

HYDAC Cooling Systems

Integrated Bypass - Pressure - **IBP**

Integrated Bypass - Pressure & Thermo - **IBT**

Integrated Bypass - Pressure - IBP

Allows the oil to bypass the cooling element when the pressure exceeds a certain value.

This valve is added to a cooling element in conjunction with a flow channel that is braised into the original construction.

The function of the valve is to act as a pressure bypass.

Thus, protecting the cooler core from excessive pressure spikes typically associated with high flow and pressure variations.

Pressure drop

The flow through HYDAC's integrated pressure bypass system works in conjunction with the individual element in which it is installed.

The exact operational pressure drop of the cooler depends on :

- flow rate, viscosity and temperature of the fluid
- size and type of the element
- size of the bypass channel

Models available:

With opening pressure rating:

- 2 bar >> IBP2
- 3 bar >> IBP3
- 4 bar >> IBP4
- 6 bar >> IBP6

Integrated Bypass - Pressure & Thermal - IBT

It lets the oil pass through the cooling element only above a certain temperature.

This valve is added to a cooling element in conjunction with a flow channel that is braised into the original construction.

The function of the valve is:

- open at low temperature, allowing flow of oil through the bypass channel
- closed at normal operating temperatures, forcing oil flow through the cooling tubes of the element
- **acting as a pressure bypass when the thermal section of the valve is closed.**

Thus, protecting the cooler core from excessive pressure spikes typically associated with high flow and pressure variations.

Models available:

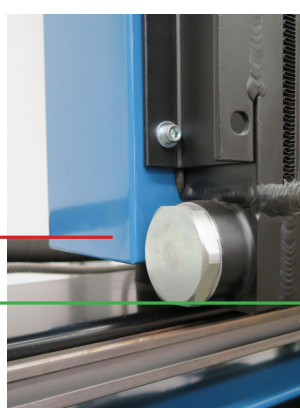
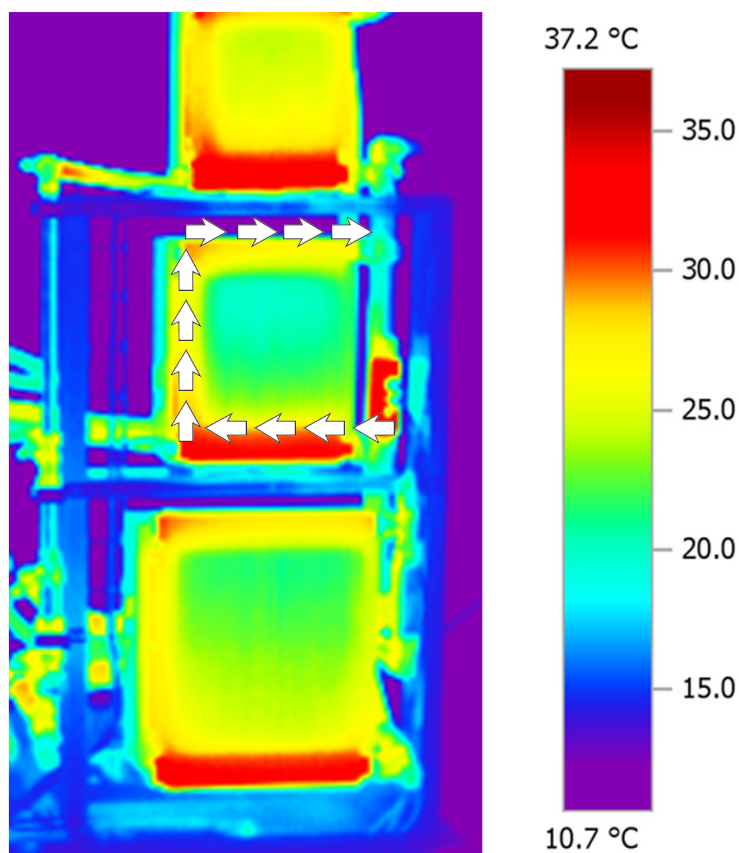
- 45°C >> IBT45-3, 4 and 6 bar
- 50°C >> IBT50-3, 4 and 6 bar
- 55°C >> IBT55-3, 4 and 6 bar
- 60°C >> IBT60-3, 4 and 6 bar
- 65°C >> IBT65-3, 4 and 6 bar
- 75°C >> IBT75-3, 4 and 6 bar
- 80°C >> IBT80-3, 4 and 6 bar

The function of the "thermo element" has been split into a "thermo" part and a separated "pressure" part. This allows higher opening pressure, ensuring the precision of the bypass function and extending the life time of the "thermo element".

Advantages of the IBT:

- fixed setting temperature value
- precise temperature control
- low pressure drop
- shock resistance
- can function in any position
- maintenance free

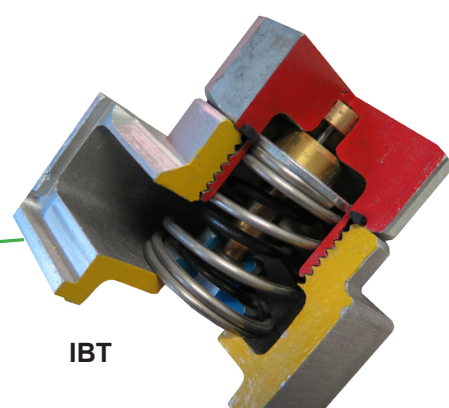
Technews 1256
August 2014



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