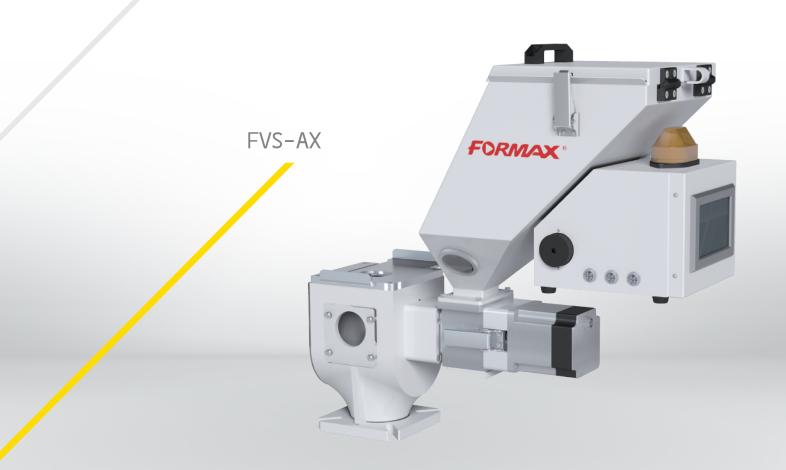


FVS Series

Volumetric Screw Doser



# **FVS Series**

## Volumetric Screw Doser

### ■ Coding Principle

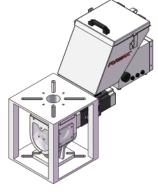


#### ■ Features

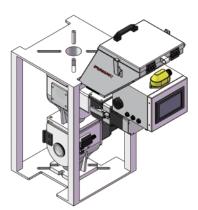
- Dosing screws are stainless steel for durability.
- Unit is comprised of standard modules for ease of cleaning disassembly and interchangeability.
- External Signals can be directly input to control box.
- Compulsory material cleaning makes it easier to replace master- batch.
- Applicable on extruder, just need to make a few wire replacements.
- RPM can be automatically adjusted according to extruder processing speed, which maintains the fixed proportion of master batch.
- 100 recipes are available for permanent recording of material discharging time and finished products weight (for extruder, it is max. throughput per minute).
- Using stepping motor and more accurate and stable.
- Based on customers' demand, mold cycles can be set to add additives periodically so that micro-metering can be achieved.
- Equipped with RS458 communication function.



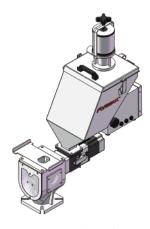
Support Bracket (optional)



Heavy Base (optional)



Heavy Base with Mixer (optional)



Venturi Loader (optional)

### Options

- HF heavy base is optional for using with FHD-100~FHD-300.
- Adding up to 4 kinds of master batch at most.
- High temperature doser FVS-PET is optional for applying to PET high temperature situation; the water runs in its cooling part must be room temperature water.
- Y type crushed material base is optional for using with proportional valve.
- MX mixer is for mixing materials evenly.
- MIH material intermediate hopper is for feeding main material.
- LS low level sensor can be opted to give an alarm when mater batch is insufficient.
- Screw with diameter of 30mm can meet customers' requirements of large output.

- SF support bracket is for hopper loaders installed on the hopper of doser.
- LV venturi loader can satisfy consumers' request of low noise and high accuracy conveying.





MIH-S18 (optional)

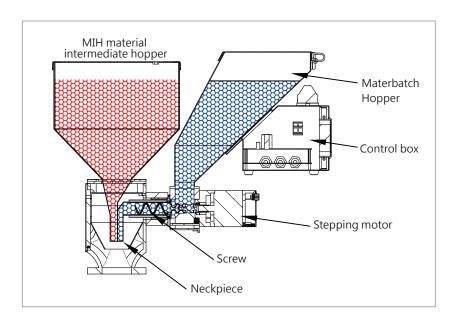
MIH-S24 (optional)

# Application

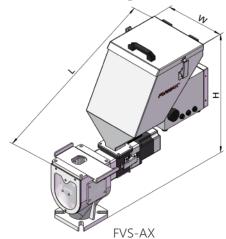
FVS series volumetric screw dosers are suitable for autoproportional mixing of virgin materials, regrinds, master batch or additives. A stepping motor with  $0\sim200$ RPM is coupled to a dosing screw of A3, A10, A15, A20 or A30 to give a total of five models with output ranging from  $0.2\sim50$ kg/hr. Double-color dosers are available for collocating with any two of single color dosers if required. Five components automatic mixing can be realized of customers adopt four-color dosers.

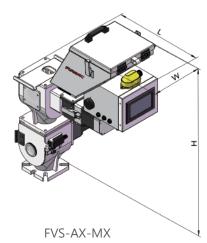
# ■ Working Principle

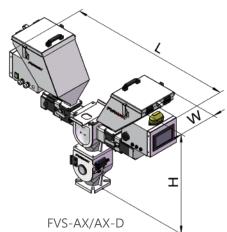
Signals from control cabinet are sent to motor, and then motor begins to work. The rotary force is transferred to the dosing screw through shaft connector. Color additives in hopper fall into the groove of conveying screw, then are taken to hopper base by rotating action of the screw.



### ■ Outline Drawings







### ■ Specifications

| Model                            |       | FVS-A3                     | FVS-A10 | FVS-A15 | FVS-A20 | FVS-A30 | FVS-AX/AX-D          |
|----------------------------------|-------|----------------------------|---------|---------|---------|---------|----------------------|
| Stepping Motor<br>Power          | kW    | 0.2                        |         |         |         |         | 0.2*2                |
| Rotation Speed                   | rpm   | 1~200                      |         |         |         |         | 1~200                |
| Screw OD                         | mm    | 20                         |         |         |         | 30      | 20/30                |
| Sleeve ID.                       | mm    | 30                         |         |         |         | 40      | 30/40                |
| Max. Output                      | kg/hr | 0.2~2                      | 0.7~6   | 1~16    | 1.5~27  | 3.6~50  | Reference Left       |
| Master-batch<br>Hopper Capacity  | Ltr   | 10                         |         |         |         |         |                      |
| Main Material<br>Hopper Capacity | Ltr   | ( MIH-S18/24 as optional ) |         |         |         |         |                      |
| Mixing Motor Power               | kW    | 0.09 ( Optional )          |         |         |         |         |                      |
| Mixing Chamber                   | Ltr   | 3L or (6L as optional)     |         |         |         |         |                      |
| Voltage                          |       | 1Ø,220VAC · 50/60Hz        |         |         |         |         |                      |
| Outline Dimensions               |       |                            |         |         |         |         |                      |
| L                                |       |                            | 984     |         |         |         |                      |
| W                                | mm    | 278/459 ( With Mixer )     |         |         |         |         |                      |
| Н                                |       | 551/711 ( With Mixer )     |         |         |         |         |                      |
| Net Weight                       | kg    | 30/35 ( With Mixer ) 60    |         |         |         |         | 60/65 ( With Mixer ) |

Note: 1) The output capacity depends on model selected, date of the single color doser can be a reference.

- 2) The external diameter of screw is up to model selected.
- 3) For additional mixer, add "MX" at the end of model code.
- 4) All output capacities of above models are based on data from bulk density 0.65kg/L, dia. 2~3mm master batch in a test criteria of continuous running.
- 5) High torque stepping motor is for adding regrind/recycled materials.

Specifications are subject to change without prior notice.



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