

# MDS Volumetric Feeder

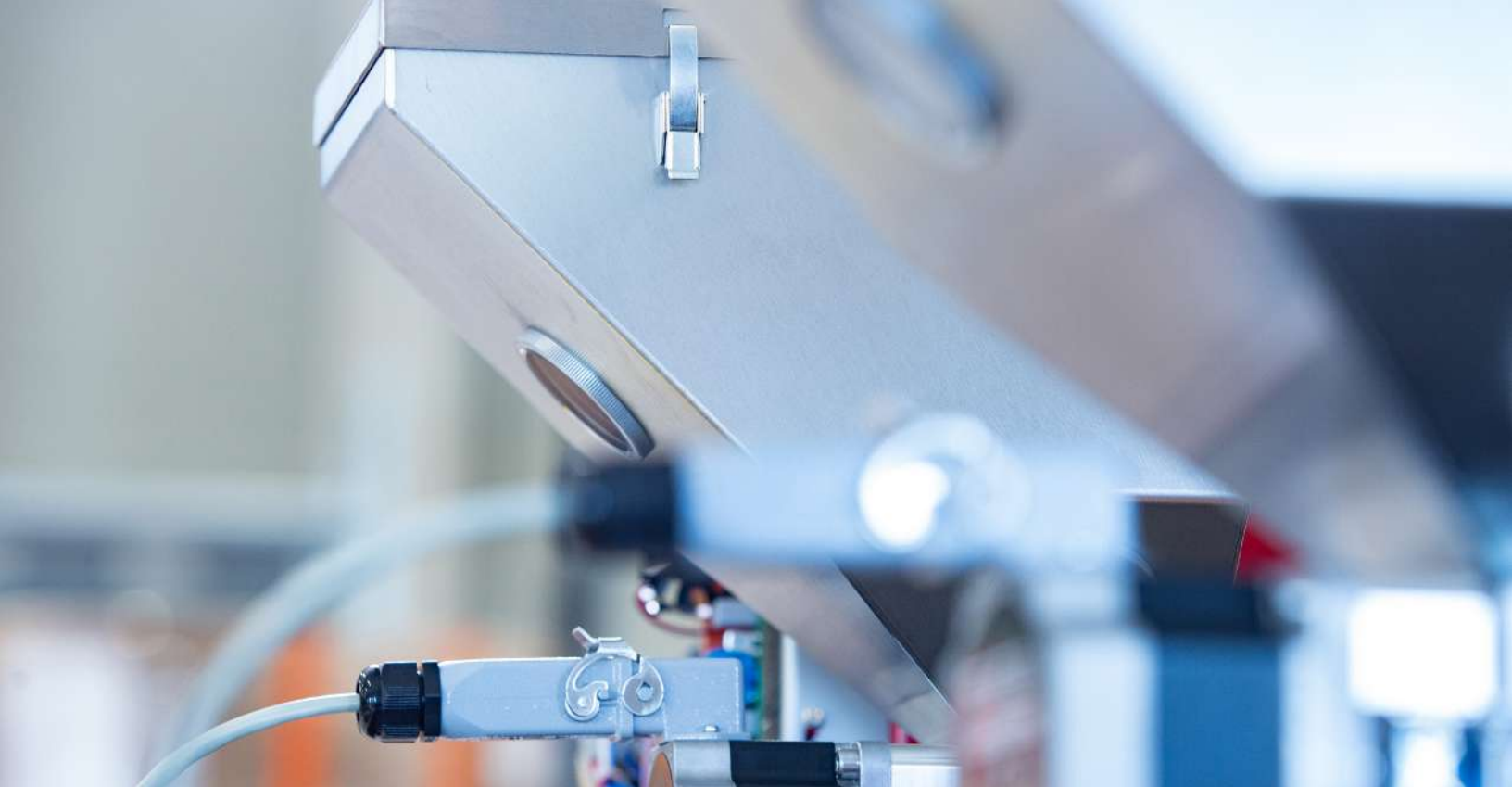
Volumetric  
feeding  
done right



The new standard in volumetric feeding. A cost-effective feeder to optimize material handling and increase operator efficiency.



**M** | **MOVACOLOR**  
modular dosing solutions



## The Movacolor modular blending, dosing and measuring concept

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Our mission is to support plastics producers in achieving their sustainability goals. We do this through our unique modular blending, dosing and measuring concept. This concept ensures plastics manufacturers can easily reduce waste, process recycled material and save costs.

Our solutions have an intuitive design and are made from robust stainless steel, making them endure throughout the years. Our solutions effortlessly integrate with Industry 4.0 technologies, allowing you to make your entire production line work together.

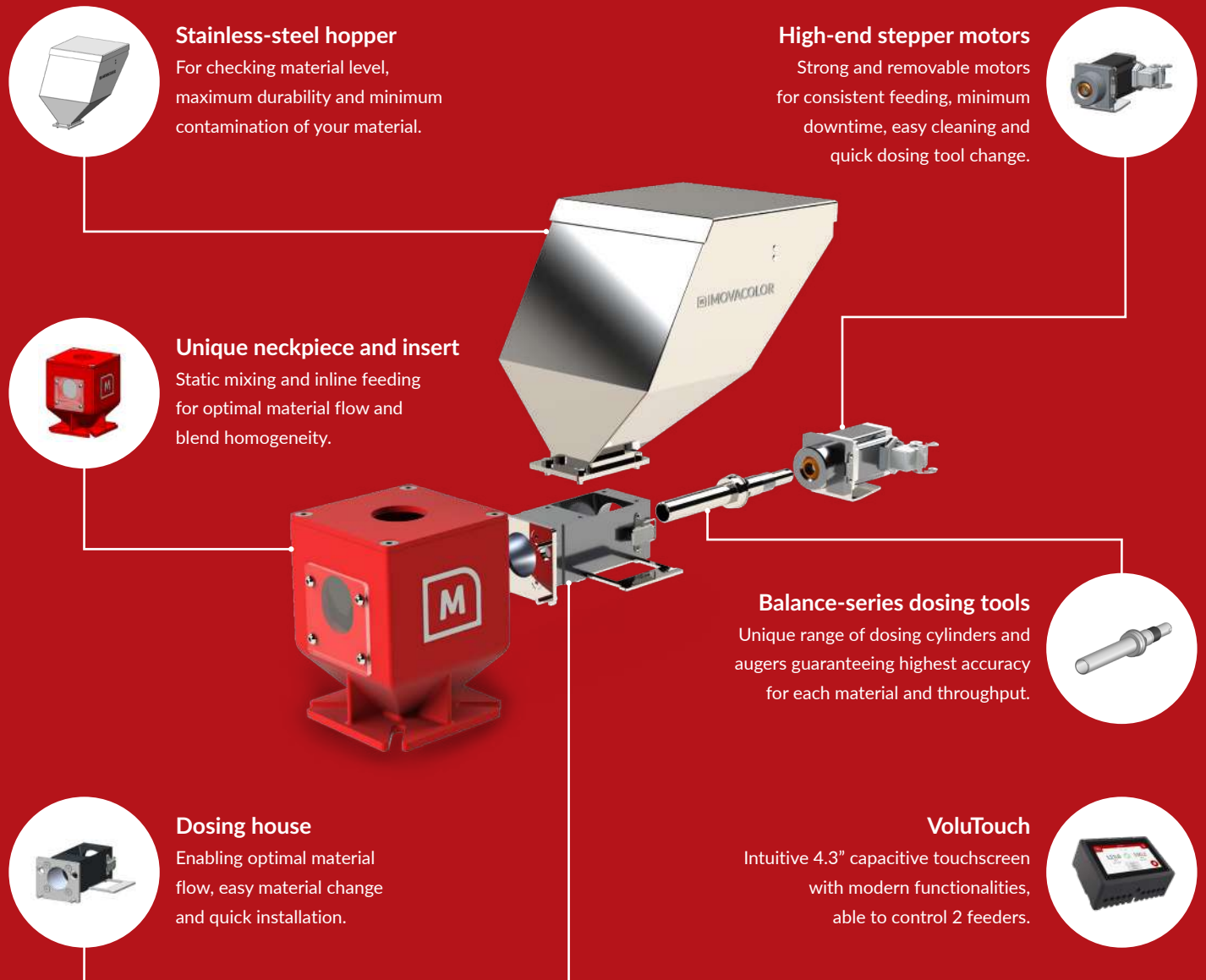
Our modular design allows flexibility in evolving needs by providing configuration possibilities, which helps us tailor our solutions to align with diverse plastics production processes.

### Why Movacolor

- ✓ 35+ years of experience and knowledge in plastics blending, dosing and measuring
- ✓ 5 year warranty
- ✓ In-house engineering department
- ✓ Short delivery times
- ✓ Global product support
- ✓ Designed and assembled in the Netherlands

# The MDS Volumetric Feeder

The MDS Volumetric Feeder is the benchmark for volumetric feeding, offering a high-value unit at a cost-effective price. This feeder comes with a range of options and features to efficiently feed materials into your plastics production process. Its versatility makes it well-suited for e.g. injection molding, blow molding and extrusion processes, ensuring optimal performance across various applications.



*Scan the QR code to find out more!*



# Specifications

|                                   |  |  |
|-----------------------------------|--|--|
| <b>Feeding capacity</b>           | 0,09 - 400 lb/h*   |  |
| <b>Max capacity of neckpiece</b>  | 3.500 lb/h   |  |
| <b>Max percentage of additive</b> | 40%  |  |
| <b>Motor</b>                      | LV: 0-200 rpm / HT: 0-350 rpm  |  |
| <b>Power supply</b>               | 95-264 VAC, 47/63 Hz - by integrated automatic voltage selector<br>200W maximum              |  |
| <b>Hopper capacity</b>            | 6 or 12 liter  |  |
| <b>Controller</b>                 | VoluTouch 4.3" capacitive color touchscreen  |  |
| <b>Processes</b>                  | Injection molding, blow molding, extrusion   |  |
| <b>Materials</b>                  | Granular, free-flowing powder, regrind   |  |
| <b>Max material temperature</b>   | 160° Fahrenheit  |  |
| <b>Mounting and feeding</b>       | Neckpiece directly mounted on machine throat   |  |
| <b>Max units on neckpiece</b>     | 2  |  |
| <b>Output signals</b>             | Hopper loader control (2x), 24VDC 0.5A max<br>Alarm, 24 VDC 0.5A max<br>Run, 24 VDC 0.5A max |  |
| <b>Input signals</b>              | Injection molding  | Timer mode: start feeding: 24 VDC or potential free<br>Relay: start/stop feeding |
|                                   | Extrusion  | Tacho synchronization: 0-30 VDC<br>Relay: start/stop feeding                     |
|                                   | Hopper level sensor (2x) 24 VDC  |  |
| <b>Semi-automatic calibration</b> | Pre-calibration to dose percentage rates through intuitive wizard                            |  |
| <b>Dosing tools</b>               | Multiple augers and dosing cylinders   |  |
| <b>Recipes storage function</b>   | Max 100  |  |
| <b>Alarm function</b>             | Alarming for production settings- and motor errors   |  |
| <b>Log function</b>               | Log file for operator- and production event monitoring (via wireless export)                 |  |
| <b>Connectivity</b>               | Wireless import and export of recipe- and log files (web interface)                          |  |
| <b>Weight</b>                     | 26 lb (feeder) / 1,5 lb (controller)   |  |
| <b>Max weight on hopper</b>       | 66 lb  |  |

\*The maximum throughputs mentioned in our product leaflets and on our website are based on granular material with a bulk density of 50 lb/ft<sup>3</sup> and the most ideal materials, conditions, settings, and mix percentages.



## MDS Volumetric Feeder benefits

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### Intuitive control

VoluTouch 4.3" capacitive color touchscreen with modern functionalities. Special neckpiece can have two volumetric units that can be controlled from one intuitive touchscreen.



### Balance-series dosing tools

Strong stepper motor and unique range of dosing cylinders and augers providing the highest accuracy in terms of feeding. Capable of handling granules, free-flowing powders and regrinds.



### Modular system

Tailor your feeder to your specific needs by building multi-component setups and choice from a wide range of accessories.



### Minimize downtime

Robustly engineered and thoroughly tested feeder, supported by a reputable brand offering a 5 year warranty and short delivery times.



### Durability and material integrity

Stainless-steel material hopper for checking material level, durability and minimum contamination of your material.



### Accuracy and material homogeneity

Material is fed inline in the center of the main material and directly into the machine throat, ensuring blend uniformity. Neckpiece serves as a static mixer.



### Efficient maintenance

Designed to be easily removed from neckpiece and equipped with accessible components for efficient maintenance.












### 60 second cleaning and material change

Discharge valve for easy draining contents of the hopper and dosing house. Fast dosing tool change by simple motor release.

# The perfect dosing tool for your production process

Movacolor's range of dosing cylinders and augers provides the highest feeding accuracy in the market. Regular feeding screws require up to 10-20% overdosing and often need an additional mixer to avoid segregation. Movacolor's unique dosing tools offer pulse-free, unparalleled feeding accuracy of a wide range of materials and throughput capacities. For maximum control over your material flow.

|   |                               | Feeding capacity<br>(oz/sec.) | Feeding capacity<br>(lb/hour) | Accuracy  | Material   |
|---|-------------------------------|-------------------------------|-------------------------------|-----------|--|
|    | <b>GLX</b><br>dosing cylinder | 0,0007 - 0,0564*              | 0,154 - 12,8*                 | ● ● ● ● ● | Granules   |
|    | <b>GX</b><br>dosing cylinder  | 0,0070 - 0,1764*              | 1,59 - 40*                    | ● ● ● ● ○ | Granules   |
|   | <b>HX</b><br>dosing cylinder  | 0,0004 - 0,0564**             | 0,09 - 12,8**                 | ● ● ● ● ● | Free-flowing<br>powders                          |
|  | <b>A8</b> auger               | 0,0007 - 0,0353*              | 1,54 - 7,9*                   | ● ● ● ● ○ | Free-flowing<br>powders and<br>granules          |
|  | <b>A10D</b> auger             | 0,0018 - 0,1164*              | 0,4 - 26,2*                   | ● ● ● ● ○ | Free-flowing<br>powders and<br>granules          |
|  | <b>A15</b> auger              | 0,0070 - 0,1764*              | 1,59 - 40*                    | ● ● ● ● ○ | Free-flowing<br>powders and<br>granules          |
|  | <b>A20</b> auger              | 0,0176 - 0,7055*              | 0,4 - 160*                    | ● ● ● ● ○ | Free-flowing<br>powders and<br>granules          |
|  | <b>A20HT</b> auger***         | 0,0176 - 0,7055*              | 0,4 - 160*                    | ● ● ● ● ○ | Free-flowing<br>powders, granules<br>and regrind |
|  | <b>A30HT</b> auger***         | 0,0706 - 1,7637*              | 16 - 395*                     | ● ● ● ● ○ | Free-flowing<br>powders, granules<br>and regrind |

\*measured with normal granular masterbatch 50 lb/ft<sup>3</sup>

\*\*measured with free-flowing powder 40 lb/ft<sup>3</sup>

\*\*\*Only available with high-torque stepper motor

## 60 second cleaning and material change

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### Easy drainage

Discharge valve for quick draining of hopper and dosing house contents.



### Simple motor removal

Open the two latches to release the motor and easily clean the dosing house.



### Fast dosing tool change

Quickly change and clean the dosing tool.



*Scan the QR code to see the process!*

## Efficient maintenance and calibration

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### Quick disassembly

Remove feeder from neckpiece by gently loosening the four Allen screws by a quarter turn. Optional quick-release allows tool-free removal.



### Neckpiece cleanout

Neckpiece can be accessed and insert can be removed for optimal cleaning.



### Convenient maintenance

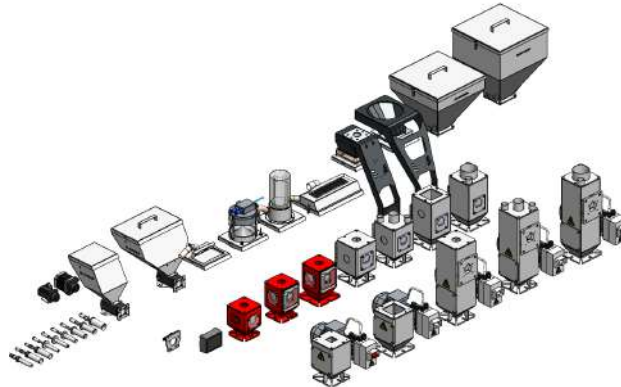
Feeder can be positioned upright for convenient maintenance, cleaning and calibration.



*Scan the QR code to see the process!*

# MDS Volumetric Feeder modular options

Our modular system provides the possibility to tailor a feeder to your specific needs. We offer different material hoppers, neckpieces, mixers, hopper loaders and a variety of dosing tools. All can be specified to any customer's processing technique and material.



## Motor



LV stepper motor  
0-200 rpm



HT stepper motor  
0-350 rpm



## Neckpiece



NBST40  
Basic  
45mm



NST40  
Standard  
45mm



NST90  
Standard  
90mm



NBH  
PET  
45mm



NBHA  
PET 45mm  
de-airing



NPH  
PET 90mm



MIXBH  
PET mixer  
45mm



MIXBHA  
PET mixer  
45mm de-airing



MIXPHA  
PET mixer  
90mm de-airing



## Additive hopper



VF6L  
6L additive  
hopper



VF12L  
12L additive  
hopper



## Main hopper



MAINH20  
20L main  
material hopper



MAINH40  
40L main  
material hopper



## Mixer



MIX50  
Multi purpose  
45mm



MIX100  
Multi purpose  
90mm



# Modular and future ready - Intuitive control software technology for all Movacolor gravimetric solutions

## VoluTouch



4.3" capacitive color touchscreen controller with modern functionalities for all plastics production processes.



Capable of managing up to two MDS Volumetric Feeders from one control screen.



Log function for operator- and production event monitoring (rpm and warnings).



Pre-calibration to dose at percentage rates and prime function integrated in intuitive wizard.



Wireless web interface for software updates and import and export of recipe- and log files (WiFi pairing).



Configuration wizard for quick start-up and intuitive GUI with self explanatory visuals.



Different user-levels: supervisor and operator access for usability for every skill-level.



Easy entering of recipes and memory to store up to 100 recipes.



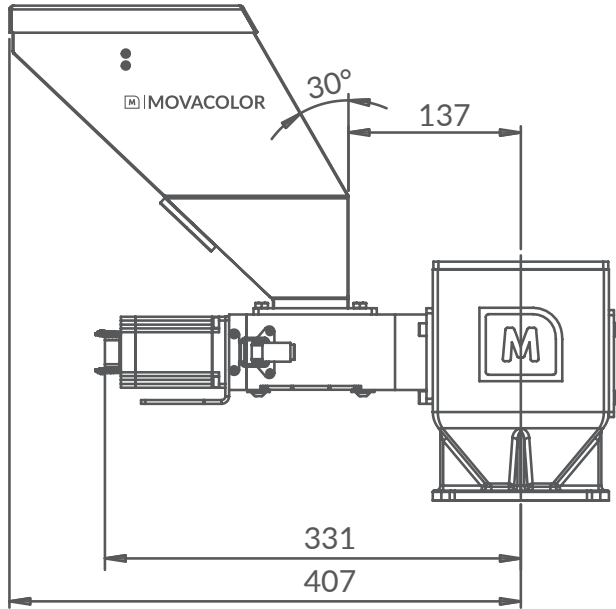
Integrated hopper loading control synchronized with the feeding system.

## Also included in the VoluTouch

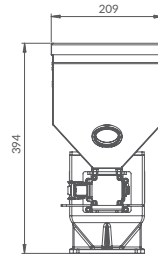
- ☑ Buzzer to signal alarms
- ☑ Multilingual
- ☑ Large range of mounting options

# MDS Volumetric Feeder hopper configurations and dimensions

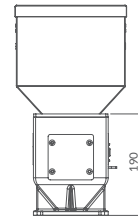
## MDS Volumetric Feeder: single-station



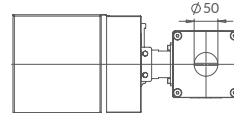
Left side



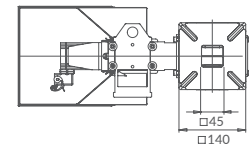
Right side



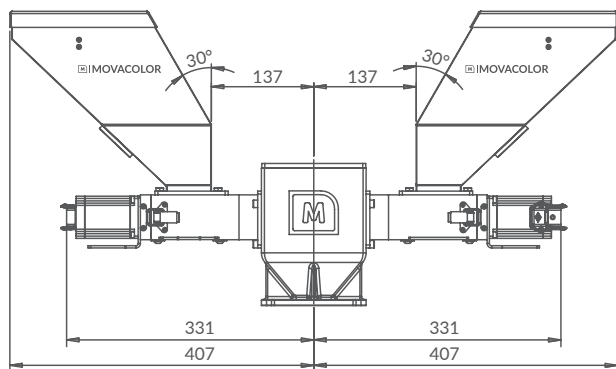
Top



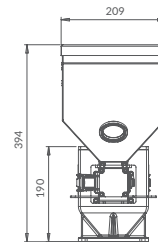
Bottom



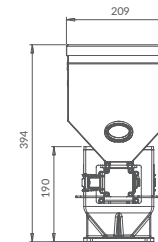
## MDS Volumetric Feeder: double-station



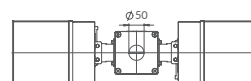
Left side



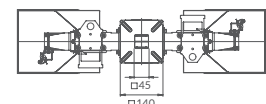
Right side



Top



Bottom



# MDS Volumetric Feeder accessories and hopper loaders

## Alight



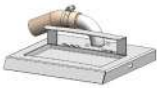
Alarm flashlight for alarm indication (24 VDC), complete with cable.

## Asounderbeacon/S



Alarm sounder beacon for alarm indication (24 VDC) Combination of LED flashlight and electronic sounder up to 106dB, complete with cable.

## ME25V



Movacolor Ejector (ME) compressed air hopper loader for granules (relatively dust free), max. cap. from 88 to 275 lb/h. (mat. dep.), the unit comes complete with hopper lid with filter, compressed air solenoid valve and 3 m. 25 mm. transport hose and Asens level sensor.

## MEC25V



ME Cyclone hopper loader for volumetric unit, for granules (relatively dust free), max. cap. 88 to 275 lb/h, with cyclone hopper lid and filter, solenoid valve, 3 m transport hose and Asens level sensor.

## MV16V



Movacolor Vacuum (MV) hopper loader for free flowing powders with bulk density 62 lb/ft<sup>3</sup>, and/or granules, max. cap. from 110 to 220 lb/h. (mat. dep.), the unit comes complete with hopper lid, vacuum chamber with filter, compressed air solenoid valve and 3 m. 16 mm. transport hose with stainless steel suction pipe and Asens level sensor.

## SFS/V



Support frame for external hopper loader, max. load 50 kg. Also available as dustfree version for dusty materials.

## Cable management kit



Kit for neatly organizing cables consisting of 2,5 metres spiral-band + 1x tool guide for cable tray, 0,5 metres cable tray, 6x sticky cable clip + tie wraps.

## Asens



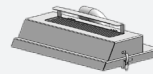
Sensor for hopper alarm. Capacitive triple shielded, to work under static conditions, complete with cable and sight glass with hole for use in hopper.

## Recommended spare parts package



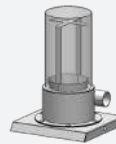
Bundle of spare parts for versatile repair and maintenance needs. Consisting of: ball bearing, rubber coupling, power adapter, motor seal and discharge valve.

## ME38VR



Movacolor Ejector (ME) compressed air hopper loader for dusty granules or regrind, max. cap. from 120 to 330 lb/h. (mat. dep.), the unit comes complete with hopper lid with filter, compressed air solenoid valve and 3 m. 38 mm. transport hose and Asens level sensor.

## MEC38V



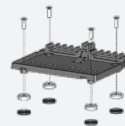
ME Cyclone hopper loader for volumetric unit, for regrind and granules (relatively dust free), max. cap. 100 to 275 lb/h, with cyclone hopper lid and filter, solenoid valve, 3 m transport hose and Asens level sensor.

## MV25V



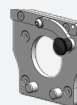
Movacolor Vacuum (MV) hopper loader for free flowing powders with bulk density 62 lb/ft<sup>3</sup>, and/or granules, max. cap. from 77 to 155 lb/h. (mat. dep.), the unit comes complete with hopper lid, vacuum chamber with filter, compressed air solenoid valve and 3 m. 25 mm. transport hose with stainless steel suction pipe and Asens level sensor.

## VoluTouch magnet set



Set of magnets for VoluTouch controller consisting of 4 magnets, 4 rubbers and 4 screws.

## Quick-release tool



Tool-free mounting of dosing house onto the neckpiece.



### 5 year warranty

Movacolor products are designed and manufactured to the highest standards and deliver high-quality performance. In the unlikely event of a product failure, Movacolor will, subject to conditions\*, ensure your product is serviced and repaired free of charge.



### Global Support

Need help with (the installation of) your Movacolor product?

Our global support team will be happy to assist you.

**Tailored blending, dosing or measuring systems, suited to your plastics production process.**

Visit [movacolor.com](https://movacolor.com) to find out more about our modular dosing concept and how you can configure your own dosing solution!

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