

lubrication systems



PEGPEO

5N-10N-25N-210N

pumps for
progressive systems



TABLE OF CONTENTS

TABLE OF CONTENTS	2	PEG-PEO 25N/210N with 24V / 12V motor	
Applications and operation	3	Electric motor features 24V / 12V	18
Technical data		PEG-25N	19
		Overall dimensions (PEG-25N)	20
Operation	4	PEG-210N	21
Tank	4	Overall dimensions (PEG-210N)	22
		PEO-25N	23
		Overall dimensions (PEO-25N)	24
PEG-PEO 5N/10N/SM		PEO-210N	25
Electric motor features	5	Overall dimensions (PEO-210N)	26
PEG-5N	6		
Overall dimensions (PEG-5N)	7	PEG-MI with hydraulic motor	
PEG-5N/SM	8	Hydraulic motor features	27
PEG-10N	9	PEG-MI	28
Overall dimensions (PEG-10N)	10	Overall dimensions (PEG-MI)	29
PEG-10N/SM	11		
PEO-5N	12	Accessories	31
Overall dimensions (PEO-5N)	13	Grease inlet filters	31
PEO-5N/SM	14	Fixed flow rate pumping element	32
PEG-10N	15	Power supply blocks	32
Overall dimensions (PEG-10N)	16	Adjustable flow rate pumping element	35
PEO-10N/SM	17	Joints	36



All ILC products must only be used for their intended purposes, as specified in this brochure and in all instructions. If the product is supplied together with user instructions, the user is required to read them and comply with them. Not all lubricants are suitable for centralised lubrication systems. ILC lubrication systems or relative components cannot be used together with gas, liquid gas, pressurised gas in solution and liquids with vapour pressure exceeding the normal atmospheric pressure (1013 bar) by more than 0.5 bar, maximum temperature permitted. Any type of dangerous materials, in particular those classified as such by European Community Directive (EC) 67/548/EEC, Article 2 (2), can only be used in ILC centralised lubrication systems or relative components upon consultation with ILC and after having received written approval by the company.

Description

PEG/PEO 5N/10N are ideal for automatic lubrication of all types of industrial machines. Together with the DPL, DPX and DMX progressive dividers, they can lubricate over 300 points with a single pump.

Technical data

Number of outlets	from 1 to 3
Flow rate per cycle with fixed pumping element	0.16 cc
Flow rate per cycle with adjustable pumping element	0.01 - 0.16 cc
Suitable lubricants	Grease up to a max consistency of NLGI 2 Mineral oils 50-1500 cSt
Maximum operating pressure	300 Bar (4200 PSI)
Reservoir capacity	5 kg or 10 kg (PEG) 5 or 10 L (PEO)
Temperature	from - 30 °C to + 80 °C
Delivery fitting	1 / 4" G

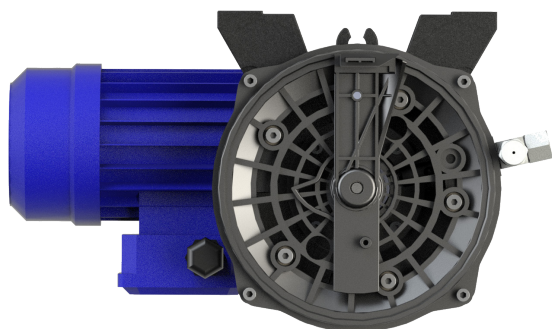
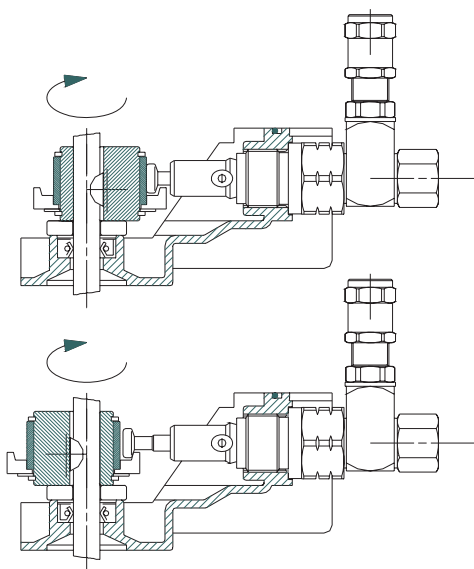
PEG electric levels

Power supply voltage	250 V AC, 125 V DC
Absorption	5 A (250 V AC), 0.4 A (125 V DC)
Protection rating	IP65
Resistive	Load

PEO electric levels

Power supply voltage	250 V AC, 200 V DC
Power	50 W
Protection rating	IP65
Resistive	Load
Absorption	1.5 A

Operation



The PEG/PEO 5N/10N/25N pumps have been designed for intermittent or continuous operation and provide pre-programmed lubrication cycles according to the applications.

A gearmotor and a motor control an internal cam that operates up to 3 pumping elements mounted externally.

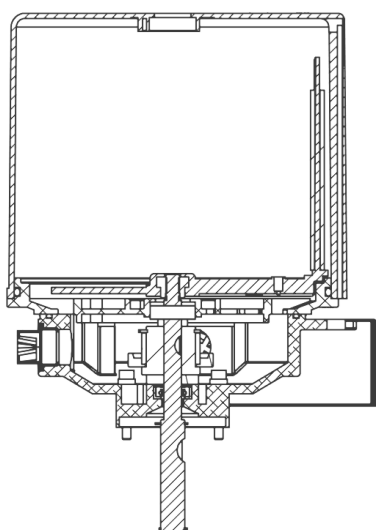
Each pumping element is equipped with an adjustable pressure relief valve capable of protecting the pump and the elements from overpressure.

It is possible to convey the flows of a second and third pumping element into a single outlet for a greater flow rate.

Installation

The pumps must be mounted vertically by means of the fixing bracket integrated in the pump body.

Tank

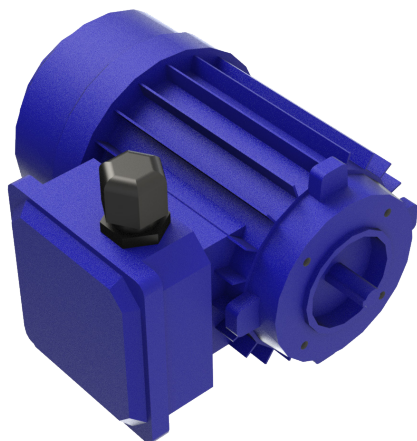


The tank is made of metal. It has a capacity of 5/10 KG (PEG) and 5/10 L(PEO) and, upon request, can be provided with minimum level control.

The pumps can operate at a maximum recommended pressure of 350 bar with a maximum flow rate output of 0.16 cc/cycle. The standard setting is 250 bar.

The internal shaft is coupled to a spatula device in the tank of the pump in order to ensure continuous intake of the pumping elements, also with grease having a consistency of NLGI 2 and an ambient temperature of -30 °C.

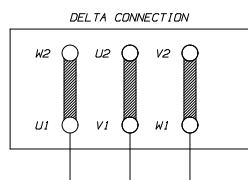
Motor for PEG-PEO 5N and 10N pumps



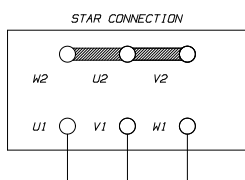
The PEG-PEO series electric pumps have a standard configuration that has a three-phase motor. It is possible to supply single-phase motors 115 VAC, 230 VAC 50/60 Hz or motors with special voltages.

For orders with motors of different voltages, add the voltage value to the relative code, for example **90.880.5** becomes **90.880.5.230**.

Three-phase			A94.150053		General features	
Power supply voltage	Frequency	Absorption			Power	90 W
220-240/380-420	50 Hz	0.64–0.74/0.37-0.46 A			Protection rating	IP55
254-280/440-480	60 Hz	0.64–0.74/0.37-0.46 A			Service	Continuous S1
					Insulation	Class F
					Construction shape	B14
					Size	Mec56



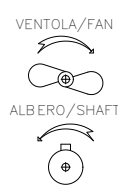
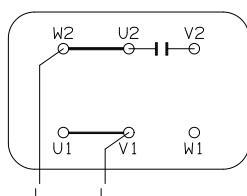
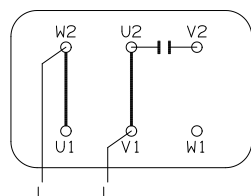
DELTA CONNECTION FOR:
220-240 V 50 Hz
254-280 V 60 Hz



STAR CONNECTION FOR:
380-420 V 50 Hz
440-480 V 60 Hz

The three-phase motor is supplied with a star electric connector

Single-phase		A94.150054 / A94.150054		
Power supply voltage	Frequency	Absorption	Code	
115 V AC	50/60 Hz	2.2 A	A94.150053	
230 V AC	50/60 Hz	0.9 A	A94.150054	



PEG-5N



PEG-5N is an electric pump for grease equipped with a 5 kg metal tank.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

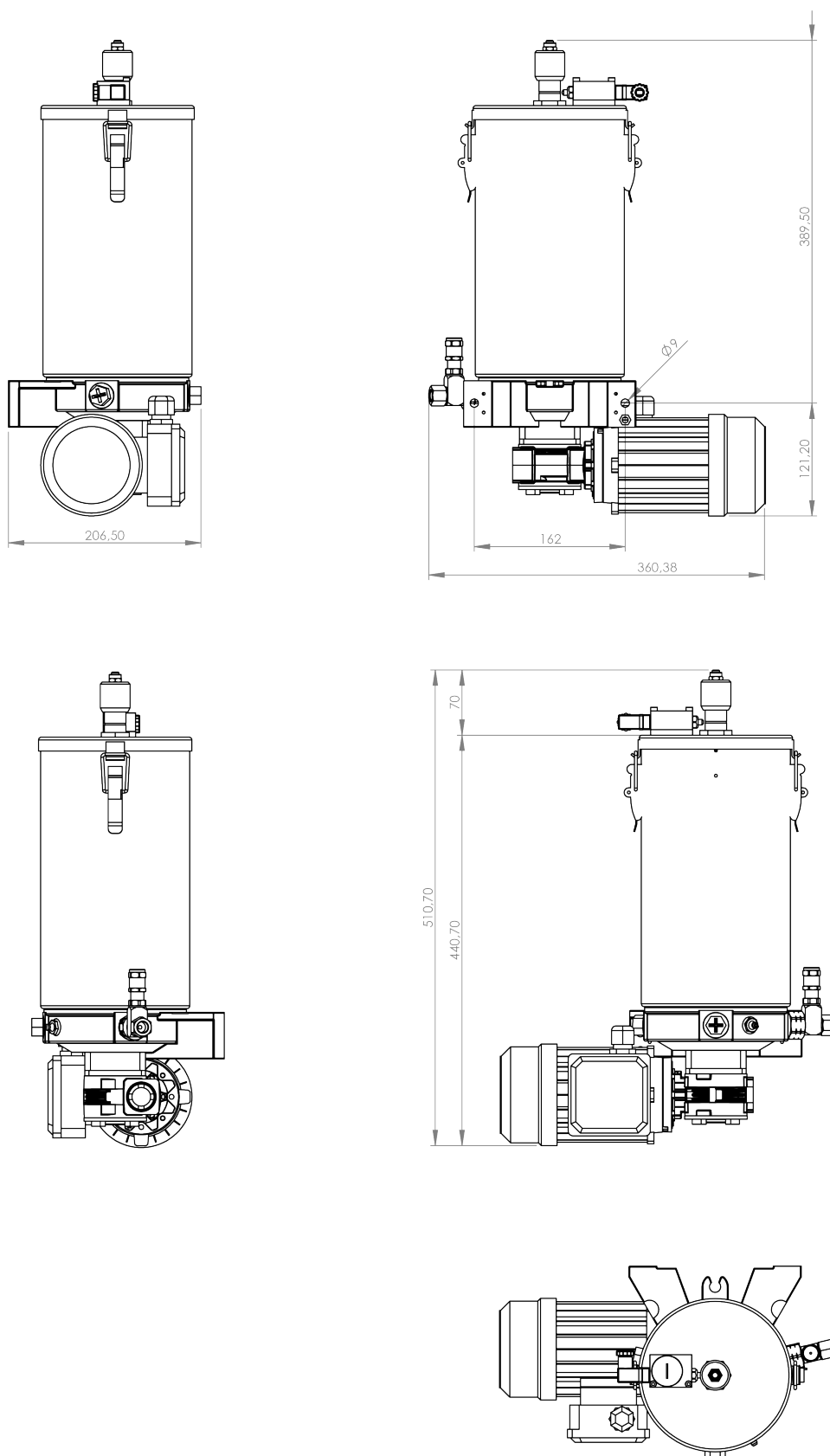
with electric level

Ordering code	Reduction ratio	Cycles /1' 50Hz	Cycles /1' 60Hz	Adjustable flow rate
90.880.0	1-30	46	55	no
90.880.2	1-50	28	33	no
90.880.5	1-80	17	20	no
90.898.0	1-30	46	55	yes
90.898.1	1-80	17	20	yes

with minimum and maximum electric level

Ordering code	Reduction ratio	Cycles /1' 50Hz	Cycles /1' 60Hz	Adjustable flow rate
90.880.0.HL	1-30	46	55	no
90.880.2.HL	1-50	28	33	no
90.880.5.HL	1-80	17	20	no
90.898.0.HL	1-30	46	55	yes
90.898.1.HL	1-80	17	20	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



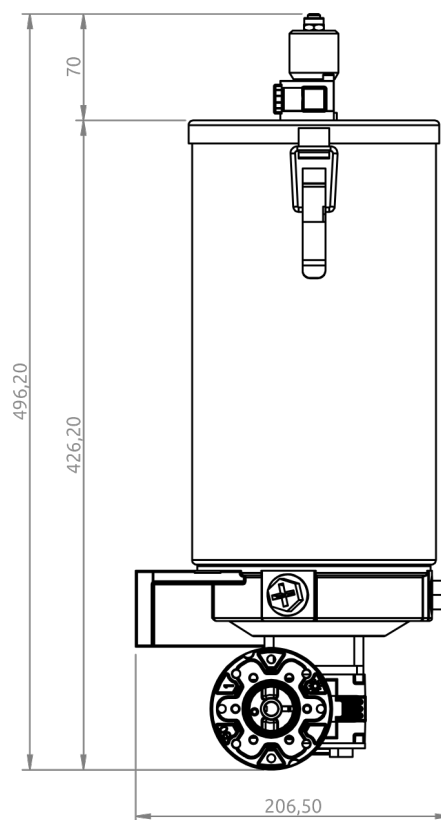
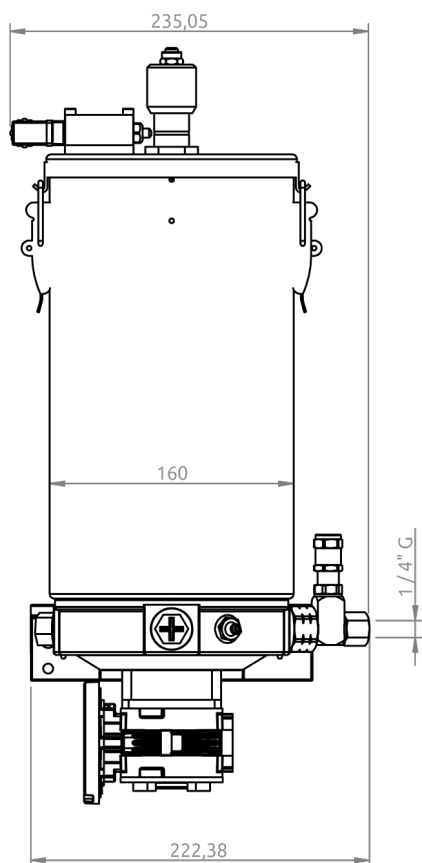
PEG-5N/SM



PEG-5N/SM is an electric pump for grease equipped with a 5 kg metal tank, without motor.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

Ordering code	Reduction ratio	Adjustable flow rate
90.884.0	1-30	no
90.884.2	1-50	no
90.884.5	1-80	no
90.901.0	1-30	yes
90.901.1	1-80	yes



PEG-10N



PEG-10N is an electric pump for grease equipped with a 10 kg metal tank.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

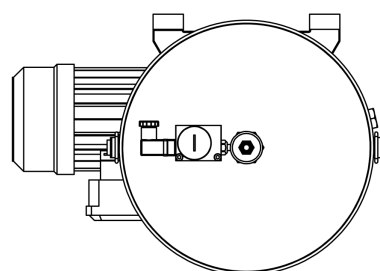
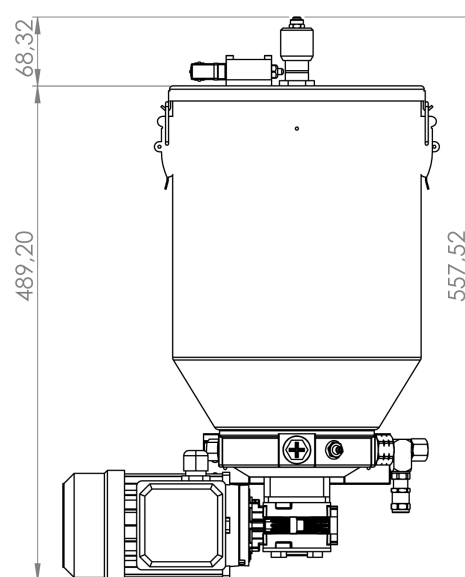
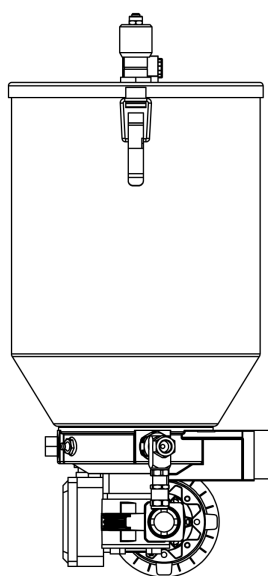
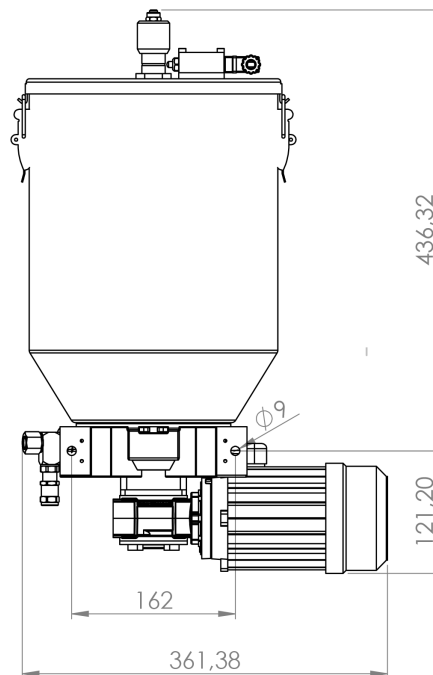
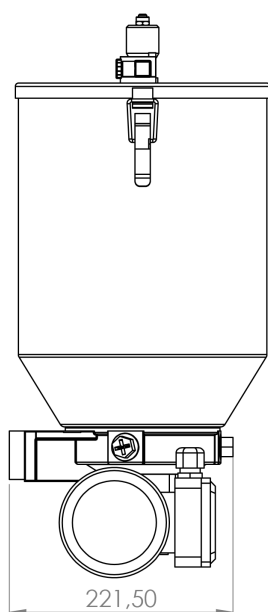
with electric level

Ordering code	Reduction ratio	Cycles /1' 50Hz	Cycles /1' 60Hz	Adjustable flow rate
90.922.0	1-30	46	55	no
90.922.1	1-50	28	33	no
90.922.2	1-80	17	20	no
90.923.0	1-30	46	55	yes
90.923.1	1-80	17	20	yes

with minimum and maximum electric level

Ordering code	Reduction ratio	Cycles /1' 50Hz	Cycles /1' 60Hz	Adjustable flow rate
90.922.0.HL	1-30	46	55	no
90.922.1.HL	1-50	28	33	no
90.922.2.HL	1-80	17	20	no
90.923.0.HL	1-30	46	55	yes
90.923.1.HL	1-80	17	20	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



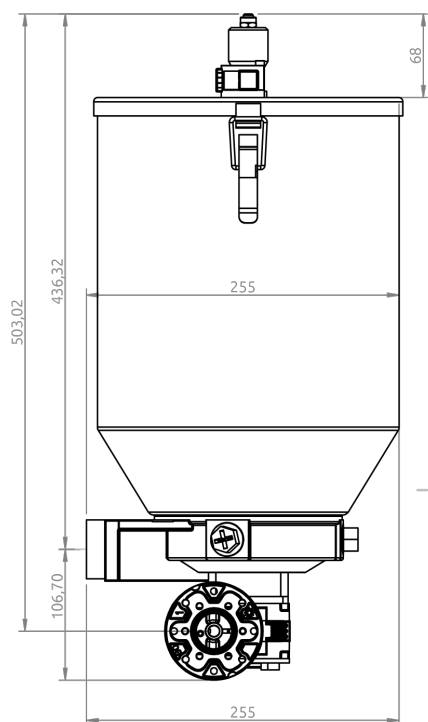
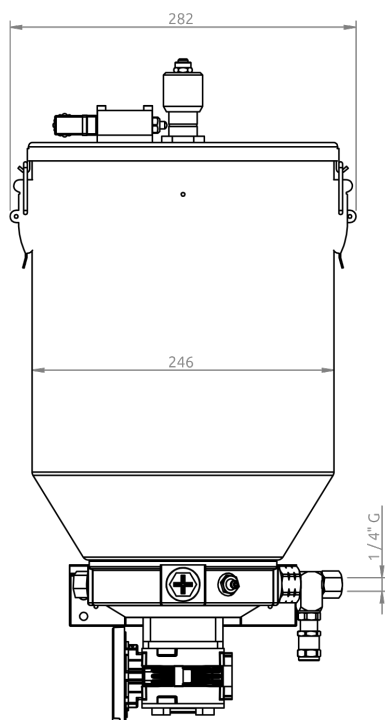
PEG-10N/SM



PEG-10N/SM is an electric pump for grease equipped with a 10 kg metal tank, without motor.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

Ordering code	Reduction ratio	Adjustable flow rate
90.923.5	1-30	no
90.923.6	1-50	no
90.923.7	1-80	no
90.923.8	1-30	yes
90.923.9	1-80	yes



PEO-5N



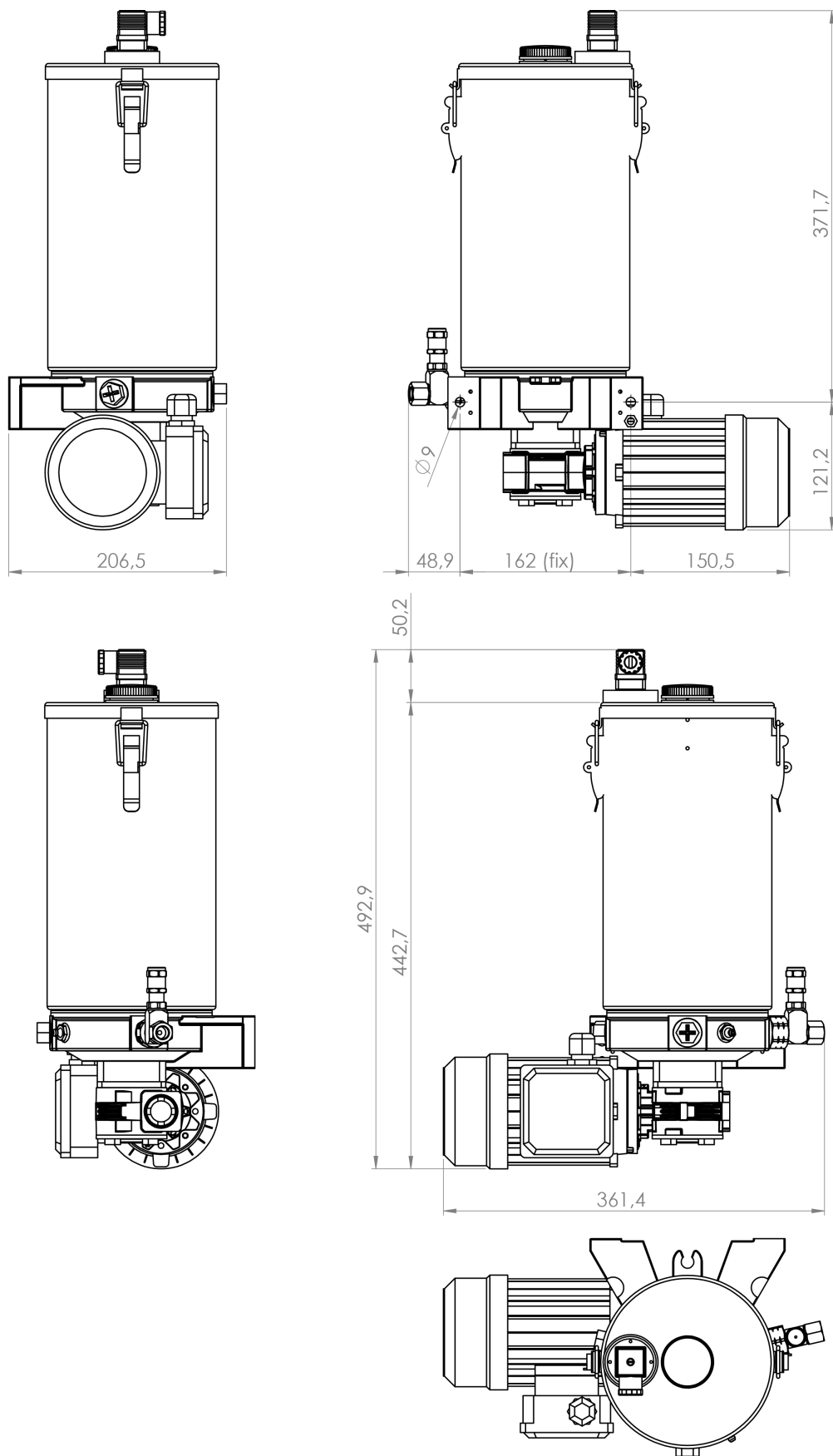
PEO-5N is an electric pump for oil equipped with a 5L metal tank.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

With electric level

Ordering code	Reduction ratio	Cycles /1' 50Hz	Cycles /1' 60Hz	Adjustable flow rate
90.892.0	1-30	46	55	no
90.892.2	1-50	28	33	no
90.892.5	1-80	17	20	no
90.905.0	1-30	46	55	yes
90.905.1	1-80	17	20	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



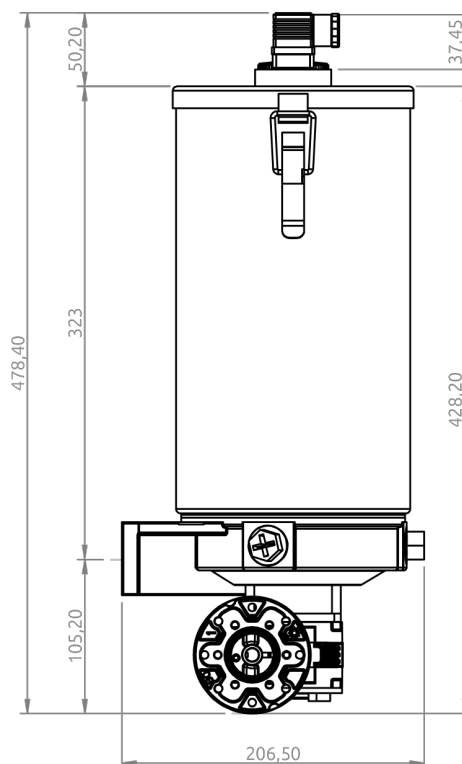
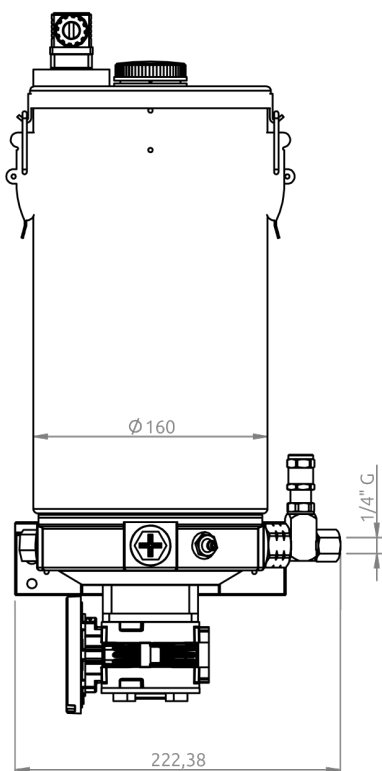
PEO-5N/SM



PEO-5N/SM is an electric pump for oil equipped with a 5L metal tank, without motor.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

Ordering code	Reduction ratio	Adjustable flow rate
90.894.0	1-30	no
90.894.2	1-50	no
90.894.5	1-80	no
90.907.0	1-30	yes
90.907.1	1-80	yes



PEO-10N

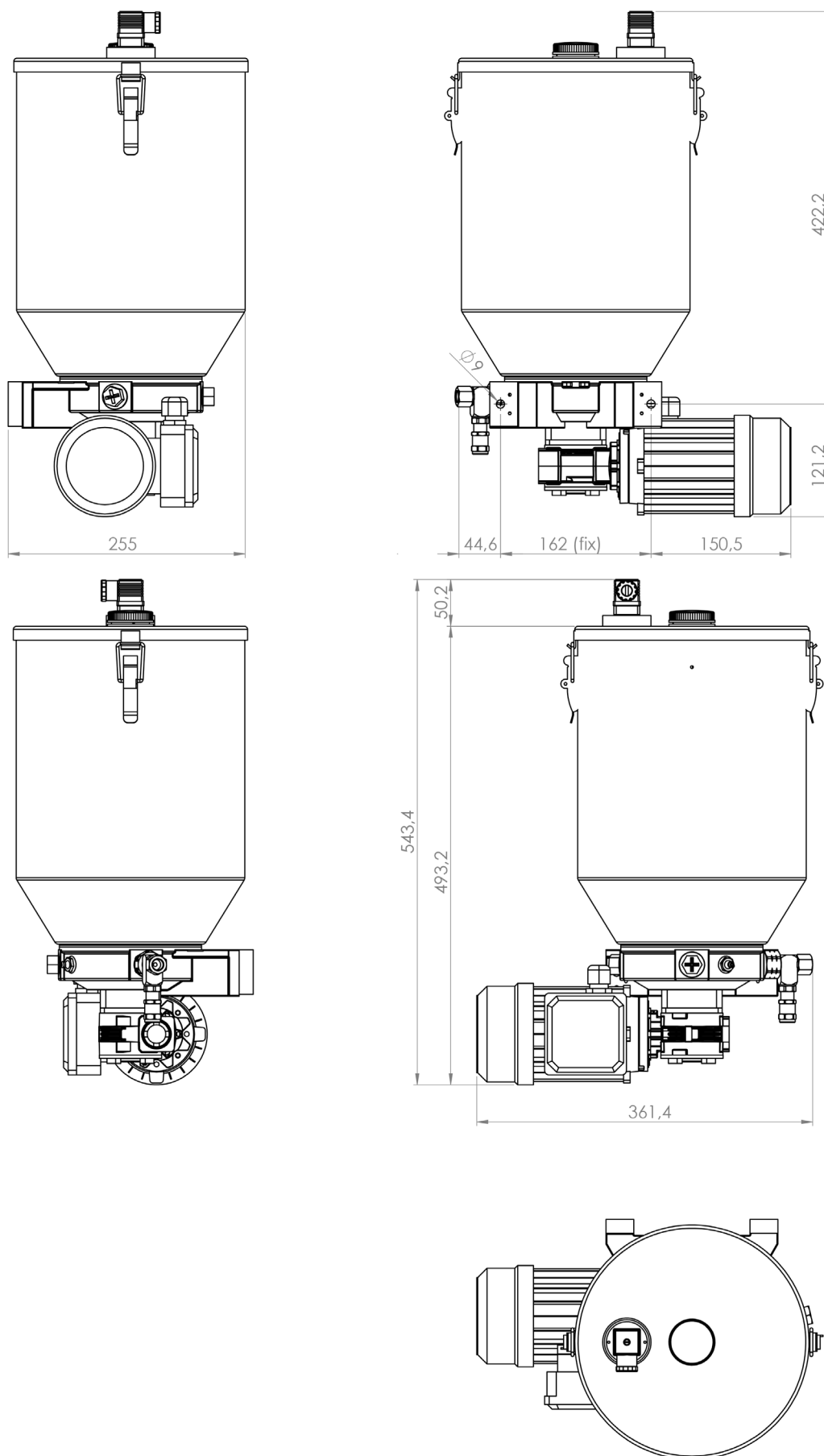


PEO-10N is an electric pump for oil equipped with a 10L metal tank.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

With electric level				
Ordering code	Reduction ratio	Cycles /1' 50Hz	Cycles /1' 60Hz	Adjustable flow rate
90.924.0	1-30	46	55	no
90.924.1	1-50	28	33	no
90.924.2	1-80	17	20	no
90.924.3	1-30	46	55	yes
90.924.4	1-80	17	20	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



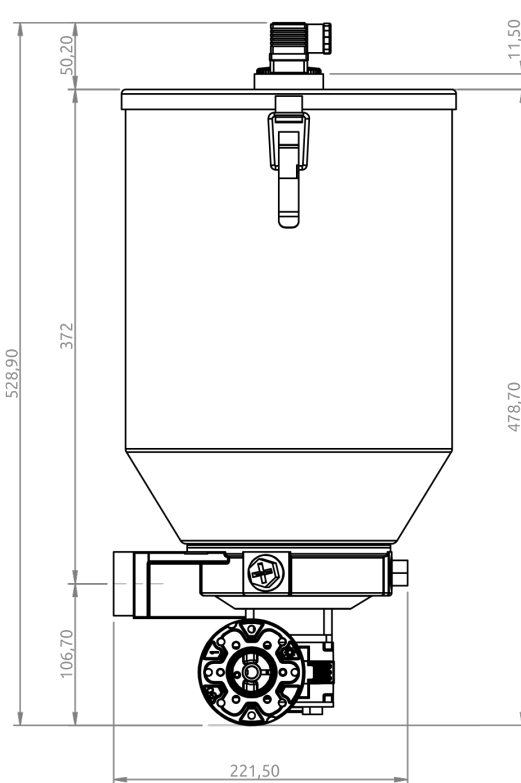
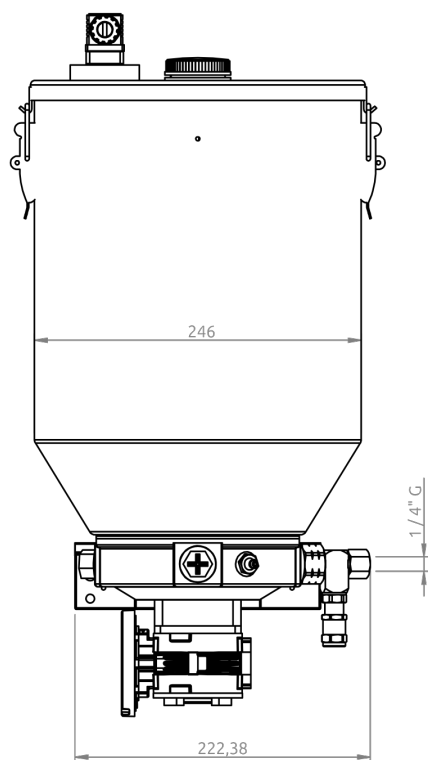
PEO-10N/SM



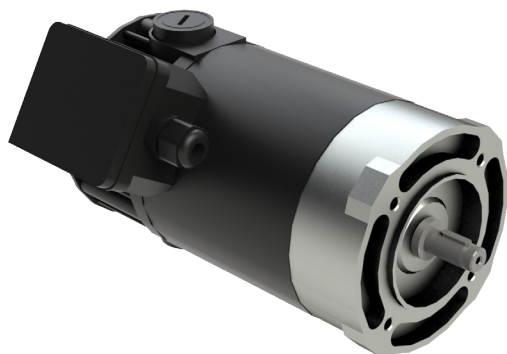
PEO-10N/SM is an electric pump for oil equipped with a 5L metal tank, without motor.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

Ordering code	Reduction ratio	Adjustable flow rate
90.924.5	1-30	no
90.924.6	1-50	no
90.924.7	1-80	no
90.924.8	1-30	yes
90.924.9	1-80	yes



Electric motor (PEG-PEO 25N and 210N)



The PEG/PEO 25N/210N electric pump series has a standard configuration of 24V or 12V motor. The electric motor has power of 85 W and 1500 rpm.

24V motor**A94.150150**

Power	85 W
Absorption	4.2 A
Service	Continuous S1
Insulation	Class F
Protection rating	IP54
Rpm	1500

12V motor**A94.150341**

Power	85 W
Absorption	v8.4 A
Service	Continuous S1
Insulation	Class F
Protection rating	IP54
Rpm	1500

PEG-25N



PEG-25N is an electric pump for grease equipped with a 5L metal tank. The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

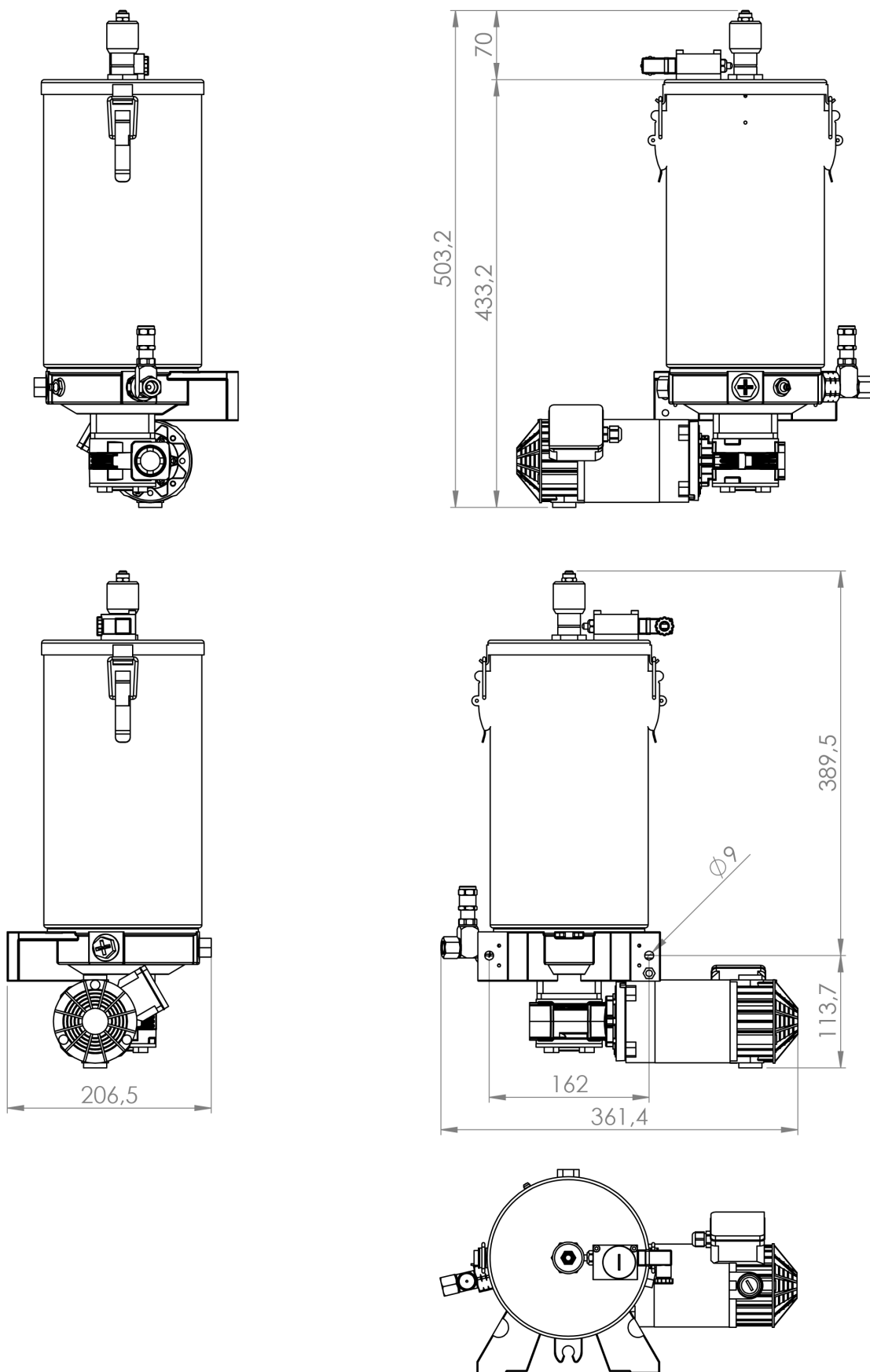
with electric level

24 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.881.0	1-30	46	no
90.881.2	1-50	28	no
90.881.5	1-80	17	no
90.899.0	1-30	46	yes
90.899.1	1-80	17	yes
12 V			
90.887.0	1-30	46	no
90.887.1	1-50	28	no
90.887.2	1-80	17	no
90.887.3	1-30	46	yes
90.887.4	1-80	17	yes

with minimum and maximum electric level

24 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.881.0.HL	1-30	46	no
90.881.2.HL	1-50	28	no
90.881.5.HL	1-80	17	no
90.899.0.HL	1-30	46	yes
90.899.1.HL	1-80	17	yes
12 V			
90.887.0.HL	1-30	46	no
90.887.1.HL	1-50	28	no
90.887.2.HL	1-80	17	no
90.887.3.HL	1-30	46	yes
90.887.4.HL	1-80	17	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



PEG-210N



PEG-210N is an electric pump for grease equipped with a 10 kg metal tank. The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

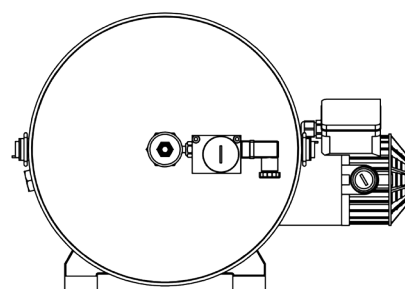
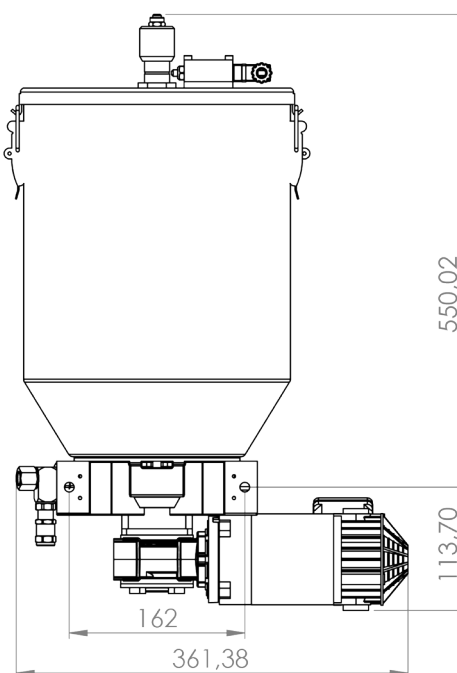
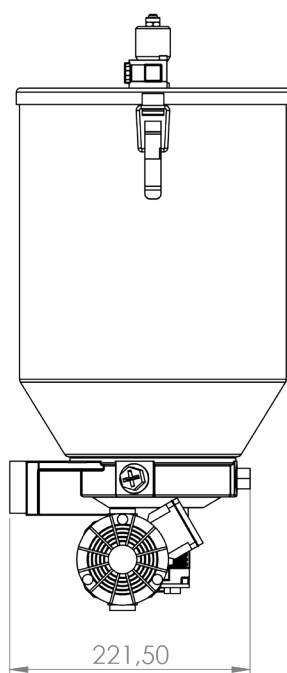
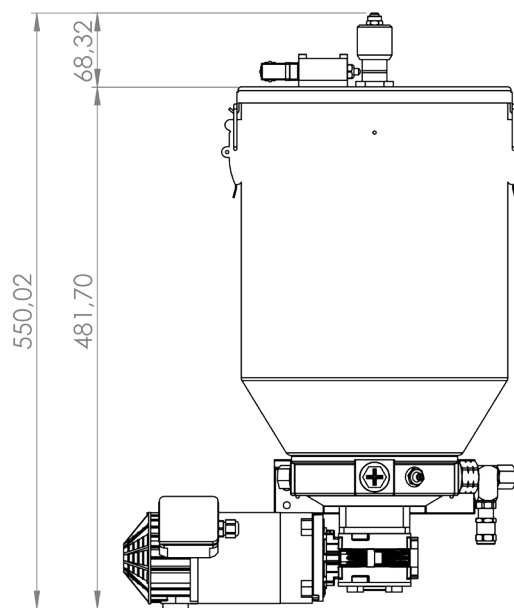
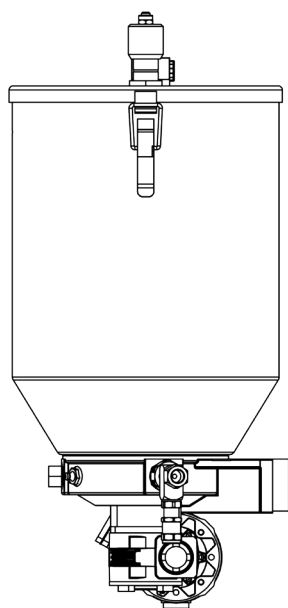
with electric level

24 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.881.6	1-30	46	no
90.881.7	1-50	28	no
90.881.8	1-80	17	no
90.899.2	1-30	46	yes
90.899.3	1-80	17	yes
12 V			
90.888.0	1-30	46	no
90.888.1	1-50	28	no
90.888.2	1-80	17	no
90.888.3	1-30	46	yes
90.888.4	1-80	17	yes

with minimum and maximum electric level

24 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.881.0.HL	1-30	46	no
90.881.2.HL	1-50	28	no
90.881.5.HL	1-80	17	no
90.899.0.HL	1-30	46	yes
90.899.1.HL	1-80	17	yes
12 V			
90.887.0.HL	1-30	46	no
90.887.1.HL	1-50	28	no
90.887.2.HL	1-80	17	no
90.887.3.HL	1-30	46	yes
90.887.4.HL	1-80	17	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



PEO-25N

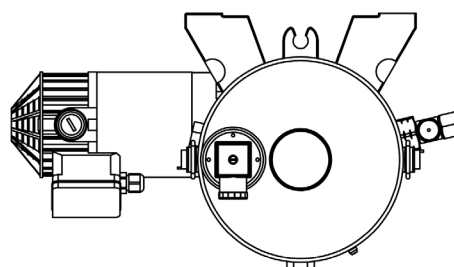
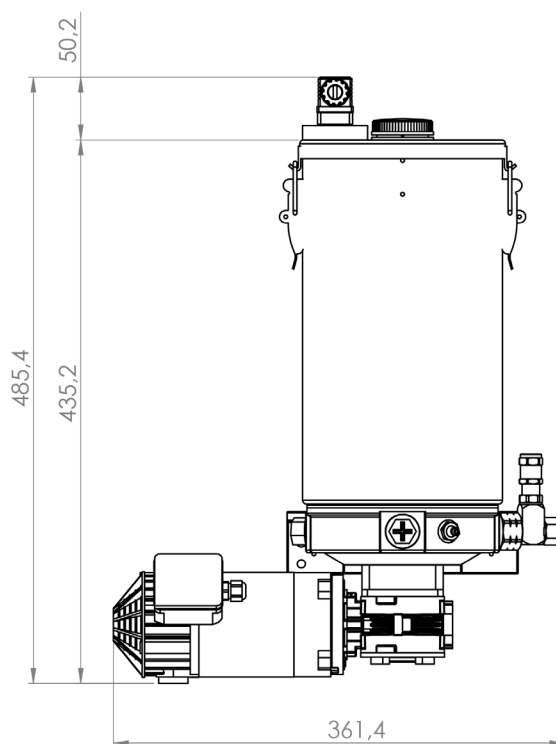
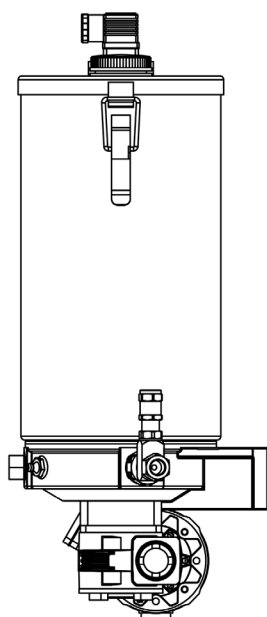
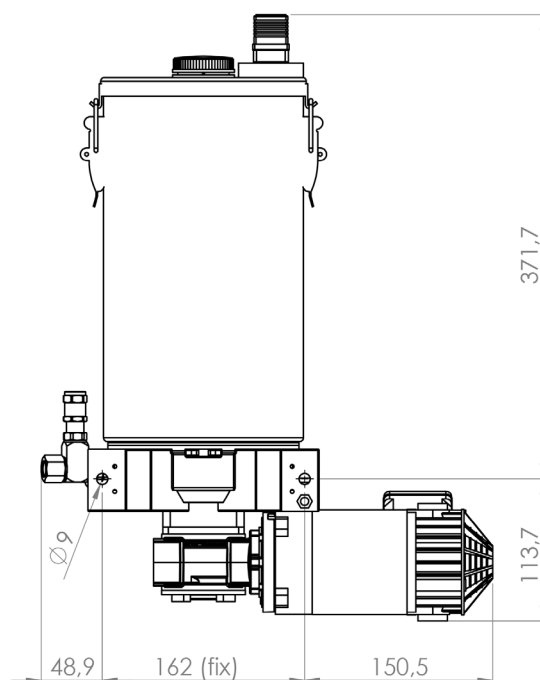
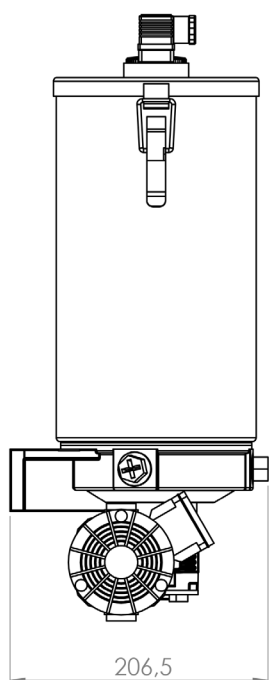


PEO-25N is an electric pump for oil equipped with a 5L metal tank. The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

24 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.893.0	1-30	46	no
90.893.2	1-50	28	no
90.893.5	1-80	17	no
90.906.0	1-30	46	yes
90.906.1	1-80	17	yes

12 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.913.4	1-30	46	no
90.913.5	1-50	28	no
90.913.6	1-80	17	no
90.913.7	1-30	46	yes
90.913.8	1-80	17	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



PEO-210N

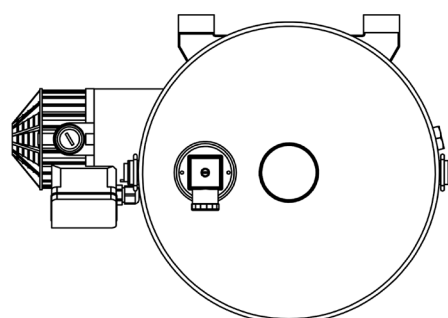
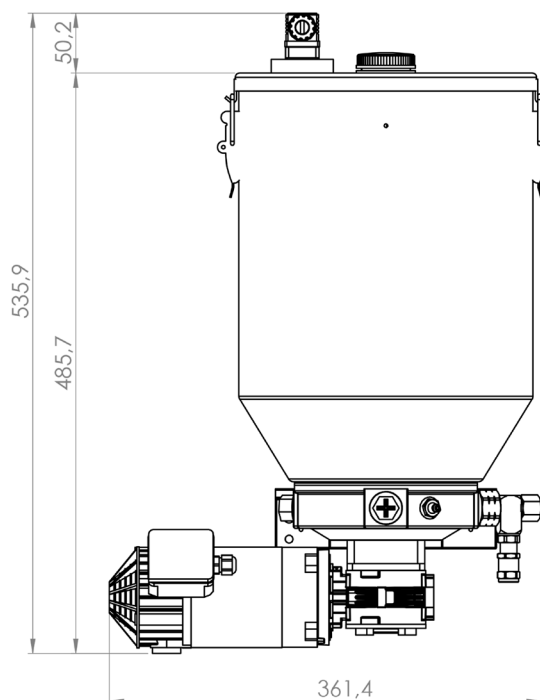
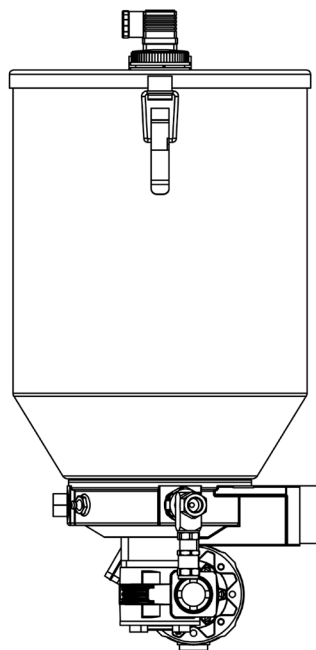
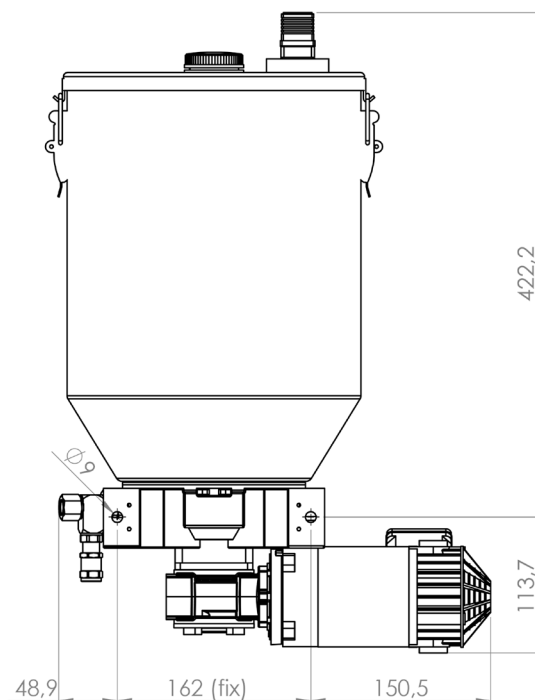
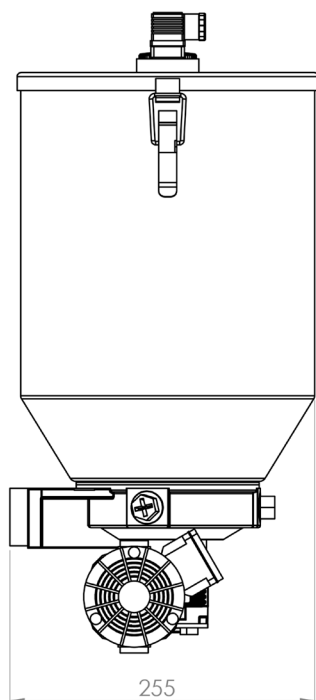


PEO-210N is an electric pump for oil equipped with a 10L metal tank. The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

24 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.893.6	1-30	46	no
90.893.7	1-50	28	no
90.893.8	1-80	17	no
90.906.2	1-30	46	yes
90.906.3	1-80	17	yes

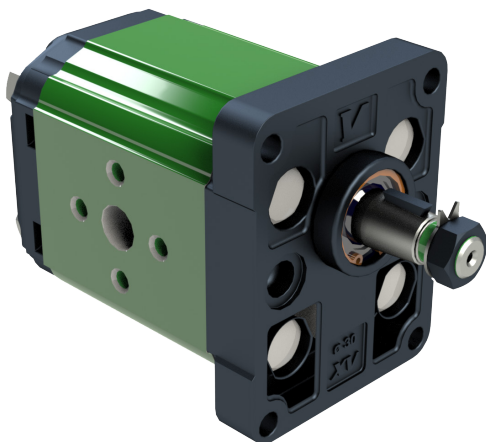
12 V			
Ordering code	Reduction ratio	Cycles /1'	Adjustable flow rate
90.914.0	1-30	46	no
90.914.1	1-50	28	no
90.914.2	1-80	17	no
90.914.3	1-30	46	yes
90.914.4	1-80	17	yes

**Any variations in the price due to the use of different motors than standard must be requested directly from ILC.*



Hydraulic motor

A97.061020



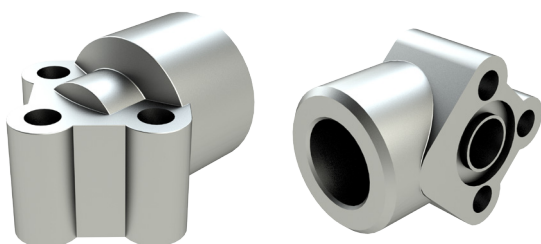
The PEG-PEO series electric pumps can be equipped with a hydraulic motor.

General features

MAX inlet pressure	250 Bar
MIN inlet pressure	10 Bar
MAX continuous back pressure	6 Bar
MAX peak inlet pressure	300 Bar
Speed	from 700 to 5000 rpm
Flow rate per rev	6.5 cc
Minimum flow rate	4.5 L/min.
Maximum flow rate	32.5 L/min.
Displacement	6.50 cc/rev
Torque (theoretic) at 100 bar	8.79 Nm
Power	0.92 kW

Fittings

A92.106424



90° aluminium fittings of 3/8". Order 2 fittings for each pump. The fittings are complete with M6x20 screws and O-rings.

PEG-5N-MI

90.884.8



PEG-5N-MI is an electric pump for grease equipped with a 5 kg metal tank and hydraulic motor. The reduction ratio is 1:50.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.

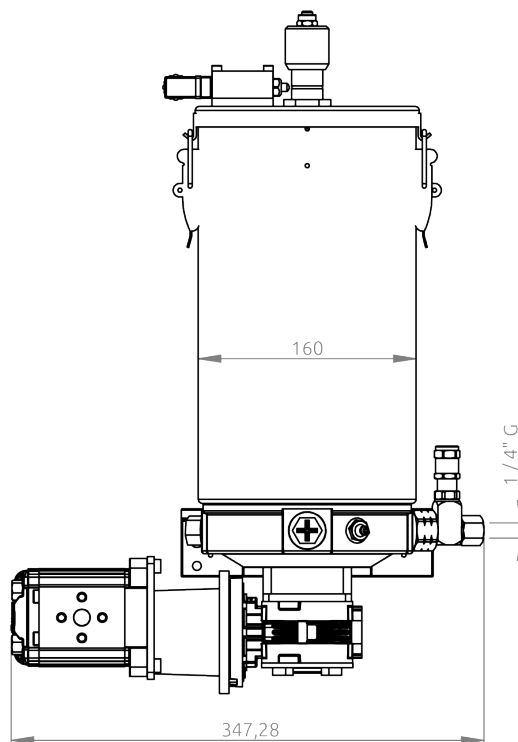
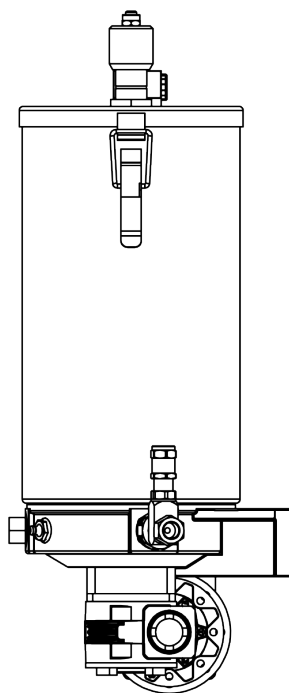
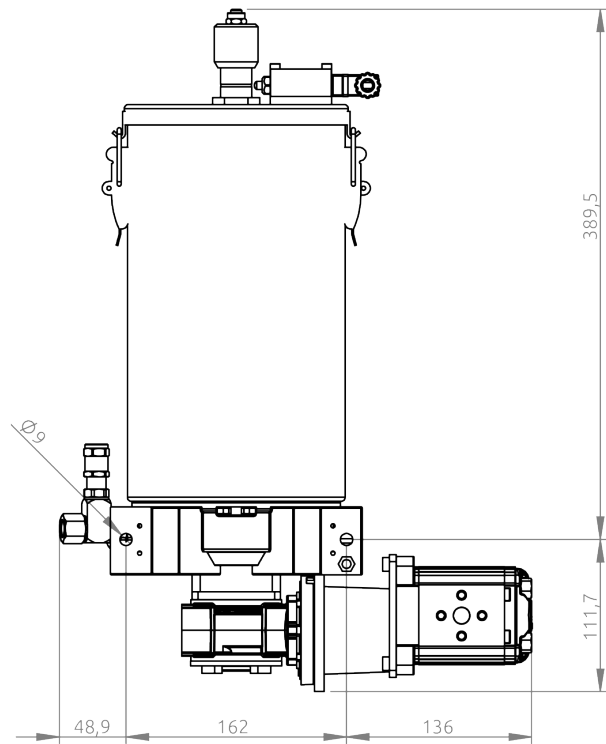
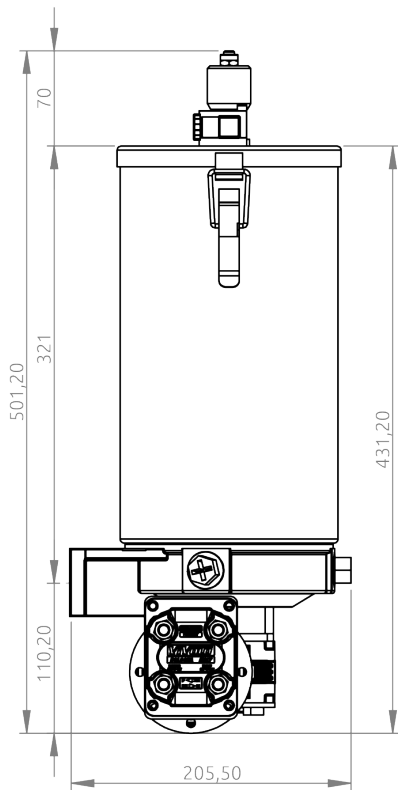
PEG-10N-MI

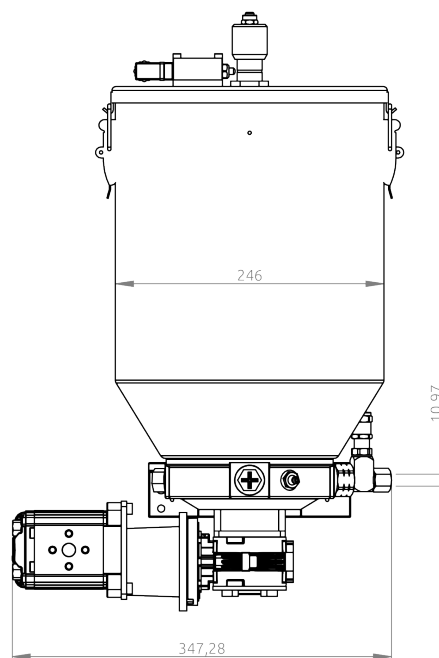
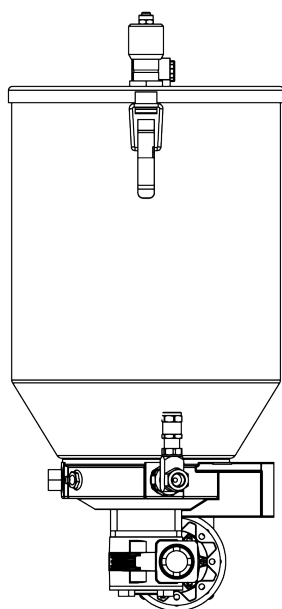
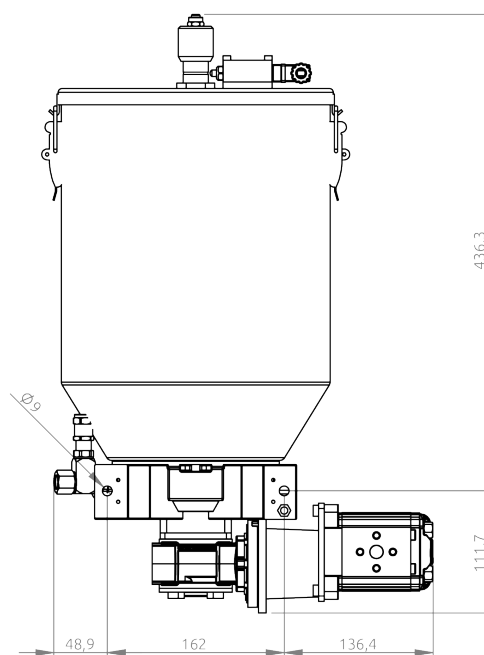
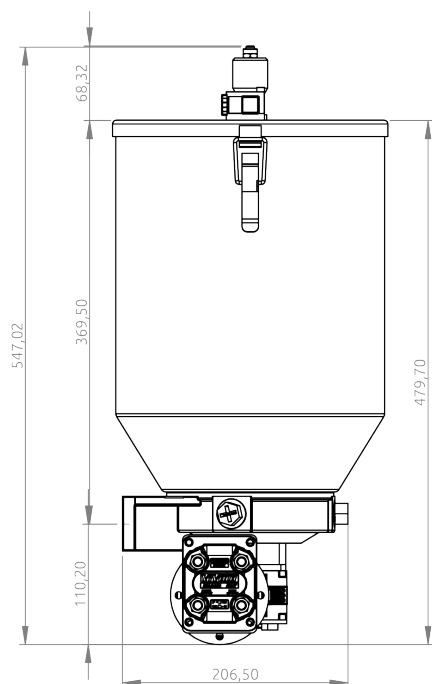
90.922.8



PEG-10N-MI is an electric pump for grease equipped with a 10 kg metal tank and hydraulic motor. The reduction ratio is 1:50.

The standard version is supplied with a single outlet. Additional pumping elements must be ordered separately.





Grease inlet filters

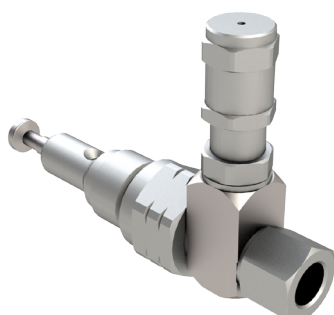
07.270.0



To prevent impurities from entering while the tank is being filled, we recommend applying inlet filters directly on the pump body by unscrewing the needle grease nipple.

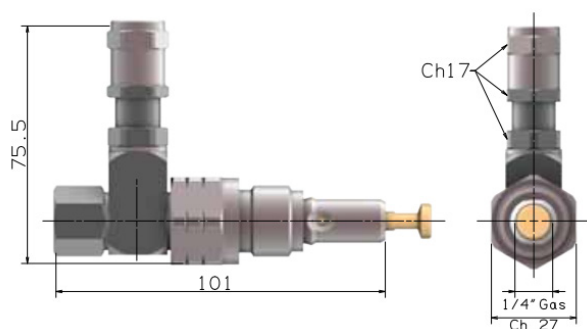
Fixed flow rate pumping element

90.900.0



All the electric pumps of the Peg series can be equipped, even subsequently, with a 2nd and 3rd pump capable of feeding other main lines or of conveying the delivered lubricant in the same pipe.

To make final use more practical, the delivery connection has been implemented by means of an adjustable 360° joint with an adjustable safety valve inserted to protect the various elements from overpressure.



Power supply block

40.BMI.02

**Pressure gauge - Safety valve - Grease nipple**

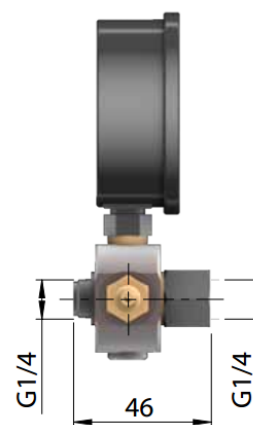
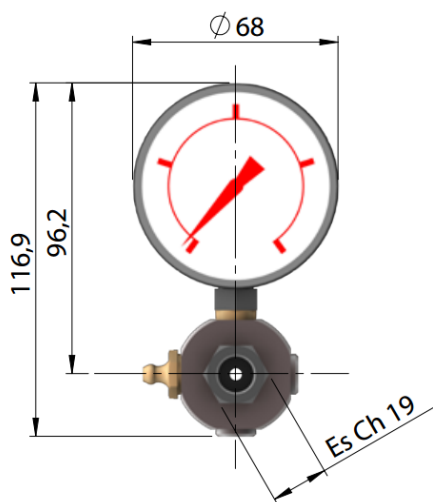
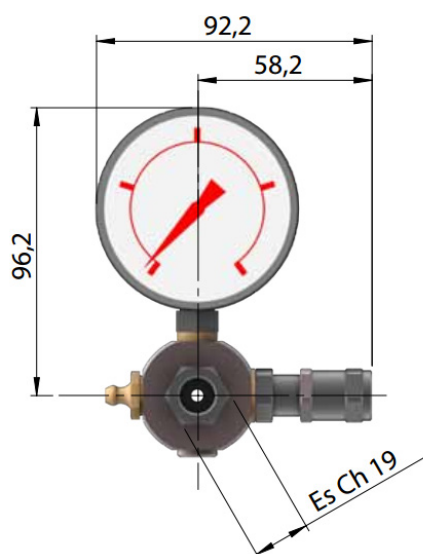
The block is mounted on the delivery line to check the system's operating pressure and to fill the system with a pneumatic pump. The safety valve protects against overpressure.

Power supply block

40.BMI.01

**Pressure gauge - Grease nipple**

The block is mounted on the delivery line to check system operating pressure and the fill the system with a pneumatic pump.



Power supply block

40.BMI.03



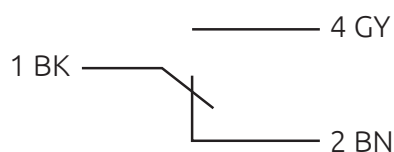
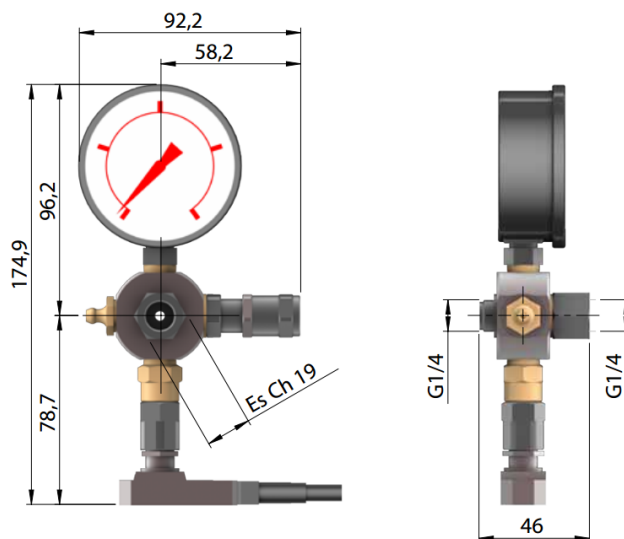
Pressure gauge - Electromechanical sensor - Grease nipple

The block is mounted on the delivery line to control the system's operating pressure by means of a pressure gauge and to fill the system through a grease nipple with a hand or pneumatic pump.

The safety valve protects the system from overpressure and the electromagnetic sensor is triggered in case of high pressure on the main line.

Technical data

Voltage	230 V AC - 250 DC
Power	40 W
Absorption	1 A



wiring diagram

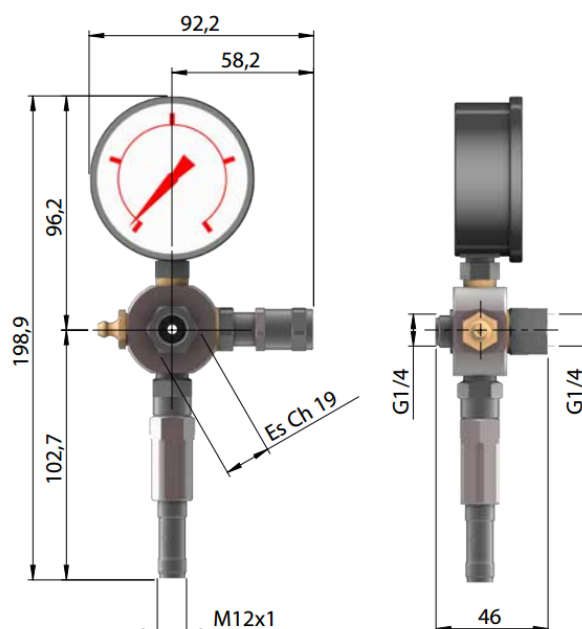
Power supply block

40.BMI.04

**Pressure gauge - proximity sensor - grease nipple**

The block is mounted on the delivery line to control the system's operating pressure by means of a pressure gauge and to fill the system through a grease nipple with a hand or pneumatic pump.

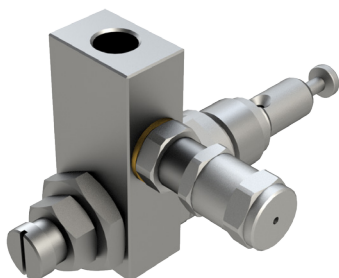
The safety valve protects the system from overpressure and the electromagnetic sensor is triggered in case of high pressure on the main line.

**Sensor technical sheet**

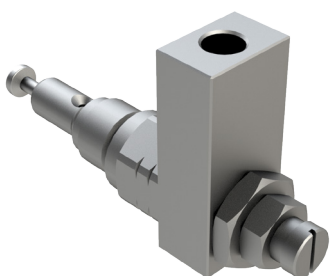
Voltage	6 - 30 V DC
Output current	Max 200 mA
Current	< 12 mA
Temperature	-25° C +70° C
Protection	IP67
Sensor body	Stainless steel

Adjustable flow rate pumping element

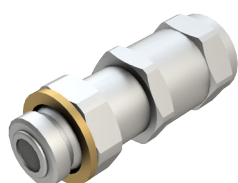
90.900.3



90.900.3



90.900.4



068.075011

The pumping element is equipped with two supplementary 1/4" G outlets used to mount accessories.

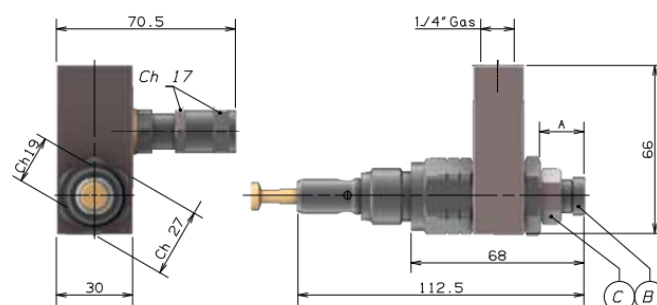
90.900.3 code for pumping element complete with safety valve. **90.900.4** pumping element without safety valve. To add an external safety valve, order code **068.075011**.

To change the nominal flow rate of the pump, the lock nut (C) must be loosened and the adjusting screw (B) turned clockwise and anticlockwise respectively to reduce or increase the amount of lubricant supplied.

Once you have set the desired value, it is extremely important to tighten the lock nut again (C).

A	Flow rate/cycle	Percentage
23.6	0.16 CC	100%
22.5	0.12 CC	75%
21	0.08	50%
19.5	0.04	25%
18.5	0.01	6%
17.5	0.00	0%

Important! 'A' must not exceed 23.6 mm

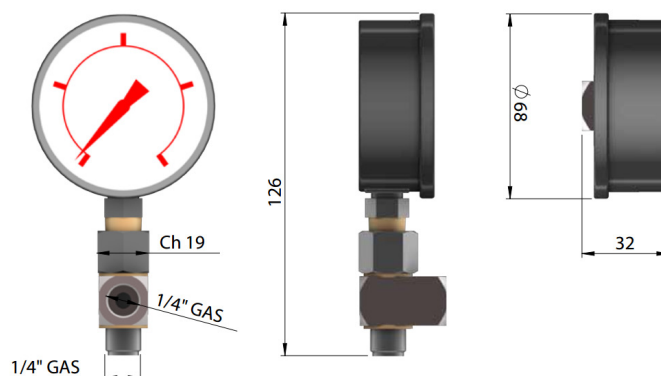


Two-way joint with pressure gauge

A70.093523

Pressure gauge

The block is mounted on the delivery line to control system operating pressure by means of the pressure gauge.



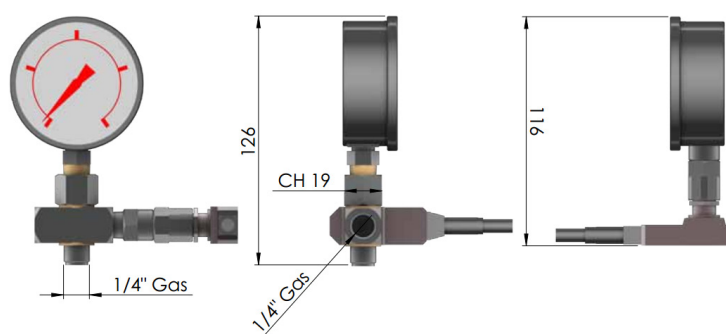
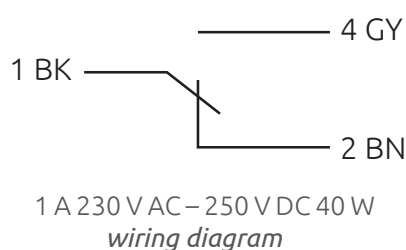
Three-way joint with pressure gauge

A70.093525



Pressure gauge - Electromechanical sensor

The block is mounted on the delivery line to control system operating pressure by means of the pressure gauge and is also equipped with an electromechanical sensor to check for high pressure on the main line.



Three-way joint with pressure gauge

A70.093524

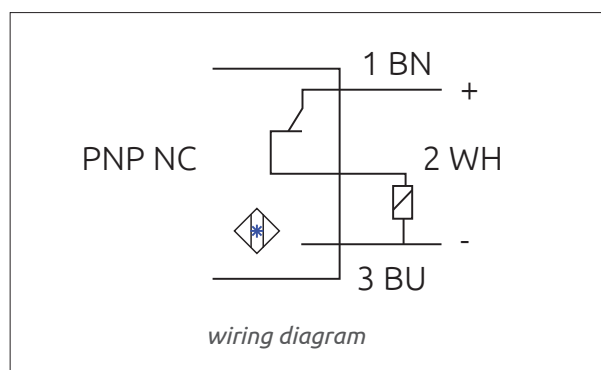
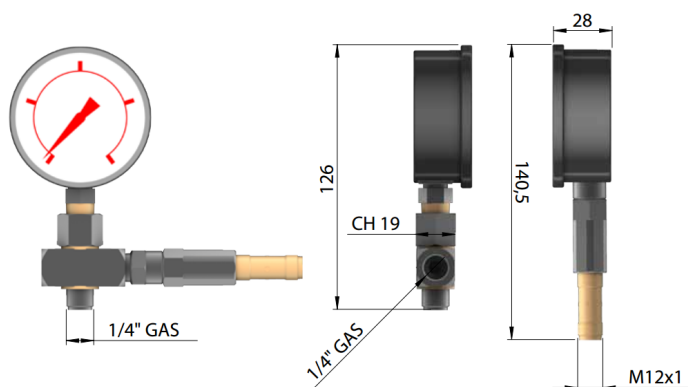


Pressure gauge - proximity sensor

The block is mounted on the delivery line to control system operating pressure by means of the pressure gauge and is also equipped with a proximity sensor to check for high pressure on the main line

Sensor technical sheet

Voltage	6 - 30 V DC
Output current	Max 200 mA
Current	< 12 mA
Temperature	-25° C +70° C
Protection	IP67
Sensor body	Stainless steel

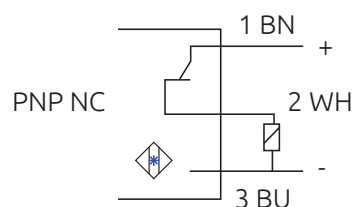


2-way 1/4" GAS joint

A70.093543


**2-way 1/4" Gas joint
with 250 bar proximity overpressure sensor**

The joint is provided with a proximity sensor to control any high pressure in the main line.



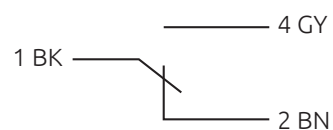
wiring diagram

2-way 1/4" GAS joint

A70.093544


**2-way 1/4" Gas joint
with electromechanical overpressure sensor**

The joint is provided with an electromechanical sensor to control any high pressure in the main line.


 1 A 230 V AC – 250 V DC 40 W
wiring diagram

I.L.C. srl - Via Garibaldi, 149 - 20155 Gorla Minore - Italy
Phone +39 0331 601697 - Fax +39 0331 602001 - www.ilclube.com - info@ilclube.it

