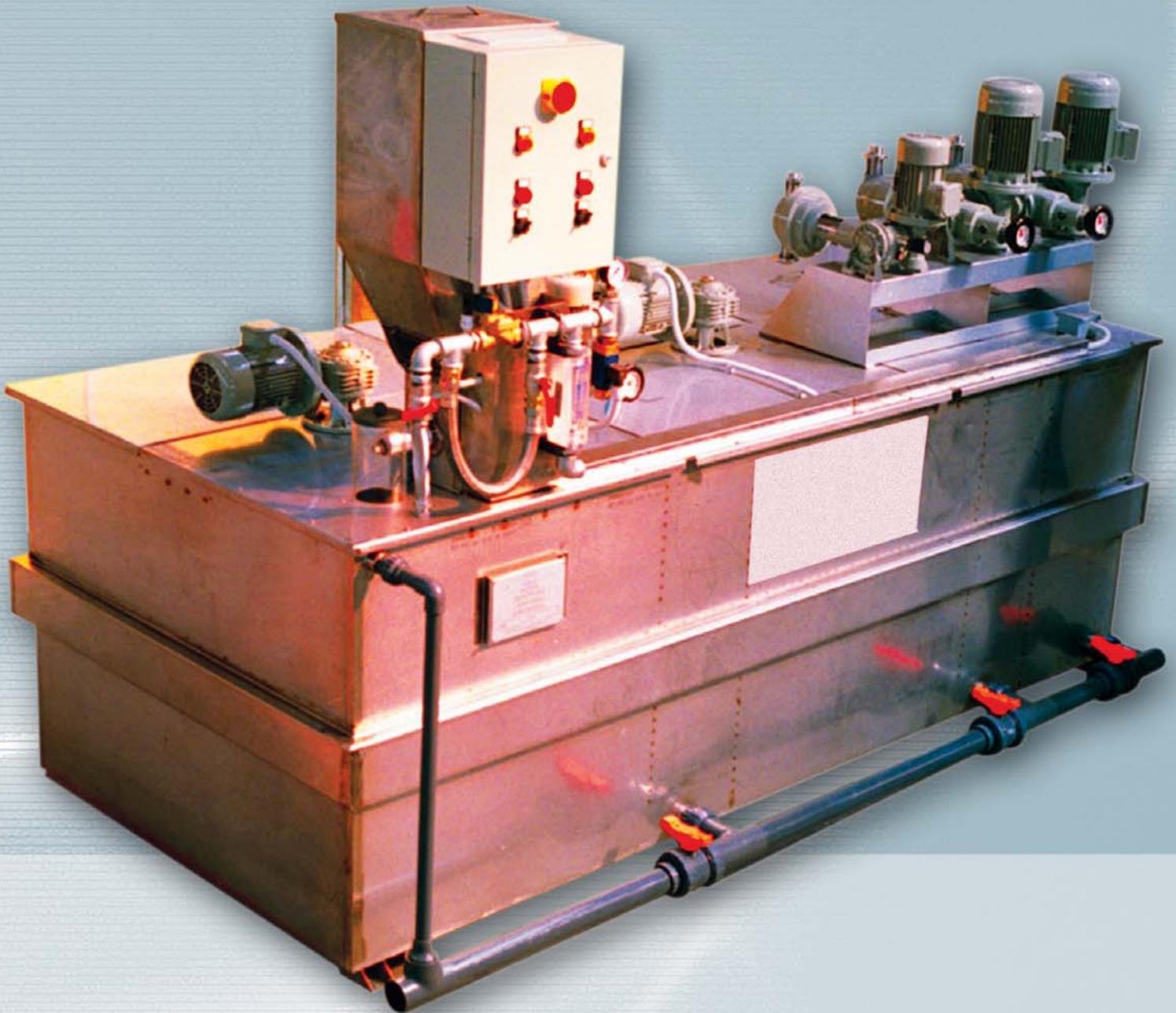


DRY MATERIAL FEEDING AND PREPARATION SYSTEMS



seko

innovation > technology > future

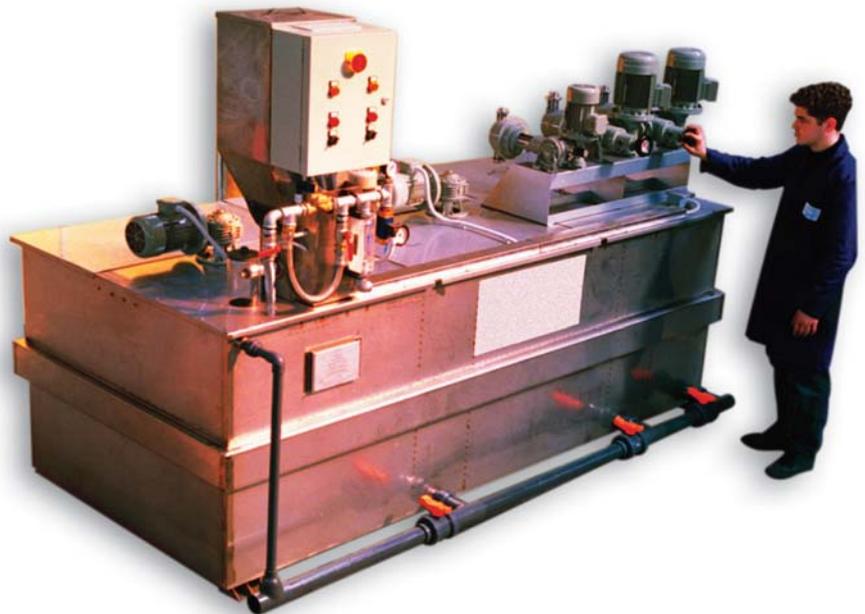
POLYCENDOS

Automatic polyelectrolyte preparation systems

Construction Features

- Variable capacity powder dosing unit, hopper with powder level indicator, worm screw with bridge breaker scrapers
- Water inlet and regulation unit, solenoid valve, pressure switch, disperser nozzle
- Preparation tank with covers, divided into the three sectors of dissolving, maturing and storage
- Control and command electrical switchboard including the automatism and indicators for fully automatic plant running
- Solution dosage system, generally consisting of dosing pumps selected from the numerous versions available from our range (ask for the specific catalogue)

- Automatic functioning
- Separate regulation of water and powder
- Stainless steel construction
- Compact size
- Ready to be anchored to the floor if required
- No foundations necessary



Function

The preparation tank is divided into three sectors: dissolving V1, maturing V2 and storage V3, interconnected by siphons that form a preferential path necessary for the formation of a top quality solution. The powder from the dosing unit comes into contact with the water, which, appropriately sprayed, from a nozzle, carries out the important action of dispersion.

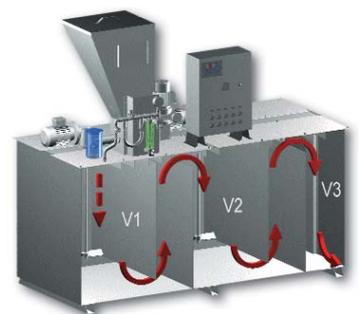
The water/powder mixture then drops into the tank below where the dissolving phase begins. In dissolving sector V1 a slow agitator keeps the contents of the tank in movement, thus favoring homogenization of the solution.

The siphon transfers the solution to the maturing sector V2 where another slow agitator keeps it homogeneous until maturing is complete. Then the solution is transferred to storage sector V3 from which it can be transferred for use.

The level switches installed in this sector control plant automatic functions:

High and normal level switch: when the solution reaches the high level this switch stops the powder dosing unit and closes the water inlet solenoid valve. In the normal level position it enables dosing unit functioning and opens the water solenoid valve.

Low level switch: when the solution falls to minimum level this switch stops the dosing pump and lights up an alarm indicator on the electrical switchboard.



Options

- Heating of dosing unit discharge pipe
- Automatic dosing pump adjustment
- Overflow and drain header
- Powder minimum level switch
- Water pressure reducer
- PLC programmable electrical switchboard
- Third agitator in the storage section
- Pneumatic powder loading

PLS Systems for preparation of solutions from powder

PLSE Systems for preparation of solutions from emulsion

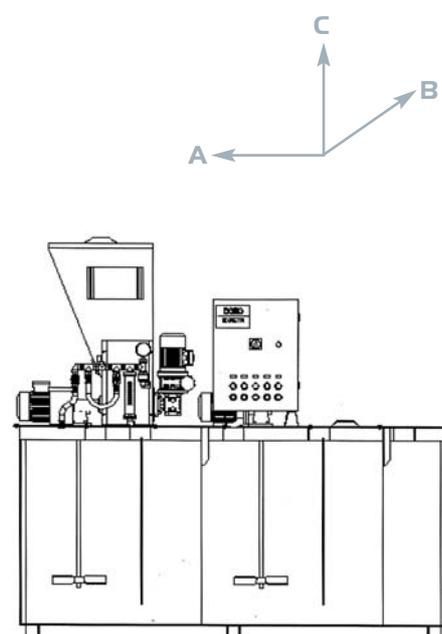
PLS COMBI Systems for preparation of solutions from powder and from emulsion



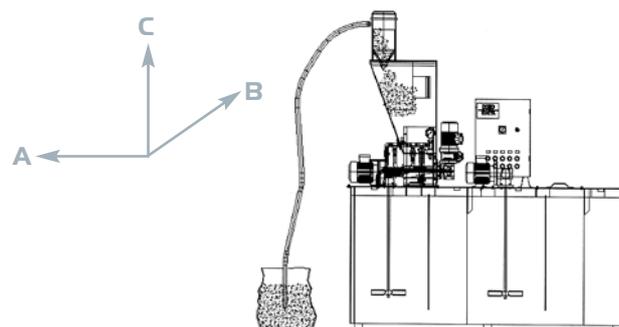
| Mod. | Flow rate (l/h) | Powder dosing unit (l/h) | | Hopper | | Mixers | | Dimensions (mm) | | | Weight kg |
|----------|-----------------|--------------------------|------|--------|------|--------|------|-----------------|------|------|-----------|
| | | min | max | l | kW | N. | kW | A | B | C | |
| PLS 550 | 550 | 0.6 | 2.9 | 70 | 0.22 | 2 | 0.18 | 1550 | 740 | 1880 | 260 |
| PLS 1100 | 1100 | 1.2 | 5.9 | 70 | 0.37 | 2 | 0.18 | 1550 | 740 | 1880 | 260 |
| PLS 2100 | 2100 | 1.6 | 7.8 | 70 | 0.22 | 2 | 0.18 | 2100 | 1030 | 1880 | 320 |
| PLS 3000 | 3000 | 3.25 | 15.7 | 70 | 0.37 | 2 | 0.25 | 2610 | 1160 | 1880 | 450 |
| PLS 4200 | 4200 | 3.25 | 15.7 | 70 | 0.37 | 2 | 0.37 | 2950 | 1380 | 1980 | 460 |
| PLS 5000 | 5000 | 5.65 | 27.1 | 70 | 0.37 | 2 | 0.37 | 3210 | 1410 | 2040 | 500 |
| PLS 8000 | 8000 | 5.65 | 27.1 | 70 | 0.37 | 2 | 0.37 | 3600 | 1570 | 2040 | 1600 |

| Mod. | Flow rate (l/h) | Mixers | | Dimensions (mm) | | | Weight kg |
|------------|-----------------|--------|------|-----------------|------|------|-----------|
| | | N. | kW | A | B | C | |
| PLS E 550 | 550 | 2 | 0.18 | 1550 | 740 | 1880 | 210 |
| PLS E 1100 | 1100 | 2 | 0.18 | 1550 | 740 | 1880 | 210 |
| PLS E 2100 | 2100 | 2 | 0.18 | 2100 | 1030 | 1880 | 270 |
| PLS E 3000 | 3000 | 2 | 0.25 | 2610 | 1160 | 1880 | 400 |
| PLS E 4200 | 4200 | 2 | 0.37 | 2950 | 1380 | 1980 | 410 |
| PLS E 5000 | 5000 | 2 | 0.37 | 3210 | 1410 | 2040 | 450 |
| PLS E 8000 | 8000 | 2 | 0.37 | 3600 | 1570 | 2040 | 1550 |

| Mod. | Flow rate (l/h) | Hopper | | Mixers | | Dimensions (mm) | | | Weight kg |
|----------------|-----------------|--------|------|--------|------|-----------------|------|------|-----------|
| | | l | kW | N. | kW | A | B | C | |
| PLS COMBI 550 | 550 | 70 | 0.22 | 2 | 0.18 | 1550 | 740 | 1880 | 290 |
| PLS COMBI 1100 | 1100 | 70 | 0.37 | 2 | 0.18 | 1550 | 740 | 1880 | 290 |
| PLS COMBI 2100 | 2100 | 70 | 0.22 | 2 | 0.18 | 2100 | 1030 | 1880 | 350 |
| PLS COMBI 3000 | 3000 | 70 | 0.37 | 2 | 0.25 | 2610 | 1160 | 1880 | 480 |
| PLS COMBI 4200 | 4200 | 70 | 0.37 | 2 | 0.37 | 2950 | 1380 | 1980 | 490 |
| PLS COMBI 5000 | 5000 | 70 | 0.37 | 2 | 0.37 | 3210 | 1410 | 2040 | 530 |
| PLS COMBI 8000 | 8000 | 70 | 0.37 | 2 | 0.37 | 3600 | 1570 | 2040 | 1630 |



| Mod. | Hopper with loader (mm) | | | Weight |
|----------|-------------------------|------|------|--------|
| | A | B | C | |
| PLS 550 | 1550 | 740 | 2610 | 290 |
| PLS 1100 | 1550 | 740 | 2610 | 290 |
| PLS 2100 | 2100 | 1030 | 2610 | 350 |
| PLS 3000 | 2610 | 1160 | 2610 | 480 |
| PLS 4200 | 2950 | 1380 | 2710 | 490 |
| PLS 5000 | 3210 | 1410 | 2770 | 530 |
| PLS 8000 | 3600 | 1570 | 2770 | 1630 |



POLYMAN

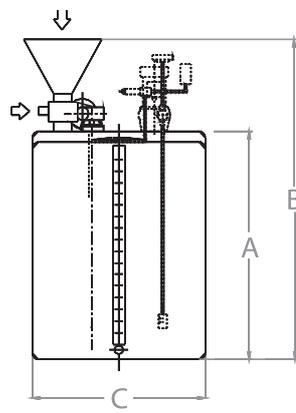
Plant for manual preparation of polyelectrolyte

Polyelectrolyte solution is not very stable and its efficiency decreases with time. So the solution must be prepared only when necessary in order to use the whole quantity prepared and avoid waste.

The POLYMAN line has been designed to offer a complete system for manual preparation of polyelectrolyte solutions and is the ideal choice for occasional or discontinuous use.

POLYMAN systems are available in 1000 liters, and generally consist of:

1. Tanks in translucent high density polyethylene, UV stabilized, working temperatures -40 +60° C, built-in level gauge
2. Inspection cover with vent Ø 155 mm.
3. Dispenser and water inlet in PVC
4. Powder loading filler in PVC
5. Slow agitator with shaft and rotor in AISI 316 stainless steel
6. Dosing pump (on request)



| Mod. | Volume lt. | Mixers | | Dimensions (mm) | | | Weight kg |
|-------|------------|--------|------|-----------------|------|------|-----------|
| | | mod. | kW | A | B | C | |
| PLM2 | 230 | MXR2 | 0.18 | 730 | 1260 | 640 | 32 |
| PLM5 | 530 | MXR5 | 0.18 | 875 | 1455 | 830 | 50 |
| PLM10 | 1040 | MXR10 | 0.37 | 1065 | 1805 | 1005 | 90 |



Fields of use

- Water clarification
- Biological treatment of urban and industrial waste water
- Filtering/decarbonation
- Sludge sedimentation and dehydration
- Scrubbing of blast furnace fumes
- Sulphuric acid production
- Neutralization of electroplating baths
- Oil industry
- Paper industry: treatment of cellulose water and recycled paper
- Sugar industry: treatment of sugar juices
- Extraction industries: marble quarries, flotation of minerals, treatment of mines, geothermic and oil wells drillings
- Tanning industry: water clarification and treatment



POWDER FEEDERS

Powder volumetric feeders are designed to provide a constant and accurate flow for any material grain, fibers and powders. Powder feeders are completely made in stainless steel SS304.

VG100

Construction Features

Hopper: It was two vertical walls to ensure even flow of the products; available in 50 and 100 liters versions; optional: supplementary mixer or vibration; internal polishing, level indicator.

Gearbox: motion transmission is carried out by a chin to pinion, which are connected to metering helix and to agitator rotates; optional: FPM seals-ring.

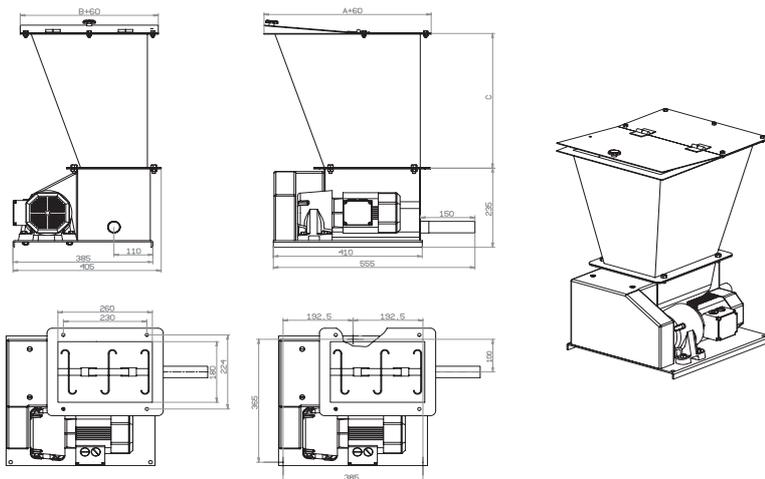
Speed variator: (manual regulation) it provides capacity control, when feeder is running between 10 and 100% of maximum delivery; 3-phase motor, 0,18 kw, insulation class F; optional: coaxial gear for constant feeding, gravitation indicator.

Metering helix: the accuracy depending from characteristics of products, from 0,5% to 3%; optional: reinforced metering helix, solid metering helix, extended helix and discharge tube.

OPTIONAL:

Thermostat resistance: to avoid product agglomeration, caused by wetness.

Dissolver: to ensure a perfect dilution of product in water, thanks to a specific design and to a water-flow control.



| | 03 | 04 | 05 |
|----------------------------|-----|----|----|
| Flow rate min. (l/h) | 0,7 | 3 | |
| Flow rate max. (l/h) | 3,7 | 17 | 65 |
| Continuous Flow rate (l/h) | 2,8 | 13 | 50 |

VG50

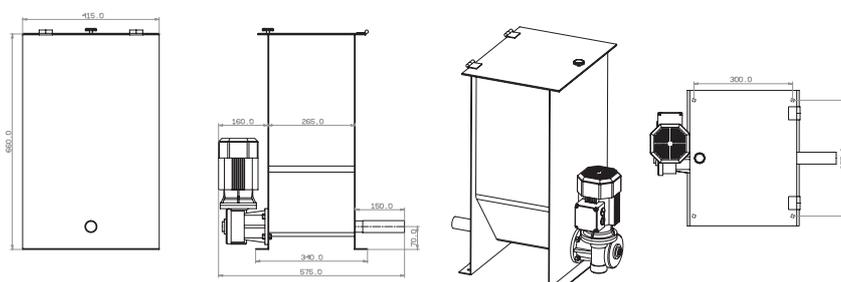
Is a simple and economical product, with a compact design, able to assure at the same time a constant and accurate dosing; it can be used with powders, flakes and fibers that are not subject to agglomeration and so it does not need to use the agitator rotates (example: polyelectrolyte).

OPTIONAL:

Thermostat resistance: to avoid product agglomeration, caused by wetness.

Plexiglas discharge: to canalize the product without useless wastages.

Dissolver: to ensure a perfect dilution of product in water, thanks to a specific design and to a water-flow control.



| | 03 | 04 | 05 |
|----------------------------|-----|----|----|
| Flow rate min. (l/h) | 0,7 | 3 | 12 |
| Flow rate max. (l/h) | 3,7 | 17 | 65 |
| Continuous Flow rate (l/h) | 2,8 | 13 | 50 |



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