

# Product Information

## NAK Pin Dust Seals



**NAK**<sup>TM</sup>

ISO-9001/14001  
ISO/TS-16949  
OHSAS-18001

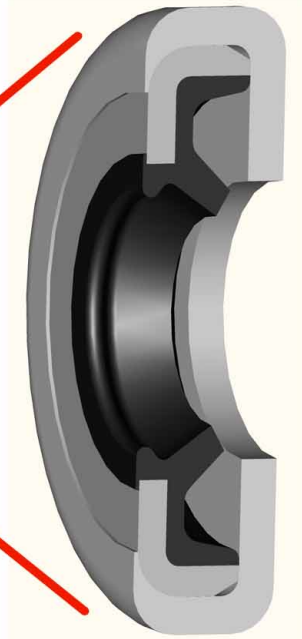
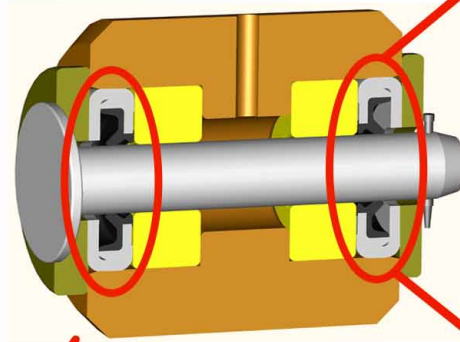


*World Class Brand World Class Manufacturing*



# Product Description

NAK Pin Dust Seals are designed for oscillating, swivel motion in the hinge pin or joint part to keep lubricant in, prevent dirt intrusion in the bushings and reduce inner wear. Specially designed lip of NAK Pin Dust Seal reduces the torque, lip wear and makes relief effect by rear-side greasing easily. The feature assures excellent sealing performance under severe dust conditions to improve the durability of the equipment and extend service life.



## Features

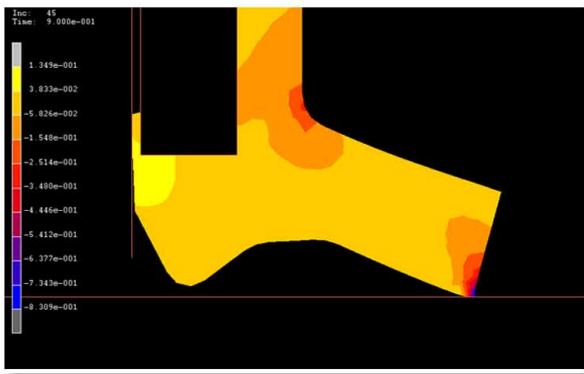
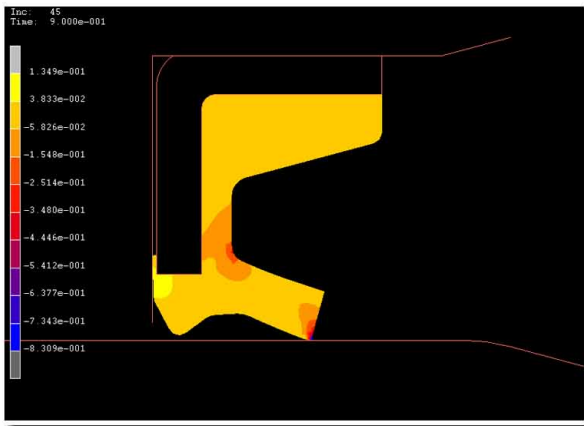
- Effective barrier to dirt intrusion
- Excellent sealing performance to keep lubricant in
- Designed for oscillating, swivel motion
- Easy press-fit installation
- Long service life

## Applications

Swivel joints on excavators, backhoes, skid steer loaders, bulldozers, wheel loaders, scissor lifts, construction equipment, articulating equipment and other similar applications.



# Technical Information



## Operating Conditions

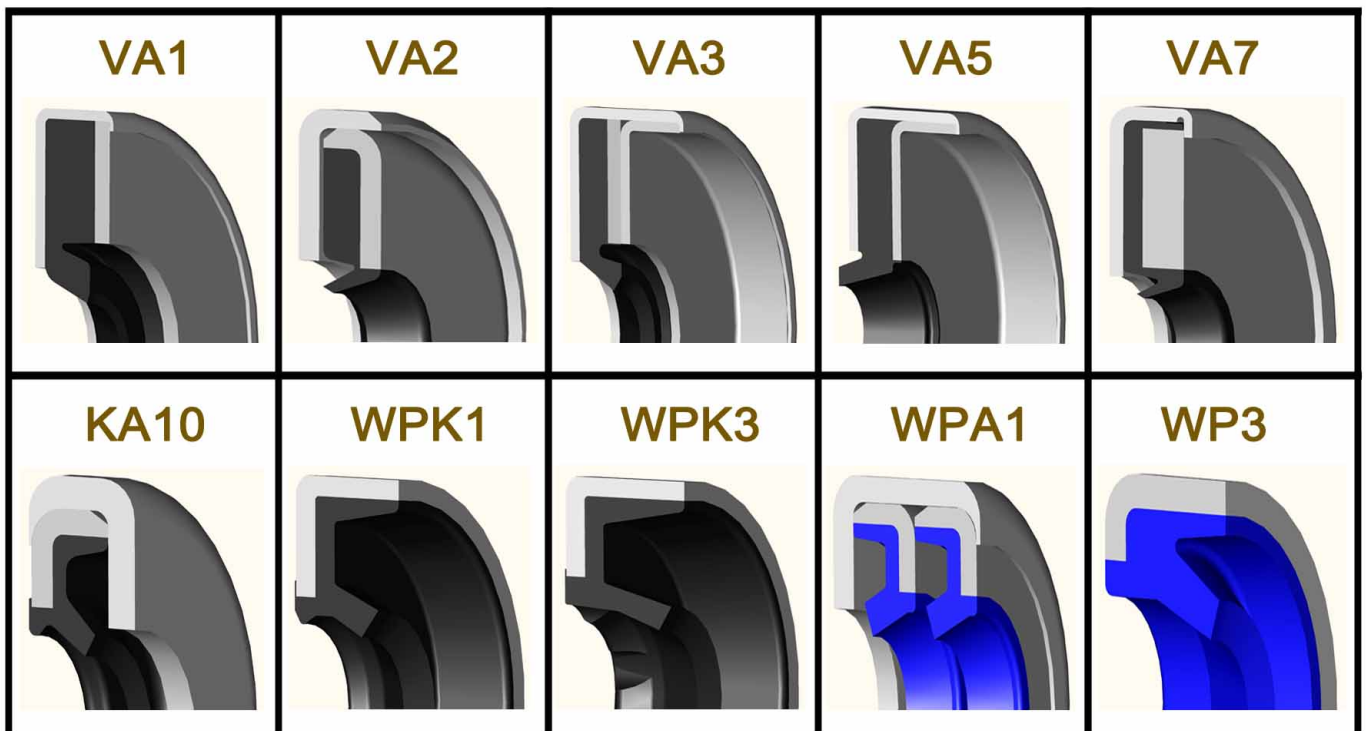
- Media: Grease / Outer dust
- Motion: Oscillation / Swivel
- Velocity: < 120 rpm
- Temperature: -40°C ~ 100°C
- Pressure: < 0.3 bar

## Materials

- Rubber: NBR, PU
- Case: JIS G3141 SPCC,  
JIS G3141 SPCC with Zinc-Plating



## NAK Pin Dust Seal Types



Customized designs and additional elastomer compounds to fit different applications are available upon your request; please contact with us directly for more information or at our website: [www.nak.com.tw](http://www.nak.com.tw)



# Successful Cases

With more than 35 years of experience in manufacturing sealing products, NAK has developed many successful projects of Pin Dust Seals no matter in OEM or MRO market all over the world.



**In Korea**, NAK cooperates with Hyundai Heavy Industries (HHI) who has a global business network in each of its seven business divisions: shipbuilding, offshore & engineering, industrial plant & engineering, engine & machinery, electro electric systems, green energy, and construction equipment. Especially excavators and skid steer loaders in construction equipment, NAK provides a series of high performance pin dust seals for oscillation movement of hinge pin and bush parts to prevent external dust and mud into internal pin connection. HHI's construction equipment models are marketed through 480 authorized distributors in 120 countries now.

**In Japan**, NAK provides seals for Kubota Corporation who manufactures tractors, heavy equipment, agricultural and industrial machinery. Kubota has subsidiaries and affiliates that manufacture and/or market products that are sold in more than 130 countries now.



**In India**, NAK cooperates with Komatsu Ltd who is one of the world's largest manufacturers of construction and mining equipment, utilities, forest machines and industrial machinery. Now Komatsu Group consists of Komatsu Ltd., and 178 other companies.







# Why should I choose NAK sealing solutions?

## Expert and reliable supplier

NAK is an ISO-9001/14001, TS-16949 and OHSAS-18001 registered manufacturer of Pin Dust Seals. NAK offers sealing solutions which are developed with a series of advanced lab instruments and latest technologies to meet or exceed the ASTM, DIN, BS, and the SAE international standards. NAK also implements "Six Sigma" management to advance sophisticated products and higher quality.



## Comprehensive products and designs

NAK offers a comprehensive range of seal types and sizes including custom-made products. Special elastomer compounds are available to fit different applications. It's cost-effective for customers to find correct Pin Dust Seals.

## State-of-the-art Technologies

NAK has a complete line of equipment and ingredient research lab. We implement rubber testing method including processibility of unvulcanized rubber, hardness of plastic and rubber, material tensile strength and adhesive strength, heat aging / oil immersion / fuel immersion / low temperature properties / compression set, rebound properties / microscopy of compound dispersion, FT-IR analysis, and etc.



## Dedicated R&D team and support

NAK has a strong and dedicated R&D team to offer technical consultation and support for mutual connection. To enhance R&D capability, NAK invests in modern software and hardware development such as FEA (Finite Element Analysis), SCAD, in house dynamic test center and etc. to build up theoretical analysis for operating conditions, decrease the failure rates during trial runs, and improve the efficiency of new product development.

## Efficiency manufacturing process

NAK has implemented full automation and computerization in manufacturing process by deploying machineries such as automatic spring loading machines, automatic packaging machines, automatic storage system and etc. NAK keeps improving efficiency and capability to satisfy and even exceed requirements from different OE customers.











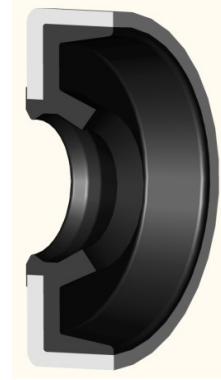






# Size List

## WPK1



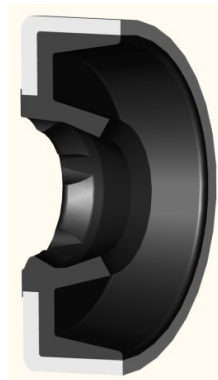
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Shaft	Bore	Width		
30	40	4	mm	U6804
35	45	4	mm	U6805
40	50	5	mm	U7016
45	55	5	mm	U6293
45	55	6	mm	U6294
50	60	5	mm	U5679
50	65	6	mm	U6295
55	70	5.5	mm	U5678
55	70	6	mm	U6296
60	75	6	mm	U7338
65	80	6	mm	U5052
70	85	6	mm	U4743
75	90	6	mm	U5051
75	95	7	mm	U7203
80	95	6	mm	U5050
90	105	6	mm	U4944
90	110	9.5	mm	U7269
95	110	8	mm	U5049
95	110	9.5	mm	U7339
100	115	8	mm	U4945
100	120	8	mm	U7227
105	120	8	mm	U5046
110	125	8	mm	U5048
110	125	9.5	mm	U5578
110	130	8	mm	U7202
110	130	9.5	mm	U7340
120	135	8	mm	U5047
120	135	9.5	mm	U5211
120	140	8	mm	U5681
120	140	9.5	mm	U7228
130	155	9.5	mm	U5212
140	160	8	mm	U5680





# Size List

## WPK3



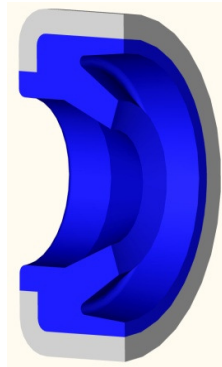
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Shaft	Bore	Width		
35	45	4	mm	U7518
45	55	5	mm	U7521
45	55	6	mm	U7522
50	65	6	mm	U7543
55	70	6	mm	U7524
65	80	6	mm	U7544
70	85	6	mm	U7523
75	90	6	mm	U7599
75	95	7	mm	U7693
80	95	6	mm	U7502
90	105	6	mm	U7525
90	110	9.5	mm	U7626
100	115	8	mm	U7501
100	120	8	mm	U7627
110	125	8	mm	U7600
110	125	9.5	mm	U7541
120	135	8	mm	U7542
120	135	9.5	mm	U7640
120	140	9.5	mm	U7625
125	145	9.5	mm	U7728
140	170	9.5	mm	U8095





# Size List

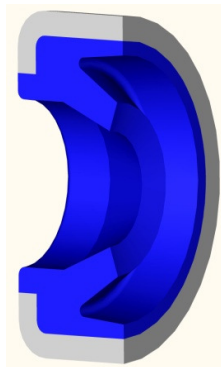
## WP3



Size			Measure mm. / inch	Drawing No.
Shaft	Bore	Width		
0.625	1.125	0.312	inch	U5102
0.725	1.070	0.230	inch	U8338
0.750	1.250	0.312	inch	U5017
0.875	1.375	0.312	inch	U4537
0.875	1.375	0.313	inch	U0235
1.000	1.250	0.125	inch	U5797
1.000	1.375	0.187	inch	U5664
1.000	1.500	0.312	inch	U4541
1.125	1.625	0.312	inch	U4485
1.187	1.625	0.250	inch	U5248
1.250	1.687	0.187	inch	U4652
1.250	1.750	0.187	inch	U8089
1.250	1.750	0.250	inch	U5877
1.250	1.750	0.312	inch	U4542
1.250	1.750	0.313	inch	U0149
1.250	2.062	0.312	inch	U5100
1.250	2.062	0.375	inch	U5033
1.375	1.750	0.187	inch	U5465
1.375	1.875	0.312	inch	U4464
1.500	1.875	0.187	inch	U5665
1.500	1.875	0.250	inch	U5818
1.500	2.000	0.250	inch	U2761
1.500	2.000	0.312	inch	U3823
1.500	2.000	0.328	inch	U1230
1.500	2.125	0.312	inch	U4538
1.500	2.250	0.250	inch	U5466
1.500	2.250	0.375	inch	U4477
1.625	2.125	0.250	inch	U5262
1.625	2.125	0.312	inch	U5263
1.750	2.125	0.125	inch	U5836
1.750	2.250	0.187	inch	U4482
1.750	2.250	0.250	inch	U3762

# Size List

## WP3

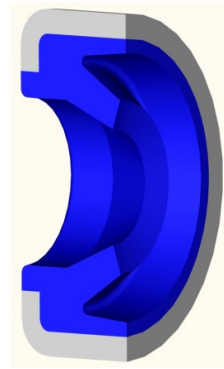


Size			Measure mm. / inch	Drawing No.
Shaft	Bore	Width		
1.750	2.250	0.312	inch	U5264
1.750	2.250	0.313	inch	U0233
1.750	2.250	0.328	inch	U1231
1.750	2.437	0.375	inch	U4478
1.750	2.500	0.375	inch	U4465
1.875	2.375	0.250	inch	U0833
1.875	2.375	0.312	inch	U5265
1.875	2.562	0.375	inch	U5467
2.000	2.375	0.187	inch	U5250
2.000	2.375	0.250	inch	U5261
2.000	2.500	0.250	inch	U4746
2.000	2.500	0.312	inch	U3336
2.000	2.500	0.328	inch	U1232
2.000	2.625	0.250	inch	U5817
2.000	2.686	0.375	inch	U4479
2.000	2.688	0.313	inch	U3007
2.000	2.750	0.375	inch	U4480
2.125	2.500	0.125	inch	U5816
2.125	2.625	0.250	inch	U5837
2.125	2.625	0.313	inch	U5838
2.125	2.875	0.375	inch	U4615
2.250	2.750	0.187	inch	U5815
2.250	2.750	0.250	inch	U5260
2.250	2.750	0.312	inch	U4539
2.250	2.750	0.313	inch	U0234
2.250	2.997	0.375	inch	U4473
2.250	3.000	0.250	inch	U5246
2.250	3.000	0.375	inch	U4643
2.345	2.727	0.210/0.226	inch	U1374
2.375	2.875	0.312	inch	U4481
2.375	3.125	0.375	inch	U5814
2.500	3.000	0.187	inch	U4654



# Size List

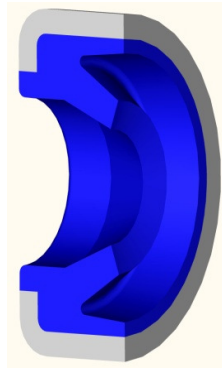
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Shaft	Size		Measure	Drawing No.
	Bore	Width	mm. / inch	
2.500	3.000	0.250	inch	U5360
2.500	3.000	0.312	inch	U3335
2.500	3.000	0.375	inch	U5259
2.500	3.250	0.250	inch	U5813
2.500	3.250	0.375	inch	U4505
2.500	3.500	0.375	inch	U5803
2.625	3.125	0.250	inch	U5106
2.734	3.250	0.313	inch	U4067
2.739	3.125	0.210/0.226	inch	U1375
2.750	3.250	0.187	inch	U5827
2.750	3.250	0.312	inch	U5258
2.750	3.250	0.313	inch	U0526
2.750	3.500	0.375	inch	U4467
2.750	3.750	0.500	inch	U5820
3.000	3.500	0.312	inch	U4516
3.000	3.750	0.250	inch	U5822
3.000	3.750	0.375	inch	U4493
3.000	4.000	0.500	inch	U4501
3.125	3.750	0.375	inch	U5865
3.131	3.518	0.210	inch	U1376
3.250	3.750	0.312	inch	U4502
3.250	3.875	0.312	inch	U4668
3.250	4.250	0.500	inch	U4540
3.500	4.000	0.312	inch	U4494
3.500	4.000	0.375	inch	U0827
3.500	4.125	0.312	inch	U3333
3.500	4.500	0.500	inch	U5034
3.528	3.920	0.210/0.226	inch	U1377
3.750	4.250	0.375	inch	U0826
3.750	4.375	0.312	inch	U4653
3.750	4.500	0.312	inch	U4495
3.750	4.750	0.500	inch	U5823

# Size List

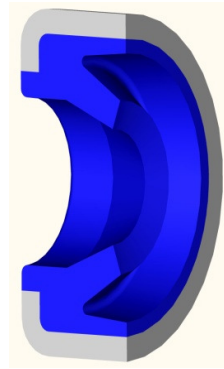
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Size			Measure mm. / inch	Drawing No.
Shaft	Bore	Width		
4.000	4.500	0.312	inch	U5796
4.000	4.5000	0.375	inch	U0825
4.000	4.625	0.312	inch	U4533
4.000	4.750	0.312	inch	U5098
4.000	5.000	0.500	inch	U5103
4.250	4.750	0.187	inch	U4650
4.250	4.750	0.312	inch	U5318
4.250	4.875	0.312	inch	U4498
4.500	5.125	0.312	inch	U4651
4.500	5.250	0.312	inch	U4667
4.500	5.500	0.500	inch	U5105
5.000	5.625	0.312	inch	U4534
5.000	5.750	0.312	inch	U4497
5.000	6.000	0.500	inch	U5099
5.250	5.750	0.312	inch	U5663
5.500	6.125	0.375	inch	U4503
5.500	6.250	0.312	inch	U5824
5.750	6.375	0.375	inch	U5104
6.000	6.625	0.375	inch	U4468
6.000	6.750	0.375	inch	U4499
6.500	7.250	0.312	inch	U5825
7.000	7.750	0.312	inch	U4504
7.000	8.000	0.500	inch	U5826
8.000	8.750	0.375	inch	U4744
16	23	5	mm	U2727
16	24	2.8	mm	U5905
16	26	7	mm	U4596
20	28	5	mm	U1245
20	30	7	mm	U4597
25	32	7	mm	U1246
25	35	4	mm	U5673
25	37	6	mm	U8602

# Size List

## WP3

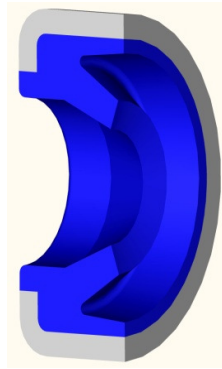


Size			Measure mm. / inch	Drawing No.
Shaft	Bore	Width		
25	38	7.5	mm	U2947
30	38	5	mm	U7532
30	40	4	mm	U4211
30	40	7	mm	U5101
30	43	7.5	mm	U0883
30	45	4	mm	U5897
35	45	4	mm	U4454
35	50	7.5	mm	U0882
36	46	7	mm	U2724
38	50	7.5	mm	U3861
40	50	3.18	mm	U5902
40	50	4	mm	U4455
40	50	5	mm	U5614
40	50	7	mm	U4462
40	50	8	mm	U7410
40	50	9	mm	U4474
40	52	6	mm	U6559
40	52	7	mm	U4394
40	55	9	mm	U4463
44	61.9	10	mm	U3821
44.45	61.94	9.52	mm	U5428
45	55	3.18	mm	U6878
45	55	3.2	mm	U4522
45	55	4	mm	U4456
45	55	4.2	mm	U4605
45	55	4.5	mm	U5662
45	55	5	mm	U0217
45	55	6	mm	U5756
45	55	7	mm	U8611
45	57	7	mm	U4518
45	60	5	mm	U5757
45	60	7.5	mm	U3517



# Size List

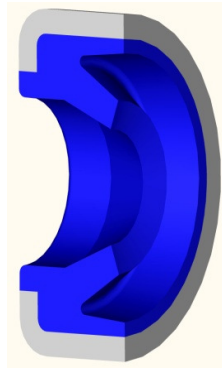
## WP3



Shaft	Size		Measure mm. / inch	Drawing No.
	Bore	Width		
50	60	4	mm	U4548
50	60	4.2	mm	U3521
50	60	4.5	mm	U5882
50	60	5	mm	U3105
50	60	6	mm	U5900
50	60	7	mm	U2725
50	62	7	mm	U3853
50	63	5	mm	U5610
50	63	7.5	mm	U7511
50	64	8	mm	U5247
50	65	5	mm	U5675
50	65	6	mm	U5901
50	65	7.5	mm	U0887
50	65	9	mm	U4475
51.5	66	4.75	mm	RD042
55	65	3.2	mm	U4769
55	65	5	mm	U4461
55	65	7	mm	U4492
55	68	6	mm	U5629
55	69	8	mm	U3854
55	70	5	mm	U5895
55	70	6	mm	U5674
55	70	7.5	mm	U3419
56	68	7	mm	U6477
56	70	7.5	mm	U5898
56	71	9	mm	U4483
60	70	5	mm	U3266
60	70	7	mm	U6581
60	73	6	mm	U5245
60	73	8	mm	U6515
60	74	8	mm	U3044
60	75	4	mm	U5653

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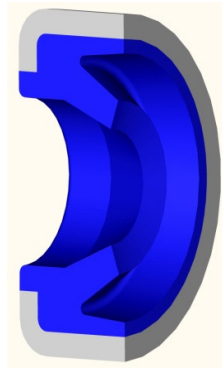
## WP3



Shaft	Size		Measure mm. / inch	Drawing No.
	Bore	Width		
60	75	5	mm	U5422
60	75	6	mm	U5642
60	75	7	mm	U4536
60	75	7.5	mm	U3106
60	75	8	mm	U8105
63	75	7	mm	U4466
63	78	7.5	mm	U4312
63	78	9	mm	U4484
63	83	10	mm	U6516
65	75	7	mm	U3855
65	79	8	mm	U3856
65	80	5	mm	U5644
65	80	7.5	mm	U2250
65	80	8	mm	U5881
70	80	5	mm	U7847
70	80	7	mm	U3857
70	80	8	mm	U7839
70	84	4	mm	U8607
70	84	7.5	mm	U1728
70	84	8	mm	U0936
70	85	5	mm	U5643
70	85	7	mm	U4543
70	85	7.5	mm	U2251
70	85	8	mm	U8106
70	85	10	mm	U5464
71	86	5	mm	U5628
71	86	6	mm	U5880
75	89	8	mm	U7779
75	90	6	mm	U5963
75	90	7.5	mm	U2441
75	90	8	mm	U5631
80	90	3.18	mm	U4523

# Size List

## WP3

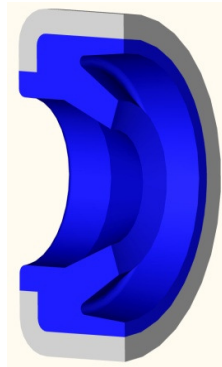


Shaft	Size		Measure mm. / inch	Drawing No.
	Bore	Width		
80	90	4.5	mm	U5741
80	90	6	mm	U7273
80	90	7	mm	U3445
80	90	8	mm	U7838
80	94	4	mm	U5856
80	94	8	mm	U2391
80	95	5	mm	U3303
80	95	6	mm	U5742
80	95	7.5	mm	U2397
80	95	8	mm	U8259
80	100	10	mm	U4046
85	95	5	mm	U6742
85	95	7	mm	U7742
85	95	8	mm	U7837
85	99	8	mm	U2852
85	100	4	mm	U8229
85	100	6	mm	U5097
85	100	8	mm	U5419
85	100	10	mm	U7603
85	105	10	mm	U3518
88.9	101.6	9.52	mm	U7208
88.9	107.95	7.93	mm	U5641
90	100	7	mm	U2787
90	100	8	mm	U7836
90	104	8	mm	U3088
90	105	6	mm	U2981
90	105	7	mm	U5249
90	105	8	mm	U8260
90	106	8	mm	U2784
90	110	7	mm	U4506
90	110	8	mm	U0734
90	110	10	mm	U2442



# Size List

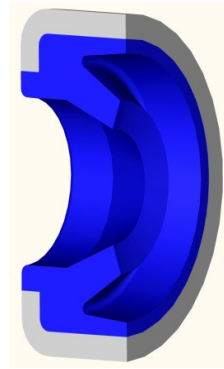
## WP3



Shaft	Size		Measure mm. / inch	Drawing No.
	Bore	Width		
95	109	8	mm	U5423
95	110	6	mm	U6176
95	110	8	mm	U4549
95.25	107.95	9.52	mm	U7005
100	110	7	mm	U6533
100	110	8	mm	U7832
100	114	8	mm	U3328
100	115	6	mm	U5984
100	115	6.5	mm	U4532
100	115	7	mm	U4496
100	115	7.5	mm	U2982
100	115	8	mm	U8104
100	115	9	mm	U1987
100	116	8	mm	U2785
100	120	4	mm	U6000
100	120	6.5	mm	U8107
100	120	7	mm	U7749
100	120	8	mm	U0736
100	120	10	mm	U2325
101.6	114.3	9.52	mm	U7019
105	120	7	mm	U6608
105	120	8	mm	U5420
110	120	7	mm	U7335
110	120	8	mm	U7833
110	125	4	mm	U5904
110	125	8	mm	U4500
110	125	9	mm	U4019
110	126	8	mm	U2783
110	126	9	mm	U2694
110	128	8	mm	U8612
110	130	8	mm	U5096
110	130	9	mm	U3523

# Size List

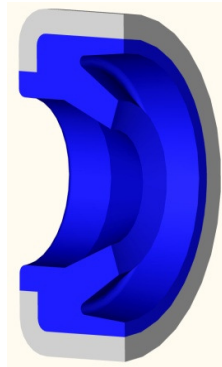
## WP3



Size			Measure mm. / inch	Drawing No.
Shaft	Bore	Width		
110	130	10	mm	U2983
110	140	8	mm	U7505
115	130	8	mm	U4314
115	135	8	mm	U5850
120	130	7	mm	U7114
120	130	8	mm	U7834
120	135	8	mm	U2365
120	136	9	mm	U0939
120	140	8	mm	U2655
120	140	10	mm	U0938
120	150	12	mm	U4395
125	140	8	mm	U5421
125	140	9	mm	U4535
125	145	8	mm	U7008
130	145	7.5	mm	U2678
130	146	9	mm	U0937
130	150	7.5	mm	U1510
130	150	8	mm	U3803
130	150	9	mm	U5215
130	150	10	mm	U4425
130	154	8	mm	U3268
130	155	8	mm	U8108
130	155	10	mm	U5849
130	160	12	mm	U4396
140	155	8	mm	U7848
140	160	8	mm	U7829
140	160	10	mm	U3468
140	162	7.5	mm	U1511
140	162	7.5	mm	U5122
140	164	8	mm	U7789
140	165	8	mm	U7280
140	170	8	mm	U5266

# Size List

# WP3



Shaft	Size		Measure mm. / inch	Drawing No.
	Bore	Width		
140	170	12	mm	U7781
145	160	10	mm	U7830
150	165	8	mm	U5276
150	170	10	mm	U5132
150	175	8	mm	U5267
150	175	9	mm	U2366
150	180	10	mm	U7215
160	175	10	mm	U7007
160	180	5	mm	U8071
160	180	8	mm	U7831
160	180	10	mm	U3267
160	184	8	mm	U5277
160	190	9	mm	U2367
160	190	10	mm	U5268
170	190	8	mm	U5630
170	190	9	mm	U2368
170	200	10	mm	U2369
175	195	10	mm	U5667
180	195	9	mm	U6280
180	200	10	mm	U4397
200	220	10	mm	U8289
200	225	12	mm	U6729
215	240	10	mm	U5676
220	240	16	mm	U5209
230	250	12	mm	U5317







## Subsidiary map

### Existing subsidiaries worldwide

● Factory

● Service office & warehouse



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