



Dust seal for hydraulic & pneumatic cylinders

# SOFPER

Function of maintaining lubrication

SOFPER is a dust seal of an elastic body with a new concept, together with the following two functions.

1. Preventing dust from intruding into hydraulic & pneumatic cylinders and guide bush, etc.
2. Maintaining and supplying lubrication.

## Specifications

Material: BF001

<Fiber compound material of polyester resin fiber being fused in three dimensions by rubber elastic body>

Operation temperature: -30~ +80° C

Maximum speed: 1m/sec.

Applicable fluid: Operating oil of general oil line. Grease of general mineral oil line

Manufacturing: Die-cuttable sheet material in the shape of your request.

(Sheet material: Thickness: 3mm & 1.5 mm in the range of width 1m x 1m.)

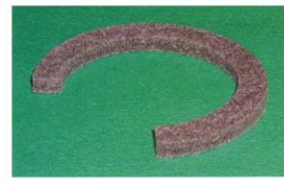
(Please inquire of us about design meeting specification and how to select combination with packings.)

(Please ask for explanation documents with examples.)

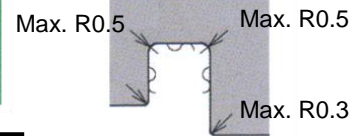
## Characteristics

- Stick performance and fitting, based on extremely fine fiber, prevent sticky dust like hair, fiber waste, minute iron powder, pulverulent body, paper dust, etc. from intruding. It is difficult for the existing dust seal made of rubber or plastic to prevent them from intruding.
- Impregnating lubrication grease, oil etc. cause capillary phenomenon of fiber compound material itself. As a result, functions of maintaining and supplying lubrication to reciprocating face are stably performed. In addition, a function of dust seal comes to upgrade further.
- Fiber compound material has a function of taking surplus oil film at the reciprocating faces and extremely adhering substance. In addition, it reduces blackening and dirt of rods due to wear powder, etc. of packings.
- As a result of SOFPER being fused in three dimensions by rubber elastic body, there is no worry about contraction, hardening and slipping out of fiber. As SOFPER has proper rubber elasticity, it is possible to install it into a solid groove.

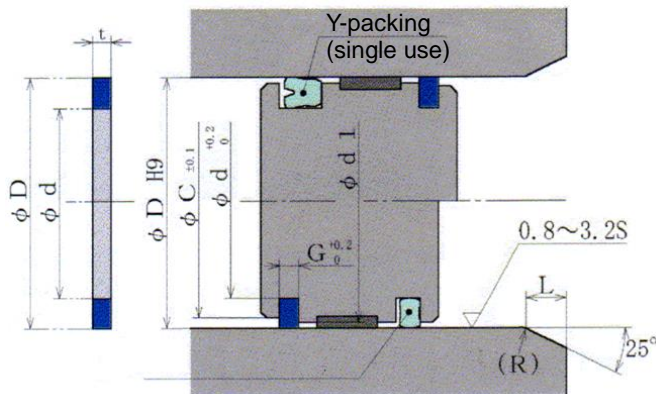
# SOFPER (BIHO/BIHI)



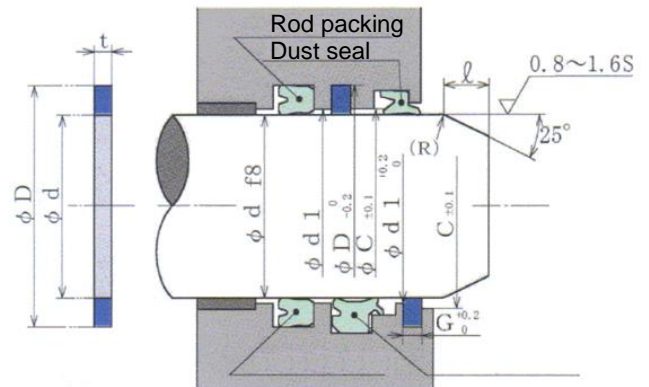
Details in a groove



## FOR PISTON



## FOR ROD



Remarks:

Dimension L is referred to the dimension of the packing being used in combination of **SOFPER**.

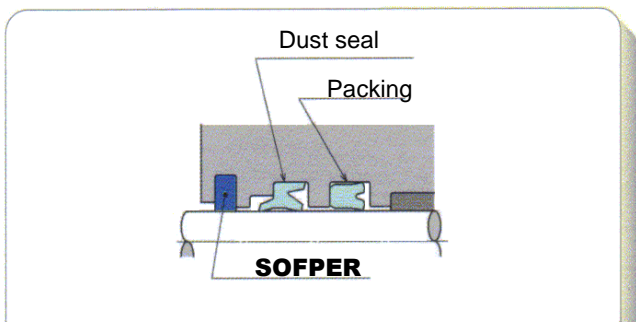
### Dimensions list of **SOFPER** (BIHO) for pistons

SOFPER & dimensions of groove						Indicated code
D	d	t	d1	C	G	Standard (BF001)
16	12	1.5	15.6	15	1.6	BIHO-16
20	12	3	19.6	18	3.2	BIHO-20
25	17	3	24.6	23	3.2	BIHO-25
30	22	3	29.6	28	3.2	BIHO-30
32	24	3	31.6	30	3.2	BIHO-32
40	30	3	39.5	38	3.2	BIHO-40
50	40	3	49.5	48	3.2	BIHO-50
63	53	3	62.5	61	3.2	BIHO-63
80	70	3	79.4	78	3.2	BIHO-80
100	85	3	99.4	97	3.2	BIHO-100

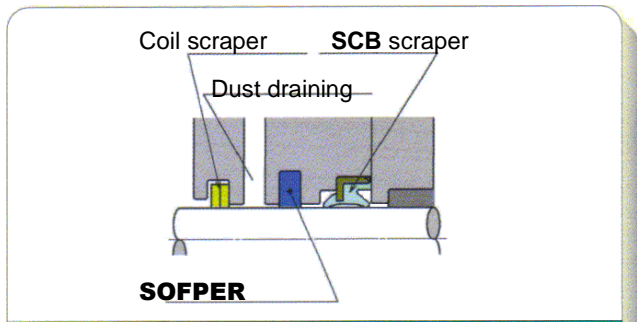
### Dimensions list of **SOFPER** (BIHI) for rods

SOFPER & dimensions of groove						Indicated code
d	D	t	d1	C	G	Standard (BF001)
10	14	1.5	10.4	11	1.6	BIHI-10
12	16	1.5	12.4	13	1.6	BIHI-12
16	24	3	16.4	18	3.2	BIHI-16
20	28	3	20.4	22	3.2	BIHI-20
25	33	3	25.4	27	3.2	BIHI-25
30	40	3	30.5	32	3.2	BIHI-30
35	45	3	35.5	37	3.2	BIHI-35
40	50	3	40.5	42	3.2	BIHI-40
45	55	3	45.5	47	3.2	BIHI-45
50	60	3	50.5	52	3.2	BIHI-50

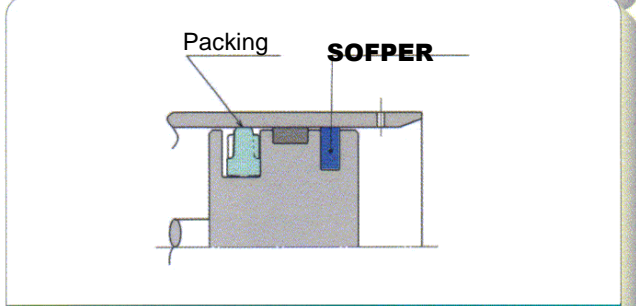
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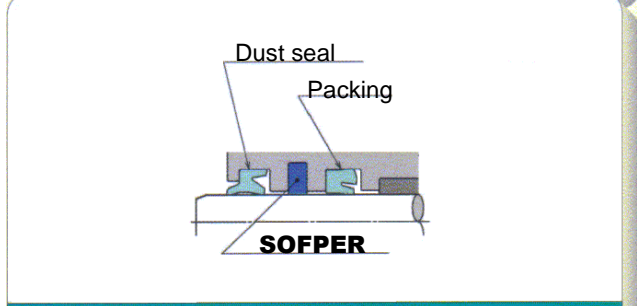
Dust seal preventing short fiber from intruding



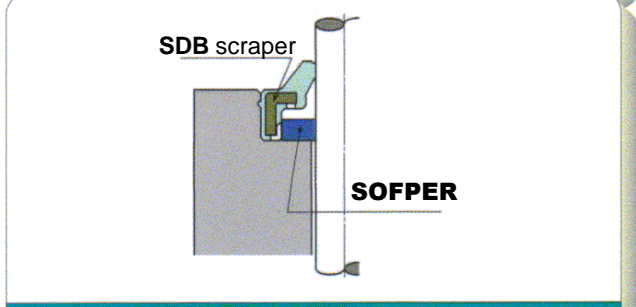
Dust seal preventing sludge from intruding



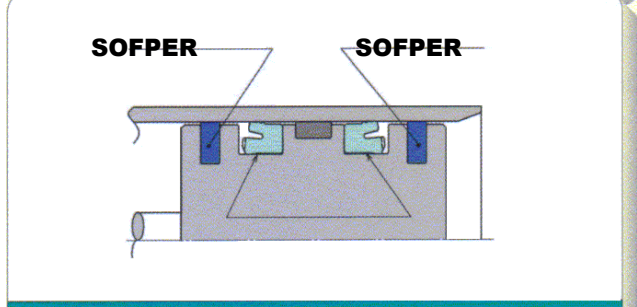
Dust seal for piston packing of single acting cylinder



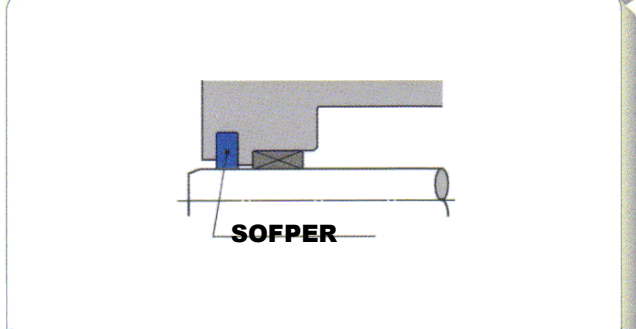
Ring maintaining lubrication



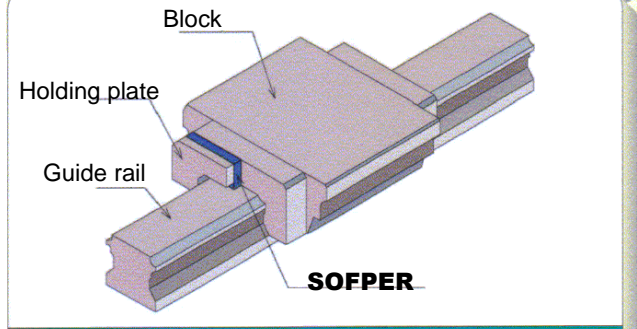
Combined with dust seal for preventing fluid from intruding



Dust seal for pneumatic cylinders



Ring and dust seal maintaining lubrication for guide bar



Dust seal for linear guide