



# Coating & Coagulation

June 2020

# Distillation

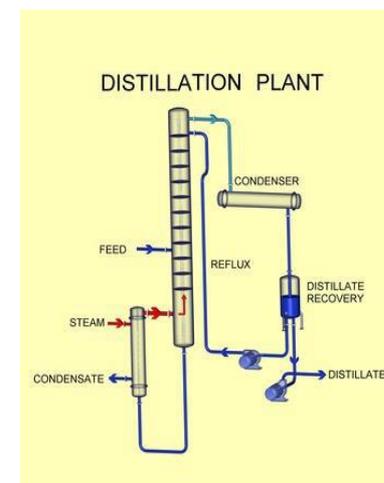
In many chemical and textile processes, solvents are used as solvent mixtures or as water solutions. Solvents can ("must") be recovered.

TMIP manufactures both batch and continuous distillation plants suitable for the above mentioned process. Discontinuous (batch) units are normally used for recovering solvents from complex mixtures, usually present in pharmaceutical industry.

Continuous distillers are aimed at chemical industries.

TMIP distillation plants include units for operating under pressure or vacuum, double or triple effect, with yields above 95% and controlled by some of the most sophisticated control systems available.

	Chemical industry in general
	Paints production
	Synthetic leather production
	Resins production
	Pharmaceutical industry and related material (API)



# DMF distillation plant

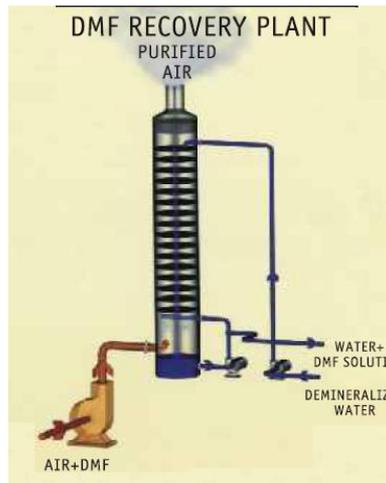
Distillation plant is used in order to separate water from DMF coming from coagulation process and/or the DMF recovery plant . Consequently, by this plant is it possible to recover almost 98-99% of DMF which can be re-used in the process.

Photo = Capacity: 5.000 l/h



# Absorption

DMF, NMP is highly soluble in water; TM.I.P. exploits this characteristic of the soluble water solvent that can be recovered by washing the air in counter current air stream with water in a plates tower. Solvent is collected on the bottom of the tower in solution with water. The solution will be distilled to recover pure solvent.



# DMF recovery plant

For the production of PU synthetic leather it is necessary to install a recovery plant for DMF.

DMF is the solvent necessary to dissolve and make PU liquid enough for coating. As for DOP, also DMF evaporates inside the ovens and the air must be treated.

The result of cleaning process by this plant is a solution with a concentration of about 20% H<sub>2</sub>O+DMF.

Separation of these 2 elements in order to re-use DMF can be made by distillation.

Photo = Capacity: 30.000 Nm<sup>3</sup>/h



# Plasticizer recovery plant

For the production of PVC synthetic leather it is necessary to install a recovery plant of plasticizer (DOP or similar) necessary to make PVC liquid enough for coating. DOP during drying and curing inside the ovens evaporate and smokes, coming from such evaporation must be cleaned by this recovery plant. Depending on the quality of recovered DOP, sometime it can be re-used



Photo = Capacity: 60.000 Nm<sup>3</sup>/h



*thank you*



**Termomeccanica Industrial Process**

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