

# TCO08-19 Minichiller

Industrial oil chillers

## COOLING CAPACITY

900-1100 - 1600-1900 - 2200-2550 W



### AXIAL FAN

Axial fan, complete with electrical protection and safety grille.

### HYDRAULIC CIRCUIT

Hydraulic circuit with gear pump without tank, with maximum available pressure 20 bar, 0-25 bar pressure gauge, regulation temperature sensor. Hydraulic safety with safety low- and high-pressure pressure switch.

### ELECTRICAL PANEL

With main breaker, fused motor protection with LED visual fault indicator, voltage presence light.

### MANAGEMENT AND CONTROL

The TX110 control unit manages the chiller's operation, providing warnings including high/low temperature alarms and a general serious fault alarm, with the display indicating if this refers to the refrigeration or hydraulic circuit. An on-off contact allows the machine to be switched on remotely. Control disconnect switch for switching on the machine.

### PAINT/COATING

Standard colour: RAL 7035 textured.

### MAIN ACCESSORIES (ref. page 189)

- LTA - Operation at low ambient temperatures
- FP - Polyurethane air filter
- RU - Castors
- TD - Differential fluid temperature management (two sensors)
- BGC - Hot gas bypass for +/- 1 K temperature precision
- FL - Customer flow switch
- Non-standard paint/coating
- Satin AISI 304 stainless steel framework

### STRUCTURE

In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panels

### COMPRESSOR

Hermetic reciprocating compressor, cooled by the refrigerant, complete with thermal cut-out.

### REFRIGERATION CIRCUIT

Complete with charging port, drier filter, expansion valve, high- and low-pressure safety pressure switch, R134a refrigerant.

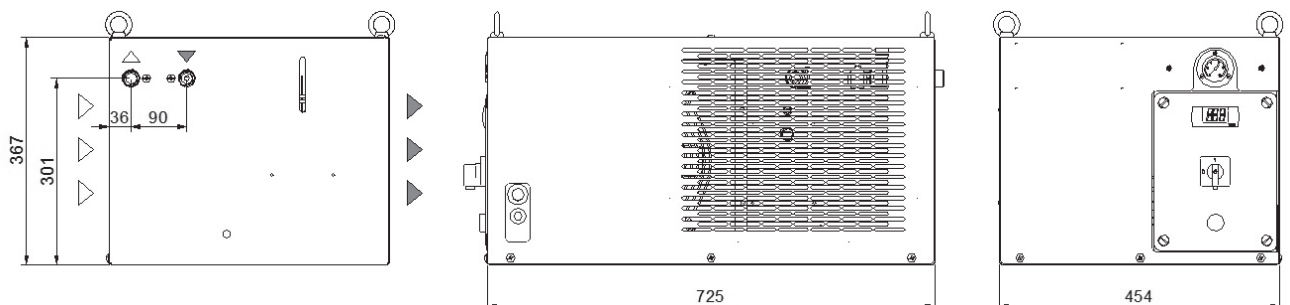
### EVAPORATOR

Brazed stainless-steel plate model.

### AIR CONDENSER

Finned high-efficiency copper tube condensing coil, complete with safety grille.

## Dimensions



Model		TCO08		TCO12		TCO19	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
<b>Rated Cooling Capacity*</b>	W	900	1100	1600	1900	2200	2550
Ambient temperature operating limits	°C	+15 - +45					
Settable oil temperature range	°C	+25 - +40					
Fluid type		ISO VG 32					
Temperature precision	K	+/-2					
Refrigerant gas	HFC	R134a					
<b>Power supply</b>							
Supply voltage	V ph Hz	230V (+/-10%) 1ph 50/60Hz					
Secondary supply voltage	V AC	230					
Digital thermostat		TX110					
<b>Compressor</b>							
Compressor type		Reciprocating					
Quantity - Number of circuits	no.	1 - 1					
Max. power draw	kW	0.5	0.6	0.7	1.1	1.0	1.15
Max. current draw	A	2.8	3.1	4.1	4.3	6.0	6.5
<b>Axial Fan</b>							
Fan type		Axial					
Quantity	no.	1		1		1	
Air flow rate	m <sup>3</sup> /h	1000		1000		1000	
Max. power draw	W	150	190	150	190	150	190
Max. current draw	A	0.66	0.85	0.66	0.85	0.66	0.85
<b>Standard Pump</b>							
Pump type		Gear pump					
Quantity	no.	1		1		1	
Nominal fluid flow rate	l/min	10		10		10	
Nominal available head	bar	20		20		20	
Max. power draw	kW	0.55		0.55		0.55	
Max. current draw	A	4.0	4.2	4.0	4.2	4.0	4.2
Storage tank capacity (optional)	l	10					
IN/OUT liquid connections	inch	1/2"					
Net weight (approximate)***	kg	59		61		63	
Width	mm	725					
Depth	mm	454					
Height	mm	367					
Sound pressure level**	dB(A)	56		56		56	
IP rating	IP	44					
<p>* Data relating to operation under the following conditions: intake/outlet temperature 40/30°C, ISO VG 32 oil, ambient temperature 32°C. Cooling power refers to the evaporator unit.</p> <p>** Sound pressure level at 50Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.</p> <p>*** Weight includes pallets and packaging (where provided for), with refrigerant charge, without storage tank and axial fans.</p> <p>**** The electrical data refer to cos φ = 0.8.</p>							

Correction factors for calculating the cooling power												
Oil outlet temperature	Fo	°C	20	25	30	35						
		factor	0.82	0.92	1	1.05						
Ambient Temperature	Fa	°C				15	20	25	32	35	40	45
		factor				1.16	1.1	1.05	1	0.97	0.91	0.84
Oil type	Ft	type	ISO VG 10		ISO VG 22		ISO VG 32		ISO VG 46		ISO VG 68	
		factor	1.15		1.1		1		0.9		0.82	
Cooling power = Nominal cooling power x Fo x Fa x Ft												