

# PRODUCT INFORMATION

A black and white photograph of a complex industrial distillation system. The image shows several tall, vertical stainless steel distillation columns connected by a network of pipes, valves, and horizontal trays. The equipment is set in a clean, industrial environment. A large blue diagonal graphic element is overlaid on the bottom right corner of the image.

LOGICHEM  
PROCESS  
INTERNATIONAL

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# About Us

Logichem is a leading South African Process Engineering company, involved in the design, construction and optimization of process plants.

We have a strong design culture, focused on providing custom solutions to suit clients' particular circumstances.

Our engineers are trained and skilled in the application of cutting-edge design techniques, mostly developed in-house based on our many years of experience in commissioning and continuously improving our own designs. We make extensive use of Process Simulation in optimizing our technology.

Our customer list includes all the major process companies in South Africa, as well as clients in neighbouring territories, West Africa, Europe, the Middle East, Australia, New Zealand, the UK and the USA. We actively pursue opportunities to expand our customer base internationally.



# DE-ALCOHOLIZATION MACHINES



# GoLo

## De-alcoholization machines designed to your needs

GoLo represents the latest in dealcoholization technology, gently treating products such as wine, beer, cider, and spirit by minimizing exposure temperature, processing time, and product flow path, with full flavour recovery. Its proven technology used by many clients on four continents to de-alcoholize products while retaining maximum character.

### Why Reduce Alcohol ?

- To optimise taste profile
- To reduce calorie intake
- Health benefits
- Social benefits
- To suit different market demands Increasingly fashionable
- Lower product tax class

### Areas Of Application

- Wine
- Beer
- Cider
- Spirit
- Any fermented product

# Advantages of GoLo

- Entire process operates under a single vacuum (< -90 kPag)
- Continuous, single-pass process
- Can be configured for mobile deployment
- Can be configured to be fully automated for running unattended
- Maximum product temperature exposure < 50°C for < 2 minutes
- Low-temperature, indirect heating media
- Best aroma recovery in its class, recovers >98% of volatile flavour compounds
- Capable of reducing base product alcohol to <0.05%
- Rectifies the removed alcohol fraction up to 92% ABV
- Maximises vinous water recovery by minimising water loss in spirit fraction
- GoLo's steam control module has a built-in de-superheating system which improves equipment performance without any heat loss or additional water usage penalties
- GoLo's chilled water interface allows the use of client's sub-zero glycol utility without any risk of freezing in the final de-alc product or vacuum pump seal water coolers. This is achieved without wasting any refrigeration energy by glycol heating.
- Negligible water consumption. Only vacuum pump requires small seal water purge make-up.
- Effluent limited to small purge from vacuum pump seal water
- Lowest power consumption of all competing processes
- Heat integration minimises energy consumption
- Low maintenance - No internal moving parts (except for pumps)
- No components requiring routine replacement (e.g. membranes)
- Opportunity to co-produce variety of potable spirit products from recovered alcohol
- Option of running off a Heat Pump system to achieve lowest energy input attainable – ask us for more information

# C I P



# CIP STATIONS

Clean-in-place (CIP) is a process whereby equipment can be cleaned without the need for disassembly.

## Plant Overview

Our standard CIP plant comprises of two tanks, two chemical dosing pumps, one circulation and transfer pump, as well as all the required instrumentation, actuated valves and interconnecting piping. The control system can either be stand-alone or integrated with an existing system. The plant is be skid-mounted to facilitate predelivery testing and inspection, as well as the ease of installation on site.

## Extra Information

- The sequences can be **customized to the clients needs**.
- The CIP sequence is fully automated once initiated by the operator.





# CRAFT DISTILLERIES



# CRAFT DISTILLERIES

We specialise in the supply of craft distilleries, including storage, fermentation, distillation, final product storage and associated controls. A variety of feed stocks can be used, such a maize, molasses, cane juice, cassava, depending on the end-product required. Our distillation columns are solids tolerant, which allows for continuous production. We can also supply pot stills for batch production of gin, brandy, etc.

## AREAS OF APPLICATION

- Brandy
- Whisky
- Vodka
- Gin
- Eau-de-vie
- Extra Neutral Spirit
- And more !

# STRIPPED WINE PLANT



# STRIPPED WINE PLANT

A multi-pressure distillation plant to produce neutral stripped-wine.

The salient features of this technology are the following:

- Removal and recovery of aromatic compounds prior to removal of the bulk of the alcohol.
- Removal of alcohol by means of distillation.
- Operation under vacuum to limit the temperature to which the product is exposed.
- Continuous, once-through process.

A high degree of heat integration ensures minimal energy consumption.

The process is a multi-pressure distillation system, to minimize steam usage requirements.



# Contact Us

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