

# Arch breaker & Metering unit ZFP 500 / DM



Waste water



Drinking water



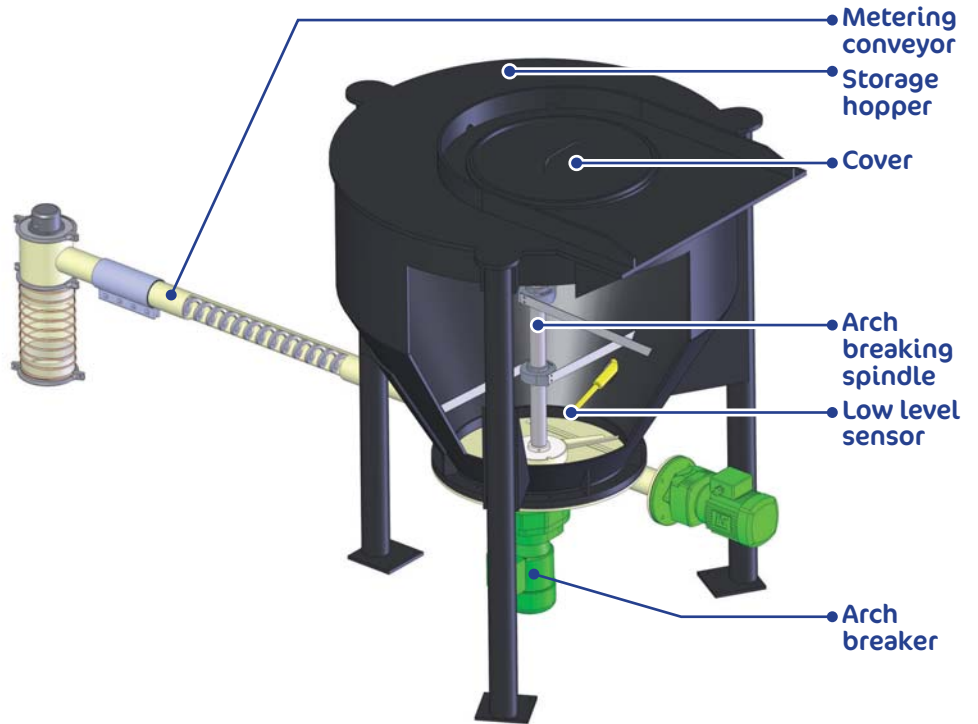
Air & smoke

## Powder discharge and dosing system for small capacity hopper :

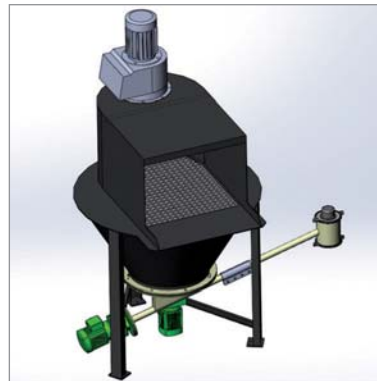
The arch breaker and metering unit ZFP 500 / DM is a mechanical discharge and dosing system for bulk powders.

It can be installed under any storage hopper (volume between 50 to 3000 litres) and offers a compact powder dosing unit, adapted to the specific needs of each project.

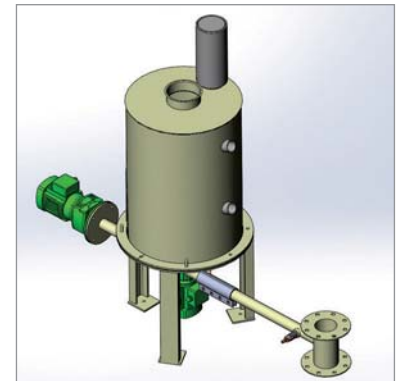
The type of container (sack-tip hopper, buffer hopper or weighing hopper), chosen for the arch breaker and metering unit assembly, depends on the process of each project.



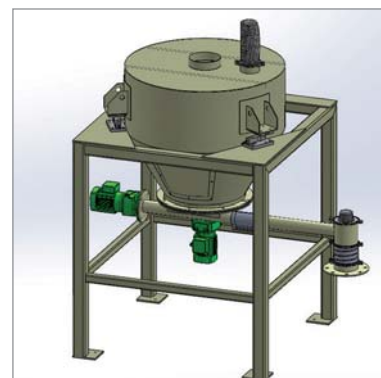
Examples of setting-up :



Sack-tip hopper



Buffer hopper



Weighing hopper

## Advantages :

- Constant flow and accurate volumetric dosing
- Low power consumption
- Easy assembly onto transfer or injection system
- Mechanical discharge without product compaction or contamination
- Easy to assemble : adjustable length, flexible or rigid metering conveyor





## Operation :

The main part of the arch breaker ZFP 500 is the arch breaking spindle.

It rotates inside the hopper cone thanks to a geared motor, allows its flexible blades to prevent the product from building an arch and ensures a constant flow.

The rigid arms, which are directly connected to the spindle, allow the metering conveyor to be fully filled of product in order to obtain an accurate volumetric dosage.



## Specificities :

- **Metalwork material (carbon steel, stainless steel 304 / 316)**
- **Fixed or variable throughput**
- **Simple or double / Rigid or flexible metering conveyor**
- **Numerous discharge diameters (500, 800, 1000, 1250 mm)**

Example of dosed product	Maximum length of metering conveyor
Quick lime	4 m max.
Hydrated lime	7 m (depending on the throughput)
Activated carbon (PAC)	7 m (depending on the throughput)
Sodium bicarbonate	4 m max.
Microsand	2 m max.
Soda ash	4 m max.
Polymer	4 m max.
Other products	To be defined after sample analysis

## Options :

- **Conveyor rotation sensor**
- **Outlet chute product detection**
- **Weighing unit (loss-in-weight / regulation)**
- **Dust collecting system**
- **Dedusting hood**

Metering conveyor type	Range of throughput*	Conveyor outer Ø
30	50 l/hr max.	40 mm
40	440 l/hr max.	50 mm
70	1 400 l/hr max.	76 mm
80	2 300 l/hr max.	89 mm
100	3 600 l/hr max.	104 mm
120	12 000 l/hr max.	140 mm

\* the throughput can vary according to the product and the site design