

lubrication systems

ilc



TWIN-PUMP 2

DOUBLE-LINE SYSTEMS

Designed to work all day, every day
in extreme conditions and harsh environments

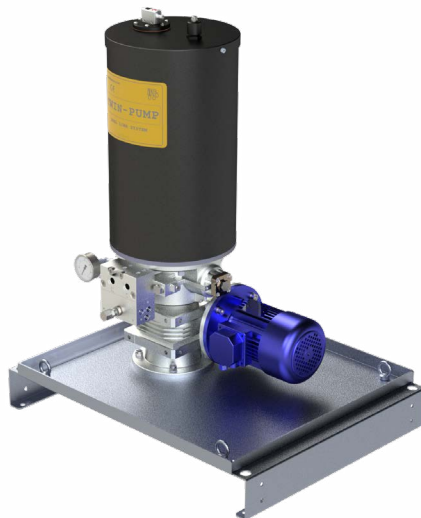


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Applications

The electric TWIN-PUMP has been designed for all applications that use Double Line Systems.

The Double Line lubrication systems, generally used on medium and large sized machinery and equipment, operate in harsh or extreme operating conditions for the various points to be lubricated.

The systems can be very complex and longer than 100 metres. Any type of system can be designed and set up in a reliable, efficient manner, with the possibility of expansion.



Description

The **TWIN 2** pumps, available with a 30 or 100 kg tank, have been designed with the aim of ensuring high reliability. They are able to develop a maximum pressure of 400 bar and a flow rate of 400 cc/1'. They are therefore able to feed large plants such as oil rigs, mining plants, cement plants, steel mills.

The pumps are equipped with electric level gauges, lubricant loading filters, reversing valves, pressure gauges and metal pallets for ground anchorage.

The pumps are designed on a modular basis and can be easily configured with very little effort. Please refer to the configuration tables at the end of this catalogue.

They have a very sturdy structure and operate effectively at temperatures between -25 a +80 ° C.



Twin-pump and Mini Twin-pump operation

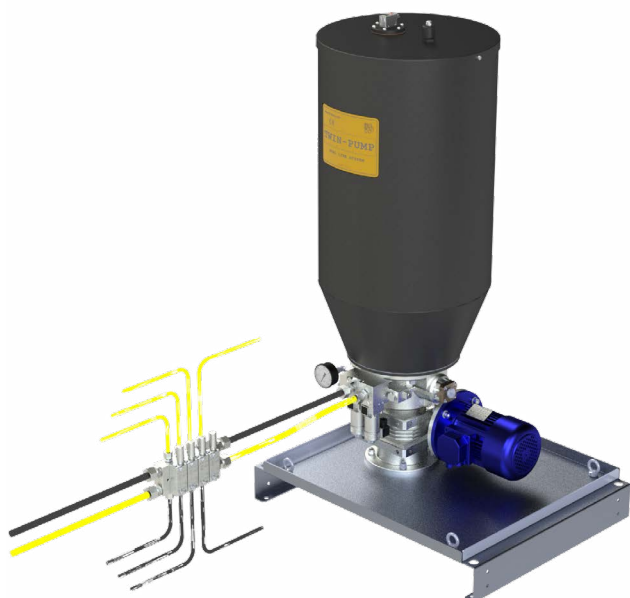


The core of the TWIN-PUMP 2 electric pump consists of the TWIN pumping unit housing the two elements that, being driven alternately by the central cams, draw and supply lubricant.

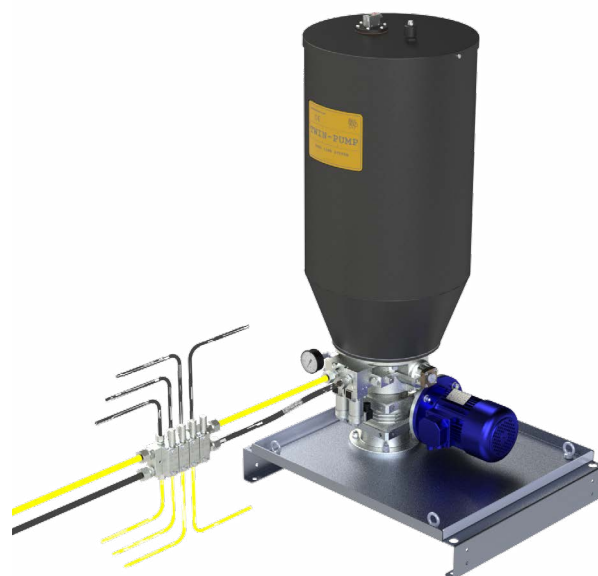
The alternate movement of the two pistons guarantees a constant and homogeneous flow of lubricant, high performance pressure to be reached (400 Bar) and the possibility of operating even if one of the two pumping elements were to stop.

The absence of return springs eliminates return issues or breakage.

The pressure gauge and the adjustable safety valve are also housed in the same body.



STEP 1



STEP 2

Features and benefits

Twin pumping unit

The pumping units can be quickly replaced since they are positioned on the right and left sides of the pump. Downtime during maintenance is reduced to zero and the risk of contamination is eliminated.

Easy to use

The pump body is set up to receive the two pumping elements, the pressure relief valve, the pressure gauge and the electromagnetic or electro pneumatic converter.

Efficiency

The system is always efficient with the double pumping unit. Constant lubrication can continue even if one module were to stop.

External components

All pipes and the external components have been eliminated.

High performance

High pressure values and flow performance can be reached so as to supply any type of circuit.

Tanks

30 kg and 100 kg tanks for grease and oil with minimum and maximum level sensors; on request, AISI 316L execution.

Solidity

A huge advantage in using the pump is the absence of return springs in the suction and delivery movement of metering pistons. All the problems caused by the springs malfunctioning are eliminated.

Versatility

Available with motors having different voltages and in compliance with **UL-CSA / NEMA / ATEX standards**

Customisable

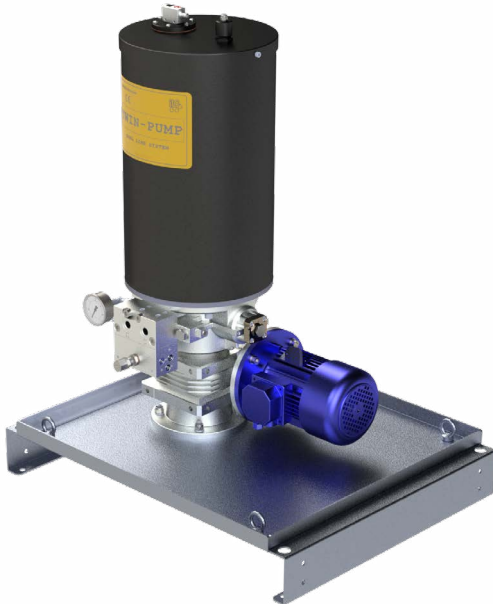
The versatility and simplicity of the structure allows various customisations to be made to the assembly with additional components to provide a completely customised service.

Reliable handling

To guarantee safe and reliable handling, the pumps are supplied assembled on a metallic pallet that can be picked up easily.

Twin-pump

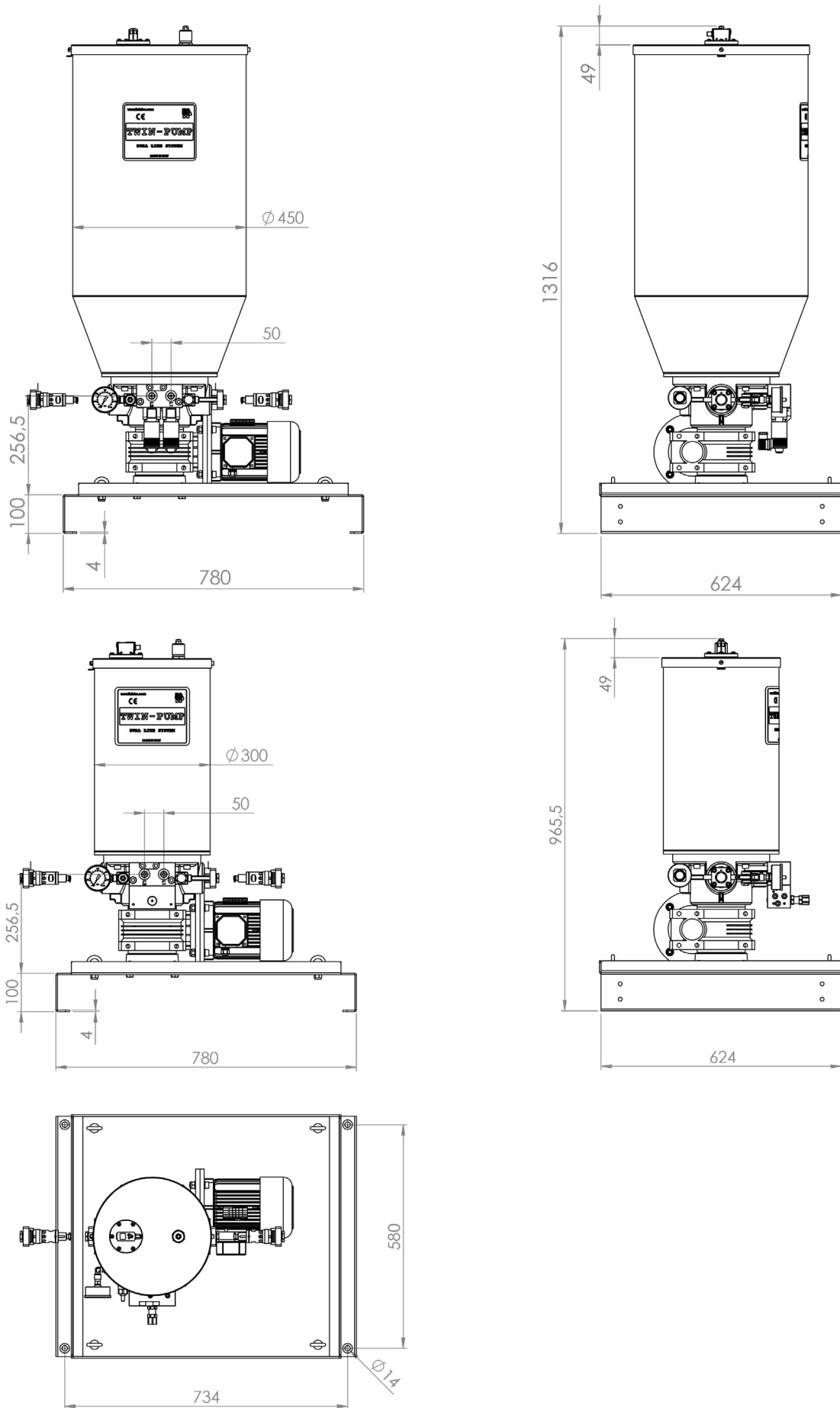
Technical data



| | |
|------------------------|---|
| Operating principle | electric piston pump |
| Operating pressure | max 400 bar |
| Lubricant flow rate | 400 cm ³ /minute 2 pumping units, 200 cm ³ /minute |
| Safety valve | adjustable from 50 to 400 bar calibrated as standard at 350 bar |
| Main line connection | 3 / 8" BSP |
| Reversing valves | electrical, pneumatic or hydraulic |
| Protection rating | IP-65 |
| Motor | 0.75 Kw |
| Permitted lubricants | Min. oil 50 cSt Grease Max NLGI-2 (DIN 51818) |
| Tank capacity | 30 kg or 100 kg |
| Oil tank filling | filling cap with 300 µm filter |
| Grease tank filling | 1/2" BSP check valve with 300 µm filter |
| Pressure gauge | 0 – 600 bar |
| Assembly position | vertical |
| Operating humidity | 90% max |
| Operating temperatures | -25° C +80° C |

Height and weight

| Tank | Weight | Total height |
|--------|----------------|--------------|
| 100 kg | 100 kg (empty) | 1316 mm |
| 30 kg | 85 kg (empty) | 865 mm |



TWIN-PUMP order code configurator

| 58 | . | G | . | 100 | . | S S | . | 5 | . | 1 | . | A | . | 1 | . | X |

A
B
C
D
E
F
G
H
I

A (Lubricants)

| | |
|--------|---|
| Grease | G |
| Oil | O |

B (Reservoir)

Painted steel

| | |
|--------|-----|
| 100 kg | 100 |
| 30 kg | 030 |

SS316L

| | |
|--------|-----|
| 100 kg | 10X |
| 30 kg | 03X |

C (Pump motor)

Three-phase Code

| | |
|-----------------|---|
| 230/ 400V 50 HZ | S |
| 280/ 480V 60HZ | S |
| 460 V 60 Hz | H |
| 380 V 60 Hz | F |
| 575 V 60 Hz | D |
| 500 V 50 Hz | E |
| 550 V 50 Hz | G |

Single-phase Code

| | |
|----------------|---|
| 115 V AC 60 Hz | B |
| 230 V AC 50 Hz | C |

| | |
|---------------|---|
| Without motor | X |
|---------------|---|

D (Marking)

| | |
|-----------|---|
| IE2 IP-65 | S |
| UL-CSA | U |
| NEMA | N |

E (reversing valve)

Electromechanical

| Voltage | Code |
|----------|------|
| 24 V DC | 1 |
| 115 V AC | 2 |
| 230 V AC | 3 |

Pneumatic

| Voltage | Code |
|----------|------|
| 24 V DC | 4 |
| 24 V AC | 5 |
| 115 V AC | 6 |
| 230 V AC | 7 |

Hydraulic

9

Without reversing valve

X

F (Min-Max level gauges)

| | |
|--------------|---|
| Laser sensor | 1 |
| No level | X |

F (Heating band)

| | |
|------------------------|---|
| Not present (standard) | A |
| Present | B |

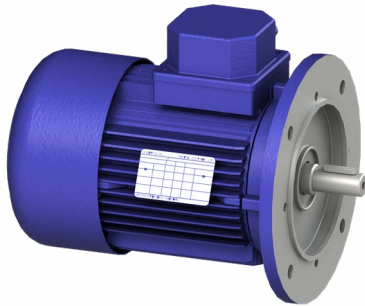
H (Pallets)

| | |
|-----|---|
| Yes | 1 |
| No | X |

I (Box)

| | |
|-----------------|---|
| No Box | X |
| Steel Box IP-65 | 1 |
| Box SS316L | 2 |

Motor



The TWIN-PUMP and Mini TWIN-PUMP series electric pumps have a standard configuration with a three-phase motor.

It is possible to supply single-phase motors 115 VAC, 230 VAC 50/60 Hz or motors with special voltages.

Three-phase

| Power supply voltage | Frequency | Absorption |
|----------------------|-----------|-----------------|
| 230 V / 400 V | 50 Hz | 3.08 A / 1.78 A |
| 275 V / 480 V | 60 Hz | 3.08 A / 1.78 A |

Single-phase

| Power supply voltage | Frequency | Absorption |
|----------------------|-----------|------------|
| 230 V AC | 50 Hz | 5.1 A |
| 230 V AC | 60 Hz | 5.61 A |
| 115 V AC | 50 Hz | 10.2 A |
| 115 V AC | 60 Hz | 11.2 A |

Twin Pump motor

| | |
|--------------------|-----------------|
| Power | 0.75 kW |
| Protection rating | IP55 |
| Service | S1 (continuous) |
| Insulation | Class F |
| Construction shape | B5 |
| Size | Mec80 |
| Weight | 11.2 kg |

Visual

Grease



The visual sensor is supplied as standard on all pumps to control the maximum grease level.

By rising, the float raises the visual rod which shows that the maximum level is reached in the tank.

| Pump | Tank | Minimum | Maximum |
|------|-----------|---------|------------|
| TWIN | 100-30 kg | - | A70.094154 |

Grease Laser Level

Grease

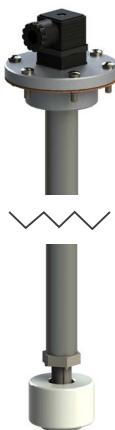


They measure the distance from the lubricant surface to the inside of the tank. They offer good accuracy and the measurement depends on the consistency of the grease. The lubrication low level signal is sent when there are still 10 kg of grease in the 100 kg tank and 3 kg in the 30 kg tank.

| Pump | Tank | Maximum |
|------|-------------|------------|
| TWIN | 100 - 30 Kg | A70.094181 |

Oil float gauge

Oil

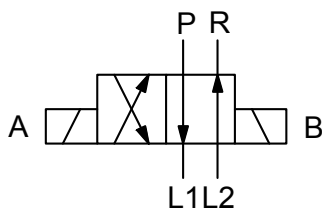
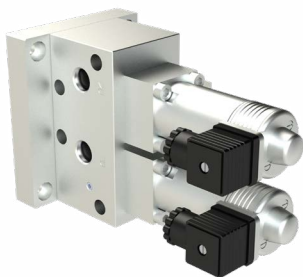


The reed sensor can be installed to check the minimum and maximum oil levels.

In the configurator, select the code for both the minimum and maximum level sensors.

| Pump | Tank | Minimum | Maximum |
|------|--------|------------|------------|
| TWIN | 100 Kg | A70.094160 | A70.094162 |
| TWIN | 30 Kg | A70.094161 | A70.094162 |

Electromagnetic inverter



for pump

| Assembled | Block |
|-------------|------------|
| 58.IEM.115V | A51.082277 |
| 58.IEM.230V | |
| 58.IEM.24DC | |

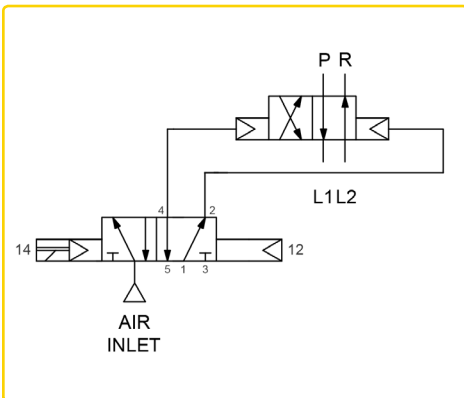
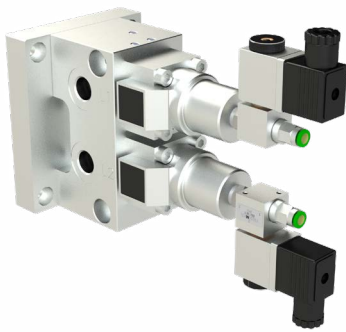
for line

| Assembled | Inverter | Block | Plate |
|---------------|-------------|------------|------------|
| 58.IEM.115V.L | 58.IEM.115V | A70.093822 | A51.082287 |
| 58.IEM.230V.L | 58.IEM.230V | | |
| 58.IEM.24DC.L | 58.IEM.24DC | | |

Technical data

| | |
|---------------------------------|---|
| Maximum flow rate (oil 100 cst) | 40 L/Min |
| Maximum pressure | 400 Bar |
| Lubricants | Grease Max. NLGI 2 |
| Voltage | 24 V DC / 24 V AC - 50/60 Hz 115 V / 230 V AC - 50/60 Hz |
| Weight | 12 kg |
| Operating temperature | -30° C - + 80° C |
| Humidity | 90% |
| Protection ratings | IP-55 |
| Inlets / outlets | G3/8" BSP |

Pneumatic inverter



for pump

| Assembled | Block |
|-------------|------------|
| 58.IEP.115V | A51.082277 |
| 58.IEP.230V | |
| 58.IEP.24AC | |
| 58.IEP.24DC | |

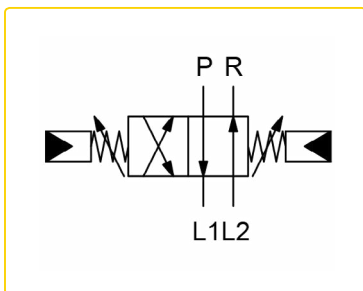
for line

| Assembled | Inverter | Block | Plate |
|---------------|---------------|------------|------------|
| 58.IEP.115V.L | 55.IEP.V.115V | A70.093822 | A51.082287 |
| 58.IEP.230V.L | 55.IEP.V.230V | | |
| 58.IEP.24AC.L | 55.IEP.V.24AC | | |
| 58.IEP.24DC.L | 55.IEP.V.24DC | | |

Technical data

| | |
|---------------------------------|---|
| Maximum flow rate (oil 100 cSt) | 40 L/Min |
| Maximum pressure | 400 Bar |
| Lubricants | Grease Max. NLGI 2 |
| Voltage | 24 V DC / 24 V AC - 50/60 Hz 115 V / 230 V AC - 50/60 Hz |
| Weight | 11 kg |
| Operating temperature | -30° C - + 70° C |
| Humidity | 90% |
| Protection rating | IP-55 |
| Inlets / outlets | G3/8" BSP |

Hydraulic inverter



For Pump

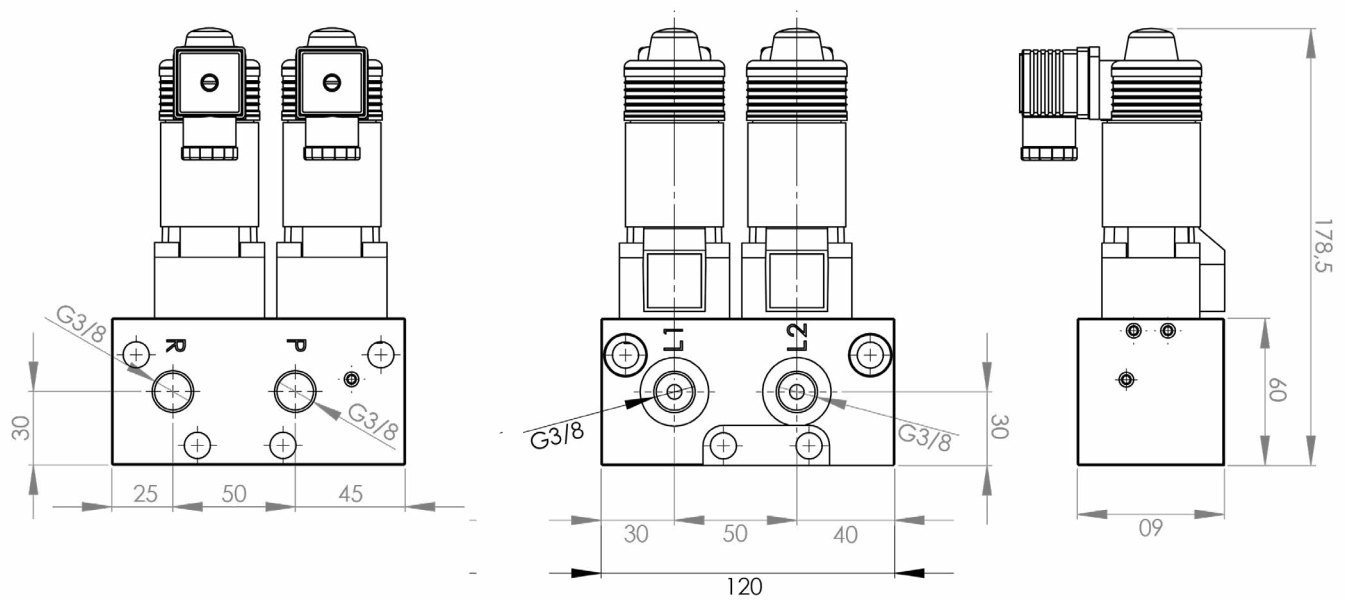
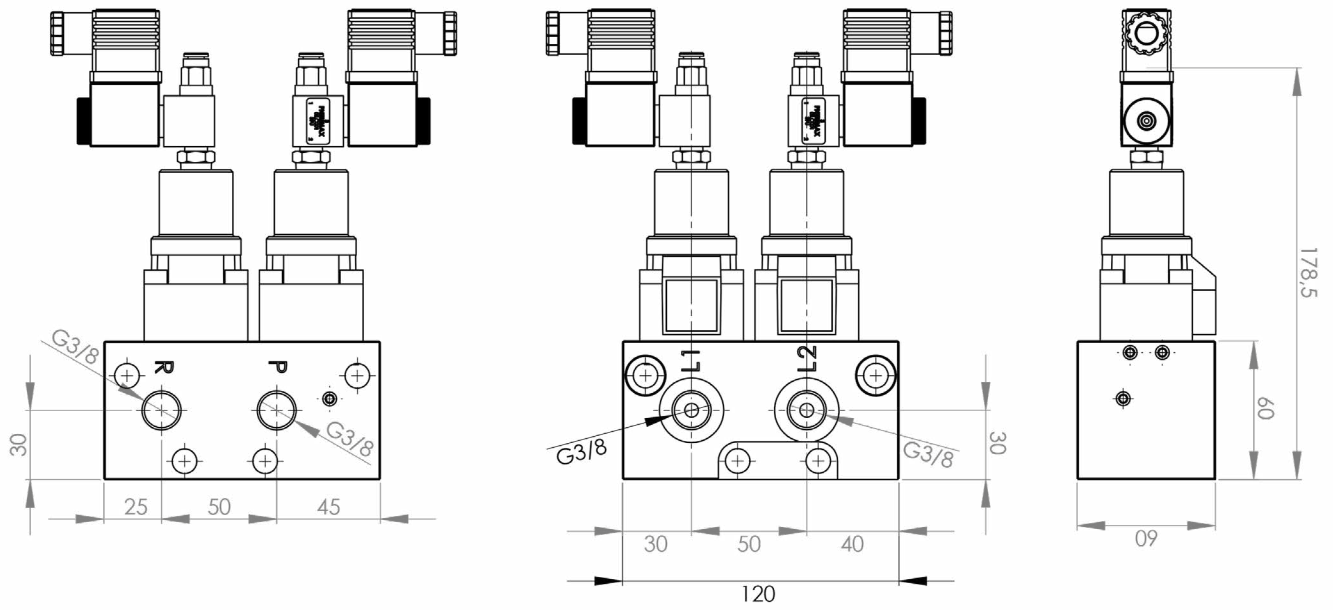
| Assembled | Inverter | Block | Model |
|------------|------------|------------|-------------------|
| 55.ISP10 | | | Standard |
| 55.ISP10.C | 55.ISP10.V | A51.082216 | Inductive Control |

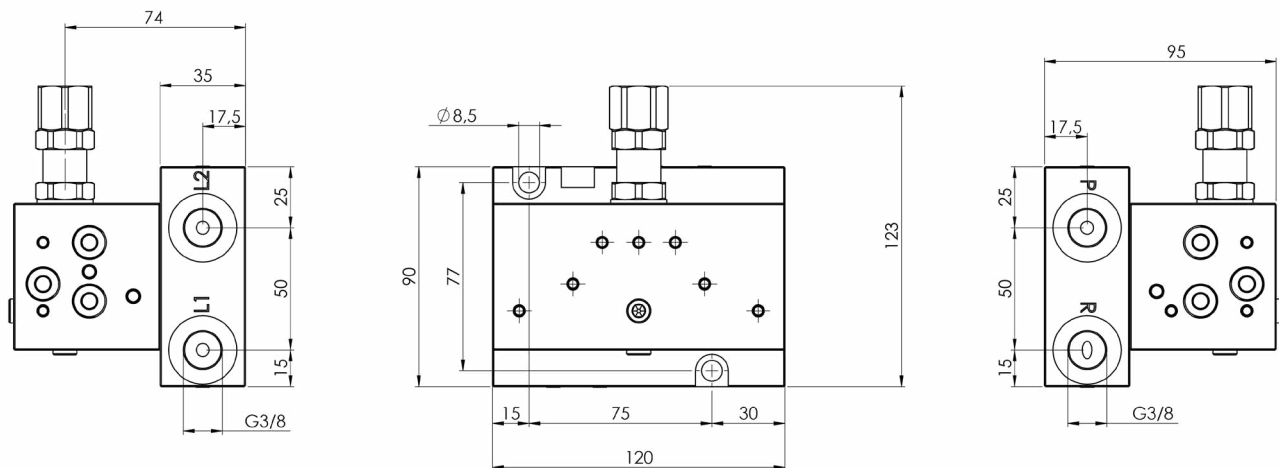
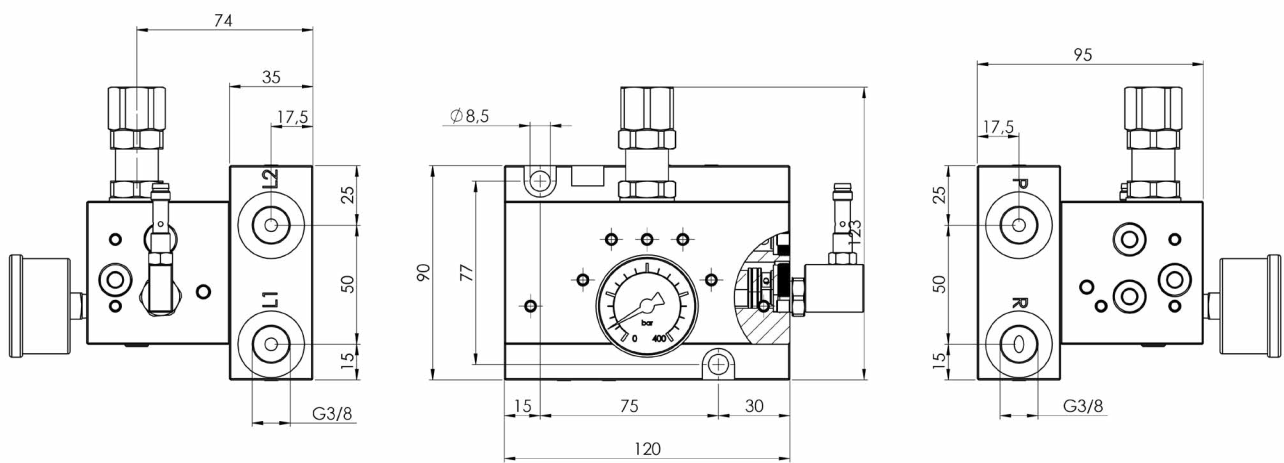
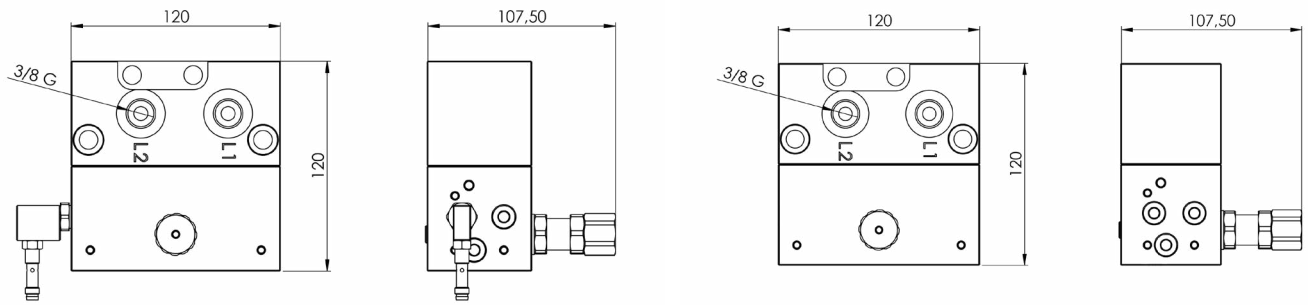
For Line

| Assembled | Inverter | Block | Model |
|--------------|------------|------------|-------------------|
| 55.ISP10.L | | | Standard |
| 55.ISP10.L.C | 55.ISP10.V | A51.082218 | Inductive Control |

Technical data

| | |
|---------------------------------|------------------------------|
| Maximum flow rate (oil 100 cSt) | 400 cc/Min |
| Exchange pressure adjustment | 50-300 Bar – Setting 250 Bar |
| Max operating pressure | 300 Bar |
| Lubricants | Grease Max. NLGI 2 |
| Operating temperature | -25° C + 70° C |
| Humidity | 90% |
| Protection ratings | IP-55 |
| Seats L1-L2 | G3/8" BSP |







Lube Control Pty Ltd

Providing lubrication solutions!

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