

Types of NSK Oil-Air Lubricators

FINE-LUB lubricators are available in three types: OAH, OAE and OAM. The mixing valves for the units are available in five different discharge quantities. These can be combined to best suit the specific application.

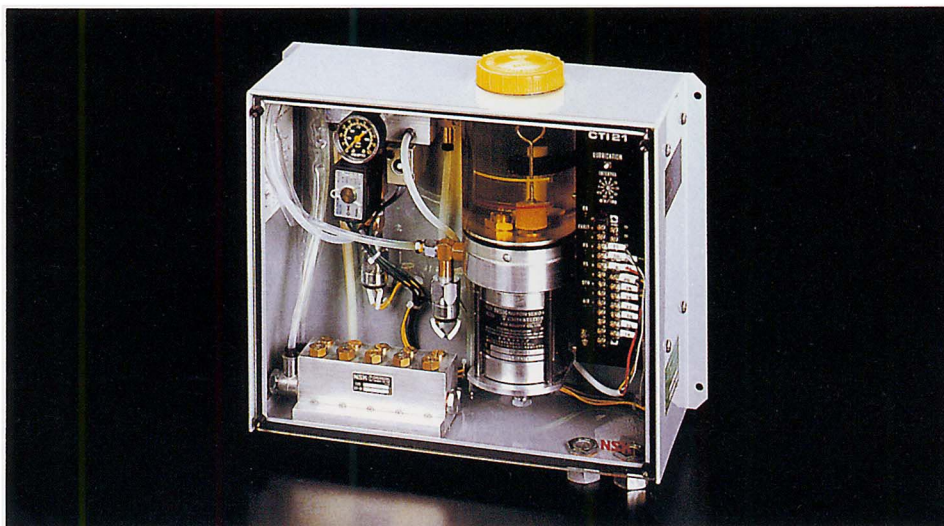
OAH High-Performance Oil-Air Lubricator

These are high-performance units with newly developed controllers. They have the versatility and multi-functionality required for use in machine tools. The controller starts and stops the oil and air in response to signals indicating whether or not the spindle is in use. This prevents excessive oil from building up in the bearing.

Model Numbers : With separate mixing valves OAH-220V

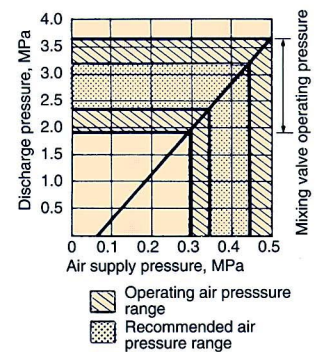
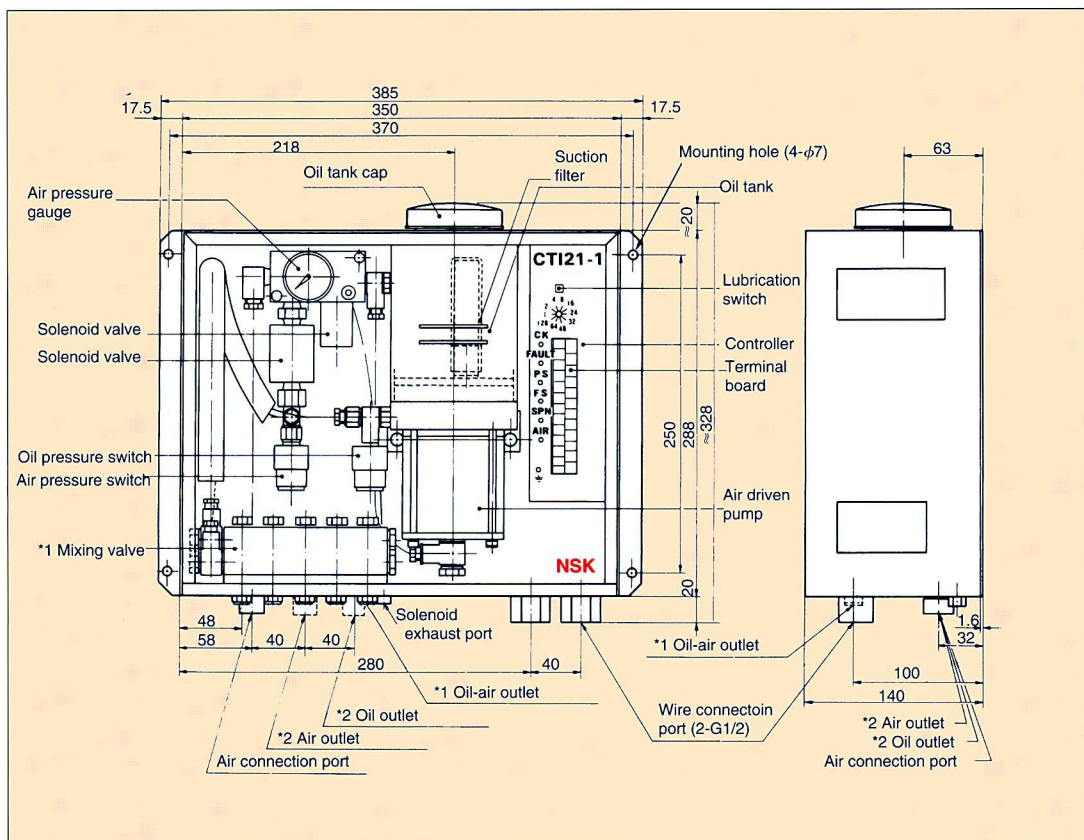
With built-in mixing valves OAH-220V / MVA5-P1 x 4P2

Power source (If 100V, omitted)
 Mixing valve type (example)



Features

- A solenoid valve automatically stops the air supply to the mixing valves when power to the lubricator is shut off.
- An air driven pump allows use of low-viscosity lubricating oil.
- Standard equipment includes a removable suction filter (200 mesh), double float switch, and faulty-lubrication warning lamp.
- Units with built-in mixing valves (5 outlets max.) are also available.



Pump Pressure Ratio

Specifications:

Lubricating oil: High-speed spindle oil or turbine oil
 Operating viscosity range: 10~68 mm²/s (10~68 cSt)
 Air supply pressure: 0.25~0.49 MPa (2.5~5 kgf/cm²)
 Power supply: 100V, 110V, 200V, 220V (Specify when ordering)
 Tank capacity: 0.74 ℓ
 Effective oil level: 0.56 ℓ
 Low oil warning level: 0.41 ℓ

Note:

- *1 Included only in lubricators with built-in mixing valves
- *2 Included only in lubricators with separate mixing valves

NSK FINE-LUB Lubricator, OAE Type

OAE Economical Oil-Air Lubricator

This unit has all the basic features of oil-air lubrication. Lubrication with this unit is extremely cost effective.

Model Numbers : With separate mixing valves OAE-220V

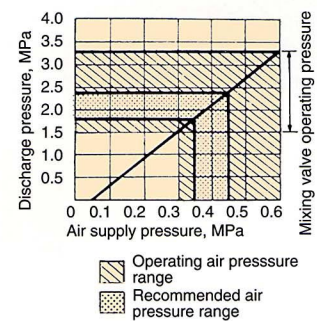
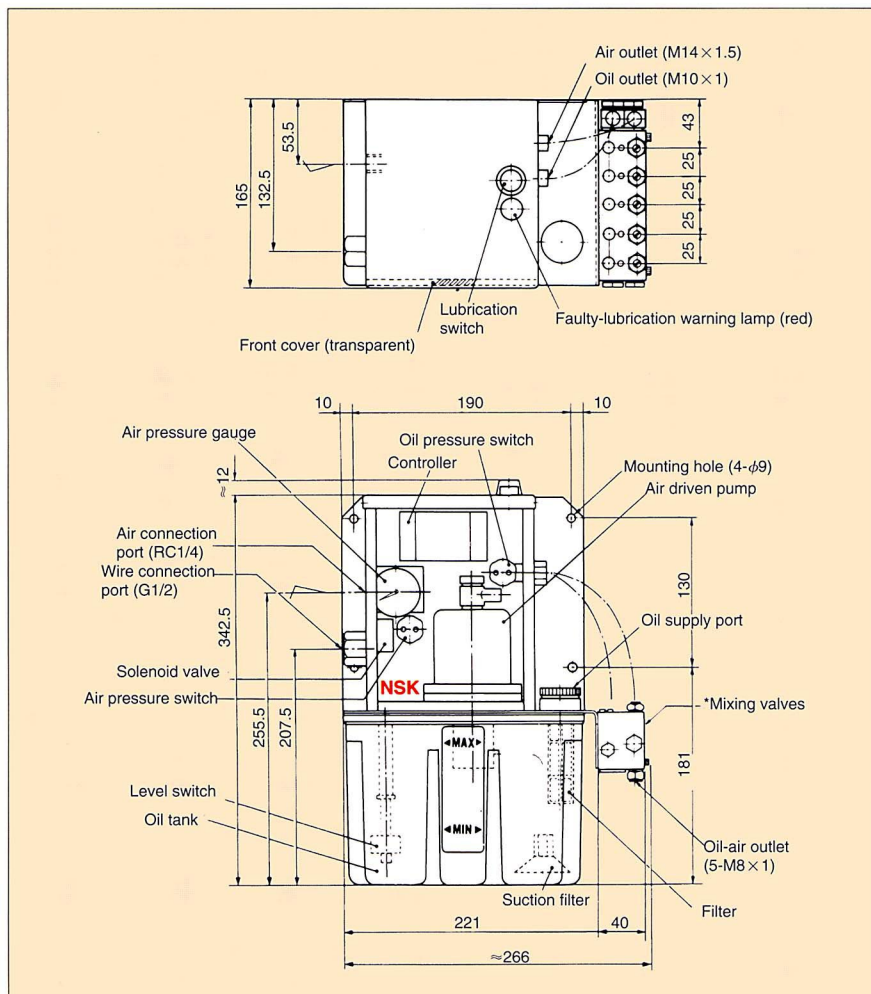
With attached mixing valves OAE-220V / MVA5-P1 x 4P2

Mixing valve type (example)
Power source (If 100V, omitted)



Features

- Air driven pump allows use of low-viscosity oil.
- Standard equipment includes safety devices such as oil and air pressure switches, oil level switch, and power failure warning (double float switch is optional; model no. OAE-DF).
- Large plastic oil tank (2.7 ℓ).
- Units with attached mixing valves (5 outlets max.) are also available.



Pump Pressure Ratio

Specifications:

Lubricating oil:
High-speed spindle oil or turbine oil
Operating viscosity range:
10~68 mm²/s (10~68 cSt)
Air supply pressure:
0.3~0.6 MPa (3~6 kgf/cm²)
Power supply:
100V, 110V, 200V, 220V
(Specify when ordering)
Tank capacity: 2.7 ℓ
Effective oil level: 1.7 ℓ

Note: The figure shows the type with mixing valves (MVA5) attached to the side. For the unit with separate mixing valves, the mixing valves marked with an asterisk are not included.

NSK FINE-LUB Lubricator, OAM Type

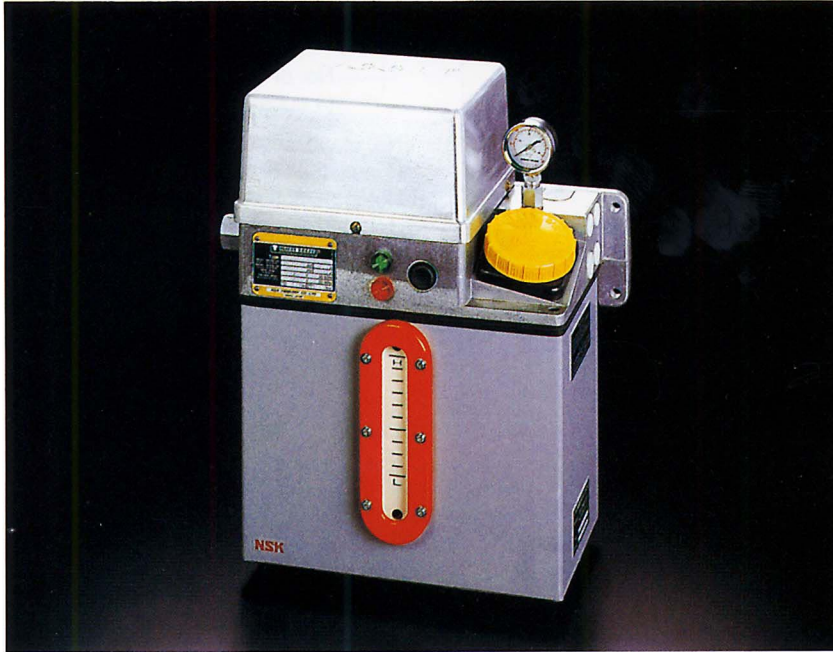
OAE High-Capacity Oil-Air Lubricator

This unit is designed specifically for large machines or those requiring high oil flow rates. It can be used even if the mixing valve and pump are separated by more than five meters.

Model Number :

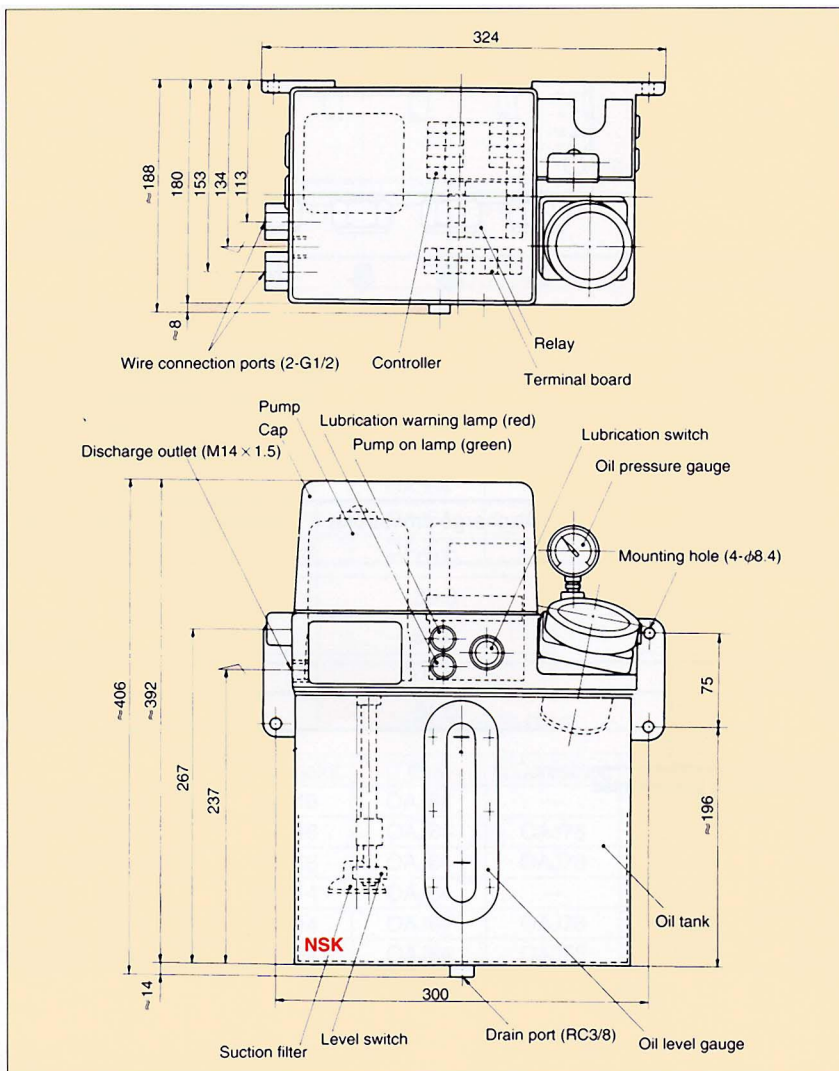
OAM-220V

Power source (If 100V, omitted)



Features

- The oil tank is metal and equipped with an oil level gauge.
- Four standard safety devices are included: oil and air pressure switches, a double float switch and power warning light.
- Oil and air pressure switches can be connected to the mixing valves using a pressure switch block.



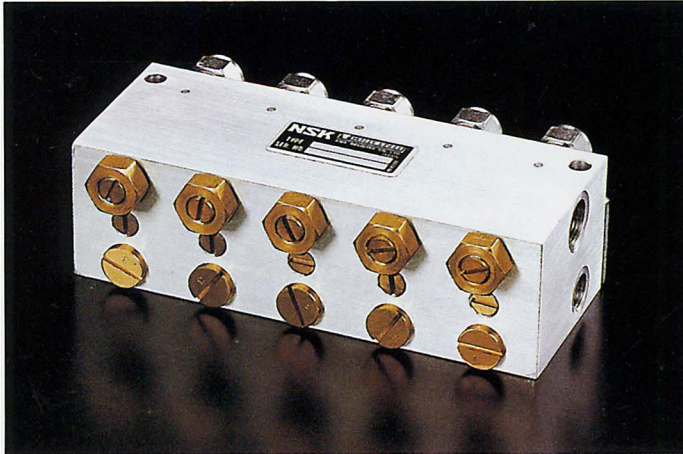
Specifications:

Lubricating oil:
High-speed spindle or turbine oil
Operating viscosity range:
20~68 mm²/s (20~68 cSt)
Pump discharge pressure:
2.7 Mpa (27 kgf/cm²)
Power supply:
Controller: 100V, 110V, 200V, 220V
(Specify when ordering)
Motor: 220V (3 Phase)
Tank capacity: 7.6 ℓ
Effective oil level: 4.5 ℓ

Accessories for NSK Oil-Air Lubricators

Mixing Valves (Utility model)

Mixing valves inject a very small quantity of oil periodically into an air stream that carries the oil to the bearings. Highly reliable, constant-quantity pistons are adopted, air bleeding of new mixing valves is made easier, and direct male-female joints for oil tubing eliminate the entry of debris during coupling.



Example model No.:

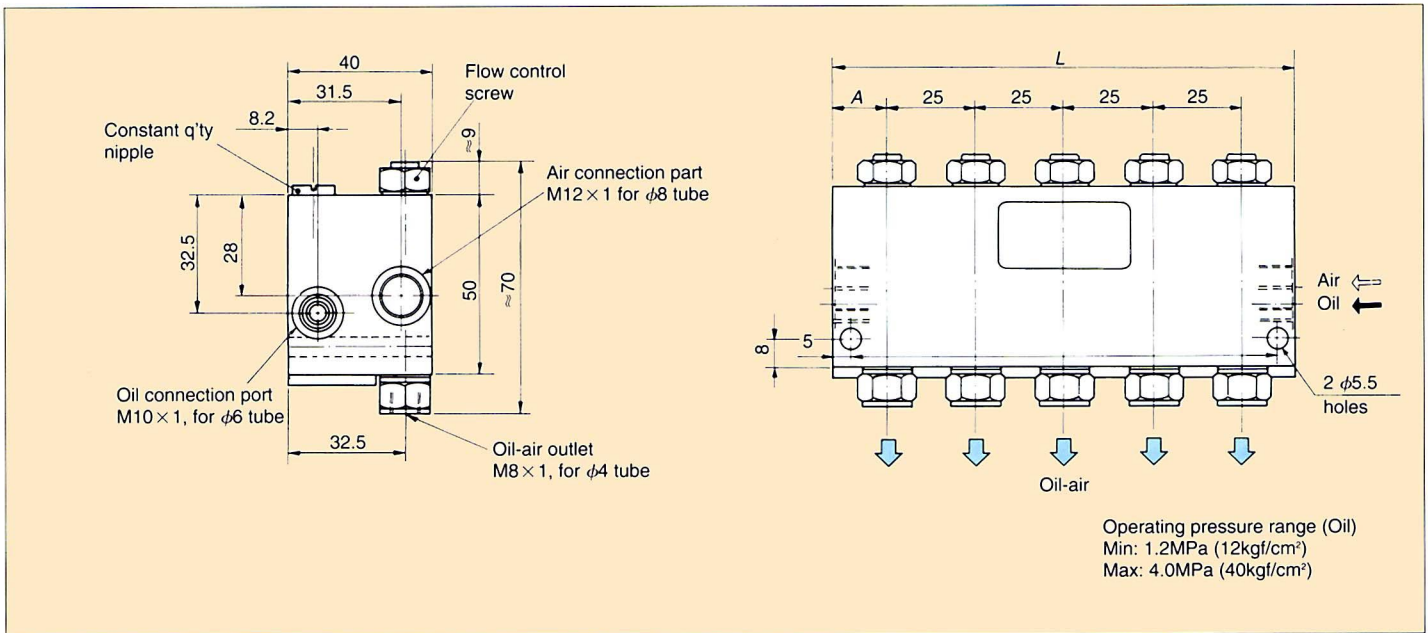
MVA5-P1 × 4P2

Total No. of valves

No. of valves + Oil Q'ty code
(4 outlet; oil discharge of 0.03cm³)

No. of valves + Oil Q'ty code
(1 outlet; oil discharge of 0.01cm³)

Note: Indication of the number of outlets is omitted when the number is one.



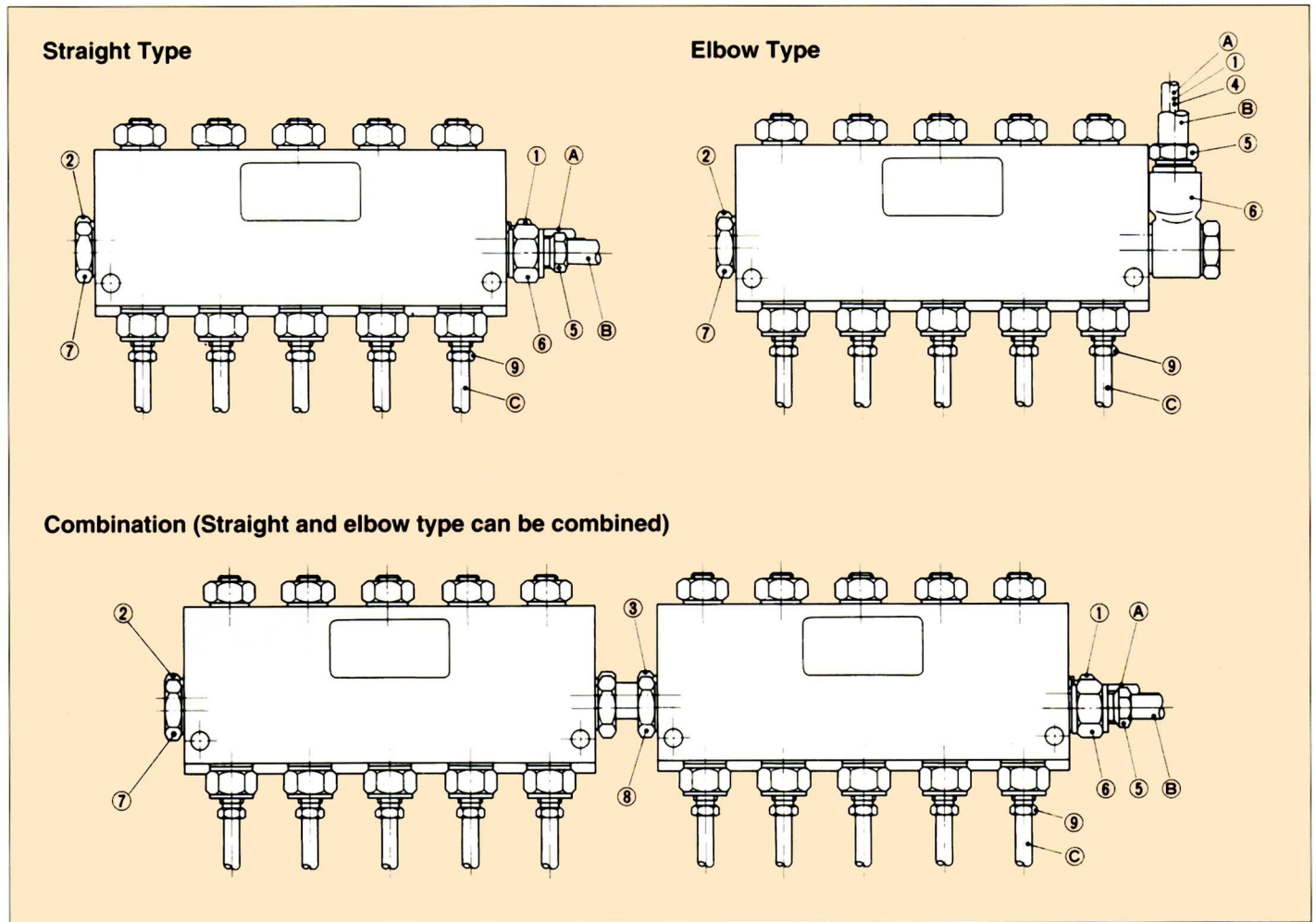
Model No.	No. of valves	L	l	A
MVA1	1	32	22	16
MVA2	2	55	45	15
MVA3	3	80	70	15
MVA4	4	105	95	15
MVA5	5	130	120	15
MVA6	6	155	145	15

Discharge cm ³ /stroke	Marking	Oil q'ty code
0.01	1	P1
0.03	3	P2
0.06	6	P3
0.10	10	P4
0.16	16	P5

※ Seven or more valves may be connected. In such a case, the structure includes two blocks jointed together.

Coupling Parts for Mixing Valves

These parts are used for connecting the mixing valves and their tubes.
Other parts should be selected from the ones listed on pages 12 and 15.



Straight Type

Part No.	Tube Material	No. of Outlets	Application						
			A Oil Pipe (O.D. φ6)			B Air Pipe (O.D. φ8)			C Oil-Air Tube (O.D. φ4)
			1 Pipe joint	2 Plug	3 Connecting	5, 6 EPipe joint	7 Plug	8 Connecting	9 Pipe joint (No. of outlets)
OAJ-S5	Plastic	5	OAJ16	OAJ64	—	OAJ28, OAJ72	OAJ9	—	OAJ11 (5)
OAJ-S8	Plastic	8	OAJ16	OAJ64	OAJ78	OAJ28, OAJ72	OAJ9	OAJ8	OAJ11 (8)
OAJ-S10	Plastic	10	OAJ16	OAJ64	OAJ78	OAJ28, OAJ72	OAJ9	OAJ8	OAJ11 (10)
OAJ-T5	Steel	5	OAJ14	OAJ64	—	OAJ12, OAJ72	OAJ9	—	OAJ11 (5)
OAJ-T8	Steel	8	OAJ14	OAJ64	OAJ78	OAJ12, OAJ72	OAJ9	OAJ8	OAJ11 (8)
OAJ-T10	Steel	10	OAJ14	OAJ64	OAJ78	OAJ12, OAJ72	OAJ9	OAJ8	OAJ11 (10)

Elbow Type

Part No.	Tube Material	No. of Outlets	Application								
			A Oil Pipe (O.D. φ6)				B Air Pipe (O.D. φ8)				C Oil-Air Tube (O.D. φ4)
			1 Pipe joint	2 Plug	3 Connecting	4 Elbow	5 Pipe joint	7 Plug	8 Connecting	6 Elbow	9 Pipe joint
OAJ-Y5	Plastic	5	OAJ16	OAJ64	—	OAJ21	OAJ28	OAJ9	—	OAJ77	OAJ11 (5)
OAJ-Y8	Plastic	8	OAJ16	OAJ64	OAJ78	OAJ21	OAJ28	OAJ9	OAJ8	OAJ77	OAJ11 (8)
OAJ-Y10	Plastic	10	OAJ16	OAJ64	OAJ78	OAJ21	OAJ28	OAJ9	OAJ8	OAJ77	OAJ11 (10)
OAJ-Z5	Steel	5	OAJ14	OAJ64	—	OAJ21	OAJ12	OAJ9	—	OAJ77	OAJ11 (5)
OAJ-Z8	Steel	8	OAJ14	OAJ64	OAJ78	OAJ21	OAJ12	OAJ9	OAJ8	OAJ77	OAJ11 (8)
OAJ-Z10	Steel	10	OAJ14	OAJ64	OAJ78	OAJ21	OAJ12	OAJ9	OAJ8	OAJ77	OAJ11 (10)