

Under Vacuum Process

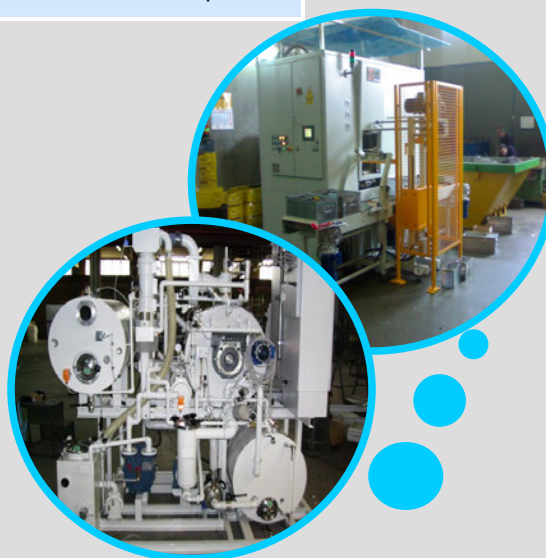
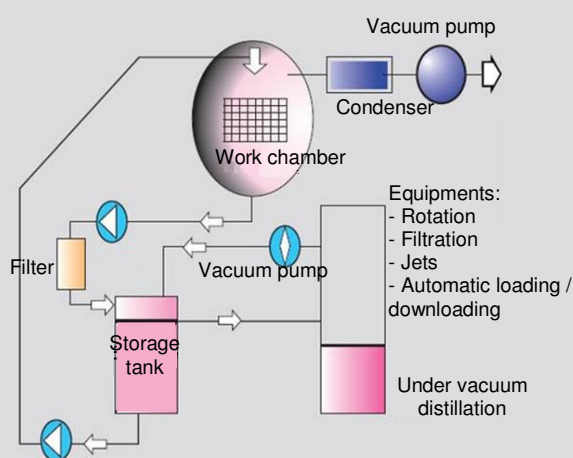
PERFORMANCES

The under vacuum or sealed degreasing process is set up with our TOPKLEAN™ MC solvent range, the range achieves particularly good cleaning results and represents a good alternative faced to chlorinated or commodity products extended in the industrial cleaning.

TOPKLEAN™ MC products are concentrated, formulated and colourless hydrocarbons, with a low viscosity, odorless. They are exempt of halogenated or aromatic solvents and are very efficient cleaning agents when used in modern sealed vacuum degreasing plants.

All components inside formulation are complaint with new regulations concerning chemical substances (REACH*, RoHS*, FGas*, not CMR*...) and are implemented by INVENTEC and our recommended list of cleaning plant manufacturers.

Cleaning performance	Criteria
High solvency properties	Stable distillation (narrow boiling point range)
	High flash point (class A3)
Residue-free after drying	Not need of stabilisers
	Very low toxicity
Dissolves a broad spectrum of pollutants	Low environmental impact



*REACH a new normative document to be implemented in next years concerning chemicals substances for Registration Evaluation and Authorisation of Chemicals.

*RoHS European Directive from 2006 concerning the Restriction of Hazardous Substances.

*FGas European Directive from 2006 concerning in prevent and thereby reduce emissions of fluorinated greenhouse gases covered by Kyoto protocol.

*CMR Carcinogenic, Mutagenic Reprotoxic substances.

*TRICHLOROETHYLENE (CAS 79-01-6) has been definitely classified as SVHC substance by European Chemicals Agency



CLEANING PROCESS

Specifically, the under vacuum degreasing process is completely a sealed process and include some steps

- ▶ Cleaning: by immersion in the solvent, multiple possible mechanical options could be implemented inside the cleaning chamber like ultrasounds, sprays, rotation basket...
- ▶ Rinsing in clean product completely distillate from clean product tank.
- ▶ Final rinsing: with solvent saturated vapour.
- ▶ Drying: under vacuum.

Core Products	
Topklean MC1153	Hydrocarbonated solvent
Topklean MC20D	Oxygenated solvent
Topklean Organic	Agro solvent

These sophisticated products are particularly adapted for cleaning in vacuum degreasing machines:

- ▶ Thanks to their narrow point boiling temperature range.
 - ▶ Can be used with ultrasonic agitation and filter until 1 micron
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- ▶ TOPKLEAN ORGANIC comes from renewable sources with a high solvent power

GREENWAY

Topklean Organic received Greenway label because we improved following parameters:

- ⇒ Toxicity reduction
- ⇒ Skin/eye irritants reduction
- ⇒ Chemical oxygen demand (mgO₂/L) reduction
- ⇒ Increase in content of renewable raw materials

Whatever solvent or agro solvent selected, a detailed list of requirements should be established on an ad hoc basis.

Compatibility boards available, contact us.

