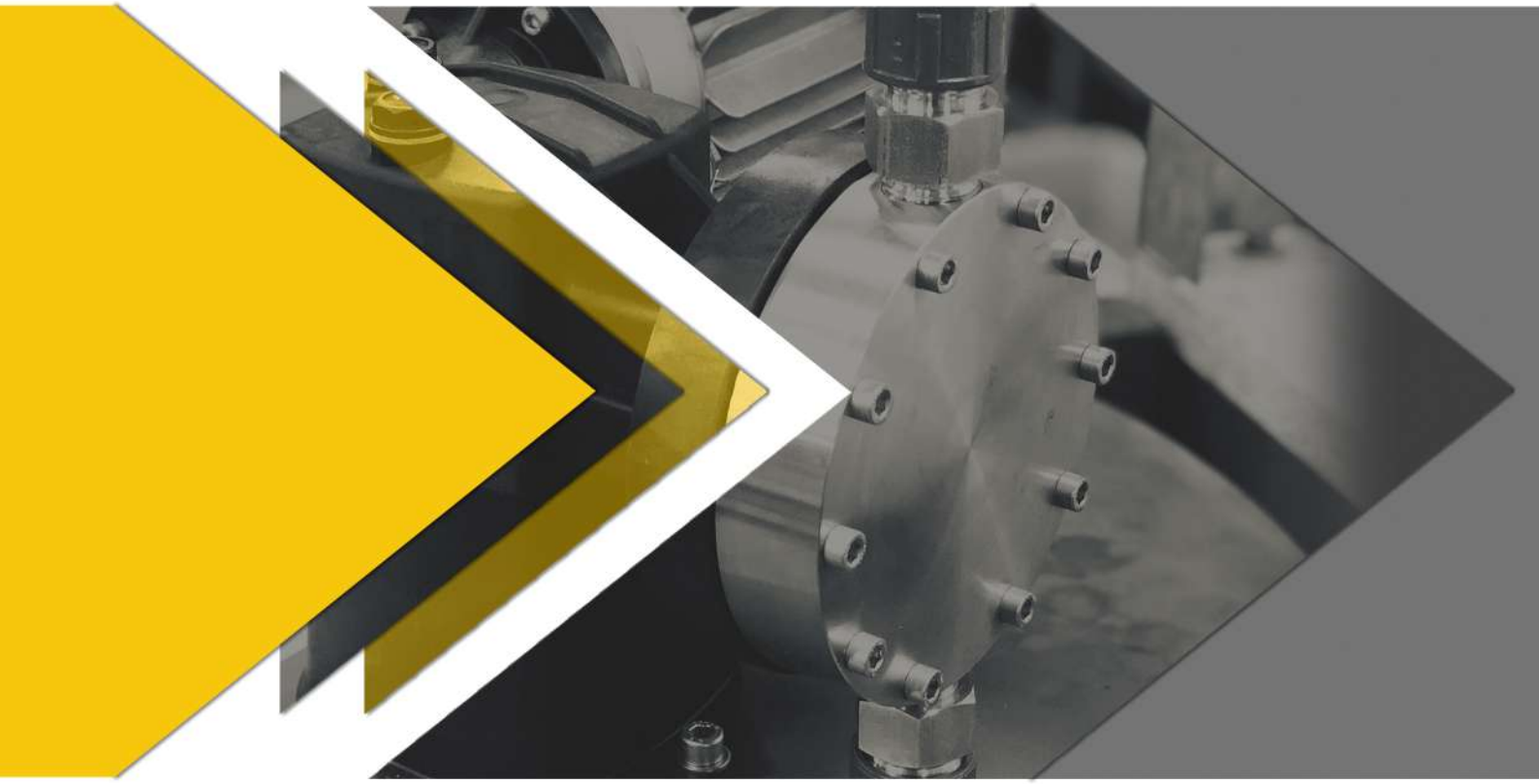
PRODUCT INFORMATION

FG PUMPS

METERING PUMPS FOR CHEMICALS

FGM SERIES

איכות וחדשנות במים



MOTOR DRIVEN MECHANICAL DIAPHRAGM PUMPS

Hanagar 3 Kfar saba הנגר 3 כפר סבא
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V.0.1

PUMPS FOR CHEMICALS

FGM SERIES - MECHANICAL DIAPHRAGM PUMPS

The FG PUMPS FGM series are mechanically actuated diaphragm dosing pumps for dosing liquids. Easy to use with minimum maintenance, FGM series are built following high qualiy standard.

The medium to be pumped is separated from the drive by a diaphragm. This is thus protected from damaging influences of the medium

Safe, no external moving parts and leak free operations. Wide range of flowrate, up to 1000 liters for hour and pressure up to 14 bar. Accuracy +/- 2% from 10% to 100% of nominal flow.

Standard micrometric manual adjustment, 1 mm per turn. 0-100% of adjustment while running or steady.
Electric actuator or inverter on board optional.

OVERVIEW OF ADVANTAGES

- Leak-free
- Low and simple maintenance
- Long diaphragm service lives
- Linear control characteristics
- New innovative materials

MOTORS

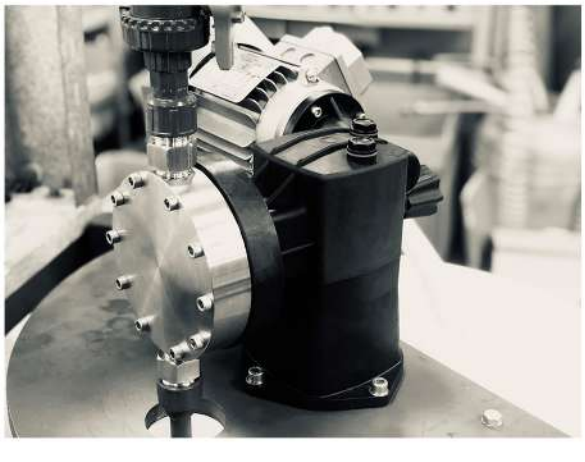
- Standard high quality italian brand,
  -) 0.18Kw - 0.37Kw 3Ph, 230/480 V, 50/60 Hz.
  -) 0.37Kw 1Ph, 230 V, 50 Hz
- Optional: Eex-d, brushless, servoventilated, tropicalised. Nema flange and coupling available.

APPLICATIONS

- Water treatment
- Waste water treatment
- Beverage industry
- Food industry
- Pulp and paper industry
- Fertirrigation / Sewaging
- Desalination plants

OPTIONAL ADJUSTMENTS

- Electric actuator, 4-20 mA or 0-10 V command with manual override optional.
- Inverter on board with digital and analog inputs and outputs optional.



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FEATURES

MATERIALS

The high quality of the materials guarantees reliable continuous operation. The optimum material is available for every requirement.

PUMP BODY MATERIALS

FG PUMPS introduces, for his FGM series up to 250 L/h, a new material concept, specifically designed to replace aluminum without departing from its strength characteristics. The new "TECH" material is as strong and durable as aluminum but lighter.
Aluminum pump body for high flowrate up to 1000 L/h.

PUMP-HEAD MATERIALS

PP reinforced, pure PVDF and S.S.316L as standard pump-head materials.
PTFE, PVC, TITANIUM, and others materials available on request.

DIAPHRAGM MATERIALS

PTFE coated.

VALVE BALLS MATERIALS

PYREX, PTFE, S.S.316L, CERAMIC standard valve balls.

VALVE SEALS MATERIALS

FPM, EPDM, PTFE standard valve seals.

DRIVE UNIT

The drive unit in each pump consist of a proven motor make, coupled with a stroke gearing in a robust case.

The standard motors assembled on the pumps are 3Ph 0.18 Kw, 0.37 Kw power and, if necessary, it's available also 0.55 Kw power.

It's possible to change the flowrate by acting on the manual micrometric adjustment, or by connecting a special signal that varies the motor frequency.

SPECIAL VERSION

We provide the individual solution for special dosing needs: solutions for viscous products, delivery valve with spring load, double valves, pump-head in non-standard materials with a customizable internal measures, pumps assembled on tanks, and many others.

ACCESSORIES

All necessary accessories parts for the optimal installation of dosing pumps, such as pressure relief valves, backpressure valves, foot filter valves, pulsation dampers, dosing tanks can be ordered from us.

1	PTFE diaphragm
2	Return spring
3	Eccentric shaft
4	Adjustment knob

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MATERIALS APPLICATIONS

FGM WITH POLYPROPYLENE PUMP HEAD

Ø Diaphragm
80 mm

Ø Diaphragm
110 mm

Ø Diaphragm
170 mm

Ideal for:

- Water & waste water treatment (sulfuric acid, aluminum polychloride, sodium hypochlorite)
- Fertirrigation
- Pulp & paper industry
- Acid or neutral chemical products

FGM WITH PVDF PUMP HEAD

Ideal for:

- Water & waste water treatment (fluorides, chrome, sodium hypochlorite)
- Neutral chemical products
- Acid or strong acid chemical products

Ø Diaphragm
80 mm

Ø Diaphragm
110 mm

Ø Diaphragm
170 mm

FGM WITH S.S.316L PUMP HEAD

Ø Diaphragm
80 mm

Ø Diaphragm
110 mm

Ø Diaphragm
170 mm

Ideal for:

- Beverage industry
- Water & waste water treatment (peracetic acid, polyelectrolyte, nitric acid)
- Food industry
- Alkali or neutral chemical products

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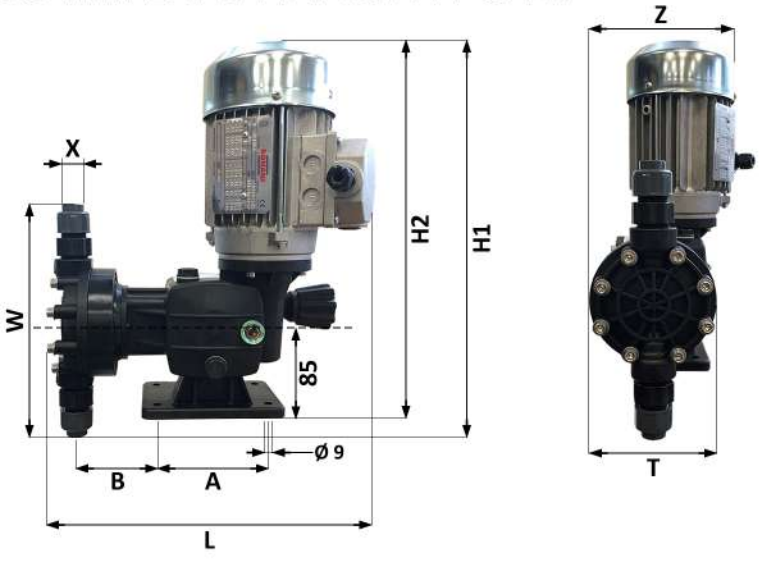
DIMENSIONS

80 mm DIAPHRAGM PUMP

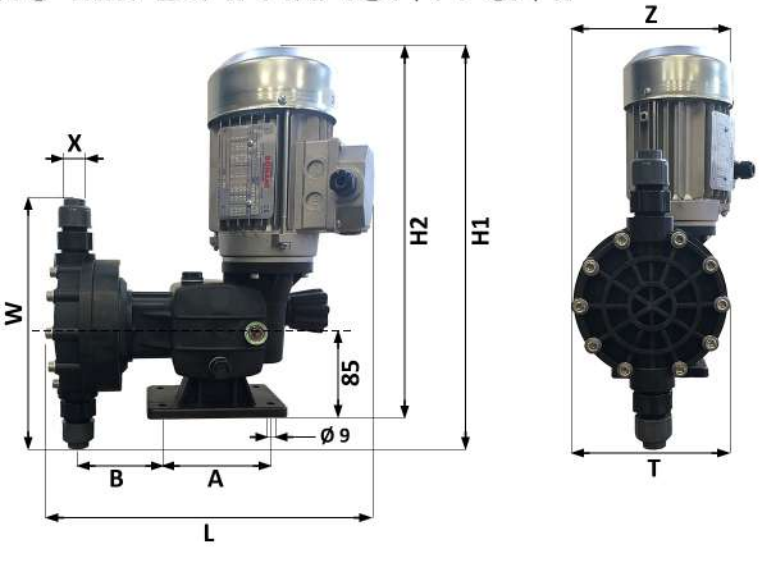


All measurements in *mm*

	T	Z	H1	H2	A	B	L	W
PP	112	149	373	340	110	83	300	240
PVDF	112	149	353	340	110	83	300	200
S.S. 316L	112	149	345	340	110	83	300	300

X - Connections	Gas	Npt
PP pump-head	1/4"F	3/8"F
Pvdf pump-head	5/8"M	3/8"F
S.s. 316L pump-head	1/4"F	3/8"F

110 mm DIAPHRAGM PUMP

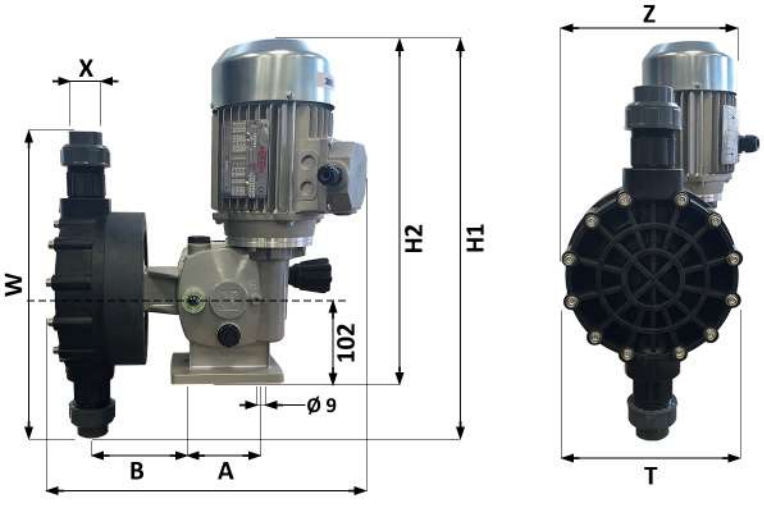


All measurements in *mm*

	T	Z	H1	H2	A	B	L	W
PP	138	163	386	340	110	88	312	260
PVDF	135	161	366	340	110	83	309	220
S.S. 316L	135	161	359	340	110	83	306	205

X - Connections	Gas	Npt
PP pump-head	3/8"F	1/2"F
Pvdf pump-head	3/4"M	1/2"F
S.s. 316L pump-head	3/8"F	1/2"F

170 mm DIAPHRAGM PUMP



All measurements in *mm*

	T	Z	H1	H2	A	B	L	W
PP	195	230	480	385	95	126	355	395
PVDF	195	230	450	385	95	124	353	338
S.S. 316L	195	230	438	385	95	124	353	310

X - Connections	Gas	Npt
PP pump-head	1"F	1"F
Pvdf pump-head	1-1/2"M	1"F
S.s. 316L pump-head	1"F	1"F

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TECHNICAL DATA

80 mm DIAPHRAGM PUMP

TECHNOPOLYMER PUMP BODY

TYPE	FLOWRATE AT 2 BAR (l/h) 50 hZ	60 hZ	FLOWRATE AT MAX PRESSURE (l/h) 50 hZ	60 hZ	STROKE LENGTH mm	STROKES / min 50 Hz	60 Hz	MAX PRESSURE bar (psi)	STANDARD MOTOR kw	Ø VALVES
FGM4	5	6	4	4.8	2	34	41	12 (174)*	0.18	5
FGM9	11	13.4	9	10.8	2	71	85	12 (174)*	0.18	5
FGM14.5	18	21.8	14.5	17.4	2	106	127	12 (174)*	0.18	5
FGM19	23	27.6	19	22.8	2	126	152	10 (145)	0.18	5
FGM22	26	--	22	--	2	150	--	10 (145)	0.18	5
FGM7	9	10.8	7	8.4	3	34	41	12 (174)*	0.18	5
FGM18	20	24	18	21.6	3	71	85	12 (174)*	0.18	5
FGM26	31	37.2	26	31.2	3	106	127	12 (174)*	0.18	5
FGM34	39	46.8	34	40.8	3	126	152	10 (145)	0.18	5
FGM39	45	--	39	--	3	150	--	10 (145)	0.18	5
FGM11	13.5	16.2	11	13.2	4	34	41	12 (174)*	0.18	5
FGM27	30	36	27	32.4	4	71	85	12 (174)*	0.18	5
FGM41	46	55.2	41	49.2	4	106	127	12 (174)*	0.18	5
FGM49	54.5	65.4	49	58.8	4	126	152	10 (145)	0.18	5
FGM54	62	--	54	--	4	150	--	10 (145)	0.18	5

* With 0.25 Kw motor power, up to 14 bar pressure.

110 mm DIAPHRAGM PUMP

TECHNOPOLYMER PUMP BODY

TYPE	FLOWRATE AT 2 BAR (l/h) 50 hZ	60 hZ	FLOWRATE AT MAX PRESSURE (l/h) 50 hZ	60 hZ	STROKE LENGTH mm	STROKES / min 50 Hz	60 Hz	MAX PRESSURE bar (psi)	STANDARD MOTOR kw	Ø VALVES
FGM14	18	22	14	16	2	34	41	8 (116)	0.18	8.5
FGM30	38	45	30	36	2	71	85	8 (116)	0.18	8.5
FGM40	60	72	40	48	2	106	127	8 (116)	0.18	8.5
FGM51	66	79	50	60	2	126	152	8 (116)	0.18	8.5
FGM65	80	--	65	--	2	150	--	8 (116)	0.18	8.5
FGM35	42	50	35	42	4	34	41	8 (116)	0.18	8.5
FGM75	87	105	75	90	4	71	85	8 (116)	0.18	8.5
FGM105	120	144	105	126	4	106	127	8 (116)	0.18	8.5
FGM133	154	184	133	159	4	126	152	8 (116)	0.18	8.5
FGM150	170	--	150	--	4	150	--	8 (116)	0.18	8.5
FGM50	65	78	50	60	6	34	41	8 (116)	0.18	8.5
FGM110	126	152	110	132	6	71	85	8 (116)	0.18	8.5
FGM170	200	240	170	204	6	106	127	8 (116)	0.18	8.5
FGM207	230	276	207	248	6	126	152	8 (116)	0.18	8.5
FGM250	275	--	250	--	6	150	--	8 (116)	0.18	8.5

170 mm DIAPHRAGM PUMP

ALUMINUM PUMP BODY

TYPE	FLOWRATE AT 2 BAR (l/h) 50 hZ	60 hZ	FLOWRATE AT MAX PRESSURE (l/h) 50 hZ	60 hZ	STROKE LENGTH mm	STROKES / min 50 Hz	60 Hz	MAX PRESSURE bar (psi)	STANDARD MOTOR kw	Ø VALVES
FGM140	170	204	140	168	6	34	41	5 (72)	0.37	17
FGM300	320	384	300	360	6	71	85	5 (72)	0.37	17
FGM430	490	588	430	516	6	106	127	5 (72)	0.37	17
FGM505	530	636	505	606	6	126	152	5 (72)	0.37	17
FGM670	700	--	670	--	6	150	--	5 (72)	0.37	17
FGM200	215	258	200	240	9	34	41	5 (72)	0.37	17
FGM450	505	606	450	540	9	71	85	5 (72)	0.37	17
FGM700	765	918	700	840	9	106	127	4 (58)**	0.37**	17
FGM800	845	1014	800	960	9	126	152	4 (58)**	0.37**	17
FGM1000	1020	--	1000	--	9	150	--	3 (43)**	0.37**	17

** With 0.55 Kw motor power, 1 bar pressure more.

ELECTRICAL DATA		
Power Consumption	Kw	0,18 - 0,37
Voltage	V	230/400V 50 Hz - 460V 60 Hz
Frequency	Hz	50 - 60
Insulation class	ISO	F
Enclosure	IP	55

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