

# COMPRESSOR UNITS

COOLTECH FINLAND OY is a manufacturer of refrigeration compressor units based on screw compressors for freons, ammonia, propane and other refrigerants.

Refrigeration compressor units COOLTECH have a wide range of cooling capacity for many industrial applications.

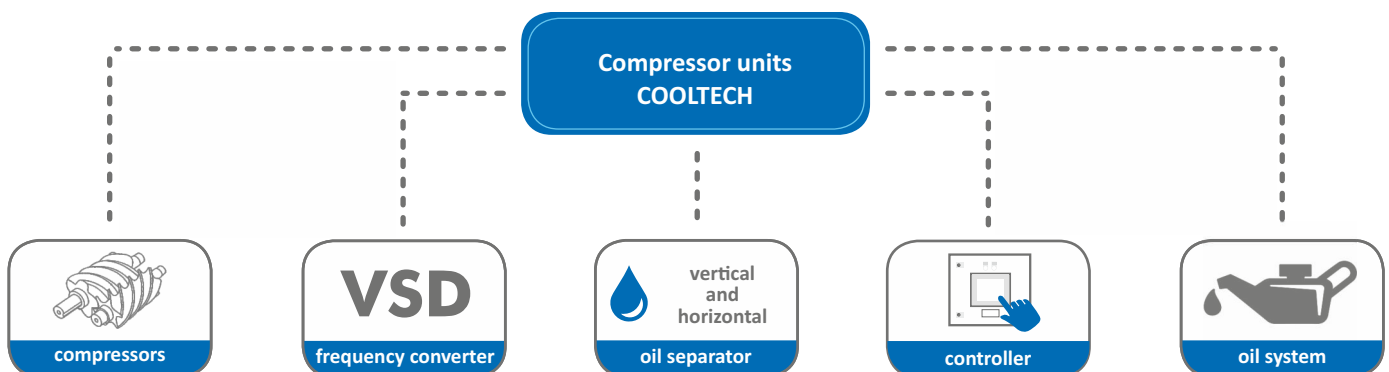
In addition to standard design of compressor units COOLTECH offers individual design for any tasks.

By the using of system with frequency converter, COOLTECH compressor units allow to save up to 18% of electric energy at partial load mods.

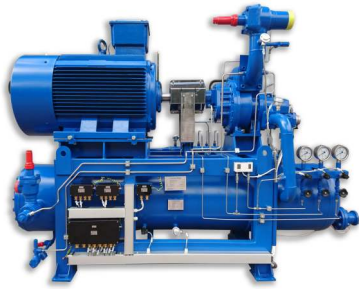


## Benefits:

- ◆ Automatic capacity control;
- ◆ Use of all major types of refrigerants;
- ◆ Variable speed drive motors with wide speed range from 1500 to 3600 rpm for maximum performance and high efficiency at part load;
- ◆ High reliability of the equipment and low operating costs;
- ◆ Full reparability, low prices and quick terms of delivery for spare parts;
- ◆ Maximum energy efficiency and minimum required space;
- ◆ Possible individual design for each customer;
- ◆ High efficiency oil separator CTX OS series;
- ◆ On-going monitoring of equipment operation by means of UNICOOL control system to minimize operational failures;
- ◆ Simplicity of design, convenience of maintenance of components/elements of the compressor unit.



## Model range of COOLTECH compressor units



▶ **CTX(W) SL 127, 163**  
293 - 710 m<sup>3</sup>/h

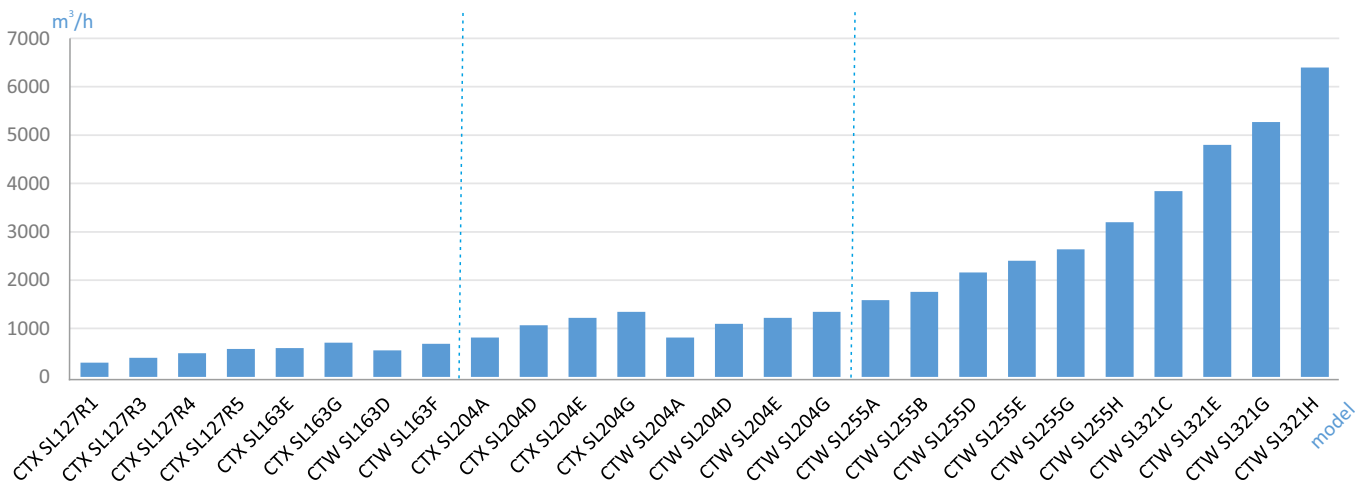


▶ **CTX(W) SL 204**  
812 - 1348 m<sup>3</sup>/h



▶ **CTW SL 255, 321 & 365**  
1590 - 6399 m<sup>3</sup>/h

## Theoretical volumetric flow rate, 50 Hz



## Standard design of COOLTECH compressor unit includes:

- ◆ Screw compressor
- ◆ Electric motor 380 V, 50-60 Hz
- ◆ Disc coupling
- ◆ Automatic control system UNICOOL
- ◆ Suction filter
- ◆ Horizontal or vertical oil separator (depending on the type of compressor unit)
- ◆ Oil system (oil cooler, oil filter, thermostatic valve)
- ◆ Oil pump (availability depends on the type of compressor unit)
- ◆ System of smooth capacity control 10-100%
- ◆ Safety valves
- ◆ Instrumentation and automation

**OPTIONAL:** system with frequency converter, explosion-proof design, double oil filter, economizer, antivibration mounts, high-voltage electric motor (6-10 kV)

## Specifications

Cooltech Pack	Capacity (kw) *			
	Ammonia (R717)		Freon (R507)	
	-5 °C	-35 °C	-5 °C	-35 °C
CTX SL127R1	198	57	209	73
CTX SL127R3	277	82	290	105
CTX SL127R4	347	105	362	132
CTX SL127R5	414	126	431	156
CTX SL163E	419	127	430	155
CTX SL163G	506	154	519	188
CTX SL204A	600	191	610	246
CTX SL204D	835	267	848	342
CTX SL204E	921	294	936	377
CTX SL204G	1020	325	-	412
CTW SL163D	405	119	414	157
CTW SL163F	502	149	514	195
CTW SL204A	621	184	634	246
CTW SL204D	845	253	862	335
CTW SL204E	932	281	951	369
CTW SL204G	1049	328	1070	403
CTW SL255A	1234	380	1251	494
CTW SL255B	1388	438	1407	550
CTW SL255D	1677	516	1669	644
CTW SL255E	1851	570	1842	711
CTW SL255G	2083	657	2073	795
CTW SL255H	2468	759	-	-
CTW SL321C	2984	929	2971	1165
CTW SL321E	3730	1161	3714	1457
CTW SL321G	4196	1335	4179	1629
CTW SL321H	4973	1548	-	-

with economizer

\* Performance chart: external oil cooling, condensing temperature 35°C, liquid subcooling 2°C, suction superheat 5°C, speed 2950 rpm.

The calculation does not take into account the pressure loss at suction and discharge of the compressor.

Model range of higher capacity units is available on request.

## Comparison of systems with a frequency converter and a slide valve

