FK 3 ASK
Single laminar sealing rings combined
for bores

Application "FK3 ASK" Outside clamping combined single rings (5 rings = 1 set)
Single wound laminar sealing rings "FK3 ASK" are used as a grease seal for roller and plain bearings and they protect, if greased, against dust entry and ambient moisture. Due to the increased labyrinth effect, the sealing effect is optimized by the additional sealing of the groove base diameter.

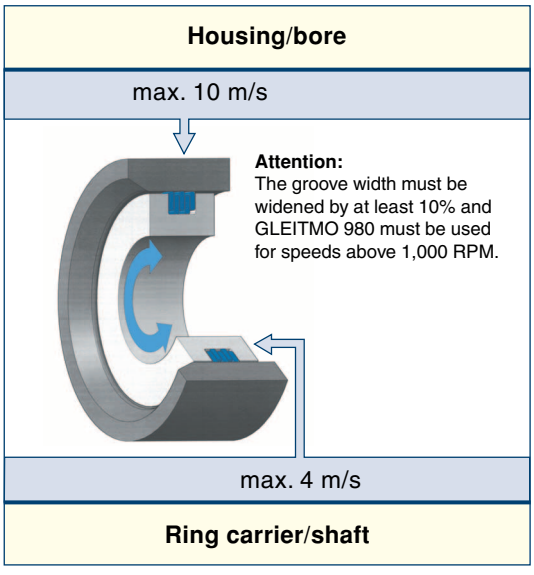
The "FK3 AS" or "FK3 ASK" assemblies are normally preferred over the "FK3 IS" or "FK3 ISK" assemblies due to their easier installation into the grooves. Depending on the applications or the technical requirements, the ring carriers can be manufactured from steel, cast iron, light alloy or plastics.

Ring materials

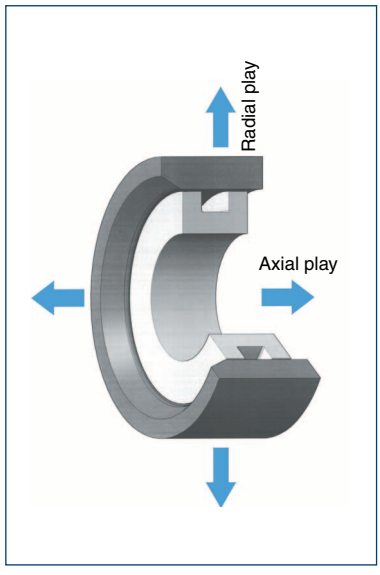
Steel type	Spring resistant up to	Hardness	Surface protection	Surface color
C75S - DIN 1.0605	max. +300°C	on request [1])	oiled	variable [2])
C60E - DIN 1.1221	max. +300°C	on request [1])	oiled	variable [2])
50CrV4 - DIN 1.8159	max. +400°C	on request [1])	oiled	variable [2])
CrNi - DIN 1.4310	max. +450°C	on request [1])	bright and dry	variable [2])

[1]) Variable depending on the thermal treatment type! Hardness values depending on ring cross section measured in Rockwell HRA or HRC.
[2]) The surface color can vary depending on the thermal treatment type: bright, light brown or blackened.

Permissible circumferential speed (in m/s)



Axial and/or radial play [3])



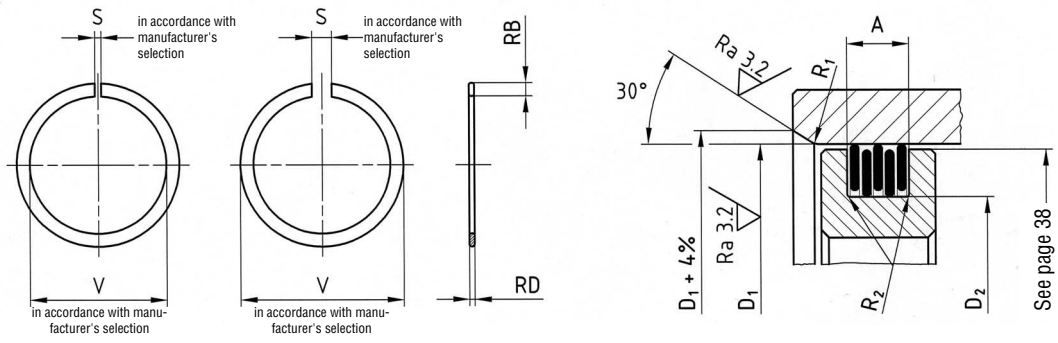
FK3 ASK ring set [4])

Axial and/or radial play [3]):
The groove width "A" must be widened by twice the play if play occurs in the area of the rings. The groove base diameter "D_2" must be reduced by the radial play if radial play occurs. Damage to the rings and the surrounding components occurs if this is not adhered to. It is recommended to use the full groove width tolerances, especially in the case of thermal expansion.

Installation information:
See pages 38 and 39.

Order information [4]):
The ring diameter information must match the housing or bore diameter dimensions "D_1" for all inquiries and/or orders. The rings can be ordered individually or in sets (1 set = 3 AS rings + 2 IS rings).

Run and installation tests:
Run and installation tests under operating conditions must be performed in each case before standard production of our laminar rings can begin to determine whether the desired sealing effects can be achieved.



Nominal dimension		Ring dimensions				Groove dimensions					
Bore D_1	Tolerance	RB	Tolerance	RD	Tolerance	D_2 = D_1 minus	Tolerance	A	Tolerance	R_1	R_2
15 - 24.9 25 - 29.9 30 - 35.9	H 6 H 7	1.0 1.2 1.5	+ 0.1 - 0.1	0.65 0.65 0.65	+ 0.04 - 0.02	- 2.6 - 3.0 - 3.6	+ 0 - 0.2	3.6 3.6 3.6	+ 0.1 - 0	min. 1	0.1
36 - 42.9 43 - 48.9 49 - 51.9		1.8 2.2 2.4		0.65 0.72 0.72		- 4.2 - 5.0 - 5.4		3.6 4.0 4.0			
52 - 59.9 60 - 69.9 70 - 74.9		2.6 2.8 3.1		0.72 0.82 0.82		- 5.8 - 6.2 - 6.8		4.0 4.5 4.5			
75 - 79.9 80 - 89.9 90 - 99.9		3.3 3.5 3.8		0.82 0.82 0.82		- 7.2 - 7.6 - 8.2		4.5 4.5 4.5			
100 - 104.9 105 - 109.9 110 - 119.9	H 7 H 8	4.1 4.3 4.6	+ 0.1 - 0.2	0.82 0.98 0.98	+ 0.05 - 0.03	- 8.8 - 9.2 - 9.8	+ 0 - 0.25	4.5 5.5 5.5	+ 0.15 - 0	min. 2	0.2
120 - 129.9 130 - 149.9 150 - 170.9		5.0 5.5 6.0		0.98 0.98 1.0		- 10.8 - 11.8 - 13.0		5.5 5.5 5.6			
150 - 170.9 171 - 199.9 171 - 199.9	H 8 H 9	*6.0 7.0 *7.0	+ 0.15 - 0.3	1.5 1.0 1.5	+ 0.06 - 0.04	- 13.0 - 15.0 - 15.0	+ 0 - 0.3	8.2 5.6 8.2	+ 0.2 - 0	min. 3	0.3
200 - 259.9 200 - 259.9 260 - 319.9		8.0 *8.0 9.0		1.2 1.5 1.5		- 18.0 - 18.0 - 20.0		6.6 8.2 8.2			
320 - 399.9 400 - 439.9 440 - 600.9		10.0 11.0 12.0		1.5 1.5 1.5		- 22.0 - 24.0 - 26.0		8.3 8.3 8.3			
440 - 600.9 601 - 699.9 700 - 799.9	H 9 H 10	*12.0 14.0 16.0	+ 0.2 - 0.4	2.5 2.5 2.5	+ 0.07 - 0.05	- 26.0 - 32.0 - 36.0	+ 0 - 0.4	13.5 13.5 13.5	+ 0.25 - 0	min. 4	0.4
800 - 899.9 900 - 999.9 1000 - 1300		18.0 20.0 22.0		2.5 2.5 2.5		- 40.0 - 44.0 - 48.0		13.5 13.5 13.6			

All dimensions in mm

***= reinforced ring design**

Note: Please refer to the information on pages 2, 38, 39, 40 and 41 (questionnaire).

Please list exact bore or housing diameter "D_1 for all inquiries and orders!