

# Axial Piston Variable Displacement Pump A7VK

**RE 94 010/08.06** 1/6  
Replaces: 07.05

## Technical Data Sheet

Series	60
Size	28
Nominal pressure	250 bar
Maximum pressure	315 bar
Closed Circuit	
Version for pumping plastic components	



## Contents

Ordering Code / Standard Program
Technical Data
Control Unit MA
Unit Dimensions, Size 28
General Information

## Features

- 2 – Compact dimensions
- 3 – Mounting flange, drive shaft and functions identical to A2VK28...-SO2 yet with compacter dimensions, thus easy to replace
- 4
- 5 – High-pressure pump with modified materials for pumping polyurethane components (polyol and isocyanate)
- 6 – Increased corrosion protection through special surface treatment of the pump housing
- Manual adjustment with precision display and clamp unit to prevent accidental adjustment
- Double shaft seal made of special material and flushing chamber to identify damage and protect the environment
- High permissible filling pressure for highly-viscous dosing fluid through separation of feed channel and drive work chamber
- Good volumetric efficiency through robust drive work using proven axial tapered piston technology

# Ordering Code / Standard Program

<b>A7VK</b>	<b>G</b>	<b>28</b>		<b>/</b>	<b>60</b>	<b>R</b>	<b>-</b>	<b>S</b>	<b>P</b>	<b>P</b>	<b>03</b>	<b>0</b>
01	02	03	04		05	06		07	08	09	10	11

## Axial piston unit

01	Bent-axis design, variable for pumping plastic components	<b>A7VK</b>
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## Operating mode

02	Closed circuit	<b>G</b>
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## Size

03	≈ Displacement $V_{g \max}$ in $\text{cm}^3$	<b>28</b>
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## Control device

04	Manual adjustment	<b>MA</b>
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## Series/Index

05		<b>60</b>
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## Direction of rotation

06	Viewed on shaft end	clockwise, Standard	<b>R</b>
		anti clockwise, Option	<b>L</b>

## Seals

07	FKM (fluor-caoutchouc), shaft seal in PTFE	<b>S</b>
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## Shaft end

08	Cylindrical shaft with key DIN 6885	<b>P</b>
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## Mounting flange

09	4-hole – similar ISO 3019-2	<b>P</b>
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## Service line connections

10	Threaded ports A and B, at side, opposite side	<b>03</b>
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## Pressure relief valve

11	Standard, without	<b>0</b>
	Option, built-on	<b>1</b>

# Technical Data

## Fluid

The unit pumps and meters fluids for manufacturing polyurethane components (polyol and isocyanate).

## Operating viscosity range

The following limit conditions apply:

$v_{\min}$  \_\_\_\_\_ 2 mm<sup>2</sup>/s,

$v_{\max}$  \_\_\_\_\_ 2000 mm<sup>2</sup>/s

Please contact us if higher values are required.

## Operating temperature range

Optimum operating temperature range t \_\_\_\_\_ 10-50°C

Maximum operating temperature  $t_{\max}$  \_\_\_\_\_ 80°C

The permitted working temperature depends on the lubricity of the fluid. The maximum fluid temperature must not be exceeded even locally. The temperature in the bearing area is approx. 5K above the leakage fluid temperature.

## Filtering the fluid

The filter should be arranged so that only filtered fluid enters the pump. The finer the filter, the longer the service life of your axial piston pump.

We recommend a filter grade  $\eta_{\text{abs}}$  \_\_\_\_\_  $\leq 125 \mu\text{m}$

## Operating pressure range

### Input

Min. filling pressure  $p_{\min}$  \_\_\_\_\_ 1 bar

Max. filling pressure  $p_{\max}$  \_\_\_\_\_ 30 bar

It is necessary to ensure that the low-pressure side of the pump is comprehensively filled.

### Output

Pressure at port A or B  
(pressure data according to DIN 24312)

Nominal pressure  $p_N$  \_\_\_\_\_ 250 bar

Maximum pressure  $p_{\max}$  \_\_\_\_\_ 315 bar

Max. intermittent summation pressure  $p_{\max}$  \_\_\_\_\_ 250 bar  
(pressure A + pressure B)





## General Information

- The A7VK pump is designed to be used in closed circuits.
- Project planning, assembly, and startup of the pump require the involvement of trained personnel.
- The working and functional ports are only designed to accommodate hydraulic piping.
- Tightening torques:
  - The tightening torques specified in this data sheet are maximum values and may not be exceeded (maximum value for screw thread). Manufacturer specifications for the max. permissible tightening torques of the used fittings must be observed!
  - For DIN 13 fastening screws we recommend checking the tightening torque individually according to VDI 2230 Edition 2003.
- The housing temperature rises during and shortly after operation. Take suitable safety precautions (e.g. wear protective clothing).
- The data and information contained herein must be adhered to.

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Subject to change.