

DOSING AND MIXING

MINICOLOR SG V

Volumetric dosing and mixing unit



MINICOLOR SG V

VOLUMETRIC DOSING AND MIXING UNIT

The MINICOLOR SG V meets all important requirements when combining additives to the virgin material in an excellent quality. It has an excellent dosing accuracy and repeat accuracy. The installation of the MINICOLOR SG V in your system is extremely space-saving; it is mounted directly at the feed throat of the processing machine.

Volumetric dosing process

A decisive characteristic of synchronous dosing units is the simultaneous discharge of all material components, whereby the mass flow corresponds to the recipe at all times.

Dosing occurs synchronously during the plasticisation time of the injection moulding machine, or continuously and analogue to the screw speed of the extruder.

VOLUnet MSG



VOLUnet MSG Mix control

The VOLUnet MSG Mix Control can drive an optional mixer module, so that even difficult components can be mixed homogeneously after dosing. The result is a cost-effective solution for volumetric coloring with masterbatch.

MINICOLOR SG V with screw dosing



VOLUnet MSG control

The micro-processor control of the MINICOLOR SG V can either be used for injection moulding applications or extrusion operation. It is operated via a modern 7" color graphic display with touch screen.

The VOLU MSG can control up to 2 dosing modules and several user interface languages can be selected.

- Up to 100 recipes can be stored
- Reporting function via Ethernet
- Standard network interface (Ethernet) for integration in the motan CONTROLnet network
- Alarm tracking
- Possibility of automatic adjustment of dosing time according to plasticisation time of the processing machine
- Additive calibration wizard

Quick material changeovers

The quick-change system of the MINICOLOR SG V makes cleaning and material changeovers simple, fast and without tools. The removable supply hopper, the swivel mounted motor and the dosing screw with quick release connection for the user reduce the time required for cleaning. The complete dosing module can also be used as a colour cassette — this also facilitates fast material changeovers without previous cleaning.

Easy screw changeovers



Mixing neck

The mixing neck with integrated, stainless-steel cruciform divides the main component from the additives into two material streams. These then flow together before entering the processing machine to form a homogeneous mix.

Dosing motor



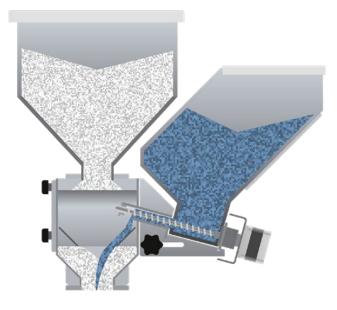
Dosing motors

The MINICOLOR SG V features swiveling dosing motors that can even be disassembled or replaced without tools. The motors in combination with motor drivers offer a high degree of accuracy and are maintenance-free

Quick material changeovers



Mixing neck



Angled dosing screws

The dosing screws are available in three different sizes. They are wear-free and can be changed or installed and removed without tools.

For a constant mass flow, the screws are mounted at an angle and are insensitive to vibrations.

Machine movements therefore have no influence on the dosing process. This improves dosing accuracy and prevents unwanted material slip from the screw.

MINICOLOR SG V

TECHNICAL DATA

Technical data				
Dosing and mixing unit		MINICO	MINICOLOR SG V	
Dosing process		synch	synchronous	
Dosing type		volur	volumetric	
Number of dosing modules		1 (1 or 2	
Dosing range main component		free-f	free-flowing	
Dosing capacity (screw dosing) (kg/h)*	G1S	0.13	0.13 - 4.7	
	G2S	0.34	0.34 - 26.6	
	G3S	0.7 -	49.2	
Volume of supply hopper (screw dosing) (I)		1	12	
Power supply (V/Hz)		1/N/PE 10	1/N/PE 100-240/50-60	
External contact		potent	potential-free	
Weight approx. (without control) (kg)		15 (1 dosing modul)	15 (1 dosing modul) / 25 (2 dosing modul)	
Colour RAL (grey)		7040 / elec	7040 / electro polished	
Control		VOLUnet MSG	VOLUnet MSG mix	
Connected load (W)		350	500	
Timer function		•	•	
Assisted calibration		•	•	
Operation: Graphic user interface / touch panel		•	•	
Extruder tachometer signal processing		•	•	
Most cost effective solution for colouring of masterbatch		•	•	
Mixer control			•	

^{*} Varies with bulk density. Indicated values for masterbatch: bulk density = 0.8 kg/dm³

