VEXTRA

Slim design and
acoustic comfort
Saves up to
40% floor space

Free cooling

Water misting

Capacity up to 1 350 kW

USE

Drycoolers in this range are mainly designed for cooling water or glycol/water mix for:
- Condensers for water chillers,
- Free cooling,
- Processes and machines (presses, compressors etc.)
- Replacing water cooling towers etc.

These devices are designed to be installed outdoors.

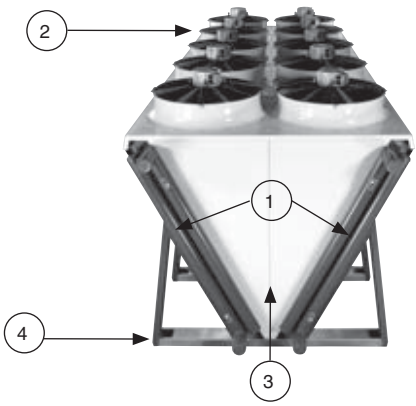
RANGE

- More than 220 models.
- A range of sizes, from 6 to 20 fans.
- 2 impeller diameters, 800 or 910 mm.
- Several rotation speeds, from 330 to 1 000 rpm.

Various combinations of these elements, as well as the choice of a number of options, allow us to provide devices that are adapted to a wide range of applications and environments.

DESCRIPTION

Excellent resistance to corrosion
The casing boasts category C3 protection against corrosion, in line with ISO standard 12944-2.



1
2 Coils
Copper tubes and high-performance aluminium fins, resistant to fouling.
Manifolds and piping: steel painted with graphite grey RAL 7024.

2
Fan motor assemblies
Galvanised steel profiled collars with polyester powder coating on the internal and external faces (light grey RAL 7035 paint) or composite collar (black RAL 9005) for 1270/980 rpm motor.
Aluminium + polypropylene propeller.
Class F motors - IP54 - TRI400V +/-10% 50Hz+/-2% - Standard connection to motor terminal boxes.
Black protective grille compliant with standard BS ISO 12499.
The motors are also available in a 60 Hz version or in other voltages.

3
Casing
Galvanised steel with polyester powder coating on the internal and external faces (light grey RAL 7035 paint).

4
Feet
Galvanised steel with polyester powder coating on the internal and external faces (graphite grey RAL 7024 paint).

Each device is tested:
- The air tightness of the coil is subjected to an underwater airtightness test.
- For devices with the terminal box or electrical cabinet option: rotation tests, dielectric tests, current measurement.

The range complies with the following European directives:
- Machinery Directive 2006/42/EC,
- EMC Directive 2004/108/EC,
- Pressure Equipment Directive (PED) 97/23 EC.

DESIGNATION

VEXTRA 1 16 4 UI 690 A 9

- 9 — Impeller diameter (8 = 800 mm, 9 = 910 mm)
- A — Motor type: A: 3-ph 400 V 50 Hz; B: AC- other supply; E: EC; M: 1st stage with EC motor
- 690 — Rotation speed
- 4 — Number of rows
- 16 — Number of fans

OPTIONS FOR EACH APPLICATION

	Options	Description/Assets
Protection adapted for the environment	Pre-coated aluminium fins	Improves the resistance of the blades to corrosion. For low corrosion environments.
	High-efficiency coating on the finned bundle: ALUCOAT®507 or HERESITE	Improves the resistance of the blades to corrosion. For relatively corrosive environments.
	Stainless steel tubing bundle	For corrosive fluids.
	Corrosiveness resistance category C5M	Casing and fan motor assemblies for corrosive environments.
Quick and simple installation	Terminal box	Connection to the terminals of each motor on the front panel of the device.
	Protection cabinet	Protected by a thermal-magnetic circuit breaker on each motor.
	Control cabinet with AEROCONNECT	Protection for motors and stage regulation provided by an electronic board according to temperature.
	Control cabinet with stages on terminals	Motor protection and stages controlled by customer regulation.
	Flanges	NFE 1092-1 type 01A PN16 steel
	Counter-flanges	In steel, with gaskets and bolts.
	Blade protective screen	Impact protection.
Optimisation of electrical consumption and noise	EC (electrically commutated) motor	Variable speed control from 0 to 100% using a 0/10V signal. With the control cabinet via electronic board option, the device is self-regulating
Application for water without glycol	Drainable coil	Device located on a slope to prevent frost - Drainage by gravity
Free cooling application	Free cooling valve kit	Valves with motor and sensor, controlled by the electronic board. Controlled according to the operation of the drycooler or chiller.
Adiabatic cooling application	AEROFRESH (water misting into the air flow)	Water misting into the ambient air allows the size of the device to be reduced or the cooling tower to be replaced. Operates completely safely due to the antibacterial treatment applied to the water.

ELECTRICAL SPECIFICATIONS

I: maximum input current **P**: maximum power input

The currents and power actually absorbed depend on the operation point and will be indicated in detail when the unit is selected.

		AC MOTORS (A9)								EC MOTOR (E9)	
		Impeller Ø 910 mm								Impeller Ø 910 mm	
	Speed	1270		980		900		690		1000	
	Wiring	Δ		Y		Δ		Y			
		I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)
1060		46.80	27.60	28.80	17.40	31.80	15.90	18.00	11.04	26.40	17.88
1080		62.40	36.80	38.40	23.20	42.40	21.20	24.00	14.72	35.20	23.84
1100		78.00	46.00	48.00	29.00	53.00	26.50	30.00	18.40	44.00	29.80
1120		93.60	55.20	57.60	34.80	63.60	31.80	36.00	22.08	52.80	35.76
1140		109.20	64.40	67.20	40.60	74.20	37.10	42.00	25.76	61.60	41.72
1160		124.80	73.60	76.80	46.40	84.80	42.40	48.00	29.44	70.40	47.68
1180		140.40	82.80	86.40	52.20	95.40	47.70	54.00	33.12	79.20	53.64
1200		156.00	92.00	96.00	58.00	106.00	53.00	60.00	36.80	88.00	59.60

		AC MOTORS (A8)												EC MOTOR (E8)			
		Impeller Ø 800 mm												Impeller Ø 800 mm			
	Speed	900		700		690		560		425		300		510		740	
	Wiring	Δ		Y		Δ		Y		Δ		Y					
		I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)
1060		21.90	11.88	14.40	8.58	12.60	5.37	6.30	3.36	2.52	1.16	2.10	0.45	2.94	1.78	8.40	5.50
1080		29.20	15.84	19.20	11.44	16.80	7.16	8.40	4.48	3.36	1.55	2.80	0.60	3.92	2.38	11.20	7.34
1100		36.50	19.80	24.00	14.30	21.00	8.95	10.50	5.60	4.20	1.94	3.50	0.75	4.90	2.98	14.00	9.18
1120		43.80	23.76	28.80	17.16	25.20	10.74	12.60	6.72	5.04	2.32	4.20	0.90	5.88	3.57	16.80	11.01
1140		51.10	27.72	33.60	20.02	29.40	12.53	14.70	7.840	5.88	2.71	4.90	1.05	6.86	4.17	19.60	12.85
1160		58.40	31.68	38.40	22.88	33.60	14.32	16.80	8.96	6.72	3.10	5.60	1.20	7.84	4.76	22.40	14.68
1180		65.70	35.64	43.20	25.74	37.80	16.11	18.90	10.08	7.56	3.49	6.30	1.35	8.82	5.36	25.20	16.52
1200		73.00	39.60	48.00	28.60	42.00	17.90	21.00	11.20	8.40	3.88	7.00	1.50	9.80	5.96	28.00	18.36

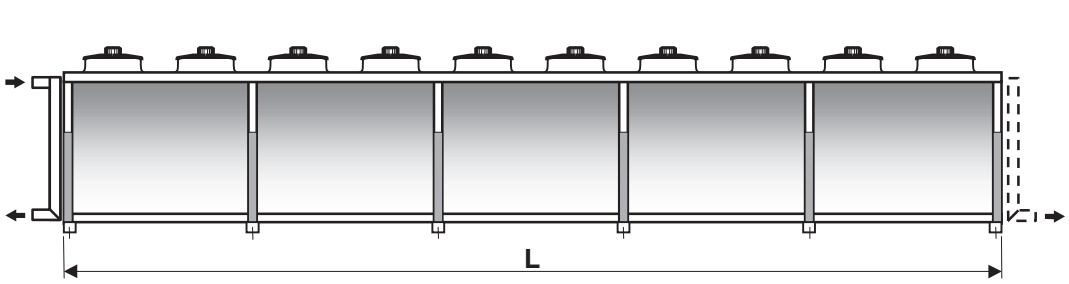
SOUND LEVELS

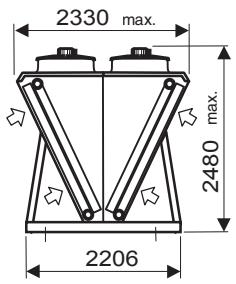
		SOUND PRESSURE LEVEL (Lp) * / SOUND POWER LEVEL (Lw)** - dB(A)									
		AC MOTORS (A9)								EC MOTOR (E9)	
		Impeller Ø 910 mm								Impeller Ø 910 mm	
	Speed	1270		980		900		690		1000	
	Wiring	Δ		Y		Δ		Y			
		Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw
1060		70	102	62	94	63	95	56	88	64	96
1080		71	103	63	95	64	96	57	89	65	97
1100		71	104	63	96	64	97	57	90	65	98
1120		72	105	64	97	65	98	58	91	66	99
1140		73	105	65	97	66	98	59	91	67	99
1160		73	106	65	98	66	99	59	92	67	100
1180		74	107	66	99	67	100	60	93	68	101
1200		74	107	66	99	67	100	60	93	68	101

		NIVEAU DE PRESSION ACOUSTIQUE (Lp)* / NIVEAU DE PUISSANCE ACOUSTIQUE (Lw)** - dB(A)															
		AC MOTORS (A8)												EC MOTOR (E8)			
		Impeller Ø 800 mm												Impeller Ø 800 mm			
	Speed	900		700		690		560		425		300		510		740	
	Wiring	Δ		Y		Δ		Y		Δ		Y					
		Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw	Lp	Lw
1060		57	89	50	82	46	78	41	73	36	68	27	59	42	74	50	82
1080		58	90	51	83	47	79	42	74	37	69	28	60	43	75	51	83
1100		58	91	51	84	47	80	42	75	37	70	28	61	43	76	51	84
1120		59	92	52	85	48	81	43	76	38	71	29	62	44	77	52	85
1140		60	92	53	85	49	81	44	76	39	71	30	62	45	77	53	85
1160		60	93	53	86	49	82	44	77	39	72	30	63	45	78	53	86
1180		61	94	54	87	50	83	45	78	40	73	31	64	46	79	54	87
1200		61	94	54	87	50	83	45	78	40	73	31	64	46	79	54	87

* Values measured at 10 m for horizontal units in free field, directivity 2, in line with the coil. Tolerance ±3dB.
** Only the sound power level is characteristic of the unit. These values are obtained in compliance with the ISO 3744 standard.
The difference between the sound power level and pressure level varies according to the site. To determine the unit's sound pressure level, recalculate it using the sound power level of the unit and the site conditions (you may need to consult an acoustical engineer).
As the sound emitted by the unit is not uniform in all directions, for a point 10 m away in line with the fans, the recalculated pressure value must be increased by approximately 4 dB.

DIMENSIONS





	1060	1080	1100	1120	1140	1160	1180	1200
L (mm)	3550	4700	5850	7000	8150	9300	10450	11660
Max. empty weight without options (kg)	1700	2100	2600	3000	3500	4000	4500	4900

Up to size 1180, these units can be transported by container.

INSTALLATION RECOMMENDATIONS

- These units are designed to operate outside.
  When starting up, frost and snow could adversely impair its operation.
  As a general measure, all steps should be taken to avoid the risk of air recycling. This is especially important when the installation comprises several units.
  It is not recommended to install units near the hot air extraction duct outlet or close to deciduous plants (this could cause clogging).
- Allow a clearance of 1.5 m around the device. Where the use of antivibration mounts is required, use a rigid frame which locks the feet together.
- If speed regulators other than those recommended by the manufacturer are used, check that these are compatible with the electric motors.
- Commissioning and maintenance: refer to the instruction manual.
- These units comply with the European directives. The installer is responsible for ensuring the compliance of the installation. The installer must ensure safety and protective devices (emergency stop, shut-off valves, lightning protection, etc.) are put in place and are accessible.

Head office
Avenue Jean Falconnier - B.P. 14
01350 - Culoz - France
Tel.: +33 (0)4 79 42 42 42
Fax: +33 (0)4 79 42 42 10
info@ciat.fr - www.ciat.com

CIAT Service
Tel. : 08 11 65 98 98 (0,15 € / mn)
Fax : 08 26 10 13 63 (0,15 € / mn)