

**SYSTEM
LUBRICATION
SINGLE LINE**

CATALOG N° 803/15

15



**ADVANCED FLUID
MANAGEMENT SOLUTIONS**

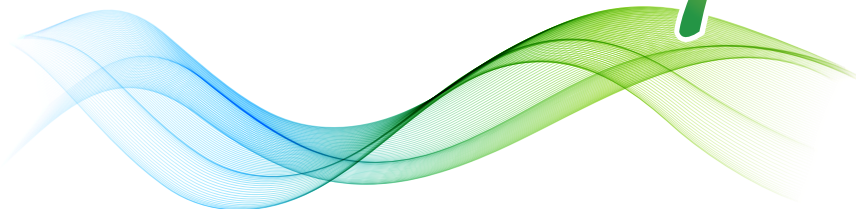




HELP THE NATURE

Packaging contains, depending on the articles, one or more of the following materials; they must be recycled in accordance with current regulations in the country of use.

cardboard • polyethylene sack • polystyrene
paper • wood • nails • plastic strap
cellophane • clips • gummed paper





**ADVANCED FLUID
MANAGEMENT SOLUTIONS**



DESIGN IS AN

Art





founded in 1975



*the human side
of Quality*



STUDY, RESEARCH AND DESIGN

The real strength of a firm starts with the ability of its study and research departments to always find the most suitable solutions to address market demands.



TESTING AND INSPECTIONS

A sophisticated test room enables careful testing of the quality of new products before they are put on the market.

ASSEMBLY LINES

Dedicated equipment specially designed to facilitate assembly operations, at the same time allowing an effective and automatic control of quality.



STORAGE OF COMPONENTS

Our vertical stores enable quick and careful preparation of the components and spare parts intended for assembly and sale.



TECHNOLOGY
INNOVATION
QUALITY
SAFETY
RELIABILITY



TECHNICAL ASSISTANCE

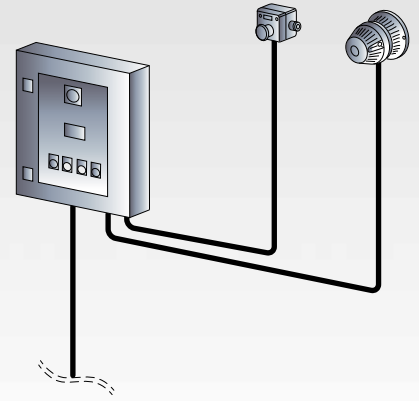
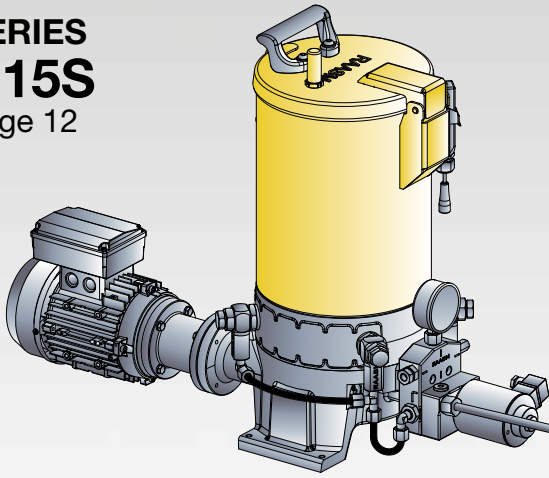
RAASM has the most complete range of products for lubrication and the dispensing of fluids. The aim is to always respond fully to the questions of our customers and meet all their needs.



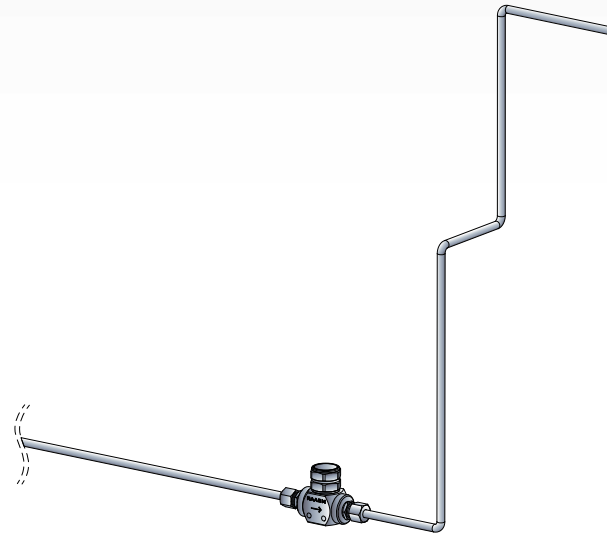
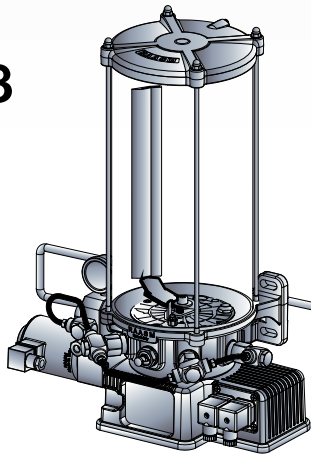


SYSTEM 15 SINGLE LINE

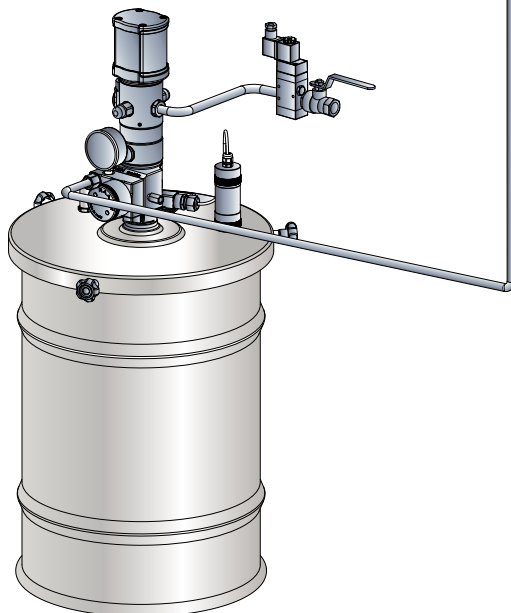
■ **SERIES C15S**
page 12



■ **SERIES C15B18**
page 18



■ **SERIES C15F**
page 24



The single-line decompression lubrication system consists of an independent pump assembly which delivers the lubricant (oil or grease) to direct response volumetric distributors (injectors) through a main line.

System operation occurs through two phases:

- 1 - Injector filling (the system is not under pressure)
- 2 - Dispensing of the lubricant (the system is under pressure)

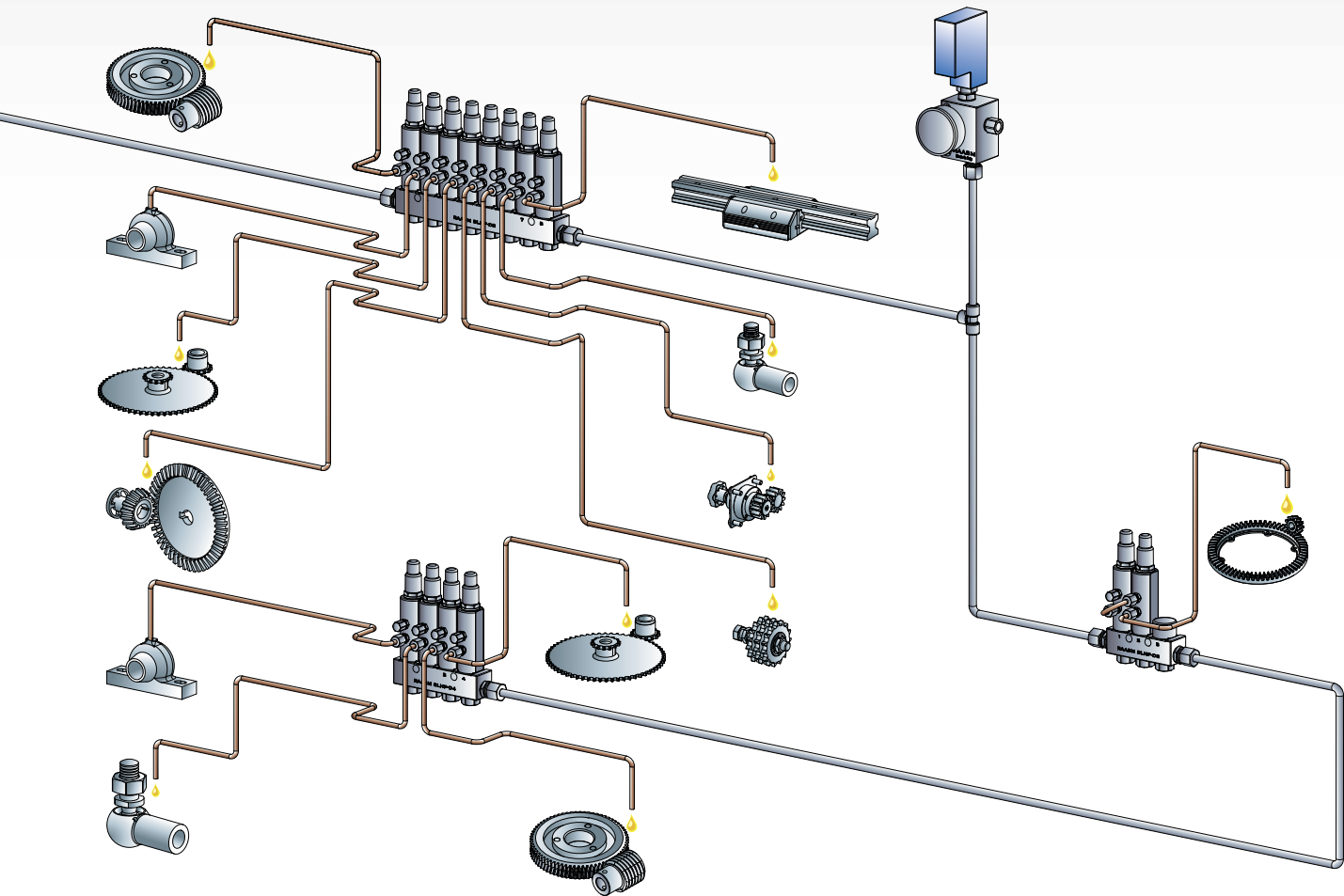
Each injector can be adjusted to deliver different amounts of lubricant. The pump assembly is equipped with a device (discharge valve) which enables rapid decompression of the system immediately after the action of the injectors. The system pressure and the configuration of the injectors in parallel enable the feeding of even very large centralized systems and with a

high number of user points. Verification of operation for each cycle is possible through control of the pressure. Lubricating oils from 40 cSt and greases up to NLGI 2 can be used.

The pumps feeding these systems can be:

- air-operated pumps C15F for standard and rechargeable drums
- air-operated pumps C15F with 10 litres tank
- electric pumps C15S (with radial pistons - max. 4)
- electric pumps C15B18 (with radial pistons - max. 4)

Management and control of the system occurs through the application of modern electrical and electronic equipment (PLC, level sensors, microswitches, pressure switches).



ADVANTAGES

- Longer life of lubricated components.
- Reduced lubricant consumption and operating costs.
- Programmed and precise dosing of the lubricant at each point to be lubricated.
- System easily extended without the need to be redesigned.
- System suitable for particularly demanding environments.
- System easy to create (pump plus number of user points).
- Injector delivery adjustable directly at installation or after.
- There are no lubrication stops/interruptions if an injector sticks.
- Injectors with visual control of operation.
- Pumping unit offering easy maintenance and very safe operation, working with oil or grease.



**ADVANCED FLUID
MANAGEMENT SOLUTIONS**



Series C15S



SERIES C15S MOTOR-OPERATED PUMP

230/400 V AC - 275/480 V AC

Compact electric motor-operated pump, equipped with an electromagnetic solenoid discharge valve that unloads the grease directly into the tank at cycle end.

It has a sturdy and compact base in nickel-plated aluminium alloy fitted with pumping elements in galvanized hardened steel. The epoxy powder painted lubricant tank is available in 3 different sizes: 10, 30 or 70 litres. Two electric motors (three-phase) are available with 4 poles or 6 poles, to which gearmotors with ratios of 35:1 and 70:1 are coupled. These all specifics allow a wide combination of tanks, motors and gear motors to meet all end-users' needs.



TECHNICAL CHARACTERISTICS

Max flow rate	*	108 cm ³ /min
Max working pressure		300 bar adjustable
Reservoir capacity		10-30-70 litres
Pump reducer ratio		35:1 - 70:1
Lubricant inlet connection		F 1/2" G
Lubricant outlet connection		F 3/8" G
Piston flow rate		P/N 2081100 - 1 cm ³ /cycle
Working temperature		-25 °C / +60 °C
Compatible fluids		Oil > 40 cSt - Greases max NLGI 2
Min level electric control		Standard
Max level electric control		On request
Motor		Power: 0,25 kW
		230/400 V AC - 50 Hz - 275/480 V AC - 60 Hz *
		speed 6 poles: 870 ÷ 1100 rpm
		speed 4 poles: 1370 ÷ 1660 rpm
Materials		Protection: IP 55
		Base: aluminum alloy
		Moving parts: steel
		Pumping piston: hardened steel
		Reservoir: painted steel

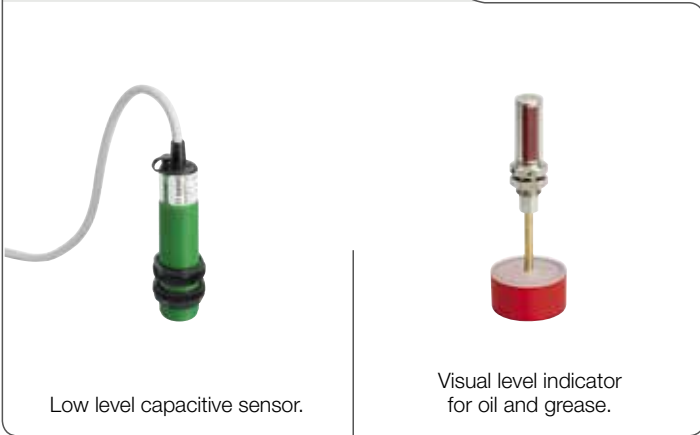
* Approx. delivery with grease NLGI 2 at 18 °C. (The lubricant must have technical characteristics in compliance with working temperature).

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

GUIDE TO CHOOSING PUMP

P/N		Reservoir Capacity (litres)	No. of pistons	Reducer	Motor	Flow rate (cm ³ /min)
Grease	Oil					
1570080	1570440	10	2	70:1	6 poli	28
1570200	1570560	30	2	70:1	6 poli	28
1570022	1570380	10	2	70:1	4 poli	40
1570140	1570500	30	2	70:1	4 poli	40
1570110	1570470	10	4	70:1	6 poli	56
1570230	1570590	30	4	70:1	6 poli	56
1570350	1570710	70	4	70:1	6 poli	56
1570050	1570410	10	4	70:1	4 poli	80
1570170	1570530	30	4	70:1	4 poli	80
1570290	1570650	70	4	70:1	4 poli	80
1570065	1570425	10	2	35:1	6 poli	54
1570185	1570545	30	2	35:1	6 poli	54
1570095	1570455	10	4	35:1	6 poli	108
1570215	1570575	30	4	35:1	6 poli	108
1570335	1570695	70	4	35:1	6 poli	108

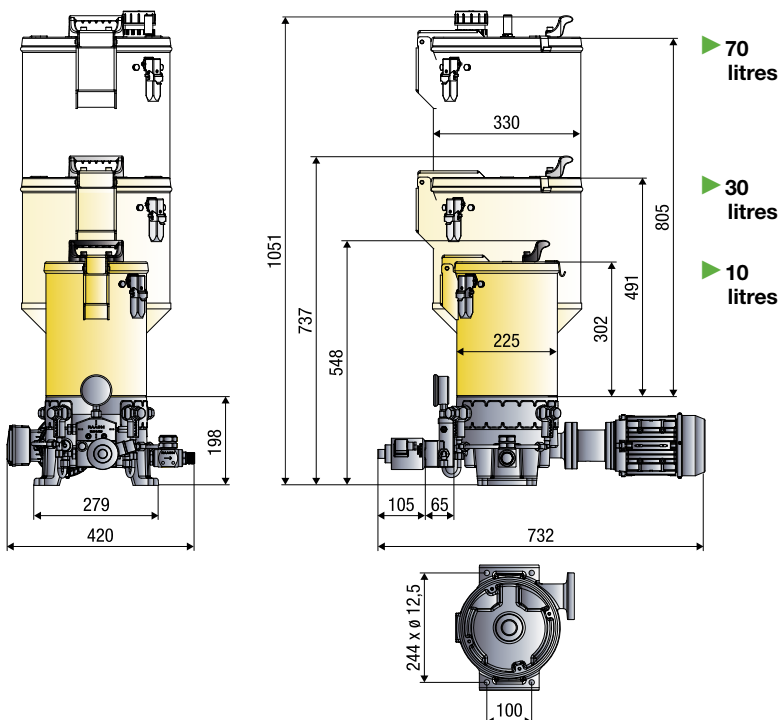
STANDARD EQUIPMENT



ON REQUEST



OVERALL DIMENSIONS (mm)



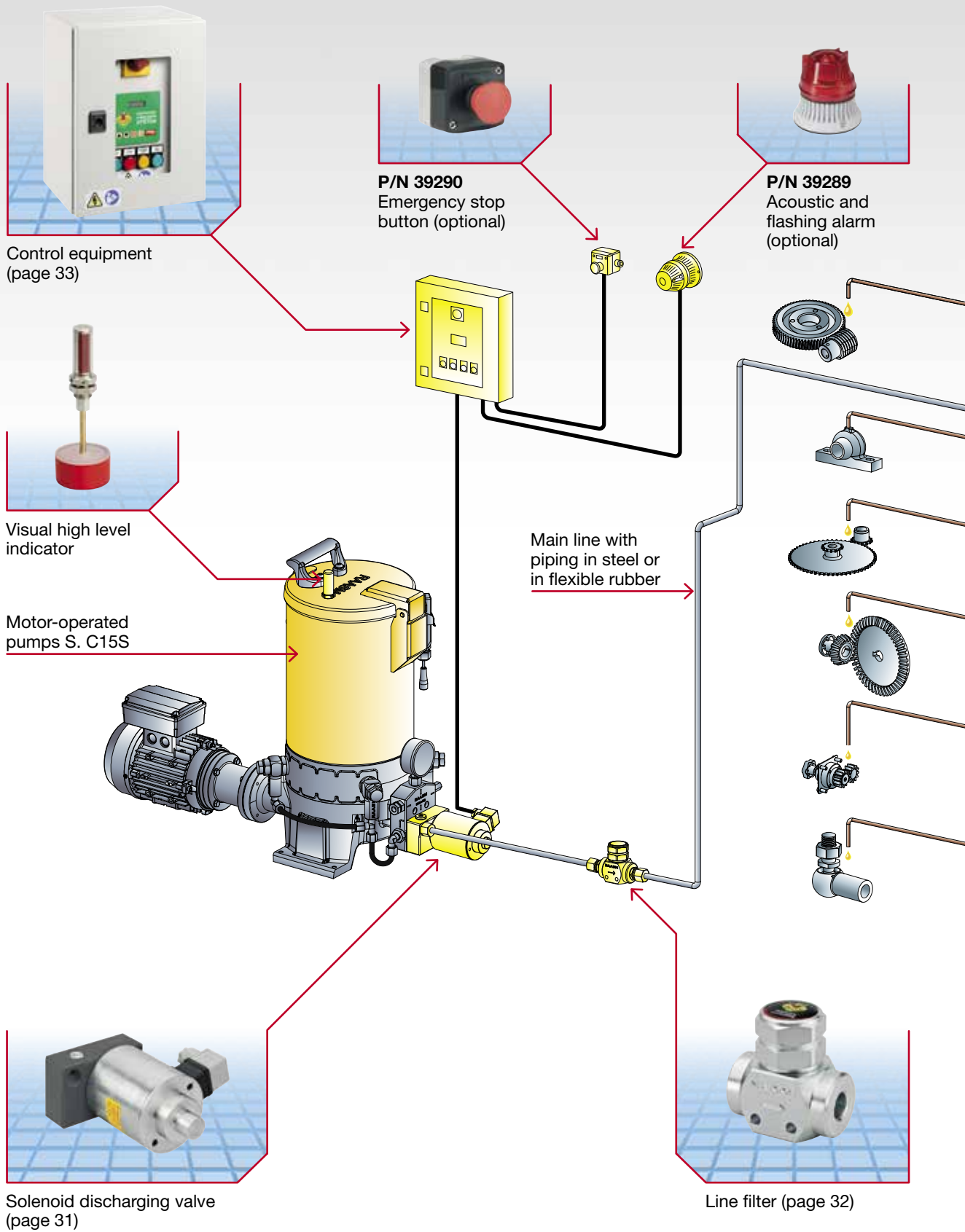
	10 litres	
	Grease	Oil
Packing-m ³	1-0,175	1-0,175
Net weight Kg	31,7	31,5
Gross weight Kg	44,5	44,3

	30 litres	
	Grease	Oil
Packing-m ³	1-0,235	1-0,235
Net weight Kg	36,9	36,6
Gross weight Kg	50,1	49,8

	70 litres	
	Grease	Oil
Packing-m ³	1-0,334	1-0,334
Net weight Kg	41,5	40,7
Gross weight Kg	55,4	54,6



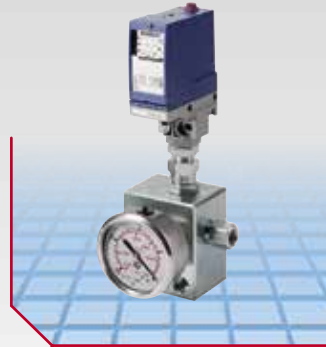
Type of lubrication system with



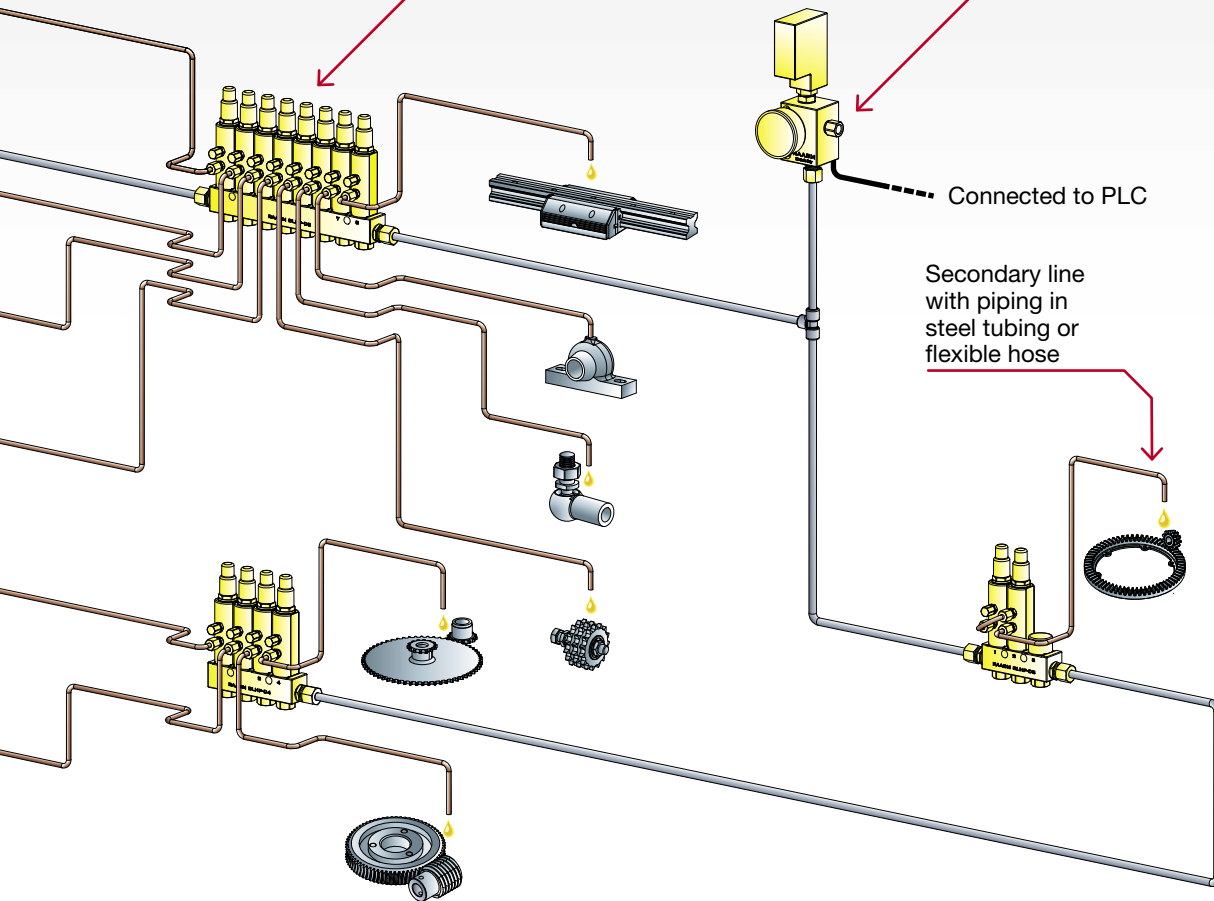
MOTOR-OPERATED PUMPS SERIES C15S



Volumetric injectors
SLHP-D (page 28-29)



Line end pressure switch
(page 32)



Connected to PLC

Secondary line
with piping in
steel tubing or
flexible hose

Lube point: In the plant are represented some types of moving parts that need to be lubricated



**ADVANCED FLUID
MANAGEMENT SOLUTIONS**



Series C15B18



SERIES C15B18 MOTOR-OPERATED PUMP

24 V DC - ø 180 mm

It can be used in heavy conditions thanks to IP55 protection rating, and is equipped with radially fitted pumping elements controlled by an eccentric wheel driven by a gearmotor.

The lubricant is contained in a transparent tank of 8 - 10 litres capacity. A rotating blade, in conjunction with the eccentric wheel or a follower plate, facilitate suction of the lubricant even with high viscosity greases (NLGI 2). The support on the central body in aluminium enables wall mounting of the unit. Located on the central body is a grease filter (150 µm), dedicated to filling of grease in the tank. The electrical parts are in the bottom of the unit, protected by a strong plastic cover.



Colours:

 STANDARD  RAL 7035

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

TECHNICAL CHARACTERISTICS

Max working pressure	300 bar
Number of piston	2 - 4
Piston	P/N 3081100 - piston ø 6,5 mm
Flow rate for 1 piston	0,122 cm ³ /cycle
Flow rate for 2-4 pistons *	8,54 - 17,08 cm ³ /min
Outlet connection	F 3/8" G
Reservoir capacity	5 - 8 - 10 litres
Working temperature	-25 °C / +60 °C
Lubricant	Oil > 40 cst - Grease max NLGI 2
Reservoir refilling	By grease coupler
Motor reducer *	24 V DC
Power	36 W
Power (starting point)	72 W
Current	1,5 A
Current (starting point)	3 A
Working torque (starting point)	12 Nm
Rotation per min	35
Protection degree	IP55

* Approx. delivery 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.

GUIDE TO CHOOSING PUMP

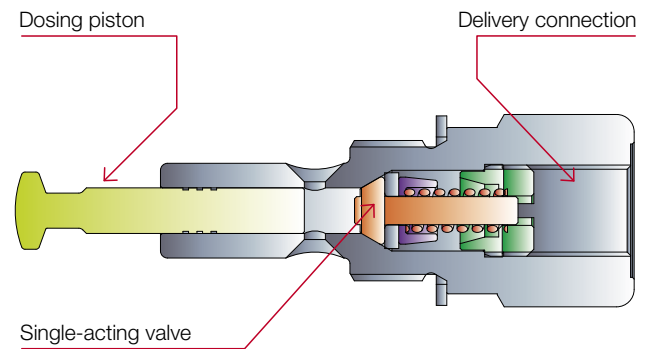
P/N		Reservoir capacity (litres)	Number of pistons	Flow rate (cm ³ /min)
Grease	Oil			
1524565	1554235	5	2	8,54
1527805	1558015	8	2	8,54
1560645	1561005	10	2	8,54
1524835	1554505	5	4	17,08
1528075	1558285	8	4	17,08
1560825	1561185	10	4	17,08

STANDARD EQUIPMENT

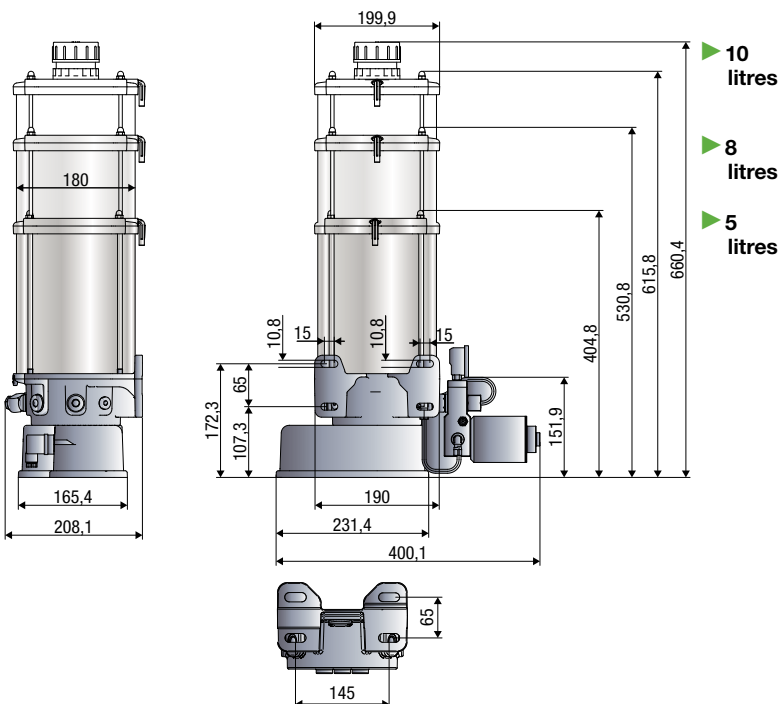


Magnetic low level indicator for grease.
Capacitive low level indicator for oil.

PUMPING UNIT



OVERALL DIMENSIONS (mm)



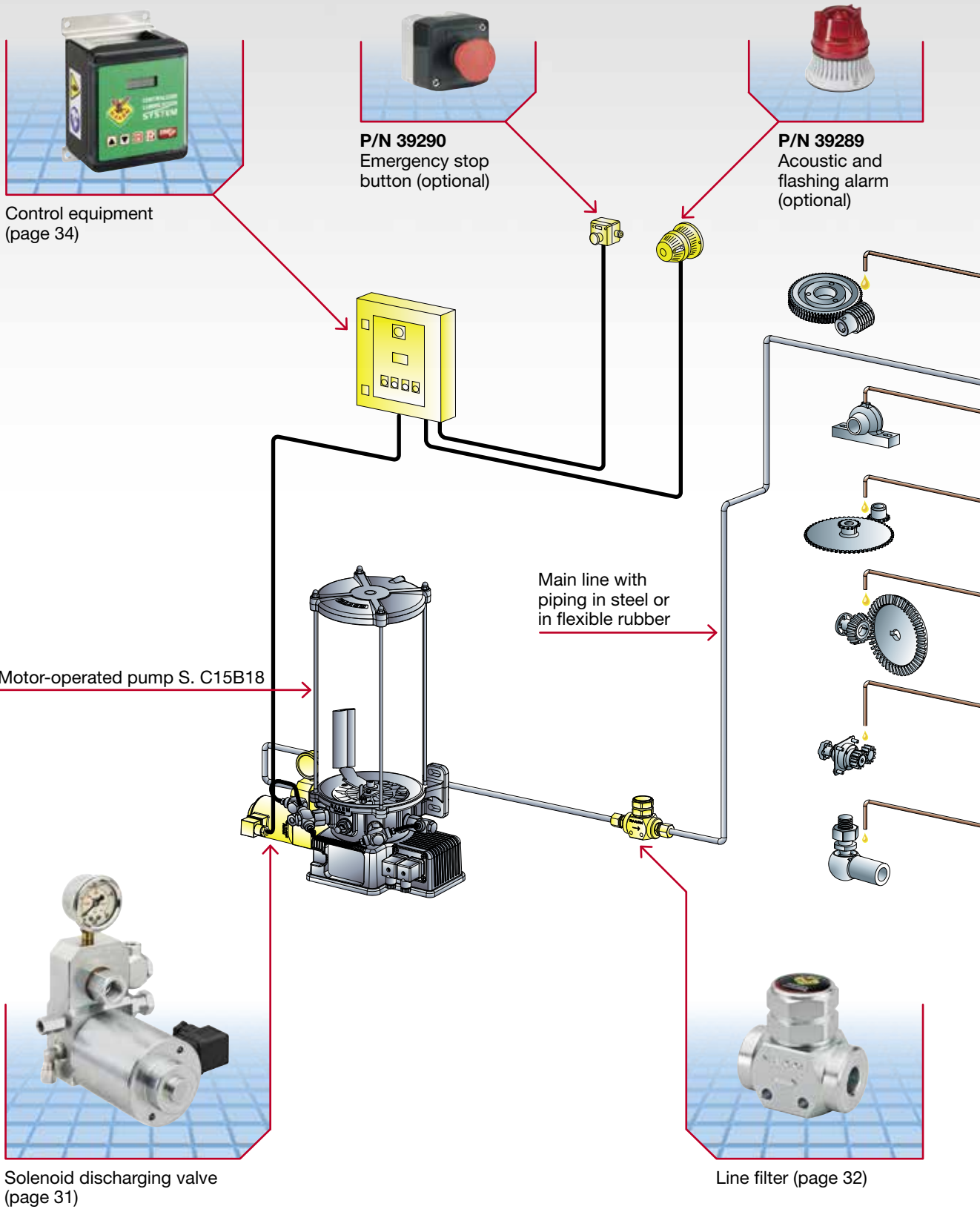
	5 litres	
	Grease	Oil
Packing-m ³	1-0,11	1-0,11
Net weight Kg	6,2	6
Gross weight Kg	7,1	7

	8 litres	
	Grease	Oil
Packing-m ³	1-0,11	1-0,11
Net weight Kg	6,4	6,2
Gross weight Kg	11,9	11,7

	10 litres	
	Grease	Oil
Packing-m ³	1-0,11	1-0,11
Net weight Kg	6,7	6,4
Gross weight Kg	12,2	12



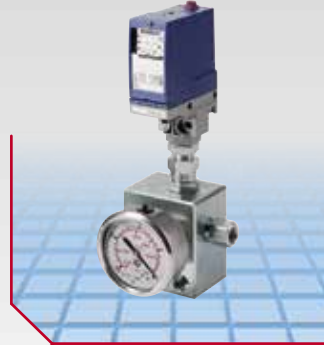
Type of lubrication system with



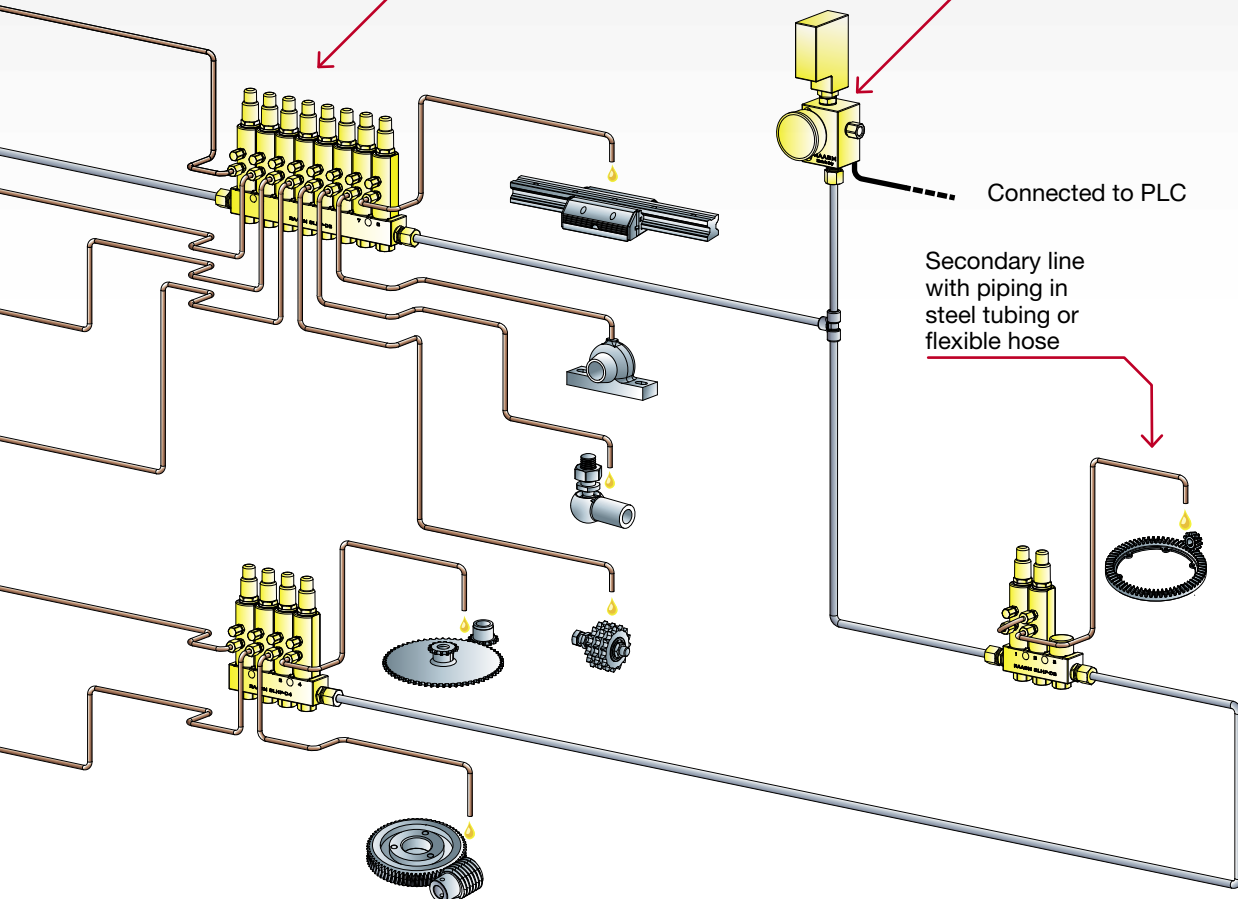
MOTOR-OPERATED PUMP SERIES C15B18



Volumetric injectors
SLHP-D (page 28-29)



Line end pressure switch
(page 32)



Connected to PLC

Secondary line
with piping in
steel tubing or
flexible hose

Lube point: In the plant are represented some types of moving parts that need to be lubricated



**ADVANCED FLUID
MANAGEMENT SOLUTIONS**

Series C15F



www.raasm.com



SERIES C15F AIR-OPERATED PUMP

10 litres

DRUM

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

Various solutions are available for great versatility: with 10 liters tank or suitable for 20, 50 or 200 Kg drums, provided with drum cover and grease follower plate (if necessary).

If commercial drums are used, once the lubricant is finished the end user can replace the drum or fill it up again through the specific inlet, on request with a special kit. Oil pumps are provided with drum cover for open drums (up to 50 kg) or with ring nut for closed drums (usually from 50 kg to 200 kg). High compression ratio (50:1) and adjustable feeding pressure allow to set system's pressure to its specific requirements (from 100 to 350 bar).



TECHNICAL CHARACTERISTICS

Max flow rate	*	1330 cm ³ /min
Max working pressure		8 bar
Pressure ratio		50:1
Air inlet connection		F 1/4" G
Lubricant outlet connection		F 3/8" G
Overpressure valve		adjustable from 100 to 350 bar
Working temperature		-25 °C / +60 °C
Lubricant		Oil > 40 cSt - Grease max NLGI 2

* Approx. delivery with grease NLGI 2 at 18 °C.

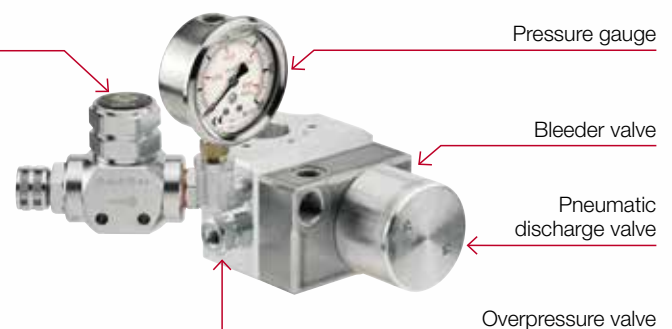
DELIVERY DISCHARGE AND CONTROL ASSEMBLY

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:** for filling the lubricant in the tank.
- **Bleeder valve:** during the filling phase, it allows to remove the air inside.

Filling filter 300 µm

Pressure gauge



Bleeder valve

Pneumatic discharge valve

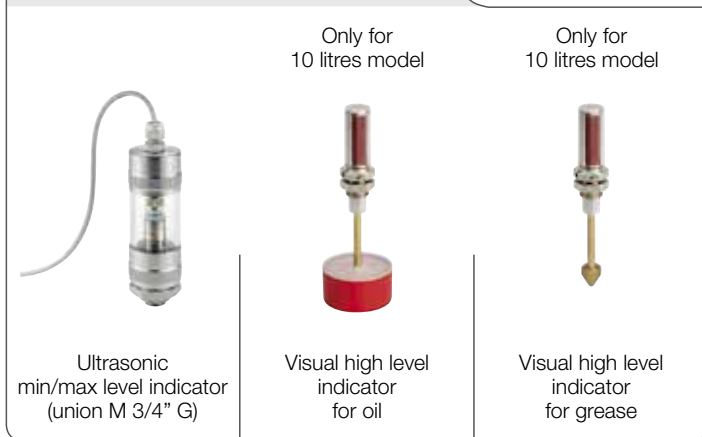
Overpressure valve

GUIDE TO CHOOSING PUMP

P/N	Reservoir capacity	Drum internal ø (mm)	Pump (R 50:1)	Drum cover	Follower plate	Discharging valve
Grease						
150020	10 litres	220	62541	-	10/617	1581200
1500200	20 Kg	255/300	62548	10/507	10/63	1581200
1500380	50 Kg	335/360	62574	10/503	10/62	1581200
1500470	60 Kg	360/400	62574	10/502	10/61	1581200
1500560	200 Kg	540/580	62595	10/501	10/60	1581200

P/N	Reservoir capacity	Drum external ø (mm)	Pump (R 50:1)	Drum cover	Bung adaptor	Discharging valve
Oil						
1500650	10 litres	240	62541	-	-	1581200
1500830	20 Kg	260/330	62548	10/507	-	1581200
1501010	50 - 60 Kg	340/385	62574	10/503	-	1581200
1501100	50 - 60 Kg	closed - thread 2"	62574	level 39650	10/14	1581200
1501190	200 Kg	closed - thread 2"	62595	level 39650	10/14	1581200

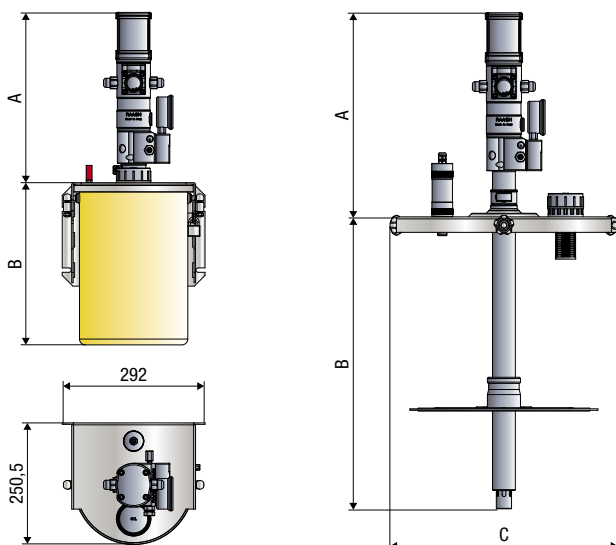
STANDARD EQUIPMENT



ON REQUEST



OVERALL DIMENSIONS (mm)



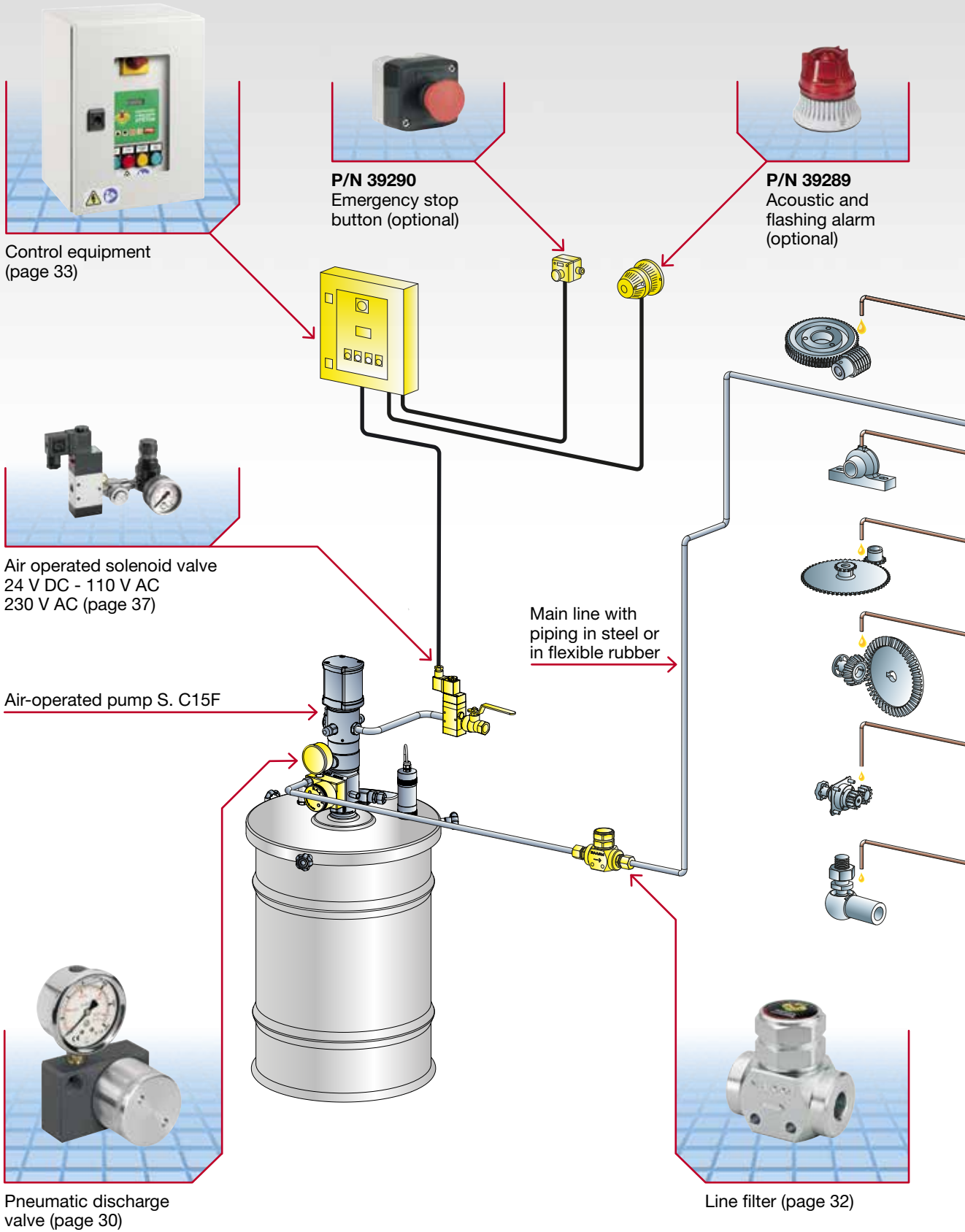
P/N Grease	A	B	C
1500020	351	335	292
1500200	355	361	341
1500380	355	621	389
1500470	355	621	424
1500560	355	835	604

P/N Oil	A	B	C
1500650	351	335	292
1500830	355	361	341
1501010	355	621	389
1501100	355	621	424
1501190	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 ³	1-0,056	1-0,056	2-0,089	2-0,089	2-0,080	2-0,080	2-0,080	2-0,040	2-0,116	2-0,050
Net weight Kg	17,9	17,1	13,2	12	14,9	13,1	15,4	11,2	23	12,9
Gross weight Kg	18,2	17,4	13,9	12,7	15,5	13,7	16	11,8	23,9	13,7



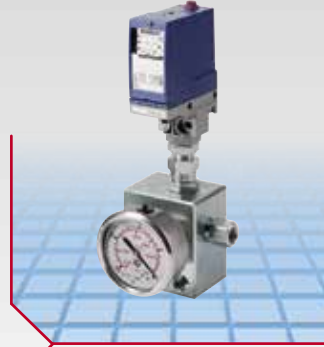
Type of lubrication system with



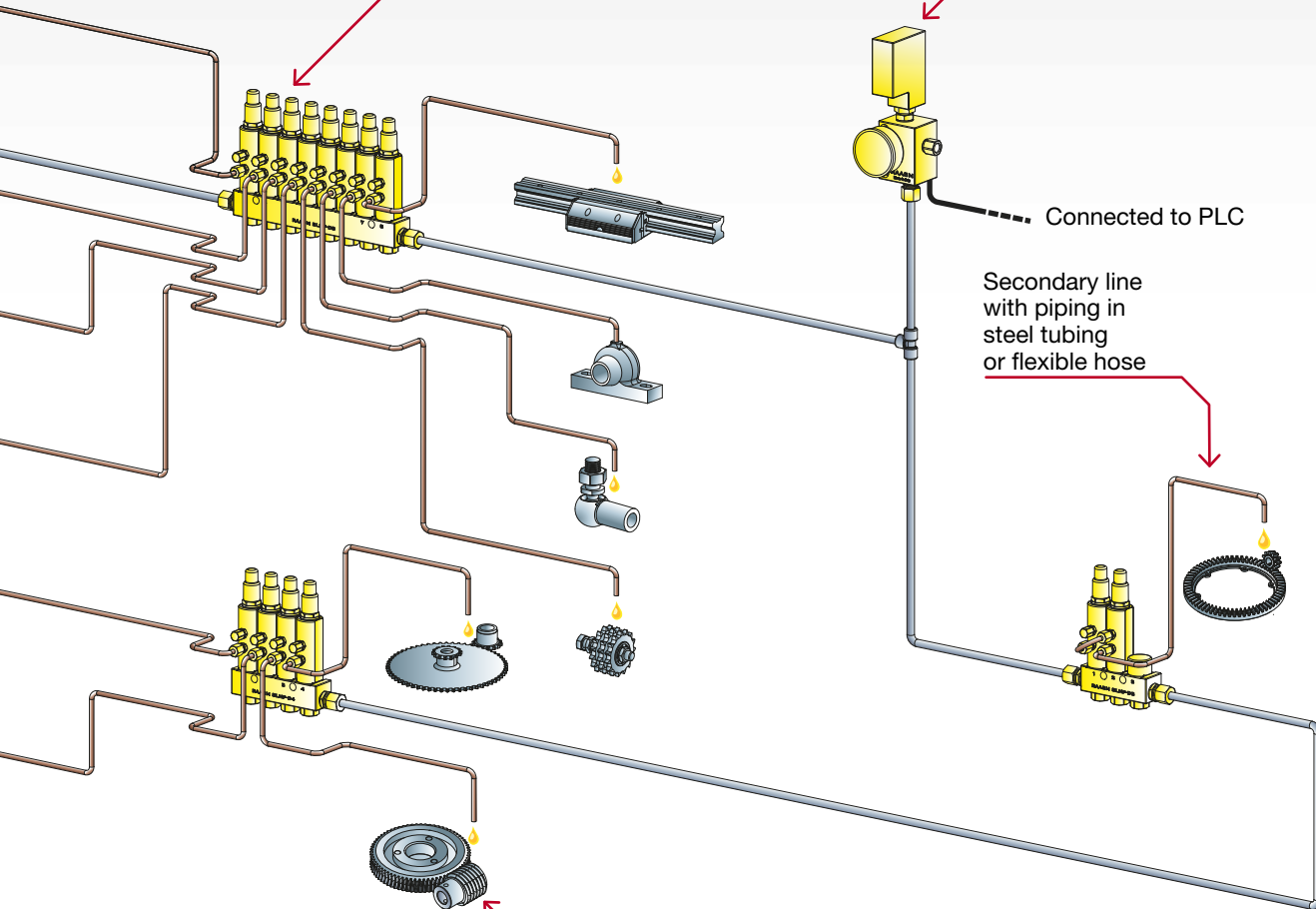
AIR-OPERATED PUMP SERIES C15F



Volumetric injectors
SLHP-D (page 28-29)



Line end pressure switch
(page 32)



Connected to PLC

Secondary line
with piping in
steel tubing
or flexible hose

Lube point: In this plant are represented some types of moving parts that need to be lubricated



SLHP-D VOLUMETRIC INJECTOR

The volumetric injectors are entirely in steel with white galvanizing, and equipped with Viton® seals.

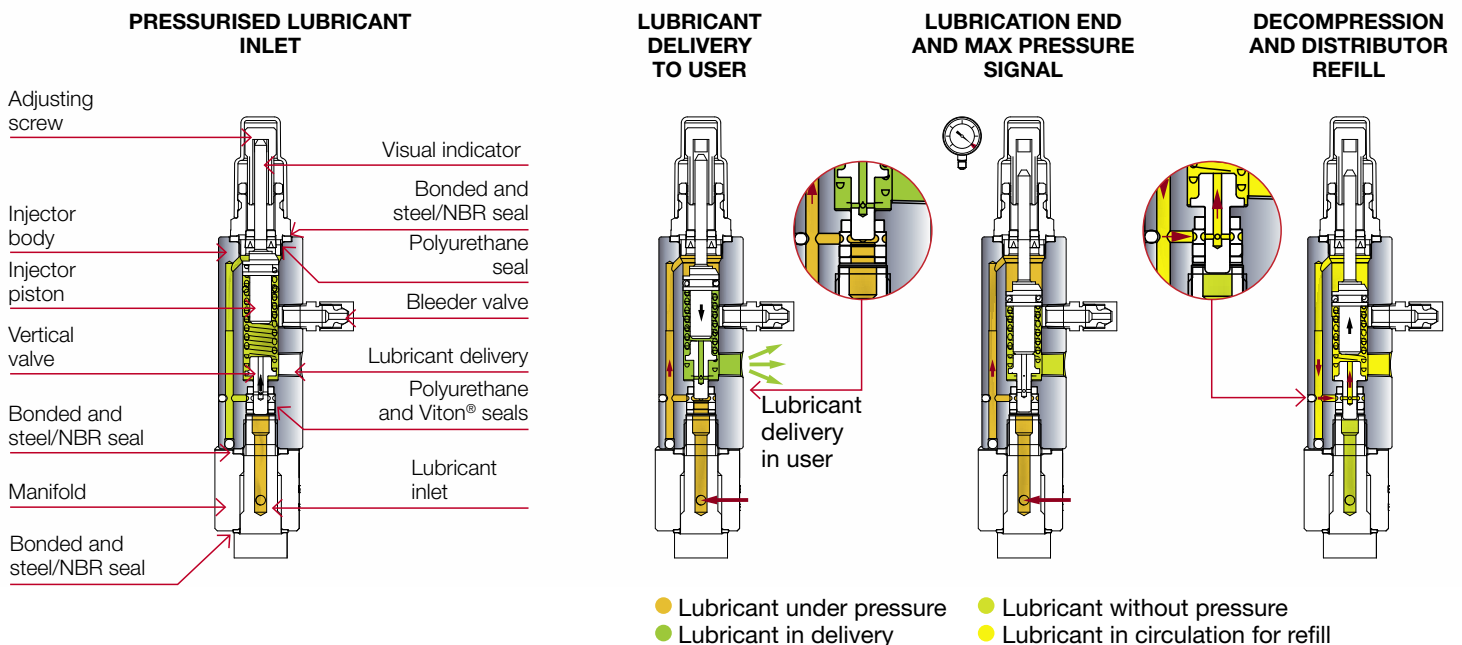
Their operating pressure varies from 40 - 150 bar for oil to 70 - 300 bar for grease. In the upper part there is an adjusting screw used to adjust the amount of lubricant delivered by the injector (from 0 to 1,7 cm³/cycle). In the upper part there's also a visual indicator which allows to check correct injector operations. The size the SLHP-D injectors enables easily replacement (if necessary) of models already existing on the market. Their design lets possible expansion of the system and its maintenance. Viscosity from oil 40 Cst oil to grease NLGI 2 max.



TECHNICAL CHARACTERISTICS

Injector flow rate	adjustable from 0 to 1,7 cm ³ /ciclo
Working pressure	40 - 150 bar (Oil) 70 - 300 bar (Grease)
Lubrificant inlet connection	F 3/8" NPTF
Lubrificant outlet connection	F 1/8" NPTF
Material	Galvanized Steel
Lubrificant	Oil > 40 cSt - Grease max NLGI 2

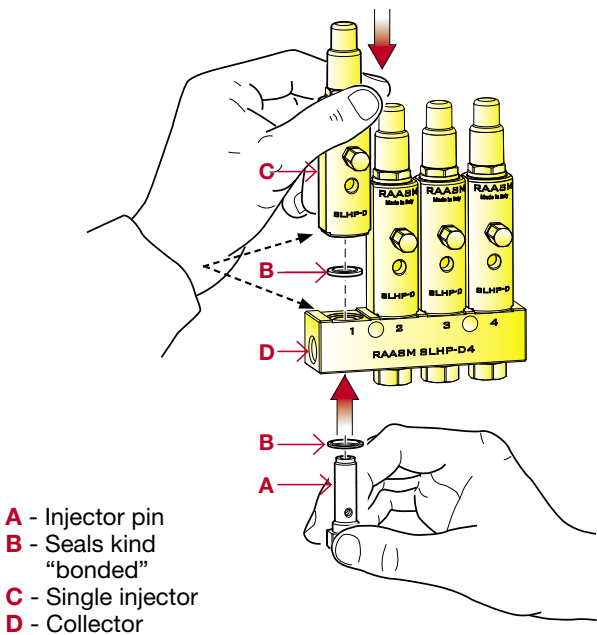
HOW IT WORKS



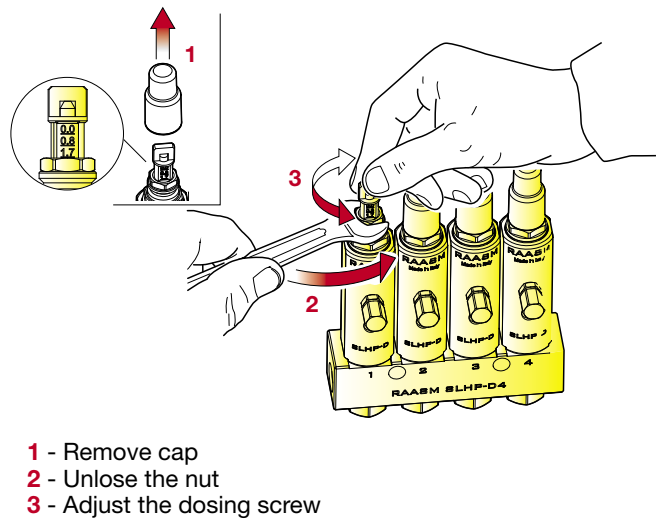
Grease	P/N	Abbreviation	Outlets	Inlet Outlet	Working pressure	Materials
Single injector	1532541	-	1	F 1/8" NPTF	70-300 bar	Zinc plated steel
Injector+ manifold	1532540	SLHPGD1/1N	1	F 3/8" NPTF F 1/8" NPTF	70-300 bar	Zinc plated steel
	1532580	SLHPGD1/2N	2			
	1532620	SLHPGD1/3N	3			
	1532660	SLHPGD1/4N	4			
	1532700	SLHPGD1/5N	5			
	1532740	SLHPGD1/6N	6			
	1532780	SLHPGD1/8N	8			

Oil	P/N	Abbreviation	Outlets	Inlet Outlet	Working pressure	Materials
Single injector	1538421	-	1	F 1/8" NPTF	40-150 bar	Zinc plated steel
Injector+ manifold	1538420	SLHPOD1/1N	1	F 3/8" NPTF F 1/8" NPTF	40-150 bar	Zinc plated steel
	1538460	SLHPOD1/2N	2			
	1538500	SLHPOD1/3N	3			
	1538540	SLHPOD1/4N	4			
	1538580	SLHPOD1/5N	5			
	1538620	SLHPOD1/6N	6			
	1538660	SLHPOD1/8N	8			

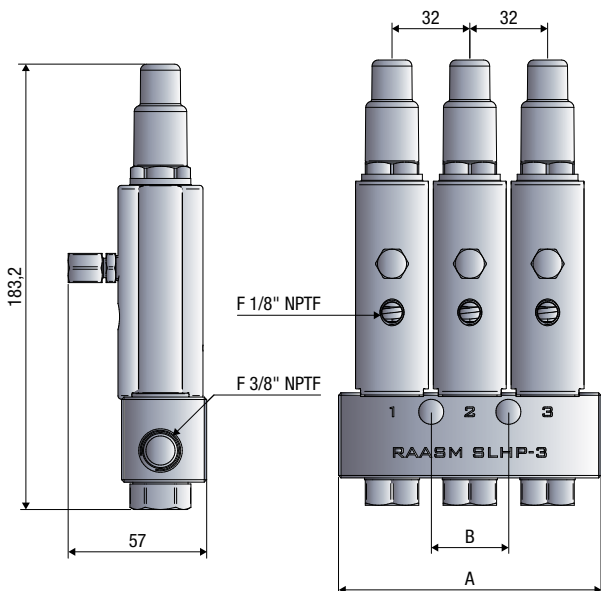
APPLICATION OF THE SINGLE INJECTOR ON THE COLLECTOR



ADJUSTING OF DELIVERY INJECTOR



OVERALL DIMENSIONS (mm)



Abbreviation		A	B
SLHPGD1/1N	SLHPOD1/1N	63,5	31,75
SLHPGD1/2N	SLHPOD1/2N	76,2	31,75
SLHPGD1/3N	SLHPOD1/3N	108	31,75
SLHPGD1/4N	SLHPOD1/4N	139,7	63,5
SLHPGD1/5N	SLHPOD1/5N	171,5	95,25
SLHPGD1/6N	SLHPOD1/6N	203,2	127
SLHPGD1/8N	SLHPOD1/8N	266,7	190,5



PRESSURE DISCHARGING PNEUMATIC VALVE

FOR C15F

This pneumatic valve it's normally closed during feeding in the compression stage, and opens when the feed is turned off, discharging the system pressure.



TECHNICAL CHARACTERISTICS

P/N	1581200
Air max working pressure	8 bar
Air min working pressure	2 bar
Lubricant max pressure	300 bar
Assembly	On pump body
Material	Hardened steel and aluminum
Lubricant	Oil > 40 cSt - Grease max NLGI 2

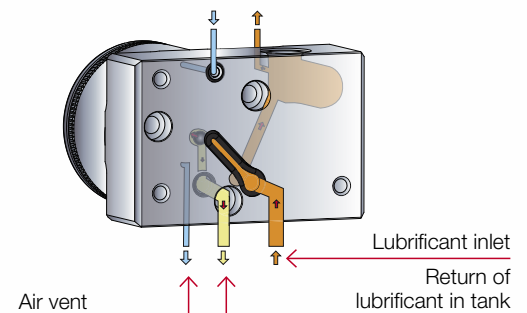
HOW IT WORKS

PHASE 1

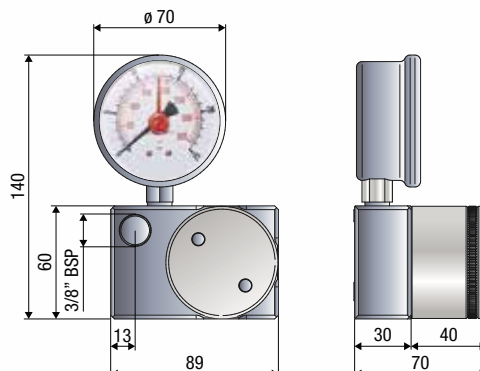
During the system pressurization stage, the valve (normally-open) is fed in order to close the drain hole.

PHASE 2

After the maximum pressure is reached in the system, the line end pressure switch stops the pumps, closing the supply also at the valve which, on opening, discharges (decompression) the lubrication system.



OVERALL DIMENSIONS (mm)





PRESSURE DISCHARGE SOLENOID VALVE

FOR C15S

FOR C15B18

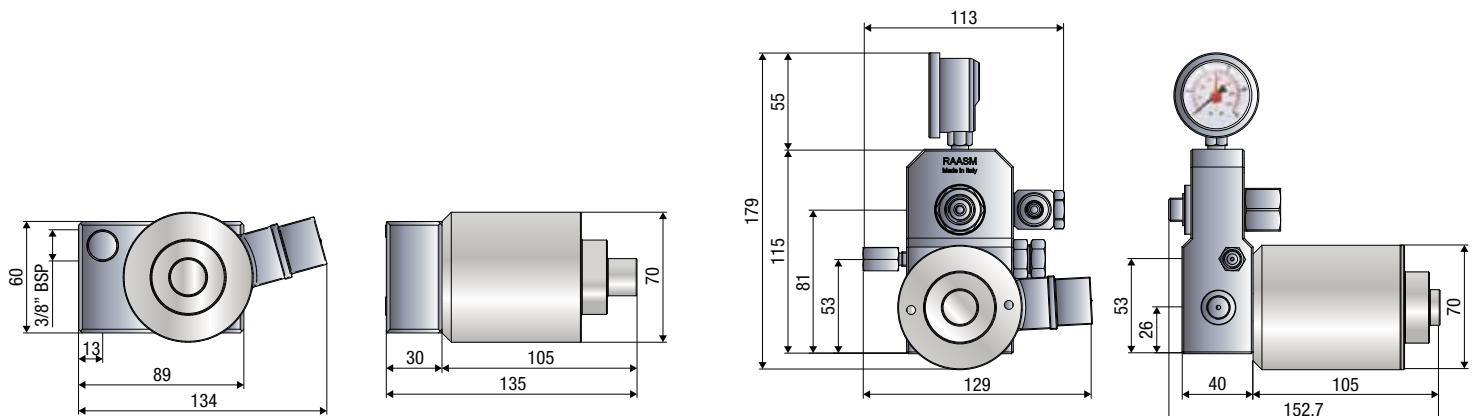
This valve is fed by 24 V DC. Like the pneumatic valve, it closes when fed, during the compression stage, and opens when the feed is turned off, discharging the system pressure. Both models allow volumetric distributors to charge itself for a new cycle. Solenoid valve (P/N 1581300), according with the flow rate and the number of pumping elements required, is linked with specific kit to 2 or 4 pumping elements (page 36).



TECHNICAL CHARACTERISTICS

P/N	1581250	1581300
Lubricant max pressure	300 bar	300 bar
Assembly	On pump body	On pump body
Material	Hardened steel	Hardened steel
Lubricant	Oil > 40 cSt - Grease max NLGI 2	Oil > 40 cSt - Grease max NLGI 2
Power	24 V DC - 6A	24 V DC - 6A
Electrical input a 20° C	3,1 Amp	3,1 Amp
Electric power 20°C	75,8 Watt	75,8 Watt
Working temperature (with environment temperature 20°C)	65°C	65°C
Protection rating	IP55	IP55
On/Off time ratio	1/8 (1 min working time and 8 min pause)	1/8 (1 min working time and 8 min pause)

OVERALL DIMENSIONS (mm)





PRESSURE SWITCH AND FILTER

PRESSURE SWITCH

End line pressure switches

The end line pressure switches are used to control and check the correct operation of the centralized system, to confirm reaching of maximum pressure and cycle end command.

Filter

In order to ensure proper functioning of the system and that the lubricant intended for user points is totally free of impurities, the installation of appropriate filters at the control unit inlet (for filling) and outlet is recommended. The sturdy steel structure of filters ensures a sure sealing and also allows their use in centralized lubrication systems where high operating pressures (500 bar).



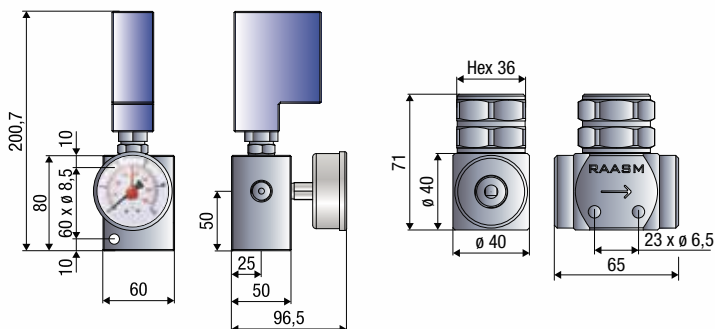
FILTER



TECHNICAL CHARACTERISTICS

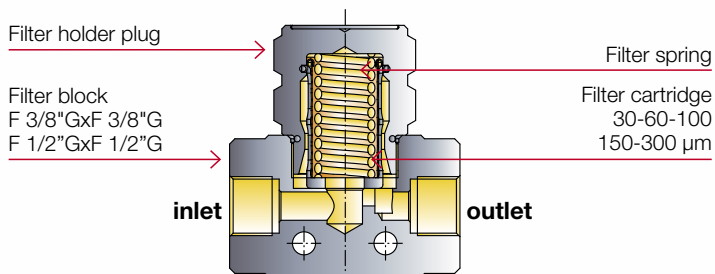
Type	Oil and Grease	Oil and Grease
Work pressure	400 bar	500 bar
Filtration degree	-	30 - 60 - 100 - 150 - 300 µm
Lubricant inlet connection	F 3/8" G	F 3/8" G - F 1/2" G
Lubricant outlet connection	-	F 3/8" G - F 1/2" G
Electric contact	On clamps	-
Working temperature	-25 °C / +60 °C	-25 °C / +60 °C
Lubricant	Oil > 40 cSt - Grease max NLGI 2	Oil > 40 cSt - Grease max NLGI 2

OVERALL DIMENSIONS (mm)



Technical characteristics	P/N	Working pressure (bar)	Protection degree	Type
press. switch with manometer	2080600	from 30 to 400	IP55	without box
	2080605		IP65	with box

DELIVERY-FILLING FILTER



Lubricant	P/N	Connection	Filtration degree (µm)
Oil and Grease	2080900	F 3/8" G	30
	2080930		60
	2080950		100
	2080800	F 3/8" G	150
	2080801		300
	2080901		30
	2080931	F 1/2" G	60
	2080951		100
	2080850	F 1/2" G	150
	2080851		300



CONTROL EQUIPMENT

200÷500 V AC 50/60 Hz

System control board

The control equipment is dedicated to the management and control of centralized single-line lubrication. The dedicated card installed inside controls the inlet and outlet signals of the whole system.



TECHNICAL CHARACTERISTICS

P/N	1670011	2170033	1670017	2170037	1670016
Suitable for pump model	C15S - C15P	C15F - C15B18	C15S - C15P	C15F - C15B18	C15S - C15P
Voltage	200÷500 V AC	200÷500 V AC	200÷500 V AC	200÷500 V AC	200÷500 V AC
Power consumed	* 1500 W max	1500 W max	1500 W max	1500 W max	1500 W max
Button start /stop	NO	NO	YES	YES	YES
Light alarm	NO	NO	YES	YES	YES
Light filling	NO	NO	YES	YES	NO
Tank full light	NO	NO	YES	YES	NO
Transparent window	NO	NO	YES	YES	YES
Filling control	NO	YES	YES	YES	NO
Protection rating	IP54	IP54	IP55	IP55	IP55
Working temperature	- 25°C / +60 °C	- 25°C / +60 °C	- 25°C / +60 °C	- 25°C / +60 °C	- 25°C / +60 °C

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

The card is installed in a metal box provided with or without transparent window and communicates with a display integrated into an easy to use flexible membrane keyboard. Within the enclosure all the components (connections, remote control switches, fuses, etc.) are easy accessible.

- Display integrated into the flexible membrane keyboard
- Simple user interface based on a menu, easy to start configure and programme
- Rugged and waterproof cover, meets the requirements of IP55
- Ability to customize the lubrication intervals, pause and the cycle count
- Programming of the operating parameters protected by password
- Call system filling tank (on request) with high level light indicator.



INPUT AND OUTPUT SIGNALS

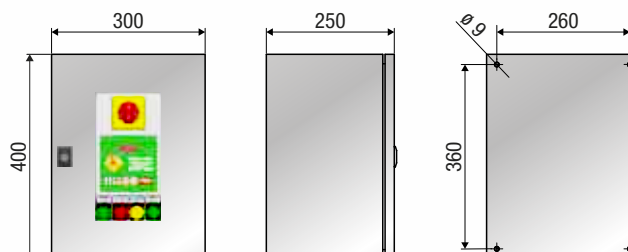
Input signals

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)



Packing-m ³		1-0,03
Net weight Kg		15,2-15,4
Gross weight Kg		15,5-15,7



CONTROL EQUIPMENT

12-24 V DC

120-230 V AC 50/60 Hz

This control system is minimized in sizes, constructed out of polycarbonate.

Inside is connected an electronic card that communicates with a display that is integrated in an easy to use flexible membrane keypad.



TECHNICAL CHARACTERISTICS

P/N	1670035	1670036
Suitable for pump model	C15F - C15B18	C15F
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

The dedicated card installed inside controls the inlet and outlet signals of the whole system.

The hardware part is composed of the removable terminal blocks located inside of the unit to facilitate removal of the card in case of maintenance

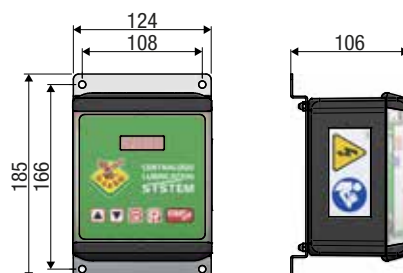
- Display integrated into the flexible membrane keyboard.
- Simple user interface based on a menu, easy to start, and use configure and programme.
- Rugged and waterproof cover, meets the requirements of IP64.
- Ability to customize the lubrication intervals, pause and the cycle count.
- Programming of the operating parameters protected by password.



INPUT AND OUTPUT SIGNALS

Input signals	Output signals
Start/Stop remote	Power motor pump
Cycle-counter/Pressure switch L1	Power - pressure discharge valve - solenoid inverter 1
Cycle-counter/Pressure switch L2	
Low level tank	Power relay solenoid inverter 2
Safety pressure switch maximum pressure	Remote operation lamp
Thermal protection three-phase motors	Remote warning lamp
Remote stand by cycle	
Micro-inverter L1	
Micro-inverter L2	

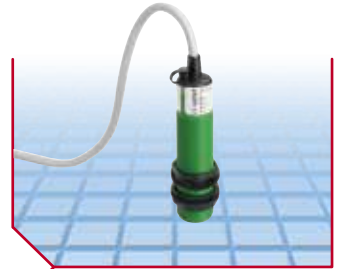
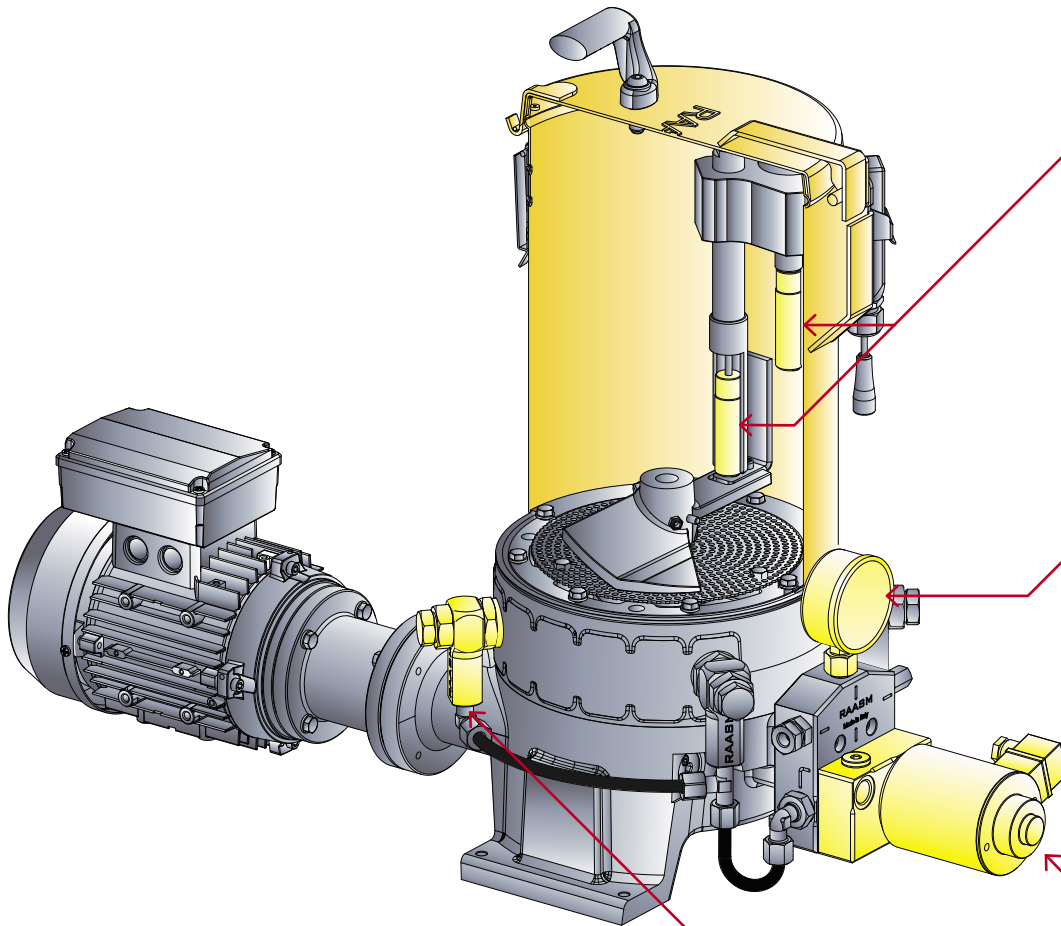
OVERALL DIMENSIONS (mm)



Packing-m ³		1-0,005
Net weight Kg		1,2-1,4
Gross weight Kg		1,1-1,3



PUMP ACCESSORIES SERIES C15S



P/N 1581800
High or low level
capacitive sensor



P/N 2081030
Pressure gauge



P/N 1581250
Solenoid discharge valve

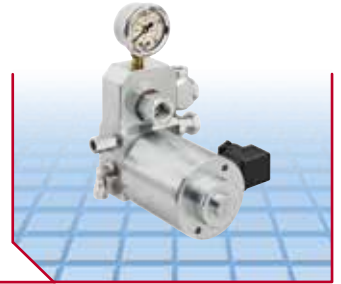
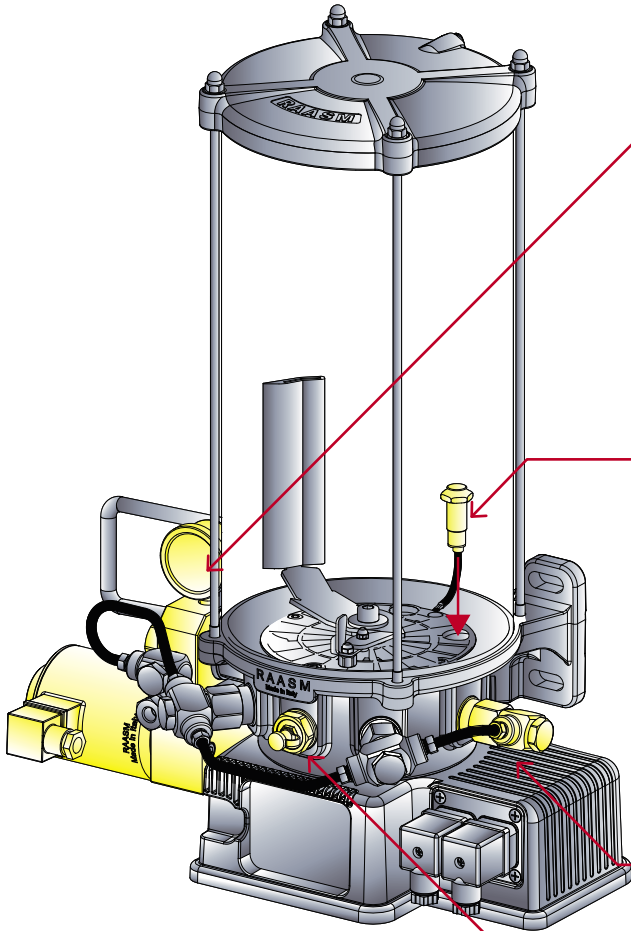


P/N 2081100 Pumping
element

P/N	Description	Connection	Flow rate/Pression
1581800	High or low level capacitive sensor	M 18 x 1	-
2081030	Pressure gauge ø 63 mm 600 bar	M 1/4" G	600 bar
1581250	Solenoid discharge valve	F 3/8" G on pump body	300 bar
2081100	Pumping element ø 12 mm	M27 x 1,5	1 cm ³ /cycle



PUMP ACCESSORIES SERIE C15B18



P/N 1581300 - 1581301
P/N 1581302
 Solenoid discharge valve



P/N 3081900
 Low level capacitive sensor for oil
P/N 3081950
 Low level magnetic sensor for grease



P/N 3081100
 Pumping element

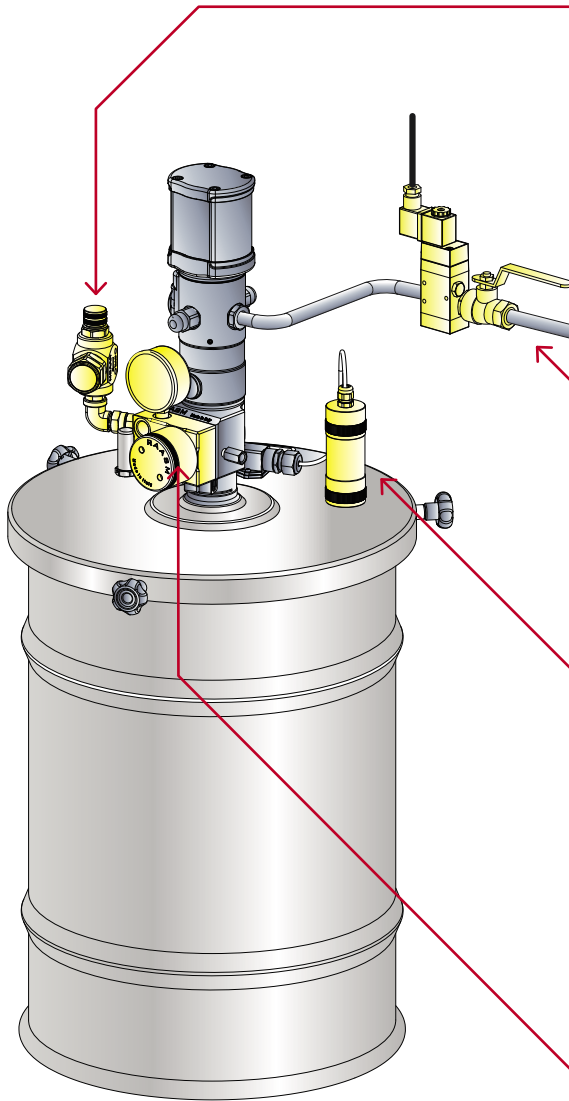


P/N 3081150
 150 µm charging filter

P/N	Description	Connection	Flow rate/Pression
1581300	Solenoid discharge valve	F 3/8" G on pump body	300 bar
1581301	Solenoid discharge valve + 2 pumping element union kit	F 3/8" G on pump body	300 bar
1581302	Solenoid discharge valve + 4 pumping element union kit	F 3/8" G on pump body	300 bar
3081100	Pumping element ø 6,5 mm	on pump body M20 x 1,5 outlet F 1/4" G	0,122 cm ³ /cycle
3081150	150 µm charging filter	M 20 x 1,5	-



PUMP ACCESSORIES SERIES C15F



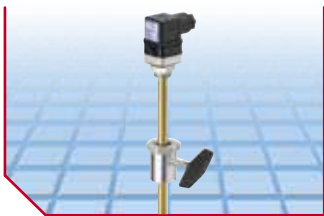
P/N 1581150
300 µm charging filter



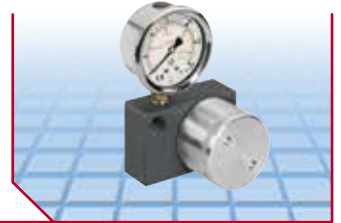
P/N 1582000 - 1582001
Air operated solenoid valve 24 V DC
P/N 1582002 - 1582003
Air operated solenoid valve 110 V AC
P/N 1582004 - 1582005
Air operated solenoid valve 230 V AC



P/N 1581850
Minimum and maximum ultrasonic level



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



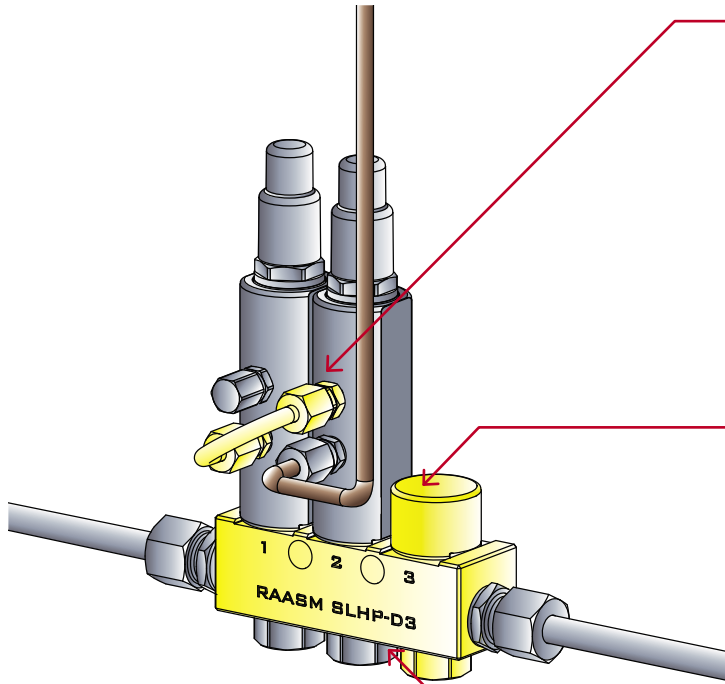
P/N 1581200
Pneumatic discharge valve

P/N	Description	Connection	Pression
1581150	300 µm charging filter	M 3/8" G	-
1582000	Air operated solenoid valve 24 V DC	F 1/4" G x F 1/4" G	2,5-8 bar
1582001	Air operated solenoid valve 24 V DC	F 1/2" G x F 1/2" G	2,5-8 bar
1582002	Air operated solenoid valve 110 V AC	F 1/4" G x F 1/4" G	2,5-8 bar
1582003	Air operated solenoid valve 110 V AC	F 1/2" G x F 1/2" G	2,5-8 bar

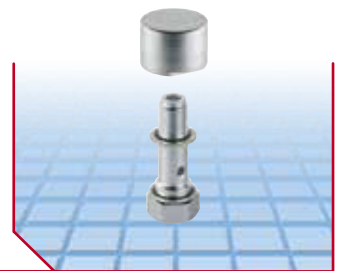
P/N	Description	Connection	Pression
1582004	Air operated solenoid valve 230 V AC	F 1/4" G x F 1/4" G	2,5-8 bar
1582005	Air operated solenoid valve 230 V AC	F 1/2" G x F 1/2" G	2,5-8 bar
1581850	Minimum and maximum ultrasonic level	wole on drum cover ø 31 mm	-
1581200	Pneumatic discharge valve	F 3/8" G on pump body	400 bar
39650	Low level indicator (optional only for oil)	Oil	-



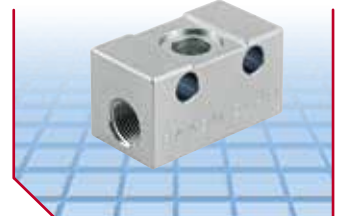
ACCESSORIES DISTRIBUTOR VOLUMETRIC SERIES SLHP-D



P/N 1580000
Injectors junction



P/N 1532539
Plug for
injector replacing



P/N 1532542 - 1532581
P/N 1532621 - 1532661
P/N 1532701 - 1532741
P/N 1532781
Manifold

P/N	Description	Connection	Flow rate/Pression
1580000	Injectors junction	M 1/8" NPTF	-
1532539	Plug for injector replacing	M 14 x 1,5	-
1532542	Manifold for 1 injector	F 3/8" NPTF	Max 300 bar
1532581	Manifold for 2 injector	F 3/8" NPTF	Max 300 bar
1532621	Manifold for 3 injector	F 3/8" NPTF	Max 300 bar
1532661	Manifold for 4 injector	F 3/8" NPTF	Max 300 bar
1532701	Manifold for 5 injector	F 3/8" NPTF	Max 300 bar
1532741	Manifold for 6 injector	F 3/8" NPTF	Max 300 bar
1532781	Manifold for 8 injector	F 3/8" NPTF	Max 300 bar



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 C15S

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 15 single line	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

C15S	G	10	6	/	2	7	L
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SERIES C15B18

Series	Lubricant type		ø cylinder	Tank capacity			Rated voltages	No. Pumping elements		Control type	Tank attachment			Level control	
	G	O		5	8	10		2	4		P	R	M	L	O
System 15 single line	Grease (max NLGI 2)	Oil (> 40 cSt)	180 mm	5 litres	8 litres	10 litres	24 V DC low power applications	2	4	remote version	without fix grease blade	with fix grease blade	with follower plate	with low level	without low level

Example of pump code

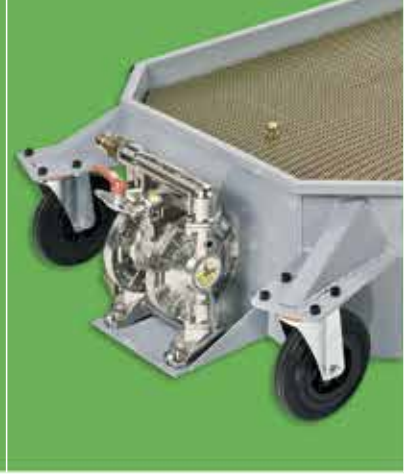
C15	G	180	8	3	/	4	R	R	L
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SERIES C15F

Series	Lubricant type		Tank capacity	Tank external ø (mm)						Ratio			Level control		
	G	O		10	28	35	37	38	42	60	5	6	7	0	1
System 15 single line	Grease (max NLGI 2)	Oil (> 40 cSt)	10 Kg	from 240 to 280	from 300 to 350	from 260 to 330	from 340 to 385	from 370 to 420	from 550 to 600	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

C15F	G	10	/	5	1
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FOR FOREIGN MARKETS



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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.

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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

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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 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.

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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.

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- electric, pneumatic or hydraulic motor supplied with our industrial hose reels S. 600 and 700.

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RAASM

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