

Qualiterme

LINE SCREW

CHILLER

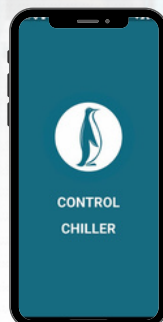


Genuine outcomes, intelligent savings!

Qualiterme provides cutting-edge solutions in industrial refrigeration, integrating advanced technology, energy efficiency, and sustainability.



EXPLORE OUR WEBSITE.



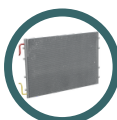
Control Chiller Application

Oversee and manage your equipment from a distance, guaranteeing efficiency and accuracy in the production process.

www.qualiterme.com.br



ITEMS OF THE APPARATUS



CAPACITORS
MICROCANAL



COMPRESSOR
SCREW



EXCHANGER
PLATES



STRUCTURE



CONTROLLER
CLP



MOTOR CIRCUIT
BREAKERS



SOFT STARTER



FANS

The Screw Line provides capacities between 200,000 and 1,200,000 kcal/h, specifically engineered to address the requirements of extensive industrial refrigeration processes.

The chillers feature cutting-edge screw compressors that utilize advanced technology to guarantee exceptional robustness, durability, and operational performance, all while maintaining cost-effective operation.

The system functions at low vibration levels, ensuring enhanced stability, reliability, and an extended lifespan for its components.

The line incorporates a distinctive condensation control and thermal load variation system, employing high-efficiency plate heat exchangers and microchannel condensers specifically optimized for R-134a refrigerant.

Among the primary features, the following are particularly noteworthy:

- Soft starters for seamless initiation
- Fans with pressure control
- Electronic contactors
- Internet-enabled remote control panel
- Accurate tracking of energy usage

In systems featuring multiple compressors, each compressor is equipped with its own cooling and control mechanism, thereby enhancing operational safety and flexibility.

Capacity modulation facilitates operation at 25%, 50%, 75%, and 100%, automatically adapting to process requirements and ensuring optimal energy efficiency.

SCREW COMPRESSOR

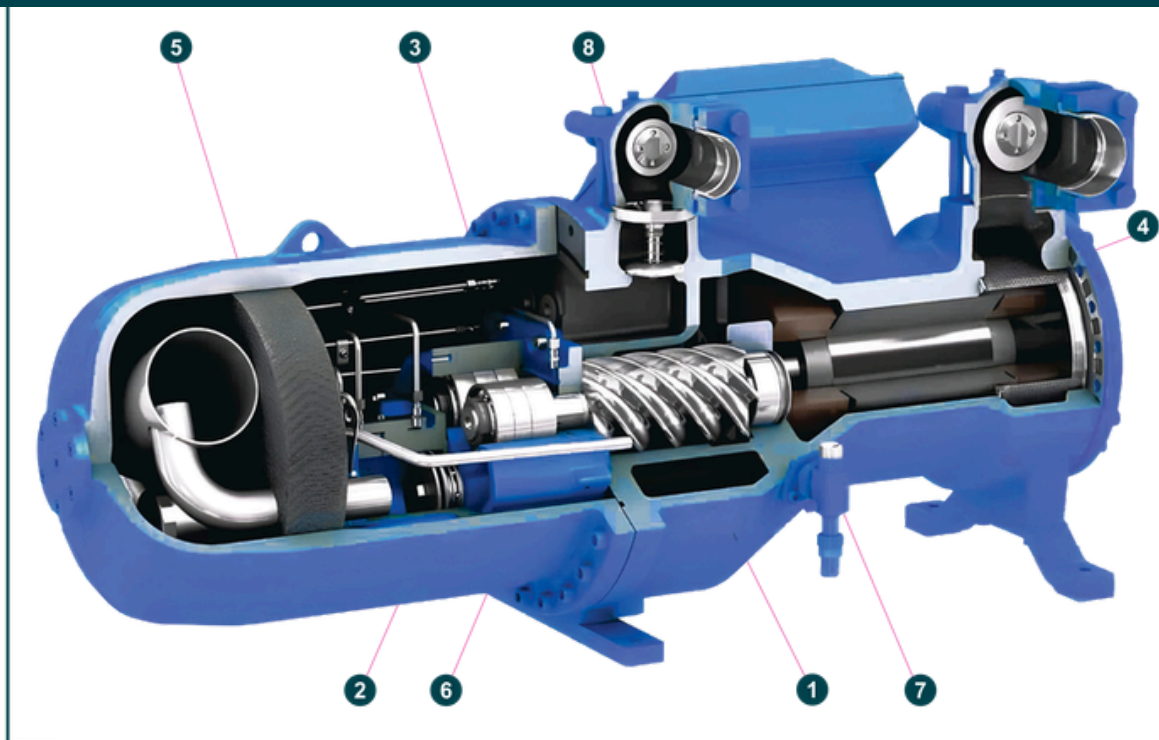
With low initial torque under load, the compressor provides exceptional robustness, durability, and cost-effective operation. Featuring an economizer valve system, it facilitates continuous modulation of cooling capacity without necessitating shutdowns, thereby enhancing energy efficiency. In challenging operating conditions, it incorporates an additional cooling system with direct liquid injection, ensuring stable and reliable performance even in extreme operational regimes.

Screw compressors are globally acknowledged as a standard in industrial applications, distinguished by their exceptional reliability and consistent performance.

Engineered for application in air-cooled chillers and heat pumps, they provide adaptable operation and superior energy efficiency, applicable at both full and partial load.

Its durable construction enables it to function effectively across a broad spectrum of operating conditions, enduring elevated discharge temperature thresholds and high compression ratios, particularly in heat pump applications.

These features guarantee optimal reliability, operational stability, and exceptional performance, even in challenging operating conditions.



- | | |
|--|----------------------------|
| ➊ High-Efficiency Profile | ➋ Integrated oil separator |
| ➌ Slider control: partial load of up to 25% of the total capacity. | ➍ Enhanced oil management |
| ➎ Long-lasting bearings with pressure relief. | ➏ Economizer (Eco) |
| ➐ Custom-designed integrated motor | ➑ Integrated check valve |

- ▶ Adjustment of the internal volume rate (under both full and partial load), applicable across a diverse array of applications;
- ▶ Minimization of internal flow losses;
- ▶ Optimization of the petroleum management system.
- ▶ Enhanced cooling for extreme operating conditions is achieved through direct liquid injection, developed or external oil cooling with actively regulated oil circulation levels.

TECHNICAL SPECIFICATIONS

DOUBLE SCREW LINE FEATURING TWO COMPRESSORS

Air Condensation - Calculations conducted at a working temperature of 10°C.

Model	Capacity (kcal/h)	Three-phase			Single-phase (Optional)	Screw Compressor	Dimensions			Connections
		220V	380V	440V	220V		Width (millimeters)	Tablets (mm)	Height (millimeters)	Cold Water Inlet/Outlet
E400	420000	X	✓	X	X	2x70TR	2000	4800	2700	4x4"
E600	604000	X	✓	X	X	2x100TR	2000	5500	3050	4x4"

TRIPLE-SCREW LINE FEATURING THREE COMPRESSORS

Air Condensation - Calculations conducted at a working temperature of 10°C.

Model	Capacity (kcal/h)	Three-phase			Single-phase (Optional)	Screw Compressor	Dimensions			Connections
		220V	380V	440V	220V		Width (millimeters)	Tablets (mm)	Height (millimeters)	Cold Water Inlet/Outlet
E600	630000	X	✓	X	X	3x70TR	2000	6500	2700	6x4"
E900	906000	X	✓	X	X	3x100TR	2000	8300	3050	6x4"

QUAD SCREW LINE FEATURING FOUR COMPRESSORS

Air Condensation - Calculations conducted at a working temperature of 10°C.

Model	Capacity (kcal/h)	Three-phase			Single-phase (Optional)	Screw Compressor	Dimensions			Connections
		220V	380V	440V	220V		Width (millimeters)	Tablets (mm)	Height (millimeters)	Cold Water Inlet/Outlet
E800	840000	X	✓	X	X	4x70TR	2000	9700	2700	8x4"
E1200	1208000	X	✓	X	X	4x100TR	2000	10700	3050	8x4"

NOTE: FOR EQUIPMENT THAT EXCEEDS THESE CAPACITIES, PLEASE CONSULT THE ENGINEERING DEPARTMENT. QUALITERME RETAINS THE RIGHT TO ALTER EQUIPMENT SPECIFICATIONS WITHOUT PRIOR NOTICE.

PROGRAMMABLE LOGIC CONTROLLERS (PLCS)

The controllers (PLCs) feature both analog and digital inputs and outputs, facilitating the management of critical functions such as the compressor, pump, and fan. They also provide temperature readings, alarm notifications, and include an event identifier, along with the capability to store activity history. Access to settings and data is secured by password protection, thereby safeguarding the security and integrity of the information.



DISTINCTIVE CHARACTERISTICS OF EQUIPMENT

- Distinct and autonomous circuits
- High-efficiency cooling condensers.
- Plate heat exchanger featuring an expanded surface area for enhanced heat transfer efficiency.
- Autonomous controls
- Completely demountable structure, offered in epoxy, galvanized, or stainless steel.

