



# Ultromat<sup>®</sup> POLYELECTROLYTE PLANT



**ProMinent**

## Ultromat® Plant: Quality and Economy for Polyelectrolyte Preparation

**Flocculation aids are becoming increasingly vital – not only for water treatment.**

Strict legislation, high quality requirements, the overwhelming need to think and work economically; these are all good reasons for using synthetic flocculation aids. Increasingly, especially in the field of water treatment, they are considered as essential. It is hardly possible to think

Flocculation aids are used where colloidal solids have to be separated from liquids – using the most economical means possible.

**The Ultromat® plant from ProMinent provides exactly that!**

The Ultromat® plant has been specially developed for use with polyelectrolytes. Its design is backed up by ProMinent's many years of

Proven technology, rapid assembly and maintenance reduced to a minimum – all this you can count on!

### **In Waste-Water Treatment**

- flocculation of domestic/industrial waste-water
- extraction of water from sludge
- in the fourth purification stage for domestic waste-water

### **treating potable water**

- especially for improving purification/sedimentation during production of potable water from surface water

**treatment of water for use in the chemical, metalworking and food industries.** Water treatment and recycling brings great financial benefits for these areas – which in turn has valuable effects on local sewage works

- paper production
- processing metallic and non-metallic mineral ores.
- treatment of colloidal solutions
- treatment of sand and gravel

**From powder to ready-prepared electrolyte solutions: fully automatic, safe, continuous operation**

All plant parts for the treatment and dosing of Polyelectrolytes are combined in a compact unit. The Ultromat® AT/96 model is designed for electrolyte powder. The Ultromat® ATF/96 is also designed for use with liquid concentrates.

The powder is conveyed from a feed hopper into a mixing assembly. After wetting it enters the preparation compartment of a triple compartment tank where it is diluted to the required solution. This solution flows into the maturing compartment and from there into the storage compartment.



Proven technology: The Ultromat® AT 1000/96 Triple Compartment Plant

of purification plants without polyelectrolytes – and they are becoming standard in other areas as well.

success in the field of waste water processing – hundreds of purification plants worldwide are the impressive product of this highly specialised expertise.



dependable microprocessor control Ultramat® plant

When the levels are low, a sensor triggers the lower level-switch in the storage chamber. This activates the batching process. The controller measures the water quantity. At the same time the controller calculates the necessary polymer quantities – according to the concentration desired – and adjusts the Dry Feeder. The concentration of the polymer solution is maintained at a constant level, therefore, even when water flows fluctuate.

Calibration of the Dry Feeder is carried out in conjunction with the controller, under 100% capacity conditions. The required polymer quantity is weighed out and the

value entered into the controller. The controller registers the time taken to supply the required dose and calculates the 100% capacity for the dry feeder.

#### Individually specified dosing accessories

Using a dosing pump, for instance, ProMinent® Sigma, Vario or Makro TZ, the prepared polyelectrolyte solution is then pumped to the point of use. It is possible to

dilute the solution again at this point.

The accessories for the actual dosing are individually assembled, depending upon the on-site application. They consist of the following basic items:

- Dosing pumps
- Back-pressure and pressure-relief valves

- Pulsation dampers
- Flow controller
- Locking assembly
- Additional-dilution assembly

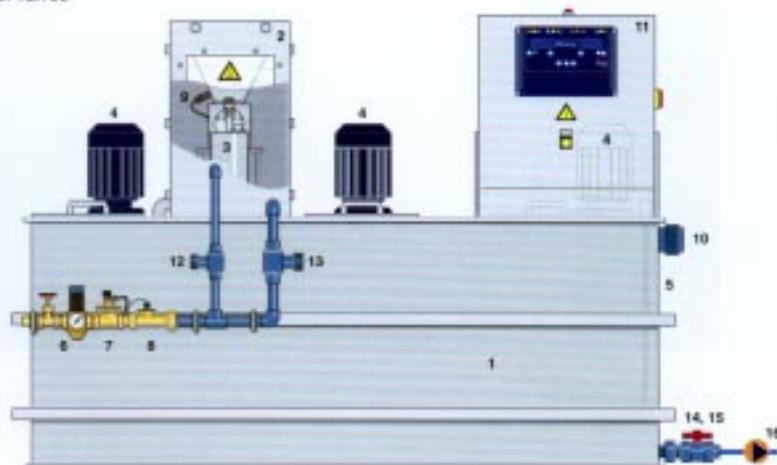
#### Advantages that speak for themselves

Ultramat® Polyelectrolyte plant

- works along with in-house controllers and dry feeders
- guarantees constant solution concentrations using proportional dosing
- calibration is application specific
- fail-safe in operation; when faults occur the entire plant shuts down automatically and an alarm is displayed at the monitor
- is compact
- along with ProMinent® dosing pumps provides optimum dosing solutions

#### Add the following and calculate for yourself:

- sound advice on plant and processes from ProMinent engineers
- plant which is pre-assembled and tested in-house which means that on-site assembly is quick and easy.
- Single-sourced solutions, based on 20 years of ProMinent experience.



- 1 preparation, maturing and storage compartments
- 2 dry feeder with feed hopper
- 3 mixing assembly
- 4 stirrer
- 5 level switch

- 6 pressure release
- 7 solenoid valve
- 8 flow meter
- 9 powder quantity sensor
- 10 overflow

- 11 control panel
- 12, 13 adjusting valve
- 14 locking valve
- 15 extraction ball valve
- 16 ProMinent® dosing pump

## Facts, Figures, Data – and all the rest!

### Powder or liquid: you decide!

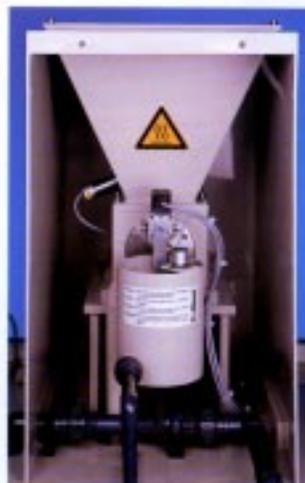
It's your choice whether to use powder or liquid polymers, whether to work with the Ultramat® AT/96 or the ATF/96. We'll naturally provide you with all the support you need to make the right decision.

### Options: You ask, we'll deliver!

Whatever the application, there are plenty of options

available for each basic plant:

- Mixer for storage compartment
- Remote switching and remote control monitor
- Self-contained overflow cut-out
- Lifting lugs for preparing plant for transportation
- Extension hopper for dry feeder
- Brackets for dosing pumps
- Small conveyor plant for automatic filling of dry feeder



A comprehensive accessory package completes the Ultramat® range.

Dry Feeder with wetting cone

## Technical Data

Ultramat®	Dimensions (L x W x H) H1*	Water inlet connector size	Empty operating weight	Overflow outlet connector size	Electrical connection	Stirrer	Dry feeder conveyor capacity
Typ	mm		kg		kW		l/h
AT 400	1770 x 915 x 1250 / 516	R 1" 178 mm	190/590	DN 40 / DN 25	1.5	0.18 kW 750 U/min IP 55	1.3 - 29 Typ TD 18.20
AT 1000	2410 x 950 x 1605 / 866	R 1" 490 mm	400/1400	DN 50 / DN 25	2.6	0.55 kW 750 U/min IP 55	1.3 - 29 Typ TD 18.20
AT 2000	3070 x 1090 x 1755 / 1016	R 1" 528 mm	450/2450	DN 50 / DN 32	3.2	0.75 kW 750 U/min IP 55	1.3 - 29 Typ TD 18.20
AT 4000	3180 x 1515 x 2262 / 1516	R 1 1/2" 820 mm	600/4800	DN 65 / DN 40	5.0	1.1 kW 750 U/min IP 55	6 - 132 Typ TD 30.20
AT 8000	4368 x 2130 x 2218 / 1518	R 2"	1200/10000	DN 80 / DN 50	9.5	2.2 kW 750 U/min IP 55	12 - 264 Typ TD 38.20

\* H1 = tank height

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