

Fig. 3

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

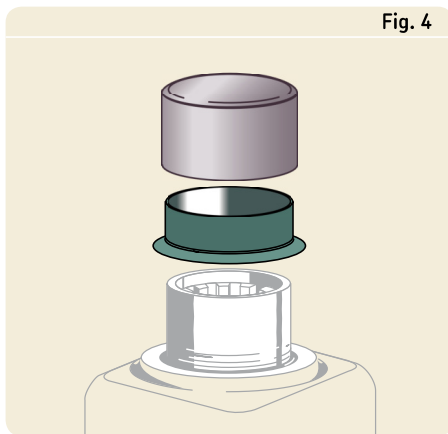


Fig. 4

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

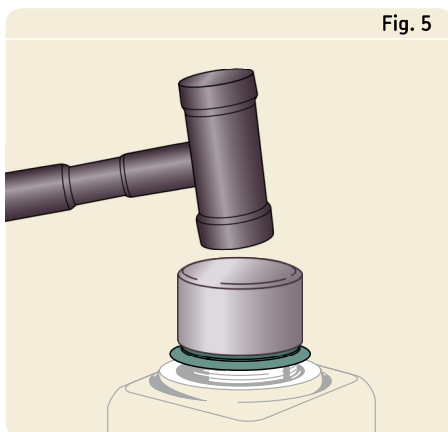


Fig. 5

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 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 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.

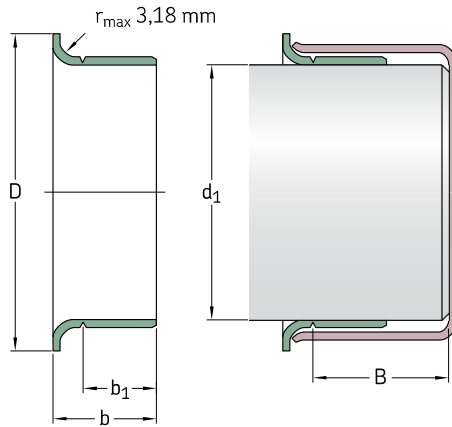
## Removal

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:

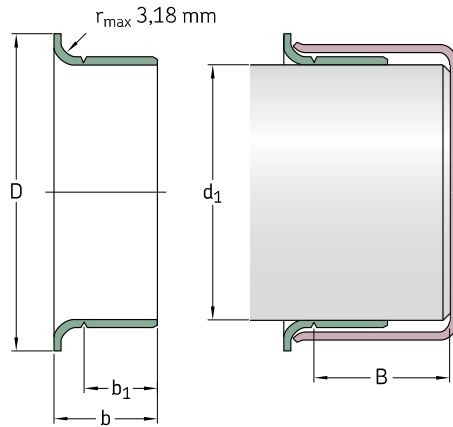
- by relieving the press-fit tension using a small hammer to peen across the full width of the sleeve
- by using a cold chisel to cut through the sleeve
- by using a pair of wire cutters starting at or near the flange and applying a twisting motion

Please note that SPEEDI-SLEEVE cannot be reused.

**SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)**  
**d<sub>1</sub> 11,99 – 34,01 mm**

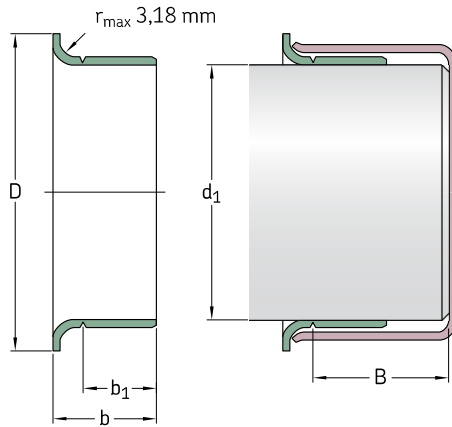


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
<b>11,99</b>	<b>12,07</b>	11,99	15,49	5,99	8,41	47,63	<b>99049</b>
<b>12,65</b>	<b>12,75</b>	12,70	15,49	6,35	8,74	50,80	<b>99050</b>
<b>13,89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

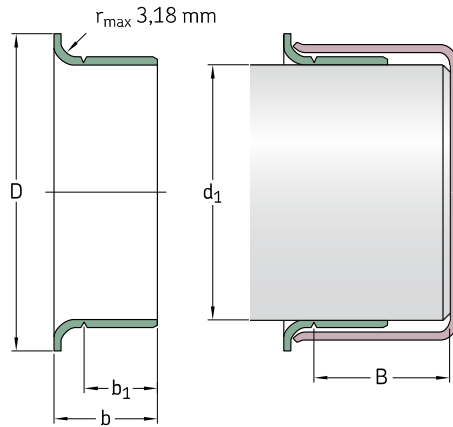


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
24,94	25,04	24,99	33,02	7,95	11,00	50,80	99813 <sup>2)</sup>
		24,99	33,02	7,95	11,00	50,80	99098
25,35	25,45	25,40	30,96	7,95	11,13	50,80	99814 <sup>2)</sup>
		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

**SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)**  
**d<sub>1</sub> 34,82 – 49,28 mm**

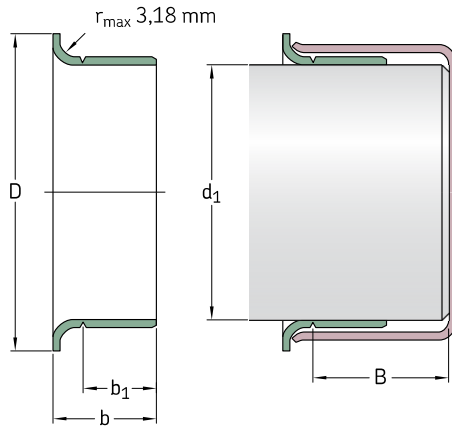


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
34,82	34,98	34,93	41,61	7,95	11,13	20,65	99133
		34,93	41,61	12,70	15,88	20,65	99819 <sup>2)</sup>
		34,93	41,61	12,70	15,88	20,65	99138
34,93	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>

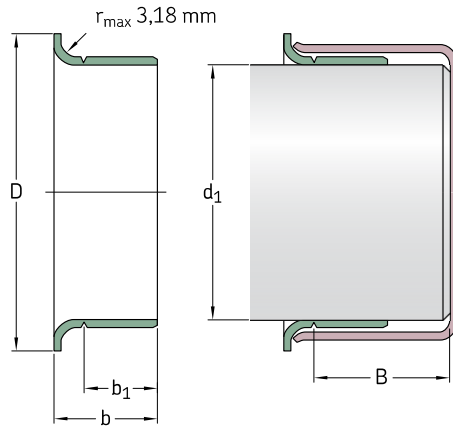


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
<b>41,99</b>	<b>42,14</b>	42,06	53,01	13,97	17,50	21,01	<b>99165</b>
<b>42,77</b>	<b>42,93</b>	42,88	48,41	14,30	17,48	22,23	<b>99168</b>
<b>42,80</b>	<b>42,95</b>	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>

**SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)**  
**d<sub>1</sub> 49,91 – 69,93 mm**

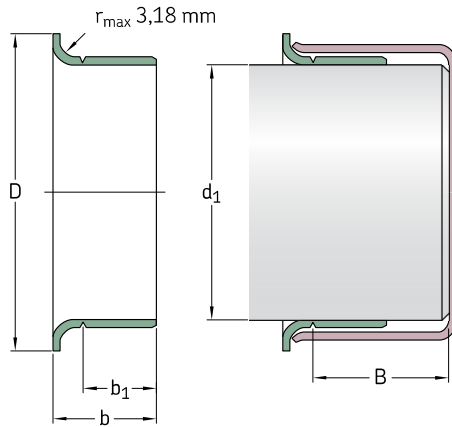


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
49,91	50,06	50,01	56,49	14,00	16,97	34,29	<b>99052</b>
		50,01	57,00	14,00	16,97	24,99	
50,22	50,37	50,29	58,75	14,30	17,88	26,67	<b>99198</b>
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>



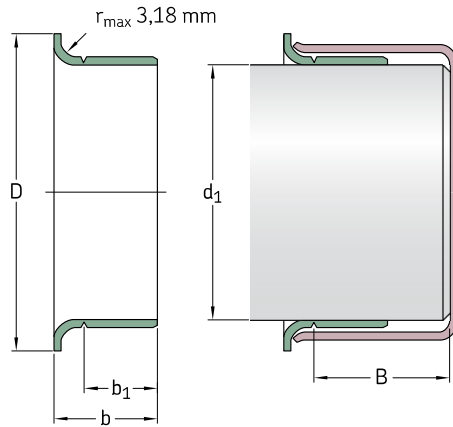
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
60,25	60,40	60,33	69,85	15,09	19,05	34,93	99238
60,30	60,45	60,33	69,85	13,36	17,35	34,93	99240
		60,33	69,85	19,84	23,83	34,93	99839 <sup>2)</sup>
		60,33	69,85	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	66,83	66,68	77,39	19,84	23,83	34,93	99842 <sup>2)</sup>
		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

**SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)**  
**d<sub>1</sub> 69,85 – 90,58 mm**



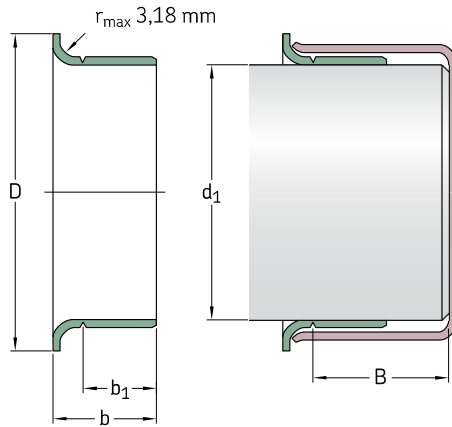
Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>		
mm		mm						–
69,85	70,00	69,85	79,38	10,31	14,30	31,75	99272	
		69,85	79,38	19,84	23,83	31,75	99844 <sup>2)</sup>	
		69,85	79,38	19,84	23,83	31,75	99275	
		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	



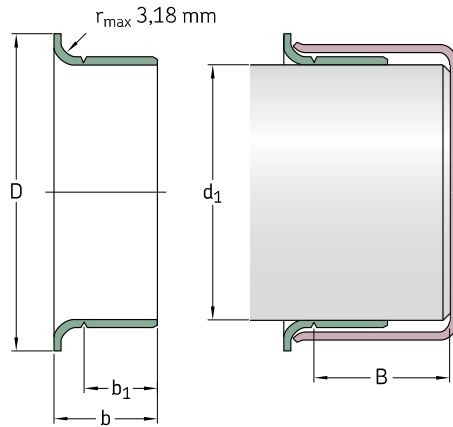


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					-
79,35	79,55	79,38	89,54	14,00	18,01	51,59	99053 <sup>3)</sup>
79,81	80,01	80,01	89,92	19,05	22,50	34,93	99313
79,91	80,09	80,01	89,99	11,00	15,01	34,93	99317
		80,01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

**SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)**  
**d<sub>1</sub> 91,90 – 130,18 mm**

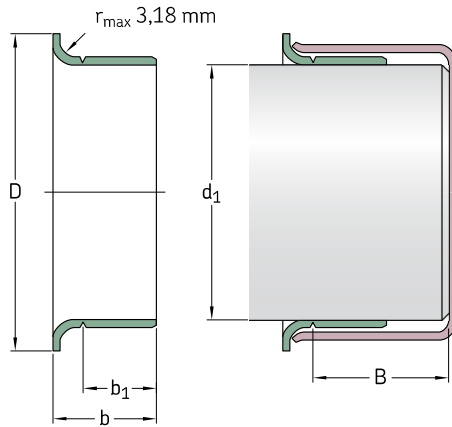


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
<b>91,90</b>	<b>92,05</b>	91,97	102,39	20,65	25,40	44,45	<b>99360</b>
<b>92,02</b>	<b>92,18</b>	92,08	102,24	12,70	15,88	44,45	<b>99363</b>
	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

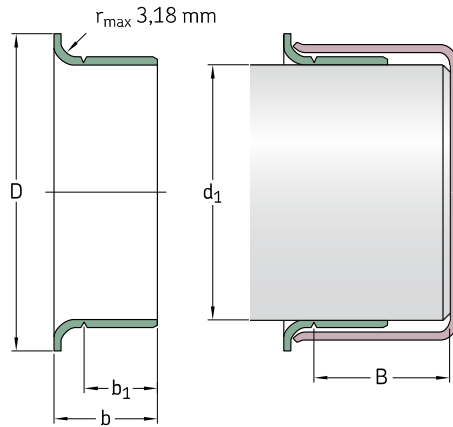


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					–
109,78	110,01	110,01	124,99	11,38	14,96	32,94	99434
109,91	110,11	109,93	124,99	12,93	16,51	31,75	99435
111,00	111,20	111,13	120,65	20,65	25,40	41,91	99437
111,79	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

**SPEEDI-SLEEVE – metric dimensions (converted from inch dimensions)**  
**d<sub>1</sub> 130,05 – 203,33 mm**

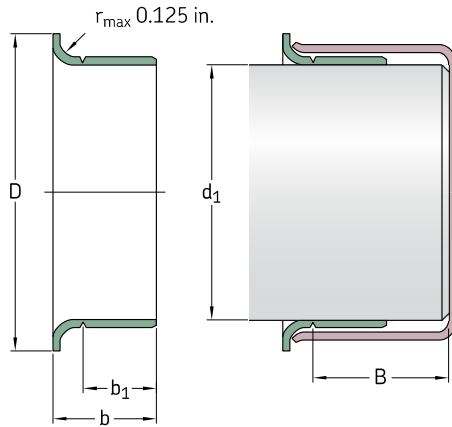


Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±1,6	b <sub>1</sub> ±0,8	b ±0,8	B <sup>1)</sup>	
mm		mm					–
130,05	130,25	130,18	139,70	20,65	25,40	31,75	99513
133,25	133,45	133,35	141,22	20,65	25,40	31,75	99525
134,80	135,00	134,90	145,67	20,50	25,40	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

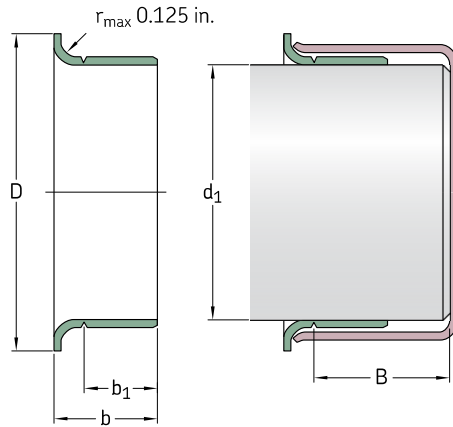


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 1,6$	$b_1$ $\pm 0,8$	b $\pm 0,8$	$B^{1)}$	
mm		mm					-
169,75	170,00	169,88	182,58	31,75	38,00	44,45	99640
171,32	171,58	171,45	180,98	20,65	27,00	44,45	99675
174,75	175,01	175,01	186,99	27,99	32,00	35,00	99687
177,67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

**SPEEDI-SLEEVE – inch dimensions**  
 $d_1$  0.472 – 1.339 in.

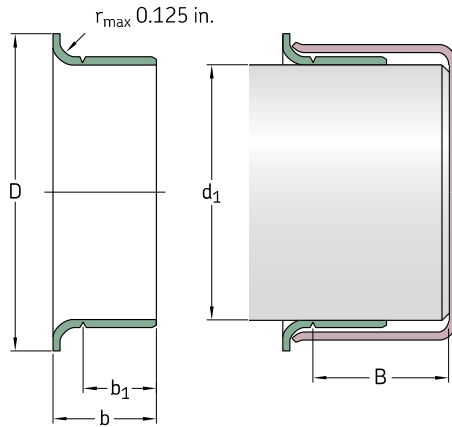


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$	
in.		in.					–
<b>0.472</b>	<b>0.475</b>	0.472	0.610	0.236	0.331	1.875	<b>99049</b>
<b>0.498</b>	<b>0.502</b>	0.500	0.610	0.250	0.344	2.000	<b>99050</b>
<b>0.547</b>	<b>0.551</b>	0.551	0.750	0.250	0.391	1.831	<b>99055</b>
<b>0.560</b>	<b>0.566</b>	0.563	0.750	0.250	0.391	1.831	<b>99056</b>
<b>0.589</b>	<b>0.593</b>	0.591	0.750	0.197	0.354	1.862	<b>99059</b>
<b>0.623</b>	<b>0.627</b>	0.625	0.750	0.313	0.406	2.000	<b>99810<sup>2)</sup></b>
		0.625	0.750	0.313	0.406	2.000	<b>99062</b>
<b>0.626</b>	<b>0.630</b>	0.630	0.718	0.313	0.438	2.000	<b>99058</b>
<b>0.667</b>	<b>0.671</b>	0.669	0.875	0.315	0.433	2.000	<b>99068</b>
<b>0.682</b>	<b>0.686</b>	0.684	0.900	0.313	0.438	2.000	<b>99060</b>
<b>0.704</b>	<b>0.709</b>	0.709	0.962	0.315	0.433	1.811	<b>99082</b>
<b>0.748</b>	<b>0.752</b>	0.750	0.945	0.313	0.438	2.000	<b>99811<sup>2)</sup></b>
		0.750	0.945	0.313	0.438	2.000	<b>99076</b>
<b>0.759</b>	<b>0.761</b>	0.760	0.938	0.313	0.438	2.000	<b>99081</b>
<b>0.780</b>	<b>0.784</b>	0.781	0.935	0.313	0.438	2.000	<b>99080</b>
<b>0.785</b>	<b>0.789</b>	0.787	0.930	0.315	0.433	2.000	<b>99078</b>
<b>0.812</b>	<b>0.815</b>	0.813	1.188	0.375	0.563	3.000	<b>99083</b>
<b>0.857</b>	<b>0.861</b>	0.859	1.155	0.250	0.375	2.000	<b>99086</b>
<b>0.861</b>	<b>0.866</b>	0.866	1.188	0.259	0.359	1.856	<b>99084</b>
		0.866	1.188	0.315	0.472	1.812	<b>99085</b>
<b>0.873</b>	<b>0.877</b>	0.875	1.094	0.313	0.438	2.000	<b>99812<sup>2)</sup></b>
		0.875	1.094	0.313	0.438	2.000	<b>99087</b>
<b>0.908</b>	<b>0.912</b>	0.910	1.218	0.313	0.438	1.847	<b>99860<sup>2)</sup></b>
		0.910	1.218	0.313	0.438	1.847	<b>99091</b>
<b>0.940</b>	<b>0.945</b>	0.945	1.130	0.313	0.438	2.000	<b>99092</b>
<b>0.966</b>	<b>0.970</b>	0.969	1.130	0.313	0.438	2.000	<b>99094</b>
		0.969	1.130	0.625	0.719	2.000	<b>99096</b>



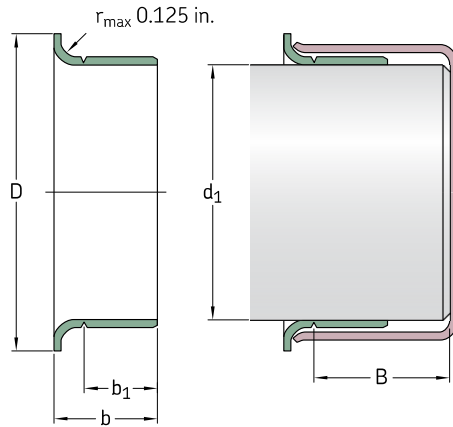
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	$D$ $\pm 0.063$	$b_1$ $\pm 0.031$	$b$ $\pm 0.031$	$B^{1)}$	
in.		in.					–
<b>0.982</b>	<b>0.986</b>	0.984 0.984	1.300 1.300	0.313 0.313	0.433 0.433	2.000 2.000	<b>99813<sup>2)</sup></b> <b>99098</b>
<b>0.998</b>	<b>1.002</b>	1.000 1.000	1.219 1.219	0.313 0.313	0.438 0.438	2.000 2.000	<b>99814<sup>2)</sup></b> <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 1.063	1.320 1.320	0.313 0.313	0.438 0.438	1.843 1.843	<b>99815<sup>2)</sup></b> <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 1.102	1.375 1.375	0.375 0.375	0.500 0.500	1.843 1.843	<b>99866<sup>2)</sup></b> <b>99111</b>
<b>1.123</b>	<b>1.127</b>	1.125 1.125 1.125	1.500 1.500 1.500	0.313 0.313 0.375	0.438 0.438 0.500	0.688 0.688 0.688	<b>99816<sup>2)</sup></b> <b>99112</b> <b>99116</b>
<b>1.154</b>	<b>1.158</b>	1.156 1.156	1.350 1.350	0.375 0.375	0.500 0.500	0.688 0.688	<b>99865<sup>2)</sup></b> <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 1.250	1.500 1.500	0.313 0.313	0.438 0.438	0.688 0.688	<b>99817<sup>2)</sup></b> <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 1.313	1.594 1.594	0.500 0.500	0.625 0.625	0.813 0.813	<b>99818<sup>2)</sup></b> <b>99131</b>
<b>1.333</b>	<b>1.339</b>	1.339	1.625	0.500	0.625	0.813	<b>99134</b>

**SPEEDI-SLEEVE – inch dimensions**  
**d<sub>1</sub> 1.371 – 1.940 in.**



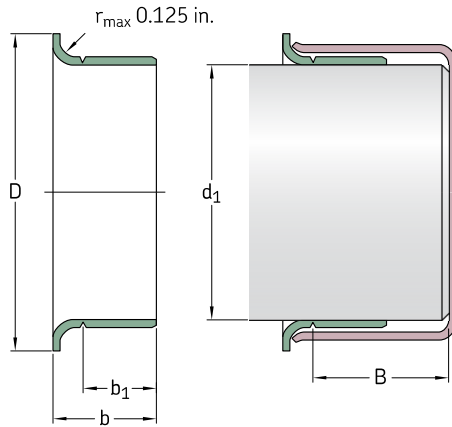
Shaft diameter range		Nominal dimensions					Designation
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>	
in.		in.					–
<b>1.371</b>	<b>1.377</b>	1.375	1.638	0.313	0.438	0.813	<b>99133</b>
		1.375	1.638	0.500	0.625	0.813	<b>99819<sup>2)</sup></b>
		1.375	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>



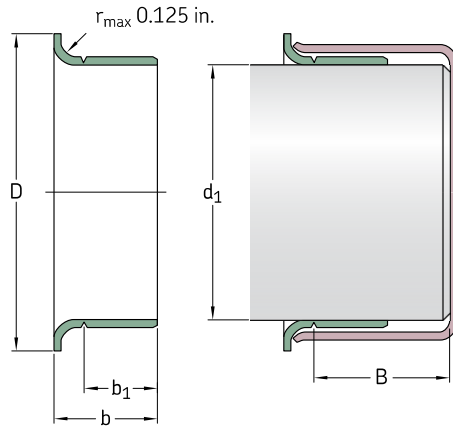


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$	
in.		in.					
<b>1.653</b>	<b>1.659</b>	1.656	2.087	0.550	0.689	0.827	<b>99165</b>
<b>1.684</b>	<b>1.690</b>	1.688	1.906	0.563	0.688	0.875	<b>99168</b>
<b>1.685</b>	<b>1.691</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>

**SPEEDI-SLEEVE – inch dimensions**  
**d<sub>1</sub> 1.965 – 2.753 in.**

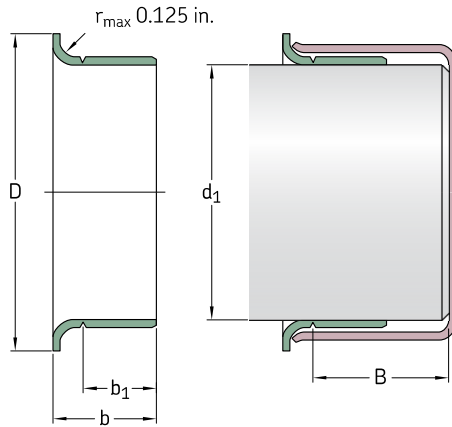


Shaft diameter range		Nominal dimensions					Designation	
d <sub>1</sub> min	max	d <sub>1</sub>	D ±0.063	b <sub>1</sub> ±0.031	b ±0.031	B <sup>1)</sup>		
in.		in.						–
<b>1.965</b>	<b>1.971</b>	1.969	2.244	0.551	0.668	1.350	<b>99052</b>	
		1.969	2.244	0.551	0.668	0.984		<b>99196</b>
<b>1.977</b>	<b>1.983</b>	1.980	2.313	0.563	0.704	1.050	<b>99198</b>	
<b>1.997</b>	<b>2.003</b>	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>	
<b>2.040</b>	<b>2.047</b>	2.047	2.469	0.500	0.625	1.359	<b>99878<sup>3)</sup></b>	
<b>2.057</b>	<b>2.063</b>	2.063	2.469	0.781	0.938	1.375	<b>99205</b>	
<b>2.123</b>	<b>2.128</b>	2.125	2.422	0.500	0.750	1.281	<b>99210</b>	
<b>2.124</b>	<b>2.130</b>	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>	
<b>2.162</b>	<b>2.168</b>	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>	
<b>2.186</b>	<b>2.192</b>	2.188	2.500	0.781	0.938	1.313	<b>99218</b>	
<b>2.198</b>	<b>2.205</b>	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>	
<b>2.227</b>	<b>2.233</b>	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>	
<b>2.237</b>	<b>2.243</b>	2.240	2.563	0.764	0.900	1.250	<b>99226</b>	
<b>2.249</b>	<b>2.255</b>	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>	
<b>2.280</b>	<b>2.286</b>	2.283	2.598	0.787	0.938	1.375	<b>99219</b>	
<b>2.309</b>	<b>2.315</b>	2.313	2.688	0.781	0.938	1.375	<b>99231</b>	
<b>2.327</b>	<b>2.333</b>	2.328	2.750	0.750	0.875	1.500	<b>99233</b>	
<b>2.359</b>	<b>2.365</b>	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>	

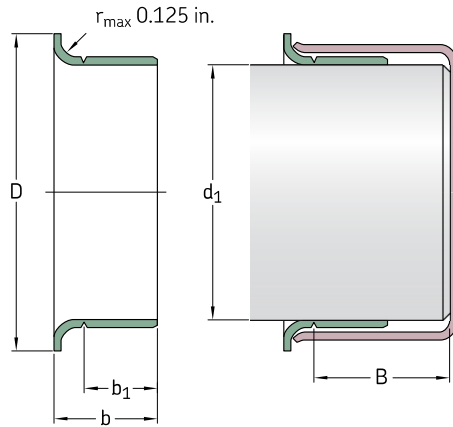


Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	$D$ $\pm 0.063$	$b_1$ $\pm 0.031$	$b$ $\pm 0.031$	$B^{1)}$		
in.		in.						–
2.372	2.378	2.375	2.750	0.594	0.750	1.375	99238	
2.374	2.380	2.375	2.750	0.526	0.683	1.375	99240	
		2.375	2.750	0.781	0.938	1.375	99839 <sup>2)</sup>	
		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	

**SPEEDI-SLEEVE – inch dimensions**  
 $d_1$  2.750 – 3.566 in.



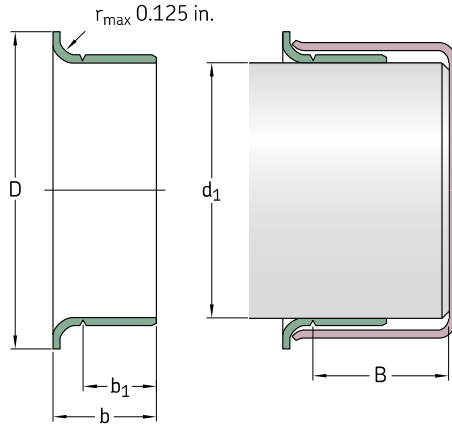
Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$		
in.		in.						–
2.750	2.756	2.750	3.125	0.406	0.563	1.250	99272	
		2.750	3.125	0.781	0.938	1.250	99844 <sup>2)</sup>	
		2.750	3.125	0.781	0.938	1.250	99275	
		2.750	3.125	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	



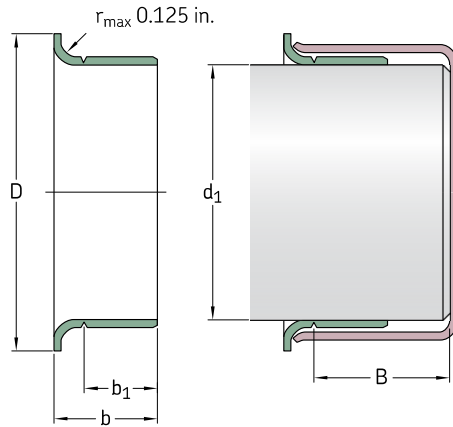
Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	$D$ $\pm 0.063$	$b_1$ $\pm 0.031$	$b$ $\pm 0.031$	$B^{1)}$	
in.		in.					–
<b>3.124</b>	<b>3.132</b>	3.125	3.525	0.551	0.709	2.031	<b>99053<sup>3)</sup></b>
<b>3.142</b>	<b>3.150</b>	3.150	3.540	0.750	0.886	1.375	<b>99313</b>
<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>

**SPEEDI-SLEEVE – inch dimensions**

$d_1$  3.618 – 5.125 in.

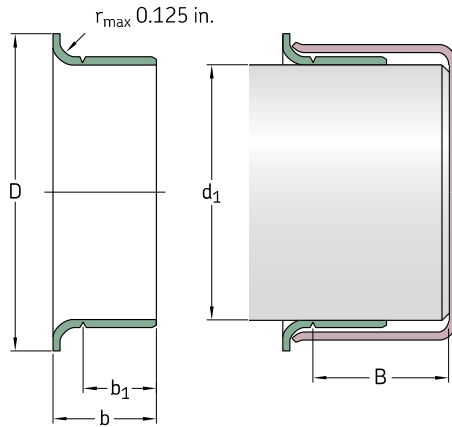


Shaft diameter range		Nominal dimensions					Designation
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$	
in.		in.					–
3.618	3.624	3.621	4.031	0.813	1.000	1.750	99360
3.623	3.629	3.625	4.025	0.500	0.625	1.750	99363
		3.625	4.031	0.813	1.000	1.750	99362
3.684	3.690	3.688	4.031	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	4.016	0.469	0.594	1.800	99359
		3.730	4.025	0.781	0.906	1.800	99366
3.737	3.743	3.740	4.025	0.827	0.945	1.800	99369
3.740	3.746	3.743	4.031	0.344	0.500	1.800	99374
		3.743	4.035	0.469	0.594	1.800	99364
3.746	3.752	3.749	4.025	0.563	0.688	1.800	99376
3.750	3.756	3.750	4.020	0.688	0.875	1.800	99853 <sup>2)3)</sup>
		3.753	4.025	0.344	0.500	1.800	99367
		3.753	4.020	0.688	0.875	1.800	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	4.313	0.813	1.000	2.050	99854 <sup>2)</sup>
		3.938	4.313	0.813	1.000	2.050	99393
3.998	4.006	4.000	4.375	0.500	0.625	2.066	99401
		4.000	4.375	0.600	0.725	2.050	99395
		4.000	4.375	0.650	0.775	1.375	99400
		4.000	4.375	0.813	1.000	2.050	99855 <sup>2)</sup>
		4.000	4.375	0.813	1.000	2.050	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



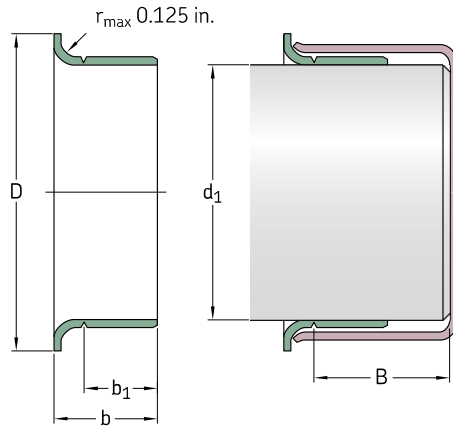
Shaft diameter range		Nominal dimensions					Designation	
$d_1$ min	max	$d_1$	D $\pm 0.063$	$b_1$ $\pm 0.031$	b $\pm 0.031$	$B^{1)}$		
in.		in.						–
4.322	4.331	4.331	4.921	0.448	0.589	1.297	99434	
4.327	4.335	4.328	4.921	0.509	0.650	1.250	99435	
4.370	4.378	4.375	4.750	0.813	1.000	1.650	99437	
4.401	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	

**SPEEDI-SLEEVE – inch dimensions**  
 $d_1$  5.120 – 8.005 in.



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.					–
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





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>