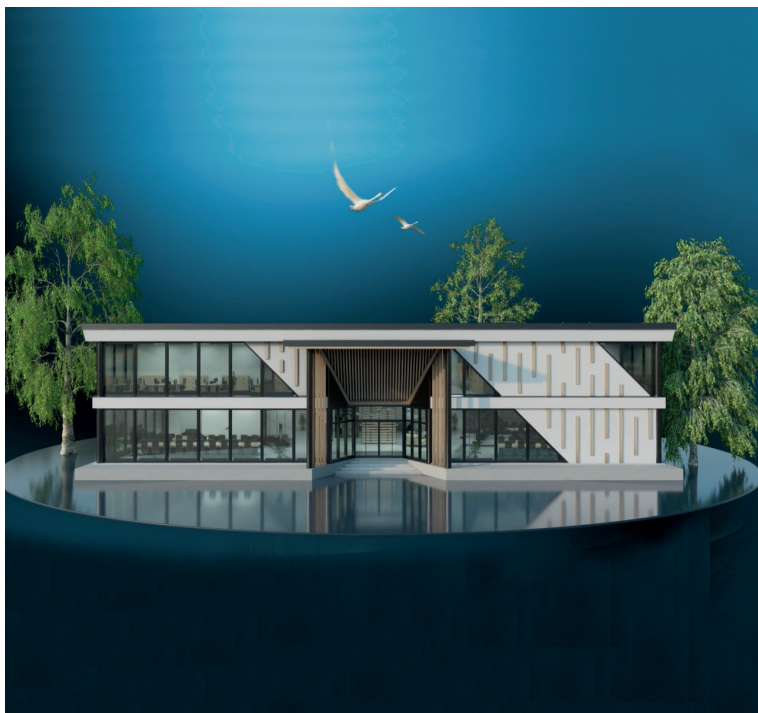


NovaCool32

MORE RESPONSIBLE COOLING



An energy-efficient chilled water station meeting Eco Design requirements.

Next-generation indoor chilled water station with R32 refrigerant
Reliable safety concept
Energy-efficient four-stage power control



Environmentally Friendly

The NovaCool32 chilled water station offers a more eco-friendly solution for the cooling of properties. The Global Warming Potential (GWP) of the utilised R32 refrigerant is one-third compared to the traditional R410a.

Safety Concept

The frame of the NovaCool chilled water station is specially designed for the R32 refrigerant. The air tight casing guarantees the containment of the refrigerant even in the unlikely event of malfunction. The device automation protocol and exhaust fan, both included in the equipment upon delivery, ensure a safe and reliable operation. Safety Concept-compliant guidelines for designers are available for download from our Selection Program.

Meeting Requirements Reliably

NovaCool32 is a reliable dual-circuit chilled water station, featuring four compressors that guarantee operational reliability even in challenging situations. Above all, the solution always complies with Chillers' factory standards. All units are manufactured and thoroughly tested at our own factory and delivered to the client as a compact and ready-to-use solution. In the mechanical design, the aim is to maximize space efficiency. This comprehensive cooling solution can be extensively equipped to meet the specific requirements of any project; water circuit, automation, electrical appliances, and other accessories.

Life Cycle Service

We maintain our devices throughout their entire life cycles. An IoT-based remote service combines optimisation, documentation, and maintenance services into one simple and reliable service package.

Energy-Efficient

The NovaCool32 chilled water station features four compressors, enabling an energy-efficient four-stage power control. At partial loads, only the compressors needed to generate the desired power level are operational. The unit's energy efficiency can be further improved with the free cooling feature that utilises cold outdoor air in the refrigeration process.

Cost-Effective Installation

The NovaCool32 chilled water station enables quick installation and commissioning at the site. The time savings are significant compared to traditional on-site assembled water cooling systems. Contributing to the accelerated process are detailed documentation in the planning phase, an extensively pre-assembled unit design, as well as thorough testing and operational verification conducted at the factory.

Features

Chilled water station, fixed step control.
Chilled water station with free cooling, fixed step control.
Water cooler, fixed step control.

Standard Accessories

Refrigerant Circuits: 4D model (4 compressors, two refrigerant circuits)

Compressors: Scroll compressors, crankcase heating resistors, and overtemperature and overcurrent protection.

Heat Exchangers: Plate heat exchangers made of stainless steel.

Electronic Expansion Valves: Optimal control of the refrigerant circuit's superheating function enhances energy efficiency.

External Adjustment of Settings: 0–10 VDC signal.

Flow Switch.

Kiotronic Leak Detection.

Atex-Classified Exhaust Fan included in the delivery.

Additional Accessories

Evaporator Circuit Standard Flow Rate Pump:

F1: Variable Frequency Drive (VFD) controlled pump <95 kPa.

P1: Constant speed pump <95 kPa.

Cooling Water Circuit Pump

F2: Variable Frequency Drive (VFD) Controlled Pump <95 kPa

P2: Constant Speed Pump <95 kPa

BF2: Variable Frequency Drive (VFD) Controlled Pump <130 kPa

BP2: Constant Speed Pump <130 kPa

Condensation Circuit Pump

F3: Variable Frequency Drive (VFD) Controlled Pump <95 kPa

P3: Constant Speed Pump <95 kPa

BF3: Variable Frequency Drive (VFD) Controlled Pump <130 kPa

BP3: Constant Speed Pump <130 kPa

Automation

RTU Modbus RTU Connection

TCP Modbus TCP/IP Connection

BAC BACnet Connection

SN Service Next - Industrial Internet

EP Separate Remote Display

Group Controller Alternation

Electrics

CE1 Basic Equipment

CE2 Reactive power compensation

CE3 Soft Starters

CTL Electrical Energy Measurement (Coptronic Light)

Sound & Vibration

CR Soundproofing Hoods for Compressors

FS Cabinet Sound Insulation

SS Compressor Soundproofing Hood(s) and Cabinet Insulation

VI Lightweight Vibration Damping Kit (Rubber Mat)

Pipe Connections

DIN DIN Flange Connections

Others

TCV Condensation Pressure Control Valve

PCVI Pressure-Controlled Water Valves

YH/AH Customized Evaporators

YL/AL Customized Condensers

Performance Values

	28-4	32-4	36-4	44-4	48-4	56-4	64-4	72-4	80-4	90-4	100-4
Cooling capacity kW	94,4	126,6	144,7	162,9	189,5	216,1	242,7	273,1	303,4	348	398,6
Capacity steps	0/25/50/75/100	0/25/50/75/100	0/22/50/72/100	0/25/50/75/100	0/25/50/75/100	0/22/50/72/100	0/25/50/75/100	0/22/50/72/100	0/25/50/75/100	0/22/50/72/100	0/25/50/75/100
Free cooling capacity kW	58	80	90	104	120	133	148	176	191	217	240
Operating power of compressors in selection conditions kW	23,9	30,5	34,8	39	46,1	52,2	58,3	65,6	72,8	83,3	93,9
Input power (liquid cooler not included) kW (400V/3Ph/50Hz)	42,1	52,3	59,8	67,6	78,3	87,3	94,9	105,5	121,6	140,3	159
Operating current of compressors in selection conditions A	43,3	60,2	64	67,7	89,4	98,1	106,8	120,1	133,4	145,6	157,7
Fuse size A	80	100	125	125	160	160	160	200	250	250	315
Liquid cooler's input power kW	6,4	5,64	5,64	9,6	7,52	9,4	9,4	11,1	11,1	14,8	18,5
Refrigerant circuits	2	2	2	2	2	2	2	2	2	2	2
Refrigerant charge kg (R32)	8	10	12	12	14	16	18	20	22	22	24
Water buffer tank (litres)	800	800	800	800	800	800	800	800	800	800	800
Frame (mm)*	2135-3185										
Frame with free cooling (mm)*	3185-4235										

Cooling 15/10°C

Free cooling: 15/10°C water, 3°C ambient air temperature

* Frame length L depends on the selected accessories

Dimensions

