

beta.z

Single zone temperature control



beta.z

Advantages at a glance:

- Perfect viscosity of the paint
- Optional measurement of temperature
- Optional machine speed control
- Optional water replenishment
- Atmospherically closed system
- Individual connection to the machine control station or external data remote control
- Can be retrofitted to existing combination units at any time



› The beta.z single zone temperature control meets high requirements even under difficult conditions

Single zone temperature control

Single-zone temperature control units ensure stable production conditions even when using inks with different viscosities. Ideally suited for high level waterless and conventional offset printing applications – especially under difficult conditions, such as IPA-reduced or IPA-free printing and while using spot colours.

The process

The temperature in the ink temperature control circuits is controlled on the basis of the return flow temperature of the associated ink units or – particularly in waterless offset printing – using an IR temperature sensor in the ink unit of the printing press for a direct control of the ink roller surface temperature.

In other applications, or if other requirements have to be met, the system can also be used to control the feed flow temperature. If required, the press speed can be used as an additional

control variable, allowing an even more precise temperature control.

The entire system is designed as an atmospherically closed system incorporating a pressure expansion vessel and a pressure relief valve, offering maximum protection against corrosion and algae growth. Small leaks, e.g. in the area of the cylinder rotary unions, are compensated for by an automatic water refilling device (optional).

Systemcheme

of a typical sheetfed offset installation for waterless offset printing incorporating a 5-circuit multi-zone temperature control unit, beta.z 520, on a 4-colour printing press. Four separate control loops supply the oscillating rollers of the printing unit, and an additional fifth control loop can be used to keep the ductor rollers of the printing units at a different temperature level.

The temperature in the distributor circuits is measured by PTC temperature sensors. Cooling water supply can be ensured by connecting the beta.z unit directly to a technotrans beta.c combination unit or to an omega.k temperature control unit.

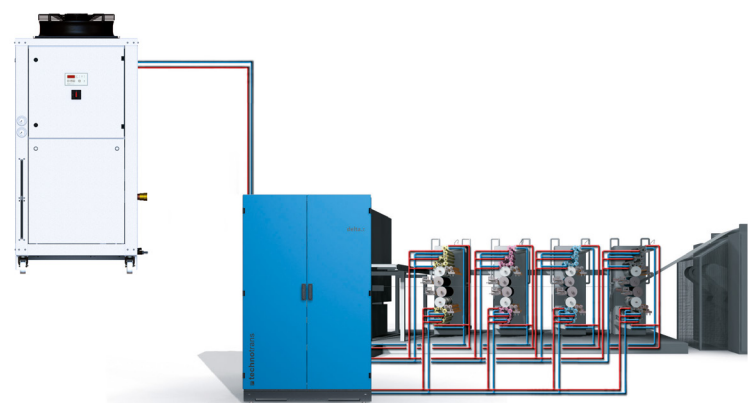
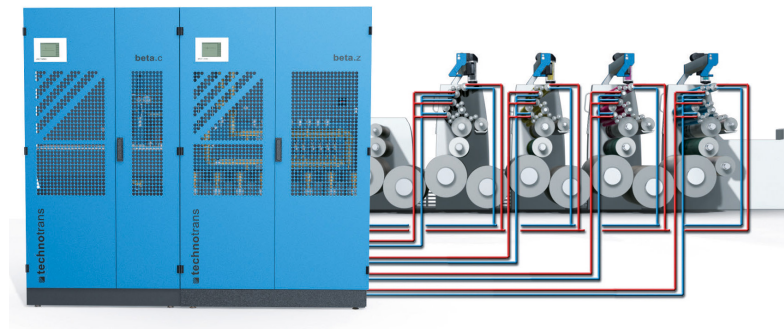
Alternatively, the beta.z units can also be equipped with a heat exchanger for connection to an on-site cooling water supply system.

The illustration shows the example of a typical application of the beta.z series in conventional web offset printing with three separate circuits.

1. oscillating rollers of the lower printing units
2. oscillating rollers of the upper printing
3. ductor rollers of all printing units

A system of this kind can be equipped with additional circuits to supply other cooling spots such as cooling rollers, oil cooling systems or water-cooled drives of rotary presses. beta.z units are always connected to an external cooling water supply system via an integrated stainless steel plate heat exchanger to protect the press circuits against negative influences of the cooling water supply system. An additional external chill water supply can also be covered with technotrans ICE chillers.

All connections exit the unit cabinet at the top.





› beta.z is equipped with the necessary performance for the web offset

Always the right temperature
Flexible application possibilities
Machine speed as reference variable
Expandable to additional circuits

Operation

The single-zone temperature control units are equipped with a microprocessor control unit as standard. The display of this control unit offers a great ease of operation and a good overview of all operating and process data.

With the beta.line and delta.line series printing companies around the world have access to highly efficient and powerful peripheral equipment that is configured to perfectly meet individual requirements prior to installation. technotrans offers a wide range of solutions for various sheetfed and heatset applications.

Our customers benefit from the international hotline and sales and service units around the world, ensuring a quick response when you need it the most.

Our employees will gladly provide more detailed information and are also available for on-site consultation.