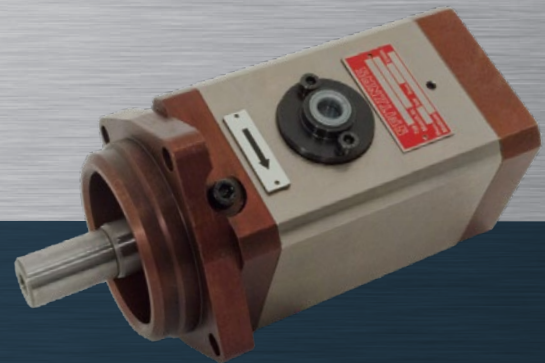
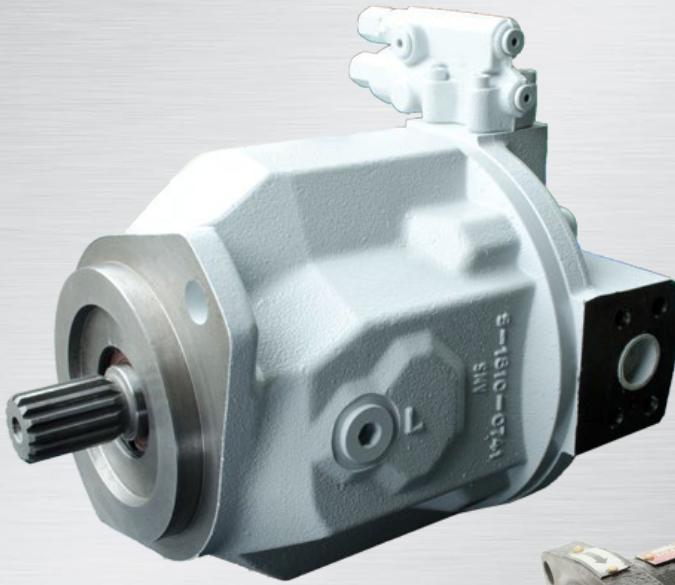




**SPITZNAS**  
CUSTOMIZED POWER SOLUTIONS



# AXIAL PISTON PUMPS

PLASTIC DOSING PUMPS

DRIVES FOR THE SPECIALIST

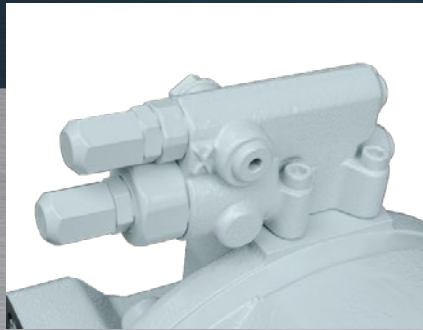
HYDRAULIC



# SYSTEM CONCEPT



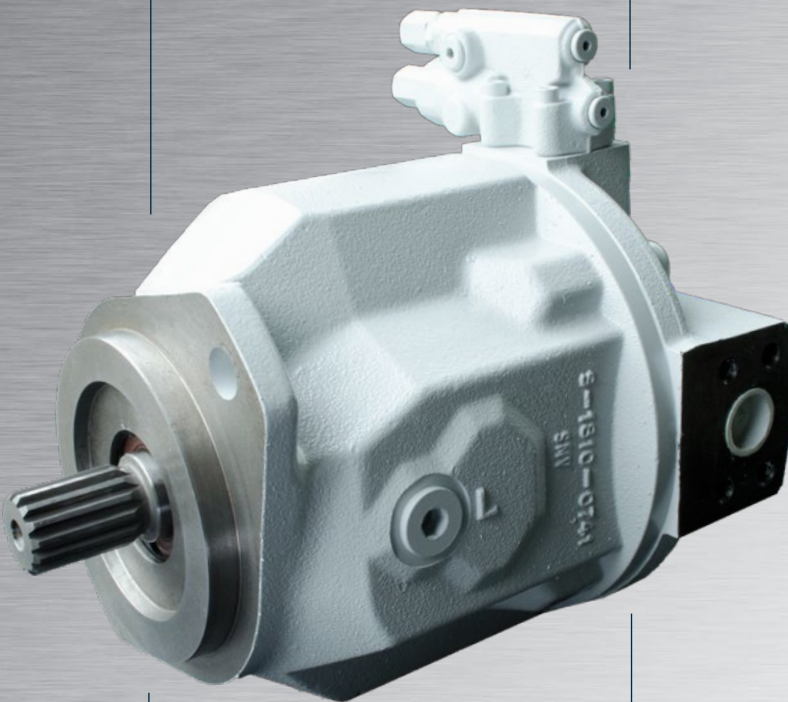
Key or spline shaft



Pressure control valve or  
pressure flow control valve



Suction port



SAE 2-holes mounting flange



Lecakage port



## TYPE SVP - SERIES 2

Our hydraulic **axial piston pumps** type **SVP** series 2 for open circuit and an operating pressure up to 280 bar are mainly used in **mobile hydraulic** applications.  
There are two sizes with 45 ccm and 74 ccm displacement capacity with different types available.



### HYDRAULIC



**OPERATING  
PRESSURE** 280  
Bar

| ORDER NO.          | Displacement<br>flow | Operating<br>pressure | Max.<br>pressure | Max. Speed<br>at Vg max.,<br>1 bar* | Max. power<br>at delta p=280 bar,<br>at n0 max. | Rotation<br>direction | Shaft type | Mounting<br>thread<br>-at side position- | Control<br>type   | Weight<br>(w/o<br>oil filling) |
|--------------------|----------------------|-----------------------|------------------|-------------------------------------|-------------------------------------------------|-----------------------|------------|------------------------------------------|-------------------|--------------------------------|
|                    | Vg max.<br>ccm/U     | p oper.<br>bar        | p max.<br>bar    | n0 max.<br>rpm                      | P max.<br>kW                                    |                       |            |                                          |                   | kg                             |
| <b>S-2A11-045R</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | right                 | SAE 1"     | metric                                   | DR <sup>1)</sup>  | 23.0                           |
| <b>S-2A12-045R</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | right                 | SAE 1"     | metric                                   | DFR <sup>2)</sup> | 23.0                           |
| <b>S-2B11-045R</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | right                 | SAE 1"     | UNC                                      | DR <sup>1)</sup>  | 23.0                           |
| <b>S-2B12-045R</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | right                 | SAE 1"     | UNC                                      | DFR <sup>2)</sup> | 23.0                           |
| <b>S-2A11-045L</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | left                  | SAE 1"     | metric                                   | DR <sup>1)</sup>  | 23.0                           |
| <b>S-2A12-045L</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | left                  | SAE 1"     | metric                                   | DFR <sup>2)</sup> | 23.0                           |
| <b>S-2B11-045L</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | left                  | SAE 1"     | UNC                                      | DR <sup>1)</sup>  | 23.0                           |
| <b>S-2B12-045L</b> | 45                   | 280                   | 350              | 2,600                               | 55.0                                            | left                  | SAE 1"     | UNC                                      | DFR <sup>2)</sup> | 23.0                           |
| <b>S-2A11-074R</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | right                 | SAE 1 1/4" | metric                                   | DR <sup>1)</sup>  | 34.0                           |
| <b>S-2A12-074R</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | right                 | SAE 1 1/4" | metric                                   | DFR <sup>2)</sup> | 34.0                           |
| <b>S-2B11-074R</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | right                 | SAE 1 1/4" | UNC                                      | DR <sup>1)</sup>  | 34.0                           |
| <b>S-2B12-074R</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | right                 | SAE 1 1/4" | UNC                                      | DFR <sup>2)</sup> | 34.0                           |
| <b>S-2A11-074L</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | left                  | SAE 1 1/4" | metric                                   | DR <sup>1)</sup>  | 34.0                           |
| <b>S-2A12-074L</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | left                  | SAE 1 1/4" | metric                                   | DFR <sup>2)</sup> | 34.0                           |
| <b>S-2B11-074L</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | left                  | SAE 1 1/4" | UNC                                      | DR <sup>1)</sup>  | 34.0                           |
| <b>S-2B12-074L</b> | 74                   | 280                   | 350              | 2,200                               | 76.0                                            | left                  | SAE 1 1/4" | UNC                                      | DFR <sup>2)</sup> | 34.0                           |

Subject to technical change.

\*absolute pressure at suction port, min. 0,85 bar

<sup>1)</sup>DR-pressure control

<sup>2)</sup>DFR-pressure flow control

| DISPLACEMENT                       |                        | 45 ccm                                                     | 74 ccm      |
|------------------------------------|------------------------|------------------------------------------------------------|-------------|
| Min. inlet pressure (absolut)      | Pabs., min.            | bar                                                        | 0.85        |
| Max. inlet pressure (absolut)      | Pabs., max.            | bar                                                        | 5.0         |
| Max. drain line pressure (absolut) | PL <sub>Leck</sub>     | bar                                                        | 2,0         |
| Operating temperature              | T                      | °C                                                         | -10 bis +90 |
| Operating viscosity                | v <sub>opt.</sub>      | mm <sup>2</sup> /s                                         | 16-32       |
| Viscosity limits, short-time       | v <sub>min./max.</sub> | mm <sup>2</sup> /s                                         | 10-1000     |
| Contamination class                |                        | 18/45 according to ISO/DIS 4406<br>9 according to NAS 1638 |             |

Subject to technical change.

More types on request.

# TECHNICAL DATA

# SYSTEM CONCEPT



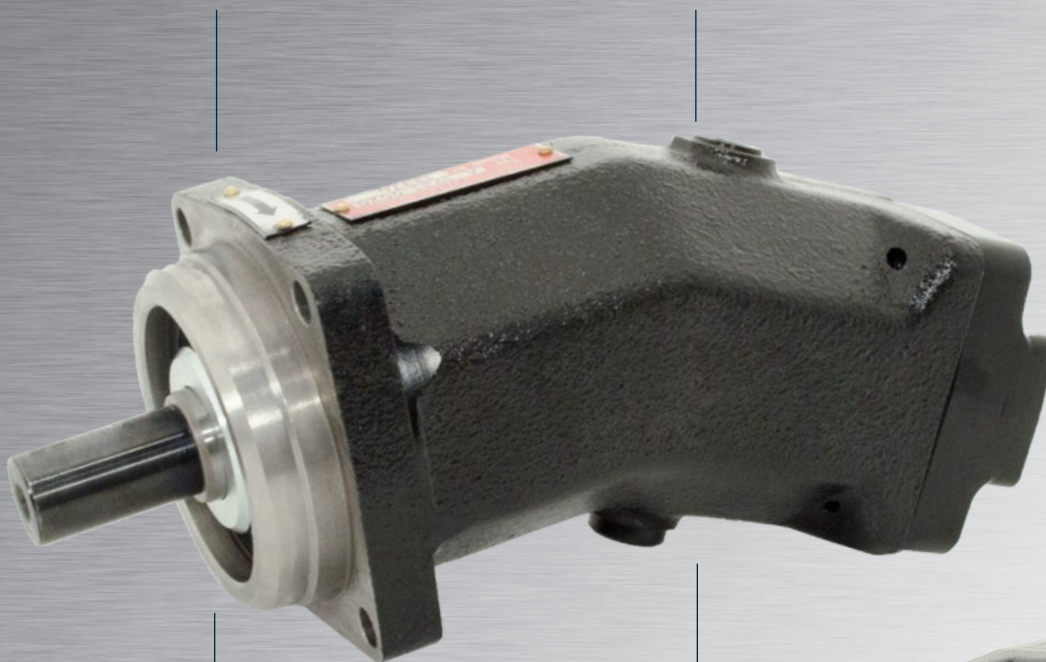
Key shaft



Leakage port



Hydraulic connection ports



Centering and mounting flange



12,5 or 28,5 ccm/rev. available



Rotation direction right



## TYPE KDP - BENT-AXIS TYPE

Our hydraulic **axial piston pumps** type **KDP** for open circuit, are based on bent-axis design. Used as **plastic dosing pumps** they are used up to max. 1,000 mm<sup>2</sup>/s of material viscosity.  
Recommended filtration is 100 µm.



### HYDRAULIC



### OPERATING PRESSURE

250 Bar

| ORDER NO.           | Displacement flow | Operating pressure | Max. pressure | Operating speed | Max. speed | Power at p oper./n oper. P oper. | Rotation direction <sup>1)</sup> | Min. preload pressure <sup>2)</sup> at n max. | Seal material | Type       | Weight (w/o Ölfüllung) |
|---------------------|-------------------|--------------------|---------------|-----------------|------------|----------------------------------|----------------------------------|-----------------------------------------------|---------------|------------|------------------------|
|                     | Vg max.           | p oper.            | p max.        | n nenn          | n max.     |                                  |                                  |                                               |               |            |                        |
|                     | ccm/U             | bar                | bar           | 1/min           | 1/min      | kW                               |                                  | bar                                           |               |            | kg                     |
| <b>A-1931-0020</b>  | 12.5              | 250                | 300           | 1,450           | 2,500      | 8.4                              | right                            | 1.2-1.5                                       | Viton         | brass free | 6.8                    |
| <b>A-1931-0040*</b> | 12.5              | 250                | 300           | 1,450           | 2,500      | 8.4                              | right                            | 1.2-1.5                                       | Viton         | brass free | 6.8                    |
| <b>A-1961-0020</b>  | 28.5              | 250                | 300           | 1,450           | 2,500      | 19.1                             | right                            | 1.2-1.5                                       | Viton         | brass free | 12.5                   |

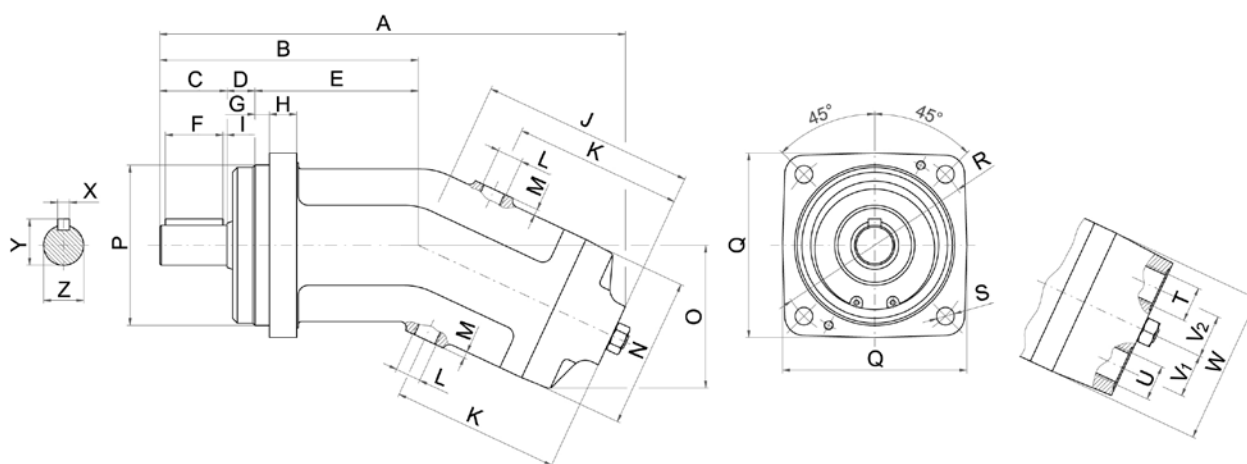
Subject to technical change.

\*with double shaft sealing

<sup>1)</sup>looking at the shaft end, clockwise

<sup>2)</sup>absolute pressure at suction port

## DIMENSIONS



| ORDER NO.          | A   | B         | C   | D            | E  | G       | H       | I   | J    | K   | L       | M    | N         |
|--------------------|-----|-----------|-----|--------------|----|---------|---------|-----|------|-----|---------|------|-----------|
|                    | mm  | mm        | mm  | mm           | mm | mm      | mm      | mm  | mm   | mm  | mm      | mm   | mm        |
| <b>A-1931-0020</b> | 238 | 135       | 36  | 20           | 79 | 7       | 14      | 3.0 | 105  | 82  | M14x1.5 | 3    | 80        |
| <b>A-1931-0040</b> | 243 | 140       | 36  | 25           | 79 | 7       | 14      | 3.0 | 105  | 82  | M14x1.5 | 3    | 80        |
| <b>A-1961-0020</b> | 300 | 160       | 42  | 25           | 93 | 9       | 17      | 2.5 | 133  | 105 | M16x1.5 | 3    | 95        |
| ORDER NO.          | O   | Dia. P f8 | Q   | Dia. R +/0.2 | ØS | T       | U       | V1  | V2   | W   | X h9    | Y    | Dia. Z h6 |
|                    | mm  | mm        | mm  | mm           | mm | mm      | mm      | mm  | mm   | mm  | mm      | mm   | mm        |
| <b>A-1931-0020</b> | 75  | 80        | 95  | 103          | 9  | M22x1.5 | M22x1.5 | 24  | 24.0 | 80  | 6       | 22.5 | 20        |
| <b>A-1931-0040</b> | 75  | 80        | 95  | 103          | 9  | M22x1.5 | M22x1.5 | 24  | 24.0 | 80  | 6       | 22.5 | 20        |
| <b>A-1961-0020</b> | 90  | 100       | 118 | 125          | 11 | M27x2   | M22x1.5 | 27  | 29.5 | 95  | 8       | 27.9 | 25        |

More types on request.

# TECHNICAL DATA

# SYSTEM CONCEPT



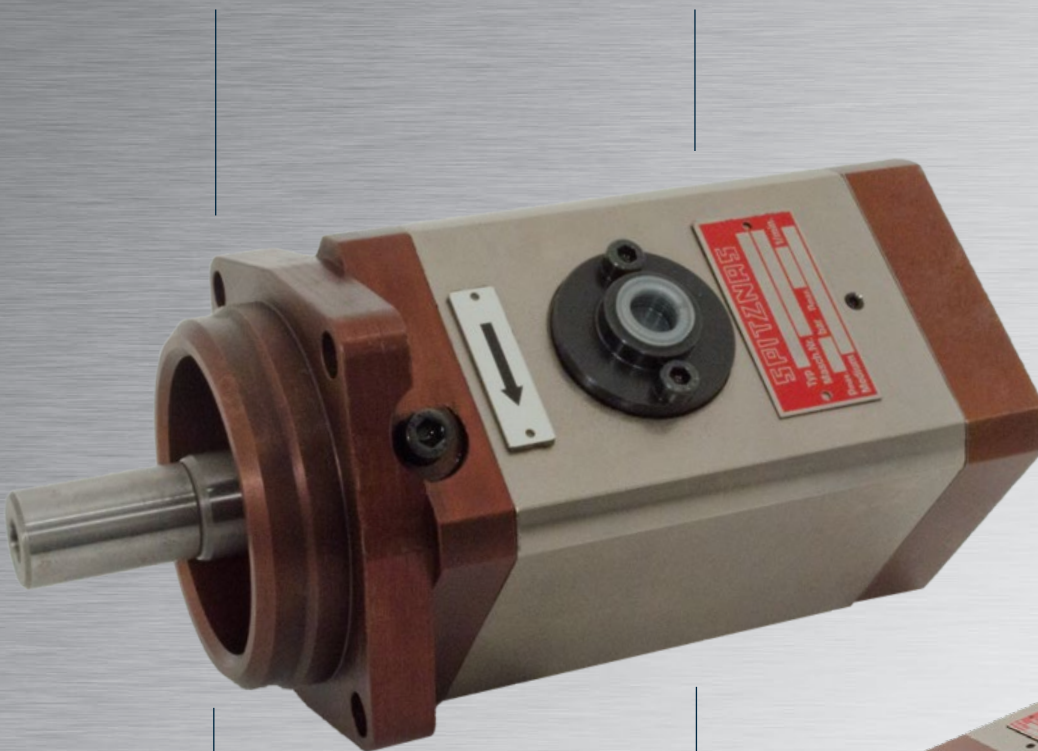
Key shaft



Leakage port



Hydraulic connection ports



Centering and mounting flange



6,0 , 10,0 or 16,0 ccm/rev available



Rotation direction right



## TYPE KDP - SWASH PLATE TYPE

Our **hydraulic axial piston pumps** type **KDP** for open circuit, are based on swash plate design. Used as **plastic dosing pumps** they are used up to max. 100 mm<sup>2</sup>/s of material viscosity.  
Recommended filtration is 20 µm.



### HYDRAULIC



### OPERATING PRESSURE

200 Bar

| ORDER NO.          | Displacement flow | Operating pressure | Max. pressure | Operating speed | Max. speed | Power at p oper./n oper. | Rotation direction <sup>1)</sup> | Min. preload pressure <sup>2)</sup> at n max. | Seal material | Type       | Weight (w/o oil filling) |
|--------------------|-------------------|--------------------|---------------|-----------------|------------|--------------------------|----------------------------------|-----------------------------------------------|---------------|------------|--------------------------|
|                    | Vg max.           | p oper.            | p max.        | n oper.         | n max.     | P oper.                  |                                  |                                               |               |            |                          |
|                    | ccm/U             | bar                | bar           | rpm             | rpm        | kW                       |                                  | bar                                           |               |            | kg                       |
| <b>A-1941-6620</b> | 6.0               | 200                | 250           | 1,450           | 2,000      | 3.2                      | right                            | 1.2-1.5                                       | Viton         | brass free | 7.1                      |
| <b>A-1941-6060</b> | 6.0               | 200                | 250           | 1,450           | 2,000      | 3.2                      | right                            | 1.2-1.5                                       | Viton         | brass free | 7.4                      |
| <b>A-1941-6710</b> | 10.0              | 200                | 250           | 1,450           | 2,000      | 5.4                      | right                            | 1.2-1.5                                       | Viton         | brass free | 7.2                      |
| <b>A-1941-7260</b> | 16.0              | 200                | 250           | 1,450           | 2,000      | 8.6                      | right                            | 1.2-1.5                                       | Viton         | brass free | 13.2                     |

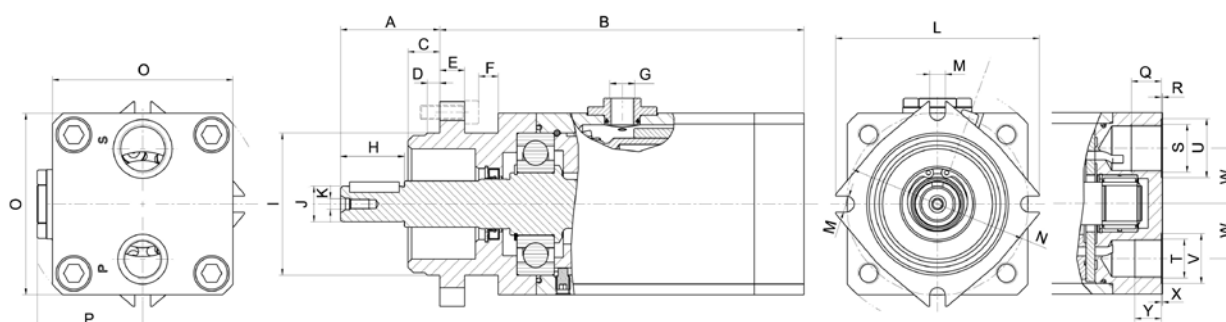
Subject to technical change.

\*with double shaft seal<sup>ing</sup>

<sup>1)</sup>looking at the shaft end, clockwise

<sup>2)</sup>absolute pressure at suction port

## DIMENSIONS



| ORDER NO.          | A  | B     | C  | D  | E  | F  | G       | H  | Dia. I f7 | Dia. J k6 | K  | L     | Dia. M |
|--------------------|----|-------|----|----|----|----|---------|----|-----------|-----------|----|-------|--------|
|                    | mm | mm    | mm | mm | mm | mm | mm      | mm | mm        | mm        | mm | mm    | mm     |
| <b>A-1941-6620</b> | 56 | 158.0 | 18 | 7  | 14 | -  | M14x1.5 | 36 | 80        | 20        | M6 | 119.1 | 9      |
| <b>A-1941-6060</b> | 56 | 158.0 | 18 | 7  | 14 | -  | M14x1.5 | 36 | 80        | 20        | M6 | 119.1 | 9      |
| <b>A-1941-6710</b> | 56 | 158.0 | 18 | 7  | 14 | -  | M14x1.5 | 36 | 80        | 20        | M6 | 119.1 | 9      |
| <b>A-1941-7260</b> | 56 | 205.5 | 18 | 7  | 14 | 11 | M14x1.5 | 36 | 80        | 20        | M6 | 115.0 | 9      |

| ORDER NO.          | N   | O   | P    | Q  | R   | S       | T       | U  | V  | W  | X   | Y  |
|--------------------|-----|-----|------|----|-----|---------|---------|----|----|----|-----|----|
|                    | mm  | mm  | mm   | mm | mm  | mm      | mm      | mm | mm | mm | mm  | mm |
| <b>A-1941-6620</b> | 103 | 80  | 48.5 | 15 | 0.5 | M22x1.5 | M22x1.5 | 28 | 28 | 25 | 0.5 | 15 |
| <b>A-1941-6060</b> | 104 | 80  | 48.5 | 15 | 0.5 | M22x1.5 | M22x1.5 | 28 | 28 | 25 | 0.5 | 15 |
| <b>A-1941-6710</b> | 103 | 80  | 48.5 | 15 | 0.5 | M22x1.5 | M22x1.5 | 28 | 28 | 25 | 0.5 | 15 |
| <b>A-1941-7260</b> | 103 | 102 | 59.5 | 17 | 0.5 | M27x2   | M22x1.5 | 33 | 28 | 31 | 0.5 | 15 |

More types on request.

# TECHNICAL DATA

# DESIGN AND FEATURES

## DESIGN AND FEATURES - SVP-PUMPS

Our hydraulic **axial piston pumps** of type **SVP** are based on a swash plate design and are made for open circuit.

The oil flow is proportional to speed and displacement which can be adjusted continuously.



- FOR OPEN CIRCUIT
- OPERATING PRESSURE 280 BAR
- ROTATION DIRECTION RIGHT
- FOR MOBILE APPLICATIONS
- MOUNTING FLANGES ACCORDING TO SAE
- VARIABLE DISPLACEMENT
- SHORT RESPONSE TIME
- LONG LIFETIME
- WIDE SPEED RANGE
- LOW NOISE LEVEL

## DESIGN AND FEATURES - KDP-PUMPS

Our hydraulic **axial piston pumps** of type **KDP** are based on swash plate design or bent-axis design and are made for open circuit.

The pumps are used for mixing and dosing machines in plastics-processing plants. The oil flow is proportional to speed.



- FOR OPEN CIRCUIT
- OPERATING PRESSURE 200/250 BAR
- FIXED DISPLACEMENT
- ROTATION DIRECTION RIGHT  
(looking at the shaft end, clockwise)
- MINIMUM SPEED FROM 20 rpm (swash plate type)  
MINIMUM SPEED FROM 80 1/min (bent-axis type)  
(depending on viscosity of medium)
- LOW FLOW PULSATION
- MEDIUM-COMPATIBILITY  
(based on specially selected materials)
- LOW FLOW PULSATION
- LOW NOISE LEVEL
- OPTIMAL VOLUMETRICAL EFFICIENCY
- OPTIMIZED FOR SERVICE

### APPLICATION AREAS:

- Wind energy
- Ship building
- Aircraft construction
- Reconstruction
- Surface protection
- Wear protection
- Insulation
- Pipe coating

### CAN BE USED FOR (f.e.):

- Mineral oil
- Epoxy resin
- Polyurethane
- Hybrid plastics
- Polyurea with drop time of less than 15 seconds (reaction time)

## HYDRAULIC DRIVES RANGE

### HYDRAULIC AXIAL PISTON PUMPS



### HYDRAULIC RADIAL PISTON MOTORS



### HYDROSTATIC COMPACT DRIVES

