ADcooler

Dry-cooler adiabatico in circuito chiuso, potenza frigorifera 82 – 1.220 kW

Closed circuit, adiabatic dry-cooler, cooling capacity 82 – 1.220 kW

ADcooler (Adiabatic cooler) combina il risparmio energetico fornito da una batteria dry-cooler con l'efficienza termica prodotta da un sistema adiabatico e trova applicazione in tutti i processi industriali, garantendo temperature prossime al valore di bulbo umido.

ADcooler (Adiabatic cooler) combines the energy savings provided by a dry-cooler battery with the thermal efficiency provided by an adiabatic system and is applicable to all industrial processes, ensuring temperatures close to the wet bulb value.

DIFFERENT SIZES

ADIABATIC TECHNOLOGY

SELF-DRAINING VERSION

LOW NOISE VERSION

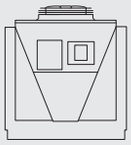
ADcooler

ADCOOLER
Standard

ADCOOLER-AD
Self-draining

ADCOOLER-LN
Low noise

DESIGN CONDITIONS - ADcooler		
VERSION	Adjustable set	T Air
Standard	+20/+35°C	+45°C

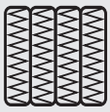


STRUTTURA
La macchina è costruita con materiali non ossidabili per posizionamento all'esterno con pannellature asportabili che ne consentono l'ispezionabilità su tutti i lati.Il sistema adiabatico è posizionato ai due lati della macchina e ha una superficie maggiorata rispetto a quelle delle batterie di scambio termico.

STRUCTURE
The unit consists of a modular stainless steel structure for outdoor installation with removable panels allowing inspection on all sides. The adiabatic system is placed on the two sides of the unit with a wider surface if compared to that of the heating exchange batteries.

SISTEMA ADIABATICO
Permette il pre-raffreddamento dell'aria all'ingresso dei condensatori ottimizzando l'efficienza energetica.

ADIABATIC SYSTEM
Pre-cooling of the air entering the condensers utilising adiabatic pads and improving the energy efficiency.



BATTERIE DI SCAMBIO
Batterie di scambio termico realizzate in rame/alluminio.

HEAT EXCHANGE COILS
Heat exchange coils made of copper/ aluminium.

BULBO SECCO E BULBO UMIDO
La temperatura a bulbo secco è la temperatura misurata dell'aria, mentre la temperatura a bulbo umido si ottiene mettendo a contatto l'acqua con l'aria: l'evaporazione dell'acqua sottrae calore riducendone la temperatura in misura inversamente proporzionale all'umidità dell'aria. È su questo fenomeno che si basa il funzionamento dell'ADcooler, pertanto la temperatura dell'acqua di processo fornita dalla nostra macchina sarà sempre inferiore (anche di parecchi gradi) a quella della temperatura ambiente.

DRY AND WET BULB
The dry bulb temperature is the temperature of the ambient air, while the wet bulb temperature is obtained by putting the water in contact with the air: the evaporation of water removes heat by reducing temperature in an inverse proportion to air humidity. This is the basis of the ADcooler operation, so the temperature of the process water provided by our unit will always be lower (by several degrees) than the ambient air.

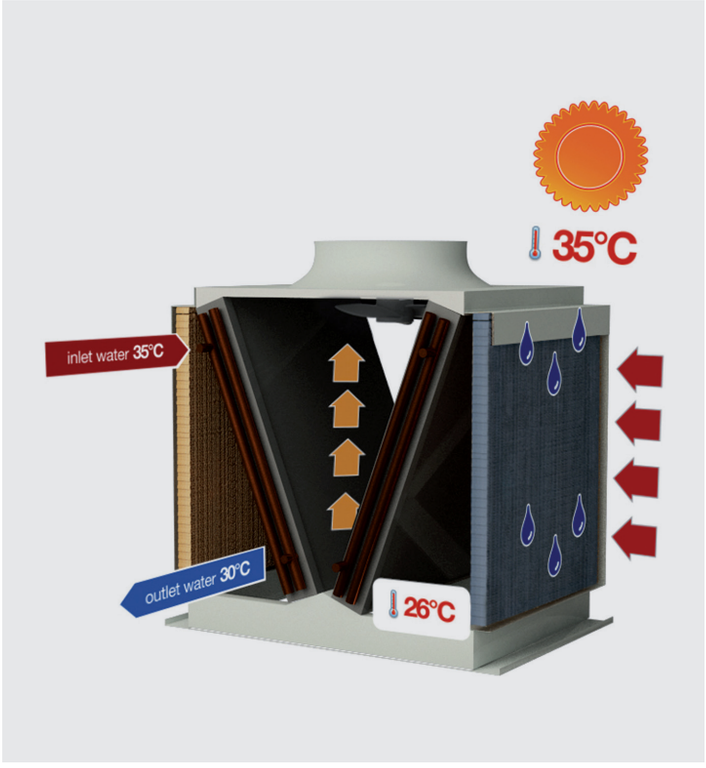
AUTODRENABILITÀ
La speciale configurazione delle batterie di free-cooling permette lo svuotamento automatico delle stesse (funzione auto-drenante, optional) rendendo così possibile l'utilizzo di acqua non glicolata anche in presenza di temperature dell'aria al di sotto degli 0°C.

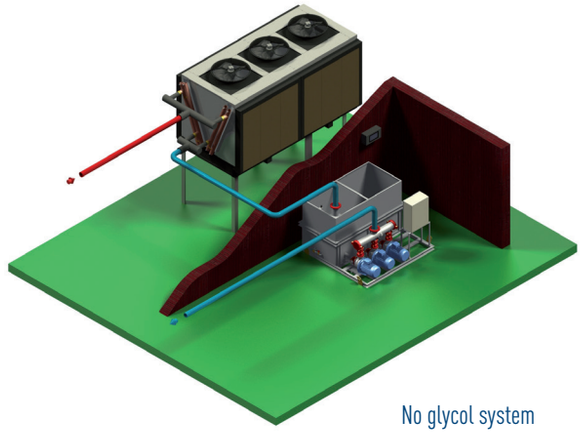
SELF-DRAINING FUNCTION
The special configuration of the free-cooling coil facilitates automatic emptying (self-draining function, optional) resulting in the possibility to use water with no glycol even when air temperature drops below 0°C.

CONTROLLO
Pannello di controllo a microprocessore.

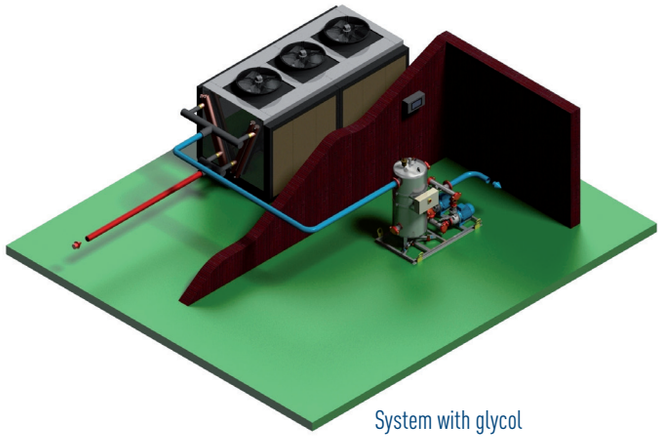
CONTROL
Microprocessor control panel.

PROCESS WATER CHILLERS





No glycol system



System with glycol

ADcooler					ADC-S 80		ADC-S 170		ADC-S 280		ADC-S 380		ADC-S 490	
					STND	LN	STND	LN	STND	LN	STND	LN	STND	LN
COOLING SECTION	Potenza di raffreddamento	Cooling capacity	kW [1]		82,0	56,0	169,0	117,0	282,0	182,0	383,0	246,0	505,0	322,0
			kCal/h [1]		70.520	48.160	145.340	100.620	242.520	156.520	329.380	211.560	434.300	276.920
			kW [2]		60,0	41,0	119,0	83,0	201,0	132,0	270,0	173,0	346,0	225,0
			kCal/h [2]		51.600	35.260	102.340	71.380	172.860	113.520	232.200	148.780	297.560	193.500
HYDRAULIC SECTION	Portata acqua	Water flow rate	m3/h		10,3	7,1	20,5	14,4	34,6	22,9	46,4	30,0	59,5	39,0
	Caduta pressione	Pressure drop	kPa		24,0	15,0	44,0	25,0	32,0	16,0	26,0	17,0	27,0	30,0
	Contenuto d'acqua	Water content	lt		40		70		140		300		380	
	Attacchi idraulici	Hydraulic connections	Ø		2"		2"1/2		3"		3"		3"	
CONDENSER SECTION	Ventilatori	Fans	nr		1		2		3		4		5	
			Ø mm		910	800	910	800	910	800	910	800	910	800
			m3/h		26.000	16.000	52.000	32.000	76.000	45.000	101.600	60.000	127.000	75.000
			kW total		2,25	1,20	4,50	2,40	6,75	3,60	9,00	4,80	11,25	6,00
ELECTRIC SECTION	Corrente max. assorbita	Max. absorbed current	A		5,20	2,20	10,40	4,40	15,60	6,60	20,80	8,80	26,00	11,00
	Tensione	Voltage	V/Ph/Hz [4]		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50	
GENERAL DATA	Livello sonoro	Sound level	dB(A) [3]		47	39	50	42	52	44	53	45	54	46
SIZES & WEIGHT	Ingombri	Sizes	mm [5]	A	1.910		1.910		1.910		1.910		1.910	
				B	1.770		2.970		4.170		5.370		6.520	
				C	2.145		2.145		2.145		2.145		2.145	
	Peso netto	Net weight	kg		450		650		1.050		1.290		1.550	
	Peso in funzione	Full load weight	kg		490		720		1.190		1.590		1.930	

1. Misurata secondo le norme ENV 1048 senza l'utilizzo dei moduli adiabatici

2. Misurata secondo le specifiche Eurochiller:
Aria ambiente +30°C/Acqua in/out +40/35°C

3. A 10 mt di distanza in campo libero

4. Tensioni diverse quotabili su richiesta

5. La serie ADC-L è fornita con pacchi adiabatici smontati.
Pertanto, ai fini del trasporto, la larghezza macchina sarà di 2.380 mm

1. According to ENV 1048 regulations without adiabatic pads

2. According to Eurochiller's specifications:
Ambient air +30°C/Water in/out +40/35°C

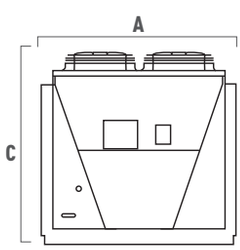
3. At 10 mt distance in free field

4. Different voltages are quoted on demand

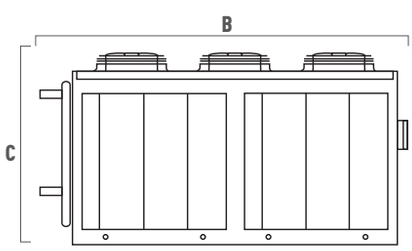
5. The ADC-L line is supplied with loose adiabatic pads.
Therefore, for transport purposes, the machine width will be 2.380 mm

PROCESS WATER CHILLERS

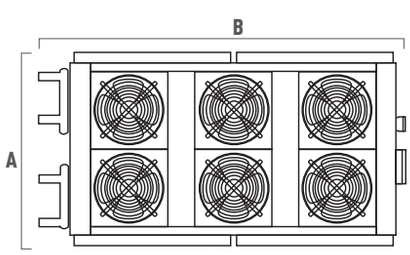
ADC-S 600		ADC-L 350		ADC-L 500		ADC-L 700		ADC-L 850		ADC-L 1000		ADC-L 1200	
STND	LN	STND	LN	STND	LN	STND	LN	STND	LN	STND	LN	STND	LN
630,0	376,0	346,0	232,0	498,0	338,0	694,0	436,0	856,0	534,0	994,0	630,0	1220,0	775,0
541.800	323.360	297.560	199.520	428.280	290.680	596.840	374.960	736.160	459.240	854.840	541.800	1.049.200	666.500
426,0	280,0	252,0	170,0	360,0	246,0	500,0	320,0	616,0	386,0	716,0	454,0	876,0	560,0
366.360	240.800	216.720	146.200	309.600	211.560	430.000	275.200	529.760	331.960	615.760	390.440	753.360	481.600
73,9	48,9	43,3	29,3	68,0	42,7	85,9	55,6	105,8	66,9	123,0	78,7	150,5	97,1
25,0	45,0	33,0	17,0	39,0	15,0	43,0	18,0	33,0	15,0	19,0	10,0	32,0	15,0
460		175		290		410		550		720		790	
3"		4"		4"		4"		4"		4"		4"	
6		4		6		8		10		12		14	
910	800	910	800	910	800	910	800	910	800	910	800	910	800
154.000	90.000	90.000	56.000	134.000	84.000	192.000	112.000	250.000	140.000	298.000	168.000	336.000	196.000
13,50	7,20	8,80	4,80	13,20	7,20	17,60	9,60	22,00	12,00	26,40	14,40	30,80	16,80
31,20	13,20	20,80	8,80	31,20	13,20	41,60	17,60	52,00	22,00	62,40	26,40	72,80	30,80
400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50		400/3/50	
55	47	53	45	55	47	56	48	57	49	58	50	59	51
1.910		2.680		2.680		2.680		2.680		2.680		2.680	
7.770		3.970		5.205		6.435		8.380		9.900		10.930	
2.145		2.600		2.600		2.600		2.600		2.600		2.600	
2.100		1.430		1.900		2.680		3.520		4.430		5.000	
2.560		1.605		2.190		3.090		4.070		5.150		5.790	



Front view



Side view



Top view

ADcooler kit

Kit di condensazione adiabatico, potenza frigorifera 82 – 630 kW

Adiabatic condensing kit, cooling capacity 82 – 630 kW

La serie **ADcooler KIT** è composta da unità che possono essere a tutti gli effetti considerate come le naturali sostitute delle torri evaporative, eguagliandone le prestazioni ma eliminando tutti quei problemi di trattamento e consumo acqua, mucillagine e calcare propri delle torri evaporative. L'acqua da raffreddare transita all'interno di batterie in circuito chiuso, mentre l'acqua da evaporare viene fatta scorrere sui moduli adiabatici provocando un brusco abbassamento della temperatura dell'aria ambiente aspirata, senza depositarsi sull'alettatura delle batterie preservandone così l'efficacia.

The **ADcooler KIT** line consists of units that are the natural replacement of the evaporative towers, being able to equal their performances but zeroing water consumption and avoiding the formation of mucilage and limestone which are instead typical in the installation of evaporative towers. Water to be cooled flows into the coil in a closed circuit, while the evaporating water flows on adiabatic pads causing a sharp drop in of the temperature of the sucked air, with no deposit on the fins which consequently save their efficiency.

6

DIFFERENT SIZES

ADIABATIC TECHNOLOGY

INTEGRATED PUMP

DESIGN CONDITIONS - ADcooler KIT		
VERSION	Adjustable set T	Ambient T
ADcooler KIT	+20/+35°C	+45°C

ADcooler kit

STRUTTURA
La macchina è costruita con materiali non ossidabili per posizionamento all'esterno con pannellature asportabili che ne consentono l'ispezionabilità su tutti i lati. Il sistema adiabatico è posizionato ai due lati della macchina e ha una superficie maggiorata rispetto a quelle delle batterie di scambio termico.

STRUCTURE
The unit consists of a modular stainless steel structure for outdoor installation with removable panels allowing inspection on all sides. The adiabatic system is placed on the two sides of the unit with a wider surface if compared to that of the heating exchange batteries.

SISTEMA ADIABATICO
Permette il pre-raffreddamento dell'aria all'ingresso dei condensatori ottimizzando l'efficienza energetica.

ADIABATIC SYSTEM
Pre-cooling of the air entering the condensers utilising adiabatic pads and improving the energy efficiency.

BATTERIE DI SCAMBIO
Batterie di scambio termico realizzate in rame/alluminio.

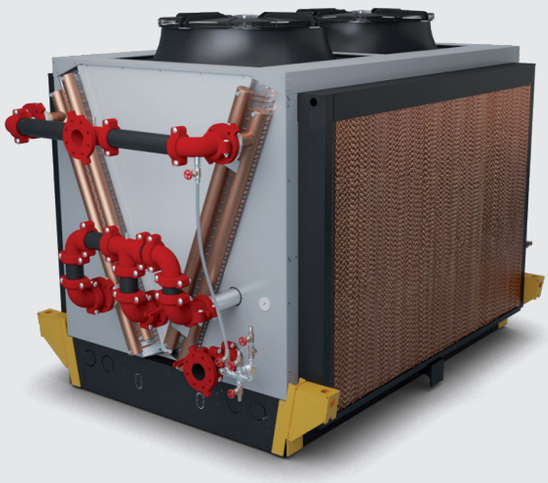
HEAT EXCHANGE COILS
Heat exchange coils made of copper/aluminium.

POMPA
L'unità può essere fornita con una o due pompe (run/stand-by) a bordo. Le pompe sono posizionate all'interno della macchina che è quindi predisposta per un'installazione plug-and-play.

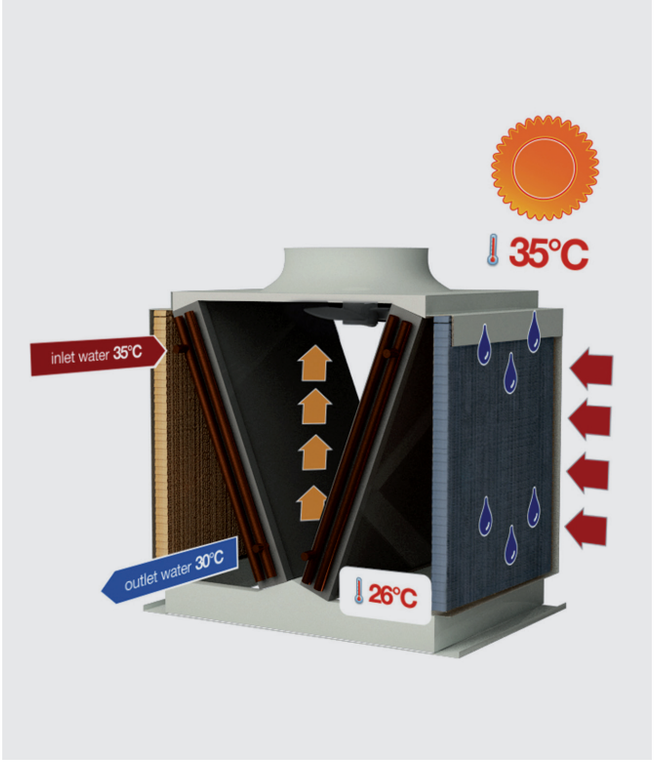
PUMP
The unit is supplied either with single or double pump (run/st-by) on board: these are located inside the machine which is then ready for a plug-and-play installation.

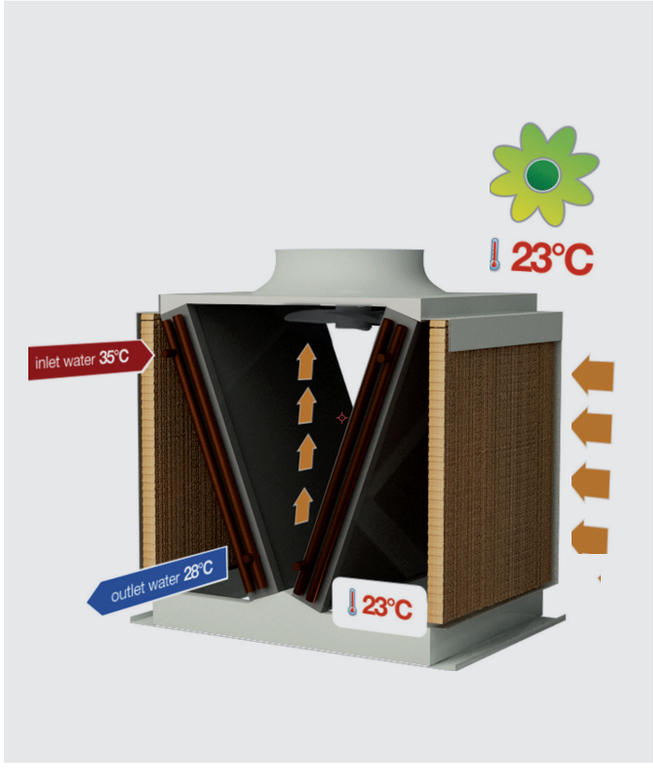
CONTROLLO
Pannello di controllo remoto a microprocessore.

CONTROL
Remote microprocessor control panel.



PROCESS AIR CHILLERS





ADcooler kit					80	170
COOLING SECTION	Potenza di raffreddamento	Cooling capacity	kW [1]		82,0	169,0
			kCal/h [1]		70.520	145.340
			kW [2]		60,0	119,0
			kCal/h [2]		51.600	102.340
HYDRAULIC SECTION	Pompa standard	Standard pump	m3/h		2,3	3,0
			Bar		10,3	20,5
			kW		2,3	2,6
	Contenuto d'acqua	Water content	lt		40	70
	Attacchi idraulici	Hydraulic connections	Ø		2"	2"1/2
CONDENSER SECTION	Ventilatori	Fans	nr		1	2
			Ø mm		910	910
			m3/h		26.000	52.000
			kW total		2,00	4,00
ELECTRIC SECTION	Corrente max. assorbita	Max. absorbed current	A		9,0	14,8
	Tensione	Voltage	V/Ph/Hz [4]		400/3/50	400/3/50
GENERAL DATA	Livello sonoro	Sound level	dB(A) [3]		47	50
SIZES & WEIGHT	Ingombri	Sizes	mm [5]	A	1.910	1.910
				B	1.770	2.970
				C	2.145	2.145
	Peso netto	Net weight	kg		565	810
	Peso in funzione	Full load weight	kg		615	896

1. Misurata secondo le norme ENV 1048 senza l'utilizzo dei moduli adiabatici

2. Misurata secondo le specifiche Eurochiller:
Aria ambiente +30°C/Acqua in/out +40/35°C

3. A 10 mt di distanza in campo libero

4. Tensioni diverse quotabili su richiesta

1. According to ENV 1048 regulations without adiabatic pads

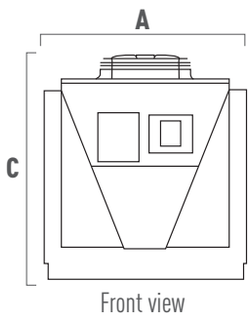
2. According to Eurochiller's specifications:
Ambient air +30°C/Water in/out +40/35°C

3. At 10 mt distance in free field

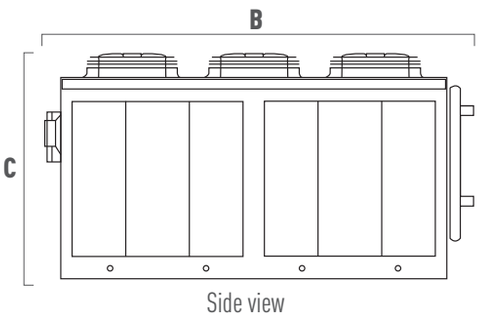
4. Different voltages are quoted on demand

PROCESS AIR CHILLERS

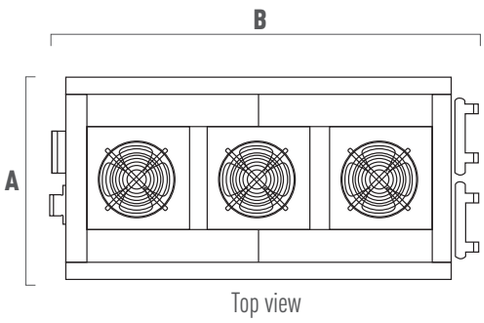
280	380	490	600
282,0	383,0	505,0	630,0
242.520	329.380	434.300	541.800
201,0	270,0	346,0	420,0
172.860	232.200	297.560	361.200
5,5	7,5	9,2	11,0
34,6	46,4	59,5	72,2
3,6	3,5	3,2	3,4
140	300	380	460
3''	3''	3''	3''
3	4	5	6
910	910	910	910
76.000	101.600	127.000	154.000
6,00	8,00	10,00	12,00
23,0	31,0	37,7	45,6
400/3/50	400/3/50	400/3/50	400/3/50
52	53	54	55
1.910	1.910	1.910	1.910
4.170	5.370	6.520	7.770
2.145	2.145	2.145	2.145
1.245	1.570	2.510	2.710
1.407	1.892	3.005	3.935



Front view



Side view



Top view