

## Technical Data

01/01/2020

### Volumetric Dry Feeder Series DVAD

ENCHLOR Volumetric Dry Feeder for bulk chemicals is equipped with an endless screw with different capacities and a maximum speed of 150 rpm. Manufactured in 304 stainless steel standard and other materials such as 316 Stainless Steel, Carbon Steel, Cast Iron, Ductile Iron, PVC, Aluminum, or required by customer. Provided with a propeller-type stirring rotor placed on top of the screw that avoids air cavities and ensures the homogeneous screw filling and feeding. Dimensions and capacities of mixing tanks, hoppers, emptying chamber, dust collector, and other components are adapted to the installation requirements.

### Applications

DVAD Volumetric Feeders precisely measure chemicals used in a process such as water treatment, food plants, pharmaceutical industry, and chemical processes. Substances can be measure if the particles are dust, granules, flakes or short fibers. All the Feeders described here are volumetric type and are equipped with endless screws.

Ideal for measuring compounds in bulk such as:

- Aluminum Sulfate.
- Activated Carbon.
- Hydrated Lime.
- Powdered Polymers.
- Sodium Fluoride.
- Calcium Hydroxide.
- Also other compounds in solid presentation powder, granules, flakes or short fibers.

### Design

The Feeder comes with a support structure of stainless steel plates. The control, gear and motor are located outside the feeder.



- Maximum speed is 150 rpm to maintain a uniform flow and protect the screw and feeder.
- Basic feeder storage is 15 liters with a 60 liters hopper. Additional storage volume can be added to comply with customer requirements.
- Output measurement control adjusted by changes in screw speed.
- Feeder uses rotating blades mounted on top of endless screw to avoid formation of air bridges or gaps as solid material is dispense. Also to ensure a constant filling of the endless screw. The approximate rotational speed is 25 rpm.
- Hoppers do have a rectangular flange at the top with holes to allow for storage extensions, other accessories or shut-off valves. The system also comes with a manual and automatic bag dispenser.

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Selection Table

Capacity (l/h)	Model	d (mm)	Helix speed (rpm)	Allowable grain size (mm *)
4	DVAD4	20	150	1
14	DVAD14	20	150	2
38	DVAD38	38	150	2
60	DVAD60	38	150	3
150	DVAD150	38	150	3
320	DVAD320	51	150	3
420	DVAD420	51	150	3
850	DVAD850	75	150	3
1380**	DVAD1380	75	150	3
1900**	DVAD1900	90	150	4
2650**	DVAD2650	90	150	4

\* The allowable grain size strongly depends on geometry of grain and fluidity of dry material. When in doubt a practical test will help. Feeder Range 100:1

\*\* Optional equipment.

**Power supply and control**

Motors voltages from 100 to 480 V, 50/60 Hz, 1 to 3 Phases, controls panels in Nema 4x or other enclosures as well as a large number of accessories are available to suit the needs of the user and the power source.

**Dimensions of screws and energy used to drive it.**

Feeder DVAD	Screw (d) mm	Energy Watts
	20	30
	38	40
	51	50
	75	60
	90	60



*Vaciador – Extractor*

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**Standard mixing tank volume**

**Other volumes and dimensions a per user's request.**

Standard tank capacity (Liters)
200
400
600
800
1000



*Mixing tanks*

**Accessories:**

DVAD Volumetric Feeder can include a wide variety of accessories according to customer requirements:

- Manual, mechanical and automatic valves  
Mixers/mechanical agitators with motor and propellers, adjusted to the user's requirements.
- Anti-rotation deflectors
- Connections and nozzles
- Inspection doors
- Chemical resistance sealing rings
- Accessories for pipes in general
- Manometers and Rotameters
- Calibration columns
- Flow meters and flow switches
- Heaters
- Hydraulic Dilution systems
- Electrical control panels with Telemetry and PLC connection, with different types of enclosures, typically NEMA 4X / IP66
- Sensors and controllers of various kinds
- Bases and supports
- Spare parts kits
- Hopper loaders
- Electrical and voltage protectors
- Transformers
- Ultrasound and level sensors
- Other accessories requested in requirements

**Model offered:**

We understand that some processes require a tailor made approach. That is why in 2013 we decided to launch Enchlor OEM. Our goal is to provide non-standard, tailor made, custom fit equipment for the water treatment industry. Ehchlor OEM adapts equipment to a wide range of applications by reengineering components, accessories and materials of our standard engineering product line. The goal of OEM is to solve the needs of our customers. By accepting these challenges, we provide our technical staff with the ability to expand their capabilities beyond standard equipment. This experience has proven rewarding to all our stakeholders. As our customers can request tailor made solutions, our distributors can expand their product offerings and our staff can perfect their technical craft.

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Typical Volumetric Feeder diagram:

