

# Zurcon® DRV5 Flange Seal



## Proven material. Advanced design.

In today's pressurized environments, seal failures can result in costly repairs and overhauls. With the new Zurcon® DRV5 flange seal, Trelleborg Sealing Solutions combines the proven resistive properties of Zurcon® Z20 with a newly engineered design for enhanced performance and a wider application range. By providing safe and leak-free flange connections, this polyurethane seal acts as an insurance policy in your equipment's SAE J518 and ISO 6162:1 flanges.

### Testing:

FEA simulation was used to optimize the DRV5 design on minimum and maximum values of the groove before testing. The DRV5 demonstrated outstanding performance through all testing phases.

- Testing was conducted using a pulsating pressure of 450 bar at +80 °C / +176 °F over two million cycles. A second test alternated the temperature from +110 °C to -35 °C / +230 °F to -31 °F over 100,000 cycles.
- Eight different positions on a test bench were used to verify both ISO and SAE standards with minimum and maximum groove dimensions.

### Material:

Zurcon® is the renowned brand for the Trelleborg Sealing Solutions range of engineered plastic-based materials. Its friction characteristics make it ideal for reciprocating, very slow rotating and oscillating situations in which high wear resistance is required.

### Application Examples:

- Hydraulics
- Press manufacturing
- Materials handling

### Features and Benefits:

- Prevents extrusion and nibbling
- Eliminates micro-pumping leakage
- Operating temperature range of -35 °C to +110 °C / -31 °F to +230 °F for standard Z20 version; -50 °C to +110 °C / -58 °F to +230 °F for Z22 version
- Offers easy assembly – outside diameter interference and a symmetrical profile eliminate potential for errors on the assembly line
- Increases duty cycles
- DRV5 is distinct from the DRV3 product family and is designed to work with both standardized SAE J518 and ISO 6162:1 flanges, expanding its range of applications
- SAE Flanges come in two series, code 61 (3000 series) and code 62 (6000 series). The standard pressure ranges from 34 to 345 bar for code 61 (3000 series) and 200 to 414 bar for code 62 (6000 series).
- Available in standard dimensions: 12.7, 19.05, 25.4, 31.75, 38.1, 50.8 mm / ½, ¾, 1, 1 ¼, 1 ½, 2 inches

## ZURCON® DRV5 FLANGE SEAL

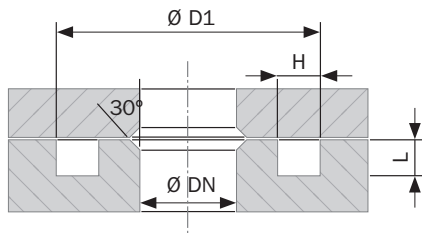


Figure 1: Flanged head according to SAE J518

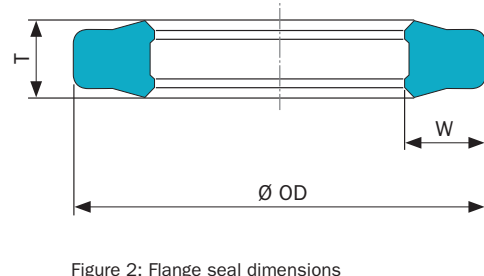


Figure 2: Flange seal dimensions

### Dimensions of Flange Heads According to SAE J518 (See Figure 1)

Nominal Flange Size	Ø DN	Ø D1 (Min. - Max.)	H (Min. - Max.)	L (Min. - Max.)
1/2"	13 mm / 0.5"	25.40 - 25.53 mm / 1.005" - 1"	3.9 - 3.99 mm / 0.155" - 0.175"	2.79 - 2.92 mm / 0.11" - 0.115"
3/4"	19 mm / 0.75"	31.75 - 31.88 mm / 1.25" - 1.255"	3.9 - 3.99 mm / 0.155" - 0.175"	2.79 - 2.92 mm / 0.11" - 0.115"
1"	25 mm / 1"	39.62 - 39.75 mm / 1.561" - 1.565"	3.9 - 3.99 mm / 0.155" - 0.175"	2.79 - 2.92 mm / 0.11" - 0.115"
1.25"	32 mm / 1.25"	44.45 - 44.58 mm / 1.75" - 1.755"	3.9 - 3.99 mm / 0.155" - 0.175"	2.79 - 2.92 mm / 0.11" - 0.115"
1.5"	38 mm / 1.5"	53.72 - 53.98 mm / 2.115" - 2.125"	3.9 - 3.99 mm / 0.155" - 0.175"	2.79 - 2.92 mm / 0.11" - 0.115"
2"	51 mm / 2"	63.25 - 63.5 mm / 2.49" - 2.5"	3.9 - 3.99 mm / 0.155" - 0.175"	2.79 - 2.92 mm / 0.11" - 0.115"

### Dimensions/Trelleborg Sealing Solutions Part Number (See Figure 2)

Nominal Flange Size	OD	W	T	TSS Part No.
1/2"	25.85 mm / 1.018"	2.9 mm / 0.114"	3.4 mm / 0.134"	<a href="#">DRV500130</a>
3/4"	32.15 mm / 1.266"	2.9 mm / 0.114"	3.4 mm / 0.134"	<a href="#">DRV500190</a>
1"	40.00 mm / 1.575"	2.9 mm / 0.114"	3.4 mm / 0.134"	<a href="#">DRV500250</a>
1.25"	44.90 mm / 1.768"	2.9 mm / 0.114"	3.4 mm / 0.134"	<a href="#">DRV500320</a>
1.5"	54.40 mm / 2.142"	2.9 mm / 0.114"	3.4 mm / 0.134"	<a href="#">DRV500380</a>
2"	63.90 mm / 2.516"	2.9 mm / 0.114"	3.4 mm / 0.134"	<a href="#">DRV500510</a>

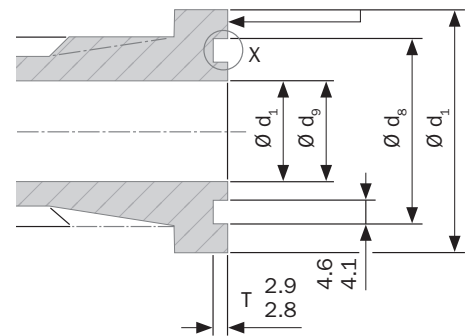


Figure 3: Flanged head according to ISO 6162:1

### Dimensions of Flange Heads According to ISO 6162-1 (See Figure 3)

d <sub>8</sub> max.	d <sub>8</sub> min.	Tmin.	Tmax.
25.65 mm / 1.01"	25.50 mm / 1.00"	4.1 mm / 0.161"	4.6 mm / 0.181"
31.75 mm / 1.25"	31.60 mm / 1.24"	4.1 mm / 0.161"	4.6 mm / 0.181"
39.25 mm / 1.55"	39.10 mm / 1.54"	4.1 mm / 0.161"	4.6 mm / 0.181"
44.15 mm / 1.74"	44.00 mm / 1.73"	4.1 mm / 0.161"	4.6 mm / 0.181"
53.90 mm / 2.12"	53.70 mm / 2.11"	4.1 mm / 0.161"	4.6 mm / 0.181"
62.75 mm / 2.47"	62.50 mm / 2.46"	4.1 mm / 0.161"	4.6 mm / 0.181"

#### Important Note:

The information in this publication is intended to be for general reference purposes only and is not intended to be a specific recommendation for any individual application. The application limits for pressure, temperature, speed and media given are maximum values determined in laboratory conditions. In application, due to the interaction of operating parameters, maximum values may not be achieved. It is vital therefore, that customers satisfy themselves as to the suitability of product and material for each of their individual applications. Any reliance on information is therefore at the user's own risk. In no event will Trelleborg Sealing Solutions be liable for any loss, damage, claim or expense directly or indirectly arising or resulting from the use of any information provided in this brochure. While every effort is made to ensure the accuracy of information contained herewith, Trelleborg Sealing Solutions cannot warrant the accuracy or completeness of information.