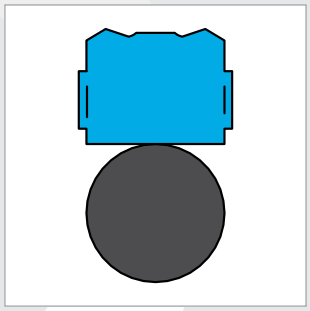


PISTON SEALS

BECA 520-522-524

DESCRIPTION

The BECA 520-522-524 profiles are double acting composite piston seals composed of a pre-tightened rubber O'Ring and a custom-made polyurethane friction ring.

ADVANTAGES

Optimal sealing in static and dynamic applications

Excellent abrasion and wear resistance

Assembled by deformation

APPLICATIONS

Agriculture

Light and medium-sized industry

Machine tools

Material handling/Lifting

MATERIALS

Friction ring

PU 93 Shore A - Blue

PU 96 Shore A - Blue

High temp. PU 96 Shore A - Beige

TPC-E (Hytrel)

O'Ring

NBR 70 Shore A

Other grades of materials are available. Please refer to the materials table on the next page.

TECHNICAL DATA

Temperature	-30°C / +100°C
Pressure	25 MPa
Speed	0.5 m/sec
Media	Mineral hydraulic oils

The figures above indicate the maximum values and may not be cumulated. They may be developed, depending on the materials used.

EXTRUSION GAPS

Radial section S	Radial gap F/2
2.45	0.20
3.75	0.25
5.50	0.25
7.75	0.30
10.50	0.30
12.25	0.35
14.00	0.35
19.00	0.40

SURFACE ROUGHNESS

Roughness	Dynamic surface area	Static surface area	Groove flanks
Ra	0.1 - 0.4 µm	≤1.6 µm	≤3.2 µm
Rz	0.63 - 2.5 µm	≤6.3 µm	≤10.0 µm
Rmax	1.0 - 4.0 µm	≤10.0 µm	≤16.0 µm

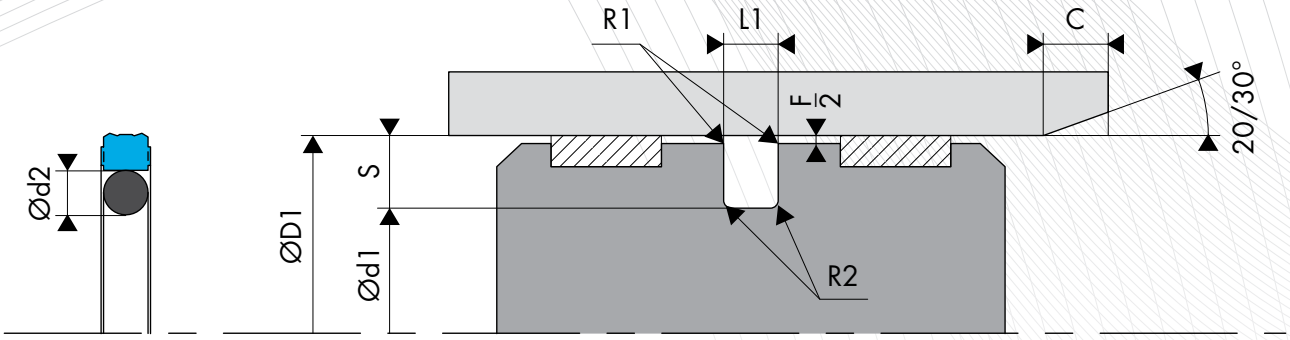
CHAMFERS AND RADIUS

Radial section S	Radius R1	Radius R2	Chamfer C
2.45	0.30	0.40	3.00
3.75	0.30	0.60	3.00
5.50	0.30	1.00	3.00
7.75	0.30	1.30	5.00
10.50	0.30	1.80	6.00
12.25	0.30	1.80	8.00
14.00	0.30	2.50	10.00
19.00	0.30	3.00	12.00

TABLE MATERIALS

Friction ring					O'Ring			Mating surface material
Standard code	ISO code	Material	Colour	Characteristics	Code	Type of material	Service temperature	
HG	HG	PE-UHMW	White or off-white	Excellent wear resistance on contact with water and air	K6	NBR 70 Shore A	-30°C/+80°C	Steel Stainless steel Chrome steel Aluminium Bronze Cast iron Treated surface
PU	U	Polyurethane	Blue	Strong mechanical resistance Good resistance to wear and abrasion High elasticity modulus Good flexibility Very good resistance to ozone and oxidation	K6	NBR 70 Shore A	-30°C/+90°C	
PUHT	U	High-temperature polyurethane	White or off-white		K6	NBR 70 Shore A	-30°C/+100°C	

Other grades of materials are available depending on your specificities.



INSTALLATION DIMENSIONS

Bore diameter ØD1 H9			Groove diameter	Groove width	Radial section	O'Ring cross-section
BECA 520 Standard range	BECA 522 Light range	BECA 524 Heavy-duty range	Ød1 h9	L1 0/+0.20	S	Ød2
8.0 - 14.9	15.0 - 39.9	---	D1 - 4.90	2.20	2.45	1.78
15.0 - 39.9	40.0 - 79.9	---	D1 - 7.50	3.20	3.75	2.62
40.0 - 79.9	80.0 - 132.9	15.0 - 39.9	D1 - 11.00	4.20	5.50	3.53
80.0 - 132.9	133.0 - 329.9	40.0 - 79.9	D1 - 15.50	6.30	7.75	5.33
133.0 - 329.9	330.0 - 669.9	80.0 - 132.9	D1 - 21.00	8.10	10.50	6.99
330.0 - 669.9	670.0 - 999.9	133.0 - 329.9	D1 - 24.50	8.10	12.25	6.99
670.0 - 999.9	1000.0 - **	330.0 - 669.9	D1 - 28.00	9.50	14.00	8.40
1000.0 - **	---	1000.0 - **	D1 - 38.00	13.80	19.00	12.00

EXAMPLE OF CODIFICATION

STANDARD CODIFICATION

Materials _____ : Polyurethane friction ring - Code PU
_____ : NBR 70 Shore A O'Ring - Code K6
Bore diameter ____ : ØD1 = 50.00 mm
Groove diameter __ : Ød1 + 39.00 mm
Part number_____ : 520. 050PUK6

Part number - 520. 050 PU K6

- 520. — Family
- 050 — Bore diameter
- PU — Friction ring material*
- K6 — O'Ring material*

* The codes that define the materials are set out in the materials table on the previous page.

DIMENSIONS

Part number	Bore diameter ØD1 H9	Groove diameter Ød1 h9	Groove width L1 0/+0.20
520.008	8.00	3.10	2.20
520.010	10.00	5.10	2.20
520.012	12.00	7.10	2.20
520.014	14.00	9.10	2.20
520.015	15.00	7.50	3.20
520.016	16.00	8.50	3.20
520.018	18.00	10.50	3.20
520.020	**20.00**	**12.50**	**3.20**
520.021	21.00	13.50	3.20
520.022	22.00	14.50	3.20
520.024	24.00	16.50	3.20
524.025	**25.00**	**14.00**	**4.20**
520.025	**25.00**	**17.50**	**3.20**
520.028	28.00	20.50	3.20
520.030	**30.00**	**22.50**	**3.20**
524.032	**32.00**	**21.00**	**4.20**
520.032	**32.00**	**24.50**	**3.20**
520.035	35.00	27.50	3.20
520.036	36.00	28.50	3.20
520.038	38.00	30.50	3.20
520.040	**40.00**	**29.00**	**4.20**
522.040	**40.00**	**32.50**	**3.20**
520.042	42.00	31.00	4.20
520.045	45.00	34.00	4.20
520.048	48.00	37.00	4.20
524.050	**50.00**	**34.50**	**6.30**
520.050	**50.00**	**39.00**	**4.20**
520.052	52.00	41.00	4.20
520.053	53.00	42.00	4.20
520.055	55.00	44.00	4.20
520.057	57.00	46.00	4.20
520.058	58.00	47.00	4.20
520.060	**60.00**	**49.00**	**4.20**
520.062	62.00	51.00	4.20
524.063	**63.00**	**47.50**	**6.30**
520.063	**63.00**	**52.00**	**4.20**
520.065	65.00	54.00	4.20
520.068	68.00	57.00	4.20
520.070	**70.00**	**59.00**	**4.20**
520.072	72.00	61.00	4.20
520.075	75.00	64.00	4.20
520.080	**80.00**	**64.50**	**6.30**
522.080	**80.00**	**69.00**	**4.20**
520.082	82.00	66.50	6.30
520.085	85.00	69.50	6.30
520.087	87.00	71.50	6.30
520.090	**90.00**	**74.50**	**6.30**
520.092	92.00	76.50	6.30
520.095	95.00	79.50	6.30
520.100	**100.00**	**84.50**	**6.30**
522.100	**100.00**	**89.00**	**4.20**
520.105	105.00	89.50	6.30
520.108	108.00	92.50	6.30
520.110	110.00	94.50	6.30
520.115	115.00	99.50	6.30
520.120	120.00	104.50	6.30

Part number	Bore diameter ØD1 H9	Groove diameter Ød1 h9	Groove width L1 0/+0.20
524.125	**125.00**	**104.00**	**8.10**
520.125	**125.00**	**109.50**	**6.30**
520.127	127.00	111.50	6.30
520.130	130.00	114.50	6.30
520.132	132.00	116.50	6.30
520.135	135.00	114.00	8.10
520.140	140.00	119.00	8.10
520.145	145.00	124.00	8.10
520.150	150.00	129.00	8.10
520.155	155.00	134.00	8.10
520.160	**160.00**	**139.00**	**8.10**
522.160	**160.00**	**144.50**	**6.30**
520.165	165.00	144.00	8.10
520.170	170.00	149.00	8.10
520.175	175.00	154.00	8.10
520.180	180.00	159.00	8.10
520.185	185.00	164.00	8.10
520.190	190.00	169.00	8.10
520.195	195.00	174.00	8.10
520.200	**200.00**	**179.00**	**8.10**
522.200	**200.00**	**184.50**	**6.30**
520.205	205.00	184.00	8.10
520.210	210.00	189.00	8.10
520.215	215.00	194.00	8.10
520.220	220.00	199.00	8.10
520.230	230.00	209.00	8.10
520.240	240.00	219.00	8.10
524.250	**250.00**	**225.50**	**8.10**
520.250	**250.00**	**229.00**	**8.10**
520.260	260.00	239.00	8.10
520.270	270.00	249.00	8.10
520.280	280.00	259.00	8.10
520.290	290.00	269.00	8.10
520.300	300.00	279.00	8.10
520.310	310.00	289.00	8.10
524.320	**320.00**	**295.50**	**8.10**
520.320	**320.00**	**299.00**	**8.10**
520.330	330.00	305.50	8.10
520.340	340.00	315.50	8.10
520.350	350.00	325.50	8.10
520.360	360.00	335.50	8.10
520.370	370.00	345.50	8.10
520.380	380.00	355.50	8.10
520.390	390.00	365.50	8.10
520.400	400.00	375.50	8.10
520.410	410.00	385.50	8.10
520.420	420.00	395.50	8.10
520.430	430.00	405.50	8.10
520.440	440.00	415.50	8.10
520.450	450.00	425.50	8.10
520.460	460.00	435.50	8.10
520.470	470.00	445.50	8.10
520.480	480.00	455.50	8.10
520.490	490.00	465.50	8.10
520.500	500.00	475.50	8.10

The figures highlighted in bold correspond to the dimensions for standard ISO 7425/1, with the bore diameters in line with standard ISO 3320. Other intermediate sizes can be provided.

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