

## GENERAL CATALOGUE

TANKS FOR AGITATION AND STORAGE • MIXERS • SKIDS FOR DOSING • POLYELECTROLYTE PREPARATION SYSTEMS

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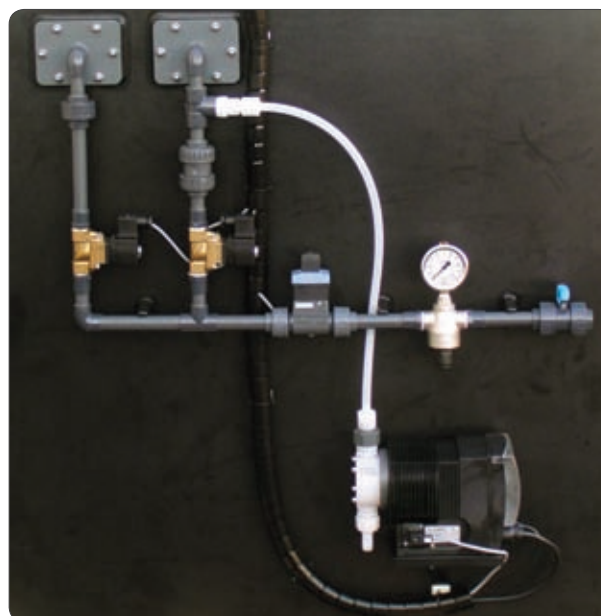
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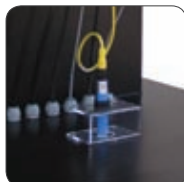
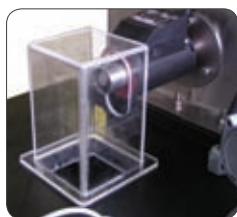
Continuous powder and emulsion polyelectrolyte preparation system, entirely automatic with a triple chamber tank (preparation/ maturing/dosing) constructed in high density polyethylene (offering a good level of resistance in aggressive environments), allowing a high quality end product to be achieved.

- Powder preparation capacity up to 12000 l/h in concentrations of 1 to 5g/l for 30 minute maturing times.
- Emulsion preparation capacity up to 18000 l/h in concentrations of 1 to 5ml/l for 30 minute maturing times.
- The control panel, with synoptic system and operation switch, provide the operator a complete control over the unit.
- The ultra-sonic level probe (which does not have contact with liquid), installed in the last chamber, allows for the unit's independence to be monitored continually and even sets off maximum and minimum level alarms, displaying information on the screen, a light signal and the corresponding contact on the control panel.
- The flow meter regulates the amount of water entering the system and provides information on the screen, guaranteeing a dilution flow permitting the proper function within the established parameters.
- The low speed mixers, which features a 316 stainless steel shaft and propeller, installed in the preparation and maturing chambers, ensure that the final solution is entirely homogeneous (the 3<sup>rd</sup> agitator is optional). The ability to programme the agitators to function allow a better energy consumption.
- The simple calibration routines allow a more rigorous and economical polymer dosing.  
In accordance with the concentration selected by making adjustments directly on the display screen and the instant flow rate, the polymer dosing (in powder or emulsion) will be made in order to achieve the desired concentration.
- The heating resistance at the dry feeder output and the lack of powder detector's hopper, with the respective alarm on the screen, light signal and contact on the electronic panel, are essential accessories included in the standard configuration.



## POLYMAKER PLM Series

Model	Max. Capacity (L/h) in 30mn	
	Powder	Emulsion
PLM8	800	1200
PLM12	1200	1800
PLM18	1800	2700
PLM25	2500	3750
PLM34	3400	5100
PLM52	5200	7800
PLM75	7500	11250
PLM120	12000	18000



Continuous powdered polyelectrolyte preparation system, entirely automatic, with a triple chamber tank (preparation/ maturing/dosing) constructed in high density polyethylene (offering a good level of resistance in aggressive environments), allow a high quality end product to be achieved.

- Preparation capacity up to 12,000 l/h in concentrations of 1 to 5g/l for 30 minute maturing times.
- The control panel, with system synoptic and operation switch, provide the operator a complete control over the unit.
- The ultra-sonic level probe (which does not have contact with liquid), installed in the last chamber, allow for the unit's independence to be monitored continually and even sets off maximum and minimum level alarms, displaying information on the screen, a light signal and the corresponding contact on the control panel.
- The flow meter regulates the amount of water entering the system and provides information on the screen, guaranteeing a dilution flow permitting the proper function within the established parameters.
- The low speed agitators, which features a 316 stainless steel shaft and propeller, installed in the preparation and maturing chambers, ensure that the final solution is entirely homogeneous (the 3<sup>rd</sup> agitator is optional). The ability to programme the agitators to function allow a better energy consumption.
- The simple calibration routines allow for more rigorous and economical powdered polymer dosing. In accordance with the concentration selected by making adjustments directly on the screen and the instant flow rate, electronic variator positions the powder dosifier to achieve the intended solution.
- The heating resistance at the powder dosifier's output and the lack of powder detector's hopper, with the respective alarm on the screen, light signal and contact on the electronic panel, are essential accessories included in the standard configuration.

## POLYMAKER PM Series

Model	Max. Capacity (L/h)	
	30 min	45 min
PM8	800	530
PM12	1200	800
PM18	1800	1200
PM25	2500	1700
PM34	3400	2300
PM52	5200	3500
PM75	7500	5000
PM120	12000	8000



Continuous emulsion polyelectrolyte preparation system, fully automatic, with a double (LM2, maturation / dosing) or triple chamber tank (LM3, emulsion storage/maturation/dosing) constructed in high density polyethylene (offering a good resistance in aggressive environments), allow a high quality end product to be achieved.

- Preparation capacity up to 7500l/h in concentrations of 1 to 5 g/l for 15 minute maturing times.
- The control panel, with system synoptic and operation switch, provide the operator a complete control over the unit.
- The ultra-sonic level probe (which does not have contact with liquid), installed in the last chamber, allow for the unit's independence to be monitored continually and even sets off maximum and minimum level alarms, displaying information on the screen, a light signal and the corresponding contact on the control panel.
- The flow meter, the pressure control valve and flow/shut off valve allow the continuous regulation of water entrance guaranteeing a dilution flow that is convenient for the unit to work within the established parameters.
- The low speed agitator with stainless steel 316, shaft and propeller, installed in maturation chamber, gives total homogeneity to the final solution (2<sup>nd</sup> agitator, for the dosage chamber is optional).  
The programming of the operating regime of the agitator allow for better power management.
- The simple calibration routines allow a more rigorous and economical emulsion polymer dosing.  
In accordance with the concentration selected by making adjustments directly on the screen and the instant flow rate, the PLC positions the dosing pump to achieve the intended solution.



POLYMAKER LM Series

	Model	Max. Capacity (L/h)	
		15 min	30 min
LM2	LM2-24	2400	1200
	LM2-36	3600	1800
	LM2-54	5400	2700
	LM2-75	7500	3750
LM3	LM3-16	1600	800
	LM3-24	2400	1200
	LM3-36	3600	1800
	LM3-50	5000	2500



Powder dilution system, entirely automatic, constructed in high density polyethylene (offering a good level of resistance in aggressive environments), allow a high quality end product to be achieved.

- Four models range from 500 to 2000 liters of capacity. Concentrations of preparation according to the dosing device.
- The regulation of water flow and the dry feeder, with manual variator speed allow the preparation in continuous of variable concentration solutions.
- Ideal for lime, active carbon, polyelectrolyte, permanganate, polyphosphates and other powder products solutions.
- Each system consists in a tank with two separate volumes by a flat half-moon section, constructed from high density polyethylene.
- The level probe controls the entry of water through the electrovalve in the chamber, when the minimum level of water is reached. When the maximum level is reached, the level probe rises up and the electrovalve cuts the water flow.
- The flowmeter and valve adjustment, ensure a dilution flow for the proper functioning of the preparation within the established parameters.
- The low-speed agitator with shaft and stainless steel propellers installed will give a total uniform solution.
- The control panel has a button for overall safety and operation of individual switches with signal light and LED indicators with trend of the functioning of various elements, allowing the operator total control of the unit.



## MPOWDER Series

Model	Volume (L)
	Geometric
MP05	600
MP10	1000
MP15	1600
MP20	2000

Liquid dilution preparation system, fully automatic, constructed in high density polyethylene (offering a good level of resistance in aggressive environments), allow a high quality end product to be achieved.

- The five models range from 300 to 2000 liters of capacity with concentrations of preparation according to the dosing pump applied.
- The regulation of water flow and the dosing pump, with manual variator speed allows the preparation in continuous of variable concentration solutions.
- Ideal for emulsion polyelectrolyte and other liquid products solutions.
- Each system consists in a tank with two separate volumes by a flat half-moon section, constructed from high density polyethylene.
- The level switch controls the entry of water through the electrovalve in the chamber of dilution, when the minimum level of water is reached.  
When the maximum level is reached the level probe rises up and the electrovalve cuts the water flow. The solution is concentrated in the lower compartment and through the turmoil of the propellers, moves up to higher levels.
- The flowmeter and valve adjustment, ensure a dilution flow for the proper functioning of the preparation within the established parameters.  
The water and the product mix after passing through a mixer in line.
- The low-speed agitator with shaft and stainless steel propellers installed will give a total uniform solution.
- The control panel has a button for overall safety and operation of individual switches with signal light and LED indicators with trend of the functioning of various elements, allowing the operator total control of the unit.



## LSMAKER Series

Model	Volume (L)
	Geometric
LS03	300
LS05	600
LS10	1000
LS15	1600
LS20	2000



Chlorine dioxide generator uses the sodium chlorite/ hydrochloric acid process, diluted to 2% upon the reactor.

- Command console with intuitive display, indicating the most important parameters for each mode of operation.
- Synoptic panel with dual coloured LEDs for remote visual control, of all the system's vital points.

#### ▪ Dosing configuration:

- Manually from 0% to 100%;
- Remote On/Off;
- External pulses with multiplier and pulse divider;
- By signal 4...20 mA.

#### ▪ Standard security:

- 2 flow detectors in the dosing pumps to ensure real dosing from 0% to 100%;
- 2 level switches of reagents;
- 1 flowmeter for monitoring linear flow of dilution water.



#### CLOS Series

Model	g/h CLO <sub>2</sub>	Pmax Bar
CLOS 10	100	9
CLOS 16	160	6
CLOS 36	360	2



The controller / measurer Evaluon allows reliable measurement of parameters applicable to the water treatment.

## Main features:

- Multiple measurement parameters;
- Compensation parameters;
- Proportional dosing of the flow;
- Connection to any type of dosing: solenoid valves, metering pumps;
- Sensors for any type of application;
- USB memory card to register values and alarms;
- Modular sensors holder;
- Sensor signal failure alarms, overdosing and lack of water;
- Measuring and controlling a parameter at a time:
  - Since a specific sensor;
  - From a combination of one or more sensors.

## Inputs:

- 3 measures inputs including 1 controllable;
- 1 ON / OFF conditional input or pulses to flow.

## Outputs:

- 1 Analogue 4 ... 20 mA recopy the measurement or regulation;
- RS485 BUS line output, communication port with MODBUS RTU protocol;
- Pulse or power relay outputs.



EVALUON controller.



Modular sensors holder.

Measurement parameters	Measurements ranges
Free chlorine (DPD1)	0,01...100mg/l
Active chlorine (HOCl)	0,02...10mg/l
Total chlorine (DPD4)	0,01...10mg/l
Chlorite	0,01...2mg/l
Chlorine dioxide	0,01...10mg/l
Hydrogen peroxide	0,05...2000mg/l
Bromine (BCDMH)	0,02...15mg/l
Bromine (DBDMH)	0,01...10mg/l
Free Bromine	0,01...10mg/l
Peracetic acid	2...2000mg/l
Ozone	0,02...2mg/l

Measurement parameters	Measurements ranges
Dissolved oxygen	0,02...20mg/l
PHMB	1...100mg/l
Conductivity	0...200mS/cm
Temperature	-5...45°
Flow (4...20mA)	0...200l/min
Flow (pulses)	0...10m3/h
pH 1...12/0...14 (potentiometric)	Conv. PH_V1 / ISOCAP
pH 1...12/0...14 (4...20mA)	Conv. ISOCAP / UNISO
Redox ORP (potentiometric)	+/- 1000mV
Redox ORP (4...20mA)	Conv. RH_V1 / ISOCAP / UNISO



Electromagnetic diaphragm dosing pumps with a versatile and compact structure, PVDF dosing heads and dual colour front LEDs indicating normal functioning or level fault.

- The continuous regulation of the diaphragm associated to the "step by step" pulse frequency regulation allows the flow volume to be adjusted for any situation.
- The frequency potentiometer even selected the mode of operation to external command by a reed relay or stop.
- The standard version includes foot valve with ceramic weight, injection valve and tube.

#### Standard version options:

- External control;
- Level switch.

#### Optional accessories:

- Multifunction valve.



#### MP6 Series

Model	Pressure (bar)	Flow vol. (l/h)	Average P. (ml/stroke)	Ø ext/int (mm)
MP601	16	1,4	0,13	6x4
MP611	10	2,6	0,24	6x4
MP651	7	4,5	0,42	6x4
MP661	3	10,8	1,00	8x5
MP641	2	15,5	1,4	8x5

Electromagnetic diaphragm dosing pumps, with multi-functional control panel with four buttons, LCD display and intuitive configuration. The three front LEDs monitor that the pump is functioning properly and detect alarm situations or breakdowns.

Continuous regulation of the diaphragm and pulse frequency allows you to make the perfect adjustments for any situation.

- PP, PVDF and stainless steel dosing heads and standard diaphragms made of PTFE make the MG series the ideal solution for any application.

- The standard version includes an external pulse control cable, foot valve with ceramic weight, injection valve and tube.

### Standard version options:

- Analogue control signal (4-20 mA);
- Pulse transmission relay (output);
- NO or NC alarm relay;
- 12 V DC or 24 V AC/DC power supply;
- Timers;
- Remote On/Off.

### Optional accessories:

- Two level switch;
- Flow detector;
- Multifunction valve.



MG Series					
	Model	Pressure (bar)	Flow vol. (l/h)	Average P. (ml/stroke)	Ø ext/int (mm)
MG7	MG773	10	0,82	0,08	6x4
	MG763	16	1,4	0,13	6x4
	MG703	16	2,5	0,24	6x4
	MG713	10	5,0	0,46	8x5
	MG723	7	8,4	0,78	8x5
	MG733	4	14,2	1,31	8x5
	MG743	2	20,9	1,93	12x9
MG8	MG873	16	4,9	0,45	8x5
	MG813	10	8,3	0,76	8x5
	MG823	7	13,1	1,21	8x5
	MG833	4	19,1	1,77	12x9
	MG843	2	36,2	3,35	12x9



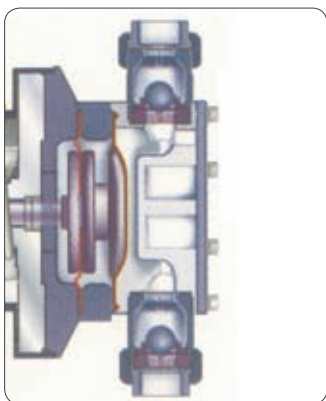
Mechanically operated diaphragm dosing pumps with three-phase or single-phase electric motor.

Their simple and versatile design, featuring mechanisms and casings manufactured in PPE, with IP65, provides good resistance in aggressive environments.

- Dosing heads manufactured in PVC or 316 stainless steel and standard diaphragms in PTFE.
- Manual flow volume adjustments in 1% steps with built in scale and brake.
- Assembly kit available, including tube, foot valve and injector.

## VM Series

Model	Pressure (bar)	Flow (l/h)	Freq. (stroke/min)
VM4 10	10	9	38
VM4 15	10	16	77
VM4 25	7	27	120
VM4 45	7	42	192
VM6 15	7	13	38
VM6 25	7	25	77
VM6 40	4	41	120
VM6 65	4	64	192





Mechanically operated diaphragm dosing pumps with three-phase or mono-phase electric motor. The casing is manufactured using PPE, with IP65, providing good resistance in aggressive environments.

The continuous regulation of the diaphragm's course is carried out by varying the actuator's eccentricity, thus resulting in a continuous movement in the mechanism and the dosified fluid, minimising friction and mechanical and hydraulic shocks.

- Dosing heads manufactured in PVDF or 316 stainless steel and standard diaphragm in PTFE.
- Optional integrated microprocessor controlled module has the following options available:
  - Reed type pulse control;
  - Analogue control signal (4-20 mA);
  - Pulse transmission relay (output);
  - NO or NC alarm relay;
  - Remote On/Off;

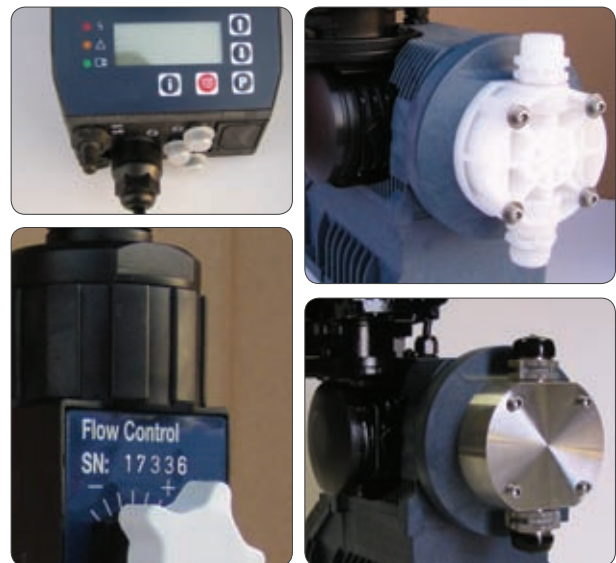
#### Optional accessories:

- Level switch;
- Flow detector;
- Multifunction and security valve.



#### SG Series

	Model	Pressure (bar)	Flow (l/h)	Freq. (stroke/min)
SGA	SGA 20	12	19	73
	SGA 25	10	25	73
	SGA 40	12	39	143
	SGA 45	7	43	73
	SGA 50	10	49	143
	SGA 60	10	56	200
	SGA 75	7	71	200
	SGA 90	4	90	143
	SGA 130	4	130	200
SGB	SGB 50	10	50	73
	SGB 100	10	100	132
	SGB 140	10	135	198
	SGB 130	7	127	73
	SGB 250	7	232	132
	SGB 360	4	360	198
SGC	SGC 160	10	157	72
	SGC 220	10	205	103
	SGC 330	10	300	144
	SGC 400	10	364	180
	SGC 450	7	460	72
	SGC 600	7	600	103
	SGC 900	4	880	144
	SGC 1100	4	1090	180





Colberge dosing cabinets are specific equipments to house one or two metering pumps.

**Features:**

- One or two shelves;
- One or two handles;
- One or two 1" male threaded outputs ;
- Retention basin;
- Acrylic door.

**DC01 - Cabinet for installation of one dosing pump**

Model	General Dimensions (Lenght x Width x Height)		
	Lenght (mm)	Width (mm)	Height (mm)
DC01	300	350	400



**DC02 - Cabinet for installation of two dosing pumps**

Model	General Dimensions (Lenght x Width x Height)		
	Lenght (mm)	Width (mm)	Height (mm)
DC02A	800	600	300
DC02B	1400	1000	500

Manufactured using a high-density polyethylene rolled up and welding torches, these tanks have been designed for preparation and storage chemicals, oxidation processes, neutralization and flocculation.

## Technical characteristics:

- Highly chemically and mechanically resistance;
- Anti-vortex side deflectors;
- Central reinforcement for mounting of agitators;
- Draining nozzle;
- Screw lid on top.

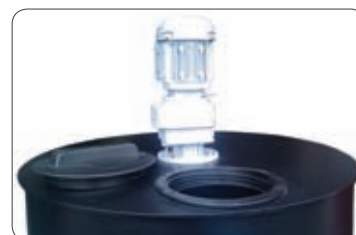
## Options:

- Internal gutter for installation of internal levels;
- Inclined or conical bottom;
- Other parts to order.



## DPC Series

Model	Volume (L)
DPC 100	100
DPC 200	200
DPC 300	300
DPC 600	600
DPC 1000	1000
DPC 1500	1500
DPC 2000	2000
DPC 2500	2500
DPC 3000	3000
DPC 4000	4000
DPC 5000	5000
DPC 6000	6000





Tanks manufactured by rotomolding process, in high density polyethylene, ideal for preparation and storage of chemical products.

## Technical characteristics:

- Chemical resistance;
- Built in graduation;
- Translucent for easy level readings;
- Side deflectors;
- Reinforced transversal shoulders for pumps to be mounting.
- Flange for agitators;
- Screw-on top ensuring a complete seal;
- Screwing mechanism for discharge valve.



## DP Series

Model	Volume (L)
DP 100	100
DP 200	200
DP 500	500
DP 1200	1200



Manufactured using a high-density polyethylene rolled up and welding torches.

## TR Series

Storage of water or low chemicals of densities up to 1,2 Kg/dm<sup>3</sup>.

## TQ Series

Storage of concentrated chemicals of densities up to 1,5 Kg/dm<sup>3</sup>.

### Technical characteristics:

- Highly chemically and mechanically resistance;
- Dome: cone-shaped 15° completely close;
- Flat bottom;
- Lid on top;
- Output with loose flange;
- Water entrance;
- Other dimensions available to order.

### Options available on the standard version:

- Inclined bottom;
- Exterior level;
- External stairs;
- Retention basin;
- Rain protection.



TR/TQ Series	
Model	Volume (L)
TR/TQ025	2500
TR/TQ035	3500
TR/TQ050	5000
TR/TQ065	6500
TR/TQ085	8500
TR/TQ100	10000
TR/TQ125	12500
TR/TQ150	15000
TR/TQ200	20000
TR/TQ250	25000
TR/TQ300	30000



Manufactured using a high-density polyethylene rolled up and welding torches, these tanks have been designed to store water for applications requiring complete circulation or drainage.

## Technical characteristics:

- Highly chemically and mechanically resistant as an inherent part of its production;
- Fully enclosed conical roof with small angle;
- Conic bottom;
- Lid on top;
- Output with loose flange;
- Water entrance, vent hole, manometer;
- Other dimensions and parts available to order.



## TFC Series

Model	Volume (L)
TFC 500	500
TFC 1000	1000
TFC 1500	1500
TFC 2000	2000
TFC 2500	2500
TFC 3000	3000
TFC 4000	4000
TFC 5000	5000
TFC 6000	6000

High speed, 950 rpm agitators with marina type propeller and shaft manufactured in polypropylene or 316 stainless steel.

- Polypropylene flange with seal on the shaft, protecting the motor from corrosive vapours and splashes.
- The motors used in mono-phase or three-phase versions have a protective cover and thus do not require any type of maintenance and are protected by RAL 7001 anticorrosive paint.
- The table below indicates the eight models of VRP/VRS agitators, their main characteristics and the maximum recommended volumes.

## VRP/S Series

Model	Power (kW)	Ø Propeller (mm)	Volume (L)
<b>VRP/S 06X</b>	0,15	120	100
<b>VRP/S 08X</b>	0,15	120	200
<b>VRP/S 10X</b>	0,25	140	500
<b>VRP/S 12X</b>	0,25	140	1250



Low speed, 100 rpm agitators with shaft and 4 blades at a 45° angle propeller, manufactured in 316 stainless steel, with easy and practical shaft coupling.

- Equipped with moto-reducers in the three-phase version, not requiring maintenance.
- Protected by RAL 7001 anticorrosive paint.
- Although, only rudimentarily, we could consider three types of agitation when selecting the most appropriate model:
  - **Easy Agitation** - Homogenisation of reagents;
  - **Normal Agitation** - Solid suspension up to 50g/l;
  - **Difficult Agitation** - Lime and polyelectrolyte preparation.
- The table below features the indications for the six models of agitators and their main characteristics.



## VLS Series

Model	Power (kW)	Rot. (rpm)	ØPropeller (mm)	Max. Volume (L)		
				F	N	D
VLS 2520	0,25 - 380 V	114	200	1	0,8	0,5
VLS 3735	0,37 - 380 V	104	350	3	2	1,5
VLS 5550	0,55 - 380 V	104	500	6	4	2
VLS 11055	1,1 - 380 V	106	550	12	9	6
VLS 15070	1,5 - 380 V	100	700	20	15	10
VLS 22080	2,2 - 380 V	100	800	30	20	12



Low speed agitators are ideal for reagent preparation, neutralization, sludge suspension, flash mixing, with highly performing and low energy consumption.

They can work when dry, recommended for tanks with a variable level of liquid.

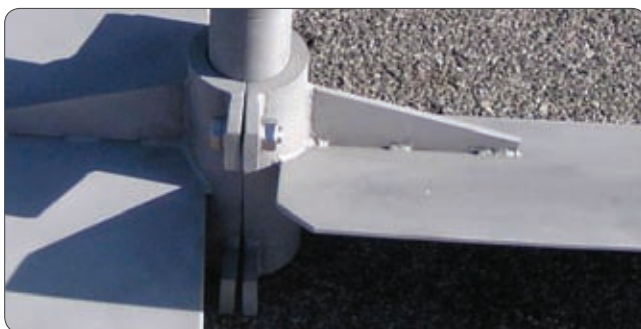
- Sls type propeller, coupling and shaft, manufactured in AISI 316 L stainless steel.
- Equipped with moto-reducers, the three-phase version is protected and does not require any sort of maintenance during its useful life.
- Protected using RAL 7001 anticorrosive paint.
- Standard Model.

SLS Series			
Model	Power (kW)	Rotation (rpm)	ØPropeller (mm)
<b>SLS 7535</b>	0,75 - 380 V	332	350
<b>SLS 11060</b>	1,1 - 380 V	107	600
<b>SLS 15080</b>	1,5 - 380 V	103	800
<b>SLS 150100</b>	1,5 - 380 V	103	1000
<b>SLS 220120</b>	2,2 - 380 V	105	1200
<b>SLS 300180</b>	3 - 380 V	57	1800



Low speed agitators provide a non-turbulent, homogenous average, ideal for flocculation processes in tanks with a constant or variable volume.

- These Agitators are quite robust, with a shaft and 2R type propeller, highly performing and with low levels of energy consumption, manufactured in AISI 316 L stainless steel.
- Coupling attached to the motor made by flange, provides a more comfortable installation.
- Equipped with moto-reducers, in the three-phase version with reinforcement, thus not require any maintenance during its useful life.
- Protected using RAL 7001 anticorrosive paint.
- Standard Model



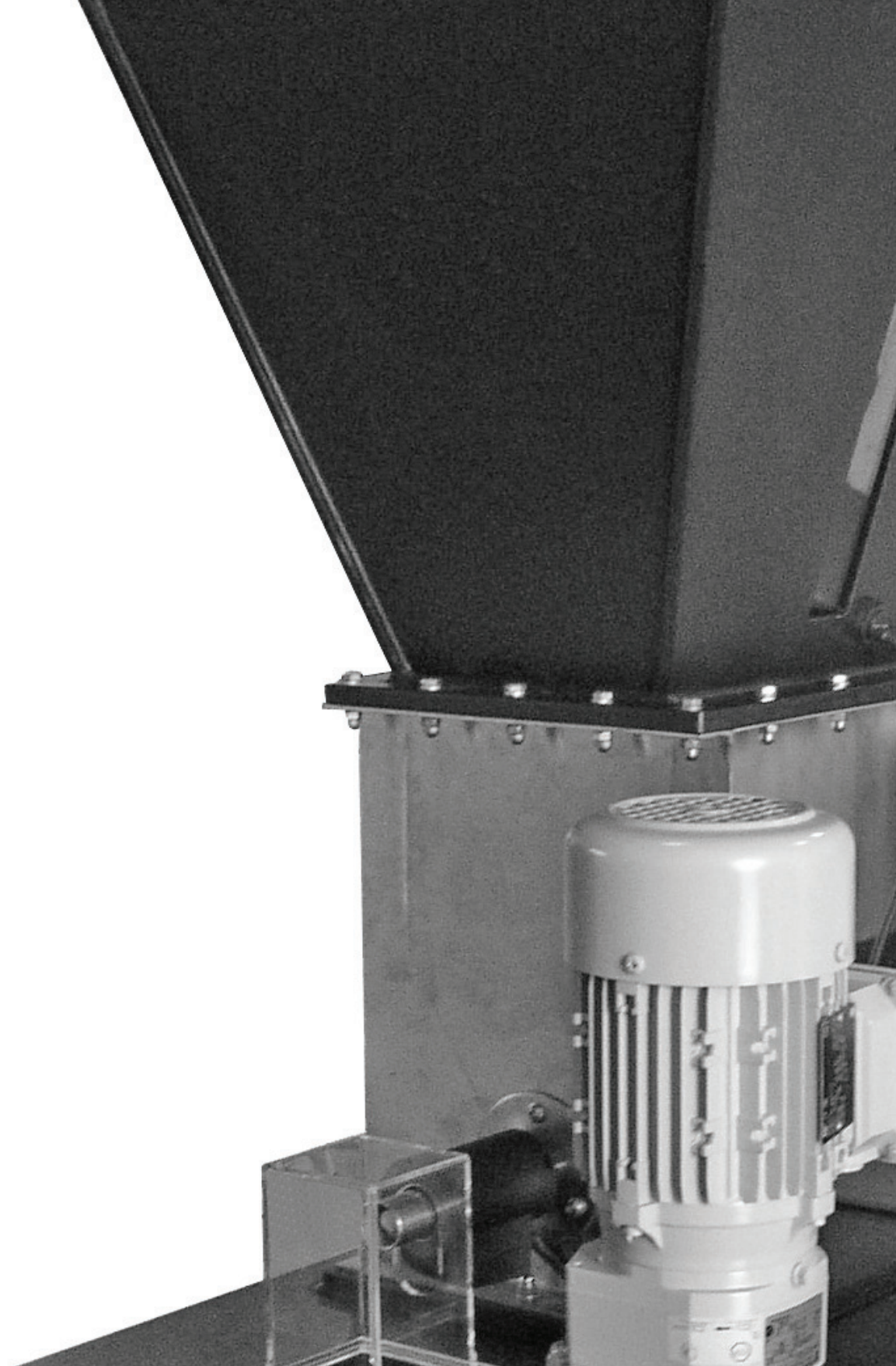
## FLS Series

Model	Power (kW)	Rotation (rpm)	ØPropeller (mm)
<b>FLS 3750</b>	0,37 - 380 V	53	500
<b>FLS 3780</b>	0,37 - 380 V	32	800
<b>FLS 37100</b>	0,37 - 380 V	25	1000
<b>FLS 37120</b>	0,37 - 380 V	25	1200
<b>FLS 55160</b>	0,55 - 380 V	17	1600
<b>FLS 55200</b>	0,55 - 380 V	15	2000
<b>FLS 75250</b>	0,75 - 380 V	12	2500





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