iTech
Intelligent Cooling Solutions

Intelligent cooling solutions

About us

With over 40 years of expertise in designing and manufacturing advanced cooling systems, Aytek Chillers has solidified its reputation as a pioneer in water chilling solutions tailored for industrial and commercial applications. Our journey is marked by a relentless pursuit of innovation, quality, and customer satisfaction, culminating in our ISO 9001 certification from TUV in 2013 a testament to our commitment to maintaining the highest industry standards.

At Aytek, we pride ourselves on offering a comprehensive range of cutting-edge cooling and tempering systems that not only deliver exceptional performance but also ensure an excellent quality-price ratio. This unique combination has positioned us as the market leader in industrial cooling throughout Turkey. With over 10.000 chillers sold in both domestic and export markets, Aytek is recognized as a trusted brand, bolstered by a dynamic sales organization, an extensive network of partners, and dedicated service centers that ensure our clients receive unparalleled support.

Our mission extends beyond merely providing cooling solutions; we are dedicated to proving that effective cooling systems can be both economically viable and energy-efficient. We believe that high production output should not come at the expense of excessive energy consumption. By leveraging advanced technologies and innovative designs, we help our clients achieve optimal operational efficiency while reducing their environmental footprint.

Sustainability is at the core of our operations. We continually strive to develop solutions that minimize energy usage and maximize performance, aligning with global efforts to promote environmental responsibility. Our team of experts is committed to staying at the forefront of technological advancements, allowing us to offer state-of-the-art systems that meet the evolving needs of various industries.

At Aytek Cooling Systems, we welcome your cooling challenges with open arms. Our collaborative approach involves working closely with you to assess system loads and project priorities. Together, we will identify and select the most suitable cooling system tailored to your specific requirements, ensuring that you receive a solution that not only meets but exceeds your expectations.

We are more than just a cooling systems provider; we are your partners in achieving efficiency, sustainability, and success in your operations. Trust Aytek to deliver innovative solutions that empower your business and enhance your competitive edge in the market.

Manufacturer

Hadımköy Mah. Atatürk San. Niyaz SK. No 12
Arnavutköy / İstanbul / Türkiye
Phone: +90 212 549 11 99
info@aytekchillers.com - www.itechchillers.com

R&D

Sandweg 14 D - 63589 Linsengericht
Germany
Phone: +49(0)6051 9665-0
info@kelviplast.de - www.kelviplast.com

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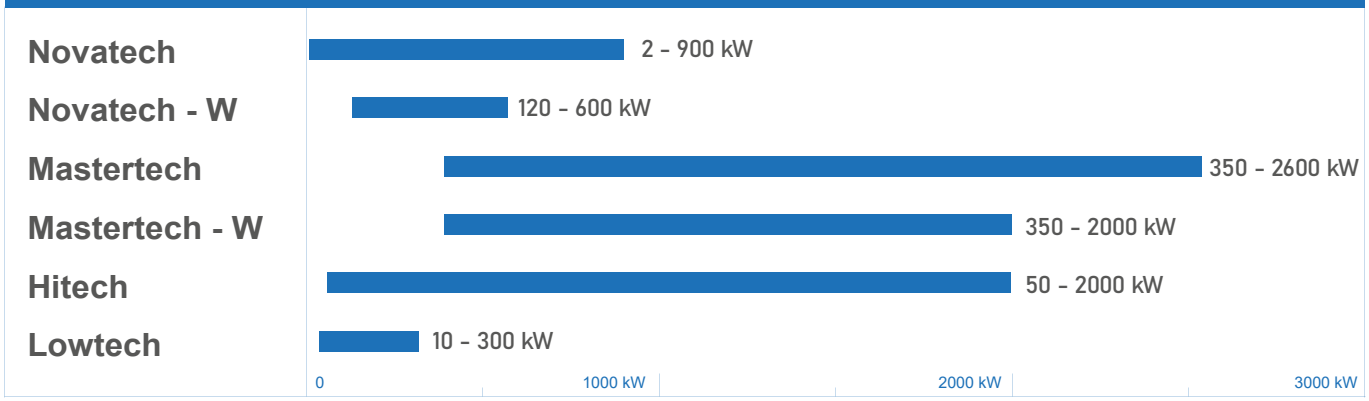

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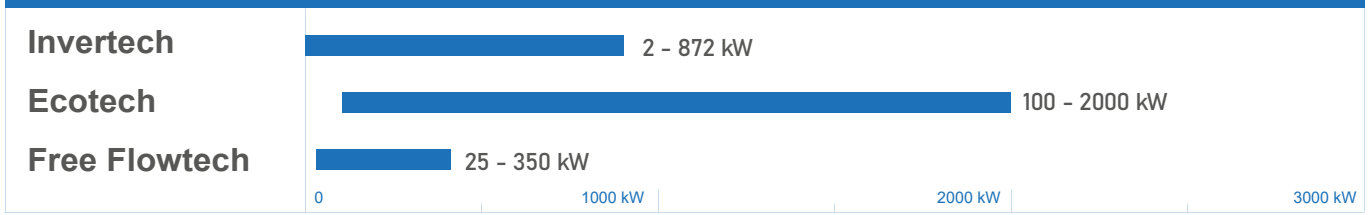

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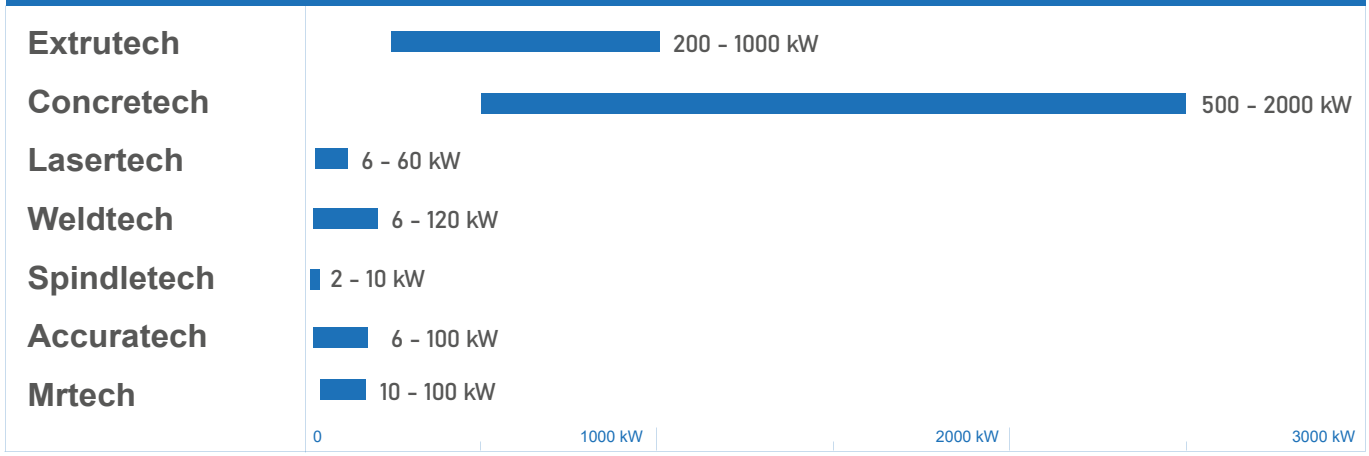
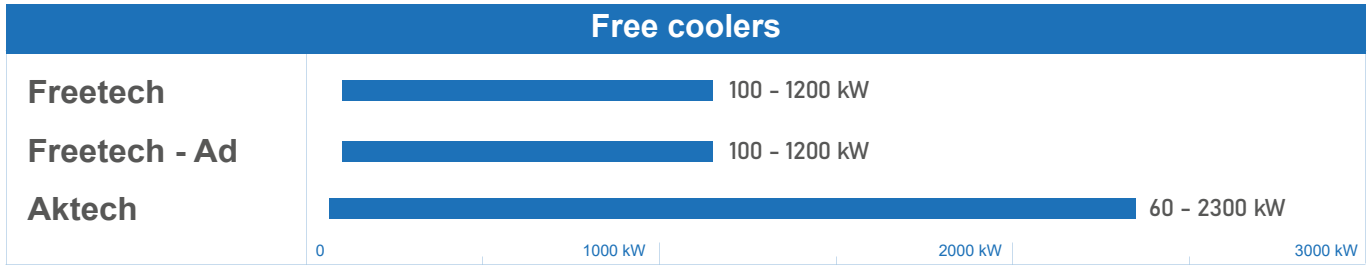
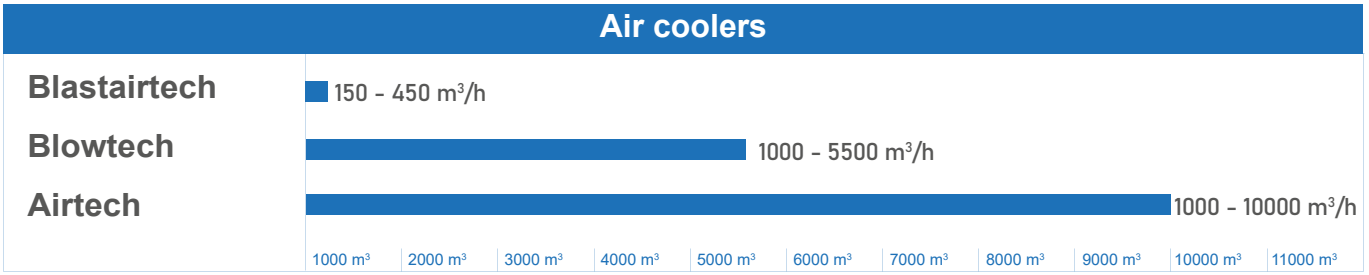


Free coolers



Air coolers



Water chillers

NOVAtech®

Multi tandem air cooled chiller
2 - 900 kW

Cool smart produce better

Novatech Air Cooled Chillers are advanced cooling systems designed for a variety of applications, providing efficient temperature control for commercial and industrial environments.

Known for their reliability and energy efficiency, these chillers utilize air as a cooling medium, making them suitable for locations where water cooling is not feasible.

Key features of Novatech Air Cooled Chillers include:

Energy Efficiency: Engineered to minimize energy consumption, these chillers often meet or exceed industry standards for efficiency, helping businesses reduce operating costs.

Versatile Applications: Ideal for a range of settings, including manufacturing, HVAC, and process cooling, Novatech chillers can be tailored to meet specific cooling requirements.

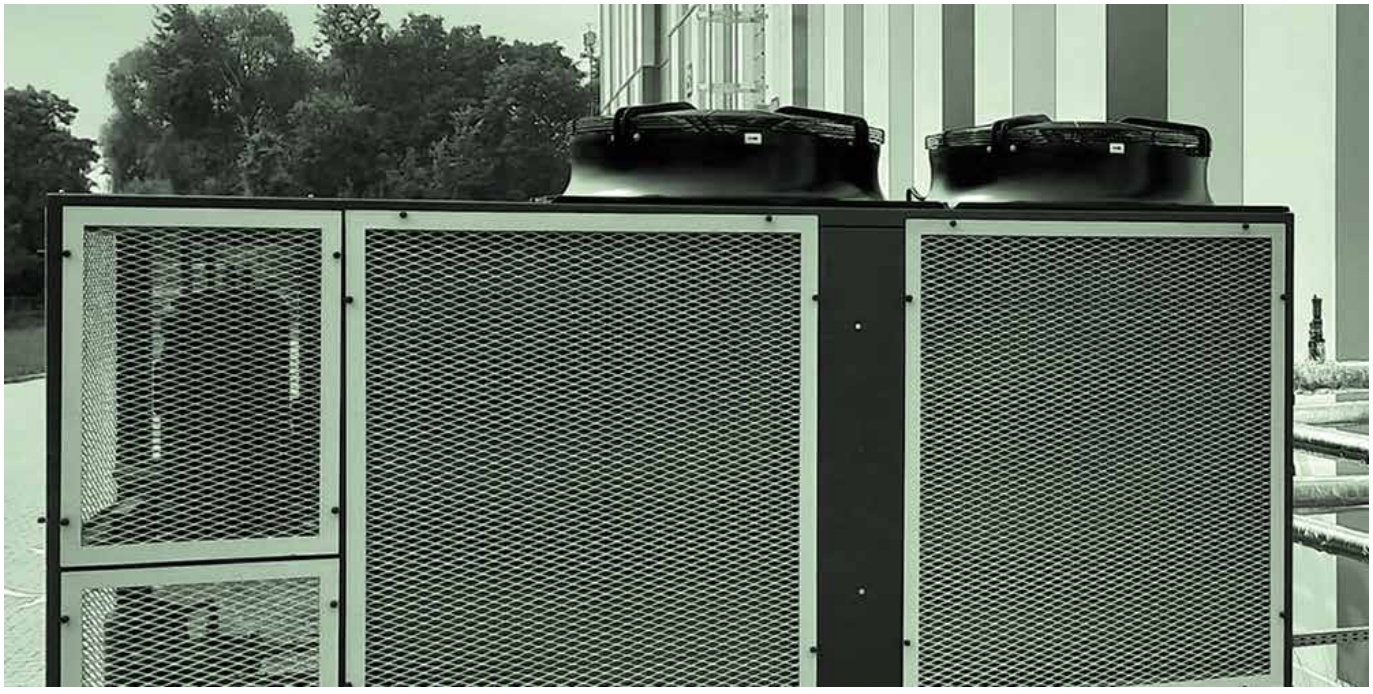
Robust Design: Built to withstand harsh operating conditions, Novatech chillers are constructed with high-quality materials that ensure longevity and reduced maintenance needs.

User-Friendly Controls: Many models come equipped with advanced control systems that allow for easy monitoring and adjustment of cooling parameters, enhancing user experience and operational efficiency.

Environmentally Friendly Options: Novatech is committed to sustainability, offering chillers that use eco-friendly refrigerants and technologies to minimize environmental impact.

Air-Cooled Chiller Specifications with R-410A

MODEL	2	3	7	11	23	29	35
Cooling Capacity	2,3 kW	3,5 kW	7 kW	11,5 kW	23 kW	29 kW	35 kW
Compressor Power Input	0,5 kW	0,87 kW	1,66 kW	2,87 kW	5,6 kW	7,25 kW	8,75 kW
EER (Energy Efficiency Ratio)	4.0	4.0	4.2	4.01	4.02	4.01	4.02
Refrigerant Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	1	1	1	1	1	1	1
MODEL	46	60	75	93	116	120	140
Cooling Capacity	46,5 kW	58 Kw	75 kW	93 kW	116 kW	120 kW	140 kW
Compressor Power Input	11,62kW	14,1 kW	18,7 kW	23,8 kW	28,29 kW	28,57 kW	33,3 kW
EER (Energy Efficiency Ratio)	4.0	4.1	4.1	4.2	4.0	4.1	4.2
Refrigerant Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	1	1	1	2	2	2	2
MODEL	186	200	244	283	325	366	410
Cooling Capacity	186 kW	200 kW	244k W	283 kW	325 kW	366 kW	410 kW
Compressor Power Input	46.5 kW	50 kW	58,09 kW	69 kW	79,2 kW	91,5 kW	102,5 kW
EER (Energy Efficiency Ratio)	4.0	4.0	4.2	4.1	4.1	4.1	4.0
Refrigerant Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	2	2	4	4	4	4	4
MODEL	450	500	560	630	700	800	900
Cooling Capacity	450 kW	490 kW	560 kW	630 kW	700 kW	800 kW	872 kW
Compressor Power Input	107,1 kW	122,5 kW	140 kW	153,65 kW	175 kW	195,12 kW	218 kW
EER (Energy Efficiency Ratio)	4.2	4.0	4.0	4.1	4.1	4.0	4.1
Refrigerant Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Noise Level	75 dB(A)	75 dB(A)	75 dB(A)	75 dB(A)	75 dB(A)	75 dB(A)	75 dB(A)
Compressor quantity	4	4	6	6	6	6	6



Air-Cooled Chiller Specifications with R-454B

MODEL	25	30	35	45	55	75	90
Cooling Capacity	25 kW	30 kW	35 kW	45kW	54 Kw	75 kW	90 kW
Compressor Power Input	6,17 kW	7,10 kW	8,02 kW	10,37kW	13,57 kW	17,16 kW	21,74 kW
EER (Energy Efficiency Ratio)	4.05	4.22	4.36	Nis.33	3,97	4.37	4.13
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	1	1	1	1	1	1	2
MODEL	110	135	180	215	225	290	300
Cooling Capacity	108 kW	135 kW	180 kW	216 kW	224 kW	288 kW	300 kW
Compressor Power Input	27,1 kW	31 kW	43,1 kW	54 kW	52,5 kW	68 kW	69 kW
EER (Energy Efficiency Ratio)	3,98	4.35	4.17	4.0	4.26	4.23	4.34
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	2	2	2	2	4	4	4
MODEL	360	400	430	500	575	600	700
Cooling Capacity	360 kW	406 kW	432 kW	504 kW	576 kW	600 kW	720 kW
Compressor Power Input	85,2 kW	97,4 kW	108 kW	120,5 kW	136 kW	138 kW	170 kW
EER (Energy Efficiency Ratio)	4.22	4.16	4.	4.18	4.23	4.34	4.23
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	4	4	4	4	6	6	6
MODEL	760	800					
Cooling Capacity	762 kW	812 kW					
Compressor Power Input	182,6 kW	194,8 kW					
EER (Energy Efficiency Ratio)	4.17	4.16					
Refrigerant Type	R-454B	R-454B					
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C					
Compressor quantity	6	6					

Air-Cooled Chiller Specifications with R-32

MODEL	26	30	35	45	55	75	90
Cooling Capacity	26 kW	29 kW	34,76 kW	44 kW	56 Kw	77 kW	88 kW
Compressor Power Input	6,57 kW	6,98 kW	8,18 kW	10,37kW	13,42 kW	17,96 kW	21,34 kW
EER (Energy Efficiency Ratio)	3,95	4.15	4.24	4.24	4.17	4.28	4.12
Refrigerant Type	R-32	R-32	R-32	R-32	R-32	R-32	R-32
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	1	1	1	1	1	1	2
MODEL	115	135	200	225	240	260	330
Cooling Capacity	112 kW	132 kW	196 kW	224 kW	242k W	266 kW	330kW
Compressor Power Input	26,5 kW	31 kW	44,2 kW	53,6 kW	56 kW	57 kW	77kW
EER (Energy Efficiency Ratio)	4.22	4.25	4.43	4.17	4.32	4.66	4.28
Refrigerant Type	R-32	R-32	R-32	R-32	R-32	R-32	R-32
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	2	3	2	2	4	4	4
MODEL	350	400	450	500	540	660	700
Cooling Capacity	352 kW	400 kW	448 kW	484 kW	532 kW	660 kW	704 kW
Compressor Power Input	85 kW	95 kW	107,2 kW	112 kW	114 kW	154 kW	170 kW
EER (Energy Efficiency Ratio)	4.14	4.21	4.18	4.32	4.66	4.22	4.14
Refrigerant Type	R-32	R-32	R-32	R-32	R-32	R-32	R-32
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	4	4	4	4	6	6	6
MODEL	800	900					
Cooling Capacity	800 kW	896 kW					
Compressor Power Input	191 kW	205 kW					
EER (Energy Efficiency Ratio)	4.18	4.37					
Refrigerant Type	R-32	R-32					
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C					
Compressor quantity	6	6					

**Referred to +15 ^{0}C water outlet and 35 ^{0}C ambient temperature*
**ITECH reserves the right to change specification without notice*

MASTERtech®

Centralized air cooled chiller
350 - 2600 kW

Excellence in performance

Mastertech chillers , provide (350 KW-2600 KW) capacity range which are designed for various industrial and commercial applications, for efficient cooling solutions.

Here are some key features and benefits associated with Mastertech screw air-cooled chillers:

Key Features:

Screw Compressor Technology: Mastertech screw chillers powered by twin-screw compressor technology, which provides high efficiency and reliability.
This technology allows for a wide range of capacity modulation, making it suitable for varying load conditions.

Energy Efficiency: These chillers are designed to be energy-efficient, often featuring high Energy Efficiency Ratios (EER)
Inverter-driven models may be available, allowing for further energy savings by adjusting compressor load at 25%,50,75,100& based on full and partial loads.

Robust Construction: Built with durable materials, Mastertech chillers are designed to withstand harsh operating conditions.

User-Friendly Control Systems: Many models come equipped with advanced control systems for easy operation and monitoring.
Features may include digital displays, remote monitoring options, and programmable settings.

Low Noise Operation: Designed for quieter operation, making them suitable for environments where noise is a concern.

Environmental Considerations: Many Mastertech chillers comes with the options R 134 refrigerant as well as R 1234 and R 513 environmentally friendly refrigerants, aligning with global sustainability goals.

Air-Cooled Chiller Specifications with R-134A

MODEL	350M	400M	450M	500M	550M	650M	700M
Cooling Capacity	352 kW	401W	474kW	512 kW	546 kW	638 kW	704
Compressor Power Input	81.1 kW	92.3kW	106,5kW	118,6 kW	127 kW	144,4 kW	162,2 kW
EER (Energy Efficiency Ratio)	4,34	4,34	4,45	4,32	4,29	4,42	4,34
Refrigerant Type	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	1	1	1	2	2	2	2
MODEL	800M	900M	950M	1000M	1100M	1200M	1300M
Cooling Capacity	804 kW	874 kW	950 kW	1000 kW	1112kW	1192 kW	1272 kW
Compressor Power Input	184,6 kW	198,8 kW	213kW	227,4 kW	241.8 kW	240.4kW	280 kW
EER (Energy Efficiency Ratio)	4,35	4,39	4,46	4,39	4,59	4,95	4,54
Refrigerant Type	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	2	2	2	2	2	2	2
MODEL	1400M	1500M	1600M	1700M	1900M	2000M	2200M
Cooling Capacity	1426 kW	1504 kW	1562 kW	1700 kW	1896 kW	2048 Kw	2194 kW
Compressor Power Input	315,4 kW	338,9 kW	382 kW	388 kW	424 kW	472 kW	508 kW
EER (Energy Efficiency Ratio)	4,52	4,43	4,08	4,38	4,47	4,33	4,32
Refrigerant Type	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A	R-134A
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	2	2	2	4	4	4	4
MODEL	2400M	2600M					
Cooling Capacity	2400 kW	2600 kW					
Comp Power Input	540 kW	580 kW					
EER (Energy Efficiency Ratio)	4,44	4,48					
Refrigerant Type	R-134A	R-134A					
Operating Temperature Range	-5C to 50°C	-5C to 50°C					
Compressor quantity	4	4					

Air-Cooled Chiller Specifications with R-513B

MODEL	350M	400M	500M	550M	650M	700M	800M
Cooling Capacity	358 kw	408KW	483kw	546 kW	650	716 kw	816 kw
Compressor Power Input	84,6 kw	96,2 kw	110,6 kw	127 kW	144,4 kW	169,2	192,4
EER (Energy Efficiency Ratio)	4,23	4,24	4,36	4,29	4,5	4,23	4,24
Refrigerant Type	R-513B	R-513B	R-513B	R-513B	R-513B	R-513B	R-513B
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	1	1	1	2	2	2	2
MODEL	900M	950M	1000M	1100M	1200M	1300M	1400M
Cooling Capacity	891 kw	916	1043	1120 kw	1210 kw	1300 kw	1388
Compressor Power Input	200,6 kw	220,6 kw	234 kw	249 kw	269 kw	289 kw	308 kW
EER (Energy Efficiency Ratio)	4,44	4,15	4,45	4,5	4,49	4,49	4,5
Refrigerant Type	R-513B	R-513B	R-513B	R-513B	R-513B	R-513B	R-513B
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	2	2	2	2	2	2	2
MODEL	1500M	1600M	1700M	1900M	2000M	2200M	2400M
Cooling Capacity	1476 kw	1592 kW	1742 kw	1932 kw	2058 kw	2184 kW	2392 kW
Compressor Power Input	326 kw	362 kW	393,2 kW	440 kw	474 kw	508 kW	542 kW
EER (Energy Efficiency Ratio)	4,52	4,39	4,43	4,39	4,34	4,29	4,41
Refrigerant Type	R-513B	R-513B	R-513B	R-513B	R-513B	R-513B	R-513B
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	2	2	2	4	4	4	4
MODEL	2600M	2700M					
Cooling Capacity	2600 kW	2732 kW					
Compressor Power Input	576 kW	627 kW					
EER (Energy Efficiency Ratio)	4,51	4,35					
Refrigerant Type	R-513B	R-513B					
Operating Temperature Range	-5C to 50°C	-5C to 50°C					
Compressor quantity	4	4					

Air-Cooled Chiller Specifications with R-1234 YF

MODEL	350M	400M	450M	500M	550M	650M	700M
Cooling Capacity	333 kW	380 kw	449W	516 kW	558kW	604 kW	666
Compressor Power Input	78,4 kW	80,2kW	102,9kW	117 kW	131,4 kW	140 kW	156,88 kW
EER (Energy Efficiency Ratio)	4,24	4,73	4,36	4,41	4,24	4,31	4,24
Refrigerant Type	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	1	1	1	2	2	2	2
MODEL	800M	900M	950M	1000M	1100M	1200M	1300M
Cooling Capacity	760 kW	898 kW	965kW	1032 kW	1116kW	1208 kW	1270 kW
Compressor Power Input	160,2 kW	203,8 kW	229kW	234 kW	262 kW	280kW	296,8 kW
EER (Energy Efficiency Ratio)	4,74	4,4	4,21	4,41	4,25	4,31	4,27
Refrigerant Type	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	2	2	2	2	2	2	2
MODEL	1400M	1500M	1600M	1700M	1900M	2000M	2200M
Cooling Capacity	1372 kW	1520 kW	1562 kW	1598 kW	1930 kW	2064 Kw	2132 kW
Compressor Power Input	313,6kW	320,4 kW	392 kW	363,8 kW	458 kW	468 kW	524 kW
EER (Energy Efficiency Ratio)	4,37	4,43	3,98	4,38	4,21	4,41	4,06
Refrigerant Type	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF	R-1234 YF
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C	-5C to 50°C
Compressor quantity	2	2	2	4	4	4	4
MODEL	2400M	2600M	2700M				
Cooling Capacity	2416 kW	2540 kW	2744 kW				
Compressor Power Input	560 kW	592 kW	626kW				
EER (Energy Efficiency Ratio)	4,31	4,29	4,38				
Refrigerant Type	R-1234 YF	R-1234 YF	R-1234 YF				
Operating Temperature Range	-5C to 50°C	-5C to 50°C	-5C to 50°C				
Compressor quantity	4	4	4				

**Referred to +15 ^{0}C water outlet and 35 ^{0}C ambient temperature*
**ITECH reserves the right to change specification without notice*

NOVAtech-W®

Water-cooled scroll chiller
120 -600 kW

Optimum cooling

Novatech Water-Cooled Scroll Chiller Technical Specifications

- Cooling Capacity: 120-600 kW
- Refrigerant Type: R-410A,R454B,R32,R134
- Compressor Type: Single-Dual-Triple Scroll Compressors
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 4.0
- Cooling Temperature Range: -5°C to 25°C
- Water Flow Rate: 20-120 m³/hour
- Water Pressure: 3-5 bar
- Noise Level: 68 dB(A)
- Control System: Microprocessor-based control panel

Features

High-Efficiency Heat Exchanger: Enhanced design for optimal heat transfer and cooling performance.
Variable Speed Compressor: Adjusts compressor speed to match cooling demand, increasing efficiency.
Precise Temperature Control: Maintains temperature within ±1°C accuracy.
Safety Features: High/low pressure safety switches, over-temperature protection, and anti-freeze control.
User-Friendly Interface: LCD display for real-time monitoring and adjustments.
Durable Construction: Built with corrosion-resistant materials suitable for indoor installations.

General Features

Compact Design:
Space-saving layout for installation in limited spaces.

Integrated Pump:
Built-in water pump for efficient circulation.

Energy Efficiency:
Designed for low power consumption and reduced operational costs.

Environmentally Friendly:
Complies with current refrigerant safety and emission regulations.

Long Lifespan:
Engineered for reliability and longevity in industrial applications.

Options and Customizations

Remote Monitoring: Optional connectivity for IoT-based monitoring and diagnostics.
Custom Flow Rates: Configurable to meet specific flow rate requirements.

Applications

HVAC Systems: Ideal for commercial buildings, data centers, and industrial processes.
Industrial Cooling: Suitable for manufacturing processes requiring precise temperature control.
Refrigeration Systems: Used in large-scale refrigeration applications.

MASTERtech-W®

Water-cooled screw chiller
350 - 2000 kW

The power of water cooling

Mastertech Water-Cooled Screw Chiller Technical Specifications

- Cooling Capacity: 350-2000 kW
- Refrigerant Type: R-134a,R 1234YF,R513
- Compressor Type: Single-Twin-Quadruple Screw Compressors
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 4.2
- Cooling Temperature Range: -5°C to 25°C
- Water Flow Rate: 70-400 m³/hour
- Water Pressure: 2-5 bar
- Noise Level: 70 dB(A)
- Control System: Microprocessor-based control panel

Features

High-Efficiency Heat Exchanger: Designed for optimal heat transfer and cooling performance.
Variable Speed Drive (Optional): Adjusts compressor speed based on cooling demand for enhanced efficiency.
Precise Temperature Control: Maintains temperature with ±2°C accuracy.
Safety Features: High/low pressure safety switches, overheating protection, and freeze control.
User-Friendly Interface: LCD screen for real-time monitoring and settings.
Durable Construction: Built with corrosion-resistant materials for indoor installations.

General Features

Compact Design:
Space-saving construction suitable for limited installation areas.

Integrated Pump:
Built-in water pump for efficient circulation.

Energy Efficiency:
Designed for low energy consumption and reduced operating costs.

Environmentally Friendly:
Compliant with current refrigerant safety and emission regulations.

Long Lifespan:
Engineered for reliability and longevity in industrial applications.

Options and Customizations

Remote Monitoring: Optional IoT-based monitoring and diagnostics capability.
Custom Flow Rates: Configurable to meet specific flow rate requirements.
Noise Reduction Package: Optional enhancements to minimize operational noise levels.

Applications

HVAC Systems: Ideal for commercial buildings, data centers, and industrial processes.
Industrial Cooling: Suitable for manufacturing processes requiring precise temperature control.
Chilled Water Systems: Used in large-scale cooling applications.

HItech®

Tropical type air cooled chiller
50 - 2000 kW

Ultimate cooling for hot climates

Hitech tropical chiller, which is designed to operate efficiently in high ambient temperatures and humid conditions typically found in tropical climates.

Hitech Tropical Chiller Technical Specifications

- Cooling Capacity: 50-2000 kW
- Refrigerant Type: R-134a / R-410A (R 454B - R32 - R1234YF - R513A eco-friendly options available)
- Compressor Type: Scroll or Screw Compressor
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 4.5
- Cooling Temperature Range: 5°C to 25°C
- Temperature Control Accuracy: ±2°C
- Water Flow Rate: 10-400 m³/hour
- Water IPressure: 3-5 bar
- Noise Level: 70 dB(A)
- Control System: Advanced microprocessor-based control with user-friendly interface

Features

High-Performance Heat Exchanger: Designed for optimal heat transfer and efficiency in high ambient temperatures.

Capacity Step Modulation (VSD): Adjusts compressor load based on cooling demand, enhancing efficiency and reducing energy consumption.

Real-Time Temperature Monitoring: Continuous monitoring with alarm notifications for temperature deviations.

Safety Features: High/low pressure safety switches, overheating protection, and freeze control.

User-Friendly Interface: Intuitive touchscreen for easy operation and monitoring.

Durable Construction: Built with corrosion-resistant materials for reliable performance in humid environments.

General Specifications

Compact Design:
Space-saving structure for limited installation areas.

Integrated Pump:
Built-in water pump for efficient circulation.

Energy Efficient:
Low energy consumption and reduced operating costs.

Environmentally Friendly:
Compliance with refrigerant safety and emission regulations.

Long Lifespan:
Designed for reliability and durability in industrial applications.

Options and Customizations

Remote Monitoring: Optional IoT-based monitoring and diagnostics capabilities.
Custom Flow Rates: Configurable to meet specific flow rate requirements.
Noise Reduction Package: Optional enhancements to minimize operational noise levels.
Backup Power Supply: Optional UPS integration for uninterrupted operation.

Applications

HVAC Systems: Ideal for commercial buildings, laboratories, and data centers.
Industrial Cooling: Suitable for manufacturing processes requiring precise temperature control.
Chilled Water Systems: Used in large-scale cooling applications.

LOWtech®

Low cooling chiller unit
10 -300 kW

Chill beyond limits

Lowtech Temperature Chiller Technical Specifications

- Cooling Capacity: 10-300 kW
- Refrigerant Type: R-404A / R-507 (R 449 A ,R407A environmentally friendly options available)
- Compressor Type: Scroll or Screw Compressor
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 1.0-2.3
- Cooling Temperature Range: -30°C to -5°C
- Temperature Control Accuracy: ±2°C
- Liquid Type: Mono Ethylene-Water,Propylene Ethylene-Water,Anti Ferogen-Water Mixture
- Liquid Flow Rate: 2-60 m³/hour
- Water Pressure: 2-4 bar
- Noise Level: 65 dB(A)
- Control System: Advanced microprocessor-based control with user-friendly interface

Features

High Efficiency Heat Exchanger: Designed for optimal heat transfer and efficiency at low temperatures.
Internal Heat Exchanger: Secondary heat exchanger designed to cool liquid refrigerant.
Oil Seperator: Ensures oil circulation back to the compressor
Oil Cooler : Additional oil cooling required at low temperratures when required
Liquid Injection: Designed to optimize compressor efficiency
Capacity Control: Adjusts compressor load based on cooling demand, increasing efficiency and reducing energy consumption.
Real-Time Temperature Monitoring: Continuous monitoring with alarm notifications for temperature deviations.
Safety Features: High/low pressure safety switches, overheating protection, and freeze protection.
User-Friendly Interface: Intuitive touchscreen for easy operation and monitoring.
Durable Construction: Built with corrosion-resistant materials for reliable performance in low temperature environments.

General Specifications

Compact Design:
Space-saving design suitable for limited installation areas.

Integrated Pump:
Built-in water pump for efficient circulation.

Energy Efficiency:
Low energy consumption and reduced operating costs.

Environmentally Friendly:
Compliance with refrigerant safety and emission regulations.

Long Lifespan:
Designed for reliability and durability in industrial applications.

Options and Customizations

Remote Monitoring: Optional IoT-based monitoring and diagnostic capabilities.

Custom Flow Rates: Configurable to meet specific flow rate requirements.

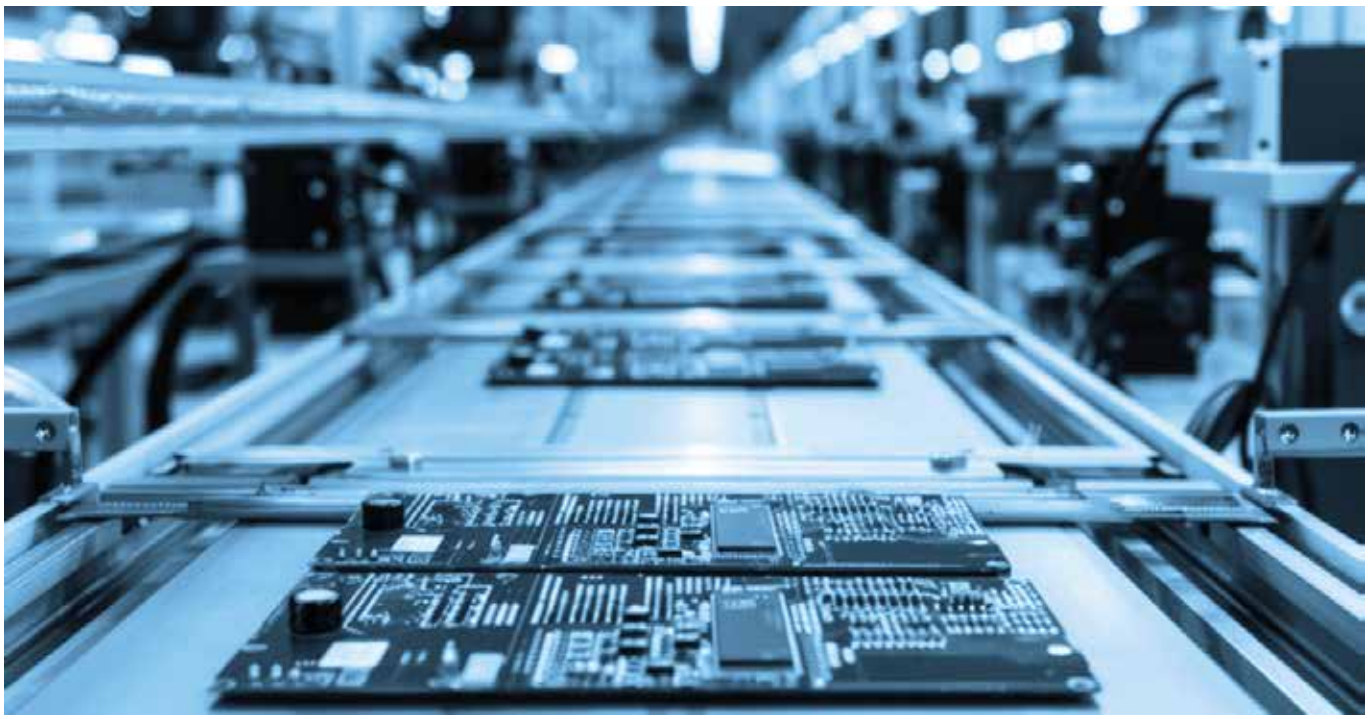
Applications

Process Systems: Ideal for laboratories, oil industry and semi conductive manufacturing requiring low-temperature cooling.

Industrial Cooling: Suitable for manufacturing processes that require precise temperature control.

Chilled Water Systems: Used in other various industrial cooling applications.

Lowtech, low temperature chiller, which is designed to operate efficiently in applications requiring lower temperatures



Energy saving chillers

INVERtech®

Inverter compressor scroll chiller
2,3 - 872 kW

Experience Energy Efficiency

Inverter scroll air-cooled chillers are advanced cooling systems designed to provide efficient temperature control for various applications, including commercial buildings, industrial processes, and HVAC systems. Unlike traditional chillers that operate at fixed speeds, inverter scroll chillers utilize inverter technology to adjust the compressor speed based on the cooling demand. This modulation allows for significant energy savings, improved efficiency, and better temperature stability.

Key Advantages of Inverter Scroll Air-Cooled Chillers:

Energy Efficiency: The ability to adjust the compressor speed allows these chillers to operate at optimal efficiency across varying loads, reducing energy consumption and operational costs.

Quiet Operation: Inverter scroll chillers generally produce less noise compared to traditional fixed-speed chillers, making them suitable for noise-sensitive environments.

Improved Comfort: Enhanced temperature control leads to better comfort levels in conditioned spaces.

Reduced Maintenance: The variable speed operation can lead to less wear and tear on components, potentially extending the lifespan of the unit and reducing maintenance needs.

Environmental Compliance: Many inverter scroll chillers use low-GWP refrigerants, contributing to environmental sustainability.

Typical Technical Specifications

While specifications can vary based on the manufacturer and specific model, here are some typical technical specifications you may find for inverter scroll air-cooled chillers:

Cooling Capacity:
Range: Typically from 10 kW to 872 kW or more.
Units: Kilowatts (kW) or Tons (1 Ton = 3.517 Watt).

Refrigerant:
Common refrigerants: R-410A, R-134A, R-32, etc. Low-GWP refrigerants may also be available.

Compressor:
Type: Inverter scroll compressor.
Modulation: Variable speed operation to match cooling load.
Noise level: Designed for low sound operation.

Heat Exchanger:
Type: Air-cooled condenser and evaporator coils.

Material: Copper or aluminum fins with a galvanized or stainless steel casing.

Cooling Efficiency:
EER (Energy Efficiency Ratio): Typically ranges from 3.0 to 5.5 or higher.

When selecting a chiller, it's essential to consider specific cooling requirements, ambient conditions, and energy efficiency goals. Always refer to the manufacturer's datasheet for precise specifications and features for a specific model.

Air-Cooled Chiller Specifications with R-454B

MODEL	2	3	7	11	23	29	35
Cooling Capacity	2,3 kW	3,5 kW	7 kW	11,5 kW	23 kW	29 kW	35 kW
Compressor Power Input	0,5 kW	0,87 kW	1,66 kW	2,875 kW	5,6 kW	7,25 kW	8,75 kW
EER (Energy Efficiency Ratio)	4.0	4.0	4.2	4.2	4.2	4.2	4.0
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	1	1	1	1	1	1	1
MODEL	46	60	75	93	116	120	140
Cooling Capacity	46,5 kW	58 Kw	75 kW	93 kW	116 kW	120 kW	140 kW
Compressor Power Input	11,62kW	14,1 kW	18,7 kW	23,8 kW	28,29 kW	28,57 kW	33,3 kW
EER (Energy Efficiency Ratio)	4.0	4.1	4.01	4.2	4.0	4.1	4.2
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	1	1	1	2	2	2	2
MODEL	186	200	244	283	325	366	410
Cooling Capacity	186 kW	200 kW	244k W	283 kW	325 kW	366 kW	410 kW
Compressor Power Input	46.5 kW	50 kW	58,09 kW	69 kW	79,2 kW	91,5 kW	102,5 kW
EER (Energy Efficiency Ratio)	4.0	4.0	4.2	4.1	4.1	4.1	4.0
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	2	2	4	4	4	4	4
MODEL	450	500	560	630	700	800	900
Cooling Capacity	450 kW	490 kW	560 kW	630 kW	700 kW	800 kW	872 kW
Compressor Power Input	107,1 kW	122,5 kW	140 kW	153,65 kW	175 kW	195,12 kW	218 kW
EER (Energy Efficiency Ratio)	4.2	4.0	4.0	4.1	4.1	4.0	4.1
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	4	4	6	6	6	6	6

**Referred to +15 ^{0}C water outlet and 35 ^{0}C ambient temperature*
**ITECH reserves the right to change specification without notice*

ECOtech®

Hybrid chiller unit
120 - 2000 kW

Hybrid technology maximum efficiency

The Ecotech Free Cooling Hybrid Chiller is designed to provide efficient cooling solutions, especially in applications where energy savings and sustainability are priorities.

The Ecotech Free Cooling Hybrid Chiller is engineered to provide efficient cooling while minimizing energy consumption. By utilizing both traditional and free cooling methods, it offers a versatile solution for various applications.

Key Advantages of Hybrid Chillers:

Cooling Capacity: Typically ranges from 100 kW to 2,000 kW.

Refrigerant Type: R 410,R-134A, or other environmentally friendly refrigerants such as R454B - R32 R1234YF - R513A

Operation Modes: Chilled water mode and free cooling mode.

Free Cooling System

Free Cooling Type: Air-cooled or water-cooled, depending on the installation.

Free Cooling Temperature Range: Typically operates efficiently when ambient temperatures are below 15°C (59 F).

Heat Exchanger: Plate type or shell-and-tube heat exchangers for efficient heat transfer.

Performance Specifications

Coefficient of Performance (COP): Generally ranges from 3.5 to 6.0, depending on operating conditions.

Electrical Specifications
Power Supply: Standard voltage options (e.g., 400V/3PH/50Hz or 460V/3PH/60Hz).
Power Consumption: Varies by model and cooling capacity, usually specified in kW.

Control System
Control Type: Advanced microprocessor-based control system for monitoring and optimization.
Interface: User-friendly display with options for remote monitoring and control.
Features: Integration with Building Management Systems (BMS), alarms, and diagnostics.

Physical Specifications
Dimensions: Varies by model; typically designed for compact installation.
Material: Corrosion-resistant casing, usually made of galvanized steel, and corrosion resistant epoxy powder painted

Environmental Considerations
Noise Levels: Designed to operate quietly, typically below 70 dBA at 1 meter.
Sustainability: Designed with energy efficiency in mind and compliant with environmental regulations.

Applications
Typical Uses: Data centers, commercial buildings, industrial processes, and other applications requiring reliable cooling.

Air-Cooled Chiller Specifications with R-454B

MODEL	46	60	75	90	110	120	140
Cooling Capacity	46,5 kW	58 Kw	75 kW	93 kW	116 kW	120 kW	140 kW
Compressor Power Input	11,62kW	14,1 kW	18,7 kW	23,8 kW	28,29 kW	28,57 kW	33,3 kW
EER (Energy Efficiency Ratio)	4.0	4.1	4.01	4.2	4.0	4.1	4.2
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	2	2	2	2	4	4	4
MODEL	360	410	450	500	560	630	700
Cooling Capacity	366 kW	410 kW	450 kW	490 kW	560 kW	630 kW	700 kW
Compressor Power Input	91,5 kW	102,5 kW	107,1kW	122,5kW	140kW	153,65 kW	175 kW
EER (Energy Efficiency Ratio)	4.0	4.0	4.2	4.1	4.1	4.1	4.0
Refrigerant Type	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	4	4	4	4	6	6	6
MODEL	950	1000	1100	1200	1300	1400	1500
Cooling Capacity	950 kW	1000 kW	1100 kW	1200 kW	1272 kW	1450 kW	1500 kW
Compressor Power Input	212 kW	227,4 kW	222 kW	241,4 kW	280 kW	315 kW	339kW
EER (Energy Efficiency Ratio)	4,48	4,39	4.5	4,97	4,54	4,60	4,42
Refrigerant Type	R134 / R513	R134 / R513	R134 / R513	R134 / R513	R134 / R513	R134 / R513	R134 / R513
Operating Temperature Range	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C	-5°C to 47°C
Compressor quantity	2	2	2	2	2	2	2

**Referred to +15 ^{0}C water outlet and 35 ^{0}C ambient temperature*
**ITECH reserves the right to change specification without notice*

FREE FLOWtech

Liquid refrigerant free cooling unit

25 - 350 kW

Innovative Free Cooling

A Free Cooling system that utilizes liquid refrigerant is designed to leverage ambient environmental conditions to provide cooling without the need for mechanical refrigeration in certain conditions. This type of system can significantly enhance energy efficiency and reduce operational costs, especially in climates where the outdoor air temperature is low enough to provide effective cooling.

Key Components of a Free Cooling System with Liquid Refrigerant

Chiller: The chiller serves as the central component, using liquid refrigerant to absorb heat from the building and reject it to the atmosphere. In free cooling mode, the chiller may operate without the compressor, using only the heat exchangers.

Heat Exchangers: Air-Cooled Heat Exchangers: Utilize ambient air to cool the refrigerant.
Water-Cooled Heat Exchangers: Use chilled water from cooling towers or other water sources.

Refrigerant Circulation: The system circulates liquid refrigerant, which absorbs heat from the indoor environment and releases it outside. The refrigerant may change phase from liquid to gas and back, depending on the operational mode.

Control System: Advanced control systems monitor temperature and pressure, switching between free cooling and mechanical cooling modes based on outdoor conditions and indoor cooling demands.

Piping System: Insulated piping is used to transport refrigerant between the various components of the system.

Benefits of Free Cooling Systems with Liquid Refrigerant

Energy Efficiency: Significantly reduces energy consumption by utilizing natural cooling, particularly during cooler months.

Environmental Impact: Lowers greenhouse gas emissions by reducing reliance on traditional cooling methods that use more energy.

Cost Savings: Decreases operational costs by minimizing the use of compressors and mechanical cooling, especially in suitable climates.

Extended Equipment Life: Reduces wear and tear on mechanical components, potentially extending the lifespan of the chiller.

Operation Modes

Free Cooling Mode: When outdoor temperatures are low enough, the system can operate in free cooling mode. The liquid refrigerant absorbs heat from the indoor space and releases it to the cooler outside air without the need for mechanical compression.

Mechanical Cooling Mode: When outdoor temperatures are too high for effective free cooling, the system can switch to mechanical cooling mode, utilizing the compressor to provide the necessary cooling.

Process chiller


CE
EXTRUTECH

EXTRUtech®

Extruder cooling unit
200 - 1000 kW

Advanced technics in extrusion cooling

General Specifications

- Cooling Capacity: 200 - 1000 kw
- Compressor Type: Multi Tandem Scroll
- Refrigerant Type: Common refrigerants include R-410A, R454B, R32.
- Temperature Range: Water Operating temperature ranges from -10°C to +25°C
- Flow Rate: 40 m3/hr-200 m3/hr.
- Pump Type: Centrifugal positive displacement pumps are commonly used.
- Power Supply: 400V 50 Hz 3 Phase, 460 V 60 Hz 3 Phase.
- Control System: PLC based controller with temperature setpoint, alarm, and remote monitoring capabilities.

Additional Features

Energy Efficiency: Energy-saving features such as variable speed drives (VSD) for pumps and fans optional to optimize performance based on cooling demand.

Heat Exchanger Type: Air-cooled

Safety Features: Overload protection,high low pressure alarms, and other safety mechanisms to prevent system failures.

Maintenance Access: Design considerations for easy access to components for routine maintenance and service.

Noise Levels: 70-80 dBA

Integration Capability: Compatibility with existing systems, including PLCs and other automation systems for enhanced control and monitoring.

Applications

Used in various industries including plastics, food processing, chemical processing, and metalworking.

Extrutech chillers are specialized cooling systems used in the plastic extrusion and other industrial processes.

CONCREtech®

Concrete cooling unit
500 - 2000 kW

Strength in every degree

Concretech Container cooling systems that integrate water chillers, pumps, tanks, filtration, and intelligent control systems are designed to provide efficient cooling solutions, especially for applications requiring water cooling and process automation.

Technical Specifications

Water Chiller:

Cooling Capacity: 500 kw – 2000 kw

Refrigerant Type: Common refrigerants include R-410A, R-134A, or R-454,R 32,R 513.

Temperature Range: Chilled water outlet temperature between -5°C to 25°C.

Energy Efficiency Ratio (EER): EER ratings typically range from 2.5 to 4.0 depending on water temperature an ambient conditions.

Compressor Type: Scroll, or screw compressors.

Cooling Method: Air-cooled or water-cooled options.

Pump:
Type: Centrifugal or positive displacement pumps.
Flow Rate: 100 m3/hr400 m3/hr
Power Supply: Voltage and phase (e.g., 230V single-phase or 400V three-phase).

Tank:
Capacity: Ranges from 500 liters to 5000 liters, depending on cooling needs and duration of use.

Material: Stainless steel, polyethylene, for durability and corrosion resistance.

Insulation: Insulated to minimize heat gain and maintain temperature.

Water Filtration System:
Filtration Type: Multi-stage filtration (e.g., sediment, carbon, and UV sterilization).

Flow Rate:
Filtration systems designed for appropriate flow rates to match the cooling system requirements.

Intelligent Control System:

Control Type: Microprocessor-based control system for precise monitoring and adjustments.
User Interface: Digital display for real-time monitoring of temperature, flow rates, and system status.
Connectivity: IoT capabilities for remote monitoring via Wi-Fi or cellular networks.
Sensors: Temperature, humidity, and flow sensors for automated adjustments and alerts.
Data Logging: Capability to log historical data for analysis and compliance purposes.
Automation: Programmable settings for different operational modes (e.g., cooling, standby, maintenance).

LASERtech®

Laser cooling unit chiller
6 - 60 kW

Cool solution for laser cutting

Laser Cooling Chiller Technical Specifications

- Cooling Capacity: 6-60 kW
- Refrigerant Type: R134,R-410A,R454B
- Compressor Type: Scroll Compressor
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 4.0
- Cooling Temperature Range: 5°C to 25°C
- Water Flow Rate: 1.2-12 m³/hour
- Water Pressure: 3-5 bar
- Noise Level: 68 dB(A)
- Control System: PLC-based digital display interface

Features

Integrated Heat Exchanger: Efficient heat transfer for laser equipment cooling.
Dual Pump: Optimizes water flow based on laser tube,resonator, enhancing efficiency.
Dual Circuit Design: Provides redundancy for continuous operation and increased reliability.
Temperature Control: ±0.5°C accuracy for consistent cooling performance.
Safety Features: High/low pressure switches, temperature overload protection, and anti-freeze measures.
Microprocessor Control: Remote monitoring and control capabilities via mobile application.
Durable Construction: Built with corrosion-resistant materials for industrial environments.

General Features

Compact Design:
Space-saving for installation near laser workstations.

User-Friendly Interface:
Intuitive digital control panel for easy operation and monitoring.

Energy Efficiency:
Designed to maximize performance while minimizing energy consumption.

Environmental Compliance:
Meets refrigerant emission standards and efficiency regulations.

Robust Build Quality:
Designed for long service life in demanding conditions.

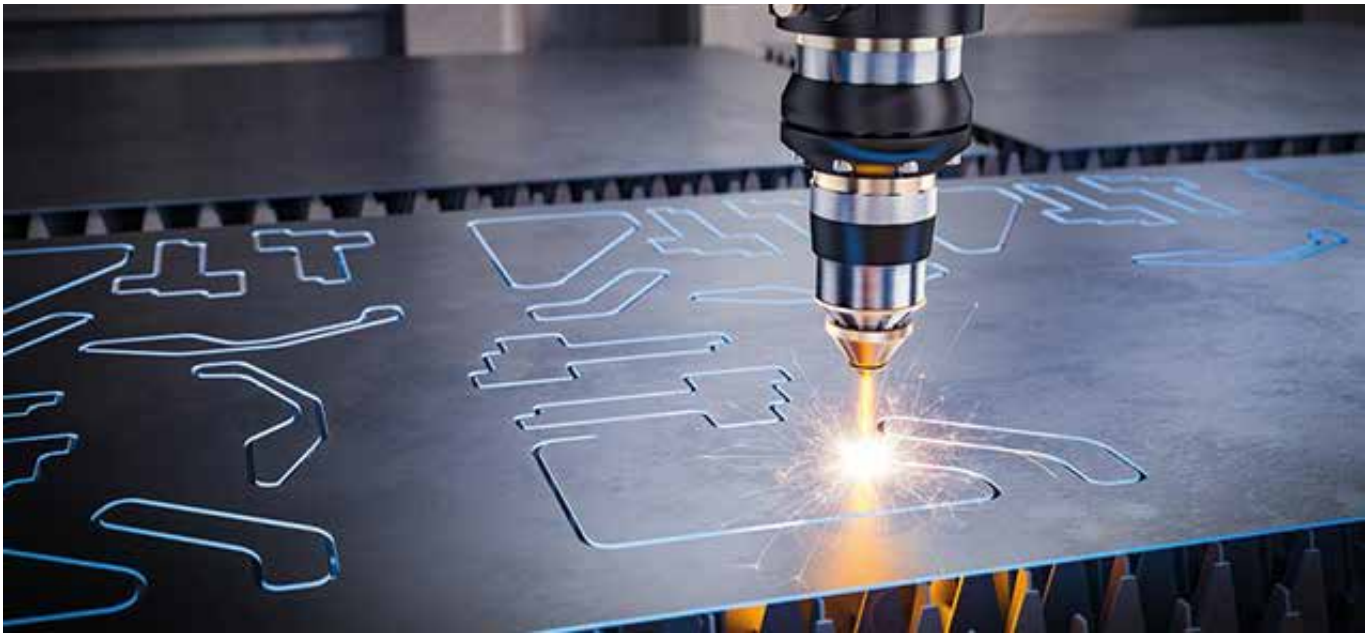
Warranty:
Standard 2-year warranty, with options for extended service plans.

Options and Customizations

Remote Monitoring: Optional IoT connectivity for real-time diagnostics and alerts.
Custom Flow Rates: Available in various flow rates to meet specific application needs.
Noise Reduction Package: Optional upgrades for quieter operation in sensitive environments.

Applications

Laser Processing: Provides precise cooling for laser cutting, engraving, and welding applications.
Thermal Regulation: Suitable for various industrial applications requiring consistent temperature control.
Manufacturing Facilities: Ideal for metal fabrication and assembly environments.



WELDtech®

Welding cooling unit

6 - 120 kW

Powering performance for sustainable welding

Technical specifications for a Weldtech chiller designed for use in welding applications:

Weldtech Technical Specifications

- Cooling Capacity 6-120 kW
- Refrigerant Type: R 410A,R454B,R-134a,
- Compressor Type: Scroll Compressor
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 3.5-3.8
- Cooling Temperature Range: 5°C to 25°C
- Water Flow Rate: 1.2 - 20 m³/hour
- Water Pressure: 3-4 bar
- Noise Level: 70 dB(A)
- Control System: PLC-based with a digital display interface

Features

Integrated Heat Exchanger: Efficient thermal transfer for cooling welding torches and equipment.
Variable Pump: Centrifugal Pump
Single-Dual Circuit Design: Ensures continuous operation with redundancy for reliability.
Temperature Control: ±1°C precision for consistent cooling performance.
Safety Features: High/low-pressure switches, temperature overload protection, and anti-freeze measures.
Microprocessor Control: Remote monitoring and control capabilities via a mobile application.
Durable Construction: Built with corrosion-resistant materials to withstand industrial environments.

Application

Welding Processes: Provides precise cooling for welding torches, ensuring optimal performance and prolonging equipment life.

Thermal Regulation: Suitable for various industrial applications requiring consistent temperature control.

Fabrication Facilities:
Ideal for use in metal fabrication and assembly environments.

Options and Customizations

Remote Monitoring: Optional IoT connectivity for real-time diagnostics and alerts.

Custom Flow Rates: Available in various flow rates to meet specific application needs.

Common Features

Compact Design: Space-efficient for installation near welding stations.
User-Friendly Interface: Intuitive digital control panel for easy operation and monitoring.
Energy Efficiency: Designed to minimize energy consumption while maximizing performance.
Environmental Compliance: Meets refrigerant emission standards and efficiency regulations.
Robust Build Quality: Engineered for long service life in demanding conditions.

SPINDLEtech®

CNC chiller unit
2 - 10 kW

Reliable partner for CNC machine

SPINDLETech Cooling Chiller Technical Specifications

- Cooling Capacity: 2-10 kW
- Refrigerant Type: R134A ,R1234YF
- Compressor Type: Scroll Compressor
- Power Supply: 400V / 3 Phase / 50Hz
- Energy Efficiency Ratio (EER): 4.0
- Cooling Temperature Range: 5°C to 40°C
- Water Flow Rate: 0.5 - 2 m³/hour
- Water Pressure: 2 - 5 bar
- Noise Level: 65 dB(A)
- Control System: PLCbased digital control panel

Features

HighEfficiency Heat Exchanger: Optimized design for cooling CNC machines.
Peripheral Pump: Pump Designs according to Water, Hydraulic Oil,Cutting Oil to enhance energy efficiency.
Precise Temperature Control: Maintains temperature within ±1°C accuracy.
Safety Features: High/low pressure protection, overtemperature protection, and antifreeze mechanisms.
Microprocessor Control: Mobile app support for remote monitoring and control.
Durable Construction: Built with corrosionresistant materials for industrial use.

General Features

Compact Design:
Saves space for easy placement next to CNC machines.

UserFriendly Interface:
Intuitive control panel for easy operation and monitoring.

Energy Efficiency:
High performance with low energy consumption.

Environmentally Friendly:
Complies with refrigerant gas emission standards.

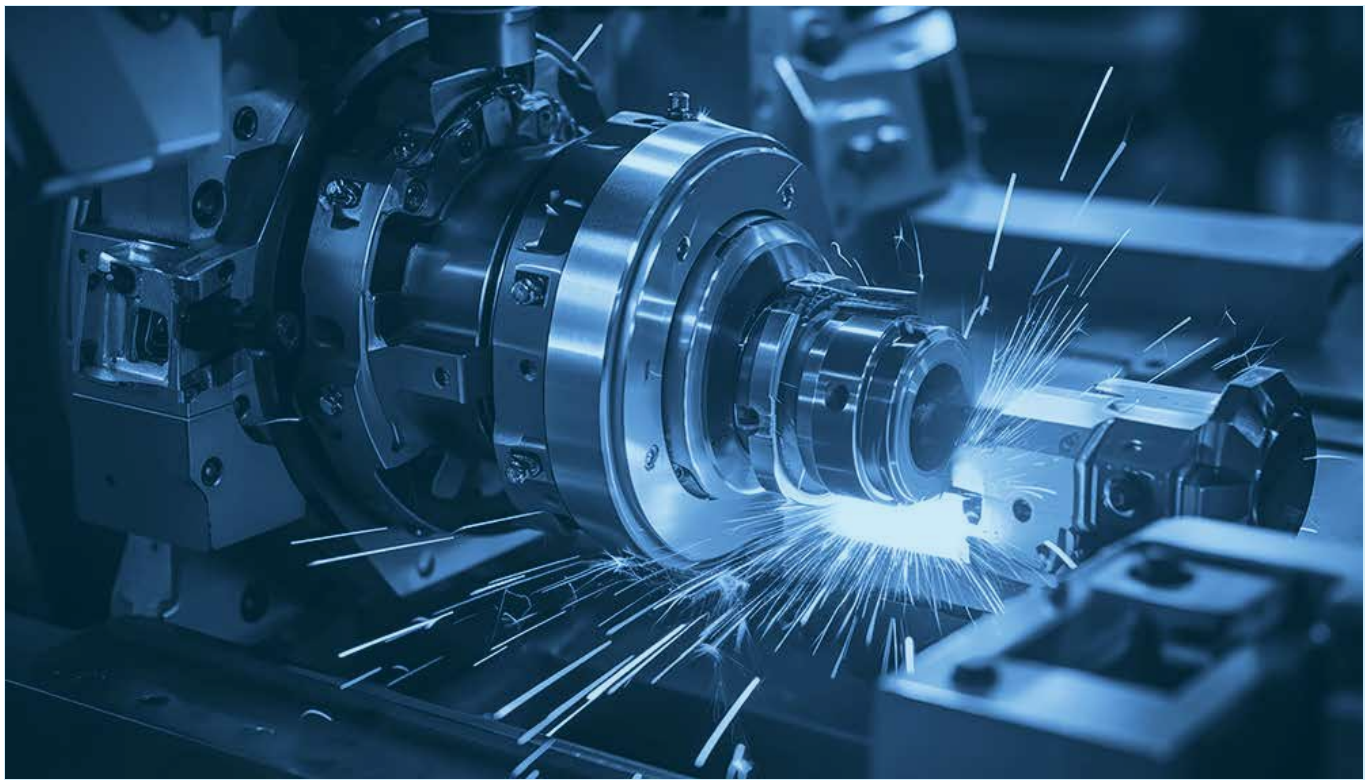
Long Lifespan:
Designed for durability in harsh conditions.

Options and Customizations

CNC Machining: Cooling for CNC milling, turning, and laser machines.
Metal Processing: Industrial applications requiring cooling.
Manufacturing Facilities: Continuous temperature control in production lines.

Applications

Remote Monitoring: Optional IoT connectivity for realtime diagnostics and alerts.
Customized Flow Rates: Options for different flow rates for specific applications.



ACCURAtech®

+ / - 0.3 ^{0}C accuracy in water cooling
6 - 100 kW

Where accuracy meets precision in process

High Accuracy Chiller Specifications

- Cooling Capacity:6-100 kW
- Refrigerant Type: R-134a / R-410A (R 454,R32,environmentally friendly options available)
- Compressor Type: Single Twin Scroll Compressor
- Power Supply: 400V / 3 Phase / 50Hz 460V / 3 Phase / 60Hz
- Energy Efficiency Ratio (EER): 4.0
- Cooling Temperature Range: -5°C to 25°C
- Temperature Control Accuracy: ±0.3°C
- Water Flow Rate: 1.2-20 m³/hour
- Water Pressure: 3-5 bar
- Noise Level: 65 dB(A)
- Control System: Advanced microprocessor-based control with touchscreen interface

Features

High Performance Heat Exchanger: Designed for optimal heat transfer and efficiency.
Hot Gas By Pass or Speed Drive : Adjusts compressor load based on cooling demand for enhanced efficiency and reduced energy consumption.
Real-Time Temperature Monitoring: Continuous monitoring with alarm notifications for temperature deviations.
Safety Features: High/low pressure safety switches, overheating protection, and anti-freeze control.
User-Friendly Interface: Intuitive touchscreen for easy operation and monitoring.
Durable Construction: Built with corrosion-resistant materials for long-term reliability in demanding environments.

General Features

Compact Design:
Space-saving structure suitable for limited installation areas.

Integrated Pump:
Efficient circulation with a built-in water pump.

Energy Efficient:
Low energy consumption and reduced operational costs.

Environmentally Friendly:
Compliance with current refrigerant safety and emission regulations.

Long Lifespan:
Designed for reliability and longevity in industrial applications.

Options and Customizations

Remote Monitoring: Optional IoT-based monitoring and diagnostics capability.
Custom Flow Rates: Configurable to meet specific flow rate requirements.
Noise Reduction Package: Optional enhancements to minimize operational noise levels.

Applications

HVAC Systems: Ideal for commercial buildings, laboratories, and data centers.
Industrial Cooling: Suitable for manufacturing processes requiring precise temperature control.
Chilled Water Systems: Used in large-scale cooling applications.

Accuratech high-accuracy chiller, typically used in applications requiring precise temperature control, such as in laboratories, pharmaceuticals, or semiconductor manufacturing.

MRtech®

Magnetic Resonance Chiller
10 - 100 kW

Critical cooling for health care

MRtech Magnetic Resonance Chiller Technical Specifications

- Cooling Capacity: 10-100 kW
- Refrigerant Type: R134A - R-410A or other eco-friendly refrigerants R454B - R32
- Compressor Type: Scroll or reciprocating compressor
- Temperature Control Range: 5°C to 25°C
- Flow Rate: 2-20 m^3/hr (depending on the system)
- Power Supply: 400 V 50 Hz 3 Phase or 208-230V, 50/60Hz, 1-phase or 3-phase (as specified)
- Noise Level: ≤ 60 dB(A)
- Control System: Microprocessor-based with digital display and remote monitoring capability
- Operating Conditions: Ambient temperature range from 5°C to 40°C (41°F to 104°F)
- Efficiency Rating: EER (Energy Efficiency Ratio) ≥ 3.0

Features

High Reliability: Designed for continuous operation to support critical medical imaging applications.
Temperature Stability: Maintains precise temperature control to ensure optimal performance of MRI systems.
User-Friendly Interface: Digital display for easy monitoring of temperature and system status.
Low Maintenance Design: Components are designed for easy access and maintenance.
Integrated Safety Features: Includes alarms for high/low temperature, low refrigerant, and other critical parameters.
Compact Design: Space-efficient design suitable for medical imaging environments.
Energy Efficient: Optimized for low energy consumption while maintaining performance.
Customizable Options: Available with various configurations to meet specific system requirements.

Additional Options

Remote Monitoring and Control: Ability to connect to hospital management systems for monitoring and alerts.

Water Treatment Systems: Integrated solutions to prevent scale buildup and ensure water quality.

Backup Power Options: Uninterruptible power supplies (UPS) to ensure operation during power outages.

Applications

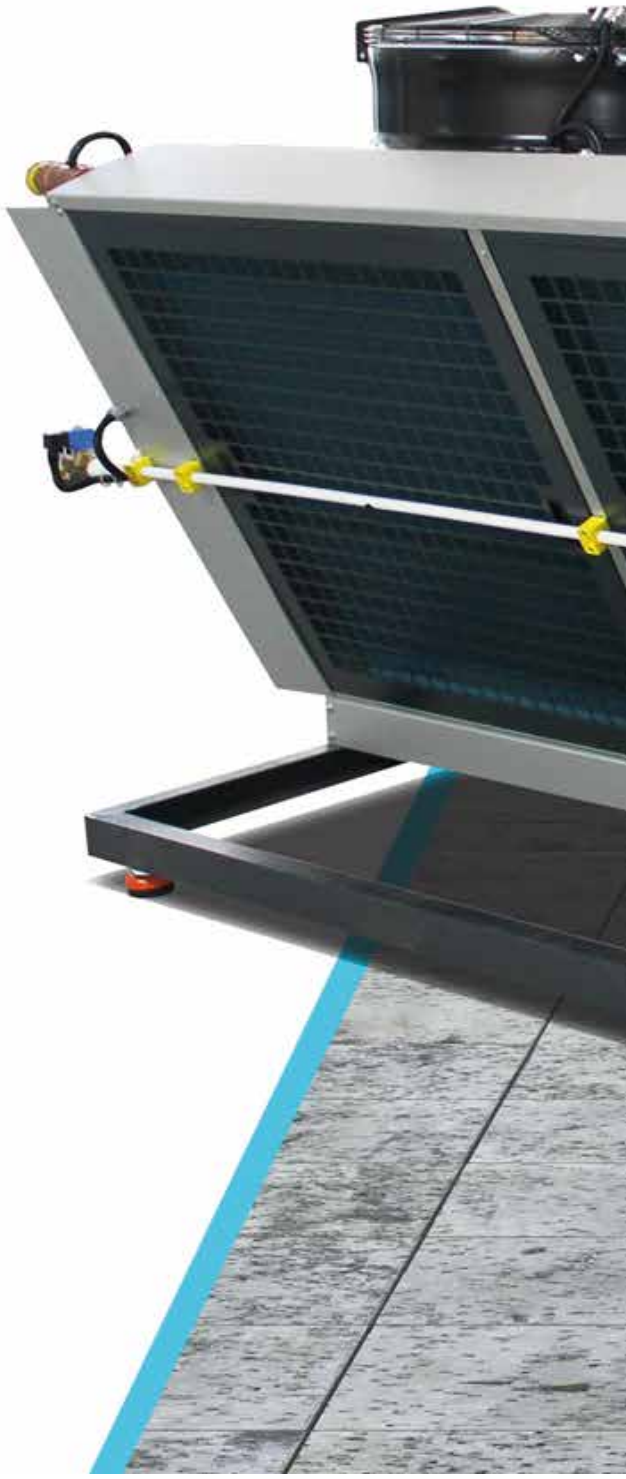
MRI Machines: Provides cooling for the superconducting magnets and other critical components in MRI systems.

Cryogenic Applications: Can be used in other medical imaging technologies requiring temperature control.

Research Facilities: Suitable for laboratories and research settings using MRI technology.

MRtech Magnetic Resonance Chillers, often referred to in the context of Magnetic Resonance Imaging (MRI) systems, are specialized cooling units designed to maintain the optimal operating temperature of MRI machines and associated components.

Free coolers



FREE tech®

Wet-Dry coolers
100 - 1200 kW

Simply cools generously saves

FREETECH Wet dry coolers, also known as hybrid coolers or evaporative coolers, combine both wet (evaporative) and dry (air-cooled) cooling technologies. This dual functionality allows them to operate efficiently under varying environmental conditions, providing effective cooling while minimizing water and energy consumption.

FREEtech General Technical Specifications

Cooling Capacity: Typically ranges from 100 kW to over 1200 kW, depending on the size and application.

Heat Exchanger: Made of corrosion-resistant materials, copper or aluminum fins with a galvanized steel frame. Designed for high thermal efficiency.

Fan Type: Axial fans, often equipped with variable speed drives (VSDs) for energy efficiency. Noise levels typically range from 60 to 80 dB(A), depending on fan design and operation.

Water Consumption: Water usage depends on ambient conditions and cooling load. Water recirculation systems minimizes water waste.

Operating Temperature Range: Ambient temperature range: -25°C to +45°C or wider, depending on the model. Outlet water temperature can be maintained within specific limits based on cooling load.

Control System: Microprocessor-based control systems for precise temperature and flow management. Features like remote monitoring, alarms, and integration with building management systems.

Electrical Requirements: Commonly designed for 400V, 50/60Hz, 3-phase power supply. Power consumption varies based on cooling capacity and fan operation.

Dimensions: Varies significantly based on the model; units can range from compact designs (1-2 m² footprint) to larger systems (10 m² or more).

Weight: Depends on the size and materials; can range from several hundred to several thousand kilograms.

Water Treatment: Water treatment system to prevent scaling and biological growth, which can affect performance.

Key Features

Hybrid Operation: Allows the unit to switch between evaporative and air-cooled modes based on environmental conditions, optimizing performance and efficiency.

Energy Efficiency: Designed to reduce energy consumption compared to traditional cooling systems by utilizing evaporative cooling when conditions permit.

Low Maintenance: Generally designed for easy maintenance access, with features that reduce the need for frequent servicing.

Environmentally Friendly: Uses water for cooling, which can reduce the need for refrigerants and lower overall carbon footprint.

Applications

Data Centers: Effective for cooling IT equipment while maintaining energy efficiency.
Industrial Processes: Suitable for manufacturing environments requiring temperature control.
Commercial Buildings: Provides cooling for office spaces, retail areas, and other commercial applications.

FREEtech-Ad®

Adiabatic Wet Dry coolers
100 - 1200 kW

Maximize cooling minimize water

FREETECH ADIABATIC free coolers, also known as adiabatic cooling systems or evaporative coolers, are designed to provide efficient cooling by utilizing the principles of adiabatic cooling and evaporative cooling.

FREEtech adiabatic General Technical Specifications

Cooling Capacity: Range: Typically from 100 kW to over 1200 kW, depending on the application (commercial, or industrial).

Airflow Rate: Range: 40.000 liter/hr to 200.000 liter/h, depending on the size of the unit.

Water Consumption: Average: 1-3 liters per kWh of cooling produced, depending on the efficiency and design of the system.

Energy Efficiency Ratio (EER): Generally higher than traditional cooling systems, often ranging from 8 to 20 depending on the design and conditions.

Operating Temperature Range: Typically effective in ambient temperatures from 20°C to 45°C (68°F to 113 F).

Power Supply: Voltage: Commonly 230V or 400V three-phase, depending on the system size and application.

Fan Type: Axial fans, designed for high efficiency and low noise.

Water Supply Requirements: May require a continuous water supply; some systems include water recycling mechanisms.

Control Systems: Often equipped with programmable controllers or smart controls for monitoring temperature, humidity, and airflow.

Materials: Corrosion-resistant materials for water distribution and cooling pads (e.g., PVC, polypropylene).

Features

Adiabatic Pre-Cooling: Pre-cool the incoming air through evaporative pads before it enters the cooling coil.

Hybrid Operation: Adiabatic coolers can operate in both evaporative and conventional cooling modes, depending on ambient temperatures.

Low Maintenance: Generally requires less maintenance compared to traditional cooling systems.

Environmentally Friendly: Uses water for cooling instead of refrigerants, making it more eco-friendly

Applications

Commercial Buildings: Offices, retail spaces, and warehouses.
Industrial Processes: Manufacturing facilities and data centers.
Agricultural: Greenhouses and livestock facilities.

AKtech®

Stainless steel cooling tower
60 - 2300 kW

Sustainable cooling powered by nature

AKTECH Stainless Steel Cooling Tower Specifications

- Cooling Capacity: 60 -2300 kW
- Material: Stainless Steel (AISI 304)
- Cooling Type: Counterflow
- Fan Type: Axial
- Fan Motor: 2 - 32KW
- Water Inlet Temperature: 40°C
- Water Outlet Temperature: 30°C
- Design Wet Bulb Temperature: 27°C
- Water Flow Rate: 10 m^3/hr - 400 m^3/hr
- Number of Cells: Single / Multi-cell configuration
- Noise Level: 70 dB(A)
- Fan Speed: 900-1400 RPM

Features

Corrosion Resistance: Constructed from stainless steel for enhanced durability and resistance to corrosion.
High Efficiency: Designed for optimal heat transfer with minimal energy consumption.
Low Maintenance: Stainless steel construction minimizes the need for frequent maintenance.
Modular Design: Allows for easy installation and scalability based on cooling requirements.
Integrated Drift Eliminators: Reduces water loss and improves efficiency.
Access Panels: Easy access for maintenance and inspections.
Insulation: Optional thermal insulation for energy efficiency.
Variable Speed Fans: Optional for energy savings and noise reduction.

Options and Customizations

Custom Sizes: Available in various sizes and capacities to meet specific requirements.

Control Systems: Optional advanced control systems for monitoring and automation.

Water Treatment Systems: Integrated water treatment options for scale and corrosion prevention.

Noise Reduction Packages: Optional features to minimize operational noise.

Backup Power Systems: Optional integration with UPS for uninterrupted operation.

Applications

HVAC Systems: Used in commercial buildings for air conditioning systems.
Industrial Processes: Suitable for manufacturing processes requiring cooling.
Power Plants: Used for cooling systems in power generation facilities.
Data Centers: Effective cooling solution for sensitive electronic equipment.

General Characteristics

Compact Design: Space-efficient design suitable for various installations.
Environmentally Friendly: Designed to minimize water usage and reduce environmental impact.
Reliable Operation: Engineered for continuous performance in industrial applications.

Air coolers


BLOWtech

BLASTAIRtech®

Deep air drying unit for blow molding
150 - 450 m³/h

Ice cool performance for extrusion stretch blow molding

Blastair deep dry cooling systems are designed to enhance cooling efficiency in various industrial applications, including extrusion stretch molding processes.

These systems use advanced cooling technologies to maintain optimal temperatures during the manufacturing processes, ensuring high-quality output and improved cycle times.

General Specifications

Temperature Range:
Capable of achieving temperature control from ambient down to -35°C or lower, depending on the specific cooling needs.

Airflow Rate: 150 -450 (m³/h) with airflow rates designed to maximize cooling efficiency and uniformity across the mold.

Heat Exchanger Type: Equipped with high-efficiency plate heat exchangers for effective heat transfer.

Refrigerant Type: Utilizes environmentally friendly refrigerants such as R134A - R124YF - R507 - R-449

Control System: Advanced digital control systems that allow for precise temperature management, including programmable settings, alarms, and remote monitoring capabilities.

Power Supply: 400V 50 Hz 3 Phase , 460 V 60Hz 3 Phase

Addional features

Energy Efficiency: Designed with energy-saving features such as variable frequency drives (VFDs) for compressor, optimizing energy consumption based on cooling demand.

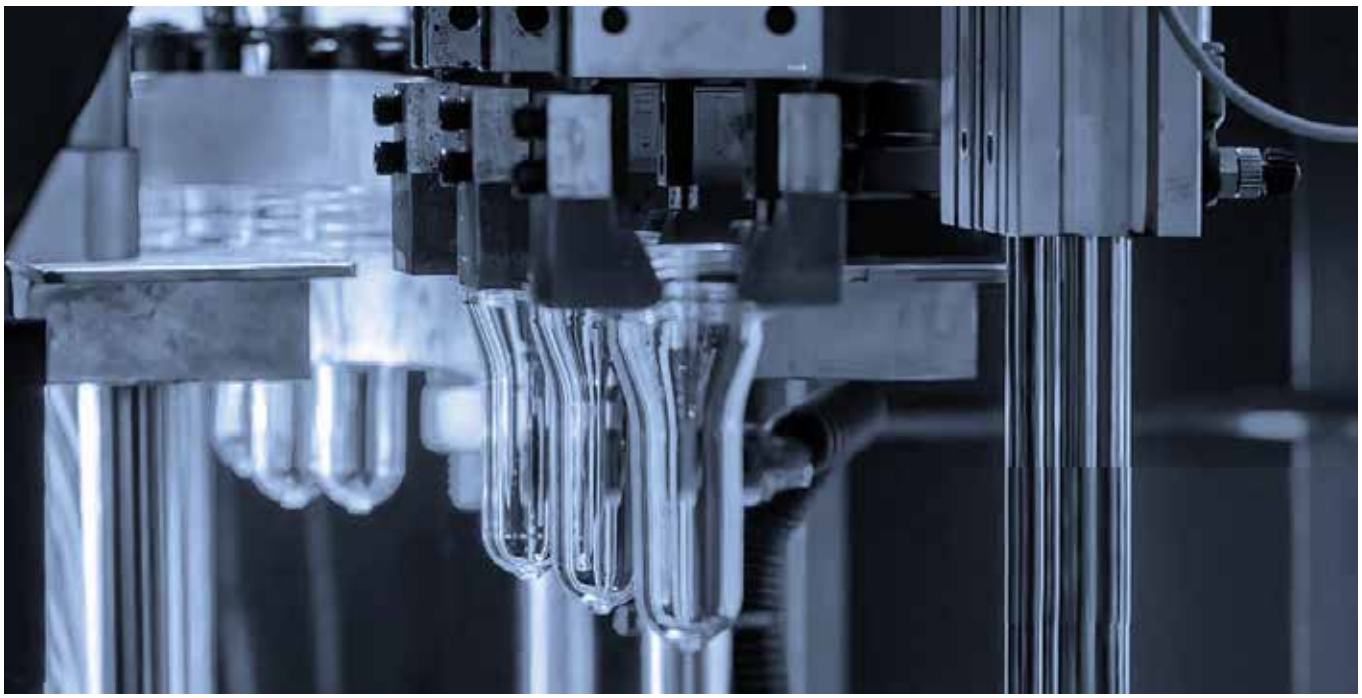
Noise Levels: 60 - 70 Dba.

Safety Features: Equipped with safety devices such as low-pressure alarms, high-temperature cut-offs

Maintenance Accessibility: Designed for easy access to components for maintenance and service, including removable panels and modular designs.

Applications

Primarily used in extrusion stretch molding processes for plastics and other materials. Helps maintain consistent temperatures, improving product quality and reducing cycle times.



BLOWtech®

Film Cooling Direct Expansion Chiller
1000 - 5500 m^3/h

High efficiency in film cooling

The Blowtech Film Cooling Direct Expansion Chiller is engineered to provide efficient cooling solutions for film extrusion processes. Utilizing advanced direct expansion technology, this chiller ensures optimal temperature control, enhancing product quality and operational efficiency.

Technical Specifications

Cooling Capacity:
Ranges from 10 kW to 100 kW, adjustable based on specific application needs.

Refrigerant Type:
R-410A or R-134A (selectable based on application and environmental regulations)

Temperature Range:
Cooling Water Temperature: 5°C to +25C
Condensing Water Temperature: +30°C

Airflow Rate:
1000 to 5000 m3/hr (depending on model and configuration)

Power Supply:
400V/3Ph/50Hz or 460V/3Ph/60Hz

Noise Level:
65 dB to 75 dB (operational)

Features

Direct Expansion Technology: Efficient cooling with minimal energy consumption.

User-Friendly Controls: Equipped with a digital control panel for easy operation and monitoring.

High Reliability: Built with durable components for long-lasting performance in demanding environments.

Compact Design: Space-saving design for easy integration into existing systems.

Low Maintenance: Designed for easy access to components, reducing downtime.

Applications

Film extrusion cooling, Plastics processing, Food and beverage cooling, Chemical processing HVAC applications

AIRtech®

Airtech Film Cooling Heat Exchanger
1000 - 10000 m³/h

Efficiency increase in film extrusion up to 20%

The ABC Film Cooling Heat Exchanger is designed for high-efficiency thermal management in extrusion processes. Engineered for optimal performance, our heat exchanger ensures superior cooling of film products, enhancing quality and productivity.

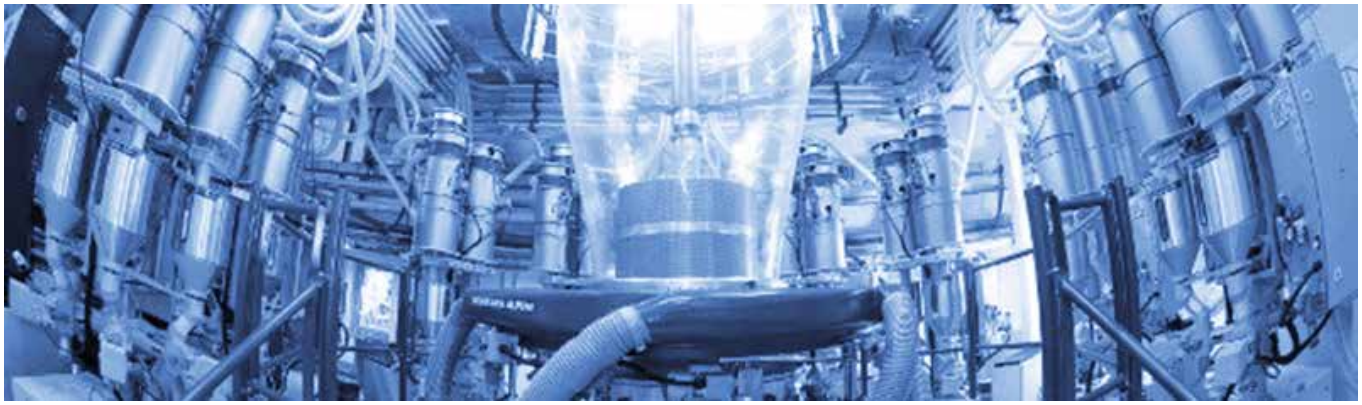
AIRtech Technical Specifications

Model Options:
Standard Models: ABC-100, ABC-200, ABC-300, ABC-400, ABC-500
(Capacity ranging from 100 kg/hr to 1000 kg/hr)

Cooling Capacity:
10 kw -100 kW (varies by model)

Airflow Rate:
1000 – 10000 m3/hr (adjustable based on application)

Temperature Range:
Ambient 50°C (max)



Features

High Efficiency: Advanced design for optimal heat transfer and energy savings.

Robust Construction: Durable materials ensure longevity and reliability in demanding environments.

Easy Maintenance: Designed for quick access to filters for routine maintenance and cleaning.

Flexible Installation: Compact design allows for versatile installation options in various production setups

Applications

Film extrusion processes

Any application requiring precise air temperature control during Industrial processing.