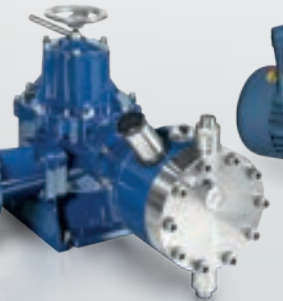


# FPZ

## Metering pump solutions



SIMPLIFIED FLUID HANDLING





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## Metering pump solutions

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# Fluidity The World Over

## The Company

FPZ 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. FPZ's continuous research and development allow us to adapt to ever changing market demands.

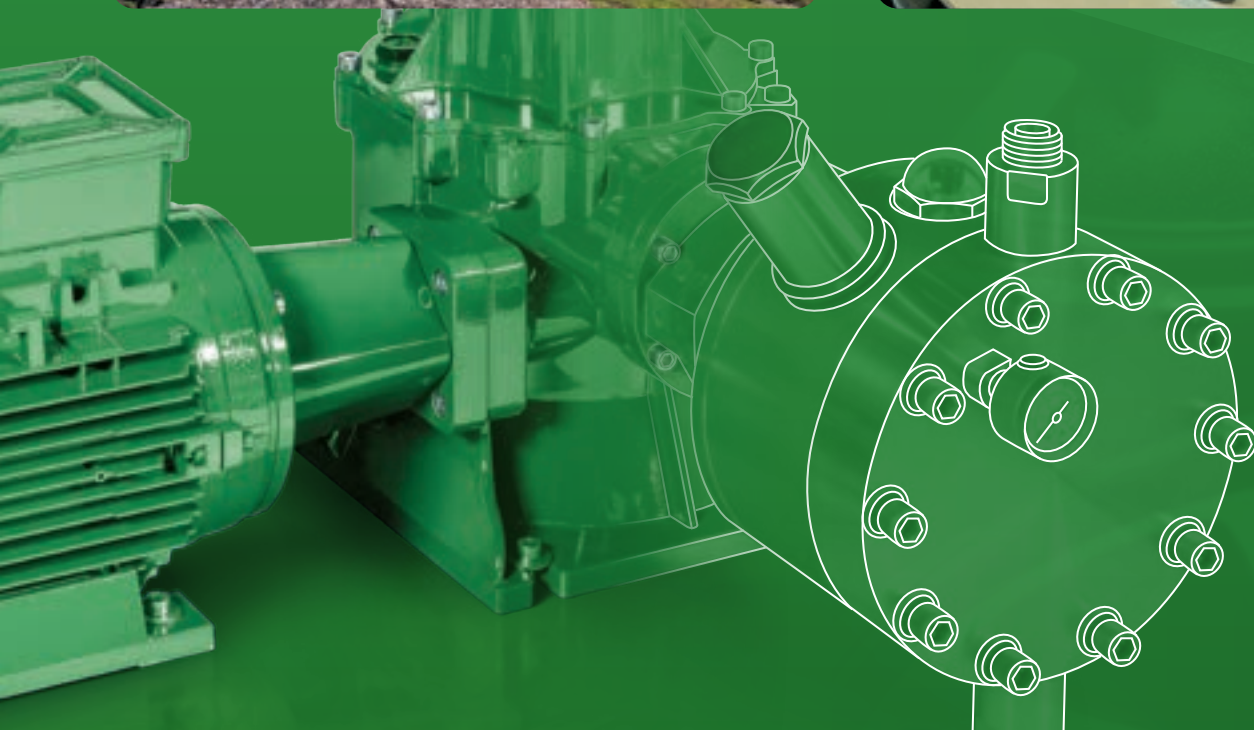
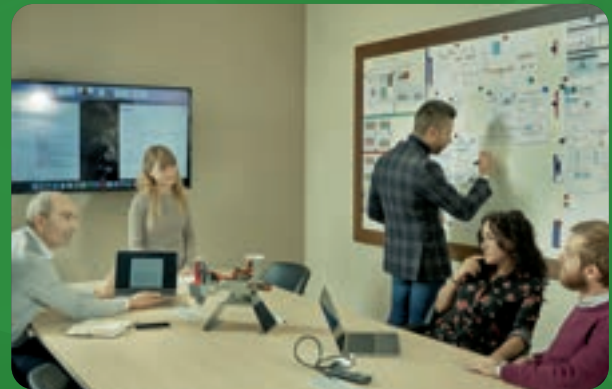
Our strong customer support, product quality and market understanding are the fundamental reasons for our success and have resulted in thousands of pumps working worldwide.

## The Product

### What makes FPZ 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.





## Application areas

Our products, an industry reference point

### Water Treatment



- Wastewater treatment
- Drinking water treatment
- Boiler water treatment
- Cooling tower water treatment
- Polyelectrolyte dosing systems

### Pulp paper and Print



- Cellulose maceration
- Whithening with injection of caustic soda
- Waterproof substances dosage
- Adhesive films and profiles
- Recovery of shavings and powders
- Color dosing
- Cellulose treatment
- Abatement of volatile organic substances

### Food & Beverage



- Food drying systems
- Pasta production, injection of water and enzymes
- Tomato sauce preparation
- Wine and beer filtration with diatomaceous solutions
- Jam production
- Preserves production
- Cleaning in Place systems

### Oil & Gas upstream & downstream

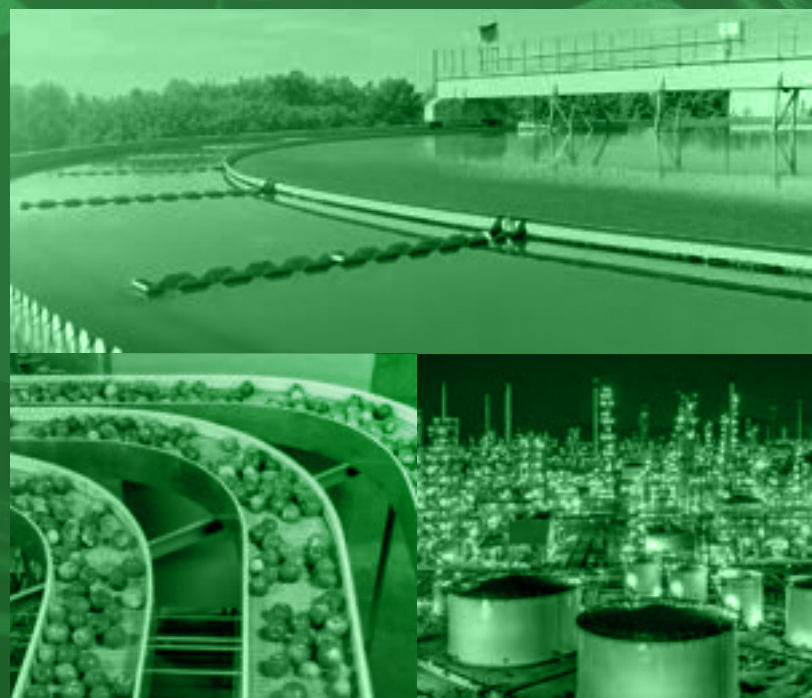


- Methanol injection into the the oil wells
- Water reinjection at high pressure into well heads
- Pipeline treatment through different chemicals
- Antifouling,antiscalant, corrosion inhibitor
- Waste water treatment systems
- Bolier feed water treatment
- Colling tower additive dosage

### Agriculture



- pH control
- Biological treatments
- Cattle breeding



## Metal working and Mining



- Galvanic treatment
- Vibro metal finishing
- Metal production

## Textile



- Dosage of color additives
- Dosage of cleaning products
- Treatment of effluents
- Sewage water treatment

## Chemical and Pharmaceutical



- Process additive dosage
- Chemical injection
- Boiler feedwater
- Colling tower additive dosage
- Piepline treatment
- Precise and automatic dosing of drugs and additive

## Plastic & petrochemical



- Chemical injection
- Boiler feedwater
- Cooling tower additive dosage
- Pipeline treatment

## Ceramica and painting

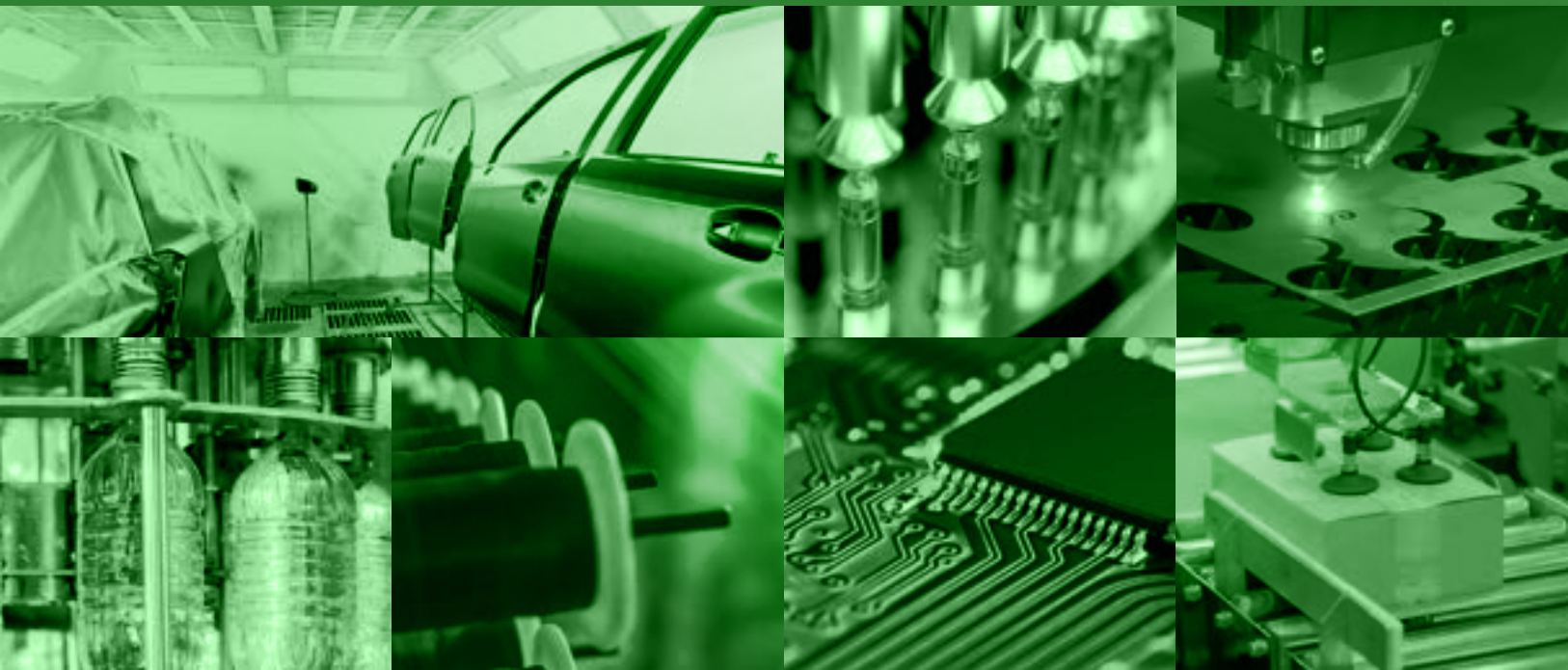


- Injection of colors
- Injection of slips
- Dosage of anti-powder additives
- Polyelectorlite dosing systems

## General industry



- Injection of preservatives
- Dosage of additives
- Dosage of glues
- Injection of colors
- Injection of various chemicals
- Water treatment





# Product range

## A view over the production range

FPZ 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.

## Main features

Most FPZ 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.

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 FPZ chemical dosing pumps are listed in the pictures below.

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.



## Spring Return Plunger SR series, type A

- NOT DANGEROUS LIQUIDS
- HIGH PRESSURE SOLUTIONS
- STANDARD SOLUTIONS WITH FAST DELIVERY
- STANDARD CONFIGURATIONS "READY ON DELIVERY"



### 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.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
A/AP A125N	3.96	3.335
A/AP A175N	7.40	3.335
A/AP A250N	15.06	3.335



## Spring Return Mechanical Diaphragm SR series, type D

- CRITICAL AND DANGEROUS LIQUIDS
- LEAKAGE IS NOT ACCEPTABLE
- HIGH PRESSURE IS NOT REQUIRED



### 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.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
<b>D050N</b>	12.94	203
<b>D100N</b>	115.71	72.5
<b>D101N</b>	110.42	145
<b>D121N</b>	150.58	43.5
<b>D122N</b>	369.84	87

## Hydraulic Diaphragm SR series, type B&BR

- PUMPED LIQUID CONTAINS SMALL AMOUNTS
- OF SUSPENDED SOLID PARTICLES
- DOSED MEDIUM IS TOXIC, CORROSIVE, HAZARDOUS
- LEAKAGE IS NOT ACCEPTABLE
- HIGH PRESSURE IS NOT REQUIRED



### 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.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
<b>B125N</b>	28.53	290
<b>B175N</b>	110.42	290
<b>B250N</b>	282.14	159.5

## Sandwich Hydraulic Diaphragm SR series, type SD

- SANDWICH DOUBLE DIAPHRAGM
- PUMPED LIQUID CONTAINS SMALL AMOUNTS OF SUSPENDED SOLID PARTICLES
- DOSED MEDIUM IS TOXIC, CORROSIVE, HAZARDOUS
- LEAKAGE IS NOT ACCEPTABLE
- DIAPHRAGM RUPTURE DETECTOR IS REQUIRED



### 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.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
SD125N	28.53	195.75
SD175N	110.42	203
SD250N	282.14	104.4



## Spring Return Mechanical Diaphragm SR series, type FM

- MONOBLOCK PUMP
- LUBRICATED FOR LIFE
- NO MAINTENANCE
- PUMPED LIQUID CONTAINS SMALL AMOUNTS OF SUSPENDED SOLIDS
- PUMPED LIQUID IS HAZARDOUS



### 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.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
FM 050N 30	3.70	145
FM 050N 50	12.42	72.5

## Positive Return Plunger PDP series, type A-I

- PUMPED LIQUID DOES NOT CONTAINS SMALL AMOUNTS OF SUSPENDED SOLID PARTICLES
- DOSED MEDIUM IS CLEAN AND SAFE
- HIGH PRESSURE SOLUTION



### Positive Return Plunger Dosing Pump

AI 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.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
AI 175	101.71	725
AI 250	334.18	580
AI 350	942.83	580
AP AI 175	11.62	3335
AP AI 250	42.27	3335
AP AI 350	58.65	3625

Note: Higher pressures are available

## Sandwich Hydraulic Diaphragm PDP series, type SDI

- PUMPED LIQUID DOES NOT CONTAINS SMALL AMOUNTS OF SUSPENDED SOLID PARTICLES
- DOSED MEDIUM IS CLEAN AND SAFE
- HIGH PRESSURE SOLUTION



### Positive Return Sandwich Hydraulic Diaphragm Dosing pump

AI 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.

#### Characteristics

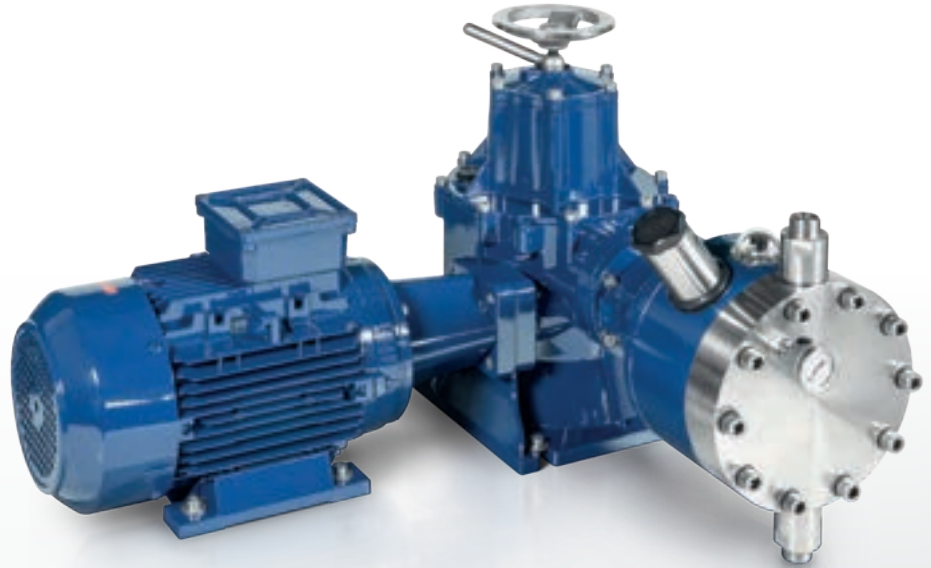
Mod	Max capacity (Gal/h)	Max pressure (psig)
SD I 175	103.03	203
SD I 250	333.91	203
SD I 350	1064.09	203
AP SD I 175	61.02	580
AP SD I 250	187.83	1160
AP SD I 350	395.20	812

Note: Higher pressures are available



# High Pressure Sandwich Hydraulic Diaphragm type MR I

- ZERO LEAKAGE PUMP
- SUITABLE FOR TOXIC, CORROSIVE, HAZARDOUS APPLICATIONS AND HARSH ENVIRONMENT
- REMOTE FAILURE DETECTION SYSTEM
- SUITABLE FOR VERY LOW INLET PRESSURE



## Sandwich Hydraulic Diaphragm Dosing pump

MR I Sandwich Hydraulic diaphragm dosing pumps comply with API 675 and ATEX standards

Mechanism is an internal worm gear, fully oil bath lubricated and suitable to obtain multi-heads unit

Stroke adjustment can be manual or automatic through automatic actuator using 4-20 mA or different BUS communication protocol

Pump performances in full compliance with API 675 3rd edition

Internal overpressure and relief valve is provided for the complete safety of installation

Standard material 316L other solutions available upon request  
High Pressure

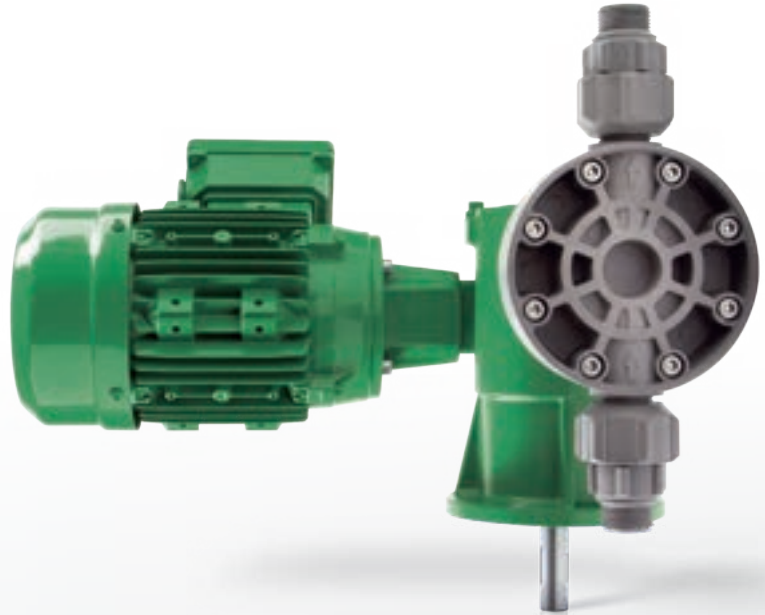
### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
<b>MRI 175</b>	104.35	2900
<b>MRI 250</b>	180.96	2900
<b>MRI 350</b>	631.37	2900

Note: Higher pressures are available

## Vertical pump DV101 Series\*

- **ADAPTABLE**  
Motor can be easily switched from one side to the other
- **FLEXIBLE**  
Different versions suitable for any application requirement
- **QUICK DELIVERY TIMES**  
All configurations available as standard supply



\* Studied version suitable for enology and breweries

### Versatility and total configuration flexibility as manufacturing standard

With the DV101 Series vertical pump, maximum application versatility has been achieved thanks to the possibility of assembling the motor on both the left or right hand side of the pump. This feature, together with other customisation options, allow the DV101 pumps to achieve a unique application adaptability in the Food & Beverage sector.

### An important step forward in the customisation process

The innovative features of the DV101 Series pumps allow maximum adaptability to the needs of the "Food and beverage" sector, both in performance and configuration, allowing a flexible motor positioning even after assembly. All configurations are available as standard, with no delay in delivery times.

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
Mechanical diaphragm metering pump		
<b>DV101N-70M</b>	57.06	116
<b>D101N-90</b>	85.91	72.5
<b>D101N-105</b>	115.71	58
<b>D101N-120</b>	132.51	43.5
Piston Metering Pump		
<b>AV101N-38</b>	20.87	188.5
<b>AV101N-47M</b>	32.63	123.25

## Dosing units

- RESISTANT AND SAFE MATERIALS
- ACCURATE AND PRECISE DOSING PUMPS
- EXCELLENT MIXING ABILITY



### Main features

#### Tank

Made of resistant and safe materials for containing the liquid to be dosed, it is available in different capacities and designed to avoid leaks and ensure easy maintenance. It features a transparent level for visual monitoring of the liquid level.

#### Dosing Pump

Our precision dosing pump is designed to dispense accurate amounts of the desired liquid. Thanks to its advanced technology, it is able to dose variable quantities according to needs, allowing you to regulate the flow precisely and constantly. The pump is highly resistant to wear and harsh chemicals, ensuring reliable performance over time.

#### Stirrer

To ensure homogeneous mixing of the liquid in the tank, our dosing unit is equipped with a high-powered and silent stirrer. The agitator ensures that the liquid remains well mixed, avoiding sedimentation or particle accumulation. This feature is particularly advantageous when it comes to dosing liquids with particularly viscous or sedimentable properties.

#### Available sizes

100 lt

200 lt

300 lt

500 lt

1.000 lt

1.600 lt

All dosing units can be equipped with FPZ dosing pumps available on catalogue



## Solenoid SDP series, type S

- THE USE OF AN INTEGRATED MICROPROCESSOR MAKES THE SDP FAMILY EXTREMELY ACCURATE AND FLEXIBLE
- A WIDE RANGE OF CONSTANT AND PROPORTIONAL DOSING APPLICATION CAN BE MET WITH A FEW MODELS



### 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

#### Characteristics

Mod	Max capacity (Gal/h)	Max pressure (psig)
S...	5.2	290

## Models

### SMC

- Analogic dosing pump
- Potentiometer manual adjustment range 10–100% with double regulating scale

### SMM

- Digital dosing pump. Operating function regulated by microprocessor
- Manual flow rate adjustment with 3 digit display from 0–100%.
- Level control setting (probe not included)

### SSW

- Digital dosing pump. Operating function is regulated by a microprocessor and 12X2 LCD display
- Multifunction or proportional by incoming digital or analogic signal: 0–20 mA; 1 x n; 1: n; 1 x n–M
- Level control setting (probe not included)

### SMF

- Dosing pump with pH, Rx, Cl built in instruments
- Operation mode: 0–14 pH ; -1000 : +1400mV ; 0–2, 20, 200 ppm
- Temperature compensation 0–100°C ; 4–20mA out-put Protection IP65
- Predisposed for level probe setting (probe not included)

Characteristics									
Type	Max capacity (Gal/h)	Max pressure (psig)	Stroke lenght (mm)	Stroke per minute (spm)	Absorbed power (Watt)	Absorbed current (Ampere)	Connection (mm)	Suction lift (mcw)	Weight (Kg)
<b>115</b>	0.26	217.5	0.8	120	37	0.16	4/6	2	3.5
	0.53	145							
	0.79	72.5							
	1.32	29							
<b>220</b>	0.53	290	1	120	58	0.25	4/6	2	3.5
	0.79	145							
	1.06	72.5							
	1.32	29							
<b>507</b>	1.32	101.5	1	120	37	0.16	4/6	2	3.5
	1.85	58							
	2.11	29							
<b>810</b>	0.79	174	1.4	120	58	0.25	4/6	2	4.1
	1.85	145							
	2.64	72.5							
	2.91	29							
<b>154</b>	3.96	58	2.2	120	58	0.25	4/6	2	4.1
	4.23	29							
	4.49	14.5							
<b>203</b>	5.28	43.5	2.2	120	58	0.25	4/6	2	4.1
	5.81	14.5							

# RAPIDA 2.0

- **DOSING ACCURACY**  
Possibility to modify pump curves according to the real installation condition
- **WORKING TIME CHECKING**
- **PASSWORD SETTING**
- **REDUCED OVERALL DIMENSION**
- **EASY TO INSTALL**  
Possibility to install on existing pumps
- **MAINTENANCE PROGRAMMABLE**



## The latest new FPZ product for improving the already known high performance pumps

Quickly and Easily is the RAPIDA's motto, thanks to his display, control board and different function that allow to change the pump setting immediately.

The RAPIDA 2.0 inverter motor is an assembly of a three-phase asynchronous electric motor and an inverter board, designed to allow the speed of the motor to be varied.

Voltage feeding is 220 V by means of an internal transformer adapting the pump to an easy installation.

It is specifically fitted to the entire range of FPZ SR series pumps.

## Function

- **Manual:** flow rate adjustment with digit display
- **Analogic:** flow rate adjustment with input 4-20mA or 0-20mA or 0-10V or 2-10V
- **RS485 serial port:** flow rate adjustment with ModBUS/RTU protocol
- **Level control setting:** predisposed to be connected to level sensor
- **Batch:** pump can be programmable for operating only for a certain quantity
- **Timing mode:** delayed start or working in a determinate time HH:mm
- **Remote alarm:** relay exit to switch for any alarm
- **Priming:** mode to facilitate pump start-up





**Pump assignment**

Pump model	RAPIDA2.0	RAPIDA2.0	RAPIDA2.0	RAPIDA2.0
	02	0.3	0.5	0.7
	0.25KW	0.37KW	0.55KW	0.75KW
D050N	■			
D100N	■	■		
D101N	■	■		
D121N			■	
D122N			■	■
A-B-BR-SD 125N	■			
A-B-BR-SD 175N	■	■		
A-B-BR-SD 250N			■	■
A350N				■



# JustSwitchOn

COMPACT DOSING SYSTEM

- **PRE-CONFIGURED**  
Rigid and standardised frame with pre-plumbed piping assemblies
- **MAXIMUM DOSING ACCURACY**
- **MINIMAL SPACE REQUIRED**
- **EASY TO INSTALL AND OPERATE**  
Turnkey system with single or multiple input & discharge connection
- **DESIGNED FOR HARSH ENVIRONMENTS**  
Rugged PP frame



## The pre-engineered dosing system, by FPZ

FPZ pre-engineered JSO systems are designed to provide a complete dosing solution for all our metering pumps. JSO systems include rugged PP frames (1.5 cm) for single or dual dosing pumps and inlet and outlet discharge piping. Inlet piping includes an isolation ball valve, Y filter and calibration pot. Discharge piping includes isolation ball valves, pulsation dampeners, back pressure valve, relief valve and pressure gauge.

Characteristics		
Mod	Max capacity (Gal/h)	Max pressure (psig)
JSO 1/2"	52.83	145
JSO 3/4"	105.67	145
JSO 1"	277.38	145
JSO 1 1/2"	396.26	145

Pump assignment				
Mod	JSO 1/2"	JSO 3/4"	JSO 1"	JSO 1 1/2"
SDP	■			
FM	■			
D050N	■			
D100N	■	■	■	
D101N	■	■	■	
D121N			■	
D122N			■	■
A-B-BR-SD 125N	■			
A-B-BR-SD 175N	■	■		
A-B-BR-SD 250N		■	■	
A350N				■

## Preparation of polyelectrolytes H series, type HA-HE

- AUTOMATIC SYSTEM FOR POLYELECTROLITE SOLUTIONS
- COMPACT UNIT
- SUITABLE FOR POWDER OR EMULSION POLYELECTROLITE SOLUTIONS
- DOSING SYSTEM UNITS AVAILABLE



### 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.

## Electric mixers EM series, type D



### 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

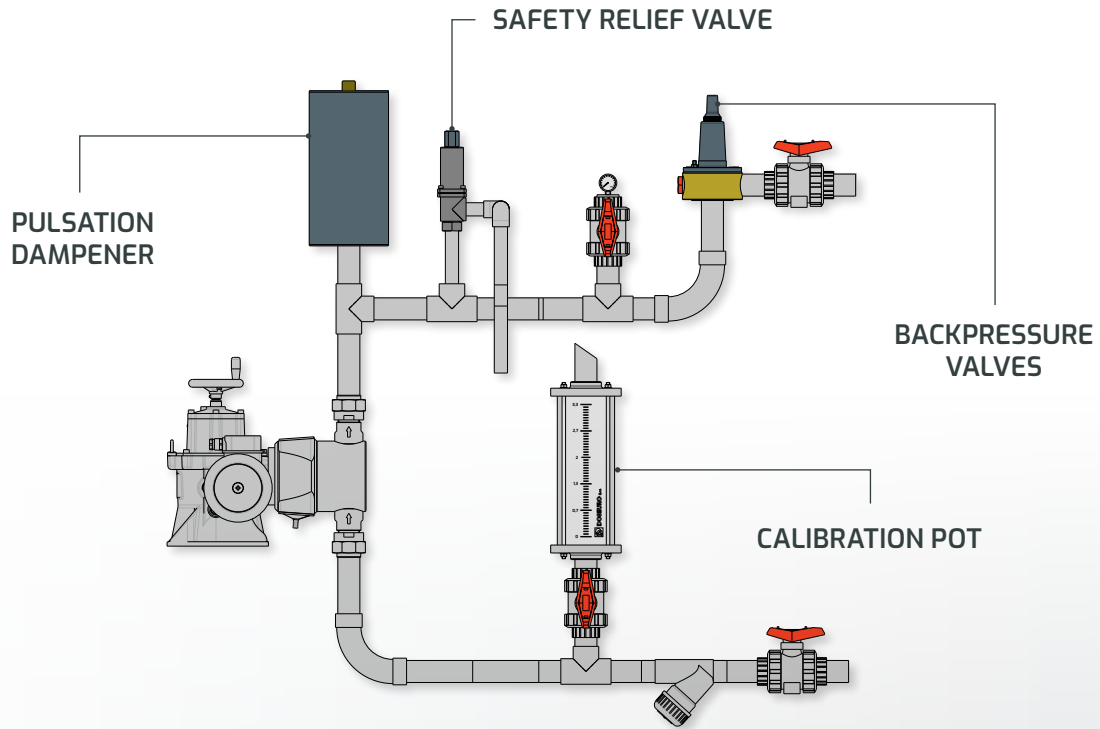
Heavy duty slow speed mixers with co-axial reducer, outrigger bearings and protective seals.

#### Characteristics

Mod	Version	Tank U.s. gal	Liquid cPs
DMT	Fast mixer	264	≤ 250
DMM	Fast mixer	264	≤ 250
DEM	Fast mixer	792.5	≤ 1.000
DRV	Slow mixer	1.849	≤ 2.500
DRC	Slow mixer	10.566	≤ 5.000



## ACCESSORIES



### Safety valve



Safety valve is installed on pump delivery pipe and it is jointed to the bypass pipe as a safety device, so it opens (discharges) when the limit value is reached in order to protect the system and pump against pressure overloads.

### Relief valves and back pressure valves



Back pressure valve is installed in line on the delivery pipe of the pump in order to counteract the existing pressure in the suction in order to avoid the siphoning. Use of this valve allows the flow to be regulated in cases where the discharge pressure is low or non-existent.

Relief valve is installed on pump delivery pipe and it is jointed to the bypass pipe as a safety device, so it opens (discharges) when the limit value is reached in order to protect the system and pump against pressure overloads.

## Polyethylene tanks



Suitable to be fitted with metering pump on its top

## Calibration pot



Calibration pot used to check the real flow rate after installation. It consists of a graduated cylinder in synthetic glass with wetted parts in S.S. 316 or PVC. It is dimensioned to have on minutes calibration

## Pulsation dampener



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

# After sales service

FPZ is able to offer quick and efficient assistance. A team of specialists is ready to intervene offering the right service at the right time.



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This brochure contains information that we believe to be correct, and blowers have been successfully selected with this information. FPZ, however, cannot guarantee that the blower selected will work successfully as there may be additional factors such as, but not limited to, pipe size, sparger design, and plumbing configuration that are not covered in this brochure. It is the users responsibility to determine the suitability of the product for his or her intended use and the user assumes all risk and liability whatsoever in connection therewith.