

# Ultracool maxi 2004 (type 2400 to 4500)

## The ultimate water chiller

### Application

Cooling and temperature control of water flow. The ultracool can be used to cool down lasers, ozone generators, plastic applications, vacuum pumps, cutting and welding machines, solvents recovery, X-ray machines, and many others.

### How does the Ultracool work?

The water to be chilled passes through the heat exchanger, which is cooled by a separate refrigeration unit. The refrigerant gas is the environmentally friendly and highly efficient R-407C. The ultracool maxi superplus is a compact unit equipped with a water pump and an additional water storage tank to avoid temperature increases after stand-by periods.

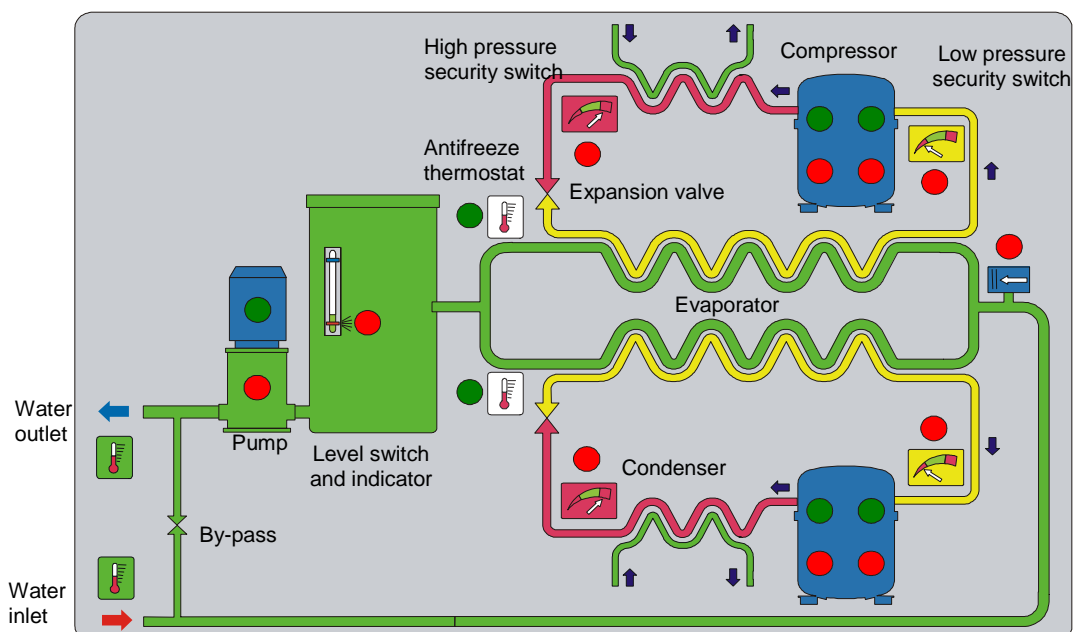
### Options

- 3 bar pump (included on SP version)
- 5 bar pump
- Auto filling kit (only for SP version)
- Water flow meter
- Refrillfluid (glycol + bactericide + anticorrosive)
- External by-pass
- Pre-heater
- Design for deionised water



### Competitive advantages

- All pipes, evaporator, condenser and moving parts of the pump components in stainless steel.
- All motors are protected with circuit breakers
- Protection degree: IP54
- Y strainer water filter included to protect evaporator and condenser
- More than 2 independent fridge circuits, rotation of compressors
- Flow switch and level switch included
- Low flow/temperature control thermostat for each circuit
- Water outlet temperature indicator and controller
- Water inlet temperature indicator
- Inlet and outlet water pressure gauges
- Two refrigerant pressure gauges indicating high and low pressures in the refrigerant circuit
- Free tension contacts for an external alarm



Technical alterations reserved (Date 02/05)

# Ultracool 2400-4500

## ultracool maxi

Features:	Benefits:
R-407C	Environmentally friendly, does not harm the ozone layer High efficiency of refrigerant Low power consumption
Water-cooled	Reduces the chiller size and increases efficiency
Housings in galvanised steel and externally coated with epoxy resin	Corrosion resistant even in aggressive environments
Refrigerant pressure gauges per each circuit	Easy to service.
All pipes, evaporator, condenser and moving parts of the pump components in stainless steel.	No iron materials for even higher resistance
2 Independent fridge circuits ( 3 fridge circuits in UC-4500)	Increased safety of the system
Low flow temperature control thermostat	Evaporator protection
Flow switch	Pump protection
Protection degree: IP54	Can be installed outdoors
<b>superplus version</b>	
Water tank of stainless steel	Keeps water temperature constant even under varying load conditions.
Level switch	Pump protection in case of lack of water
Level indicator	Control of water level in water tank
Y strainers on both cooling and process water circuits	Keeps water free of particles
Pump: Impeller, intermediate chambers and shaft always in stainless steel. Suction and discharge in stainless steel or cast iron depending on model.	High resistance against corrosion
Proportional internal by-pass included	Allows any water flow from 0% to 100%

## Technical data

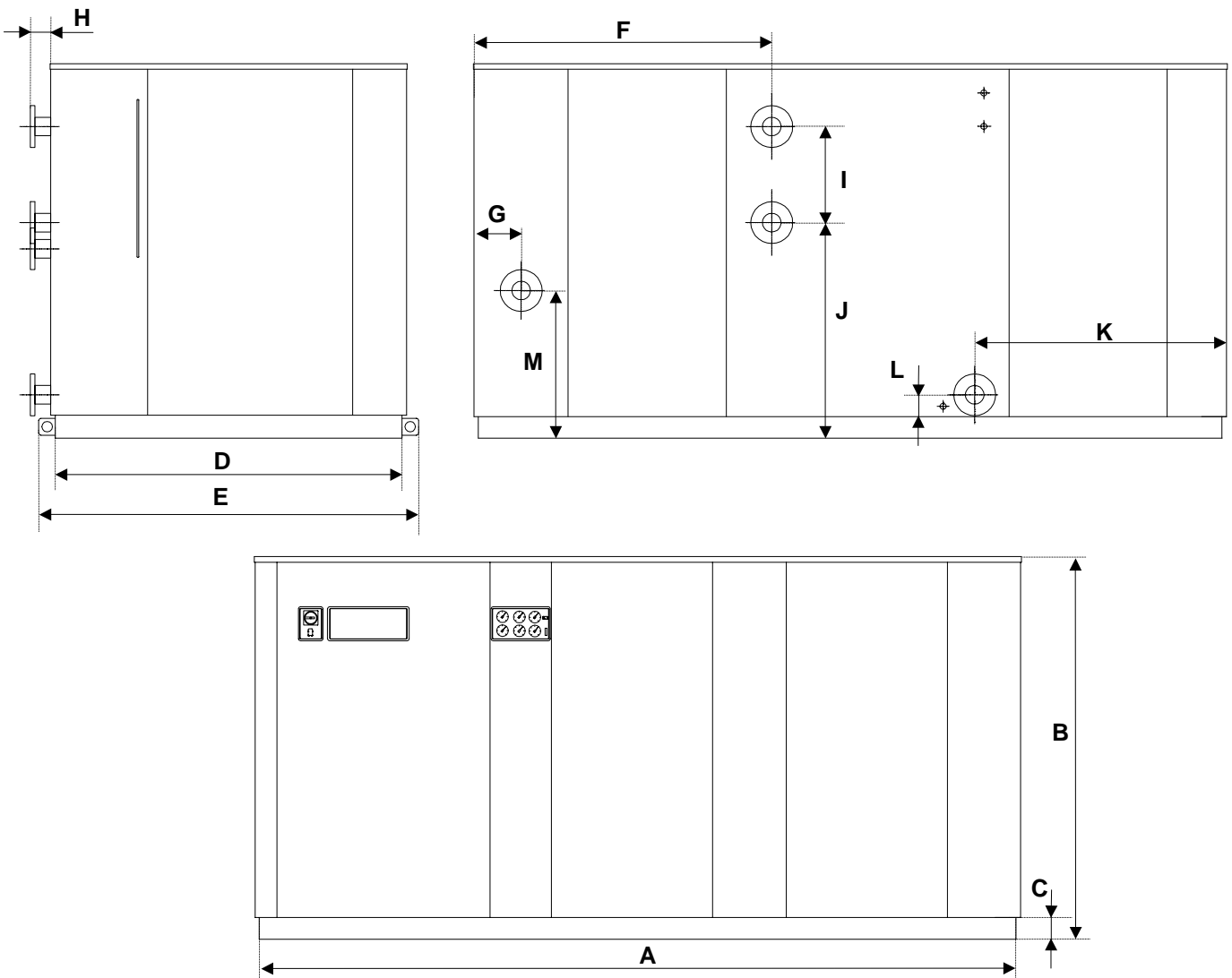
Temp. and pressure range for cold water (outlet water)
t <sub>min</sub> : - 5°C (with ethylene glycol)
t <sub>max</sub> : 20°C
P <sub>max</sub> : 10 bar <sub>g</sub>
Cooling water temperature
T <sub>max</sub> : 43°C
T <sub>min</sub> : 0°C
Power supply
400/3+N/50 Hz, others under request
Noise level
Less than 65 dB (A) measured at 5 m from the Unit and 1 m from the ground
Approval
CE, all components UL and CSA listed

UC	Cooling capacity		Fridge circuits		Water flow l/h	Water pressure (1)		Water tank (1) l	Cooling water flow required(2) l/h	Power kW		
	kW	kcal/h	Nº	Compressors		3 bar	5 bar			ST	SP3bar	SP5bar
2400	258	221880	2	4	44400	4,1	5,6	800	27500	54,8	62,3	65,8
3000	313	269180	2	4	53900	3,3	5,6	1200	33500	66	73,5	81
4500	470	404200	3	6	80800	4,4	6	1200	50000	99	114,1	121

Related to nominal conditions: Water outlet temperature 10°C and cooling water 25°C

(1)- superplus units

(2)- Required cooling water flow providing that the cooling water temperature drop is 10°C.



UC	Water connection	Weight kg	A	B	C	D	E	F	G	H	I	J	K	L	M
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
2400 SP	DN80	2100	3595	1825	103	1700	1820	1422	225	97	460	1032	1203	208	707
3000 SP	DN80	2200	3595	1825	103	1700	1820	1422	225	97	460	1032	1203	208	707
4500 SP	DN125	2800	4795	1825	103	1700	1820	2022	225	97	460	1032	1203	208	707
2400 ST	DN80	1700	2800	1825	103	1700	1820	1422	225	97	460	1032	409	208	707
3000 ST	DN80	1800	2800	1825	103	1700	1820	1422	225	97	460	1032	409	208	707
4500 ST	DN125	2400	3750	1825	103	1700	1820	2022	225	97	460	1032	1044	208	707