

Visualisation software CARBOVIS 3.2

The successful visualisation software CARBOVIS is revised fundamentally. Like the preceding version CARBOVIS 2 helps the new visualisation software to optimise the work in a heat-treating department. The software assists to organise planning, monitoring and documentation of heat treatment processes and records process flow, rank-related storage of data, connected with the heat treatment process. The new version of the software is able to control the heat treatment process dependent on carburisation depth. The soot limit control is improved.

Now it is possible to connect and to monitor up to 40 furnaces in client server architecture. With the integrated material database, a ingenious furnace place administration, the online process observation with diffusion calculation and the documentation of the charges the user can have a useful and practical package of tools, to optimise its heat treatment and to document process data in a form capable by audit.

Main parameters:

- Connection of up to 8 furnaces with C-level controllers CARBOMAT-M und temperature controllers E5AK per computer,
- Connection of up to 5 computers in a client-server-architecture (max. 40 furnaces),
- Technology database,
- Material-database with alloy factor calculation,
- Display and storage of heat treatment recipes, not furnace dependent.
- Charge planing program with automatical furnace allocation depending on specific furnace functions,
- Diffusion calculation for planning and process monitoring.

Furnace Site Display:

- Simultaneous display of process parameters for all running furnaces,
- Indication of control tracks, for the running program and program segment for all furnace places,
- Colour configuration for: program loaded (yellow), charge in process (green), error (red), furnace inactive (blue),
- Report management hierachy for alarm, warning and information.

Dokumentation:

- Charge and order number, article number, as well as further remarks,
- Trend graph of all process values and set points, C-concentration in the steel, operator changes and remarks pro charge.

Controls:

- Start, stop, step-by-step control via the furnace window,
- Switch automatic / manual operation.

Heat Treatment:

- Transparent read-out in tabular form,
- Use of a technology-database,
- Number is only limited by computer's storage capacity.

Diffusion Calculation:

- Display of the step for step pre-calculation of the carbon potential per program,
- Calculation of the carburisation depth to be achieved,
- Display of momentary calculated carburisation depth during the process,
- Documentation of calculated carburisation profil of the steel.

Hardware:

- Computer with clock frequency 1 GHz or higher, expanded memory 512 MByte or higher, hard disk 10 GByte or larger, COM-interface RS 422 optical isolated, CD-ROM required for installation of software;
- Color display 17" or larger (min. 1024 x 768)
- Color printer, min. 180x180 dpi.

Operating System,

Further Software:

- WINDOWS NT 4.0/SP 4 or higher or WINDOWS 2000 Prof.,
- Database MSDE with MS-Access / alternatively MS-SQL
- MS-Word
- MS-Word