

MOTOR DOSING PUMPS WITH DIAPHRAGM ST and ST-Duplex SERIES



- Series of electronic-free motor pumps, with mechanical membrane and spring return
- **Manual micrometric adjustment of stroke length** (injection volume)
- **Rigid, multi-layer diaphragm**; parts in contact with the liquid are in PTFE, to ensure the maximum chemical compatibility
- Simple use, basic maintenance
- Safe operations, with no external moving parts
- **Flow rates from 4 up to 2000 l/h** at the maximum counterpressure
- **Pressure up to 14 bar**, depending on model
- Pump housing in techno-polymer (models with 80 and 110 mm diaphragm) or in aluminium (pumps with 140 and 170 mm diaphragm)
- Mechanical parts in oil bath
- **Standard heads available in PP, PVDF, AISI316L** (other materials upon request)
- **Standard motor: asynchronous, three-phase, 230-380V 50Hz / 280-480V 60Hz** (optional single-phase)

Standard versions, materials of wet parts

<i>Version</i>	<i>Head</i>	<i>Valve ball</i>	<i>Cage</i>	<i>Valve seat</i>	<i>Casing</i>	<i>Diaphragm</i>	<i>Seals</i>	<i>Intended use</i>
B	PP*	Pyrex	PP	PVC	PP*	PTFE	FPM	Process and waste water treatment (sulphuric acid, aluminium chloride, hypochlorite), fertigation, pulp & paper industry, acid or neutral products
F	PVDF	PTFE	PVDF	PVDF	PVDF	PTFE	FPM	Process and waste water treatment (fluoride, chromium), strong acids and alkalis
A	AISI316L	AISI316L	PP	AISI316L	AISI316L	PTFE	FPM	Process and waste water treatment (peroxides, poly-electrolytes, nitric acid), food and beverage industry, alkaline or neutral chemicals

Special versions, materials of wet parts

<i>Version</i>	<i>Head</i>	<i>Valve ball</i>	<i>Cage</i>	<i>Valve seat</i>	<i>Casing</i>	<i>Diaphragm</i>	<i>Seals</i>	<i>Intended use</i>
B33	PP*	AISI316L	PP	AISI316L	PP*	PTFE	FPM	Poly-electrolyte, sodium hydroxide, ferrous sulphate, ferric sulphate up to 10%, lime milk, etc.
B2	PP*	PTFE	PP	PVC	PP*	PTFE	FPM	Hydrochloric acid
B56	PP*	Hastelloy	PP	Incoloy	PP*	PTFE	FPM	Sulphuric acid, conc. 96-98%
F5	PVDF	Hastelloy	PVDF	PVDF	PVDF	PTFE	FPM	Diluted sulphuric acid
A331	AISI316L	AISI316L	PP	AISI316L	AISI316L	PTFE	PTFE	Peroxides, acetic acid, food industry

** Glass reinforced polypropylene*

Pumps ST with 80 mm diaphragm

MODEL	FLOW RATE (l/h)		P MAX. (bar)	STROKES/MIN.		STROKE (mm)	MOTOR (kW)	DIAPHRAGM (Ø mm)	VALVES (Ø mm)
	50Hz	60Hz		50Hz	60Hz				
ST4.14	4	4.8	14*	34	41	2	0.18	80	5
ST9.14	9	10.8	14*	71	85	2	0.18	80	5
ST15.14	14.5	17.4	14*	106	127	2	0.18	80	5
ST19.10	19	22.8	10**	126	152	2	0.18	80	5
ST22.10	22	-	10**	150	-	2	0.18	80	5
ST7.14	7	8.4	14*	34	41	3	0.18	80	5
ST18.14	18	21.6	14*	71	85	3	0.18	80	5
ST26.14	26	31.2	14*	106	127	3	0.18	80	5
ST34.10	34	40.8	10**	126	152	3	0.18	80	5
ST39.10	39	-	10**	150	-	3	0.18	80	5
ST11.14	11	13.2	14*	34	41	4	0.18	80	5
ST27.14	27	32.4	14*	71	85	4	0.18	80	5
ST41.14	41	49.2	14*	106	127	4	0.18	80	5
ST49.10	49	58.8	10**	126	152	4	0.18	80	5
ST54.10	54	-	10**	150	-	4	0.18	80	5

* With 0.37 kW motor, the pump can work up to 16 bar.

** With 0.37 kW motor, the pump can work up to 12 bar.

Note: For models with 80 mm diaphragm, the standard B version with PP head is provided with ceramic ball valves.

Pumps ST with 110 mm diaphragm

MODEL	FLOW RATE (l/h)		P MAX. (bar)	STROKES/MIN.		STROKE (mm)	MOTOR (kW)	DIAPHRAGM (Ø mm)	VALVES (Ø mm)
	50Hz	60Hz		50Hz	60Hz				
ST14.08	14	16	8*	34	41	2	0.18	110	8.5
ST30.08	30	36	8*	71	85	2	0.18	110	8.5
ST40.08	40	48	8*	106	127	2	0.18	110	8.5
ST51.08	51	61	8**	126	152	2	0.18	110	8.5
ST65.08	65	-	8**	150	-	2	0.18	110	8.5
ST35.08	35	42	8*	34	41	4	0.18	110	8.5
ST75.08	75	90	8*	71	85	4	0.18	110	8.5
ST105.08	105	126	8*	106	127	4	0.18	110	8.5
ST133.08	133	159	8**	126	152	4	0.18	110	8.5
ST150.08	150	-	8**	150	-	4	0.18	110	8.5
ST50.08	50	60	8*	34	41	6	0.18	110	8.5
ST110.08	110	132	8*	71	85	6	0.18	110	8.5
ST170.08	170	204	8*	106	127	6	0.18	110	8.5
ST207.08	207	248	8**	126	152	6	0.18	110	8.5
ST250.08	250	-	8**	150	-	6	0.18	110	8.5

* With 0.37 kW motor, the pump can work up to 10 bar.

** With 0.37 kW motor and aluminium casing, the pump can work up to 10 bar.

Pumps ST with 140 mm diaphragm

MODEL	FLOW RATE (l/h)		P MAX. (bar)	STROKES/MIN.		STROKE (mm)	MOTOR (kW)	DIAPHRAGM (Ø mm)	VALVES (Ø mm)
	50Hz	60Hz		50Hz	60Hz				
ST80.80	80	96	8	34	41	6	0.37	140	17
ST162.8	162	194.4	8	71	85	6	0.37	140	17
ST252.08	252	302.4	8	106	127	6	0.37	140	17
ST305.08	305	366	8	126	152	6	0.37	140	17
ST355.08	355	-	8	150	-	6	0.37	140	17

Pumps ST with 170 mm diaphragm

MODEL	FLOW RATE (l/h)		P MAX. (bar)	STROKES/MIN.		STROKE (mm)	MOTOR (kW)	DIAPHRAGM (Ø mm)	VALVES (Ø mm)
	50Hz	60Hz		50Hz	60Hz				
ST140.05	140	168	5	34	41	6	0.37	170	17
ST300.05	300	360	5	71	85	6	0.37	170	17
ST430.05	430	516	5	106	127	6	0.37	170	17
ST505.05	505	606	5	126	152	6	0.37	170	17
ST670.05	670	-	5	150	-	6	0.37	170	17
ST200.05	200	240	5	34	41	9	0.37	170	17
ST450.05	450	540	5	71	85	9	0.37	170	17
ST700.04	700	840	4	106	127	9	0.37	170	17
ST800.04	800	960	4	126	152	9	0.37	170	17
ST1000.03	1000	-	3	150	-	9	0.37	170	17
ST700.05	700	840	5	106	127	9	0.55	170	17
ST800.05	800	960	5	126	152	9	0.55	170	17
ST1000.04	1000	-	4	150	-	9	0.55	170	17

Note: With 0.55 kW motor, the maximum pressure increases by 1 bar.

Pumps ST-Duplex with 170 mm diaphragms

MODEL	FLOW RATE (l/h)		P MAX. (bar)	STROKES/MIN.		STROKE (mm)	MOTOR (kW)	DIAPHRAGM (Ø mm)	VALVES (Ø mm)
	50Hz	60Hz		50Hz	60Hz				
ST400.05	400	480	5*	34	41	9	0.55	2x 170	17
ST900.05	900	1080	5*	71	85	9	0.55	2x 170	17
ST1400.04	1400	1680	4*	106	127	9	0.55	2x 170	17
ST1600.04	1600	1920	4*	126	152	9	0.55	2x 170	17
ST2000.03	200	-	3*	150	-	9	0.55	2x 170	17

** With 0.75 kW moto, the maximum pressure increases by 1 bar.*

Suction / delivery hydraulic connections	B	F	A
Models with diaphragm dia. 80 mm	1/4" GF	5/8" GM	1/4" GF
Models with diaphragm dia. 110 mm	3/8" GF	3/4" GM	3/8" GF
Models with diaphragm dia. 140 mm	3/4" GF	1.1/4" GM	3/4" GF
Models with diaphragm dia. 170 mm	1" GF	1.½" GM	1" GF

SPECIAL OPTIONS, UPON ORDER

- Single-phase asynchronous motor, 0.37 kW, 230 V, 50 Hz
- Three-phase asynchronous motor 0.37 kW, for pumps ST4 ... ST41 (P max 16 bar)
- Three-phase asynchronous motor 0.37 kW, for pumps ST14 ... ST250 (P max 10 bar)
- EPDM or PTFE seals
- Valves with ceramic ball
- Versions with delivery valves with spring, for the dosage of viscous liquids
- Versions with ATEX II motor