



SIMPLIFIED FLUID HANDLING

# METERING PUMP SOLUTIONS



**Doseuro**

METERING PUMP SOLUTIONS



# Doseuro

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# Doseuro

METERING PUMP SOLUTIONS



## THE COMPANY

Doseuro has been manufacturing dosing pumps for more than 40 years. Our technical expertise and commercial understanding of the markets in which these pumps are used, allow us to meet the most rigorous customer requirements. Doseuro's continuous research and development allow us to adapt to ever changing market demands. Our strong customer support, product quality and market understanding are the fundamental reasons for our success and have resulted in thousands pumps working worldwide.

## 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

Most Doseuro pumps are fitted as standard with high quality 4 pole electric motors that conform to UNEL-MEC; NEMA; UL; CSA specifications, and range from 0.11 - 5.5 HP at 3 phase voltages of 208 230/460V @ 60Hz or 1 phase voltages of 115/208-230V @ 60Hz. 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.

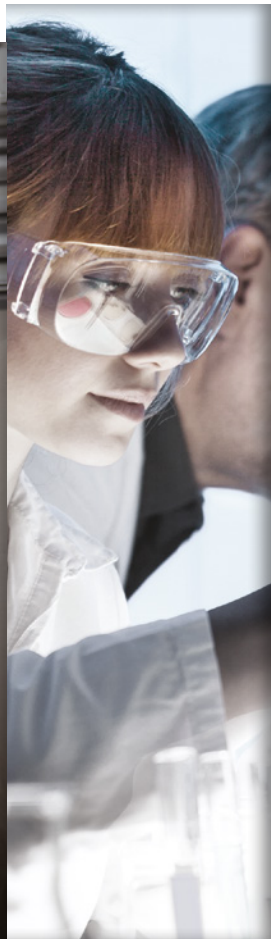
FOOD PRODUCTION



PAPER INDUSTRY



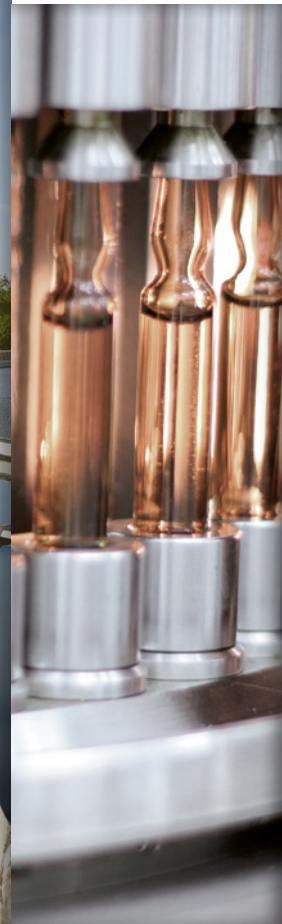
CHEMICALS AND DYESTUFFS TANNING



WATER AND EFFLUENT TREATMENT



PHARMACEUTICALS AND TEXTILES



HORTICULTURAL APPLICATIONS



# Fluidity The World Over

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.

OIL AND GAS

RUBBER AND PLASTICS



IRON, STEEL, COAL AND CONSTRUCTION



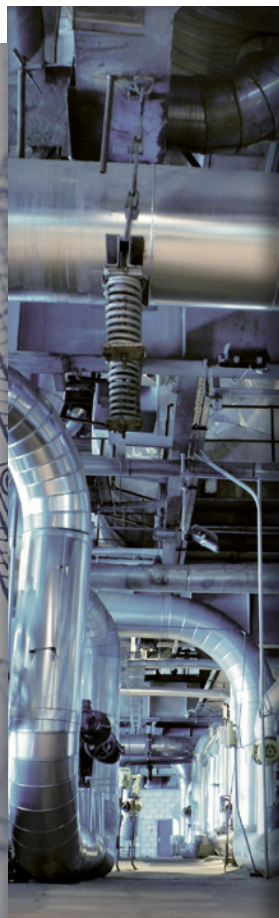
NAVAL AND CIVILIAN MARINE



MANY ENGINEERING PROJECTS



AND WHEREVER THERE IS A FLUID



# Positive Return Plunger

# PDP series A-I type

## Positive Return Plunger Dosing Pump

All series plunger dosing pumps comply with mechanical and performance **API 675 standards**.

Furthermore the pumps can be equipped with Explosion Proof or Division II electric motors that are suitable for use in hazardous locations. 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  $\pm 1\%$**  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.

Model	Max Capacity in GPH	Max pressure in PSI
A I 175	102	725
A I 250	334	580
A I 350	943	580
AP A I 175	11.62	3,335
AP A I 250	42	3,335
AP A I 350	126	3,335

Note: Higher pressures are available



# Sandwich Hydraulic Diaphragm

# PDP series SDI type

## Positive Return Sandwich Hydraulic Diaphragm Dosing pump

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

Furthermore the pumps can be equipped with Explosion Proof or Division II electric motors that are suitable for use in hazardous locations.

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  $\pm 1\%$**  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.

Model	Max Capacity in GPH	Max pressure in PSI
SD I 175	103	203
SD I 250	333	203
SD I 350	1,064	203
AP SD I 175	61	580
AP SD I 250	188	1,160
AP SD I 350	395	812

Note: Higher pressures are available



## Spring Return Plunger Dosing Pump

Type 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 a standard endless screw plus worm-wheel type, supported by a bearing and fully lubricated in an oil bath.

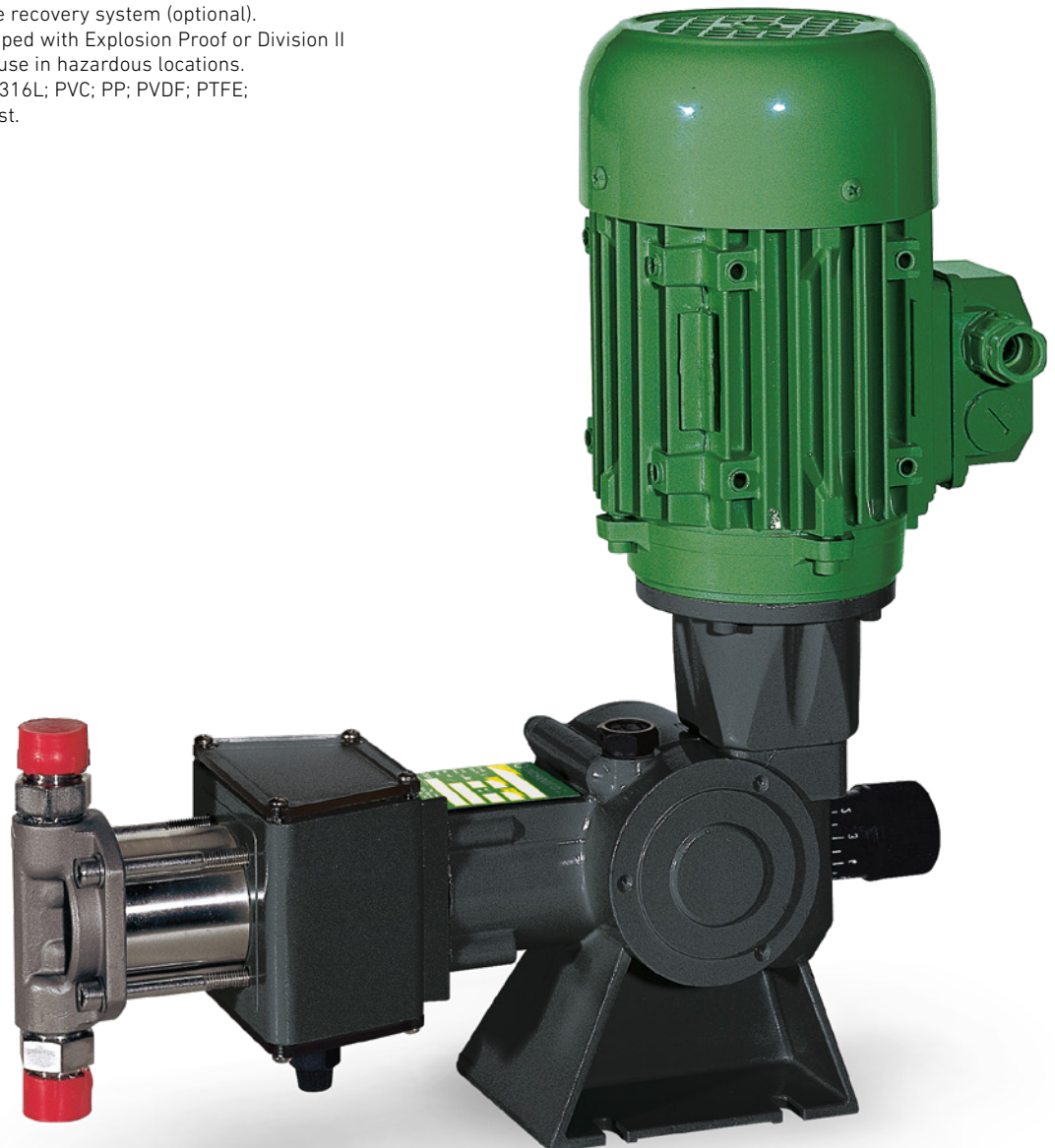
Stroke adjustment can be carried with the pump at rest or in operation and it can be manual or automatic through automatic actuator driven by 4-20 mA; different BUS; pneumatic.

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

Furthermore the pumps can be equipped with Explosion Proof or Division II electric motors that are suitable for use in hazardous locations.

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

Model	Max Capacity in GPH	Max pressure in PSI
A125N	41	290
A175N	108	290
A250N	275	290
A350N	385	58
AP A125N	4	3,335
AP A175N	7.5	3,335
AP A250N	15.16	3,335





# Spring Return Mechanical Diaphragm

## SR series D type

### Spring Return Mechanical Diaphragm Dosing Pump

Type D 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 a standard endless screw plus worm-wheel type, supported by a bearing and fully lubricated in an 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 the pumps can be equipped with Explosion Proof or Division II electric motors that are suitable for use in hazardous locations.

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

Model	Max Capacity in GPH	Max pressure in PSI
D050N	12.5	203
D100N	115	72
D101N	110	116
D121N	150.5	43
D122N	369	87



## 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 a standard endless screw plus worm-wheel type, supported by a bearing and fully lubricated in an 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 installed in the hydraulic circuit, in order to protect the diaphragm against over pressure.

Furthermore the pumps can be equipped with Explosion Proof or Division II electric motors that are suitable for use in hazardous locations.

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

Model	Max Capacity in GPH	Max pressure in PSI
B & BR 125N	28.5	290 / 195
B & BR 175N	110	290 / 203
B & BR 250N	282	159 / 104
AP B & BR 125N	15.8	870 / 580
AP B & BR 175N	65	870 / 580
AP B & BR 250N	146	333 / 300



# Sandwich Hydraulic Diaphragm

**SR series**  
**SD type**

## 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 a standard endless screw plus worm-wheel type, supported by a bearing and fully lubricated in an 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. A unique feature of this pump is the special sandwich diaphragm and the reliability of the diaphragm rupture detection system. Furthermore the pumps can be equipped with Explosion Proof or Division II electric motors that are suitable for use in hazardous locations.

Wide choice of wetted materials: S.S.316L;

PVC; PP; PVDF; PTFE; other materials available upon request.

Model	Max Capacity in GPH	Max pressure in PSI
SD 125N	28.5	195
SD 175N	110	203
SD 250N	282	105
AP SD 125N	15.8	580
AP SD 175N	65	580
AP SD 250N	146	290



# Spring Return Mechanical Diaphragm

## SR series FM type

### Spring Return Mechanical Diaphragm Dosing Pump

Type 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 a standard endless screw plus worm-wheel type, supported by a 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.

Model	Max Capacity in GPH	Max pressure in PSI
FM 050N-30	3.6	145
FM 050N-50	12.4	72.5



# Solenoid

# SDP series S type

## Solenoid Dosing Pumps

The SDP family provides 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 their operation and accuracy:

- Injection valve
- 1.5 mt suction pipe
- 1.5 mt delivery pipe
- Strainer

Model	Max Capacity in GPH	Max pressure in PSI
S - -	5.2	290



## 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 ripening 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.

Model	Version	Max Capacity in GPH
HA	<b>Powder</b>	<b>1,321</b>
HE	<b>Emulsion</b>	<b>1,321</b>

Note: Higher capacities are available



# Electric mixers

## EM series D type

### Electric mixers for chemical mixing

#### Type DMT and type DMM

High speed mixers directly coupled to the motor, for small tanks up to 1,000 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.

Model	Version	Tank	Liquid
DMT	Fast mixer	264 U.s. gal	≤ 250 cPs
DMM	Fast mixer	264 U.s. gal	≤ 250 cPs
DEM	Fast mixer	792.5 U.s. gal	≤ 1,000 cPs
DRV	Slow mixer	1,849 U.s. gal	≤ 2,500 cPs
DRC	Slow mixer	10,566 U.s. gal	≤ 5,000 cPs



DMT



DEM



DRV



DRC

# Accessories

**Safety relief valve**



**Relief valves and back pressure valves**



**Polyethylene tanks**



Suitable to be fitted with a metering pump on top

**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.

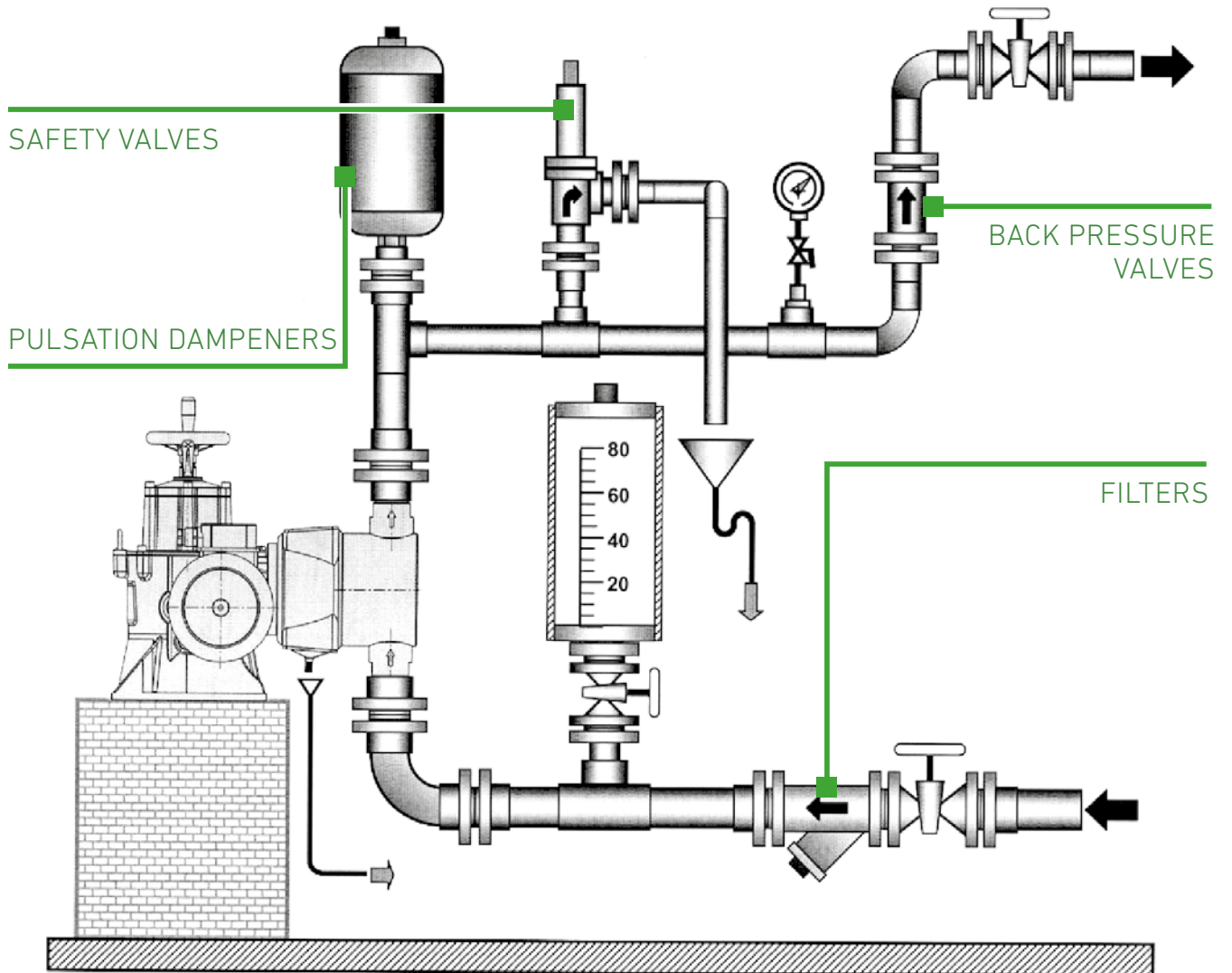
**Pulsation dampener**



**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.







# Doseuro

METERING PUMP SOLUTIONS





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