

Description

The 314 Series dirt wiper is a heavy duty double-acting wiper consisting of a PTFE compound profile ring and two energising o-rings. The profile ring has both a wiping lip to prevent contamination entering the cylinder, and a sealing lip to remove any oil film from the extending rod. The o-rings individually energise these lips. In most applications, using a pressure relief port between the wiper and the rod seal is recommended.

Material

The 314 Series dirt wiper features a profile ring in PTFE-Bronze with two energising rings in NBR. For high temperature applications, the energising rings are also available in FPM.

Material	Code
PTFE-Bronze compound + NBR o-ring	T23
PTFE-Bronze compound + FPM o-ring	T26

Operating Parameters

Temperature	T23		T26	
	°C	°F	°C	°F
hydraulic oil	-30...+100	-22...+212	-10...+200	+15...+392
water oil emulsions (HFA)	-	-	-	-
water-glycol fluids (HFC)	-	-	-	-
polyol esters (HFD)	-	-	-10...+200	+15...+392
water	-	-	-	-

Speed	5 m/s (16.4 ft/sec)
Pressure	-

Note: for other materials or fluids please contact our engineering department

Product Benefits

- Optimum sealing effect
- Excellent wear resistance
- Low friction
- No stick-slip

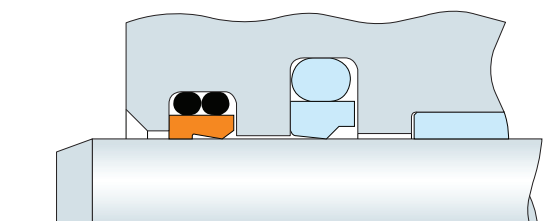
Applications

The 314 Series dirt wiper is used as part of a zero-leakage sealing system for applications requiring low-friction and high wear resistance.

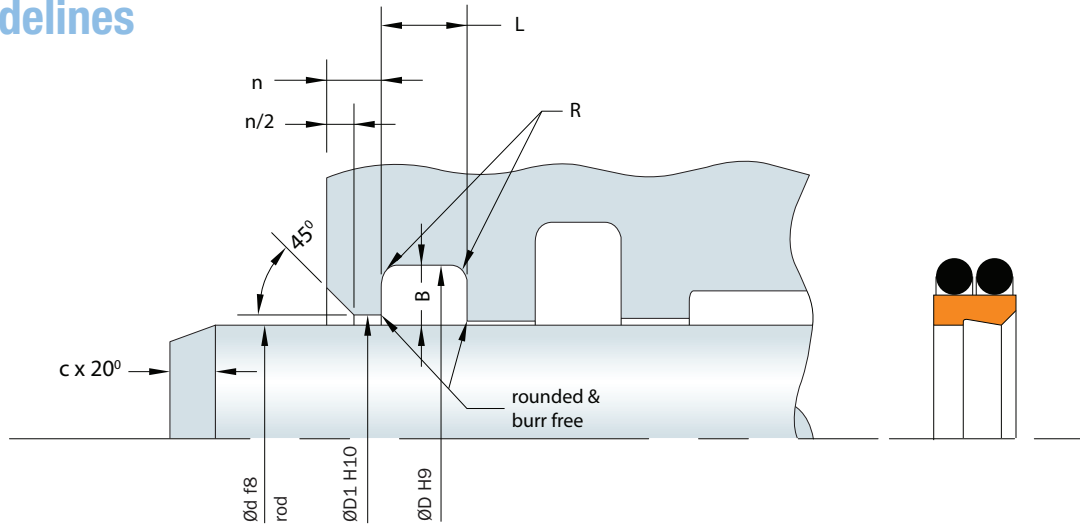
Typical applications include:

- Injection moulding machines
- Pull-back/return cylinders
- Mobile hydraulics
- Bending balance cylinders in rolling mills

Installation Drawing



Design Guidelines



Metric Series

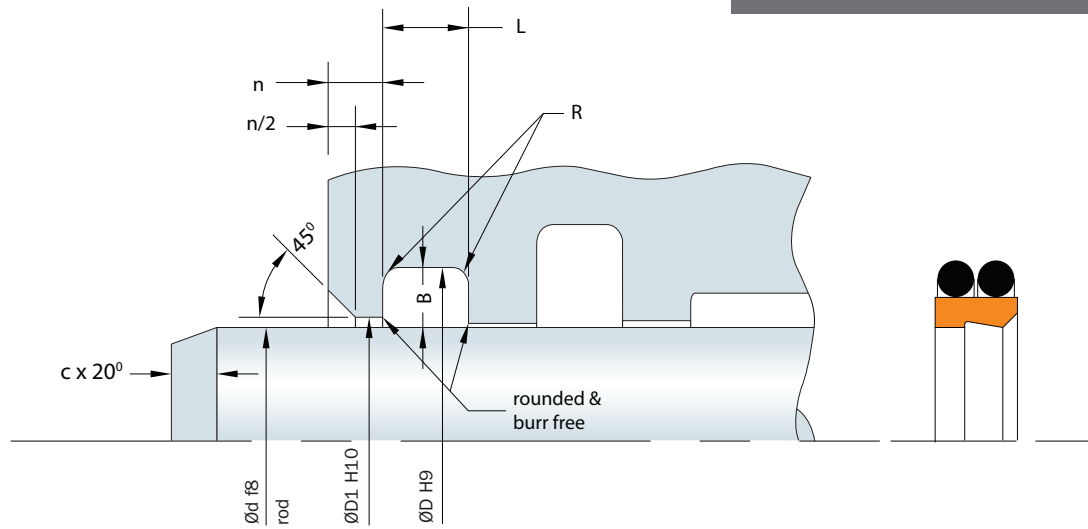
	Rod Diameter d	B	D	D1	L+0.2	C	R	n
Series 1	Up to 45 mm	3.8	d + 7.6	d + 1.0	4.2	3.0	0.4	4.0
Series 2	Up to 70 mm	4.4	d + 8.8	d + 1.5	6.3	4.0	1.2	4.0
Series 3	Up to 140 mm	6.1	d + 12.2	d + 2.0	8.1	4.0	2.0	4.0
Series 4	Up to 400 mm	8.0	d + 16.0	d + 2.0	11.5	8.0	2.0	4.0
Series 5	Up to 650 mm	12.0	d + 24.0	d + 2.5	15.5	8.0	2.0	4.0
Series 6	Up to 1000 mm	13.65	d + 27.3	d + 2.5	18.0	11.0	2.0	5.0

Inch Series

	Rod Diameter d	B	D	D1	L+0.008	C	R	n
Series 1	Up to 1.75 inches	0.150	d + 0.300	d + 0.039	0.165	0.118	0.016	0.158
Series 2	Up to 2.75 inches	0.173	d + 0.346	d + 0.059	0.248	0.157	0.067	0.158
Series 3	Up to 5.50 inches	0.240	d + 0.480	d + 0.079	0.319	0.157	0.079	0.158
Series 4	Up to 15.75 inches	0.315	d + 0.630	d + 0.079	0.453	0.157	0.079	0.158
Series 5	Up to 25.5 inches	0.472	d + 0.944	d + 0.098	0.610	0.315	0.079	0.158
Series 6	Up to 40.0 inches	0.537	d + 1.074	d + 0.098	0.709	0.433	0.079	0.197

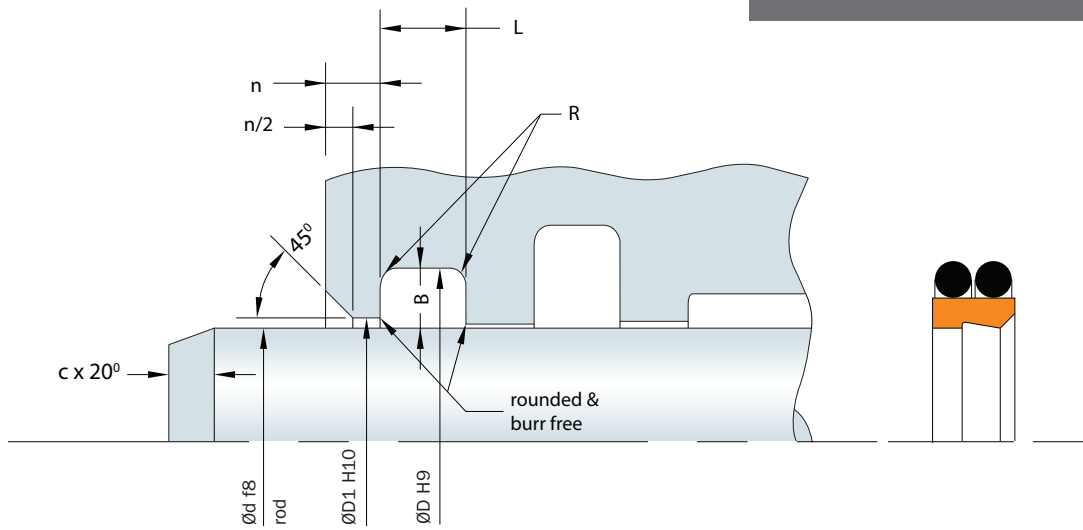
Surface Finish

Surface roughness	Ra	Rt	RMS
Sliding surface	≤0.3 µm	≤3 µm	8 RMS
Surface of groove I.D.	≤1.8 µm	≤10 µm	64 RMS
Sides of groove	≤3 µm	≤16 µm	125 RMS



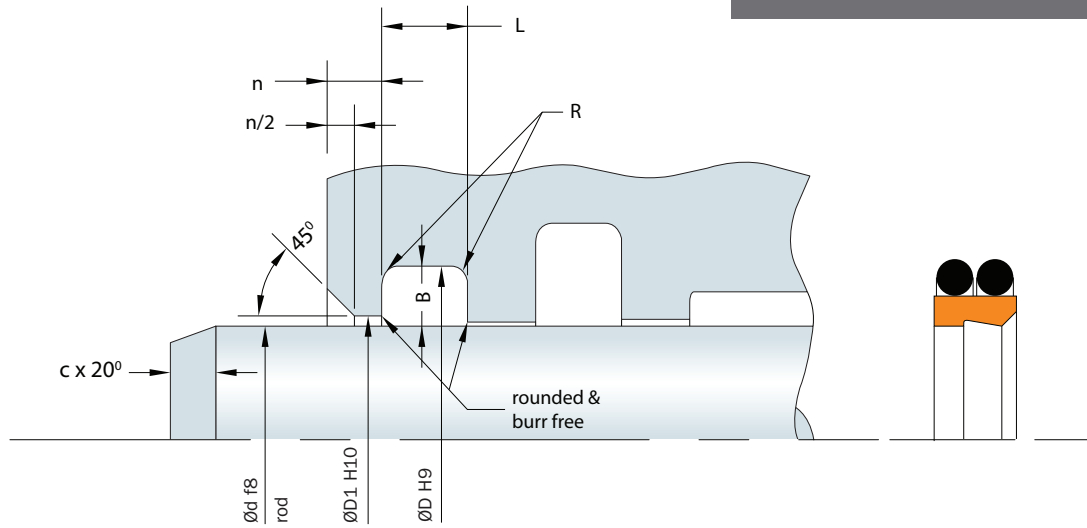
Parts List

Ød	ØD	B	D1	L	T23 PTFE-Bronze
10.00	17.60	3.80	11.00	4.20	314.92604
12.00	19.60	3.80	13.00	4.20	314.92239
14.00	21.60	3.80	15.00	4.20	314.92335
15.00	22.60	3.80	16.00	4.20	314.92102
16.00	23.60	3.80	17.00	4.20	314.92001
18.00	25.60	3.80	19.00	4.20	314.92336
20.00	27.60	3.80	21.00	4.20	314.92483
22.00	29.60	3.80	23.00	4.20	314.91999
24.00	31.60	3.80	25.00	4.20	314.91910
25.00	32.60	3.80	26.00	4.20	314.91984
25.40	33.00	3.80	26.40	4.20	314.92429
28.00	35.60	3.80	29.00	4.20	314.92367
30.00	37.60	3.80	31.00	4.20	314.92015
32.00	39.60	3.80	33.00	4.20	314.92108
35.00	42.60	3.80	36.00	4.20	314.92078
35.70	43.30	3.80	36.70	4.20	314.92605
36.00	43.60	3.80	37.00	4.20	314.92248
38.00	45.60	3.80	39.00	4.20	314.91813
40.00	48.80	4.40	41.50	6.30	314.92383
41.00	49.80	4.40	42.50	6.30	314.92513
42.00	50.80	4.40	43.50	6.30	314.91755
43.50	52.30	4.40	45.00	6.30	314.91822
45.00	53.80	4.40	46.50	6.30	314.92653
50.00	58.80	4.40	51.50	6.30	314.92247
55.00	63.80	4.40	56.50	6.30	314.92018
56.00	64.80	4.40	57.50	6.30	314.92588
60.00	68.80	4.40	61.50	6.30	314.92496
63.00	71.80	4.40	64.50	6.30	314.92541
63.50	72.30	4.40	65.00	6.30	314.92409
65.00	73.80	4.40	66.50	6.30	314.92373



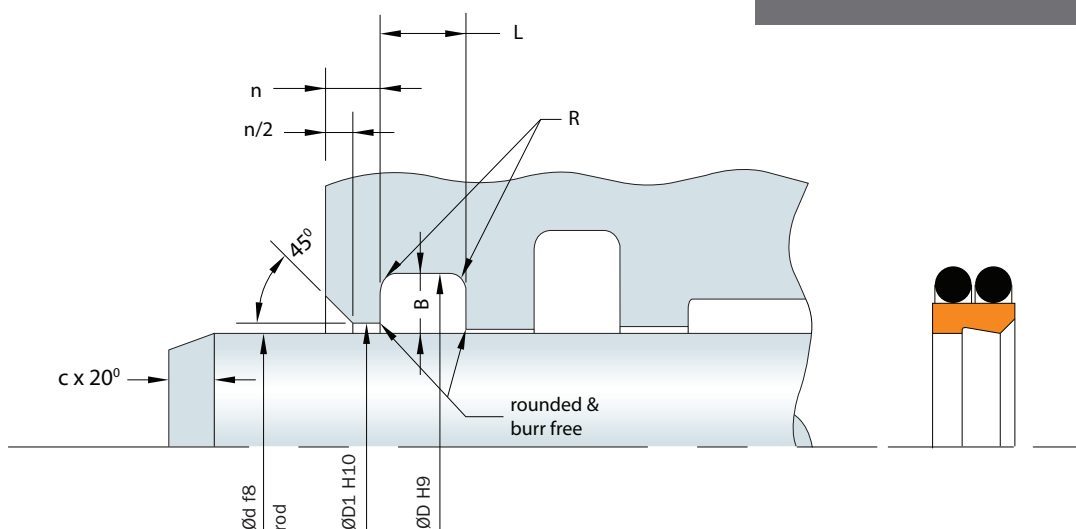
Parts List

Ød	ØD	B	D1	L	T23 PTFE-Bronze
66.68	75.40	4.36	68.18	6.30	314.91817
68.00	76.80	4.40	69.50	6.30	314.91803
70.00	82.20	6.10	72.00	8.10	314.91978
74.00	86.20	6.10	76.00	8.10	314.92029
75.00	87.20	6.10	77.00	8.10	314.92061
76.20	88.40	6.10	78.20	8.10	314.91746
77.00	89.20	6.10	79.00	8.10	314.92182
80.00	92.20	6.10	82.00	8.10	314.92281
81.00	93.20	6.10	83.00	8.10	314.91887
82.00	94.20	6.10	84.00	8.10	314.92648
85.00	97.20	6.10	87.00	8.10	314.92277
88.90	101.10	6.10	90.90	8.10	314.91955
90.00	102.20	6.10	92.00	8.10	314.92200
95.00	107.20	6.10	97.00	8.10	314.91881
100.00	112.20	6.10	102.00	8.10	314.92313
105.00	117.20	6.10	107.00	8.10	314.92099
107.00	119.20	6.10	109.00	8.10	314.92632
110.00	122.20	6.10	112.00	8.10	314.92559
111.10	123.30	6.10	113.10	8.10	314.92358
112.80	125.00	6.10	114.80	8.10	314.92030
115.00	127.20	6.10	117.00	8.10	314.91730
120.00	132.20	6.10	122.00	8.10	314.92047
120.50	132.70	6.10	122.50	8.10	314.92508
125.00	137.20	6.10	127.00	8.10	314.92603
127.00	139.20	6.10	129.00	8.10	314.92218
130.00	142.20	6.10	132.00	8.10	314.92184
132.00	144.20	6.10	134.00	8.10	314.92123
133.35	145.50	6.08	135.35	8.10	314.92199
135.00	147.20	6.10	137.00	8.10	314.92557
140.00	156.00	8.00	142.00	11.50	314.92160



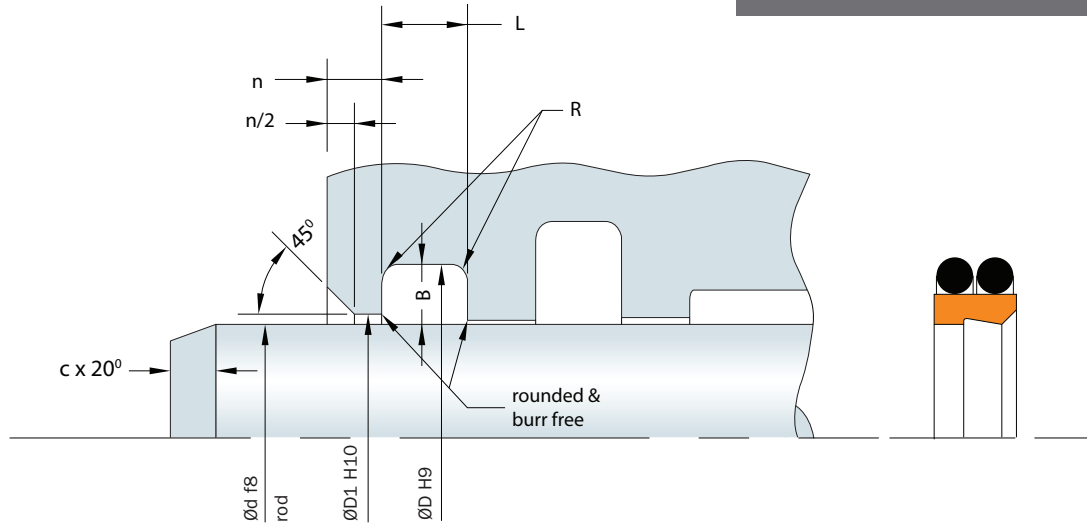
Parts List

Ød	ØD	B	D1	L	T23 PTFE-Bronze
145.00	161.00	8.00	147.00	11.50	314.91948
150.00	166.00	8.00	152.00	11.50	314.91862
152.40	168.40	8.00	154.40	11.50	314.92261
155.00	171.00	8.00	157.00	11.50	314.92220
159.60	175.60	8.00	161.60	11.50	314.92506
160.00	176.00	8.00	162.00	11.50	314.92417
160.00	176.00	8.00	162.00	11.50	314.92157
165.00	181.00	8.00	167.00	11.50	314.91812
170.00	186.00	8.00	172.00	11.50	314.92329
175.00	191.00	8.00	177.00	11.50	314.92276
177.80	193.80	8.00	179.80	11.50	314.92190
180.00	196.00	8.00	182.00	11.50	314.92285
180.00	196.00	8.00	182.00	11.50	314.92491
190.00	206.00	8.00	192.00	11.50	314.92451
195.00	211.00	8.00	197.00	11.50	314.92649
195.40	211.40	8.00	197.40	11.50	314.91764
200.00	216.00	8.00	202.00	11.50	314.92596
210.00	226.00	8.00	212.00	11.50	314.91960
215.00	231.00	8.00	217.00	11.50	314.92002
220.00	236.00	8.00	222.00	11.50	314.92052
225.00	241.00	8.00	227.00	11.50	314.92371
228.60	244.60	8.00	230.60	11.50	314.92053
230.00	246.00	8.00	232.00	11.50	314.92067
235.00	251.00	8.00	237.00	11.50	314.91756
240.00	256.00	8.00	242.00	11.50	314.92049
241.30	257.30	8.00	243.30	11.50	314.92388
245.00	261.00	8.00	247.00	11.50	314.91843
250.00	266.00	8.00	252.00	11.50	314.92034
255.00	271.00	8.00	257.00	11.50	314.92330
260.00	276.00	8.00	262.00	9.50	314.92152



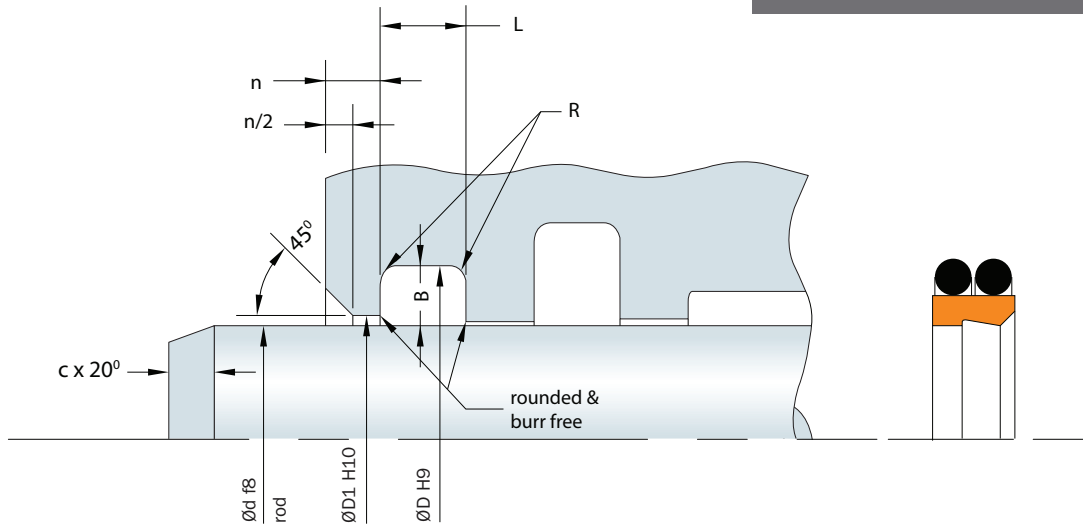
Parts List

Ød	ØD	B	D1	L	T23 PTFE-Bronze
260.00	276.00	8.00	262.00	11.50	314.92685
265.00	281.00	8.00	267.00	11.50	314.92572
270.00	286.00	8.00	272.00	11.50	314.92459
275.00	291.00	8.00	277.00	11.50	314.91831
280.00	296.00	8.00	282.00	11.50	314.91863
285.00	301.00	8.00	287.00	11.50	314.91783
290.00	306.00	8.00	292.00	11.50	314.92552
300.00	316.00	8.00	302.00	11.50	314.91888
308.00	324.00	8.00	310.00	11.50	314.92287
310.00	326.00	8.00	312.00	11.50	314.92340
315.00	331.00	8.00	317.00	11.50	314.92671
320.00	336.00	8.00	322.00	11.50	314.92230
325.00	341.00	8.00	327.00	11.50	314.91970
330.00	346.00	8.00	332.00	11.50	314.92137
335.00	351.00	8.00	337.00	11.50	314.92260
340.00	356.00	8.00	342.00	11.50	314.92272
345.00	361.00	8.00	347.00	11.50	314.92562
350.00	366.00	8.00	352.00	11.50	314.92014
354.00	370.00	8.00	356.00	11.50	314.92205
355.00	371.00	8.00	357.00	11.50	314.92533
360.00	376.00	8.00	362.00	11.50	314.92462
370.00	386.00	8.00	372.00	11.50	314.91979
375.00	391.00	8.00	377.00	11.50	314.91894
380.00	396.00	8.00	382.00	11.50	314.92165
390.00	406.00	8.00	392.00	11.50	314.92390
395.00	411.00	8.00	397.00	11.50	314.92470
400.00	416.00	8.00	402.00	11.50	314.91990
400.00	424.00	12.00	402.50	15.50	314.92168
410.00	434.00	12.00	412.50	15.50	314.91726
420.00	444.00	12.00	422.50	15.50	314.92056



Parts List

Ød	ØD	B	D1	L	T23 PTFE-Bronze
430.00	454.00	12.00	432.50	15.50	314.92597
440.00	464.00	12.00	442.50	15.50	314.91935
445.00	469.00	12.00	447.50	15.50	314.92663
450.00	474.00	12.00	452.50	15.50	314.92461
460.00	484.00	12.00	462.50	15.50	314.92038
465.00	489.00	12.00	467.50	15.50	314.91921
470.00	494.00	12.00	472.50	15.50	314.92391
475.00	499.00	12.00	477.50	15.50	314.92273
480.00	504.00	12.00	482.50	15.50	314.91725
495.00	519.00	12.00	497.50	15.50	314.92700
510.00	534.00	12.00	512.50	15.50	314.92121
515.00	539.00	12.00	517.50	15.50	314.92550
520.00	544.00	12.00	522.50	15.50	314.91926
525.00	549.00	12.00	527.50	15.50	314.92379
530.00	554.00	12.00	532.50	15.50	314.92590
540.00	564.00	12.00	542.50	15.50	314.91781
550.00	574.00	12.00	552.50	15.50	314.92145
558.80	582.80	12.00	561.30	15.50	314.91837
570.00	594.00	12.00	572.50	15.50	314.91774
580.00	604.00	12.00	582.50	15.50	314.91760
585.00	609.00	12.00	587.50	15.50	314.92405
590.00	614.00	12.00	592.50	15.50	314.92241
600.00	624.00	12.00	602.50	15.50	314.92516
620.00	644.00	12.00	622.50	15.50	314.92280
630.00	654.00	12.00	632.50	15.50	314.91998
635.00	659.00	12.00	637.50	15.50	314.91724
640.00	664.00	12.00	642.50	15.50	314.92081
650.00	677.30	13.65	652.50	18.00	314.92418
675.00	702.30	13.65	677.50	18.00	314.92380
680.00	707.30	13.65	682.50	18.00	314.92064



Parts List

Ød	ØD	B	D1	L	T23 PTFE-Bronze
690.00	717.30	13.65	692.50	18.00	314.92240
745.00	772.30	13.65	747.50	18.00	314.91741
800.00	827.30	13.65	802.50	18.00	314.92258
815.00	842.30	13.65	817.50	18.00	314.91790
885.00	912.30	13.65	887.50	18.00	314.92381
900.00	927.30	13.65	902.50	18.00	314.92059
910.00	937.30	13.65	912.50	18.00	314.92670
920.00	947.30	13.65	922.50	18.00	314.92525