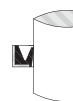


SEALING RINGS



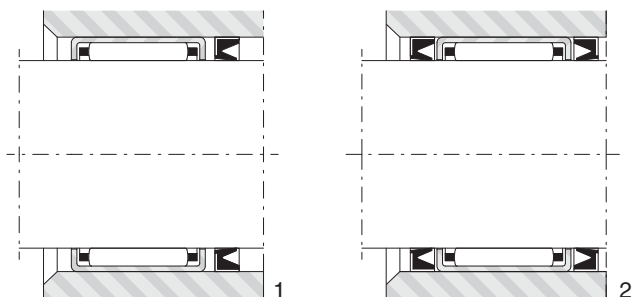
Technical features

Sealing rings

Nadella sealing rings type **DH**, made in synthetic rubber and incorporating a metal insert, have the same inner and outer dimensions as Nadella needle bushes and the radial portion of the combined bearings type **RAX 700**. The recommended housing and shaft tolerances for these bearings ensure a tight fit of the sealing ring in the housing bore and the optimum friction between lip and shaft. The simple installation of this seal, requiring no special machining, provides a very economical seal within a minimum space.

In the case of grease lubrication, the seal should be installed with the lip facing away from the bearing (fig. 1) to enable expulsion of old grease when replenishing by means of a pump.

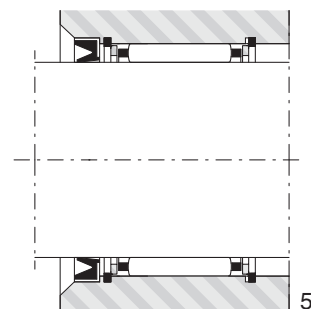
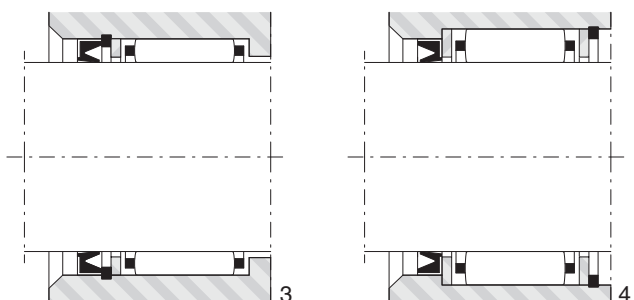
For oil lubrication, installation the opposite way is recommended (fig. 2). If the prevailing conditions are particularly dirty, it may be necessary to protect the seal additionally by means of a labyrinth.



Sealing rings may also be used with needle cages having the same shaft and housing diameters (fig. 3) or with those having larger or smaller housing diameters than that of the seal (fig. 4 and fig. 5).

The hardness and surface finish required for the raceway on the shaft enable these sealing rings to operate at circumferential speeds of 10-12 m/s, providing lubrication is adequate.

Standard type **DH** sealing rings will operate satisfactorily at temperatures from -20°C to + 120°C. For conditions outside this temperature range, please consult Nadella Technical Department.



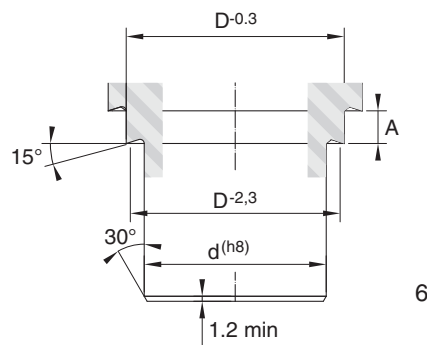
INSTALLATION

Type **DH** sealing rings should be smeared with grease before mounting- on the outside diameter to facilitate assembly and avoid damage and on the inside to prevent dry operation when starting from rest.

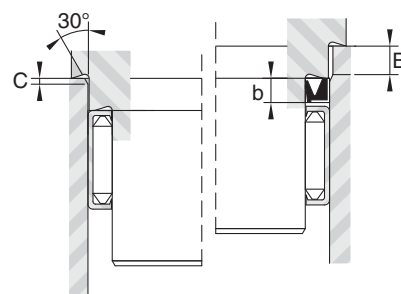
The edge of the housing bore should be chamfered to prevent damage to the seal and to facilitate assembly. A small press should be used for this purpose - such as that used to install needle bushes, in order to guide the sealing ring parallel to the axis of the housing bore.

The needle bush and the sealing ring must be installed separately in two distinct operations. The same mandrel (fig. 6) may be used for both operations: the seal installation being effected by limiting the mandrel stroke with a spacer (fig. 7).

In order to prevent the risk of damage to the seal lip, the shaft end must be chamfered.



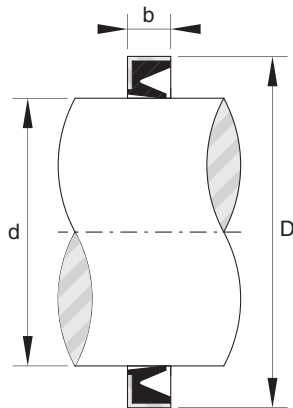
$$A = b + 1.2 \div 1.4$$



$$B = b + (0.3 \div 0.5)$$

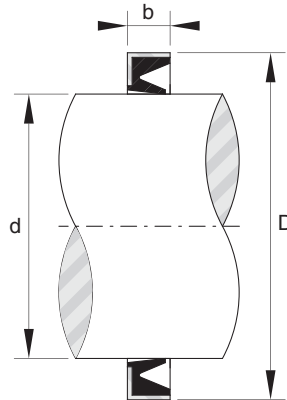
$$C = 0.5 \div 0.7$$

Sealing rings



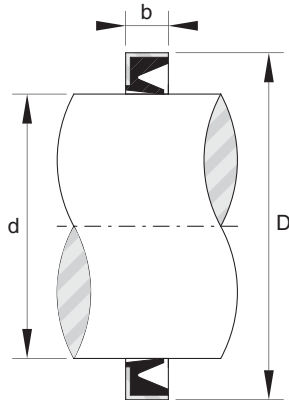
Shaft ∅ mm	Designation	d mm	D mm	b mm	Speed rating min ⁻¹	Weight g
5	DH 5x9x2	5	9	2	22500	0.21
6	DH 6x10x2	6	10	2	20000	0.3
	DH 6x12x2	6	12	2	20000	0.5
7	DH 7x11x2	7	11	2	15000	0.34
	DH 7x14x2	7	14	2	15000	0.55
8	DH 8x12x3	8	12	3	15000	0.55
	DH 8x15x3	8	15	3	15000	1.1
9	DH 9x13x3	9	13	3	12500	0.69
10	DH 10x14x3	10	14	3	12500	0.74
12	DH 12x16x3	12	16	3	10000	0.8
	DH 12x18x3	12	18	3	10000	1.29
	DH 12x19x3	12	19	3	10000	1.61
13	DH 13x19x3	13	19	3	10000	1.37
14	DH 14x18x2.5	14	18	2.5	9000	1.03
	DH 14x20x3	14	20	3	9000	1.4
	DH 14x22x3	14	22	3	9000	1.98
15	DH 15x21x3	15	21	3	9000	1.5
	DH 15x23x3	15	23	3	9000	1.54
16	DH 16x20x2.5	16	20	2.5	8500	1.22
	DH 16x22x3	16	22	3	8500	1.52
	DH 16x24x3	16	24	3	8500	1.56

Sealing rings



Shaft Ø mm	Designation	d mm	D mm	b mm	Speed rating min ⁻¹	Weight g
17	DH 17x23x3	17	23	3	8000	1.54
	DH 17x25x3	17	25	3	8000	1.61
18	DH 18x24x3	18	24	3	8000	1.55
	DH 18x26x4	18	26	4	8000	1.7
19	DH 19x27x4	19	27	4	7500	1.8
20	DH 20x24x2.5	20	24	2.5	7500	1.48
	DH 20x26x4	20	26	4	7500	1.59
	DH 20x28x4	20	28	4	7500	1.99
21	DH 21x29x4	21	29	4	7000	2.18
22	DH 22x26x2.5	22	26	2.5	7000	1.52
	DH 22x28x4	22	28	4	7000	1.65
	DH 22x30x4	22	30	4	7000	2.8
24	DH 24x32x4	24	32	4	6500	3.8
25	DH 25x31x2.5	25	31	2.5	6500	1.84
	DH 25x32x4	25	32	4	6500	2.15
	DH 25x33x4	25	33	4	6500	4.2
26	DH 26x34x4	26	34	4	6000	4.3
28	DH 28x35x4	28	35	4	6000	4
	DH 28x37x4	28	37	4	6000	4.64
29	DH 29x38x4	29	38	4	6000	4.95
30	DH 30x36x2.5	30	36	2.5	5500	2
	DH 30x37x4	30	37	4	5500	4.57
	DH 30x40x4	30	40	4	5500	5.15

Sealing rings



Shaft ∅ mm	Designation	d mm	D mm	b mm	Speed rating min ⁻¹	Weight g
32	DH 32x42x4	32	42	4	5500	5.5
	DH 32x45x4	32	45	4	5500	6.15
35	DH 35x41x2.5	35	41	2.5	5000	2.16
	DH 35x42x4	35	42	4	5000	5.3
	DH 35x45x4	35	45	4	5000	5.65
37	DH 37x47x4	37	47	4	5000	7.5
38	DH 38x48x4	38	48	4	5000	7.6
40	DH 40x47x4	40	47	4	4700	6.2
	DH 40x50x4	40	50	4	4700	8.01
42	DH 42x49x5	42	49	5	4500	5
	DH 42x52x4	42	52	4	4500	8.4
45	DH 45x52x4	45	52	4	4500	6.7
	DH 45x55x4	45	55	4	4500	8.9
48	DH 48x55x3.5	48	55	3.5	4200	6.8
50	DH 50x58x4	50	58	4	4000	6.95
	DH 50x62x5	50	62	5	4000	10.9
52	DH 52x59x3.5	52	59	3.5	4000	7.1
58	DH 58x65x3.5	58	65	3.5	3700	7.8