

## Mechanical Diaphragm Dosing Pumps LAGOA-LG, LG2 series

### Characteristics

- |                        |                                     |   |
|------------------------|-------------------------------------|---|
| - Maximum capacity     | : 350 l/h (simplex)                 | - Adjustable from 0 to 100%   |
| - Maximum pressure     | : 12 bar                            | - Option of automatic stroke length and speed adjustment driven by servo-motor or frequency inverter. |
| - Maximum temperature  | : 100° C                            | - Multiple heads.   |
| - Accuracy             | : ± 1%                              |   |
| - Electric motor power | : 48 spm → 120 W<br>120 spm → 250 W |   |



### Advantages

#### ► Of electromechanical drive

- Less mechanical and hydraulic shock.
- Lower noise.
- Does not cause and is not affected by interference.

#### ► Of construction

- Ergonomic adjustment.
- Simplified maintenance.
- Large range :  
9 models  
and 658 versions.

#### ► Of PCM PUMPS

- A team of engineers to advise you on selection and installation.
- Large stocks of pumps and spare parts.
- Pre-sale and after-sales service.

### The range

The PCM range of dosing pumps includes mechanical diaphragm dosing pumps, plunger pumps, systems with actuated valves and complete skids of integrated dosing systems.



### Doseur

The pumphead is easy to remove and change.

It consists of :

- 1 suction check valve
- 1 discharge check valve
- 1 liquid end body

Pumpheads are available in many material combinations as shown in the table below.

**Note** : other versions are available on request.

Multiplexing is possible with LG2.

Up to 6 heads can be fitted and any combination of different pumphead types can be supplied.

### Diaphragm

Preformed type, made of PTFE reinforced with elastomer. The liquid contact part is in chemically inert PTFE.

### Drive

The pump is driven by direct mounted light alloy motor with IP55 protection. The bearings are greased for life, making the motors maintenance-free.

Code	Motor type
T	Three phase
A	Explosion proof three phase
E	Increased safety three phase
F	3-phase + clutch/break unit
W	without motor

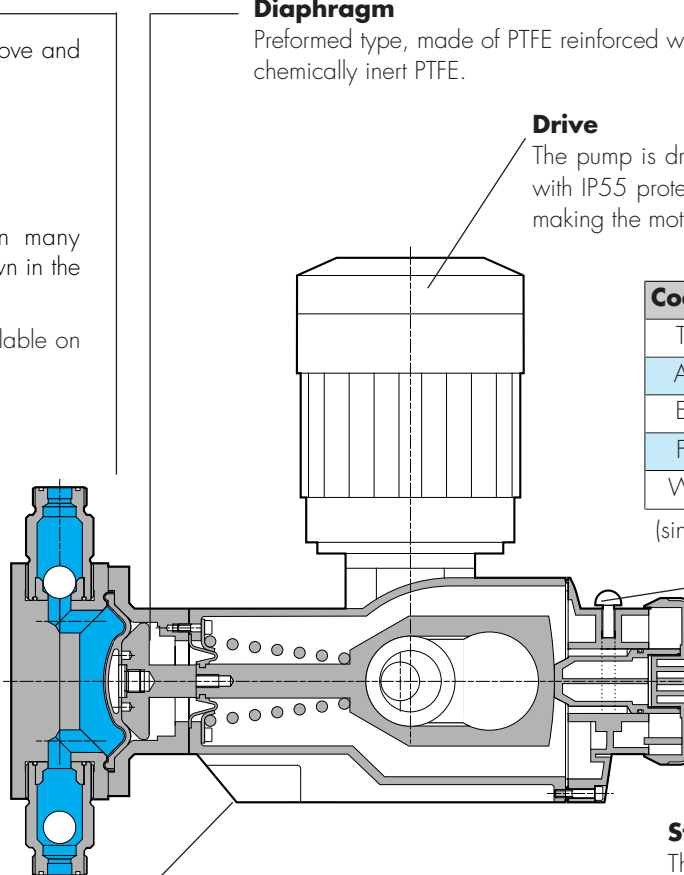
(single phase on request)

### Locking device

The stroke adjustment mechanism can be locked in position to ensure that stroke length remains at its set point.

### Stroke adjustment

The capacity is set by turning the micrometer dial which is fitted with vernier scale graduated in percentage stroke length. Electric or pneumatic servo control can be fitted.

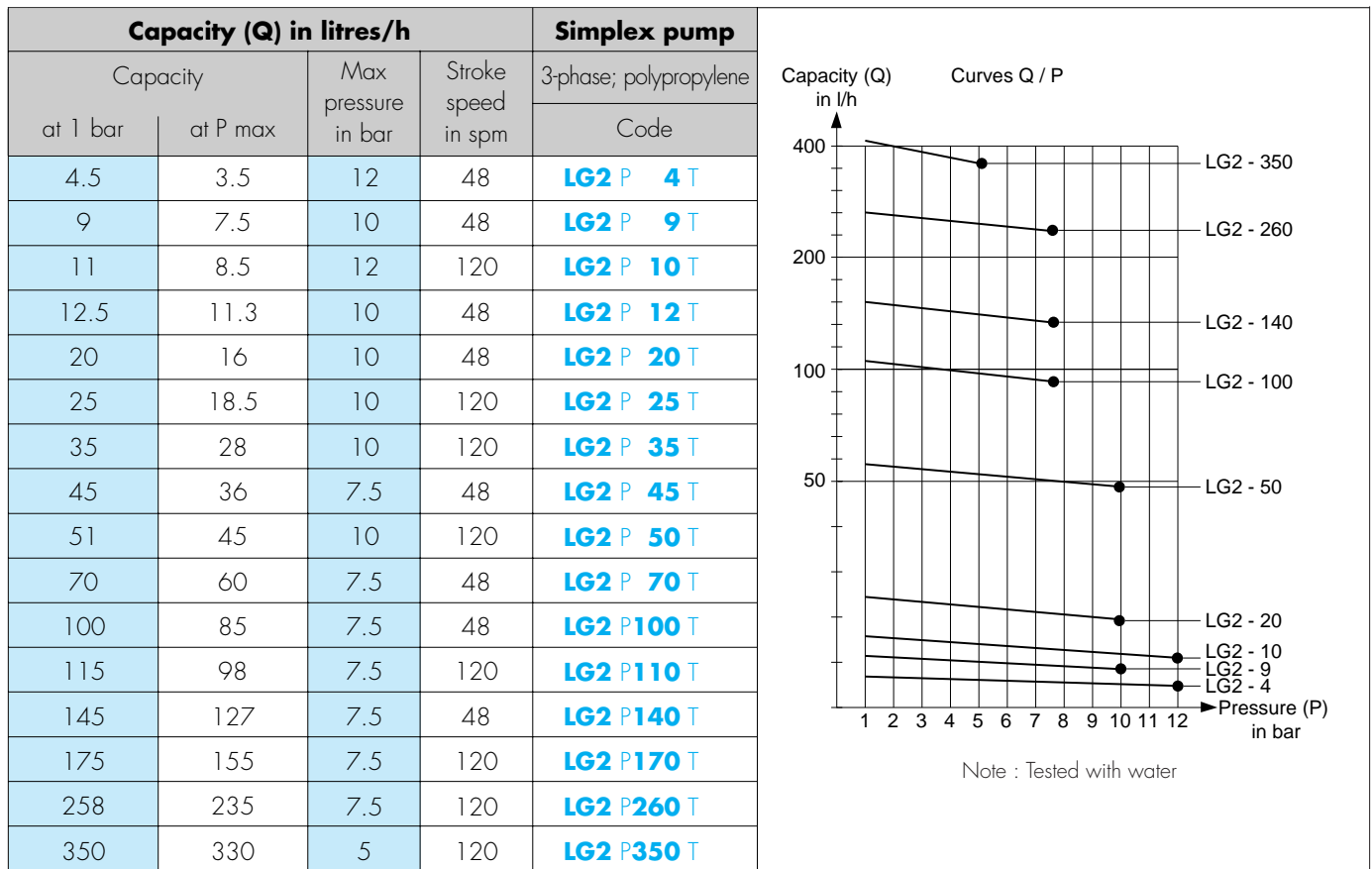


### Casing

Robust cast aluminium alloy construction which allows multiplexing.

pumphead code	materials						comments
	diaphragm	pumphead	valve body				
			body	balls	springs	gaskets	
P	PTFE + Elastomer	PPH	PPH	glass	-	viton	standard polypropylene head
PF	PTFE + Elastomer	PPH	PPH	PTFE	-	FEP	special polypropylene head for liquids containing fluorine
PS	PTFE + Elastomer	PPH	PPH	AISI 316L	-	EPDM	special polypropylene head for amine, soda and solvents
PC	PTFE + Elastomer	PPH	AISI 316L	AISI 316L	-	viton	special polypropylene head for mildly abrasive liquids
S et SA	PTFE + Elastomer	AISI 316L	AISI 316L	AISI 316L	AISI 316L	PTFE	standard stainless steel head (SA = sanitary construction)
SC	PTFE + Elastomer	AISI 316L	AISI 420	AISI 440c	AISI 316L	PTFE	special stainless steel head for abrasive liquids
D	PTFE + Elastomer	PVDF	PVDF	FEP	-	FEP	standard PVDF head
H	PTFE + Elastomer	PVC	PVC	PVC	Hastelloy C	viton	PVC for polyelectrolyte H <sub>2</sub> SO <sub>4</sub>
HD	PTFE + Elastomer	PVC	PVC	PVDF	-	viton	PVC valves without springs

## Performances



The pump codes shown as examples are for polypropylene pumphead and three phase motor.

To get codes for other versions, replace : P by another pumphead code (PF, PS, PC, S, SA, SC, D, H, HD)

T by another motor code (A, E, F, W, M)

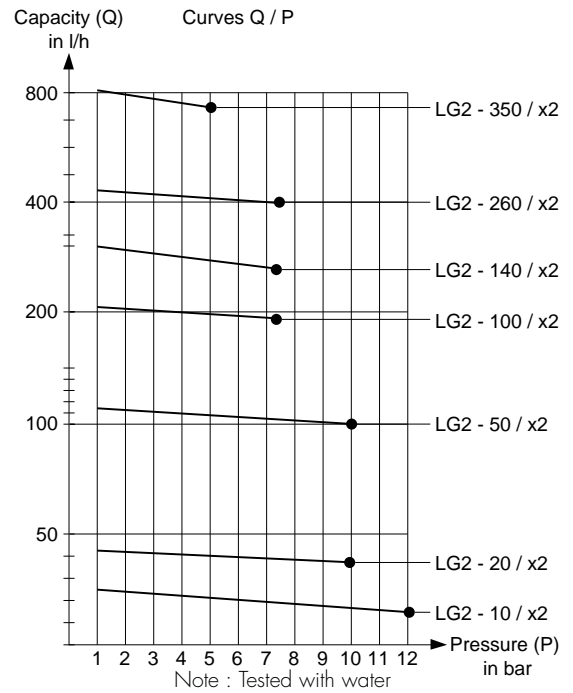
Pump code	Connections						Dimensions (mm)					Weight (kg)	
	P, PS, PF*	PC*	S, SC	SA	D	H, HD	L	ℓ	A	B	C	P, PF, PC, D, PS, H, HD	S, SA, SC
LG2 - 4	hose* Ø4 x 8	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	367	210	114.5	58.5	136	13	14
LG2 - 9	hose* Ø4 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	210	114.5	58.5	168	13	14
LG2 - 10	hose* Ø4 x 8	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	367	210	114.5	58.5	136	13	14
LG2 - 12	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	210	114.5	58.5	168	13	14
LG2 - 20	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	210	114.5	58.5	168	13	14
LG2 - 25	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	210	114.5	58.5	168	13	14
LG2 - 35	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	210	114.5	58.5	168	13	14
LG2 - 45	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 50	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	210	114.5	58.5	168	13	14
LG2 - 70	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 100	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 110	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 140	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 170	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 260	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17
LG2 - 350	1" G male	3/4" G female	3/4" G female	SMS DN25	1" G male	1" G male	429	223	159	59	246	14	17

\* These pump types can be delivered with PVC hose in addition to the flexible connection

## Performances of LG2 duplex (identical heads), heterogen version on request

Capacity (Q) in litres/hr				Duplex pump	
Capacity per head at 1 bar	Total capacity		Max pressure in bar	Stroke speed in spm	3-phase; polypropylene
	at 1 bar	at P max			Code
4.5	9	7	12	48	<b>LG2 P 4 T / x2</b>
9	18	15	10	48	<b>LG2 P 9 T / x2</b>
11	22	17	12	120	<b>LG2 P 10 T / x2</b>
12.5	25	22.6	10	48	<b>LG2 P 12 T / x2</b>
20	40	32	10	48	<b>LG2 P 20 T / x2</b>
25	50	37	10	120	<b>LG2 P 25 T / x2</b>
35	70	56	10	120	<b>LG2 P 35 T / x2</b>
45	90	72	7.5	48	<b>LG2 P 45 T / x2</b>
51	102	90	10	120	<b>LG2 P 50 T / x2</b>
70	140	120	7.5	48	<b>LG2 P 70 T / x2</b>
100	200	170	7.5	48	<b>LG2 P 100 T / x2</b>
115	230	196	7.5	120	<b>LG2 P 110 T / x2</b>
145	290	254	7.5	48	<b>LG2 P 140 T / x2</b>
175	350	310	7.5	120	<b>LG2 P 170 T / x2</b>
258	516	470	7.5	120	<b>LG2 P 260 T / x2</b>
350	700	660	5	120	<b>LG2 P 350 T / x2</b>

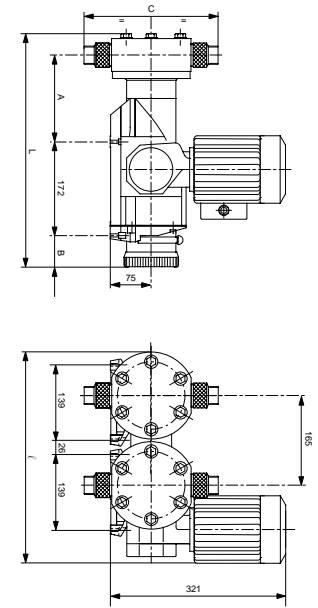


The pump codes shown as examples are for polypropylene pumphead and three phase motor.

To get codes for other versions, replace : P by another pumphead code (PF, PS, PC, S, SA, SC, D, H, HD)

T by another motor code (A, E, F, W, M)

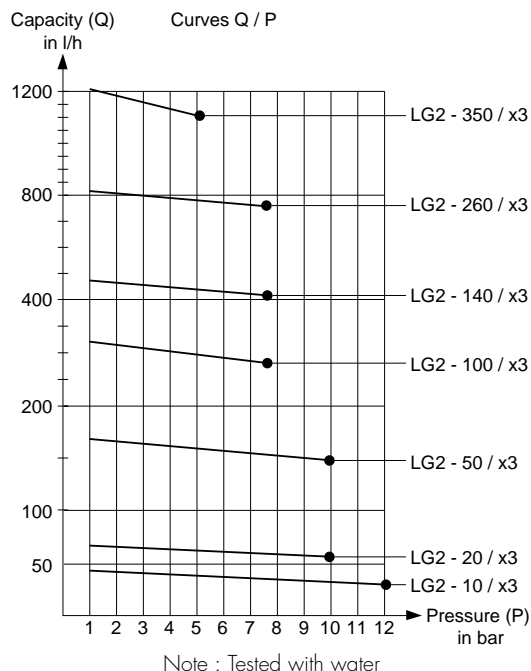
Pump code	Connections						Dimensions (mm)					Weight (kg)	
	P, PS, PF*	PC	S, SC	SA	D	H, HD	L	ℓ	A	B	C	P, PF, PC, D, PS, H, HD	S, SA, SC
LG2 - 4	hose* Ø4 x 8	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	367	375	114,5	58,5	136	21	23
LG2 - 9	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	375	114,5	58,5	168	21	23
LG2 - 10	hose* Ø4 x 8	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	367	375	114,5	58,5	136	21	23
LG2 - 12	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	375	114,5	58,5	168	21	23
LG2 - 20	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	375	114,5	58,5	168	21	23
LG2 - 25	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	375	114,5	58,5	168	21	23
LG2 - 35	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	375	114,5	58,5	168	21	23
LG2 - 45	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 50	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	375	114,5	58,5	168	21	23
LG2 - 70	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 100	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 110	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 140	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 170	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 260	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29
LG2 - 350	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	389	159	59	246	23	29



\* These pump types can be delivered with PVC hose in addition to the flexible connection

**Performances** of LG2 triplex (identical heads), heterogen version on request

Capacity (Q) in litres/hr					Triplex pump
Capacity per head at 1 bar	Total capacity at 1 bar   at P max		Max pressure in bar	Stroke speed in spm	3-phase; polypropylene Code
4.5	13.5	10.5	12	48	<b>LG2 P 4 T / x3</b>
9	27	22.5	10	48	<b>LG2 P 9 T / x3</b>
11	33	25.5	12	120	<b>LG2 P 10 T / x3</b>
12.5	37.5	33.9	10	48	<b>LG2 P 12 T / x3</b>
20	60	48	10	48	<b>LG2 P 20 T / x3</b>
25	75	55.5	10	120	<b>LG2 P 25 T / x3</b>
35	105	84	10	120	<b>LG2 P 35 T / x3</b>
45	135	108	7.5	48	<b>LG2 P 45 T / x3</b>
51	153	135	10	120	<b>LG2 P 50 T / x3</b>
70	210	180	7.5	48	<b>LG2 P 70 T / x3</b>
100	300	255	7.5	48	<b>LG2 P 100 T / x3</b>
115	345	294	7.5	120	<b>LG2 P 110 T / x3</b>
145	435	381	7.5	48	<b>LG2 P 140 T / x3</b>
175	525	465	7.5	120	<b>LG2 P 170 T / x3</b>
258	774	705	7.5	120	<b>LG2 P 260 T / x3</b>
350	1050	990	5	120	<b>LG2 P 350 T / x3</b>

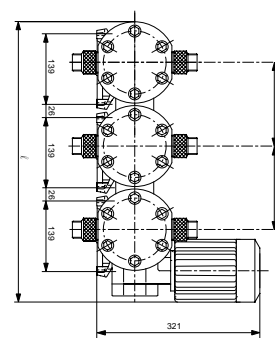
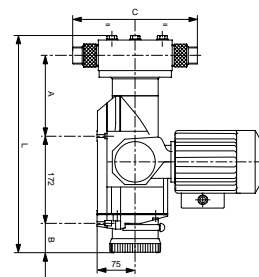


The pump codes shown as examples are for polypropylene pumphead and three phase motor.

To get codes for other versions, replace : P by another pumphead code (PF, PS, PC, S, SA, SC, D, H, HD)

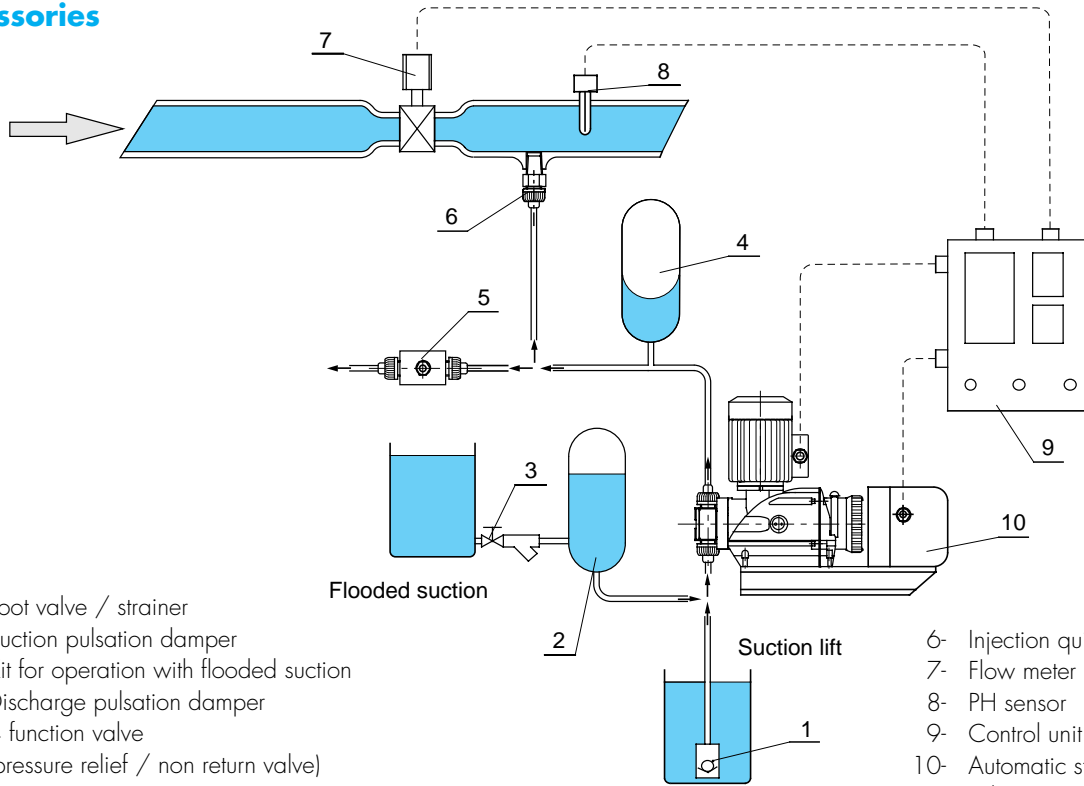
T by another motor code (A, E, F, VV, M)

Pump code	Connections						Dimensions (mm)					Weight (kg)	
	P, PS PF*	PC*	S, SC	SA	D	H, HD	L	ℓ	A	B	C	P, PF, PC, D, PS, H, HD	S, SA, SC
LG2 - 4	hose* Ø4 x 8	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	367	540	114,5	58,5	136	29	32
LG2 - 9	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	540	114,5	58,5	168	29	32
LG2 - 10	hose* Ø4 x 8	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	367	540	114,5	58,5	136	29	32
LG2 - 12	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	540	114,5	58,5	168	29	32
LG2 - 20	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	540	114,5	58,5	168	29	32
LG2 - 25	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	540	114,5	58,5	168	29	32
LG2 - 35	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	540	114,5	58,5	168	29	32
LG2 - 45	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 50	hose* Ø6 x 12	hose* Ø6 x 12	1/2" G male	DIN DN10	1/4" G female	1" G male	375	540	114,5	58,5	168	29	32
LG2 - 70	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 100	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 110	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 140	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 170	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 260	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41
LG2 - 350	1" G male	3/4 G female	3/4" G female	SWS DN25	1" G male	1" G male	429	554	159	59	246	32	41



\* These pump types can be delivered with PVC hose in addition to the flexible connection

## Accessories

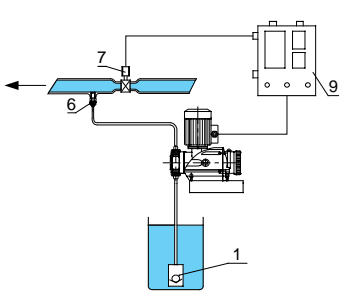


- 1- Foot valve / strainer
- 2- Suction pulsation damper
- 3- Kit for operation with flooded suction
- 4- Discharge pulsation damper
- 5- 4 function valve (pressure relief / non return valve)

- 6- Injection quill with loading valve
- 7- Flow meter
- 8- PH sensor
- 9- Control unit
- 10- Automatic stroke control and speed adjustment

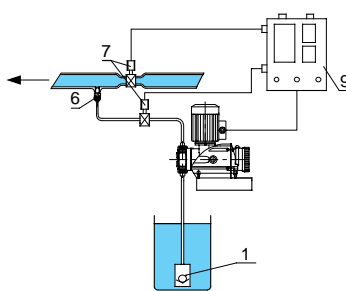
## Standard applications

Proportional continuous dosing with variable flow (open loop).



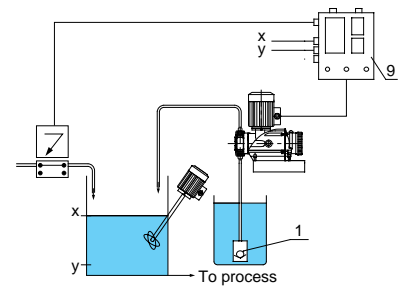
Typical uses : Dosing of liquid fertilisers.  
Dosing of chlorine in drinking water.

Proportional continuous dosing with variable flow (closed loop).



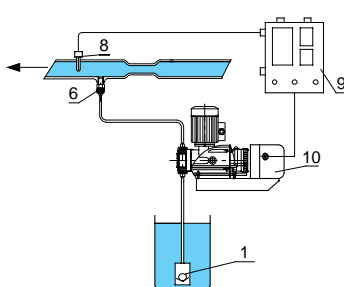
Typical uses : Dosing in chemical, pharmaceutical and food industry.

Proportional batch dosing.



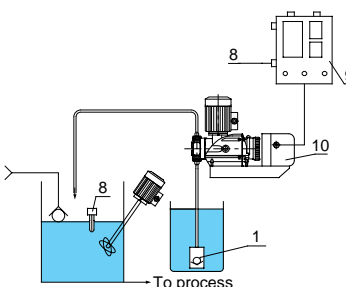
Typical uses : Cutting oils.  
Reagent solutions.

Continuous in line parametric dosing (closed loop).



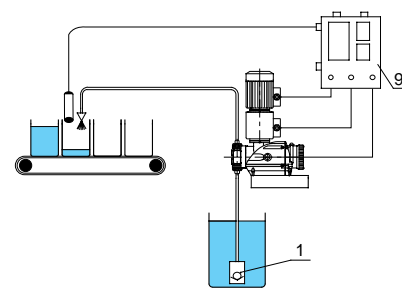
Typical uses : PH control.

Continuous parametric batch dosing (closed loop).



Typical uses : Neutralisation.

Filling.



Typical uses : Addition of flavours to pots.