Series Progressive Valve

AP・SP

AP & SP are mono style progressive metering blocks. They are a piston-type metering device which reliably dispenses lubricant to each point on the machine. Their mono style of fixed displacement, and the flexibility of combining outlets provides a large variety of metering possibilities. Monitoring can be done visually with a pin movement or electronically with a proximity sensor.

[AP-6]

[SP-8]

Specifications

Discharge volume	0.2mℓ/stroke
Discharge port	6mm or 4mm tube
Grease inlet	Rc1/8
Max. working pressure	20MPa
Minimum operating pressure	2MPa
Working consistency	NLGI No.000~2
Performance monitor	Indicator pin (K type)
Material	AP:Aluminum Die-cast
	SP:Aluminum

Specialty Parts

Model	Part Number
SPB	611785
SW-10	207611
SPC	611677
SPA-6	619780
SPS	611695
SPN	611784
SPA-4	166005

Model

Model	Part Number	No. of discharge ports
AP-4K	205680	4
AP-4	205690	
AP-6K	205681	6
AP-6	205691	
AP-6S	205686	
AP-8K	205682	8
AP-8	205692	
AP-8S	205687	
AP-10K	205683	10
AP-10	205693	
AP-10S	205688	
AP-12K	205684	12
AP-12	205694	
AP-12S	205689	

Model	Part Number	No. of discharge ports
SP-4K	205530	4
SP-4	205540	
SP-6K	205531	6
SP-6	205541	
SP-6S	205536	
SP-8K	205532	8
SP-8	205542	
SP-8S	205537	
SP-10K	205533	10
SP-10	205543	
SP-10S	205538	
SP-12K	205534	12
SP-12	205544	
SP-12S	205539	

S: With proximity sensor adaptor
K: With indicator pin
※ L: See dimensional drawing.

● Related parts


GMNH-4-7C
: P.65


EGH-3P
: P.67


EGH-2C
: P.67


EGH-4C
: P.67


Pressure gauge
: P.85


Main tubing
: P.171

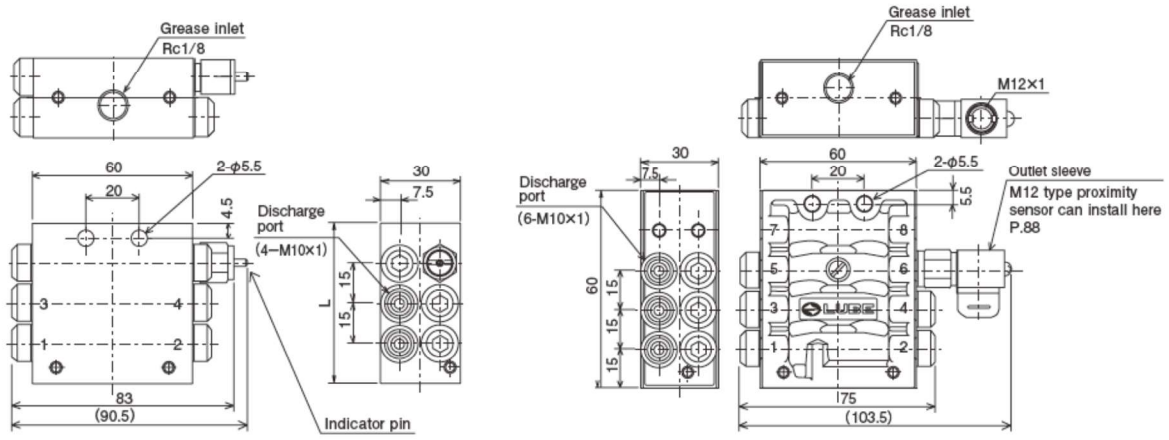

Branch tubing
: P.171


Adapter assemblies
: P.185

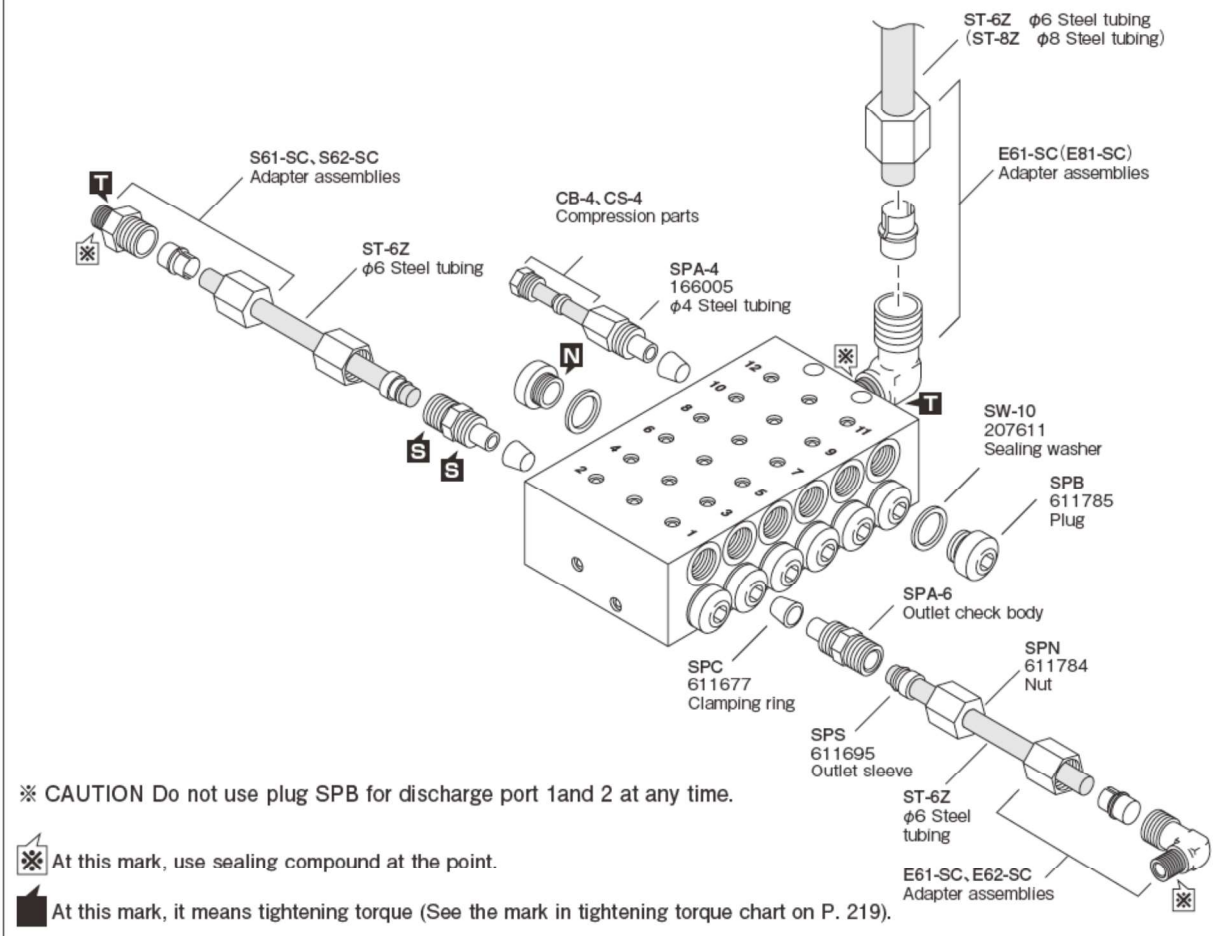

Compression parts
: P.169


Adapters
: P.175

Dimensional drawing



This is just an example



Operation chart

Step1

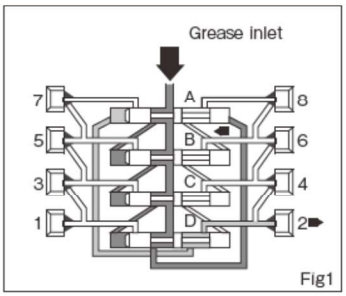


Fig1

The grease is sent by the pump or the grease gun enters from the inlet of the block upper part. The sent grease passes along the port shown in the dark gray color, reaches the right-hand side of a piston "A", and moves piston "A" leftward. At this time, the grease on the left-hand side of a piston "A" passes along the port shown in the light gray color, and is discharged from the outlet of No. 2.

Step2

If piston "A" carries out a full stroke leftward, as shown to Fig. 2 by the dark gray color, the port which results in surface of a piston "B" will be connected, and the grease from a pump will move a piston "B" leftward through this port. At this time, the grease on the left-hand side of a piston "B" is discharged from the outlet of No. 7 through the port shown in the light gray color.

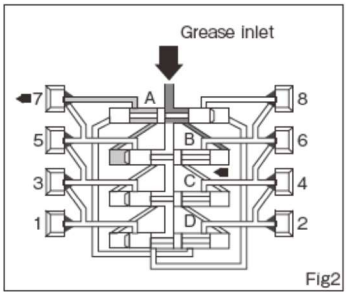


Fig2

Step3

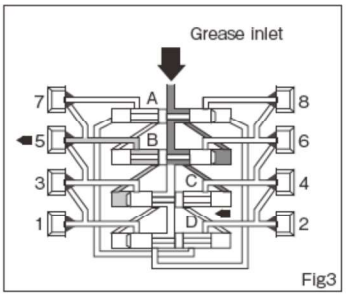


Fig3

Like last time, if piston "B" carries out a full stroke leftward, as shown to Fig. 3 by the dark gray color, the port which results in right-hand side edge of piston "C" will be connect, grease will pass along this port, and a piston "C" will be moved leftward. At this time, the grease on the left-hand side of piston "C" is discharged from a No. 5 outlet through the port shown in the light gray color.

Step4

If piston "C" carries out a full stroke, as shown by the dark gray color among the right figure, the port which results in right-hand side edge of a piston "D" will be connected, and a piston "D" will be moved leftward. At this time, the grease on the left-hand side of a piston "D" is discharged from No. 3 outlet through the port shown in the light gray color.

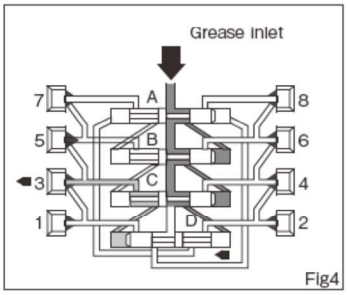


Fig4

Step5

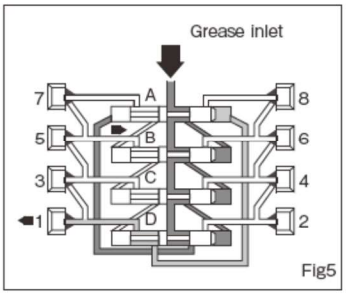
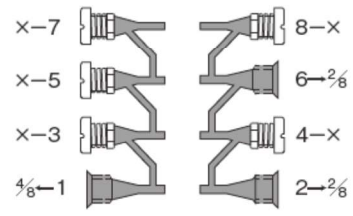


Fig5

This time, as a result of piston's "D"' carrying out a full stroke, as shown by the dark gray color among the figure, the port which results in left-hand side edge of a piston "A" is connected, and a piston "A" is moved rightward. At this time, the grease on the right-hand side of piston "A" which worked as last operation grease is discharged from a No. 1 outlet through the port shown in the light gray color.
Grease will be discharged by the same repetition as henceforth in order of the outlet of 8, 6, 4, 2, 7, 5, 3, and 1.

Setting of discharge volume/ Suggestions

Example



×: Plugged port will not discharge.
1 : Discharge will be four (4) times the normal amount.
2, 6 : Discharge will be twice the normal amount.

● Setting of discharge volume

As for each discharge port, 0.2 ml/stroke grease is discharged at the time of a pump operation. If one discharge port is closed, the quantity from the closed port will be added to and discharged by the next discharge port below.

● Suggestions

1. Use only the specially designed SP fittings for discharge ports of the SP type valve.
2. When you attach the dischagre port Outlet Check Body please be sure to check whether the Clamping Ring is set correctly. Moreover, when you attach SPB plug into the grease dischagre port, please be sure to remove the Clamping Ring, if present. If a Port Plug is attached with the Clamping Ring. set, the whole valve stops operating.
3. Use proper torque when installing AP & SP Progressive Block specialty adapters.
4. Installation will become difficult if assembly of AP & SP Progressive Blocks is begun with the middle discharge ports. Begin assemble at one end and continue to the other on each side to insure proper and more efficient assembly.
5. Use the correct washer and proper torque when installing AP & SP Progressive Block port plugs.