

# PROGRESSIVE LUBRICATION SYSTEM

N° 807-30



**ADVANCED FLUID  
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**30**







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of Quality*



**founded in 1975**



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The progressive system is widely used for lubrication of middle/small size plants.

It is often preferred to the single line system because, thanks to the integration with specific sensors, it allows to control the delivery of lubricant in every single points. Some examples of applications are: wheel loaders, excavators, bottling machines, machines for glass working and wind turbines.

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2020



2014

2015

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1983

1979

1978

1975



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**VISION**

**DESIGN**

**TECHNOLOGY**

**QUALITY**

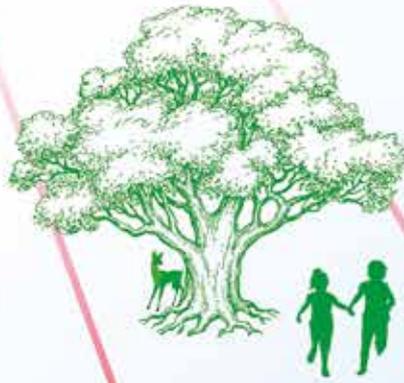
**EFFICIENCY**

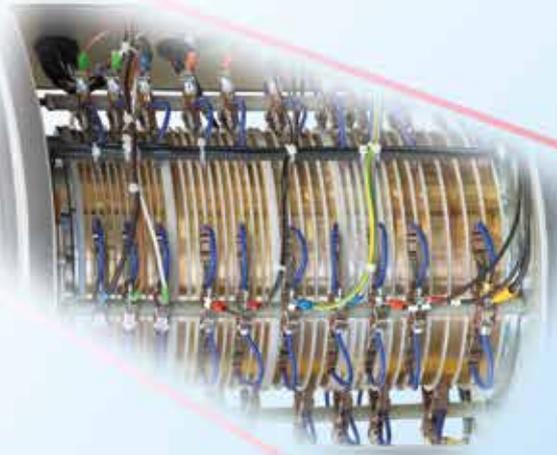
**ASSISTANCE**

**ENVIRONMENT**

**PACKAGING**

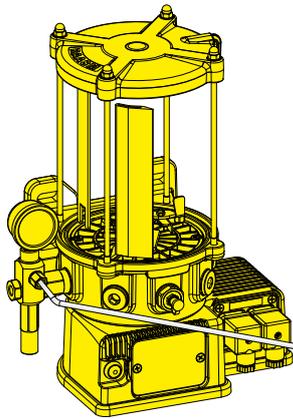
**SHARING**



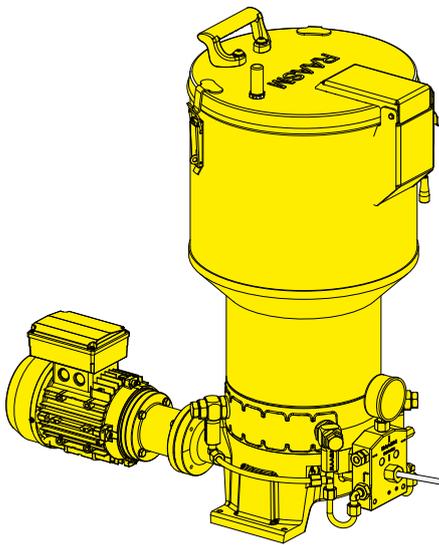




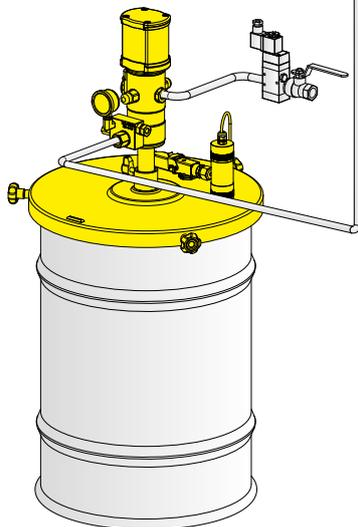
# SYSTEM 30 PROGRESSIVE



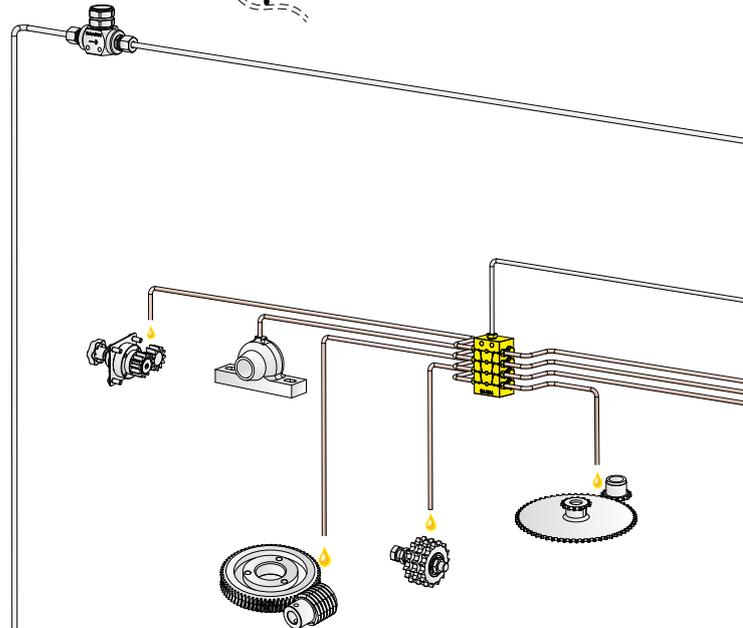
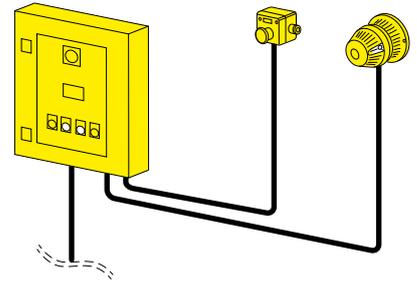
**SERIES C30B15 - C30B18**



**SERIES C30S**

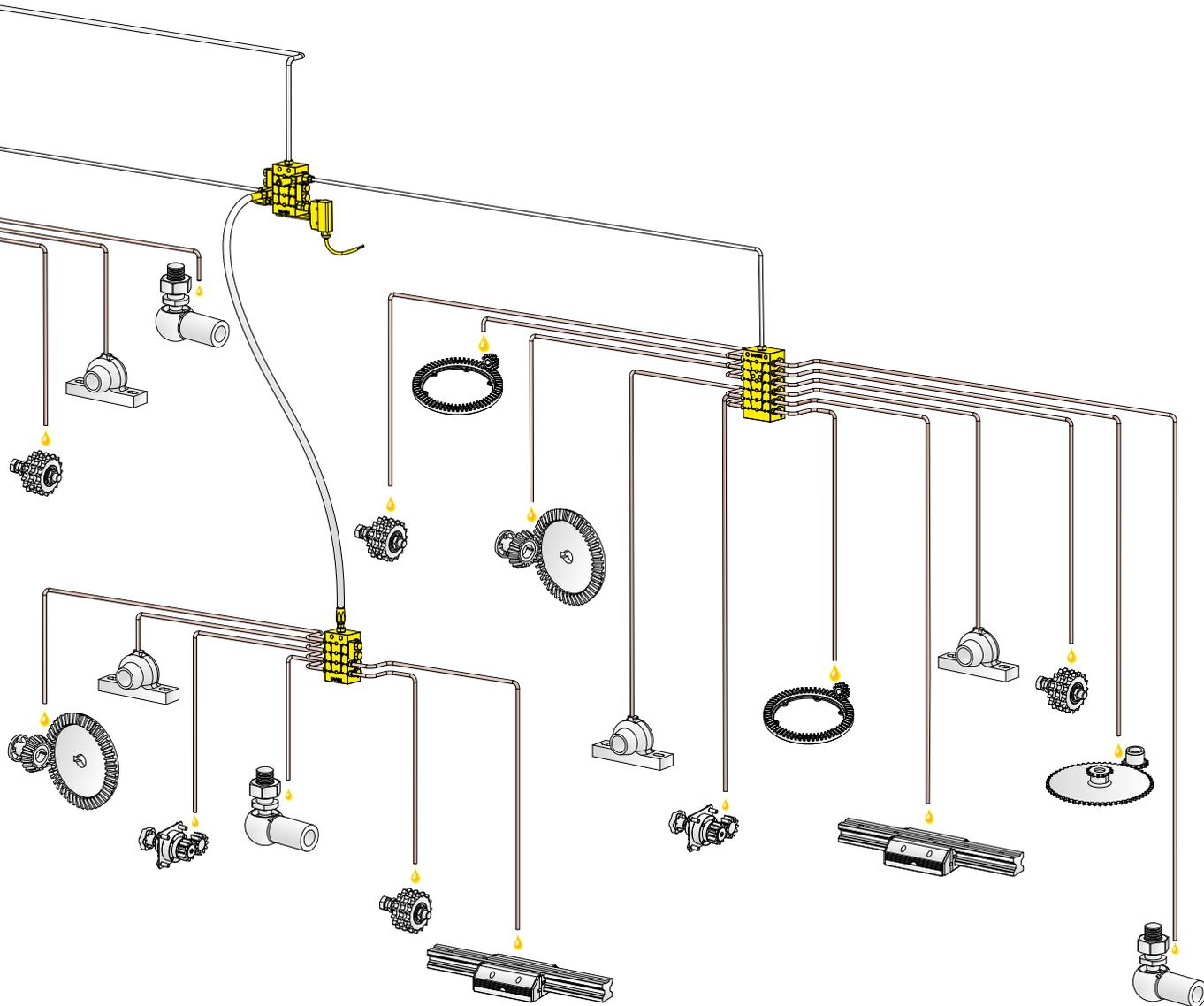


**SERIES C30F**



# CHARACTERISTICS

- ⊕ Every single point is properly lubricated.
- ⊕ Possibility of installing visual or electric-type controls to implement the control for each single point.
- ⊕ Various divider valves models are available for the number of outlets and for deliveries.
- ⊕ Careful choice of materials and treatments, ensuring the long life of all components.
- ⊕ The progressive system is normally used for short work times that include long pause times, hence reduced wear of all parts of the system.
- ⊕ Suitable for medium-short systems with a high number of users.
- ⊕ Increased life of lubricated components.
- ⊕ Reduction of operating costs.



**The progressive lubrication system consists of a pumping unit connected to divider valves which, through the pumping action of a piston placed inside them, ensure the delivery of a predetermined quantity of lubricant to a corresponding number of users.**

This system is defined as progressive as the action of each piston inside the distributor follows a progressive sequence of distribution to the various users.

Each distributor is placed in series with all the others, therefore malfunctioning of just one element causes blocking of all the others. Consequently the control of the operation of a single distributor allows the monitoring of the entire system.

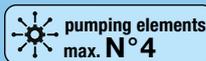


# SERIES C30B15 ELECTRIC MOTOR-OPERATED with **RADIAL** pistons - 12/24 V DC

Sturdy and compact electric pumps with shockproof plastic cover for IP66 protection, ideal for stress work environments. Pumping pistons are radially placed in the aluminum basement below the lubricant reservoir.

Available in 3 versions:

- **Remote control** with all the programmable functions (pause and working time) managed by the external control unit (for example a customer PLC), depending on system requirements.
- **Analog control** with alarm signal, reset functions, and outside cycle operations management.
- **Digital control** with alarm signal, reset functions, pause and work times and outside cycle operations all managed by the control unit integrated board.



## Technical characteristics

Max. flow rate 1 pumping element *	P/N 3081100 - 4,27 cm <sup>3</sup> /min a 35 rpm	
No. pumping elements	1 - 4	
Delivery connection	G 1/4" (f)	
Max. pressure	300 bar	
Tank	1,5 - 3 litres	
Tank filling	By hydraulic greaser M20 x 1,5 with filter 150 µm	
Level control	Minimum level (magnetic-capacitive sensor)	
Protection rating	IP66	
Operating temperature	-25 °C / +60 °C	
Lubricant	Oil > 40 cSt - Grease max NLGI 2	
Gearmotor *	12 V DC	24 V DC
Power input	36 W	36 W
Power input (max. starting)	78 W	72 W
Current absorbed	3 A	1,5 A
Current absorbed (max. starting)	6,5 A	3 A
Body colour pump **	RAL 1004 (Standard) <span style="display:inline-block; width:10px; height:10px; background-color:yellow;"></span> RAL 7035 <span style="display:inline-block; width:10px; height:10px; background-color:grey;"></span>	

\* Approx. flow rate with grease NLGI 2 at 18°C (The lubricant must have technical characteristics in compliance with working temperature).

\* Testing done at 250 bar at 20°C.

\*\* To order the article in grey colour RAL 7035 it is necessary to add the suffix /C1.

# GUIDE TO CHOOSING PUMP

P/N		Gearmotor	Tank capacity (litres)	No. pumping elements	Flow rate (cm <sup>3</sup> /min)	Control type
Grease	Oil					
3000130	3030340	12 V DC	1,5	1	4,27	Remote
3003910	3034120	12 V DC	3	1	4,27	Remote
3000040	3030250	12 V DC	1,5	1	4,27	Analog
3003820	3034030	12 V DC	3	1	4,27	Analog
3000085	3030295	12 V DC	1,5	1	4,27	Digital
3003865	3034075	12 V DC	3	1	4,27	Digital
3001210	3031420	24 V DC	1,5	1	4,27	Remote
3004990	3035200	24 V DC	3	1	4,27	Remote
3001120	3031330	24 V DC	1,5	1	4,27	Analog
3004900	3035110	24 V DC	3	1	4,27	Analog
3001165	3031375	24 V DC	1,5	1	4,27	Digital
3004945	3035155	24 V DC	3	1	4,27	Digital

**Attention:** items listed above are for electric motor pumps without delivery control assembly.

## ACCESSORIES

### STANDARD EQUIPMENT



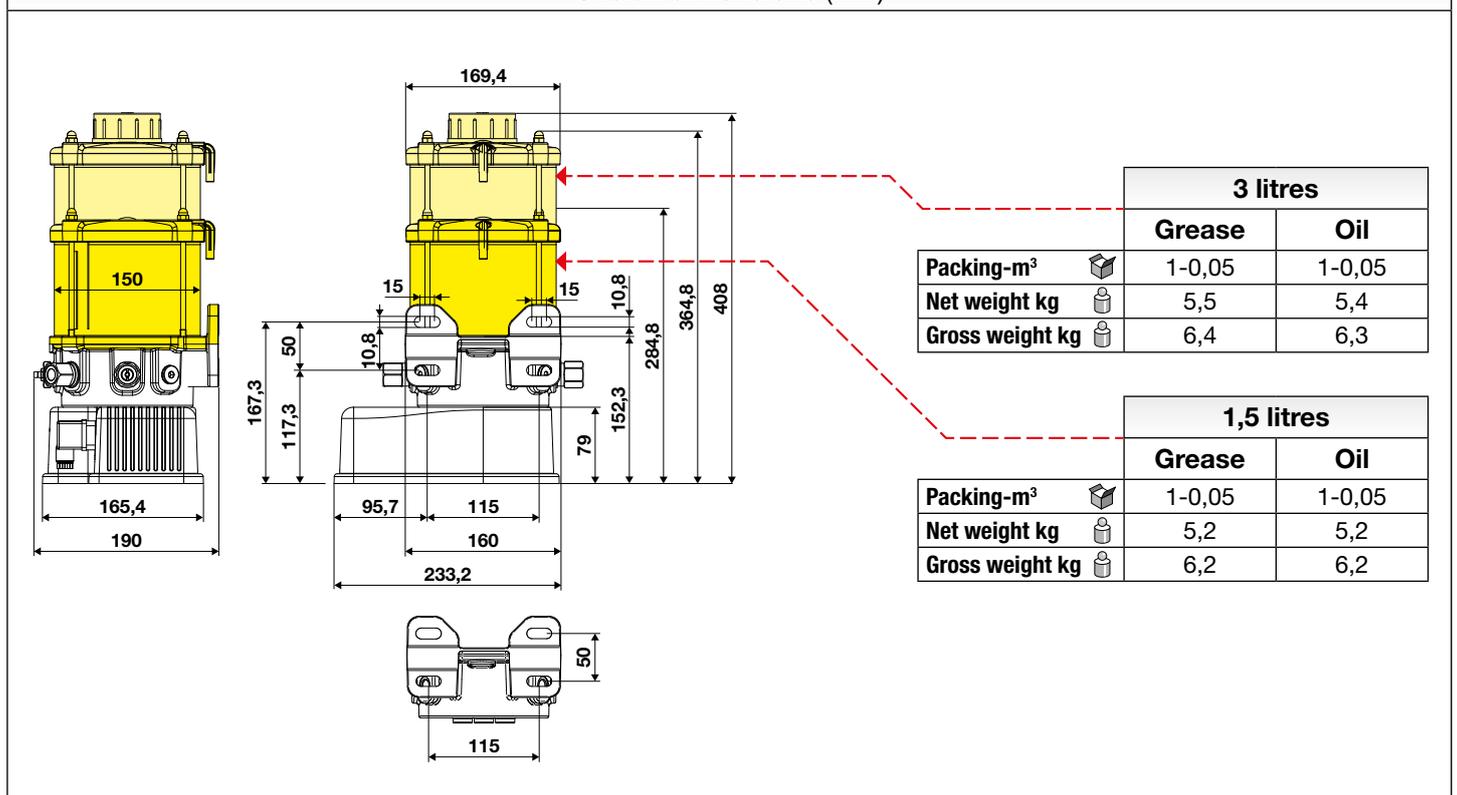
Magnetic low level indicator for grease.  
Capacitive low level indicator for oil

### ON REQUEST



**P/N 3081350** Delivery control assembly equipped with manometer and overpressure adjustable valve (100 - 300 bar).

### Overall dimensions (mm)





# SERIES C30B18 ELECTRIC MOTOR-OPERATED with **RADIAL** pistons - 12/24 V DC

Compact electric pump with IP66 protection, with 3-5-8 liters tank capacity. Pumping pistons are radially placed in the aluminum basement below the lubricant reservoir.

Available in 3 versions:

- **with remote control** where the programmable functions (pause and working time) managed by the external control unit (for example a customer PLC), depending on system requirements;
- **with analog control** for alarm signal, reset functions and outside cycle operations management;
- **with digital control** for alarm signal, reset functions, pause and work times and outside cycle operations all managed by the integrated board.



Technical characteristics		
Max. flow rate 1 pumping element *	P/N 3081100 - 4,27 cm <sup>3</sup> /min a 35 rpm	
No. pumping elements	1 - 4	
Delivery connection	G 1/4" (f)	
Max. pressure	300 bar	
Tank	3 - 5 - 8 litres	
Tank filling	By hydraulic greaser M20 x 1,5 with filter 150 µm	
Level control	Minimum level (magnetic-capacitive sensor)	
Protection rating	IP66	
Operating temperature	-25 °C / +60 °C	
Lubricant	Oil > 40 cSt - Grease max NLGI 2	
Gearmotor *	12 V DC	24 V DC
Power input	36 W	36 W
Power input (max. starting)	78 W	72 W
Current absorbed	3 A	1,5 A
Current absorbed (max. starting)	6,5 A	3 A
Body colour pump **	RAL 1004 (Standard) <span style="color: yellow;">■</span> RAL 7035 <span style="color: grey;">■</span>	
* Approx. flow rate with grease NLGI 2 at 18°C (The lubricant must have technical characteristics in compliance with working temperature).		
* Testing done at 250 bar at 20°C.		
** To order the article in grey colour RAL 7035 it is necessary to add the suffix /C1.		

# GUIDE TO CHOOSING PUMP

P/N		Gearmotor	Tank capacity (litres)	No. pumping elements	Flow rate (cm <sup>3</sup> /min)	Control type
Grease	Oil					
3019030	3049240	12 V DC	3	1	4,27	Remote
3022810	3053020	12 V DC	5	1	4,27	Remote
3026590	3056800	12 V DC	8	1	4,27	Remote
3018940	3049150	12 V DC	3	1	4,27	Analog
3022720	3052930	12 V DC	5	1	4,27	Analog
3026500	3056710	12 V DC	8	1	4,27	Analog
3018985	3049195	12 V DC	3	1	4,27	Digital
3022765	3052975	12 V DC	5	1	4,27	Digital
3026545	3056755	12 V DC	8	1	4,27	Digital
3020110	3050320	24 V DC	3	1	4,27	Remote
3023890	3054100	24 V DC	5	1	4,27	Remote
3027670	3057880	24 V DC	8	1	4,27	Remote
3020020	3050230	24 V DC	3	1	4,27	Analog
3023800	3054010	24 V DC	5	1	4,27	Analog
3027580	3057790	24 V DC	8	1	4,27	Analog
3020065	3050275	24 V DC	3	1	4,27	Digital
3023845	3054055	24 V DC	5	1	4,27	Digital
3027625	3057835	24 V DC	8	1	4,27	Digital

**Attention:** items listed above are for electric motor pumps without delivery control assembly.

## ACCESSORIES

### STANDARD EQUIPMENT



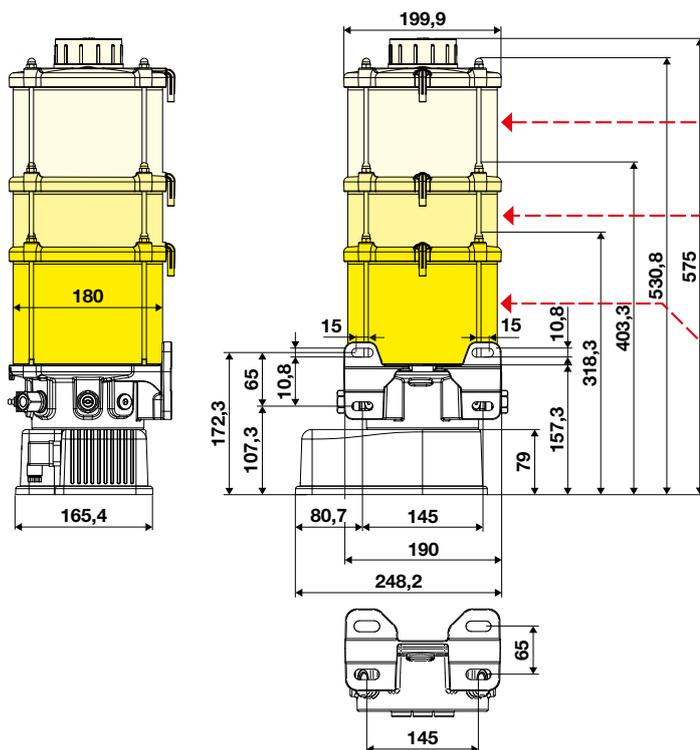
Magnetic low level indicator for grease.  
Capacitive low level indicator for oil

### ON REQUEST



**P/N 3081350** Delivery control assembly equipped with manometer and overpressure adjustable valve (100-300 bar)

### Overall dimensions (mm)



	8 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,07	1-0,07
Net weight kg	6,6	6,5
Gross weight kg	7,4	7,3

	5 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,07	1-0,07
Net weight kg	6,2	6
Gross weight kg	7,1	7

	3 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,05	1-0,05
Net weight kg	5,8	5,8
Gross weight kg	6,8	6,7



# SERIES C30B18 ELECTRIC MOTOR-OPERATED

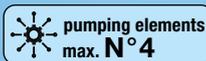
with **RADIAL** pistons - 230 V AC SINGLE PHASE

Compact electric pump with IP55 protection, with 3-5-8 liters tank capacity. Pumping pistons are radially placed in the aluminum basement below the lubricant reservoir.

It is available in remote control version where all programmable functions (pause time, work time) are managed externally to the control unit.

### Characteristics:

- body pump and cover in die-cast aluminum with epoxy powders painting, minimum thickness of 80 microns;
- reservoir in transparent polymethyl methacrylate (PMMA) material with high weather resistances and UV rays;
- grease scraper blade designed for a better lubricant mixture;
- fixing holes integrated into the body pump for an easier installation.



### Technical characteristics

Max. flow rate 1 pumping element *	P/N 3081100 - 4,27 cm <sup>3</sup> /min - 35 rpm
No. pumping elements	1 - 4
Delivery connection	G 1/4" (f)
Max. pressure	300 bar
Reservoir filling	By hydraulic greaser M20 x 1,5 (m) with filter 150 micron
Level control	Minimum level (magnetic-capacitive sensor)
Protection rating	IP55
Operating temperature	-25 °C / +60 °C
Lubricant	Oil > 40 cSt - Grease max NLGI 2
Gearmotor *	230/400 V AC - 50 Hz - 275/480 V AC - 60 Hz
Power absorbed	90 W
Rpm	1340
Body colour pump **	RAL 1004 (Standard) <span style="color: yellow;">■</span> RAL 7035 <span style="color: grey;">■</span>

\* Approx. flow rate with grease NLGI 2 at 18°C (The lubricant must have technical characteristics in compliance with working temperature).

\* Testing done at 250 bar at 20°C.

\*\* To order the article in grey colour RAL 7035 it is necessary to add the suffix /C1.

# GUIDE TO CHOOSING PUMP

P/N		Gearmotor	Tank capacity (litres)	No. pumping elements	Flow rate (cm <sup>3</sup> /min)	Control type
Grease	Oil					
3021190	3051400	230 V AC	3	1	4,27	Remote
3024970	3055180	230 V AC	5	1	4,27	Remote
3028750	3058960	230 V AC	8	1	4,27	Remote

**Attention:** items listed above are for electric motor pumps without delivery control assembly.

## ACCESSORIES

### STANDARD EQUIPMENT



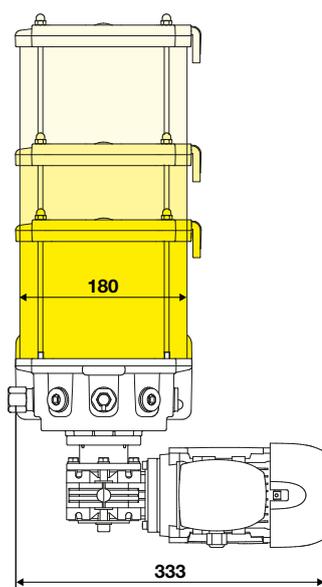
Magnetic low level indicator for grease.  
Capacitive low level indicator for oil

### ON REQUEST



**P/N 3081350** Delivery control assembly equipped with manometer and overpressure adjustable valve (100-300 bar)

### Overall dimensions (mm)



	8 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,07	1-0,07
Net weight kg	11,8	11,8
Gross weight kg	12,8	12,8

	5 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,07	1-0,07
Net weight kg	11,5	11,5
Gross weight kg	12,5	12,5

	3 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,05	1-0,05
Net weight kg	11,2	11,2
Gross weight kg	12,2	12,2



# SERIES C30B18 ELECTRIC MOTOR-OPERATED WITH FOLLOWER PLATE and RADIAL pistons - 12/24 V DC

**Pump for centralized lubrication systems with follower plate and 3,5 - 6 - 10 litres tank.**

Ideal for the most demanding work environments.

Available in 3 versions:

- **with remote control** where the programmable functions (pause and working time) managed by the external control unit (for example a customer PLC), depending on system requirements;

- **with analog control** for alarm signal, reset functions and outside cycle operations management;

- **with digital control** for alarm signal, reset functions, pause and work times and outside cycle operations all managed by the integrated board.

The follower plate, equipped with a grease-pressing membrane, is the ideal solution if particularly hard greases are used.

Thanks to this device, the creation of air pockets is avoided, the quality of the grease is kept intact and all the content in the tank is used.



Technical characteristics	
Max. flow rate 1 pumping element *	P/N 3081100 - 4,27 cm <sup>3</sup> /min - 35 rpm
No. pumping elements	1 - 4
Delivery connection	G 1/4" (f)
Max. pressure	300 bar
Reservoir filling	By hydraulic greaser M20 x 1,5 (m) with filter 150 micron
Level control	Minimum level (magnetic-capacitive sensor)
Protection rating	IP66
Operating temperature	-25 °C / +60 °C
Lubricant	Grease max NLGI 2
Body colour pump **	RAL 1004 (Standard) <span style="display: inline-block; width: 10px; height: 10px; background-color: #FFD700; border: 1px solid black;"></span> RAL 7035 <span style="display: inline-block; width: 10px; height: 10px; background-color: #808080; border: 1px solid black;"></span>
* Approx. flow rate with grease NLGI 2 at 18°C (The lubricant must have technical characteristics in compliance with working temperature).	
** To order the article in grey colour RAL 7035 it is necessary to add the suffix /C1.	

# GUIDE TO CHOOSING PUMP

P/N	Gearmotor	Tank capacity (litres)	Absorbed power	Absorbed power (inrush)	Current consumption	Absorbed current (inrush)	Control type
3022705	12 V DC	3,5	36 W	78 W	3 A	6,5 A	Analog
3022750	12 V DC	3,5	36 W	78 W	3 A	6,5 A	Digital
3022795	12 V DC	3,5	36 W	78 W	3 A	6,5 A	Remote
3023785	24 V DC	3,5	36 W	72 W	1,5 A	3 A	Analog
3023830	24 V DC	3,5	36 W	72 W	1,5 A	3 A	Digital
3023875	24 V DC	3,5	36 W	72 W	1,5 A	3 A	Remote
3026485	12 V DC	6	36 W	78 W	3 A	6,5 A	Analog
3026530	12 V DC	6	36 W	78 W	3 A	6,5 A	Digital
3026575	12 V DC	6	36 W	72 W	3 A	6,5 A	Remote
3027565	24 V DC	6	36 W	72 W	1,5 A	3 A	Analog
3027610	24 V DC	6	36 W	72 W	1,5 A	3 A	Digital
3027655	24 V DC	6	36 W	72 W	1,5 A	3 A	Remote
3060570	24 V DC	10	36 W	72 W	1,5 A	1,5 A	Remote

Attention: items listed above are for electric motor pumps without delivery control assembly.

## ACCESSORIES

### STANDARD EQUIPMENT



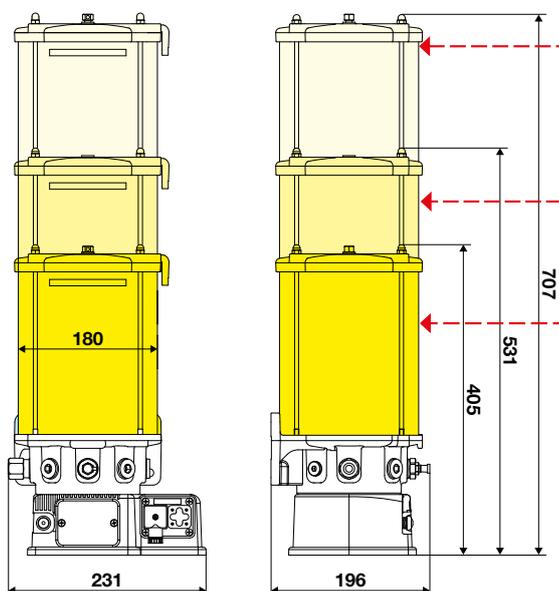
Magnetic low level indicator for grease.  
Capacitive low level indicator for oil

### ON REQUEST



P/N 3081350 Delivery control assembly equipped with manometer and overpressure adjustable valve (100-300 bar)

### Overall dimensions (mm)



		<b>10 litres</b>
		<b>Grease</b>
Packing-m <sup>3</sup>		1-0,07
Net weight kg		9,5
Gross weight kg		10,5
		<b>6 litres</b>
		<b>Grease</b>
Packing-m <sup>3</sup>		1-0,06
Net weight kg		8,4
Gross weight kg		9,4
		<b>3,5 litres</b>
		<b>Grease</b>
Packing-m <sup>3</sup>		1-0,06
Net weight kg		7,5
Gross weight kg		8,5



# SERIES C30B18M MOTOR-OPERATED RADIAL pistons - 12/24 V DC

Compact motor-operated pump with IP66 degree of protection, available with tank of 20 - 40 litres. The pumping elements are placed radially in the aluminum base, below the tank.

Available in 3 versions:

- **Remote control** with all the programmable functions (pause and working time) managed by the external control unit (for example a customer PLC), depending on system requirements.
- **Analog control** with alarm signal, reset functions, and outside cycle operations management.
- **Digital control** with alarm signal, reset functions, pause and work times and outside cycle operations all managed by the control unit integrated board.



Delivery control assembly (on request)

20 - 40 litre tank



Technical characteristics		
Max. flow rate 1 pumping element *	P/N 3081100 - 4,27 cm <sup>3</sup> /min a 35 rpm	
No. pumping elements	1 - 4	
Delivery connection	G 1/4" (f)	
Max. pressure	300 bar	
Tank	20 - 40 litres	
Tank filling	By hydraulic greaser M20 x 1,5 with filter 150 µm	
Level control	Minimum level (magnetic-capacitive sensor)	
Protection rating	IP66	
Operating temperature	-25 °C / +60 °C	
Lubricant	Oli > 40 cSt - Grease max NLGI 2	
Gearmotor *	12 V DC	24 V DC
Power input	36 W	36 W
Power input (max. starting)	78 W	72 W
Current absorbed	3 A	1,5 A
Current absorbed (max. starting)	6,5 A	3 A
Body colour pump **	RAL 1004 (Standard) ■ RAL 7035 ■	
* Approx. flow rate with grease NLGI 2 at 18°C (The lubricant must have technical characteristics in compliance with working temperature).		
* Testing done at 250 bar at 20°C.		
** To order the article in grey colour RAL 7035 it is necessary to add the suffix /C1.		

# GUIDE TO CHOOSING PUMP

P/N		Gearmotor	Tank capacity (litres)	No. pumping elements	Flow rate (cm <sup>3</sup> /min)	Control type
Grease	Oil					
2900130	2904420	12 V DC	20	1	4,27	Remote
2902290	2906580	12 V DC	40	1	4,27	Remote
2900040	2904330	12 V DC	20	1	4,27	Analog
2902200	2906490	12 V DC	40	1	4,27	Analog
2900085	2904375	12 V DC	20	1	4,27	Digital
2902245	2906535	12 V DC	40	1	4,27	Digital
2901210	2905500	24 V DC	20	1	4,27	Remote
2903370	2907660	24 V DC	40	1	4,27	Remote
2901120	2905410	24 V DC	20	1	4,27	Analog
2903280	2907570	24 V DC	40	1	4,27	Analog
2901165	2905455	24 V DC	20	1	4,27	Digital
2903325	2907615	24 V DC	40	1	4,27	Digital

**Attention:** items listed above are for electric motor pumps without delivery control assembly.

## ACCESSORIES

### STANDARD EQUIPMENT



Low level magnetic sensor for grease



Low level capacitive sensor for oil



Visual level indicator for oil and grease

### ON REQUEST

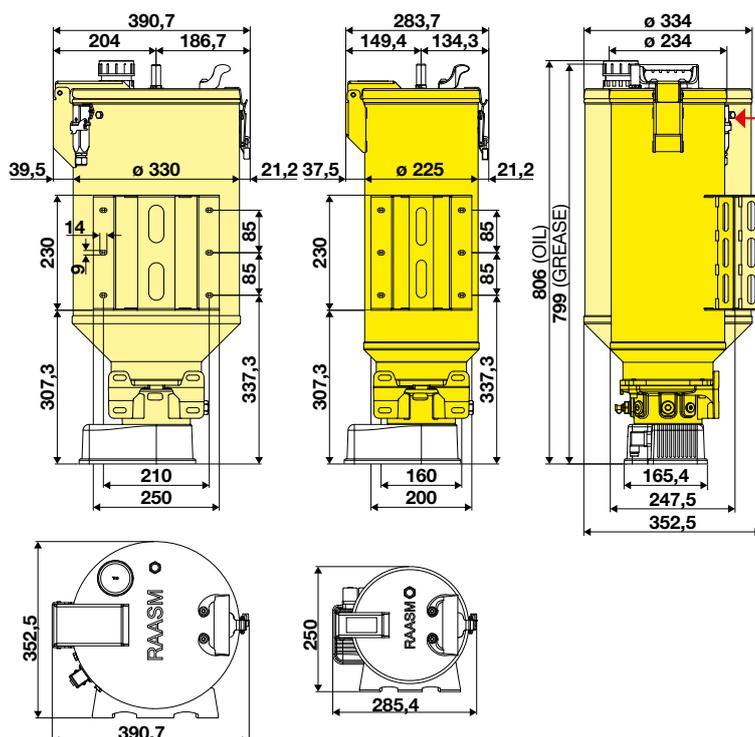


**P/N 3081350**  
Delivery control assembly equipped with manometer and overpressure adjustable valve (100 - 300 bar).



- Intermediate level capacitive sensor (20% tank capacity)  
- High level capacitive sensor

### Overall dimensions (mm)



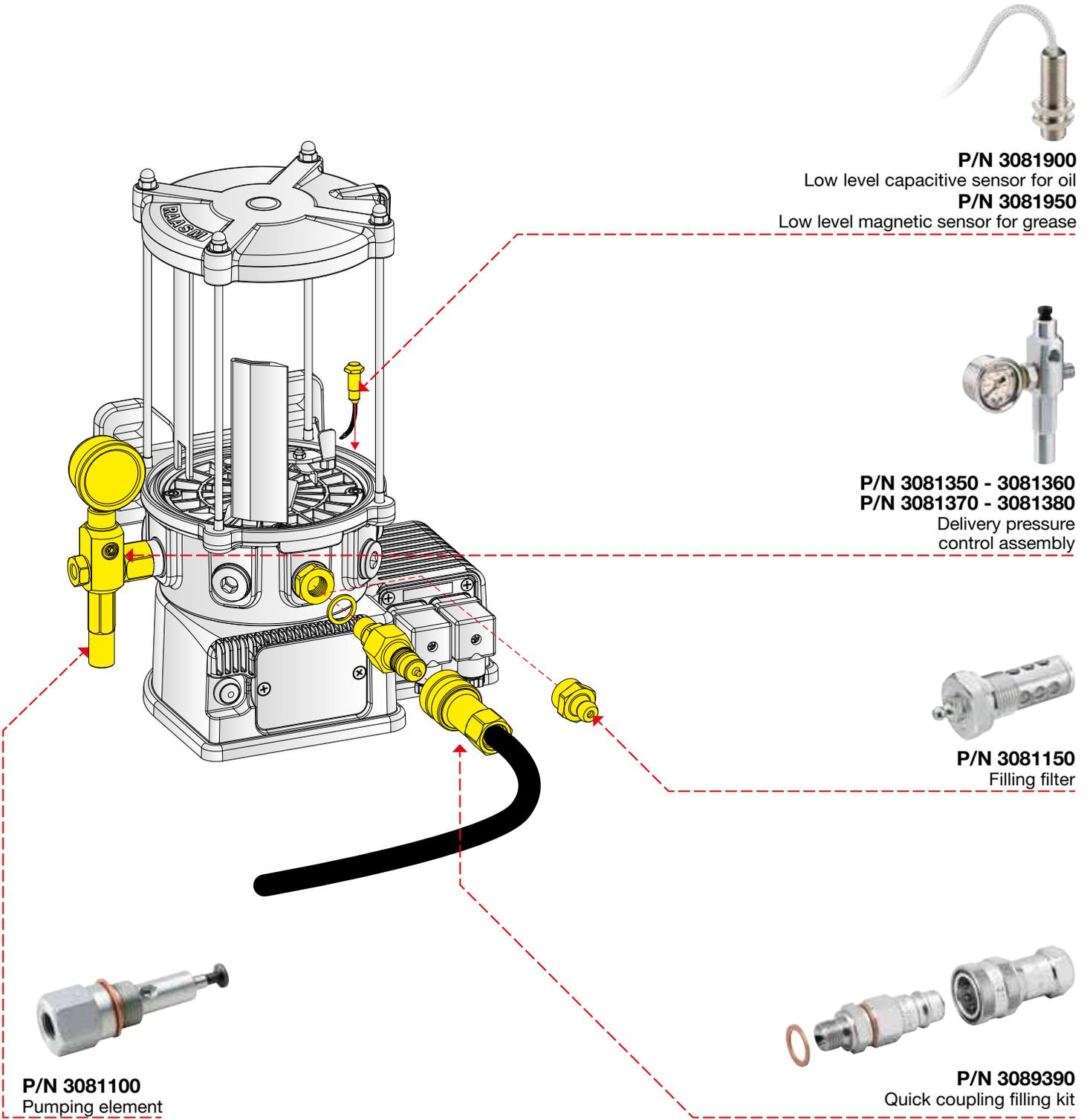
20 litres		
	Grease	Oil
Packing-m <sup>3</sup>	1-0,09	1-0,09
Net weight kg	14,4	14,2
Gross weight kg	16,5	16,3

40 litres		
	Grease	Oil
Packing-m <sup>3</sup>	1-0,17	1-0,17
Net weight kg	18,4	18,2
Gross weight kg	21,6	21,4



# ACCESSORIES PUMP SERIES C30B15 - C30B18



**P/N 3081900**

Low level capacitive sensor for oil

**P/N 3081950**

Low level magnetic sensor for grease



**P/N 3081350 - 3081360**

**P/N 3081370 - 3081380**

Delivery pressure control assembly



**P/N 3081150**

Filling filter

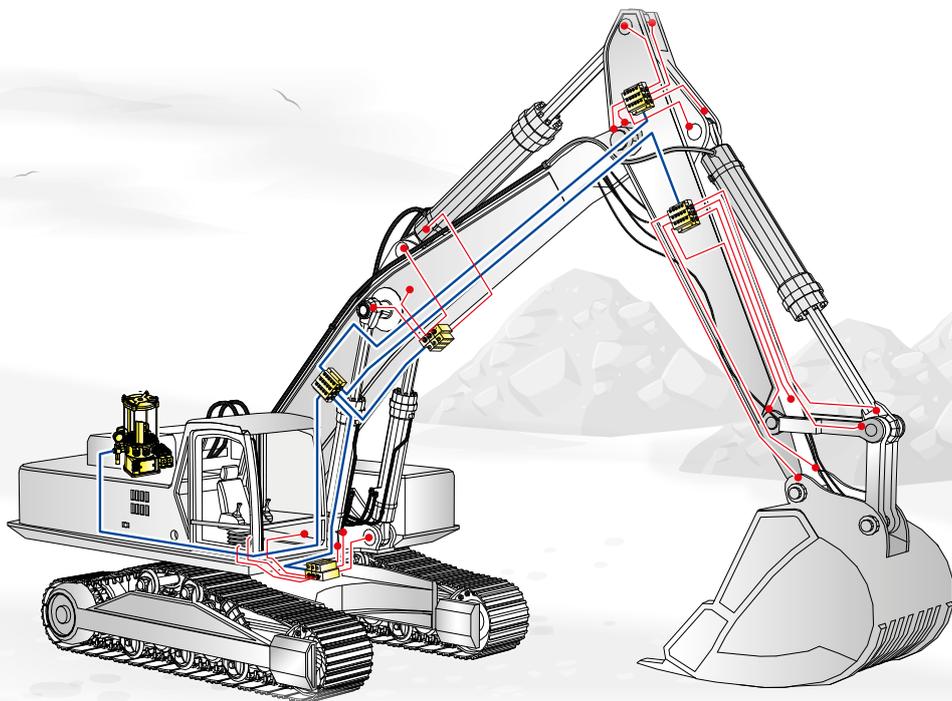


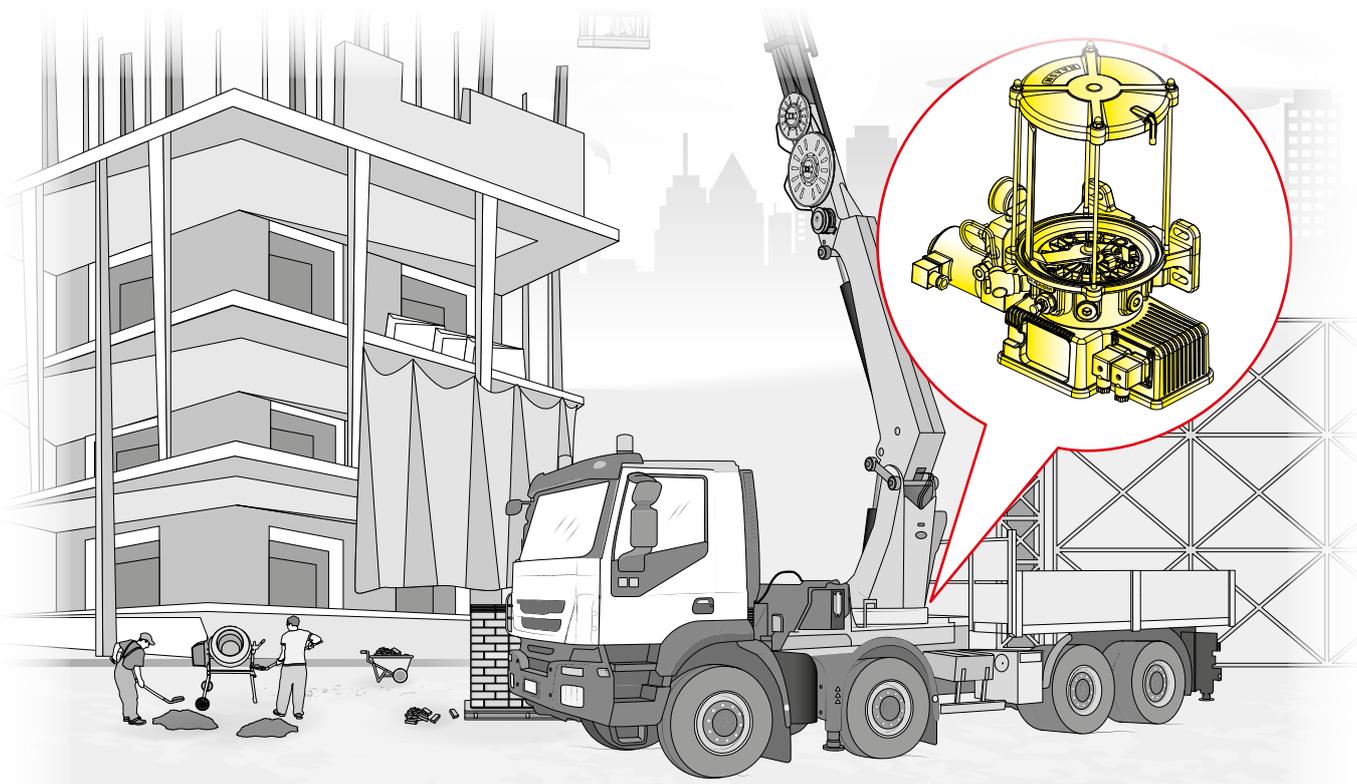
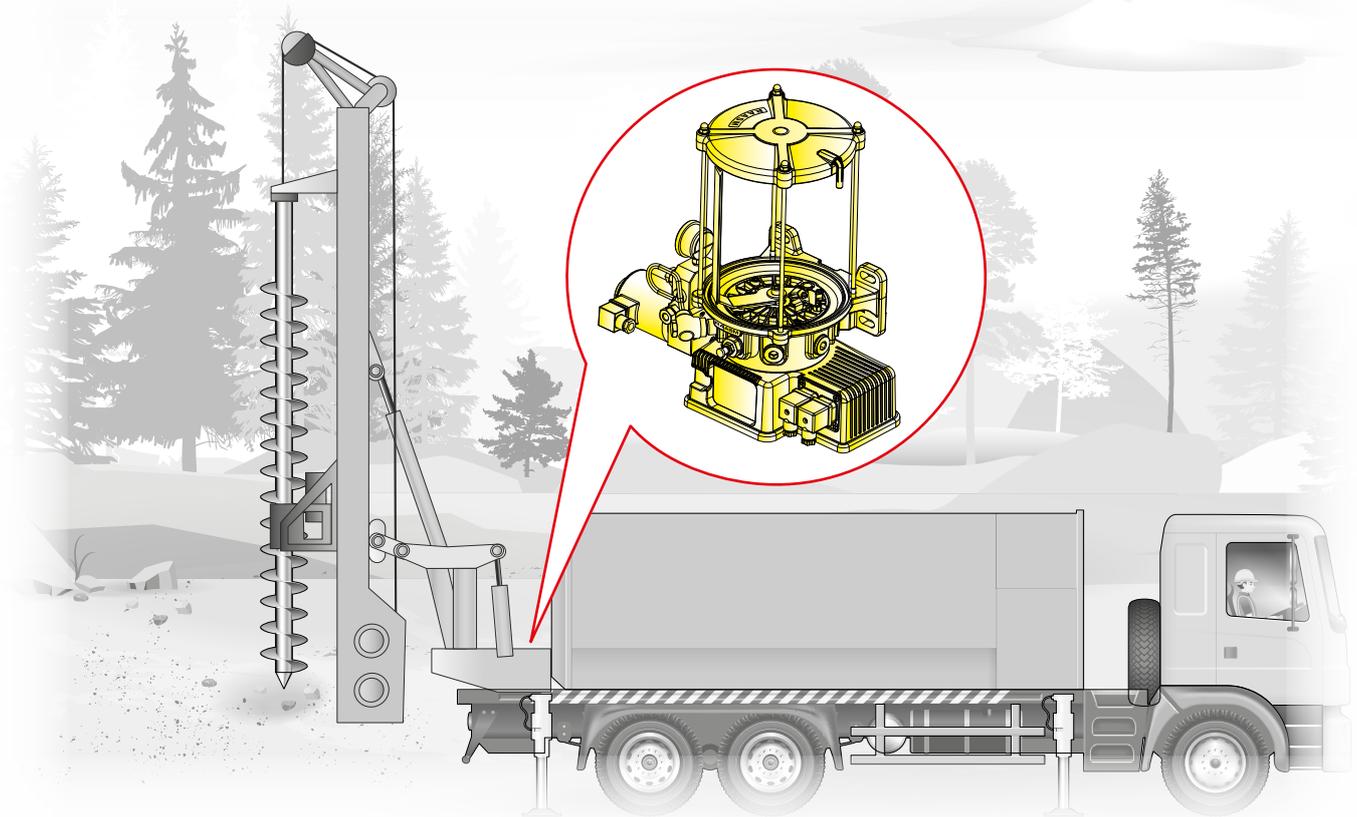
**P/N 3089390**

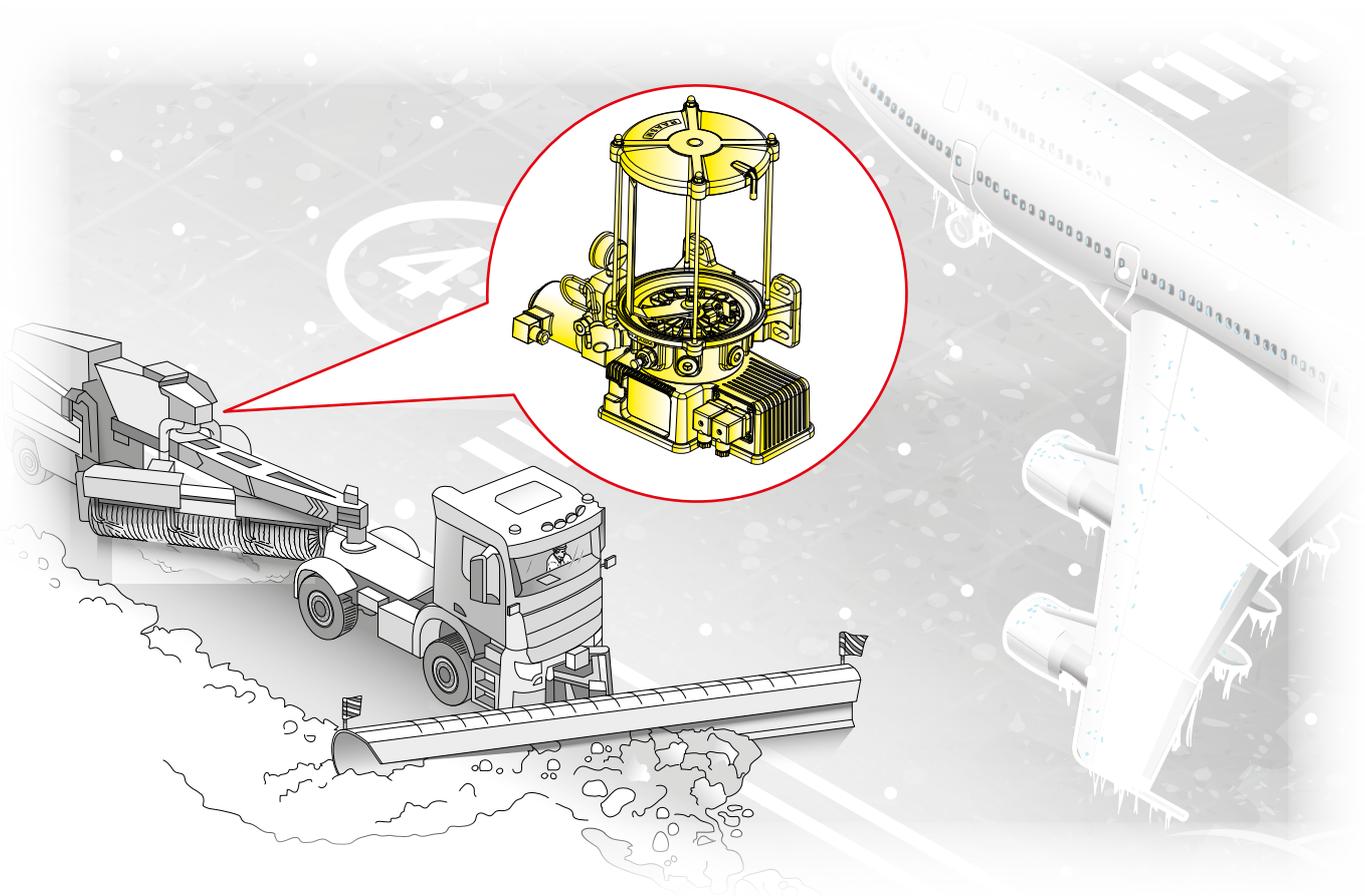
Quick coupling filling kit

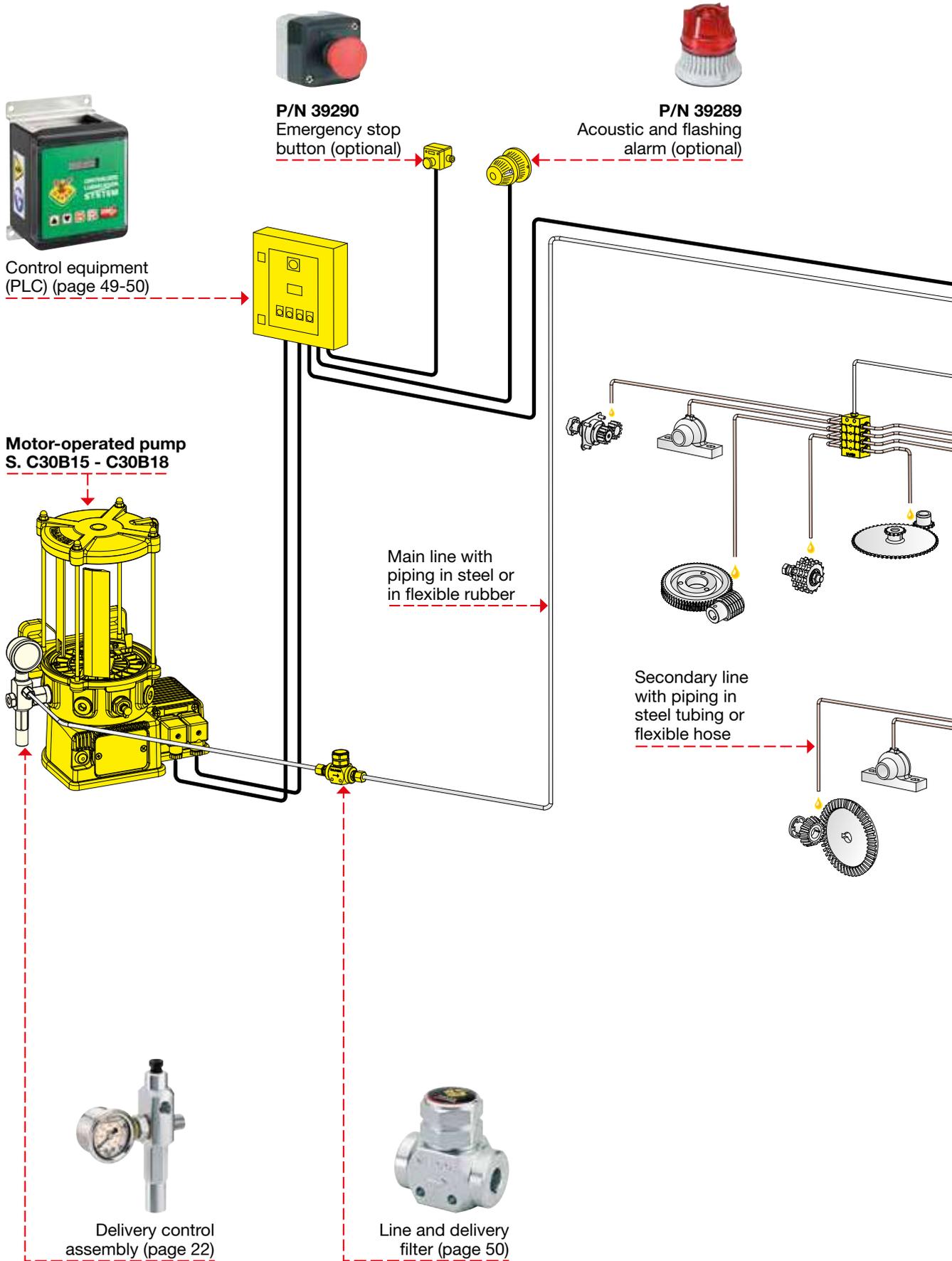
**P/N 3081100**  
Pumping element

P/N	Description	Connection	Pressure
<b>3081100</b>	Pumping element $\varnothing$ 6,5 mm	M20 x 1,5	-
<b>3081150</b>	Filling filter (for C15B15 - C15B18)	M20 x 1,5	150 $\mu$ m
<b>3081350</b>	Delivery pressure control assembly	On pumping element G 1/4" (m)	100 - 300 bar
<b>3081360</b>	Delivery pressure control and 2 pumping element kits	-	100 - 300 bar
<b>3081370</b>	Delivery pressure control and 3 pumping element kits	-	100 - 300 bar
<b>3081380</b>	Delivery pressure control and 4 pumping element kits	-	100 - 300 bar
<b>3081900</b>	Capacitive low level indicator for oil	M12 x 1	-
<b>3081950</b>	Magnetic low level indicator for grease	M12 x 1	-
<b>3089390</b>	Quick coupling filling kit	M 1/4"	-









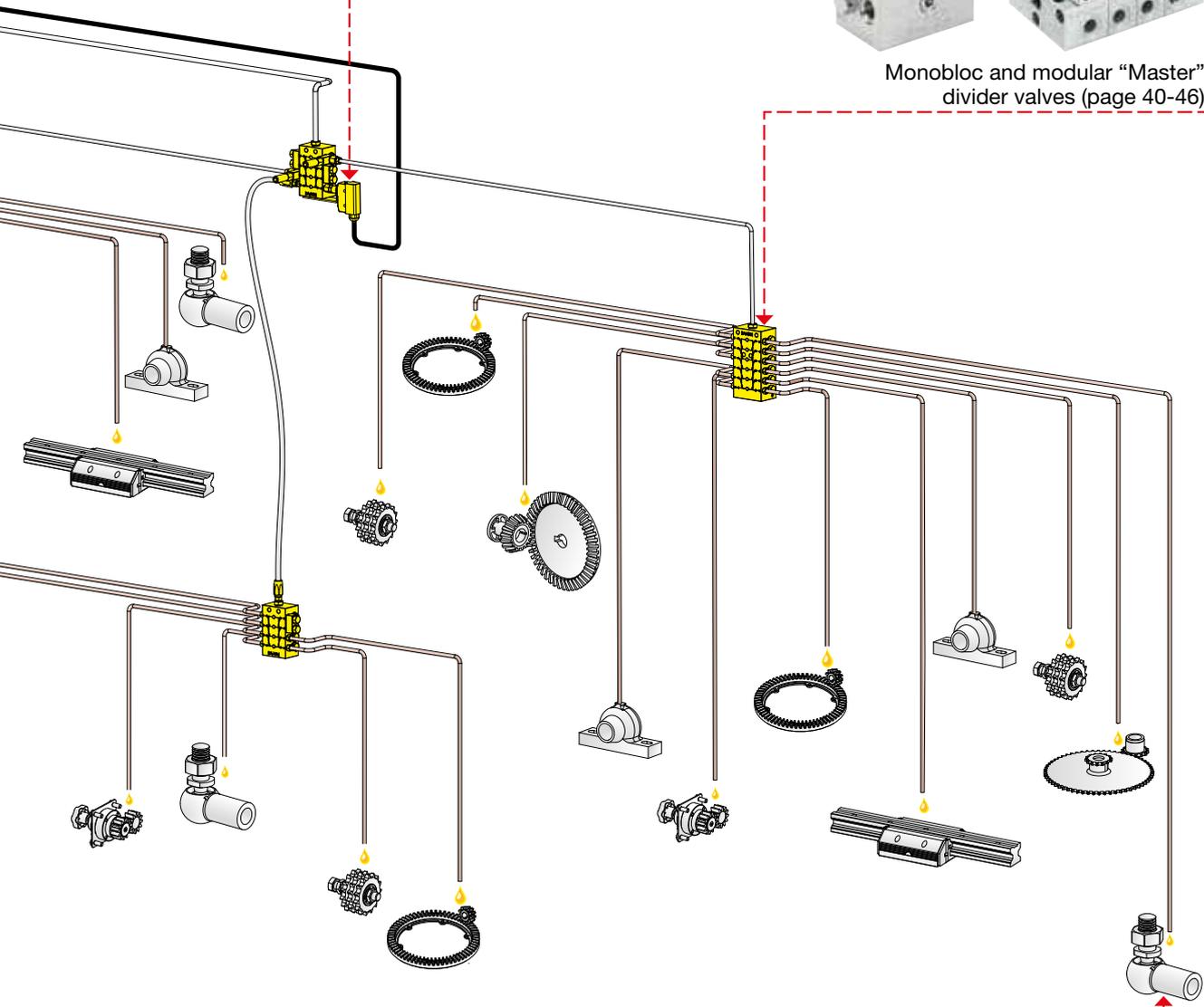
# Type of lubrication system with motor-operated pumps **Series C30B15 - C30B18**



Cycle indicator (page 45)



Monobloc and modular "Master" divider valves (page 40-46)



### Lube point:

In the plant are represented some types of moving parts that need to be lubricated.



# SERIES C30S ELECTRIC MOTOR-OPERATED

powered at **230/400 V AC - 275/480 V AC**

**Compact electric motor-operated pump, with dispense control group mounted on pump's body.**

Equipped with a nickel-plated aluminum alloy base in which pumping elements are radially placed, these last made of hardened galvanized steel. The epoxy powder painted lubricant tank is available in 2 different versions: 10 and 30 liters. Two electric motors (three-phase) are available with 4 or 6 poles, coupled with 35:1 or 70:1 ratio gear motor. These all specifics allow a wide combination to meet all end-users' needs.



Technical characteristics	
Max. flow rate *	108 cm <sup>3</sup> /min
Max. operating pressure	400 bar adjustable
Tank capacity	10-30 litres
Ratio of reducer in pump	35:1 - 70:1
Filling connection	G 1/2" (f)
Lubricant outlet connection	G 3/8" (f)
Pumping unit flow rate	P/N 2081100 - 1 cm <sup>3</sup> /cycle
Temperature	-25 °C / +60 °C
Compatible fluids	Oil > 40 cSt - Grease max NLGI 2
Electric min. level control	Supplied
Electric min. max. level control	On request
Motor	Power: 0,25 kW
	230/400 V AC-50 Hz - 275/480 V AC-60 Hz *
	Speed 6-pole: 870 ÷ 1100 rpm
	Speed 4-pole: 1370 ÷ 1660 rpm
Materials	Protection: IP55
	Base: aluminium alloy
	Moving parts: steel
	Pumping elements: treated steel
	Tank: painted steel

\* Approx. flow rate with grease NLGI 2 at 18°C (The lubricant must have technical characteristics in compliance with working temperature).

\* Supply voltages different from the standard have to be specified during the purchase order.

# GUIDE TO CHOOSING PUMP

P/N		Tank capacity (litres)	No. pumping elements	Reducer ratio	Motor	Flow rate (cm <sup>3</sup> /min)
Grease	Oil					
3070080	3070440	10	2	70:1	6 poles	28
3070200	3070560	30	2	70:1	6 poles	28
3070020	3070380	10	2	70:1	4 poles	40
3070140	3070500	30	2	70:1	4 poles	40
3070110	3070470	10	4	70:1	6 poles	56
3070230	3070590	30	4	70:1	6 poles	56
3070050	3070410	10	4	70:1	4 poles	80
3070170	3070530	30	4	70:1	4 poles	80
3070065	3070425	10	2	35:1	6 poles	54
3070185	3070545	30	2	35:1	6 poles	54
3070095	3070455	10	4	35:1	6 poles	108
3070215	3070575	30	4	35:1	6 poles	108

## ACCESSORIES

### STANDARD EQUIPMENT



Low level capacitive sensor



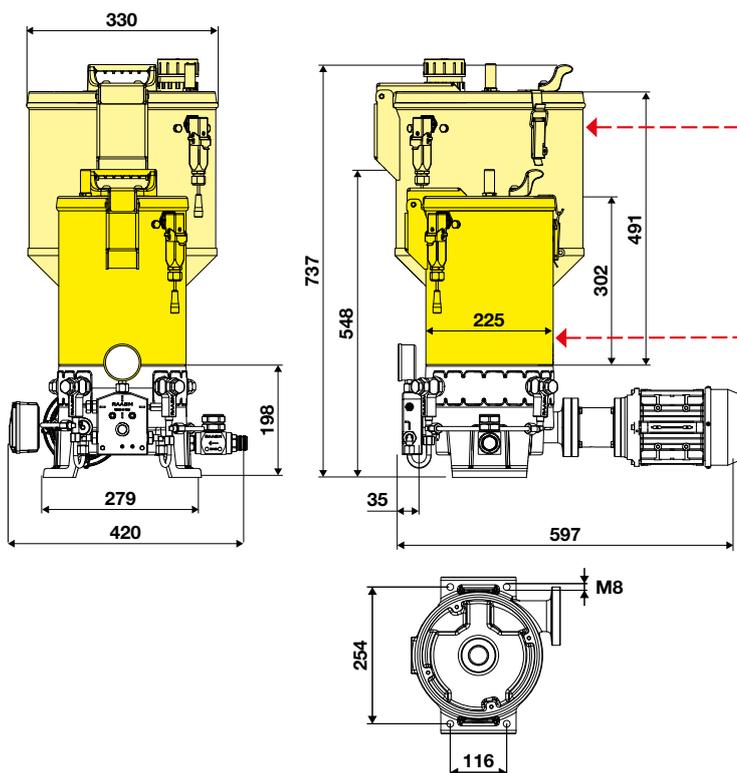
Visual level indicator for oil and grease

### ON REQUEST



High level capacitive sensor

### Overall dimensions (mm)

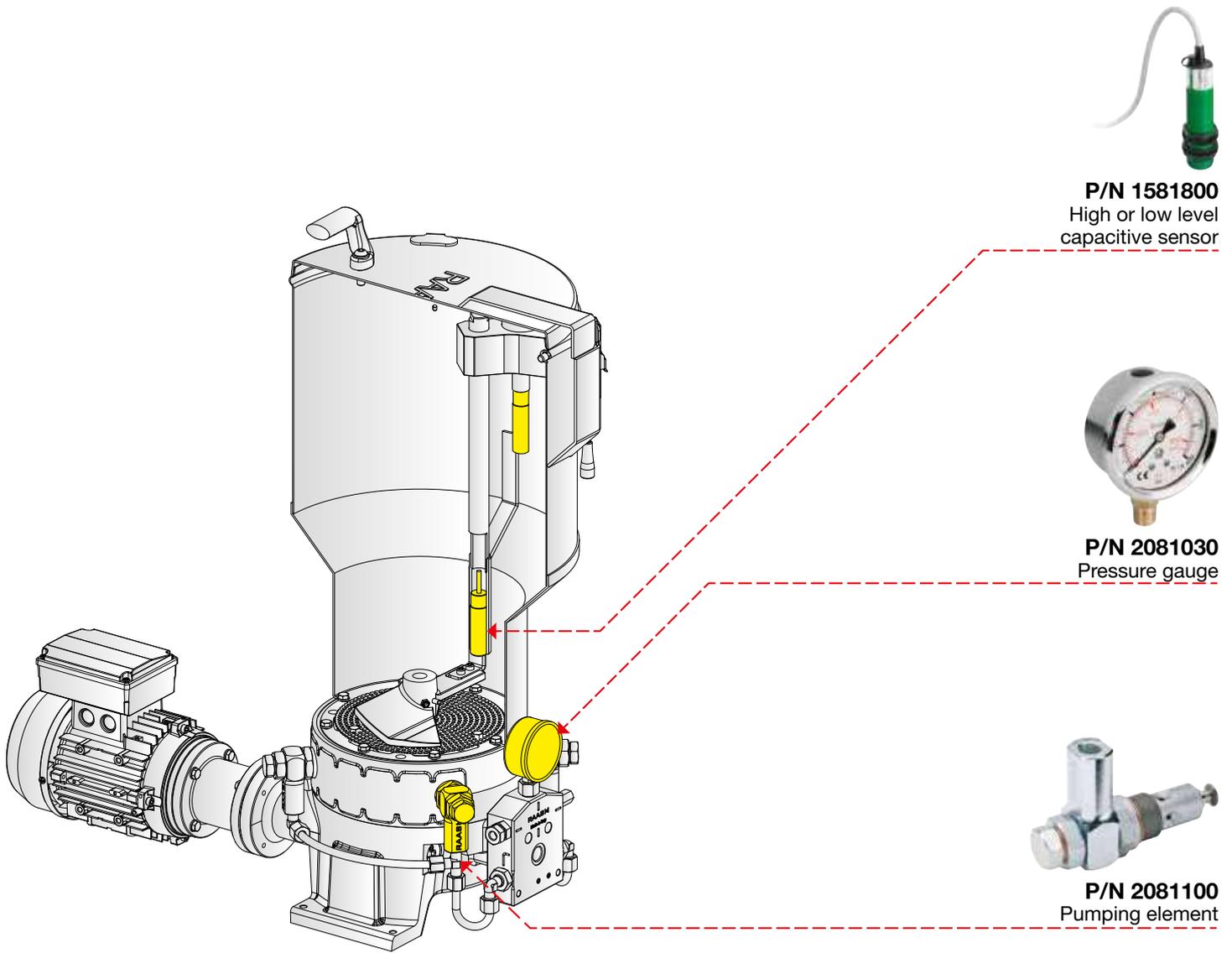


	30 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,208	1-0,208
Net weight kg	33	32,8
Gross weight kg	45,2	45

	10 litres	
	Grease	Oil
Packing-m <sup>3</sup>	1-0,144	1-0,144
Net weight kg	27,8	27,7
Gross weight kg	39,6	39,5



# ACCESSORIES PUMP SERIES C30S



**P/N 1581800**  
High or low level  
capacitive sensor

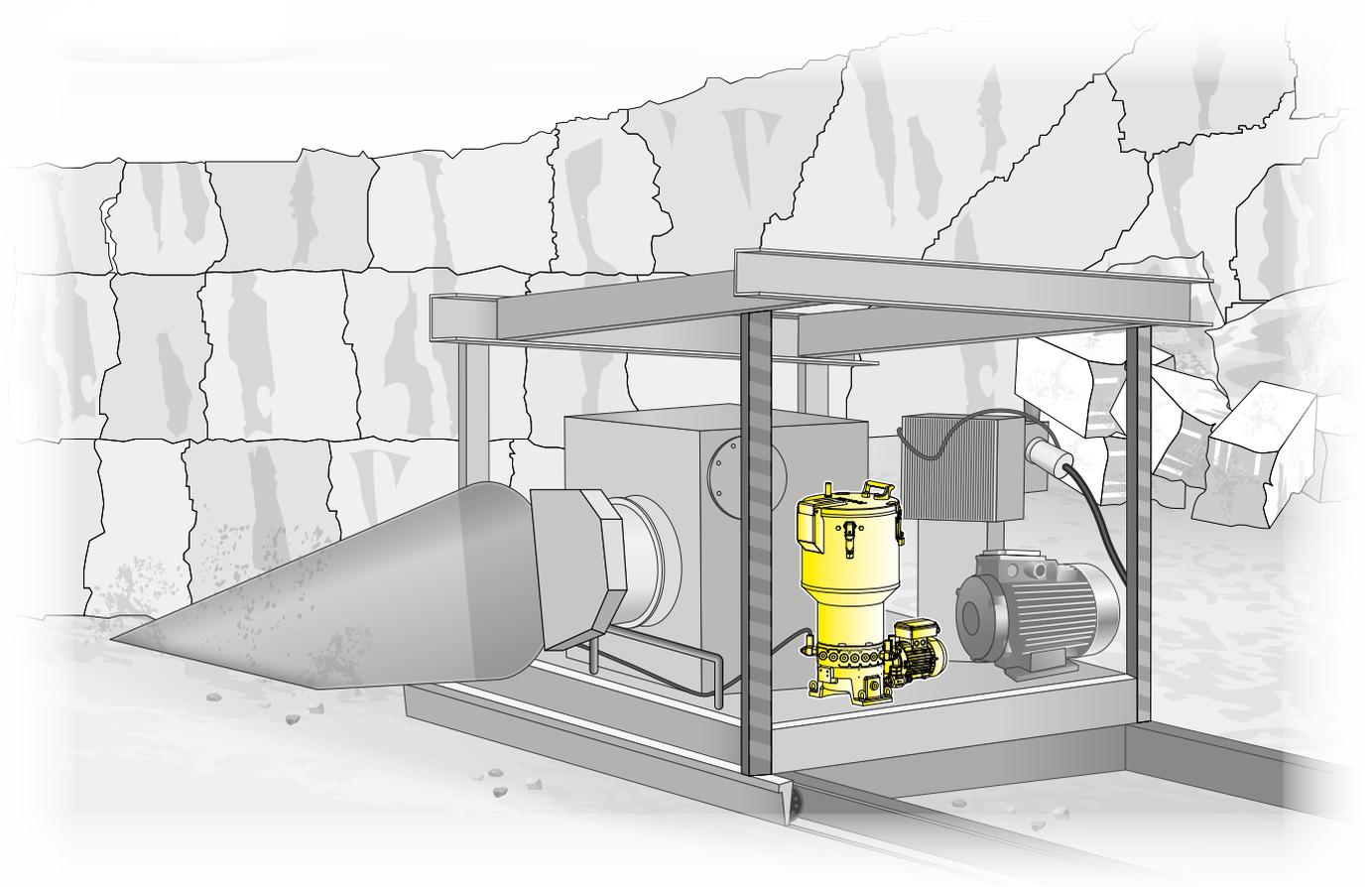


**P/N 2081030**  
Pressure gauge



**P/N 2081100**  
Pumping element

P/N	Description	Connection	Pressure	Flow rate
<b>1581800</b>	Level minimum and maximum capacitive	M18 X 1	-	-
<b>2081030</b>	Pressure gauge ø 63 mm 600 bar	G 1/4" (m)	600 bar	-
<b>2081100</b>	Pumping element ø 12 mm (for C30S)	M27 x 1,5	-	1 cm <sup>3</sup> /cycle





Control equipment (PLC) (page 51-52)

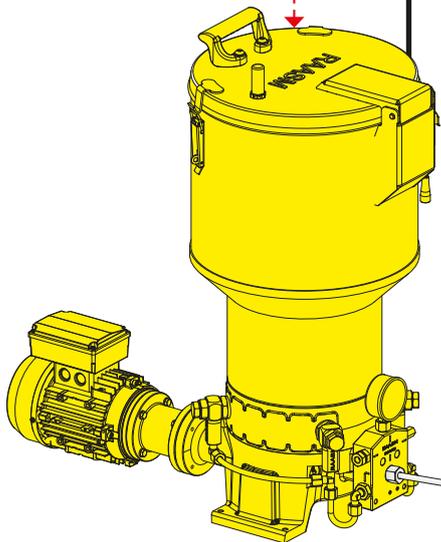


P/N 39290  
Emergency stop button (optional)

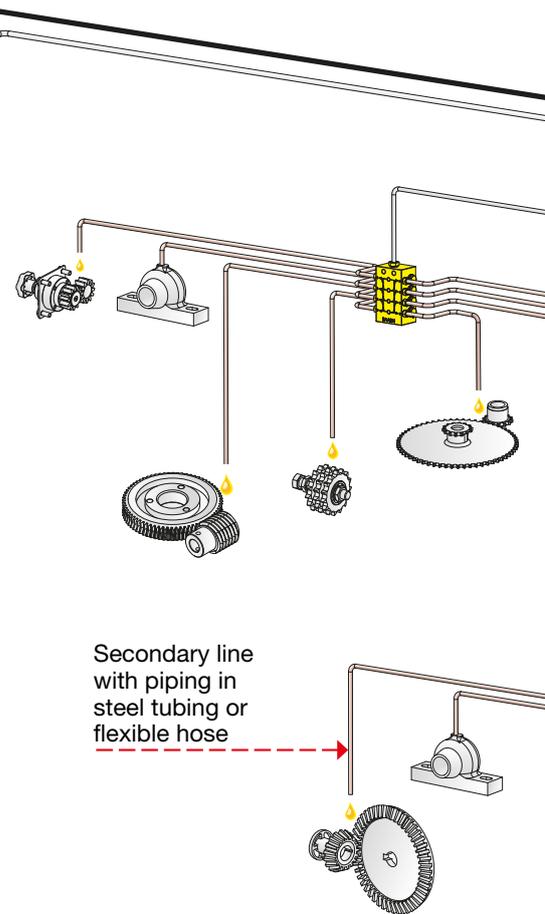


P/N 39289  
Acoustic and flashing alarm (optional)

Motor-operated pump S. C30S



Main line with piping in steel or in flexible rubber



Secondary line with piping in steel tubing or flexible hose



Line and delivery filter (page 50)

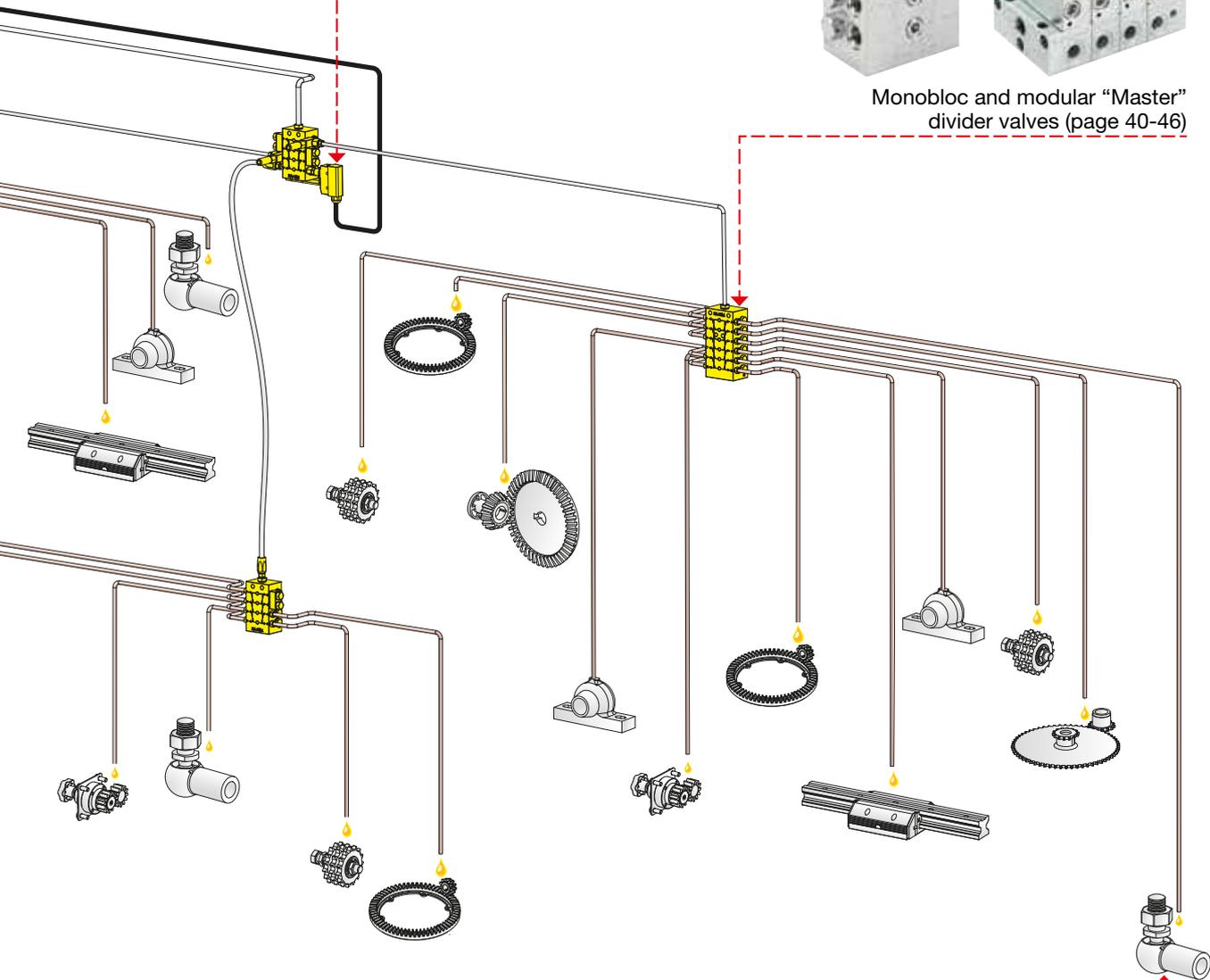
# Type of lubrication system with motor-operated pumps **Series C30S**



Cycle indicator (page 45)



Monobloc and modular "Master" divider valves (page 40-46)



### Lube point:

In the plant are represented some types of moving parts that need to be lubricated.



# SERIES C30F AIR-OPERATED PUMP

Depending on available feed type, on system's specifics or on required dispense, an air-operated pump may be preferred to an electric one.

They are available with a 10-liter tank or in the version for 20 - 50 - 200 kg drums, including drum cover and follower plate.

If commercial drums are used, the end user can replace the drum or fill it up again through the specific inlet, on request with a special kit.

High compression ratio (50:1) and adjustable feeding pressure allow to set system's pressure according to specific needs (from 100 to 350 bar).

with tank 10 kg



DRUM



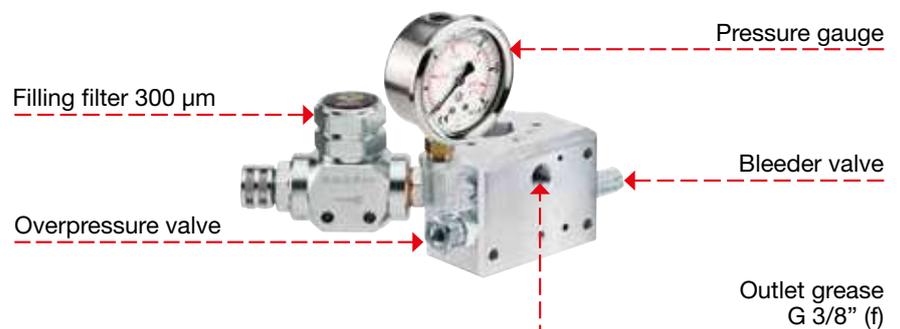
Technical characteristics	
Max flow rate *	1330 cm <sup>3</sup> /min
Max working pressure	8 bar
Pressure ratio	50:1
Air inlet connection	G 1/4" (f)
Lubricant outlet connection	G 3/8" (f)
Operating temperature	-25 °C / +60 °C
Lubricant	Oil > 40 cSt - Grease max NLGI 2

\* Approx. flow rate with grease NLGI 2 at 18°C.

## PUMP OUTLET ASSEMBLY

This group is composed by:

- **Pressure gauge:** to check the line pressure.
- **Overpressure valve:** allows to check the system pressure and to discharge the lubricant in case of overpressure (100-350 bar).
- **Filling filter:** allows the removal of grease impurities during the loading phase.
- **Bleeder valve:** eliminates residual air in the system during the initial filling phase.



# GUIDE TO CHOOSING PUMP

P/N full Grease	Tank capacity (kg)	For drums with capacity (kg)	Ø drum internal (mm)	P/N pump (R 50:1)	P/N drum cover	P/N follower plate	P/N discharging valve
3085005	10	-	220	62741	-	10/617	-
3085275	-	20	255/300	62148	10/537	66310	3081710
3085545	-	50	335/360	62174	10/533	66370	3081710
3085680	-	60	360/400	62174	10/532	66400	3081710
3085815	-	180 - 220	540/580	62195	10/531	66590	3081710

P/N full Oil	Tank capacity (kg)	For drums with capacity (kg)	Ø drum external (mm)	P/N pump (R 50:1)	P/N drum cover (for open drums)	P/N bung adaptor (for closed drums - 2" hole)	P/N minimum level indicator	P/N discharging valve
3085950	10	-	240	62741	-	-	-	-
3086220	-	20	260/330	62148	10/537	-	-	3081710
3086490	-	50 - 60	340/385	62174	10/533	-	-	3081710
3086625	-	50 - 60	-	62174	-	38041	39650	3081710
3086760	-	180 - 220	-	62195	-	38041	39650	3081710

## ACCESSORIES

### STANDARD EQUIPMENT

### ON REQUEST



Ultrasonic min/max level indicator - connection G 3/4" (m)

Only for P/N 3085950



Visual high level indicator for oil

Only for P/N 3085005



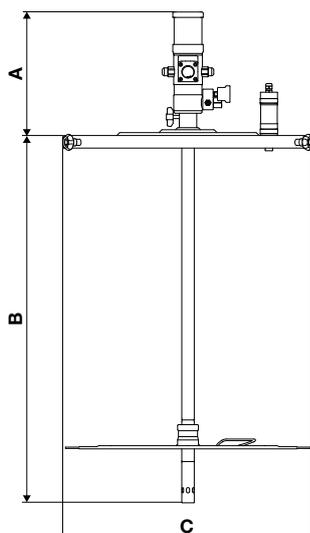
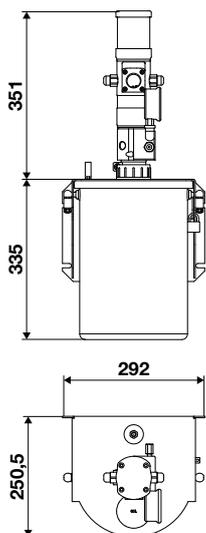
Visual high level indicator for grease



Charging filter for filling standard drums

### Overall dimensions (mm)

P/N 3085005 for Grease  
P/N. 3085950 for Oil



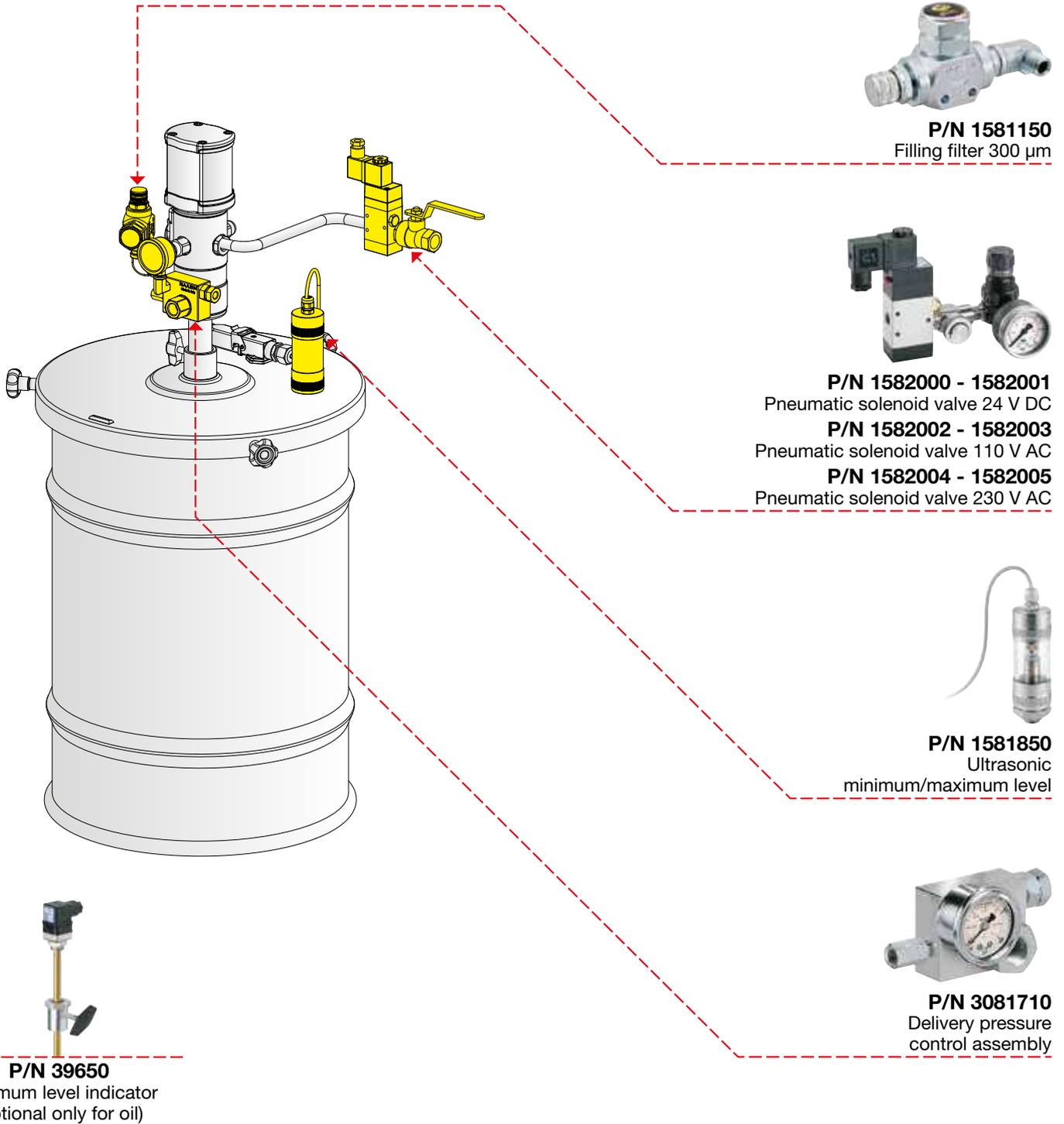
P/N Grease	A	B	C
3085275	355	361	341
3085545	355	621	389
3085680	355	621	424
3085815	355	835	604

P/N Oil	A	B	C
3086220	355	361	341
3086490	355	621	389
3086625	355	621	424
3086760	355	835	604

	10 litres		20 kg		50 kg		60 kg		220 kg	
	Grease	Oil	Grease	Oil	Grease	Oil	Grease	Oil	Grease	Oil
Packing-m <sup>3</sup>	1-0,056	1-0,056	2-0,087	2-0,087	2-0,076	2-0,076	2-0,076	2-0,036	2-0,100	2-0,040
Net weight kg	16,5	15,5	9,6	8,7	10,7	9,1	11,2	6,9	16,3	7,6
Gross weight kg	16,8	15,8	10,2	9,3	11,3	9,7	11,8	7,5	17,1	8,4



# ACCESSORIES PUMP SERIES C30F



**P/N 1581150**  
Filling filter 300 µm

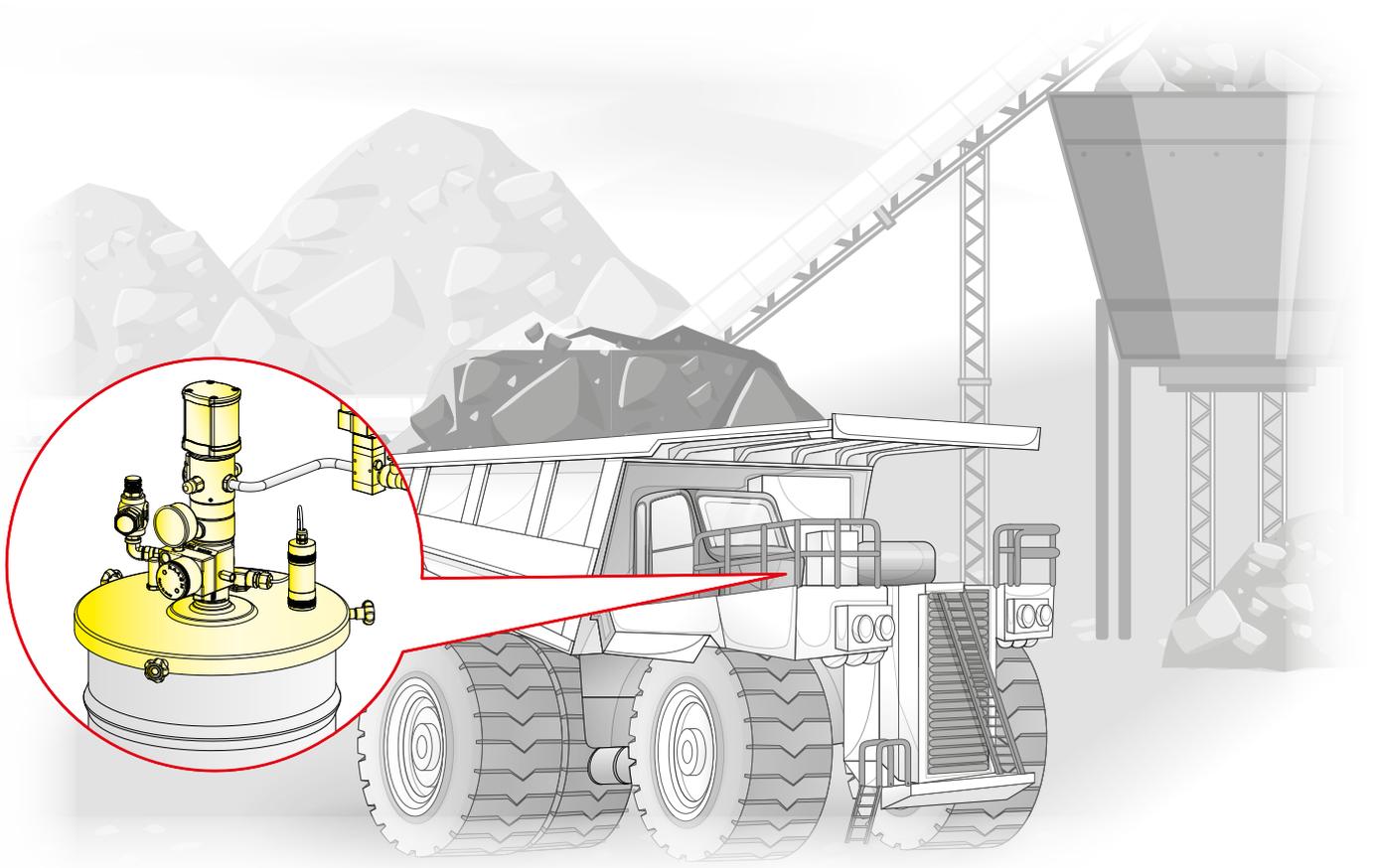
**P/N 1582000 - 1582001**  
Pneumatic solenoid valve 24 V DC  
**P/N 1582002 - 1582003**  
Pneumatic solenoid valve 110 V AC  
**P/N 1582004 - 1582005**  
Pneumatic solenoid valve 230 V AC

**P/N 1581850**  
Ultrasonic  
minimum/maximum level

**P/N 3081710**  
Delivery pressure  
control assembly

**P/N 39650**  
Minimum level indicator  
(optional only for oil)

P/N	Description	Connection	Pressure
<b>1581150</b>	Filling filter 300 µm	G 3/8" (m)	-
<b>1582000</b>	Pneumatic solenoid valve 24 V DC	G 1/4" (f) x G 1/4" (f)	2,5-8 bar
<b>1582001</b>	Pneumatic solenoid valve 24 V DC	G 1/2" (f) x G 1/2" (f)	2,5-8 bar
<b>1582002</b>	Pneumatic solenoid valve 110 V AC	G 1/4" (f) x G 1/4" (f)	2,5-8 bar
<b>1582003</b>	Pneumatic solenoid valve 110 V AC	G 1/2" (f) x G 1/2" (f)	2,5-8 bar
<b>1582004</b>	Pneumatic solenoid valve 230 V AC	G 1/4" (f) x G 1/4" (f)	2,5-8 bar
<b>1582005</b>	Pneumatic solenoid valve 230 V AC	G 1/2" (f) x G 1/2" (f)	2,5-8 bar
<b>1581850</b>	Ultrasonic minimum/maximum level	Hole on drum cover ø 31 mm	-
<b>3081710</b>	Delivery pressure control assembly	G 3/8" (f)	100 - 350 bar
<b>39650</b>	Minimum level indicator (optional only for oil)	G 3/4" (m)	-





Control equipment (PLC) (page 51-52)

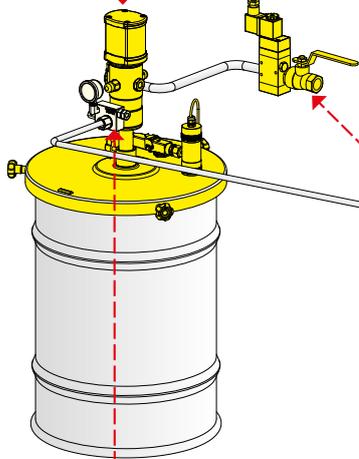


P/N 39290  
Emergency stop button (optional)



P/N 39289  
Acoustic and flashing alarm (optional)

Air-operated pump S. C30S



Main line with piping in steel or in flexible rubber

Secondary line with piping in steel tubing or flexible hose



Delivery pressure control assembly (page 36)



Air operated solenoid valve 24 V DC - 110 V AC 230 V AC



Line and delivery filter (page 50)

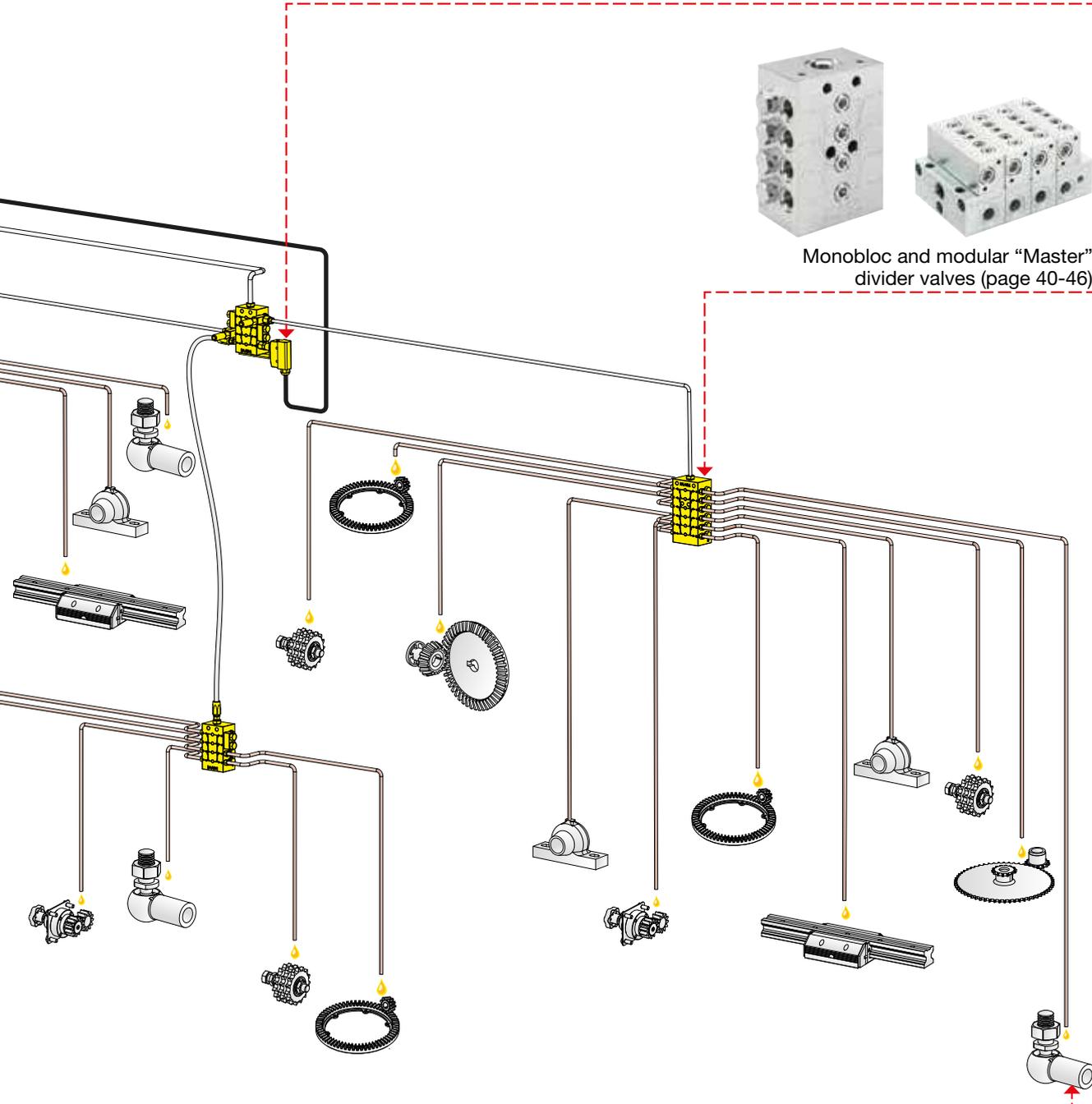
# Type of lubrication system with air-operated pump **SERIES C30F**



Cycle indicator (page 45)



Monobloc and modular "Master"  
divider valves (page 40-46)



### Lube point:

In the plant are represented some types of moving parts that need to be lubricated.



# MDV-M MDV-L VOLUMETRIC MONOBLOCK DISTRIBUTOR

The volumetric monobloc distributors are entirely made of steel with a surface treatment of iridescent white zinc; the holes and pistons are made of treated and lapped steel, to guarantee a seal without gaskets.

The pistons, pushed by the action of the pump, deliver a predetermined quantity of lubricant in each delivery through a progressive sequence (see section how it works).

Each piston is in series with all the others: malfunctioning of just one causes blocking of all the others.



Technical characteristics	
Min. pressure	20 bar oil / 20 bar grease
Max. pressure	150 bar oil / 250 bar grease
Flow rate MDV-M	0,025 - 0,050 - 0,075 cm <sup>3</sup> /cycle
Flow rate MDV-L	0,1 - 0,2 - 0,4 cm <sup>3</sup> /cycle
Material	Galvanized steel
Working temperature	-25 °C / +60 °C
Min. number deliveries	6
Max. number deliveries	14

## GUIDE TO CHOOSING DISTRIBUTOR MDV-M

Divider valves only	Divider valves with cycle indicator		Abbr.	N° deliveries	Connection	
	visual (A)	visual (B)			Inlet	Outlet
3141420	31414201	31414201/B	MDV-M6	6	G 1/8" (f)	UNF 5/16" (f)
3141500	31415001	31415001/B	MDV-M8	8	G 1/8" (f)	UNF 5/16" (f)
3141580	31415801	31415801/B	MDV-M10	10	G 1/8" (f)	UNF 5/16" (f)
3141660	31416601	31416601/B	MDV-M12	12	G 1/8" (f)	UNF 5/16" (f)
3141740	31417401	31417401/B	MDV-M14	14	G 1/8" (f)	UNF 5/16" (f)

Standard dispensing plugs MDV-M 0,050 cm<sup>3</sup>/cycle.

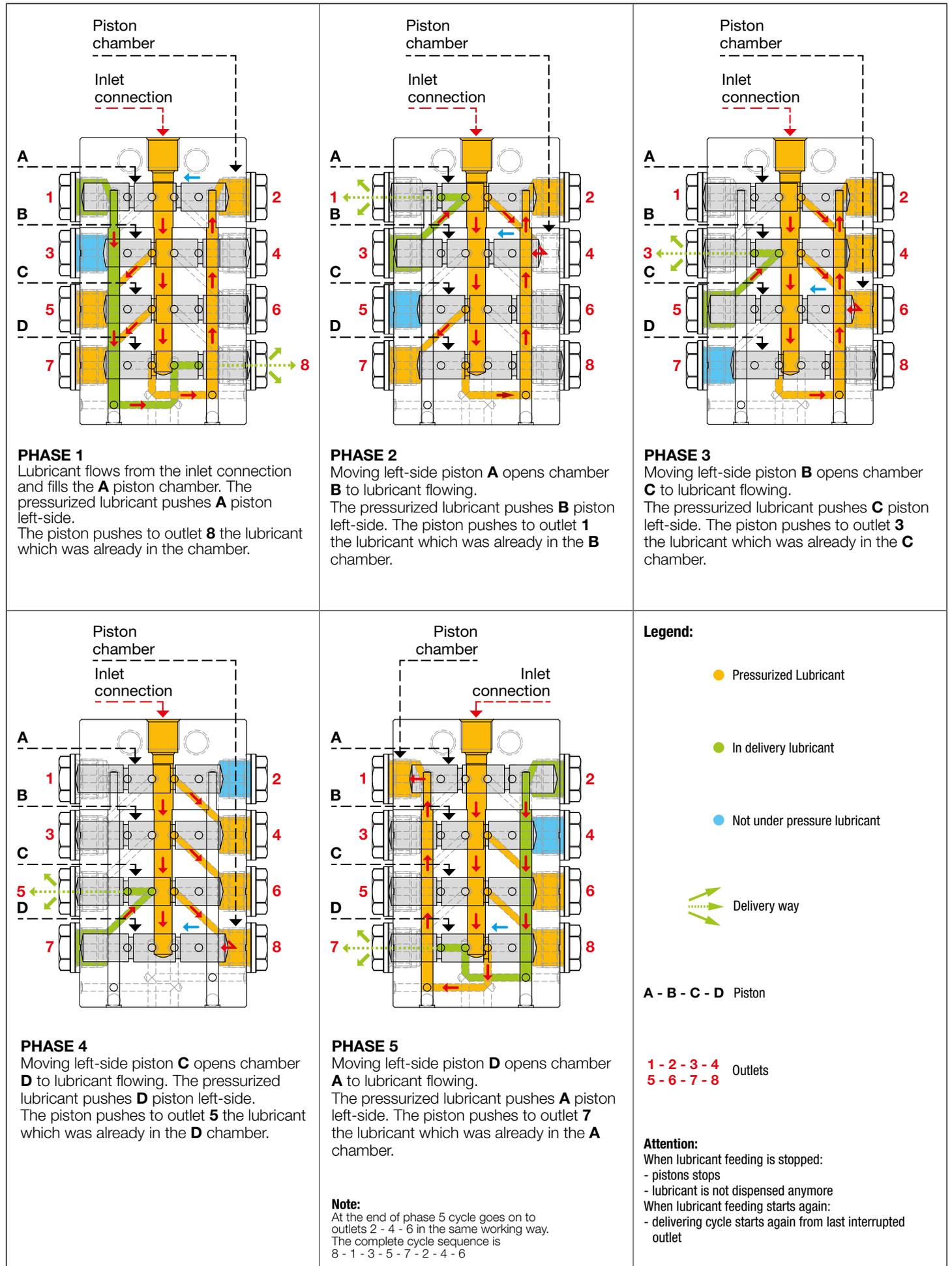
## GUIDE TO CHOOSING DISTRIBUTOR MDV-L

Divider valves only	Divider valves with cycle indicator				Abbr.	N° deliveries	Connection	
	visual (A)	visual (B)	micro	proximity			Inlet	Outlet
3150380	31503801	31503801/B	31503802	31503803	MDV-L6	6	G 1/4" (f)	G 1/8" (f)
3150460	31504601	31504601/B	31504602	31504603	MDV-L8	8	G 1/4" (f)	G 1/8" (f)
3150540	31505401	31505401/B	31505402	31505403	MDV-L10	10	G 1/4" (f)	G 1/8" (f)
3150620	31506201	31506201/B	31506202	31506203	MDV-L12	12	G 1/4" (f)	G 1/8" (f)
3150700	31507001	31507001/B	31507002	31507003	MDV-L14	14	G 1/4" (f)	G 1/8" (f)

Standard dispensing plugs MDV-L 0,20 cm<sup>3</sup>/cycle.

# HOW IT WORKS

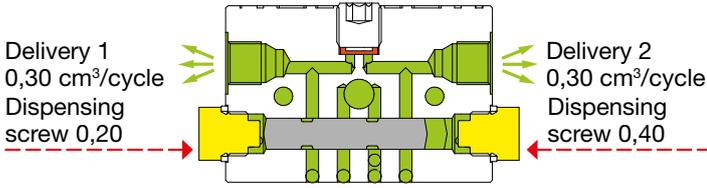
The following scheme below represents a lubrication cycle through the standard progressive sequence at the outlets **8 - 1 - 3 - 5 - 7**.



# OUTLETS AND FLOW RATES

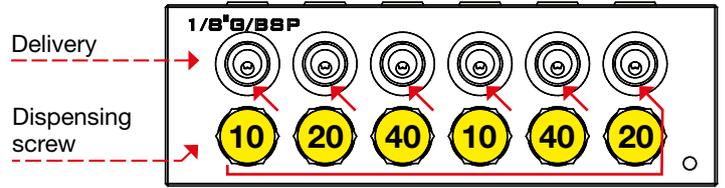
Lubricant outlets are side placed and can work independently or bined. Flow rate may be set by adjusting screws from 0,025 - 0,050 - 0,075 cm<sup>3</sup>/cycle for MDV-M distributors model to 0,1 - 0,2 - 0,4 cm<sup>3</sup>/cycle for MDV-L distributors.

## DELIVERY EXAMPLE



Total lubricant flow rate is equal to the sum of the flow rate indicated on each adjusting screw ( $0,20 + 0,40 = 0,60$ ), divided by 2 ( $0,60/2=0,30$  cm<sup>3</sup>/cycle).

## LUBRICANT PATH

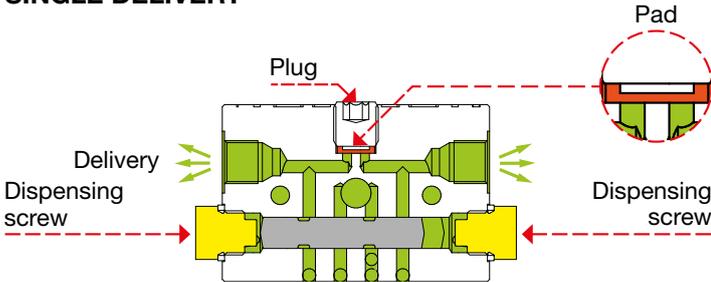


This picture shows lubricant path depending on each adjusting screw's flow rate. Dispensing sequence is represented on top side of the divider (see example in **Bypass elements** section).

# SINGLE OR DOUBLE DELIVERY

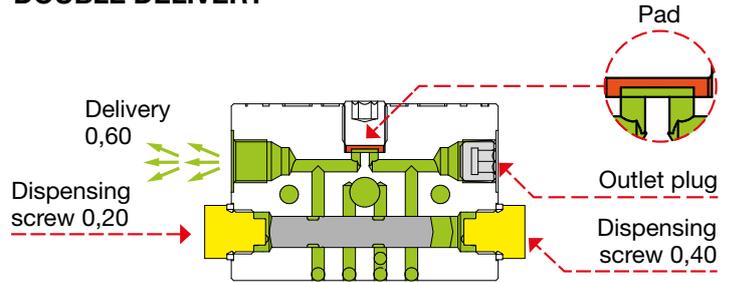
Each section of the device can dispense lubricant through a single or double delivery. This is possible thanks to the screw plug's pin orientation, which is placed onto the frontal side of the divider.

## SINGLE DELIVERY



If the mechanical device (tablet supplied with the dispenser) is positioned with the hollow part facing upwards, lubricant dispensing takes place from one side to the other progressively.

## DOUBLE DELIVERY



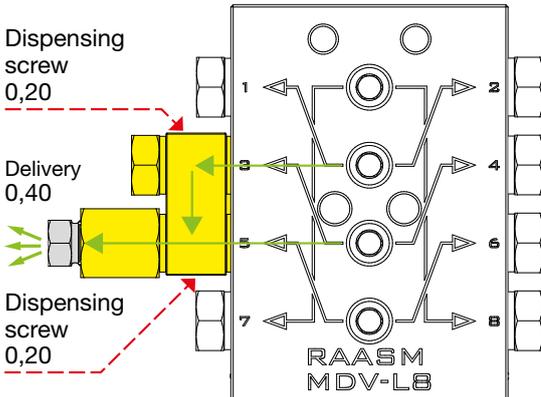
If the hollow part of the pad (supplied with the distributor) is facing downwards, lubricant dispensing takes place simultaneously in both sections. By positioning the outlet cap on the opposite delivery, will result a delivery with flow rate equal to the sum of the individual flow rates ( $0,20 + 0,40 = 0,60$ ).

# BYPASS ELEMENTS

Using a hollow screws bypass element, different flow rates may be available for each outlet (single, double, triple etc.)

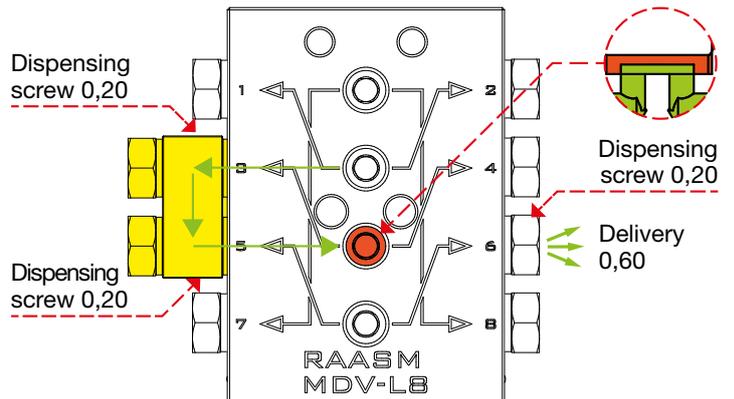
## DOUBLE DELIVERY

Delivery  $0,20 + 0,20 = 0,40$

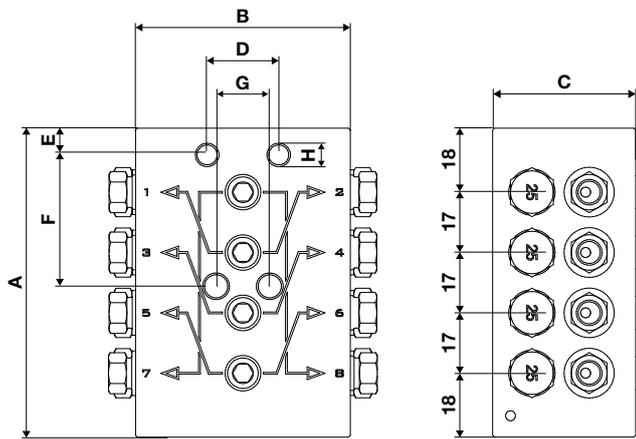


## TRIPLE DELIVERY

Delivery  $0,20 + 0,20 + 0,20 = 0,60$



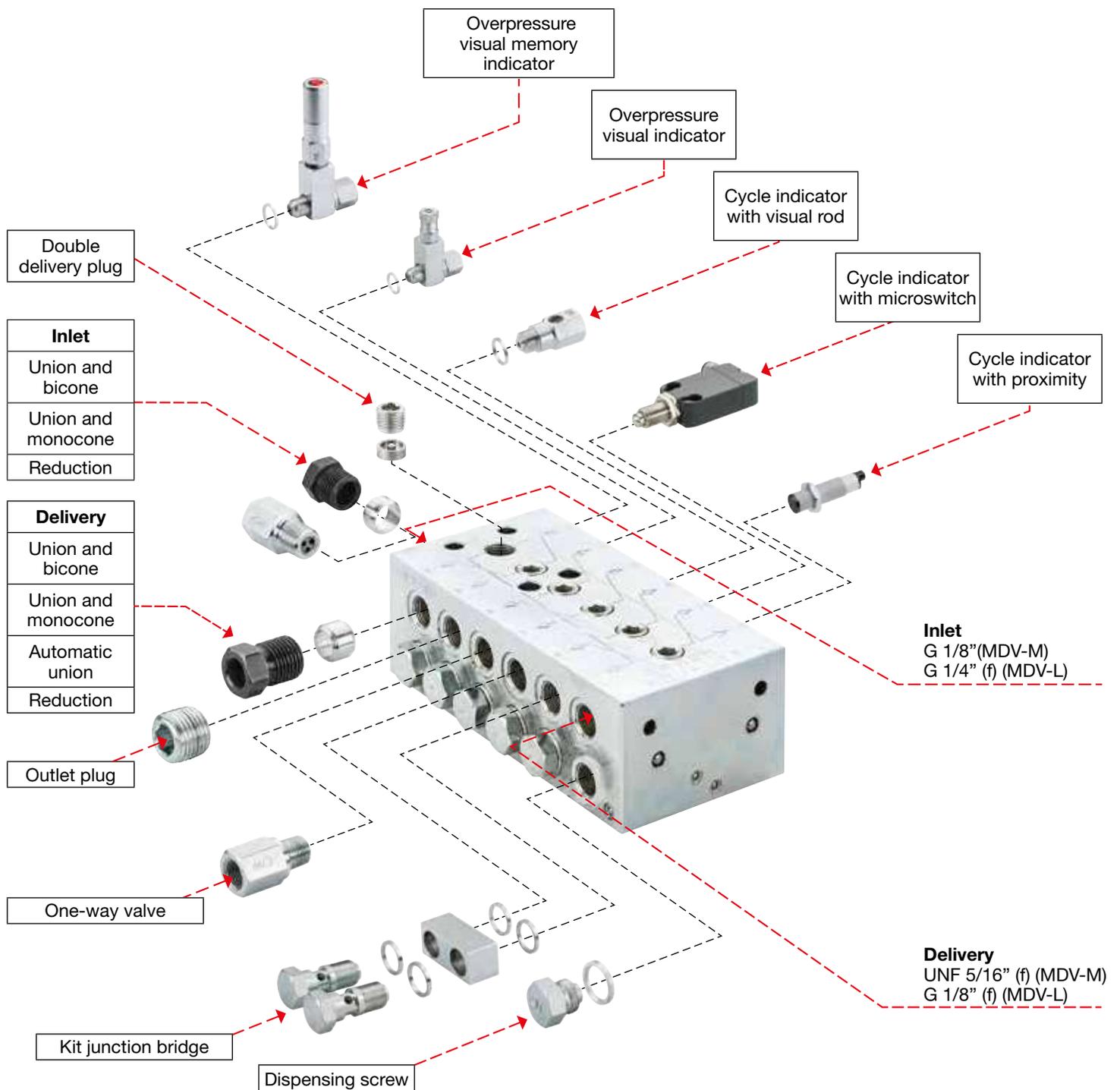
### Overall dimensions (mm)



Abbr.	A	B	C	D	E	F	G	H
MDV-M6	70	40	30	20	5,5	38	12	ø 5,5
MDV-M8	88	40	30	20	5,5	38	12	ø 5,5
MDV-M10	104	40	30	20	5,5	38	12	ø 5,5
MDV-M12	122	40	30	20	5,5	38	12	ø 5,5
MDV-M14	138	40	30	20	5,5	38	12	ø 5,5

Abbr.	A	B	C	D	E	F	G	H
MDV-L6	70	60	40	20	7,5	37	15	ø 5,5
MDV-L8	88	60	40	20	7,5	37	15	ø 5,5
MDV-L10	104	60	40	20	7,5	37	15	ø 5,5
MDV-L12	122	60	40	20	7,5	37	15	ø 5,5
MDV-L14	138	60	40	20	7,5	37	15	ø 5,5

## ACCESSORIES MDV-M and MDV-L



## DISPENSING SCREW

	Distributors	P/N	Flow rate (cm <sup>3</sup> /cycle)	Connection	Dispensing screw Abbr.
	MDV-M	3081650	0,025	M7 x 1	25
		3081651	0,050	M7 x 1	50
		3081652	0,075	M7 x 1	75
	MDV-L	3081600	0,100	M10 x 1	10
		3081601	0,200	M10 x 1	20
3081602		0,400	M10 x 1	40	

## OUTLET PLUG

	Distributors	P/N	Delivery connection
	MDV-M	3200091	UNF 5/16" (m)
	MDV-L	3200095	G 1/8" (m)

## ONE-WAY VALVE

	Distributors	P/N	Delivery connection	Inlet connection
	MDV-M	3200081	UNF 5/16" (m) - outlet UNF 5/16" (f)	-
		3200082	UNF 5/16" (m) - outlet G 1/8" (f)	-
		3200085	-	G 1/8" (m) - outlet G 1/8" (f)
		3200087	-	G 1/8" (m) - outlet G 1/4" (f)
	MDV-L	3200083	G 1/8" (m) - outlet G 1/8" (f)	-
3200084		G 1/8" (m) - outlet G 1/4" (f)	-	
3200086		-	G 1/4" (m) - outlet G 1/4" (f)	

## BYPASS ELEMENT KIT (without outlet)

	Distributors	P/N	Connection
	MDV-M	3080050	UNF 5/16" (m)
	MDV-L	3080070	G 1/8" (m)

## BYPASS ELEMENT KIT (with outlet)

	Distributors	P/N	Connection
	MDV-M	3080051	UNF 5/16" (m) - outlet UNF 5/16" (f)
		3080052	UNF 5/16" (m) - outlet G 1/8" (f)
	MDV-L	3080071	G 1/8" (m) - outlet G 1/8" (f)
		3080072	G 1/8" (m) - outlet G 1/4" (f)

## OVERPRESSURE VISUAL MEMORY INDICATOR

This indicator has a coloured rod that raises and remains in position when there is an abnormal pressure rise in the system. This allows to locate the discharge involved.

	UNF 5/16" (m) outlet UNF 5/16" (f)		UNF 5/16" (m) outlet G 1/8" (f)		G 1/8" (m) outlet G 1/8" (f)		G 1/8" (m) outlet G 1/4" (f)		Pressure
	Distributors	P/N	Distributors	P/N	Distributors	P/N	Distributors	P/N	
	MDV-M	3081542	MDV-M	3081552	MDV-L	3081562	MDV-L	3081572	100 bar
		3081543		3081553		3081563		3081573	150 bar
		3081544		3081554		3081564		3081574	200 bar
		3081545		3081555		3081565		3081575	250 bar

# OVERPRESSURE VISUAL INDICATOR

This indicator has a rod that is raised when it reaches the set pressure and falls when the pressure falls below this value.

	UNF 5/16" (m) outlet UNF 5/16" (f)		UNF 5/16" (m) outlet G 1/8" (f)		G 1/8" (m) outlet G 1/8" (f)		G 1/8" (m) outlet G 1/4" (f)		Pressure
	Distributors	P/N	Distributors	P/N	Distributors	P/N	Distributors	P/N	
	MDV-M	3081582	MDV-M	3081589	MDV-L	3081596	MDV-L	3081535	
3081583		3081590		3081597		3081536		150 bar	
3081584		3081591		3081598		3081537		200 bar	
3081585		3081592		3081599		3081538		250 bar	

**Attention:** overpressure indicators have to be installed on lubricant outlets which need to be checked.

# MICROSWITCH CABLE

	Distributors	P/N	Description	Cable length
	MDV-M MDV-L	3081524 3081525	With connector cable M12 - 5 poles With connector cable M12 - 5 poles	5 m 10 m

# CYCLE INDICATOR

Three different cycle indicators may be installed on distributor to check system status:

**Visual rod indicator type A.** Provided with female thread M12X1 for the connection with microswitch indicator (P/N 3081480). Proximity (P/N 3081490).

(A) 	Distributors	Dispensing screw	
		P/N (A)*	Flow rate (cm <sup>3</sup> /cycle)
	MDV-M	3081401	0,025
	MDV-M	3081402	0,050
	MDV-M	3081403	0,075
	MDV-L	3081421	0,100
	MDV-L	3081422	0,200
	MDV-L	3081423	0,400

**Visual rod indicator type B (on request).** Provided with a rod directly connected to divider's piston. The 1 rod comes out when the piston is working.

(B) 	Distributors	Dispensing screw	
		P/N (B)*	Flow rate (cm <sup>3</sup> /cycle)
	MDV-M	3081404	0,025
	MDV-M	3081405	0,050
	MDV-M	3081406	0,075
	MDV-L	3081424	0,100
	MDV-L	3081425	0,200
	MDV-L	3081426	0,400

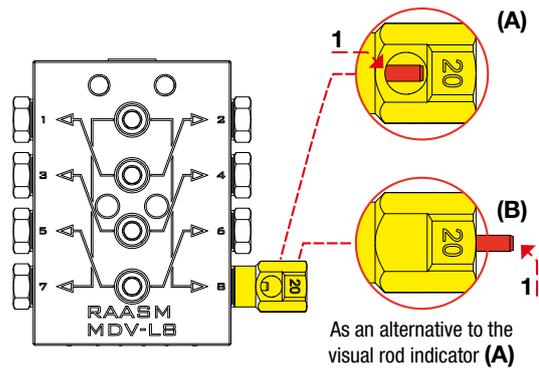
**Microswitch indicator \*** The rod of the visual indicator type A is directly connected to divider's piston and it activates a microswitch which produces an electrical signal each working cycle.

	Distributors		P/N
	MDV-M	MDV-L	3081480

**"Proximity" sensor indicator \*** A "proximity" capacity sensor detects if the rod of the visual indicator type A connected to divider's piston is working and it produces an electrical signal each working cycle.

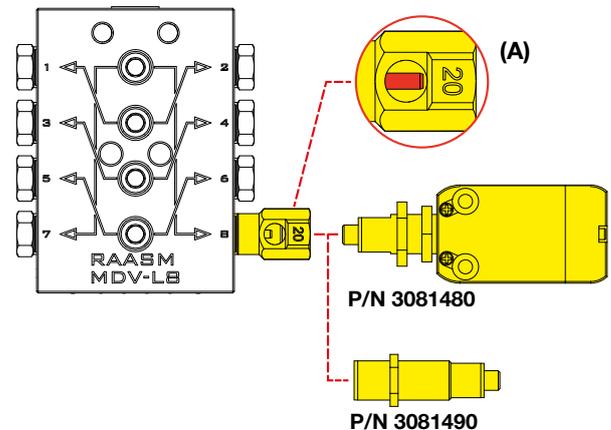
	Distributors		P/N
	MDV-M	MDV-L	3081490

\* Cable for microswitch and "proximity" non included (sold separately).



**Attention:**

The microswitch indicator and/or proximity sensor can only be supplied if combined with type A rod indicator.



**\* Attention:**

The cycle indicators are installed in the standard version in correspondence of the pumping piston placed at the outlet of the distributor (bottom right). For non-standard installation please call the technical department.



# MEDV-L MODULAR DIVIDER VALVE

Modular Divider Valve MEDV-L is full made of iridescent white zinc steel: lapped holes and piston are hardened and ground steel to guarantee a seals-less working. It consists of two main parts: a basement where inlets and outlets are fixed on and dosing elements for dosing a predetermined amount of lubricant to the base.



Technical characteristics	
Max flow rate	20 bar oil / 20 bar grease
Max working pressure	150 bar oil / 250 bar grease
Flow rate dosing elements MEDV-L	0,04-0,08-0,16-0,25-0,35-0,40-0,50-0,60-0,65 cm <sup>3</sup> /cycle
Material	Galvanized steel
Operating temperature	-25 °C / +60 °C
Minimum number of distributor elements	3
Minimum number of distributor elements	20

Base's element type	P/N MEDV-L	Inlet	Outlet	Dosing's element type	P/N MEDV-L
<b>1</b> Initial element	3200010	G 1/4" (f)	G 1/8" (f)	<b>6</b> Bypass element	3200800
<b>2</b> Intermediate element	3200012	-	G 1/8" (f)		
<b>3</b> Final element	3200013	-	G 1/8" (f)		

No. elements	5 Assembly base MEDV-L P/N	No. elements	5 Assembly base MEDV-L P/N	No. elements	5 Assembly base MEDV-L P/N
3	3200560	9	3200566	15	3200572
4	3200561	10	3200567	16	3200573
5	3200562	11	3200568	17	3200574
6	3200563	12	3200569	18	3200575
7	3200564	13	3200570	19	3200576
8	3200565	14	3200571	20	3200577

4 Metering element MEDV-L					7 Bridge dosing element			
Flow rate (cm <sup>3</sup> /cycle)	Only elements	Cycle indicator			Flow rate (cm <sup>3</sup> /cycle)	Left side	Right side	Right and left side
		Visual (A)	Micro	Proximity				
0,04	3200600	-	-	-	0,04	3200840	3200860	3200850
0,08	3200610	-	-	-	0,08	3200841	3200861	3200851
0,16	3200620	-	-	-	0,16	3200842	3200862	3200852
0,25	3200630	3200631	3200632	3200633	0,25	3200843	3200863	3200853
0,35	3200640	3200641	3200642	3200643	0,35	3200844	3200864	3200854
0,40	3200650	3200651	3200652	3200653	0,40	3200845	3200865	3200855
0,50	3200660	3200661	3200662	3200663	0,50	3200846	3200866	3200856
0,60	3200670	3200671	3200672	3200673	0,60	3200847	3200867	3200857
0,65	3200680	3200681	3200682	3200683	0,65	3200848	3200868	3200858

#### 4 DOSING ELEMENTS

The dosing elements are fixed above the base by means of two screws. Thanks to the work of a series of piston progressively driven they dispense a predetermined quantity of lubricant to the base's elements. Each dosing element guarantees a specific delivery (indicated with a mark). They are available with microswitch, proximity or visual rod indicator.

Overpressure indicators' outlets G 1/8" (f)

#### 7 BRIDGE DOSING ELEMENT

#### 6 BY PASS ELEMENT

#### 3 FINAL ELEMENT

The final element has an outlet hole to dispense lubricant to users points and an air discharge valve

Discharge valve

#### 1 INITIAL ELEMENT

Is provided with a G 1/4" (f) input lubricant hole to the lubrication points (users).

Inlet G 1/4" (f)

Outlet G 1/8" (f)

#### 2 INTERMEDIATE ELEMENT

The intermediate element has a G 1/8" (f) outlet hole to dispense lubricant to using points.

#### 5 BASE

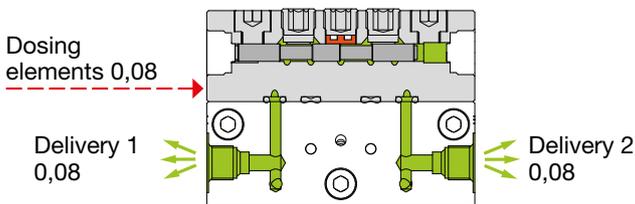
(composed by elements 1, 2, 3). It consists in an initial and a final element, interposed by intermediate elements as many as needed, till an number. The base must be composed at least by three elements, initial final and intermediate ones.

## OUTLETS AND FLOW RATES

Lubricant outlets are side placed and can work independently or bined. Flow rate may be set by dosing elements, 0,04 - 0,08 - 0,16 - 0,25 - 0,35 - 0,40 - 0,50 - 0,60 - 0,65 cm<sup>3</sup>/cycle.

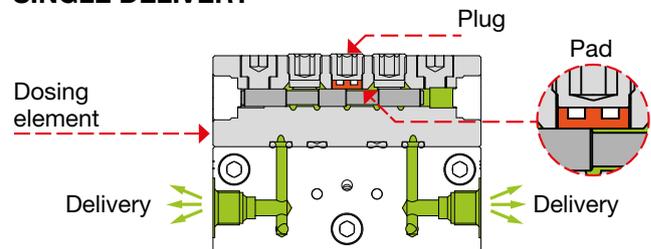
Each section of the divider can dispense lubricant by a single or double outlet, thanks to the mechanical device orientation (pad), placed onto the frontal side of the divider.

### DELIVERY EXAMPLE



Delivery of each outlet is the same indicated on the dosing element (0,08 cm<sup>3</sup>/cycle).

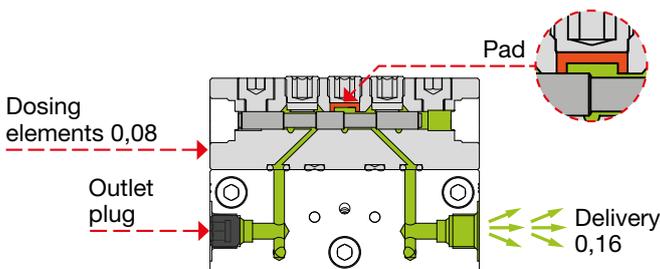
### SINGLE DELIVERY



The hollow of screw plug's pin is facing upwards: lubricant dispensing takes place from one side to the other progressively.

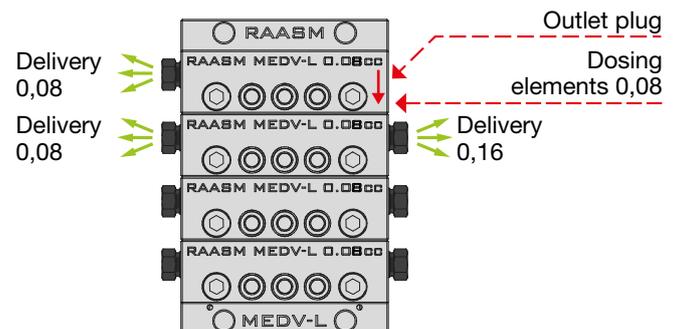
## DOUBLE DELIVERY

### WITH PAD



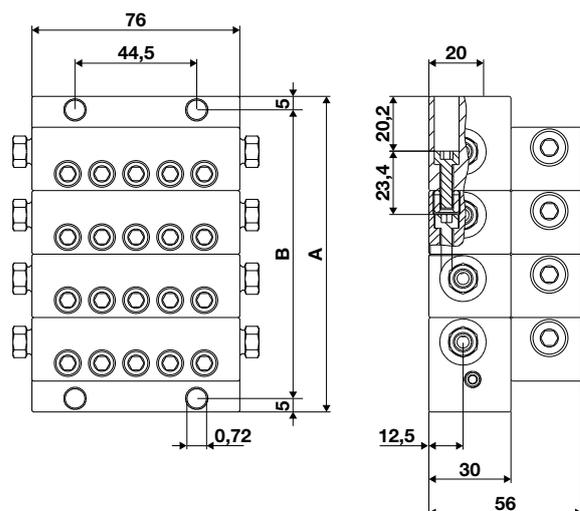
The hollow of screw plug's pin is facing downwards: lubricant dispensing takes place both sides at the same time. Placing the screw plug to an opposite outlet the lubricant flow rate will be the sum of each inlet quantity (0,08 + 0,08 = 0,16).

### BRIDGE DOSING ELEMENT



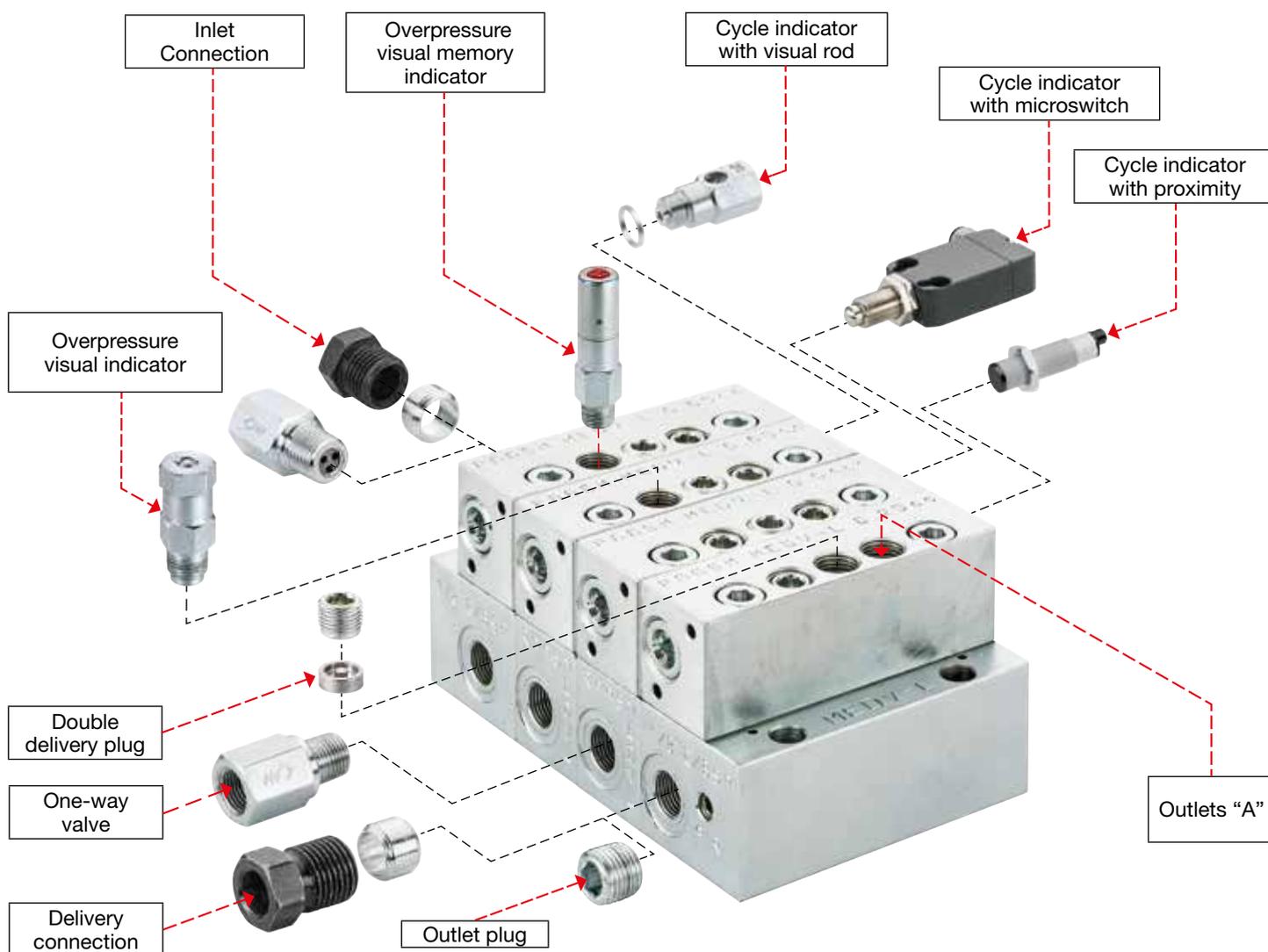
Using a bridge dosing element (right side, left side or both) and a tap on the outlet, a double delivery quantity is available for the next outlet (0,08 + 0,08 = 0,16).

## Overall dimensions (mm)



No. elements	MEDV-L	
	A (mm)	B (mm)
3	93,0	83,0
4	116,4	106,4
5	139,8	129,8
6	163,2	153,2
7	186,6	176,6
8	210,0	200,0
9	233,4	223,4
10	256,8	246,8
11	280,2	270,2
12	303,6	293,6
13	327,0	317,0
14	350,4	340,4
15	373,8	363,8
16	397,2	387,2
17	420,6	410,6
18	444,0	434,0
19	467,4	457,4
20	490,8	480,8

## ACCESSORIES MEDV-L



## OUTLET PLUG

	Distributors		P/N	Connection
	MDV-L		3200095	G 1/8" (m)

## ONE-WAY VALVE

	Distributors		P/N	Delivery connection	Inlet connection
	MEDV-L		3200083	G 1/8" (m) - outlet G 1/8" (f)	-
			3200084	G 1/8" (m) - outlet G 1/4" (f)	-
			3200086	-	G 1/4" (m) - inlet G 1/4" (f)

## OVERPRESSURE VISUAL INDICATOR

This indicator has a coloured rod which comes out in case of anomalous pressure increase into the system. The involved outlet is so identifiable.

	Distributors		P/N	Connection	Pressure
	MEDV-L		3200034	G 1/8" (m)	20 bar
			3200035	G 1/8" (m)	30 bar
			3200036	G 1/8" (m)	50 bar
			3200037	G 1/8" (m)	100 bar
			3200038	G 1/8" (m)	150 bar
			3200039	G 1/8" (m)	200 bar
			3200040	G 1/8" (m)	250 bar

## OVERPRESSURE INDICATOR WITH DISCHARGE VALVE

This indicator has a discharging valve which lets the lubricant flow out in case of anomalous pressure increase into the system.

	Distributors		P/N	Connection	Pressure
	MEDV-L		3200014	G 1/8" (m)	20 bar
			3200015	G 1/8" (m)	30 bar
			3200016	G 1/8" (m)	50 bar
			3200017	G 1/8" (m)	100 bar
			3200018	G 1/8" (m)	150 bar
			3200019	G 1/8" (m)	200 bar
			3200020	G 1/8" (m)	250 bar

**Attention:** overpressure indicators have to be installed on the top face of the dosing element.

## CYCLE INDICATOR

Three different cycle indicators may be installed on the "Master" divider to check system status:

### Visual rod indicator type A.

Provided with female thread M12X1 for the connection with microswitch indicator (P/N 3081480), proximity (P/N 3081490).

**Attention:** to order the metering element with visual indicator type A refer to the metering elements list on page 44.

### Microswitch indicator \*

The rod of the visual indicator type A is directly connected to divider's piston and it activates a microswitch which produces an electrical signal each working cycle.

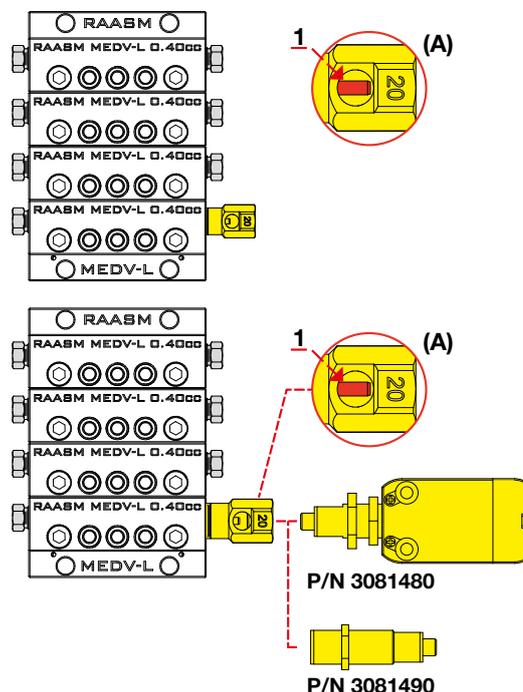
	Distributors		P/N
	MDV-M	MDV-L	3081480

### "Proximity" sensor indicator \*

A "proximity" capacity sensor detects if the rod of the visual indicator type A connected to divider's piston is working and it produces an electrical signal each working cycle.

	Distributors		P/N
	MDV-M	MDV-L	3081490

\* Cable for microswitch and "proximity" non included (sold separately).





# FILTER

**Filter.** In order to ensure the proper functioning of the system and avoid lubricant external contamination, it is advisable to install a filter at the pump outlet (delivery).

The sturdy steel structure of filters ensures a sure sealing and also allows their use in centralized lubrication systems where there are high operating pressures (up to 500 bar).

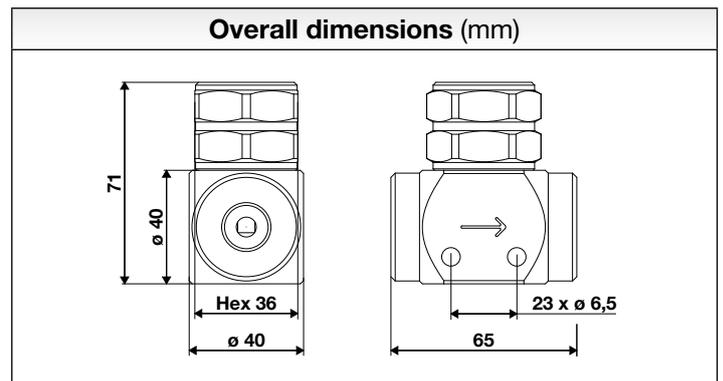
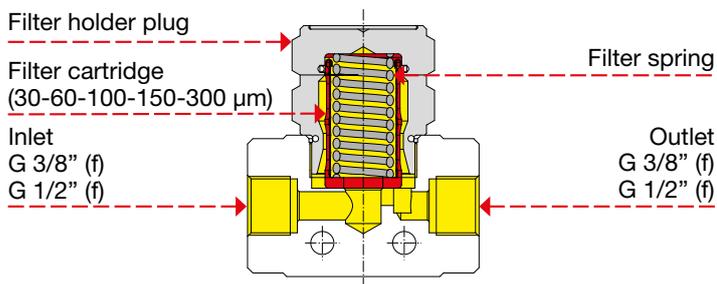
Operating with both oils and greases, it is placed both at the pump outlet and along the system line.



Technical characteristics	
Type	Oil and grease
Working temperature	-25 °C / +60 °C
Lubricants	Oil > 40 cSt - Grease max NLGI 2

P/N	Inlet connection	Outlet connection	Max pressure (bar)	Filtration degree (µm)
2080900	G 3/8" (f)	G 3/8" (f)	500	30
2080930				60
2080950				100
2080800	G 3/8" (f)	G 3/8" (f)	500	150
2080801				300
2080901	G 1/2" (f)	G 1/2" (f)	500	30
2080931				60
2080951				100
2080850	G 1/2" (f)	G 1/2" (f)	500	150
2080851				300

## DELIVERY-FILLING FILTER





# CONTROL EQUIPMENT

Equipment dedicated to the management and control of centralized lubrication systems. Equipped with an electronic programming card and interface, they manage the input and output signals of the whole system.

200 ÷ 500 V AC 50/60 Hz



Technical characteristics			
P/N	2170036	2170037	2170035
Suitable for pump model	C30S C30P	C30F C30B15 C30B18	C30S C30P
Voltage	200 ÷ 500 V AC	200 ÷ 500 V AC	200 ÷ 500 V AC
Power consumed *	1500 W max	1500 W max	1500 W max
Light filling	YES	YES	NO
Tank full light	YES	YES	NO
Transparent window	YES	YES	YES
Filling control	YES	YES	NO
Protection rating	IP55	IP55	IP55
Working temperature	-25 °C / +60 °C		-25 °C / +60 °C

\* Depends on the type of motor applied to the pump.



- Button start /stop
- Alarm light
- Display integrated into the keyboard.
- Simple and intuitive user interface.
- Rugged and waterproof cover, meets the requirements of IP55.
- Ability to customize the lubrication intervals, pause and the cycle count.
- Programming of the parameters protected by password.
- Call system filling tank (on request) with high level light indicator.

Input signals
Start/Stop remote
Cycle-counter/Pressure switch L1
Cycle-counter/Pressure switch L2
Low level tank
Safety pressure switch maximum pressure
Thermal protection three-phase motors
Remote stand by cycle
Micro-inverter L1
Micro-inverter L2
Remote emergency button

Output signals
Power motor pump
Power
- motor inverter
- pressure discharge valve
- solenoid inverter 1
Power relay solenoid inverter 2
Remote operation lamp
Remote warning lamp

Overall dimensions (mm)		
<b>Packing-m<sup>3</sup></b>		1-0,03
<b>Net weight kg</b>		15,2-15,4
<b>Gross weight kg</b>		15,5-15,7



# CONTROL EQUIPMENT

This **management and control equipment** consists of an electronic programming card placed in a small-sized panel. The card allows to manage the input and output signals of the entire system.

12-24 V DC

120-230 V AC 50/60 Hz



Technical characteristics		
P/N	1670035	1670036
Suitable for pump model	C30F-C30B15-C30B18-C30B18M	C30F
Voltage	12/24 V DC	120-230 V AC 60/50 Hz
Power consumed	200 W max	600 W max
Inlet	9	9
Outlet	5	5
Protection rating	IP64	IP64
Working temperature	-25 °C / +60 °C	-25 °C / +60 °C



- Display integrated into keyboard.
- Simple and intuitive user interface.
- Rugged and waterproof cover, meets the requirements of IP64.
- Ability to customize the lubrication intervals, pause and the cycle count.
- Programming of the parameters protected by password.

Input signals
Start/Stop remote
Cycle-counter/Pressure switch L1
Cycle-counter/Pressure switch L2
Low level tank
Safety pressure switch maximum pressure
Thermal protection three-phase motors
Remote stand by cycle
Micro-inverter L1
Micro-inverter L2

Output signals
Power motor pump
Power
- pressure discharge valve
- solenoid inverter 1
Power relay solenoid inverter 2
Remote operation lamp
Remote warning lamp

Overall dimensions (mm)		
Packing-m <sup>3</sup>		1-0,005
Net weight kg		1,2-1,4
Gross weight kg		1,1-1,3



# CUSTOMIZED PUMPS SELECTION GUIDE

Should the specific requirements be different from the ones of standard pumps, follow this model to customize your own pump.

## SERIES C30S

Series	Lubricant type		Tank capacity			Poles		No. Pumping elements		Ratio		Level control		
	G	O	10	30	70	4	6	2	4	3	7	O	L	Y
System 30 progressive	Grease (max NLGI 2)	Oil (> 40 cSt)	10 litres	30 litres	70 litres	4 poles	6 poles	2 pumping elements	4 pumping elements	R 35:1	R 70:1	Without minimum level	With minimum level	With minimum and maximum level

Example of pump code: C30S G 10 6 / 2 7 L

## SERIES C30B15 - C30B18

Series	Lubricant type		Ø cilinder		Tank capacity				Rated voltages		No. pumping elements				Control type			Tank attachment			Level control		Accessories						
	G	O	150	180	1	3	5	8	1	3	1	2	3	4	R	A	D	P	R	M	L	0	1	2	3	4	5	6	7
System 30 progressive	Grease (max NLGI 2)	Oil (> 40 cSt)	150 mm	180 mm	1,5 litres	3 litres	5 litres	8 litres	12 V DC low power applications	24 V DC low power applications	1 pumping element	2 pumping elements	3 pumping elements	4 pumping elements	Remote version	Analogic version	Digital version	Without fix grease blade	With fix grease blade	With follower plate	With minimum level	Without minimum level	1 control delivery group + 3 plugs	2 control delivery groups + 2 plugs	3 control delivery groups + 1 plug	4 control delivery groups + 0 plugs	1 control delivery group + 4 pumping elements	1 control delivery group + 3 pumping elements + 1 plug	1 control delivery group + 2 pumping elements + 2 plugs

Example of pump code: C30 G 150 1 1 / 1 R R L 1

## SERIES C30F

Series	Lubricant type		Tank capacity	Ø tank external (mm)					Ratio			Level control			
	G	O	10	28	35	37	38	42	60	5	6	7	0	1	2
System 30 progressive	Grease (max NLGI 2)	Oil (> 40 cSt)	10 kg	From 240 to 280 mm	From 300 to 350 mm	From 260 to 330 mm	From 340 to 385 mm	From 370 to 420 mm	From 550 to 600 mm	R 50:1	R 65:1	R 75:1	Without minimum level ultrasonic	With minimum level ultrasonic	With minimum and maximum level ultrasonic + visual maximum level + filling filter

Example of pump code: C30F G 10 / 5 1

# GENERAL SALES CONDITIONS



## FOR FOREIGN MARKETS

The following general sales conditions regulate the sale of goods and services by the company RAASM S.p.A. for customers residing outside the territory of the Italian State.

### Art. 1 GOODS DELIVERY TERMS

The goods are delivered ex works RAASM S.p.A. The subsequent transport/shipment must occur by, in the name and at the expense of the purchasing customer, even by means of a carrier appointed and designated by the same. All risks arising from loading, subsequent custody and transport are borne entirely by the purchasing customer.

### Art. 2 MINIMUM ORDERS

Each order cannot be for less than € 1,500.00, net of fees, taxes, customs duties, discounts and rebates and any other charges not included in the price of the goods. If, at the option of RAASM S.p.A., orders for lower amounts are accepted, an extra charge of € 155,00 shall be applied for order management administrative expenses.

### Art. 3 ACCESSORIES

All the accessories given in the price list (plugs, oil bar taps, oil guns, grease guns, probes, protection caps, clutches, swivelling supports, etc.) are supplied exclusively for fitting to or combining with the items RAASM S.p.A. produces.

### Art. 4 COMPLAINTS

Any defects immediately noticed after a brief inspection of the goods (damage, shortages or different product from that ordered) must be notified in writing to our company within 8 (eight) days of receipt of the goods. Any defects in the product noticeable only during its use must be notified in writing to RAASM S.p.A. within 8 (eight) days of being detected. Any returns of goods must be authorized in advance by RAASM S.p.A. and freight charges are at the customer's expenses.

### Art. 5 DELIVERY TIMES/TERMS

Delivery times and dates are only approximate and are subject to change. Any delays in delivery do not entitle the customer to cancel the order or claim compensation for damages caused by delay of delivery. Delivery times for urgent orders must be agreed directly with RAASM S.p.A. RAASM S.p.A. has the right not to carry out the order and/or totally or partially carry it out, without this giving rise to reimbursement or claims for compensation for damage.

### Art. 6 PACKS AND PACKAGING

Packaging costs are included in the price, except for special packing, which shall be charged at cost.

### Art. 7 PRICES

The current Price list cancels and replaces the previous price list. In the event of changes to our price list and/or individual items, the goods shall be forwarded at the price in force on the day of the order confirmation. The price list and/or the prices of individual items can be changed even without notice, according to the changes in market conditions or technical innovations/modifications made to the product. The prices are understood to be ex works RAASM S.p.A.

### Art. 8 PAYMENTS

Payments must be made exclusively to RAASM S.p.A. at the agreed conditions. Under no circumstances will deductions or roundings be accepted. In case of late payment with respect to the agreed conditions, RAASM S.p.A. reserves the right to charge interest at the current rate, effective from the day after that agreed for payment, plus any additional expenses. Discounts conditional on the payment term and already credited shall be recharged.

### Art. 9 WARRANTY

RAASM S.p.A. provides each product with the communication of particular instructions for the installation, use and maintenance requirements and the need to carry out possible checks on the product. All the technical information and data mentioned in the catalogue and in the price-list in force are not binding and can be changed without prior notice for the purpose of improving the quality of the products.

All products manufactured by RAASM S.p.A. are guaranteed for a period of 5 (five) years from the date of delivery to the first user. The user must keep and show the sales invoice - or an equivalent document - together with the item's serial number in order to make a claim under the RAASM S.p.A. guarantee. The 5 (five) year guarantee does not apply to components which are subject to normal wear and tear (such as gaskets, diaphragms, O-rings, hoses, etc.), electronic components and items that are sold but not manufactured by RAASM S.p.A. (marked with a red asterisk in the current product catalogue) which are guaranteed for 1 (one) year from the date of delivery to the first user.

1 (one) year warranty is valid also for the following products:

- digital litre counters and FCS system;
- cable reels;
- electric, pneumatic or hydraulic motor;
- slip rings;
- centralized lubrication systems.

Incorrect installation, use or maintenance of the product shall void the warranty. Upon written notice, the articles must be returned free to our Factory for checking and acceptance. In any case,

The manufacturer declines any responsibility for possible inaccuracies contained in this catalogue, due to printing or transcription errors. The manufacturer reserves the right to make any changes or improvements of a functional, technical or aesthetic nature without prior notice.

# RAASM

the guarantee expires in the 10th year from the date of manufacture (indicated by the serial number), if the stated expiry takes place before the expiration terms indicated above (1 or 5 years from delivery to the first user).

## Art. 10 RESPONSIBILITY

RAASM S.p.A. is exempt from any responsibility and liability for accidents that may occur to persons and property, as a result of or during the use of the equipment, due to or depending on the same whenever the products have been damaged during transport, tampered with or modified, or improperly used, or stored, installed, protected and preserved without complying with the instructions of RAASM S.p.A. as given in the installation, use and maintenance instruction manuals for each product.

RAASM S.p.A. is liable for the value for the supplied product and cannot be held responsible in any way for other possible costs or additional costs that the customer may bear.

## Art. 11 CONFIDENTIALITY

Information not in the public domain that is exchanged in the execution of the contract is subject to the obligation of confidentiality, secrecy and security; said information is covered as an industrial secret and is of a confidential and reserved nature and may not be disseminated to third parties; its use is permitted exclusively and strictly to execute the supply contract.

## Art. 12 INTELLECTUAL PROPERTY RIGHTS

The RAASM trademark, and likewise the name RAASM, RAASM S.p.A., the logo and the other distinctive signs are internationally registered trademarks, and RAASM S.p.A. does not authorise their use and application under any circumstances. Without prior written consent from RAASM S.p.A., the content of catalogues, price lists, instruction manuals and similar, including content on the website may not be reproduced, either entirely or partially, nor may it be transferred by electronic or traditional means, nor may it be modified or utilised by any means and for any purpose. All rights are held by RAASM S.p.A. The customer acknowledges that RAASM S.p.A. holds exclusive ownership of all the parts, images, photographs and signs not in common usage, the content in the catalogues, price lists, instruction manuals and similar and/or present on the website [www.raasm.com](http://www.raasm.com) and/or other channels and/or social networks used by RAASM S.p.A. for their informational and marketing campaigns pursuant to Copyright Law and the Industrial Property Code.

## Art. 13 INFORMATION ON THE PROCESSING OF DATA PURSUANT TO ITALIAN LEGISLATIVE DECREE 196/2003

In accordance with article 13 of Italian Legislative Decree 196/2003 - Personal Data Protection Code - you are hereby advised that the processing of the personal data, provided with the purchase of goods or services and/or the supply of goods or services is solely for the purposes of carrying out the contract-based obligations and to comply with the specific requests from customers/ suppliers, as well as adhering to legislative obligations, in particular accounting and tax obligations or to respect orders issued by public authorities or to exercise a right in court.

The data shall also be used for commercial statistics for corporate use and to obtain commercial information on our products and services if expressly authorised by the applicant.

The processing of data shall be done using hard-copy and computerised procedures, in the manner and within the limits necessary to achieve the aforementioned purposes.

Data may be communicated and processed by other companies in the Group for the same specified purposes, and may be made known to employees of our company, consultants and other suppliers, always and exclusively within the limits of the aforementioned purposes.

The provision of data is mandatory for the correct execution of the contract and pre-contract based obligations, and failure to do so could result in it being impossible to fully comply with contractual obligations, and make it impossible to provide updates on the new products and services offered by our company.

Data shall be processed for the duration of the contract relationship in place and subsequently to fulfil any legal formalities.

## Art. 14 RIGHTS OF DATA SUBJECTS

The information is aimed at defining the limits and methods for the processing of data, based on which individual customers and/or suppliers may freely authorise the collection and subsequent use of data. Data subjects are entitled to the rights pursuant to article 7 of the aforementioned Code and in particular, the right to access their personal data, ask for the amendment, update and cancellation thereof, if incomplete, incorrect or collected in violation of the law, and may object to the processing for legitimate reasons, addressing requests in this regard to RAASM S.p.A. Pursuant to the same article the data subject also has the right to request the complete and updated list of the Data Supervisors, and to ask for the cancellation, transformation into anonymous form or blocking of data processed in violation of the law, and to oppose in any case, for legitimate reasons, the processing thereof.

To exercise these rights, and in the case of problems or any requests for clarification regarding what has been explained herein, kindly address these to RAASM S.p.A. – Via Marangoni, 33, Cassola (VI) – Italy or to the following email address: [info@raasm.com](mailto:info@raasm.com).

## Art. 15 DATA CONTROLLER

The Data Controller is RAASM S.p.A. with registered office at Via Marangoni 33, Cassola (VI) – Italy, and this is where the data processing shall take place.

## Art. 16 COMPETENT LAW COURT

Any disputes shall be settled by the Law Court of Vicenza, Italy.

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Company with quality,  
environment and safety system  
according to ISO 9001:2015,  
ISO 14001:2015 and  
ISO 45001:2018 standards

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