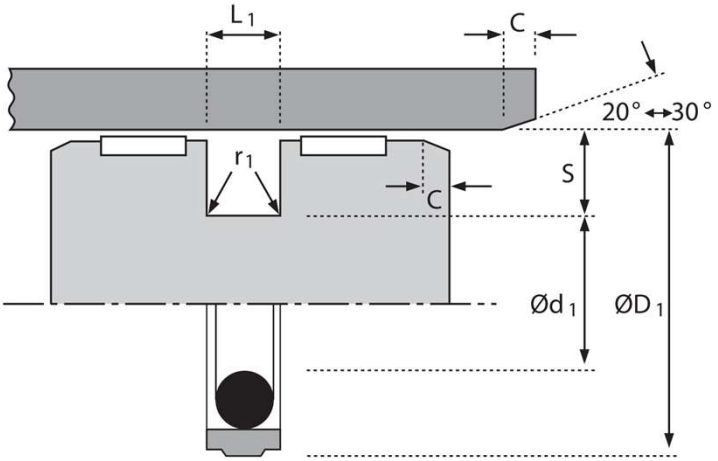
Chamfers & Radii				
Groove Section ≤ S mm	3.75	5.50	7.75	10.50
Min Chamfer C mm	2.00	2.50	5.00	5.00
Max Fillet Rad r_1 mm	0.40	0.80	1.20	1.60
Groove Section ≤ S in	0.150	0.220	0.310	0.410
Min Chamfer C in	0.080	0.100	0.200	0.200
Max Fillet Rad r_1 in	0.016	0.032	0.047	0.063

Design

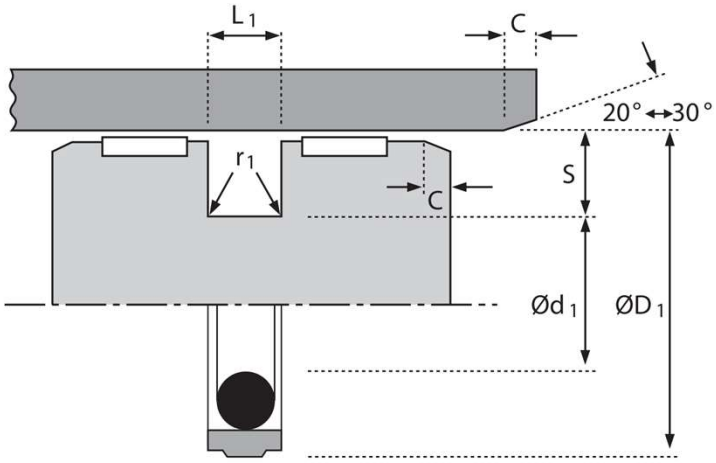
Kintowe DF754 double acting piston seal is a compact low friction seal for light to medium duty hydraulic cylinders. As standard, it comprises a tough , wear resistant thermoplastic elastomer face ,which is pre-loaded by an O-ring . The housing width allows a narrow width piston to be used , but it is recommended that an adequate bearing is mounted on one or both sides of the seal. Kintowe DFG fluorocarbon guide belt and PFC high strength laminated phenolic guide ring for specific dimensions please refer to the << Kintowe polytetrafluoroethylene material Products>> and <<Kintowe composite material Products>> catalogue.

Features

***Low breakout and operating friction levels**
***Excellent wear resistance**
***Compatible with most hydraulic fluids**
***More tolerance to contamination than common PTFE equivalents**
***Operates on a wide range of surface finishes**
***Rapid recovery of face after assembly, Unlike common PTFE surface rings, it dosen' t need to be remolded.**
***Ideal for use Kintowe DFG belt & PFC guide ring**



DF754



Specification table

ΦD1	Φd1	L1	O-Ring	PART No.		ΦD1	Φd1	L1	O-Ring	PART No.
15	7.5	3.2	7.59*2.62	DF7540150		80	69	4.2	69.44*3.53	DF7540801
16	8.5	3.2	7.59*2.62	DF7540160		85	69.5	6.3	69.22*5.33	DF7540850
20	12.5	3.2	12.37*2.62	DF7540200		90	74.5	6.3	72.39*5.33	DF7540900
25	17.5	3.2	17.12*2.62	DF7540250		95	84	4.2	82.14*3.53	DF7540950
28	20.5	3.2	20.29*2.62	DF7540280		95	79.5	6.3	78.74*5.33	DF7540951
30	22.5	3.2	21.89*2.62	DF7540300		100	84.5	6.3	85.09*5.33	DF7541000
32	24.5	3.2	23.47*2.62	DF7540320		105	89.5	6.3	88.27*5.33	DF7541050
35	27.5	3.2	26.64*2.62	DF7540350		110	94.5	6.3	94.62*5.33	DF7541100
36	28.5	3.2	28.24*2.62	DF7540360		115	94	8.1	91.44*6.99	DF7541150
40	32.5	3.2	31.42*2.62	DF7540400		115	99.5	6.3	97.79*5.33	DF7541151
42	31	4.2	29.74*3.53	DF7540420		120	104.5	6.3	104.14*5.33	DF7541200
45	34	4.2	32.92*3.53	DF7540450		125	109.5	6.3	107.32*5.33	DF7541250
50	34.5	6.3	34.29*5.33	DF7540500		130	109	8.1	107.32*6.99	DF7541300
50	39	4.2	37.69*3.53	DF7540501		130	114.5	6.3	113.67*5.33	DF7541301
55	39.5	6.3	37.47*5.33	DF7540550		135	114	8.1	113.67*6.99	DF7541350
55	44	4.2	44.04*3.53	DF7540551		140	119	8.1	116.84*6.99	DF7541400
60	44.5	6.3	43.82*5.33	DF7540600		140	124.5	6.3	123.19*5.33	DF7541401
60	49	4.2	47.22*3.53	DF7540601		150	129	8.1	129.54*6.99	DF7541500
63	47.5	6.3	46.99*5.33	DF7540630		160	139	8.1	139.07*6.99	DF7541600
63	50	6.3	50.17*5.33	DF7540631		165	144	8.1	142.24*6.99	DF7541650
63	52	4.2	50.39*3.53	DF7540632		170	149	8.1	148.59*6.99	DF7541700
65	49.5	6.3	50.17*5.33	DF7540650		180	159	8.1	158.12*6.99	DF7541800
65	52	6.3	50.17*5.33	DF7540651		190	169	8.1	164.47*6.99	DF7541900
65	54	4.2	53.57*3.53	DF7540652		200	179	8.1	177.17*6.99	DF7542000
70	54.5	6.3	53.34*5.33	DF7540700		210	189	8.1	189.87*6.99	DF7542100
70	59	4.2	56.74*3.53	DF7540701		225	204	8.1	202.57*6.99	DF7542250
75	59.5	6.3	59.69*5.33	DF7540750		230	209	8.1	202.57*6.99	DF7542300
75	64	4.2	63.09*3.53	DF7540751		240	219	8.1	215.27*6.99	DF7542400
80	64.5	6.3	62.87*5.33	DF7540800		250	229	8.1	227.97*6.99	DF7542500
						300	279	8.1	278.77*6.99	DF7543000

Piston Seals

Technical details

	Metric				Inch	
Operating conditions						
Maximum Speed	0.5 m/sec				1.5 ft/sec	
Temperature Range	-30°C +100°C				-22°F +212°F	
Maximum Pressure	400 bar				6000 p.s.i.	
Surface roughness	µmRa		µmRt		µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4		4 max		4 < > 16	5 < > 18
Static Sealing Face $Ød_1$ $Ød_2$	1.6 max		10 max		63 max	70 max
Static Housing Faces $Ød_3$ L_1 L_2	3.2 max		16 max		125 max	140 max
Chamfers & Radii						
Groove Section ≤ S mm	5.0	7.5	8.0	10.0	12.5	15.0
Min Chamfer C mm	2.4	4.0	5.0	5.0	6.5	7.5
Max Fillet Rad r_1 mm	0.4	0.4	0.4	0.4	0.8	0.8
Max Fillet Rad r_2 mm	0.4	0.4	0.4	0.4	0.8	0.8

Tolerances	$ØD_1$	$Ød_1$	$Ød_2$	$Ød_3$	L_1	L_2
mm	H9	h9	h9	h11	+0.2 -0	+0.1 -0

K780

Design

Kintowe K780 double acting seal is a robust assembly designed specifically for one piece pistons, which uses a rubber sealing element that has proved itself in service to be extremely wear resistant and capable of working most effectively in a wide range of medium duty applications. The seal is also suitable for two piece pistons.

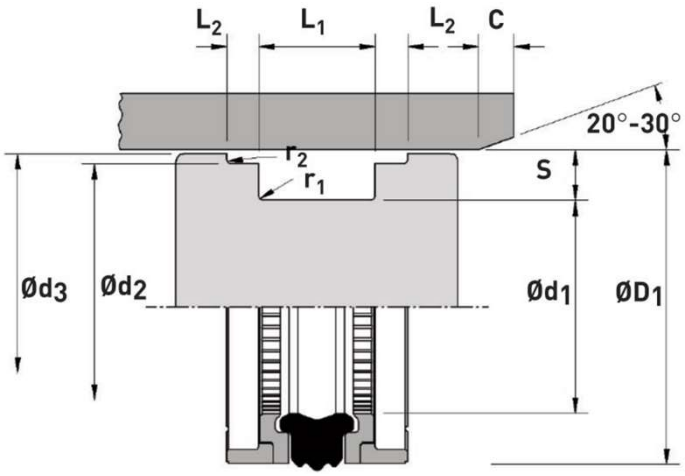
The assembly comprises a rubber sealing element , two split support rings and two split L-shaped bearings, one of each located either side of the seal .

The nitrile rubber sealing element is designed with multi-lips for efficient dynamic sealing with minimal low pressure friction and when pressurized , be protected from extrusion damage by the extending lips of the support ring . The support ring is manufactured from a tough , flexible polymer and scarf cut for assembly .

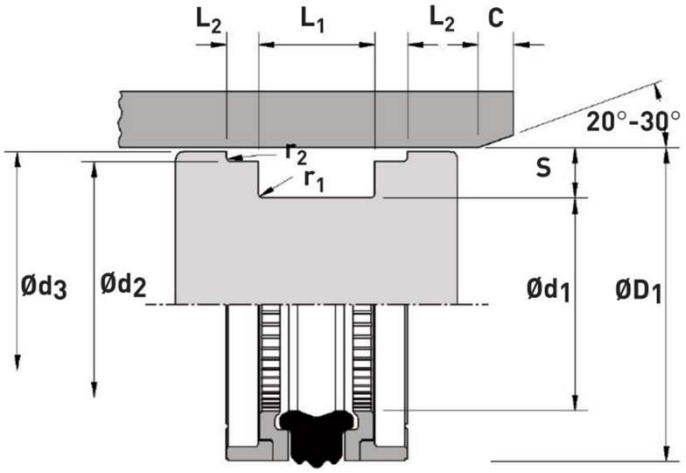
Both the L-shaped bearings and support rings are grooved to ensure that the fluid pressure properly energises the sealing element and to prevent the possibility of any pressure trapping within the seal assembly .

Features

***Cutting design for bearings & support rings, easy to installation**
***Strong extrusion resistance, long using life**
***The processing accuracy of the cylinder is not high**



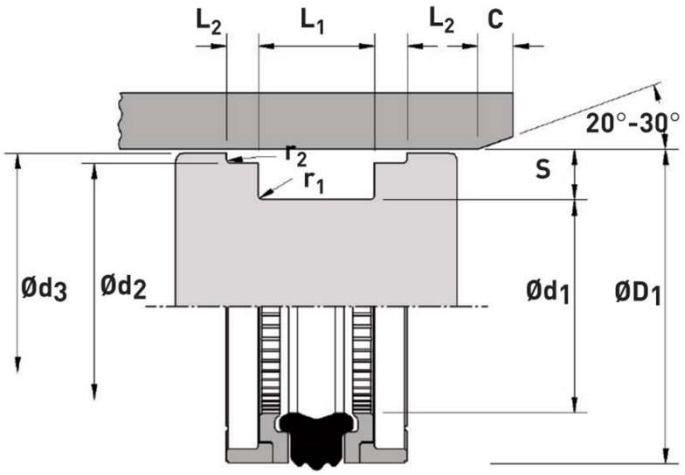
K780



Specification table

ΦD1	Φd1	Φd2	Φd3	L1	L2	PART No.
20	11	17.00	19.0	13.5	2.10	K7800200
25	15	21.00	24.0	12.0	4.00	K7800250
25	16	22.00	24.0	13.5	2.10	K7800251
30	17	27.00	29.0	15.4	6.35	K7800300
30	21	27.00	29.0	15.4	6.35	K7800301
32	22	28.00	31.0	15.5	2.60	K7800320
32	22	28.50	30.5	16.4	6.35	K7800321
35	25	31.00	34.0	15.5	2.60	K7800350
35	25	31.40	33.5	16.4	6.35	K7800351
40	24	35.40	38.5	18.4	6.35	K7800400
40	30	37.00	39.0	12.5	4.00	K7800401
40	30	35.40	38.5	16.4	6.35	K7800402
45	29	40.40	43.5	18.4	6.35	K7800450
45	31	41.00	44.0	15.5	2.60	K7800451
45	35	40.40	43.5	16.4	6.35	K7800452
50	34	45.40	48.5	18.4	6.35	K7800500
50	34	46.00	49.0	20.5	3.10	K7800501
50	38	46.00	49.4	20.5	4.20	K7800502
50	40	47.00	49.0	12.5	4.00	K7800503
55	39	50.36	53.5	18.4	6.35	K7800550
55	39	51.00	54.0	20.5	3.10	K7800551
60	44	55.40	58.5	18.4	6.35	K7800600
60	44	56.00	59.0	20.5	3.10	K7800601
60	48	56.00	59.4	20.5	4.20	K7800602
63	47	58.40	61.5	18.4	6.35	K7800630

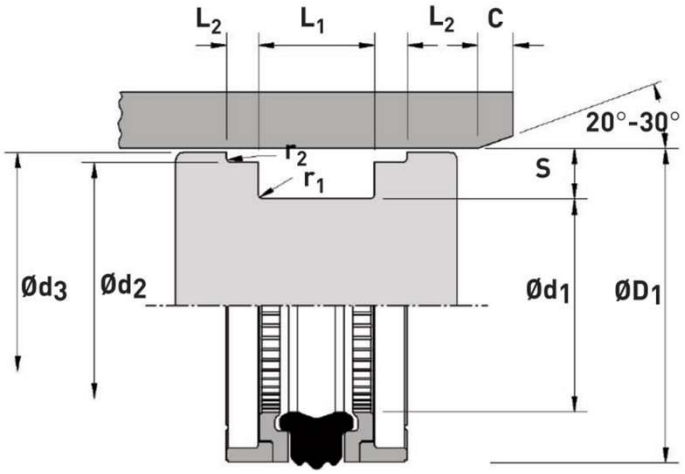
K780



Specification table

ΦD1	Φd1	Φd2	Φd3	L1	L2	PART No.
63	47	58.40	61.5	19.4	6.35	K7800631
63	51	59.00	62.4	20.5	4.20	K7800632
65	49	61.00	64.0	20.5	3.10	K7800650
65	50	60.40	63.5	18.4	6.35	K7800651
70	50	64.20	68.3	22.4	6.35	K7800700
70	54	66.00	69.0	20.5	3.10	K7800701
70	58	66.00	69.4	20.5	3.10	K7800702
75	55	69.20	73.3	22.4	6.35	K7800750
75	59	71.00	74.0	20.5	3.10	K7800751
80	60	74.15	78.3	22.4	6.35	K7800800
80	62	76.00	79.0	22.5	3.60	K7800801
80	66	76.00	79.4	22.5	5.20	K7800802
85	65	79.15	83.3	22.4	6.35	K7800850
90	70	84.15	83.3	22.4	6.35	K7800900
90	76	86.00	89.4	22.5	5.20	K7800901
95	75	89.15	93.3	22.4	6.35	K7800950
100	75	93.15	98.0	22.4	6.35	K7801000
100	80	95.00	98.0	25.0	6.30	K7801001
100	82	96.00	99.0	22.5	3.60	K7801002
100	85	96.00	98.5	20.0	5.00	K7801003
100	86	96.00	99.4	22.5	5.20	K7801004
105	80	98.10	103.0	22.4	6.35	K7801050
110	85	103.10	108.0	22.4	6.35	K7801100
115	90	108.10	113.0	22.4	6.35	K7801150
120	95	113.10	118.0	22.4	6.35	K7801200

K780



Specification table

ΦD1	Φd1	Φd2	Φd3	L1	L2	PART No.
125	100	118.10	123.0	25.4	6.35	K7801250
125	105	120.00	123.0	25.0	6.30	K7801251
130	105	123.10	128.0	25.4	9.50	K7801300
135	110	127.60	133.0	25.4	9.50	K7801350
140	115	133.00	138.0	25.4	6.35	K7801400
140	115	132.60	138.0	25.4	9.50	K7801401
145	120	137.60	143.0	25.4	9.50	K7801450
150	125	142.60	148.0	25.4	9.50	K7801500
155	130	147.60	153.0	25.4	9.50	K7801550
160	130	153.00	158.0	25.4	9.50	K7801600
160	135	152.60	158.0	25.4	9.50	K7801601
165	140	157.60	163.0	25.4	9.50	K7801650
170	145	161.70	168.0	25.4	12.70	K7801700
175	150	166.70	173.0	25.4	12.70	K7801750
180	150	172.95	178.0	35.4	6.35	K7801800
180	155	171.70	178.0	25.4	12.70	K7801801
185	160	176.70	183.0	25.4	12.70	K7801850
190	165	181.70	188.0	25.4	12.70	K7801900
195	170	186.70	193.0	25.4	12.70	K7801950
200	175	191.60	198.0	25.4	12.70	K7802000
230	205	221.60	227.0	25.4	12.70	K7802300
250	225	241.60	247.0	25.4	12.70	K7802500

Single acting Piston Seals

Technical details	Metric	Inch
Operating conditions		
Maximum Speed	1.0 m/sec	3.0 ft/sec
Temperature Range	-45°C +110°C	-50°F +230°F
Maximum Pressure	400 bar*	6,000 p.s.i.*

K606

Maximum extrusion gap — **Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.Refer to Housing Design section.**

Pressure bar	160	250	400
Maximum Gap mm	0.6	0.5	0.4
Pressure p.s.i.	2400	3750	6000
Maximum Gap in	0.024	0.020	0.016

Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $Ød_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

Chamfers & Radii						
Groove Section ≤ S mm	4.0	5.0	7.5	10.0		
Min Chamfer C mm	3.0	3.5	5.0	6.5		
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8		
Groove Section ≤ S in	0.125	0.187	0.250	0.312	0.375	0.500
Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.217
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032	0.032	0.032

Tolerances	$ØD_1$	$Ød_1$	L_1 mm	L_1 in
	H9	js11	+0.25 -0	+0.010 -0

Design

Kintowe K606 is an asymmetric piston seal designed to offer effective bore sealing in a wide variety of applications.

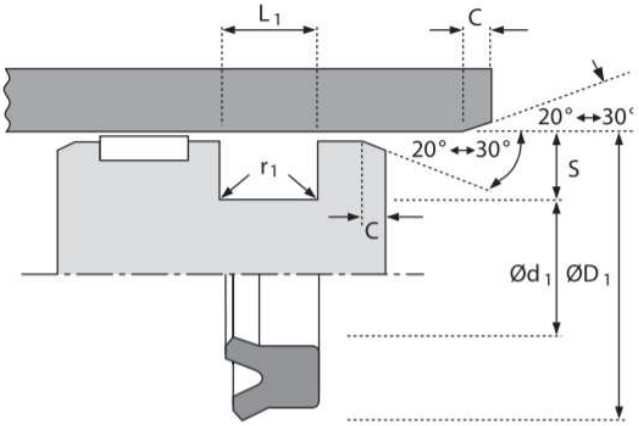
The outer dynamic lip is shorter and more robust to provide improved sealing and compression set characteristics over conventional Y rings.

The seal can be used by itself as a single acting seal or fitted back to back in separate grooves for double acting applications.

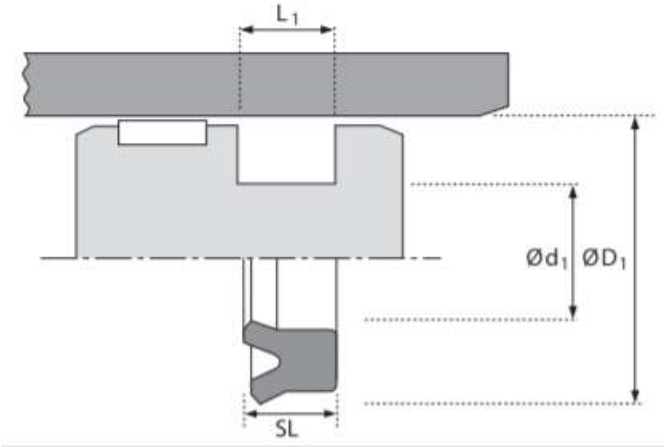
Manufactured in Kintowe's high performance polyurethane Kintowe®01, The kintowe K606 provides the following benefits:

Features

***Excellent wear resistance**
***Strong extrusion resistance, long using life**
***Easy installation**
***Wide temperature range**



K606



Specification table

Φd1	ΦD1	SL	L1	PART No.		Φd1	ΦD1	SL	L1	PART No.
16	10	5.7	6.3	6060160		70	55	10.0	11.0	6060700
25	15	8.2	9.0	6060250		70	60	8.1	9.0	6060701
25	17	5.7	6.3	6060251		70	61	6.0	7.0	6060702
30	20	8.0	9.0	6060300		75	67	8.8	9.7	6060750
32	24	5.7	6.3	6060320		80	65	11.4	12.5	6060800
35	25	7.3	8.0	6060350		80	70	6.8	7.5	6060801
37	21	11.8	13.0	6060370		80	70	8.0	9.0	6060802
38	31	5.2	6.0	6060380		85	75	8.1	9.0	6060850
40	28	9.0	10.0	6060400		85.7	70.7	10.3	11.4	6060857
40	30	7.3	8.0	6060401		90	80	11.0	12.0	6060900
40	30	10.0	11.0	6060402		100	85	11.4	12.5	6061000
45	35	7.3	8.0	6060450		100	90	6.8	7.5	6061001
50	39	3.8	4.2	6060500		110	100	8.0	9.0	6061100
50	40	7.8	8.0	6060501		125	105	14.5	16.0	6061250
50	45	7.3	8.0	6060502		150	140	13.6	15.0	6061500
60	44.9	5.7	6.3	6060600		160	140	14.5	16.0	6061600
60	45	10.0	11.0	6060601		160	140	18.2	20.0	6061601
60	50	9.0	10.0	6060602		170	150	15.0	16.5	6061700
63	48	11.4	12.5	6060630		180	160	15.0	16.5	6061800
63	53	7.3	8.0	6060631		190	170	15.0	16.5	6061900
63	53	11.8	13.0	6060632		200	180	14.5	16	6062000
65	55	7.3	8.0	6060650		280	260	15.5	17	6062800

Single acting Piston Seals

Technical details

	Metric		Inch	
Operating conditions				
Maximum Speed	1.0 m/sec		3.0 ft/sec	
Temperature Range	-45°C +110°C		-50°F +230°F	
Maximum Pressure	400 bar		6000 p.s.i.	
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**			
Pressure bar	160	250	400	
Maximum Gap mm	0.6	0.5	0.4	
Pressure p.s.i.	2400	3750	6000	
Maximum Gap in	0.024	0.020	0.016	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $Ød_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max
Chamfers & Radii				
Groove Section ≤ S mm	4.0	5.0	7.5	10.0
Min Chamfer C mm	3.0	3.5	5.0	6.5
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8
Groove Section ≤ S in	0.125	0.187	0.250	0.500
Min Chamfer C in	0.093	0.093	0.125	0.217
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032
Tolerances	$ØD_1$	$Ød_1$	L_1	
mm	H9	js11	+0.25 -0	
in	+0.004 -0	0 -0.002	+0.010 -0	

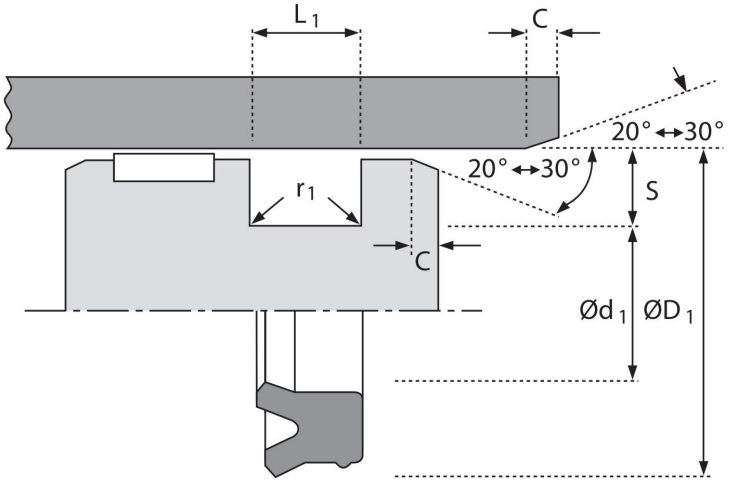
K659

Design

Kintowe K659 is an asymmetric piston seal designed to offer effective bore sealing in a wide variety of applications .

The outer dynamic lip is shorter and more robust to provide improved sealing and compression set characteristics over conventional Y rings . The seal also features a secondary lip that a pocket for lubrication as well as the benefits listed below .

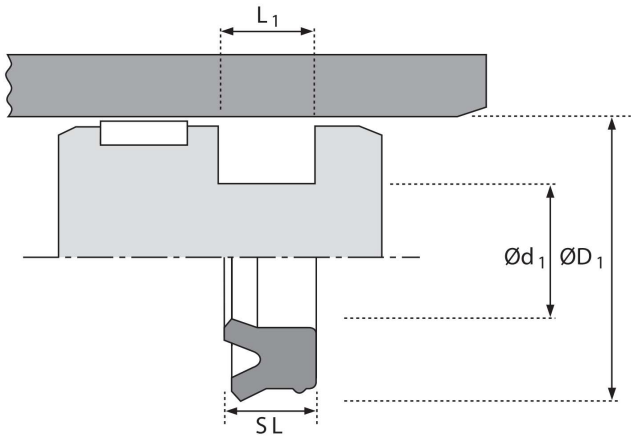
Only used for single acting applications . K659 is manufactured in Kintowe' s high performance polyurethane Kintowe®01. It provides the following benefits :



Features

***Flexible for easy installation**
***Excellent wear resitance**
***High resistance to extrusion**
***Wide temperature**
***Twin lip design for:**
improved sealing,
lower friction,
increased seal stability,
primary lip protection

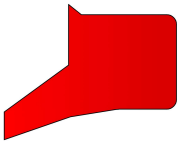
K659



Specification table

ΦD1	Φd1	SL	L1	PART No.
90	75	11.5	12.5	6590900
100	80	14.5	16.0	6591000
100	85	11.5	12.5	6591001
110	90	14.5	16.0	6591100
110	95	11.5	12.5	6591101
130	115	11.5	12.5	6591300

Technical details	Metric		Inch	
Operating conditions				
Maximum Speed	4.0 m/sec		12.0 ft/sec	
Temperature Range	-40°C +120°C		-40°F +250°F	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød$_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face ØD$_1$ ØD$_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L$_1$	3.2 max	16 max	125 max	140 max
Radii				
Rod Diameter Ød$_1$ mm	≤ 50	≤ 90	≤ 200	> 200
Max Fillet Rad r$_1$ mm	0.4	0.4	0.4	0.8
Max Fillet Rad r2 mm	0.2	0.4	0.6	0.8
Tolerances	Ød$_1$	ØD$_1$	ØD$_2$	L$_1$ mm
	f9	H11	H11	+0.2-0



K038

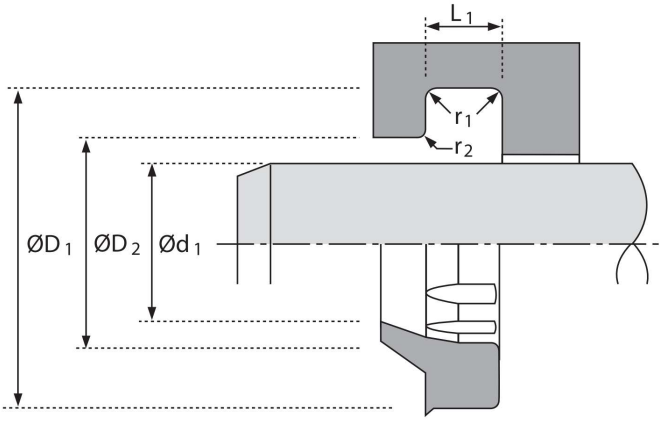
Design

Kintowe K038 has been designed so that the proportions of the wiping lip ensure it maintains contact with the rod surface to remove heavily deposited mud, ice etc . The outside diameter contacts the housing and has a sealing lip to prevent moisture entering the groove .
A polyester based material is used to provide a tough abrasion resistant wiper for the difficult conditions usually found in mining or earth moving applications . All the range can be used with a split housing , however , the majority can be installed in a blind housing with care .

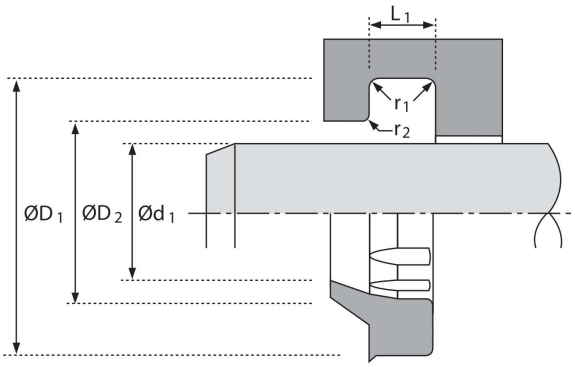
Kintowe K038 is manufactured by high performance polyurethane Kintowe®06, It provides the following benefits :

Features

***Outside lip for effective housing seal**
***Pressure relief ribs**
***Effective scraping lip**



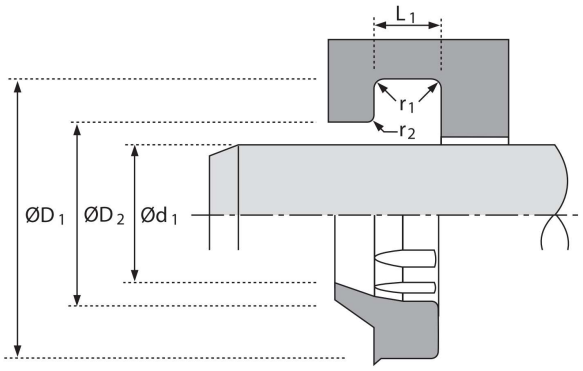
K038



Specification table

Φd1	ΦD1	ΦD2	L1	L2	PART No.		Φd1	ΦD1	SL	L1	L2	PART No.
18	24	21.0	5.0	7.0	K0380180		65	75	72.0	6.3	10.0	K0380650
20	28	25.5	5.0	8.0	K0380200		65	75.6	68.0	5.3	7.0	K0380651
22	30	27.5	5.0	8.0	K0380220		70	80	77.0	6.3	10.0	K0380700
25	33	30.5	5.0	8.0	K0380250		70	80.6	73.0	5.3	7.0	K0380701
28	36	33.5	5.0	8.0	K0380280		70	82.2	76.0	7.2	12.0	K0380702
30	38	35.5	5.0	8.0	K0380300		75	83.6	78.0	5.3	7.0	K0380750
30	41.2	37.0	7.5	10.0	K0380301		75	85	82.0	6.3	10.0	K0380751
32	40	37.5	5.0	8.0	K0380321		75	87.2	81.0	7.2	12.0	K0380752
35	43	40.5	5.0	8.0	K0380350		80	90	87.0	6.3	10.0	K0380800
36	44	41.5	5.0	8.0	K0380360		80	91	85.0	7.5	11.0	K0380801
40	48	45.5	5.0	8.0	K0380400		80	92.2	86.0	7.2	12.0	K0380802
40	50.6	43.0	5.3	7.0	K0380401		82.6	92.2	85.7	5.3	7.1	K0380826
45	53	50.5	5.0	8.0	K0380450		85	93.6	88.0	5.3	7.0	K0380850
45	55.6	48.0	5.3	7.0	K0380451		85	97.2	91.0	7.2	12.0	K0380851
50	58	55.5	5.0	8.0	K0380500		85	98	92.0	7.5	11.5	K0380852
50	58.6	53.0	5.3	7.0	K0380501		88	100.2	94.0	7.2	12.0	K0380880
50	60.6	53.0	5.3	7.0	K0380502		90	100	97.0	6.3	10.0	K0380900
55	65.6	58.0	5.3	7.0	K0380550		90	102.2	96.0	7.2	12.0	K0380901
56	66	63.0	6.3	10.0	K0380560		95	107.5	101	7.2	12	K0380950
56	66.6	59.0	5.3	7.0	K0380561		100	110.6	104	5.3	7	K0381000
60	70	67.0	6.3	10.0	K0380600		100	112.2	106	7.2	12	K0381001
60	70.6	63.0	5.3	7.0	K0380601		100	115	110	9.5	14	K0381002
63	73	70.0	6.3	10.0	K0380630		101.6	116.6	111.6	9.5	14	K0381016
63	73.6	66.0	5.3	7.0	K0380631		105	113	110.5	5	8	K0381050

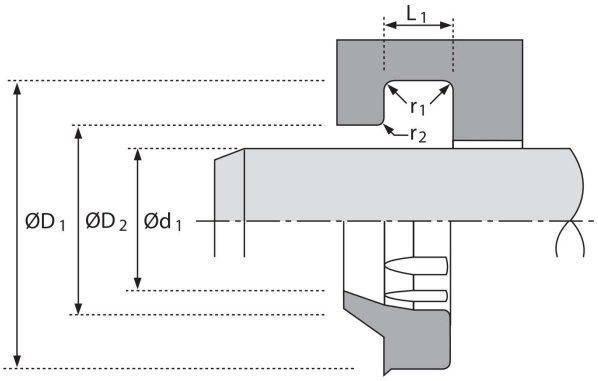
K038



Specification table

Φd1	ΦD1	ΦD2	L1	L2	PART No.		Φd1	ΦD1	ΦD2	L1	L2	PART No.
105	120	112	7.2	12	K0381051		155	167.2	161	7.7	12	K0381551
110	122.2	116	7.2	12	K0381100		155	175	165	10.2	18	K0381552
110	125	120	9.5	14	K0381101		160	172.2	166	7.7	12	K0381600
115	127.2	121	7.2	12	K0381150		160	175	170	9.5	14	K0381601
120	132.2	126	7.2	12	K0381200		160	175	167.6	10.2	16	K0381602
120	135	130	9.5	14	K0381201		165	180	175	9.5	14	K0381650
125	133	130.8	5.3	7	K0381250		170	180.6	174	5.3	7	K0381700
125	137.2	131	7.7	12	K0381251		170	182.2	176	7.7	12	K0381701
125	140	132.6	10.2	16	K0381252		170	185	180	9.5	14	K0381702
128	143	138	9.5	14	K0381280		177	192	187	9.5	14	K0381770
130	142.2	136	7.2	12	K0381300		180	195	190	9.5	14	K0381800
130	145	137.6	10.2	16	K0381301		180	200	190	10.2	18	K0381801
132	144.2	138	7.2	12	K0381320		185	200	192.6	10.2	16	K0381850
135	150	145	9.5	14	K0381350		185	205	195	10.2	16	K0381851
140	152.2	146	7.7	12	K0381400		190	205	200.0	9.5	14.0	K0381900
140	155	150	9.5	14	K0381401		190	210	202.5	10.2	16.0	K0381901
145	153.6	148	5.3	7	K0381450		200	208.6	203.0	5.3	7.0	K0382000
145	160	155	7.7	7	K0381451		200	215	210.0	9.5	14.0	K0382001
150	162.2	156	7.7	12	K0381500		200	220	210.0	10.2	18.0	K0382002
150	165	158	7.2	12	K0381501		205	213.6	210.0	5.3	7.0	K0382050
150	166	161	8	12	K0381502		205	220	215.0	9.5	14.0	K0382051
155	163	160.5	5	8	K0381550		210	225	220.0	9.5	14.0	K0382100

K038

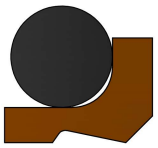


Specification table

Φd1	ΦD1	ΦD2	L1	L2	PART No.		Φd1	ΦD1	ΦD2	L1	L2	PART No.
210	226	221.0	9.0	12.0	K0382101		275	295	285.0	10.2	18.0	K0382750
210	230	220.0	10.2	18.0	K0382102		280	295	290.0	9.5	14.0	K0382800
212	232	225.5	12.5	18.0	K0382120		280	300	290.0	10.2	15.0	K0382801
220	235	227.6	10.2	16.0	K0382200		285	305	298.5	12.5	18.0	K0382850
220	240	230.0	18.0	18.0	K0382201		288	308	301.5	10.2	15.0	K0382880
220	240	233.5	12.5	18.0	K0382202		290	310	303.5	12.5	18.0	K0382900
225	240	235.0	9.5	14.0	K0382250		295	315	308.5	12.5	18.0	K0382950
225	245	235.0	10.2	18.0	K0382251		300	320	313.5	12.5	18.0	K0383000
230	245	240.0	9.5	14.0	K0382300		305	325	318.5	12.5	18.0	K0383050
230	246	240.7	7.5	12.0	K0382301		320	340	330.0	10.2	18.0	K0383200
230	250	240.0	10.2	18.0	K0382302		325	345	335.0	10.2	18.0	K0383250
235	255	245.0	10.2	18.0	K0382350		330	346	340.7	7.5	12.0	K0383300
240	255	250.0	9.5	14.0	K0382400		335	355	345.0	10.2	18.0	K0383350
240	260	250.0	10.2	18.0	K0382401		340	360	350.0	10.2	18.0	K0383400
240	260	253.5	12.5	18.0	K0382402		350	370	360.0	10.2	18.0	K0383500
245	265	258.5	12.5	18.0	K0382450		355	375	365.0	10.2	18.0	K0383550
250	270	260.0	10.2	18.0	K0382500		360	380	370.0	10.2	18.0	K0383600
250	270	263.0	12.5	18.0	K0382501		370	390	383.5	12.5	18.0	K0383700
255	270	265.0	9.5	14.0	K0382550		370	390	380.0	10.2	18.0	K0383701
260	275	270.0	9.5	14.0	K0382600		380	400	393.5	12.5	18.0	K0383800
260	280	270.5	10.2	18.0	K0382601		395	415	405.0	10.2	18.0	K0383950
265	280	272.6	10.2	16.0	K0382650		400	420	410.0	10.2	18.0	K0384000
265	285	275.0	10.2	15.0	K0382651		415	435	425.0	10.2	18.0	K0384150
270	278.6	273.0	5.3	7.0	K0382700		455	475	465.0	10.2	18.0	K0384550
270	286	280.7	7.5	12.0	K0382701		470	490	480.0	10.2	18.0	K0384700

Technical details	Metric		Inch	
Operating conditions				
Maximum Speed	5.0 m/sec		15.0 ft/sec	
Temperature Range	-30°C +100°C		-22°F +212°F	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $ØD_1$ $ØD_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max
Chamfers & Radii				
Groove Section≤ S mm	3.4	4.4	6.1	8.0
Min Chamfer C mm	2.0	2.0	2.5	4.0
Max Fillet Rad r_1 mm	0.5	0.5	0.5	0.5
Max Fillet Rad r_2 mm	0.5	0.5	0.5	0.5

Tolerances	$Ød_1$	$ØD_1$	$ØD_2$	L_1
mm	f9	H9	H11	+0.2 -0



DF335

Design

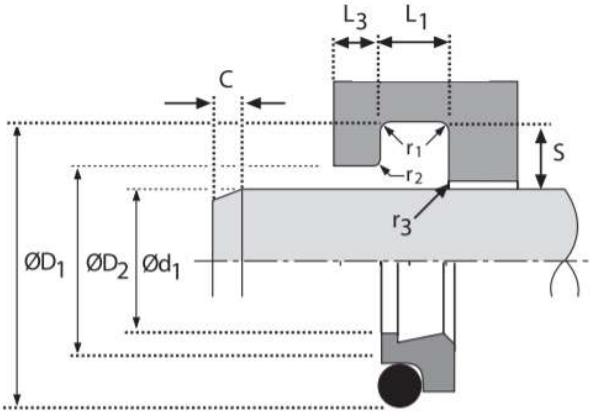
Kintowe DF335 is an O-ring energized double lip wiper, which is designed to exclude dirt from entering the cylinder and to collect traces of fluid passing the rod seal .

The standard design is made from bronze filled PTFE, activated by an NBR O-ring .

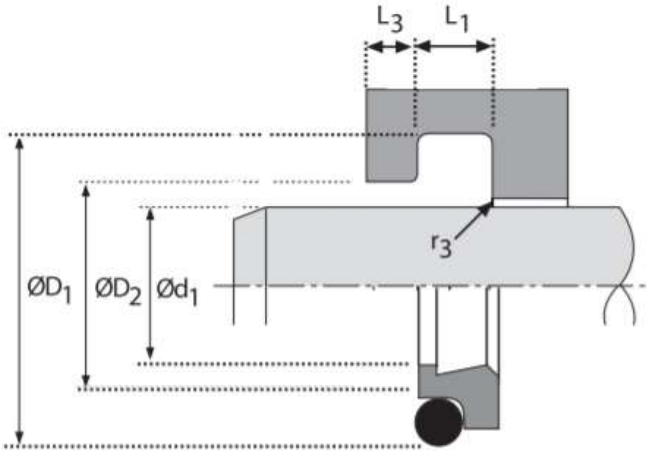
A number of other material options can be provided to extend operating conditions . Please ensure that the correct part number is specified for the material option as indicated .

Features

***Low friction no stick-slip**
***High strength machined PTFE wiper**
***Protect primary seal from contamination**
***Extends seal life**
***Wide range of other materials and dimensions available for special applications**



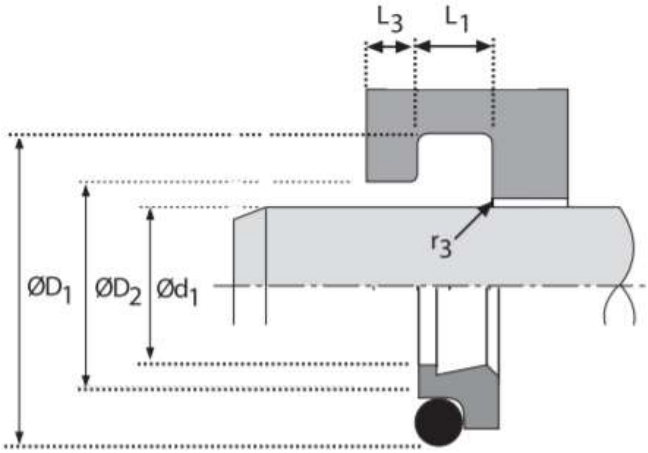
DF335



Specification table

Φd1	ΦD1	L1	ΦD2	L3	r3	PART No.
12	18.80	5.00	13.50	2.00	0.80	DF3350120
20	26.80	5.00	21.50	2.00	0.80	DF3350200
22	28.80	5.00	23.50	2.00	0.80	DF3350220
25	31.80	5.00	26.50	2.00	0.80	DF3350250
26	32.80	5.00	27.50	2.00	0.80	DF3350260
28	34.80	5.00	29.50	2.00	0.80	DF3350280
32	38.80	5.00	33.50	2.00	0.80	DF3350320
36	42.80	5.00	37.50	2.00	0.80	DF3350360
40	46.80	5.00	41.50	2.00	0.80	DF3350400
40	46.80	6.30	41.50	3.00	0.80	DF3350401
45	51.80	5.00	46.50	2.00	0.80	DF3350450
45	53.80	6.30	46.50	3.00	0.80	DF3350451
50	56.80	5.00	51.50	2.00	0.80	DF3350500
50	58.80	6.30	51.50	3.00	0.80	DF3350501
56	62.80	5.00	57.50	2.00	0.80	DF3350560
56	64.80	6.30	57.50	3.00	0.80	DF3350561
60	68.80	6.30	61.50	3.00	0.80	DF3350600
63	69.80	5.00	64.50	2.00	0.80	DF3350630
63	71.80	6.30	64.50	3.00	0.80	DF3350631
65	73.80	6.30	66.50	3.00	0.80	DF3350650
70	78.80	6.30	71.50	3.00	1.00	DF3350700
70	82.20	8.10	72.00	4.00	1.00	DF3350701
80	88.80	6.30	81.50	3.00	1.00	DF3350800
80	92.20	8.10	82.00	4.00	1.00	DF3350801
88	96.80	6.30	89.50	3.00	1.00	DF3350880

DF335

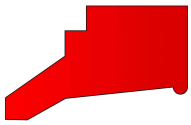


Specification table

Φd1	ΦD1	L1	ΦD2	L3	r3	PART No.
90	102.20	8.10	92.00	4.00	1.00	DF3350900
100	108.80	6.30	101.50	3.00	1.00	DF3351000
100	112.20	8.10	102.00	4.00	1.00	DF3351001
105	117.20	8.10	107.00	4.00	1.00	DF3351050
110	118.80	6.30	111.50	3.00	1.00	DF3351100
110	122.20	8.10	112.00	4.00	1.00	DF3351101
120	132.20	8.10	122.00	4.00	1.00	DF3351200
125	133.00	6.30	126.50	3.00	1.00	DF3351250
125	137.20	8.10	127.00	4.00	1.00	DF3351251
140	152.20	8.10	142.00	4.00	1.00	DF3351400
140	156.00	9.50	142.00	5.00	1.50	DF3351401
160	172.00	8.10	162.00	4.00	1.00	DF3351600
160	176.00	9.50	162.50	5.00	1.50	DF3351601
170	186.00	9.50	172.50	5.00	1.50	DF3351700
180	192.20	8.10	182.00	4.00	1.00	DF3351800
180	196.00	9.50	182.50	5.00	1.50	DF3351801
200	212.20	8.10	202.00	4.00	1.00	DF3352000
200	216.00	9.50	202.50	5.00	1.50	DF3352001
220	232.20	8.10	222.00	4.00	1.00	DF3352200
220	236.00	9.50	222.50	5.00	1.50	DF3352201
260	272.20	8.40	262.00	4.00	1.00	DF3352600
280	296.00	9.50	282.50	5.00	1.50	DF3352800
300	316.00	9.50	302.50	5.00	1.00	DF3353000
330	342.20	8.40	332.00	4.00	1.00	DF3353300
340	352.20	8.40	342.00	4.00	1.00	DF3353400
440	456.00	11.00	442.50	5.00	1.50	DF3354400

Technical details

	Metric		Inch	
Operating conditions				
Maximum Speed	4.0 m/sec		12.0 ft/sec	
Temperature Range	-45°C +110°C		-50°F +230°F	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $ØD_1$ $ØD_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max
Radii				
Max Fillet Rad r_1 mm	0.4			
Max Fillet Rad r_2 mm	0.2			
Tolerances	$Ød_1$	$ØD_1$	$ØD_2$	L_1
mm	f9	H11	H11	+0.2 -0



K834

Design

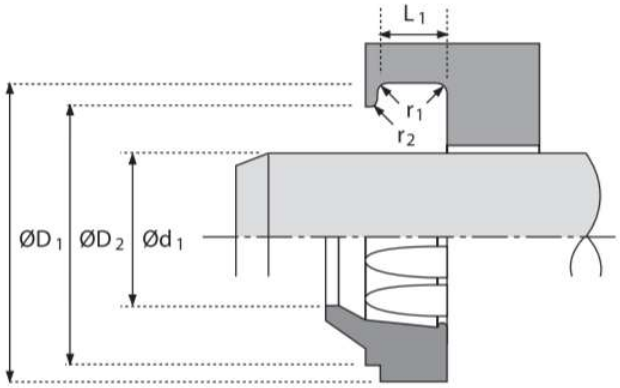
Kintowe K834 wiper is designed to snap into a standard housing and provide reliable medium duty dirt exclusion . The proportions of the wiping lip ensure that it remains in contact with the rod surface to remove all deposits of mud and other forms of contamination except for those found in the heavy duty environment such as steel works and cement factories .

The inside diameter of the seal is provided with ribs to prevent the possibility of blow out due to pressure trapping of the main rod seal .

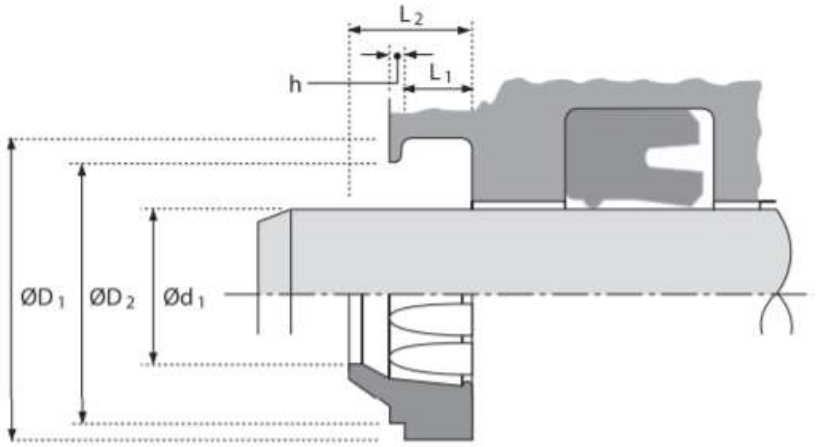
Kintowe K834 is precision moulded in high performance polyurethane material KINTOWE®01 for maximum wear resistance .

Features

***Snug fit provides effective sealing**
***Low wear , long life**
*Easy installation
*Pressure relief ribs



K834



Specification table

Φd1	ΦD1	ΦD2	L1	L2	h	PART No.
18	26	24.0	4.0	7.0	1.0	8340180
20	28	26.0	4.0	7.0	1.0	8340200
22	30	28.0	4.0	7.0	1.0	8340220
25	33	31.0	4.0	7.0	1.0	8340250
26	34	32.0	4.0	7.0	1.0	8340260
28	36	34.0	4.0	7.0	1.0	8340280
30	38	36.0	4.0	7.0	1.0	8340300
32	40	38.0	4.0	7.0	1.0	8340320
35	43	41.0	4.0	7.0	1.0	8340350
36	44	42.0	4.0	7.0	1.0	8340360
37	45	43.0	4.0	7.0	1.0	8340370
38	46	44.0	4.0	7.0	1.0	8340380
40	48	46.0	4.0	7.0	1.0	8340400
45	53	51.0	4.0	7.0	1.0	8340450
46	54	52.0	4.0	7.0	1.0	8340460
48	56	54.0	4.0	7.0	1.0	8340480
50	58	56.0	4.0	7.0	1.0	8340500
55	63	61.0	4.0	7.0	1.0	8340550
56	64	62.0	4.0	7.0	1.0	8340560
60	68	66.0	4.0	7.0	1.0	8340600
63	71	69.0	4.0	7.0	1.0	8340630
65	73	71.0	4.0	7.0	1.0	8340650
70	78	76.0	4.0	7.0	1.0	8340700
75	83	81.0	4.0	7.0	1.0	8340750
80	88	86.0	4.0	7.0	1.0	8340800
90	98	96.0	4.0	7.0	1.0	8340900
100	108	106.0	4.0	7.0	1.0	8341000
110	118	116.0	4.0	7.0	1.0	8341100
140	152	149.0	4.0	7.0	1.0	8341400

Technical details

	Metric		Inch	
Operating conditions				
Maximum Speed	4.0 m/sec		12.0 ft/sec	
Temperature Range	-45°C +110°C		-50°F +230°F	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $Ød_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $ØD_1$ $ØD_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max
Chamfers & Radii				
Rod Diameter $Ød_1$ mm	≤ 90	> 90		
Max Fillet Rad r_1 mm	0.2	0.4		
Max Fillet Rad r_2 mm	0.4	0.4		
Tolerances	$Ød_1$	$ØD_1$	$ØD_2$	L_1
839 mm	f9	H11	H11	+0.2 -0
839N mm	f9	+0-0.2	±0.1	+0.4 -0

K839

Design

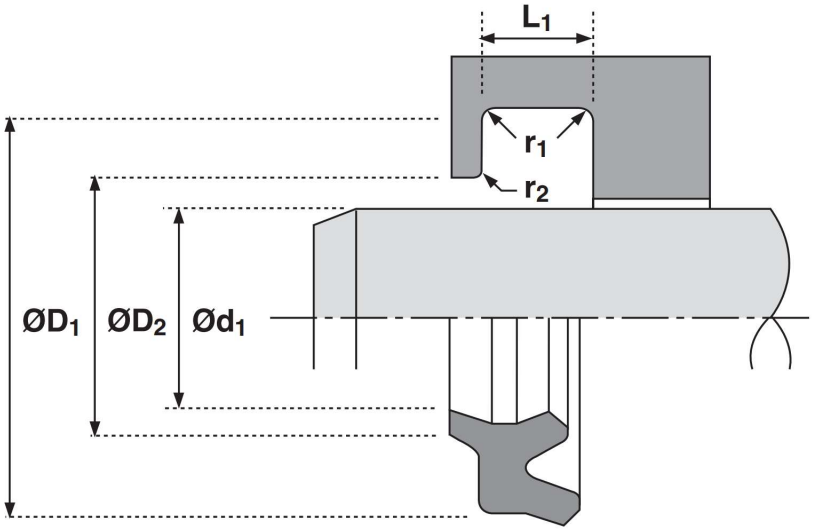
Kintowe K839 is precision moulded in high performance polyurethane-KINTOWE®01 for maximum wear resistance, and is designed to exclude dirt and moisture from entering the cylinder and to collect traces of fluid passing the rod seal .

Opposite the wiper lip are two sealing lips accurately produced and proportioned to collect fluid passing the rod seal . To obtain stability and improve the seal the outside diameter is in interference with the housing .

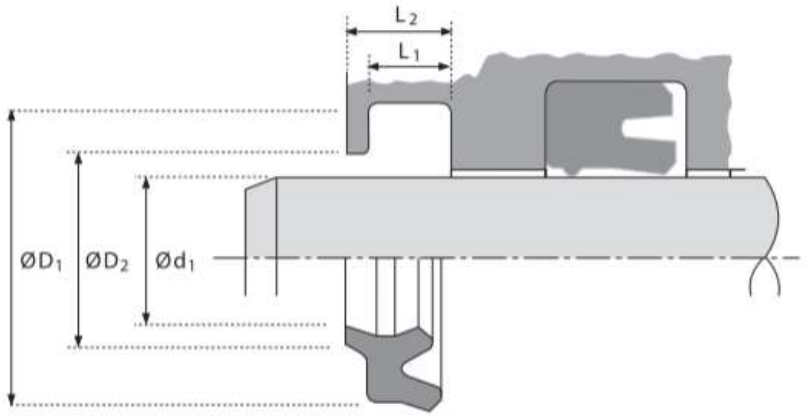
A vent between the seal and the wiper is recommended to avoid a pressure trap .

Features

***Hard wearing material for long using life**
***Twin lip ensures drier sealing system**



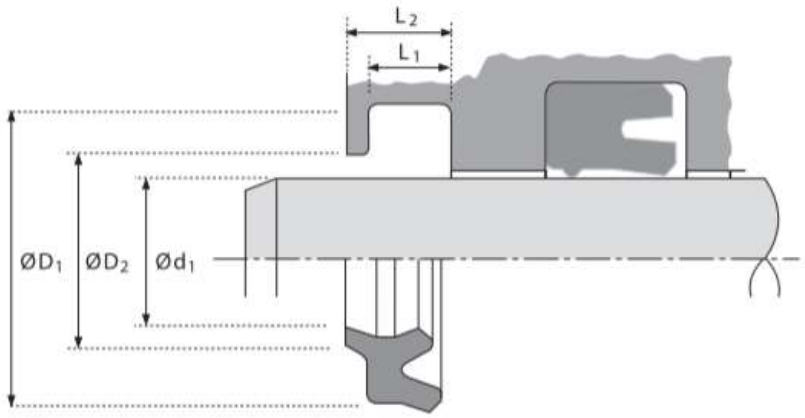
K839



Specification table

Φd1	ΦD1	ΦD2	L1	L2	PART No.
12	18	14.5	4.0	7.0	8390120
12	20	16.5	4.0	7.0	8390121
14	22	18.3	4.8	7.0	8390140
15	22	18.0	3.8	6.0	8390150
16	24	20.3	4.8	7.0	8390160
18	24	20.5	4.0	7.0	8390180
18	26	22.3	4.8	7.0	8390181
20	26	22.5	4.0	7.0	8390200
20	28	24.3	4.8	7.0	8390201
22	28	24.5	4.0	7.0	8390220
22.4	30.4	26.7	4.8	7.0	8390224
25	31	27.5	4.0	7.0	8390250
25	33	29.3	4.8	7.0	8390251
28	36	31.0	5.0	8.0	8390280
28	36	32.3	4.8	7.0	8390281
30	38	33.0	5.0	8.0	8390300
30	38	34.0	5.8	8.0	8390301
31.5	39.5	35.5	5.8	8.0	8390315
32	40	35.0	5.0	8.0	8390320
32	40	36.0	5.8	8.0	8390321
35	43	39.0	5.8	8.0	8390350
35.5	43.5	39.5	5.8	8.0	8390355
36	44	39.0	5.0	8.0	8390360
38	46	42.0	5.8	8.0	8390380
40	48	43.0	5.0	8.0	8390400
40	48	44.0	5.8	8.0	8390401
45	53	48.0	5.0	8.0	8390450
45	53	49.0	5.8	8.0	8390451
50	58	53.0	5.0	8.0	8390500
50	58	54.0	5.8	8.0	8390501
53	61	57.0	5.8	8.0	8390530
55	63	59.0	5.8	8.0	8390550
55	65	58.0	6.0	9.7	8390551

K839



Specification table

Φd1	ΦD1	ΦD2	L1	L2	PART No.
55	63	59.0	5.8	8.0	8390552
56	64	60.0	5.8	8.0	8390560
56	66	59.0	6.0	9.7	8390561
60	68	64.0	5.8	8.0	8390600
60	70	63.0	6.0	9.7	8390601
63	71	67.0	5.8	8.0	8390630
65	73	69.0	5.8	8.0	8390650
65	75	68.0	6.0	9.7	8390651
70	80	73.0	6.0	9.7	8390700
70	80	75.0	6.8	10.0	8390701
75	85	80.0	6.8	10.0	8390750
80	90	85.0	6.8	10.0	8390800
85	95	90.0	6.8	10.0	8390850
90	100	93.0	6.0	9.7	8390900
90	100	95.0	6.8	10.0	8390901
95	105	100.0	6.8	10.0	8390950
100	110	105.0	6.8	10.0	8391000
110	120	115.0	6.8	10.0	8391100
110	125	14.0	8.5	13.0	8391101
112	122	117.0	6.8	10.0	8391120
120	130	125.0	6.8	10.0	8391200
125	138	132.0	7.8	11.0	8391250
130	142	135.0	8.2	11.0	8391300
130	143	137.0	7.8	11.0	8391301
136	149	143.0	7.8	11.0	8391360
140	153	147.0	7.8	11.0	8391400
140	155	144.0	8.5	13.0	8391401
145	158	152.0	7.8	11.0	8391450
150	163	157.0	7.8	11.0	8391500
150	165	154.0	8.5	13.0	8391501
160	174	167.0	7.8	11.0	8391600
180	196	184.0	9.5	14.0	8391800

Technical details

	Metric		Inch	
Operating conditions				
Maximum Speed	4.0 m/sec		12.0 ft/sec	
Temperature Range	-45°C +110°C		-50°F +230°F	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød$_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face ØD$_1$ ØD$_2$h	1.6 max	10 max	63 max	70 max
Static Housing Faces L$_1$	3.2 max	16 max	125 max	140 max
Radii				
Rod Diameter Ød$_1$	≤ 50	≤ 90	≤ 200	> 200
Max Fillet Rad r$_1$ mm	0.4	0.4	0.4	0.8
Max Fillet Rad r$_2$ mm	0.2	0.4	0.6	0.8
Rod Diameter Ød$_1$	≤ 2.000	≤ 3.500	≤ 7.875	> 7.875
Max Fillet Rad r$_1$ in	0.016	0.016	0.016	0.032
Max Fillet Rad r$_2$ in	0.008	0.016	0.024	0.032

Tolerances	Ød$_1$	ØD$_1$	ØD$_2$	L$_1$	h
mm	f9	H11	H11	+0.2 -0	+0.10 +0
in	f9	H11	H11	+0.008 -0	+0.004 +0

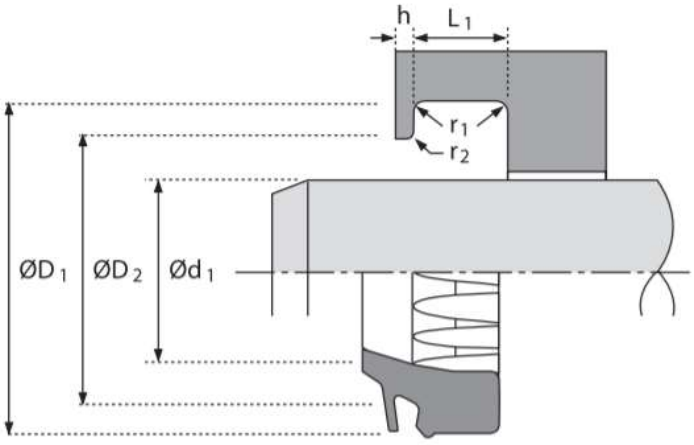
K842

Design

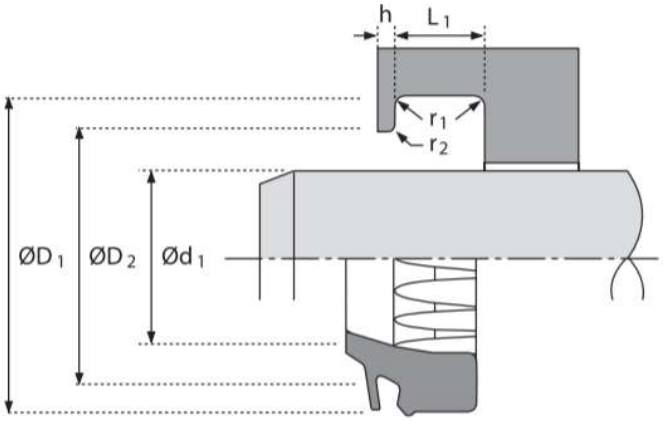
Kintowe K842 rod wiper is designed to prevent the ingress of external particles and moisture into the cylinder . The profile has been specially developed for harsh environments, in particular the longwall mining industry .

The special feature is the flap on wiping which covers the gland housing , preventing the water/slurry trap so common with conventional wipers and thus ingress of contamination around the outside of the wiper . The internal ribs on the inside diameter prevent the possibility of pressure trapping between the gland seal and the wiper and ensure correct support and guidance of the wiping lip , even in cases of high eccentricity as can occur between the outer stage gland and the inner cylinder of a roof support leg .

K842 is precision moulded in high performance polyurethane-KINTOWE®01 , the material has excellent compression set characteristics, excellent wear and abrasive resistance, proven compatibility with HFA(95/5) fluids , as used in longwall mining equipment , and with mineral oil .



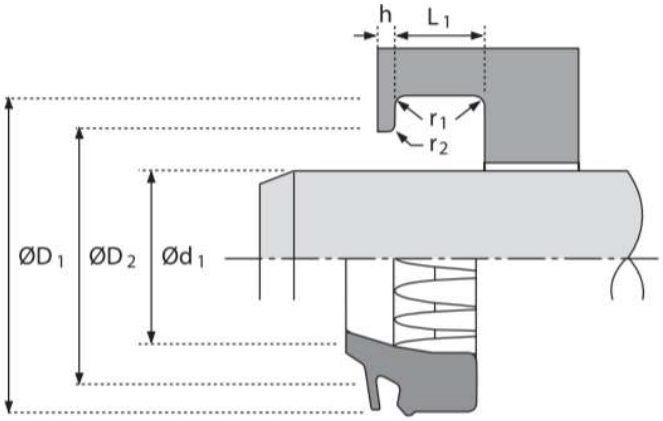
K842



Specification table

Φd1	ΦD1	ΦD2	L1	L2	h	PART No.
32	40	37.5	5.0	8.0	1.50	8420320
35	45	42.0	6.3	10.0	1.50	8420350
36	44	41.5	5.0	8.0	1.50	8420360
38	46	43.0	5.3	8.0	1.50	8420380
40	48	45.5	5.0	8.0	1.50	8420400
45	53	50.5	5.0	8.0	1.50	8420450
50	58	55.5	5.0	8.0	1.50	8420500
55	65	62.0	6.3	10.0	1.50	8420550
60	70	67.0	6.3	10.0	1.50	8420600
60	72	67.0	4.1	10.0	2.50	8420601
63	73	70.0	6.3	10.0	1.50	8420630
70	82.6	78.4	8.0	12.0	2.00	8420700
70	85	78.0	5.1	12.0	3.00	8420701
75	90	83.0	5.1	12.0	3.00	8420750
80	90	87.0	6.3	10.0	1.50	8420800
80	95	88.0	5.1	12.0	3.00	8420801
85	97.6	93.4	8.0	12.0	2.00	8420850
85	100	93.0	5.1	10.0	3.00	8420851
90	102.6	98.4	8.0	12.0	2.00	8420900
90	105	98.0	5.1	10.0	3.00	8420901
95	110	105.0	9.5	14.0	2.80	8420950
100	112	106.0	7.1	12.4	2.80	8421000
100	114	109.9	8.0	12.0	1.50	8421001
100	115	108.0	5.1	12.0	3.00	8421002

K842

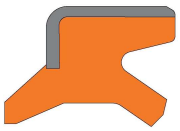


Specification table

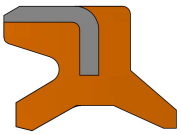
Φd1	ΦD1	ΦD2	L1	L2	h	PART No.
100	115	110.0	9.5	14.0	2.00	8421003
105	120	115.0	9.5	14.0	2.00	8421050
110	125	118.0	5.1	12.0	3.00	8421100
110	125	120.0	9.5	14.0	2.00	8421101
120	135	130.0	9.5	14.0	2.00	8421200
125	137.2	131.0	7.6	12.9	2.80	8421250
125	140	133.0	5.1	12.0	3.00	8421251
125	140	135.0	9.5	14.0	2.00	8421252
130	145	140.0	9.5	14.0	2.25	8421300
140	152.2	146.0	7.6	12.9	2.80	8421400
140	155	150.0	9.5	14.0	2.00	8421401
145	160	155.0	9.5	14.0	2.00	8421450
150	169	159.0	6.1	14.0	4.00	8421500
155	170	165.0	9.5	12.0	2.25	8421550
170	189	179.0	6.1	14.0	4.00	8421700
175	190	185.0	9.5	14.0	2.25	8421750
180	195	190.0	9.5	14.0	2.25	8421800
190	209	199.0	6.1	14.0	4.00	8421900
200	223	211.0	8.3	20.0	4.80	8422000
215	230	225.0	9.5	14.0	2.00	8422150
230	250	240.0	10.2	18.0	3.80	8422300
250	270	260.0	10.2	18.0	3.80	8422500
320	340	330.0	10.2	18.0	3.80	8423200
350	370	360.0	10.2	18.0	3.80	8423500

Technical details

	Metric		Inch	
Operating conditions				
Maximum Speed	1.0 m/sec		3.0 ft/sec	
Temperature Range	-45°C +110°C		-50°F +230°F	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød$_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face ØD$_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L$_1$	3.2 max	16 max	125 max	140 max
Chamfers & Radii				
Rod Diameter Ød$_1$ mm	≤ 19	≥ 19		
Min Chamfer C mm	0.5	1.0		
Max Fillet Rad r$_1$ mm	0.4	0.4		
Tolerances	Ød$_1$	ØD$_1$	L$_1$ mm	
	f9	H8	+0.5 -0	



K864

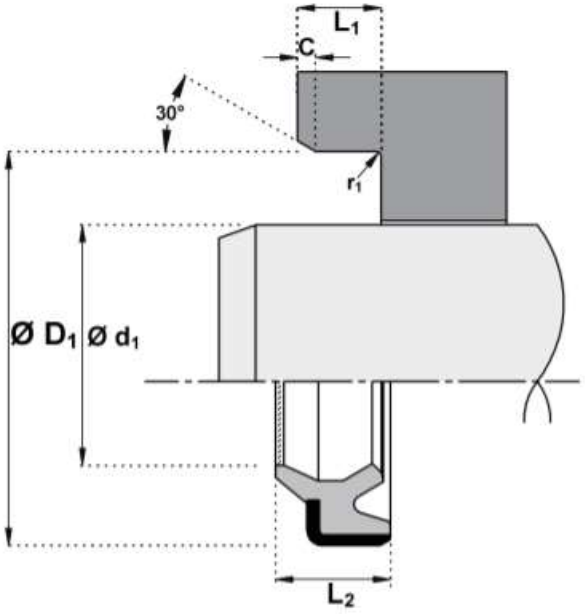


K864N

Design

Kintowe K864 is a double lipped metal cased wiper, designed to press-fit into open groove housings. Kintowe K864 comprises a specially textured polyurethane wiping lip which is securely bonded to a nitride metal case, eliminating the potential for rust . Opposite the wiping lip are two sealing lips accurately produced and proportioned to collect the fluid passing the rod seal . Capable of operating in dirty conditions , the proportions of the polyurethane wiping lip allow it to follow the side movement of the rod and to clear away heavily deposited dirt . The K864 wiper is designed for use with Y-rings such as the K663 rod seal .

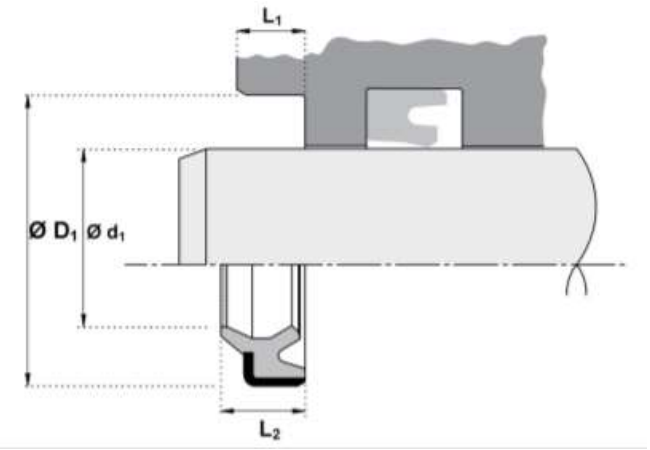
This design suitable for light , medium and heavy duty applications, the wiper has been designed to provide easy installation and offers excellent durability in service .



Features

***Easy installation**
***Long using life**
***Wide range of application uses**
***Nitrided metal case**
***Textured wiping lip minimizing oil transfer**

K864

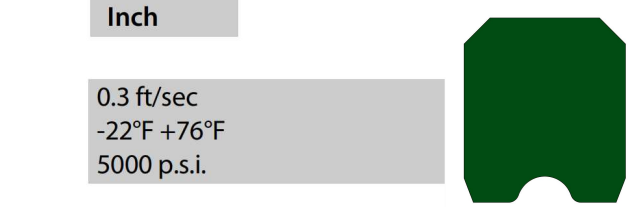


Specification table

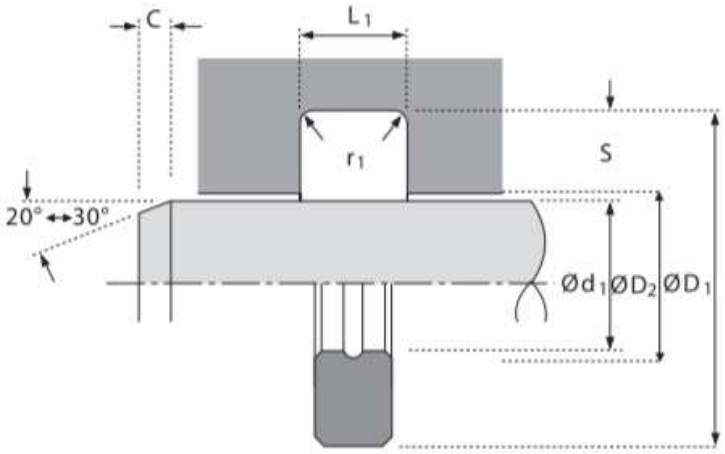
Φd1	ΦD1	L1	L2	PART No.
25	35	5.0	8.0	8640250
30	40	5.0	8.0	8640300
30	42	6.0	9.0	8640300
35	45	7.0	10.0	8640350
35	47	7.0	10.0	8640351
40	50	5.0	8.0	8640400
40	52	7.0	10.0	8640401
45	55	7.0	10.0	8640450
45	57	7.0	10.0	8640451
50	62	7.0	10.0	8640500
55	69	8.0	11.0	8640550
60	74	8.0	11.0	8640600
65	79	8.0	11.0	8640650
70	84	8.0	11.0	8640700
75	89	8.0	11.0	8640750
80	94	8.0	11.0	8640800
85	94	8.0	11.0	8640850
90	104	8.0	11.0	8640900
95	109	8.0	11.0	8640950
100	114	8.0	11.0	8641000
110	126	9.0	12.0	8641100
120	136	9.0	12.0	8641200
130	146	9.0	12.0	8641300
135	155	10.0	14.0	8641350
140	160	10.0	14.0	8641400
150	170	10.0	14.0	8641500
160	180	10.0	14.0	8641600

Swivel seal

Technical details	Metric		Inch	
Operating conditions				
Maximum Speed	0.1 m/sec		0.3 ft/sec	
Temperature Range	-30°C + 80°C		-22°F +76°F	
Maximum Pressure	350 bar		5000 p.s.i.	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød$_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face ØD$_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces L$_1$	3.2 max	16 max	125 max	140 max
Chamfers & Radii				
Groove Section ≤ S mm	5.2			
Min Chamfer C mm	2.4			
Max Fillet Rad r$_1$ mm	0.4			
Tolerances	Ød$_1$	ØD$_1$	ØD$_2$	L$_1$ mm
	f8	H10	H8	+0.3 -0



K080

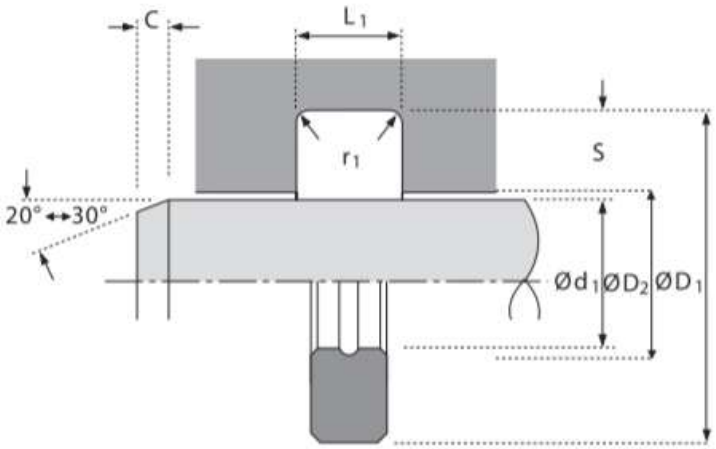


Design

Kintowe K080 swivel pressure seal is a seal designed specifically for use in hydraulic swivel joints .

It is manufactured in high performance polyurethane KINTOWE®01,to provide easy installation and excellent sealing characteristics .

K080

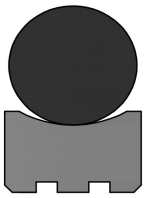


Specification table

Φd1	ΦD1	L1	PART No.
60	70	5	K0800600
70	80	5	K0800700
75	85	5	K0800750
80	90	5.0	K0800800
90	100	5.0	K0800900
95	105	5.0	K0800950
100	110	5.0	K0801000
105	115	5.0	K0801050
110	120	5.0	K0801100
115	125	5.0	K0801150
120	130	5.0	K0801200
125	135	5.0	K0801250
130	140	5.0	K0801300

Swivel seal

Technical details	Metric		Inch	
Operating conditions				
Maximum Speed	0.5 m/sec		1.5 ft/sec	
Maximum Temperature	-30°C + 100°C		-22°F +212°F	
Maximum Pressure	300 bar		4,500 p.s.i.	
Limiting PV Value Lubricated	40 bar m/sec		1900 p.s.i ft/sec	
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**			
Pressure bar	100	200	350	
Maximum gap L_1=4.2mm	0.20	0.10	H7/f7 fit	
Maximum gap L_1=6.3mm	0.30	0.25	H7/f7 fit	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød_1	0.5 < > 0.2	2.5 max	2 < >8	2 < >9
Static Sealing Face ØD_1	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	2.5 max	16 max	100 max	110 max
Chamfers & Radii				
Groove Section ≤ S mm	5.5	7.75		
Min Chamfer C mm	3.0	5.0		
Max Fillet Rad r_1 mm	0.8	1.2		
Tolerances	Ød_1	ØD_1	L_1 mm	
	f9	H11	+0.2 -0	



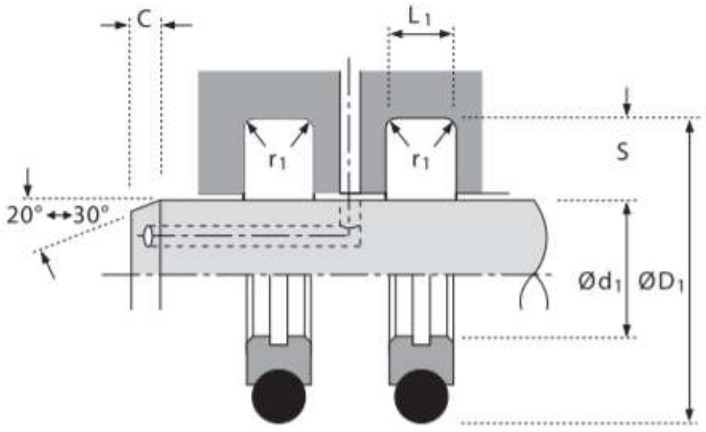
DF310

Design

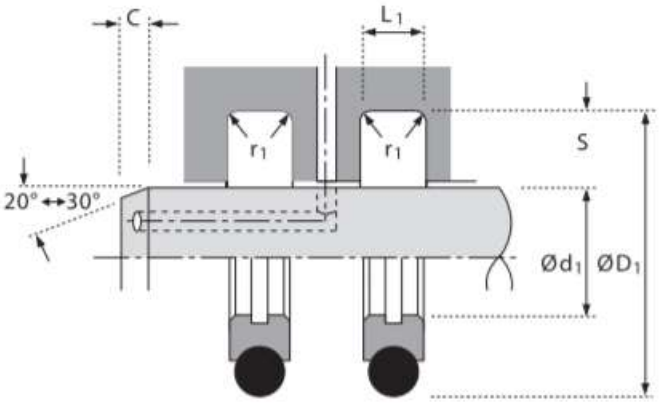
Kintowe DF310 swivel pressure seal is designed specifically for use in hydraulic swivel joints . The seal assembly consists of a carbon filled PTFE seal ring energized by an NBR O-ring . For aggressive media an FKM O-ring can be substituted . The face material and design provides high abrasion resistance and low friction to allow running at low rotational speeds with minimal stick-slip . The low friction is helped by the groove in the sliding face, which provides an oil reservoir . The groove also reduces the contact area with the roating counterface and allows a higher contact pressure . The circular recess in the outer diameter increases the contact of the face with the O-ring and minimises the possibility of the sealing components roating relative to each other .

Features

***High temperature capability**
***Low friction, minimal stick-slip**
***Low counterface wear**
***Good extrusion resistance**



DF310



Specification table

Φd1	ΦD1	L1	O-Ring	PART No.		Φd1	ΦD1	L1	O-Ring	PART No.
28	39.00	4.2	32.92*3.53	DF3100280		130	141.00	4.2	136.12*3.53	DF3101300
38	49.00	4.2	40.87*3.53	DF3100380		140	151.00	4.2	145.64*3.53	DF3101400
40	51.00	4.2	44.04*3.53	DF3100400		140	155.50	6.3	142.24*5.33	DF3101401
40	55.50	6.3	43.82*5.33	DF3100401		150	161.00	4.2	151.99*3.53	DF3101500
42	53.00	4.2	47.22*3.53	DF3100420		160	171.00	4.2	164.69*3.53	DF3101600
45	56.00	4.2	50.39*3.53	DF3100450		160	175.50	6.3	164.47*5.33	DF3101601
48	59.00	4.2	53.57*3.53	DF3100480		170	181.00	4.2	177.39*3.53	DF3101700
50	61.00	4.2	53.57*3.53	DF3100500		180	191.00	4.2	183.74*3.53	DF3101800
52	63.00	4.2	56.74*3.53	DF3100520		190	205.50	6.3	196.44*3.53	DF3101900
56	67.00	4.2	59.92*3.53	DF3100560		190	201.00	4.2	196.44*3.53	DF3101901
60	71.00	4.2	63.09*3.53	DF3100600		200	215.50	6.3	208.92*5.33	DF3102000
63	74.00	4.2	66.27*3.53	DF3100630		210	225.50	6.3	215.27*5.33	DF3102100
65	76.00	4.2	69.44*3.53	DF3100650		220	235.50	6.3	227.97*5.33	DF3102200
70	81.00	4.2	75.79*3.53	DF3100700		230	245.50	6.3	234.32*5.33	DF3102300
75	86.00	4.2	78.97*3.53	DF3100750		240	255.50	6.3	247.02*5.33	DF3102400
80	91.00	4.2	85.32*3.53	DF3100800		250	265.50	6.3	253.37*5.33	DF3102500
80	95.50	6.3	85.09*5.33	DF3100801		280	301.00	8.1	291.47*6.99	DF3102800
85	96.00	4.2	88.49*3.53	DF3100850		300	321.00	8.1	304.17*6.99	DF3103000
86	101.50	6.3	91.44*5.33	DF3100860		320	341.00	8.1	329.57*6.99	DF3103200
87	102.50	6.3	91.44*5.33	DF3100870		350	371.00	8.1	354.57*6.99	DF3103500
90	101.00	4.2	94.84*3.53	DF3100900		360	381.00	8.1	367.67*6.99	DF3103600
100	111.00	4.2	104.37*3.53	DF3101000		400	421.00	8.1	405.26*6.99	DF3104000
110	121.00	4.2	113.89*3.53	DF3101100		420	441.00	8.1	430.66*6.99	DF3104200
105	116.00	4.2	110.72*3.53	DF3101050		450	471.00	8.1	456.06*6.99	DF3104500
115	126.00	4.2	120.24*3.53	DF3101150		480	501.00	8.1	494.16*6.99	DF3104800
120	131.00	4.2	123.42*3.53	DF3101200		500	521.00	8.1	506.86*6.99	DF3105000
125	136.00	4.2	129.77*3.53	DF3101250						

Swivel seal

Technical details

	Metric		Inch	
Operating conditions				
Maximum Rotational Speed	0.2 m/sec		0.6 ft/sec	
Temperature Range	-30°C + 80°C		-22°F + 176°F	
Maximum Pressure	350 bar		5000 p.s.i.	
Limiting PV Value Lubricated	25 bar m/sec		1200 p.s.i ft/sec	
Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design section**			
Pressure bar	100	200	350	
Housing Length L_1 4.2 mm	0.20	0.10	H7/f7 fit	
Housing Length L_1 6.3 mm	0.30	0.25	H7/f7 fit	
Pressure p.s.i	1500	3000	5000	
Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød_1	0.1 < > 0.3	2.5 max	4 < > 12	5 < >13
Static Sealing Face ØD_1	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

Chamfers & Radii		
Groove Section ≤ S mm	5.5	7.75
Min Chamfer C mm	3.0	5.0
Max Fillet Rad r_1 mm	0.8	1.2

Tolerances	Ød_1	ØD_1	L_1
Rod mm	f9	H11	+0.2 -0
Piston mm	h9	H9	+0.2 -0

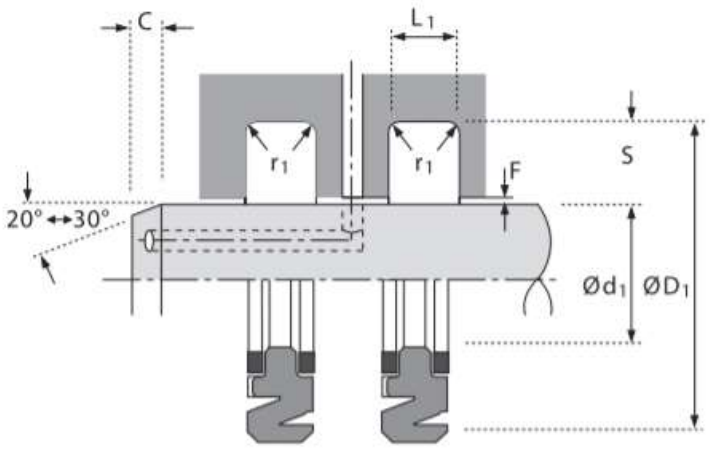
PZ800

Design

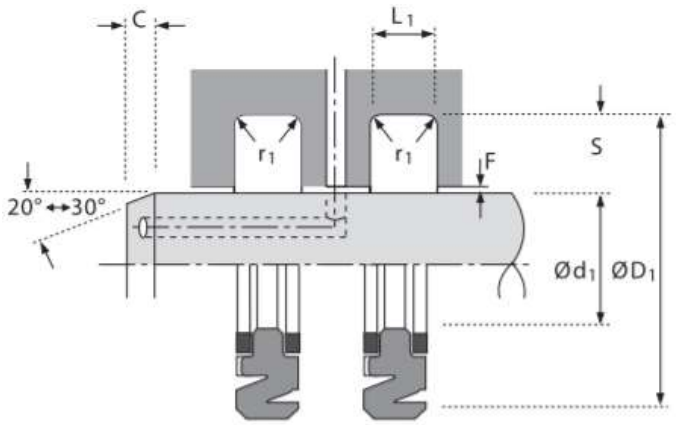
Kintowe PZ800 swivel pressure seal is designed specifically for hydraulic swivels . It's manufactured in the high performance polyurethane KINTOWE®01 and polyformaldehyde anti-extrusion ring .
PZ800 is designed for double acting conditions. Designs are available for piston or rod applications .

Features

*Low friction
*Low abrasion and good wear resistance
*No rotation within the groove
*Easy installation



PZ800



Specification table

Rod Seals				
Φd1	ΦD1	L1	PART No.	Remark
25	32.5	3.2	PZ8000250	*
32	39.5	3.2	PZ8000320	*
36	43.5	3.2	PZ8000360	*
40	51	4.2	PZ8000400	*
45	56	4.2	PZ8000450	*
70	80	5.0	PZ8000700	*
100	111	4.2	PZ8001000	
100	115	6.3	PZ8001001	
130	145.5	6.3	PZ8001300	
Piston Seals				
ΦD1	Φd1	L1	PART No.	
80	69.3	4.2	PZ8000800	*
90	79.3	4.2	PZ8000900	*
145	129.5	6.3	PZ8001450	
160	144.5	6.3	PZ8001600	
180	164.5	6.3	PZ8001800	

* With no extrusion ring

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JIASHAN KINTOWE ENGINEERING PLASTIC Co., Ltd



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