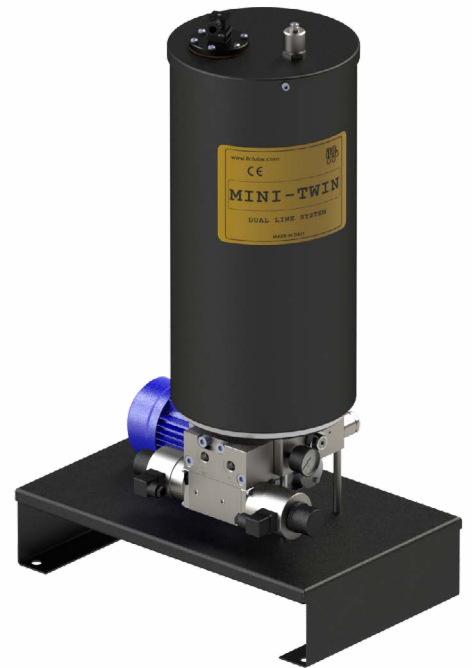


lubrication systems



MINI-TWIN

DUAL LINE SYSTEM

Designed to work all the day, every day
in extreme condition and difficult environments

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Applications

The TWIN-PUMP pumps are designed primarily for dual-line systems in industrial applications.

Dual-line lubrication systems, generally used on machinery and plants of medium to large size, operate in difficult or extreme working conditions in order to lubricate the multiple points.

The systems can be quite complex and reach a length greater than 100 meters. Any type of system can be designed and built in a reliable and efficient way, with an easy possibility of expansion.



Description

TWIN-PUMP, available with a 30 or 100 Kg reservoir, have a maximum operating pressure of 400 bar and a 400cc/1' flow rate. Depending on the system layout, these electric pump can supply lubricant up to 120 meters far.

Mini TWIN-PUMP, available with a 10 or 30 Kg reservoir, have a maximum operating pressure of 350 bar and a 25cc/1' flow rate. They can send lubricant up to 60 meter far.

Pumps are provided with relief valve, check valve, lubricant filter, inversion valve, pressure gauge and metal pallet for ground fixing.

Pumps are designed on a modular basis and they can be easily configured. Refer to configuration tables after each pump description.

They have a solid structure and they operate efficiently between -25 to +80° C degree.

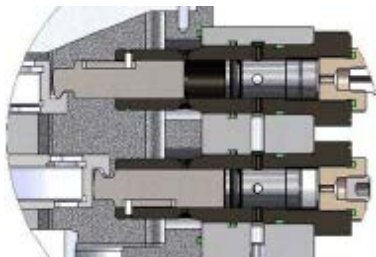


Twin-pump e Mini Twin-pump operation



The core of TWIN-PUMP is the TWIN group. TWIN group houses two elements (one in the Mini version) which, actuated by the central cam with an alternate movement, aspire and deliver lubricant.

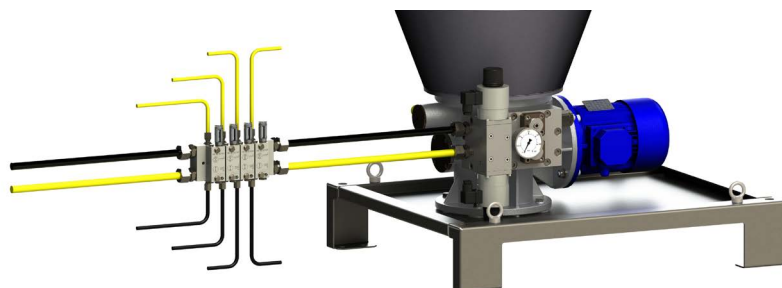
The pistons alternate movement grants a constant and uniform flow rate, as well as high pressure performances (400 bar) and the possibility to operate even if one of the element stops.



Return springs have been removed in order to avoid any returning issue or damage.

In the same housing are placed both the pressure gauge and the adjustable check valve.

fase 1



fase 2



Features and benefits**Twin pumping group**

The pumping units are placed in the front side of the pump and can be quickly replaced. Downtime during maintenance is reduced to zero and the risk of contamination is eliminated.

Easily operated

The pump housing is designed to host the pumping element, the maximum pressure valve, the pressure gauge and the magnetic/pneumatic/hydraulic or electro-hydraulic reversing valve.

Efficiency

The TWIN group grants high level of efficiency. Lubrication is uniform and can work even when one of the module stops.

Internal components

All the external component and piping have been removed.

High performances

The TWIN unit allow to reach high levels of pressure and improves the flow performance on any kind of lubrication systems.

Reservoir

30 kg and 100 kg oil or grease reservoir with min/max electrical level indicators. AISI 316L tank by request.

Strength

The major advantage of the system is the absence of returning springs in order to control the piston movement. Issues related to spring breaking are completely eliminated.

Versatility

Available with different motor configuration and with UL-CSA / NEMA ATEX markings.

Customizable

The simple and versatile structure allows for many assembling customization with additional component.

Easy to move

Pumps are provided with a metal pallet for safe and reliable handling.

Mini Twin-pump

Technical data

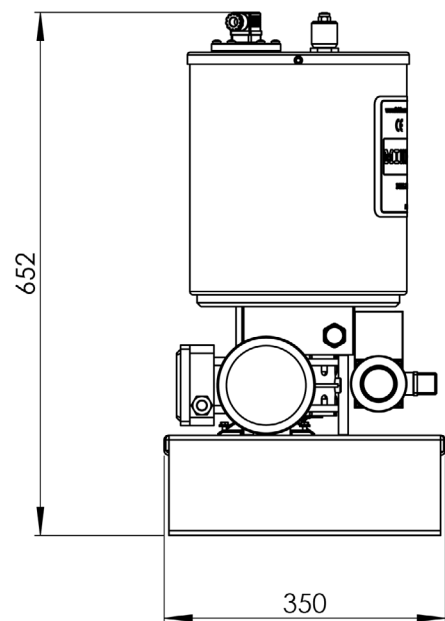
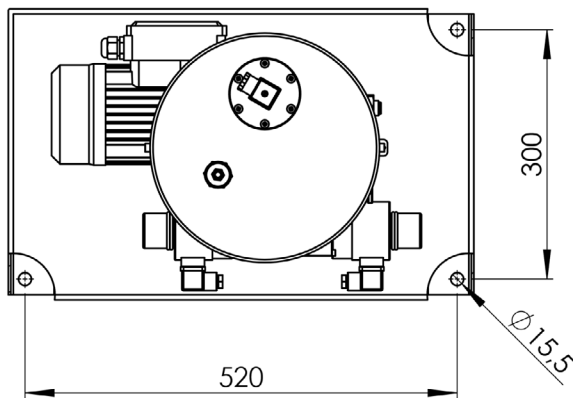
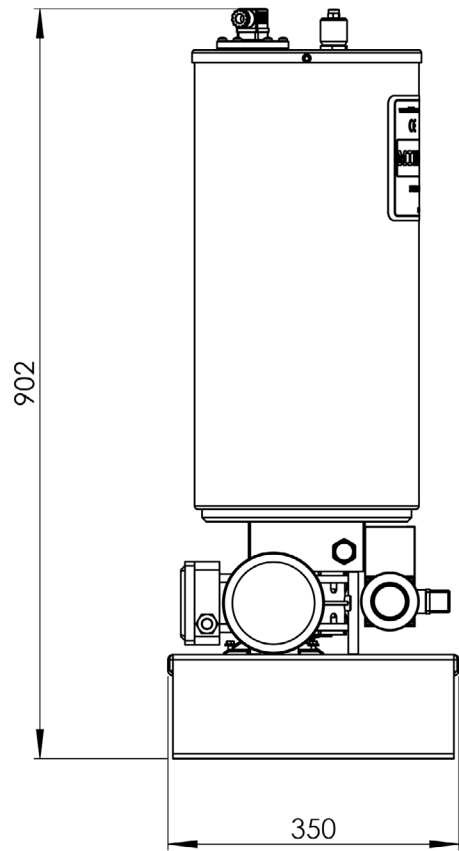
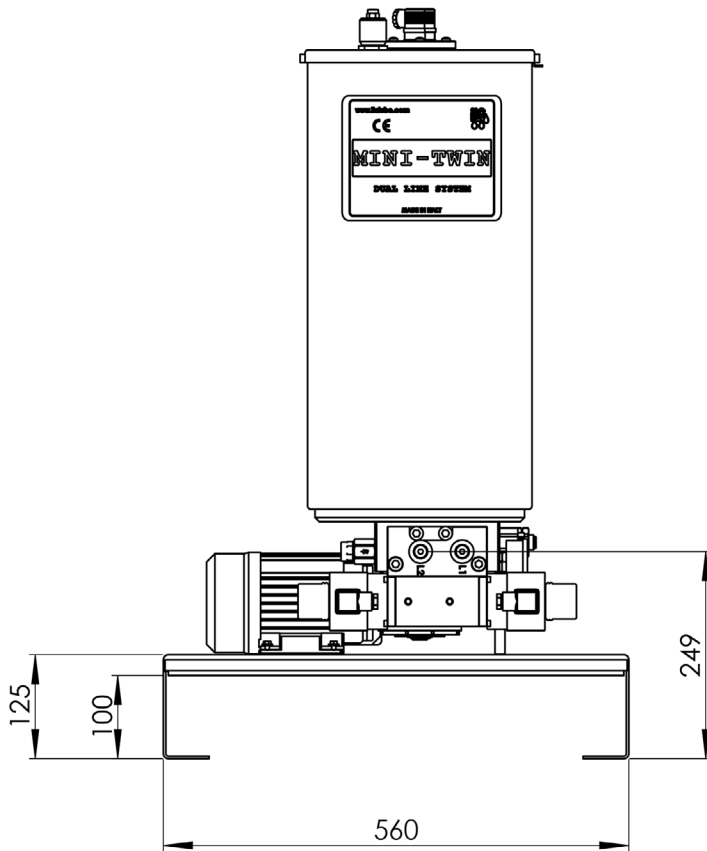


| | |
|-----------------------|--|
| Functioning principle | electrically operated piston pump |
| Operating pressure | max 350 bar |
| Lubricant output | 25 cm ³ minute |
| Safety valve | adjustable from 50 to 400 bar default set 300 bar |
| Main line connection | 3 / 8" BSP |
| Reversing valve | electric, pneumatic o hydraulic |
| Protection class | IP-65 |
| Drive motor | 0,18 Kw |

| | |
|----------------------------|--|
| Suitable lubricant | Oil Min. 50 cSt Grease Max NLGI-2 (DIN 51818) |
| Reservoir capacity | 10 kg or 30 kg |
| Reservoir loading (oil) | filling cap with 300 micron filter |
| Reservoir loading (grease) | 1/2" BSP check valve |
| Pressure gauge | 0 – 400 bar |
| Mounting position | vertical |
| Unit box (steel/SS316.L) | protection IP-65 |
| Humidity | 90% max |
| Operating temperature | -25° C +80° C |

Height and weight

| Reservoir | Weight | Total Height |
|-----------|---------------|--------------|
| 30 kg | 42 kg (vuoto) | 889 mm |
| 10 kg | 36 kg (vuoto) | 638 mm |



Mini TWIN-PUMP ordering code configurator

| 57 | . | G | . | 01 | . | S S | . | 5 | . | S | . | 2 | . | A | . | X |

A
B
C
D
E
F
G
H
I

A (Lubricants)

| | |
|--------|---|
| Grasso | G |
| Olio | O |

B (Reservoir)

Painted steel

| | |
|-------|----|
| 10 kg | 01 |
| 30 kg | 03 |

SS316L

| | |
|-------|-----|
| 10 kg | 01X |
| 30 kg | 03X |

C (Drive 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 |

| | |
|----------|---|
| No motor | X |
|----------|---|

D (Marking)

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

E (Reversing valve)

Electro-mechanical

| 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

No reversing valve

X

F (Min level indicator)

| | |
|----------------------------|---|
| Capacitive sensor | S |
| Ultrasonic sensor (grease) | C |
| No level | X |

G (Max level indicator)

| | |
|----------------------------|---|
| Capacitive sensor | 2 |
| Ultrasonic sensor (grease) | c |
| No level | X |

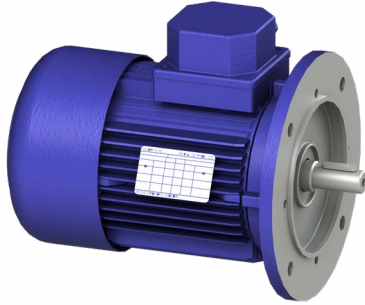
H (Heat module)

| | |
|-------------------------|---|
| Non presente (standard) | A |
| Presente | B |

I (Support)

| | |
|-------------------|---|
| Box Acciaio IP-65 | 1 |
| Box SS316L | 2 |
| Pallet | X |
| No pallet | 0 |

Drive motor



TWIN and Mini TWIN pumps come with a standard configuration featuring a three phase motor.

It can be configured and provided with 115 V AC, 230 V AC 50/60 Hz single phase motors or special tension ones.

Three phase

| Supply voltage | Frequency | Absorption |
|-----------------|-----------|----------------------|
| 220-240/380-420 | 50 Hz | 1.05-1.22/0.63-071 A |
| 254-280/440-480 | 60 Hz | 1.05-1.22/0.63-071 A |

Single phase

| Supply voltage | Frequency | Absorption |
|----------------|-----------|------------|
| 230 V AC | 50 Hz | 1,47 A |
| 230 V AC | 60 Hz | 1,61 A |
| 115 V AC | 50 Hz | 2,94 A |
| 115 V AC | 60 Hz | 3,2 A |

Mini Twin-pump motor

| | |
|-------------------|-----------------|
| Power | 0.18 kW |
| Protection degree | IP55 |
| Service | S1 (continuous) |
| Insulation | Class F |
| Construction form | B3/B14 |
| Size | Mec63 |

Visual

for grease



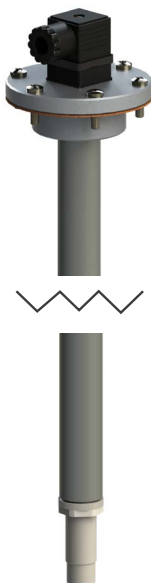
Every pump equips the visual sensor as standard. It is meant to check the maximum grease level.

As the floater raise, the visual pin raise aswell, showing the maximum grease level has been reached..

| Pump | Reservoir | Min | Max |
|-----------|-----------|-----|------------|
| TWIN | 100-30 Kg | - | A70.094154 |
| Mini TWIN | 30-10 Kg | - | A70.094154 |

Capacitive sensor

for grease



Capacitive sensor can be installed for both minimum and maximum grease level control.

Within the configurator you can select both the minimum and maximum control code.

| Pump | Reservoir | Min | Max |
|-----------|-----------|------------|------------|
| TWIN | 100 Kg | A70.094155 | A70.094157 |
| TWIN | 30 Kg | A70.094156 | A70.094157 |
| Mini TWIN | 30 Kg | A70.094168 | A70.094170 |
| Mini TWIN | 10 Kg | A70.094169 | A70.094170 |

Ultrasonic sensor

for grease



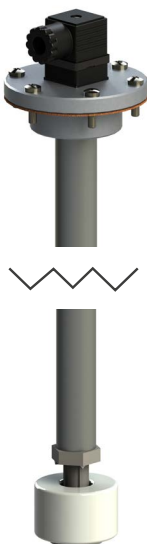
They measure the delta time of a train wave reflected on the lubricant surface inside the reservoir.

They offer good precision and measuring does not rely on grease consistency.

| Pump | Reservoir | Continuous |
|-----------|-----------|------------|
| TWIN | 100-30 Kg | A70.094158 |
| Mini TWIN | 30 Kg | A70.094167 |

Reed sensor

for oil

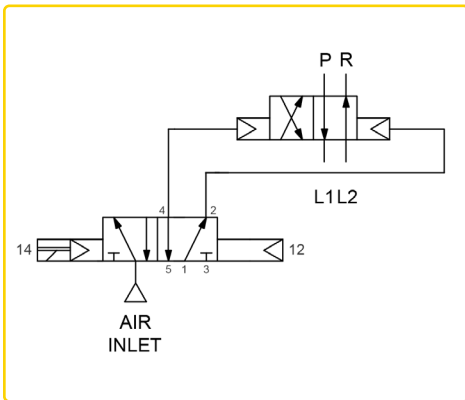
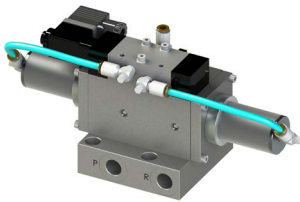


Capacitive sensor can be installed for both minimum and maximum oil level control.

Within the configurator you can select both the minimum and maximum control code.

| Pump | Reservoir | Min | Max |
|-----------|-----------|------------|------------|
| TWIN | 100 Kg | A70.094160 | A70.094162 |
| TWIN | 30 Kg | A70.094161 | A70.094162 |
| Mini TWIN | 30 Kg | A70.094171 | A70.094173 |
| Mini TWIN | 10 Kg | A70.094172 | A70.094173 |

Pneumatic reversing valve

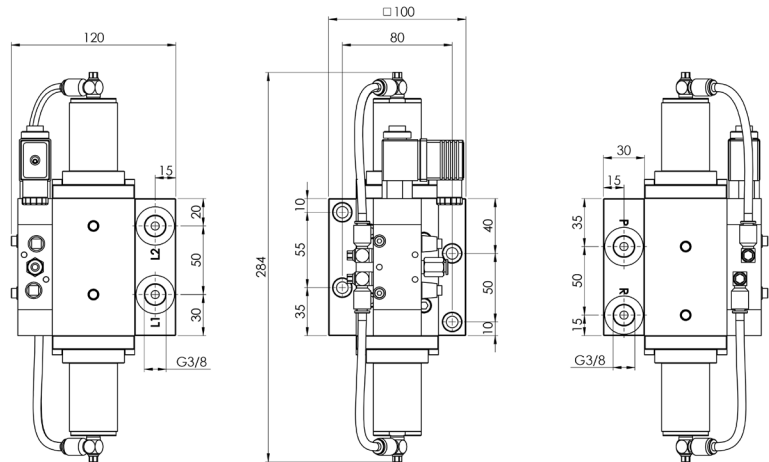


| | | for pump | |
|---------------|-----------------|------------|--|
| Assembled | Reversing valve | Block | |
| 55.IEP10.115V | 55.IEP10.V.115V | A51.082195 | |
| 55.IEP10.230V | 55.IEP10.V.230V | A51.082195 | |
| 55.IEP10.24AC | 55.IEP10.V.24AC | A51.082195 | |
| 55.IEP10.24DC | 55.IEP10.V.24DC | A51.082195 | |

| | | for line | |
|-----------------|-----------------|------------|--|
| Assembled | Reversing valve | Block | |
| 55.IEP10.115V.L | 55.IEP10.V.115V | A51.082217 | |
| 55.IEP10.230V.L | 55.IEP10.V.230V | A51.082217 | |
| 55.IEP10.24AC.L | 55.IEP10.V.24AC | A51.082217 | |
| 55.IEP10.24DC.L | 55.IEP10.V.24DC | A51.082217 | |

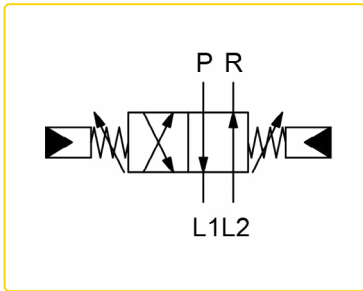
Technical data

| | |
|----------------------------|---|
| Max delivery (oil 100 cSt) | 40 L/Min |
| Max working 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 |
| Working temperature | -30° C ÷ + 70° C |
| Humidity | 90% |
| Protection degree | IP-55 |
| Inlets / Outlets | G3/8" BSP |



Line reversing valve measures

Hydraulic reversing valve



for pump

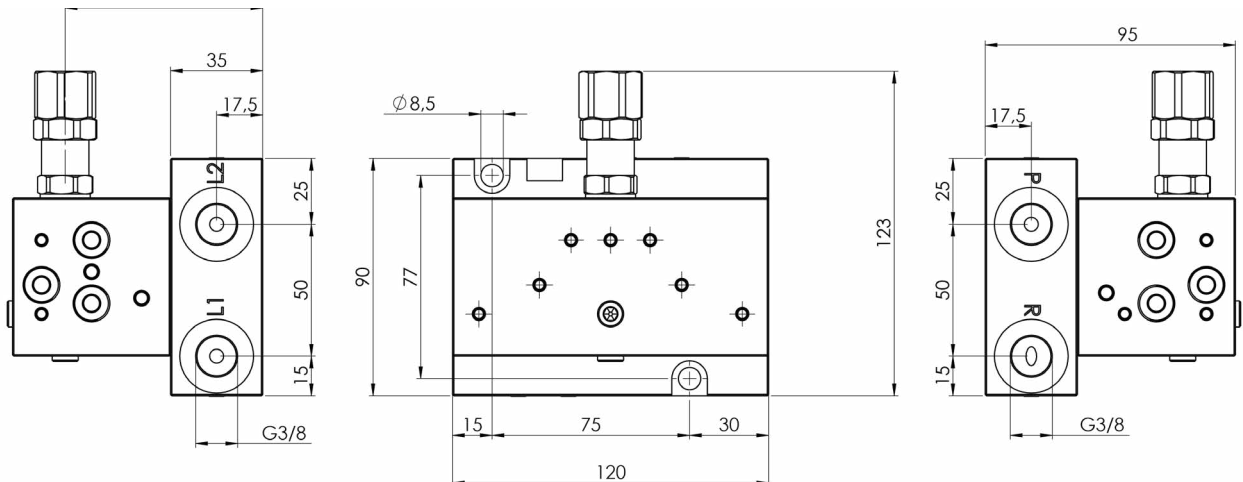
| Assembled | Reversing valve | Block |
|-----------|-----------------|------------|
| 55.ISP10 | 55.ISP10.V | A51.082216 |

for live

| Assembled | Reversing valve | Block |
|------------|-----------------|------------|
| 55.ISP10.L | 55.ISP10.V | A51.082218 |

Technical data

| | |
|----------------------------|------------------------------|
| Max delivery (oil 100 cSt) | 400 cc/Min |
| Pressure adjustment | 50÷300 Bar – Setting 250 Bar |
| Max working pressure | 300 Bar |
| Lubricants | Grease Max. NLGI 2 |
| Working temperature | -25° C + 70° C |
| Humidity | 90% |
| Protection degree | IP-55 |
| Inlets / Outlets | G3/8" BSP |



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