

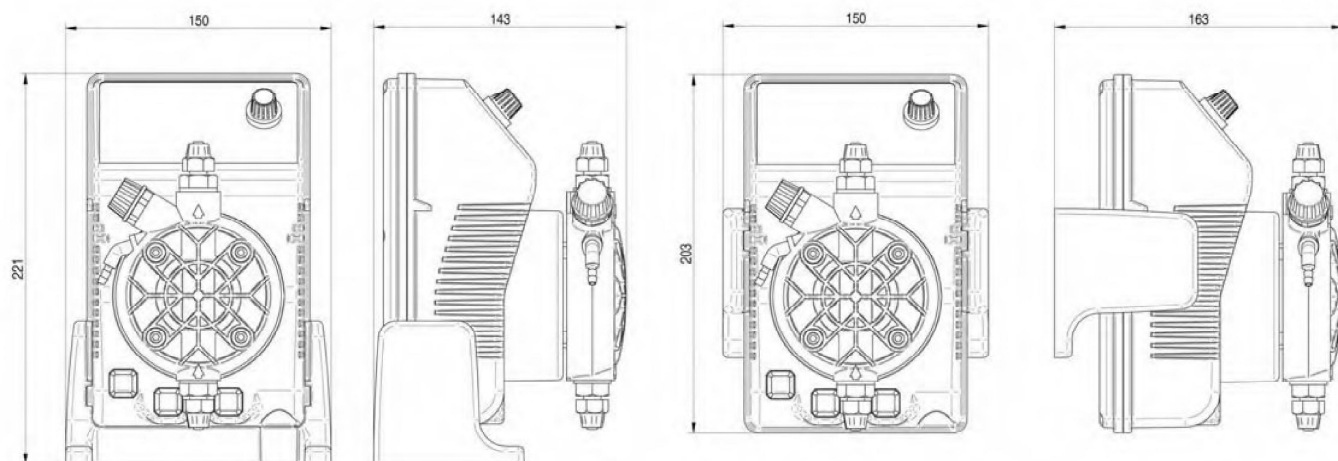
BOMBAS DOSIFICADORAS SERIE EXACTUS
NORMAS PARA LA INSTALACION, USO Y MANTENIMIENTO

EXACTUS SERIES METERING PUMPS
OPERATING INSTRUCTIONS AND MAINTENANCE

ENGLISH



OVERALL DIMENSIONS (Fig. 1)



2.0 - EXACTUS SERIES METERING PUMPS

2.1 - OPERATION

The metering pump is activated by a teflon® diaphragm mounted on a piston of an electromagnet.

When the piston of the electromagnet is attracted, a pressure is produced in the pump body with an expulsion of liquid from the discharge valve. Once the electric impulse is finished a spring brings the piston back to the initial position, with a recall of liquid through the suction valve.

The operation is simple the pump does not need lubrication, therefore maintenance is reduced almost to zero. The materials used for the construction of the pump make it particularly suitable for aggressive liquids.

The metering pump has been designed to feed liquids with capacities from 0 to 20 l/h and pressures from 0 to 10 bar (depending on the model selected).

2.2 - COMMON FEATURES

- The products are manufactured according **CE** regulation.
- IP 65 protection.
- Antiacid plastic casing.
- Control panel protection assured by an adhesive polyester film, weatherproof and resisting UV rays
- Standard power supply:
230 V a.c. 50 Hz single phase.
- Optional power supply:
240 V a.c. 50-60 Hz single phase;
110 V a.c. 50-60 Hz single phase.

UPON REQUEST:

- Level control setting included (supplied without probe).

2.3 - LIQUID ENDS MATERIALS

DIAPHRAGM: PTFE

PUMP HEAD: Polypropylene; upon request: PVC, 316 Stainless, PTFE

NIPPLES: polypropylene

FILTER: polypropylene

INJECTION NIPPLE: polypropylene

SUCTION HOSE: PVC - flexible

DISCHARGE HOSE: polyethylene

VALVES "lip" type: FPM (viton®), (upon request available in EPDM (Dutral®), NBR, Silycon). "Ball Check" VALVES upon request type in SS 316 and Glass PYREX. Available with Spring Return and "KALRETZ" Valve.

SEALS: FPM upon request EPDM, NBR, Silycon, PTFE only for ball checks valves

MAIN FEATURES

Tipo Type	Portata max Max flow	Press. max Max press	Max imp./min. Max imp./min.	Dosaggio per imp. Output per stroke	Corsa Stroke	Altez. aspiraz. Suction height	Alliment. elettr. standard Standard power supply	Potenza ass. Power cons.	Corrente ass. Current cons.	Peso netto Net weight
	l/h	bar		ml	mm	m	Volts/Hz	Watts	Ampere	kg
2-5	2	5	120	0,28	0,80	2	230 V 50 - 60 Hz	37	0,16	2,7
2-10	2	10	120	0,28	1,20	2	230 V 50 - 60 Hz	37	0,16	2,7
4-5	4	5	120	0,56	1,00	2	230 V 50 - 60 Hz	37	0,16	2,7
5-7	5	7	120	0,70	1,40	2	230 V 50 - 60 Hz	37	0,16	2,7
5-10	5	10	120	0,70	1,80	2	230 V 50 - 60 Hz	58	0,25	3,2
10-5	10	5	120	1,40	1,10	2	230 V 50 - 60 Hz	58	0,25	3,2
10-10	10	10	120	1,40	2,20	2	230 V 50 - 60 Hz	82	0,36	4,1
20-5	20	5	120	2,80	2,00	2	230 V 50 - 60 Hz	82	0,36	4,1

Fig. 2

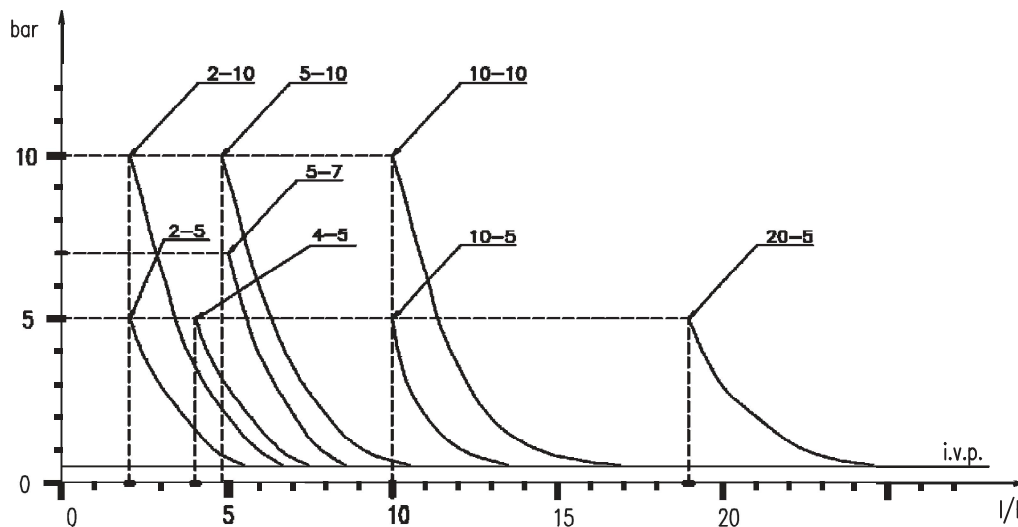


Fig. 3

The diagrams of fig. 3 indicate max metering pump flow variation in relation to the working pressure in the plant; the diagrams also include injection valve losses. I.V.P.

Due to production requirements the technical characteristics of our equipment at maximum ratings can vary with a tolerance of 5% which must be taken into account when choosing the type of pump.

4.0 - MAINTENANCE

1. Periodically check the chemical tank level to avoid the pump operating without liquid. This would not damage the pump, but may damage the process plant due to lack of chemicals.
2. Check the pump operating condition at least every 6 months, pump head position, screws, bolts and seals; check more frequently where aggressive chemicals are pumped, especially:
 - pulse and power L.E.D.;
 - the additive concentration in the pipework; a reduction of this concentration could be caused by the wearing of the valves, in which case they need to be replaced (Fig. 11) or by the clogging of the filter which then has to be cleaned as in point 3 here below.

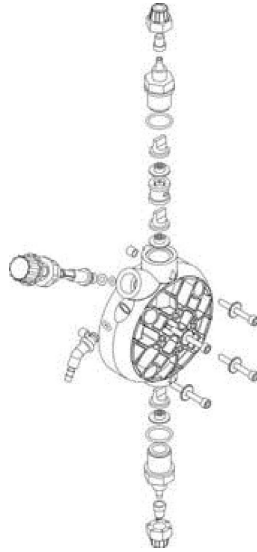


Fig. 11

3. The Company suggests periodically cleaning off the hydraulic parts (valves and filter). We cannot say how often this cleaning should be done as it depends on the type of application, we also cannot suggest what cleaning agent to use as this will depend on the additive used.

Operating suggestions when dosing sodium hypochlorite (most frequent case):

- a** - disconnect the pins from the mains or by means of a onnipolar switch with 3 mm minimum distance between the contact.
- b** - disconnect discharge hose from pipework;
- c** - remove the suction hose (with filter) from the tank and dip it into clean water;
- d** - switch on the metering pump and let it operate with water for 5 to 10 minutes;
- e** - switch OFF the pump, dip the filter into a hydrochloric acid solution and wait until the acid finishes cleaning;
- f** - switch ON the pump again and operate it with hydrochloric acid for 5 minutes in a closed-circuit, with suction and discharge hose dipped into the same tank;
- g** - repeat the operation with water;
- h** - re-connect the metering pump to the pipework.