

Complete dosing systems – with ProMinent

Standard and individually designed solutions for all requirements

Printed in Germany, PT PM 034 03/05 GB
MT04 01 03/05 GB



Complete dosing systems

Standard systems

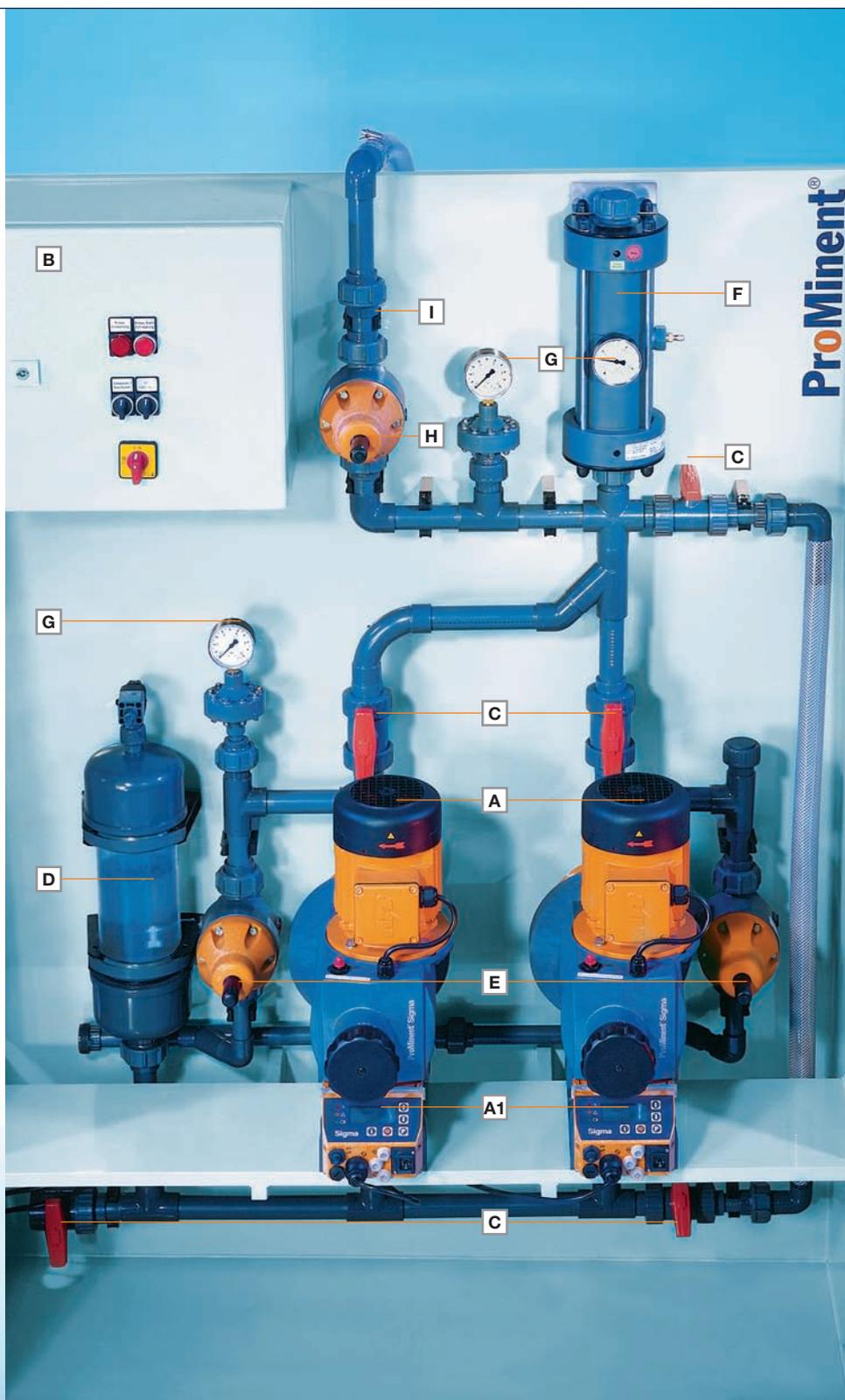
Two hydraulic connection points enable simple installation of the dosing system. The pre-mounted systems include optimally interacting components to ensure problem-free operation. You will thus receive a compact system.

The dosing systems can be individually configured when ordered. The simple selection system makes ordering easy and guarantees the greatest purchasing efficiency.

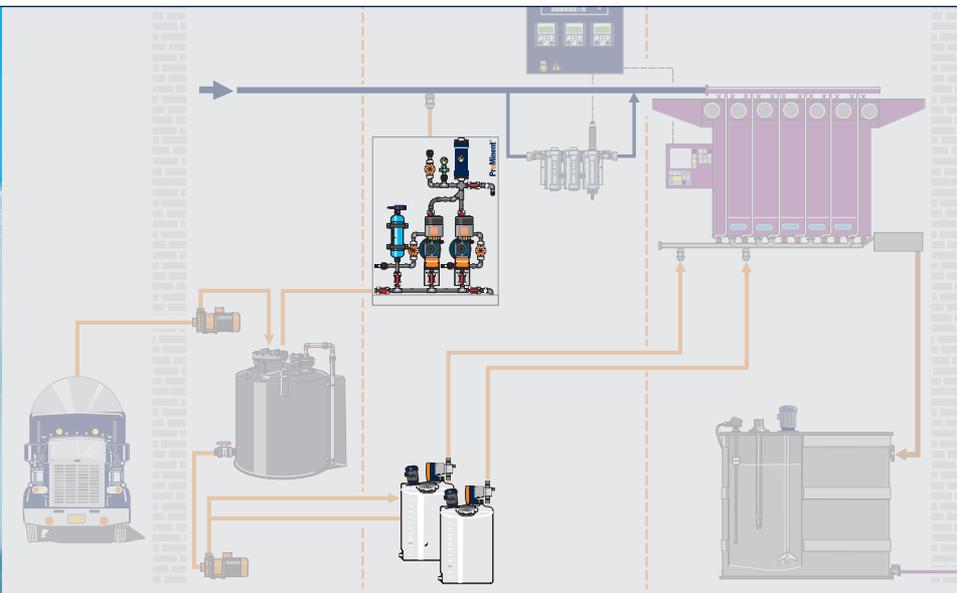
- A** Metering pump
- A1** Actuation and control option
- B** Control cabinet
- C** Stop-valve
- D** Suction air accumulator
- E** Relief valve
- F** Pulsation dampener
- G** Pressure gauge
- H** Back pressure valve
- I** Non-return valve

Application-specific dosing systems

We offer pre-mounted dosing systems for different applications which are conceived and designed to perform precisely in accordance with the requirements of each specific application. For example, for hydrazine or liquid enzyme metering. Or for metering-tasks in swimming pools.



Plug & Play with pre-mounted systems



Metering is getting even easier. The pre-mounted complete solutions from ProMinent for the most important applications are available immediately and ready for use. The sensors, controller and metering pump along with the necessary tanks form a unit which is ready to run with no installation required.

Customer-specific systems

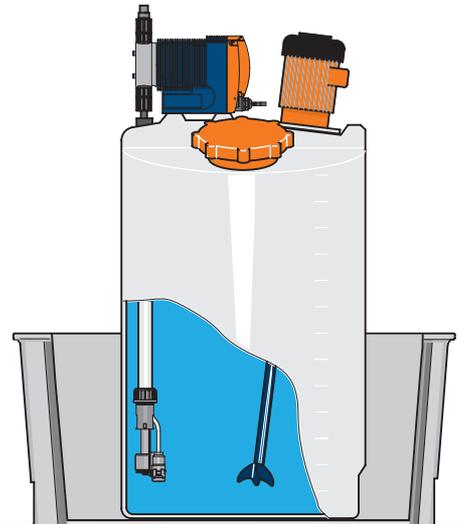
These systems are individually planned, built and delivered according to each customer's specifications. Once again, the customer has no installation to carry out. On request, we will commission the systems on site.



Further information:
www.prominent.com/dosing_systems

Dosing stations

Perfect interaction of components



ProMinent® dosing systems with storage tanks are suitable for storing and dosing liquid chemicals. A selection system (identcode) allows the dosing station to be simply, quickly and flexibly adapted to the dosing requirements.

- For standard dosing requirements, cooling and process water treatment as well as swimming-pool water treatment
- All components are designed to work together accurately
- Environment-friendly handling of chemicals
- Short delivery times and excellent price-performance ratio
- Compact design

Dosing stations

Metering capacity	Up to 1,030 l/h, depending on the metering pump
Metering pumps	alpha, Beta®, gamma/ L, D_4a, Sigma/ 1, Sigma/ 2, Sigma/ 3
Chemical suitability	Suitable for almost all bases and acids
PE dosing tank	35 to 1,000 l capacity, available in black, blue, natural, yellow and red
Drip pan, stackable	35 to 1,000 l capacity
Stirrer	Manually or electrically operated up to 0.75 kW
Suction set	in PVC or PP with connection sizes from 6 x 4 to DN 32
Level switch	1 or 2 stage (for empty signal)
Metering control device	fits metering pump



Further information:

www.prominent.com/dosing_systems

Standard dosing systems

Proven solutions



Modular dosing systems have been successfully installed in their thousands, and are the comprehensive solution for a wide range of dosing requirements – with short delivery times and attractive prices.

- Panel-mounted dosing systems consisting of two basic models (one or two dosing pumps)
- Add on options: "low pulsation dosing" and "priming aid with calibration feature"
- Metering pump supplied as plug & play, mounted onto a base plate with integrated drip pan
- Relief valve protects pipes from excessively high pipe pressure
- Two rinsing ports allow the pump to be rinsed after every application

Standard dosing systems

Metering capacity	Up to 1,030/h, depending on the metering pump
Metering pumps	Beta®, gamma/ L, Sigma/ 1, Sigma/ 2, Sigma/ 3
Chemical suitability	Suitable for almost all bases and acids
Mounting frame	With drip pan, for installation of up to 2 metering pumps
Materials – pipework and seals	PVC/EPDM or PVC/FPM
Vacuum cylinder	0.5 to 5.0 l capacity
Vacuum pump	With and without
Pulsation damping	With and without
Pressure gauge	With and without
Overpressure device	Standard, back pressure valve or multifunction valve optional with dosing pump(s) Beta® and gamma/ L
Terminal box	For electric connection of one or two metering pumps or without
Leakage probe	With and without



Further information:
www.prominent.com/dosing_systems

Application specific dosing systems

For special applications



Special applications require dosing system, that are tailored to the process. We supply pre-mounted dosing systems that are carefully designed and constructed for the following applications.

Hydracine metering to reduce corrosion in steam cycles

- Gas-proof decanting and metering systems so that no hydracine vapours can escape, as hydracine is carcinogenic
- Decanting of hydracine from the transport container to the preparation container
- Producing a hydracine solution
- Dosing of hydracine solution into the application

Types	Metering capacity	Decanting pump approx.
Hydracine 140	7.8 l/h, 3 bar	15 l/h
Hydracine 250	13.3 l/h, 8 bar	36 l/h
Hydracine 500	13.3 l/h, 8 bar	120 l/h

Animal Feed production (Post Pelleting Liquid Application)

- The PPLA systems are modular and provide a comprehensive solution for storage, decanting, metering and the application of all types of additives
- Suitable for inline and batch processes

Type	Flow meter	Dosing accuracy	Options*
Premium	Mass-DFM	< 2%	yes
Quality	Oval disc meter	< 5%	yes
Value	Oval disc meter	< 5%	none
Economy	Detector	< 10%	none

*e.g. dust protected casing, water flow meter, etc

Swimming pool water treatment

- Premounted, plug & play dosing and control systems for automatic pH valve adjustment and disinfection
- With chlorine or activated oxygen
- The system features all necessary, optimally inter-adjusted components mounted on one panel: sensor, controller, metering pumps
- Different designs available
- A large extension program offers the right solution for every application

Model	DSR	ACL2	ACL2	ACL3	ASS	ASR
Measuring and controlling						
pH	■	■	■	■	■	■
Chlorine		■		■		
Redox	■		■			
Biocide					■	
H ₂ O ₂						■
Metering						
Acid	■	■	■	■	■	■
Chlorine	■	■	■	■		
Activated oxygen					■	■



Further information:

www.prominent.com/dosing_systems

Customized dosing systems

Comprehensive solutions to customer requirements



- Customised plug & play dosing systems
- Start-up on site if required
- All customer requirements can be quickly met, thanks to in-house production
- Range includes simple, decentralised systems to explosion protected systems connected to a central PLC via PROFIBUS® in accordance with ATEX
- From proportional dosing to complex systems with reaction vessel
- Complete systems can also be installed in walk-in containers, including heating and/or air conditioning
- Range of performance and chemical suitability are virtually unlimited

Optional features

- Portable
- Can be mounted to box
- In dosing cabinet
- Mounted onto panel or frame
- With dosing container and drip pan
- Installed in walk-in container

Optional controls

- Terminal box
- Relay control
- Small control
- ProMinent® control-type
- PLC with operating panel and PROFIBUS® connection

Standard materials (other materials available)

- PVC
- PP
- PVDF
- Stainless steel



Further information:

www.prominent.com/dosing_systems

Polymer mixing and dosing stations Ultramat®

Continuous Flow Systems Ultramat® AT/AF/ATF

In Continuous Flow Systems, the reservoir is separated into multiple chambers. This largely prevents recently mixed polymer entering the suction area of the metering pump (product entrainment). This helps to ensure that the efficiency of the subsequent drainage plant is conserved in its entirety. Models AT and ATF have three chambers and model AF has two chambers.

- Low product entrainment
- Ease of operation
- Easy commissioning
- Low space requirements
- Control with integrated operating panel and display
- Accurate solution concentration through proportional control



Two-chamber batch systems Ultramat® ATP/AFP/ATFP

The two-chamber batch systems are separated into two chambers. While one chamber is filled, matured polymer solution can be withdrawn from the other. The freshly mixed polymer and the matured polymer cannot mix (no product entrainment).

- No product entrainment
- Ease of operation
- Easy commissioning
- Low space requirements
- Control with integrated operating panel and display
- Accurate solution concentration through proportional control



Proven solutions for waste water treatment

Polymer	Continuous flow system	Dual chamber batch system	Manual mixing station
Powder	AT	ATP	MT
Liquid	AF	AFP	MT
Powder and liquid	ATF	ATFP	MT

Technical data	Continuous flow system	Dual chamber batch system	Manual mixing station
Container Capacity	400 l - 8,000 l	2 x 400 l - 2 x 4,000 l	120 l - 4,800 l
Output capacity	400 l/h - 8,000 l/h	400 l/h - 4,000 l/h	120 l - 4,800 l
Maturing time at max output capacity	60 min	60 min	-
Concentration	0.05 - 0.5 %	0.05 - 0.5 %	0.05 - 0.5 %

Ultromat® systems have been specially developed for mixing liquid and/or powder polymers. Their design is based on many years of experience in waste water treatment. Hundreds of applications world wide impressively demonstrate ProMinent's specialised expertise in this field.

- Reliable, matured technology
- Simple mounting
- Operational input reduced to a minimum



Mixing station Ultromat® MT

A simple, rugged and cost effective option. The Ultromat® MT consists of a single-chamber container. The liquid or powder flocculant is added manually; mixing is carried out by the agitator.

Options and accessories for Ultromat®

Options:

- Agitator in reservoir
- Overflow safe guard
- Flow monitor for liquid concentrate pump
- Compacter for powder dosing unit
- Pause feature and operating indication

Accessories:

- Supply funnel for powder dosing unit
- Small conveying unit
- Powder reservoir



Further information:
www.prominent.com/mixing_stations

Reference: Waterworks in Kronstadt

Chemical metering in waterworks



"We are able to carry out the water treatment at the highest safety level with practically no staff, thanks to the maintenance-free ProMinent® solution."

Grigori Bass, Managing Director SENS O.O.O., St. Petersburg

The waterworks in Kronstadt, with 36,000 m³ potable water capacity, is the smallest of a series of waterworks surrounding the Russian metropolis of St. Petersburg. Since 2003 these waterworks have been converted from disinfection with chlorine gas to the far safer sodium hypochlorite. ProMinent partnered the waterworks during the transition.

Challenge

- Conception and implementation of a total solution for fully-automated drinking water disinfection with sodium hypochlorite
- Redundancy of all system parts for maximum fail-safety
- Design for standard and peak raw water load
- To use ProMinent® tanks, transfer pumps, metering pumps, sensors, controllers and accessories

Customer benefits

- Extremely accurate, safe and redundant disinfection
- Chemicals to be stored only in non-hazardous concentrations
- No operating personnel required because the system operates fully automatically and practically without maintenance
- Problem-free commissioning and minimum coordination effort within the project since all single-sourced

Solution

- Conception of a modular chemical fluid handling system, that means storage and transfer of the chemicals, controlled metering including backup-systems, measurement and control systems and automatic process control, process monitoring and graphical process display



Further information:
www.prominent.com/references

Global service locally



We offer ProMinent® Service even before you become one of our customers. Our pre-sales services ensure that you get the optimum solution for your individual needs:

- **Advice in choosing the products**
- **Application and process optimisation**
- **Project planning**

However, our commitment does not end with delivery. We offer you a comprehensive after-sales service, which lasts for the entire service life of your equipment.

That maximises your productivity and minimises your operating costs:

- **Assembly/installation**
- **Commissioning**
- **Maintenance**
- **Spare parts service**
- **Repair**
- **Troubleshooting**

Thanks to our worldwide presence in over 100 countries, our service is available wherever you need it.



Further information:
www.prominent.com/service

World-wide contact



ProMinent is at home in more than 100 countries of the world. This guarantees world-wide availability of the products and short distances to the customer. All over the world, ProMinent offers identical quality standards for products and services. ProMinent is where you need it: experience and know-how in water treatment and chemical fluid handling are available world-wide.

For detailed information, please visit our website www.prominent.com

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