

## Variable pump A2VK

Bent axis design, For open and closed circuit  
Nominal pressure upto 250 bar  
Sizes 12.....107cc  
Pump for Plastic/Polyurethane (Polyol, Isocyanate)



### Index

### Page No

• Introduction	02
• Ordering Code	02
• Technical data	03
• Unit Dimensions	04



## Introduction

High pressure bent axis variable pumps used for the pumping and controlling volume metering of plastic/polyurethane..

### • Advantages of A2VK pumps:

- Highly suitable for high viscous fluids
- Metering accuracy are high and repeated consistency
- Maximum operating pressure up to 250 bar
- Low pulsation of flow
- All components of pump are produced from special material suitable to Polyol, Isocyanate
- Special sealing
- Low noise level and quiet operation
- Volumetric efficiency optimized with ruggedized design structure for open & closed circuit
- Manual controlled through handwheel which has a built in precision measuring dial

## Ordering code

	A2VK	55	MA	O	R	1	G	1	P	E	1
<b>Pump Type</b> Variable pump	= A2VK										
<b>Size Displacement</b> 11.6 cm 28.1 cm 54.8 cm 107.0 cm	= 12 = 28 = 55 = 107										
<b>Control Device</b> Manual control	= MA										
<b>Type of Circuit</b> open circuit closed circuit	= 0 = G										
<b>Direction of Rotation (View on drive shaft)</b> Clockwise Anti-clockwise	= R = L										
<b>Series</b> Size 28 - 107 Size 12	= 1 = 4										
<b>Design</b> Housed pump	= G										
<b>Valve Assembly</b> without valve assembly	= 0										
<b>Shaft end</b> Parallel, keyed	= P										
<b>Swivel Movement</b> to one side only	= E										
<b>Assembly Design</b> MA-handwheel on left MA-handwheel on right (Viewed on drive shaft)	= 1 = 2										



## Technical data

**Mounting Position:** Optional; the unit must always be filled with oil With MA control device: axis of handwheel must be horizontal, because of position indicator.

### Direction of Flow

Direction of Swivel	Clockwise rotation		Anti-clockwise rotation	
	Open circuit	closed circuit	Open circuit	closed circuit
Clockwise	S to B(A plugged)	A to B	S to A(B plugged)	B to A
Anti-clockwise	S to A	B to A(B plugged)	S to B	A to B(A plugged)

### Operating Pressure Range - inlet side

Open circuit:

Pre fill pressure 1 - 3 bar absolute at suction port S

Closed circuit:

Sum of combined pressures at A and B < 250 bar ( 315 bar for short period), fit leakage line at port T.

### Operating Pressure Range - outlet side

Pressure at port A or B

Nominal pressure  $p_N = 250$  bar

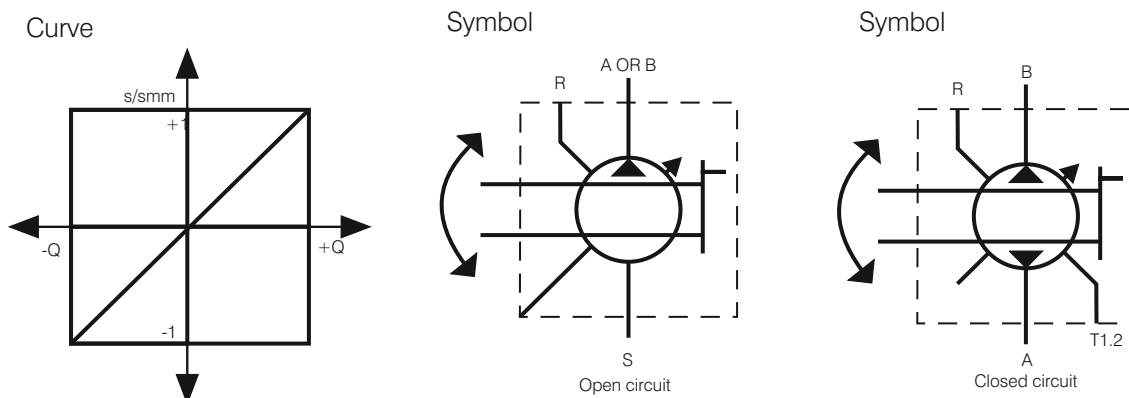
Peak pressure  $p_{max} = 315$  bar

### Table of Values

Size			12	28	55	107
Displacement $V_{gmax}$		cm <sup>3</sup>	11.6	28.1	54.8	107
Flow $Q_{max}$ in open circuit and at speed (at a viscosity of $\nu = 36$ mm <sup>2</sup> /s)	n = 735 rpm	l/min	8.3	20	39	76
	n = 970 rpm	l/min	10.9	26	51	100
	n = 1450 rpm	l/min	16.3	39	77	150
Power at p = 250 bar and speed	n = 735 rpm	kW	4	9	17	33
	n = 970 rpm	kW	5	12	22	43
	n = 1450 rpm	kW	7	17	33	65

### MA Manual Control

By turning the handwheel, the pump swivel body and thus the displacement or output flow is infinitely varied within the range  $Q_0$  to  $Q_{max}$  via a self-locking threaded spindle.



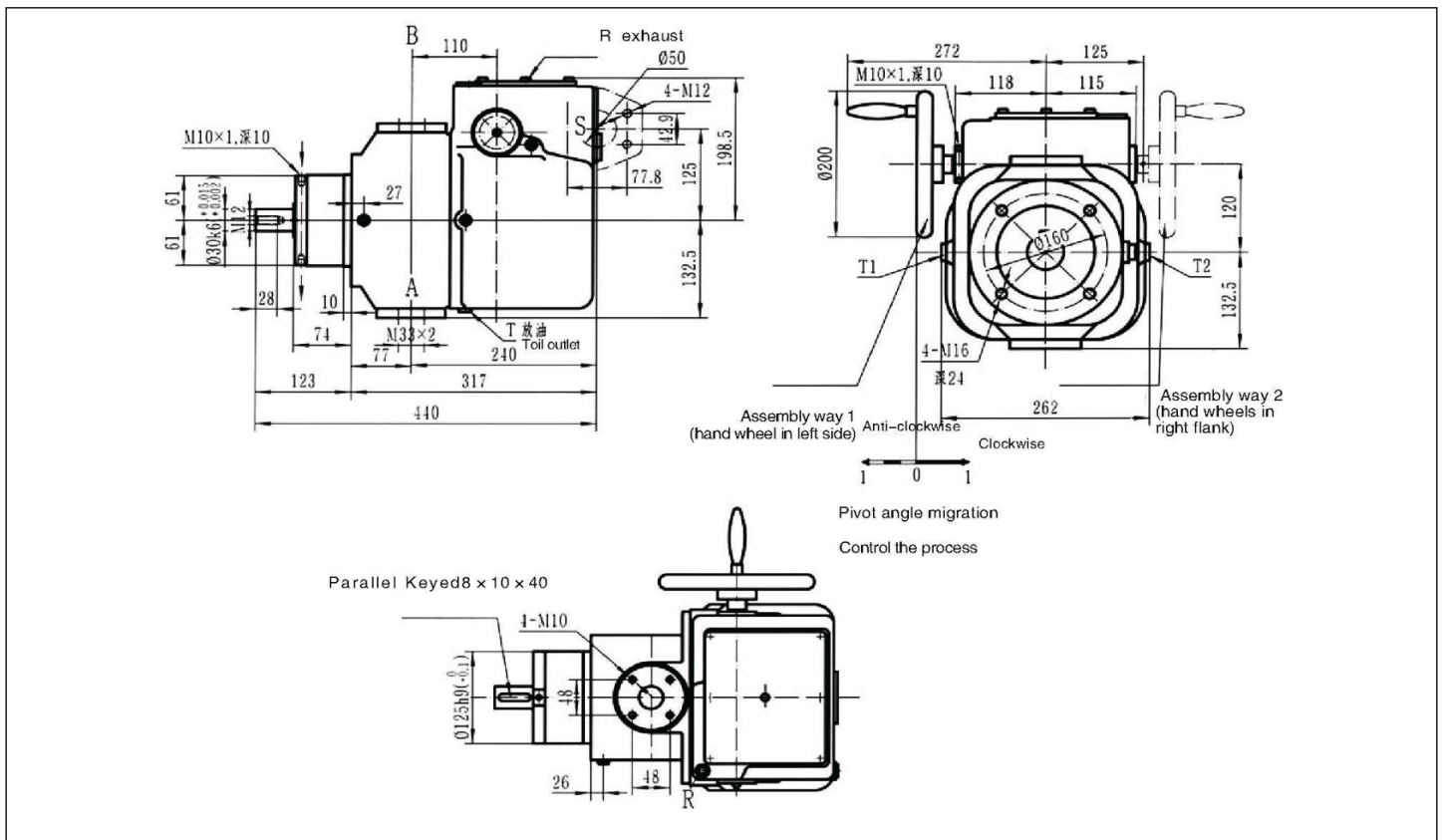
Rotations of handwheel $V_{g0}$ to $V_{gmax}$	Us	10.6	12.7	16	134
Max. operating force on handwheel	kp	7	7	8	12
Approx. Weight (pump with control device)	kg	19	36	64	117





Unit Dimensions A2VK55

(Dimensions in mm)



Unit Dimensions A2VK107

(Dimensions in mm)

