

# P100 Compact Electric Pump



Grease



8MPa



+0~50°C



Small medium equipment

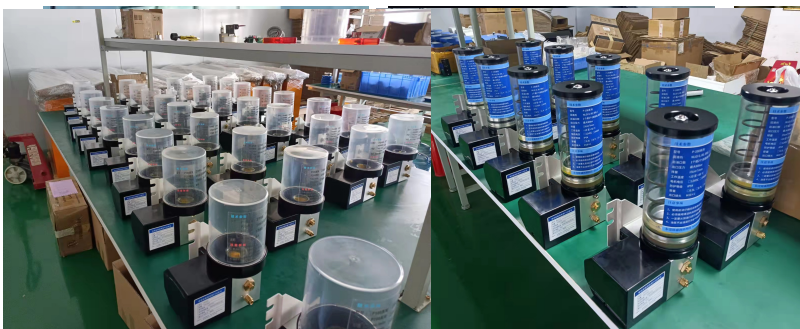
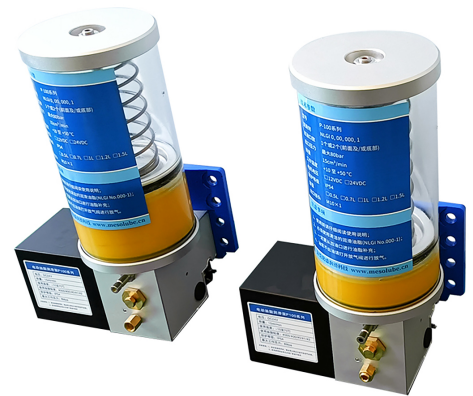
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# Instructions

## D100

This series of pumps are available in reservoir and cartridge pump versions, which can be used in single-line lubrication systems and progressive lubrication systems.

### Precautions

In this manual, the use of the following markings provides safety precautions to prevent accidents that may cause injury to the human body. Before operating the pump, be sure to read these safety precautions carefully to fully understand the contents.



Indicates a potentially hazardous situation that, if ignored, could result in death or serious injury.



Indicates information that should be paid special attention to when operating the pump. If ignored, the pump or the machine may be damaged.



Indicates a potentially dangerous situation that, if ignored, may cause minor or moderate injury.



Indicate reference information or points that can help you deal with the pump.



Indicates a reference clause.

### About the manual

All illustrations and specifications in this manual are subject to change without notice. When reselling, renting or lending the pump to a third party, be sure to include the relevant manual of the pump and any other documents accompanying the pump.

# Precautions

## Safety Precautions



1. Before handling the pump, please read this manual carefully and understand its contents.
2. Keep this manual in a designated place for easy access at any time.
3. Only technicians with relevant installation knowledge can

## Label type

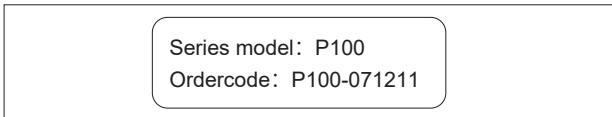


The label is attached to the pump. If any label is damaged or becomes illegible, please contact us immediately. Strictly follow the instructions on the label on the pump.

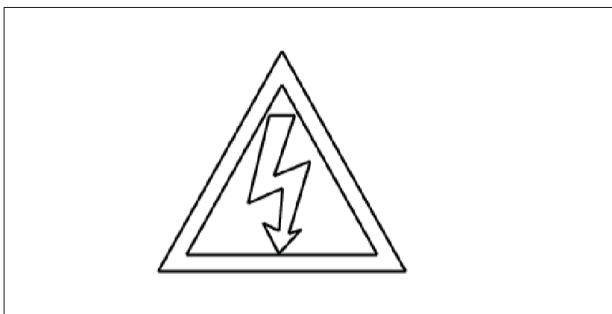
## Trademark label



## Serial number label



## Electricity warning sign

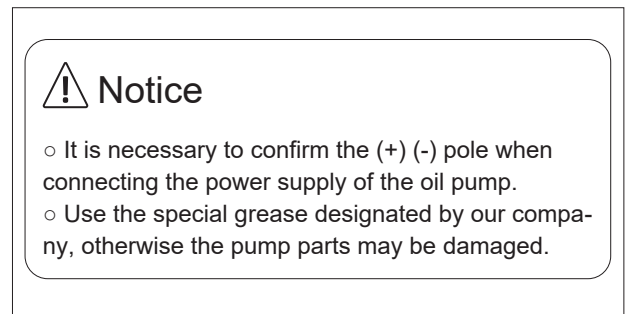


## Specification label

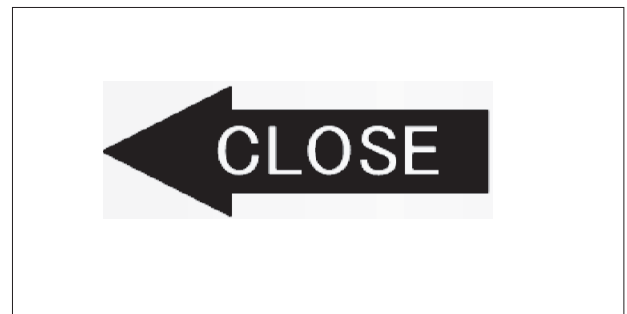
Technical Data			
Model	P100	Voltage	□12VDC □24VDC
Outlets	1 or 2		□110VAC □220VAC
Lubricant	NLGI 000~1	Pressure	Max 8MPa
Protection	IP54	Outlet thread	M10x1
Reservoir	0.3L	Operating temperature	0~+50 °C
		Metering quantity	15mL/min

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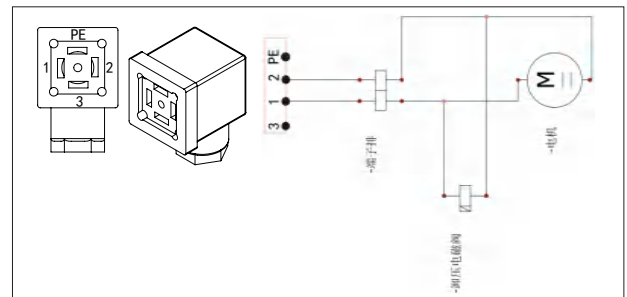
## Warning label



## Direction label



## Terminal wiring label



# Introduction

The P100 series pump is highly efficient and easy to operate. It is used in small and medium-sized machinery and can form a single-line centralized lubrication system and a progressive lubrication system.

## Series Features

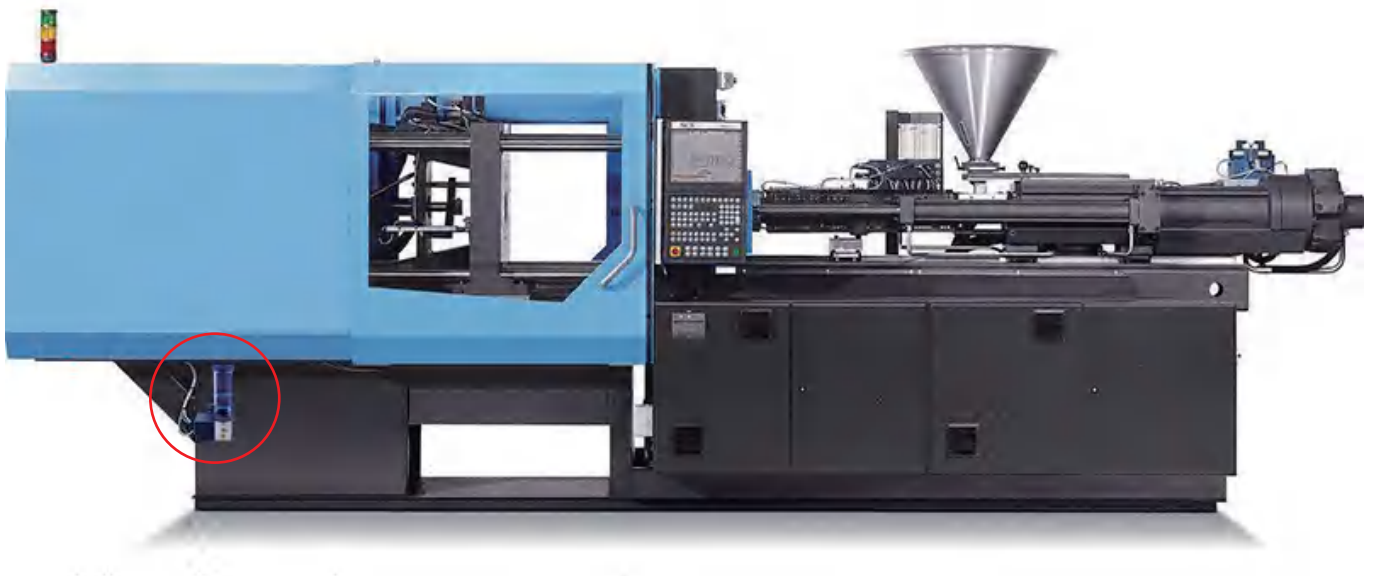
1. Two versions with reservoir or cartridge
2. Up to 2 lubricant outlets
3. With liquid level monitoring function
4. Voltage 12/24VDC, 110/220VAC
5. Max operating pressure 8MPa
6. Controlled by external PLC or with controller
7. Six optional mounting bores offer variety of installation possibilities
8. Manual lubrication button to facilitate system startup or exhaust
9. Venting screw for simple venting during system start-up or after cartridge exchange
10. Indoor use

## Series Advantages

1. Cost-effective, stable & reliable, simple operation
2. Effective lubrication, extending equipment life
3. Accurate and stable system performance
4. It can be expanded to more lubrication points

## Applications

- Automation
- Machine tools
- Material handling
- Plastic-injection-molding machinery and processes



# Product Introduction

The P100 series pump system can lubricate up to 100 lubrication points, and the main line can be up to 15 meters long.

It has a pressure relief valve to make it suitable for use in the lubrication system of a single-line pressurized distributor.

Two versions of P100 series, reservoir and cartridge version.

## Transparent Plastic Reservoir

Capacity: 0.3L, 0.5L, 1L, 1.2L, 1.7L, etc., including standard filters.

## Pre-filled Cartridge

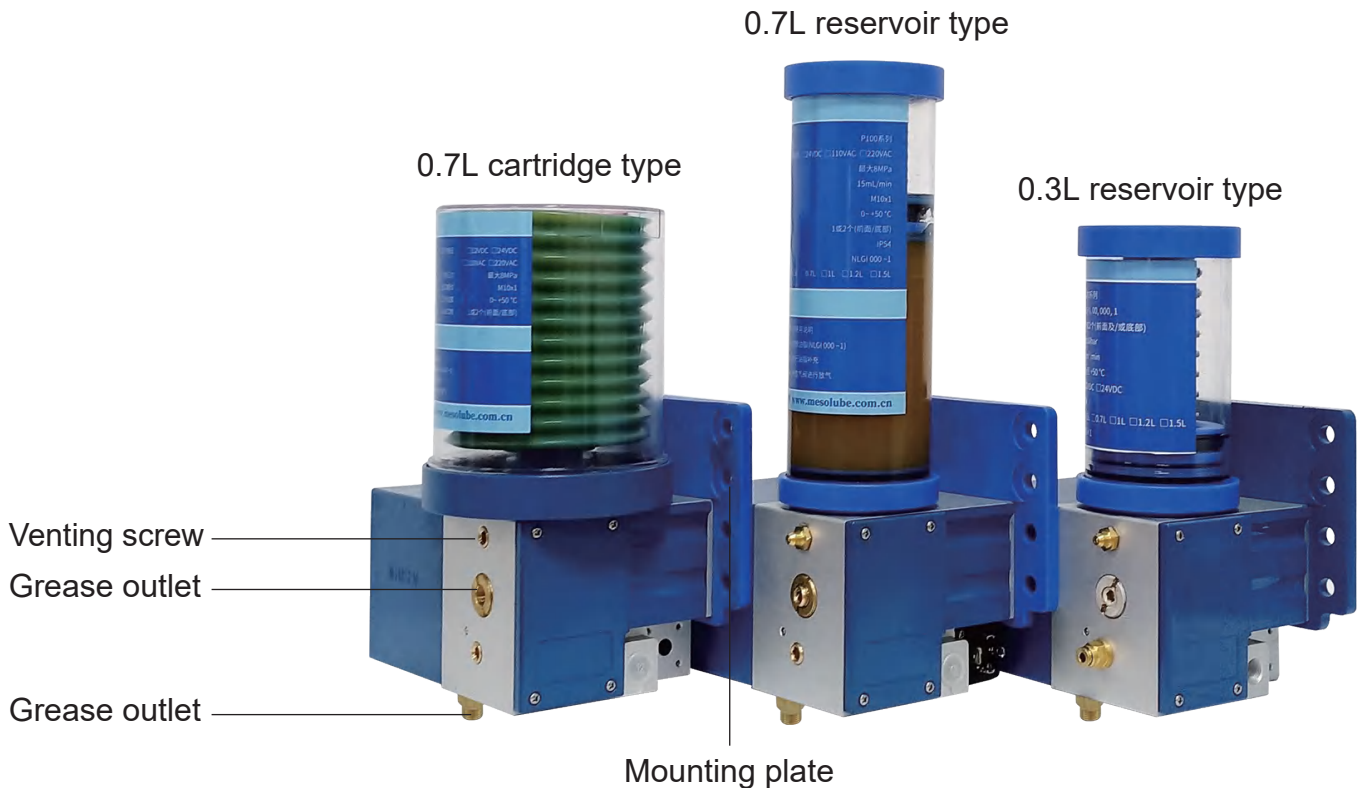
With liquid level switch, it can be filled with various grease NLGI000~2

## Advantages

- 1. Flexible and easy to inject
- 2. With different capacity
- 3. Extend maintenance time
- 4. Exhaust only when the system is started

## Advantages

- 1. Avoid using wrong or contaminated lubricants
- 2. Reduce grease pollution to the environment
- 3. It can simplify inventory management
- 4. Replace the oil package safely and cleanly

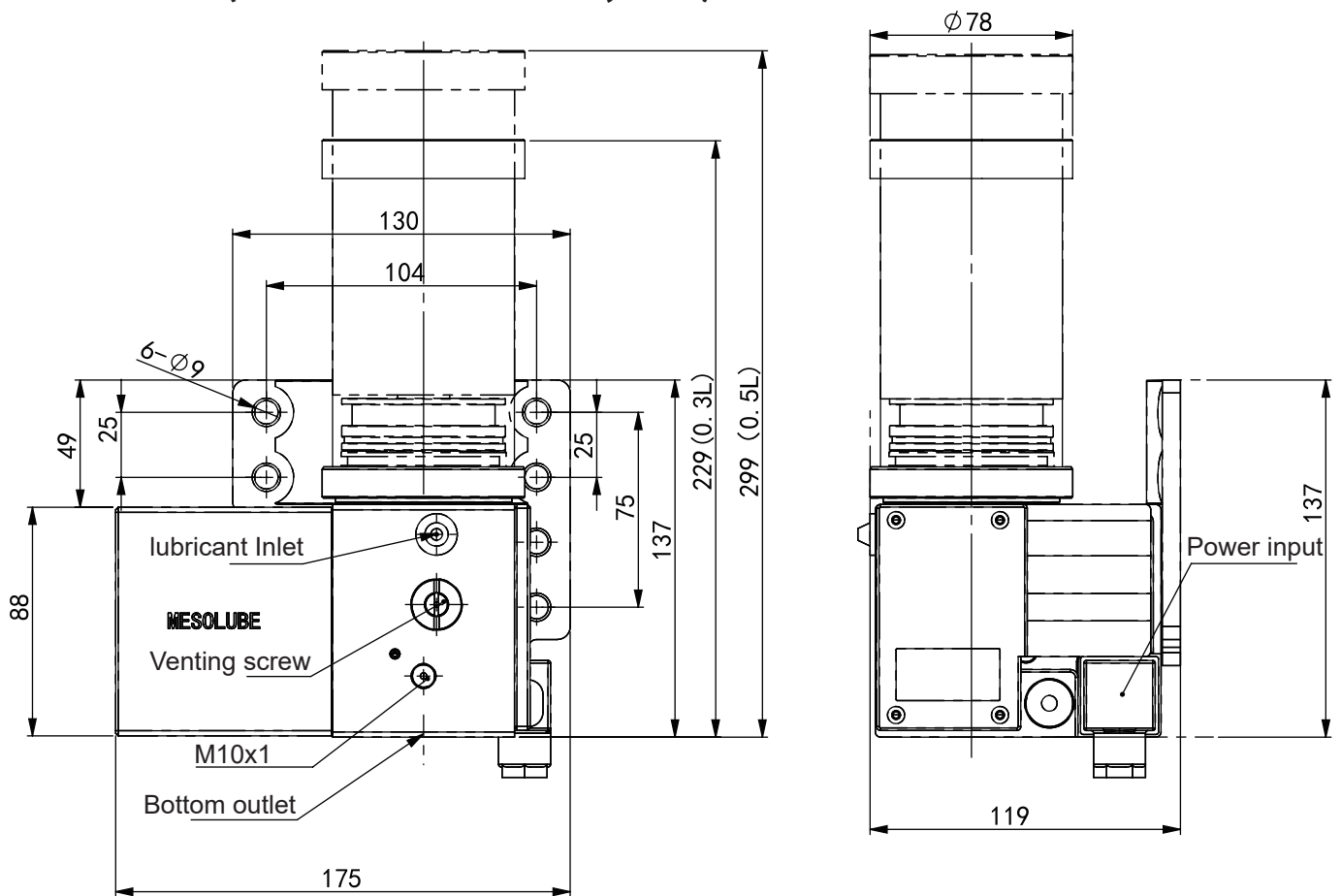


# Technical data

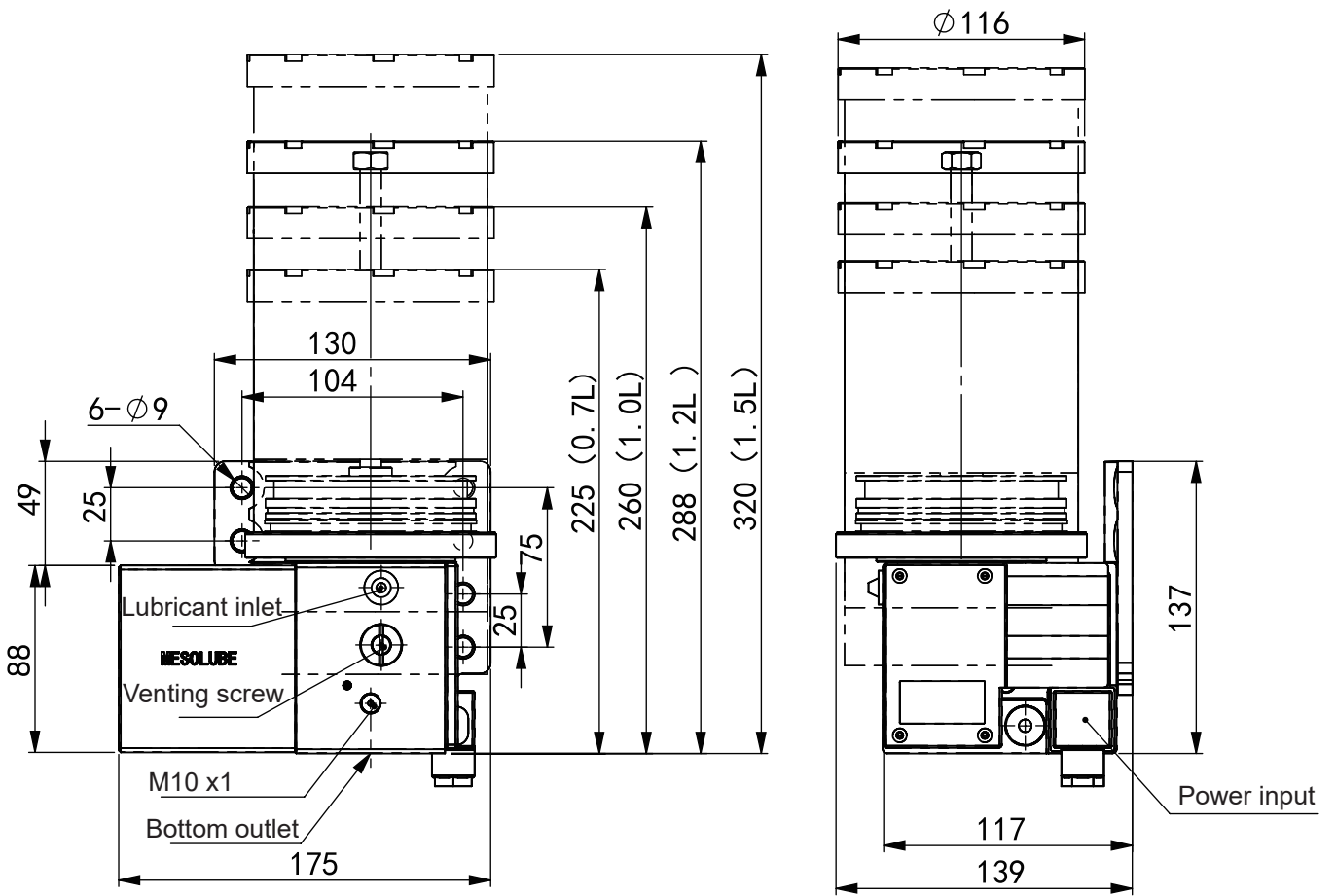
## Specifications

Model	P100 series
Operating pressure	Max 8MPa
Operating temperature	0~+50 °C
Metering quantity	15mL/min
Operating voltage	12VDC, 24VDC
Protection class	IP54
Number of outlet	1or2 (front and/or bottom)
Lubricants	NLGI 000~2 (Working stable lithium soap grease)
Cartridges	0.3L, 0.4L, 0.7L
Reservoirs	0.5L, 0.7L, 1.0L, 1.2L, 1.5L
Mounting position	Upright

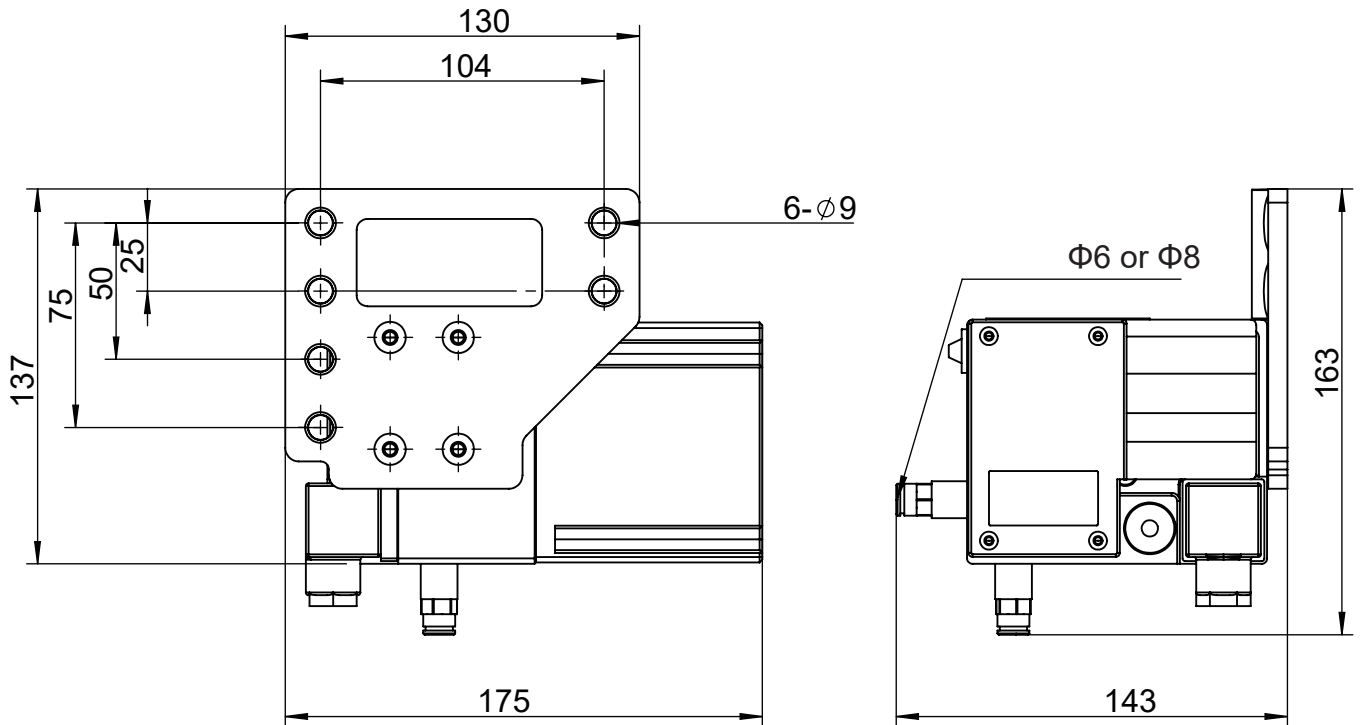
## Dimensions (Reservoir series 0.3L, 0.5L)



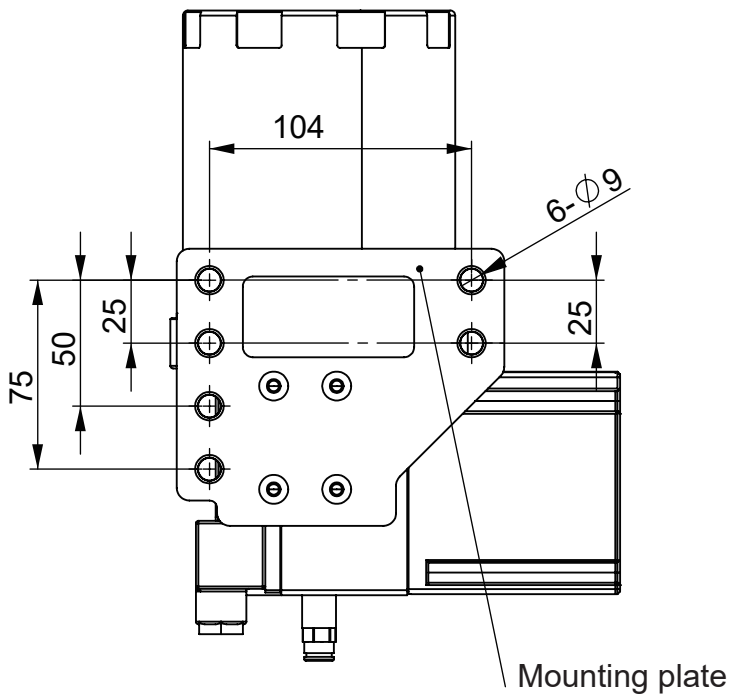
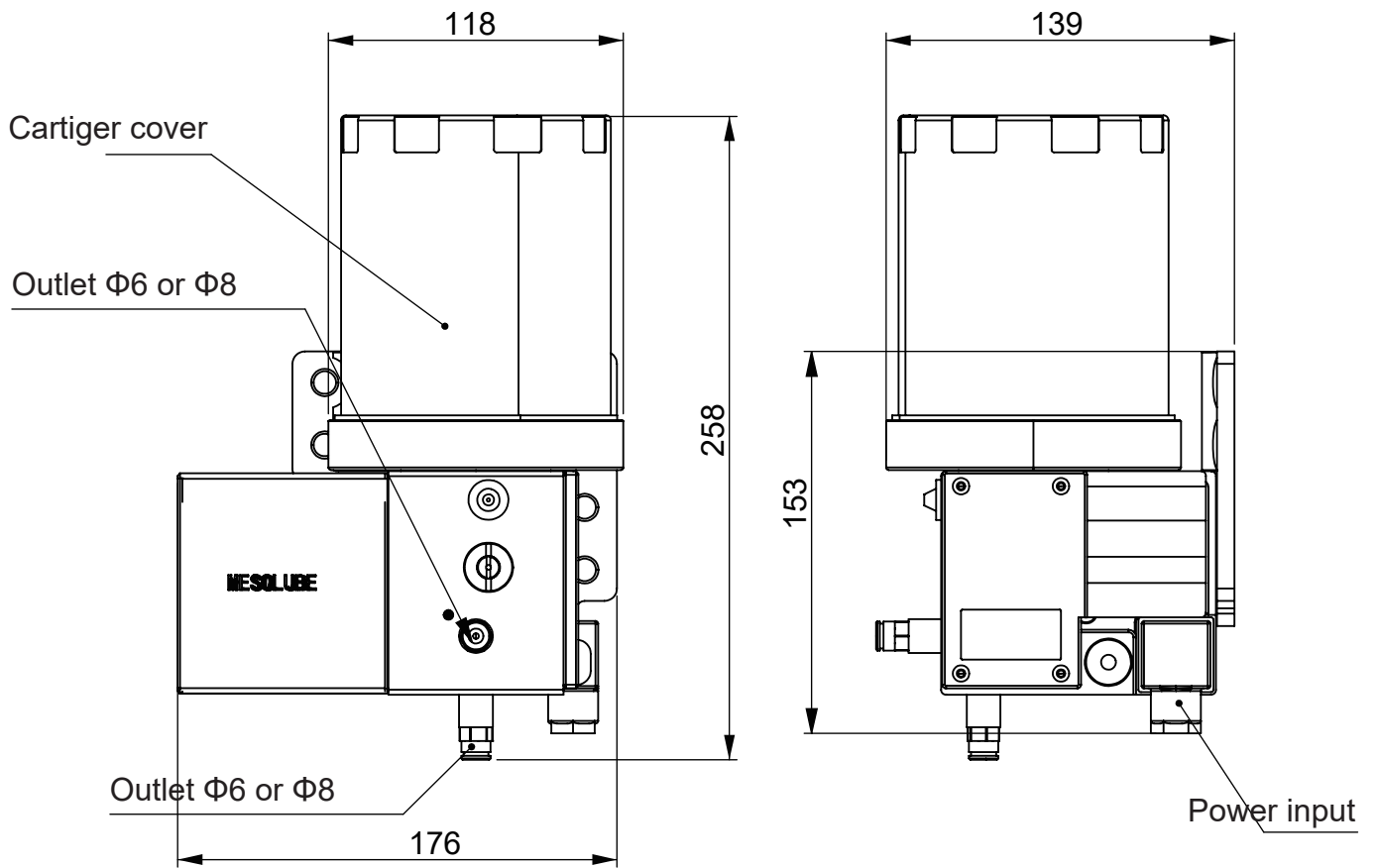
### Dimensions (Reservoir series 0.7L, 1.0L, 1.2L, 1.5L)



### Base Dimension (Reservoir and cartridge version)



## Dimensions (Cartridge series)





## Order code



### Pump type

P100 series electric grease pump

### Reservoir or cartridge size

05 = 0.5L reservoir version

07 = 0.7L reservoir version

10 = 1.0L reservoir version

12 = 1.2L reservoir version

15 = 1.5L reservoir version

07C = 0.7L cartridge version

00C = without cartridge version

### Operating voltage

12 = 12VDC

24 = 24VDC

### Pressure-relief valve

1 = with pressure-relief valve

0 = without pressure-relief valve

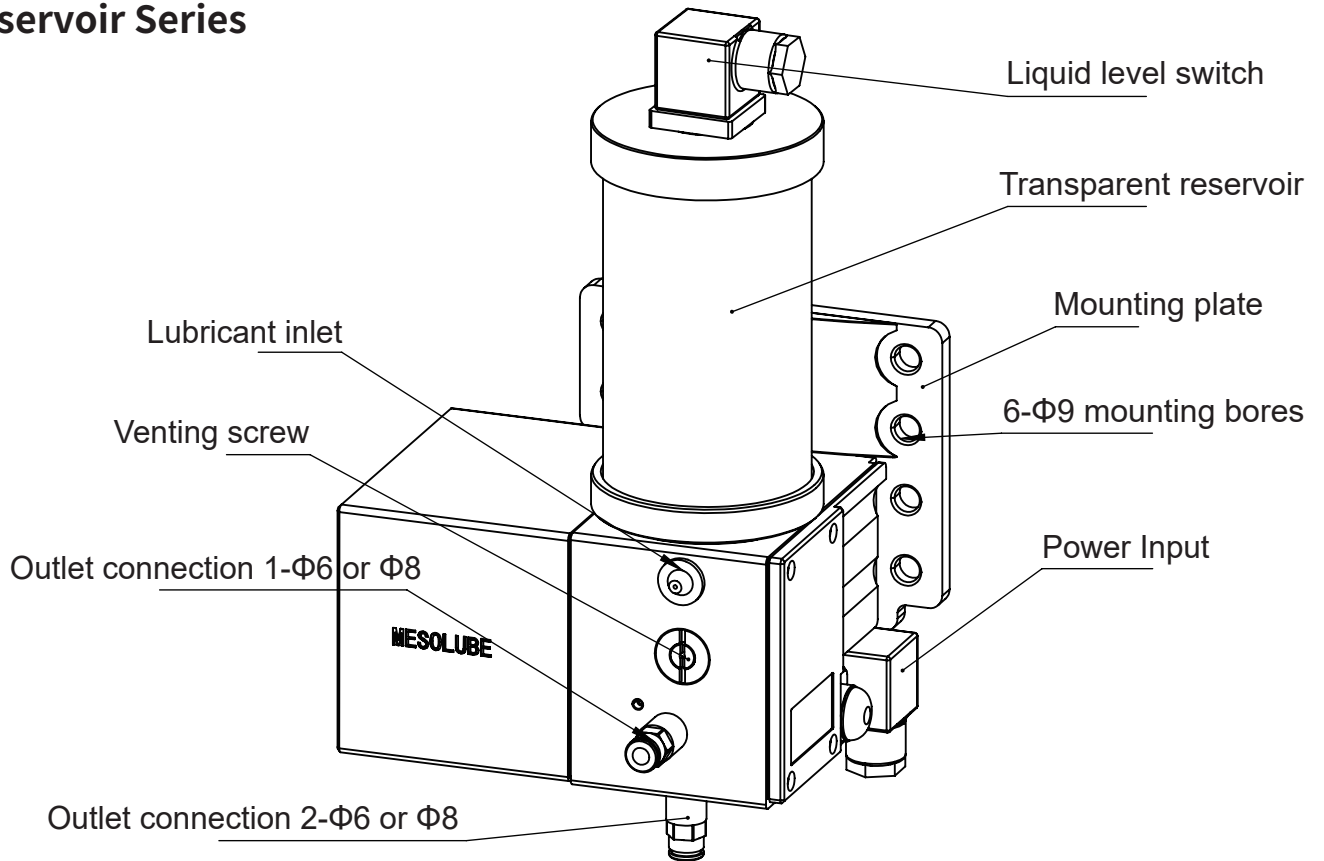
### Operating controller

1 = with controller

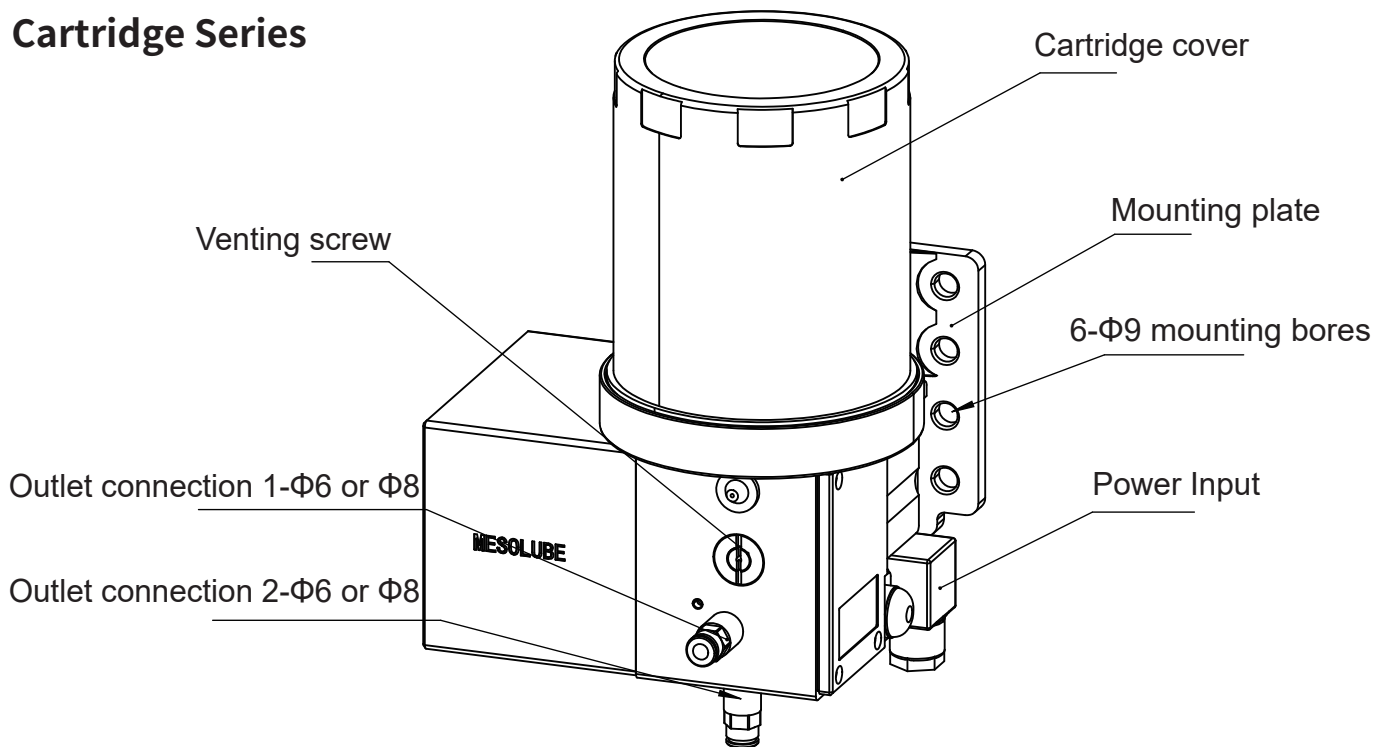
0 = external controller

# Details

## Reservoir Series

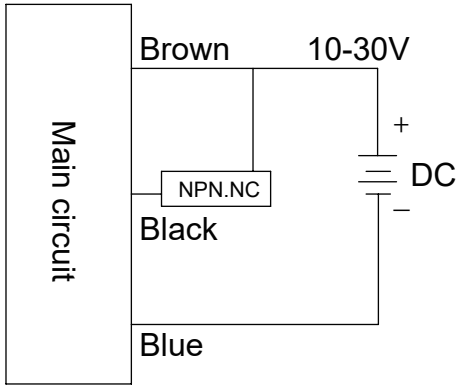


## Cartridge Series

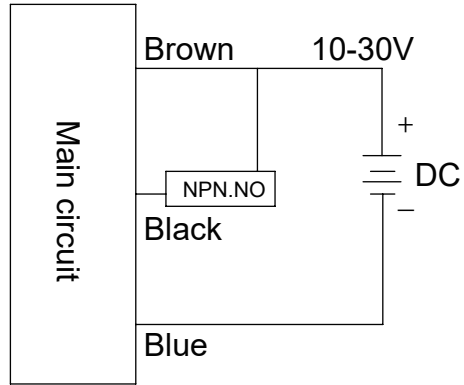


# Liquid level switch (selection instructions)

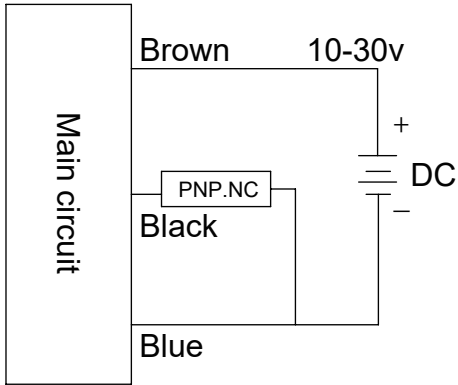
NPN.NC type(three-wire)



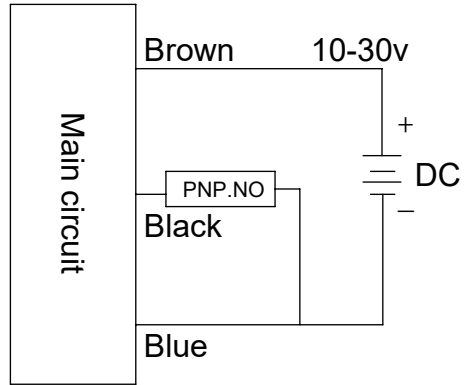
NPN.NO type(three-wire)



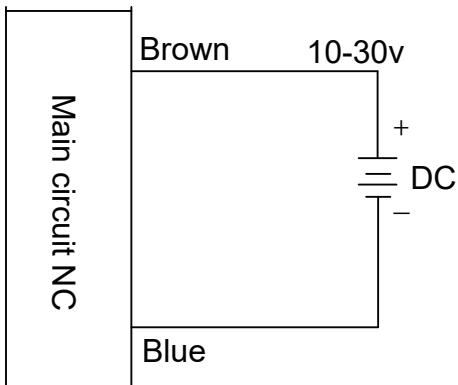
PNP.NC type(three-wire)



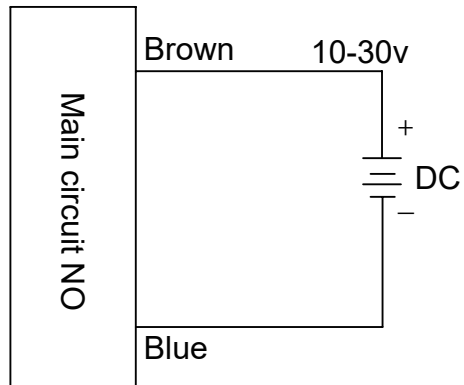
PNP.NO type(three-wire)



NC type(two-wire)



NO type(two-wire)

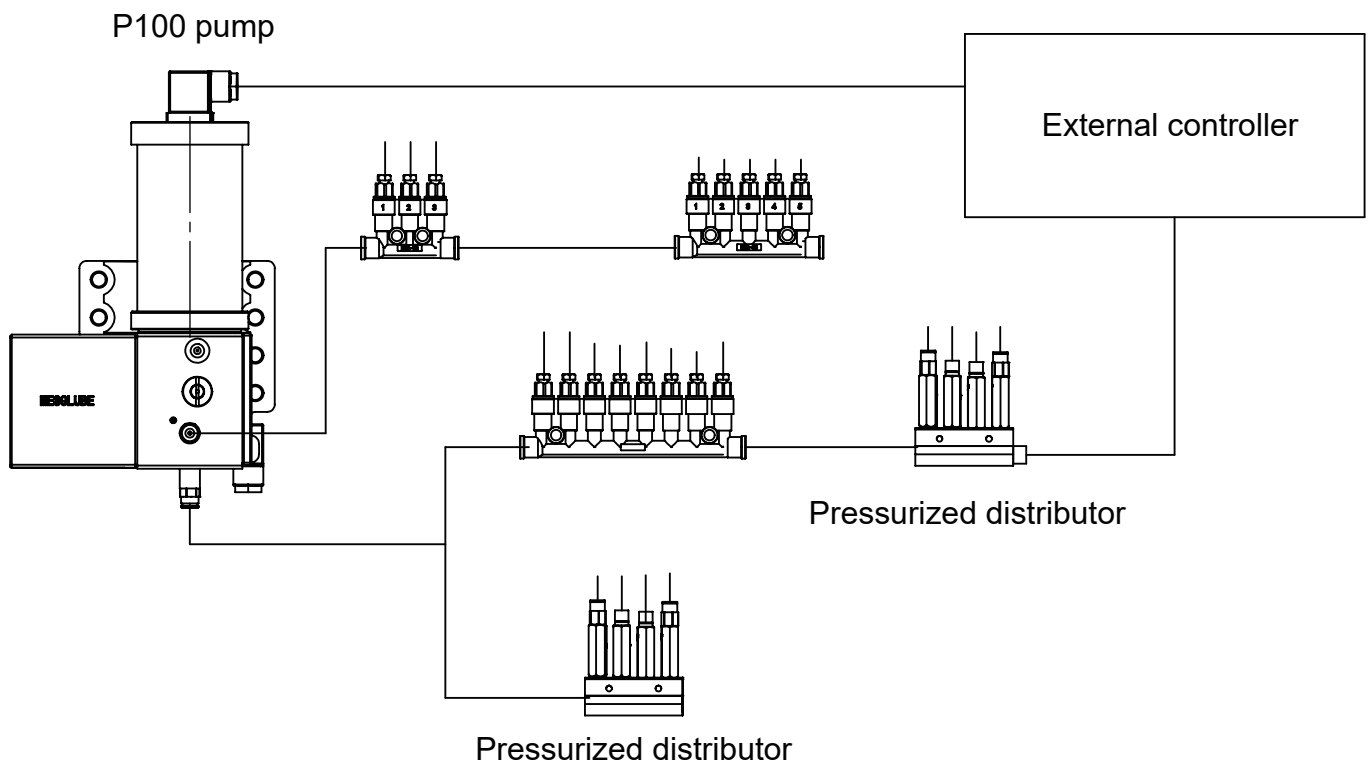


# Lubrication system

## Single-line System Features

- ◆ P100 series can be used in single-line centralized lubrication system. The reciprocating linear movement of the pump driven by the motor delivers the grease to the outlet of the pump, and reaches the lubrication point through the pressurized distributor. When the preset pressure is reached, the motor stops working, and the pressure relief valve also starts to work, releasing the pressure of the system, and one cycle is completed.
- ◆ The pump can be controlled by an external control system (or with its own controller). The control system mainly sets the lubrication frequency, lubrication time and interval time.
- ◆ System pressure is monitored by a pressure switch, which is usually installed in the tube before the last distributor. Pressure switch sends a signal to control unit, which stops the pump.
- ◆ The lubrication system composed of P100 pump and pressurized distributor works within the specified temperature range, the max pressure is 8MPa, the mini lubrication interval is 5 mins, max main line length is 15 meters, and it is suitable for up to 100 lubrication indoors small and medium equipment.

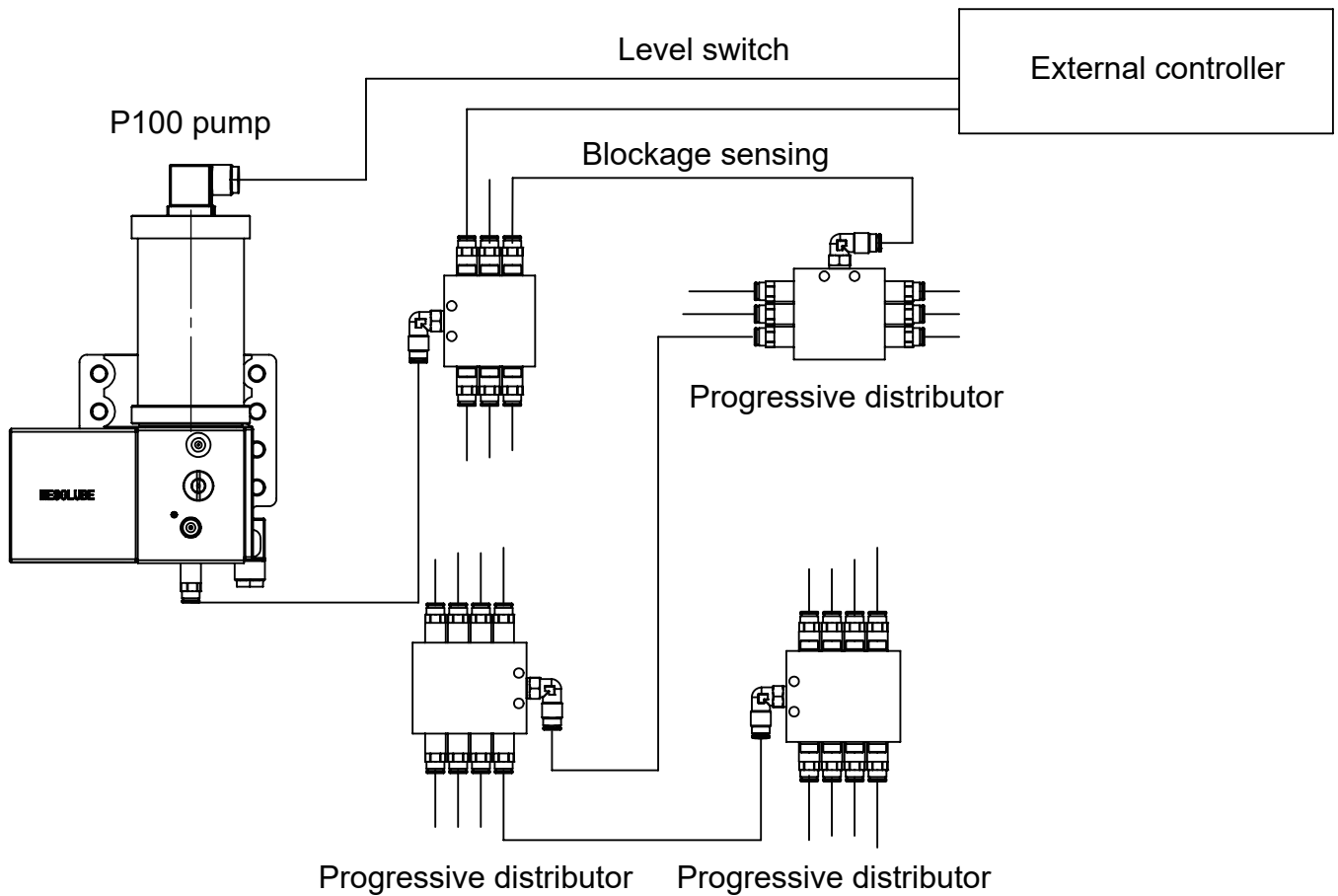
## P100 Single-line System Layout



## Progressive System Features

- ◆ The max length of the lubrication pipeline of the progressive system can reach 14 meters
- ◆ When the system fails and the distributor is blocked, the system will alarm.
- ◆ The lubricant can be distributed to each lubrication point in a predetermined proportion
- ◆ With visual monitoring or electrical monitoring function
- ◆ If the system is blocked, it can be seen from the safety valve that there is grease overflow.

## P100 Progressive System Layout



# Mounting requirements

## Operating environment

Please ensure that the ambient temperature: +0~+50 °C, humidity: 35~85%RH

## Mounting details



- ◆ Don't drop the product to cause injury or property damage.
- ◆ When mounting tubing and related moving parts, please keep a safe distance and follow local regulations to prevent accidents.



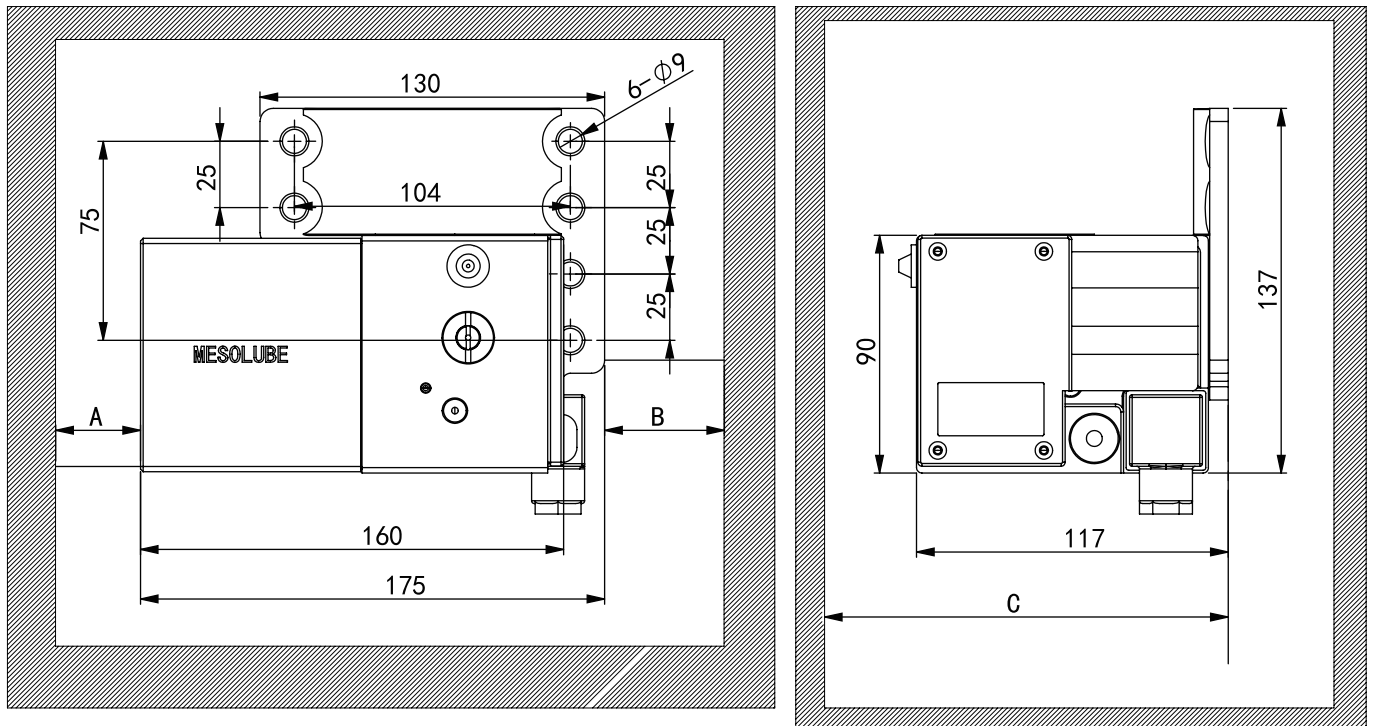
- ◆ Be sure to fix the pump on a vertical and flat surface.
- ◆ Use 6 M8 bolts through  $\Phi 9$  holes to mount and fix the pump.
- ◆ It is recommended to apply anti-vibration glue when the pump is subjected to vibration.
- ◆ Mount the pump in a location away from water, oil, chips and dust.
- ◆ Vibration: 9G (88m/s<sup>2</sup>) or less.
- ◆ On the electrical connection of the pump unit, make sure to take appropriate measures to prevent interference between signals due to inductance, capacitance or electromagnetic coupling. Please use anti-interference cables where electrical interference fields will distort signal transmission.



- Be careful not to drop the main unit.
- Do not pick up the pump by grabbing the cover, because the main unit may detach from the cover and fall.
- Do not step on the pump, otherwise it will cause damage.
- Do not damage the tubing due to assembly work.
- Do not damage the pump unit due to assembly work.
- The mounting position of the P100 series is vertical.
- Do not use protruding parts (such as buttons or pressure gauges) as handles.
- Do not mount the product on the movable part of the equipment.
- Make sure to leave the necessary space around the pump for operation and maintenance.

## Minimum mounting space

To ensure that there is enough space for maintenance work, please ensure the smallest mounting space.



A:250 B:200 C:300

## Lubrication line connection



It is necessary to connect the pump and the lubrication tubing without pressure.



- ◆ Ensure the used tubing, hoses, stop valves, directional control valves, accessories, etc. need to meet the max. working pressure, temperature range and grease level of the pump.
- ◆ Before assembling, must carefully check all the components required by the line, such as tubing, hoses, shut-off valves, directional control valves, accessories, etc.
- ◆ The seals in the tubing system must not protrude inward to avoid disrupting the flow of lubricant.
- ◆ Make sure there are no air pockets after the lubrication line is mounted.
- ◆ In the direction of grease flow, avoid connecting small diameter tubes to large diameter tubes.
- ◆ There must be a smooth transition in the connection transition of tubing with different diameters, and the connection should avoid sudden changes in direction.

# Refilling

## Filling cartridge

Please make sure that under this condition: +0~+50°C, humidity: 35~85%RH

Molde	Orde code	filling method
P100 series	P100-07C1211	Disposable oil package

## Precautions



The standard LHL package is recommended. If the cartridge is removed before the grease is used up, air will enter and cause failure, so please make sure that the grease in the cartridge is completely used up before replacing.



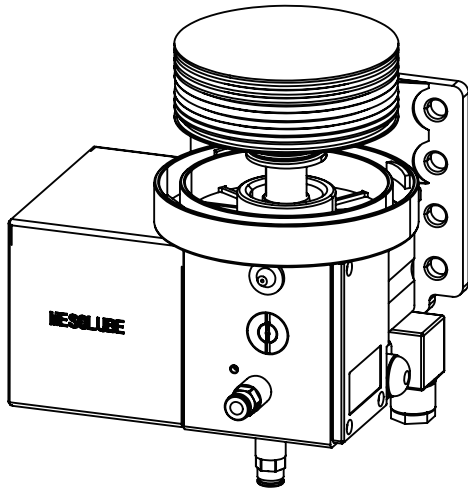
- ◆ Don't turn on the power with the empty cartridge taken out, otherwise the pump will suck in air or foreign matter and cause its malfunction.
- ◆ When replacing the cartridge, do not wipe around the inlet of the pump with a dirty cloth, as this will cause the pump to suck in foreign matter and cause its failure.
- ◆ Only standard LHL cartridge is supported. Using other grease may cause system failure and damage important parts of the equipment.
- ◆ Do not inject grease into an empty cartridge and reuse it, as this may cause the cartridge to rupture or cause the pump to malfunction due to the entry of air or foreign objects.

## Replacement procedure

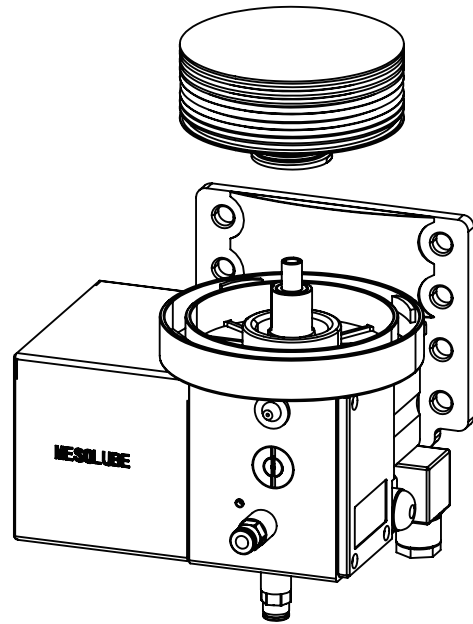
If the grease level switch works, or the cartridge will shrink when the amount of LHL is used up, please replace cartridge according to the following steps.



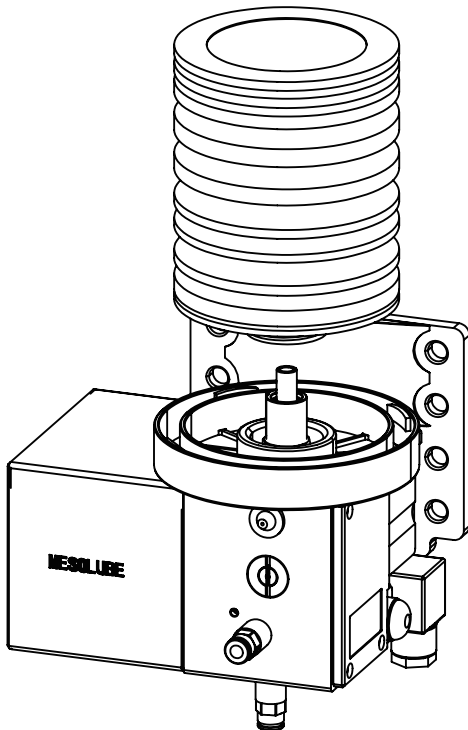
(1) Rotate the transparent cover counterclockwise to remove it from the pump.



(2) Turn the empty cartridge counterclockwise and remove it

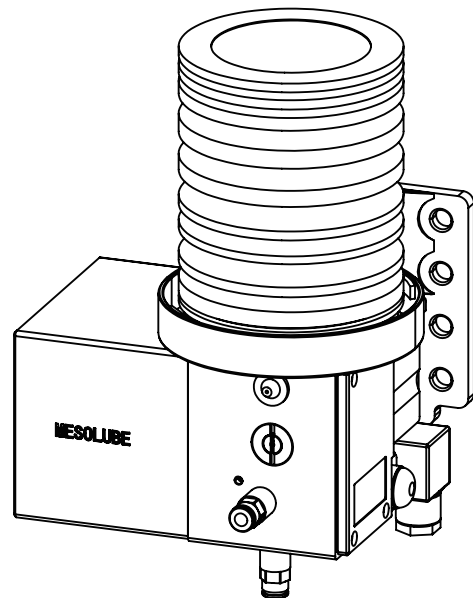


(3) When mounting a new cartridge, tighten the threads on the cartridge and adapter clockwise



Stop when the cartridge is tightened, otherwise the thread will be damaged.

(4) Mount the thick sister of the cartridge and turn the cover clockwise to tighten



When mounting cartridge, avoid the entry of air or foreign objects

# Troubleshoot

## Precautions

Only original MESOLUBE spare parts can be used. It is prohibited to modify the product without authorization and use non-original spare parts and accessories.

The lubrication system is under pressure during operation. Therefore, before starting assembly, maintenance or repair work or any system modification or system repair, the lubrication system must be decompressed.

## Troubleshooting

Fault	Cause	Troubleshoot
Motor fails to start when the operating voltage is applied	<ul style="list-style-type: none"> <li>◆ No working voltage of motor</li> </ul>	<ul style="list-style-type: none"> <li>◆ Check the power connection</li> <li>◆ Check the correct connection of the power plug/cable</li> <li>◆ Check operating voltage on motor</li> </ul>
No pressure build-up or release	<ul style="list-style-type: none"> <li>◆ There is not enough grease inside the pump</li> </ul>	<ul style="list-style-type: none"> <li>◆ Cartridge/reservoir empty</li> <li>◆ If motor resistance is high, replace the pump</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Unsuitable grease is used</li> </ul>	<ul style="list-style-type: none"> <li>◆ Remove lubricant from system and dispose of lubricant in the proper manner</li> </ul>
	<ul style="list-style-type: none"> <li>◆ The pressure is too low or too high, the pressure regulating valve is defective</li> </ul>	<ul style="list-style-type: none"> <li>◆ Replace the pressure regulator</li> </ul>
	<ul style="list-style-type: none"> <li>◆ The ambient temperature is too low</li> </ul>	<ul style="list-style-type: none"> <li>◆ Increase ambient temperature</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Air in the main line</li> <li>◆ Main line leaky/broken</li> </ul>	<ul style="list-style-type: none"> <li>◆ Vent main line</li> <li>◆ Repair main line</li> </ul>

# Warranty

## Warranty period

The warranty period of this product is one year from the date the product is delivered to the customer's designated address.

## Warranty scope

(1) If the product fails to operate within the warranty period, we will replace it free of charge, but it does not apply to the following situations:

- ① Failure caused by improper conditions, environmental pollution, or uses not described in the instruction manual, quick manual, or separately agreed specifications.
- ② Failure caused by customer equipment, software or any other products not manufactured by our company.
- ③ Failure caused by modification or repair not performed by us.
- ④ If the consumable parts specified in the manual or quick manual are properly maintained or replaced, the failure should be avoided.
- ⑤ Failure caused by technically unpredictable problems when delivering this product.
- ⑥ Failures caused by disasters such as fires or floods, or any other external causes that are not attributable to us, such as unstable voltage.

(2) This warranty covers the limited scope of the matters mentioned in section (1) above, and does not include secondary damages (equipment damage, loss of opportunity or loss of income) caused by our products to customers, nor any other types Damage.

## Applications

Our products are designed and manufactured as general-purpose products for general industrial use. Not suitable for the applications described below.

- ① Equipment that has a potentially significant impact on human life and property, such as nuclear generators, airplanes, railway equipment, marine vessels, and medical equipment.
- ② Public facilities such as electricity, gas and clean water supply.
- ③ Use outdoors or under similar environmental conditions.

However, if the customer consults us in advance, confirms the product specifications, agrees to the technical requirements, and takes the required safety measures, this warranty can be used. In this case, the warranty coverage is the same as above.

# P200 Cartridge Electric Pump



Grease



8MPa

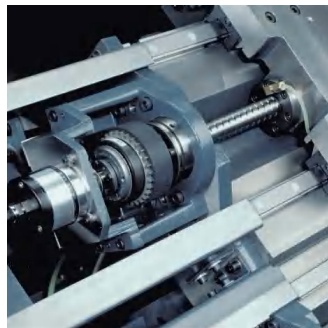


+0~50°C



Small medium equipment

## MESOLUBE



# Instructions

## P200

P200 series are equipped with lubrication metering devices to accurately lubricate equipment at multiple points. This product is small in size, light in weight, wide range of applications.

## Precautions

In this manual, the use of the following markings provides safety precautions to prevent accidents that may cause injury to the human body. Before operating the pump, be sure to read these safety precautions carefully to fully understand the contents.



Indicates a potentially hazardous situation that, if ignored, could result in death or serious injury.



Indicates information that should be paid special attention to when operating the pump. If ignored, the pump or the machine may be damaged.



Indicates a potentially dangerous situation that, if ignored, may cause minor or moderate injury.



Indicate reference information or points that can help you deal with the pump.



Indicates a reference clause.

## About the manual

All illustrations and specifications in this manual are subject to change without notice. When reselling, renting or lending the pump to a third party, be sure to include the relevant manual of the pump and any other documents accompanying the pump.

# Precautions

## Safety Precautions



1. Before handling the pump, please read this manual carefully and understand its contents.
2. Keep this manual in a designated place for easy access at any time.
3. Only technicians with relevant installation knowledge can

## Label type

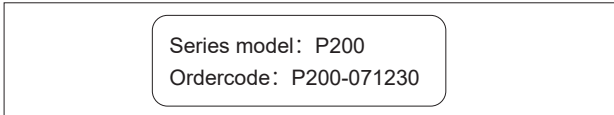


The label is attached to the pump. If any label is damaged or becomes illegible, please contact us immediately. Strictly follow the instructions on the label on the pump.

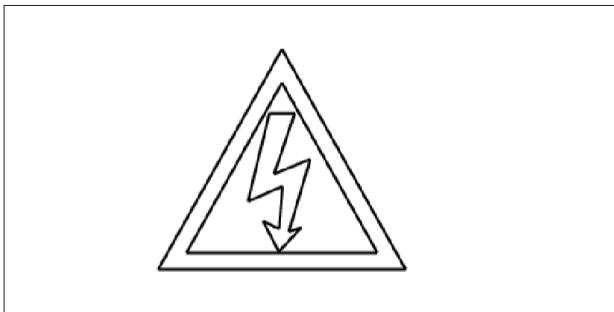
### Trademark label



### Serial number label



### Electricity warning sign

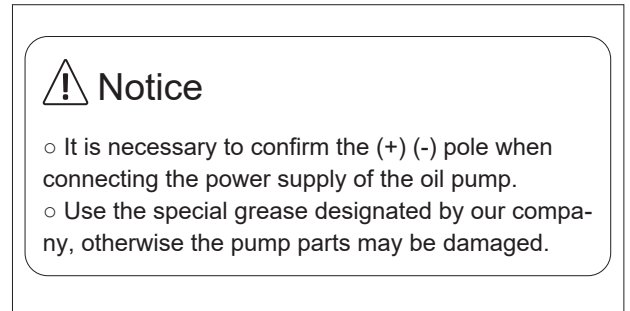


### Specification label

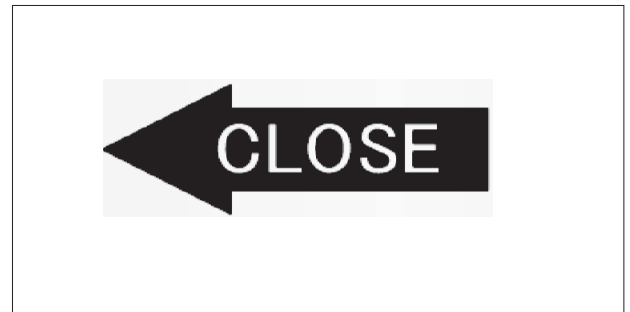
Technical Data			
Mode	P200	Voltage	□12VDC □24VDC
Outlets	1	Pressure	□3MPa □5MPa
Lubricant	NLGI 000~1	Reservoir	□0.3L □0.4L □0.7L
Protection	IP54	Operating temperature	0~+50 °C
Outlet thread	Rc1/8	Metering quantity	7mL/min

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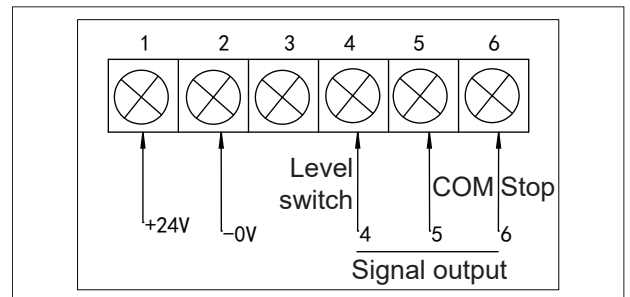
### Warning label



### Direction label



### Terminal wiring label



# Technical data

## Specifications

Item	Specifications
Voltage	12VDC, 24VDC $\pm$ 10%
Total power capacity	1.2A
Motor Rated voltage	24VDC $\pm$ 10%
Motor No-load current	0.5A
Motor Rated current	3.0A or lower <sup>※1</sup>
Pump Metering quantity	7mL/min
Pump Max pressure	3MPa or 5MPa <sup>※2</sup>
Pump Cartridge	Designated
Abnormal output ※1 Contact rating	125VAC, 0.5A 24VDC, 1.0A
(Level switch)※4 Contact type	N.C.
Pump Contact rating	125VAC, 0.5A 24VDC, 1.0A
Stop signal ※3 Contact type	N.C.
Protection class	IP54
Certification	CE

※1. When the voltage of the pump power supply is unstable, it is recommended to install a voltage stabilizer to prevent the unstable voltage from damaging the pump.

※2. This may fluctuate due to factors such as tube material and length, ambient temperature.

※3. This signal is only output when the pump is energized.

※4. The specifications of the external pressure switch can be customized.

## Order Code

P200 -

### Pump type

P200 series electric grease pump

### Capacity size

- 03C = 0.3L with cartridge
- 05C = 0.5L with cartridge
- 07C = 0.7L with cartridge
- 03 = 0.3L without cartridge
- 05 = 0.5L without cartridge
- 07 = 0.7L without cartridge

### Operating voltage

24 = 24VDC

### Operating pressure

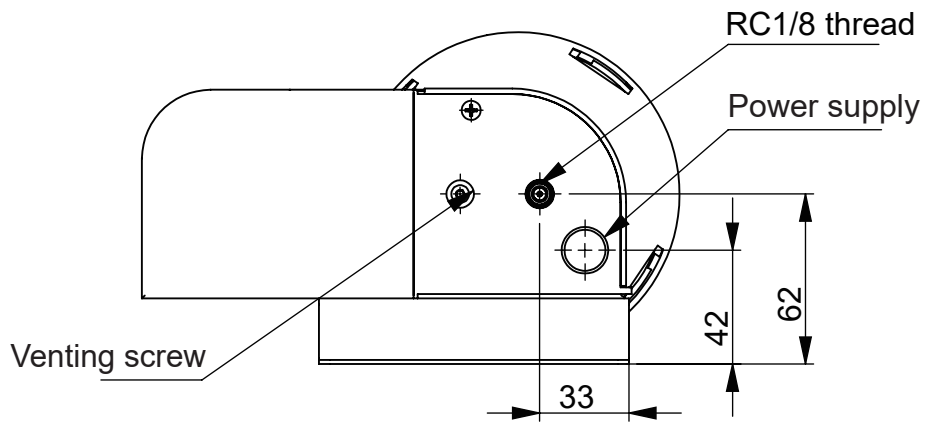
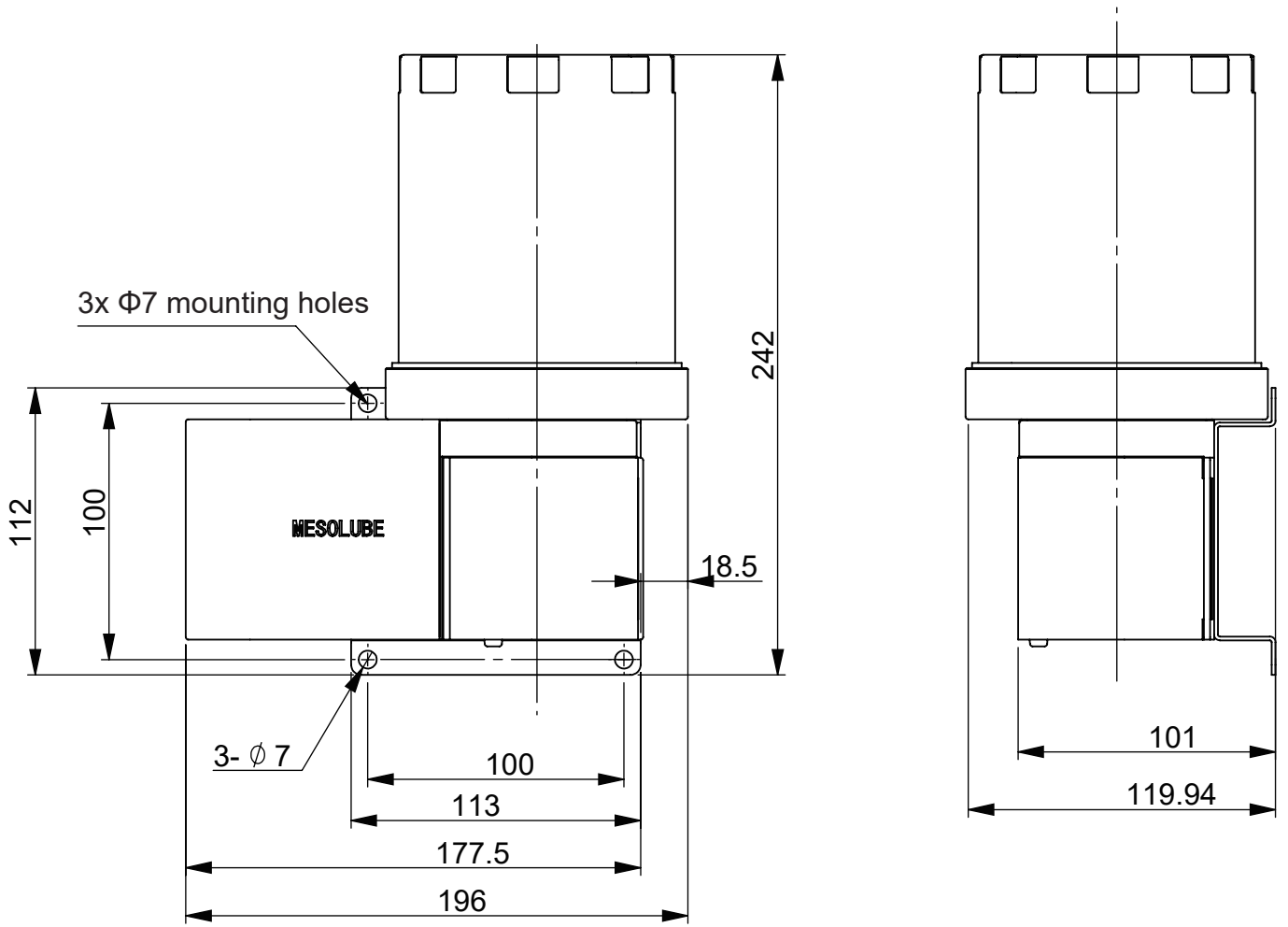
- 3 = 3MPa
- 5 = 5MPa

### Pressure-relief

- 1 = with pressure-relief
- 0 = without pressure-relief



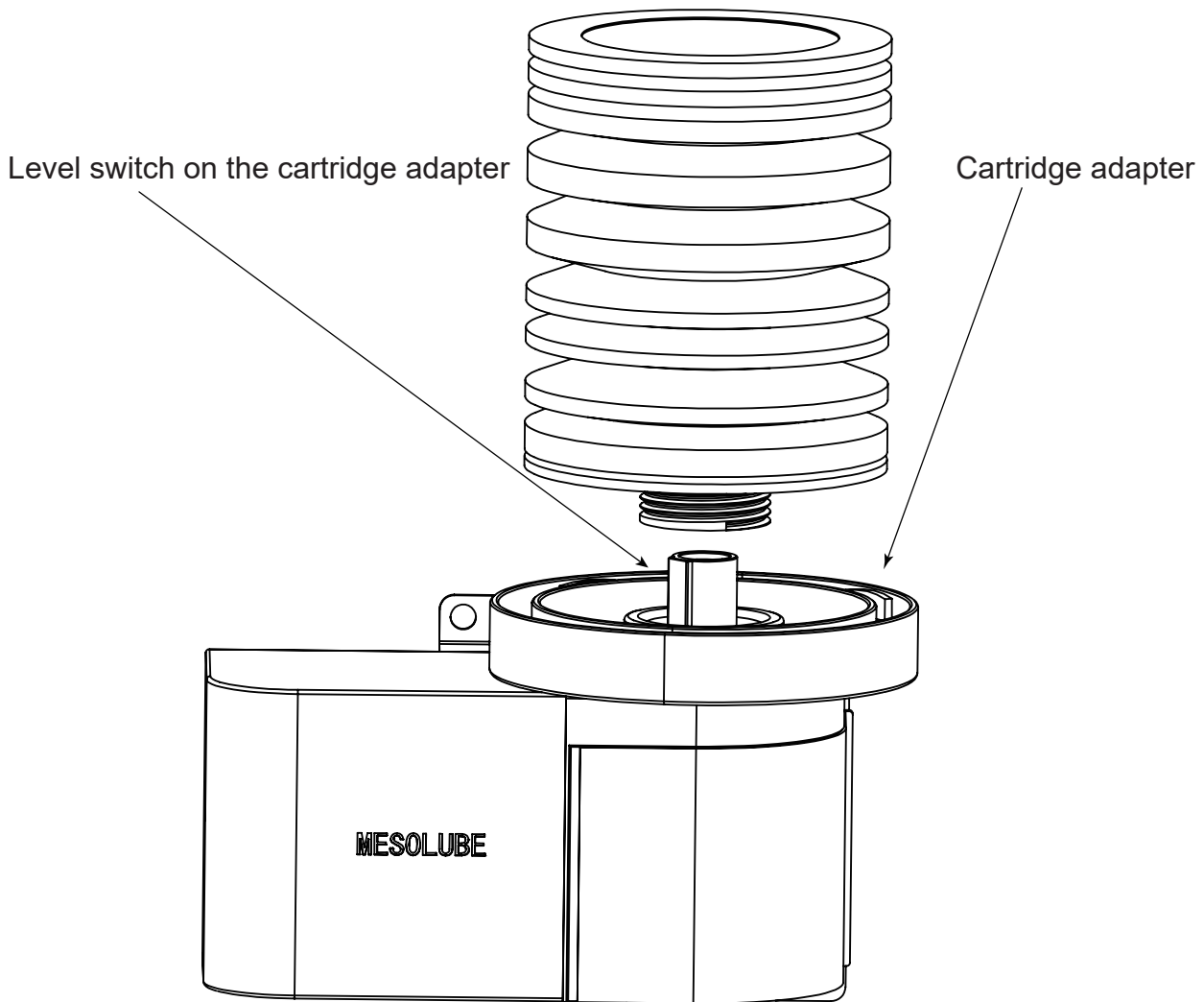
# Dimensions



# Level switch



The level switch is in the cartridge adapter. When the level switch is working, the pump will stop working before the cartridge runs out of grease to prevent air from entering. For this product, when the level switch is working, the work light flashes. The level switch only outputs a signal when the pump power is on. Since the pump stops when the liquid level switch is working, the pressure switch may not work, so it will output a normal pressure value.



# Mounting requirements

## Operating environment

Please ensure that the ambient temperature: +0~+50℃, humidity: 35~85%RH

## Mounting details



- ◆ Don't drop the product to cause injury or property damage.
- ◆ When mounting tubing and related moving parts, please keep a safe distance and follow local regulations to prevent accidents.

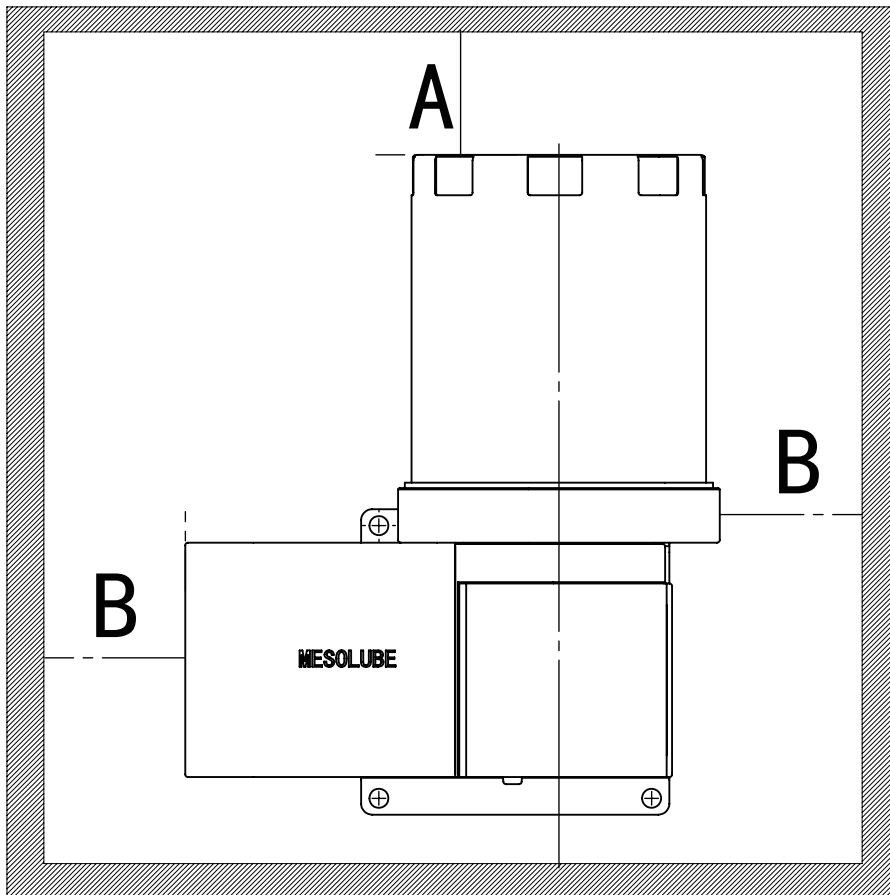


- ◆ Be sure to fix the pump on a vertical and flat surface so that it can fully bear the weight of the pump.
- ◆ Mount and fix the pump with three M6 bolts through the 7mm hole.
- ◆ It is recommended to apply anti-vibration glue when the pump is subjected to vibration.
- ◆ Install the pump in a location isolated from water, oil, chips and dust.
- ◆ Vibration: 9G (88m/s<sup>2</sup>) or less.



- ◆ Be careful not to drop the main unit.
- ◆ Do not pick up the pump by holding the cartridge cover, because the main unit may detach from the cover and fall.
- ◆ Do not put your feet on the main unit, otherwise it will cause damage.
- ◆ Make sure to leave the necessary space around the pump for operation and maintenance.

The weight of the pump and the necessary space (700mL)



Model	Order code	Required space(mm)	Weight (kg)
P200	P200-072431	A: 250, B: 200	1.6

### Lubrication line connection



Connect tube to the pump outlet (Rc1/8), use 5 MPa or higher tube, fix the connector, and then tighten it with a wrench 2.5 to 3 turns.



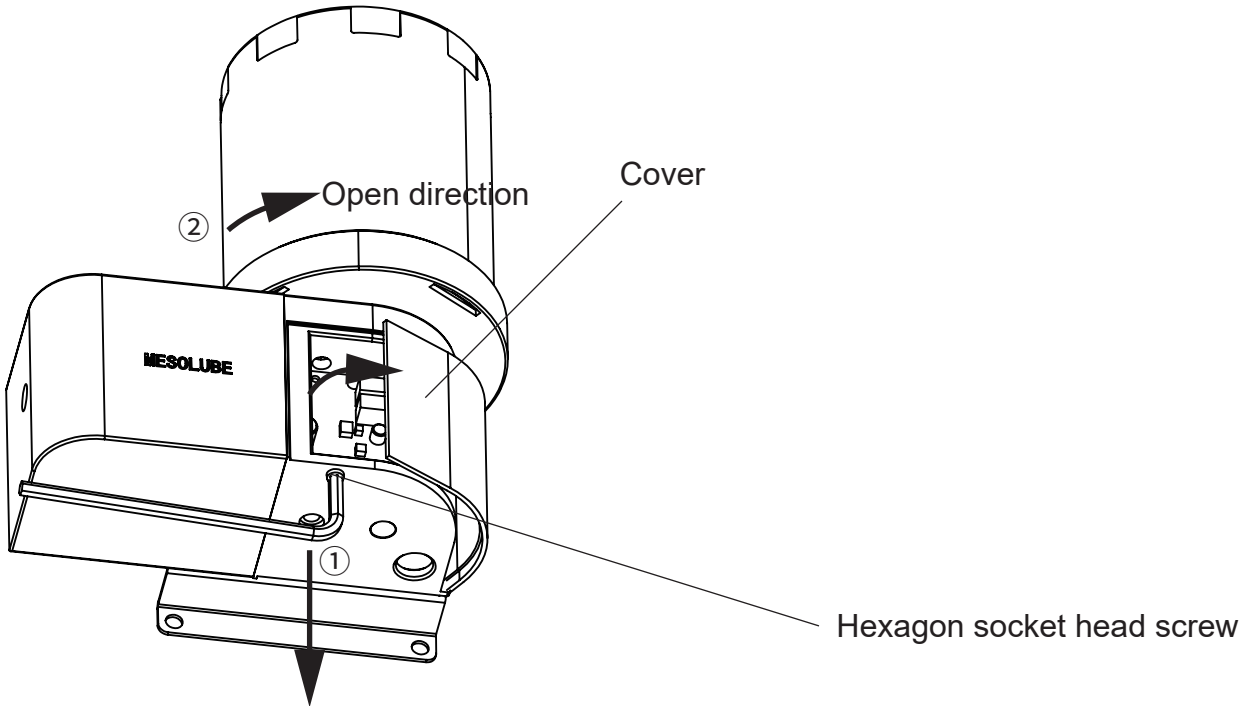
Tightening torque: 10N.m. After connecting, make sure that there is no leakage at the connector of cartridge. For P200, make sure to exhaust air from the tube and pump after connection.



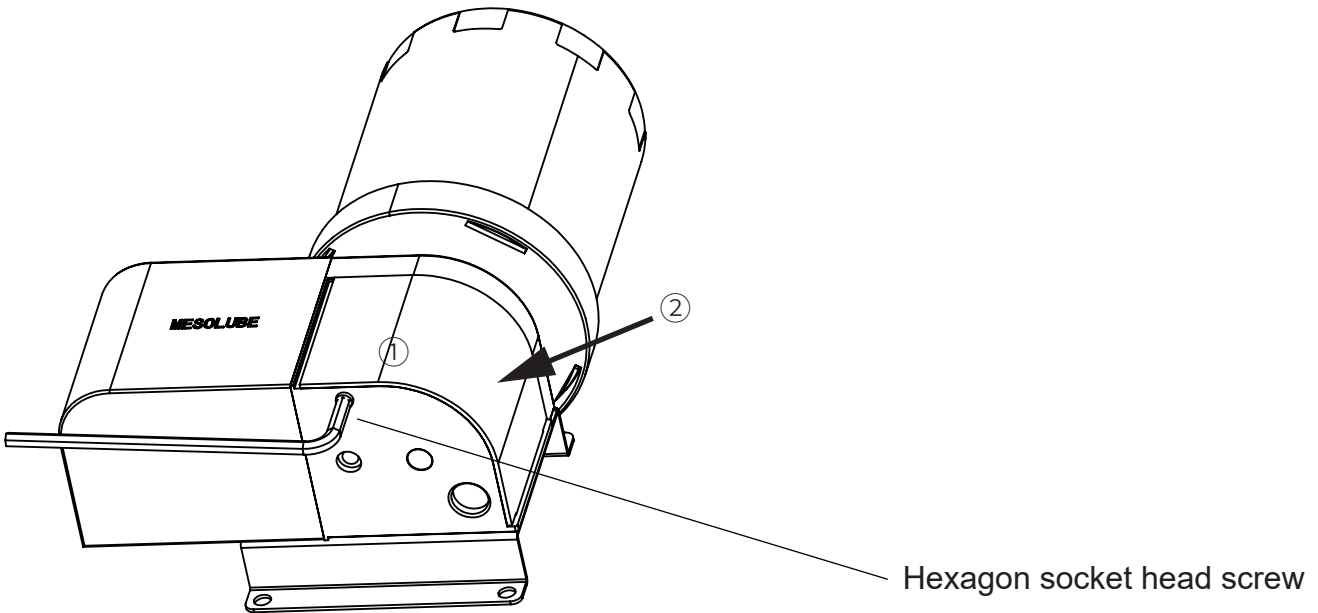
If the main tube is short, the pressure may reach 8 Mpa or higher, but there is no problem during use.

## Disassembly and wiring

When removing the cover. ① Remove the hexagon socket head screw at the bottom of the main body. ② Push the cover down in the direction shown below.



When mounting the cover. ① Part of the cover is hung on the main body. ② Press down in the direction shown in the figure below, and fix the hexagon socket head screw with bolts.



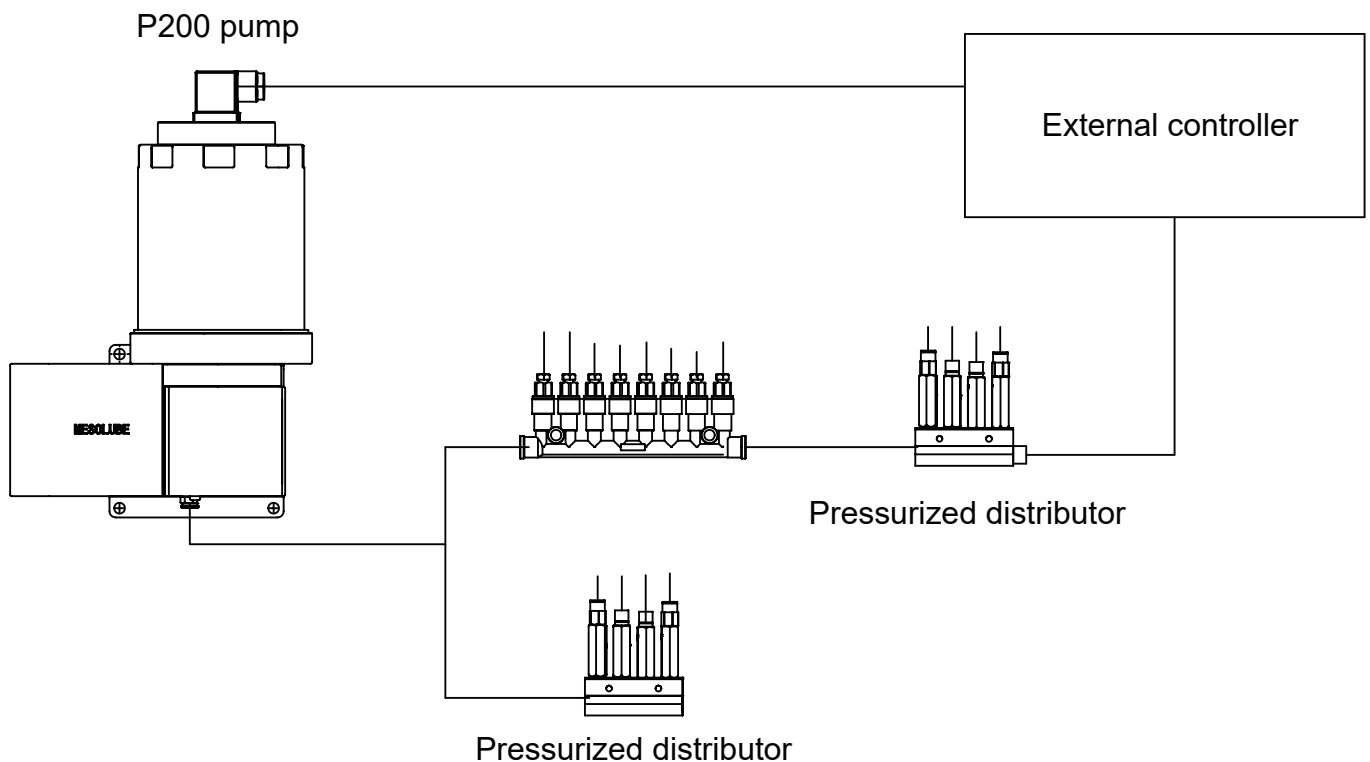
When the pump is operating, please do not remove the cover and motor cover. It may cause personal injury and damage to the circuit base.

# Lubrication system

## Single-line System Features

- ◆ P200 series can be used in single-line centralized lubrication system. The reciprocating linear movement of the pump driven by the motor delivers the grease to the outlet of the pump, and reaches the lubrication point through the pressurized distributor. When the preset pressure is reached, the motor stops working, and the pressure relief valve also starts to work, releasing the pressure of the system, and one cycle is completed.
- ◆ The pump can be controlled by an external control system (or with its own controller). The control system mainly sets the lubrication frequency, lubrication time and interval time.
- ◆ System pressure is monitored by a pressure switch, which is usually installed in the tube before the last distributor. Pressure switch sends a signal to control unit, which stops the pump.
- ◆ The lubrication system composed of P100 pump and pressurized distributor works within the specified temperature range, the max pressure is 8MPa, the mini lubrication interval is 5 mins, max main line length is 15 meters, and it is suitable for up to 100 lubrication indoors small and medium equipment.

## P200 Single-line System Layout



# Refilling

## Filling method

Please make sure that under this condition: +0~+50°C, humidity: 35~85%RH

Model	Order code	Filling method
P200 series	P200-071231	Designated disposable cartridge

## Precautions



If the oil bag is removed when the grease is not used up, air will enter the oil bag and cause malfunction, so before replacing the oil bag, make sure that the oil bag is completely used up.

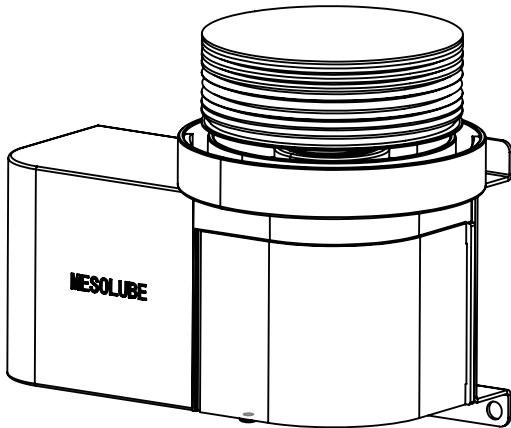


- ◆ Make sure that the grease is completely consumed before changing the cartridge.
- ◆ Do not turn on the power without cartridge, otherwise the pump will suck in air or foreign matter and cause its failure.
- ◆ When replacing the cartridge, do not wipe around the inlet of the pump with a dirty cloth. This will cause the pump to suck in foreign matter and cause its failure.
- ◆ Only standard LHL oil bag is supported. Using other grease may cause system failure and damage important parts of the equipment.
  - Do not inject grease into an empty cartridge and reuse it, as this may cause the cartridge to rupture or cause the pump to malfunction due to the entry of air or foreign objects.

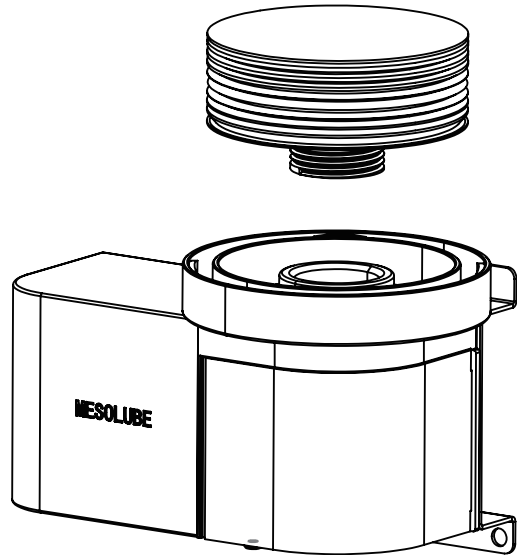
## Replacement steps

If the grease level switch works, or the cartridge shrinks when the grease runs out, follow the steps below to replace cartridge.

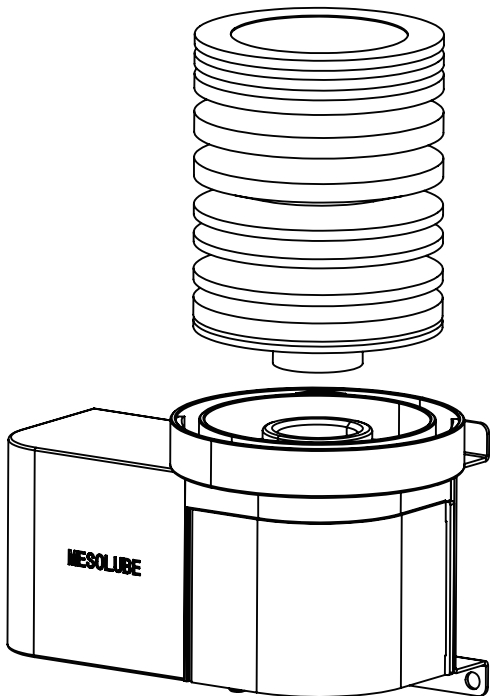
(1) Rotate the transparent cover counterclockwise to remove it from the pump



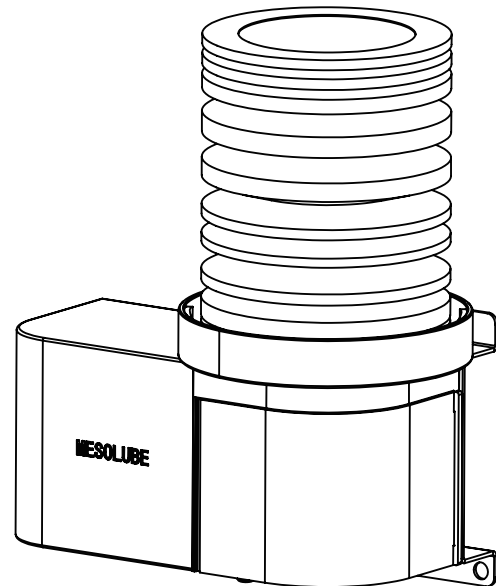
(2) Turn the empty cartridge counterclockwise and remove it



(3) When mounting a new cartridge, tighten the threads on cartridge and the adapter clockwise



(4) After mounting the cartridge, put the cover back and turn it clockwise to tighten



When cartridge is tightened, stop, otherwise the thread will be damaged



When mounting, avoid air or foreign objects from entering



# Warranty

## Warranty period

The warranty period of this product is one year from the date the product is delivered to the customer's designated address.

## Warranty scope

(1) If the product fails to operate within the warranty period, we will replace it free of charge, but it does not apply to the following situations:

- ① Failure caused by improper conditions, environmental pollution, or uses not described in the instruction manual, quick manual, or separately agreed specifications.
- ② Failure caused by customer equipment, software or any other products not manufactured by our company.
- ③ Failure caused by modification or repair not performed by us.
- ④ If the consumable parts specified in the manual or quick manual are properly maintained or replaced, the failure should be avoided.
- ⑤ Failure caused by technically unpredictable problems when delivering this product.
- ⑥ Failures caused by disasters such as fires or floods, or any other external causes that are not attributable to us, such as unstable voltage.

(2) This warranty covers the limited scope of the matters mentioned in section (1) above, and does not include secondary damages (equipment damage, loss of opportunity or loss of income) caused by our products to customers, nor any other types Damage.

## Applications

Our products are designed and manufactured as general-purpose products for general industrial use. Not suitable for the applications described below.

- ① Equipment that has a potentially significant impact on human life and property, such as nuclear generators, airplanes, railway equipment, marine vessels, and medical equipment.
- ② Public facilities such as electricity, gas and clean water supply.
- ③ Use outdoors or under similar environmental conditions.

However, if the customer consults us in advance, confirms the product specifications, agrees to the technical requirements, and takes the required safety measures, this warranty can be used. In this case, the warranty coverage is the same as above.

# D200 Grease Metering Device



Grease



2.5MPa



Pressure-relief



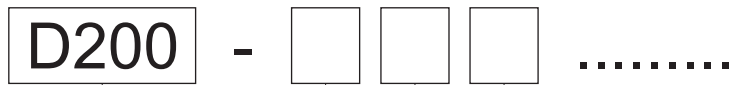
NLGI 000~2



## Feature

The metering device is reliable and stable, with multiple metering quantities, push-in and screw-type connections, it can be connected to the lubrication tubing flexibly and conveniently.

## Order code



### Lubricant metering device

D200 series lubrication distributor

### Number of outlets

2 = 2 outlets

...

20 = 20 outlets

### First outlet

S03 = 0.03mL/cycle, screw type unit

S05 = 0.05mL/cycle, screw type unit

S10 = 0.10mL/cycle, screw type unit

S20 = 0.20mL/cycle, screw type unit

S30 = 0.30mL/cycle, screw type unit

S50 = 0.50mL/cycle, screw type unit

P03 = 0.03mL/cycle, push-in type unit

P05 = 0.05mL/cycle, push-in type unit

P10 = 0.10mL/cycle, push-in type unit

P20 = 0.20mL/cycle, push-in type unit

P30 = 0.30mL/cycle, push-in type unit

P50 = 0.50mL/cycle, push-in type unit

### Second outlet

S03 = 0.03mL/cycle, screw type unit

...

(As in the previous)

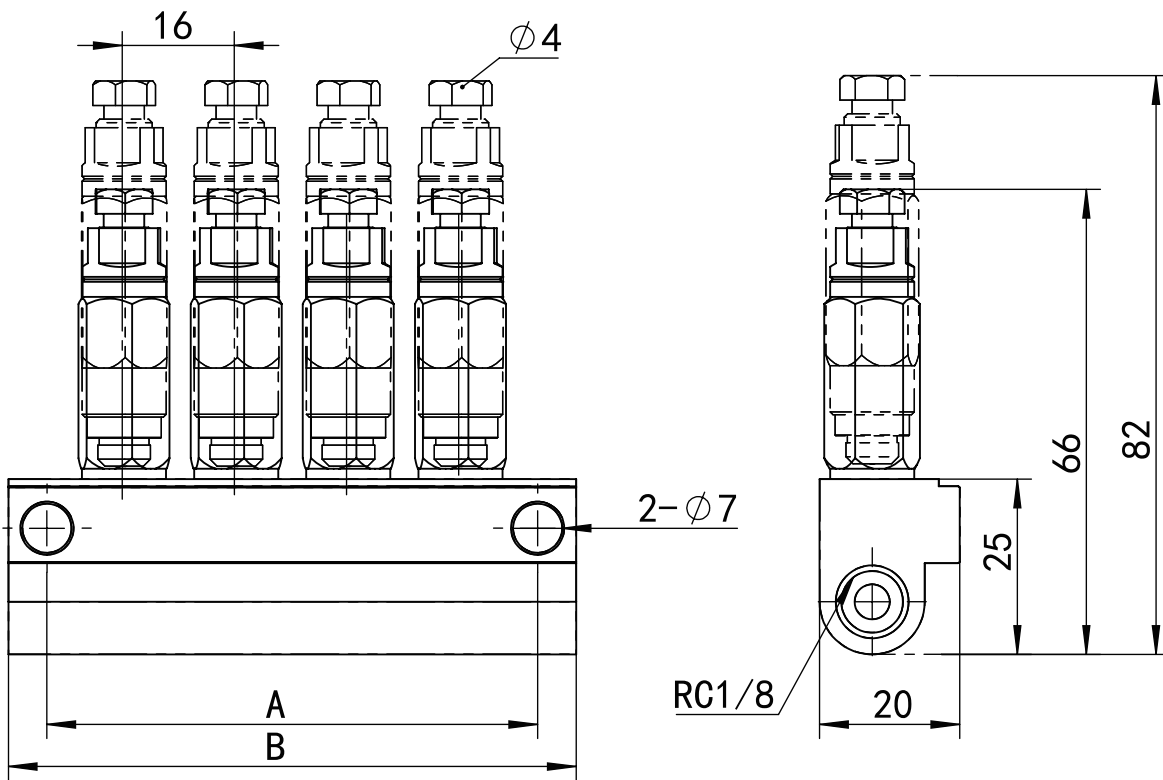
...

P50 = 0.50mL/cycle, push-in type unit

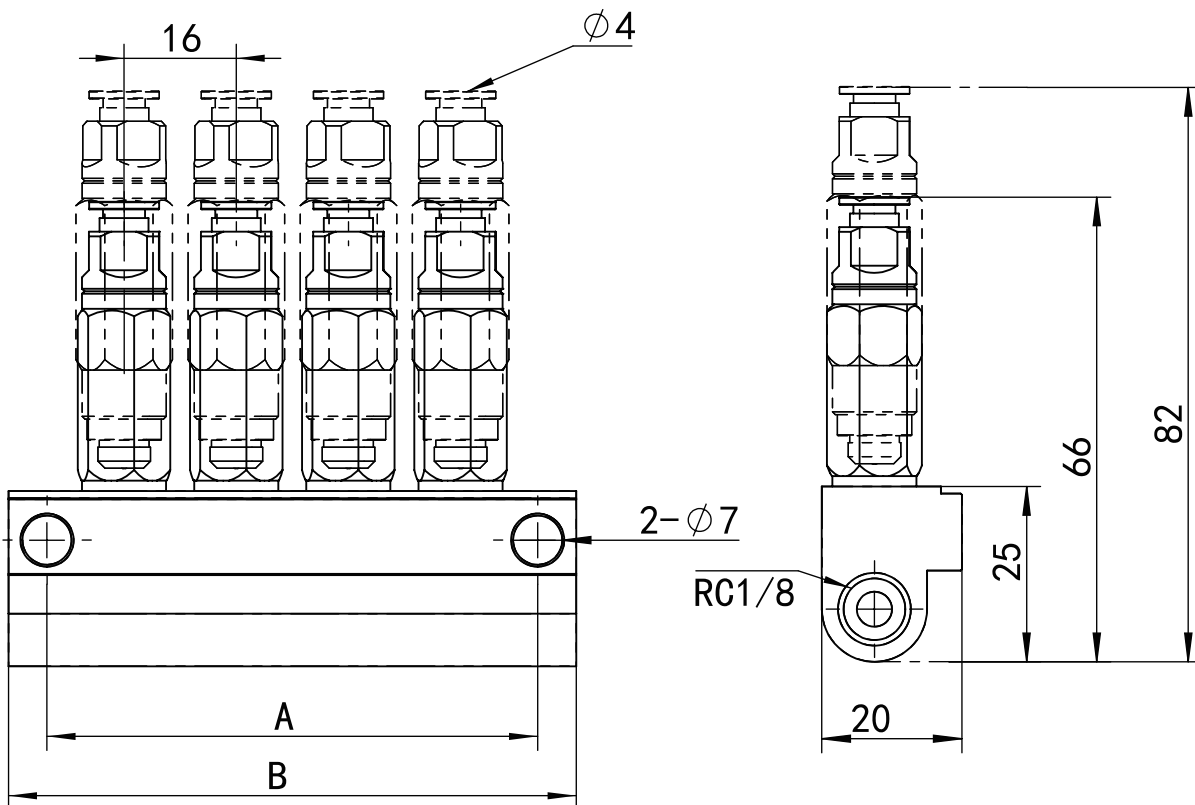
## Specifications

Model	Outlets	Metering quantity	Inlet	Outlet	A(mm)	B(mm)	Pressure
D300-2	2	0.03mL/cycle 0.05mL/cycle 0.10mL/cycle 0.20mL/cycle 0.30mL/cycle 0.50mL/cycle	M10x1.0 $\Phi 6$	M8x1.0 $\Phi 4$	38	49	14bar to 25bar
D300-3	3				54	65	
D300-4	4				70	81	
D300-5	5				86	97	
D300-6	6				102	113	
D300-7	7				118	129	
D300-8	8				134	145	
D300-9	9				150	161	
D300-10	10				166	177	
D300-11	11				182	193	
D300-12	12				198	209	
D300-13	13				214	225	
D300-14	14				230	241	
D300-15	15				246	257	
D300-16	16				262	273	
D300-17	17				278	289	
D300-18	18				294	305	
D300-19	19				310	321	
D300-20	20				326	337	
D300-22	22				342	353	

### Screw Style



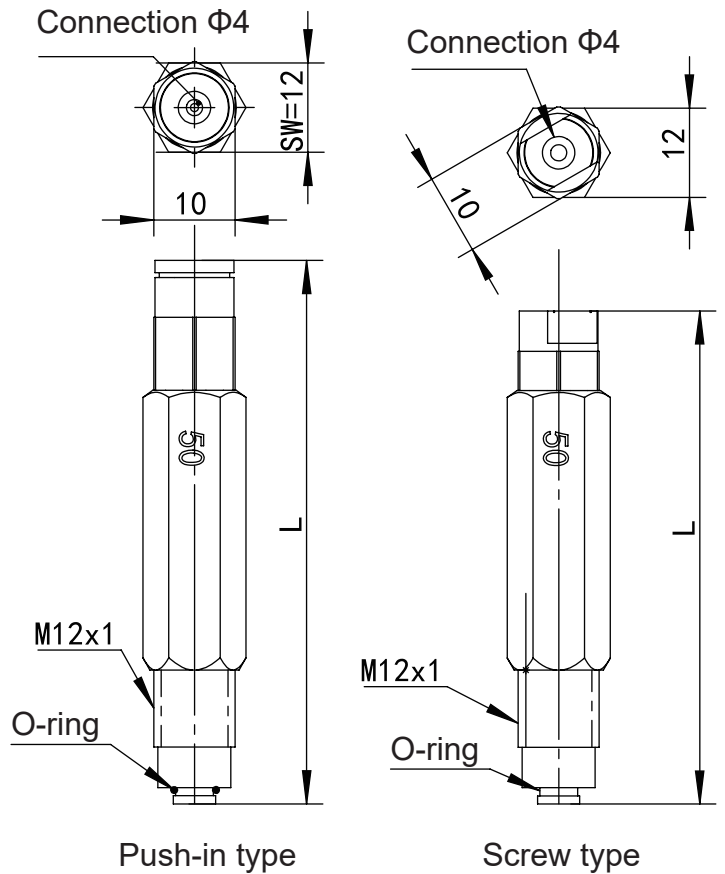
### Push-in Style



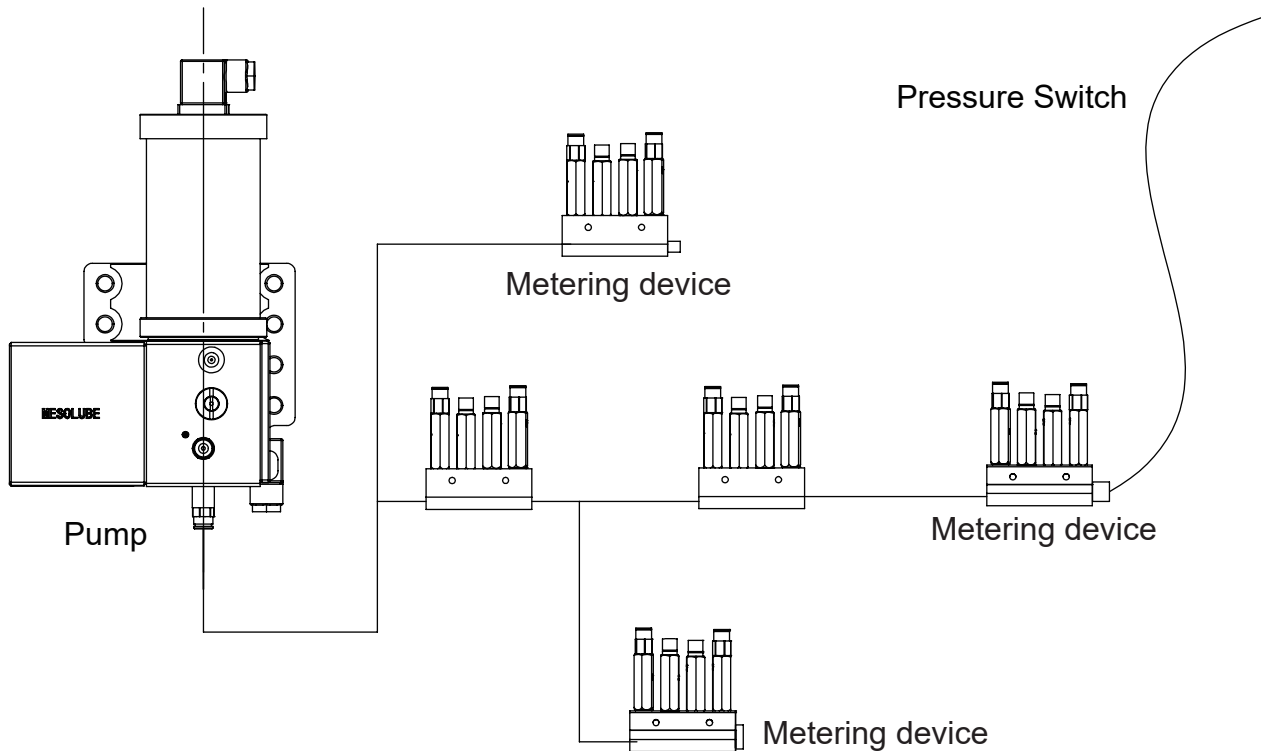
### Metering Unit

Model	Metering quantity	L(mm)
S03	0.03mL/cycle	48
S05	0.05mL/cycle	48
S10	0.1mL/cycle	48
S20	0.2mL/cycle	64
S30	0.3mL/cycle	64
S50	0.5mL/cycle	64
P03	0.03mL/cycle	53.5
P05	0.05mL/cycle	53.5
P10	0.1mL/cycle	53.5
P20	0.2mL/cycle	69.5
P30	0.3mL/cycle	69.5
P50	0.5mL/cycle	69.5

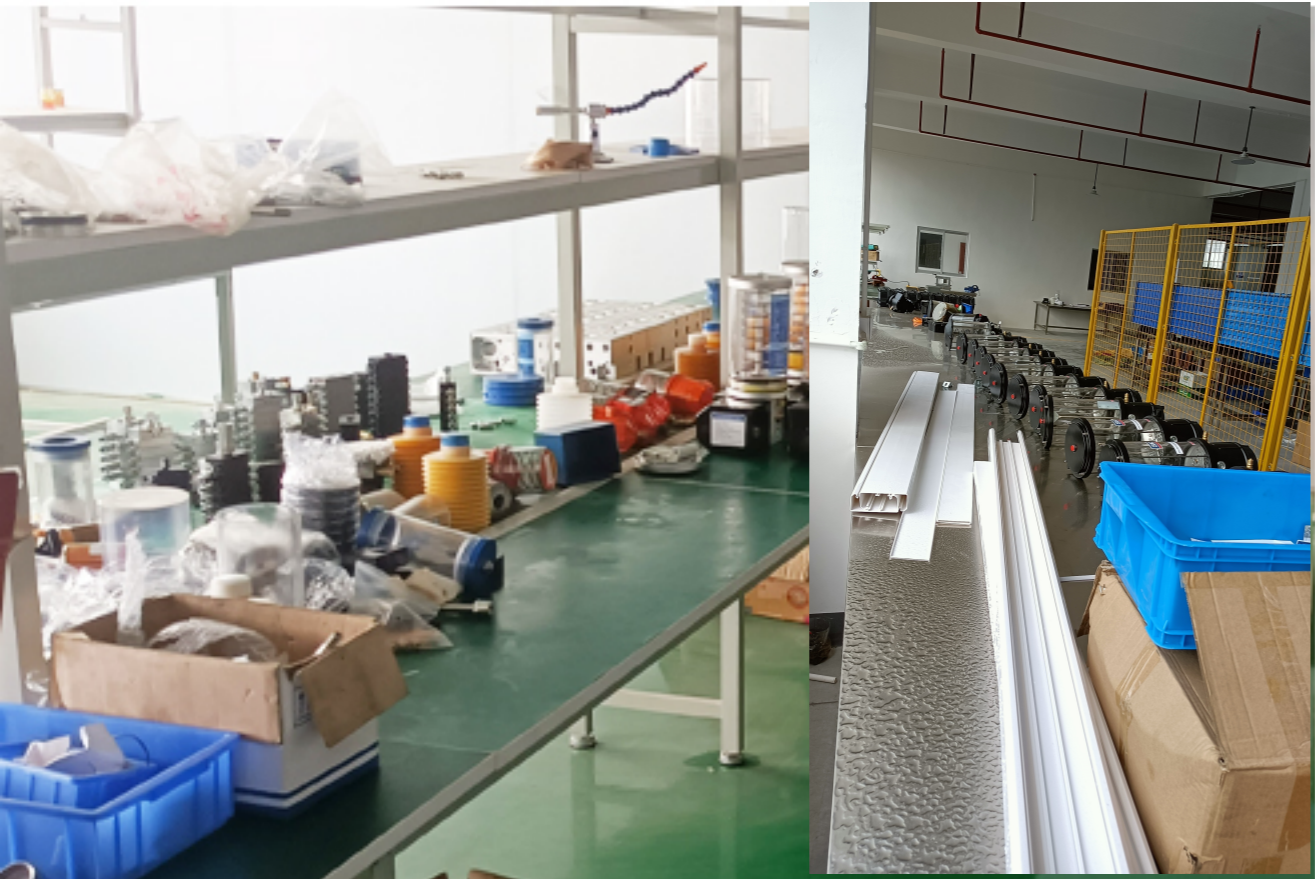
### Dimensions



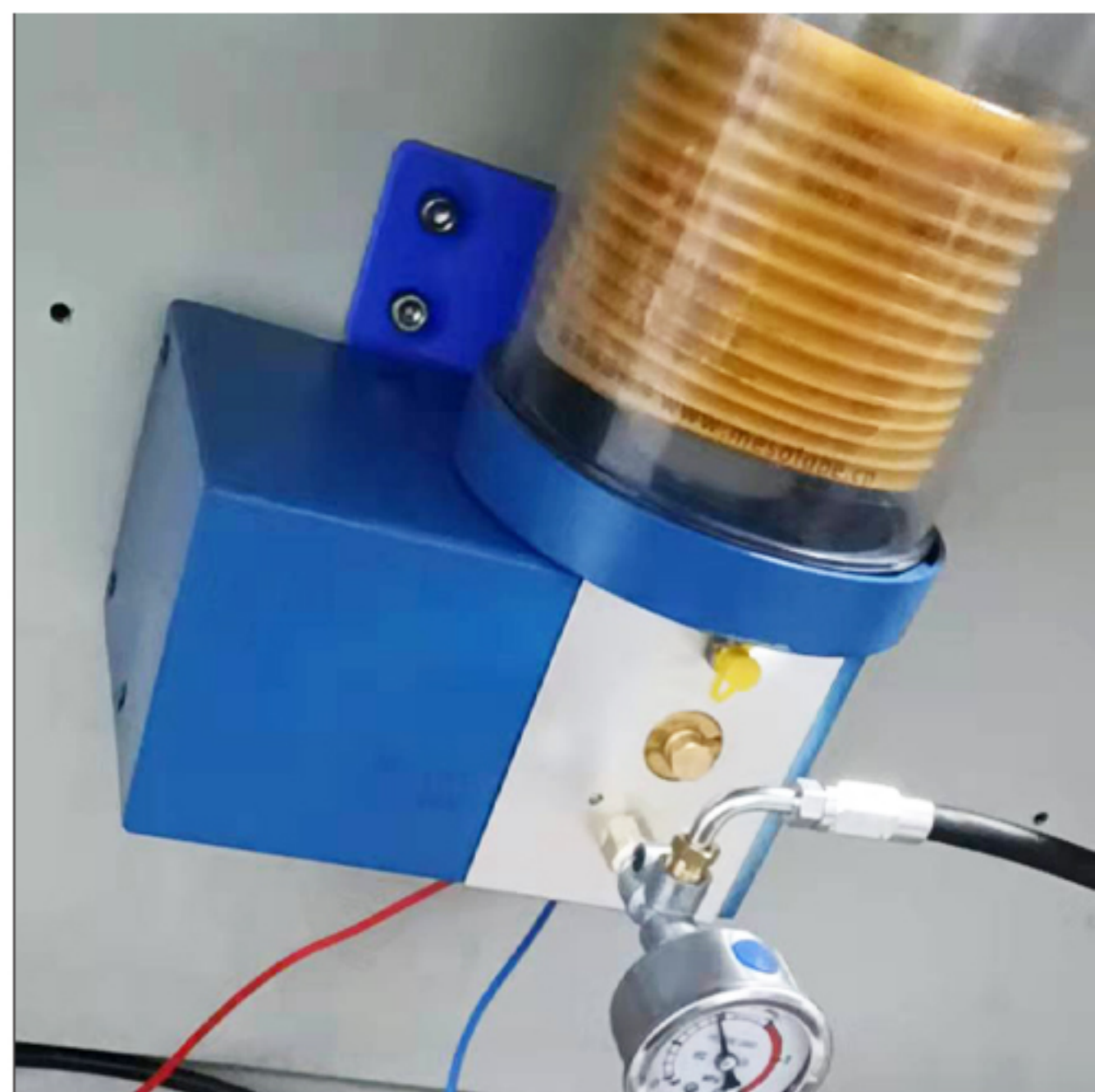
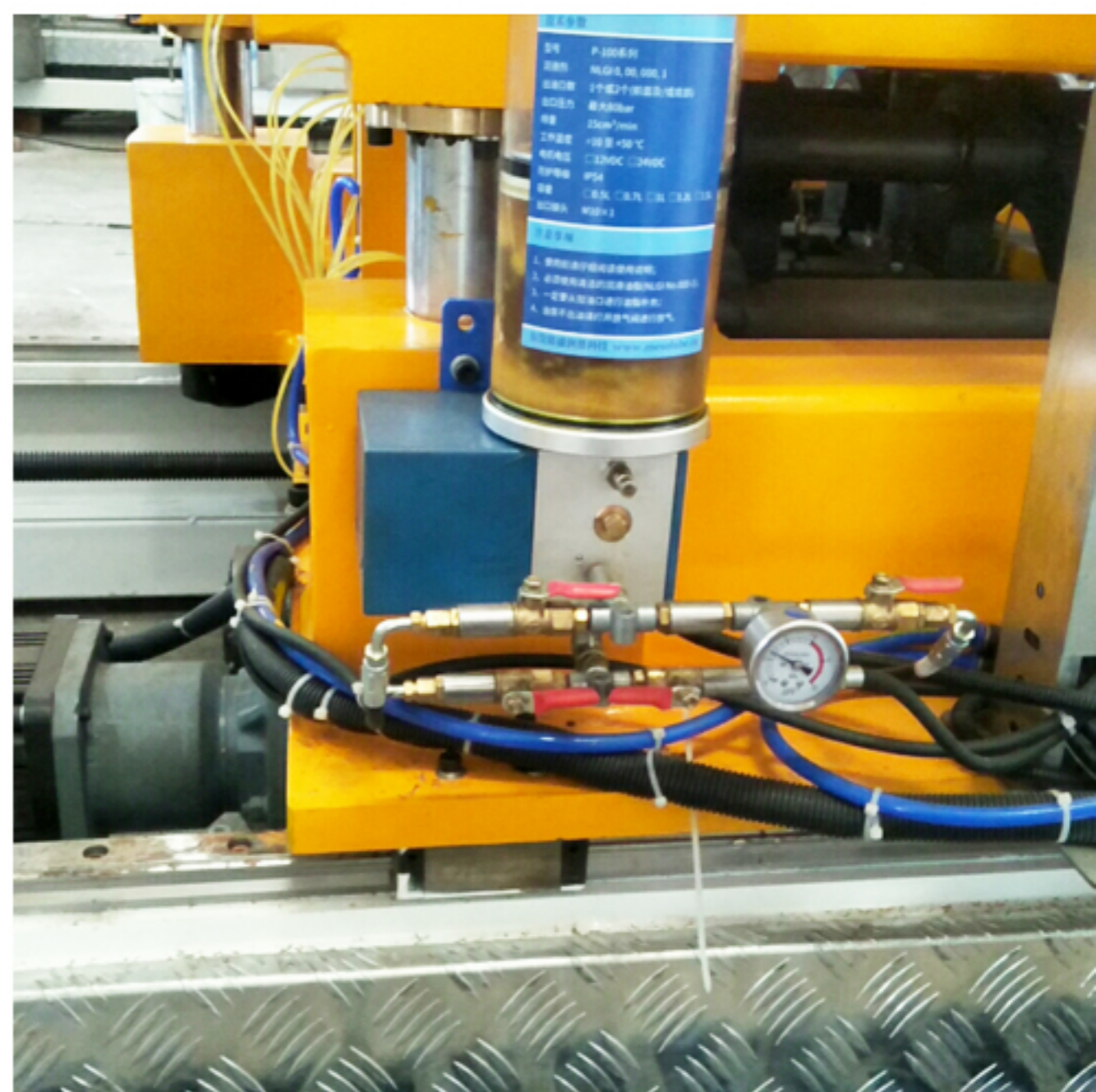
### Layout of D200 Metering Device in Lubrication System



# Workshop

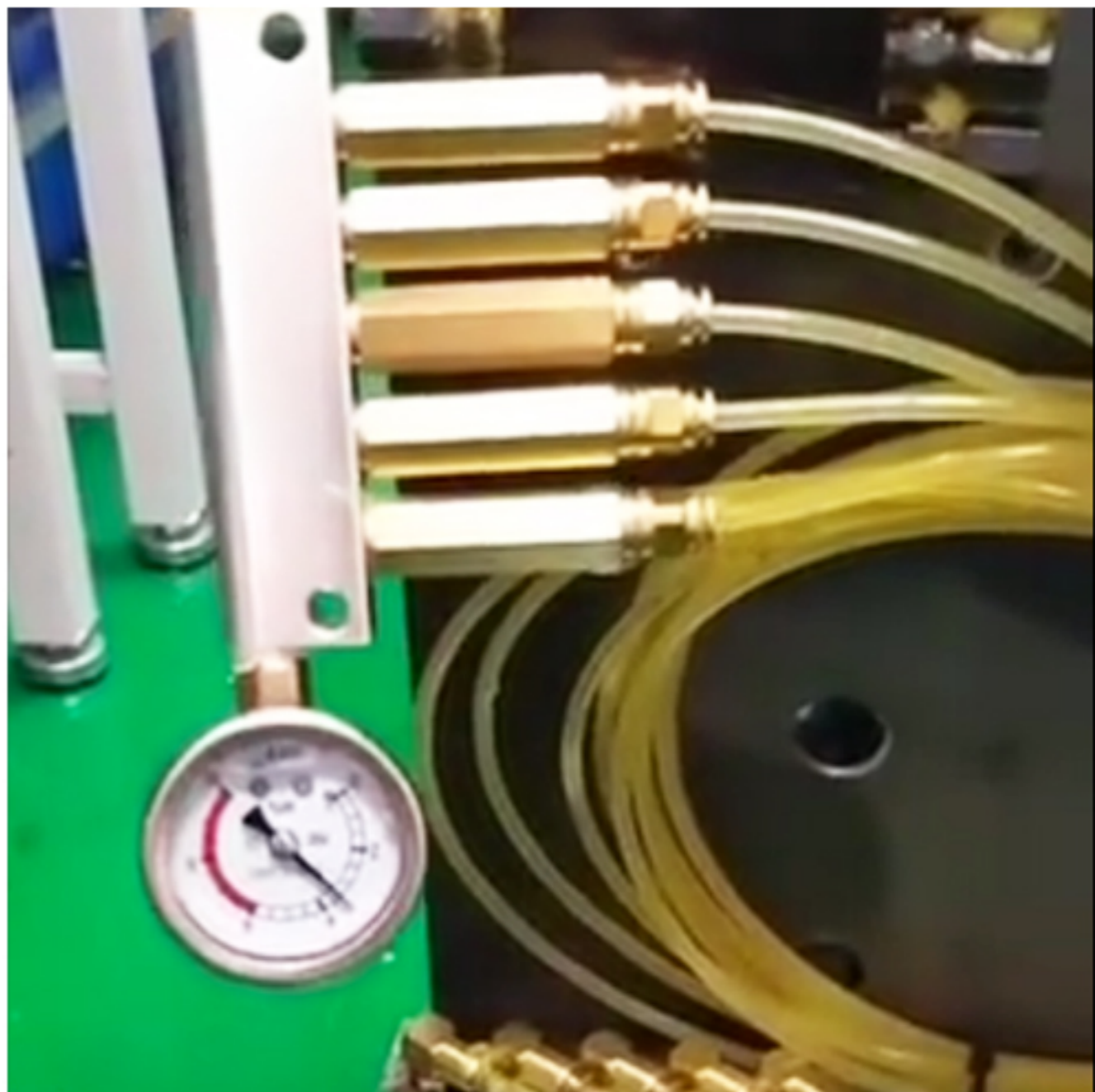
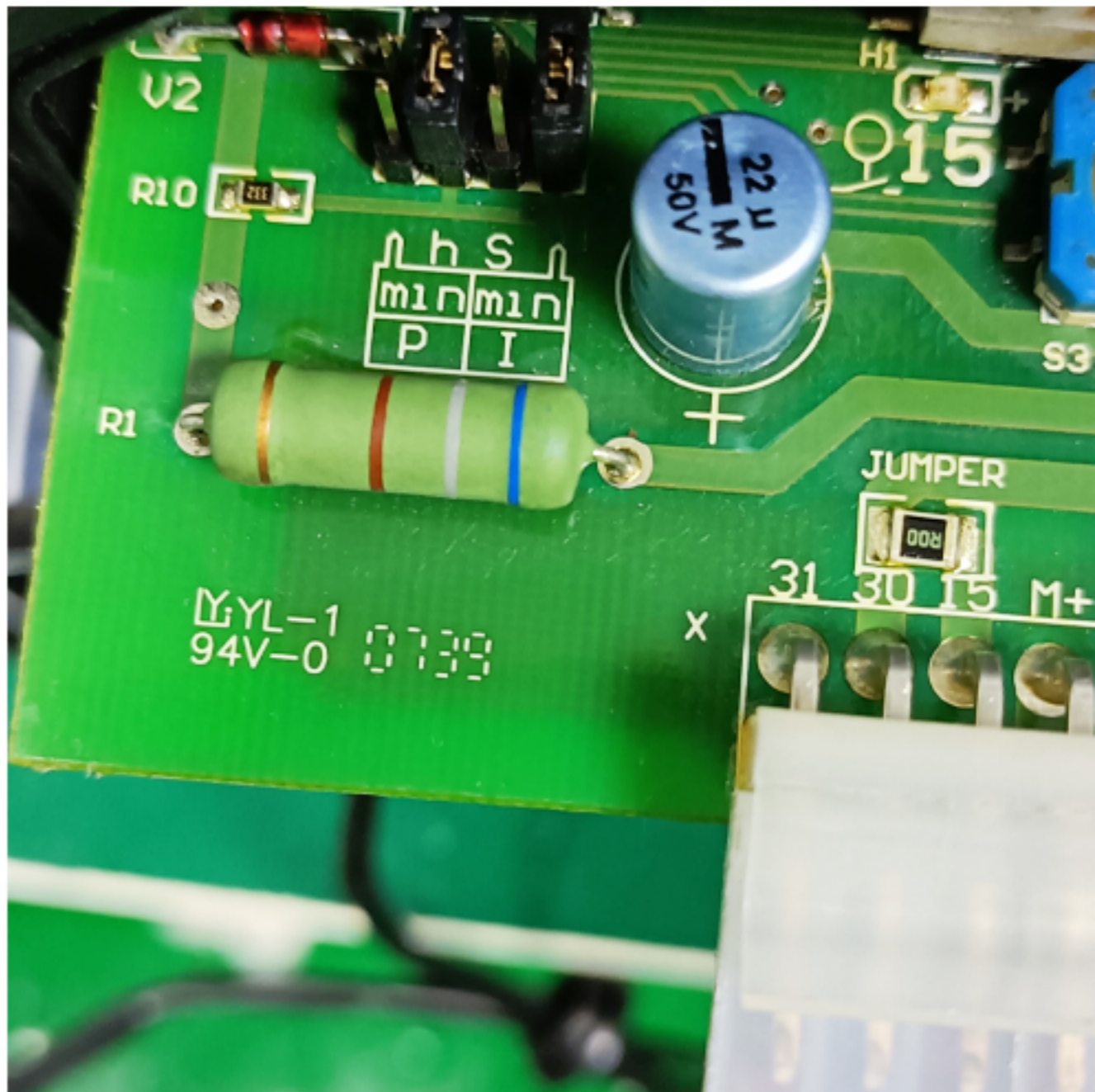
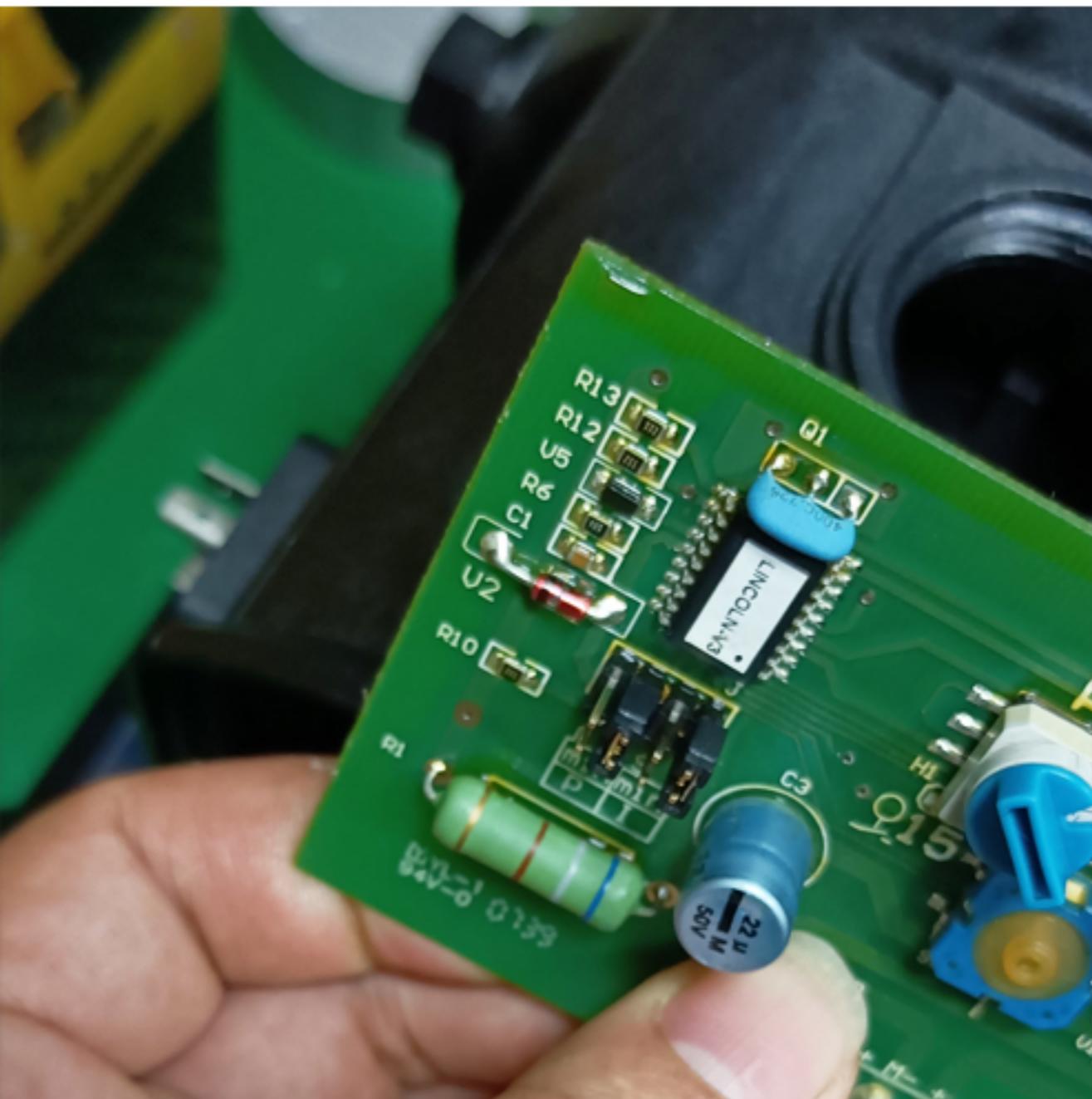


# Application

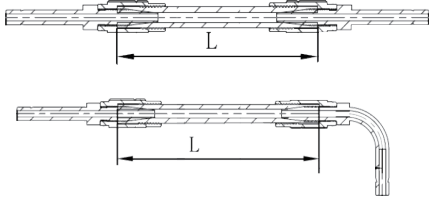




# Testing

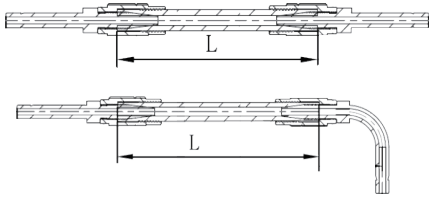


## High Pressure Hose



Model	Tube inner	L	Lining	Wrapper	Pressure	Temp.	Blast
HPH6X	Φ6	X(mm)	PA	PU	10MPa	-20~+100°C	30MPa
HPH8X	Φ8						
HPH10X	Φ10						

## Nylon Tube



Model	Tube inner	L	Pressure	Bending radius	Temp.	Blast
HPH6X	Φ6	X(mm)	4MPa	R20-50mm	-20~+100°C	30MPa
HPH8X	Φ8					
HPH10X	Φ10					

## Precautions

To ensure the normal operation and prolong the service life of high-pressure hose, the following principles should be paid attention to when installing high-pressure hose:

- (1) Avoid sharp bending. After installation, the bending radius of the hose shall not be less than 8-10 times of the outer diameter of the hose. The root of the joint at both ends of the hose shall not be bent. A certain straight section shall be reserved, and its length shall not be less than 6 times of the outer diameter of the hose. In order to avoid sharp bending, the method of winding spring or supporting steel strip outside the hose can be adopted to make the bending gentle.
- (2) Distortion is not allowed. In the process of tightening the two ends of the hose, it is easy to have this kind of fault, which will change the braiding angle of the steel wire braided layer, make the hose bear uneven stress and reduce the pressure. In order to avoid twisting, chalk a parallel line on the hose before assembly, so as to check whether the hose is twisted after installation.
- (3) There should be a certain amount of relaxation in the length direction, and it should not be in the tension state, especially when replacing the new hose. Because after the hose is filled with high pressure oil, the total length of the hose shrinks by 3%- 4%, and the oil cylinder swings in a certain range in the process of lifting and lowering. If the length of the hose is not enough, it can be lengthened by connecting two hoses through the transition joint.
- (4) The contact and friction between the hose and the machine or cab should be avoided as far as possible to prevent the abrasion of the outer rubber layer and the steel wire braid layer. In the section where there may be mechanical friction with the outside, the canvas belt or rubber pipe should be wrapped for protection.
- (5) For hydraulic traction agricultural tools (or dump trailers), the hose joints between the agricultural tools and tractors should be installed to prevent the hose from breaking and oil leakage due to the decoupling of agricultural tools.