

## Optimized heat treatment Modular and future-proof gas supply

**bürkert**  
FLUID CONTROL SYSTEMS

Case hardening involves providing steels with a hard-wearing and robust surface. The gas carburising process that proceeds quenching utilises gases such as propane, nitrogen, air and liquid methanol, while low pressure carburising, or vacuum carburising as it is also known, is conducted with acetylene and nitrogen. Optimized heat treatment is achieved when the individual media are introduced and dosed at the right amounts and time.

### One system – many advantages



Maximum time savings through simple and user-friendly integration in the existing system.



Minimum inspection and maintenance intervals due to pre-assembled components with subsequent system testing.



Easy handling thanks to user-friendly system configuration via the Bürkert Communicator.



The modular design ensures the system can be extended and adapted to user-specific needs.



Reduced logistic costs and shorter delivery periods, as the system is already pre-assembled and tested.



Increased productivity and reduced downtime due to prepared service functions.

# Perfectly treated surfaces

## Integrated dosing system for the carburising process

Efficient and sustainable heat treatment of surfaces demands the precise control of process media. In case of carburising processes, the modular gas supply system controls and regulates the coordinated supply of methanol, nitrogen, air and propane via system integrated mass flow controllers and liquid flow controllers. The complete system is easy to install and commission. The system control unit with gateway for Ethernet communication can be simply programmed in advance. Depending on the respective requirements, it is also possible to process input/output signals recorded and output by the appropriate modules.

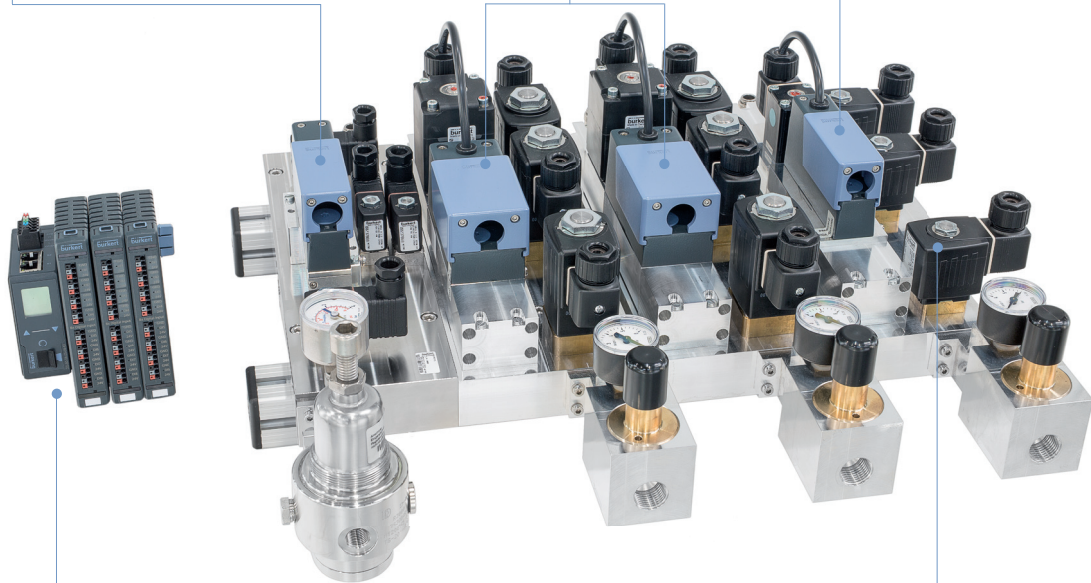
### Flow controllers for liquids

- Type 8718 – highly dynamic control of methanol due to fast flow metering and control

### Mass flow controller for gases

Maximum measurement and repeat accuracy, high nominal flow rates of up to 2500 l<sub>N</sub>/min.

- Type 8746 (nitrogen and air)
- Type 8742 (propane)



### System control module and gateway

- Type ME43 for industrial Ethernet and fieldbus standards with Type ME44 input/output modules

### Direct-acting solenoid valves

- Type 6011 for methanol – compact and stable
- Type 6027 for nitrogen and air – efficient and reliable
- Type 6013 for propane – fuel gas suitable and safe shut-off

### Communicator

- Type 8920 – easy-to-use software tool of the device platform EDIP (Efficient Device Integration Platform)
- Fast reading of process values thanks to graphics and simultaneous access to all connected field devices
- Comprehensive device diagnostic and safe functions available

