Phoenix equipment corporation

Plant # 442

60,000 TPY Formaldehyde Plant for Sale

Capacity:
60,000 tons per year

Plant History:
1987 Started
1992 Installed new reactor
2012 Final shut down

Product Specification:
Concentration 37 – 50 wt.%
Methanol < 1 wt.%
Formic Acid < 200 ppm

Consumption per MT product 37%:
415 Kg methanol
85 KWh
450 – 500 Kg process water
600 Kg steam (produced)

Equipment List:
- Molten salt circulation pump
- Formaldehyde absorption column
- Methanol saturation column
- Air filter
- Steam generator
- Methanol cooler
- Formaldehyde cooler
- First & Second section cooler
- Reaction gas preheater
- Reaction gas cooler
- Recycle gas preheater
- Air blower
- Recycle gas blower
- Reactor
- Air-methanol static mixer

PLANT DESCRIPTION

The plant is based on two completely independent reactors and one common absorption tower. Each reactor has separate control valves to adjust the methanol concentration, oxygen concentration and inlet total flow. This allows to adjust the process to the catalyst condition along its life. If necessary it's possible to run one reactor leaving the second one off line. Each reactor has 8052 stainless steel tubes, with external diameter = 25.4 mm, thickness = 1.65 mm and length = 1000 mm. Each reactor can produce up to a maximum of 30.000 TPY of formaldehyde 37%. The plant maybe exercised at 50% concentration with a higher unconverted methanol and normal oxidation conditions to maximize the yield. The plant is not ready to produce Urea Formaldehyde concentrate, but can be easily modified by adding Urea solution pump and one further condenser on recycle gas output from the head of absorption tower. The plant may use many different iron molybdenum based catalyst from Sud Chemie, Topsoe, Lonza, Perstrop and other suppliers.

For more information, contact

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