## Applications



- agricultural equipment
- forklifts
- tailgate lifts
- mobile arm trucks
- presses
- standard hydraulic cylinders


## Operating Limits

The operating limits of this seal are highly dependant on the application. Combinations of pressure, temperature, fluid medium and other factors, all greatly effect the performance and longevity of the seal.

| Pressure | $4000 \mathrm{Psi} / 27 \mathrm{MPa}$ |
| :--- | :---: |
| Speed | $1.5 \mathrm{ft} / \mathrm{s} / 0.5 \mathrm{~m} / \mathrm{s}$ |
| Temperature |  |
| Hydraulic Oil, HL, HLP | -40 to $110^{\circ} \mathrm{C} /-40$ to $230{ }^{\circ} \mathrm{F}$ |
| HFA, HFB Fluids | 5 to $50^{\circ} \mathrm{C} / 41$ to $122^{\circ} \mathrm{F}$ |
| HFC Fluid | -30 to $40^{\circ} \mathrm{C} /-22$ to $104^{\circ} \mathrm{F}$ |
| HFD Fluid | -- |
| Water | 5 to $40^{\circ} \mathrm{C} / 41$ to $104^{\circ} \mathrm{F}$ |
| HETG (Rape Seed Oil) | -40 to $110^{\circ} \mathrm{C} /-40$ to $230^{\circ} \mathrm{F}$ |
| HEES (Synth. Ester) | -30 to $60^{\circ} \mathrm{C} /-22$ to $140^{\circ} \mathrm{F}$ |
| HEPG (Glycol) | -- |
| Mineral Oil | -40 to $110{ }^{\circ} \mathrm{C} /-40$ to $230^{\circ} \mathrm{F}$ |

## Installation

For complete Installation Instructions, click here.

## Features

The Symmetrical U-Cup provides excellent sealing performance and very long operating life in both rod and piston applications. Made from Disogrin 9250, it has superior sealing performance and longer operating life, and is great for those tough applications with high pressures or temperatures where other seals fail.

- no adhesion effect on sliding surface
- superior performance over a wide range of temperatures and hydraulic fluids
- knife-cut static and dynamic lips for maximum sealing


## Materials

|  |  |
| ---: | :---: |
| Material: | Polyurethane |
| Designation: | Disogrin 9250 |
| Hardness: | 92 Shore A |

## Design Reference

Surface Finish
For more information on surface finish and conditions, click here.

| Roughness Depth | $\mathbf{R}_{\max }$ | $\mathbf{R}_{\mathbf{a}}$ |
| :--- | :--- | :--- |
| Sliding surface | $\leq 100 \mu$ | $\leq 12 \mu$ |
| Bottom of groove | $\leq 252 \mu$ | $\leq 64 \mu$ |
| Sides of groove | $\leq 600 \mu$ | $\leq 120 \mu$ |

Tolerances

| Dimension | Range | Tolerance |
| :---: | :---: | :---: |
| d | <3" | $\begin{aligned} & +0.000 \\ & -0.003 \end{aligned}$ |
|  | $\geq 3$ " and <7" | $\begin{aligned} & \hline+0.000 \\ & -0.004 \\ & \hline \end{aligned}$ |
|  | $\geq 7{ }^{\prime \prime}$ and <10" | $\begin{aligned} & +0.000 \\ & -0.005 \end{aligned}$ |
|  | $\geq 10$ ' and <15" | $\begin{aligned} & \hline+0.000 \\ & -0.006 \end{aligned}$ |
| D | <1.5" | $\begin{aligned} & \hline \hline+0.005 \\ & -0.000 \end{aligned}$ |
|  | $\geq 1.5$ " and <2" | $\begin{aligned} & \hline+0.007 \\ & -0.000 \\ & \hline \end{aligned}$ |
|  | $\geq 2$ " and <3.25" | $\begin{aligned} & \hline+0.008 \\ & -0.000 \end{aligned}$ |
|  | $\geq 3.25{ }^{\prime \prime}$ and $<5$ " | $\begin{aligned} & \hline+0.009 \\ & -0.000 \end{aligned}$ |
|  | $\geq 5$ " and <7" |  |



