HMI Project

logotherm

Adaptive Human Machine Interface for industrial cooling and temperature control systems

Kontext

Business fields: Plastics / Injection molding / Chemistry and pharmacy / Metal processing / Food / Extrusion

Task

A user-friendly and highly flexible interface was developed for industrial cooling and temperature control systems that is suitable for a variety of applications and monitor sizes. The efficiency and the energy consumption of the systems were optimized through clear user guidance.

Challenge

The interface is optimized for multi-touch and can be configured comfortably for the field of application via a wizard. The adaptive dashboard and its typographical information units ensure rapid orientation and easy operation in a wide range of different usage situations.

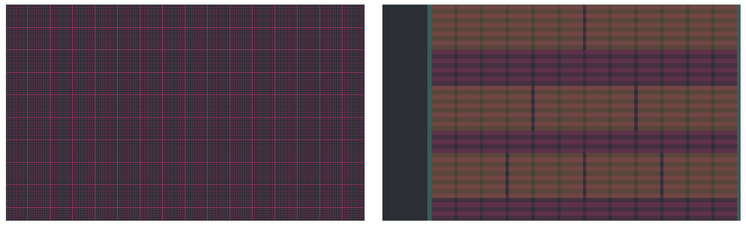
Injection molding machine with compact temperature controller teco cs 90t

Product range: Temperature control systems / Compact temperature controllers / Modular temperature controllers / Chillers / Cooling plants / Water treatment systems

Flexibilität

Optimal presentation through responsive and adaptive design

The interface has been developed with Web technology to ensure consistent presentation across all output devices. The interface adapts responsively to the monitor size of the end device. The information units react adaptively in number and form to the available space. The result is always an optimal representation of the key figures and functions. The layout is modular and scalable from compact devices to plant operation.



Grid and column logic

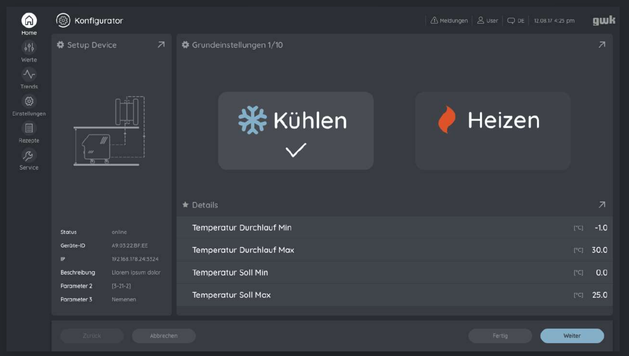
Screen sizes

21″ 15″ 7″ 9.7″ 4.7″

Help with the configuration

In order to be able to prepare the interface for the various areas of application, a commissioning wizard has been developed. This guides the administrator on the PC step-by-step through the configuration process. This speeds up the configuration and reduces incorrect entries for complex settings.

Modular structure



Commissioning wizard

Design

User interface design

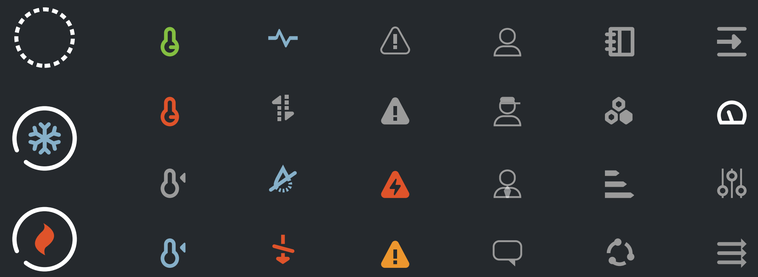
The interface is optimized for use in poorly lit work situations. The dark theme is easy on the eyes and at the same time ensures good legibility. The reduced design of all displays and controls simplifies orientation. Signal colors guide the user and alert them to critical usage situations. The typographical approach to the representation of the key figures is the key to the straightforward appearance of the entire system.

Customizable branding

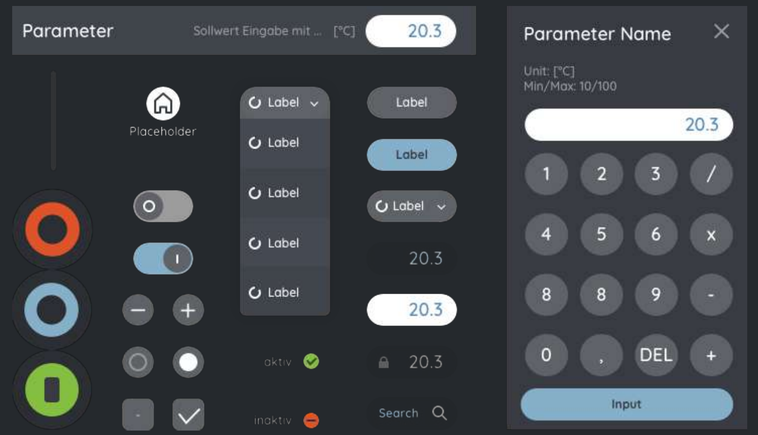
The manufacturer optionally adapts the housing color of the devices to the corporate design of its end customers. The interface design follows the color theme harmoniously at the initial startup and thus allows the integration of the branding, without negatively influencing the rest of the design and thus the user guidance.

Housing and software customizable to customer CI

Icon and control style / derived from drop shape



Icon selection



Control selection

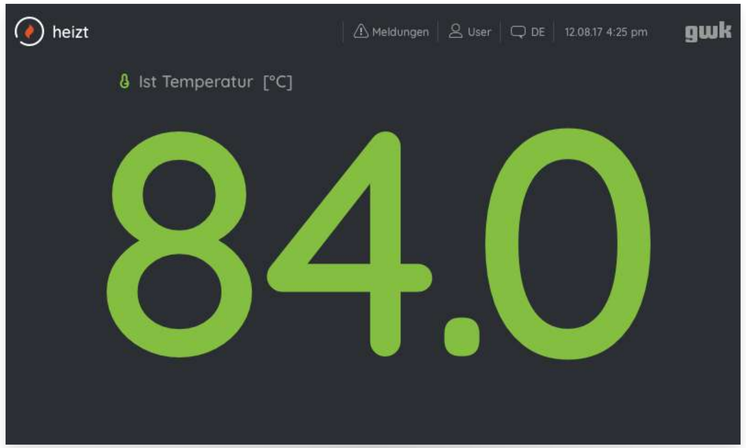
User Experience

Optimized usability

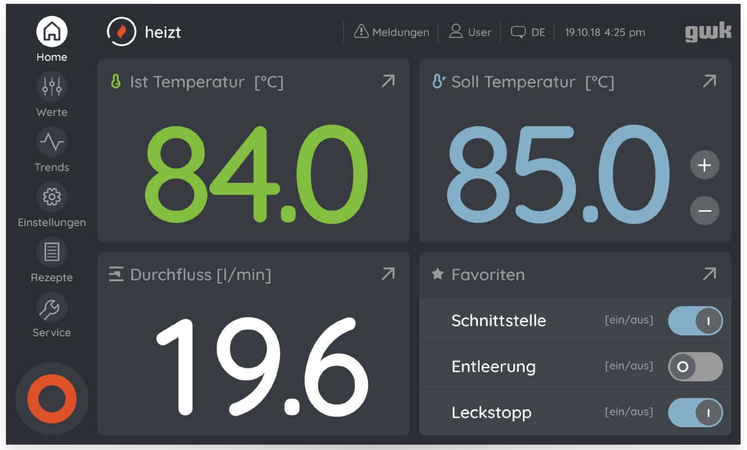
User-centered structure / flat hierarchy / reduced information density / Help and assistance systems / Favorite functions / Remote screensaver / Uniform message system / Fast language and user switching / Multi-touch gestures / Consistent recipe management / Clear color codes / Harmonized with industrial design

Video

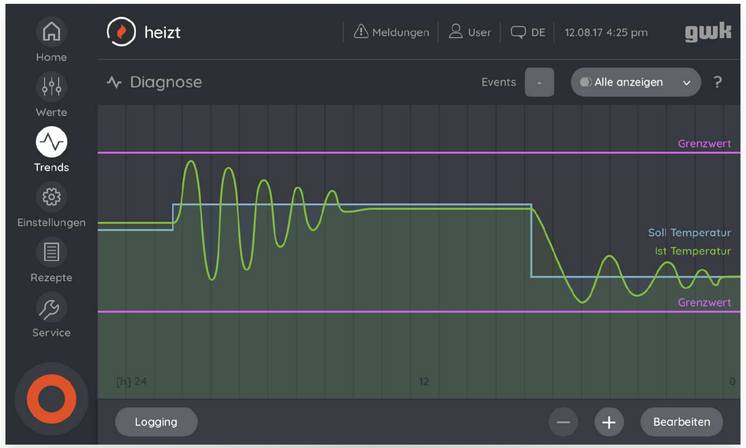
https://vimeo.com/295649968



Screensaver with the most important key figure and with long distance effect

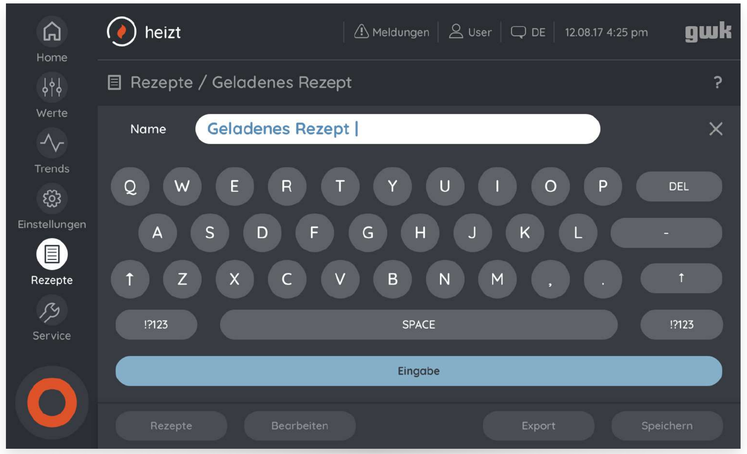


Dashboard with typographic information units and favorite functions



Clear data visualization for diagnostic purposes

Attention-grabbing error message



Ergonomic on-screen keyboard in recipe management

Expectant integration of multi-touch gestures

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