

SD



Wear and dry run are largely prevented by additional lubricant retained within the gap created by the secondary lip. In some cases this second sealing lip may even act as a substitute for a costly tandem sealing system when complete sealing under certain working conditions can only be achieved by two seals placed one behind the other in separate housing.

It's designed to be less sensitive to pressure fluctuations than typical "U" seals.

The material used to produce this seal is a polyurethane compound that ensures excellent properties on wear-resistance, extended service life and resistance against extrusion.

- Good sealing performance as well as at low pressure
- Extended service life
- Excellent wear-resistance
- Good temperature resistance
- Insensitive to pressure fluctuation
- Easy installation without expensive auxiliaries

## MATERIAL



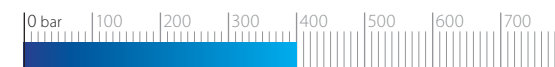
Type  
Polyurethane

Designation  
SEALPUR 93

Hardness  
93 °ShA

## FIELD OF APPLICATION

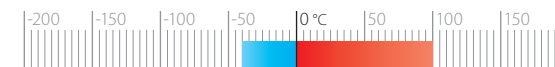
Pressure  
≤ 400 bar



Speed  
≤ 0.5 m/s



Temperature  
-40°C ÷ +100°C



Fluids

Hydraulic oils (mineral oil based)  
For other fluids contact our technical department

## SURFACE ROUGHNESS

Dynamic surface  
Static surface

Ra ≤ 0.3 μm      Rt ≤ 2.5 μm  
Ra ≤ 1.6 μm      Rt ≤ 6.3 μm

## GAP DIMENSION "g"

The largest gap dimension appearing in operation on the non-pressurised side:

|         |         |         |         |
|---------|---------|---------|---------|
| 50 bar  | 1.20 mm | 300 bar | 0.25 mm |
| 100 bar | 0.80 mm | 400 bar | 0.17 mm |
| 200 bar | 0.40 mm |         |         |

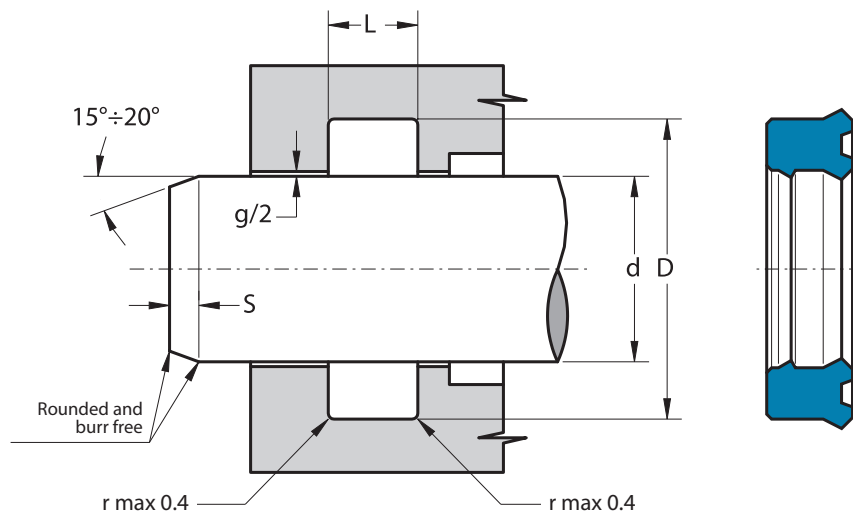
## LEAD-IN CHAMFERS

| d        | Smin  |
|----------|-------|
| less 100 | 5 mm  |
| 100÷200  | 7 mm  |
| over 200 | 10 mm |

To avoid damaging the sealing lips during installation, housing must have rounded chamfers. Sharp edges and burrs within the installation area of the seal must be removed.

The above data are maximum values, they may be maintained for short periods and can not be used at the same time simultaneously.

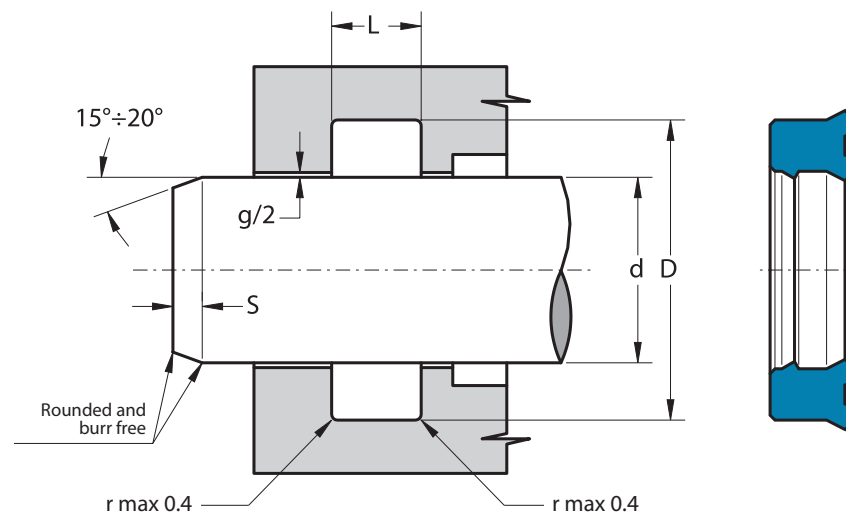
SD



| Part.          | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|----------------|-----------------|------------------|--------------------|
| SD 6 14 5.8    | 6               | 14.0             | 6.3                |
| SD 8 15 5.8    | 8               | 15.0             | 6.3                |
| SD 8 16 5.8    | 8               | 16.0             | 6.3                |
| SD 10 16 4.9   | 10              | 16.0             | 5.4                |
| SD 10 18 5.8   | 10              | 18.0             | 6.3                |
| SD 12 19 5.6   | 12              | 19.0             | 6.1                |
| SD 12 19 5.8   | 12              | 19.0             | 6.3                |
| SD 12 20 5.8   | 12              | 20.0             | 6.3                |
| SD 12 23 6.5   | 12              | 23.0             | 7.5                |
| SD 13 18 5.8   | 13              | 18.0             | 6.3                |
| SD 14 20 4.8   | 14              | 20.0             | 5.3                |
| SD 14 22 5.8   | 14              | 22.0             | 6.3                |
| SD 15 21.5 4.2 | 15              | 21.5             | 4.7                |
| SD 15 23 5.8   | 15              | 23.0             | 6.3                |
| SD 16 21 5.8   | 16              | 21.0             | 6.3                |
| SD 16 24 5.8   | 16              | 24.0             | 6.3                |
| SD 17.5 27 8   | 17.5            | 27.0             | 9.0                |
| SD 18 24 4.7   | 18              | 24.0             | 5.2                |
| SD 18 25 5     | 18              | 25.0             | 5.7                |
| SD 18 26 5.8   | 18              | 26.0             | 6.3                |
| SD 18 26 8     | 18              | 26.0             | 9.0                |
| SD 18 28 5.8   | 18              | 28.0             | 6.3                |
| SD 18 28 7     | 18              | 28.0             | 8.0                |
| SD 20 26 5     | 20              | 26.0             | 5.5                |

| Part.        | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|--------------|-----------------|------------------|--------------------|
| SD 20 26 5.2 | 20              | 26.0             | 5.7                |
| SD 20 27 5.8 | 20              | 27.0             | 6.3                |
| SD 20 28 5.8 | 20              | 28.0             | 6.3                |
| SD 20 28 7   | 20              | 28.0             | 8.0                |
| SD 20 30 4.5 | 20              | 30.0             | 5.0                |
| SD 20 30 7   | 20              | 30.0             | 8.0                |
| SD 22 30 5.8 | 22              | 30.0             | 6.3                |
| SD 22 30 6   | 22              | 30.0             | 7.0                |
| SD 22 30 7   | 22              | 30.0             | 8.0                |
| SD 22 32 7   | 22              | 32.0             | 8.0                |
| SD 22 32 8   | 22              | 32.0             | 9.0                |
| SD 24 32 5.8 | 24              | 32.0             | 6.3                |
| SD 24 34 5.8 | 24              | 34.0             | 6.5                |
| SD 25 32 6   | 25              | 32.0             | 7.0                |
| SD 25 33 5.8 | 25              | 33.0             | 6.3                |
| SD 25 33 6.5 | 25              | 33.0             | 7.5                |
| SD 25 33 7   | 25              | 33.0             | 8.0                |
| SD 25 33 8   | 25              | 33.0             | 9.0                |
| SD 25 35 5.8 | 25              | 35.0             | 6.3                |
| SD 25 35 7   | 25              | 35.0             | 8.0                |
| SD 25 35 8   | 25              | 35.0             | 9.0                |
| SD 25 36 5   | 25              | 36.0             | 5.5                |
| SD 27 37 5.8 | 27              | 37.0             | 6.3                |
| SD 28 36 5.8 | 28              | 36.0             | 6.3                |

| Part.        | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|--------------|-----------------|------------------|--------------------|
| SD 28 36 8   | 28              | 36.0             | 9.0                |
| SD 28 38 7   | 28              | 38.0             | 8.0                |
| SD 30 38 5.8 | 30              | 38.0             | 6.3                |
| SD 30 38 7   | 30              | 38.0             | 8.0                |
| SD 30 38 8   | 30              | 38.0             | 9.0                |
| SD 30 40 6.5 | 30              | 40.0             | 7.5                |
| SD 30 40 7   | 30              | 40.0             | 8.0                |
| SD 30 40 9   | 30              | 40.0             | 10.0               |
| SD 30 40 10  | 30              | 40.0             | 11.0               |
| SD 32 40 5.8 | 32              | 40.0             | 6.3                |
| SD 32 40 6.7 | 32              | 40.0             | 7.7                |
| SD 32 40 8   | 32              | 40.0             | 9.0                |
| SD 32 42 7   | 32              | 42.0             | 8.0                |
| SD 32 42 8   | 32              | 42.0             | 9.0                |
| SD 32 42 10  | 32              | 42.0             | 11.0               |
| SD 32 47 10  | 32              | 47.0             | 11.0               |
| SD 34 41 5   | 34              | 41.0             | 5.5                |
| SD 35 43 5.8 | 35              | 43.0             | 6.3                |
| SD 35 43 6.2 | 35              | 43.0             | 7.0                |
| SD 35 43 8   | 35              | 43.0             | 9.0                |
| SD 35 44 7   | 35              | 44.0             | 8.0                |
| SD 35 45 5.8 | 35              | 45.0             | 6.3                |
| SD 35 45 7   | 35              | 45.0             | 8.0                |
| SD 35 45 10  | 35              | 45.0             | 11.0               |

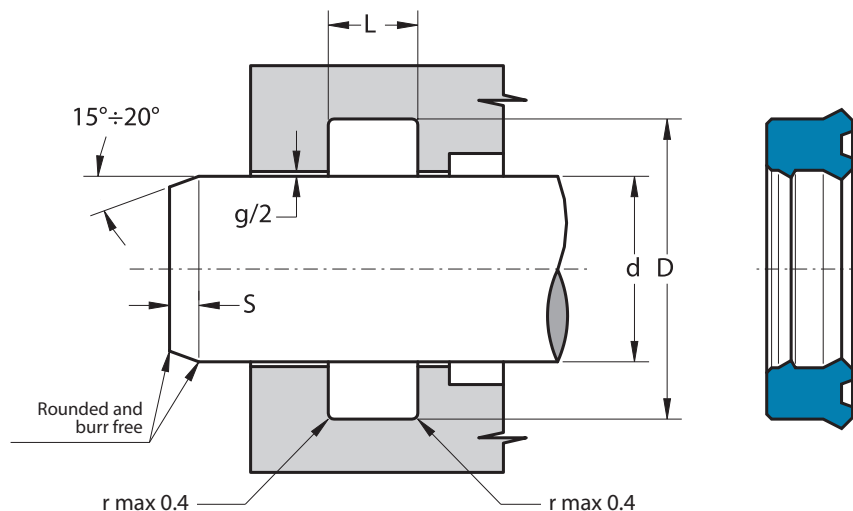


| Part.         | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|---------------|-----------------|------------------|--------------------|
| SD 35 45 12.5 | 35              | 45.0             | 13.5               |
| SD 35 50 10   | 35              | 50.0             | 11.0               |
| SD 36 44 5.8  | 36              | 44.0             | 6.3                |
| SD 36 44 6.3  | 36              | 44.0             | 7.0                |
| SD 36 44 8    | 36              | 44.0             | 9.0                |
| SD 36 46 7    | 36              | 46.0             | 8.0                |
| SD 36 46 10   | 36              | 46.0             | 11.0               |
| SD 37 47 7    | 37              | 47.0             | 8.0                |
| SD 37 47 8    | 37              | 47.0             | 9.0                |
| SD 37 47 10   | 37              | 47.0             | 11.0               |
| SD 38 45 6    | 38              | 45.0             | 7.0                |
| SD 38 48 6    | 38              | 48.0             | 7.0                |
| SD 38 50 8.5  | 38              | 50.0             | 9.5                |
| SD 40 48 5.8  | 40              | 48.0             | 6.3                |
| SD 40 48 6    | 40              | 48.0             | 7.0                |
| SD 40 48 8    | 40              | 48.0             | 9.0                |
| SD 40 50 5.8  | 40              | 50.0             | 6.3                |
| SD 40 50 7    | 40              | 50.0             | 8.0                |
| SD 40 50 10   | 40              | 50.0             | 11.0               |
| SD 40 55 10   | 40              | 55.0             | 11.0               |
| SD 42 50 6    | 42              | 50.0             | 7.0                |
| SD 42 52 8    | 42              | 52.0             | 9.0                |
| SD 42 53 9    | 42              | 53.0             | 10.0               |
| SD 45 53 5.2  | 45              | 53.0             | 5.7                |

| Part.         | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|---------------|-----------------|------------------|--------------------|
| SD 45 53 5.8  | 45              | 53.0             | 6.3                |
| SD 45 53 8    | 45              | 53.0             | 9.0                |
| SD 45 55 5.8  | 45              | 55.0             | 6.3                |
| SD 45 55 7    | 45              | 55.0             | 8.0                |
| SD 45 55 10   | 45              | 55.0             | 11.0               |
| SD 45 57 9    | 45              | 57.0             | 10.0               |
| SD 45 60 10   | 45              | 60.0             | 11.0               |
| SD 45 60 11.5 | 45              | 60.0             | 12.5               |
| SD 46 54 7.5  | 46              | 54.0             | 8.5                |
| SD 48 60 6    | 48              | 60.0             | 7.0                |
| SD 50 58 8    | 50              | 58.0             | 9.0                |
| SD 50 60 7    | 50              | 60.0             | 8.0                |
| SD 50 60 8    | 50              | 60.0             | 9.0                |
| SD 50 60 9    | 50              | 60.0             | 10.0               |
| SD 50 60 10   | 50              | 60.0             | 11.0               |
| SD 50 62 8    | 50              | 62.0             | 9.0                |
| SD 50 62 10   | 50              | 62.0             | 11.0               |
| SD 50 65 10   | 50              | 65.0             | 11.0               |
| SD 50 65 11.5 | 50              | 65.0             | 12.5               |
| SD 50 70 13.5 | 50              | 70.0             | 14.5               |
| SD 52 64 10   | 52              | 64.0             | 11.0               |
| SD 55 63 8    | 55              | 63.0             | 9.0                |
| SD 55 65 7    | 55              | 65.0             | 8.0                |
| SD 55 65 10   | 55              | 65.0             | 11.0               |

| Part.         | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|---------------|-----------------|------------------|--------------------|
| SD 55 65 12   | 55              | 65.0             | 13.0               |
| SD 55 70 9.5  | 55              | 70.0             | 10.5               |
| SD 56 66 6.5  | 56              | 66.0             | 7.5                |
| SD 56 66 10   | 56              | 66.0             | 11.0               |
| SD 56 71 9.5  | 56              | 71.0             | 10.5               |
| SD 56 71 11.5 | 56              | 71.0             | 12.5               |
| SD 60 68 7    | 60              | 68.0             | 8.0                |
| SD 60 68 8    | 60              | 68.0             | 9.0                |
| SD 60 68 11.5 | 60              | 68.0             | 12.5               |
| SD 60 70 7    | 60              | 70.0             | 8.0                |
| SD 60 70 10   | 60              | 70.0             | 11.0               |
| SD 60 70 11.5 | 60              | 70.0             | 12.5               |
| SD 60 70 12   | 60              | 70.0             | 13.0               |
| SD 60 72 9    | 60              | 72.0             | 10.0               |
| SD 60 75 10   | 60              | 75.0             | 11.0               |
| SD 61 69 7.5  | 61              | 69.0             | 8.5                |
| SD 63 71 8    | 63              | 71.0             | 9.0                |
| SD 63 73 10   | 63              | 73.0             | 11.0               |
| SD 63 73 12   | 63              | 73.0             | 13.0               |
| SD 63 75 8.5  | 63              | 75.0             | 9.5                |
| SD 63 75 10   | 63              | 75.0             | 11.0               |
| SD 63 78 11.5 | 63              | 78.0             | 12.5               |
| SD 65 71 8    | 65              | 71.0             | 9.0                |
| SD 65 73 5.8  | 65              | 73.0             | 6.3                |

SD

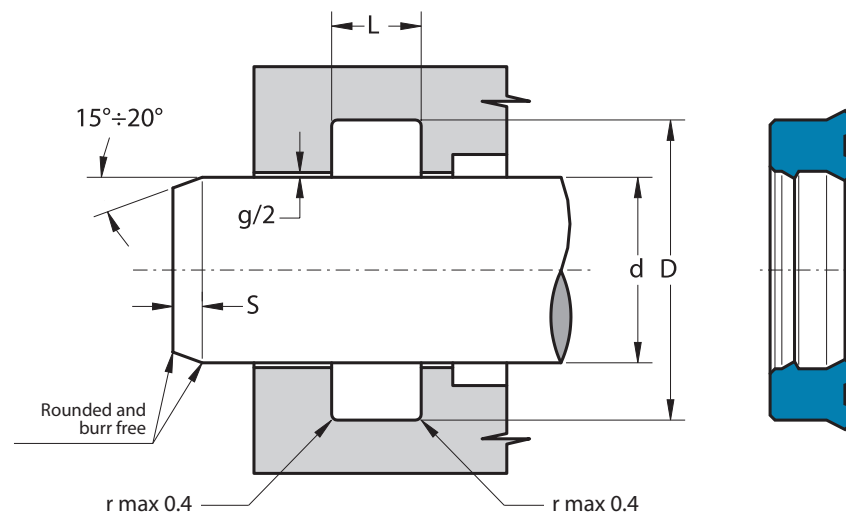


| Part.         | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|---------------|-----------------|------------------|--------------------|
| SD 65 73 8    | 65              | 73.0             | 9.0                |
| SD 65 75 12   | 65              | 75.0             | 13.0               |
| SD 65 77 8.5  | 65              | 77.0             | 9.5                |
| SD 68 76 8    | 68              | 76.0             | 9.0                |
| SD 70 78 8    | 70              | 78.0             | 9.0                |
| SD 70 80 6.5  | 70              | 80.0             | 7.5                |
| SD 70 80 7    | 70              | 80.0             | 8.0                |
| SD 70 80 8    | 70              | 80.0             | 9.0                |
| SD 70 80 10   | 70              | 80.0             | 11.0               |
| SD 70 80 12   | 70              | 80.0             | 13.0               |
| SD 70 82 9    | 70              | 82.0             | 10.0               |
| SD 70 85 11   | 70              | 85.0             | 12.0               |
| SD 70 85 11.5 | 70              | 85.0             | 12.5               |
| SD 75 83 8    | 75              | 83.0             | 9.0                |
| SD 75 85 7    | 75              | 85.0             | 8.0                |
| SD 75 90 10.5 | 75              | 90.0             | 11.5               |
| SD 76 84 7.5  | 76              | 84.0             | 8.5                |
| SD 78 90 12   | 78              | 90.0             | 13.0               |
| SD 80 88 8    | 80              | 88.0             | 9.0                |
| SD 80 88 11.5 | 80              | 88.0             | 12.5               |
| SD 80 89 10   | 80              | 89.0             | 11.0               |
| SD 80 90 7    | 80              | 90.0             | 8.0                |
| SD 80 90 12   | 80              | 90.0             | 13.0               |
| SD 80 92 9    | 80              | 92.0             | 10.0               |

| Part.             | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|-------------------|-----------------|------------------|--------------------|
| SD 80 95 11       | 80              | 95.0             | 12.0               |
| SD 80 96 9.5      | 80              | 96.0             | 10.5               |
| SD 82 94 8        | 82              | 94.0             | 9.0                |
| SD 85 93 6.5      | 85              | 93.0             | 7.5                |
| SD 85 93 8        | 85              | 93.0             | 9.0                |
| SD 85 95 7        | 85              | 95.0             | 8.0                |
| SD 85 95 12       | 85              | 95.0             | 13.0               |
| SD 85 97 8.5      | 85              | 97.0             | 9.5                |
| SD 85 100 11.5    | 85              | 100.0            | 12.5               |
| SD 88 96 7.5      | 88              | 96.0             | 8.5                |
| SD 88.9 101.6 9.5 | 88.9            | 101.6            | 10.5               |
| SD 90 100 10      | 90              | 100.0            | 11.0               |
| SD 90 102 9       | 90              | 102.0            | 10.0               |
| SD 90 105 11.5    | 90              | 105.0            | 12.5               |
| SD 91 99 7.5      | 91              | 99.0             | 8.5                |
| SD 95 103 8       | 95              | 103.0            | 9.0                |
| SD 95 104 10      | 95              | 104.0            | 11.0               |
| SD 95 112 11      | 95              | 112.0            | 12.0               |
| SD 97 107 10      | 97              | 107.0            | 11.0               |
| SD 100 108 7      | 100             | 108.0            | 8.0                |
| SD 100 108 8      | 100             | 108.0            | 9.0                |
| SD 100 108 11.5   | 100             | 108.0            | 12.5               |
| SD 100 115 11.5   | 100             | 115.0            | 12.5               |
| SD 104 116 8      | 104             | 116.0            | 9.0                |

| Part.           | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|-----------------|-----------------|------------------|--------------------|
| SD 105 113 8    | 105             | 113.0            | 9.0                |
| SD 107 115 7.5  | 107             | 115.0            | 8.5                |
| SD 110 119 10   | 110             | 119.0            | 11.0               |
| SD 110 125 11   | 110             | 125.0            | 12.0               |
| SD 112 122 10.5 | 112             | 122.0            | 11.5               |
| SD 115 123 8    | 115             | 123.0            | 9.0                |
| SD 118 128 10   | 118             | 128.0            | 11.0               |
| SD 120 128 11.5 | 120             | 128.0            | 12.5               |
| SD 120 130 7    | 120             | 130.0            | 8.0                |
| SD 120 130 14   | 120             | 130.0            | 15.0               |
| SD 120 140 12   | 120             | 140.0            | 13.0               |
| SD 124 132 11.5 | 124             | 132.0            | 12.5               |
| SD 125 133 6.5  | 125             | 133.0            | 7.5                |
| SD 126 134 7.5  | 126             | 134.0            | 8.5                |
| SD 129 141 8    | 129             | 141.0            | 9.0                |
| SD 130 150 12   | 130             | 150.0            | 13.0               |
| SD 135 143 8    | 135             | 143.0            | 9.0                |
| SD 135 145 12   | 135             | 145.0            | 13.0               |
| SD 140 148 11.5 | 140             | 148.0            | 12.5               |
| SD 140 150 10   | 140             | 150.0            | 11.0               |
| SD 140 150 11.5 | 140             | 150.0            | 12.5               |
| SD 140 155 8    | 140             | 155.0            | 9.0                |
| SD 140 160 11.5 | 140             | 160.0            | 12.5               |
| SD 145 153 7.5  | 145             | 153.0            | 8.5                |

SD



| Part.                  | d <sup>f7</sup> | D <sup>H10</sup> | L <sup>+0.25</sup> |
|------------------------|-----------------|------------------|--------------------|
| <b>SD 150 160 12.5</b> | 150             | 160.0            | 13.5               |
| <b>SD 150 170 12</b>   | 150             | 170.0            | 13.0               |
| <b>SD 154 166 10</b>   | 154             | 166.0            | 11.0               |
| <b>SD 160 170 12</b>   | 160             | 170.0            | 13.0               |
| <b>SD 175 185 12</b>   | 175             | 185.0            | 13.0               |
| <b>SD 180 190 12.5</b> | 180             | 190.0            | 13.5               |
| <b>SD 180 192 10</b>   | 180             | 192.0            | 11.0               |
| <b>SD 180 200 12</b>   | 180             | 200.0            | 13.0               |
| <b>SD 190 210 12</b>   | 190             | 210.0            | 13.0               |
| <b>SD 210 230 15</b>   | 210             | 230.0            | 16.0               |

Inch sizes

|                          |       |       |      |
|--------------------------|-------|-------|------|
| <b>SD 4000 4500 0375</b> | 101.6 | 114.3 | 10.5 |
| <b>SD 4500 5000 0375</b> | 114.3 | 127.0 | 10.5 |
| <b>SD 5000 5500 0375</b> | 127   | 139.7 | 10.5 |

