

Non-Contact Seals

CF Seal for spindle bearings

Non-Contact Seals Type CF are specifically designed for spindle bearings and offer highest efficiency with absolutely leak tightness within a minimized space of 6 mm width only.

The labyrinth design is a combination of gaps in axial and radial direction in five steps. The axial gaps are shielding while the radial gaps are providing back transport.

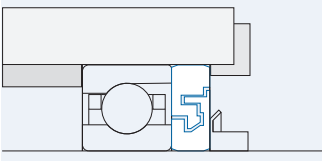
A catching groove improves the sealing efficiency – even without any shaft rotation. The option of saving sealing air and increased maintenance intervals are offering a considerable commercial progress and advantage.

CF 60 Part name	d mm	D mm	W mm	e1 mm	e2 mm	weight kg	part no.
CF 6004 S10	20	42	6	28	38	0,051	307082
CF 6005 S10	25	47	6	33	43	0,059	307085
CF 6006 S10	30	55	6	39	49	0,079	307089
CF 6007 S10	35	62	6	45	55	0,097	307093
CF 6008 S10	40	68	6	50	60	0,113	307097
CF 6009 S10	45	75	6	55	65	0,134	307101
CF 6010 S10	50	80	6	60	70	0,145	307105
CF 6011 S10	55	90	6	67	77	0,189	307109
CF 6012 S10	60	95	6	72	82	0,202	307113
CF 6013 S10	65	100	6	77	87	0,215	307117
CF 6014 S10	70	110	6	83	93	0,268	307121
CF 6015 S10	75	115	6	89	99	0,283	307125
CF 6016 S10	80	125	6	94	104	0,343	307129
CF 6017 S10	85	130	6	100	110	0,360	307133
CF 6018 S10	90	140	6	107	117	0,428	307137
CF 6019 S10	95	145	6	112	122	0,447	307141
CF 6020 S10	100	150	6	117	127	0,465	307145

CF 619 Part name	d mm	D mm	W mm	e1 mm	e2 mm	weight kg	part no.
CF 61908 S10	40	62	6	48	58	0,084	307149
CF 61909 S10	45	68	6	53	63	0,097	307153
CF 61910 S10	50	72	6	58	68	0,100	307157
CF 61911 S10	55	80	6	63	73	0,126	307161
CF 61912 S10	60	85	6	68	78	0,135	307165
CF 61913 S10	65	90	6	73	83	0,144	307169
CF 61914 S10	70	100	6	80	90	0,190	307173
CF 61915 S10	75	105	6	85	95	0,201	307177
CF 61916 S10	80	110	6	90	100	0,212	307181

Assembly

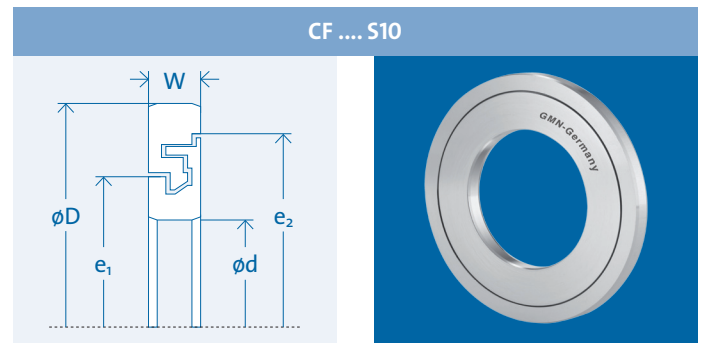
The bigger gap diameter e2 (marked side) must always face the splashing contamination.



The seal is designed to be assembled directly in contact to the spindle bearing. Inner- and outer ring must be secured axially. The spindle bearing could be preloaded directly through the seal.



Type CF 60 / 619 ..S10



Technical data

material: steel
 hardness: ≥ 45 HRC
 plan parallelism: $\leq 5 \mu\text{m}$
 range of temperature: $-40^\circ\text{C} - 170^\circ\text{C}$
 speed limit: none

Sealing Gap CF-profile:

axial clearance: $S_{ax} = 1 \text{ mm}^*$
 radial clearance: $S_{rad} = 0,5 \text{ mm}^*$

*total axial respectively radial movement.

Tolerances of the seal:

width W: 6 mm (0/ -20 μm)

bore inner ring d [mm]				
above	18	30	50	80
to	30	50	80	120
max. tolerance [μm]	10	12	14	16
min. tolerance [μm]	0	0	0	0
outer diameter outer ring D [mm]				
above	30	50	80	120
to	50	80	120	150
max. tolerance [μm]	0	0	0	0
min. tolerance [μm]	-12	-14	-16	-18

Series CF...S10 seals are positioned between the spindle bearing and the shaft nut without any axial mobility. For this reason there is no speed limit in this specific adjustment.

Characteristics and benefits:

No friction · no wear · no abrasion · no increased · temperatures unlimited speed · performance efficient · energy-efficient · space saving · tight, even if the shaft stands still · easy to assemble