

**DESIGNED TO WORK ALL DAY EVERY DAY IN HAZARDOUS AND HARSH ENVIRONMENTS**

The pumps series MINI TWIN and TWIN-PUMP are designed for all applications where use Dual Line Lubrication Systems

The **TWIN-PUMP** pumps are used primarily in dual-line systems or as supply pumps and have a maximum operating pressure of 400 bar. Depending on the system layout, these electric pumps can supply lubricant at distances of up to 120 meters and more.

Available with a 30 or 100kg reservoir, the high pressure TWIN-PUMPS come standard with a pressure relief valve, check valve, lubricant filter and a pressure gauge.

These robust units operate effectively at temperatures ranging from -25 to +80 °C thanks to the integrated stirring device.

Both versions are provided of metal pallets standards for the fixing and handling



The **MINI-TWIN PUMP** grease lubrication unit is suitable for use in small to midsize dual-line lubrication systems. Its compact, modular construction enables it to be retrofitted from one system to another with minimal effort and expense. This electric-piston pump can be equipped with one pumping elements and with change-over valves.

Available with reservoir sizes of 10 or 30kg this robust pump has an operating pressure of max. 350 bar at temperatures ranging from -25 to +80 °C thanks to the integrated stirring device

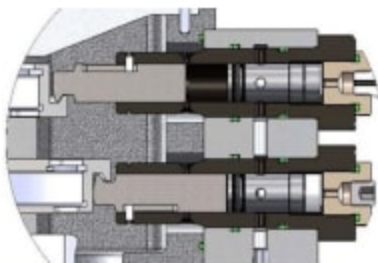
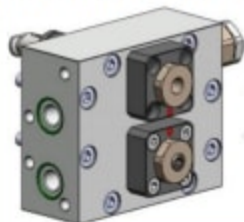
The Dual Line lubrication systems, generally used on machinery and plants of medium and large sizes, operate in difficult or extreme conditions of operation to lubricate the various points. The systems can be very complex and have a length greater than 100 meters. Any type of plant can be designed and realized in a reliable and efficient manner, with a possibility of easy expansion



## Housing pump MINI and TWIN-PUMP

The best feature of the TWIN-PUMP is the movement of the pumping elements that does not take place by means of a return spring but by a cam that creates the outward and return movement, all possible anomalies derived from springs are therefore eliminated. The pump can continue to work even if one of the two modules grinds to a halt.

The heart of the electric pump is constituted by the housing TWIN group where are housed the two elements (one in the MINI version) which, actuated alternately by the central cam, aspire and deliver lubricant. Inserted inside the front body can be installed or removed without acting on the pipes. In the same body are housed the pressure gauge and the adjustable safety valve.



## FEATURES TWIN and MINI-TWIN-PUMP



30 kg and 100 kg tanks for grease and oil with minimum and maximum level in painted steel - AISI 316L - or special painting



10 kg and 30 kg tanks for grease and oil with minimum and maximum level in painted steel - AISI 316L - or special painting

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

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

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

Drive motor with different voltage and protection

the easy structure of this pump allows all kinds of customizations and chance to add different components in order to satisfy any request

External components and pipes have been eliminated

pumps are supplied assembled to a metallic pallet easy grip in order to ensure safe and reliable handling.

STEP 1



STEP 2



## Technical data MINI and TWIN-PUMP



electrically operated piston pump

Function principle	electrically operated piston pump	
Operating Pressure	max 400Bar	max 350Bar
Safety Valve	Adjustable setting from 50 to 400 Bar	Adjustable setting from 50 to 350
Lubricant Output	400 cm <sup>3</sup> minute	25 cm <sup>3</sup> minute
Main line connection	3/8" BSP	
Operating temperature	-25°C - +70°C	
Humidity	90% max	
Suitable lubricant	Grease Max NLGI-2 (DIN 51818)	
Reservoir capacity	100 kg or 30 kg	30kg or 10kg
Pumping element number	2	1
Pressure Gauge	0 – 600 bar	
Lubricant filter	250µ area 7.5cm <sup>2</sup> with check valve	
Refilling Port	1/2" BSP	
Heat module	OPTIONAL	
Protection class	IP-65	
Mounting position	vertical	
Weight 10kg		36kg (empty)
Weight 30kg	85Kg (empty)	42kg (empty)
Weight 100kg	100kg (empty)	
Drive motor	0,75kw B5	0,18kw B3-B14 (0.25kw 1 phase)
Reversing Valve	Electrical – Pneumatic or Hydraulic	
Electrical Low and max Level	Ultrasonic 2 step or continuous level +15 ÷ 30V DC analog output Voltage 0-10V	
Electrical Low and max level (only for oil)	Reed contact 1, 5 A NC o NO 250 V AC 200 V DC 50 W	
Max level	Visual	
Protection Box unit	IP-65 standard steel - S5316.L	

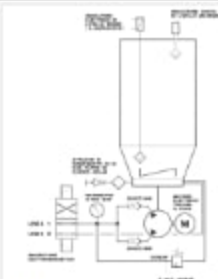
**Note:**

In case of 60 Hz motors the speed and thus the lubricant output may be less then the theoretical value calculated. With stiff greases and at low temperatures the effective output may be less then the theoretical value calculate

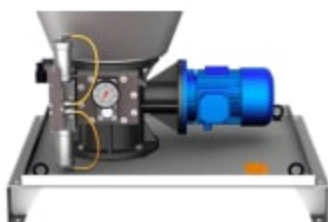
## REVERSING VALVES



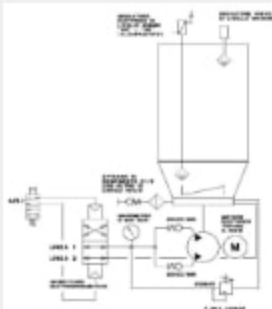
**Electromagnetic**



MAX DELIVERY (OIL cSt 100)	40 L/MIN	WEIGHT	12 KG
MAX WORKING PRESSURE	400 BAR	WORKING TEMPERATURE	-30° C ÷ + 70° C
LUBRICANTS	GREASE MAX. NLGI 2	HUMIDITY	90%
VOLTAGE	24V DC 115 - 230 V AC- 50/60 Hz	PROTECTION DEGREE	IP-55
INTEGRATED COIL PROTECTION	THERMAL SAFETY SYSTEM LIMITS THE TEMPERATURE AT 100° C	PORT L1-L2	G3/8" BSP



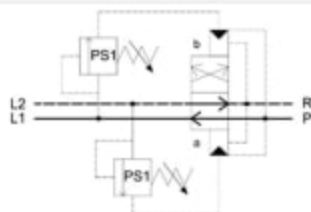
**Pneumatic**



MAX DELIVERY (OIL cSt 100)	40 L/MIN	WEIGHT	12 KG
MAX WORKING PRESSURE	400 BAR	WORKING TEMPERATURE	-30° C ÷ + 70° C
LUBRICANTS	GREASE MAX. NLGI 2	HUMIDITY	90%
VOLTAGE	24V DC 24 - 115 - 230 V AC- 50/60 Hz	PROTECTION DEGREE	IP-55
PORT L1-L2	G3/8" BSP		



**Hydraulic**



MAX DELIVERY (OIL 100 cSt)	400 CC/MIN	PORT L1-L2	G3/8" BSP
PRESSURE ADJUSTMENT	50÷300 BAR - SETTING 250 BAR	WORKING TEMPERATURE	- 25 + 70 ° C
MAX WORKING PRESSURE	300 BAR	HUMIDITY	90 %
PORT L1-L2	G3/8" BSP	LUBRICANTS	GREASE MAX NLGI2
WORKING TEMPERATURE	- 25 + 70 ° C	STORAGE TEMPERATURE	-20 ° +65 ° C



# TWIN-PUMP THE UNITS FOR DUAL LINE SYSTEMS

rev.02-2006

Order number configurator TWIN-PUMP

55 . G . 10 . S S . 5 . B . 1 . A . X

## LUBRICANT

Grease **G**Oil **O**

## RESERVOIRE

100Kg PAINTED STEEL **10**30Kg PAINTED STEEL **03**100Kg SS316.L **10X**30Kg SS316.L **03X**

## DRIVE MOTOR PUMP

## STANDARD PUMP

SIZE 0.75KW 8.5 **S**

MARKING IE2 IP-55

VOLTAGE 230/400V 50 HZ

280/480V 60HZ

## OPTIONAL IE2 IP-55

VOLTAGE 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 115V AC 60Hz **B**230V AC 50Hz **C**NO DRIVE MOTOR **X**

## MARKING

STANDARD IE2 IP-65 **S**ON REQUEST UL-CSA **U**ON REQUEST NEMA **N**

## REVERSING VALVE

ELECTROMAGNETIC 24V DC **1**115V AC **2**230V AC **3**PNEUMATIC 24V DC **4**24V AC **5**115V AC **6**230V AC **7**HYDRAULIC **9**NO REVERSING VALVE **X**

## ELECTRICAL LEVEL INDICATOR

## MIN AND MAX LEVEL INDICATOR

Capacitive sensor MIN LEVEL **A**Ultrasonic sensor ONLY MIN AND MAX **B**Ultrasonic sensor CONTINUOUS LEVEL **C**No level **X**

## Max level indicator

Visual [Standard] **1**No level **X**

THE ULTRASOUND MODEL CONTROLS THE MINIMUM AND MAXIMUM LEVEL. IF SELECTED, MARK AN X IN THE NEXT OPTION

## HEAT MODULE

No [standard] **A**Yes **B**Box steel IP-65 **1**Box SS316.L IP-65 **2**No pallet **X**



# TWIN-PUMP THE UNITS FOR DUAL LINE SYSTEMS

rev.02-2008

Order number configurator **MINI TWIN-PUMP**
**57 . G . 10 . S S . 5 . B . 1 . A . X**

## LUBRICANT

Grease	<b>G</b>
Oil	<b>O</b>

## RESERVOIRE

10Kg	PAINTED STEEL	<b>10</b>
30Kg	PAINTED STEEL	<b>30</b>
10Kg	SS316.L	<b>10X</b>
30Kg	SS316.L	<b>30X</b>

## DRIVE MOTOR PUMP

### STANDARD PUMP

SIZE	0.18KW B5	<b>S</b>
MARKING	IE2 IP-55	
VOLTAGE	230/400V 50 HZ 280/480V 60HZ	

### OPTIONAL IE2 IP-55

VOLTAGE	460 V 60 HZ	<b>H</b>
	380 V 60 HZ	<b>F</b>
	575 V 60 HZ	<b>D</b>
	500 V 50 HZ	<b>E</b>
	550 V 50 HZ	<b>G</b>
SINGLE PHASE	115V AC 60Hz	<b>B</b>
	230V AC 50Hz	<b>C</b>
NO DRIVE MOTOR		<b>X</b>

## MARKING

STANDARD	IE2 IP-65	<b>S</b>
ON REQUEST	UL-CSA	<b>U</b>
ON REQUEST	NEMA	<b>N</b>

## REVERSING VALVE

ELECTROMAGNETIC	24V DC	<b>1</b>
	115V AC	<b>2</b>
	230V AC	<b>3</b>
PNEUMATIC	24V DC	<b>4</b>
	24V AC	<b>5</b>
	115V AC	<b>6</b>
	230V AC	<b>7</b>
HYDRAULIC		<b>9</b>
NO REVERSING VALVE		<b>X</b>

## ELECTRICAL LEVEL INDICATOR

### MIN AND MAX LEVEL INDICATOR

Capacitive sensor	MIN LEVEL	<b>A</b>
Ultrasonic sensor	MIN AND MAX	<b>B</b>
Ultrasonic sensor	CONTINUOUS	<b>C</b>
No level		<b>X</b>

### Max level indicator

Visual [Standard]		<b>1</b>
No level		<b>X</b>

THE ULTRASOUND MODEL CONTROLS THE MINIMUM AND MAXIMUM LEVEL. IF SELECTED, MARK AN X IN THE NEXT OPTION

## HEAT MODULE

No [standard]	<b>A</b>
Yes	<b>B</b>

Box steel	IP-65	<b>1</b>
Box SS316.L	IP-65	<b>2</b>
No pallet		<b>X</b>

MINI – TWIN PUMP OVERALL DIMENSION

