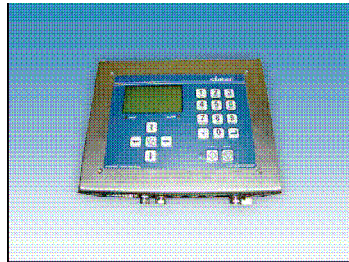


## Gravimetric Single-Component series MC-Balance

The very user-friendly MC-Balance delivers accurate dosing rates on the basis of continuous loss-in-weight measurements with closed-loop control of the dosing speed. Color changes are quick and easy. The unit does not require time-consuming color calibration when materials are changed.

The advanced, extremely user-friendly and menu-bar guided controls enable you to run the unit by simply setting the color percentage.



### What the operator needs to do

**Set color percentage, part weight, and time.**

**Press the start button. That's all.**



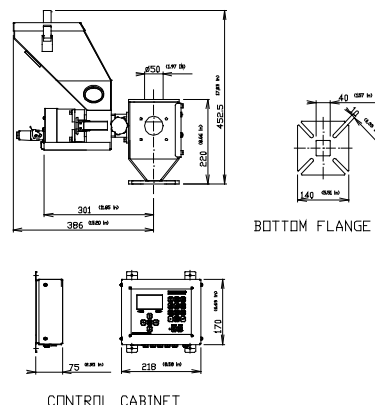
Operating the MC-Balance is as easy as it gets. It auto-calibrates and is permanently monitored by the weighing unit. If necessary, the MC-Balance will adjust the dosing unit rpm automatically.

### How it works

The Movacolor MC-Balance® operates fully gravimetrically on the basis of the loss-in-weight principle. The dosing unit is permanently connected to a digital weighing unit with a quick-release connection. The weighing unit will always work accurately even under high-vibration conditions. The control unit has a self-regulating filter that ensures that weight information will be interpreted correctly by the control.

The MC-Balance operates on the basis of real loss-in-weight of the material to be dosed and cannot be influenced. What is out, is out. The MC-Balance also features a real-time memory in which, along with other data, the set amount in relation to the actually dosed amount can be read for a longer period of time.

The MC-Balance can be used on injection molding machines, extruders, and blow molders. It always delivers accurate dosing rates through continues loss-in-weight measurements with closed-loop control of the dosing speed. Color changes are quick and easy. This unit eliminates time-consuming color calibration when materials are changed.



# The dosing principle

Many applications for additives and colors require low and even more important: repeatable – dosage levels. Either the percentage to be added might be low, or the process just has a low throughput. Maintaining an accurate, steady and repeatable dosing rate at low dosages can be difficult. In some cases the process might dictate a low level of master batch, as in the case of tinted PET bottles where dosing rates as low as 0.05% are sometimes required.

Movacolor has developed a revolutionary dosing device that ensures a regular and repeatable output, and also creates a wide range of application options, the Dosing Cylinder®. From the outside it may look like a screw but, in fact, it is a cylinder. It ensures that colorant literally lines up granular by granular before it enters the main stream of material.

Particularly with low output, substantial savings on colorants are possible when a Dosing Cylinder® is used. See Fig. 1.

A screw-type dosing device will give an irregular output because of pulsations created by the screw itself, which causes the colorant to be dosed irregularly into the main material.

A Dosing Cylinder® guarantees accurate dosing. The Dosing Cylinder® works in combination with a stepper motor that ensures exact cylinder speed i.e. colorant dosing speed.

With a Dosing Cylinder® and stepper motor you achieve:

- An even dosing rate because peaks and drops associated with screw-type dosers are eliminated, depending on the material used, of course.
- Accurate and stable dosing because of the ability of the stepper motor to maintain a controllable speed within 0.1 rpm.
- Repeatability because of the stepper motor control.
- Versatility to run higher speeds for higher dosages.

Colorants are expensive. Savings on colorants are often substantial savings. With its outstanding control of the dosing process, the Dosing Cylinder® does just that!

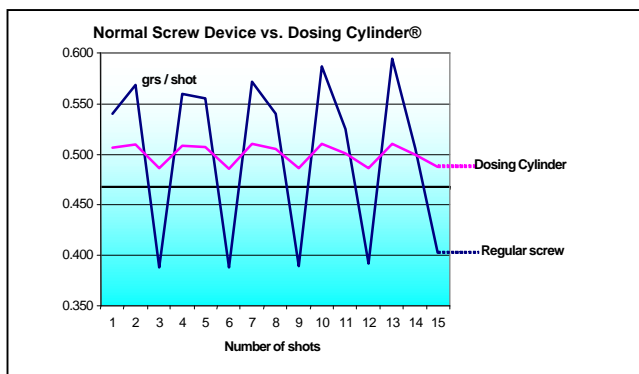


Fig 1. Actual dosing pattern of a normal screw-type dosing device versus a Dosing Cylinder®. Both tests were performed under identical circumstances, using the same material.

Fig 2. Consistent metering allows the setting point to be lowered. This will ensure substantially faster return on investment.

