

KLC Evaporator

KLC-MASTER Line

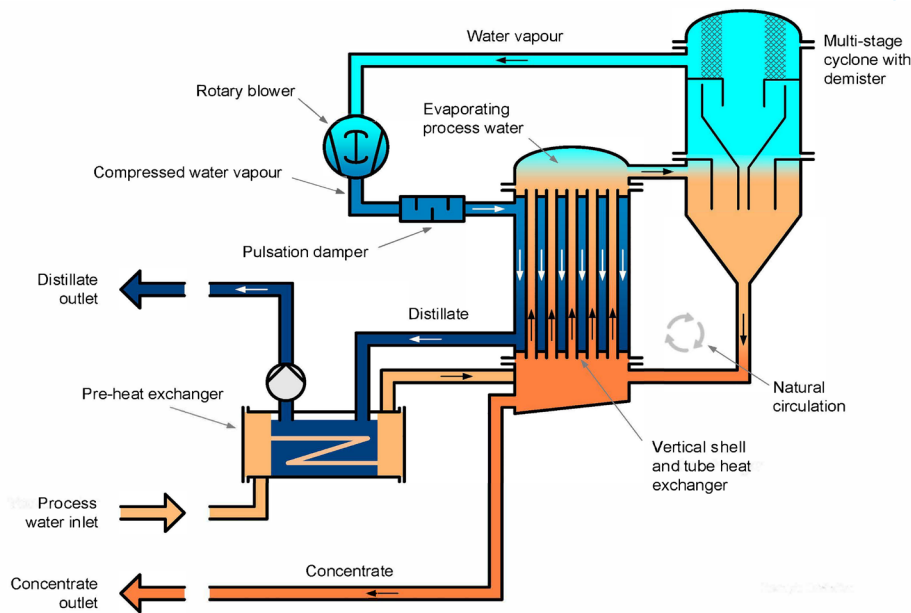
Vacuum distillation with modular design



Treatment of process water by extraction of best quality distillate reducing disposal cost

The KLC-MASTER Line is the new generation of KLC evaporators for high-quality treatment of industrial process water. Powerful and efficient components are installed in the smallest possible space, which decisively improve distillate quality and significantly reduce energy consumption. The new modular design allows the KLC-MASTER Line to be customized to meet the requirements of a wide range of process water types. With additional configurations, even the most difficult process waters can be treated. At the same time, the concentration factor is increased and best distillate quality is achieved. This modular, customer-specific design maximizes availability and reduces life cycle cost. By reusing the distillate, it is possible to achieve a closed circuit water management that conserves resources and achieves the highest environmental standards. With this innovative design a Zero Liquid Discharge Production is possible.

Functional principle



Special features

- Optimized to treat a wider range of the most difficult process waters covering all applications producing emulsion/oil and salt containing process waters
- Proven optimum values for distillate quality by optimised design without usage of additional upstream and downstream treatment of the process water
- Higher concentration of the concentrate by adjustable natural forced evaporation
- Reduced footprint and installation space due to compact design and optimized service access
- Cost savings due to lower residual disposal quantity
- Fully automated cleaning system reduces service times and ensures maximum user-friendliness
- Significant reduction of operating and lifecycle costs
- Modular design for customized assembly of additional kits
- Latest control system, intuitive operation und easy handling of the machine visualization

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Technical data metric and US-equivalents

Type of model	Capacity ¹ [l/h]	Capacity per year ^{2,4} [m ³] (7000 h/a)	Installed power [kW]	Energy consumption ^{3,4} [kWh/m ³] starting from	Weight empty [kg]	Dimensions L x W x H [mm]
KLC-MASTER Line ML 250	250	1750	33	50	3000	2760 x 1430 x 2500
KLC-MASTER Line ML 300	300	2100	33	50	3000	2760 x 1430 x 2500
KLC-MASTER Line ML 350	350	2450	40	50	3200	2760 x 1430 x 2500
KLC-MASTER Line ML 400	400	2800	40	50	3200	2760 x 1430 x 2500

Type of model	Capacity ¹ [gpm]	Capacity per year ^{2,4} [gal] (7000 h/a)	Installed power [kW]	Energy consumption ^{3,4} [kWh/gal] starting from	Weight empty [lb]	Dimensions L x W x H [in]
KLC-MASTER Line ML 250	1.10	462,301	33	0.19	6614	108.66 x 56.30 x 98.43
KLC-MASTER Line ML 300	1.32	554,761	33	0.19	6614	108.66 x 56.30 x 98.43
KLC-MASTER Line ML 350	1.54	647,221	40	0.19	7055	108.66 x 56.30 x 98.43
KLC-MASTER Line ML 400	1.76	739,682	40	0.19	7055	108.66 x 56.30 x 98.43

¹ City water hardness <10° dH, inlet temperature >15°C (59°F)

² with 7000 operation hours per year with city water (6 days/ 50 weeks)

³ Values refer to a machine at operating temperature

⁴ Data for particular process waters are determined in customer specific calculations

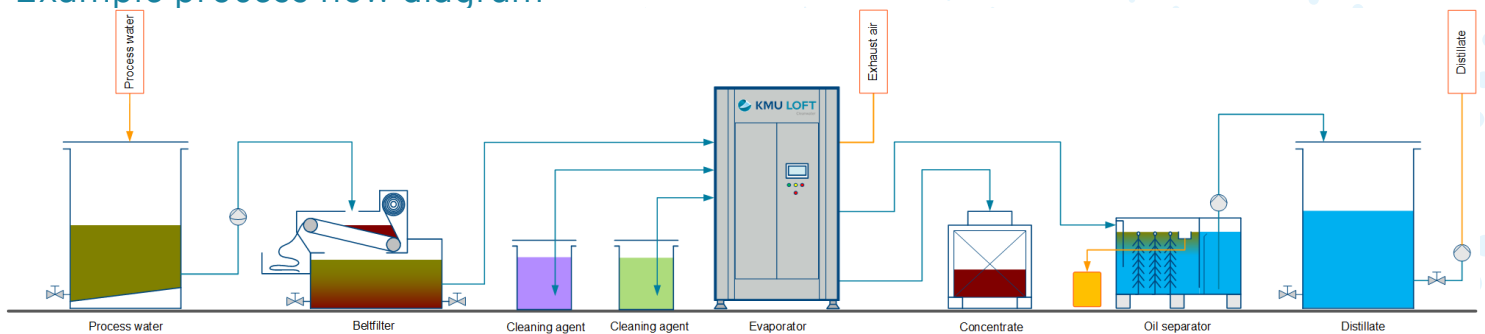
Additional configurations

- KLC- Q-KIT (Quality) : Integrated oil separation, increased distillate quality
- KLC- V-KIT (Vapour) : Reduction of exhaust amount and odour nuisance
- KLC- E-KIT (Energy) : Energy saving through increased heat recovery

Excellent quality of the distillate

- Reduction compared to input value:
- Conductivity [μ S/cm] up to 99%
- Chemical oxygen demand COD [mg/102] up to 99%
- Hydrocarbons HC [mg/l] up to 98%

Example process flow diagram



Especially suitable for the following process waters:

- Process water from manufacturing and production processes from a wide variety of industrial sectors
- Wash water and cleaning water
- Rinse water and active baths
- Moderately radioactive water
- Water containing separating agents and glycol
- Landfill leachate, mine water
- Water containing reusable materials, recycling

More information about
KLC-MASTER Line

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