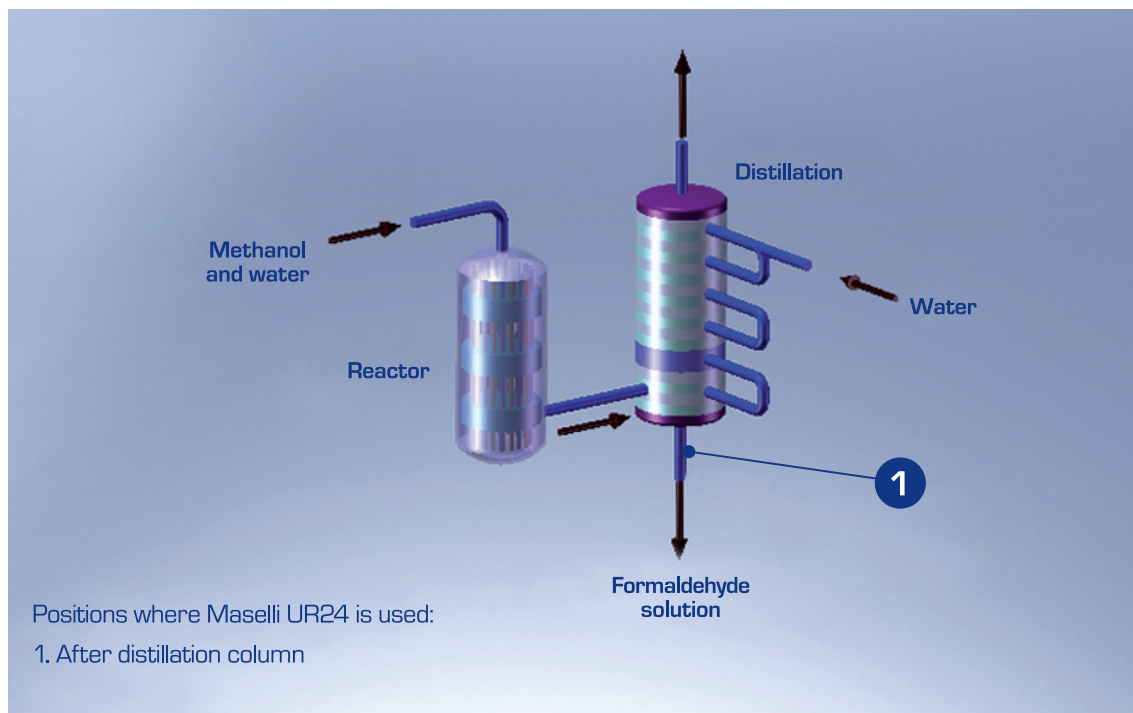


Application Focus

- **Mexico**
- **Measuring of the Formaldehyde concentration during the distillation after the catalytic oxidation of methanol**
- **Feno Resinas (END USER)**



Description of the process

Formaldehyde production is based on the catalytic oxidation of methanol.

The most common catalysts are silver metal or a mixture of an iron oxide with molybdenum and vanadium.

In the more commonly used FORMOX process, methanol and oxygen react (at about 250-400 °C) in presence of iron oxide in combination with molybdenum and/or vanadium to produce formaldehyde.

The solution obtained in the above mentioned reaction has then to be concentrated.

This operation takes place in an evaporator, having as a target a final concentration of 87% w at 110 °C.

It's very important to reach the exact target, in order to avoid formaldehyde becoming para-formaldehyde at this stage.

Benefit of the installation of the Maselli analyzers

During the concentration of the Formaldehyde it's very important, especially in the last concentration step, to accurately keep under control the solution (formaldehyde %), in order to:

- avoid, NOT exceeding the target value, the reaction that brings from formaldehyde to para-formaldehyde
- have a more uniform product quality (saving in this way money in the following phase)
- minimize the need for after treatment of the product.

The measure can be easily performed with an UR24 Refractometer installed in a re-circulation loop of the boule.

Due to the high temperatures involved, the unit must be Long Probe version.

