

MRS22 HotEnd Inspection and Control System

The MRS22 is the world's most installed HotEnd inspection and control system. The in-process controlled oxygen regulation minimizes glass waste significantly and ensures a high product quality. The MRS22 is in the market known for:

- ✓ parallel in-process measuring and monitoring of the ampoule geometry
- ✓ regulation of stem and constriction in the hot forming machine
- ✓ less scrap production through an integrated intelligent algorithm control
- ✓ integrated user administration and audit trail
- most modern plug-in technology to adapt special customer requirements
- ✓ connection to MRS-Win and other MES systems for process documentation, statistics and process tracking data

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Application MRS22 Hot End control and regulation

Following dimensions can be controlled in real time:

stem - bulb,funnel, - dome*

- overall high - total length*

- constriction to funnel

- constriction to bulb

- eccentricity

*measured mechanically

Resolution of the camera: 0,010 mm

MRS22 is a high dynamic and modern controller to monitor and regulate the ampoule production process (self-regulation). All used ampoule parameters are stored in the system and are ready to be reloaded for the next production.

Technical specifications

Power: 220 – 240V, 50/60HZ Interfaces: RS-232/RS 485, Ethernet,

Digital In: 16
Digital Out: 32
Analogue In: 2
Operation temp.: 0-50 C°

Protection class: IP 65
Memory type: SD card

Dimensions:

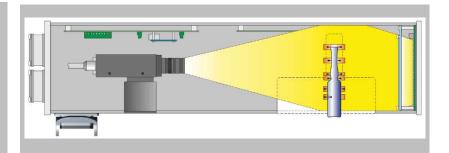
Control cabinet MRS22 W 400x H 600x D 300 mm Camera incl. housing: W 110x H 165x D 720 mm

Please note that some features are optional even if not specially mentioned. Modifications are without prior notice. Status: 2020-04-30-F

Next to the **HotEnd Control** (HEC) following solutions are offered in addition*.

- **✓** PrintControl
- ✓ OPC + RingControl
- ✓ BreakForceTester (BFT)
- √ FirstPiece Compensation (FPC)
- ✓ OPC Cutter System
- MES-System MRS-Win

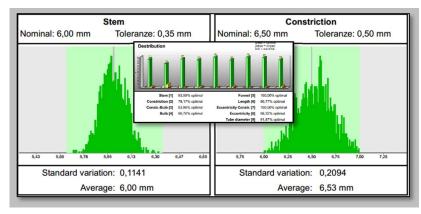
*As complete provider of Hot- and ColdEnd inspection plus networking system, there is only one data interface for all data from the complete ampoule production line. The signal exchange between all participants creates a maximum of data transparency.



A high resolution camera is checking in-process the ampoule geometry. In parallel the dimensions of stem and constriction can be used for regulation.



All measured dimensions are displayed in real time on the principal screen of MRS22. Highlight: the system is controlling the heat via the supply of oxygen and regulates the dimension of the stem in combination with the camera.



All measured data is recorded digitally and forwarded to the MES-System MRS-Win to be stored, documented and analyzed. MRS22 has also interfaces to be connected to other MES-Systems (Third Party Software).