



## SET UP

SOFTWARE SOLUTION FOR FAST  
DETERMINATION OF THE OPTIMAL MACHINE  
SETTING AND OPTIMISATION OF PRODUCT  
QUALITY IN ONE MOULD CHANGE LOOP



## ■ SOFTWARE SOLUTION FOR THE OPTIMAL START OF INJECTION MOULDING SERIES PRODUCTION

### FOR AN EXACT ANALYSIS OF THE OPTIMAL MACHINE SETTING AND PRECISE FINE TUNING OF THE MOULD

The expert software CQC® Set Up is part of the CQC® Continuous Quality Control product family that has been developed by Dr. Gierth Ing.-GmbH in Germany for more than 20 years.

### THE CQC® SET UP PERFORMANCE FEATURES

- Enables a precise planning of mould trials by making use of design of experiments (DOE)
- Considers limiting boundary conditions during mould sampling
- Establishes a statistical simulation model of the production line based on the machine setting to forecast the quality features of the moulded part
- Allows the flexible specification of the optimisation target by considering
  - the possible range of the machine setting
  - the weighted quality targets for features of the moulded parts and cycle times
  - the presetting of the production reliability level
- Determines the optimal machine setting based on the simulation model according to the optimisation target
- Calculates the quality features of the moulded part for an optimal machine setting
- Calculates the mould correction data for an optimal machine setting
- Establishes the "process window" of the optimal machine setting, i.e. the permissible variation of the machine settings during in-spec part production

- Calculates the shortest possible cycle time
- Prepares sampling reports about the complete process know-how of the production line fully automatically, for internal and external presentation and documentation purposes (Audit) in Microsoft Word®

### THE CQC® SET UP BENEFITS

- Distinct cost saving by good-part production at a defined level of reliability at shortest possible cycle time
- Optimisation of moulded part quality in only one tool change loop
- Shortest possible project schedule enabled by exact process knowledge in advance
- Fast cause analysis in case of errors
- Precise control of the process in case of deviating quality features due to environmental influences and material variation
- Documentation of the complete process know-how and thus the company know-how

### THE CQC® SET UP ADVANTAGES DURING THE WORK PROCESS

- Precise planning of the time requirement for the mould sampling
- Exact description of the production line behaviour in the workspace available according to the results of the sampling:
  - optimal and easy adaption to changing boundary conditions
  - no need for new sampling at the production line
- Standardised documentation ascertains the know-how and makes facts available for subsequent projects at any time. Thus the quality management and the set-up of new projects is made easier

### AREAS OF APPLICATION:

- Analysis/Determination of optimal machine settings
- Analysis/Determination of possibly required mould change data

### TYPE OF PRODUCT:

- Stand-alone software of the CQC® expert product line, suitable for Windows® operating systems starting with Windows XP®
- Can be extended to CQC® Supervision at any time