

# Scraper DA17



---

Double-acting

---

**Material:**  
Rubber

---







## ■ Scraper DA17



### ■ Description

The scraper DA17 is a molded double-acting elastomer scraper. It has two geometrically different scraper lips.

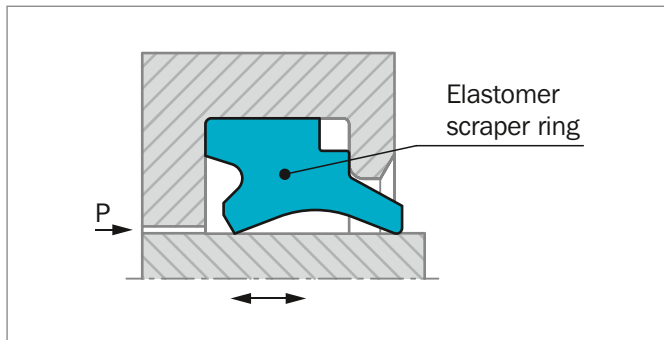


Figure 196: Scraper DA17

The scraper is preferably used for reciprocating piston rods and plunger pistons in hydraulic cylinders. It prevents the penetration of dirt into the system and on the medium side holds back the residual oil film from the extending piston rod.

The scraper is preferably used in conjunction with our rod seal Turcon® Stepseal®, i.e. seals with a hydrodynamic back-pumping function.

### ADVANTAGES

- Low friction
- Good scraping effect both inwards and outwards
- Simple, small installation groove
- Compact design
- Easy installation and removal without tools

### OPERATING CONDITIONS

|                     |  |
|---------------------|--|
| <b>Speed:</b>       | Up to 1 m/s  |
| <b>Temperature:</b> | -25 °C to +100 °C  |
| <b>Media:</b>       | Mineral oil-based hydraulic fluids, flame retardant hydraulic fluids (HFA, HFB, HFC), water, air, etc. |

### IMPORTANT NOTE

The above data are maximum values and cannot be used at the same time, e.g. the maximum operating speed depends on material type, pressure, temperature and gap value. Temperature range also depends on media.

### MATERIAL

Standard material: NBR 90 Shore A



## ■ Installation Recommendation

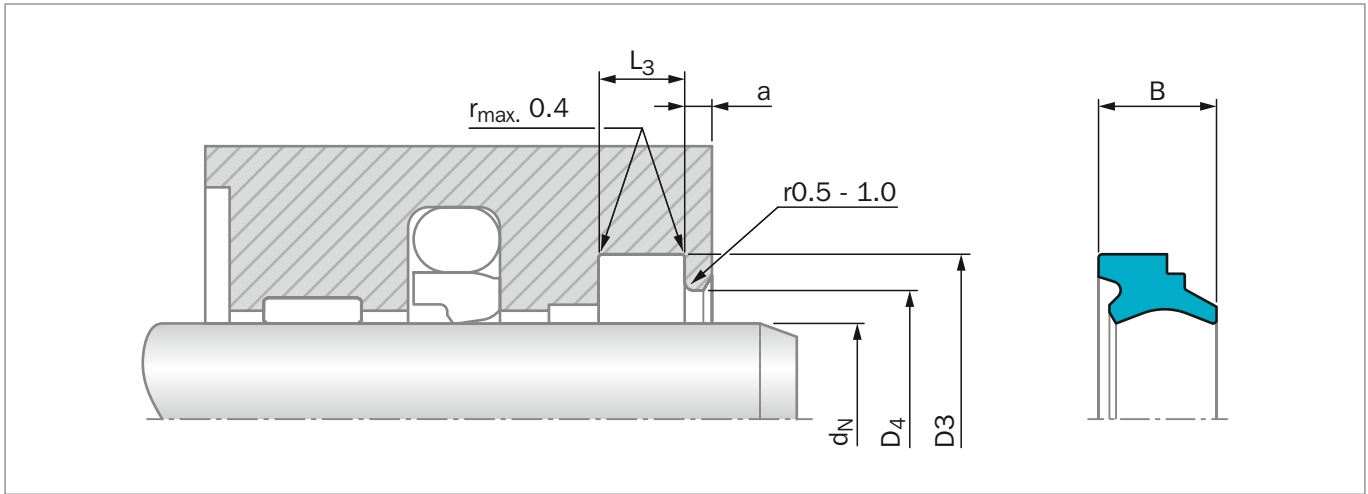


Figure 197: Installation Drawing

### ORDERING EXAMPLE

Scraper DA17

|                      |  |
|----------------------|--|
| <b>Rod Diameter:</b> | $d_N = 50.0 \text{ mm}$                      |
| <b>TSS Part No.:</b> | WD1700500 from Table 185                     |
| <b>Material:</b>     | Standard material<br>NBR 90 Shore A, Code N9 |

|                        |                         |
|------------------------|-------------------------|
| <b>TSS Article No.</b> | <b>WD17 0 0500 - N9</b> |
| TSS Series No.         | WD17                    |
| Type (Standard)        | 0                       |
| Rod Diameter x 10      | 0500                    |
| Quality Index          | -                       |
| Material Code          | N9                      |

Table 185: Installation Dimensions / TSS Part No.

| Rod Diameter | Groove Diameter | Groove Width | Bore Diameter | Step Width | Width | TSS Part No. |
|--------------|-----------------|--------------|---------------|------------|-------|--------------|
| $d_N$        | D3              | $L_3$        | D4            | $a_{min}$  | B     |              |
| f8/h9        | H9              | +0.2         | H11           |            |       |              |
| 10.0         | 18.0            | 6.0          | 13.5          | 2.0        | 8.0   | WD1700100    |
| 12.0         | 20.0            | 6.0          | 15.5          | 2.0        | 8.0   | WD1700120    |
| 14.0         | 22.0            | 6.0          | 17.5          | 2.0        | 8.0   | WD1700140    |
| 15.0         | 23.0            | 6.0          | 18.5          | 2.0        | 8.0   | WD1700150    |
| 16.0         | 24.0            | 6.0          | 19.5          | 2.0        | 8.0   | WD1700160    |
| 18.0         | 26.0            | 6.0          | 21.5          | 2.0        | 8.0   | WD1700180    |
| 20.0         | 28.0            | 6.0          | 23.5          | 2.0        | 8.0   | WD1700200    |
| 22.0         | 30.0            | 6.0          | 25.5          | 2.0        | 8.0   | WD1700220    |
| 24.0         | 32.0            | 6.0          | 27.5          | 2.0        | 8.0   | WD1700240    |
| 25.0         | 33.0            | 6.0          | 28.5          | 2.0        | 8.0   | WD1700250    |
| 28.0         | 36.0            | 6.0          | 31.5          | 2.0        | 8.0   | WD1700280    |
| 30.0         | 38.0            | 6.0          | 33.5          | 2.0        | 8.0   | WD1700300    |



| Rod Diameter | Groove Diameter | Groove Width   | Bore Diameter  | Step Width       | Width       | TSS Part No.     |
|--------------|-----------------|----------------|----------------|------------------|-------------|------------------|
| $d_N$        | D3              | L <sub>3</sub> | D <sub>4</sub> | a <sub>min</sub> | B           |                  |
| f8/h9        | H9              | +0.2           | H11            |                  |             |                  |
| <b>32.0</b>  | <b>40.0</b>     | <b>6.0</b>     | <b>35.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700320</b> |
| 35.0         | 43.0            | 6.0            | 38.5           | 2.0              | 8.0         | WD1700350        |
| <b>36.0</b>  | 44.0            | 6.0            | 39.5           | 2.0              | 8.0         | WD1700360        |
| 37.0         | 45.0            | 6.0            | 40.5           | 2.0              | 8.0         | WD1700370        |
| 38.0         | 46.0            | 6.0            | 41.5           | 2.0              | 8.0         | WD1700380        |
| <b>40.0</b>  | <b>48.0</b>     | <b>6.0</b>     | <b>43.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700400</b> |
| 42.0         | 50.0            | 6.0            | 45.5           | 2.0              | 8.0         | WD1700420        |
| <b>45.0</b>  | <b>53.0</b>     | <b>6.0</b>     | <b>48.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700450</b> |
| 46.0         | 54.0            | 6.0            | 49.5           | 2.0              | 8.0         | WD1700460        |
| 48.0         | 56.0            | 6.0            | 51.5           | 2.0              | 8.0         | WD1700480        |
| <b>50.0</b>  | <b>58.0</b>     | <b>6.0</b>     | <b>53.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700500</b> |
| 52.0         | 60.0            | 6.0            | 55.5           | 2.0              | 8.0         | WD1700520        |
| 55.0         | 63.0            | 6.0            | 58.5           | 2.0              | 8.0         | WD1700550        |
| <b>56.0</b>  | <b>64.0</b>     | <b>6.0</b>     | <b>59.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700560</b> |
| 60.0         | 68.0            | 6.0            | 63.5           | 2.0              | 8.0         | WD1700600        |
| <b>63.0</b>  | <b>71.0</b>     | <b>6.0</b>     | <b>66.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700630</b> |
| 65.0         | 73.0            | 6.0            | 68.5           | 2.0              | 8.0         | WD1700650        |
| 68.0         | 76.0            | 6.0            | 71.5           | 2.0              | 8.0         | WD1700680        |
| <b>70.0</b>  | <b>78.0</b>     | <b>6.0</b>     | <b>73.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700700</b> |
| 75.0         | 83.0            | 6.0            | 78.5           | 2.0              | 8.0         | WD1700750        |
| <b>80.0</b>  | <b>88.0</b>     | <b>6.0</b>     | <b>83.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700800</b> |
| 85.0         | 93.0            | 6.0            | 88.5           | 2.0              | 8.0         | WD1700850        |
| <b>90.0</b>  | <b>98.0</b>     | <b>6.0</b>     | <b>93.5</b>    | <b>2.0</b>       | <b>8.0</b>  | <b>WD1700900</b> |
| 95.0         | 103.0           | 6.0            | 98.5           | 2.0              | 8.0         | WD1700950        |
| <b>100.0</b> | <b>108.0</b>    | <b>6.0</b>     | <b>103.5</b>   | <b>2.0</b>       | <b>8.0</b>  | <b>WD1701000</b> |
| 105.0        | 117.0           | 8.2            | 110.0          | 3.0              | 11.0        | WD1701050        |
| <b>110.0</b> | <b>122.0</b>    | <b>8.2</b>     | <b>115.0</b>   | <b>3.0</b>       | <b>11.0</b> | <b>WD1701100</b> |
| 115.0        | 127.0           | 8.2            | 120.0          | 3.0              | 11.0        | WD1701150        |
| 120.0        | 132.0           | 8.2            | 125.0          | 3.0              | 11.0        | WD1701200        |
| <b>125.0</b> | <b>137.0</b>    | <b>8.2</b>     | <b>130.0</b>   | <b>3.0</b>       | <b>11.0</b> | <b>WD1701250</b> |
| 130.0        | 142.0           | 8.2            | 135.0          | 3.0              | 11.0        | WD1701300        |
| 135.0        | 147.0           | 8.2            | 140.0          | 3.0              | 11.0        | WD1701350        |
| <b>140.0</b> | <b>152.0</b>    | <b>8.2</b>     | <b>145.0</b>   | <b>3.0</b>       | <b>11.0</b> | <b>WD1701400</b> |
| 145.0        | 157.0           | 8.2            | 150.0          | 3.0              | 11.0        | WD1701450        |
| 150.0        | 162.0           | 8.2            | 155.0          | 3.0              | 11.0        | WD1701500        |
| 155.0        | 167.0           | 8.2            | 160.0          | 3.0              | 11.0        | WD1701550        |
| <b>160.0</b> | <b>172.0</b>    | <b>8.2</b>     | <b>165.0</b>   | <b>3.0</b>       | <b>11.0</b> | <b>WD1701600</b> |
| 165.0        | 177.0           | 8.2            | 170.0          | 3.0              | 11.0        | WD1701650        |
| 170.0        | 182.0           | 8.2            | 175.0          | 3.0              | 11.0        | WD1701700        |
| <b>180.0</b> | <b>192.0</b>    | <b>8.2</b>     | <b>185.0</b>   | <b>3.0</b>       | <b>11.0</b> | <b>WD1701800</b> |
| 185.0        | 197.0           | 8.2            | 190.0          | 3.0              | 11.0        | WD1701850        |
| 190.0        | 202.0           | 8.2            | 195.0          | 3.0              | 11.0        | WD1701900        |



| Rod Diameter | Groove Diameter | Groove Width         | Bore Diameter        | Step Width             | Width       | TSS Part No.     |
|--------------|-----------------|----------------------|----------------------|------------------------|-------------|------------------|
| $d_N$        | <b>D3</b>       | <b>L<sub>3</sub></b> | <b>D<sub>4</sub></b> | <b>a<sub>min</sub></b> | <b>B</b>    |                  |
| f8/h9        | H9              | +0.2                 | H11                  |                        |             |                  |
| 195.0        | 207.0           | 8.2                  | 200.0                | 3.0                    | 11.0        | WD1701950        |
| <b>200.0</b> | <b>212.0</b>    | 8.2                  | <b>205.0</b>         | <b>3.0</b>             | <b>11.0</b> | <b>WD1702000</b> |
| 205.0        | 220.0           | 9.5                  | 212.0                | 3.0                    | 13.0        | WD1702050        |
| 210.0        | 225.0           | 9.5                  | 217.0                | 3.0                    | 13.0        | WD1702100        |
| <b>220.0</b> | <b>235.0</b>    | <b>9.5</b>           | <b>227.0</b>         | <b>3.0</b>             | <b>13.0</b> | <b>WD1702200</b> |
| 225.0        | 240.0           | 9.5                  | 232.0                | 3.0                    | 13.0        | WD1702250        |
| 240.0        | 255.0           | 9.5                  | 247.0                | 3.0                    | 13.0        | WD1702400        |
| <b>250.0</b> | <b>265.0</b>    | <b>9.5</b>           | <b>257.0</b>         | <b>3.0</b>             | <b>13.0</b> | <b>WD1702500</b> |
| 260.0        | 275.0           | 9.5                  | 267.0                | 3.0                    | 13.0        | WD1702600        |
| 275.0        | 290.0           | 9.5                  | 282.0                | 3.0                    | 13.0        | WD1702750        |
| <b>280.0</b> | <b>295.0</b>    | <b>9.5</b>           | <b>287.0</b>         | 3.0                    | <b>13.0</b> | <b>WD1702800</b> |
| 290.0        | 305.0           | 9.5                  | 297.0                | 3.0                    | 13.0        | WD1702900        |
| 300.0        | 315.0           | 9.5                  | 307.0                | 3.0                    | 13.0        | WD1703000        |
| 310.0        | 325.0           | 9.5                  | 317.0                | 3.0                    | 13.0        | WD1703100        |
| <b>320.0</b> | <b>335.0</b>    | <b>9.5</b>           | <b>327.0</b>         | <b>3.0</b>             | <b>13.0</b> | <b>WD1703200</b> |
| 350.0        | 365.0           | 9.5                  | 357.0                | 3.0                    | 13.0        | WD1703500        |
| <b>360.0</b> | <b>375.0</b>    | <b>9.5</b>           | <b>367.0</b>         | <b>3.0</b>             | <b>13.0</b> | <b>WD1703600</b> |
| 370.0        | 385.0           | 9.5                  | 377.0                | 3.0                    | 13.0        | WD1703700        |
| 400.0        | 415.0           | 9.5                  | 407.0                | 3.0                    | 13.0        | WD1704000        |
| 440.0        | 455.0           | 9.5                  | 447.0                | 3.0                    | 13.0        | WD1704400        |

The rod diameters in **bold** type comply with the recommendations of ISO 3320.  
Intermediate sizes above 125 mm diameter can also be supplied in impact vulcanized form.  
Up to 18 mm diameter, we recommend a split groove.  
Other dimensions on request.