General catalogue
Metering pumps

The right dosing choice
THE COMPANY
Doseuro is a combination of two capabilities: the first is a solid technical knowledge, obtained during a multi-year experience in the dosing field, while the second is a commercial understanding of the changes in this field and sensitivity to our customers’ requirements. These two factors are supported by a strong company structure that meets our customers’ demands.

The continuous research and principal effort directed to the customer satisfaction are the fundamental reasons of Doseuro success, which is widely confirmed by the thousands of plants working worldwide with our pumps.

Each dosing pump model has been carefully designed, built and tested to ensure a long and useful life.

If this alone is not sufficient, then please go further and ask us about our prices.

THE PRODUCT
What makes Doseuro pumps unique?
It’s the competitive price-quality ratio always aligned with the customer expectations.

Each of our products speaks for itself. High reliability is achieved by constant product development, updating production techniques, everlasting quality control and rigorous testing at all stages of production.

Each dosing pump model has been carefully designed, built and tested to ensure a long and useful life.

If this alone is not sufficient, then please go further and ask us about our prices.
**MAIN FEATURES**

All Doseuro pumps are fitted as standard with top quality 4 pole electric motors that conform to the UNEL-MEC specifications, and range from 0.09-4.0 kW at European standard 3 phase voltages of 230/400V @ 50Hz.

Non standard motors are available to many alternative specifications, including different voltages and frequencies, insulation standards, and special explosion-proof versions.

The dosing rate is fully adjustable via a manually controlled eccentric cam mechanism with spring return, or positive return according to API standard 675.

Automatic adjustment is available by means of servo-control motors, pneumatic control or motor frequency control, interface PROFIBUS or other BUS, if required. The reduction system, made of an endless screw coupled to a worm-wheel, makes the gearbox very strong.

Our pumps are complemented by a wide range of accessories which include, foot valve/strainers, pressure relief and loading valves, injection fittings and pulsation dampeners.

Special versions of construction are available to suit our clients specific applications.

**A VIEW OVER THE PRODUCTION RANGE**

Doseuro chemical dosing pumps are available in three main versions. Plunger pumps with packed plungers, plunger/hydraulic diaphragms or mechanical diaphragms. High pressure pumps are available too, upon request. The range also includes various driving methods, such as electric motor or electromagnetic solenoid operation. The company also manufactures complete dosing packages, electric mixers, and fully automatic plants for the dissolution and mixing of polyelectrolyte, both as powder and emulsion.

The most common fields of application for Doseuro chemical dosing pumps are listed in the pictures below.
Positive Displacement Plunger

**Positive Displacement Plunger Dosing Pump**

AI series plunger dosing pumps comply with mechanical and performance API 675 standards. Furthermore they comply with ATEX standard, therefore they can be installed in Hazardous area. Mechanism is an internal worm gear, fully oil bath lubricated with possibility to be coupled with others independently from the size and stroke number to obtain multi-heads unit.

Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic. **Accuracy within ± 1% within 10-100% of rated capacity.**

As plunger pumps they are reliable and easy for maintenance and with the possibility to have flushing or leakage recovery system (optional).

Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon request.

**Fittings**

- Relief valves and back pressure valves
- Safety relief valve
- Injection valve
- Foot valve
- Pulsation dampeners
- Calibration pot

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<table>
<thead>
<tr>
<th>Model</th>
<th>Max Capacity in Lt/h</th>
<th>Max pressure in Barg</th>
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Note: higher pressure are available
Positive Displacement Sandwich Hydraulic Diaphragm Dosing pump

SDI Sandwich Hydraulic diaphragm dosing pumps comply with mechanical and performance API 675 standards.

Furthermore they comply with ATEX standard, therefore they can be installed in Hazardous area. Mechanism is an internal worm gear, fully oil bath lubricated with possibility to be coupled with others independently from the size and stroke number to obtain multi-heads unit.

Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic.

Accuracy within ± 1% within 10-100% of rated capacity.

A built in safety valve is installed in the hydraulic circuit, in order to protect the diaphragm against over pressure. The peculiarity of this pump is the special sandwich diaphragm and the reliability of the diaphragm rupture detection system.

Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon request.

Fittings

- Relief valves and back pressure valves
- Safety relief valve
- Injection valve
- Foot valve
- Pulsation dampeners
- Calibration pot

### Model Specifications

<table>
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<tr>
<th>Model</th>
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Note: higher pressure are available
Spring Return Plunger

A Plunger metering pumps are normally used when:
- The dosed liquid is non abrasive solution
- A drip proof system is not essential
- High pressure is required

Each pump is fitted with a standard gearbox reduction system with a vertical mounted motor. The reduction gearbox is of a standard endless screw plus worm-wheel type, supported by bearing, fully lubricated in oil bath. Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic.

As plunger pumps they are reliable and easy for maintenance and with the possibility to have flushing or leakage recovery system (optional).

Furthermore they comply with ATEX standard, therefore they can be installed in Hazardous area. Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon request.

Fittings
- Polyethylene tanks
- Relief valves and back pressure valves
- Safety relief valve
- Injection valve
- Foot valve
- Pulsation dampeners
- Calibration pot

### SR series

<table>
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</table>
Spring Return Mechanical Diaphragm Dosing Pump

- The dosed liquid contains small amounts of suspended solids
- A drip proof/air tight application is required
- The dosed liquid is a toxic solution

Each pump is fitted with a standard gearbox reduction system with a vertical mounted motor. The reduction gearbox is of a standard endless screw plus worm-wheel type, supported by bearing, fully lubricated in oil bath.

Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic.

As mechanical diaphragm they are easy for maintenance.

Furthermore they comply with ATEX standard, therefore they can be installed in Hazardous area.

Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon request.

Fittings
- Polyethylene tanks
- Relief valves and back pressure valves
- Safety relief valve
- Injection valve
- Foot valve
- Pulsation dampeners
- Calibration pot

<table>
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Hydraulic Diaphragm

**Spring Return Hydraulic Diaphragm Dosing Pump**

B & BR Hydraulic diaphragm metering pumps are normally used when:
- The dosed liquid contains small amounts of suspended solids
- A drip proof/air tight application is required
- The dosed liquid is a toxic solution
- High pressure is required

Each pump is fitted with a standard gearbox reduction system with a vertical mounted motor.
The reduction gearbox is of a standard endless screw plus worm-wheel type, supported by
bearing, fully lubricated in oil bath.
Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or
automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic.
BR version is equipped with built-in safety valve is installed in the hydraulic circuit, in order to
protect the diaphragm against over pressure.
Furthermore they comply with ATEX standard, therefore they can be installed in Hazardous area.
Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon
request.

**Fittings**
- Polyethylene tanks
- Relief valves and back pressure valves
- Safety relief valve
- Injection valve
- Foot valve
- Pulsation dampeners
- Calibration pot

<table>
<thead>
<tr>
<th>Model</th>
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**Spring Return Sandwich Hydraulic Diaphragm Dosing Pump**

SD Sandwich Hydraulic diaphragm metering pumps are normally used when:

– The dosed liquid contains small amounts of suspended solids
– No leakage are accepted
– The dosed liquid is a toxic solution
– High pressure is required

Each pump is fitted with a standard gearbox reduction system with a vertical mounted motor. The reduction gearbox is of a standard endless screw plus worm-wheel type, supported by bearing, fully lubricated in oil bath.

Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic.

A built-in safety valve is installed in the hydraulic circuit, in order to protect the diaphragm against over pressure. The peculiarity of this pump is the special sandwich diaphragm and the reliability of the diaphragm rupture detection system.

Furthermore they comply with ATEX standard, therefore they can be installed in Hazardous area.

Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon request.

**Fittings**

– Polyethylene tanks
– Relief valves and back pressure valves
– Safety relief valve
– Injection valve
– Foot valve
– Pulsation dampeners
– Calibration pot

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### Model and Specifications

<table>
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<th>Model</th>
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</tr>
<tr>
<td>AP SD 250N</td>
<td>556</td>
<td>20.7</td>
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</table>
Spring Return Mechanical Diaphragm Dosing Pump

FM mechanical diaphragm metering pumps are normally used when:

– The dosed liquid contains small amounts of suspended solids
– A drip proof/air tight application is required
– The dosed liquid is a toxic solution

Each pump is fitted with a standard gearbox reduction system with a vertical mounted motor.

The reduction gearbox is of a standard endless screw plus worm-wheel type, supported by bearing.

Stroke adjustment can be carried with the pump at rest or in operation and it can be manual.

As mechanical diaphragm they are easy for maintenance.

Peculiarity of this model is the complete plastic casing suitable for ACID environment.

Wide choice of wetted materials: S.S.316L; PVC; PP; PVDF; PTFE other materials available upon request.

Fittings

– Polyethylene tanks
– Relief valves and back pressure valves
– Safety relief valve
– Injection valve
– Foot valve
– Pulsation dampeners
– Calibration pot

<table>
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<th>Model</th>
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<tr>
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Solenoid Dosing Pumps

The SDP family provide an alternative solution in lower rates application field where end users look forward reliable results and simple operation.

Using a built-in microprocessor, with its own flexibility, makes the SDP series extremely complete and suitable for a wide range of applications, thanks to several functions included in the same pump, even with few models.

Common features for every model:
– Foot mounted dosing pump
– Corrosion-proof reinforced polypropylene housing
– Solid PTFE diaphragm
– Water-resistant IP65 protection
– Wide choice of wetted materials: PP; PVC; PTFE; PVDF
– Standard power supply: 230V 50/60 Hz

On request: 24V d.c., 12V d.c., 24V a.c., 110V 50/60 Hz

All chemical dosing pumps are complete of accessories to improve the operation and accuracy of the chemical dosing pump:
– Injection valve
– 1.5 mt suction pipe; 1.5 mt delivery pipe
– Strainer

Fittings
– Polyethylene tanks
– Relief valves and back pressure valves
– Safety relief valve
– Injection valve
– Foot valve
– Pulsation dampeners
– Calibration pot

<table>
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<tr>
<th>Model</th>
<th>Max Capacity in Lt/h</th>
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</thead>
<tbody>
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<td>S - -</td>
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</table>
Preparation of polyelectrolytes

**H series**

**HA-HE**

**Automatic plants for dissolution and preparation of powder/emulsion polyelectrolytes**

These plants produce from 300 to 5000 lt/h of fully polyelectrolyte solution at constant solution strength from powder/emulsion stock. Their compact design in Stainless steel AISI 304 or High Density PolyPropylene includes all necessary controls for water make up and polymer feed and incorporates the following equipment and features:

- Dissolution, dilution and ageing tanks.
- Polymer and water feed rate controls.
- All mixers.
- Control panel, fitted and fully interwired.
- Polyelectrolyte chemical dosing pumps.

The Powder dilution plant is fitted with a stocking hopper and a volumetric endless screw, while the Emulsion dilution plant works thanks to a Plunger metering pump, dosing the Emulsion into a static mixer.

<table>
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<tr>
<th>Model</th>
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<tr>
<td>HE</td>
<td>Emulsion</td>
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</table>

Note: higher capacity are available
Electric mixers for chemical mixing

Type DMT and type DMM
High speed mixers directly coupled to the motor, for small tanks up to 1000 litres capacity, with polypropylene coated shaft and propeller.

Type DEM
High speed mixers, directly coupled to the motor, supported by a protection lantern, housing an extra bearing kit, for increased shaft stability, and an extra seals kit, for increased protection from the mixed chemical.

Type DRV
Slow speed mixers for light applications, with close coupled worm wheel/endless screw reduction gear box.

Type DRC
Heavy duty slow speed mixers with co-axial reducer, outrigger bearings and protective seals.

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<td>DMM</td>
<td>Fast mixer</td>
<td>≤ 1000Lt tank liquid ≤ 250cps</td>
</tr>
<tr>
<td>DEM</td>
<td>Fast mixer</td>
<td>≤ 3000Lt tank liquid ≤ 1000cps</td>
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<tr>
<td>DRV</td>
<td>Slow mixer</td>
<td>≤ 7000Lt tank liquid ≤ 2500cps</td>
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<tr>
<td>DRC</td>
<td>Slow mixer</td>
<td>≤ 40000Lt tank liquid ≤ 5000cps</td>
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Accessories

Safety relief valve

Relief valves and back pressure valves

Polyethylene tanks

Suitable to be fitted with metering pump on its top

Pulsation dampener

Pulsation dampener

**Type: HSTX**
Body in S.S.316, composed by two parts assembled together by means of a special hosing that, under dynamic pressures, tends to close itself.
Various diaphragm materials available, for wide chemical compatibility. Built accordingly to the ASME VIII° Div. 1 rules.

**Type: HSTPVC**
Body in PVC, composed by two parts assembled together by means of a special hosing that, under dynamic pressures, tends to close itself.
Maximum temperature: + 50 °C. Various diaphragm materials available, for wide chemical compatibility.