



Air Cooled Water Chillers



Welcome to MELLCON ENGINEERS - The premier industrial resource for energy efficient & environment friendly air cooled & water cooled Chillers & chilling Plants. We supply a broad range of Water/Oil chillers & chilling machines including standard package Water/Oil chillers, refrigeration cooled and portable Water/Oil chillers. industrial chillers, as well as custom and temperature controlled Water chillers for Concrete batching Plants etc

Should you do a cost analysis, you would be pleasantly surprised to realize how quickly a chiller ends up paying for itself and then saving you money from there on out, for years to come.

Mellcon Engineers New Delhi are the manufacturers of industrial energy efficient aircooled Water/Oil chiller plants and Water/Oil chilling plants ranging from 1 TR. to 60 TR (3.5KW to 210 KW) . nominal cooling capacity for industrial applications like laser chiller, medical chillers ,process chiller, machine cooling, aquarium chiller etc.

Mellcon range of Air Cooled recirculating Water chiller system represents the ideal solution for the Water/Oil cooling of Industrial process Water chiller Systems & designed to facilitate quick installation for all packaged chilled Water/Oil system requirements .

INCREASED PRODUCTION

The speed and accuracy of production will increase as you maintain a constant and proper cooling temperature in your equipment. A chiller will reduce the number of rejected parts while increasing the number of parts produced per hour. You may ask yourself: "Does my equipment shut down during summer months?" – "Are there periods where our rejection rate increases?" A COOLING TOWER may provide adequate cooling during winter months, but fail during the hotter periods of the year. A Water/Oil chiller will immediately eliminate this problem.

Why a Chiller?

for Equipment Protection -The most compelling reason for a chiller is the protection it provides to your valuable process equipment-- such as laser machines , spot welders, injection molding equipment, and other applications. A chiller commonly represents a small fraction of the cost of the processing equipment, yet it provides solid protection of your investment, 24 hours a day, 7 days a week for years and years to come.

Sizing a Chiller Correctly - calculate cooling load of Water chiller - how to size chillers

Simple instructions to Assure Proper Cooling The importance of selecting a correctly sized Water chiller cannot be downplayed. An undersized Water chiller will always be a problem-- never able to properly cool the process equipment. An oversize chiller will never be able to run at it's most efficient level. Specify the correct size chiller and enjoy years of continuous, efficient service. If you would like help, feel free to give us a call. We do this all the time.

To size a Water chiller properly you first need to calculate the delta T (deg C) between the inlet and outlet water (the change in temperature), and the rate of flow in liters per minute (LPM). Measuring the delta T requires a thermocouple or thermometer. Check the water temperature of the water inlet line and the water outlet line, and subtract the numbers to compute how much heat the equipment is adding to the water.

To measure the flow rate of the water place a flow meter on the outlet line of your equipment. If one is not available, simply measure the time it takes for the outlet flow to fill a twenty Litre bucket, and then compute your Litre per minute (LPM) of flow.

Now that you have these two figures you need to calculate how many kcals (kilo calories of heat Units) your equipment dissipates. Here is the formula:

$$\# \text{ kcals/ hour} = (\text{the weight of water}) \text{ LPM} \times \text{Temperature Difference (delta T)}$$

Repeat this for all the equipment you have, and add up the total kcals.

Now that you have the kcals, lets compute the total Tons of cooling you need from a chiller.

$$\begin{aligned} 1 \text{ Ton of cooling is } 3000 \text{ kcals/hour so...} \\ \# \text{ Tons} &= (\text{kcals/hr}) / (3,000) \end{aligned}$$

This is the minimum size unit you should need. please keep another 25-30 % margin for There may be other circumstances, like planning for expansion, that would lead you to buy a different size unit.

For more information about the specific units, please contact us

Mellcon range of Water/Oil cooled Water chiller represents the ideal solution for the Water/Oil cooling of Industrial process Water Systems & designed to facilitate quick installation. We also offer Water/Oil cooled chilled Water/Oil plants in sizes ranging from 5-Tr to 150 -Tr . These Water chillers system find application in brine chilling, glycol chiller applications for low temperatures. Also centralised Chilled Water/Oil plants.

Mellcon range of Aircooled recirculating Water chiller system represents the ideal solution for the Water/Oil cooling of Industrial process Water chiller Systems & designed to facilitate quick installation for all packaged chilled Water/Oil system requirements .

Salient Features of Process Water Chiller

- Compact skid mounted Water chillers system , ready to install.
- Water Chillers are fully automatic with tried & tested controls.
- Quick chilling is ensured with plate type PHE or shell and tube Heat exchangers / evaporators.
- Our Water chillers use energy saving with cycling fans and high efficiency fin tube aircooled condensers with liberal sized fans
- All Water Chillers are Load tested as per ASHRAE standards before despatch.
- Water Chillers offer Guaranteed cooling capacity at rated parameters.
- Specific design to meet customer requirement for temperatures upto (-40 deg c) also available in addition to standard models.

Applications of Industrial Air cooled Water Chiller

- Chemical / Pharmaceutical process Water/Oil chilling.
- Plastic Process chiller for : Injection Molding, Blow Molding, (Mould Chiller) etc.
Extruders, PVC Pipes, Woven Sacks, PP Film Lamination etc.
- Calendars (Plastic & Rubber) Water Chiller.
- Milk and Dairy / Pasteurising , Food Products.
- Lubricants / hydraulic Oil Cooling and Dewaxing of Oils
- Plating, Anodizing and Induction heat treatment Water/Oil chiller
- Pulp and Paper Processing.
- Printing Ink / Paper Waxing cooling.
- Bleaching / Dyeing Industry Water/Oil chiller
- EDM Machine cooling.
- Concrete curing Glazing in Concrete Batching Plants
- Comfort cooling.
- Laser cooling
- Process Water/Oil chilling .

The Fine Quality Component Features

- Hermetic / Semi hermetic sealed / screw compressors with internal over load protection.
- Air cooled condenser with copper tubes and Aluminum fins.
- Plate type / shell and tube evaporator for high efficiency.
- Stainless Steel storage tank with external insulation to prevent moisture ingress and condensation.
- Refrigerant circuit consists of reputed filter dryer, thermostatic expansion valve / capillary, sight glass, accumulator. and other controls from Danfos /Sporlan / Alco
- Controls with safety devices - high and low refrigerant switches, low water level, flow switch.
- All Refrigerant tubing is high grade copper.
- Digital temperature indicator controller for precise temperature controlling.
- Audio visual indication for controls and safeties.
- Pumps suitable for high flow and pressure.
- Trolley mounting- optional.

Aircooled Water Chillers / Oil Chillers

S. No.	Model No.	Nominal Cooling Capacity		Compressor Power K.W	Pump Power H.P	Water Flow LPM
		Watts.	TR.			

Chiller With Sealed Reciprocating Compressor

1	SR 05 AC	1750	0.5	0.7	0.25	10
2	SR 10 AC	3500	1.0	1.4	0.50	15
3	SR 15 AC	5250	1.5	1.7	0.75	25
4	SR 20 AC	7000	2.0	2.4	1.00	35
5	SR 30 AC	10500	3.0	3.2	1.00	50
6	SR 40 AC	14000	4.0	4.1	1.50	60
7	SR 50 AC	17500	5.0	6.0	1.50	70
8	SR 60 AC	21000	6.0	6.7	1.50	80
9	SS 70 AC	24500	7.0	7.5	2.00	90
10	SR 100 AC	35000	10.0	10.1	3.00	120
11	SR 120 AC	42000	12.0	12.7	3.00	150

Chillers With Sealed Scroll Compressor

12	SS 40 AC	14000	4.0	4.0	1.50	60
13	SS 50 AC	17500	5.0	4.8	1.50	70
14	SS 60 AC	21000	6.0	5.3	1.50	80
15	SS 70 AC	24500	7.0	6.5	2.00	90
16	SS 80 AC	28000	8.0	7.3	2.00	100
17	SS 100AC	35000	10.0	8.1	3.00	120
18	SS 120AC	42000	12.0	10.7	3.00	150
19	SS 135AC	47250	13.5	12.4	3.00	170

Chiller With Semi-Sealed Reciprocating Compressor

20	SSR 155 AC	54250	15.5	14.5	3.00	200
21	SSR 200 AC	70000	20.0	17.0	5.00	300
22	SSR 230 AC	80500	23.0	21.0	5.00	315
23	SSR 250 AC	87500	25.0	25.4	5.00	325
24	SSR 300 AC	105000	30.0	36.1	5.00	390
25	SSR 350 AC	122500	35.0	44.8	5.00	440
26	SSR 400 AC	140000	40.0	51.4	5.00	480

Note: The above models are with R-22 as a refrigerant. We can also offer Water/Oil chiller with eco friendly refrigerant i.e R-134A , R-404A. 407C

For a QUOTE Please [Contact us](#)

Legend	SR : Sealed Recip SS : Sealed scroll SSR : Semisealed Recip. * Multiple circuit chillers can also be offered	The above Water chillers are based on Sealed / Semisealed compressors of Copeland / Maneurop / Bitzer / bock
Note : Higher capacities & lower temperature equipments are also offered. Above capacities are rated at 12 Deg. C Discharge water/Oil Temperature. Maximum Ambient Air Temperature 35 Deg. C All above data is subject to change without notice		

OUR PRODUCT RANGES

Air / Gas Dryers	Refrigerated Equipments	Other Products
Heatless Compressed Air Dryer	Air Cooled Water Chillers	Hot Air Blowing Equipment / Air Heaters
Refrigerated Air Dryer	Water Cooled Chillers	Solvent / Liquid Dryer
High Pressure Air/Gas Dryer	Screw Chillers / Chilling Plants	
Blower Heat Regenerated Air Dryer (BHR)		

Internal Heater Dryer (IHR)	Walk in Coolers / Cold Rooms Units	Onsite Gas Generators
Heat of Compression Air Dryer (HOC)	Refrigerant Recovery System	PSA Nitrogen Gas Generator
Split Flow-No Purge Loss Air Dryer (SFNL)	Storage Systems	PSA Oxygen Gas Generator
Custom Made Air Dryer	Liquid CO2 Storage Tanks	Spare Parts
Packaged Mobile Dry Air Plant	LPG Storage Systems	Spare part for Air Dryer
Pressure Regulating Stations ^{NEW}	CO2 Recovery Plant ^{NEW}	Air Receiver Tank For Compressed Air
Hydrogen Gas Dryer ^{NEW}	CO2 Vaporiser ^{NEW}	Auto Drain Trap
Instrument Air Quality Standard ^{NEW}		Dew Point Apparatus
		Spare Parts for PSA Nitrogen Gas Generator

 [view the printable version for this page](#)

[Photo Gallery](#) |
 [Product Profile](#) |
 [Corporate Info](#) |
 [Exhibitions](#) |
 [Customers](#) |
 [Approvals](#) |
 [Careers](#) |
 [Wanted Dealers / Distributors / Resellers](#)

B - 297, Okhla Industrial Area, Phase - I, New Delhi - 110020, India
 Phone : +91-11-26816103, 26811727, 26816530
 Fax : +91-11-26816573

Mellcon Engineers pvt Ltd.

All Rights Reserved Mellcon Engineers Pvt Ltd.