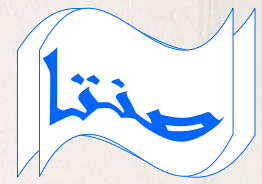


# ULTRA CHILLER



SANAT TAJHIZ AZMA

## Introduction

Water chiller is a broad term describing an overall package which includes: refrigeration plant, water chiller and air or water cooled condenser. This name infers that the compressor, condenser and chiller with internal piping and also controls are combined into a single unit.

Water chiller plant may range in size from small capacity reciprocating compressor units with air or water cooled condensers up to large units incorporating centrifugal or screw compressors. Large water chiller are normally water cooled using the recirculated water from a cooling tower.

Central chiller water units are used in air conditioning systems comprising of air handling units each fitted with chilled water coils. This air handling units can be either located in central plant room or distributed throughout the building.

The type of compressor used would vary depending upon the capacity of the individual units. Generally, reciprocating compressors are used for small to medium-sized water chillers whilst larger capacity water chillers incorporate centrifugal or screw compressors.

## How does the Ultrachiller works?

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 ultrachiller superplus is a compact unit equipped with a centrifugal water pump and an additional water storage tank to avoid temperature increases after stand-by periods.

## Application

Cooling and temperature control of water flow. The Ultrachiller can be used to cool down lasers, ozone generator, cutting and welding machines, hydraulic machines, hydraulic power packs, vacuum pumps, plastic applications, solvent recover, X-ray machines, and many others.



ULTRA 500



ULTRA 200D



ULTRA 500

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آدرس: تهران - خیابان ولی عصر - نرسیده به مطهری - کوچه نوروزی - پلاک ۲۶ - واحد ۵



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Water chiller is a broad term describing an overall package which includes refrigeration plant, water chiller and air or water cooled condenser.

This name infers that the compressor, condenser and chiller with internal piping and controls are combined into a single unit

There is so many analytical instrument which uses water chiller to be cooled and stable.

Therefore it seems it is necessary for the user of such an instrument to connect them to a suitable chiller to keep them away from damage also save water.

Our company is honored to introduce you different type of chiller according to your necessity



SP-200

It is usual for small to medium water chilling systems to operate as constant flow systems. This means that the same quantity of water is circulated at all times regardless of the load. It is essential that the flow to the water chillers be maintained at a relatively constant value in order to avoid the possibility of water freezing within the tubes.

Constant flow chilled water systems can be energy inefficient as it is often necessary for the water to continue to circulate through the equipment to maintain flow even though at light load the difference between supply and return water may be only 1 C or 2 C

There is a list of different instruments that use water chiller to cool different parts:

- Atomic absorption+graphite tube atomizer
- Water distillator
- Rotary evaporator
- MRI
- CT Scan

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**ST-2005**

## SP 200 specification:

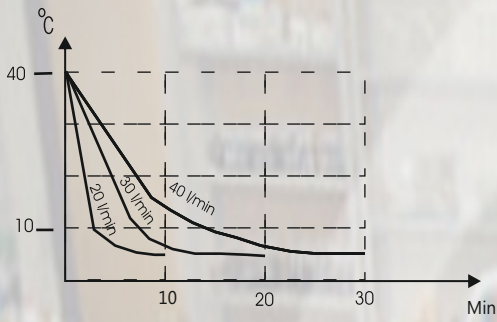


Fig1-temp via time(different flow)

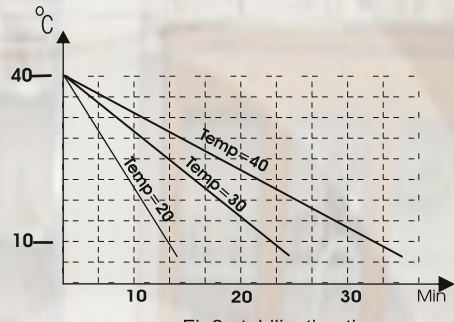


Fig2-stabilization time (flow=20 l/min&different environment temp)

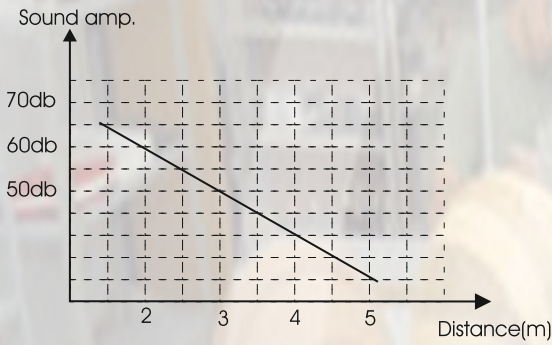


Fig3- sound amplitude via distance to chiller

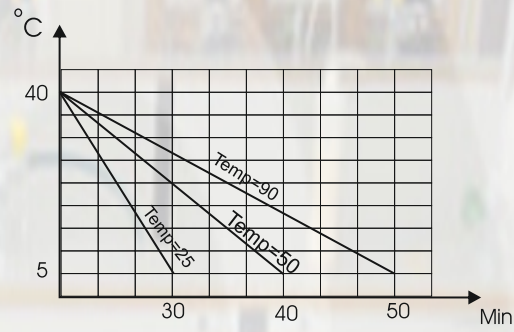


Fig4-stabilization time(different input water temp)

## Tajhiz-Azma chiller specifications

Ultra series				SP series				
1600	1500	500	300	200C	200	100	specification	
10	8	5	3	1	1	1	(KW) capacity	1
4	4	4	4	3	3	3	Max Out Pressure (bar)	2
65	65	65	65	65	40	40	Max Out Q )lit./min(	3
R410-407	R410	R410	R410	R410	R404	R404	Refrigerant	4
Distilled water	Distiller water	Distilled water	Distiller water	Distilled water+ glycol	Distiller water	Distilled water	Liquid Type	5
+8/ +35	+8/+35	+5/+35	+5/+35	-5/+35	+5/+35	+5/+35	Temperature Range)°C(	6
1/1¼"	1"	1"	1"	½"	½"	½"	Inlet/outlet	7
60	40	25	20	3	3	3	Tank volume ) liter(	8
2×4HP	2×3HP	2×1.5 HP	1.5HP	1HP	3/4HP	3/4HP	Compressor	9
±2	±2	±2	±2	±1	±1	±1	Temp. stability)°C(	10
0.5	0.5	0.5	0.5	0.1	0.1	0.1	Temp Resolution)°C(	11
Digital	Digital	Digital	Digital	Digital	Digital	Manual	Controller	12
optional	optional	Optional	Optional	-	-	-	RS232	13
210×130×100	180×120×120	120×110×90	100×90×90	40×60×50	40×60×50	40×60×50	Dimension )W×D×H(	14
001	001	081	061	60	60	60	(Kg) Weight	15

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