

SYSTEM LUBRICATION MULTI-DELIVERY **25**

CATALOG No. 854/25



**ADVANCED FLUID
MANAGEMENT SOLUTIONS**





technology
efficiency
reliability



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 sold 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 automated storage enables quick and careful preparation of the components and spare parts.



Technology
Efficiency
Reliability

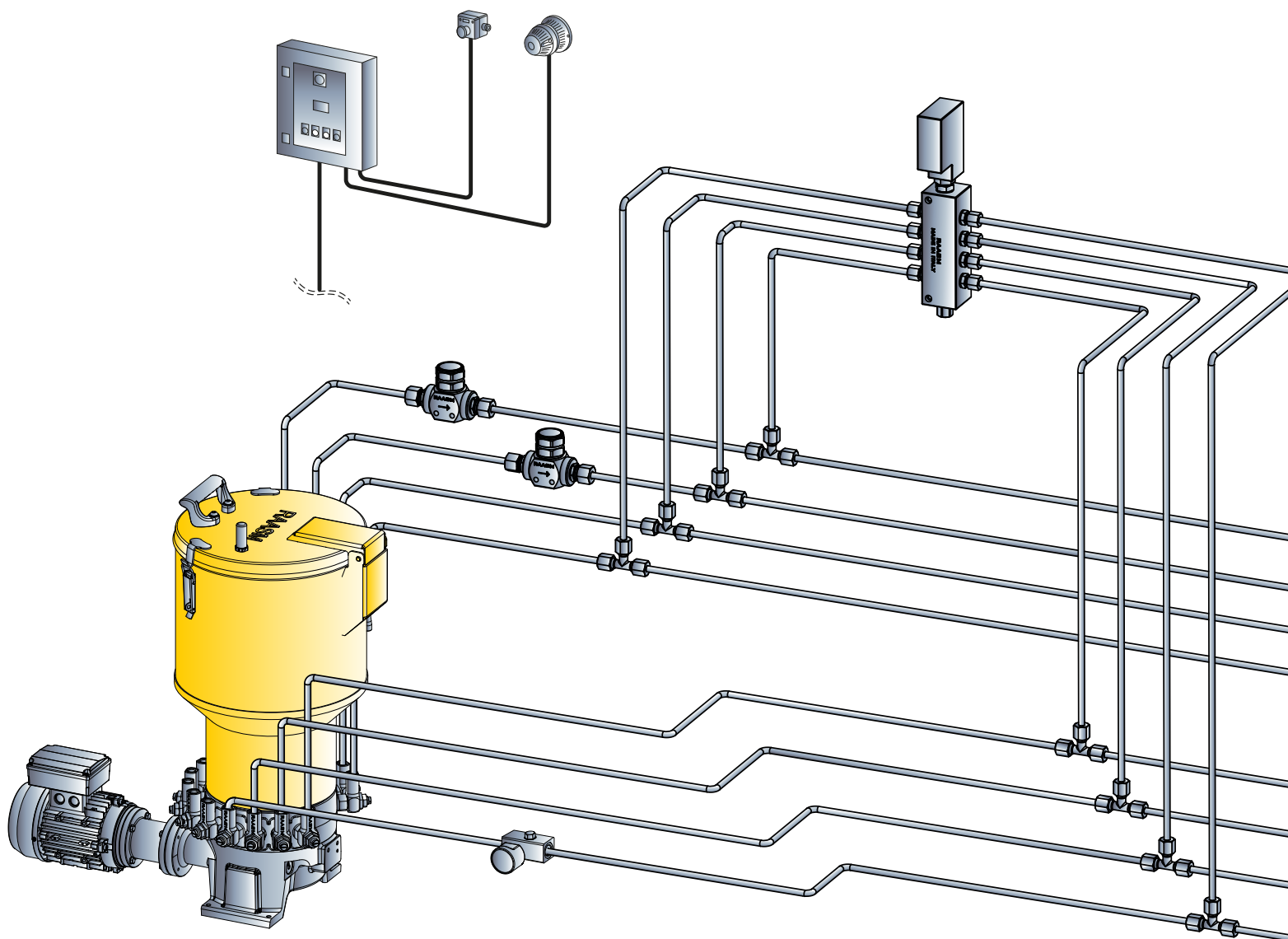


Technical Assistance

RAASM has one of the widest ranges of products for lubrication and the dispensing of fluids. The goal is to always respond fully to the questions of our customers and meet all their needs.



System 25 multi-delivery



Series **C25S**
page 10

MULTI-DELIVERY

The multi-delivery system allows up to 16 separate user points to be lubricated. The central pumping unit comprises an electric pump radially fitted with a series of pumping elements which, through the movement of a cam, push in succession the lubricant to the various deliveries from where as many feed lines start.

With this system, lubricating oils and greases with maximum grade of NLGI 2 can be used.

The pump assembly can be supplied by a minimum of 1 up to a maximum of 16 pumping elements with adjustable delivery.

Each pumping element feeds one line, directly to users, volumetric distributors or distributors for spray lubrication.

A maximum pressure switch, connected to a special manifold, allows the control of any sudden changes in pressure in the various lines, which may be due to impurities or foreign matter obstructing the flow of lubricant.

ADVANTAGES

Supplies an exact amount of lubricant from the pumping unit to various lubrication points placed at medium-short distances, by adjusting the delivery of each pumping elements.

Pumping unit ensures easy maintenance and very safe operations, working with oil as well as grease.

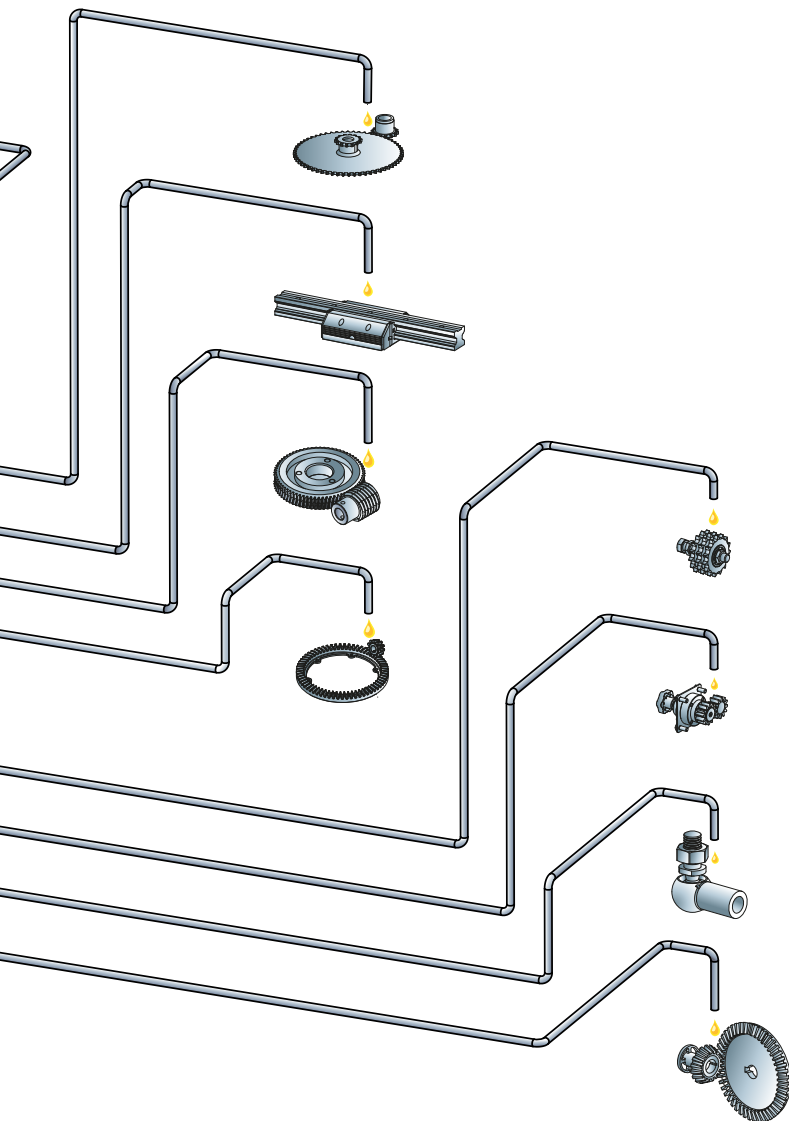
Pumping element delivery adjustable by means of an adjusting screw

Possibility of using from 1 to 16 pumping elements (with position and orientation) as required by the user.

Pumping elements easily removable and replaceable.

Possibility of monitoring the system by means of special control and management equipment

Variability of deliveries from 0.26 to 8.54 inch³/min (grouping multiple pumping elements in a single delivery)





**ADVANCED FLUID
MANAGEMENT SOLUTIONS**

Series C25S





SERIES C25S MULTI-DELIVERY PUMP

This series of pumps has been designed to combine high operating safety, easy maintenance and the possibility of adjusting each delivery with an adjusting screw on the pumping element.




The adjusting screw on the pumping element has three measurement notches indicating specific delivery values. Depending on the feed motor and the reduction unit ratio, with 1 pumping element, having a cycle capacity of 0,02 inch³, delivery quantities of 0.26 - 0.37 - 0.53 inch³/min can be reached.

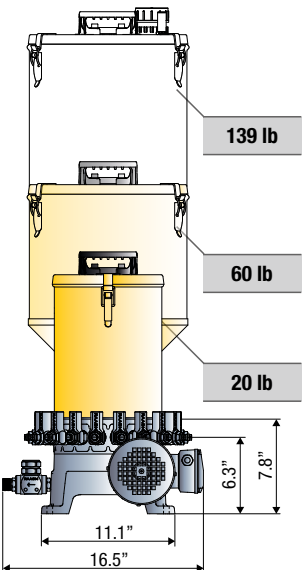









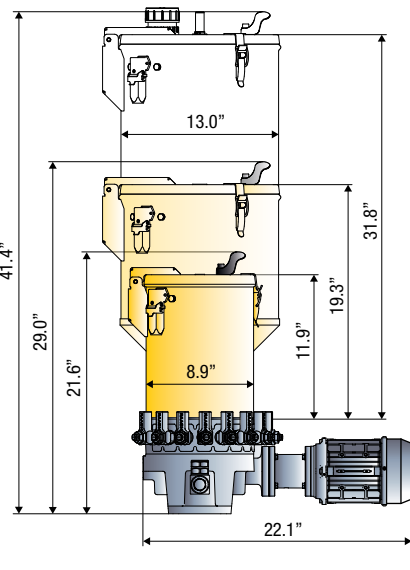









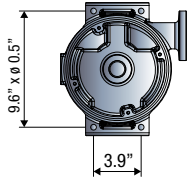











Technical Characteristics

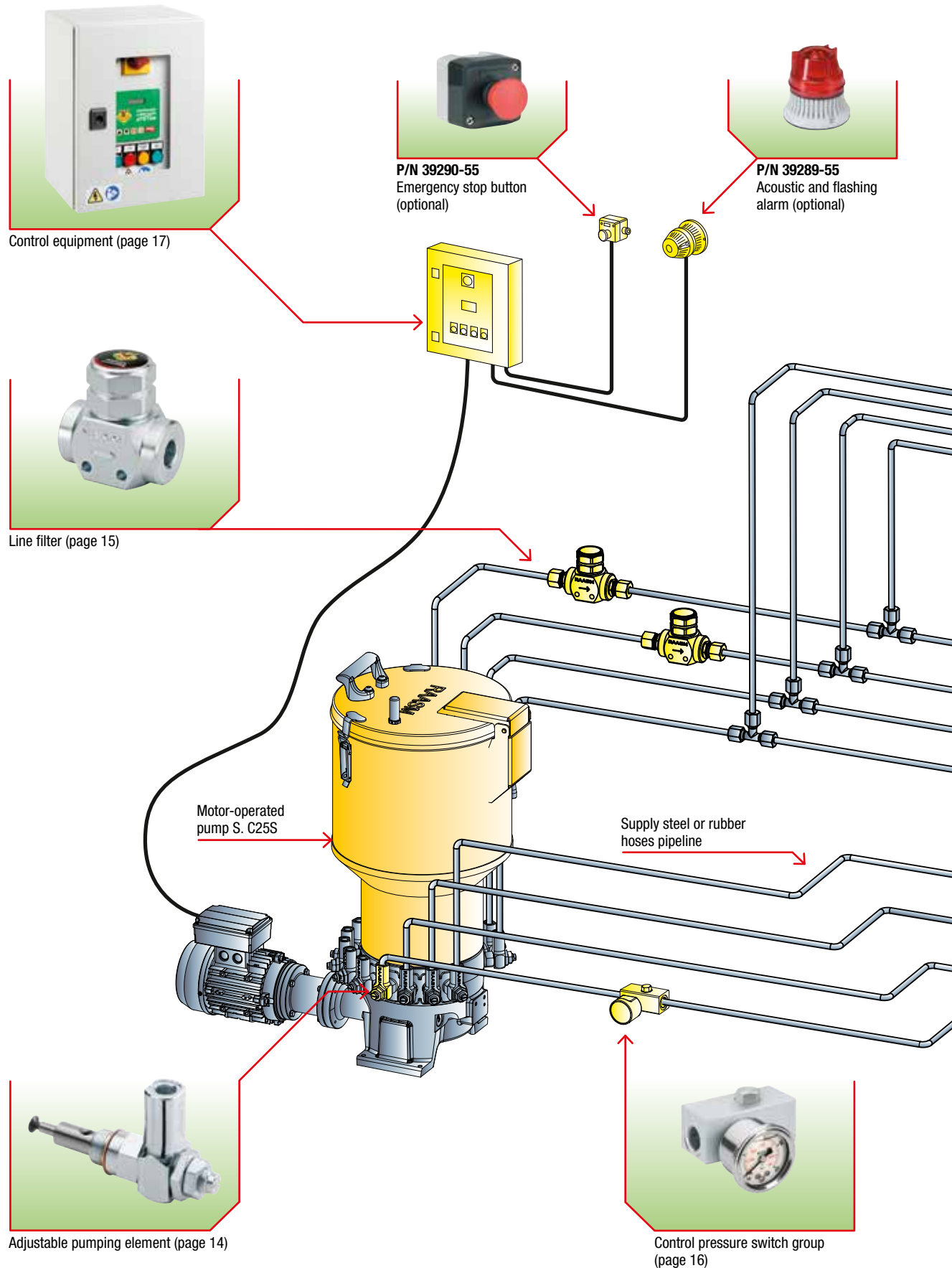
Max. delivery (pump element) *	0.26 - 0.38 - 0.52 inch ³ /min
Delivery (for pumping element)	P/N 2581100-55 - 0,02 inch ³ /cycle
Max. operating pressure	5800 psi
Tank capacity	20-60-139 lb
No. pumping elements	1 - 16
Ratio of reducer in pump	35:1 - 70:1
Filling union	1/2" NPT (f)
Lubricant outlet union	1/4" NPT (f)
Temperature	- 13 °F / + 140 °F
Lubricant	Oil > 40 cSt - Greases max NLGI 2
Electric min. level control	Standard
Electric min. max. level control	Optional
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
	Protection: IP 55
* Approx. delivery with grease NLGI 2 a 64 °F. (The lubricant must have technical characteristics in compliance with working temperature).	
* Different rated voltages have to be indicated in the purchase order	

	P/N		RESERVOIR CAPACITY (lb)	NO. OF PISTONS	REDUCER	MOTOR	FLOW RATE (inch ³ /min)
	GREASE	OIL					
GUIDE TO CHOOSING PUMP	2500600-55	2503480-55	20	4	70:1	6 pole	1.04
	2500720-55	2503600-55	20	8	70:1	6 pole	2.07
	2501680-55	2504560-55	60	8	70:1	6 pole	2.07
	2501920-55	2504800-55	60	16	70:1	6 pole	4.15
	2502640-55	2505520-55	139	8	70:1	6 pole	2.07
	2502880-55	2505760-55	139	16	70:1	6 pole	4.15
	2500120-55	2503000-55	20	4	70:1	4 pole	1.53
	2500240-55	2503120-55	20	8	70:1	4 pole	3.05
	2501200-55	2504080-55	60	8	70:1	4 pole	3.05
	2501440-55	2504320-55	60	16	70:1	4 pole	6.10
	2502160-55	2505040-55	139	8	70:1	4 pole	3.05
	2502400-55	2505280-55	139	16	70:1	4 pole	6.10
	2500585-55	2503465-55	20	4	35:1	6 pole	2.14
	2500705-55	2503585-55	20	8	35:1	6 pole	4.27
	2501665-55	2504545-55	60	8	35:1	6 pole	4.27
	2501905-55	2504785-55	60	16	35:1	6 pole	8.54
	2502625-55	2505505-55	139	8	35:1	6 pole	4.27
	2502865-55	2505745-55	139	16	35:1	6 pole	8.54

STANDARD EQUIPMENT		ON REQUEST	
	Low level capacitive sensor		High level capacitive sensor
			
	Visual level indicator for oil and grease		

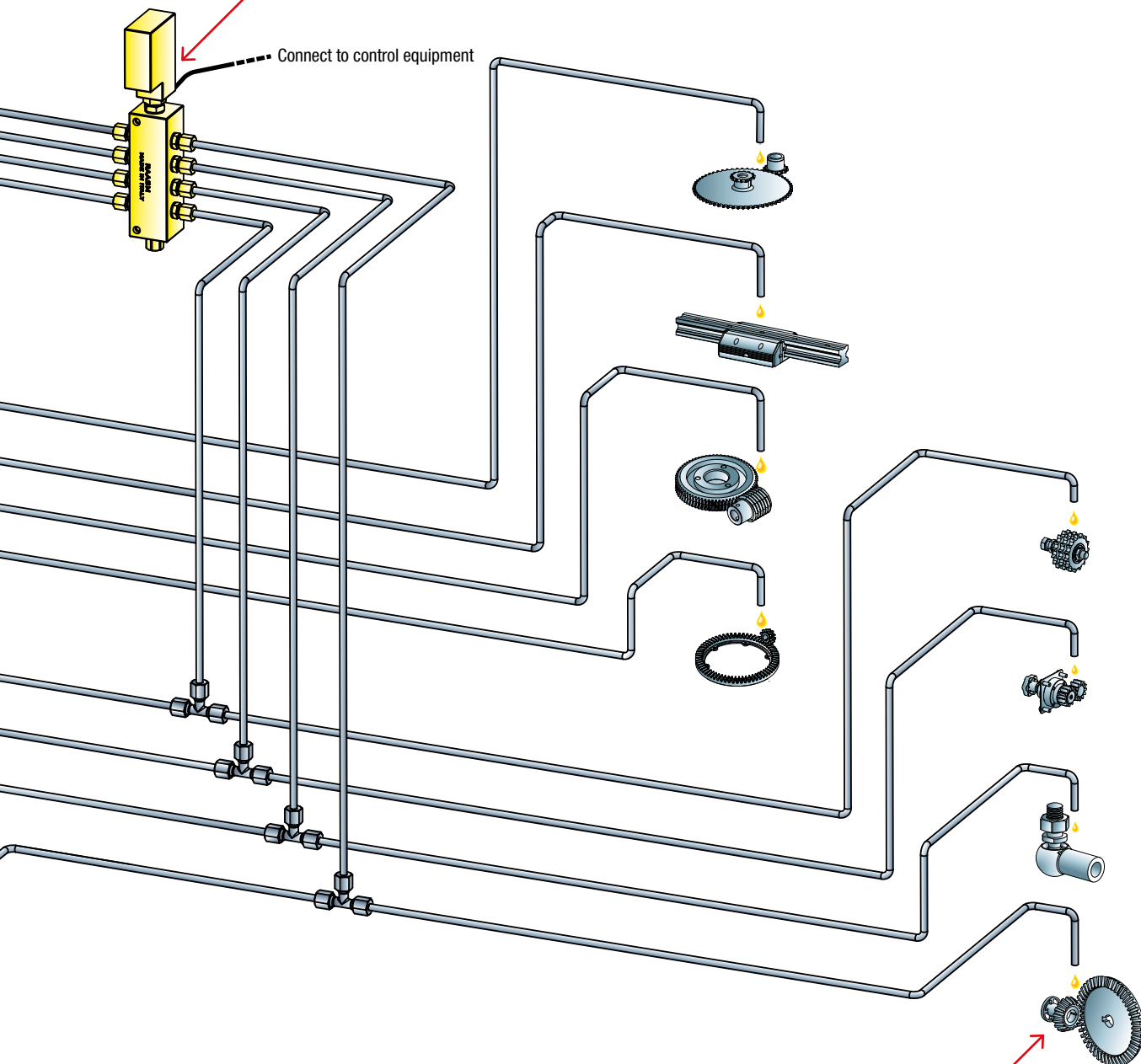
OVERALL DIMENSIONS inches		<table border="1"> <tr> <th>139 lb</th> <th></th> <th>GREASE</th> <th>OIL</th> </tr> <tr> <td>Packing-ft³</td> <td></td> <td>1-10.5</td> <td>1-10.5</td> </tr> <tr> <td>Net weight lb</td> <td></td> <td>90.3</td> <td>88.8</td> </tr> <tr> <td>Gross weight lb</td> <td></td> <td>118.5</td> <td>117.0</td> </tr> </table>			139 lb		GREASE	OIL	Packing-ft ³		1-10.5	1-10.5	Net weight lb		90.3	88.8	Gross weight lb		118.5	117.0
		139 lb		GREASE	OIL															
		Packing-ft ³		1-10.5	1-10.5															
		Net weight lb		90.3	88.8															
Gross weight lb		118.5	117.0																	
	<table border="1"> <tr> <th>60 lb</th> <th></th> <th>GREASE</th> <th>OIL</th> </tr> <tr> <td>Packing-ft³</td> <td></td> <td>1-7.3</td> <td>1-7.3</td> </tr> <tr> <td>Net weight lb</td> <td></td> <td>80.4</td> <td>79.7</td> </tr> <tr> <td>Gross weight lb</td> <td></td> <td>107.3</td> <td>106.6</td> </tr> </table>			60 lb		GREASE	OIL	Packing-ft ³		1-7.3	1-7.3	Net weight lb		80.4	79.7	Gross weight lb		107.3	106.6	
	60 lb		GREASE	OIL																
	Packing-ft ³		1-7.3	1-7.3																
Net weight lb		80.4	79.7																	
Gross weight lb		107.3	106.6																	
	<table border="1"> <tr> <th>20 lb</th> <th></th> <th>GREASE</th> <th>OIL</th> </tr> <tr> <td>Packing-ft³</td> <td></td> <td>1-5.0</td> <td>1-5.0</td> </tr> <tr> <td>Net weight lb</td> <td></td> <td>69.0</td> <td>68.5</td> </tr> <tr> <td>Gross weight lb</td> <td></td> <td>94.9</td> <td>94.5</td> </tr> </table>			20 lb		GREASE	OIL	Packing-ft ³		1-5.0	1-5.0	Net weight lb		69.0	68.5	Gross weight lb		94.9	94.5	
	20 lb		GREASE	OIL																
	Packing-ft ³		1-5.0	1-5.0																
Net weight lb		69.0	68.5																	
Gross weight lb		94.9	94.5																	

Sample lubrication system with





Control manifold with pressure switch (page 16)



Lube point: the sample system illustrates some typical moving parts that require lubrication



A wide range of flow rates is obtainable, thanks to the following configurations:

- adjustable delivery per cycle of each single pumping element from 0 to 0.02 inch³.
- by joining two or more pumping element outlets;
- three operating speeds (cycles per minute) are available by the electro motors and reduction gears coupling.

PUMPING ELEMENT

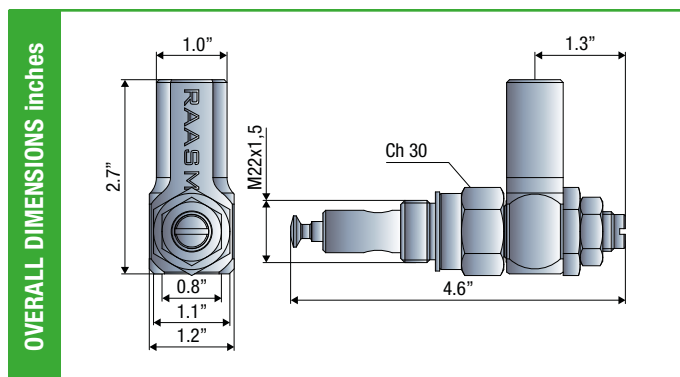
The pump C25S is designed to be connected directly to the user points, therefore its pumping elements are used the same way as volumetric dosers. Each pumping element combines easy maintenance with high operating safety thanks to the two single-acting valves and delivery regulating unit. The pumping element is mounted radially on the chrome-plated aluminium base and fixed to a ring coupled to eccentric shaft. This is centrally mounted to the pump from which receives the axial pumping movement. Without using springs which could deteriorate or break.



Technical Characteristics

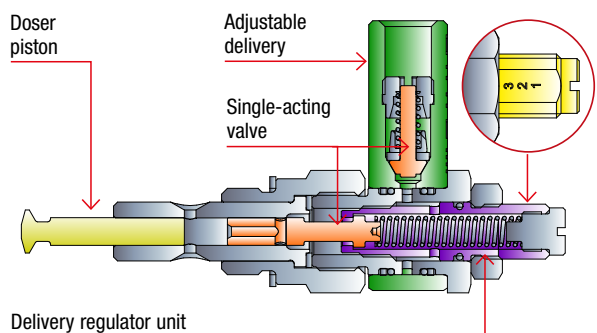
P/N	2581100-55
Doser piston diameter	0.28"
Stroke length	0.63"
Max flow rate *	0.02 inch ³ /cycle
Flow rate with 70:1 motor 6 poles *	0.26" inch ³ /min
Flow rate with 70:1 motor 4 poles *	0.38" inch ³ /min
Flow rate with 35:1 motor 6 poles *	0.52" inch ³ /min
Outlet connection	1/4" NPT (f)
Max flow rate motor R70:1 - 6 poles *	with 16 doser pistons - 4.15 inch ³ /min
Max flow rate motor R70:1 - 4 poles *	with 16 doser pistons - 6.10 inch ³ /min
Max flow rate motor R35:1 - 6 poles *	with 16 doser pistons - 8.54 inch ³ /min

* Approx. delivery with grease NLGI 2 a 64 °F

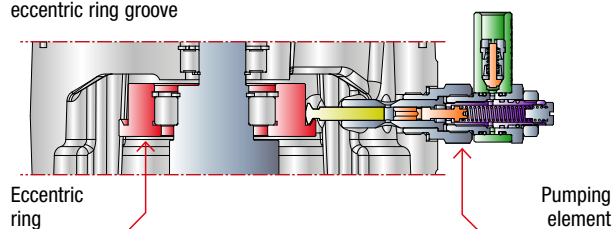


Doser piston flow rate	Adjustable from 0 a 0.02 inch ³ /cycle
Notch to regulate flow rate	1 - 2 - 3
Flow rate for each notch (1-2-3)	0.00 - 0.01 - 0.02 inch ³ /cycle

ADJUSTABLE PUMPING ASSEMBLY



Fixing of pumping element inside eccentric ring groove





PRESSURE DISCHARGE SOLENOID VALVE

Filters. Highly recommended to ensure that the lubricant intended for user points is totally free of impurities, and proper functioning of the system.

Filters

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

The minimum and maximum level sensor capacitive indicates when the minimum or maximum level of lubricant in the tank is reached, with an electrical signal to the control equipment.

FILTERS



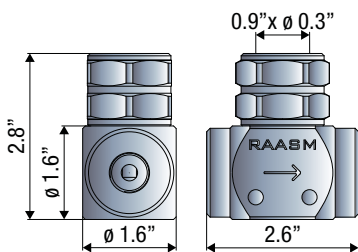
LEVEL SENSOR



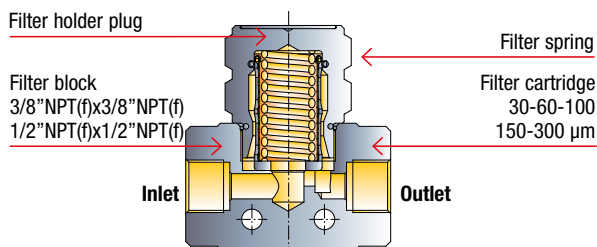
Technical Characteristics

P/N	See table below	1581800-55
Typology	Oil and Grease	-
Max working pressure	7250 psi	-
Filtration degree	30 - 60 - 100 - 150 - 300 µm	-
Lubricant inlet connection	3/8" NPT (f) - 1/2" NPT (f)	-
Lubricant outlet connection	3/8" NPT (f) - 1/2" NPT (f)	-
Voltage	-	10 - 30 VDC
Max outlet current	-	200 mA max
Protection degree	-	IP 67
Contact	-	PNP
Working temperature	- 13 °F / + 140 °F	- 13 °F / + 140 °F
Lubricant	Oil > 40 cSt - Greases max NLGI 2	Oil > 40 cSt - Greases max NLGI 2

OVERALL DIMENSIONS inches



DELIVERY FILLING FILTER



Lubricant	P/N	Connection	Filtration degree (µm)
OIL AND GREASE	2080900-55	3/8" NPT (f)	30
	2080930-55		60
	2080950-55		100
	2080800-55	3/8" NPT (f)	150
	2080801-55		300
	2080901-55		30
	2080931-55	1/2" NPT (f)	60
	2080951-55		100
	2080850-55		150
	2080851-55	1/2" NPT (f)	300



The control manifold with pressure switch, in white galvanized steel controls the delivery pressure of each line. It sends an alarm signal if the measured pressure is higher than a predefined value.

For example, this can occur in case of an obstruction on a pipe or at a user point. It is able to manage up to 8 delivery points. For more than 8 delivery points and up to 16 connect in series another manifold. It is also provided with a discharge outlet on the bottom of the manifold block. Each inlet is equipped with a single-acting valve with 1/4" NPT (f) connection. **Control pressure switch group**, allows to check if the overpressure valve in the control manifold works properly, by simulating an obstruction.



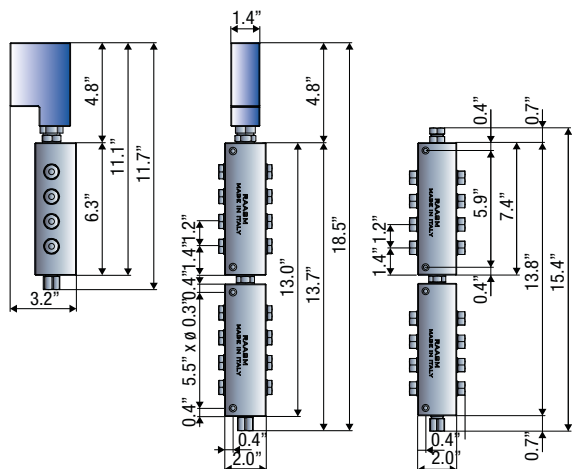
CONTROL MANIFOLD WITH PRESSURE SWITCH GROUP

Technical Characteristics

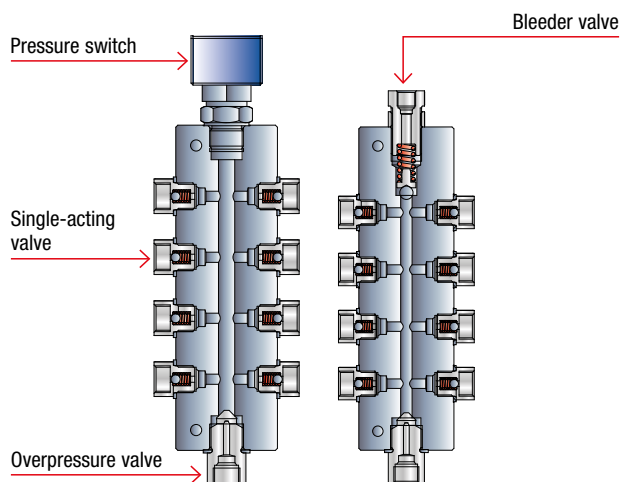
	Control manifold	Control pressure switch group
P/N	see table below	2581200-55
Max working pressure	5800 psi	5800 psi
Electric contact	with clamps	-
Inlet connections	1/4" NPT (f)	-
Working temperature	- 13 °F / + 140 °F	-
Lubricant	Oil > 40 cSt - Greases max NLGI 2	Oil > 40 cSt - Greases max NLGI 2
Inlet/outlet connections	-	3/8" NPT (f)

Inlet	P/N	Control	Working pressure (psi)	Protection degree
8	2581300-55	Pressure switch and overpressure valve	from 290 to 5800	IP55
16	2581310-55		from 290 to 5800	IP55
8	2581330-55	Overpressure valve	from 290 to 5800	-
16	2581340-55		from 290 to 5800	-

OVERALL DIMENSIONS inches



CONTROL MANIFOLD WITH MANOMETER OR OVERPRESSURE VALVE





CONTROL EQUIPMENT

200÷500 V AC 50/60 Hz

System control board

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



Technical Characteristics

P/N	2170031-55	2170035-55	2170036-55
Proper for pump	C25S	C25S	C25S
Voltage	200÷500 V AC	200÷500 V AC	200÷500 V AC
Power consumed	1500 W max	1500 W max	1500 W max
Button start /stop	NO	YES	YES
Light allarm	NO	YES	YES
Light filling	NO	YES	NO
Tank full light	NO	YES	NO
Trasparent window	NO	YES	YES
Filling control	NO	NO	YES
Protection rating	IP54	IP55	IP55
Working temperature	- 13°F / +140 °F	- 13°F / +140 °F	- 13°F / +140 °F

* 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 the practice flexible membrane keyboard. Within the cassette is accessed to the hardware part (components and connections, remote control switches, fuses, etc.).

- Display integrated into the flexible membrane keyboard
- Simple user interface based on a menu, easy to start and use.
- 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 changed



INPUT AND OUTPUT SIGNALS

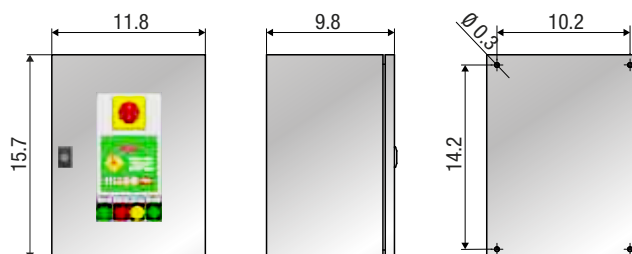
Input signals

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

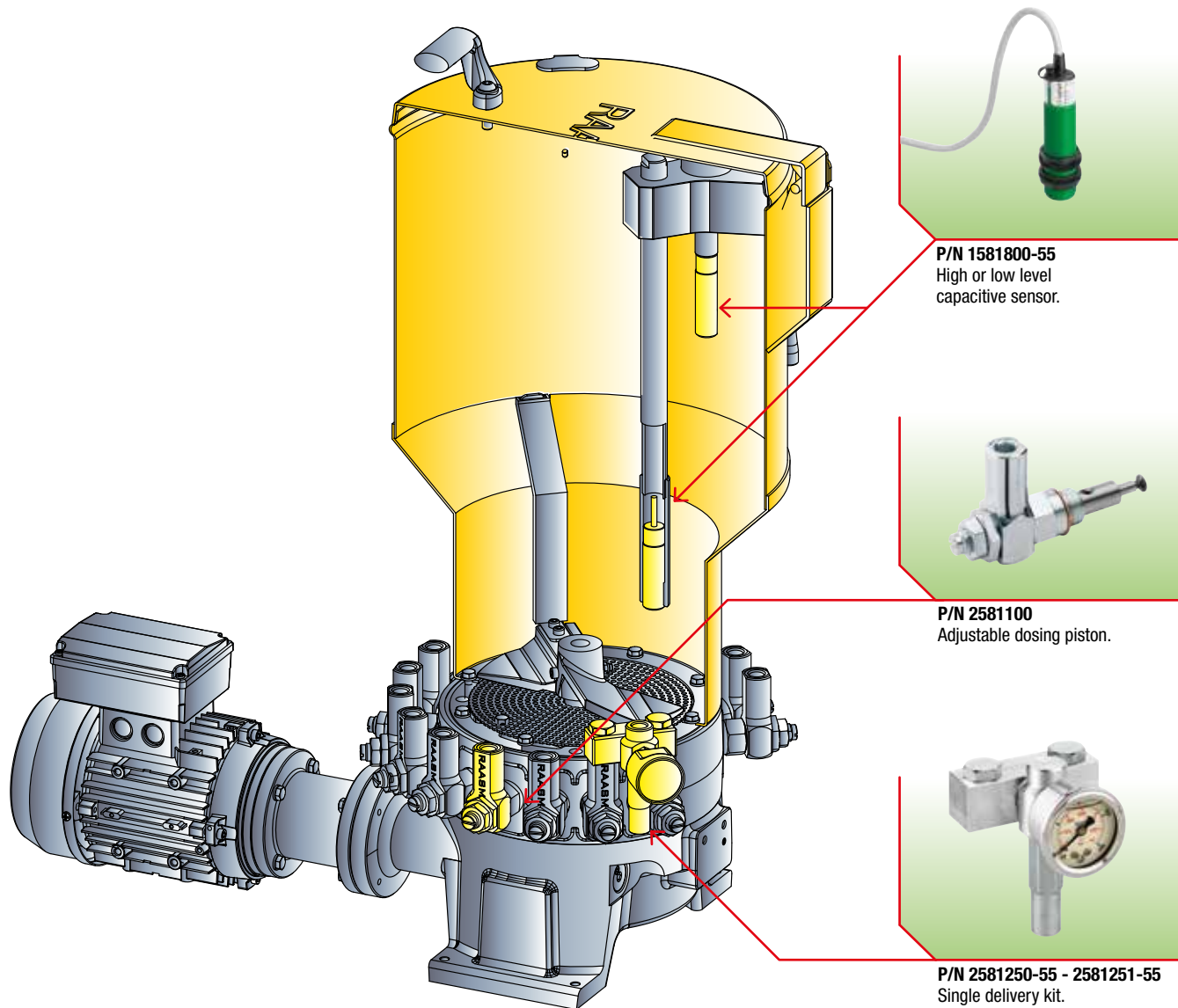
Power motor pump
Power
- motor inverter
- pressure discharge valve
- solenoid inverter 1
Power relay
solenoid inverter 2
Remote operation lamp
Remote warning lamp

OVERALL DIMENSIONS inches



Packing-ft³	1-1.1
Net weight lb	33.0-34.0
Gross weight lb	34.4-34.9

Pump accessories for series C15S



P/N	Description	Connection	Flow rate/Pressure
1581800-55	High or low level capacitive sensor	M 18 x 1	-
2581100-55	Adjustable dosing piston \varnothing 0.03"	M 22 x 1,5	0.02 inch ³ /cycle
2581250-55	2 deliveries union bridge kit	1/4" NPT (m)	-
2581251-55	2 deliveries union bridge kit with manometer	1/4" NPT (m)	-

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 C25S

Series	Lubricant type		Tank capacity			Poles		No. Pumping elements																Reducer		Level control		
C25S	G	0	20	60	139	4	6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	3	7	0	L	Y
System 25 Multi-delivery	Grease (max NLGI 2)	Oil(> 40 cSt)	lb	lb	lb	4 poles	6 poles	1 pumping element	2 pumping elements	3 pumping elements	4 pumping elements	5 pumping elements	6 pumping elements	7 pumping elements	8 pumping elements	9 pumping elements	10 pumping elements	11 pumping elements	12 pumping elements	13 pumping elements	14 pumping elements	15 pumping elements	16 pumping elements	R 35:1	R 70:1	without minimum level	with minimum level	with minimum and maximum level

C25S	G	10	6	/	10	7	L
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Example of pump code





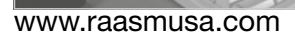
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*N*otes





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- Marble working machinery
- Construction machinery, concrete mixers, plaster pumps
- Foundry and die casting machines
- Port facilities
- Rubber industry machinery
- Railways, rolling stock
- Mines
- Iron and steel industry
- Machines for iron and steel industry
- Agricultural machinery



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