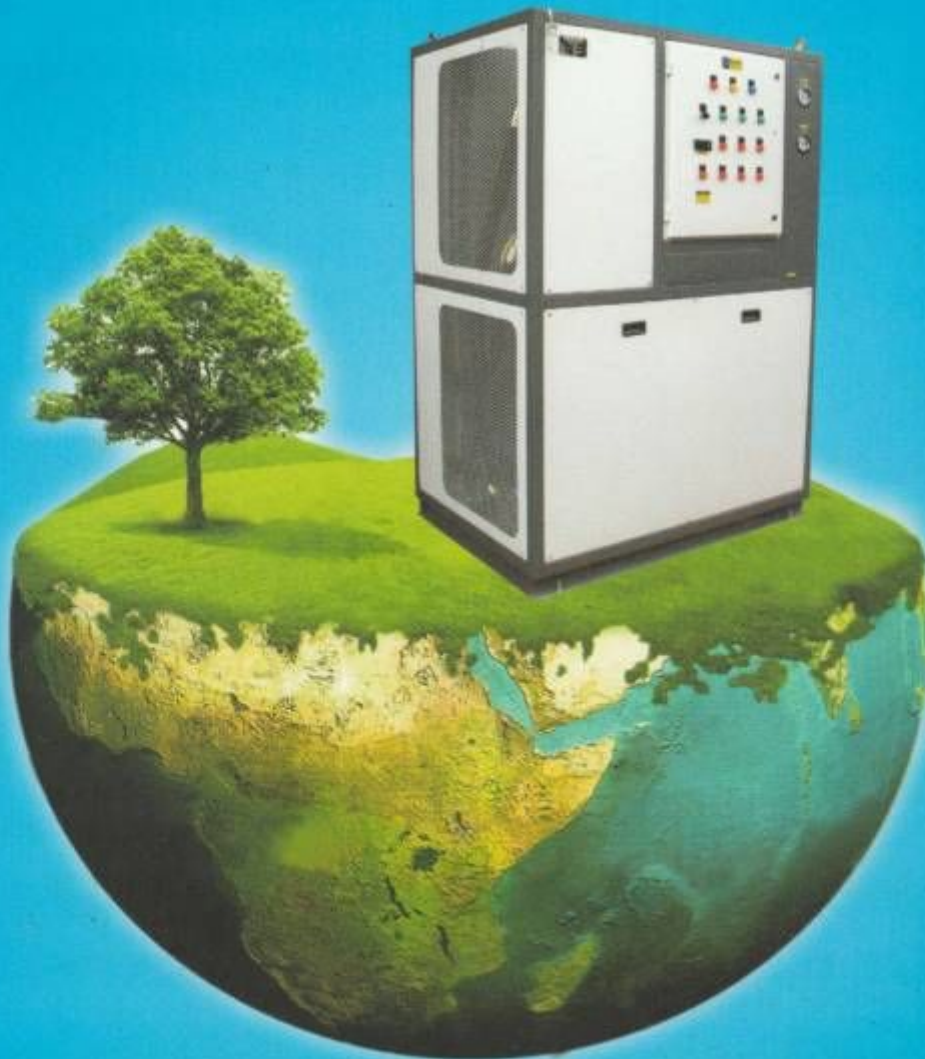




# NATIONAL

Industrial Cooling System

Water Chiller



## DESCRIPTION:

Chilled water has become a vital requirement in most of the industries like pharmaceutical, chemical & commercial purpose. Our range of compact water chillers are designed specifically to meet high quality demands and requirements. We build reliability in its products original rated capacities are delivered even after long periods of use by the careful selection, standardized design, generously sized components. Interchangeable components simplify & reduce service problems.

The **National Cooling System** designed Water Chilling unit is a machine that removes heat from the Water via Vapor Compression Refrigeration System. It consists of four major parts- an evaporator, condenser, compressor and metering device. The main function of Water Chilling unit is to remove heat from the water and this does by sucking up the heat by making use of refrigerant. This refrigerant is a chemical having heat absorbent properties. The heat is then carried by the refrigerant to the condenser from where it is released into the atmosphere in the form of vapor, air or water cooled heat exchanger. After the refrigerant has carried the heat to the condenser it passed to the metering device where expansion of refrigerant takes place in finely automated form, this chilled refrigerant then passed into the Cooling Coil where it absorbs the latent heat of evaporation & returns back in compressor.



## FEATURES

- Heavy Duty MS fabricated Square Tube Body with removable Side Covers of CR sheet 1.6 mm thickness along with Powder Coating Paint.
- Hermetically Sealed Compressor of make – Emerson Climate Technology or Danfoss Copper.
- Aluminium Fins Air Cooled Condenser , Bullet Expansion Type.
- Kanbo German make external rotor axial fan made of 'H' class insulation, with ZZ ball bearings.
- Thermostatic Expansion Valve make Danfoss / Emerson / Capillary.
- PHE from Swep (Sweden), Kaori ( Taiwan ) & Alfa laval.
- Water Pump of make- Kirloskar Brothers Ltd. / CNP Nanfang / Shakti.
- Water tank of SS 304 / PP Material with superlon insulation.
- Highly precise and calibrated Digital programmable Temperature controller of make Sub zero or Dixell.
- Superlon insullation for chilled water tank.
- Danfoss make High / Low Pressure switch.
- Washable metallic wire mesh Air Filter of 28 mesh.
- Hand valve for Gas charging of make Castle / Triton.
- Pressure Gauges of make Wika / Afrisco.
- Potential free alarm for High and Low temperature.
- Antifreeze Protection via hot gas by pass / Antifreeze temperature controller.
- Water-cooled condenser for high ambient environment.
- Condenser fan RPM Regulator for low temperature ambient.
- Schiendler or Siemens make Electrical Switch Gear for protection of Compressor, Fan and Pump.
- Easy for daily operating and monitoring.
- Compact and easy for maintenance and servicing.
- Easily availability of spares.



## TECHNICAL DETAILS

Model	Power Supply	Input Power/ EER	Cooling Capacity (TR)	Refrigerant	Type	Dimension (L X W X H) in mm	Flow Rate (LPM)	Tank Capacity (LTRS)	Inlet & Outlet Connection
NWC 0.15	1 Phase 230 VAC, 50 Hz	0.4 KW / EER = 1.2	0.15	R-134 a	Air Cooled	350 X 380 X 500	6	10	1/2"
NWC 0.3	1 Phase 230 VAC, 50 Hz	0.5 KW / EER = 1.8	0.3	R-134 a	Air Cooled	350 X 380 X 500	8	10	1/2"
NWC 0.5	1 Phase 230 VAC, 50 Hz	0.65 KW / EER = 2.2	0.5	R-134 a	Air Cooled	400 X 380 X 500	10	15	1/2"
NWC 0.75	1 Phase 230 VAC, 50 Hz	1.4 KW / EER = 1.8	0.75	R-22/ R-407	Air Cooled	600 X 500 X 800	10	30	1"
NWC 1.0	1 Phase 230 VAC, 50 Hz	1.6 KW / EER = 2.1	1.0	R-22/ R-407	Air Cooled Water Cooled	600 X 500 X 800 600 X 500 X 800	10	40	1"
NWC 1.0	3 Phase 415 VAC, 50 Hz	1.6 KW / EER = 2.1	1.0	R-22/ R-407	Air Cooled Water Cooled	600 X 500 X 800 600 X 500 X 800	10	40	1"
NWC 1.5	1 Phase 230 VAC, 50 Hz	1.9 KW / EER = 2.2	1.5	R-22/ R-407	Air Cooled Water Cooled	700 X 600 X 1100 600 X 600 X 1100	15	55	1"
NWC 1.5	3 Phase 415 VAC, 50 Hz	1.9 KW / EER = 2.2	1.5	R-22/ R-407	Air Cooled Water Cooled	700 X 600 X 1100 600 X 600 X 1100	15	55	1"
NWC 2.0	1 Phase 230 VAC, 50 Hz	3.0 KW / EER = 2.0	2	R-22/ R-407	Air Cooled Water Cooled	700 X 600 X 1300 600 X 600 X 1100	20	65	1"
NWC 2.0	3 Phase 415 VAC, 50 Hz	3.0 KW / EER = 2.0	2	R-22/ R-407	Air Cooled Water Cooled	700 X 600 X 1300 600 X 600 X 1100	20	65	1"
NWC 3.0	1 Phase 230 VAC, 50 Hz	4.0 KW / EER = 2.2	3	R-22/ R-407	Air Cooled Water Cooled	800 X 800 X 1300 800 X 800 X 1200	30	80	1"
NWC 3.0	3 Phase 415 VAC, 50 Hz	4.0 KW / EER = 2.2	3	R-22/ R-407	Air Cooled Water Cooled	800 X 800 X 1300 800 X 800 X 1200	30	80	1"
NWC 5.0	3 Phase 415 VAC, 50 Hz	6.0 KW / EER = 2.5	5	R-22/ R-407	Air Cooled Water Cooled	900 X 900 X 1400 800 X 1000 X 1300	50	150	1"
NWC 7.5	3 Phase 415 VAC, 50 Hz	8.5 KW / EER = 2.4	7.5	R-22/ R-407	Air Cooled Water Cooled	1000 X 1600 X 1300 900 X 1600 X 1300	75	200	1"
NWC 10.0	3 Phase 415 VAC, 50 Hz	12 KW / EER = 2.5	10	R-22/ R-407	Air Cooled Water Cooled	1200 X 1600 X 1300 1000 X 1600 X 1300	100	200	1 1/2"
NWC 15.0	3 Phase 415 VAC, 50 Hz	17 KW / EER = 2.8	15	R-22/ R-407	Air Cooled Water Cooled	1200 X 1800 X 1600 1000 X 1600 X 1400	150	300	2"
NWC 20.0	3 Phase 415 VAC, 50 Hz	24 KW / EER = 2.9	20	R-22/ R-407	Air Cooled Water Cooled	1200 X 2200 X 1600 1000 X 2200 X 1400	200	300	2"
NWC 25.0	3 Phase 415 VAC, 50 Hz	30 KW / EER = 2.9	25	R-22/ R-407	Air Cooled Water Cooled	1400 X 2200 X 1600 1200 X 2200 X 1400	250	500	2 1/2"
NWC 30.0	3 Phase 415 VAC, 50 Hz	35 KW / EER = 3.1	30	R-22/ R-407	Air Cooled Water Cooled	1800 X 2800 X 1600 1400 X 2800 X 1600	300	1000	2 1/2"

**Note:** Specifications are subject to change without notification.

**APPLICATION:**



**FOOD & BEVARAGES**



**PLAZMA CUTTING**



**PLASTIC MOULDING**



**STEAM CHILLER**



**MEDICAL APPLICATION**



**COOLANT & OIL COOLING**



**PAINT CHILLER**



**RUBBER CHILLER**



**PROCESS INDUSTRIES**



**LASER CUTTING APPLICATION**

IN ASSOCIATION WITH



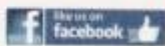
## NATIONAL COOLING SYSTEM

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