# **BJ920N Single Seals**

## **Standard Mechanical Seals - Pusher Seals**



#### **Product Description**

- 1. Single seal configuration
- 2. Balanced design
- 3. Independent of direction of rotation
- 4. For plain shafts
- 5. Rotary unit with encapsulated spring design

### **Technical Features**

- 1. Compact design with rugged construction
- 2. Capable of withstanding high pressure
- 3. O-ring is dynamically loaded to prevent shaft damage.
- 4. Can handle media with solid content and viscous media
- 5. Can handle sterile and vacuum application
- 6. Springs are product protected to avoid contamination



Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.

ltem	Part no.	Description						
1.1	472/473	Seal face						
1.2	485	Drive collar						
1.3	412.2	O-ring						
1.4	412.1	O-ring						
1.5	477	Spring						
1.6	904	Set screw						
2	475	Seat (G16)						
3	412.3	O-ring						
DIN 24250								

Typical Industrial Applications										
Dirty & abrasive media Food & dairy technology Media with solids Pulp & paper Raw sludge Sewage	Slurries Sterile technology Sugar Thick juice Water & waste water									

Performance Capabilities						
Sizes	d <sub>1</sub> * = Upto 100 mm (Upto 4.000")					
Pressure	p <sub>1</sub> <sup>*)</sup> = 0.8abs25 bar (12abs363 PSI)					
Temperature	t = -50 °C220 °C (-58 °F +428 °F)					
Speed	20 m/s (66 ft/s)					

\*<sup>1</sup> An integral stationary seat lock is not needed within the permissible low pressure range. For prolonged operation under vacuum it is necessary to arrange for quenching on the atmosphere.

Permissible Axial Movement ± 1.0 mm

Standards

Notes

EN 12756

Variant for sterile applications available. Please enquire.

Materials							
Seal face	Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B),						
Seat G16	Silicon carbide (Q1)						



								De	esign	Variatio	ons									
BJ927GN (Wave Spring)							L2 K3 K4 K4 K4 K4 K4 K4 K4 K4 K4 K4								ba ba ba ba ba ba ba ba Wave Spring) 1.6 1.4 1.5 2.3 1.8 1.2 1.3 1.5 1.1 BJ970GN (Wave Spring) BJ470GN (Multiple Spring)					
BJ927GN						_	BJ977G	N					_	BJ970GN						
Items and description as BJ920N       Seal face     Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B)					e	tems an Seal face Seat G40 nstallatio	as BJ9 carbide carbide			Items and description as BJ920N   Seal face Silicon carbide (Q12)   Seat G16 Silicon carbide (Q1)   2) Installations length I <sub>12</sub> (= I <sub>13</sub> + I <sub>19</sub> ) is shorter										
1) Installa	o Joillo ations le	on can		12) L)ieli	onger		Operatin	°0 14		_										
than $I_{1k}$		ingur 1 <sub>1</sub>	1 ( <b>- 1</b> <sub>3</sub> 1	1 <sub>39</sub> / 13 1	onger	ן 	Tempera	ture t =	20 (-4 °	F +35	6°F)									
						<u> </u>	speeu	-	TO M	18 (33 11/	s)									
BJ427GI Items an with proc for high p	BJ427GN Items and description as BJ927GN with product-protected multiple springs, for high pressure applications						BJ477GN Items and description as BJ977GN with product-protected multiple springs, for high pressure applications							BJ470GN Items and description as BJ970GN with product-protected multiple springs, for high pressure applications						
Pressure p = max. 50 bar (725 PSI)   Shaft diameter d <sub>1</sub> > 100 mm (4.000") smaller diameters and higher pressures on request.						Pressure $p = max. 50 bar (725 PSI)$ Shaft diameter $d_1 > 100 mm (4.000")$ smaller diameters and higher pressures on request.					51)	Pressurep = max. 50 bar (725 PSI)Shaft diameterd1 > 100 mm (4.000")Smaller diameters and higher pressures on request.					igher			
								Di	imens	ional Da	ta									
Dimens	sions in	millime	eter																	
d <sub>1</sub>	d <sub>3</sub>	d <sub>6</sub>	<b>d</b> <sub>7</sub>	d <sub>8</sub>	d <sub>m</sub>	I <sub>1k</sub>	I <sub>3</sub>	I <sub>5</sub>	6	I <sub>7</sub>	I <sub>18</sub>	I <sub>19</sub>	I <sub>11</sub> 1	) 1 <sub>12</sub> 2)	I <sub>13</sub>	I <sub>38</sub>	1 <sub>39</sub>	f	m <sub>x</sub>	
18	32	27	33	3	26.0	37.5	30.5	2.0	5	9	15.0	7.0	39.5	5 35.5	28.5	17.0	9.0	3.0	M4	
20	34	29	35	3	28.0	37.5	30.5	2.0	5	9	15.0	7.0	39.5	5 35.5	28.5	17.0	9.0	3.0	M4	
22	36	31	37	3	30.0	37.5	30.5	2.0	5	9	15.0	7.0	39.5	5 35.5	28.5	17.0	9.0	3.0	M4	
24	38	33	39	3	32.5	40.0	33.0	2.0	5	9	15.0	7.0	42.0	38.0	31.0	17.0	9.0	3.5	M5	
25	39	34	40	3	33.5	40.0	33.0	2.0	5	9	15.0	7.0	42.0	) 38.0	31.0	17.0	9.0	3.5	M5	
28	42	37	43	3	36.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	) 40.0	33.0	17.5	9.5	3.5	M5	
30	44	39	45	ა ვ	38.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	) 40.0	33.0	17.5	9.5	3.5 3.5	CIVI M5	
33	47	42	48	3	41.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	40.0	33.0	17.5	9.5	3.5	M5	
35	49	44	50	3	43.5	42.5	35.5	2.0	5	9	15.0	7.0	45.0	) 40.0	33.0	17.5	9.5	3.5	M5	
38	54	49	56	4	47.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	5 42.5	34.5	18.5	10.5	4.0	M5	
40	56	51	58	4	49.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5	
43	59	54	61	4	52.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	6 42.5	34.5	18.5	10.5	4.0	M5	
45	61	56	63	4	54.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	5 42.5	34.5	18.5	10.5	4.0	M5	
48	64	59	66	4	57.5	45.0	37.0	2.0	6	9	16.0	8.0	47.5	42.5	34.5	18.5	10.5	4.0	M5	
50	66	62	70	4	59.5	47.5	38.0	2.5	6	9	17.0	9.5	50.0	45.0	35.5	19.5	12.0	4.5	M6	
53	69 71	67	73	4	64.5	47.5	38.0	2.5	6	9	17.0	9.5	50.0	45.0	35.5	19.5	12.0	4.5	Me	
58	78	70	78	4	68.5	47.5 52.5	42.0	2.5	6	g	18.0	9.5 10.5	55.0	, 40.0 ) 50.0	39.5	20.5	13.0	4.5	M6	
60	80	72	80	4	70.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	) 50.0	39.5	20.5	13.0	4.5	M6	
63	83	75	83	4	73.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	50.0	39.5	20.5	13.0	4.5	M6	
65	85	77	85	4	75.5	52.5	42.0	2.5	6	9	18.0	10.5	55.0	50.0	39.5	20.5	13.0	4.5	M6	
68	88	81	90	4	78.5	52.5	41.5	2.5	7	9	18.5	11.0	55.0	) 50.0	39.0	21.0	13.5	4.5	M6	
70	90	83	92	4	80.5	60.0	48.5	2.5	7	9	19.0	11.5	62.5	5 57.5	46.0	21.5	14.0	5.0	M6	
75	99	88	97	4	89.0	60.0	48.5	2.5	7	9	19.0	11.5	62.5	5 57.5	46.0	21.5	14.0	5.5	M8	
80	104	95	105	4	94.0	60.0	48.5	3.0	7	9	19.0	11.5	62.5	57.5	46.0	21.5	14.0	5.5	M8	
85	109	100	110	4	99.0	60.0	48.5	3.0	7	9	19.0	11.5	62.5	57.5	46.0	21.5	14.0	5.5	M8	
90	114	105	115	4	104.0	65.0	52.0	3.0	7	9	20.5	13.0	67.5	62.5	49.5	23.0	15.5	5.5	M8	
95	104	110	120	4	114.0	05.0	52.0	3.0	7	9	20.5	13.0	67.5	62.5	49.5	23.0	15.5	5.5 5.5	N/O	
100	124	115	125	4	114.0	05.0	52.0	3.0	1	9	20.5	13.0	67.5	62.5	49.5	23.0	15.5	5.5	NI8	

inch size available from size 0.750 to 4.000

Note: Additional technical & dimensional information will be provided on request.

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