


# Metering Technology



***shotmix***



Hilger u. Kern / Dopag Group



**Flexible, automatic...**

## General

# ***shotmix***

The DOPAG shotmix metering and mixing system is a new product line from the Hilger u. Kern / Dopag Group.

Designed to precisely control the metering and mixing of adhesives and sealants during automated dispensing applications, this compact valve mounts easily onto the end of a robot arm or an XY table.

The shotmix metering and mixing system can be used to handle filled or unfilled, low to medium viscosity multi component media such as epoxy resins, polyurethanes, silicones, acrylics or polysulphides with mixing ratios of between 100:100 and 100:10.

## Function

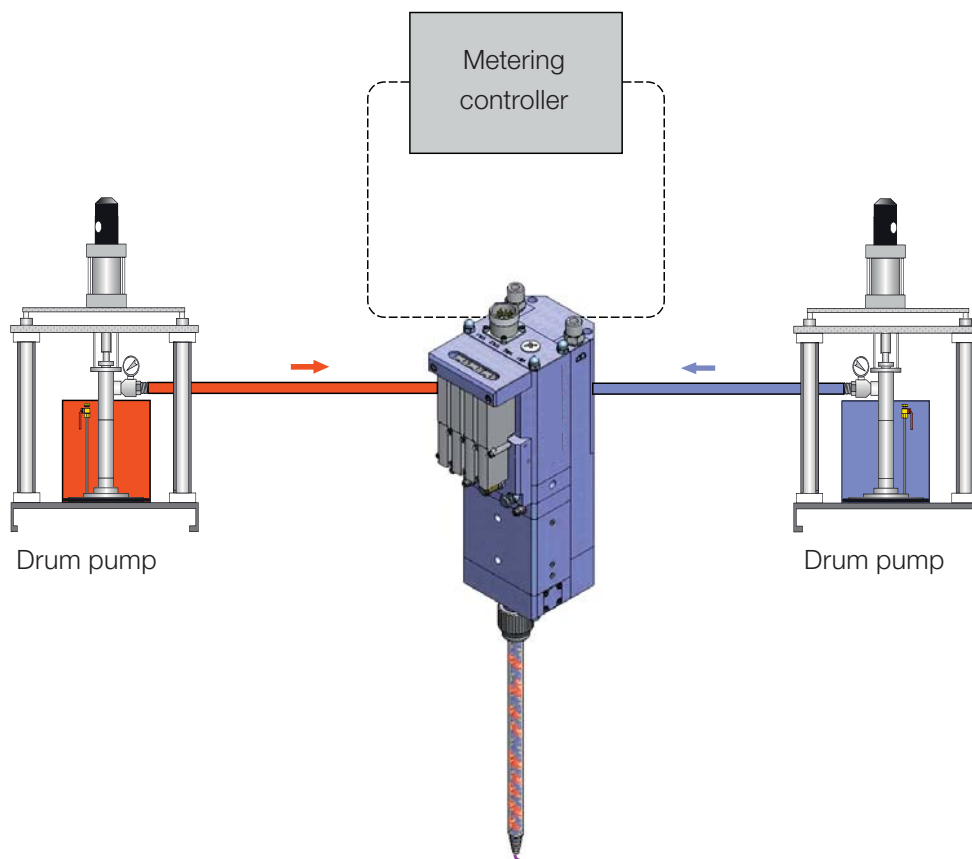
The shotmix is a metering and mixing system that is able to either dispense the media on a shot by shot basis to pre-defined points, or alternatively with an appropriate shot frequency, as a bead. In this case up to 2,500 metering cycles per minute are possible.

Depending on the viscosity and the shot frequency of the media, the bead can show minor unevenness to the surface as a result of the shot application.

A control unit is used to regulate the shot frequency and is fitted with an interface that will allow connection to a master computer if needed.

The required mixing ratio can be adjusted through a combination of the shot frequency, stroke length and/or the size of the metering piston that has been selected. The shotmix is equipped with two metering inserts which are available in two different sizes.

The system is completed with the addition of a suitable material supply and a metering controller.



## Hilger u. Kern metering controller MR15 / MR30

By using these metering computers, all possible applications can be parameterised and alternative metering programs can be memorised.

The MR20 can either be directly integrated or hard wired to an external remote housing.

For applications where just a single shotmix is required, an MR15 metering controller is used and if two shotmix are needed, an MR30 metering controller is used.

### Technical data

<b>Shot size</b>	with metering insert Ø 5 mm, 0.01 - 0.196 ml with metering insert Ø 10 mm, 0.079 - 1.178 ml
<b>Shot frequency</b>	400 to 2,500 per minute* Lower shot frequency on request
<b>Flow rate</b>	10 to 600 ml / min, at MR 100:100* Minimum volume required for bead applications, approx. 150 ml / min., minimum bead diameter 4 mm
<b>Mixing ratio</b>	100:100 to 100:10, by volume
<b>Material supply</b>	Drum pumps with material pressure regulator
<b>Viscosity range</b>	30,000 to 500,000 mPa s Lower/higher viscosity on request
<b>Material characteristics</b>	unfilled, filled
<b>Power supply</b>	230 V / 50 Hz / 16 A
<b>Air inlet pressure</b>	6 bar
<b>Dimensions, L x W x H</b>	80 x 120 x 302 mm
<b>Weight</b>	approx. 4.2 kg

\* Depending on the stroke length and viscosity

## Industries

The shotmix metering and mixing system can be used in all industries where materials need to be applied in a high precision and repeatable way.

Industries such as

- Automotive
- Construction
- Electronic
- Glass
- Timber
- and many more

### Application areas

- Sealing and bonding applications
- Encapsulation

### Features and Benefits

- Metering and mixing at the dispensing point, therefore
  - high flexibility
  - high metering accuracy
  - no pre-run necessary
- Multiple dispensing heads require only a single material supply
- Multiple dispensing heads require only a single metering controller
- Material supply can be remote from the point of application
- High process security through integrated metering control
- Lightweight metering, mixing and dispensing unit suitable for use with robots or XY tables

**...precise**

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The Hilger u. Kern / Dopag Group, with more than 300 employees, 8 subsidiaries and 24 distributors, is one of the leading manufacturers of metering and mixing systems in the world for plural component polymers and single component media such as greases, oils and pastes. For more than 30 years the group has developed systems and components to suit your individual needs.