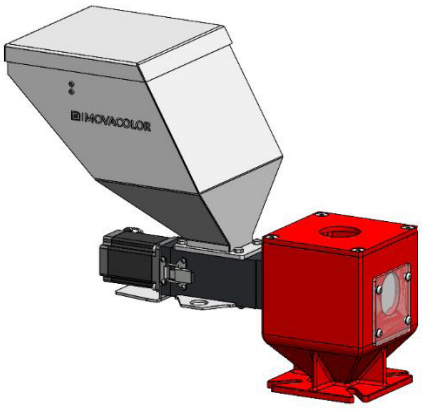
# MDS Volumetric Feeder

## Intended Use

Movacolor's MDS Volumetric is intended for use in the plastics processing industry to feed maximum 40% of additives (in the form of granules, pellets, or free-flowing powders with particulate size larger than 0.5 mm diameter) into a stream of main material.




### At A Glance

- Modular volumetric dosing system
- For granular material and micro granulate
- Volutouch: Movacolor's full color touchscreen controller
- Up to two dosing units on one controller
- Memory for up to 100 recipes
- Stainless steel material hoppers
- Material change within 60 second – unless switch dosing cylinder to auger, then more time needed to disassemble the tube
- Compatible with Movacolor's suite of dosing cylinders and augers up to A30HT

### Benefits

- Efficient dosing for up to two additives on one system
- Touchscreen controller
- Movacolor technology you can rely on

### Introduction

The Volumetric feeder is the new standard in volumetric feeding, providing a cost efficient solution to your dosing needs. It features a dedicated neckpiece that can hold up to two volumetric dosing units and your choice of main material hopper.

The dosing unit is powered by a new stepper motor providing the reliable power and control needed to deploy a range of dosing cylinders and augers. The motor rpm range is from 0.1 rpm to 200 rpm in 0.1 rpm increments.

Changing between dosing cylinders can be done without the use of tools by simply manually releasing the motor assembly and mounting a different tool. For changing an auger Allen keys are required.

The dosing units are controlled by the Volutouch, a touchscreen controller dedicated to the new volumetric range. The Volutouch controller comes in a stylish grey housing with a full color glass capacitive touchscreen. Volutouch can connect with an extruder's tacho signal or start-signal from an injection molding machine. Volutouch can control Movacolor's hopperloaders for one or two dosing units. Up an downloading of recipes or downloading of log data can be performed by setting up a local WiFi connection to the VoluTouch.

## GET IN TOUCH TODAY

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# MDS Volumetric Feeder

| | |
|---|---|
| Neckpiece | 140 x 140 x 190mm, cast iron, powder coated |
| Neckpiece throat | 45 x 45mm |
| Neckpiece inlet / topplate | 6mm steel Ø50mm centre hole |
| Neckpiece mounting | 4 slots on corners for M10 |
| Insert or divider plate | Stainless steel |
| Dosing unit hopper | Stainless steel, 6 litre, one side glass |
| Dosing unit motor | LV motor 0-200 rpm<br>HT motor 0-350 rpm |
| Dosing unit | Freestanding for calibration, cleaning and filling |
| Material change | Discharge valve on bottom of dosing unit |
| Dosing unit cleaning | Removable from neckpiece by one allen key |
| Max recommended elevation | 1000m above sea level |
| Ambient temperature range | Storage -20 °C - 80 °C<br>Operation 0 °C- 50 °C<br>(>40 °C lifespan limitation) |
| Max material temperature | 70 °C |
| Hopper level sensor | Optionally available |
| Max mechanical load on dosing unit | 30kg (static) including material inside hopper |

## Features Volumetric Feeder Controller (VoluTouch)

| | |
|---|---|
| Human machine interface | Compact housing design<br>4.3" capacitive touchscreen, full colour |
| Input signals | Tacho 0-30 VDC<br>Start dosing synchronisation, 24 VDC or Potential free<br>Hopper level sensor (2x), 24 VDC |
| Output signals | Motor control (2x) up to 4A, 0-200 rpm<br>Hopper loader control (2x) 24 VDC 0.5A max<br>Alarm, 24 VDC 0.5A max<br>Run, 24 VDC 0.5A max |
| CPU | Dual core |
| Power rating | 95 - 264 VAC, 47-63 Hz, 200Wmax<br>via external power supply |
| Cable lengths | AC power cable: 2.0 - 2.5m<br>DC power cable length: 1.2m<br>Motor cable: 3m<br>Valve cable: 3m<br>Input cable: 3m<br>Sensor cable: 3m |
| Max capacity of neckpiece | 1600 kg/h |
| Max percentage of additive | 40% |



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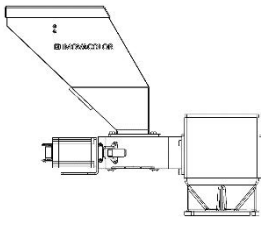
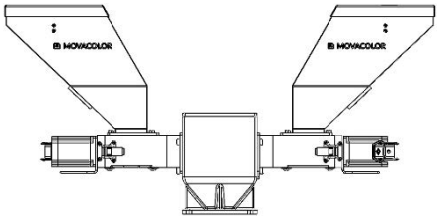
| | |
|---|---|
| Dosing capacity range | 0.07kg/h - 180kg/h*<br>(* depends on material properties) |
| Connectivity | WiFi access point possible |
| Recipe storage | Up to 100 recipes |
| Production operating modes | Extrusion or injection moulding |
| Input signal modes for injection moulding | Timer or relay |
| Input signal modes for extrusion | Tacho or relay |
| Loader control | Movacolor ME or MV |
| Alarm function | Hopper and loader low levels<br>System and motor errors |
| Log function | Log file for operator - and production event monitoring (also via export). Logs rpm and warnings |
| Import / export | Import and export of recipe - and log files via local WiFi (web interface) |
| Buzzer | Buzzer to signal alarms |
| Light indicator | LED |
| On / off button | x |
| WiFi | Only pairing - web interface to import and export log-files and recipes |
| Control modes | Simple operator, expert operator, supervisor |

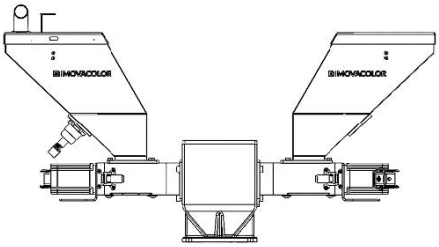
## Typical configuration examples:



1 dosing unit
Neckpiece with glass
Single controller



2 dosing units
Neckpiece w/o glass
Double controller



2 dosing units
1 ME loader
Neckpiece w/o glass
Double controller



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## Options

| | |
|---|---|
| Neckpiece colour | Movacolor red or grey |
| Alternative neckpieces | Inline with Movacolor modularity<br>NST40, NST90, watercooled etc. |
| Dosing tools with LV motor | GLX, GX, HX, A8, A10, A15, A20 |
| Dosing tools with HT motor | A20HT, A30HT |
| Hopper size | 6L, 12L |
| Inputs | Tacho, start signal, low level sensor |
| Outputs | Alarm, run, hopper loader valve |
| Filling and loading | Handfill, ME, MV<br>External loader/ receiver (plus support frame) |
| Alarms | Alarm light, alarm sound beacon |

## Notes:

• At moment of purchase, Volutouch controller needs to be unlocked with dedicated PINcode. Code is provided by Movacolor at moment of purchase, and configures the Volutouch in correct branding as Movacolor or private label.

• The unit is fit for use with free flowing powders, however the bottom slider is not fully tight for all powders. When used with very fine powders, some leakage may occur.



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