DRYING PROCESS OF PAPER PRODUCTION

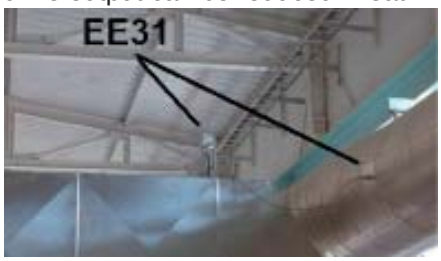
Paper and paper based products like carton are manufactured in different process steps in paper machines. The main process steps are the forming, the pressing and the drying.

For an improved energy efficiency and heat recovery often dryer-section hoods will be used. A closed dryer-section hood encloses the dryer section and leads to a controlled supply and removal of air and water vapor.

The climate inside the plant is thereby improved, the building is protected and efficient energy recovery from the exhaust air and the evaporated water in the drying process is facilitated.
A closed dryer-section hood with good insulation means the dryer section can function under a higher operating dew point.
This means that the moisture load of the exhaust air can be kept at a very high level without risk of condensation.
The EE31 is used to control the operating dew point in the exhaust air duct.

As a consequence, in contrast to open hoods or to less well-insulated closed hoods, the quantity of water to be evaporated - and thus production - can be increased with existing supply air/exhaust air systems.

Alternatively, the supply and exhaust air volume flows and thus the fan drive output can be reduced. Heat



Installed EE31 in the exhaust air duct

recovery is also clearly improved due to the higher enthalpy of the exhaust air, whereby thermal energy (steam) can be saved for preheating the fresh water or white water.

- **Application Environment**

Measurement Range:	120 – 150 g/kg (depends on drying hood)
Output:	4 – 20 mA
Operating Temperature:	60 - 130 °C (typically 80°C)

- **E+E Solution**

EE31-PFTD9025P01/CB6-Td52-T52
Humidity transmitter for accurate measurement up to 180°C

The optimal hardware structure of the EE31 series for varying applications is achieved by combining various standard mechanical and electronic modules.

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