

Hydraulic Piston Pumps

A10VO



When using HF- or environmentally acceptable fluids attention must be paid to possible limitations of the technical data, if necessary, contact us. (when ordering please state in clear text the fluid to be used). Operation on Sydor is only possible after consultation with us. Operating viscosity range for optimum efficiency and service life we recommend that the operating viscosity be chosen in the range of:

V_{opt} = opt. operating viscosity 80...170 SUS (16 ... 36 mm²/s) referred to tank temperature (open circuit).

Limit of viscosity range : For critical operating conditions the following values apply:
 V_{min} = 60 SUS (10 mm²/s) for short periods ($t \leq 1$ min) at max. permissible leakage fluid temperature of 239 °F (115 °C). Please note, that the max fluid temperature of 239 °F (115 °C) is also not exceeded in certain areas (for instance bearing area) The fluid temperature in the bearing area is approx. 7 °F (5 K) higher than the average leakage fluid temperature. V_{max} = 7500 SUS (1600 mm²/s) for short periods ($t \leq 1$ min) on cold start ($t_{in} = p \leq 435$ psi (30 bar), $n \leq 1000$ rpm, -13 °F (-25 °C)) At temperatures between -13 °F (-25 °C) and -40 °F (-40 °C) special measures may be required, depending on installation conditions. Please consult us for further information. For detailed information on operation with low temperatures see data sheet RE 90300-03-B.

Axial Piston Fixed A2FO



The fixed pump A2FO is not suitable for operation with HFA hydraulic fluid. If HFB, HFC or HFD or environmentally acceptable hydraulic fluids are used, the limitations regarding technical data or other seals must be observed.

Details regarding the choice of hydraulic fluid: The correct choice of hydraulic fluid requires knowledge of the operating temperature in relation to the ambient temperature: in an open circuit, the reservoir temperature. The hydraulic fluid should be chosen so that the operating viscosity in the operating temperature range is within the optimum range (v_{opt} see shaded area of the selection diagram). We recommend that the higher viscosity class be selected in each case.

Example: At an ambient temperature of X°C, an operating temperature of 60°C is set in the circuit. In the optimum operating viscosity range (V_{opt} , shaded area), this corresponds to the viscosity classes VG 46 or VG 68; to be selected: VG 68.

Note: The case drain temperature, which is affected by pressure and speed, can be higher than the reservoir temperature. At no point of the component may the temperature be higher than 115 °C. The temperature difference specified below is to be taken into account when determining the viscosity in the bearing. If the above conditions cannot be maintained due to extreme operating parameters, we recommend flushing the case at port U (sizes 250 to 1000).