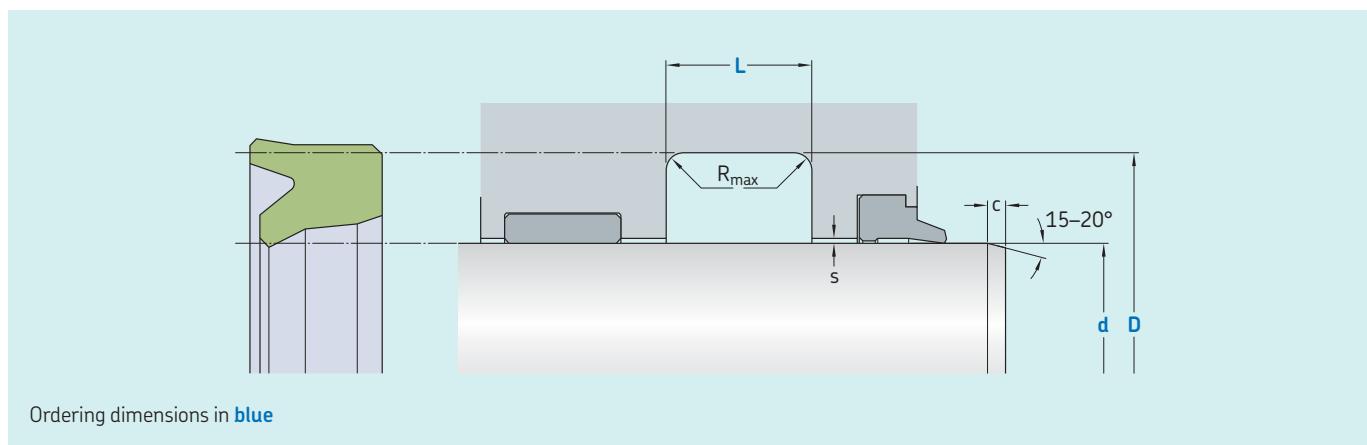


# S01-P



Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap				
	µm		d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	s*	20 bar	100 bar	200 bar	400 bar
<b>Sliding surface</b>	≤ 2,5	0,05–0,3										
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6										
<b>Groove face</b>	≤ 15	≤ 3										
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$												
<b>11</b>	<b>25</b>	<b>d + 8</b>	<b>6,3</b>	<b>0,4</b>	<b>3,5</b>	<b>0,33</b>	<b>0,17</b>	<b>0,11</b>	<b>0,05</b>			
<b>25</b>	<b>50</b>	<b>d + 10</b>	<b>8,0</b>	<b>0,4</b>	<b>4,0</b>	<b>0,37</b>	<b>0,22</b>	<b>0,16</b>	<b>0,10</b>			
<b>50</b>	<b>150</b>	<b>d + 15</b>	<b>10,0</b>	<b>0,4</b>	<b>5,0</b>	<b>0,46</b>	<b>0,31</b>	<b>0,25</b>	<b>0,19</b>			
<b>150</b>	<b>300</b>	<b>d + 20</b>	<b>14,0</b>	<b>0,4</b>	<b>6,0</b>	<b>0,54</b>	<b>0,39</b>	<b>0,32</b>	<b>0,26</b>			
<b>300</b>	<b>500</b>	<b>d + 25</b>	<b>17,0</b>	<b>0,4</b>	<b>8,5</b>	<b>0,61</b>	<b>0,46</b>	<b>0,39</b>	<b>0,33</b>			
<b>500</b>	<b>700</b>	<b>d + 30</b>	<b>25,0</b>	<b>0,4</b>	<b>10,0</b>	<b>0,67</b>	<b>0,52</b>	<b>0,45</b>	<b>0,39</b>			
		<b>d + 40</b>	<b>32,0</b>	<b>0,4</b>	<b>13,0</b>	<b>0,67</b>	<b>0,52</b>	<b>0,45</b>	<b>0,39</b>			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

Rod seal S01-P

100 x 115 x 10

ECOPUR

**Operating parameters**

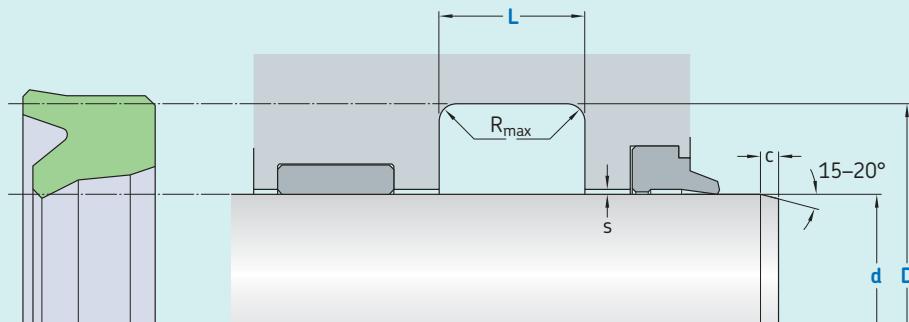
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,5	400 (40)
■ ECOPUR LD	-35	+110	0,5	400 (40)
■ G-ECOPUR	-30	+110	0,5	400 (40)
■ H-ECOPUR	-20	+110	0,5	400 (40)
■ S-ECOPUR	-20	+110	0,5	400 (40)
■ T-ECOPUR	-50	+110	0,5	400 (40)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S01-R

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{\text{ref}} = 0\%$ 

Standard dimensions		D f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	C	Maximal radial extrusion gap		
d	s*						20 bar	100 bar	160 bar
mm									
11	25	d + 8		6,3	0,4	3,5	0,23	0,16	0,14
25	50	d + 10		8,0	0,4	4,0	0,26	0,19	0,17
50	150	d + 15		10,0	0,4	5,0	0,31	0,24	0,22
150	300	d + 20		14,0	0,4	6,0	0,34	0,27	0,25
300	500	d + 25		17,0	0,4	8,5	0,37	0,30	0,29
500	700	d + 30		25,0	0,4	10,0	0,40	0,34	0,32
700		d + 40		32,0	0,4	13,0	0,40	0,34	0,32

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

**Rod seal S01-R****100 x 115 x 10****SKF Ecorubber-1**

**Operating parameters**

Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ SKF Ecorubber-1	-30	+100	0,5	160 (16)
■ SKF Ecorubber-H	-25	+150	0,5	160 (16)
■ SKF Ecorubber-2	-20	+200	0,5	160 (16)
■ SKF Ecorubber-3	-50	+150	0,5	160 (16)
■ SKF Ecoflas	-10	+200	0,5	160 (16)
■ SKF Ecosil <sup>3)</sup>	-60	+200	-	-

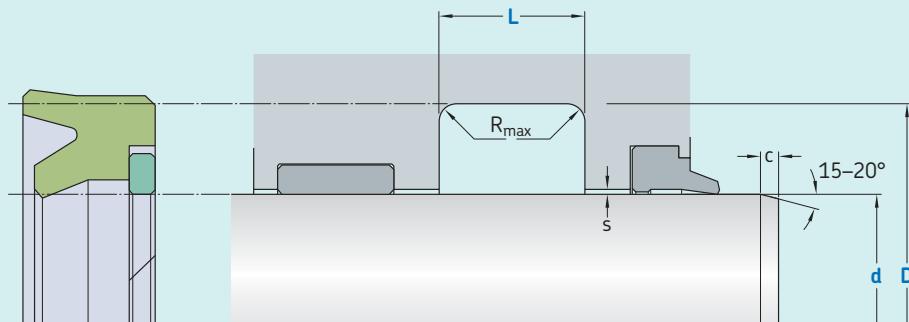
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Only recommended for static or quasi-static-applications.

# S02-P



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$
	µm	

**Sliding surface** ≤ 2,5      0,05–0,3**Bottom of groove** ≤ 6,3      ≤ 1,6**Groove face** ≤ 15      ≤ 3Bearing area: 50–95% and a cutting depth of 0,5  $R_z$  based on  $C_{ref} = 0\%$ 

d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	Maximal radial extrusion gap				
					20 bar	100 bar	400 bar	700 bar	
23	25	d + 8	6,3	0,4	3,5	0,80	0,80	0,30	0,04
25	50	d + 10	8,0	0,4	4,0	1,00	1,00	0,37	0,04
50	150	d + 15	10,0	0,4	5,0	1,50	1,47	0,46	0,05
150	300	d + 20	14,0	0,4	6,0	2,00	1,77	0,54	0,06
300	500	d + 25	17,0	0,4	8,5	2,50	2,06	0,62	0,06
500	700	d + 30	25,0	0,4	10,0	3,00	2,43	0,76	0,06
700		d + 40	32,0	0,4	13,0	3,00	2,43	0,76	0,06

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

**Rod seal S02-P****100 x 115 x 10****ECOPUR / SKF Ecotal**

**Operating parameters**

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	700 (70)
■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	700 (70)
■ ECOPUR LD	■ SKF Ecomid	-35	+110	0,5	700 (70)
■ G-ECOPUR	■ SKF Ecomid	-30	+110	0,5	700 (70)
■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	700 (70)
■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	700 (70)
■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	700 (70)
■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	700 (70)

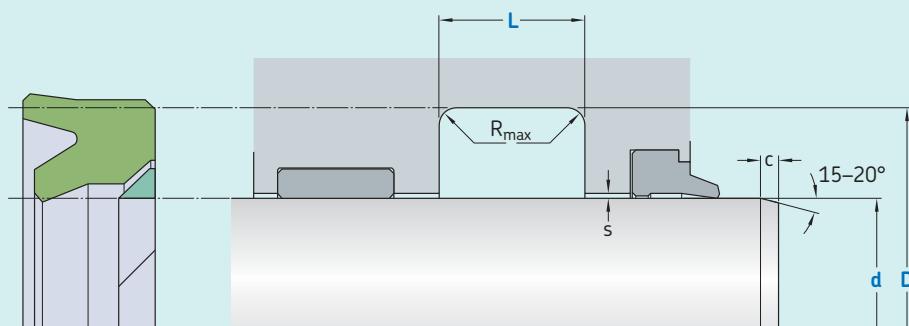
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S02-PD

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{\text{ref}} = 0\%$ 

d f8 over	D H10 incl.	L $+0,2$	$R_{\max}$	c	Maximal radial extrusion gap				
					s*	20 bar	100 bar	400 bar	
mm									
16	25	d + 8	6,3	0,4	3,5	0,80	0,80	0,30	0,04
25	50	d + 10	8,0	0,4	4,0	1,00	1,00	0,37	0,04
50	150	d + 15	10,0	0,4	5,0	1,50	1,47	0,46	0,05
150	300	d + 20	14,0	0,4	6,0	2,00	1,77	0,54	0,06
300	500	d + 25	17,0	0,4	8,5	2,50	2,06	0,62	0,06
500	700	d + 30	25,0	0,4	10,0	3,00	2,43	0,76	0,06
700		d + 40	32,0	0,4	13,0	3,00	2,43	0,76	0,06

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

**Rod seal S02-PD****100 x 115 x 10****ECOPUR / SKF Ecotal**

**Operating parameters**

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	700 (70)
■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	700 (70)
■ ECOPUR LD	■ SKF Ecomid	-35	+100	0,5	700 (70)
■ G-ECOPUR	■ SKF Ecomid	-30	+110	0,5	700 (70)
■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	700 (70)
■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	700 (70)
■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	700 (70)
■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	700 (70)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.



[skf.com](http://skf.com) | [skf.com/seals](http://skf.com/seals)

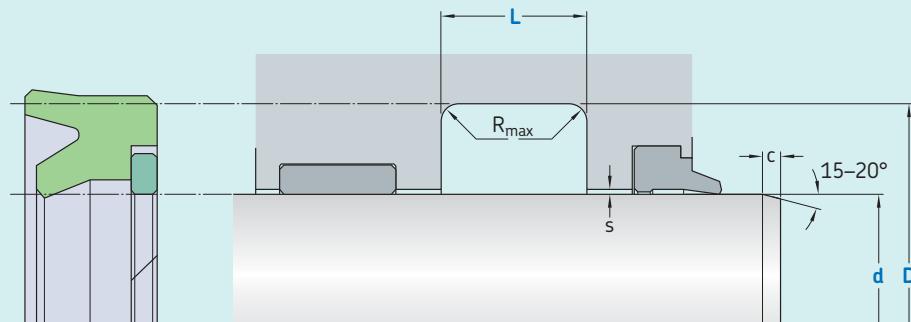
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# S02-R

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

d f8 over	D H10 incl.	Standard dimensions				Maximal radial extrusion gap		
		L $+0,2$	$R_{t\max}$	c	s*	20 bar	100 bar	250 bar
mm								mm
23	25	d + 8	6,3	0,4	3,5	0,60	0,80	0,52
25	50	d + 10	8,0	0,4	4,0	1,00	1,00	0,66
50	150	d + 15	10,0	0,4	5,0	1,50	1,40	0,78
150	300	d + 20	14,0	0,4	6,0	2,00	1,66	0,88
300	500	d + 25	17,0	0,4	8,5	2,50	1,91	1,00
500	700	d + 30	25,0	0,4	10,0	3,00	2,18	1,13
700		d + 40	32,0	0,4	13,0	3,00	2,18	1,13

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

**Rod seal S02-R****100 x 115 x 10****SKF Ecorubber-1 / SKF Ecotal**

### Operating parameters

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ SKF Ecotal	-30	+100	0,5	250 (25)
■ SKF Ecorubber-1	■ SKF Ecomid	-30	+100	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecotal	-25	+100	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecomid	-25	+110	0,5	250 (25)
■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecoflon 2	-50	+150	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecotal	-50	+100	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecomid	-40	+110	0,5	250 (25)
■ SKF Ecoflas	■ SKF Ecopaek	-10	+200	0,5	250 (25)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

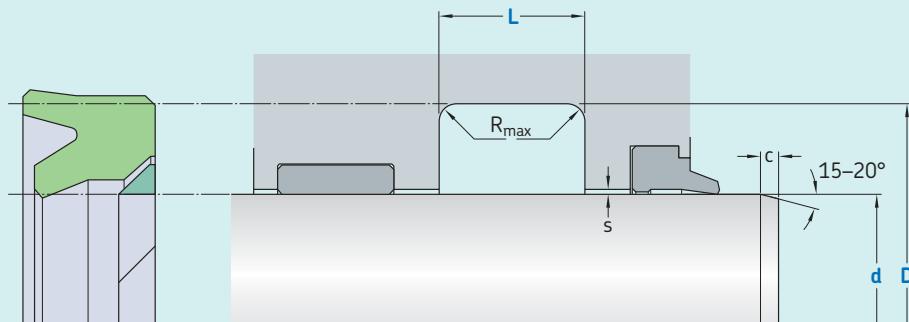
1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.



# S02-RD

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{\text{ref}} = 0\%$ 

d f8 over	D H10 incl.	Standard dimensions				Maximal radial extrusion gap		
		L $+0,2$	$R_{\max}$	c	s*	20 bar	100 bar	250 bar
mm								mm
16	25	d + 8	6,3	0,4	3,5	0,60	0,80	0,52
25	50	d + 10	8,0	0,4	4,0	1,00	1,00	0,66
50	150	d + 15	10,0	0,4	5,0	1,50	1,40	0,78
150	300	d + 20	14,0	0,4	6,0	2,00	1,66	0,88
300	500	d + 25	17,0	0,4	8,5	2,50	1,91	1,00
500	700	d + 30	25,0	0,4	10,0	3,00	2,18	1,13
700		d + 40	32,0	0,4	13,0	3,00	2,18	1,13

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

**Rod seal S02-RD****100 x 115 x 10****SKF Ecorubber-1 / SKF Ecotal**

**Operating parameters**

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ SKF Ecotal	-30	+100	0,5	250 (25)
■ SKF Ecorubber-1	■ SKF Ecomid	-30	+100	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecotal	-25	+100	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecomid	-25	+110	0,5	250 (25)
■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecoflon 2	-50	+150	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecotal	-50	+100	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecomid	-40	+110	0,5	250 (25)
■ SKF Ecoflas	■ SKF Ecopaek	-10	+200	0,5	250 (25)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

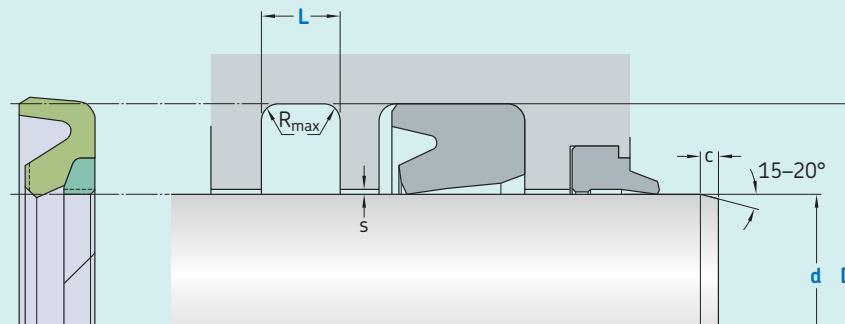
1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.



# S02-S

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	0,05–0,3
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$
Bearing area: 50–95% and a cutting depth of $0,5 R_z$ based on $C_{ref} = 0\%$		

d f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	c	Maximal radial extrusion gap				
					100 bar	200 bar	400 bar	600 bar	
mm									
10	19	d + 7,3	3,2	0,6	3,5	0,4	0,25	0,15	0,05
19	38	d + 10,7	4,2	1,0	4,5	0,4	0,25	0,20	0,10
38	200	d + 15,1	6,3	1,3	5,0	0,5	0,30	0,20	0,10
200	256	d + 20,5	8,1	1,8	6,0	0,6	0,35	0,25	0,15
256	600	d + 24,0	8,1	1,8	8,0	0,6	0,35	0,25	0,15

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

Rod seal S02-S

100 x 115 x 6,3

ECOPUR / SKF Ecotal

### Operating parameters

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup> max	Pressure <sup>2)</sup> max
		from	to		
		°C		m/s	bar (MPa)
■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	400 (40)
■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	400 (40)
■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	400 (40)
■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	400 (40)
■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	400 (40)
■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	400 (40)
■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	400 (40)
■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	400 (40)

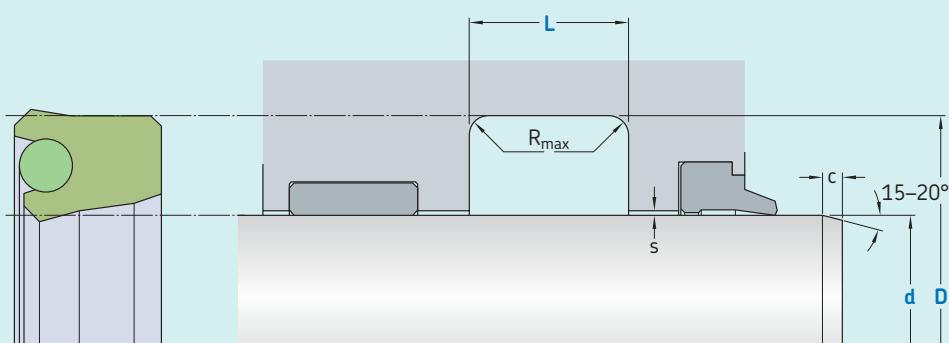
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S03-P

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	c	Maximal radial extrusion gap			
					20 bar	100 bar	200 bar	400 bar
mm								
5	25	d + 8	6,3	0,4	3,5	0,33	0,18	0,10
25	50	d + 10	8,0	0,4	4,0	0,37	0,23	0,15
50	150	d + 15	10,0	0,4	5,0	0,46	0,33	0,25
150	300	d + 20	14,0	0,4	6,0	0,54	0,38	0,33
300	500	d + 25	17,0	0,4	8,5	0,61	0,45	0,40
500	600	d + 30	25,0	0,4	10,0	0,67	0,50	0,45
600	1 000	d + 40	32,0	0,4	13,0	0,67	0,50	0,45
1 000	1 600	d + 50	40,0	0,4	15,0	0,80	0,60	0,50
1 600	2 000	d + 60	47,0	0,4	18,0	0,90	0,70	0,50
2 000	2 500	d + 80	62,0	0,4	20,0	0,90	0,70	0,50

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

Rod seal S03-P

100 x 115 x 10

ECOPUR / NBR 70

### Operating parameters

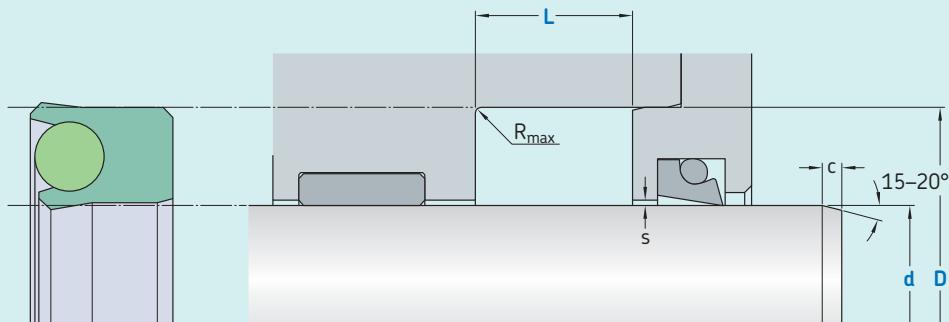
Material Seal	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	-30	+100	0,5	400 (40)
■ ECOPUR LD	NBR 70	-30	+100	0,5	400 (40)
■ G-ECOPUR	NBR 70	-30	+100	0,5	400 (40)
■ H-ECOPUR	NBR 70	-20	+100	0,5	400 (40)
■ S-ECOPUR	NBR 70	-20	+100	0,5	400 (40)
■ T-ECOPUR	MVQ 70	-50	+100	0,5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S03-F

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	µm	
<b>Sliding surface</b>	≤ 2	0,05–0,2
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6
<b>Groove face</b>	≤ 15	≤ 3

Bearing area: 50–95% and a cutting depth of 0,5  $R_z$  based on  $C_{ref} = 0\%$

Standard dimensions	d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	Maximal radial extrusion gap			
						s*	20 bar	100 bar	200 bar
mm									mm
5	25	d + 8	6,3	0,4	3,5	0,40	0,20	0,15	0,09
25	50	d + 10	8,0	0,4	4,0	0,45	0,22	0,17	0,10
50	150	d + 15	10,0	0,4	5,0	0,75	0,40	0,33	0,18
150	300	d + 20	14,0	0,4	6,0	0,87	0,48	0,38	0,20
300	500	d + 25	17,0	0,4	8,5	0,87	0,48	0,38	0,20
500	600	d + 30	25,0	0,4	10,0	0,87	0,48	0,38	0,20

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

**Rod seal S03-F****100 x 115 x 10****SKF Ecoflon 3 / FPM75**

**Operating parameters**

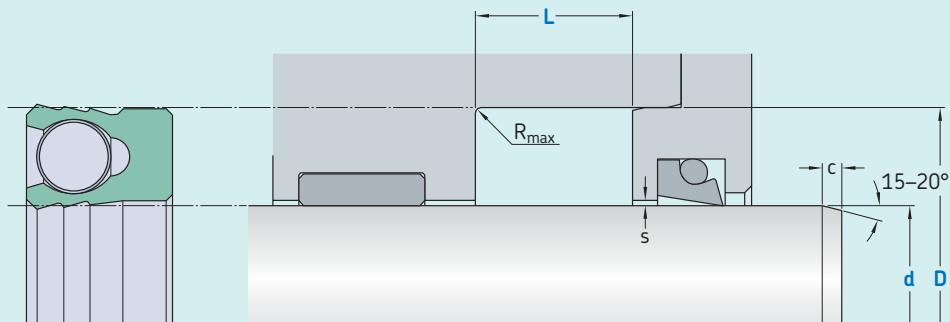
Material Seal	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
SKF Ecolon 1	NBR 70	-30	+100	1,0	200 (20)
SKF Ecolon 1	MVQ 70	-55	+200	1,0	200 (20)
SKF Ecolon 2	NBR 70	-30	+100	1,0	400 (40)
SKF Ecolon 2	FPM 75	-20	+200	1,0	400 (40)
SKF Ecolon 2	EPDM 70	-50	+150	1,0	400 (40)
SKF Ecolon 2	MVQ 70	-55	+200	1,0	400 (40)
SKF Ecolon 3	NBR 70	-30	+100	1,0	400 (40)
SKF Ecolon 3	FPM 75	-20	+200	1,0	400 (40)
SKF Ecolon 3	EPDM 70	-50	+150	1,0	400 (40)
SKF Ecolon 3	MVQ 70	-55	+200	1,0	400 (40)
SKF Ecolon 4	NBR 70	-30	+100	1,0	400 (40)
SKF Ecolon 4	FPM 75	-20	+200	1,0	400 (40)
SKF Ecolon 4	EPDM 70	-50	+150	1,0	400 (40)
SKF Ecolon 4	MVQ 70	-55	+200	1,0	400 (40)
SKF Ecowear 1000	NBR 70	-30	+90	0,5	200 (20)
SKF Ecowear 1000	MVQ 70	-55	+90	0,5	200 (20)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

# S03-S

Ordering dimensions in **blue**

Surface roughness	R <sub>tmax</sub>	R <sub>a</sub>
	µm	

**Sliding surface** ≤ 2 0,05–0,2**Bottom of groove** ≤ 6,3 ≤ 1,6**Groove face** ≤ 15 ≤ 3Bearing area: 50–95% and a cutting depth of 0,5 R<sub>z</sub> based on C<sub>ref</sub> = 0%

d f8 over	D H10 incl.	L + 0,2	R <sub>max</sub>	c	Maximal radial extrusion gap					
					20 bar	100 bar	200 bar	300 bar	400 bar	
mm					mm					
6	10	d + 4	3,5	0,4	2,0	0,25	0,12	0,10	0,08	0,07
10	30	d + 6	5,0	0,4	3,0	0,35	0,17	0,12	0,10	0,08
30	120	d + 10	8,0	0,4	4,0	0,45	0,22	0,17	0,12	0,10
120	200	d + 15	11,5	0,4	5,0	0,75	0,40	0,33	0,25	0,18
200	250	d + 20	13,0	0,4	6,0	0,87	0,48	0,38	0,28	0,20
250	500	d + 25	18,5	0,4	8,5	0,87	0,48	0,38	0,28	0,20
500	1 600	d + 30	23,0	0,4	10,0	0,87	0,48	0,38	0,28	0,20

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Spring

**Rod seal S03-S****100 x 112 x 10****SKF Ecoflon 3 / 1.4310**

### Operating parameters

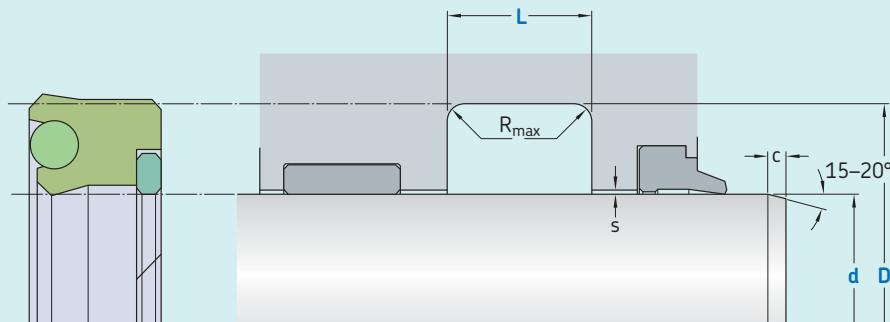
Material Seal	Spring	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
SKF Ecolon 1	1.431	-200	+260	1	200 (20)
SKF Ecolon 2	1.431	-200	+260	1	400 (40)
SKF Ecolon 3	1.431	-200	+260	1	400 (40)
SKF Ecolon 4	1.431	-200	+260	1	400 (40)
SKF Ecowear 1000	1.431	-200	+90	0,5	200 (20)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S04-P

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_2$  based on  $C_{ref} = 0\%$ 

d f8 over	D H10 incl.	L $+ 0,2$	$R_{t\max}$	c	Maximal radial extrusion gap			
					s*	20 bar	100 bar	400 bar
mm								
22	25	d + 8	6,3	0,4	3,5	0,80	0,80	0,30
25	50	d + 10	8,0	0,4	4,0	1,00	1,00	0,37
50	150	d + 15	10,0	0,4	5,0	1,50	1,47	0,46
150	300	d + 20	14,0	0,4	6,0	2,00	1,77	0,54
300	500	d + 25	17,0	0,4	8,5	2,50	2,06	0,62
500	600	d + 30	25,0	0,4	10,0	3,00	2,43	0,76
600	1000	d + 40	32,0	0,4	13,0	3,00	2,43	0,76
1000	1600	d + 50	40,0	0,4	15,0	3,00	2,43	0,76
2)								

1) Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

2) Please contact SKF.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer / Back-up ring

**Rod seal S04-P****100 x 115 x 10****ECOPUR / NBR 70 / SKF Ecotal**

**Operating parameters**

<b>Material Seal</b>	<b>Energizer</b>	<b>Back-up ring<sup>3)</sup></b>	<b>Temperature</b>		<b>Speed<sup>1)</sup></b>	<b>Pressure<sup>2)</sup></b>
			from	to	max	max
			°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	■ SKF Ecotal	-30	+100	0,5	700 (70)
■ ECOPUR	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ ECOPUR LD	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ G-ECOPUR	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ H-ECOPUR	NBR 70	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ H-ECOPUR	NBR 70	■ SKF Ecomid	-20	+100	0,5	700 (70)
■ S-ECOPUR	NBR 70	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ S-ECOPUR	NBR 70	■ SKF Ecomid	-20	+100	0,5	700 (70)
■ T-ECOPUR	MVQ 70	■ SKF Ecotal	-50	+100	0,5	700 (70)
■ T-ECOPUR	MVQ 70	■ SKF Ecomid	-40	+100	0,5	700 (70)

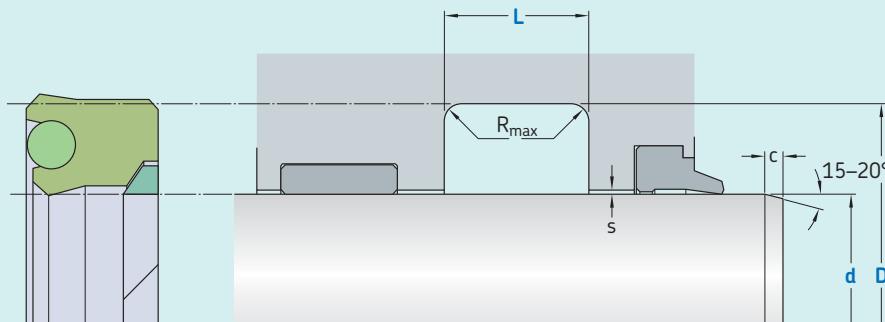
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S04-PD

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_2$  based on  $C_{ref} = 0\%$ 

Standard dimensions		$d$ f8 over	$D$ H10 incl.	$L$ $+ 0,2$	$R_{t\max}$	$c$	Maximal radial extrusion gap			
							mm	mm	mm	mm
<b>16</b>	<b>25</b>	d + 8	6,3	0,4	3,5	0,80	0,80	0,30	0,04	
<b>25</b>	<b>50</b>	d + 10	8,0	0,4	4,0	1,00	1,00	0,37	0,04	
<b>50</b>	<b>150</b>	d + 15	10,0	0,4	5,0	1,50	1,47	0,46	0,05	
<b>150</b>	<b>300</b>	d + 20	14,0	0,4	6,0	2,00	1,77	0,54	0,06	
<b>300</b>	<b>500</b>	d + 25	17,0	0,4	8,5	2,50	2,06	0,62	0,06	
<b>500</b>	<b>600</b>	d + 30	25,0	0,4	10,0	3,00	2,43	0,76	0,06	
<b>600</b>	<b>1000</b>	d + 40	32,0	0,4	13,0	3,00	2,43	0,76	2)	
<b>1000</b>	<b>1600</b>	d + 50	40,0	0,4	15,0	3,00	2,43	0,76	2)	

1) Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

2) Please contact SKF.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer / Back-up ring

**Rod seal S04-PD****100 x 115 x 10****ECOPUR / NBR 70 / SKF Ecotal**

**Operating parameters**

<b>Material Seal</b>	<b>Energizer</b>	<b>Back-up ring<sup>3)</sup></b>	<b>Temperature</b>		<b>Speed<sup>1)</sup></b>	<b>Pressure<sup>2)</sup></b>
			from	to	max	max
			°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	■ SKF Ecotal	-30	+100	0,5	700 (70)
■ ECOPUR	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ ECOPUR LD	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ G-ECOPUR	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ H-ECOPUR	NBR 70	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ H-ECOPUR	NBR 70	■ SKF Ecomid	-20	+100	0,5	700 (70)
■ S-ECOPUR	NBR 70	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ S-ECOPUR	NBR 70	■ SKF Ecomid	-20	+100	0,5	700 (70)
■ T-ECOPUR	MVQ 70	■ SKF Ecotal	-50	+100	0,5	700 (70)
■ T-ECOPUR	MVQ 70	■ SKF Ecomid	-40	+100	0,5	700 (70)

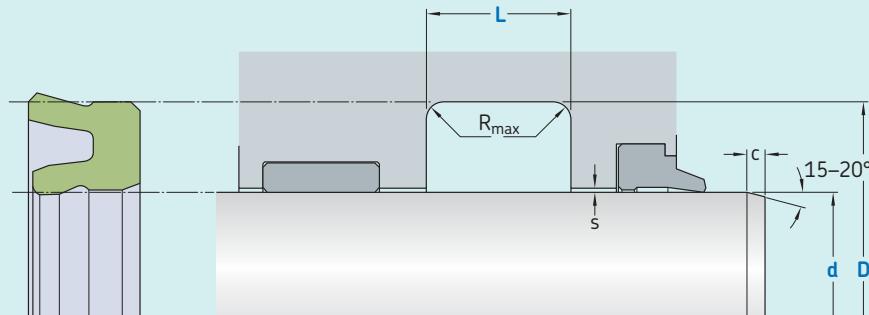
**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S05-P

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

Standard dimensions		D	L	$R_{t\max}$	c	$s^*$
d	f8 over incl.	H10	+ 0,2			25 bar

mm						
5	25	d + 8	6,3	0,4	3,5	0,33
25	50	d + 10	8,0	0,4	4,0	0,37
50	150	d + 12	9,0	0,4	5,0	0,46
150	300	d + 16	14,0	0,4	6,0	0,54
300	500	d + 20	17,0	0,4	8,5	0,61
500	700	d + 24	25,0	0,4	10,0	0,67
700	1 000	d + 30	32,0	0,4	13,0	0,67
1 000		d + 40	32,0	0,4	13,0	0,67

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

**Rod seal S05-P****100 x 112 x 10****ECOPUR**

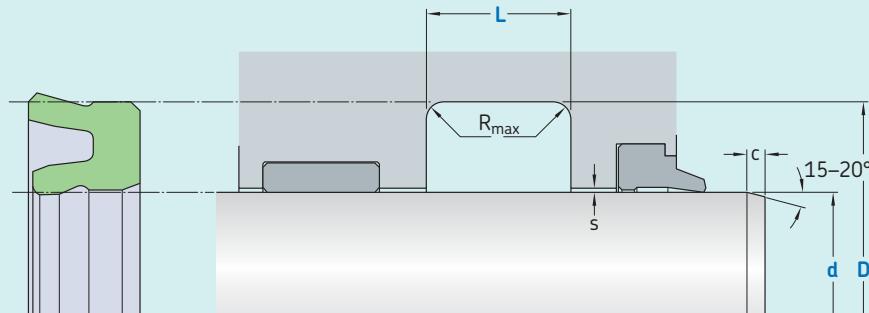
**Operating parameters**

Material Seal	Temperature		Speed <sup>1)</sup>	Pressure
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	1	25 (2,5)
■ ECOPUR LD	-35	+110	1	25 (2,5)
■ G-ECOPUR	-30	+110	1	25 (2,5)
■ H-ECOPUR	-20	+110	1	25 (2,5)
■ S-ECOPUR	-20	+110	2	25 (2,5)
■ T-ECOPUR	-50	+110	1	25 (2,5)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

# S05-R



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

Standard dimensions		D	L	$R_{t\max}$	c	$s^*$
d	f8 over incl.	H10	+ 0,2			25 bar

mm						
5	25	d + 8	6,3	0,4	3,5	0,23
25	50	d + 10	8,0	0,4	4,0	0,26
50	150	d + 12	10,0	0,4	5,0	0,29
150	300	d + 16	14,0	0,4	6,0	0,32
300	500	d + 20	17,0	0,4	8,5	0,35
500	700	d + 24	25,0	0,4	10,0	0,39
700	1 000	d + 30	32,0	0,4	13,0	0,40
1 000		d + 40	32,0	0,4	13,0	0,40

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

**Rod seal S05-R****100 x 112 x 10****SKF Ecorubber-1**

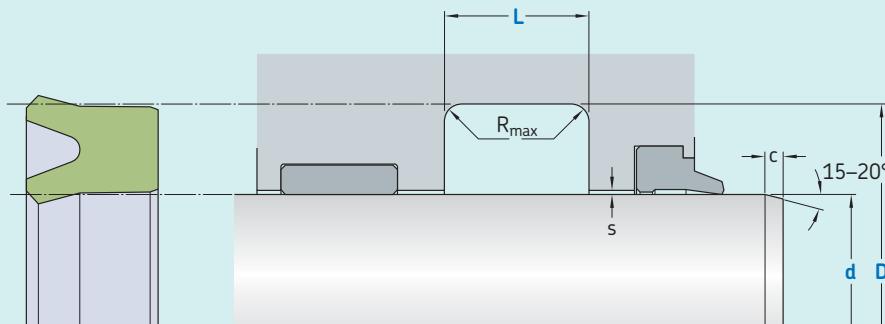
**Operating parameters**

Material Seal	Temperature		Speed <sup>1)</sup>	Pressure
	from	to	max	max
	°C		m/s	bar (MPa)
■ SKF Ecorubber-1	-30	+100	1	25 (2,5)
■ SKF Ecorubber-H	-25	+150	1	25 (2,5)
■ SKF Ecorubber-2	-20	+200	1	25 (2,5)
■ SKF Ecorubber-3	-50	+150	1	25 (2,5)
■ SKF Ecoflas	-10	+200	1	25 (2,5)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

# S06-P



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$
	μm	
<b>Sliding surface</b>	≤ 2,5	0,05–0,3
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6
<b>Groove face</b>	≤ 15	≤ 3

Bearing area: 50–95% and a cutting depth of 0,5  $R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	Maximal radial extrusion gap				
					s*	20 bar	100 bar	200 bar	
mm									
6	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11	0,05
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16	0,10
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25	0,19
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32	0,26
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39	0,33
500	700	d + 30	25,0	0,4	10,0	0,67	0,52	0,45	0,39
700		d + 40	32,0	0,4	13,0	0,67	0,52	0,45	0,39

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

Rod seal S06-P

100 x 115 x 10

ECOPUR

**Operating parameters**

Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,5	400 (40)
■ ECOPUR LD	-35	+110	0,5	400 (40)
■ G-ECOPUR	-30	+110	0,5	400 (40)
■ H-ECOPUR	-20	+110	0,5	400 (40)
■ S-ECOPUR	-20	+110	0,5	400 (40)
■ T-ECOPUR	-50	+110	0,5	400 (40)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

[skf.com](http://skf.com) | [skf.com/seals](http://skf.com/seals)

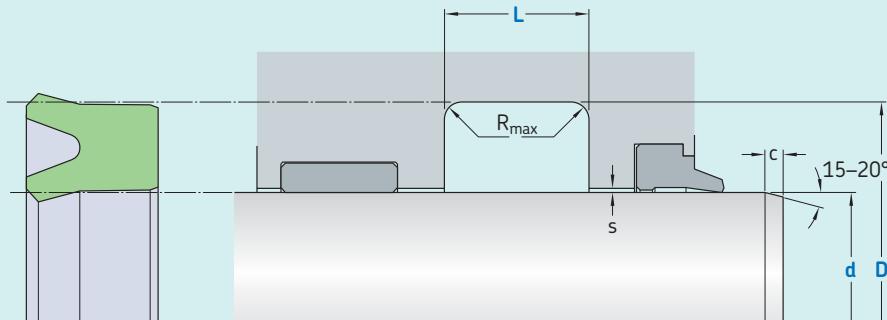
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# S06-R

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{\text{ref}} = 0\%$ 

d f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	c	Maximal radial extrusion gap		
					20 bar	100 bar	160 bar
6	25	d + 8	6,3	0,4	3,5	0,23	0,16
25	50	d + 10	8,0	0,4	4,0	0,26	0,19
50	150	d + 15	10,0	0,4	5,0	0,31	0,24
150	300	d + 20	14,0	0,4	6,0	0,34	0,27
300	500	d + 25	17,0	0,4	8,5	0,37	0,30
500	700	d + 30	25,0	0,4	10,0	0,40	0,34
700		d + 40	32,0	0,4	13,0	0,40	0,32

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

**Rod seal S06-R****100 x 115 x 10****SKF Ecorubber-1**

**Operating parameters**

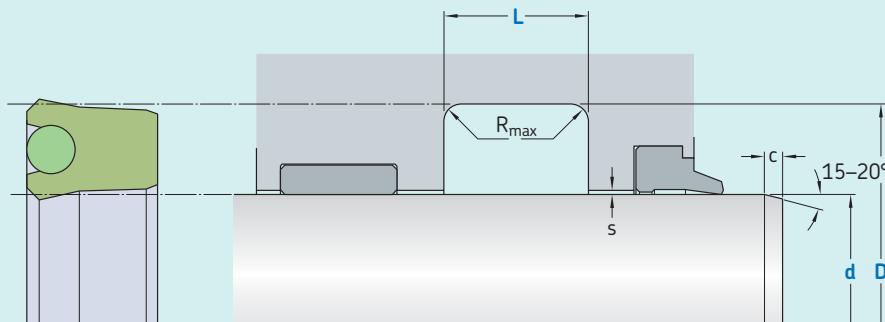
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ SKF Ecorubber-1	-30	+100	0,5	160 (16)
■ SKF Ecorubber-H	-25	+150	0,5	160 (16)
■ SKF Ecorubber-2	-20	+200	0,5	160 (16)
■ SKF Ecorubber-3	-50	+150	0,5	160 (16)
■ SKF Ecoflas	-10	+200	0,5	160 (16)
■ SKF Ecosil <sup>3)</sup>	-60	+200	-	-

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Only recommended for static or quasi-static applications.

**S07-P**Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

d f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	c	Maximal radial extrusion gap				
					20 bar	100 bar	200 bar	400 bar	
mm									
5	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11	0,05
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16	0,10
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25	0,19
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32	0,26
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39	0,33
500	600	d + 30	25,0	0,4	10,0	0,67	0,52	0,45	0,39
600	1000	d + 40	32,0	0,4	13,0	0,67	0,52	0,45	0,40
1000	1600	d + 50	40,0	0,4	15,0	0,80	0,60	0,50	0,40

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

**Rod seal S07-P****100 x 115 x 10****ECOPUR / NBR 70**

**Operating parameters**

Material Seal	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	-30	+100	0,5	400 (40)
■ ECOPUR LD	NBR 70	-30	+100	0,5	400 (40)
■ G-ECOPUR	NBR 70	-30	+100	0,5	400 (40)
■ H-ECOPUR	NBR 70	-20	+100	0,5	400 (40)
■ S-ECOPUR	NBR 70	-20	+100	0,5	400 (40)
■ T-ECOPUR	MVQ 70	-50	+100	0,5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

[skf.com](http://skf.com) | [skf.com/seals](http://skf.com/seals)

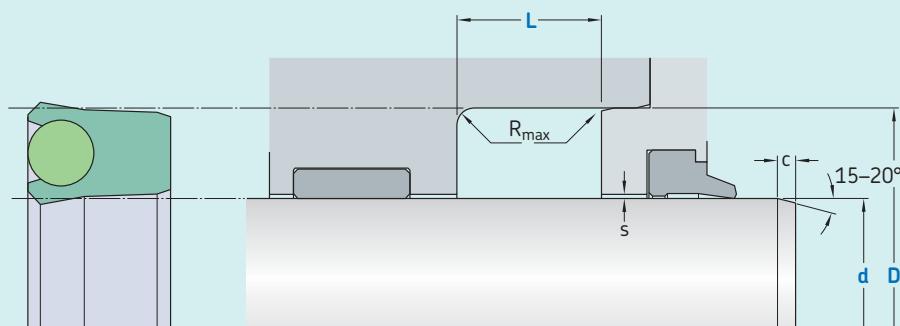
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PUB SE/P8 11910/2 EN · October 2019

# S07-F



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2$	0,05–0,2
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	c	Maximal radial extrusion gap				
					s*	20 bar	100 bar	200 bar	
mm									
5	25	d + 8	6,3	0,4	3,5	0,40	0,20	0,15	0,09
25	50	d + 10	8,0	0,4	4,0	0,45	0,22	0,17	0,10
50	150	d + 15	10,0	0,4	5,0	0,75	0,40	0,33	0,18
150	300	d + 20	14,0	0,4	6,0	0,87	0,48	0,38	0,20
300	500	d + 25	17,0	0,4	8,5	0,87	0,48	0,38	0,20
500	600	d + 30	25,0	0,4	10,0	0,87	0,48	0,38	0,20

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm]

Sealing material / Energizer

Rod seal S07-F

100 x 115 x 10

SKF Ecoflon 3 / FPM 75

### Operating parameters

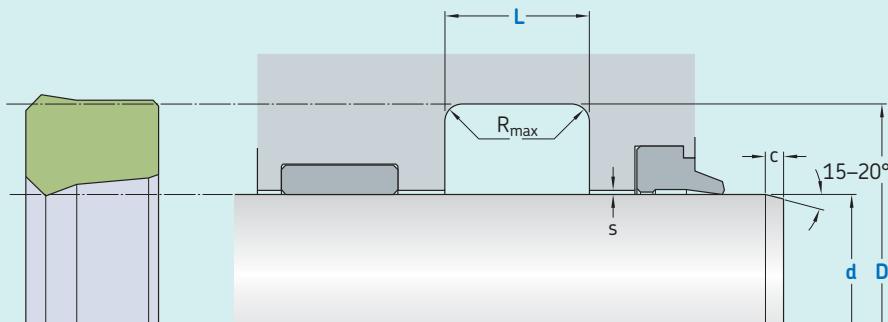
Material Seal	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
SKF Ecolon 1	NBR 70	-30	+100	1,0	200 (20)
SKF Ecolon 1	MVQ 70	-55	+200	1,0	200 (20)
SKF Ecolon 2	NBR 70	-30	+100	1,0	400 (40)
SKF Ecolon 2	FPM 75	-20	+200	1,0	400 (40)
SKF Ecolon 2	EPDM 70	-50	+150	1,0	400 (40)
SKF Ecolon 2	MVQ 70	-55	+200	1,0	400 (40)
SKF Ecolon 3	NBR 70	-30	+100	1,0	400 (40)
SKF Ecolon 3	FPM 75	-20	+200	1,0	400 (40)
SKF Ecolon 3	EPDM 70	-50	+150	1,0	400 (40)
SKF Ecolon 3	MVQ 70	-55	+200	1,0	400 (40)
SKF Ecolon 4	NBR 70	-30	+100	1,0	400 (40)
SKF Ecolon 4	FPM 75	-20	+200	1,0	400 (40)
SKF Ecolon 4	EPDM 70	-50	+150	1,0	400 (40)
SKF Ecolon 4	MVQ 70	-55	+200	1,0	400 (40)
SKF Ecowear 1000	NBR 70	-30	+90	0,5	200 (20)
SKF Ecowear 1000	MVQ 70	-55	+90	0,5	200 (20)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

# S08-P

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$

**Bottom of groove**  $\leq 6,3$ **Groove face**  $\leq 15$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

d f8 over	D H10 incl.	L $+0,2$	$R_{t\max}$	c	Maximal radial extrusion gap				
					s*	20 bar	100 bar	200 bar	
mm									
5	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11	0,05
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16	0,10
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25	0,19
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32	0,26
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39	0,33
500	600	d + 30	25,0	0,4	10,0	0,67	0,52	0,45	0,39
		d + 40	32,0	0,4	13,0	0,67	0,52	0,45	0,39

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

**Rod seal S08-P****100 x 115 x 10****ECOPUR**

**Operating parameters**

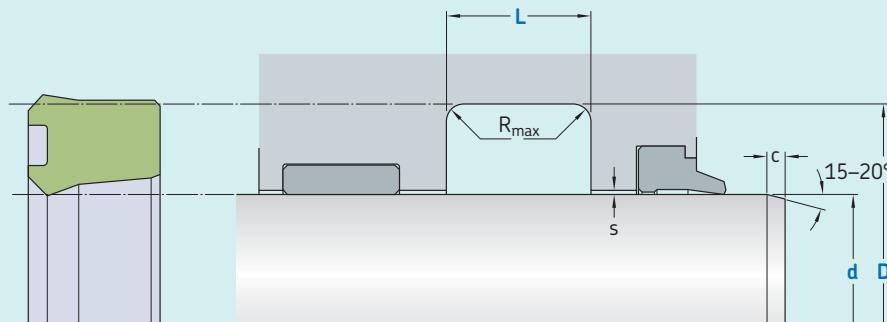
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,3	400 (40)
■ H-ECOPUR	-20	+110	0,3	400 (40)
■ S-ECOPUR	-20	+110	0,3	400 (40)
■ T-ECOPUR	-50	+110	0,3	400 (40)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S08-PE



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap				
		µm	d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	$s^*$	20 bar	100 bar	200 bar	400 bar
<b>Sliding surface</b>	≤ 2,5	0,05–0,3										
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6										
<b>Groove face</b>	≤ 15	≤ 3										
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$												
5	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11	0,05			
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16	0,10			
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25	0,19			
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32	0,26			
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39	0,33			
500	600	d + 30	25,0	0,4	10,0	0,67	0,52	0,45	0,39			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

Rod seal S08-PE

100 x 115 x 10

ECOPUR

**Operating parameters**

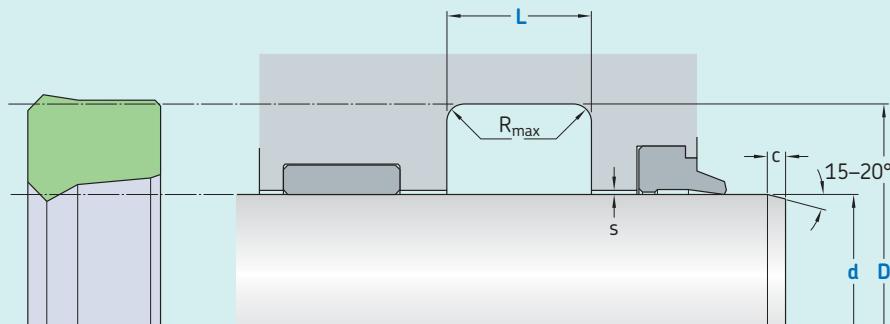
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,3	400 (40)
■ H-ECOPUR	-20	+110	0,3	400 (40)
■ S-ECOPUR	-20	+110	0,3	400 (40)
■ T-ECOPUR	-50	+110	0,3	400 (40)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S08-R

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap			
			d	D	L	$R_{t\max}$	c	s*	20 bar	100 bar	160 bar
	μm		f8	H10	+ 0,2						
<b>Sliding surface</b>	≤ 2,5	0,05–0,3									
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6									
<b>Groove face</b>	≤ 15	≤ 3									
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$											
5	25	d + 8	6,3	0,4	3,5	0,23	0,16	0,14			
25	50	d + 10	8,0	0,4	4,0	0,26	0,19	0,17			
50	150	d + 15	10,0	0,4	5,0	0,31	0,24	0,22			
150	300	d + 20	14,0	0,4	6,0	0,34	0,27	0,25			
300	500	d + 25	17,0	0,4	8,5	0,37	0,30	0,29			
500	600	d + 30	25,0	0,4	10,0	0,40	0,34	0,32			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

Rod seal S08-R

100 x 115 x 10

SKF Ecorubber-1

**Operating parameters**

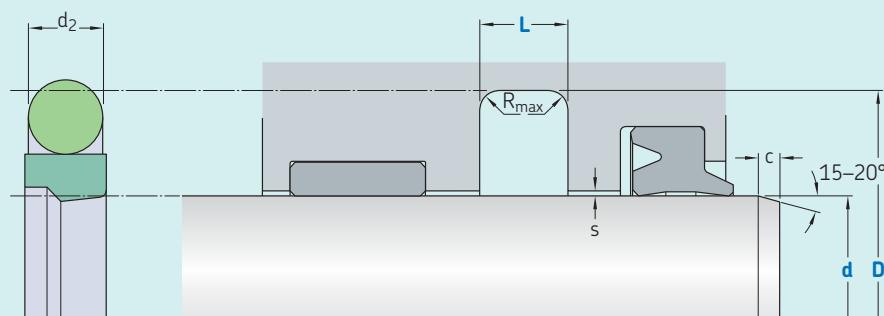
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ SKF Ecorubber-1	-30	+100	0,3	160 (16)
■ SKF Ecorubber-H	-25	+150	0,3	160 (16)
■ SKF Ecorubber-2	-20	+200	0,3	160 (16)
■ SKF Ecorubber-3	-50	+150	0,3	160 (16)
■ SKF Ecoflas	-10	+200	0,3	160 (16)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S09-E

Ordering dimensions in **blue**

Surface roughness TPU/ PTFE		$R_{t\max}$ μm	$R_a$	Standard dimensions						Maximal radial extrusion gap			
d f8 over	D H10 incl.			L + 0,2	$R_{\max}$	c	$d_2$	100 bar	200 bar	400 bar	600 bar		
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3 / 0,2^*$											
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$											
<b>Groove face</b>	$\leq 15$	$\leq 3$											
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$													
* Lower value valid for PTFE													

TPU and SKF Ecowear 1000		$d$ mm	$D$ mm	$L$ mm	$R_{\max}$ mm	$c$ mm	$d_2$ mm	Maximal radial extrusion gap			
4	8							100 bar	200 bar	400 bar	600 bar
4	8	d + 4,9	2,2	0,4	2,5	1,78	0,3	0,30	0,20	0,10	
8	19	d + 7,3	3,2	0,6	3,5	2,62	0,4	0,30	0,20	0,10	
19	38	d + 10,7	4,2	1,0	4,5	3,53	0,5	0,40	0,30	0,20	
38	200	d + 15,1	6,3	1,3	5,0	5,33	0,5	0,40	0,30	0,20	
200	256	d + 20,5	8,1	1,8	6,0	7,00	0,7	0,50	0,40	0,20	
256	650	d + 24,0	8,1	1,8	8,0	7,00	0,7	0,50	0,40	0,20	
650	1 000	d + 27,3	9,5	2,5	10,0	8,40	0,8	0,70	0,50	0,30	
1 000	3 000	d + 38,0	13,8	3,0	12,0	12,00	1,1	0,80	0,70	0,40	
PTFE		$d$ mm	$D$ mm	$L$ mm	$R_{\max}$ mm	$c$ mm	$d_2$ mm	Maximal radial extrusion gap			
4	8							100 bar	200 bar	400 bar	600 bar
4	8	d + 4,9	2,2	0,4	2,5	1,78	0,3	0,20	0,15	0,05	
8	19	d + 7,3	3,2	0,6	3,5	2,62	0,4	0,25	0,15	0,05	
19	38	d + 10,7	4,2	1,0	4,5	3,53	0,4	0,25	0,20	0,10	
38	200	d + 15,1	6,3	1,3	5,0	5,33	0,5	0,30	0,20	0,10	
200	256	d + 20,5	8,1	1,8	6,0	7,00	0,6	0,35	0,25	0,15	
256	650	d + 24,0	8,1	1,8	8,0	7,00	0,6	0,35	0,25	0,15	
650	1 000	d + 27,3	9,5	2,5	10,0	8,40	0,7	0,50	0,30	0,20	
1 000	2 000	d + 38,0	13,8	3,0	12,0	12,00	1,0	0,70	0,60	0,30	

\* Extrusion gap values shown above are valid for a temperature of 80 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

**S09-E****100 x 115,1 x 6,3****X-ECOPUR / NBR 70 or SKF Ecoflon 3 / NBR 70**

**Operating parameters**

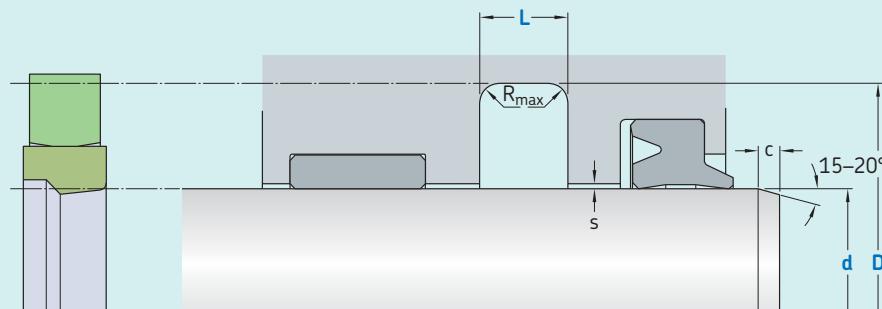
Material Glide ring	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ X-ECOPUR	NBR 70	-30	+100	5	600 (60)
■ X-ECOPUR	MVQ 70	-55	+100	5	600 (60)
■ G-ECOPUR 54D	NBR 70	-30	+100	5	600 (60)
■ G-ECOPUR 54D	MVQ 70	-55	+100	5	600 (60)
■ X-ECOPUR H	NBR 70	-30	+100	5	600 (60)
■ X-ECOPUR H	MVQ 70	-55	+100	5	600 (60)
■ X-ECOPUR S	NBR 70	-30	+100	5	600 (60)
■ X-ECOPUR S	MVQ 70	-55	+100	5	600 (60)
■ SKF Ecoflon 2	NBR 70	-30	+100	10	600 (60)
■ SKF Ecoflon 2	FPM 75	-20	+200	10	600 (60)
■ SKF Ecoflon 3	NBR 70	-30	+100	10	600 (60)
■ SKF Ecoflon 3	FPM 75	-20	+200	10	600 (60)
■ SKF Ecoflon 4	NBR 70	-30	+100	10	600 (60)
■ SKF Ecoflon 4	FPM 75	-20	+200	10	600 (60)
■ SKF Ecowear 1000	NBR 70	-30	+90	5	400 (40)
■ SKF Ecowear 1000	MVQ 70	-55	+90	5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S09-ES

Ordering dimensions in **blue**

Surface roughness TPU/ PTFE	
R <sub>tmax</sub>	R <sub>a</sub>
μm	

**Sliding surface** ≤ 2,5 / ≤ 2\* 0,05–0,3/0,2\***Bottom of groove** ≤ 6,3 ≤ 1,6**Groove face** ≤ 15 ≤ 3Bearing area: 50–95% and a cutting depth of 0,5 R<sub>z</sub> based on C<sub>ref</sub> = 0%

\* Lower value valid for PTFE

d f8 over	D H10 incl.	L + 0,2	R <sub>max</sub>	c	Maximal radial extrusion gap							
					s*	100 bar	200 bar	400 bar				
mm												
mm												
TPU and SKF Ecowear 1000												
4	50	d + 10	5,0	0,2	4,0	0,50	0,4	0,30				
50	60	d + 15	7,5	0,3	5,0	0,50	0,4	0,30				
60	200	d + 20	10,0	0,4	6,0	0,70	0,5	0,40				
200	300	d + 25	12,5	0,4	8,5	0,80	0,6	0,50				
300	530	d + 30	15,0	0,8	10,0	0,90	0,7	0,60				
530	680	d + 35	17,5	1,2	11,5	1,00	0,8	0,70				
680	1 500	d + 40	20,0	1,2	13,0	1,10	0,9	0,80				
PTFE												
4	50	d + 10	5,0	0,2	4,0	0,40	0,3	0,20				
50	60	d + 15	7,5	0,3	5,0	0,50	0,3	0,20				
60	200	d + 20	10,0	0,4	6,0	0,60	0,4	0,25				
200	300	d + 25	12,5	0,4	8,5	0,60	0,4	0,25				
300	530	d + 30	15,0	0,8	10,0	0,70	0,5	0,30				
530	680	d + 35	17,5	1,2	11,5	0,80	0,6	0,50				
680	1 500	d + 40	20,0	1,2	13,0	1,00	0,7	0,60				

\* Extrusion gap values shown above are valid for a temperature of 80 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

**S09-ES****100 x 120 x 10****X-ECOPUR / SKF Ecorubber-1 or SKF Ecoflon 3 / SKF Ecorubber-1**

### Operating parameters

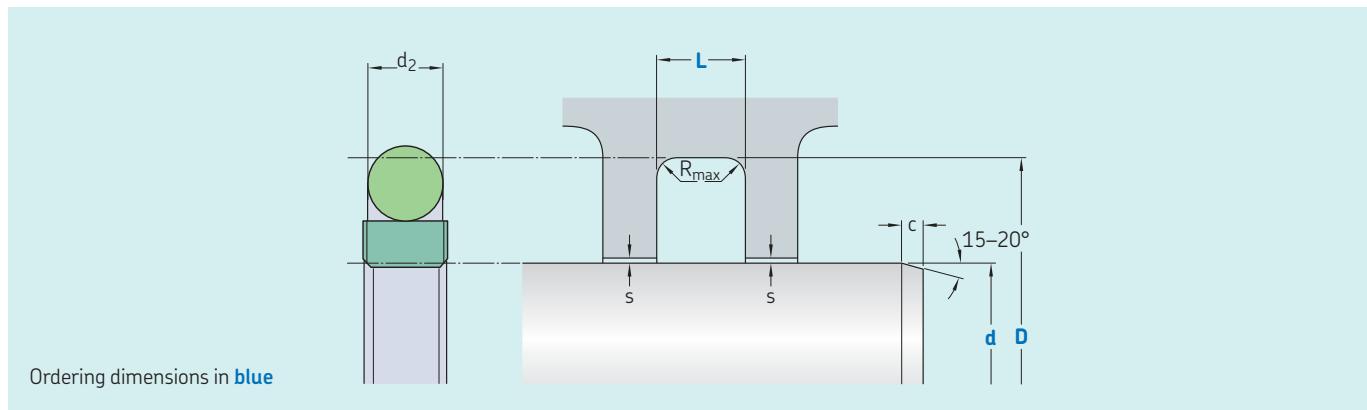
Material Glide ring	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ X-ECOPUR	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ X-ECOPUR	■ SKF Ecosil	-60	+100	5	600 (60)
■ G-ECOPUR 54D	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ G-ECOPUR 54D	■ SKF Ecosil	-60	+100	5	600 (60)
■ X-ECOPUR H	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ X-ECOPUR H	■ SKF Ecosil	-60	+100	5	600 (60)
■ X-ECOPUR S	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ X-ECOPUR S	■ SKF Ecosil	-60	+100	5	600 (60)
■ SKF Ecoflon 2	■ SKF Ecorubber-1	-30	+100	10	600 (60)
■ SKF Ecoflon 2	■ SKF Ecorubber-2	-20	+200	10	600 (60)
■ SKF Ecoflon 3	■ SKF Ecorubber-1	-30	+100	10	600 (60)
■ SKF Ecoflon 3	■ SKF Ecorubber-2	-20	+200	10	600 (60)
■ SKF Ecoflon 4	■ SKF Ecorubber-1	-30	+100	10	600 (60)
■ SKF Ecoflon 4	■ SKF Ecorubber-2	-20	+200	10	600 (60)
■ SKF Ecowear 1000	■ SKF Ecorubber-1	-30	+90	5	400 (40)
■ SKF Ecowear 1000	■ SKF Ecosil	-60	+90	5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S09-D



Surface roughness TPU/ PTFE		Standard dimensions						Maximal radial extrusion gap				
R <sub>tmax</sub>	R <sub>a</sub>	d f8 over	D H10 incl.	L + 0,2	R <sub>max</sub>	c	d <sub>2</sub>	s*	100 bar	200 bar	400 bar	600 bar
mm												
<b>Sliding surface</b>	$\leq 2,5 / \leq 2^* 0,05\text{--}0,3/0,2^*$											
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$										
<b>Groove face</b>	$\leq 15$	$\leq 3$										
Bearing area: 50–95% and a cutting depth of 0,5 R <sub>z</sub> based on C <sub>ref</sub> = 0%												
* Lower value valid for PTFE												
TPU and SKF Ecowear 1000												
<b>4</b>	<b>8</b>	$d + 4,9$	2,2	0,4	2,5	1,78	0,3	0,30	0,20	0,10		
<b>8</b>	<b>19</b>	$d + 7,3$	3,2	0,6	3,5	2,62	0,4	0,30	0,20	0,10		
<b>19</b>	<b>38</b>	$d + 10,7$	4,2	1,0	4,5	3,53	0,5	0,40	0,30	0,20		
<b>38</b>	<b>200</b>	$d + 15,1$	6,3	1,3	5,0	5,33	0,5	0,40	0,30	0,20		
<b>200</b>	<b>256</b>	$d + 20,5$	8,1	1,8	6,0	7,00	0,7	0,50	0,40	0,20		
<b>256</b>	<b>650</b>	$d + 24,0$	8,1	1,8	8,0	7,00	0,7	0,50	0,40	0,20		
<b>650</b>	<b>1 000</b>	$d + 27,3$	9,5	2,5	10,0	8,40	0,8	0,70	0,50	0,30		
<b>1 000</b>	<b>3 000</b>	$d + 38,0$	13,8	3,0	12,0	12,00	1,1	0,80	0,70	0,40		
PTFE												
<b>4</b>	<b>8</b>	$d + 4,9$	2,2	0,4	2,5	1,78	0,3	0,20	0,15	0,05		
<b>8</b>	<b>19</b>	$d + 7,3$	3,2	0,6	3,5	2,62	0,4	0,25	0,15	0,05		
<b>19</b>	<b>38</b>	$d + 10,7$	4,2	1,0	4,5	3,53	0,4	0,25	0,20	0,10		
<b>38</b>	<b>200</b>	$d + 15,1$	6,3	1,3	5,0	5,33	0,5	0,30	0,20	0,10		
<b>200</b>	<b>256</b>	$d + 20,5$	8,1	1,8	6,0	7,00	0,6	0,35	0,25	0,15		
<b>256</b>	<b>650</b>	$d + 24,0$	8,1	1,8	8,0	7,00	0,6	0,35	0,25	0,15		
<b>650</b>	<b>1 000</b>	$d + 27,3$	9,5	2,5	10,0	8,40	0,7	0,50	0,30	0,20		
<b>1 000</b>	<b>2 000</b>	$d + 38,0$	13,8	3,0	12,0	12,00	1,0	0,70	0,60	0,30		

\* Extrusion gap values shown above are valid for a temperature of 80 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm]

Sealing material / Energizer

**S09-D**

**100 x 115,1 x 6,3**

**X-ECOPUR / NBR 70 or SKF Ecoflon 3 / NBR 70**

**Operating parameters**

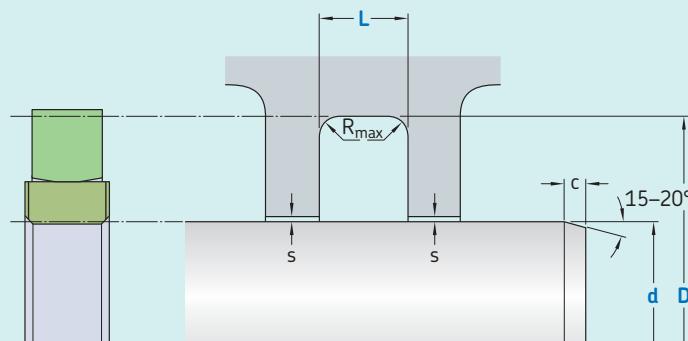
Material Glide ring	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ X-ECOPUR	NBR 70	-30	+100	5	600 (60)
■ X-ECOPUR	MVQ 70	-55	+100	5	600 (60)
■ G-ECOPUR 54D	NBR 70	-30	+100	5	600 (60)
■ G-ECOPUR 54D	MVQ 70	-55	+100	5	600 (60)
■ X-ECOPUR H	NBR 70	-30	+100	5	600 (60)
■ X-ECOPUR H	MVQ 70	-55	+100	5	600 (60)
■ X-ECOPUR S	NBR 70	-30	+100	5	600 (60)
■ X-ECOPUR S	MVQ 70	-55	+100	5	600 (60)
■ SKF Ecoflon 2	NBR 70	-30	+100	10	600 (60)
■ SKF Ecoflon 2	FPM 75	-20	+200	10	600 (60)
■ SKF Ecoflon 3	NBR 70	-30	+100	10	600 (60)
■ SKF Ecoflon 3	FPM 75	-20	+200	10	600 (60)
■ SKF Ecoflon 4	NBR 70	-30	+100	10	600 (60)
■ SKF Ecoflon 4	FPM 75	-20	+200	10	600 (60)
■ SKF Ecowear 1000	NBR 70	-30	+90	5	400 (40)
■ SKF Ecowear 1000	MVQ 70	-55	+90	5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S09-DS

Ordering dimensions in **blue**

Surface roughness TPU/ PTFE		d f8 over	D H10 incl.	L + 0,2	R <sub>max</sub>	c	Maximal radial extrusion gap s*			
R <sub>tmax</sub>	R <sub>a</sub>						100 bar	200 bar	400 bar	600 bar
		µm								
<b>Sliding surface</b>	≤ 2,5 / ≤ 2*0,05–0,3/0,2*									
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6								
<b>Groove face</b>	≤ 15	≤ 3								
Bearing area: 50–95% and a cutting depth of 0,5 R <sub>z</sub> based on C <sub>ref</sub> = 0%										
* Lower value valid for PTFE										

		Standard dimensions						Maximal radial extrusion gap	
d	D	L	R <sub>max</sub>	c	s*	100 bar	200 bar	400 bar	600 bar
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
TPU and SKF Ecowear 1000									
4	50	d + 10	5,0	0,2	4,0	0,5	0,4	0,30	0,20
50	60	d + 15	7,5	0,3	5,0	0,5	0,4	0,30	0,20
60	200	d + 20	10,0	0,4	6,0	0,7	0,5	0,40	0,20
200	300	d + 25	12,5	0,4	8,5	0,8	0,6	0,50	0,30
300	530	d + 30	15,0	0,8	10,0	0,9	0,7	0,60	0,30
530	680	d + 35	17,5	1,2	11,5	1,0	0,8	0,70	0,30
680	1 500	d + 40	20,0	1,2	13,0	1,1	0,9	0,80	0,40
PTFE									
4	50	d + 10	5,0	0,2	4,0	0,4	0,3	0,20	0,10
50	60	d + 15	7,5	0,3	5,0	0,5	0,3	0,20	0,10
60	200	d + 20	10,0	0,4	6,0	0,6	0,4	0,25	0,15
200	300	d + 25	12,5	0,4	8,5	0,6	0,4	0,25	0,15
300	530	d + 30	15,0	0,8	10,0	0,7	0,5	0,30	0,20
530	680	d + 35	17,5	1,2	11,5	0,8	0,6	0,50	0,20
680	1 500	d + 40	20,0	1,2	13,0	1,0	0,7	0,60	0,30

\* Extrusion gap values shown above are valid for a temperature of 80 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

**S09-DS**

100 x 120 x 10

X-ECOPUR / SKF Ecorubber-1 or SKF Ecoflon 3 / SKF Ecorubber-1

### Operating parameters

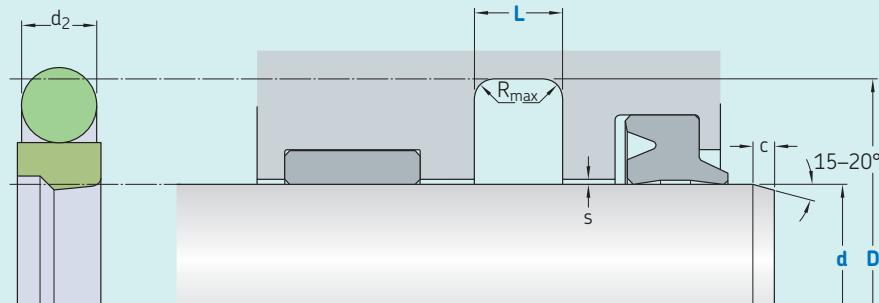
Material Glide ring	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ X-ECOPUR	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ X-ECOPUR	■ SKF Ecosil	-60	+100	5	600 (60)
■ G-ECOPUR 54D	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ G-ECOPUR 54D	■ SKF Ecosil	-60	+100	5	600 (60)
■ X-ECOPUR H	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ X-ECOPUR H	■ SKF Ecosil	-60	+100	5	600 (60)
■ X-ECOPUR S	■ SKF Ecorubber-1	-30	+100	5	600 (60)
■ X-ECOPUR S	■ SKF Ecosil	-60	+100	5	600 (60)
■ SKF Ecoflon 2	■ SKF Ecorubber-1	-30	+100	10	600 (60)
■ SKF Ecoflon 2	■ SKF Ecorubber-2	-20	+200	10	600 (60)
■ SKF Ecoflon 3	■ SKF Ecorubber-1	-30	+100	10	600 (60)
■ SKF Ecoflon 3	■ SKF Ecorubber-2	-20	+200	10	600 (60)
■ SKF Ecoflon 4	■ SKF Ecorubber-1	-30	+100	10	600 (60)
■ SKF Ecoflon 4	■ SKF Ecorubber-2	-20	+200	10	600 (60)
■ SKF Ecowear 1000	■ SKF Ecorubber-1	-30	+90	5	400 (40)
■ SKF Ecowear 1000	■ SKF Ecosil	-60	+90	5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

# S09-P



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$

**Groove face**  $\leq 15$   $\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

Standard dimensions		$d$ f8 over	$D$ H10 incl.	$L$ $+ 0,2$	$R_{t\max}$	$c$	$d_2$	Maximal radial extrusion gap		
mm	mm							100 bar	160 bar	250 bar
4	8	d + 4,9	2,2	0,4	2,5	1,78	0,30	0,25	0,20	
8	19	d + 7,3	3,2	0,6	3,5	2,62	0,40	0,30	0,25	
19	38	d + 10,7	4,2	1,0	4,5	3,53	0,50	0,35	0,25	
38	200	d + 15,1	6,3	1,3	5,0	5,33	0,50	0,40	0,30	
200	256	d + 20,5	8,1	1,8	6,0	7,00	0,70	0,50	0,35	
256	600	d + 24,0	8,1	1,8	8,0	7,00	0,70	0,50	0,35	

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm]

Sealing material / Energizer

Rod Seal S09-P

100 x 115,1 x 6,3

ECOPUR / NBR 70

### Operating parameters

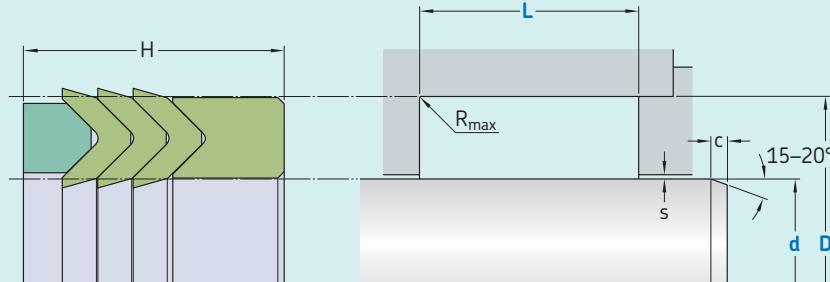
Material Glide ring	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	-30	+100	1	250 (25)
■ ECOPUR LD	NBR 70	-30	+100	1	250 (25)
■ G-ECOPUR	NBR 70	-30	+100	1	250 (25)
■ H-ECOPUR	NBR 70	-20	+100	1	250 (25)
■ S-ECOPUR	NBR 70	-20	+100	1	250 (25)
■ T-ECOPUR	MVQ 70	-50	+100	1	250 (25)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S1012-T



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

Standard dimensions		D	L	$R_{t\max}$	c	s*
d f8 over	incl.	H10	+ 0,2			500 bar
mm						
10	40	d + 10	16	0,4	4	0,25
40	75	d + 15	25	0,4	5	0,38
75	150	d + 20	32	0,4	6	0,50
150	200	d + 25	40	0,4	8,5	0,63
200	300	d + 30	50	0,4	10	0,75
300		d + 40	63	0,4	13	1,00

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm] / Number of chevrons

Support ring / Sealing material / Pressure ring

**Rod Seal S1012-T****100 x 120 x 23 / 2****SKF Ecotal / ECOPUR / SKF Ecotal**

**Operating parameters**

<b>Material</b> Support ring <sup>3)</sup> S10-A	Chevron S11-T	Pressure ring <sup>3)</sup> S12-T	<b>Temperature</b>		<b>Speed<sup>1)</sup></b>	<b>Pressure<sup>2)</sup></b>
			from	to	max	max
			°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR	■ X-ECOPUR	-30	+110	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR LD	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR LD	■ SKF Ecomid	-35	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecomid	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecomid	■ H-ECOPUR	■ X-ECOPUR H	-20	+110	0,5	500 (50)
■ SKF Ecomid	■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecomid	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecomid	■ S-ECOPUR	■ X-ECOPUR S	-20	+110	0,5	500 (50)
■ SKF Ecomid	■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	500 (50)
■ SKF Ecomid	■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	500 (50)
■ SKF Ecoflon 2	■ SKF Ecorubber-1	■ SKF Ecoflon 2	-30	+100	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-H	■ SKF Ecopaek	-25	+150	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-2	■ SKF Ecopaek	-20	+200	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-3	■ SKF Ecoflon 2	-50	+150	0,5	250 (25)

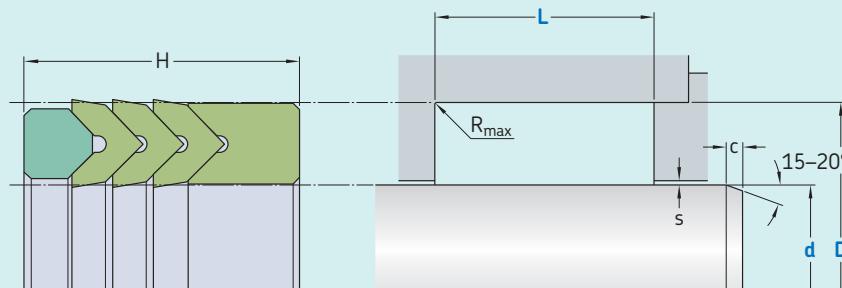
**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S1012-M



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$

**Groove face**  $\leq 15$   $\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

Standard dimensions		D	L	$R_{t\max}$	C	$s^*$
d f8 over	incl.	H10	+ 0,2			500 bar
mm						
5	40	d + 10	16	0,4	4	0,25
40	75	d + 15	25	0,4	5	0,38
75	150	d + 20	32	0,4	6	0,50
150	200	d + 25	40	0,4	8,5	0,63
200	300	d + 30	50	0,4	10	0,75
300		d + 40	63	0,4	13	1,00

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm] / Number of chevrons

Support ring / Sealing material / Pressure ring

Rod Seal S1012-M

100 x 125 x 30 / 2

SKF Ecotal / ECOPUR / SKF Ecotal

**Operating parameters**

<b>Material</b> Support ring <sup>3)</sup> S10-A	Chevron S11-M	Pressure ring <sup>3)</sup> S12-M	<b>Temperature</b>		<b>Speed<sup>1)</sup></b> max	<b>Pressure<sup>2)</sup></b> max
			from	to		
			°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR	■ X-ECOPUR	-30	+110	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR LD	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR LD	■ SKF Ecomid	-35	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecomid	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecomid	■ H-ECOPUR	■ X-ECOPUR H	-20	+110	0,5	500 (50)
■ SKF Ecomid	■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecomid	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecomid	■ S-ECOPUR	■ X-ECOPUR S	-20	+110	0,5	500 (50)
■ SKF Ecomid	■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	500 (50)
■ SKF Ecomid	■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	500 (50)
■ SKF Ecoflon 2	■ SKF Ecorubber-1	■ SKF Ecoflon 2	-30	+100	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-H	■ SKF Ecopaek	-25	+150	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-2	■ SKF Ecopaek	-20	+200	0,5	250 (25)
■ SKF Ecoflon 2	■ SKF Ecorubber-3	■ SKF Ecoflon 2	-50	+150	0,5	250 (25)

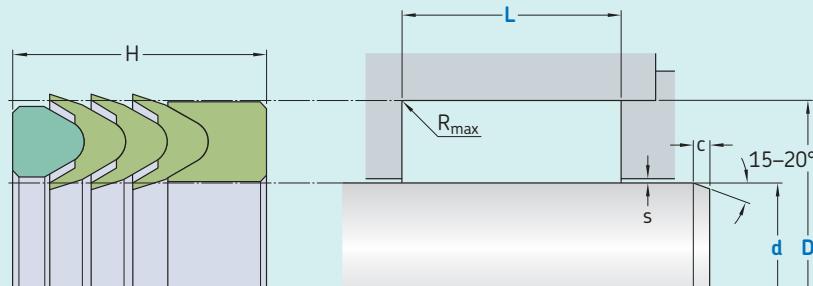
**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S1315-T



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	0,05–0,3

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$

**Groove face**  $\leq 15$   $\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

Standard dimensions		D H10	L $+ 0,2$	$R_{t\max}$	c	$s^*$
d f8 over	incl.					600 bar
mm						
10	40	d + 10	16	0,4	4,0	0,25
40	75	d + 15	25	0,4	5,0	0,38
75	150	d + 20	32	0,4	6,0	0,50
150	200	d + 25	40	0,4	8,5	0,63
200	300	d + 30	50	0,4	10,0	0,75
300		d + 40	63	0,4	13,0	1,00

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm] / Number of chevrons

Support ring / Sealing material / Pressure ring

Rod Seal S1315-T

100 x 120 x 25 / 2

SKF Ecotal / ECOPUR / SKF Ecotal

### Operating parameters

Material Support ring <sup>3)</sup> S13-A	Chevron S14-T	Pressure ring <sup>3)</sup> S15-T	Temperature		Speed <sup>1)</sup> max	Pressure <sup>2)</sup> max
			from	to		
			°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecomid	-30	+100	0,5	600 (60)
■ SKF Ecotal	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	600 (60)
■ SKF Ecotal	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	600 (60)
■ SKF Ecomid	■ ECOPUR	■ X-ECOPUR	-30	+110	0,5	600 (60)
■ SKF Ecomid	■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	600 (60)
■ SKF Ecorubber-1	■ ECOPUR LD	■ SKF Ecomid	-30	+100	0,5	600 (60)
■ SKF Ecomid	■ ECOPUR LD	■ SKF Ecomid	-35	+110	0,5	600 (60)
■ SKF Ecorubber-1	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+100	0,5	600 (60)
■ SKF Ecomid	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+110	0,5	600 (60)
■ SKF Ecorubber-1	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecomid	-20	+100	0,5	600 (60)
■ SKF Ecotal	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	600 (60)
■ SKF Ecotal	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	600 (60)
■ SKF Ecomid	■ H-ECOPUR	■ X-ECOPUR H	-20	+110	0,5	600 (60)
■ SKF Ecomid	■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	600 (60)
■ SKF Ecorubber-1	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecomid	-20	+100	0,5	600 (60)
■ SKF Ecotal	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	600 (60)
■ SKF Ecotal	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	600 (60)
■ SKF Ecomid	■ S-ECOPUR	■ X-ECOPUR S	-20	+110	0,5	600 (60)
■ SKF Ecomid	■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	600 (60)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecotal	-30	+100	0,5	600 (60)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecomid	-30	+100	0,5	600 (60)
■ SKF Ecotal	■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	600 (60)
■ SKF Ecomid	■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	600 (60)

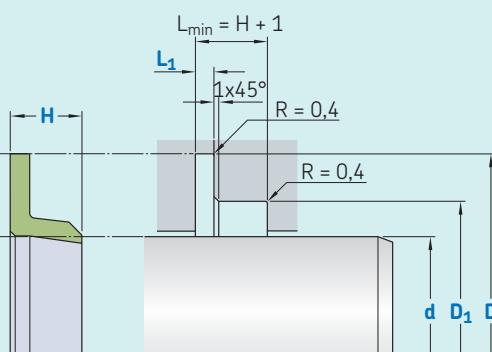
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S16-A



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{\text{ref}} = 0\%$

## Standard dimensions

Minimum nominal inside diameter  
 $d \geq 6 \text{ mm}$ .

This is not a standard profile and serves as a replacement seal to fit existing housings. New constructions should use standard profiles.

## Ordering example

Profile  
 $d \times D/D_1 \times L_1/H$  [mm]  
Sealing material

Rod Seal S16-A  
100 x 150/120 x 5/25  
ECOPUR

**Operating parameters**

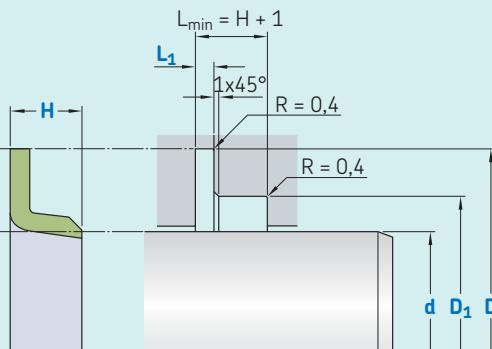
Material Seal	Temperature		Speed <sup>1)</sup> linear max	Pressure (linear <sup>2)</sup> max
	from	to		
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,5	160 (16)
■ ECOPUR LD	-35	+110	0,5	160 (16)
■ G-ECOPUR	-30	+110	0,5	160 (16)
■ H-ECOPUR	-20	+110	0,5	160 (16)
■ S-ECOPUR	-20	+110	0,5	160 (16)
■ T-ECOPUR	-50	+110	0,5	160 (16)
■ SKF Ecorubber-1	-30	+100	0,5	160 (16)
■ SKF Ecorubber-H	-25	+150	0,5	160 (16)
■ SKF Ecorubber-2	-20	+200	0,5	160 (16)
■ SKF Ecorubber-3	-50	+150	0,5	160 (16)
■ SKF Ecoflas	-10	+200	0,5	160 (16)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

# S16-B



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	μm	
<b>Sliding surface</b>	≤ 2,5	0,05–0,3
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6
<b>Groove face</b>	≤ 15	≤ 3

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

#### Standard dimensions

Minimum nominal inside diameter  
 $d \geq 11$  mm.

This is not a standard profile and serves as a replacement seal to fit existing housings. New constructions should use standard profiles.

#### Ordering example

Profile  
 $d \times D/D_1 \times L_1/H$  [mm]  
Sealing material

Rod Seal S16-B  
100 x 150/120 x 5/25  
ECOPUR

**Operating parameters**

<b>Material Seal</b>	<b>Temperature</b>		<b>Speed<sup>1)</sup> linear max</b>	<b>Pressure linear<sup>2)</sup> max</b>
	<b>from</b>	<b>to</b>		
	<b>°C</b>		<b>m/s</b>	<b>bar (MPa)</b>
■ ECOPUR	-30	+110	0,5	160 (16)
■ ECOPUR LD	-35	+110	0,5	160 (16)
■ G-ECOPUR	-30	+110	0,5	160 (16)
■ H-ECOPUR	-20	+110	0,5	160 (16)
■ S-ECOPUR	-20	+110	0,5	160 (16)
■ T-ECOPUR	-50	+110	0,5	160 (16)
■ SKF Ecorubber-1	-30	+100	0,5	160 (16)
■ SKF Ecorubber-H	-25	+150	0,5	160 (16)
■ SKF Ecorubber-2	-20	+200	0,5	160 (16)
■ SKF Ecorubber-3	-50	+150	0,5	160 (16)
■ SKF Ecoflas	-10	+200	0,5	160 (16)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.



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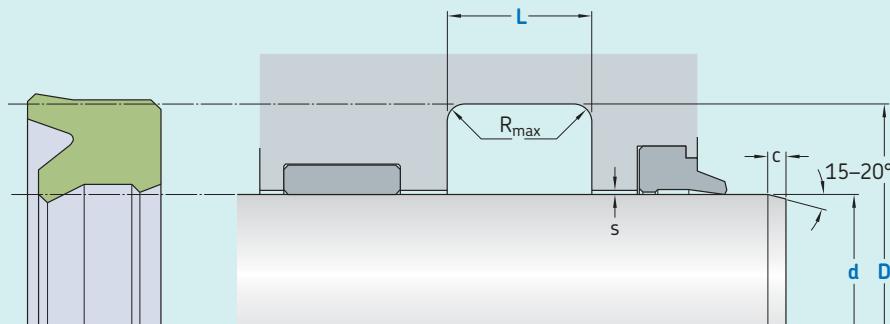
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# S17-P



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$
	μm	
<b>Sliding surface</b>	≤ 2,5	0,05–0,3
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6
<b>Groove face</b>	≤ 15	≤ 3

Bearing area: 50–95% and a cutting depth of 0,5  $R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	Maximal radial extrusion gap				
					s*	20 bar	100 bar	200 bar	
mm									
6	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11	0,05
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16	0,10
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25	0,19
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32	0,26
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39	0,33
500	600	d + 30	25,0	0,4	10,0	0,67	0,52	0,45	0,39

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

Rod Seal S17-P

100 x 115 x 10

ECOPUR

**Operating parameters**

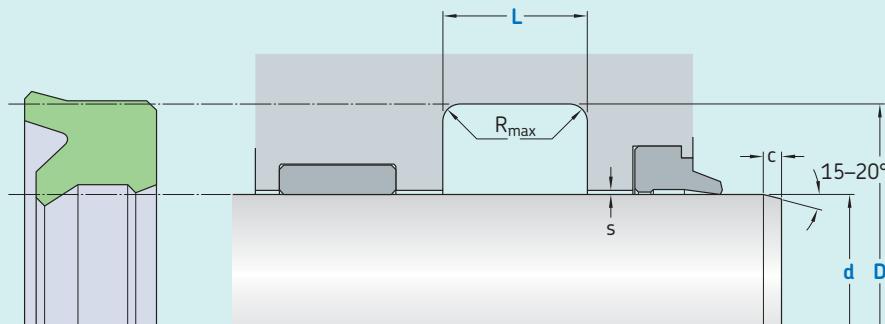
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,5	400 (40)
■ ECOPUR LD	-35	+110	0,5	400 (40)
■ G-ECOPUR	-30	+110	0,5	400 (40)
■ H-ECOPUR	-20	+110	0,5	400 (40)
■ S-ECOPUR	-20	+110	0,5	400 (40)
■ T-ECOPUR	-50	+110	0,5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S17-R

Ordering dimensions in **blue**

Surface roughness	R <sub>tmax</sub>	R <sub>a</sub>
	μm	
<b>Sliding surface</b>	≤ 2,5	0,05–0,3
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6
<b>Groove face</b>	≤ 15	≤ 3

Bearing area: 50–95% and a cutting depth of 0,5 R<sub>z</sub> based on C<sub>ref</sub> = 0%

d f8 over	D H10 incl.	L + 0,2	R <sub>max</sub>	c	Maximal radial extrusion gap s*		
					20 bar	100 bar	160 bar
6	25	d + 8	6,3	0,4	3,5	0,23	0,16
25	50	d + 10	8,0	0,4	4,0	0,26	0,19
50	150	d + 15	10,0	0,4	5,0	0,31	0,24
150	300	d + 20	14,0	0,4	6,0	0,34	0,27
300	500	d + 25	17,0	0,4	8,5	0,37	0,30
500	600	d + 30	25,0	0,4	10,0	0,40	0,34

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material

**Rod Seal S17-R****100 x 115 x 10****SKF Ecorubber-1**

**Operating parameters**

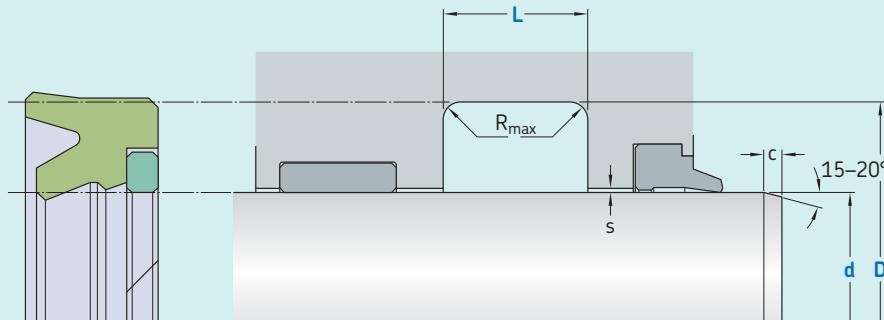
Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ SKF Ecorubber-1	-30	+100	0,5	160 (16)
■ SKF Ecorubber-H	-25	+150	0,5	160 (16)
■ SKF Ecorubber-2	-20	+200	0,5	160 (16)
■ SKF Ecorubber-3	-50	+150	0,5	160 (16)
■ SKF Ecoflas	-10	+200	0,5	160 (16)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S18-P



Ordering dimensions in blue

Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap				
			d	D	L	$R_{t\max}$	c	s*	20 bar	100 bar	400 bar	600 bar
	μm		f8	H10	+ 0,2							
<b>Sliding surface</b>	≤ 2,5	0,05–0,3										
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6										
<b>Groove face</b>	≤ 15	≤ 3										
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$												
23	25	d + 8	8,0	0,4	3,5	0,80	0,80	0,30	0,11			
25	50	d + 10	9,0	0,4	4,0	1,00	1,00	0,37	0,14			
50	150	d + 15	14,0	0,4	5,0	1,50	1,47	0,46	0,17			
150	300	d + 20	17,0	0,4	6,0	2,00	1,77	0,54	0,18			
300	500	d + 25	20,0	0,4	8,5	2,50	2,06	0,62	0,20			
500	600	d + 30	25,0	0,4	10,0	3,00	2,43	0,76	0,25			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

Rod Seal S18-P

100 x 115 x 13

ECOPUR / SKF Ecotal

### Operating parameters

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	600 (60)
■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	600 (60)
■ ECOPUR LD	■ SKF Ecomid	-35	+110	0,5	600 (60)
■ G-ECOPUR	■ SKF Ecomid	-30	+110	0,5	600 (60)
■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	600 (60)
■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	600 (60)
■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	600 (60)
■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	600 (60)
■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	600 (60)
■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	600 (60)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.



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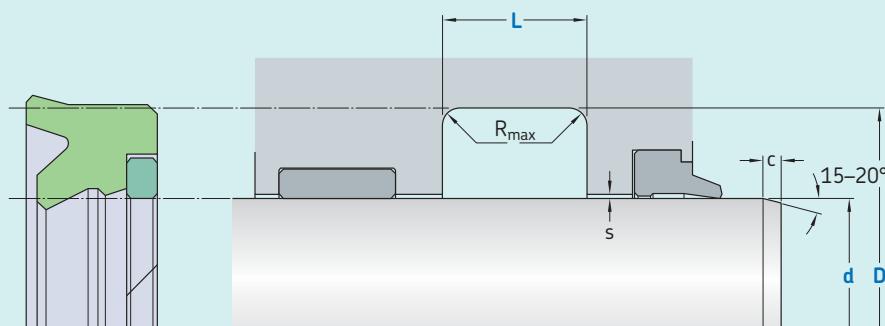
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# S18-R

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	Standard dimensions				Maximal radial extrusion gap		
		L $+0,2$	$R_{t\max}$	c	s*	20 bar	100 bar	250 bar
mm								mm
23	25	d + 8	8,0	0,4	3,5	0,60	0,80	0,52
25	50	d + 10	9,0	0,4	4,0	1,00	1,00	0,66
50	150	d + 15	14,0	0,4	5,0	1,50	1,40	0,78
150	300	d + 20	17,0	0,4	6,0	2,00	1,66	0,88
300	500	d + 25	20,0	0,4	8,5	2,50	1,91	1,00
500	600	d + 30	25,0	0,4	10,0	3,00	2,18	1,13

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Back-up ring

**Rod Seal S18-R****100 x 115 x 13****SKF Ecorubber-1 / SKF Ecotal**

**Operating parameters**

<b>Material Seal</b>	<b>Back-up ring<sup>3)</sup></b>	<b>Temperature</b>		<b>Speed<sup>1)</sup></b>	<b>Pressure<sup>2)</sup></b>
		from	to	max	max
		°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ SKF Ecotal	-30	+100	0,5	250 (25)
■ SKF Ecorubber-1	■ SKF Ecomid	-30	+100	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecotal	-25	+100	0,5	250 (25)
■ SKF Ecorubber-H	■ SKF Ecomid	-25	+110	0,5	250 (25)
■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecoflon 2	-50	+150	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecotal	-50	+100	0,5	250 (25)
■ SKF Ecorubber-3	■ SKF Ecomid	-40	+110	0,5	250 (25)
■ SKF Ecoflas	■ SKF Ecopaek	-10	+200	0,5	250 (25)

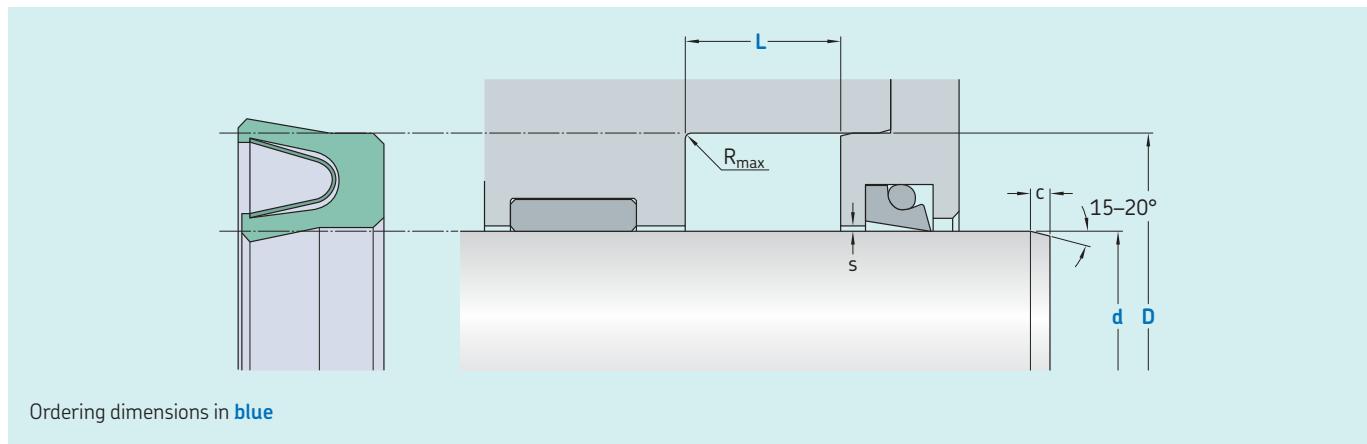
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S19-F



Surface roughness	R <sub>tmax</sub>	R <sub>a</sub>	Standard dimensions					Maximal radial extrusion gap						
	µm		d	D	L	R <sub>tmax</sub>	c	s*	20 bar	100 bar	200 bar	300 bar	400 bar	
over incl.														
												mm	mm	
<b>Sliding surface</b>	≤ 2	0,05–0,2	8	18	d + 4,5	3,6	0,4	2,0	0,25	0,12	0,10	0,08	0,07	
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6	18	50	d + 6,2	4,8	0,4	3,0	0,35	0,17	0,12	0,10	0,08	
<b>Groove face</b>	≤ 15	≤ 3	50	120	d + 9,4	7,1	0,4	4,0	0,45	0,22	0,17	0,12	0,10	
Bearing area: 50–95% and a cutting depth of 0,5 R <sub>z</sub> based on C <sub>ref</sub> = 0%														
<b>120</b>	<b>630</b>	d + 12,2	9,5	0,4	5,0	0,60	0,31	0,25	0,15	0,12				
<b>630</b>	<b>1 600</b>	d + 19,0	15,0	0,4	6,0	0,87	0,48	0,38	0,28	0,20				

\* Extrusion gap values shown above are valid for a temperature of 80 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Spring

**Rod Seal S19-F****100 x 109,4 x 7,1****SKF Ecoflon 3 / 1.4310**

**Operating parameters**

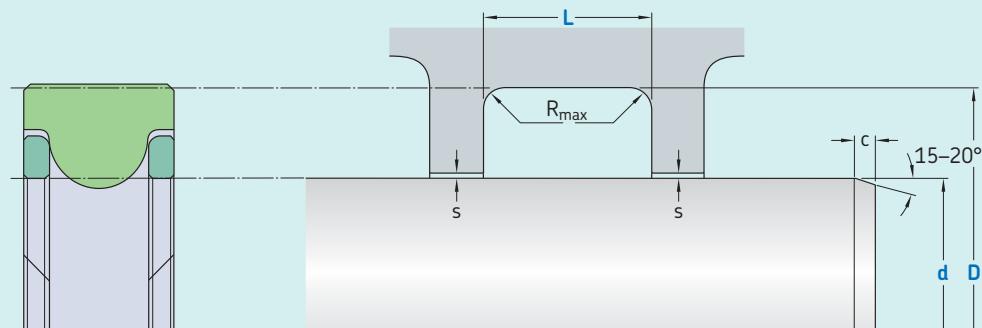
Material Seal	Spring	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
SKF Ecolon 1	1.4310	-200	+260	15	200 (20)
SKF Ecolon 2	1.4310	-200	+260	15	400 (40)
SKF Ecolon 3	1.4310	-200	+260	15	400 (40)
SKF Ecolon 4	1.4310	-200	+260	15	400 (40)
SKF Ecowear 1000	1.4310	-200	+90	15	200 (20)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S20-R



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$

**Groove face**  $\leq 15$   $\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

Standard dimensions				D	L	$R_{t\max}$	c	s*
d	f8	static over	dynamic over	H10	+0,25			
mm								
11	100	—	—	d + 2,70	4,5	0,4	2,0	f8/H8
100	150	11	20	d + 4,36	6,5	0,4	2,0	f8/H8
150	250	20	40	d + 6,00	7,4	0,4	3,0	f8/H8
250	400	40	100	d + 9,06	10,1	0,4	3,5	f8/H8
400	600	100	300	d + 11,88	12,8	0,4	4,5	f8/H8
600		300	600	d + 17,00	17,5	0,4	4,5	f8/H8

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm]

Sealing material / Back-up ring

Rod Seal S20-R

100 x 115 x 13

SKF Ecorubber-1 / SKF Ecotal

### Operating parameters

Material Seal	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ SKF Ecotal	-30	+100	0,5	700 (70)
■ SKF Ecorubber-1	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	700 (70)
■ SKF Ecorubber-H	■ SKF Ecotal	-25	+100	0,5	700 (70)
■ SKF Ecorubber-H	■ SKF Ecomid	-25	+110	0,5	700 (70)
■ SKF Ecorubber-H	■ SKF Ecopaek	-25	+150	0,5	700 (70)
■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	700 (70)
■ SKF Ecorubber-2	■ SKF Ecopaek	-20	+200	0,5	700 (70)

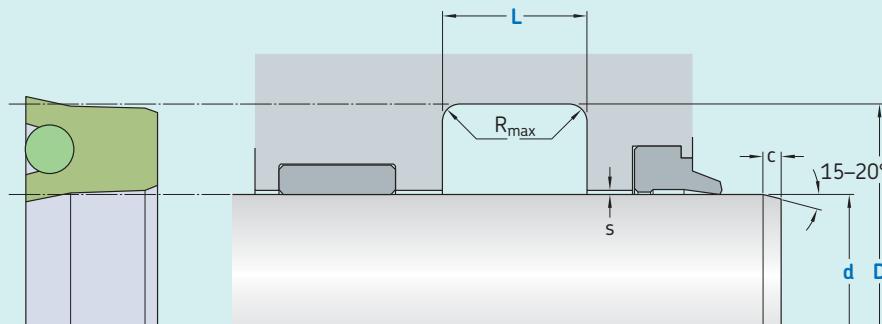
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S21-P

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2,5$	0,05–0,3
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	Maximal radial extrusion gap			
					s*	20 bar	100 bar	200 bar
mm								
5	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39
500	600	d + 30	25,0	0,4	10,0	0,67	0,52	0,45

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer

**Rod Seal S21-P****100 x 115 x 10****ECOPUR / NBR 70**

### Operating parameters

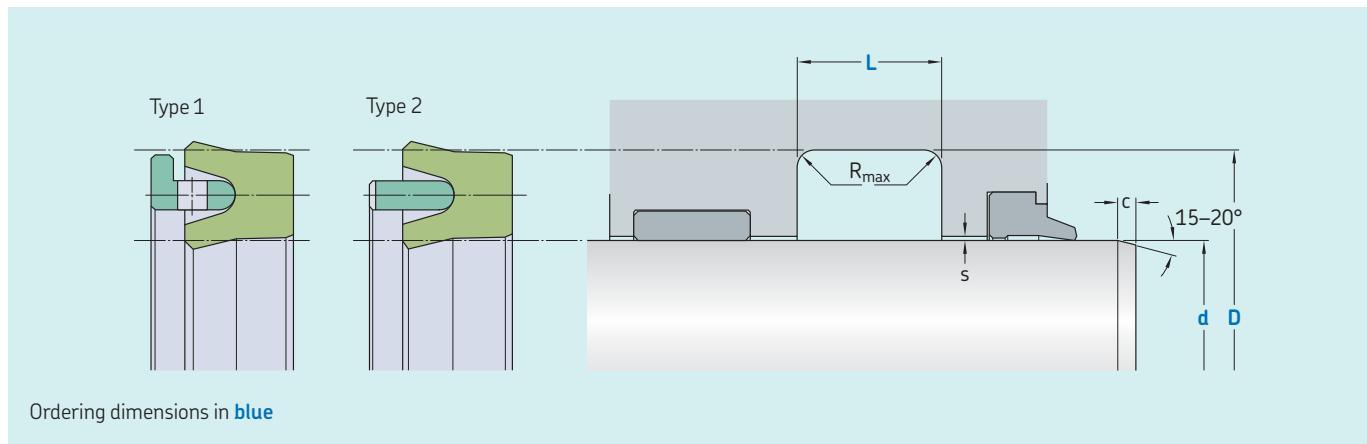
Material Seal	Energizer	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	-30	+100	0,5	400 (40)
■ H-ECOPUR	NBR 70	-20	+100	0,5	400 (40)
■ S-ECOPUR	NBR 70	-20	+100	0,5	400 (40)
■ T-ECOPUR	MVQ 70	-50	+100	0,5	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

# S22-P



Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap				
	µm		d f8 over	D H10 incl.	L + 0,2	$R_{\max}$	c	s*	20 bar	100 bar	200 bar	400 bar
<b>Sliding surface</b>	≤ 2,5	0,05–0,3										
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6										
<b>Groove face</b>	≤ 15	≤ 3										
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$												
6	25	d + 8	6,3	0,4	3,5	0,33	0,17	0,11	0,05			
25	50	d + 10	8,0	0,4	4,0	0,37	0,22	0,16	0,10			
50	150	d + 15	10,0	0,4	5,0	0,46	0,31	0,25	0,19			
150	300	d + 20	14,0	0,4	6,0	0,54	0,39	0,32	0,26			
300	500	d + 25	17,0	0,4	8,5	0,61	0,46	0,39	0,33			
500	600	d + 30	25,0	0,4	10,0	0,67	0,52	0,45	0,39			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.  
Standard: type 2

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Support ring

**Rod Seal S22-P Type 1****100 x 115 x 10****ECOPUR / SKF Ecotal**

**Operating parameters**

Material Seal	Support ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	400 (40)
■ ECOPUR	■ SKF Ecomid	-30	+100	0,5	400 (40)
■ ECOPUR LD	■ SKF Ecomid	-35	+100	0,5	400 (40)
■ G-ECOPUR	■ SKF Ecomid	-30	+100	0,5	400 (40)
■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	400 (40)
■ H-ECOPUR	■ SKF Ecomid	-20	+100	0,5	400 (40)
■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	400 (40)
■ S-ECOPUR	■ SKF Ecomid	-20	+100	0,5	400 (40)
■ T-ECOPUR	■ SKF Ecotal	-40	+100	0,5	400 (40)
■ T-ECOPUR	■ SKF Ecomid	-40	+100	0,5	400 (40)

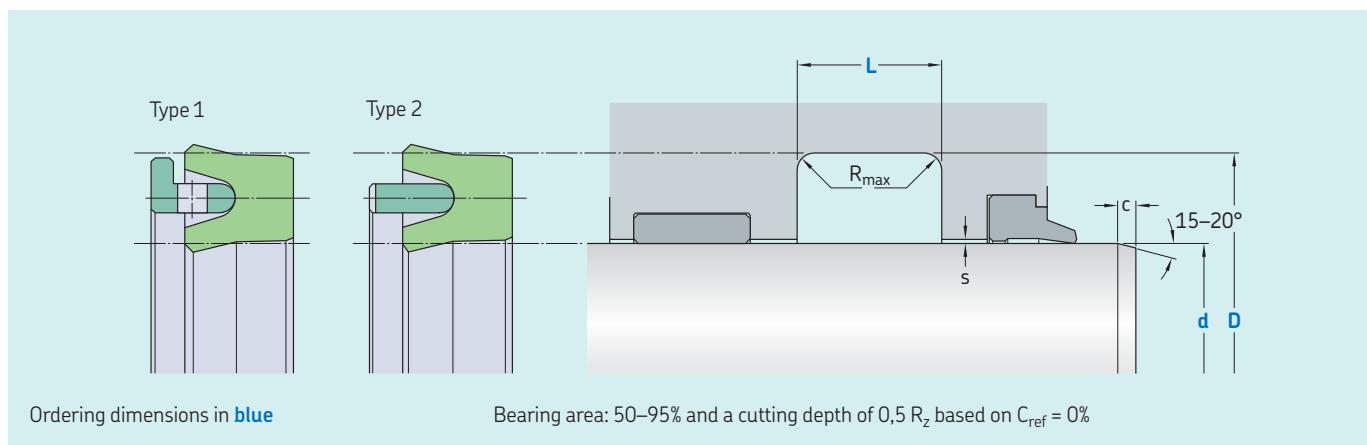
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S22-R



Surface roughness	$R_{tmax}$	$R_a$
	$\mu m$	
<b>Sliding surface</b>	$\leq 2,5$	$0,05-0,3$
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$
<b>Groove face</b>	$\leq 15$	$\leq 3$

Bearing area: 50–95% and a cutting depth of 0,5  $R_z$  based on  $C_{ref} = 0\%$

d f8 over	D H10 incl.	Standard dimensions				Maximal radial extrusion gap		
		L + 0,2	$R_{max}$	c	s*	20 bar	100 bar	160 bar
mm								mm
6	25	d + 8	6,3	0,4	3,5	0,23	0,16	0,14
25	50	d + 10	8,0	0,4	4,0	0,26	0,19	0,17
50	150	d + 15	10,0	0,4	5,0	0,31	0,24	0,22
150	300	d + 20	14,0	0,4	6,0	0,34	0,27	0,25
300	500	d + 25	17,0	0,4	8,5	0,37	0,30	0,29
500	600	d + 30	25,0	0,4	10,0	0,40	0,34	0,32

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.  
Standard: type 2

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Support ring

**Rod Seal S22-R Type 1****100 x 115 x 10****SKF Ecorubber-1 / SKF Ecotal**

### Operating parameters

Material Seal	Support ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
		from	to	max	max
		°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ SKF Ecotal	-30	+100	0,5	160 (16)
■ SKF Ecorubber-1	■ SKF Ecomid	-30	+100	0,5	160 (16)
■ SKF Ecorubber-H	■ SKF Ecoflon 2	-25	+150	0,5	160 (16)
■ SKF Ecorubber-H	■ SKF Ecotal	-25	+100	0,5	160 (16)
■ SKF Ecorubber-H	■ SKF Ecomid	-25	+110	0,5	160 (16)
■ SKF Ecorubber-2	■ SKF Ecoflon 2	-20	+200	0,5	160 (16)
■ SKF Ecorubber-3	■ SKF Ecoflon 2	-50	+150	0,5	160 (16)
■ SKF Ecorubber-3	■ SKF Ecotal	-50	+100	0,5	160 (16)
■ SKF Ecorubber-3	■ SKF Ecomid	-40	+110	0,5	160 (16)
■ SKF Ecoflas	■ SKF Ecoflon 2	-10	+200	0,5	160 (16)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

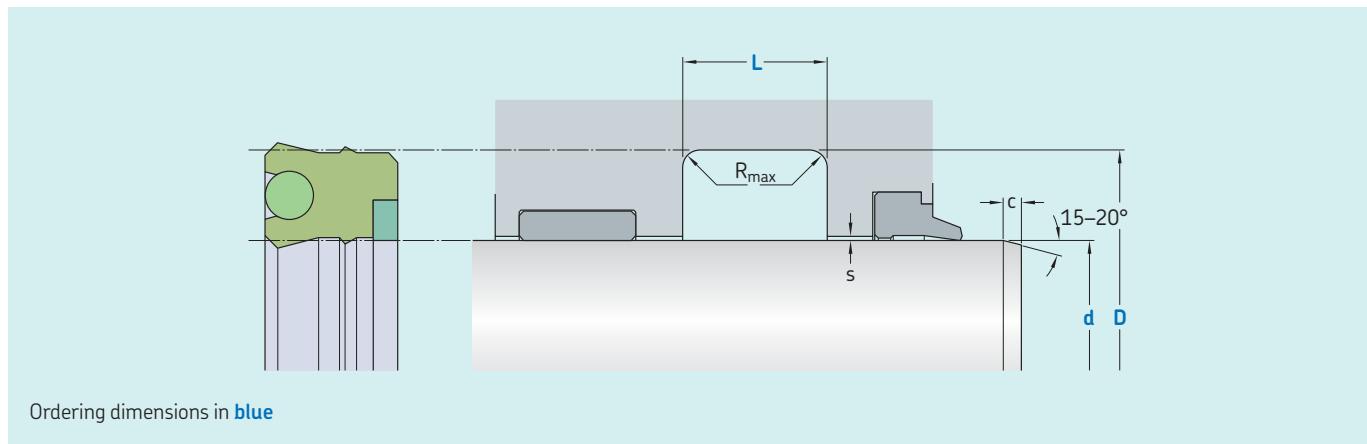
1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.



# S24-P



Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap				
	μm		d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	$s^*$	20 bar	100 bar	400 bar	700 bar
<b>Sliding surface</b>	≤ 2,5	0,05–0,3										
<b>Bottom of groove</b>	≤ 6,3	≤ 1,6										
<b>Groove face</b>	≤ 15	≤ 3										
Bearing area: 50–95% and a cutting depth of 0,5 $R_z$ based on $C_{ref} = 0\%$												
22	25	d + 8	6,3	0,4	3,5	0,80	0,80	0,30	0,04			
25	50	d + 10	8,0	0,4	4,0	1,00	1,00	0,37	0,04			
50	150	d + 15	10,0	0,4	5,0	1,50	1,47	0,46	0,05			
150	300	d + 20	14,0	0,4	6,0	2,00	1,77	0,54	0,06			
300	500	d + 25	17,0	0,4	8,5	2,50	2,06	0,62	0,06			
500	600	d + 30	25,0	0,4	10,0	3,00	2,43	0,76	0,06			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

**Ordering example**

Profile

d x D x L [mm]

Sealing material / Energizer / Back-up ring

Rod Seal S24-P

100 x 115 x 10

H-ECOPUR / NBR 70 / SKF Ecotal

### Operating parameters

Material Seal	Energizer	Back-up ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup> max	Pressure <sup>2)</sup> max
			from	to		
			°C		m/s	bar (MPa)
■ ECOPUR	NBR 70	■ SKF Ecotal	-30	+100	0,5	700 (70)
■ ECOPUR	NBR 70	■ SKF Ecomid	-30	+100	0,5	700 (70)
■ H-ECOPUR	NBR 70	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ H-ECOPUR	NBR 70	■ SKF Ecomid	-20	+100	0,5	700 (70)
■ S-ECOPUR	NBR 70	■ SKF Ecotal	-20	+100	0,5	700 (70)
■ S-ECOPUR	NBR 70	■ SKF Ecomid	-20	+100	0,5	700 (70)
■ T-ECOPUR	MVQ 70	■ SKF Ecotal	-50	+100	0,5	700 (70)
■ T-ECOPUR	MVQ 70	■ SKF Ecomid	-40	+100	0,5	700 (70)

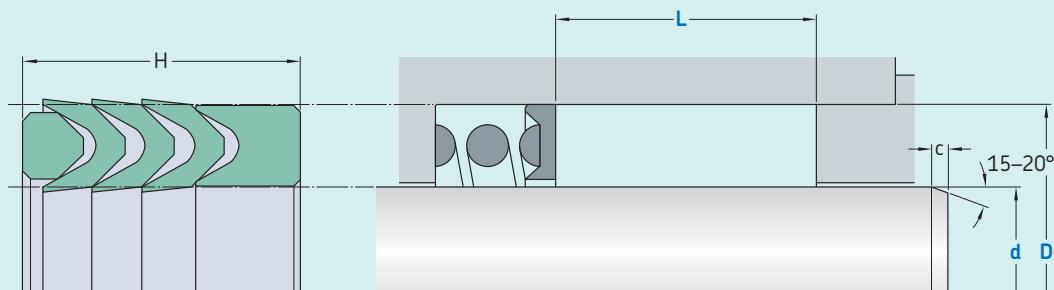
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

3) Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S2527-F



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2$	0,05–0,2

**Bottom of groove**  $\leq 6,3$   $\leq 1,6$

**Groove face**  $\leq 15$   $\leq 3$

Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$

Standard dimensions			Installation height			
d f8 over	D H8 incl.	c	L*	2 chevrons up to 16 bar	3 chevrons up to 50 bar	4 chevrons up to 100 bar
mm			mm			

<b>10</b>	<b>16</b>	$d + 8$	3,5	12	15	18
<b>16</b>	<b>40</b>	$d + 10$	4,0	14	19	23
<b>40</b>	<b>50</b>	$d + 12$	4,5	16	22	26
<b>50</b>	<b>75</b>	$d + 15$	5,0	19	27	33
<b>75</b>	<b>150</b>	$d + 20$	6,0	25	35	42
<b>150</b>	<b>200</b>	$d + 25$	8,5	32	44	53
<b>200</b>	<b>300</b>	$d + 30$	10,0	39	54	64
<b>300</b>		$d + 40$	13,0	45	64	76

\* The recommended chevron height depends on the pressure area and is valid for SKF Ecoflon 1.  
Installation height L = chevron set height H. Standard: 3 chevrons

## Ordering example

Profile

d x D x L [mm] / Numbers of chevrons  
Support ring / Chevron / Pressure ring

Rod Seal S2527-F

100 x 125 x 35 / 2

SKF Ecoflon 2 / SKF Ecoflon 1 / SKF Ecoflon 2

**Operating parameters**

<b>Material</b>			<b>Temperature</b>	<b>Speed<sup>1)</sup></b>	<b>Pressure</b>
Support ring S25-F	Chevron S26-F	Pressure ring S27-F	from      to	max	max
		°C		m/s	bar (MPa)

■ SKF Ecoflon 2

■ SKF Ecoflon 1

■ SKF Ecoflon 2

-200 +260

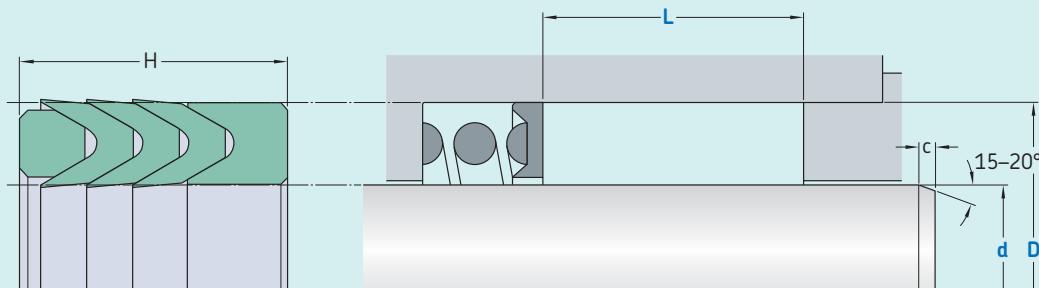
1,5

100 (10)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

# S2931-F

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	
<b>Sliding surface</b>	$\leq 2$	0,05–0,2

**Bottom of groove**  $\leq 6,3$ **Groove face**  $\leq 15$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

Standard dimensions			Installation height			
d f8 over	D H8 incl.	c	L*	3 chevrons up to 50 bar	4 chevrons up to 100 bar	5 chevrons up to 315 bar
mm			mm			
10	15	d + 8	3,5	14	17,0	20
15	40	d + 10	4,0	16	19,0	22
40	50	d + 12	4,5	19	23,0	27
50	75	d + 15	5,0	22	26,5	32
75	150	d + 20	6,0	32	38,0	44
150	200	d + 25	8,5	35	42,0	50
200	300	d + 30	10,0	39	47,0	56
300	600	d + 40	13,0	50	62,0	74

\* The recommended chevron height depends on the pressure area and is valid for SKF Ecoflon 1.  
Installation height L = chevron set height H. Standard: 3 chevrons

**Ordering example**

Profile

d x D x L [mm] / Numbers of chevrons  
Support ring / Chevron / Pressure ring**Rod Seal S2931-F****100 x 130 x 35 / 2****SKF Ecoflon 2 / SKF Ecoflon 1 / SKF Ecoflon 2**

**Operating parameters**

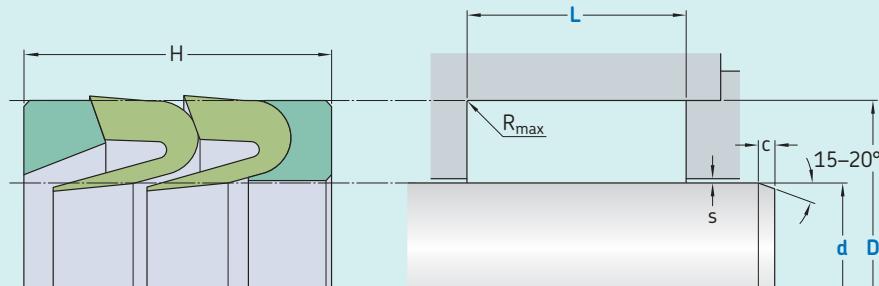
<b>Material</b>			<b>Temperature</b>	<b>Speed<sup>1)</sup></b>	<b>Pressure</b>
Support ring S29-F	Chevron S30-F	Pressure ring S31-F	from      to	max	max
		°C		m/s	bar (MPa)

■ SKF Ecoflon 2    □ SKF Ecoflon 1    ■ SKF Ecoflon 2    -200    +260    1,5    315 (31,5)

**IMPORTANT NOTE:** The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

# S32-P

Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$
	$\mu\text{m}$	

**Sliding surface**  $\leq 2,5$   $0,05\text{--}0,3$ **Bottom of groove**  $\leq 6,3$   $\leq 1,6$ **Groove face**  $\leq 15$   $\leq 3$ Bearing area: 50–95% and a cutting depth of  $0,5 R_z$  based on  $C_{ref} = 0\%$ 

Standard dimensions		D H10	L $+ 0,2$	$R_{t\max}$	c	$s^*$
d f8 over	incl.					500 bar
mm						
25	25	d + 12	24,0	0,4	4,5	0,60
25	47	d + 15	29,0	0,4	5,0	0,38
47	100	d + 20	38,0	0,4	6,0	0,50
100	150	d + 25	47,5	0,4	8,5	0,63
150	250	d + 30 / 35	57,0	0,4	10,0	0,75 / 0,88
250	500	d + 40 / 45	76,0	0,4	13,0	1,00 / 1,13
500	1 000	d + 50	95,0	0,4	16,0	1,25
1 000	2 500	d + 60	113,0	0,4	19,0	1,50

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values

**Ordering example**

Profile

d x D x L [mm] / Numbers of chevrons  
Support ring / Chevron / Pressure ring**Rod Seal S32-P****75 x 100 x 47,5 / 2****SKF Ecotal / ECOPUR / SKF Ecotal**

### Operating parameters

Material Support ring <sup>3)</sup>	Chevron	Pressure ring <sup>3)</sup>	Temperature		Speed <sup>1)</sup> max	Pressure <sup>2)</sup> max
			from	to		
			°C		m/s	bar (MPa)
■ SKF Ecorubber-1	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ ECOPUR	■ X-ECOPUR	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR	■ X-ECOPUR	-30	+110	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR	■ SKF Ecomid	-30	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ ECOPUR LD	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ ECOPUR LD	■ SKF Ecomid	-35	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+100	0,5	500 (50)
■ SKF Ecomid	■ G-ECOPUR	■ G-ECOPUR 54D	-30	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ H-ECOPUR	■ SKF Ecomid	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ H-ECOPUR	■ X-ECOPUR H	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ H-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecomid	■ H-ECOPUR	■ X-ECOPUR H	-20	+110	0,5	500 (50)
■ SKF Ecomid	■ H-ECOPUR	■ SKF Ecomid	-20	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ S-ECOPUR	■ SKF Ecomid	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ S-ECOPUR	■ X-ECOPUR S	-20	+100	0,5	500 (50)
■ SKF Ecotal	■ S-ECOPUR	■ SKF Ecotal	-20	+100	0,5	500 (50)
■ SKF Ecomid	■ S-ECOPUR	■ X-ECOPUR S	-20	+110	0,5	500 (50)
■ SKF Ecomid	■ S-ECOPUR	■ SKF Ecomid	-20	+110	0,5	500 (50)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecotal	-30	+100	0,5	500 (50)
■ SKF Ecorubber-1	■ T-ECOPUR	■ SKF Ecomid	-30	+100	0,5	500 (50)
■ SKF Ecotal	■ T-ECOPUR	■ SKF Ecotal	-50	+100	0,5	500 (50)
■ SKF Ecomid	■ T-ECOPUR	■ SKF Ecomid	-40	+110	0,5	500 (50)

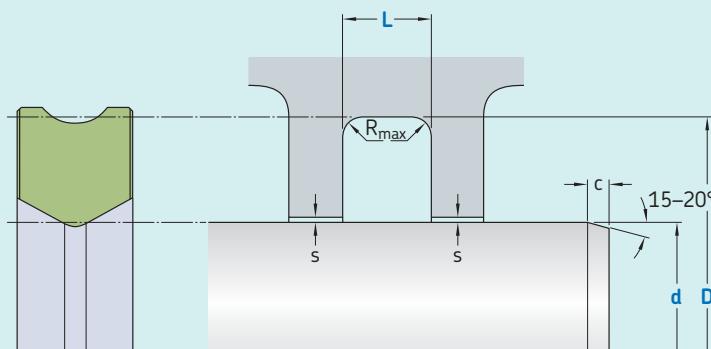
IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

<sup>1)</sup> Surface speed limit values are valid only in the presence of a lubrication film.

<sup>2)</sup> Pressure ratings depend on the size of the extrusion gap.

<sup>3)</sup> Size limitation D: Up to 260 mm SKF Ecotal, from 260 – 400 mm SKF Ecotal or SKF Ecomid and above 400 mm SKF Ecomid.

# S35-P



Ordering dimensions in **blue**

Surface roughness	$R_{t\max}$	$R_a$	Standard dimensions					Maximal radial extrusion gap				
			d f8 over	D H10 incl.	L + 0,2	$R_{t\max}$	c	$s^*$	20 bar	100 bar	200 bar	400 bar
<b>Sliding surface</b>	$\leq 2,5$	$0,05\text{--}0,3$										
<b>Bottom of groove</b>	$\leq 6,3$	$\leq 1,6$										
<b>Groove face</b>	$\leq 15$	$\leq 3$										
Bearing area: 50–95% and a cutting depth of $0,5 R_z$ based on $C_{ref} = 0\%$												
5	10	d + 5	4,0	0,4	2,0	0,33	0,18	0,10	0,05			
10	25	d + 6	4,5	0,4	3,0	0,33	0,18	0,10	0,05			
25	50	d + 8	5,5	0,4	3,5	0,33	0,18	0,10	0,05			
50	100	d + 10	6,5	0,4	4,0	0,37	0,23	0,15	0,10			
100	150	d + 15	9,5	0,4	5,0	0,46	0,33	0,25	0,18			
150	300	d + 20	12,5	0,4	6,0	0,54	0,38	0,33	0,25			
300	500	d + 25	15,0	0,4	8,5	0,61	0,45	0,40	0,33			
500	700	d + 30	17,5	0,4	10,0	0,67	0,50	0,45	0,40			
700	1 250	d + 40	22,0	0,4	13,0	0,77	0,50	0,45	0,40			
1 250	2 000	d + 50	27,0	0,4	15,0	0,87	0,60	0,50	0,40			
2 000	4 000	d + 60	32,0	0,4	18,0	0,97	0,70	0,50	0,40			

\* Extrusion gap values shown above are valid for a temperature of 70 °C, higher temperatures require lower values.

## Ordering example

Profile

d x D x L [mm]

Sealing material

Rod Seal S35-P

120 x 135 x 9,5

ECOPUR

**Operating parameters**

Material Seal	Temperature		Speed <sup>1)</sup>	Pressure <sup>2)</sup>
	from	to	max	max
	°C		m/s	bar (MPa)
■ ECOPUR	-30	+110	0,4	400 (40)
■ ECOPUR LD	-35	+110	0,4	400 (40)
■ G-ECOPUR	-30	+110	0,4	400 (40)
■ H-ECOPUR	-20	+110	0,4	400 (40)
■ S-ECOPUR	-20	+110	0,4	400 (40)
■ T-ECOPUR	-50	+110	0,4	400 (40)

IMPORTANT NOTE: The stated operating conditions represent general indications. It is recommended not to use all maximum values simultaneously.

1) Surface speed limit values are valid only in the presence of a lubrication film.

2) Pressure ratings depend on the size of the extrusion gap.

[skf.com](http://skf.com) | [skf.com/seals](http://skf.com/seals)

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