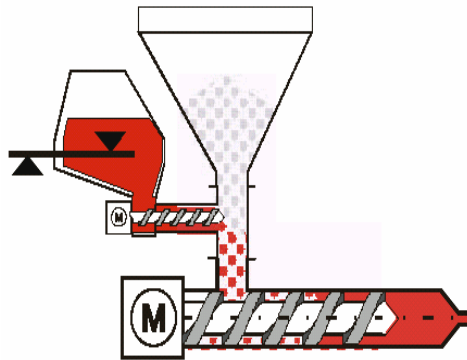




**Patented ColorSave® technology - one step ahead in Precise Masterbatch Metering, for injection molding machines**



ColorSave 1000 dosing unit

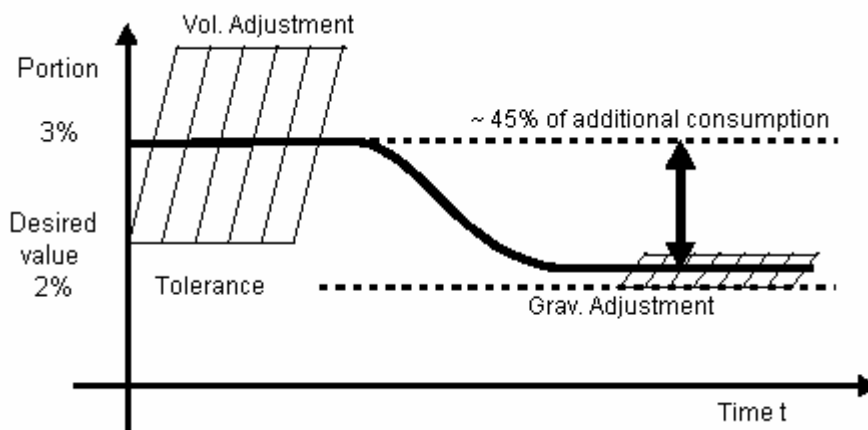


Precise, economical masterbatch dosing



ColorSave 1000 operation panel

# Huge Potential Savings With ColorSave 1000



Potential for lowering the desired value by reducing the tolerance with the ColorSave 1000

# Huge Potential Savings with ColorSave 1000

The patented modular ColorSave technology enables you to save a very significant percentage of your masterbatch and additives consumption.



Single ColorSave 1000



Quadruple ColorSave plus virgin weighing hopper \*

\* The option of weighing the virgin material or mixture of virgin materials by the loss-in-weight hopper is unique to injection molding machines, enabling you to determine the weight of the injection molded parts from cycle to cycle and thus to evaluate product quality.

## Savings

Practical experience by our customers reveals and confirms:

- ❑ Lower masterbatch and additives consumption
- ❑ Improved quality
- ❑ Extremely simple operation

Our experience, based on many successful installations in the plastic industries in Israel, Europe and the United States, indicates a huge potential saving with the **ColorSave 1000**.

This experience shows that switching from a volumetric masterbatch feeder to a gravimetric **ColorSave 1000** feeder mounted directly at the machine throat can result in a 33%-50% savings in the masterbatch/additive consumption.

This is a direct result of higher accuracy and lower tolerances range of the ColorSave 1000 in comparison to volumetric feeders. As a lower working set-point (%) can be used, a significant saving in masterbatch consumption is achieved.

For a batch-blender mounted on the machine throat, the saving is about 10%-15%. This a direct result of improving the dosing and preventing the separation of masterbatch that is typical to batch-blenders that are mounted at the throat of the processing machine, mainly due to mixing of materials of very different nature and bulk.

In comparison to a mounted batch-blender, the **ColorSave 1000** is more compact and is easier to optimize, to maintain, and to clean when switching from color to color.

In addition, the **ColorSave 1000** is equipped with an integral venturi loader and thus does not require installation of hopper loaders that are connected to long pipelines (except when used for dosing regrind material).

Integration of a **ColorSave 1000** unit (s) with a remote or central batch-blender, so that the mixture of the virgin materials is fed by the remote batch-blender and the masterbatch is metered and distributed into the core of the main flow at the machine throat by the **ColorSave 1000**, reduces the masterbatch consumption by 25%-35%.

This is a direct result of improving the dosing and preventing separation of the masterbatch from the main material, while the material is being conveyed from the remote blender to the injection machine.

**Another advantage is the potential saving of costs due to the possibility of reducing the total number of remote batch-blenders required.**

### **Potential customers for the ColorSave 1000 systems**

**For a better understanding of the potential masterbatch saving, please refer to the following tables, which describe typical examples. Every customer may easily adapt these typical examples to their specific case and conditions.**

**Table 1: Case A - Switching from volumetric feeder to ColorSave 1000**

Material consumption (Typical)		Masterbatch consumption (Typical)	Consumed masterbatch Cost	Saving by switching to ColorSave	Payback time on the investment
Ton/day	Kg/hour	Kg/day	EUR / Day	EUR / Day	Months/years
0.25	12.0	5.0	20.0	6.7	25.0 (2.1 years)
0.5	21.0	10.0	40.0	13.4	12.5 (1.05 year)
1.2	50.0	24.0	96.0	32.0	5.2 (0.44 year)
2.4	100.0	48.0	192.0	64.0	2.6 (0.22 year)
5.0	200.0	100.0	400.0	133.0	1.3 (0.10 year)
		(1)	(2)	(3)	(4)

**Table 2: Case B - Integrating ColorSave 1000 with central batch-blender**

Material consumption (Typical)		Masterbatch consumption (Typical)	Consumed masterbatch Cost	Saving by switching to ColorSave	Payback time on the investment
Ton/day	Kg/hour	Kg/day	EUR / Day	EUR / Day	Months/years
0.25	12.0	5.0	20.0	5.0	33.6 (2.8 years)
0.5	21.0	10.0	40.0	10.0	16.8 (1.40 years)
1.2	50.0	24.0	96.0	24.0	7.0 (0.58 years)
2.4	100.0	48.0	192.0	48.0	3.5 (0.29 years)
5.0	200.0	100.0	400.0	100.0	1.7 (0.14 years)
		(1)	(2)	(3)	(4)

**Notes on tables 1 and 2:**

1. Based on 2% average masterbatch percentage (typical)
2. Based on 4.0 EUR/kg average masterbatch price (typical)
3. Based on:  
33% saving by switching to **ColorSave 1000** (typical)  
25% saving by integrating **ColorSave 1000** with a batch-blender (typical)
4. Based on end-user list price of 4,200 EUR for **ColorSave 1000** (Iron steel version) and 25 working days/month

**The above data show that:**

- Customers with a masterbatch consumption of over 10 kg/day (0.42 kg/h) per machine will return their investment in less than one year when switching from an existing volumetric feeder to the **ColorSave 1000**. Under certain circumstances, when the consumption is very high, the return could be within a few weeks.
- The same conclusion holds also when integrating a **ColorSave 1000** with a batch-blender. However, the return on the investment is slower (over 14.0 kg/day of masterbatch for payback of less than one year).
- The above calculations are based on the assumption that the **ColorSave 1000** feeder replaces an existing volumetric one. In cases where the customer is considering buying a new injection machine, with either a volumetric feeder or a **ColorSave** feeder, only the difference in the cost should be taken in account. Assuming that the cost of a volumetric feeder is about 50% of that of the **ColorSave 1000**, all the payback periods displayed above are reduced by half.
- Using the **ColorSave 1000** could be worthwhile even for customers whose masterbatch consumption is much lower – in many cases the saving might be much higher than 33% in the case of replacing a volumetric feeder or higher than 25% when integrating with a remote or central batch blender. Furthermore, they will benefit from the overall advantages of the ColorSave:
  - *accuracy*
  - *repeatability*
  - *zero set-up time*
  - *data collection software*