

# DOSING



## DP<sup>®</sup> -S

Volumetric dosing unit of powder or granulated products



# SDM

DOSING AND MIXING  
SYSTEMS

Providing Value to Technology

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## PRINCIPAL CHARACTERISTICS

The DP- S volumetric dosing units are designed to ensure a constant and accurate flow of all powder products. They include a dosing chamber constructed in stainless steel AISI-304 which includes a mixing and standardising screw for the product an outlet conduit with a dosing screw.

The launch and maintenance of the DP-S dosing units is very simple, with a truly low cost.

The DP-S dosing units are activated through an electric motor with a frequency converter incorporated to the terminal box, equipped with a speed control panel and gearbox for two trains of helical gear motors, permitting regulation of the flow during operation between 10 and 100% of the maximum flow.

Accuracy varies depending on the properties of the dosed product, from 0.5% to 3%. This accuracy is achieved with correct supply of the dosing unit screw from the outlet conduit, and for this, the supply must be of a product with uniform density.

In order to ensure continuous standardisation of the standardised product to be dosed, ensuring the dosing flow, there is a paddle agitator that turns on a dosing unit screw at a different speed.

The DPS equipment have a very compact and robust construction, and the different models can adapt to all conditions of use thanks to the interchangeability of numerous elements.

There are three basic models of the DP-S dosing units:

- **DP-S 31** for products with density up to 1,000 kg/m<sup>3</sup> and granulometry of 180 µm. Flow up to 352 l/h. The DPS-30 includes a default hopper of 25 l.
- **DP-S 322** Power dosing unit especially for polymers (without mixing screw) for products with a density of up to 1,000 kg/m<sup>3</sup> and granulometry of 180 µm. Flow up to 130 l/h. The DPS-322 includes a default hopper of 60 l.
- **DP-S 350** for products with density up to 1,400 kg/m<sup>3</sup> and granulometry of 260 µm. Flow up to 4,200 l/h.

The flow range available for each model is determined in accordance with the dosing unit screw installed, which permits higher or lower movement capacity of the powder product, and the exit speed of the electromechanical activation. Below, the theoretical maximum and minimum flows are indicated in accordance with the type of dosing unit screw used. The flows are for conduits, screws and standard activations. The flows must be adjusted in accordance with the true product to be dosed. Consult us to adapt this data to your process.



MODEL DP-S 31			
FLOW <sup>(1)</sup>		DISPENSER SCREW	
(l/h)		Type	Speed range (rpm)
Min.	Max.		
1.2	11.9	3	13.8 -138
6.2	62.3	4	13.8 -138
21.4	213.7	5	13.8 -138
37.4	373.7	6	13.8 -138

MODEL DP-S 322			
FLOW <sup>(1)</sup>		DISPENSER SCREW	
(l/h)		Type	Speed range (rpm)
Min.	Max.		
0.85	6	3	70-10
4.5	31.4	4	70-10
15.5	108.4	5	70-10
27.1	189.5	6	70-10

MODEL DP-S 350			
FLOW <sup>(1)</sup>		DISPENSER SCREW	
(l/h)		Type	Speed range (rpm)
Min.	Max.		
44.3	443	13	17.2 -172
84.8	848	14	17.2 -172
242.6	2,426	15	17.2 -172
422.6	4,226	16	17.2 -172

(1): Theoretical flow for performance = 1

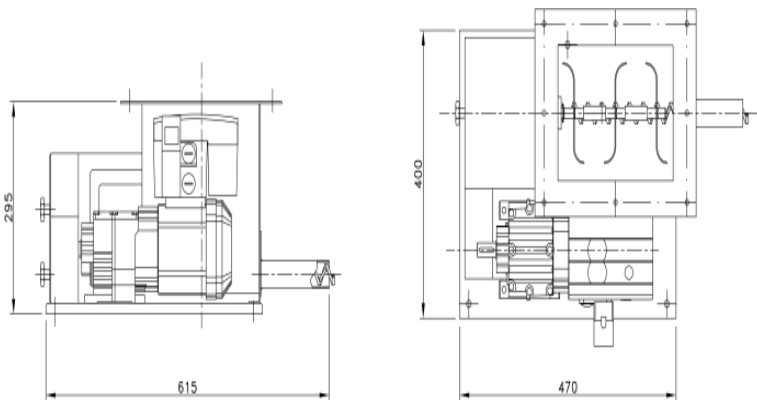
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## ACCESSORIES AND OPTIONAL ITEMS

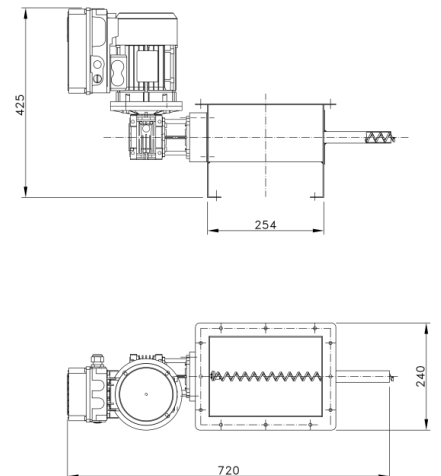
There is a wide range of accessories and optional items:

- ✓ Hoppers for storage of the product to be dosed in various volumes or forms (according to the needs of the product or process).
- ✓ Vibrating device of the hopper.
- ✓ Level sensors.
- ✓ Extended conduits and screws.
- ✓ Special conduits: vertical discharge, for products, high density, etc.
- ✓ Interior cladding of screw and dosing unit screws.

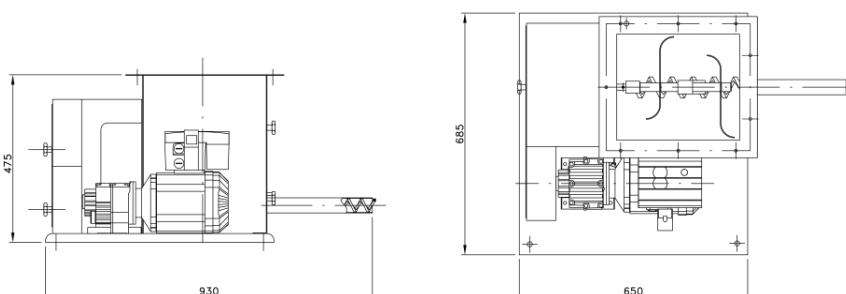
MODEL DP-S 31



MODEL DP-S 322



MODEL DP-S 350



## APPLICATIONS

There are numerous applications, both at laboratory and at industrial or commercial level:

- ✓ In the water treatment industry to dose reagents such as solid polyelectrolytes, bisulphites, etc.
- ✓ In the food industry to dose semolina, essences, additives, etc.
- ✓ In the paper industry for processes such as adding fibres or paper quality identifiers.
- ✓ In the mining or ceramics industry for conditioning solutions.
- ✓ In general, in any type of industry: chemical, pharmaceutical, etc.

## GRADUAL AND CONTROLLED DISPENSING OF SOLIDS IN POWDER

The dosing, supply and incorporation of solids in powder in any recipient in a liquid form, requires and recommends that this be carried out in a gradual and controlled manner in order to increase, in this way, the efficiency of any operation or process.

The DP®-S system is the only one that can carry out this function in a simple and economic manner.



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