

# SKF SPEEDI-SLEEVE new generation

and wear sleeves for heavy industrial applications



# Contents

The new generation concept and characteristics.....	3
Installing SKF SPEEDI-SLEEVE .....	6
Product tables.....	8
Metric dimensions .....	8
Inch dimensions .....	20
Wear sleeves for heavy industrial applications.....	32
Product tables.....	34
Metric dimensions .....	34
Inch dimensions .....	36
SKF – the knowledge engineering company .....	42

# The new generation concept and characteristics

## Enhanced sealing system solution

To seal effectively, radial shaft seals must run against a smooth, round counterface. If the counterface becomes worn, the seal will no longer be able to fulfil its function, which is to retain lubricant and to exclude contaminants.

Typically, the counterface becomes scored when a contaminant particle is caught under the sealing lip and abrades a track as the shaft rotates. As this continues, the seal will enable more particles to pass or get stuck eventually leading to malfunction of the component that the sealing system is meant to protect. A simple seal replacement will not be sufficient and to repair the shaft, it is usually necessary to disassemble the machine to be able to grind down the counterface until it is within specifi-

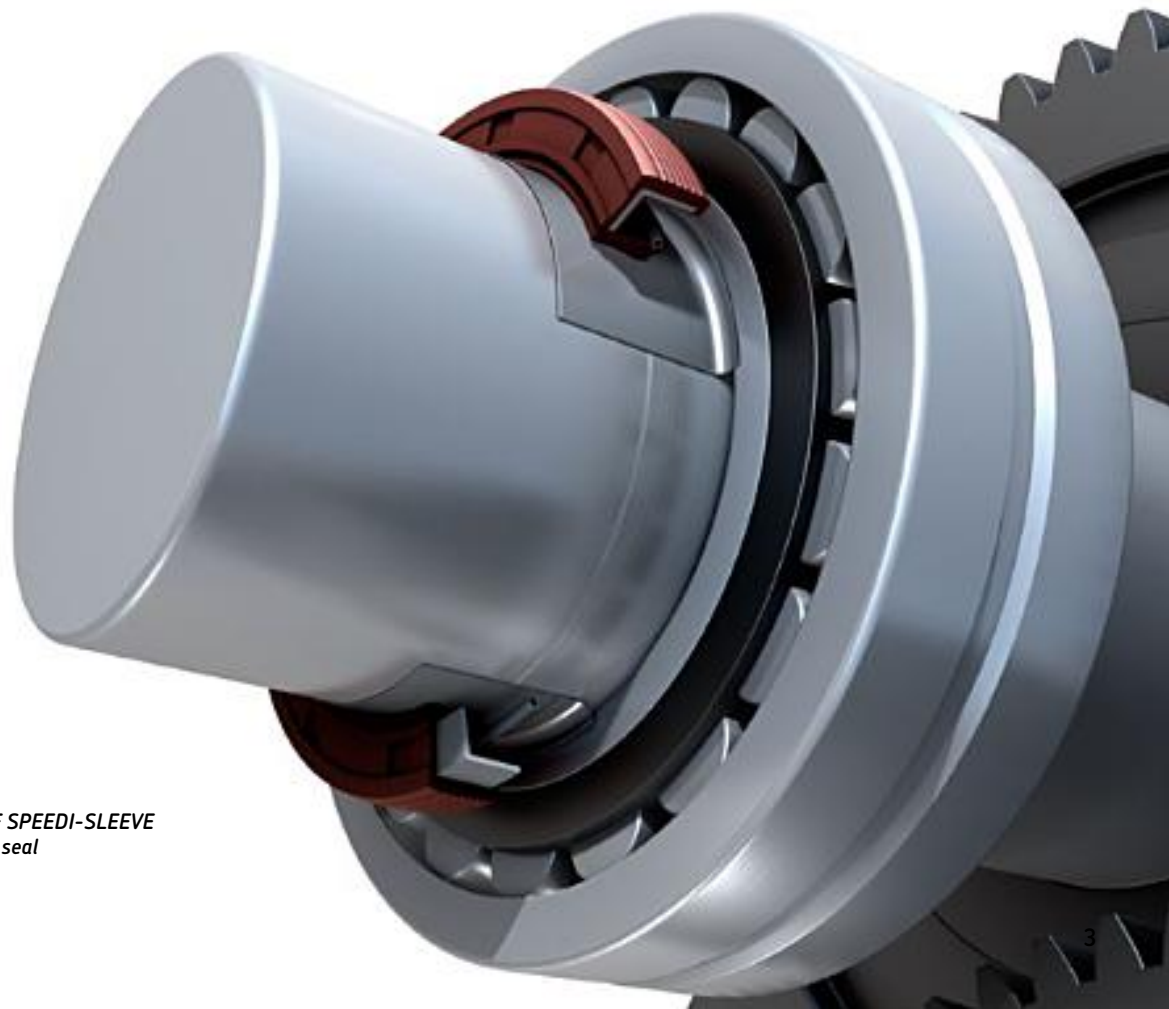
cation again. Otherwise, the sealing system will not function properly.

SKF SPEEDI-SLEEVE is a well-proven solution to overcome problems with worn shafts, without having to disassemble the shaft or specifying a new size of the replacement seal, while offering an excellent sealing surface. Now, SKF has developed a patent pending new generation SKF SPEEDI-SLEEVE with features providing an even further enhanced sealing system performance.

## Features

The new generation of SKF SPEEDI-SLEEVE combines a proprietary stainless steel material and manufacturing process, resulting in an optimized seal counterface surface that

minimizes wear on both the sleeve and sealing lip. The proprietary material provides increased strength and excellent ductility properties of the sleeve. Imperceptible lubricant pockets enable the lubricant to reside on the sleeve and thereby prevent dry running of the sealing lip that otherwise can create excessive wear. The sleeves are thin-walled (0,28 mm (0.011 in.)) and the contact surface is wear resistant and manufactured to minimize directionality ( $0^\circ \pm 0,05$ ) with a finish of  $R_a$  0,25 to 0,5  $\mu\text{m}$  (10 to 20  $\mu\text{in.}$ ). This is, in fact, a better counterface than can often be achieved on a shaft.



*The optimized sealing system: SKF SPEEDI-SLEEVE new generation + SKF radial shaft seal*

## Removable flange

SKF SPEEDI-SLEEVE has a removable flange to simplify installation (→ **fig. 1**). The flange can most often be left intact, but in applications where the flange will interfere with other system components, it should be removed so it does not cause friction heat and wear debris. The flange should also be removed in applications where it may reduce the supply of lubricant to the seal. This would cause a reduced cooling effect of the lubricant, resulting in elevated underlip temperature and premature ageing of the seal material.

If the flange is to be removed, it should be cut from the outside diameter into the radius in one location prior to installation. The flange can then be twisted and raised up after installation and grasped with a pair of pliers and twisted into a coil.

## SKF SPEEDI-SLEEVE Gold

The new generation of SKF SPEEDI-SLEEVE is also available in the Gold version, designed for highly abrasive applications. A thin, metallic coating applied to the base stainless steel imparts a gold colour and significantly increases durability. SKF SPEEDI-SLEEVE Gold is particularly effective in environments where there are abrasive contaminants, especially when combined with a seal manufactured from the SKF fluoro rubber material SKF Duralife<sup>1)</sup>. This sealing system solution lasted 2 500 hours in a contamination test.

The installation procedure is common to both SKF SPEEDI-SLEEVE designs and the original seal size can still be used.

All sleeves listed in the product tables starting on page 8 can be manufactured as SKF SPEEDI-SLEEVE Gold.

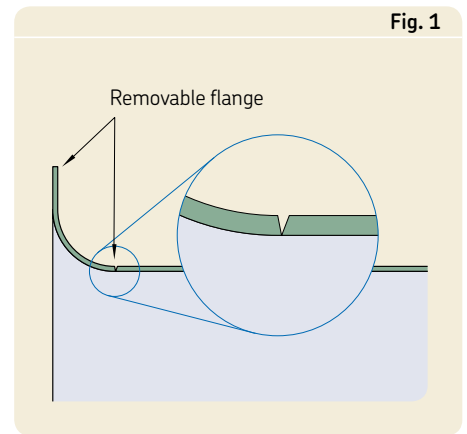
## Size range

The standard size range covers sleeves for shaft diameters from 11,99 to 203,33 mm (0.472 to 8 in.). Depending on production quantities, non-standard sizes can be manufactured. For additional information, contact SKF. Each sleeve is designed to fit a specific shaft range, usually above and below the nominal shaft diameter. This permits some flexibility to accommodate variations in the actual shaft diameter.

## Selecting the sleeve size

To determine the appropriate sleeve size, it is first necessary to clean the shaft carefully. The diameter of an undamaged section of the seal counterface should then be measured on at least three different planes. The arithmetical mean of these measurements determines the size of SKF SPEEDI-SLEEVE. If the value lies within the permissible range listed in the product table for the shaft diameter  $d_1$ , the selected SKF SPEEDI-SLEEVE will have an adequate tight fit on the shaft and will not require an adhesive.

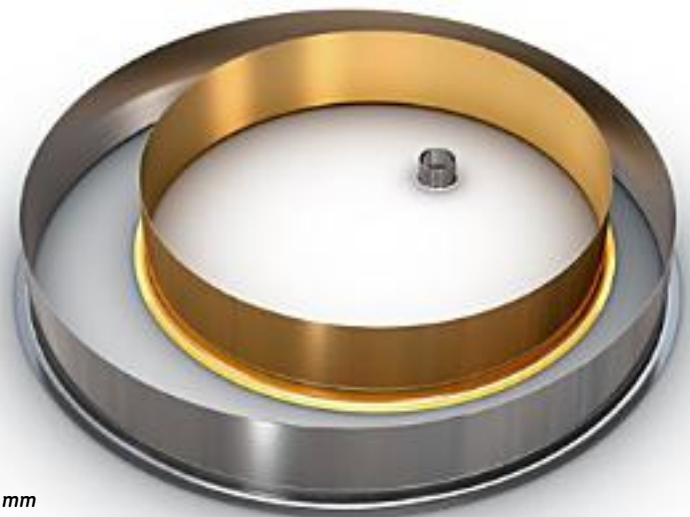
Fig. 1



SKF SPEEDI-SLEEVE removable flange



SKF SPEEDI-SLEEVE new generation, Gold version



*The standard size range covers sleeves for shaft diameters from 11,99 to 203,33 mm (0.472 to 8 in.).*

<sup>1)</sup> Previously named *Longlife*

## Test results

The previous and new generation of SKF SPEEDI-SLEEVE products were tested for abrasion resistance under both coarse and fine dust conditions. A 500 hour contamination test (→ **diagram 1**) showed that when compared to the previous generation sleeve, the new generation SKF SPEEDI-SLEEVE reduced abrasion by a factor of 1,5 and was still operating efficiently.

To test sealing system effectiveness, a 2 000 hour life test was performed (→ **diagram 2**) using SKF SPEEDI-SLEEVE new and previous generation products and SKF WAVE seals made from the SKF fluoro rubber material SKF Duralife. The test results showed that SKF SPEEDI-SLEEVE new generation reduced the sealing lip wear and the variation in the wear rate by approximately 30% compared to the previous generation sleeve and outperformed a chromium-plated surface by a factor of 2. This reduction improves the sealing system reliability as well as the predictability of the system service life.

Both tests were carried out under the same operating conditions:

- temperatures up to 110 °C (225 °F)
- linear shaft speeds of up to 8,6 m/s (1 700 ft/min)

In other tests, it was found that continuous salt spray at 35 °C (95 °F) produced no trace of corrosion even after 600 hours. This optimized performance is made possible through the use of the new generation of SKF SPEEDI-SLEEVE.

Diagram 1

### SKF SPEEDI-SLEEVE wear test Abrasive media, test stopped at 500 hours

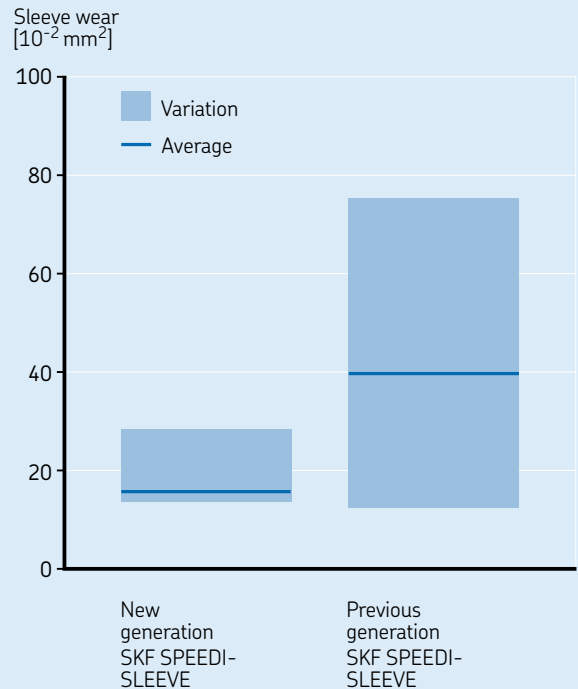
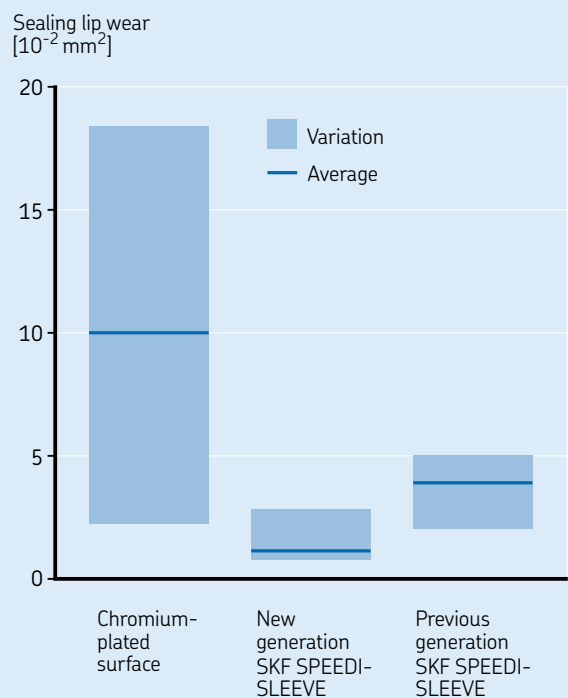


Diagram 2

### Sealing lip wear test Seals made from fluoro rubber, test stopped at 2 000 hours



# Installing SKF SPEEDI-SLEEVE

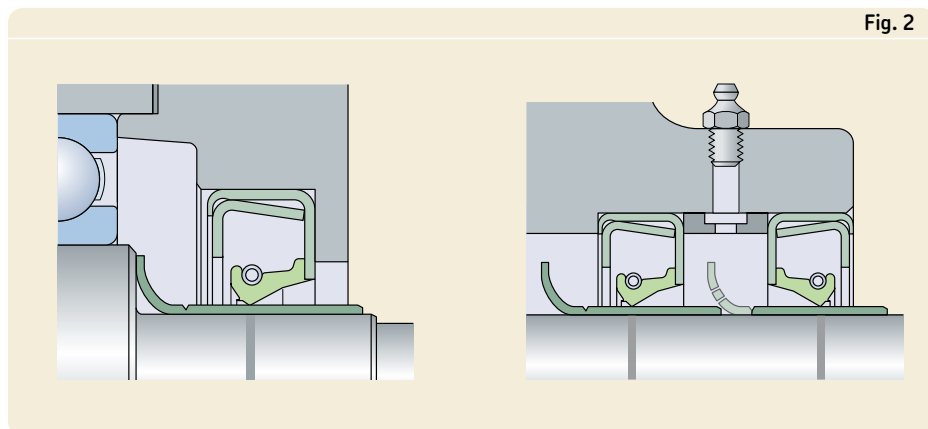
## A new seal counterface in a few minutes

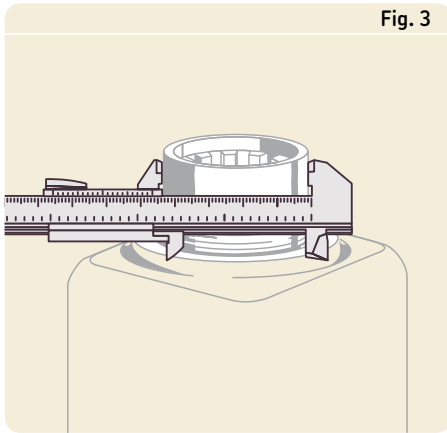
Although installation is simple, it should be done carefully to achieve the best results. As the thin-walled sleeve has an interference fit, any disturbances on the shaft surface may create a similar pattern on the sleeve surface and cause the seal to leak. Therefore, the seal counterface surface of the shaft should be carefully cleaned and any burrs or rough spots filed down prior to installation. Deep wear grooves, scratches or very rough surfaces should be treated with a suitable powdered metal epoxy-type filler. The sleeve must be positioned on the shaft before the filler has hardened.

SKF SPEEDI-SLEEVE must not be installed over keyways, cross holes, splines or threads since this will result in deformation of the sleeve, making it difficult for the seal to follow its new counterface surface as it rotates.

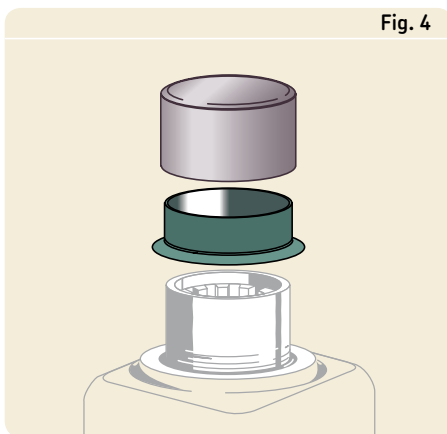
SKF SPEEDI-SLEEVE should never be heated prior to installation. Using heat will cause the sleeve to expand, but when it cools, it may not contract back to its original size, resulting in a loose fit on the shaft. See **fig. 2** for different SKF SPEEDI-SLEEVE installations.

*SKF SPEEDI-SLEEVE installations*

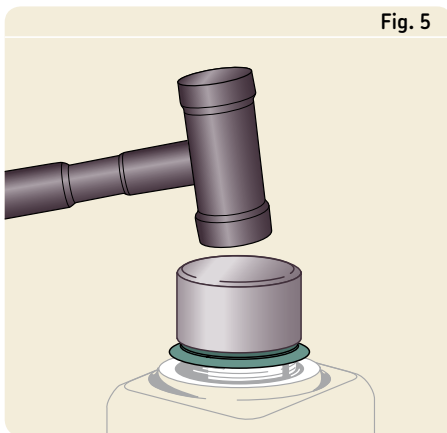




**Clean and measure the diameter of the worn shaft and mark the area where the sleeve will cover the scored portion of the shaft.**



**Place SKF SPEEDI-SLEEVE on the shaft and then place the special installation tool over the sleeve.**



**Tap the installation tool with a mallet until the sleeve is seated on the shaft over the marked area. Remove the installation tool.**

## Installation procedure

- 1 Clean the seal counterface surface on the shaft. File down any burrs or rough spots and make sure that the sleeve will not be installed over keyways, cross holes, splines or similar.
- 2 Measure the diameter on an unworn portion of the shaft where the sleeve will be positioned (→ fig. 3). Measure in three positions and average the readings to make sure the shaft is within recommended specifications. If the average diameter is within the range for a given sleeve size, there is sufficient press fit built into the sleeve to prevent it from sliding or spinning without using an adhesive.
- 3 Determine where the sleeve must be positioned to cover the worn area. Measure to the exact point, or mark directly on the surface. The sleeve must be placed over the worn area, not just bottomed or left flush with the end of the shaft.
- 4 Shallow wear grooves do not require filling. Optionally, a light layer of a non-hardening sealant can be applied to the inside diameter surface of the sleeve. Clean away sealant that migrates to the shaft or sleeve outside diameter surface.
- 5 If the shaft is deeply scored, fill the groove with a powdered metal epoxy-type filler. Install the sleeve before the filler hardens, enabling the sleeve to wipe off any excess filler. Clean away any remaining filler from the sleeve outside diameter surface.
- 6 It should be repeated that heat should never be used to install SKF SPEEDI-SLEEVE.
- 7 If the flange should be removed after installation, cut it from the outside diameter into the radius in one location. The flange end of the sleeve goes on the shaft first. Then, place the installation tool over the sleeve (→ fig. 4).
- 8 Gently tap the centre of the installation tool until the sleeve covers the worn shaft surface (→ fig. 5). If the installation tool is too short, a length of pipe or tubing with a squared-off, burr-free end can be used. Be sure that the inside diameter of the pipe is the same as that of the installation tool. Use care not to scratch the precision ground sleeve's outside diameter.
- 9 SKF SPEEDI-SLEEVE should always be installed so that the outside edge of the sleeve is seated on the full shaft diameter. It must not rest in or outside the chamfer area since the sharp edge will likely cut the sealing lip during seal installation.

- 10 If the flange was cut for removal, use a pair of long-nosed pliers to grasp the flange away from the sleeve and twist it into a coil, being careful not to lift the end of the sleeve off the shaft or it will leave a jagged edge. Flange removal must be done with care to avoid damage to the outside diameter of the sleeve.
- 11 After the sleeve is installed, check again for burrs that could damage the seal.
- 12 Lubricate the sleeve with the system medium before installing the seal.
- 13 Proceed with seal installation.

## Removal

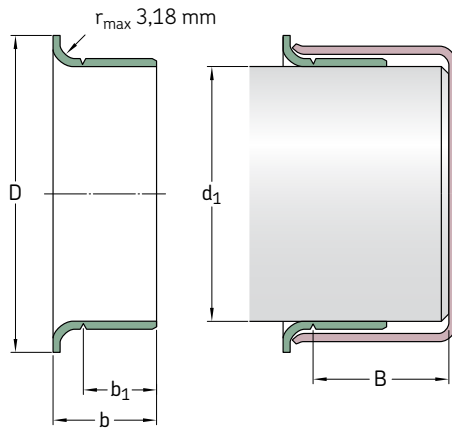
SKF SPEEDI-SLEEVE can be removed by applying heat to the sleeve with an electric heat blower, which will expand it enough to let it slide off the shaft without causing any damage to the shaft. Alternatively, the sleeve can be removed in any of the following ways, always using care not to damage the shaft surface:

- by relieving the press-fit tension using a small hammer to peen across the full width of the sleeve
- by using a cold chisel to cut through the sleeve
- by using a pair of wire cutters starting at or near the flange and applying a twisting motion

Please note that SKF SPEEDI-SLEEVE cannot be reused.

SKF SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)

$d_1$  11,99 – 34,01 mm

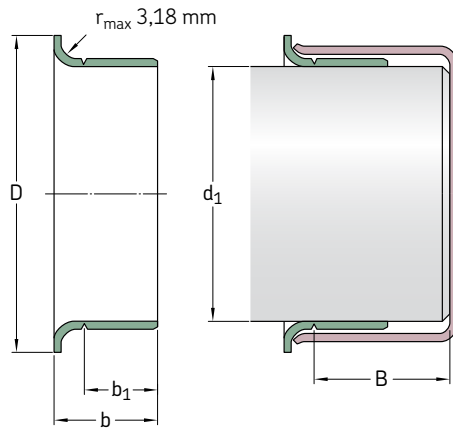


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
11,99	12,07	11,99	15,49	5,99	8,41	47,63	99049
12,65	12,75	12,70	15,49	6,35	8,74	50,80	99050
13,89	14,00	14,00	19,05	6,35	9,93	46,51	99055
14,22	14,38	14,30	19,05	6,35	9,93	46,51	99056
14,96	15,06	15,01	19,05	5,00	8,99	47,29	99059
15,82	15,93	15,88	19,05	7,95	10,31	50,80	99810 <sup>2)</sup>
		15,88	19,05	7,95	10,31	50,80	99062
15,90	16,00	16,00	18,24	7,95	11,13	50,80	99058
16,94	17,04	16,99	22,23	8,00	11,00	50,80	99068
17,32	17,42	17,37	22,86	7,95	11,13	50,80	99060
17,88	18,01	18,01	24,43	8,00	11,00	46,00	99082
19,00	19,10	19,05	24,00	7,95	11,13	50,80	99811 <sup>2)</sup>
		19,05	24,00	7,95	11,13	50,80	99076
19,28	19,33	19,30	23,83	7,95	11,13	50,80	99081
19,81	19,91	19,84	23,75	7,95	11,13	50,80	99080
19,94	20,04	19,99	23,62	8,00	11,00	50,80	99078
20,62	20,70	20,65	30,18	9,53	14,30	76,20	99083
21,77	21,87	21,82	29,34	6,35	9,53	50,80	99086
21,87	22,00	22,00	30,18	6,58	9,12	47,14	99084
		22,00	30,18	8,00	11,99	46,02	99085
22,17	22,28	22,23	27,79	7,95	11,13	50,80	99812 <sup>2)</sup>
		22,23	27,79	7,95	11,13	50,80	99087
23,06	23,16	23,11	30,94	7,95	11,13	46,91	99860 <sup>2)</sup>
		23,11	30,94	7,95	11,13	46,91	99091
23,88	24,00	24,00	28,70	7,95	11,13	50,80	99092
24,54	24,64	24,61	28,70	7,95	11,13	50,80	99094
		24,61	28,70	15,88	18,26	50,80	99096

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold





Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
24,94	25,04	24,99	33,02	7,95	11,00	50,80	99813 <sup>2)</sup>
		24,99	33,02	7,95	11,00	50,80	99098
25,35	25,45	25,40	30,96	7,95	11,13	50,80	99814 <sup>2)</sup>
		25,40	30,96	7,95	11,13	50,80	99868 <sup>3)</sup>
25,88	26,01	26,01	33,35	8,00	11,99	46,05	99103
26,92	27,03	27,00	33,53	7,95	11,13	46,81	99815 <sup>2)</sup>
		27,00	33,53	7,95	11,13	46,81	99106
27,61	27,71	27,66	35,71	7,95	11,13	15,88	99108
27,94	28,04	27,99	34,93	9,53	12,70	46,81	99866 <sup>2)</sup>
		27,99	34,93	9,53	12,70	46,81	99111
28,52	28,63	28,58	38,10	7,95	11,13	17,48	99816 <sup>2)</sup>
		28,58	38,10	7,95	11,13	17,48	99112
		28,58	38,10	9,53	12,70	17,48	99116
29,31	29,41	29,36	34,29	9,53	12,70	17,48	99865 <sup>2)</sup>
		29,36	34,29	9,53	12,70	17,48	99120
29,79	29,92	29,85	35,56	7,95	11,13	17,48	99122
29,95	30,07	30,00	35,56	8,00	11,00	17,48	99114
30,10	30,23	30,18	35,56	7,95	11,13	17,48	99118
30,89	31,04	30,96	39,70	7,95	11,00	15,88	99123
31,42	31,57	31,50	39,12	8,00	11,13	17,48	99141
31,67	31,83	31,75	38,10	7,95	11,13	17,48	99817 <sup>2)</sup>
		31,75	38,10	7,95	11,13	17,48	99125
31,93	32,08	32,00	38,10	8,00	11,13	17,48	99128
32,94	33,05	32,99	40,49	15,01	18,01	25,40	99121
33,22	33,38	33,35	40,64	6,35	9,53	20,65	99129
33,27	33,43	33,35	40,49	12,70	15,88	20,65	99818 <sup>2)</sup>
		33,35	40,49	12,70	15,88	20,65	99131
33,86	34,01	34,01	41,28	12,70	15,88	20,65	99134

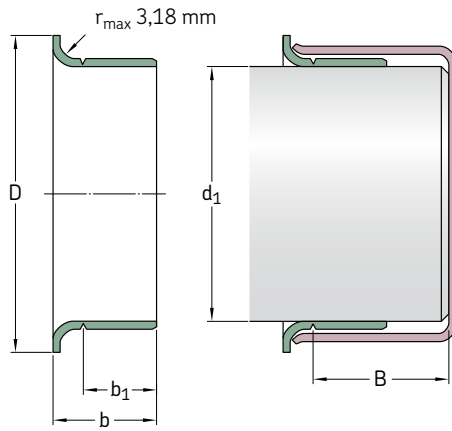
<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99100

SKF SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)

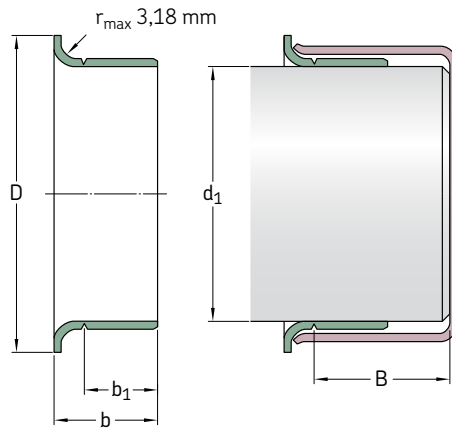
d<sub>1</sub> 34,82 – 49,28 mm



Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>		
mm		mm					–	
34,82	34,98	34,93	41,61	7,95	11,13	20,65	99133	
		34,93	41,61	12,70	15,88	20,65	99819 <sup>2)</sup>	
		34,93	41,61	12,70	15,88	20,65	99138	
34,93	35,08	34,93	41,61	13,00	16,00	20,65	99820 <sup>2)</sup>	
		34,93	41,61	13,00	16,00	20,65	99139	
35,84	35,99	35,99	45,24	13,00	16,99	24,99	99146	
36,37	36,53	36,53	45,24	14,30	17,48	25,81	99821 <sup>2)</sup>	
		36,53	45,24	14,30	17,48	25,81	99143	
36,45	36,60	36,53	45,24	9,53	12,70	25,81	99144	
37,85	38,00	38,00	45,24	13,00	16,99	24,99	99147	
38,02	38,18	38,10	45,24	9,53	12,70	25,81	99823 <sup>2)</sup>	
		38,10	45,24	9,53	12,70	25,81	99150	
		38,10	45,24	14,30	17,48	25,81	99822 <sup>2)</sup>	
		38,10	45,24	14,30	17,48	25,81	99149	
38,61	38,76	38,68	47,22	11,13	14,30	25,81	99152	
39,34	39,50	39,42	47,22	11,13	14,30	25,81	99155	
39,60	39,75	39,67	47,22	14,30	17,48	25,81	99824 <sup>2)</sup>	
		39,67	47,22	14,30	17,48	25,81	99156	
39,78	39,93	39,85	47,22	15,88	19,05	25,81	99159	
39,85	40,01	40,01	46,99	9,91	12,93	25,40	99153	
39,93	40,08	40,08	46,99	13,00	16,00	25,98	99825 <sup>2)</sup>	
		40,08	46,99	13,00	16,00	25,98	99157	
40,69	40,84	40,77	49,23	12,70	16,28	25,40	99160	
40,84	41,00	41,00	49,23	12,70	15,88	25,81	99163	
41,20	41,35	41,28	47,63	7,95	11,13	25,81	99161	
		41,28	47,63	14,30	17,48	20,65	99826 <sup>2)</sup>	
		41,28	47,63	14,30	17,48	20,65	99162	
41,83	42,01	41,91	53,01	11,30	14,50	21,49	99166	
		41,91	53,01	14,30	17,50	21,01	99169	
		42,01	53,01	14,30	17,50	21,01	99873 <sup>2)</sup>	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold



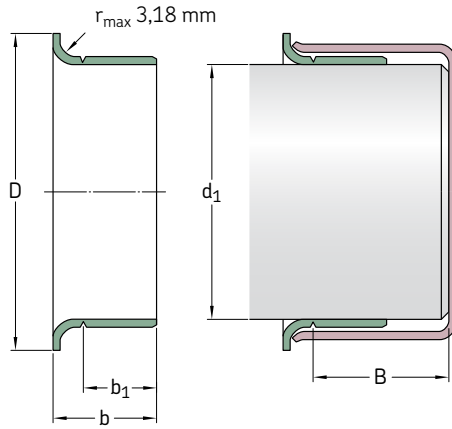
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
<b>41,99</b>	<b>42,14</b>	42,06	53,01	13,97	17,50	21,01	<b>99165</b>
<b>42,77</b>	<b>42,93</b>	42,88	48,41	14,30	17,48	22,23	<b>99168</b>
<b>42,80</b>	<b>42,95</b>	42,88	48,41	7,95	11,13	22,23	<b>99167</b>
<b>42,85</b>	<b>43,00</b>	43,00	48,41	12,70	15,88	21,44	<b>99182</b>
<b>43,56</b>	<b>43,71</b>	43,66	51,59	14,30	17,48	20,65	<b>99171</b>
<b>44,09</b>	<b>44,25</b>	44,17	52,40	9,53	12,70	20,65	<b>99170</b>
<b>44,37</b>	<b>44,53</b>	44,45	52,20	9,53	12,70	20,65	<b>99172</b>
		44,45	52,40	13,49	15,88	22,30	<b>99180</b>
		44,45	52,40	14,30	17,48	20,65	<b>99827<sup>2)</sup></b>
		44,45	52,40	14,30	17,48	20,65	<b>99174</b>
		44,45	52,40	19,05	22,23	20,65	<b>99828<sup>2)</sup></b>
		44,45	52,40	19,05	22,23	20,65	<b>99175</b>
<b>44,73</b>	<b>44,88</b>	44,86	52,40	14,30	17,48	20,65	<b>99829<sup>2)</sup></b>
		44,86	52,40	14,30	17,48	20,65	<b>99176</b>
<b>44,93</b>	<b>45,09</b>	45,01	53,01	14,00	16,99	20,62	<b>99830<sup>2)</sup></b>
		45,01	53,01	14,00	16,99	20,62	<b>99177</b>
<b>45,16</b>	<b>45,31</b>	45,24	53,98	16,94	20,32	26,97	<b>99179</b>
<b>45,95</b>	<b>46,10</b>	46,05	53,09	14,30	17,48	25,40	<b>99831<sup>2)</sup></b>
		46,05	53,09	14,30	17,48	25,40	<b>99181</b>
<b>47,17</b>	<b>47,32</b>	47,22	54,76	14,30	17,48	25,40	<b>99185</b>
<b>47,40</b>	<b>47,55</b>	47,45	55,58	22,58	26,04	25,40	<b>99186</b>
<b>47,55</b>	<b>47,70</b>	47,63	55,96	4,45	7,49	18,90	<b>99190</b>
		47,63	55,96	7,49	10,54	18,90	<b>99188</b>
		47,63	55,96	9,53	13,11	26,67	<b>99184</b>
		47,63	55,96	14,30	17,48	25,40	<b>99832<sup>2)</sup></b>
		47,63	55,96	14,30	17,48	25,40	<b>99187</b>
<b>47,93</b>	<b>48,08</b>	48,03	56,01	14,00	16,97	24,99	<b>99189</b>
<b>48,49</b>	<b>48,64</b>	48,56	56,36	9,53	12,70	25,40	<b>99192</b>
<b>49,12</b>	<b>49,28</b>	49,23	56,36	14,30	17,48	25,40	<b>99833<sup>2)</sup></b>
		49,23	56,36	14,30	17,48	25,40	<b>99193</b>

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)

d<sub>1</sub> 49,91 – 69,93 mm

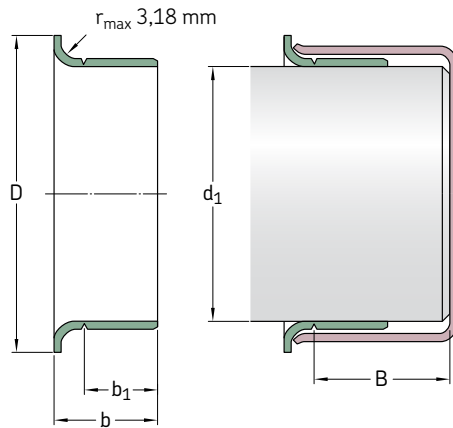


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
49,91	50,06	50,01	56,49	14,00	16,97	34,29	<b>99052</b>
		50,01	57,00	14,00	16,97	24,99	<b>99196</b>
50,22	50,37	50,29	58,75	14,30	17,88	26,67	<b>99198</b>
50,72	50,88	50,80	61,11	14,30	17,48	25,55	<b>99834<sup>2)</sup></b>
		50,80	61,11	14,30	17,48	25,40	<b>99199</b>
		50,80	61,11	22,23	25,40	25,40	<b>99835<sup>2)</sup></b>
		50,80	61,11	22,23	25,40	25,40	<b>99200</b>
51,82	51,99	51,99	62,71	12,70	15,88	34,52	<b>99878<sup>3)</sup></b>
52,25	52,40	52,40	62,71	19,84	23,83	34,93	<b>99205</b>
53,92	54,05	53,98	61,52	12,70	19,05	32,54	<b>99210</b>
53,95	54,10	53,98	61,52	19,84	23,83	34,93	<b>99836<sup>2)</sup></b>
		53,98	61,52	19,84	23,83	34,93	<b>99212</b>
54,91	55,07	54,99	62,00	19,99	22,99	31,75	<b>99863<sup>2)</sup></b>
		54,99	62,00	19,99	22,99	31,75	<b>99215</b>
55,52	55,68	55,58	63,50	19,84	23,83	33,35	<b>99218</b>
55,83	56,01	56,01	64,29	12,70	15,88	33,35	<b>99220</b>
		56,01	64,29	19,79	23,77	80,01	<b>99224</b>
56,57	56,72	56,64	64,29	12,70	15,88	33,35	<b>99861<sup>2)</sup></b>
		56,64	64,29	12,70	15,88	33,35	<b>99229</b>
		56,64	64,29	19,84	23,01	31,75	<b>99230</b>
56,82	56,97	56,90	65,10	19,41	22,86	31,75	<b>99226</b>
57,12	57,28	57,15	64,29	7,95	11,13	33,35	<b>99838<sup>2)</sup></b>
		57,15	64,29	7,95	11,13	33,35	<b>99227</b>
		57,15	64,29	19,84	23,83	33,35	<b>99837<sup>2)</sup></b>
		57,15	64,29	19,84	23,83	33,35	<b>99225</b>
57,91	58,06	57,99	65,99	19,99	23,83	34,93	<b>99219</b>
58,65	58,80	58,75	68,28	19,84	23,83	34,93	<b>99231</b>
59,11	59,26	59,13	69,85	19,05	22,23	38,10	<b>99233</b>
59,92	60,07	59,99	70,74	9,40	11,43	37,36	<b>99241</b>
		59,99	70,74	19,99	22,99	34,93	<b>99869<sup>2)</sup></b>
		59,99	70,74	19,99	22,99	34,93	<b>99235</b>

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99204



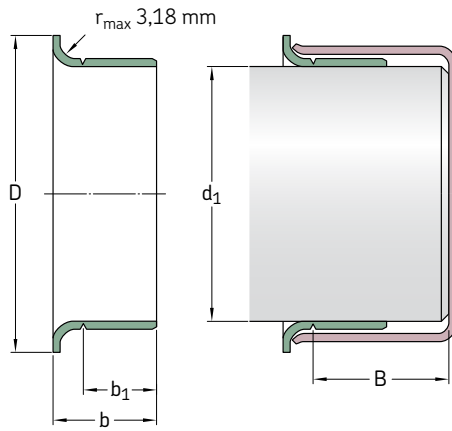
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
60,25	60,40	60,33	69,85	15,09	19,05	34,93	99238
60,30	60,45	60,33	69,85	13,36	17,35	34,93	99240
		60,33	69,85	19,84	23,83	34,93	99839 <sup>2)</sup>
		60,33	69,85	19,84	23,83	34,93	99237
61,82	62,00	61,93	71,83	19,84	23,83	35,38	99243
		62,00	71,83	12,70	15,88	36,20	99244
61,85	62,00	61,93	71,83	12,70	15,88	36,20	99242
63,22	63,37	63,30	73,03	19,84	23,83	35,38	99249
63,42	63,58	63,50	71,63	14,10	16,51	22,61	99253
63,50	63,65	63,50	71,83	12,70	16,66	35,38	99248
		63,50	71,63	19,84	23,83	34,93	99840 <sup>2)</sup>
		63,50	71,63	19,84	23,83	34,93	99250
63,75	63,91	63,91	71,83	19,84	23,01	36,53	99251
64,92	65,07	65,00	72,39	19,99	22,99	34,93	99841 <sup>2)</sup>
		65,00	72,39	19,99	22,99	34,93	99254
65,02	65,18	65,10	73,43	19,84	23,83	34,93	99256
65,91	66,07	65,99	75,95	19,84	23,83	31,75	99259
66,50	66,65	66,57	77,39	19,84	23,83	34,93	99261
66,57	66,73	66,68	77,39	19,84	23,01	34,93	99264
66,60	66,75	66,68	77,39	12,70	15,88	34,93	99260
		66,68	77,39	19,84	23,83	34,93	99842 <sup>2)</sup>
66,68	66,83	66,68	77,39	19,84	23,83	34,93	99262
		66,68	77,39	19,84	23,83	34,93	99262
67,82	68,00	68,00	79,38	19,05	22,23	42,88	99266
69,27	69,42	69,34	79,38	19,84	23,01	33,35	99268
69,60	69,75	69,67	77,85	19,84	23,83	31,75	99273
69,72	69,88	69,85	79,38	19,84	23,83	31,75	99843 <sup>2)</sup>
		69,85	79,38	19,84	23,83	31,75	99274
69,77	69,93	69,85	78,11	36,53	41,28	41,28	99267

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)

d<sub>1</sub> 69,85 – 90,58 mm

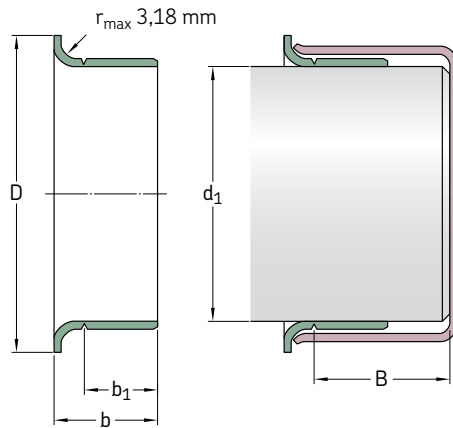


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
69,85	70,00	69,85	79,38	10,31	14,30	31,75	99272
		69,85	79,38	19,84	23,83	31,75	99844 <sup>2)</sup>
		69,85	79,38	19,84	23,83	31,75	99275
		69,85	79,38	28,58	31,75	33,32	99269
69,93	70,08	70,00	79,38	19,99	24,00	31,75	99276
71,35	71,50	71,45	80,98	15,09	17,48	31,75	99281
71,83	72,01	72,01	81,92	19,05	22,23	34,11	99870 <sup>2)</sup>
		72,01	81,92	19,05	22,23	34,11	99284
72,09	72,24	72,09	81,92	12,70	16,66	31,75	99845 <sup>2)</sup>
		72,09	81,92	12,70	16,66	31,75	99282
72,80	72,95	72,87	80,98	19,84	23,83	31,75	99286
72,97	73,13	73,03	81,76	19,84	23,83	31,75	99846 <sup>2)</sup>
		73,03	81,76	19,84	23,83	31,75	99287
74,60	74,75	74,63	84,94	12,70	16,28	33,81	99290
		74,63	84,94	19,84	23,83	33,35	99847 <sup>2)</sup>
		74,68	84,94	19,84	23,83	33,35	99293
74,93	75,08	75,01	83,13	15,09	17,53	27,51	99289
		75,01	83,95	22,00	26,01	33,35	99875 <sup>2)</sup>
		75,01	83,95	22,00	26,01	33,35	99294
75,49	75,59	75,54	82,17	20,65	25,40	31,75	99292
75,95	76,10	76,02	85,32	12,29	15,88	33,81	99291
		76,02	85,32	14,30	17,48	34,93	99298
		76,02	85,09	20,65	25,40	32,54	99299
76,12	76,28	76,20	82,30	20,65	23,83	34,93	99296
76,20	76,35	76,20	84,96	15,88	20,65	32,51	99048 <sup>3)</sup>
		76,20	82,17	20,65	25,40	32,54	99848 <sup>2)</sup>
		76,20	82,17	20,65	25,40	32,54	99300
76,40	76,56	76,48	85,22	12,70	15,88	50,80	99301
77,83	78,00	78,00	88,09	19,05	22,23	52,22	99306
79,25	79,40	79,38	89,69	17,48	20,65	50,80	99311
		79,38	89,69	20,65	25,40	50,80	99849 <sup>2)</sup>
		79,38	89,69	20,65	25,40	50,80	99312

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99303



Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
79,35	79,55	79,38	89,54	14,00	18,01	51,59	<b>99053<sup>3)</sup></b>
79,81	80,01	80,01	89,92	19,05	22,50	34,93	<b>99313</b>
79,91	80,09	80,01	89,99	11,00	15,01	34,93	<b>99317</b>
		80,01	89,99	21,01	24,00	34,93	<b>99315</b>
81,92	82,07	81,99	91,06	16,76	21,54	44,45	<b>99328</b>
82,47	82,63	82,55	91,29	20,65	25,40	34,93	<b>99322</b>
82,55	82,70	82,55	90,81	15,11	18,26	34,93	<b>99850<sup>2)</sup></b>
		82,55	90,81	15,11	18,26	34,93	<b>99324</b>
		82,55	91,06	17,48	22,23	31,75	<b>99326</b>
		82,55	91,06	20,65	25,40	34,93	<b>99851<sup>2)</sup></b>
		82,55	91,06	20,65	25,40	34,93	<b>99325</b>
84,00	84,15	84,07	93,68	20,65	25,40	34,93	<b>99331</b>
84,76	85,01	84,89	93,98	16,99	21,01	35,00	<b>99332</b>
		84,89	93,98	21,01	24,99	35,00	<b>99872<sup>2)</sup></b>
		84,89	93,98	21,01	24,99	35,00	<b>99333</b>
84,79	85,01	85,01	90,93	10,13	12,67	36,35	<b>99334</b>
85,67	85,83	85,73	93,68	9,53	12,70	35,81	<b>99338</b>
		85,73	93,85	20,65	25,40	34,93	<b>99337</b>
87,25	87,40	87,33	97,64	19,84	23,01	35,71	<b>99339</b>
87,80	88,00	88,00	95,28	29,21	34,27	42,50	<b>99481</b>
88,32	88,47	88,39	97,41	19,84	23,01	35,71	<b>99340</b>
88,82	88,98	88,90	97,64	15,88	20,65	34,21	<b>99346</b>
88,90	89,05	88,90	97,16	7,95	12,70	34,21	<b>99347</b>
		88,90	97,64	20,65	25,40	34,21	<b>99852<sup>2)</sup></b>
		88,90	97,64	20,65	25,40	34,21	<b>99350</b>
88,93	89,08	89,00	97,64	15,88	20,65	34,24	<b>99349</b>
89,92	90,07	89,99	101,60	11,13	13,67	46,05	<b>99352</b>
		89,99	101,60	13,36	16,94	44,45	<b>99353</b>
		89,99	101,60	18,03	23,01	46,05	<b>99351</b>
		89,99	101,60	23,01	27,99	44,45	<b>99354</b>
90,42	90,58	90,50	99,06	20,65	25,40	44,45	<b>99356</b>

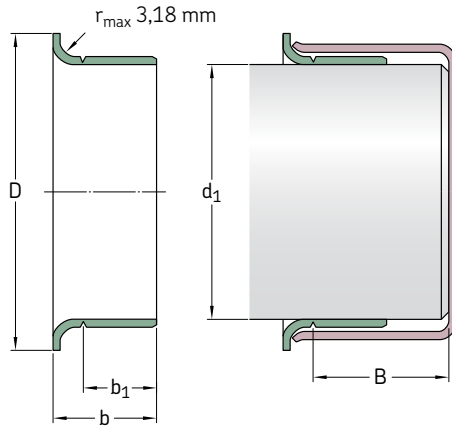
<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99307

SKF SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)

d<sub>1</sub> 91,90 – 130,18 mm



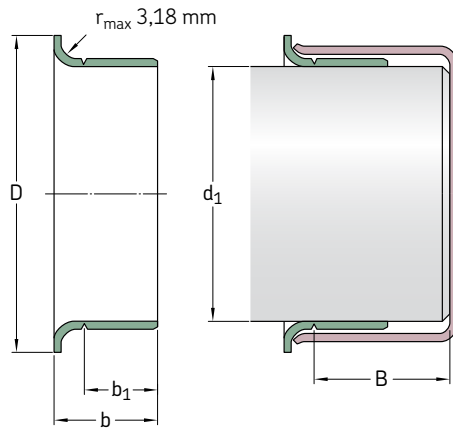
Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
91,90	92,05	91,97	102,39	20,65	25,40	44,45	99360
92,02	92,18	92,08	102,24	12,70	15,88	44,45	99363
		92,08	102,39	20,65	25,40	44,45	99362
93,57	93,73	93,68	102,39	7,95	11,13	22,23	99368
93,60	93,75	93,68	102,24	20,65	23,83	45,72	99365
94,67	94,82	94,74	102,01	11,91	15,09	45,72	99359
		94,74	102,24	19,84	23,01	45,72	99366
94,92	95,07	95,00	102,24	21,01	24,00	45,72	99369
95,00	95,15	95,07	102,39	8,74	12,70	45,72	99374
		95,07	102,49	11,91	15,09	45,72	99364
95,15	95,30	95,22	102,24	14,30	17,48	45,72	99376
95,25	95,40	95,25	102,11	17,48	22,23	45,72	99853 <sup>2)3)</sup>
		95,33	102,24	8,74	12,70	45,72	99367
		95,33	102,11	17,48	22,23	45,72	99372
98,25	98,40	98,32	106,30	20,65	25,40	47,63	99386
98,37	98,53	98,43	107,16	20,65	25,40	47,63	99387
99,95	100,10	100,03	109,55	20,65	25,40	52,07	99854 <sup>2)</sup>
		100,03	109,55	20,65	25,40	52,07	99393
101,55	101,75	101,60	111,13	12,70	15,88	52,48	99401
		101,60	111,13	15,24	18,42	52,07	99395
		101,60	111,13	16,51	19,69	34,93	99400
		101,60	111,13	20,65	25,40	52,07	99855 <sup>2)</sup>
		101,60	111,13	20,65	25,40	52,07	99399
103,89	104,09	103,99	112,73	19,99	24,00	35,99	99409
104,70	104,90	104,78	113,54	20,65	25,40	34,93	99412
104,90	105,11	105,00	113,54	19,99	23,19	35,00	99413
106,25	106,45	106,38	114,30	20,65	25,40	34,93	99418
107,34	107,54	107,54	117,09	19,84	23,01	36,53	99423
107,90	108,10	107,95	117,09	20,65	25,40	36,53	99424

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99372





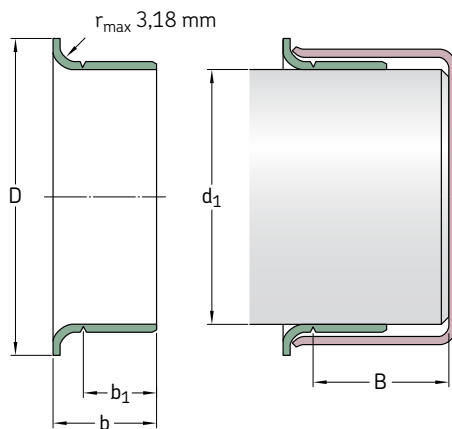
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
109,78	110,01	110,01	124,99	11,38	14,96	32,94	99434
109,91	110,11	109,93	124,99	12,93	16,51	31,75	99435
111,00	111,20	111,13	120,65	20,65	25,40	41,91	99437
111,79	111,99	111,99	120,65	19,05	22,50	33,02	99438
112,62	112,83	112,73	122,25	25,40	29,01	33,35	99439
114,20	114,40	114,30	123,19	20,65	25,40	31,75	99856 <sup>2)</sup>
		114,30	124,46	20,65	25,40	31,75	99450
114,88	115,09	115,01	127,00	20,65	23,83	31,75	99452
117,37	117,58	117,48	127,00	11,13	15,88	34,93	99465
		117,48	128,60	25,40	31,75	34,93	99463
119,00	119,20	119,08	128,60	20,65	25,40	34,93	99468
119,89	120,09	119,99	129,79	8,00	11,00	33,60	99471
		119,99	129,79	19,99	24,99	32,00	99473
120,55	120,75	120,65	127,00	12,70	19,05	38,10	99475
121,89	122,10	122,00	131,50	19,99	24,00	32,00	99472
122,91	123,11	123,01	132,82	19,99	24,99	31,60	99484
123,72	123,93	123,83	133,35	15,88	19,05	36,53	99487
124,89	125,10	124,99	137,16	10,01	14,00	36,53	99490
		124,99	137,16	26,01	32,00	36,53	99492
126,95	127,15	127,00	137,16	13,72	17,30	36,53	99501
		127,00	137,16	17,48	22,23	36,53	99857 <sup>2)</sup>
		127,00	137,16	17,48	22,23	36,53	99498
		127,00	136,91	20,65	25,40	36,53	99858 <sup>2)</sup>
		127,00	136,91	20,65	25,40	36,53	99499
127,80	128,00	128,00	135,26	29,21	34,27	40,30	99482
129,79	130,00	129,90	139,52	19,05	23,83	30,00	99494
129,97	130,18	130,00	139,52	22,00	25,30	32,51	99874 <sup>2)</sup>
		130,18	139,52	22,00	25,30	32,51	99491

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)

d<sub>1</sub> 130,05 – 203,33 mm



Shaft diameter range

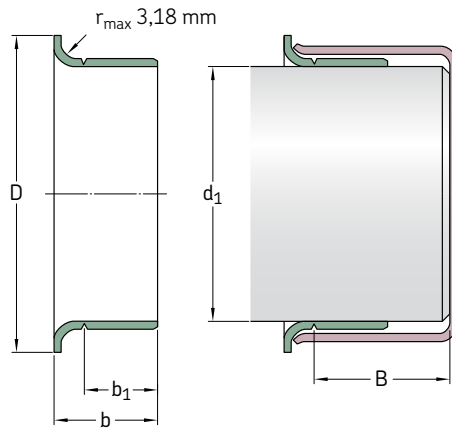
Nominal dimensions

Designation

d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
130,05	130,25	130,18	139,70	20,65	25,40	31,75	99513
133,25	133,45	133,35	141,22	20,65	25,40	31,75	99525
134,80	135,00	134,90	145,67	20,50	25,40	31,75	99533
136,42	136,63	136,53	149,23	20,65	25,40	31,75	99537
138,02	138,23	138,13	146,05	38,10	42,88	47,63	99548
138,99	139,19	139,09	149,86	14,30	19,05	31,34	99547
139,65	139,85	139,70	150,83	13,16	17,91	31,75	99550
		139,70	150,83	20,65	25,40	31,75	99859 <sup>2)</sup>
		139,70	150,83	20,65	25,40	31,75	99549
139,90	140,11	140,00	151,00	20,50	25,40	31,75	99552
142,77	142,98	142,88	157,18	22,23	25,40	46,02	99560
144,75	145,01	145,01	154,94	19,05	22,23	46,02	99571
145,44	145,64	145,64	154,94	14,30	19,05	49,23	99562
145,95	146,15	146,05	156,97	20,65	25,40	44,45	99575
149,12	149,33	149,23	157,18	25,40	31,75	33,35	99862 <sup>2)</sup>
		149,23	157,18	25,40	31,75	33,35	99587
149,76	150,01	149,99	159,00	26,01	30,00	32,51	99595
150,72	150,93	150,83	161,93	25,40	28,58	47,63	99596
152,27	152,48	152,40	161,54	12,70	19,05	44,45	99601
		152,40	161,93	25,40	31,75	44,45	99599
153,87	154,13	154,00	161,93	26,01	30,00	32,99	99605
154,74	154,99	154,86	167,01	26,01	30,00	32,99	99606
157,43	157,68	157,56	168,28	20,65	27,00	44,45	99620
158,62	158,88	158,75	168,28	26,19	31,75	44,45	99625
159,74	159,99	159,99	171,45	25,40	31,75	34,93	99630
164,97	165,23	165,10	177,80	25,40	31,75	34,93	99650

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold



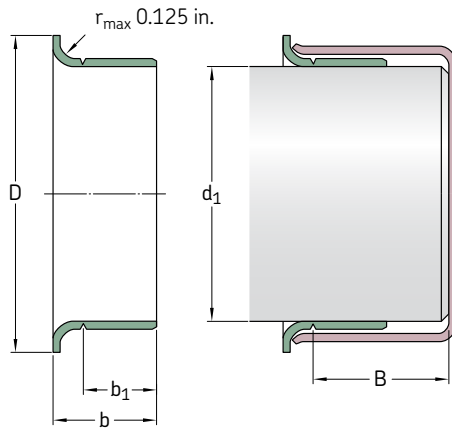
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	$D$ $\pm 1,6$	$b_1$ $\pm 0,8$	$b$ $\pm 0,8$	$B^{1)}$	
mm		mm					–
<b>169,75</b>	<b>170,00</b>	169,88	182,58	31,75	38,00	44,45	<b>99640</b>
<b>171,32</b>	<b>171,58</b>	171,45	180,98	20,65	27,00	44,45	<b>99675</b>
<b>174,75</b>	<b>175,01</b>	175,01	186,99	27,99	32,00	35,00	<b>99687</b>
<b>177,67</b>	<b>177,93</b>	177,80	189,87	25,40	31,75	42,88	<b>99864<sup>2)</sup></b>
		177,80	189,87	25,40	31,75	42,88	<b>99700</b>
<b>179,76</b>	<b>180,01</b>	180,01	190,50	32,99	38,00	44,50	<b>99721</b>
<b>184,00</b>	<b>184,25</b>	184,15	197,10	31,75	38,10	55,25	<b>99725</b>
<b>184,73</b>	<b>184,99</b>	184,86	197,10	32,00	38,00	54,99	<b>99726</b>
<b>189,08</b>	<b>189,33</b>	189,31	199,64	20,65	25,40	31,75	<b>99745</b>
<b>190,37</b>	<b>190,63</b>	190,50	200,03	20,65	25,40	31,75	<b>99750</b>
<b>196,72</b>	<b>196,98</b>	196,85	210,06	25,40	33,35	47,63	<b>99775</b>
<b>199,87</b>	<b>200,13</b>	200,03	212,73	34,52	38,10	44,45	<b>99787</b>
<b>201,50</b>	<b>201,75</b>	201,63	212,73	25,40	31,75	44,45	<b>99799</b>
<b>203,07</b>	<b>203,33</b>	203,20	212,73	25,40	31,75	44,45	<b>99800</b>

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – inch dimensions

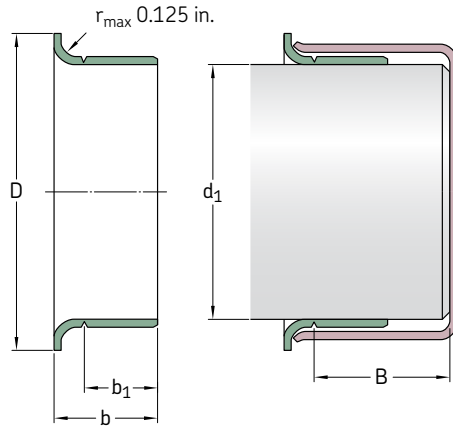
d<sub>1</sub> 0.472 – 1.339 in.



Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>		
in.		in.						–
0.472	0.475	0.472	0.610	0.236	0.331	1.875	99049	
0.498	0.502	0.500	0.610	0.250	0.344	2.000	99050	
0.547	0.551	0.551	0.750	0.250	0.391	1.831	99055	
0.560	0.566	0.563	0.750	0.250	0.391	1.831	99056	
0.589	0.593	0.591	0.750	0.197	0.354	1.862	99059	
0.623	0.627	0.625	0.750	0.313	0.406	2.000	99810 <sup>2)</sup>	
		0.625	0.750	0.313	0.406	2.000	99062	
0.626	0.630	0.630	0.718	0.313	0.438	2.000	99058	
0.667	0.671	0.669	0.875	0.315	0.433	2.000	99068	
0.682	0.686	0.684	0.900	0.313	0.438	2.000	99060	
0.704	0.709	0.709	0.962	0.315	0.433	1.811	99082	
0.748	0.752	0.750	0.945	0.313	0.438	2.000	99811 <sup>2)</sup>	
		0.750	0.945	0.313	0.438	2.000	99076	
0.759	0.761	0.760	0.938	0.313	0.438	2.000	99081	
0.780	0.784	0.781	0.935	0.313	0.438	2.000	99080	
0.785	0.789	0.787	0.930	0.315	0.433	2.000	99078	
0.812	0.815	0.813	1.188	0.375	0.563	3.000	99083	
0.857	0.861	0.859	1.155	0.250	0.375	2.000	99086	
0.861	0.866	0.866	1.188	0.259	0.359	1.856	99084	
		0.866	1.188	0.315	0.472	1.812	99085	
0.873	0.877	0.875	1.094	0.313	0.438	2.000	99812 <sup>2)</sup>	
		0.875	1.094	0.313	0.438	2.000	99087	
0.908	0.912	0.910	1.218	0.313	0.438	1.847	99860 <sup>2)</sup>	
		0.910	1.218	0.313	0.438	1.847	99091	
0.940	0.945	0.945	1.130	0.313	0.438	2.000	99092	
0.966	0.970	0.969	1.130	0.313	0.438	2.000	99094	
		0.969	1.130	0.625	0.719	2.000	99096	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold



Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$		
in.		in.					–	
<b>0.982</b>	<b>0.986</b>	0.984	1.300	0.313	0.433	2.000	<b>99813<sup>2)</sup></b>	
		0.984	1.300	0.313	0.433	2.000	<b>99098</b>	
<b>0.998</b>	<b>1.002</b>	1.000	1.219	0.313	0.438	2.000	<b>99814<sup>2)</sup></b>	
		1.000	1.219	0.313	0.438	2.000	<b>99868<sup>3)</sup></b>	
<b>1.019</b>	<b>1.024</b>	1.024	1.313	0.315	0.472	1.813	<b>99103</b>	
<b>1.060</b>	<b>1.064</b>	1.063	1.320	0.313	0.438	1.843	<b>99815<sup>2)</sup></b>	
		1.063	1.320	0.313	0.438	1.843	<b>99106</b>	
<b>1.087</b>	<b>1.091</b>	1.089	1.406	0.313	0.438	0.625	<b>99108</b>	
<b>1.100</b>	<b>1.104</b>	1.102	1.375	0.375	0.500	1.843	<b>99866<sup>2)</sup></b>	
		1.102	1.375	0.375	0.500	1.843	<b>99111</b>	
<b>1.123</b>	<b>1.127</b>	1.125	1.500	0.313	0.438	0.688	<b>99816<sup>2)</sup></b>	
		1.125	1.500	0.313	0.438	0.688	<b>99112</b>	
		1.125	1.500	0.375	0.500	0.688	<b>99116</b>	
<b>1.154</b>	<b>1.158</b>	1.156	1.350	0.375	0.500	0.688	<b>99865<sup>2)</sup></b>	
		1.156	1.350	0.375	0.500	0.688	<b>99120</b>	
<b>1.173</b>	<b>1.178</b>	1.175	1.400	0.313	0.438	0.688	<b>99122</b>	
<b>1.179</b>	<b>1.184</b>	1.181	1.400	0.315	0.433	0.688	<b>99114</b>	
<b>1.185</b>	<b>1.190</b>	1.188	1.400	0.313	0.438	0.688	<b>99118</b>	
<b>1.216</b>	<b>1.222</b>	1.219	1.563	0.313	0.433	0.625	<b>99123</b>	
<b>1.237</b>	<b>1.243</b>	1.240	1.540	0.315	0.438	0.688	<b>99141</b>	
<b>1.247</b>	<b>1.253</b>	1.250	1.500	0.313	0.438	0.688	<b>99817<sup>2)</sup></b>	
		1.250	1.500	0.313	0.438	0.688	<b>99125</b>	
<b>1.257</b>	<b>1.263</b>	1.260	1.500	0.315	0.438	0.688	<b>99128</b>	
<b>1.297</b>	<b>1.301</b>	1.299	1.594	0.591	0.709	1.000	<b>99121</b>	
<b>1.308</b>	<b>1.314</b>	1.313	1.600	0.250	0.375	0.813	<b>99129</b>	
<b>1.310</b>	<b>1.316</b>	1.313	1.594	0.500	0.625	0.813	<b>99818<sup>2)</sup></b>	
		1.313	1.594	0.500	0.625	0.813	<b>99131</b>	
<b>1.333</b>	<b>1.339</b>	1.339	1.625	0.500	0.625	0.813	<b>99134</b>	

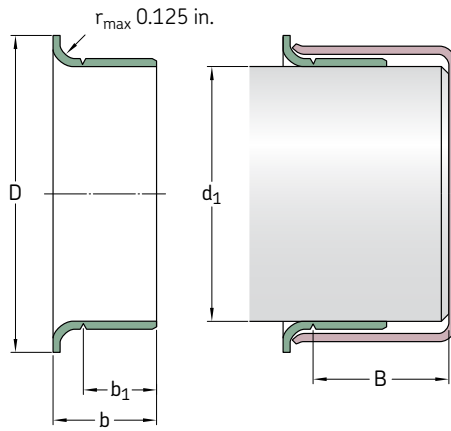
<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99100

SKF SPEEDI-SLEEVE – inch dimensions

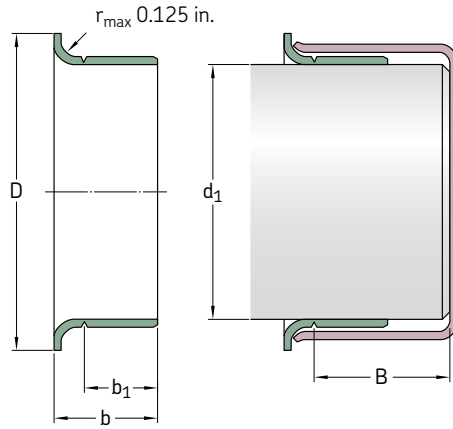
$d_1$  1.371 – 1.940 in.



Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D ±0.063	$b_1$ ±0.031	b ±0.031	$B^{1)}$	
in.		in.					–
<b>1.371</b>	<b>1.377</b>	1.375	1.638	0.313	0.438	0.813	<b>99133</b>
		1.375	1.638	0.500	0.625	0.813	<b>99819<sup>2)</sup></b>
		1.375	1.638	0.500	0.625	0.813	<b>99138</b>
<b>1.375</b>	<b>1.381</b>	1.375	1.638	0.512	0.630	0.813	<b>99820<sup>2)</sup></b>
		1.375	1.638	0.512	0.630	0.813	<b>99139</b>
<b>1.411</b>	<b>1.417</b>	1.417	1.781	0.512	0.669	0.984	<b>99146</b>
<b>1.432</b>	<b>1.438</b>	1.438	1.781	0.563	0.688	1.016	<b>99821<sup>2)</sup></b>
		1.438	1.781	0.563	0.688	1.016	<b>99143</b>
<b>1.435</b>	<b>1.441</b>	1.438	1.781	0.375	0.500	1.016	<b>99144</b>
<b>1.490</b>	<b>1.496</b>	1.496	1.781	0.512	0.669	0.984	<b>99147</b>
<b>1.497</b>	<b>1.503</b>	1.500	1.781	0.375	0.500	1.016	<b>99823<sup>2)</sup></b>
		1.500	1.781	0.375	0.500	1.016	<b>99150</b>
		1.500	1.781	0.563	0.688	1.016	<b>99822<sup>2)</sup></b>
		1.500	1.781	0.563	0.688	1.016	<b>99149</b>
<b>1.520</b>	<b>1.526</b>	1.523	1.859	0.438	0.563	1.016	<b>99152</b>
<b>1.549</b>	<b>1.555</b>	1.552	1.859	0.438	0.563	1.016	<b>99155</b>
<b>1.559</b>	<b>1.565</b>	1.562	1.859	0.563	0.688	1.016	<b>99824<sup>2)</sup></b>
		1.562	1.859	0.563	0.688	1.016	<b>99156</b>
<b>1.566</b>	<b>1.572</b>	1.569	1.859	0.625	0.750	1.016	<b>99159</b>
<b>1.569</b>	<b>1.575</b>	1.575	1.850	0.390	0.509	1.000	<b>99153</b>
<b>1.572</b>	<b>1.578</b>	1.578	1.850	0.512	0.630	1.023	<b>99825<sup>2)</sup></b>
		1.578	1.850	0.512	0.630	1.023	<b>99157</b>
<b>1.602</b>	<b>1.608</b>	1.605	1.938	0.500	0.641	1.000	<b>99160</b>
<b>1.608</b>	<b>1.614</b>	1.614	1.938	0.500	0.625	1.016	<b>99163</b>
<b>1.622</b>	<b>1.628</b>	1.625	1.875	0.313	0.438	1.016	<b>99161</b>
		1.625	1.875	0.563	0.688	0.813	<b>99826<sup>2)</sup></b>
		1.625	1.875	0.563	0.688	0.813	<b>99162</b>
<b>1.647</b>	<b>1.654</b>	1.650	2.087	0.445	0.571	0.846	<b>99166</b>
		1.650	2.087	0.563	0.689	0.827	<b>99169</b>
		1.654	2.087	0.563	0.689	0.827	<b>99873<sup>2)</sup></b>

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold



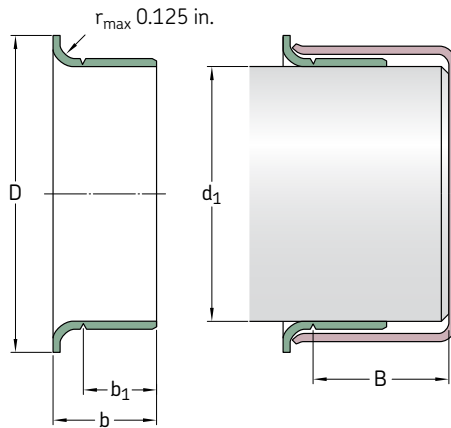
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$	
in.		in.					–
<b>1.653</b>	<b>1.659</b>	1.656	2.087	0.550	0.689	0.827	<b>99165</b>
<b>1.684</b>	<b>1.690</b>	1.688	1.906	0.563	0.688	0.875	<b>99168</b>
<b>1.685</b>	<b>1.691</b>	1.688	1.906	0.313	0.438	0.875	<b>99167</b>
<b>1.687</b>	<b>1.693</b>	1.693	1.906	0.500	0.625	0.844	<b>99182</b>
<b>1.715</b>	<b>1.721</b>	1.719	2.031	0.563	0.688	0.813	<b>99171</b>
<b>1.736</b>	<b>1.742</b>	1.739	2.063	0.375	0.500	0.813	<b>99170</b>
<b>1.747</b>	<b>1.753</b>	1.750	2.055	0.375	0.500	0.813	<b>99172</b>
		1.750	2.063	0.531	0.625	0.878	<b>99180</b>
		1.750	2.063	0.563	0.688	0.813	<b>99827<sup>2)</sup></b>
		1.750	2.063	0.563	0.688	0.813	<b>99174</b>
		1.750	2.063	0.750	0.875	0.813	<b>99828<sup>2)</sup></b>
		1.750	2.063	0.750	0.875	0.813	<b>99175</b>
<b>1.761</b>	<b>1.767</b>	1.766	2.063	0.563	0.688	0.813	<b>99829<sup>2)</sup></b>
		1.766	2.063	0.563	0.688	0.813	<b>99176</b>
<b>1.769</b>	<b>1.775</b>	1.772	2.087	0.551	0.669	0.812	<b>99830<sup>2)</sup></b>
		1.772	2.087	0.551	0.669	0.812	<b>99177</b>
<b>1.778</b>	<b>1.784</b>	1.781	2.125	0.667	0.800	1.062	<b>99179</b>
<b>1.809</b>	<b>1.815</b>	1.813	2.090	0.563	0.688	1.000	<b>99831<sup>2)</sup></b>
		1.813	2.090	0.563	0.688	1.000	<b>99181</b>
<b>1.857</b>	<b>1.863</b>	1.859	2.156	0.563	0.688	1.000	<b>99185</b>
<b>1.866</b>	<b>1.872</b>	1.868	2.188	0.889	1.025	1.000	<b>99186</b>
<b>1.872</b>	<b>1.878</b>	1.875	2.203	0.175	0.295	0.744	<b>99190</b>
		1.875	2.203	0.295	0.415	0.744	<b>99188</b>
		1.875	2.203	0.375	0.516	1.050	<b>99184</b>
		1.875	2.203	0.563	0.688	1.000	<b>99832<sup>2)</sup></b>
		1.875	2.203	0.563	0.688	1.000	<b>99187</b>
<b>1.887</b>	<b>1.893</b>	1.891	2.205	0.551	0.668	0.984	<b>99189</b>
<b>1.909</b>	<b>1.915</b>	1.912	2.219	0.375	0.500	1.000	<b>99192</b>
<b>1.934</b>	<b>1.940</b>	1.938	2.219	0.563	0.688	1.000	<b>99833<sup>2)</sup></b>
		1.938	2.219	0.563	0.688	1.000	<b>99193</b>

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – inch dimensions

d<sub>1</sub> 1.965 – 2.753 in.



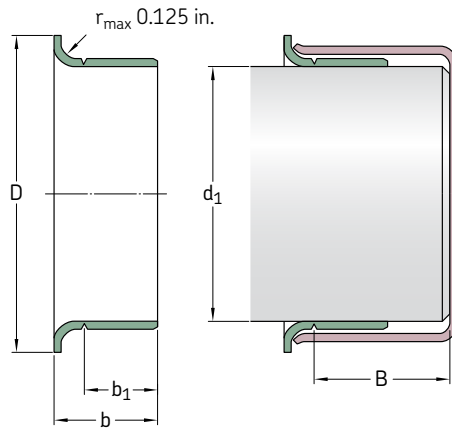
Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>		
in.		in.					–	
1.965	1.971	1.969	2.244	0.551	0.668	1.350	<b>99052</b>	
		1.969	2.244	0.551	0.668	0.984	<b>99196</b>	
1.977	1.983	1.980	2.313	0.563	0.704	1.050	<b>99198</b>	
1.997	2.003	2.000	2.406	0.563	0.688	1.006	<b>99834<sup>2)</sup></b>	
		2.000	2.406	0.563	0.688	1.000	<b>99199</b>	
		2.000	2.406	0.875	1.000	1.000	<b>99835<sup>2)</sup></b>	
		2.000	2.406	0.875	1.000	1.000	<b>99200</b>	
2.040	2.047	2.047	2.469	0.500	0.625	1.359	<b>99878<sup>3)</sup></b>	
2.057	2.063	2.063	2.469	0.781	0.938	1.375	<b>99205</b>	
2.123	2.128	2.125	2.422	0.500	0.750	1.281	<b>99210</b>	
2.124	2.130	2.125	2.422	0.781	0.938	1.375	<b>99836<sup>2)</sup></b>	
		2.125	2.422	0.781	0.938	1.375	<b>99212</b>	
2.162	2.168	2.165	2.441	0.787	0.905	1.250	<b>99863<sup>2)</sup></b>	
		2.165	2.441	0.787	0.905	1.250	<b>99215</b>	
2.186	2.192	2.188	2.500	0.781	0.938	1.313	<b>99218</b>	
2.198	2.205	2.205	2.531	0.500	0.625	1.313	<b>99220</b>	
		2.205	2.531	0.779	0.936	3.150	<b>99224</b>	
2.227	2.233	2.230	2.531	0.500	0.625	1.313	<b>99861<sup>2)</sup></b>	
		2.230	2.531	0.500	0.625	1.313	<b>99229</b>	
		2.230	2.531	0.781	0.906	1.250	<b>99230</b>	
2.237	2.243	2.240	2.563	0.764	0.900	1.250	<b>99226</b>	
2.249	2.255	2.250	2.531	0.313	0.438	1.313	<b>99838<sup>2)</sup></b>	
		2.250	2.531	0.313	0.438	1.313	<b>99227</b>	
		2.250	2.531	0.781	0.938	1.313	<b>99837<sup>2)</sup></b>	
		2.250	2.531	0.781	0.938	1.313	<b>99225</b>	
2.280	2.286	2.283	2.598	0.787	0.938	1.375	<b>99219</b>	
2.309	2.315	2.313	2.688	0.781	0.938	1.375	<b>99231</b>	
2.327	2.333	2.328	2.750	0.750	0.875	1.500	<b>99233</b>	
2.359	2.365	2.362	2.785	0.370	0.450	1.471	<b>99241</b>	
		2.362	2.785	0.787	0.905	1.375	<b>99869<sup>2)</sup></b>	
		2.362	2.785	0.787	0.905	1.375	<b>99235</b>	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99204





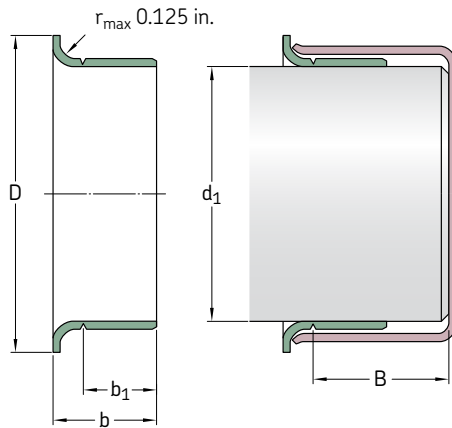
Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$		
in.		in.						–
2.372	2.378	2.375	2.750	0.594	0.750	1.375	99238	
2.374	2.380	2.375	2.750	0.526	0.683	1.375	99240	
		2.375	2.750	0.781	0.938	1.375	99839 <sup>2)</sup>	
		2.375	2.750	0.781	0.938	1.375	99237	
2.434	2.441	2.438	2.828	0.781	0.938	1.393	99243	
		2.441	2.828	0.500	0.625	1.425	99244	
2.435	2.441	2.438	2.828	0.500	0.625	1.425	99242	
2.489	2.495	2.492	2.875	0.781	0.938	1.393	99249	
2.497	2.503	2.500	2.820	0.555	0.650	0.890	99253	
2.500	2.506	2.500	2.828	0.500	0.656	1.393	99248	
		2.500	2.820	0.781	0.938	1.375	99840 <sup>2)</sup>	
		2.500	2.820	0.781	0.938	1.375	99250	
2.510	2.516	2.516	2.828	0.781	0.906	1.438	99251	
2.556	2.562	2.559	2.850	0.787	0.905	1.375	99841 <sup>2)</sup>	
		2.559	2.850	0.787	0.905	1.375	99254	
2.560	2.566	2.563	2.891	0.781	0.938	1.375	99256	
2.595	2.601	2.598	2.990	0.781	0.938	1.250	99259	
2.618	2.624	2.621	3.047	0.781	0.938	1.375	99261	
2.621	2.627	2.625	3.047	0.781	0.906	1.375	99264	
2.622	2.628	2.625	3.047	0.500	0.625	1.375	99260	
2.625	2.631	2.625	3.047	0.781	0.938	1.375	99842 <sup>2)</sup>	
		2.625	3.047	0.781	0.938	1.375	99262	
2.670	2.677	2.677	3.125	0.750	0.875	1.688	99266	
2.727	2.733	2.730	3.125	0.781	0.906	1.313	99268	
2.740	2.746	2.743	3.065	0.781	0.938	1.250	99273	
2.745	2.751	2.750	3.125	0.781	0.938	1.250	99843 <sup>2)</sup>	
		2.750	3.125	0.781	0.938	1.250	99274	
2.747	2.753	2.750	3.075	1.438	1.625	1.625	99267	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – inch dimensions

d<sub>1</sub> 2.750 – 3.566 in.

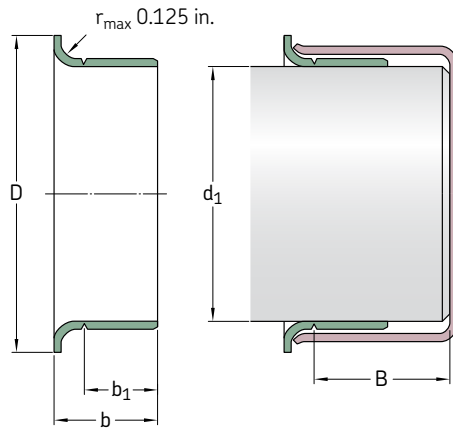


Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>		
in.		in.					–	
2.750	2.756	2.750	3.125	0.406	0.563	1.250	99272	
		2.750	3.125	0.781	0.938	1.250	99844 <sup>2)</sup>	
		2.750	3.125	0.781	0.938	1.250	99275	
		2.750	3.125	1.125	1.250	1.312	99269	
2.753	2.759	2.756	3.125	0.787	0.945	1.250	99276	
2.809	2.815	2.813	3.188	0.594	0.688	1.250	99281	
2.828	2.835	2.835	3.225	0.750	0.875	1.343	99870 <sup>2)</sup>	
		2.835	3.225	0.750	0.875	1.343	99284	
2.838	2.844	2.838	3.225	0.500	0.656	1.250	99845 <sup>2)</sup>	
		2.838	3.225	0.500	0.656	1.250	99282	
2.866	2.872	2.869	3.188	0.781	0.938	1.250	99286	
2.873	2.879	2.875	3.219	0.781	0.938	1.250	99846 <sup>2)</sup>	
		2.875	3.219	0.781	0.938	1.250	99287	
2.937	2.943	2.938	3.344	0.500	0.641	1.331	99290	
		2.938	3.344	0.781	0.938	1.313	99847 <sup>2)</sup>	
		2.940	3.344	0.781	0.938	1.313	99293	
2.950	2.956	2.953	3.273	0.594	0.690	1.083	99289	
		2.953	3.305	0.866	1.024	1.313	99875 <sup>2)</sup>	
		2.953	3.305	0.866	1.024	1.313	99294	
2.972	2.976	2.974	3.235	0.813	1.000	1.250	99292	
2.990	2.996	2.993	3.359	0.484	0.625	1.331	99291	
		2.993	3.359	0.563	0.688	1.375	99298	
		2.993	3.350	0.813	1.000	1.281	99299	
2.997	3.003	3.000	3.240	0.813	0.938	1.375	99296	
3.000	3.006	3.000	3.345	0.625	0.813	1.280	99048 <sup>3)</sup>	
		3.000	3.235	0.813	1.000	1.281	99848 <sup>2)</sup>	
		3.000	3.235	0.813	1.000	1.281	99300	
3.008	3.014	3.011	3.355	0.500	0.625	2.000	99301	
3.064	3.071	3.071	3.468	0.750	0.875	2.056	99306	
3.120	3.126	3.125	3.531	0.688	0.813	2.000	99311	
		3.125	3.531	0.813	1.000	2.000	99849 <sup>2)</sup>	
		3.125	3.531	0.813	1.000	2.000	99312	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99303



Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$	
in.		in.					-
<b>3.124</b>	<b>3.132</b>	3.125	3.525	0.551	0.709	2.031	<b>99053<sup>3)</sup></b>
<b>3.142</b>	<b>3.150</b>	3.150	3.540	0.750	0.886	1.375	<b>99313</b>
<b>3.146</b>	<b>3.153</b>	3.150	3.543	0.433	0.591	1.375	<b>99317</b>
		3.150	3.543	0.827	0.945	1.375	<b>99315</b>
<b>3.225</b>	<b>3.231</b>	3.228	3.585	0.660	0.848	1.750	<b>99328</b>
<b>3.247</b>	<b>3.253</b>	3.250	3.594	0.813	1.000	1.375	<b>99322</b>
<b>3.250</b>	<b>3.256</b>	3.250	3.575	0.595	0.719	1.375	<b>99850<sup>2)</sup></b>
		3.250	3.575	0.595	0.719	1.375	<b>99324</b>
		3.250	3.585	0.688	0.875	1.250	<b>99326</b>
		3.250	3.585	0.813	1.000	1.375	<b>99851<sup>2)</sup></b>
		3.250	3.585	0.813	1.000	1.375	<b>99325</b>
<b>3.307</b>	<b>3.313</b>	3.310	3.688	0.813	1.000	1.375	<b>99331</b>
<b>3.337</b>	<b>3.347</b>	3.342	3.700	0.669	0.827	1.378	<b>99332</b>
		3.342	3.700	0.827	0.984	1.378	<b>99872<sup>2)</sup></b>
		3.342	3.700	0.827	0.984	1.378	<b>99333</b>
<b>3.338</b>	<b>3.347</b>	3.347	3.580	0.399	0.499	1.431	<b>99334</b>
<b>3.373</b>	<b>3.379</b>	3.375	3.688	0.375	0.500	1.410	<b>99338</b>
		3.375	3.695	0.813	1.000	1.375	<b>99337</b>
<b>3.435</b>	<b>3.441</b>	3.438	3.844	0.781	0.906	1.406	<b>99339</b>
<b>3.457</b>	<b>3.465</b>	3.465	3.751	1.150	1.349	1.673	<b>99481</b>
<b>3.477</b>	<b>3.483</b>	3.480	3.835	0.781	0.906	1.406	<b>99340</b>
<b>3.497</b>	<b>3.503</b>	3.500	3.844	0.625	0.813	1.347	<b>99346</b>
<b>3.500</b>	<b>3.506</b>	3.500	3.825	0.313	0.500	1.347	<b>99347</b>
		3.500	3.844	0.813	1.000	1.347	<b>99852<sup>2)</sup></b>
		3.500	3.844	0.813	1.000	1.347	<b>99350</b>
<b>3.501</b>	<b>3.507</b>	3.504	3.844	0.625	0.813	1.348	<b>99349</b>
<b>3.540</b>	<b>3.546</b>	3.543	4.000	0.438	0.538	1.813	<b>99352</b>
		3.543	4.000	0.526	0.667	1.750	<b>99353</b>
		3.543	4.000	0.710	0.906	1.813	<b>99351</b>
		3.543	4.000	0.906	1.102	1.750	<b>99354</b>
<b>3.560</b>	<b>3.566</b>	3.563	3.900	0.813	1.000	1.750	<b>99356</b>

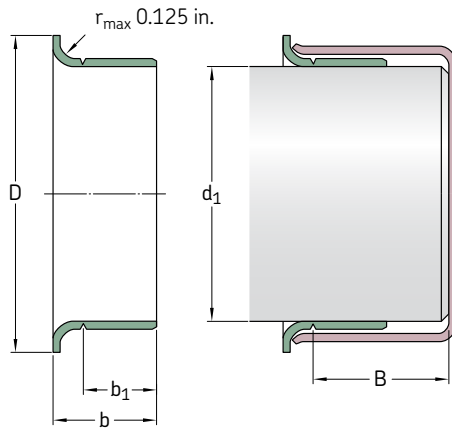
<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99307

SKF SPEEDI-SLEEVE – inch dimensions

d<sub>1</sub> 3.618 – 5.125 in.

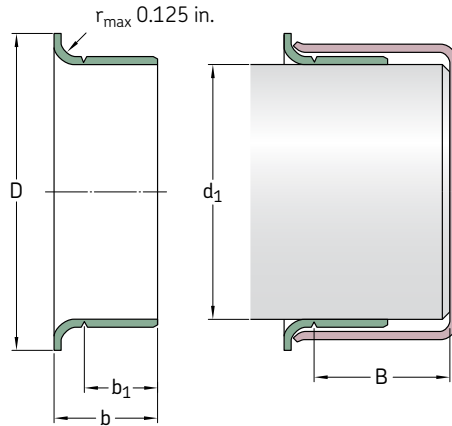


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>	
in.		in.					–
3.618	3.624	3.621	4.031	0.813	1.000	1.750	99360
3.623	3.629	3.625 3.625	4.025 4.031	0.500 0.813	0.625 1.000	1.750 1.750	99363 99362
3.684	3.690	3.688	4.031	0.313	0.438	0.875	99368
3.685	3.691	3.688	4.025	0.813	0.938	1.800	99365
3.727	3.733	3.730 3.730	4.016 4.025	0.469 0.781	0.594 0.906	1.800 1.800	99359 99366
3.737	3.743	3.740	4.025	0.827	0.945	1.800	99369
3.740	3.746	3.743 3.743	4.031 4.035	0.344 0.469	0.500 0.594	1.800 1.800	99374 99364
3.746	3.752	3.749	4.025	0.563	0.688	1.800	99376
3.750	3.756	3.750 3.753 3.753	4.020 4.025 4.020	0.688 0.344 0.688	0.875 0.500 0.875	1.800 1.800 1.800	99853 <sup>2)3)</sup> 99367 99372
3.868	3.874	3.871	4.185	0.813	1.000	1.875	99386
3.873	3.879	3.875	4.219	0.813	1.000	1.875	99387
3.935	3.941	3.938 3.938	4.313 4.313	0.813 0.813	1.000 1.000	2.050 2.050	99854 <sup>2)</sup> 99393
3.998	4.006	4.000 4.000 4.000 4.000 4.000	4.375 4.375 4.375 4.375 4.375	0.500 0.600 0.650 0.813 0.813	0.625 0.725 0.775 1.000 1.000	2.066 2.050 1.375 2.050 2.050	99401 99395 99400 99855 <sup>2)</sup> 99399
4.090	4.098	4.094	4.438	0.787	0.945	1.417	99409
4.122	4.130	4.125	4.470	0.813	1.000	1.375	99412
4.130	4.138	4.134	4.470	0.787	0.913	1.378	99413
4.183	4.191	4.188	4.500	0.813	1.000	1.375	99418
4.226	4.234	4.234	4.610	0.781	0.906	1.438	99423
4.248	4.256	4.250	4.610	0.813	1.000	1.438	99424

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

<sup>3)</sup> Previously 99372



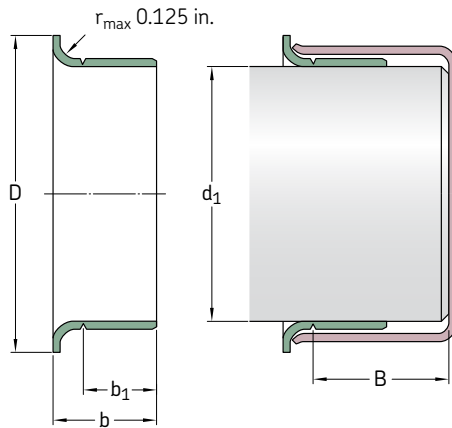
Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$		
in.		in.						–
4.322	4.331	4.331	4.921	0.448	0.589	1.297	99434	
4.327	4.335	4.328	4.921	0.509	0.650	1.250	99435	
4.370	4.378	4.375	4.750	0.813	1.000	1.650	99437	
4.401	4.409	4.409	4.750	0.750	0.886	1.300	99438	
4.434	4.442	4.438	4.813	1.000	1.142	1.313	99439	
4.496	4.504	4.500	4.850	0.813	1.000	1.250	99856 <sup>2)</sup>	
		4.500	4.900	0.813	1.000	1.250	99450	
4.523	4.531	4.528	5.000	0.813	0.938	1.250	99452	
4.621	4.629	4.625	5.000	0.438	0.625	1.375	99465	
		4.625	5.063	1.000	1.250	1.375	99463	
4.685	4.693	4.688	5.063	0.813	1.000	1.375	99468	
4.720	4.728	4.724	5.110	0.315	0.433	1.323	99471	
		4.724	5.110	0.787	0.984	1.260	99473	
4.746	4.754	4.750	5.000	0.500	0.750	1.500	99475	
4.799	4.807	4.803	5.177	0.787	0.945	1.260	99472	
4.839	4.847	4.843	5.229	0.787	0.984	1.244	99484	
4.871	4.879	4.875	5.250	0.625	0.750	1.438	99487	
4.917	4.925	4.921	5.400	0.394	0.551	1.438	99490	
		4.921	5.400	1.024	1.260	1.438	99492	
4.998	5.006	5.000	5.400	0.540	0.681	1.438	99501	
		5.000	5.400	0.688	0.875	1.438	99857 <sup>2)</sup>	
		5.000	5.400	0.688	0.875	1.438	99498	
		5.000	5.390	0.813	1.000	1.438	99858 <sup>2)</sup>	
		5.000	5.390	0.813	1.000	1.438	99499	
5.032	5.039	5.039	5.325	1.150	1.349	1.587	99482	
5.110	5.118	5.114	5.493	0.750	0.938	1.181	99494	
5.117	5.125	5.118	5.493	0.866	0.996	1.280	99874 <sup>2)</sup>	
		5.125	5.493	0.866	0.996	1.280	99491	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

SKF SPEEDI-SLEEVE – inch dimensions

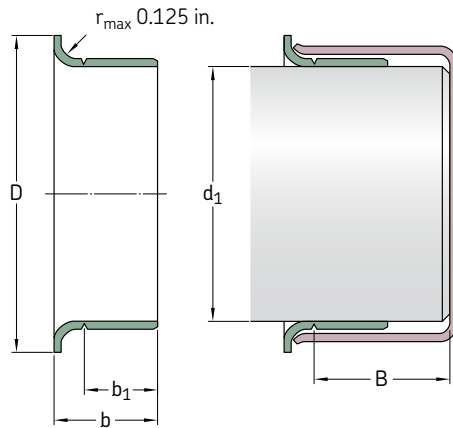
d<sub>1</sub> 5.120 – 8.005 in.



Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>		
in.		in.						–
5.120	5.128	5.125	5.500	0.813	1.000	1.250	99513	
5.246	5.254	5.250	5.560	0.813	1.000	1.250	99525	
5.307	5.315	5.311	5.735	0.807	1.000	1.250	99533	
5.371	5.379	5.375	5.875	0.813	1.000	1.250	99537	
5.434	5.442	5.438	5.750	1.500	1.688	1.875	99548	
5.472	5.480	5.476	5.900	0.563	0.750	1.234	99547	
5.498	5.506	5.500	5.938	0.518	0.705	1.250	99550	
		5.500	5.938	0.813	1.000	1.250	99859 <sup>2)</sup>	
		5.500	5.938	0.813	1.000	1.250	99549	
5.508	5.516	5.512	5.945	0.807	1.000	1.250	99552	
5.621	5.629	5.625	6.188	0.875	1.000	1.812	99560	
5.699	5.709	5.709	6.100	0.750	0.875	1.812	99571	
5.726	5.734	5.734	6.100	0.563	0.750	1.938	99562	
5.746	5.754	5.750	6.180	0.813	1.000	1.750	99575	
5.871	5.879	5.875	6.188	1.000	1.250	1.313	99862 <sup>2)</sup>	
		5.875	6.188	1.000	1.250	1.313	99587	
5.896	5.906	5.905	6.260	1.024	1.181	1.280	99595	
5.934	5.942	5.938	6.375	1.000	1.125	1.875	99596	
5.995	6.003	6.000	6.360	0.500	0.750	1.750	99601	
		6.000	6.375	1.000	1.250	1.750	99599	
6.058	6.068	6.063	6.375	1.024	1.181	1.299	99605	
6.092	6.102	6.097	6.575	1.024	1.181	1.299	99606	
6.198	6.208	6.203	6.625	0.813	1.063	1.750	99620	
6.245	6.255	6.250	6.625	1.031	1.250	1.750	99625	
6.289	6.299	6.299	6.750	1.000	1.250	1.375	99630	
6.495	6.505	6.500	7.000	1.000	1.250	1.375	99650	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold



Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	$D$ $\pm 0.063$	$b_1$ $\pm 0.031$	$b$ $\pm 0.031$	$B^{1)}$		
in.		in.						–
<b>6.683</b>	<b>6.693</b>	6.688	7.188	1.250	1.496	1.750	<b>99640</b>	
<b>6.745</b>	<b>6.755</b>	6.750	7.125	0.813	1.063	1.750	<b>99675</b>	
<b>6.880</b>	<b>6.890</b>	6.890	7.362	1.102	1.260	1.378	<b>99687</b>	
<b>6.995</b>	<b>7.005</b>	7.000 7.000	7.475 7.475	1.000 1.000	1.250 1.250	1.688 1.688	<b>99864<sup>2)</sup></b> <b>99700</b>	
<b>7.077</b>	<b>7.087</b>	7.087	7.500	1.299	1.496	1.752	<b>99721</b>	
<b>7.244</b>	<b>7.254</b>	7.250	7.760	1.250	1.500	2.175	<b>99725</b>	
<b>7.273</b>	<b>7.283</b>	7.278	7.760	1.260	1.496	2.165	<b>99726</b>	
<b>7.444</b>	<b>7.454</b>	7.453	7.860	0.813	1.000	1.250	<b>99745</b>	
<b>7.495</b>	<b>7.505</b>	7.500	7.875	0.813	1.000	1.250	<b>99750</b>	
<b>7.745</b>	<b>7.755</b>	7.750	8.270	1.000	1.313	1.875	<b>99775</b>	
<b>7.869</b>	<b>7.879</b>	7.875	8.375	1.359	1.500	1.750	<b>99787</b>	
<b>7.933</b>	<b>7.943</b>	7.938	8.375	1.000	1.250	1.750	<b>99799</b>	
<b>7.995</b>	<b>8.005</b>	8.000	8.375	1.000	1.250	1.750	<b>99800</b>	

<sup>1)</sup> Possible max. distance of the rear groove from the shaft end when the installation tool supplied with the sleeve is used

<sup>2)</sup> SKF SPEEDI-SLEEVE Gold

# Wear sleeves for heavy industrial applications

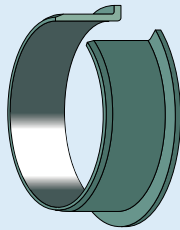
Outside contamination particles and polishing friction between a rotating shaft and a seal can, over time, result in severe shaft damage. Instead of repairing or replacing the damaged shaft, SKF recommends the use of wear sleeves for heavy industrial applications (LDSL), primarily in applications where no SKF SPEEDI-SLEEVE is available, i.e. for shaft diameters ranging from 211,15 to 1 143 mm (8.313 to 45 in.). The sleeves are made to order to fit shaft diameters within the primary ranges listed in **tables 1** and **2**. A selection of sizes is listed in the product tables starting on **page 34**.

The LDSLV designs are recommended for applications where the operating conditions for the seals are difficult, particularly where solid contaminants can reach the seals, like in rolling mills, primary metal plants and in chemical and mineral plants.

In applications where seal wear and shaft damage can be expected, SKF recommends that the wear sleeves be installed into the application from the outset. It will then not be necessary to rework the shaft before installing a replacement sleeve and the original size can be used for the replacement seal.

Table 1

## Primary dimension range of LDSLV3



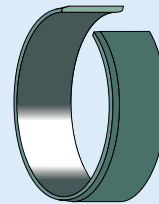
Shaft range		Width <sup>1)</sup>	
over	incl.	min	max
mm/in.		mm/in.	
211,15 8.313	736,60 29.000	17,48 0.688	63,50 2.500
736,60 29.000	1 143,00 45.000	25,40 1.000	63,50 2.500

<sup>1)</sup> Total width (b), 38,10 to 50,80 mm (1.5 to 2 in.) at 1 143,00 mm (45 in.) shaft diameter

Contact SKF for LDSLV3 designs outside the primary range.

Table 2

## Primary dimension range of LDSLV4



Shaft range		Width <sup>1)</sup>	
over	incl.	min	max
mm/in.		mm/in.	
211,15 8.313	736,60 29.000	12,70 0.500	63,50 2.500
736,60 29.000	1 143,00 45.000	19,05 0.750	63,50 2.500

<sup>1)</sup> Total width (b), 38,10 to 50,80 mm (1.5 to 2 in.) at 1 143,00 mm (45 in.) shaft diameter

Contact SKF for LDSLV4 designs outside the primary range.



## Designs and features

There are two designs of SKF wear sleeves for heavy industrial applications; LDSLV3 with a flange (→ **fig. 1**) and LDSLV4 without a flange (→ **fig. 2**). Both designs are made of SAE 1008 chromium-plated carbon steel to enhance wear and corrosion resistance. Other sleeve materials can be provided to meet the demands of a specific application. The sleeve outside diameter is specially ground to provide a precision counterface surface for the seal. The wall thickness of the standard sleeves is 2,39 mm (0.094 in.).

LDSLV3 is designed with a flange to simplify final positioning of the sleeve. The width of the counterface for the seal is 6,35 mm (0.25 in.) narrower than the total width of the sleeve. The flange adds a nominal 25,4 mm (1 in.) over the shaft diameter. The flange height is 12,7 mm (0.5 in.) for all sizes. Note that force should never be applied directly to the flange when installing an LDSLV3.

LDSLV4 has the same features as LDSLV3 but has no flange. LDSLV4 is intended for applications where a flange could interfere with other components during installation, or where a wider contact surface for the seal is required.

## Using LDSLV designs

There are two alternative ways of using SKF wear sleeves for heavy industrial applications (→ **fig. 3**);

- 1 The sleeve is positioned on the shaft until it covers the damaged part and a new seal, designed for a 4,78 mm (0.188 in.) larger shaft diameter is used.
- 2 The shaft is machined down by 4,78 mm (0.188 in.) in diameter, the sleeve is installed and the original seal size is used.

The reworked shaft surface for the sleeve should have a surface roughness of between  $R_a$  2,5 and 3,2  $\mu\text{m}$  (100 to 125  $\mu\text{in.}$ )

**NOTE:** The shaft tolerances for LDSLV designs, due to their heated slip-fit installation, are different from those for radial shaft seals. Contact SKF for assistance if the sleeves are to be used in systems with sustained temperatures higher than 75 °C (165 °F) and surface speeds in excess of 20 m/s (3 900 ft/min).

## Installation

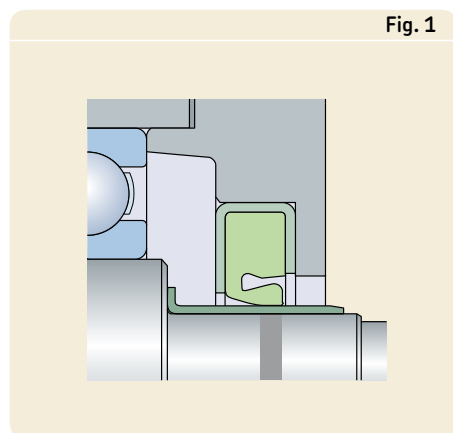
SKF wear sleeves for heavy industrial applications are designed for a heated slip-fit installation and must therefore be uniformly heated prior to installation on the shaft. The sleeve temperature should be approximately 180 °C (355 °F). Under no circumstances should the sleeve be heated to above 200 °C (390 °F). Any of the heating techniques normally used for bearings is suitable, e.g. induction heaters or heating cabinets.

The sleeves should be installed immediately after heating since they cool rapidly and could seize on the shaft before the correct position is achieved. If repositioning is necessary, use a soft faced hammer and a wooden block. After the sleeve is in the desired position, check the lead-in chamfer for any damage during installation.

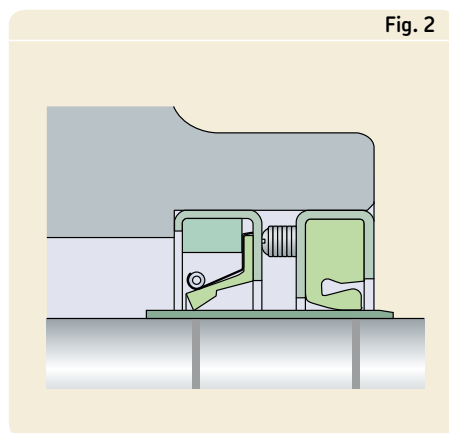
## Removal

Wear sleeves for heavy industrial applications can be removed either by heating them or expanding them by light hammer blows. Prior to removal, the flange of the LDSLV3 should first be cut through at one point, using care not to damage the shaft surface.

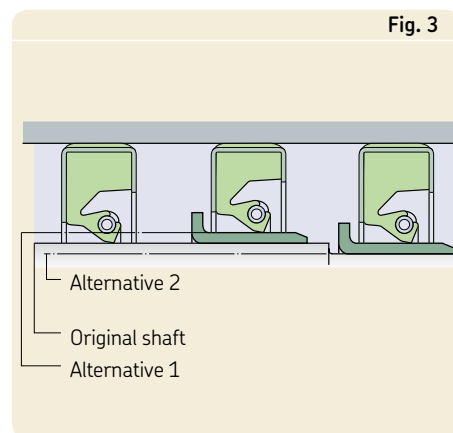
LDSLV3



LDSLV4

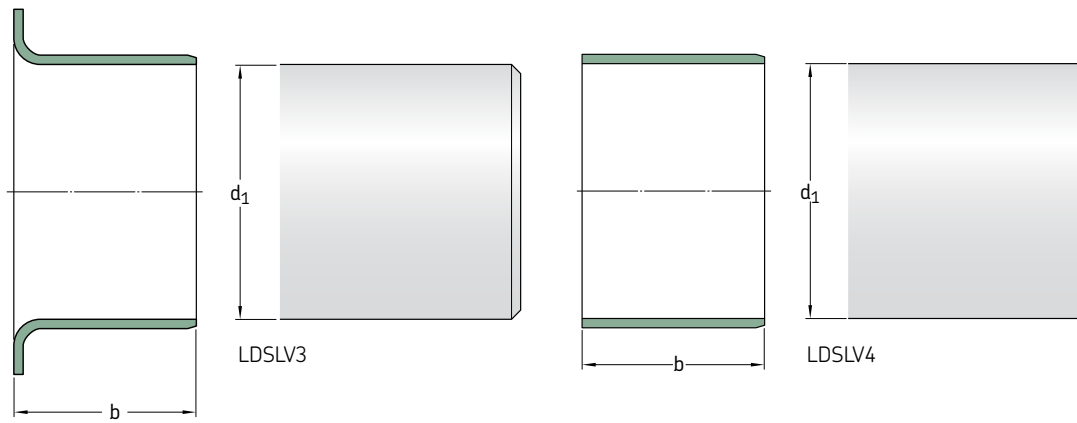


Using LDSLV designs

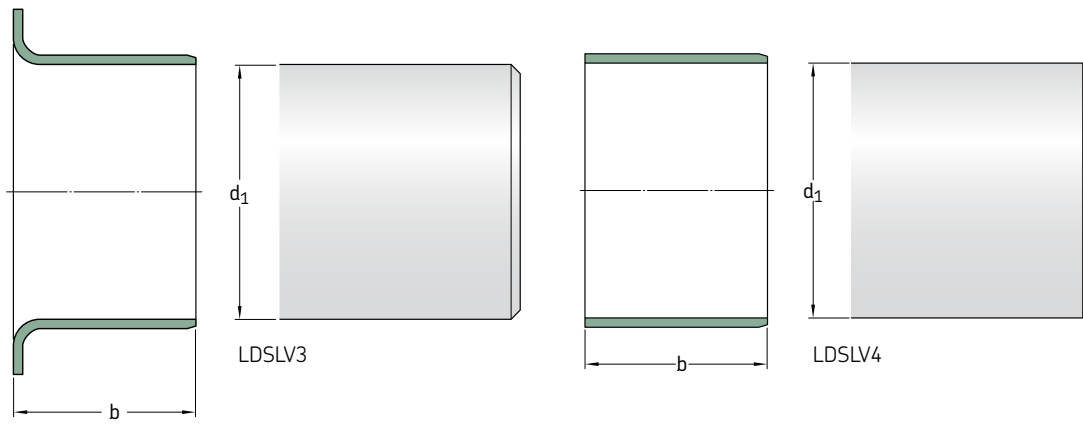


Wear sleeves for heavy industrial applications – LDSLV3 and LDSLV4 – metric dimensions

d<sub>1</sub> 215,00 – 1 100,23 mm



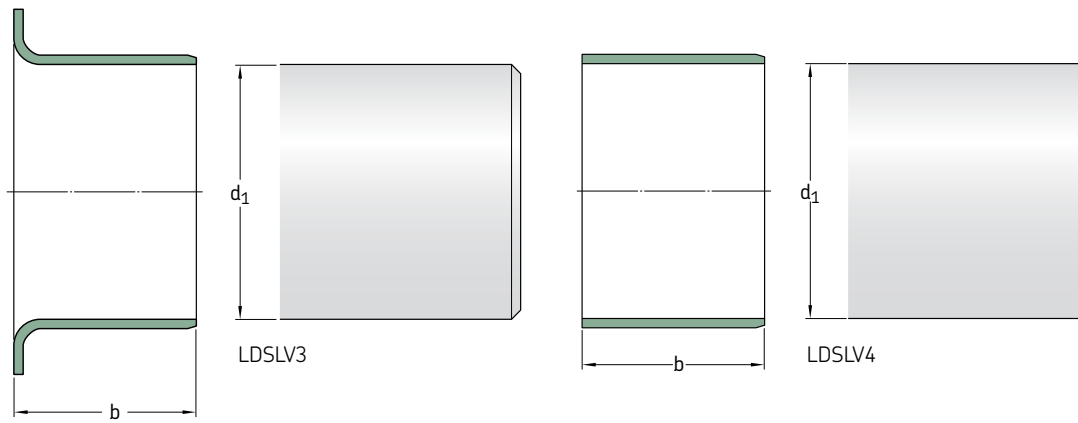
Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation				
d <sub>1</sub>	b				d <sub>1</sub>	b							
mm	mm	mm	–	–	mm	mm	mm	–	–				
215,00	25,40	220	LDSLV3	90179	405,23	50	410	LDSLV4	90042				
215,20	35	220	LDSLV3	87831	419,99	63,50	425	LDSLV3	97064				
220,00	25	225	LDSLV3	90806	435,20	63,50	440	LDSLV4	87916				
	40	225	LDSLV3	87914									
	50,80	225	LDSLV3	87915									
235,23	18	240	LDSLV4	90952	455,00	30	460	LDSLV4	90347				
240,00	17,50	250	LDSLV3	90156	455,20	50	460	LDSLV4	87504				
240,21	44	245	LDSLV4	87911	475,18	20	480	LDSLV4	87921				
245,20	63,50	250	LDSLV3	90766	494,44	24	500	LDSLV4	90259				
275,00	22	280	LDSLV4	90546	495,20	30	500	LDSLV4	87503				
280,00	45	285	LDSLV4	90437	503,25	24	508	LDSLV4	90149				
285,22	63,50	290	LDSLV4	90238	530,00	20	535	LDSLV4	87783				
295,20	32	300	LDSLV3	90114	535,23	63	540	LDSLV4	90802				
315,19	63,50	320	LDSLV4	90155	555,20	63,50	560	LDSLV4	90075				
320,00	63,50	325	LDSLV4	90198	575,23	63,50	580	LDSLV4	90951				
325,22	63,50	330	LDSLV4	90239	585,22	55	590	LDSLV4	90292				
										595,20	58,20	600	LDSLV3
335,22	39	340	LDSLV4	90777	595,22	50	600	LDSLV3	90241				
										50	340	LDSLV4	90792
340,00	18	340	LDSLV4	87901	645,20	64	650	LDSLV4	90004				
										50	340	LDSLV4	90801
										50	345	LDSLV3	90113
355,20	25,40	360	LDSLV4	90778	645,24	63,50	650	LDSLV3	87817				
										50	360	LDSLV4	90785
360,00	44	365	LDSLV4	87500	665,20	45	670	LDSLV4	90799				
										50	360	LDSLV4	90785
360,22	45	365	LDSLV4	90788	685,22	63,50	690	LDSLV4	90953				
										44	365	LDSLV4	87500
365,20	20	370	LDSLV4	87531	714,81	50	720	LDSLV4	87820				
										45	365	LDSLV4	90788
395,22	63,50	400	LDSLV4	87461	735,23	63	740	LDSLV4	89949				
										755,19	63,50	760	LDSLV3
					865,23	63,50	870	LDSLV4	90221				



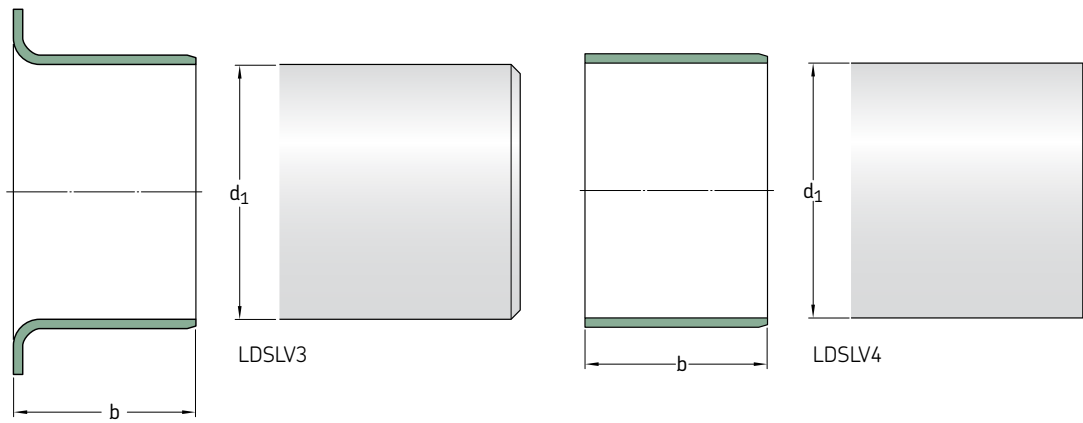
Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
$d_1$	$b$			
mm	mm	mm	-	-
<b>875,18</b>	63,50	880	LDSLV4	<b>90103</b>
<b>1 015,20</b>	25	1 020	LDSLV4	<b>90786</b>
<b>1 049,33</b>	60	1 054	LDSLV4	<b>89947</b>
<b>1 100,23</b>	63	1 105	LDSLV4	<b>89946</b>

Wear sleeves for heavy industrial applications – LDSLV3 and LDSLV4 – inch dimensions

d<sub>1</sub> 8.313 – 11.969 in.

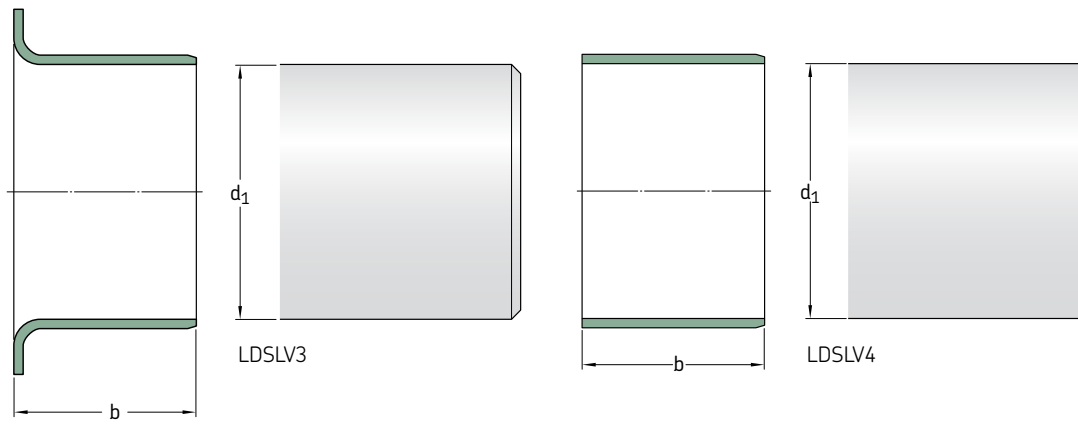


Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
d <sub>1</sub>	b				d <sub>1</sub>	b			
in./mm	in./mm	in./mm	–	–	in./mm	in./mm	in./mm	–	–
<b>8.313</b> 211,15	1.250 31,75	8.501 215,93	LDSLV4	<b>85885</b>	<b>9.125</b> 231,78	1.000 25,40	9.313 236,55	LDSLV4	<b>86547</b>
<b>8.353</b> 212,17	1.500 38,10	8.541 216,94	LDSLV4	<b>86907</b>		1.500 38,10	9.313 236,55	LDSLV4	<b>90130</b>
<b>8.500</b> 215,90	1.000 25,40	8.688 220,68	LDSLV3	<b>85158</b>	<b>9.250</b> 234,95	0.875 22,23	9.438 239,73	LDSLV4	<b>84643</b>
<b>8.625</b> 219,08	2.750 69,85	8.813 223,85	LDSLV3	<b>85643</b>	<b>9.260</b> 235,20	1.102 27,99	9.448 239,98	LDSLV4	<b>87789</b>
<b>8.661</b> 220,00	1.000 25,40	8.849 224,76	LDSLV4	<b>87319</b>	<b>9.313</b> 236,55	1.500 38,10	9.501 241,33	LDSLV3	<b>85377</b>
<b>8.687</b> 220,65	2.250 57,15	8.875 225,43	LDSLV3	<b>86543</b>	<b>9.449</b> 240,00	1.181 30,00	9.637 244,78	LDSLV4	<b>87144</b>
<b>8.750</b> 222,25	1.500 38,10	8.938 227,03	LDSLV3	<b>87196</b>	<b>9.500</b> 241,30	2.500 63,50	9.688 246,08	LDSLV4	<b>86562</b>
<b>8.812</b> 223,82	2.000 50,80	9.000 228,60	LDSLV4	<b>86551</b>		1.000 25,40	9.688 246,08	LDSLV3	<b>86633</b>
<b>8.813</b> 223,85	1.000 25,40	9.001 228,63	LDSLV3	<b>85688</b>	<b>9.563</b> 242,90	2.000 50,80	9.751 247,68	LDSLV4	<b>85073</b>
<b>8.866</b> 225,20	2.500 63,50	9.054 229,97	LDSLV4	<b>87166</b>		2.000 50,80	9.751 247,68	LDSLV4	<b>85397</b>
<b>8.867</b> 225,22	1.000 25,40	9.055 230,00	LDSLV4	<b>87462</b>	<b>9.750</b> 247,65	1.438 36,53	9.938 252,43	LDSLV4	<b>84965</b>
<b>8.875</b> 225,43	1.250 31,75	9.063 230,20	LDSLV3	<b>85973</b>		2.250 57,15	9.938 252,43	LDSLV4	<b>85045</b>
	1.250 31,75	9.063 230,20	LDSLV4	<b>87526</b>	<b>9.813</b> 249,25	1.125 28,58	10.001 254,03	LDSLV4	<b>86413</b>
<b>8.938</b> 227,03	2.500 63,50	9.126 231,80	LDSLV4	<b>86546</b>		2.000 50,80	10.001 254,03	LDSLV3	<b>84156</b>
<b>9.000</b> 228,60	1.000 25,40	9.188 233,38	LDSLV3	<b>87555</b>	<b>9.835</b> 249,81	1.575 40,01	10.023 254,58	LDSLV4	<b>90773</b>
<b>9.055</b> 230,00	1.000 25,40	9.243 234,77	LDSLV3	<b>89943</b>		1.000 25,40	10.188 258,78	LDSLV3	<b>90070</b>
<b>9.063</b> 230,20	1.500 38,10	9.251 234,98	LDSLV4	<b>85931</b>	<b>10.000</b> 254,00	2.250 57,15	10.251 260,38	LDSLV4	<b>86000</b>
					<b>10.063</b> 255,60	1.125 28,58	10.376 263,55	LDSLV4	<b>84962</b>

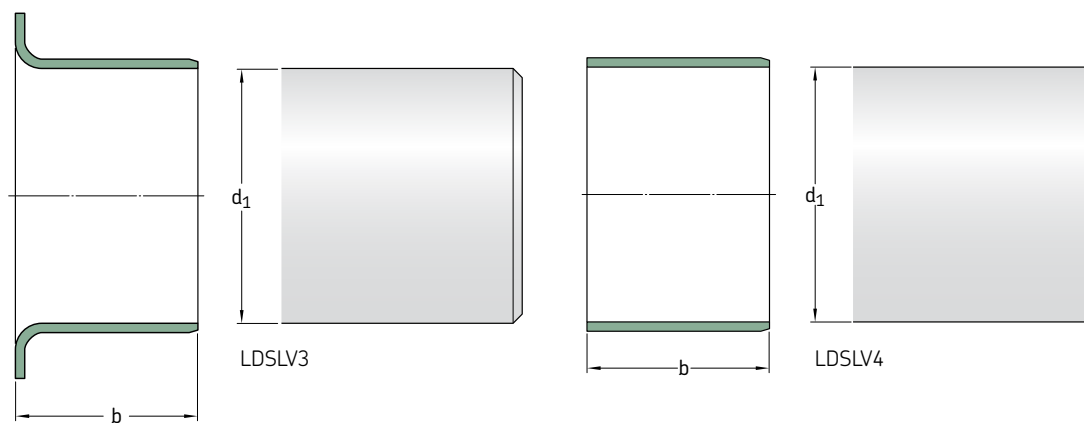


Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
$d_1$	$b$				$d_1$	$b$			
in./mm	in./mm	in./mm	–	–	in./mm	in./mm	in./mm	–	–
<b>10.240</b> 260,00	1.970 50,00	10.424 264,77	LDSLV3	<b>87738</b>	<b>11.031</b> 280,19	1.260 32,00	11.219 284,96	LDSLV4	<b>87525</b>
<b>10.313</b> 261,95	2.000 50,80	10.501 266,73	LDSLV4	<b>85629</b>	<b>11.062</b> 280,97	1.750 44,45	11.250 285,75	LDSLV4	<b>85469</b>
	2.250 57,15	10.501 266,73	LDSLV3	<b>85191</b>	<b>11.187</b> 284,15	1.250 31,75	11.375 288,93	LDSLV4	<b>86269</b>
<b>10.441</b> 265,20	2.165 54,99	10.629 269,98	LDSLV4	<b>86798</b>	<b>11.188</b> 284,18	2.250 57,15	11.376 288,95	LDSLV4	<b>85212</b>
<b>10.500</b> 266,70	2.750 69,85	10.688 271,48	LDSLV4	<b>86013</b>	<b>11.190</b> 284,23	2.250 57,15	11.378 289,00	LDSLV4	<b>87566</b>
<b>10.557</b> 268,15	2.250 57,15	10.745 272,92	LDSLV4	<b>85491</b>	<b>11.313</b> 287,35	1.500 38,10	11.501 292,13	LDSLV4	<b>84094</b>
<b>10.562</b> 268,27	0.984 24,99	10.750 273,05	LDSLV4	<b>90800</b>	<b>11.375</b> 288,93	2.250 57,15	11.563 293,70	LDSLV4	<b>86145</b>
	1.750 44,45	10.750 273,05	LDSLV4	<b>86468</b>	<b>11.417</b> 290,00	1.750 44,45	11.605 294,77	LDSLV4	<b>86441</b>
	1.813 46,05	10.750 273,05	LDSLV4	<b>86544</b>	<b>11.500</b> 292,10	0.750 19,05	11.688 296,88	LDSLV4	<b>90761</b>
<b>10.563</b> 268,30	1.500 38,10	10.751 273,08	LDSLV4	<b>87768</b>	<b>11.562</b> 293,67	1.000 25,40	11.750 298,45	LDSLV4	<b>90333</b>
<b>10.750</b> 273,05	2.500 63,50	10.938 277,83	LDSLV4	<b>86435</b>	<b>11.623</b> 295,22	1.417 35,99	11.811 300,00	LDSLV3	<b>87875</b>
<b>10.813</b> 274,65	1.000 25,40	11.001 279,43	LDSLV3	<b>81389</b>	<b>11.750</b> 298,45	2.375 60,33	11.938 303,23	LDSLV3	<b>87872</b>
	2.000 50,80	11.001 279,43	LDSLV4	<b>85033</b>	<b>11.812</b> 300,02	1.125 28,58	12.000 304,80	LDSLV4	<b>86687</b>
<b>10.846</b> 275,49	0.709 18,01	11.034 280,26	LDSLV4	<b>86601</b>	<b>11.813</b> 300,05	1.500 38,10	12.001 304,83	LDSLV4	<b>85979</b>
<b>10.875</b> 276,23	2.000 50,80	11.063 281,00	LDSLV4	<b>84510</b>		2.250 57,15	12.001 304,83	LDSLV3	<b>84819</b>
<b>11.000</b> 279,40	1.500 38,10	11.188 284,18	LDSLV4	<b>86486</b>		2.750 69,85	12.001 304,83	LDSLV4	<b>85844</b>
	2.500 63,50	11.188 284,18	LDSLV4	<b>86454</b>	<b>11.969</b> 304,00	0.709 18,00	12.157 308,79	LDSLV4	<b>86600</b>
<b>11.024</b> 280,00	1.181 30,00	11.212 284,78	LDSLV4	<b>87142</b>					

Wear sleeves for heavy industrial applications – LDSLV3 and LDSLV4 – inch dimensions  
 $d_1$  12.000 – 20.813 in.

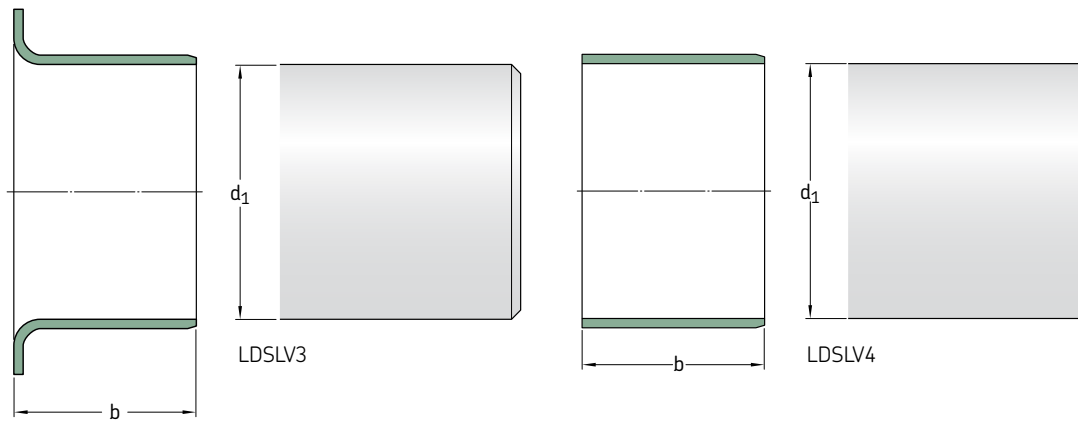


Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
$d_1$	b				$d_1$	b			
in./mm	in./mm	in./mm	–	–	in./mm	in./mm	in./mm	–	–
<b>12.000</b> 304,80	2.250 57,15	12.188 309,58	LDSLV4	<b>85577</b>	<b>13.813</b> 350,85	1.500 38,10	14.001 355,63	LDSLV3	<b>81390</b>
	2.250 57,15	12.188 309,58	LDSLV3	<b>87406</b>		2.000 50,80	14.001 355,63	LDSLV4	<b>85179</b>
<b>12.063</b> 306,40	0.625 15,88	12.251 311,18	LDSLV4	<b>85418</b>	<b>14.000</b> 355,60	1.375 34,93	14.188 360,38	LDSLV3	<b>89951</b>
	2.500 63,50	12.251 311,18	LDSLV3	<b>86404</b>		1.500 38,10	14.188 360,38	LDSLV3	<b>81352</b>
<b>12.312</b> 312,72	1.500 38,10	12.500 317,50	LDSLV4	<b>90174</b>	<b>14.173</b> 359,99	1.000 25,40	14.361 364,77	LDSLV4	<b>87445</b>
<b>12.313</b> 312,75	0.750 19,05	12.501 317,53	LDSLV4	<b>83760</b>	<b>14.313</b> 363,55	1.500 38,10	14.501 368,33	LDSLV4	<b>86429</b>
<b>12.500</b> 317,50	2.125 53,98	12.688 322,28	LDSLV3	<b>86169</b>	<b>14.438</b> 366,73	2.500 63,50	14.626 371,50	LDSLV3	<b>86403</b>
<b>12.598</b> 320,00	0.984 25,00	12.786 324,76	LDSLV3	<b>87434</b>	<b>14.500</b> 368,30	1.000 25,40	14.688 373,08	LDSLV4	<b>85914</b>
<b>12.750</b> 323,85	0.688 17,48	12.938 328,63	LDSLV4	<b>87513</b>	<b>14.813</b> 376,25	1.500 38,10	15.001 381,03	LDSLV4	<b>87723</b>
	1.125 28,58	12.938 328,63	LDSLV3	<b>82099</b>		2.125 53,98	15.001 381,03	LDSLV3	<b>81391</b>
	1.500 38,10	12.938 328,63	LDSLV3	<b>90143</b>	<b>15.000</b> 381,00	1.000 25,40	15.188 385,78	LDSLV4	<b>87247</b>
<b>12.813</b> 325,45	1.000 25,40	13.001 330,23	LDSLV4	<b>86258</b>	<b>15.062</b> 382,57	0.750 19,05	15.250 387,35	LDSLV4	<b>90272</b>
	1.375 34,93	13.001 330,23	LDSLV4	<b>84263</b>		2.000 50,80	15.254 387,45	LDSLV3	<b>87871</b>
	2.000 50,80	13.001 330,23	LDSLV3	<b>84390</b>	<b>15.066</b> 382,68	1.000 25,40	15.376 390,55	LDSLV4	<b>87569</b>
	2.500 63,50	13.001 330,23	LDSLV4	<b>86722</b>	<b>15.188</b> 385,78	2.500 63,50	15.438 392,13	LDSLV3	<b>84964</b>
<b>13.000</b> 330,20	1.750 44,45	13.188 334,98	LDSLV4	<b>85535</b>	<b>15.250</b> 387,35	0.750 19,05	15.748 400,00	LDSLV4	<b>85582</b>
<b>13.063</b> 331,80	1.125 28,58	13.251 336,53	LDSLV4	<b>84963</b>	<b>15.560</b> 395,22	0.906 23,01	16.000 406,40	LDSLV3	<b>87634</b>
<b>13.313</b> 338,15	0.813 20,65	13.501 342,93	LDSLV4	<b>86688</b>	<b>15.812</b> 401,62	2.500 63,50			
	1.500 38,10	13.501 342,93	LDSLV4	<b>87463</b>					
	2.000 50,80	13.501 342,93	LDSLV3	<b>85852</b>					



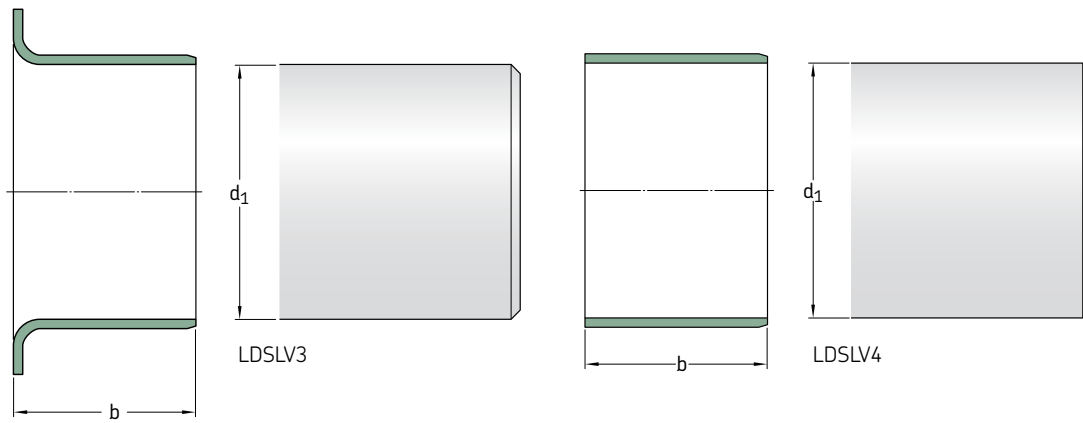
Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
$d_1$	$b$				$d_1$	$b$			
in./mm	in./mm	in./mm	-	-	in./mm	in./mm	in./mm	-	-
<b>15.813</b> 401,65	2.000 50,80	16.001 406,43	LDSLV4	<b>85181</b>	<b>17.750</b> 450,85	1.250 31,75	17.938 455,63	LDSLV4	<b>90774</b>
	2.000 50,80	16.001 406,43	LDSLV3	<b>87446</b>		2.500 63,50	17.938 455,63	LDSLV3	<b>86631</b>
	2.500 63,50	16.001 406,43	LDSLV4	<b>86407</b>	<b>17.812</b> 452,42	2.125 53,98	18.000 457,20	LDSLV4	<b>87271</b>
<b>15.998</b> 406,35	2.250 57,15	16.186 411,12	LDSLV3	<b>85908</b>	<b>17.813</b> 452,45	2.500 63,50	18.001 457,23	LDSLV3	<b>86405</b>
<b>16.000</b> 406,40	2.000 50,80	16.188 411,18	LDSLV3	<b>81354</b>	<b>18.163</b> 461,34	2.000 50,80	18.351 466,12	LDSLV4	<b>86343</b>
<b>16.063</b> 408,00	0.500 12,70	16.251 412,78	LDSLV4	<b>87613</b>	<b>18.312</b> 465,12	1.191 30,25	18.500 469,90	LDSLV4	<b>90790</b>
	1.250 31,75	16.251 412,78	LDSLV4	<b>86175</b>	<b>18.813</b> 477,85	1.750 44,45	19.001 482,63	LDSLV4	<b>86563</b>
	1.300 33,02	16.251 412,78	LDSLV4	<b>86426</b>		2.250 57,15	19.001 482,63	LDSLV4	<b>87015</b>
	2.000 50,80	16.251 412,78	LDSLV4	<b>86575</b>		2.500 63,50	19.001 482,63	LDSLV4	<b>86716</b>
<b>16.313</b> 414,35	2.000 50,80	16.501 419,13	LDSLV4	<b>84697</b>	<b>19.496</b> 495,20	2.362 59,99	19.684 499,97	LDSLV4	<b>87631</b>
<b>16.750</b> 425,45	1.500 38,10	16.938 430,23	LDSLV4	<b>87585</b>	<b>19.497</b> 495,22	1.575 40,01	19.685 500,00	LDSLV4	<b>87785</b>
<b>16.812</b> 427,02	1.000 25,40	17.000 431,80	LDSLV4	<b>86737</b>	<b>19.500</b> 495,30	1.250 31,75	19.688 500,08	LDSLV4	<b>90769</b>
<b>16.813</b> 427,05	2.250 57,15	17.001 431,83	LDSLV4	<b>84616</b>	<b>19.563</b> 496,90	2.750 69,85	19.751 501,68	LDSLV4	<b>85654</b>
<b>17.250</b> 438,15	1.000 25,40	17.438 442,93	LDSLV4	<b>90779</b>	<b>19.813</b> 503,25	1.250 31,75	20.001 508,03	LDSLV4	<b>84781</b>
	2.000 50,80	17.438 442,93	LDSLV4	<b>84576</b>	<b>20.312</b> 515,92	1.000 25,40	20.500 520,70	LDSLV4	<b>86739</b>
<b>17.313</b> 439,75	1.500 38,10	17.501 444,53	LDSLV4	<b>86430</b>	<b>20.813</b> 528,65	1.250 31,75	21.001 533,43	LDSLV3	<b>85800</b>
<b>17.449</b> 443,20	2.000 50,80	17.637 447,98	LDSLV4	<b>85762</b>		2.125 53,98	21.001 533,43	LDSLV4	<b>85367</b>
<b>17.500</b> 444,50	1.250 31,75	17.688 449,28	LDSLV4	<b>90770</b>		2.500 63,50	21.001 533,43	LDSLV4	<b>87298</b>
<b>17.543</b> 445,59	2.362 59,99	17.731 450,37	LDSLV4	<b>86799</b>					

Wear sleeves for heavy industrial applications – LDSLV3 and LDSLV4 – inch dimensions  
 $d_1$  20.865 – 42.500 in.



Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
$d_1$	b				$d_1$	b			
in./mm	in./mm	in./mm	–	–	in./mm	in./mm	in./mm	–	–
<b>20.865</b> 529,97	2.250 57,15	21.053 534,75	LDSLV4	<b>90805</b>	<b>26.000</b> 660,40	2.250 57,15	26.188 665,18	LDSLV3	<b>86640</b>
<b>20.990</b> 533,15	2.250 57,15	21.178 537,92	LDSLV3	<b>84579</b>	<b>26.312</b> 668,32	1.375 34,93	26.500 673,10	LDSLV4	<b>90809</b>
<b>21.000</b> 533,40	2.250 57,15	21.188 538,18	LDSLV4	<b>87090</b>	<b>26.813</b> 681,05	1.250 31,75	27.001 685,83	LDSLV4	<b>85384</b>
<b>21.803</b> 553,80	2.362 59,99	21.991 558,57	LDSLV4	<b>87069</b>		2.250 57,15	27.001 685,83	LDSLV4	<b>85531</b>
<b>21.813</b> 554,05	2.250 57,15	22.001 558,83	LDSLV4	<b>84590</b>	<b>27.000</b> 685,80	2.000 50,80	27.188 690,58	LDSLV4	<b>86841</b>
<b>22.250</b> 565,15	1.000 25,40	22.438 569,93	LDSLV3	<b>85691</b>	<b>27.063</b> 687,40	2.250 57,15	27.251 692,18	LDSLV4	<b>84764</b>
<b>22.303</b> 566,50	2.362 59,99	22.491 571,27	LDSLV4	<b>87070</b>	<b>27.313</b> 693,75	2.250 57,15	27.501 698,53	LDSLV4	<b>91311</b>
<b>22.313</b> 566,75	1.250 31,75	22.501 571,53	LDSLV4	<b>85907</b>	<b>27.500</b> 698,50	2.250 57,15	27.688 703,28	LDSLV4	<b>84711</b>
<b>22.812</b> 579,42	2.000 50,80	23.000 584,20	LDSLV4	<b>90163</b>	<b>27.812</b> 706,42	2.500 63,50	28.000 711,20	LDSLV4	<b>87421</b>
<b>23.000</b> 584,20	2.000 50,80	23.188 588,98	LDSLV4	<b>90146</b>	<b>28.312</b> 719,12	2.313 58,75	28.500 723,90	LDSLV3	<b>87623</b>
<b>23.434</b> 595,22	0.984 24,99	23.622 600,00	LDSLV4	<b>87777</b>	<b>28.813</b> 731,85	2.250 57,15	29.001 736,63	LDSLV4	<b>84641</b>
<b>23.687</b> 601,65	1.950 49,53	23.875 606,43	LDSLV4	<b>87907</b>	<b>29.813</b> 757,25	2.250 57,15	30.001 762,03	LDSLV4	<b>84642</b>
<b>23.812</b> 604,82	0.750 19,05	24.000 609,60	LDSLV4	<b>87922</b>	<b>30.000</b> 762,00	2.500 63,50	30.188 766,78	LDSLV3	<b>86641</b>
	2.500 63,50	24.000 609,60	LDSLV4	<b>87960</b>	<b>30.309</b> 769,85	1.375 34,93	30.497 774,62	LDSLV4	<b>87530</b>
<b>25.000</b> 635,00	2.500 63,50	25.188 639,78	LDSLV4	<b>86567</b>	<b>30.312</b> 769,92	2.500 63,50	30.500 774,70	LDSLV3	<b>87842</b>
<b>25.312</b> 642,92	2.000 50,80	25.500 647,70	LDSLV4	<b>86091</b>	<b>30.813</b> 782,65	2.000 50,80	31.001 787,43	LDSLV4	<b>85039</b>
<b>25.313</b> 642,95	2.500 63,50	25.501 647,73	LDSLV4	<b>87802</b>	<b>31.812</b> 808,02	2.500 63,50	32.000 812,80	LDSLV4	<b>90810</b>





Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation	Shaft diameter	Sleeve width	Reference sleeve installed outside diameter	Design	Designation
$d_1$	$b$				$d_1$	$b$			
in./mm	in./mm	in./mm	-	-	in./mm	in./mm	in./mm	-	-
<b>32.313</b> 820,75	2.000 50,80	32.501 825,53	LDSLV4	<b>86090</b>	<b>42.500</b> 1079,50	1.250 31,75	42.688 1084,28	LDSLV4	<b>87392</b>
<b>32.812</b> 833,42	2.220 56,39	33.000 838,20	LDSLV4	<b>87850</b>					
<b>33.313</b> 846,15	2.625 66,68	33.501 850,93	LDSLV4	<b>84730</b>					
<b>34.312</b> 871,52	1.750 44,45	34.500 876,30	LDSLV4	<b>87529</b>					
<b>35.313</b> 896,95	2.500 63,50	35.501 901,73	LDSLV4	<b>85814</b>					
<b>35.812</b> 909,62	1.500 38,10	36.000 914,40	LDSLV4	<b>90332</b>					
<b>36.375</b> 923,93	2.500 63,50	36.563 928,70	LDSLV4	<b>86111</b>					
<b>36.813</b> 935,05	2.500 63,50	37.001 939,83	LDSLV4	<b>86458</b>					
<b>37.813</b> 960,45	1.500 38,10	38.001 965,23	LDSLV4	<b>86973</b>					
<b>38.000</b> 965,20	1.500 38,10	38.188 969,98	LDSLV4	<b>86840</b>					
<b>38.500</b> 977,90	1.500 38,10	38.688 982,68	LDSLV4	<b>81753</b>					
<b>38.813</b> 985,85	2.125 53,98	39.001 990,63	LDSLV4	<b>85123</b>					
<b>39.813</b> 1011,25	2.125 53,98	40.001 1016,03	LDSLV4	<b>81826</b>					
<b>41.312</b> 1049,32	1.968 49,99	41.500 1054,10	LDSLV4	<b>89948</b>					
<b>42.063</b> 1068,40	2.125 53,98	42.251 1073,18	LDSLV4	<b>85038</b>					
<b>42.125</b> 1069,98	2.125 53,98	42.313 1074,75	LDSLV4	<b>87054</b>					
<b>42.312</b> 1074,72	1.250 31,75	42.500 1079,50	LDSLV4	<b>87379</b>					

# SKF – the knowledge engineering company

From one simple but inspired solution to a misalignment problem in a textile mill in Sweden, and fifteen employees in 1907, SKF has grown to become a global industrial knowledge leader. Over the



years we have built on our expertise in bearings, extending it to seals, mechatronics, services and lubrication systems. Our knowledge network includes 46 000 employees, 15 000 distributor partners, offices in more than 130 countries, and a growing number of SKF Solution Factory sites around the world.

## Research and development

We have hands-on experience in over forty industries, based on our employees' knowledge of real life conditions. In addition our world-leading experts and university partners who pioneer advanced theoretical research and development in areas including tribology, condition monitoring, asset management and bearing life theory. Our ongoing commitment to research and development helps us keep our customers at the forefront of their industries.

## Meeting the toughest challenges

Our network of knowledge and experience along with our understanding of how our core technologies can be combined helps us create innovative solutions that meet the toughest of challenges. We work closely with our customers throughout the asset life cycle, helping them to profitably and responsibly grow their businesses.

## Working for a sustainable future

Since 2005, SKF has worked to reduce the negative environmental impact from our own operations and those of our suppliers. Our continuing technology development introduced the SKF BeyondZero portfolio of products and services which improve efficiency and reduce energy losses, as well as enable new technologies harnessing wind, solar and ocean power. This combined approach helps reduce the environmental impact both in our own operations and in our customers'.

*SKF Solution Factory makes SKF knowledge and manufacturing expertise available locally, to provide unique solutions and services to our customers.*

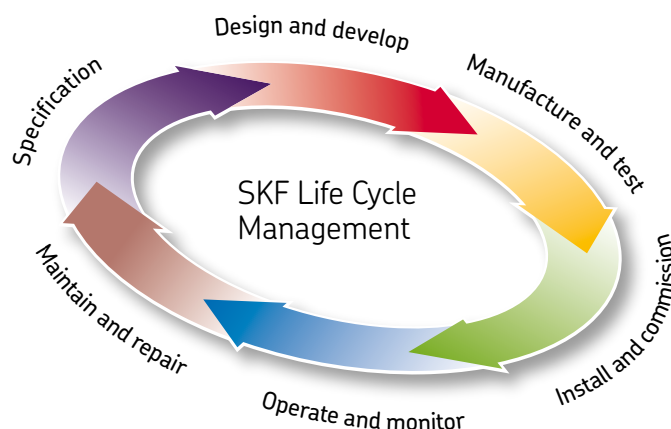


*Working with SKF IT and logistics systems and application experts, SKF Authorized Distributors deliver a valuable mix of product and application knowledge to customers worldwide.*



## Our knowledge – your success

**SKF Life Cycle Management is how we combine our technology platforms and advanced services, and apply them at each stage of the asset life cycle, to help our customers to be more successful, sustainable and profitable.**



### Working closely with you

Our objective is to help our customers improve productivity, minimize maintenance, achieve higher energy and resource efficiency, and optimize designs for long service life and reliability.

### Innovative solutions

Whether the application is linear or rotary or a combination of the two, SKF engineers can work with you at each stage of the asset life cycle to improve machine performance by looking at the entire application. This approach doesn't just focus on individual components like bearings or seals. It looks at the whole application to see how each component interacts with the next.

### Design optimization and verification

SKF can work with you to optimize current or new designs with proprietary 3-D modeling software that can also be used as a virtual test rig to confirm the integrity of the design.



### Bearings

SKF is the world leader in the design, development and manufacture of high performance rolling bearings, plain bearings, bearing units and housings.



### Machinery maintenance

Condition monitoring technologies and maintenance services from SKF can help minimize unplanned downtime, improve operational efficiency and reduce maintenance costs.



### Sealing solutions

SKF offers standard seals and custom engineered sealing solutions to increase uptime, improve machine reliability, reduce friction and power losses, and extend lubricant life.



### Mechatronics

SKF fly-by-wire systems for aircraft and drive-by-wire systems for off-road, agricultural and forklift applications replace heavy, grease or oil consuming mechanical and hydraulic systems.



### Lubrication solutions

From specialized lubricants to state-of-the-art lubrication systems and lubrication management services, lubrication solutions from SKF can help to reduce lubrication related downtime and lubricant consumption.



### Actuation and motion control

With a wide assortment of products – from actuators and ball screws to profile rail guides – SKF can work with you to solve your most pressing linear system challenges.

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