



Installation Instruction

Transport | Installation | Operation | Maintenance



Product line:	Commercial Air Coolers
Series description:	Low Profile Medium Profile and Dual Discharge Glycol Air Coolers
Series:	CAGL CAGM CAGD

guntner.com/us

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1. Warranty Statement

The supplier warrants the product to be free from defects in workmanship and materials under normal usage for the period outlined below.

The supplier further warrants against defects in workmanship and materials of the product for a period of 24 months from the date of purchase (the "Warranty Period"), provided that the product is correctly installed and operated within the recommended limits of the manufacturer's technical documentation.

The supplier at its option shall repair or replace, free of charge to the purchaser, all components of the product which are or become defective during the Warranty Period as a result of defects in design, workmanship or materials, ordinary wear and tear excluded, provided, however, that:

- The product is applied correctly
- All operating and installation instructions for the product are complied with
- System component and piping design is in accordance with good refrigeration practice
- Nitrogen or an inert gas is introduced into the piping during the brazing of the piping installation

This warranty shall not include ordinary maintenance or cleaning of the product, or defects in the installation of the product. This warranty also does not cover physical damage to the product during transit, after purchase of the product but before installation.

The purchaser must request repair or replacement of the defective component through a written notice to the supplier, and must provide the purchaser with the time and opportunity to make such repair or replacement. Otherwise, the supplier will be freed from liability for the defect.

Any transport and exchange costs for the repair or replacement shall be borne by the purchaser. The supplier shall also not be liable for costs incurred in dismantling or fitting replacement parts or for any independent inspection undertaken by the purchaser.

The purchaser shall return any allegedly defective goods, postage or freight paid, to the supplier at the address below. Upon receipt of the goods and inspection thereof the supplier shall repair or replace, at the supplier's discretion, the defective components and shall return the same to the purchaser, return postage and freight paid. This shall constitute full compliance of the supplier's warranty obligations hereunder.

The seller accepts no liability for the direct or indirect consequences of any modifications of or repairs to the product made out by the purchaser or by a third party without the prior consent of the supplier.

This warranty applies only to the repair or replacement of components of the product and expressly excludes responsibility for damage and consequential damages not occurring to the product itself.

This warranty is the purchaser's exclusive remedy. The supplier expressly acknowledges that it shall not be liable to the purchaser or any client of the purchaser for any direct or indirect damages, injury to persons or property or any consequential damage or loss of profits arising from defective goods or workmanship or from any other cause whatsoever.

To obtain warranty service or to ask any questions regarding the foregoing, please contact our office:

Güntner US LLC
3601 Algonquin Road Suite 925
Rolling Meadows, Illinois 60008
847- 781-0900 Tel
847-781-0901 Fax
dq-us-service@guentner.com or sales.us@Guntner.com
Online support: <https://www.guntner-solutions.us/contact>

2. General safety information

WARNING

All installation and maintenance procedures should be performed by qualified personnel already familiarized with the equipment.

WARNING

All field wiring should match the requirements of the equipment, as well as any local or national codes.

WARNING

Coil edges and other sharp objects should be handled with caution, as they can cause serious injury. Fan blades are especially sharp, and therefore should be handled only while wearing protective gloves.

WARNING

All power sources should be disconnected before any type of service work is performed on the equipment. For cleaning the equipment, reinstall the drain pan after every cleaning session. Failure to follow these steps can result in damaged equipment or personal injury.

WARNING

Never use the refrigeration compressor to evacuate the equipment. Never start the refrigeration compressor if it is in a vacuum.

NOTICE

Fan motors are sealed and do not need lubrication.

3. Inspection

Each shipment should be carefully checked against the bill of lading at time of receipt. The shipping receipt should not be signed until all items listed on the bill of lading have been accounted for.

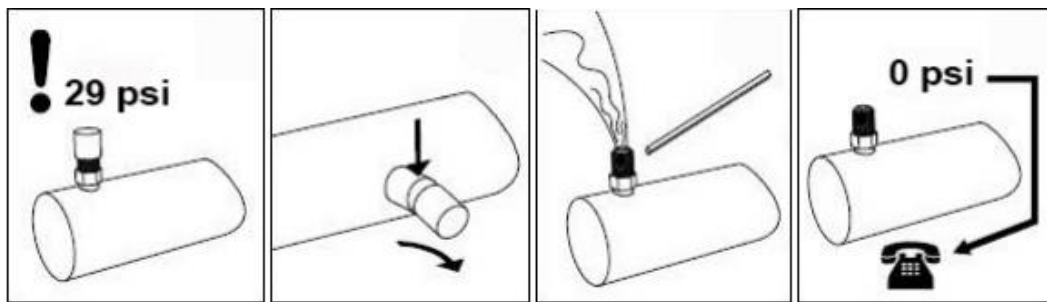
Check carefully for any damage.

Any and all shortages or damages should be reported to the delivery carrier.

Damaged equipment during shipment becomes the delivery agent's responsibility and should not be returned unless prior approval has been given.

The equipment is pressurized with 29 psi (2 Bar) dry air during manufacturing. If the unit lost pressure during transportation, contact the Sales Department (sales.us@Guntner.com).

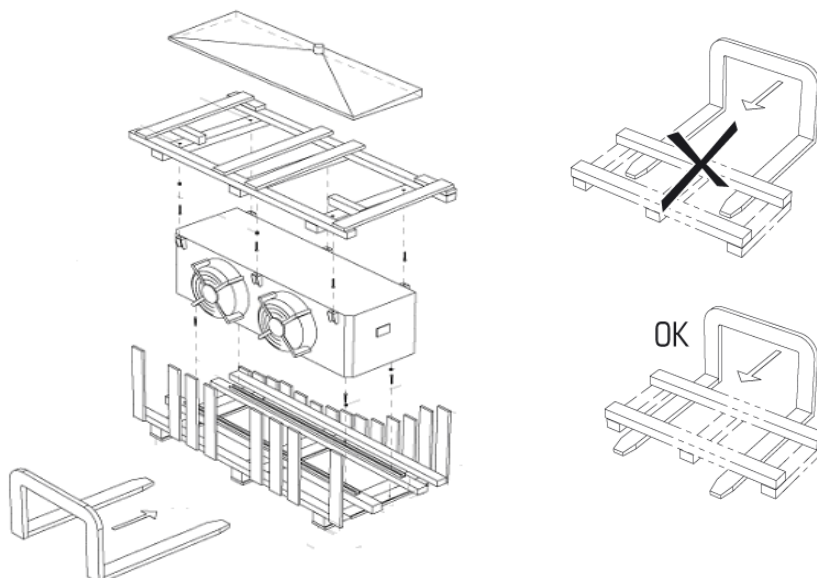
For special requirements please contact our factory.



4. Unloading

Normal care should be taken while unpacking and uncrating equipment so that damage and injury can be prevented. Heavy equipment should be kept on the original pallet until ready for final installation.

While using lifting belts, ensure that a spreader bar is used, and that the belts do not compress the sheet metal construction. When using a truck lift, ensure that the unit is positioned as shown in the picture below.



5. Mounting

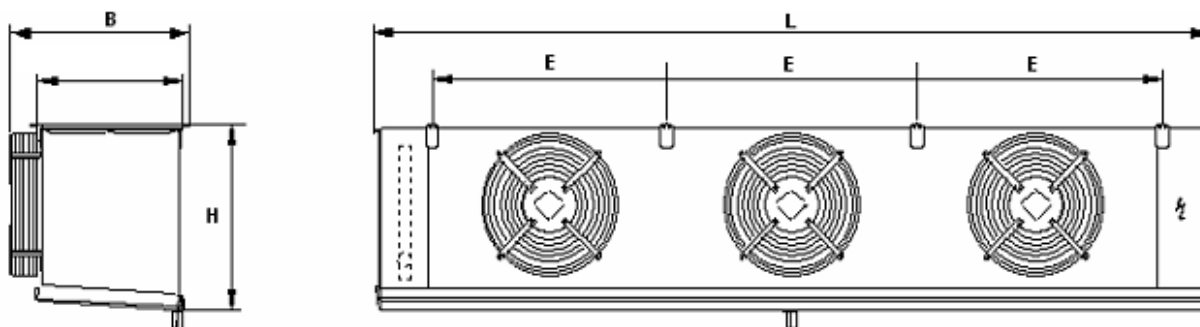
The equipment can be mounted using rod hangers, lag screws and/or bolts.

Units should be hung with no degree of inclination so that the condensate drainage can be properly maintained.

Proper airflow through the unit is essential for efficient performance and maintenance of design storage temperatures.

Never install an evaporator over a doorway. The drain pan should be fitted to the unit only after the installation of the equipment.

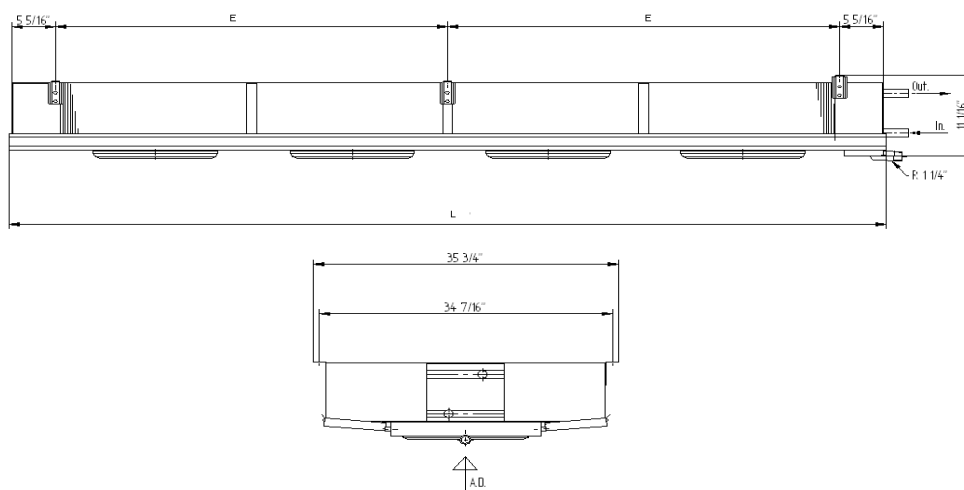
DIMENSIONS CAGL - CAGM



CAGL (Low Profile) Dimensions																	
Model	Dimensions								Weight		Passes	Connections					
	L		H		B		E					Inlet		Outlet		Drain	
	No	in	mm	in	mm	in	mm	in	mm	lbs		kg	in	mm	in	mm	in
CAGL											STANDARD (4 FPI)						
0480...	30 3/8	773	15 1/4	387	18 1/2	470	18 7/8	480	57.30	26	20	6/8	19.05	6/8	19.05	1 1/4	42.20
											14	7/8	22.225	7/8	22.225	1 1/4	42.20
											8	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
0790...	49 3/8	1253	15 1/4	387	18 1/2	470	37 3/4	960	90.36	41	14	7/8	22.225	7/8	22.225	1 1/4	42.20
											18	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											6	1 3/8	34.925	1 3/8	34.925	1 1/4	42.20
0970...	68 1/4	1733	15 1/4	387	18 1/2	470	56 3/4	1440	119.02	54	14	7/8	22.225	7/8	22.225	1 1/4	42.20
											10	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											6	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
1150...	87 1/8	2213	15 1/4	387	18 1/2	470	37 3/4	960	149.87	68	14	7/8	22.225	7/8	22.225	1 1/4	42.20
											10	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											6	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
1300...	106	2693	15 1/4	387	18 1/2	470	37 3/4	960	180.73	82	10	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											6	1 3/8	34.925	1 3/8	34.925	1 1/4	42.20
											4	1 5/8	41.275	1 5/8	41.275	1 1/4	42.20

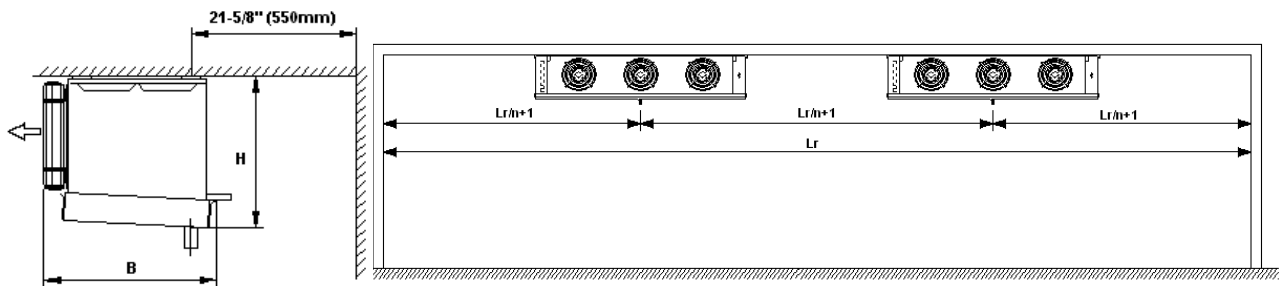
CAGM (Medium Profile) Dimensions																	
Model	Dimensions								Weight		Passe s	Connections					
	L		H		B		E					Liquid		Suction		Drain	
No	in	mm	in	mm	in	mm	in	mm	lbs	kg		in	mm	in	mm	in	mm
CAGM											STANDARD (6 FPI)						
0930...	41 1/8	1046	25 2/4	648	20 1/2	522	26 3/4	680	88.16	40	24	6/8	22.225	6/8	22.225	1 1/4	42.20
											18	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											12	1 3/8	34.925	1 3/8	34.925	1 1/4	42.20
1340...	68	1726	25 2/4	648	20 1/2	522	53 1/2	1360	154.28	70	18	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											14	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											6	2 1/8	53.975	2 1/8	53.975	1 1/4	42.20
1600...	94 3/4	2406	25 2/4	648	20 1/2	522	80 1/4	2040	213.79	97	18	1 1/8	28.575	1 1/8	28.575	1 1/4	42.20
											12	1 3/8	34.925	1 3/8	34.925	1 1/4	42.20
											6	2 1/8	53.975	2 1/8	53.975	1 1/4	42.20
1800...	121 2/4	3086	25 2/4	648	20 1/2	522	53 1/2	1360	288.72	131	12	1 3/8	34.925	1 3/8	34.925	1 1/4	42.20
											6	2 1/8	53.975	2 1/8	53.975	1 1/4	42.20
											4	2 1/8	53.975	2 1/8	53.975	1 1/4	42.20

DIMENSIONS CAGD

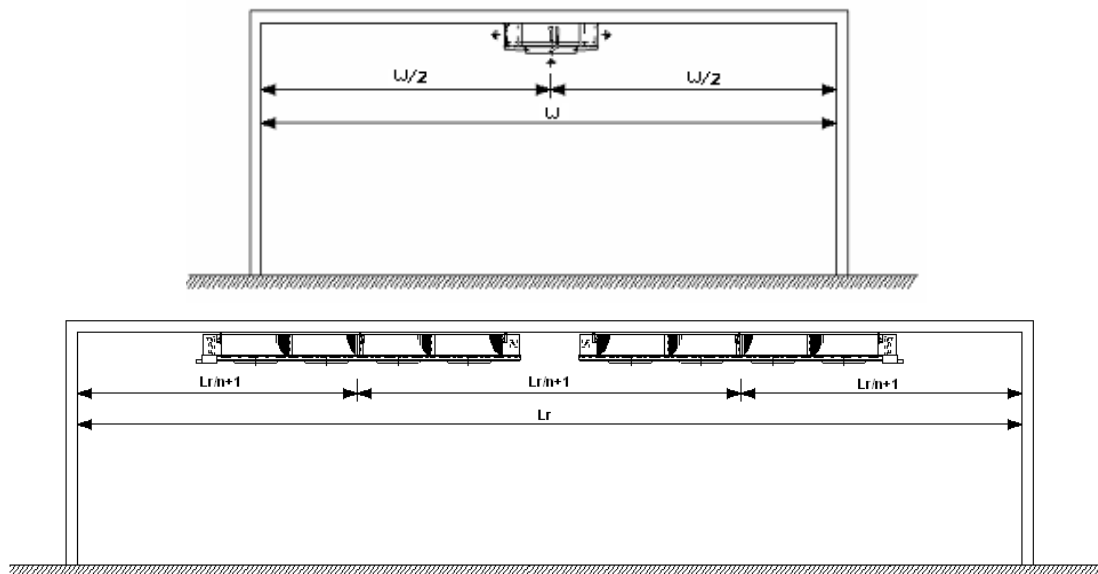


CAGD (Doble Discharge) Dimensions																	
Model	Dimensions								Weight		Passes	Connections					
	L		H		B		E					Liquid		Suction		Drain	
	No	in	mm	in	mm	in	mm	in	mm	lbs		kg	in	mm	in	mm	in
CAGD										STANDARD (6FPI)							
0580...	36 1/8	916	10 5/8	270	34 2/5	874	26	660	77.14	35	12	0.75	28.575	0.75	28.575	1	33.4
											8	1.13	28.575	1.13	28.575	1	33.4
											6	1.38	34.925	1.38	34.925	1	33.4
0940...	59 5/8	1516	10 5/8	270	34 2/5	874	49 5/8	1260	147.67	67	12	1.13	28.575	1.13	28.575	1	33.4
											8	1.13	28.575	1.13	28.575	1	33.4
											6	1.38	34.925	1.38	34.925	1	33.4
1200...	83 2/8	2116	10 5/8	270	34 2/5	874	73 2/8	1860	200.56	91	12	1.13	28.575	1.13	28.575	1	33.4
											6	1.38	34.925	1.38	34.925	1	33.4
											4	1.63	41.275	1.63	41.275	1	33.4
1320...	106 7/8	2716	10 5/8	270	34 2/5	874	48 3/8	1230	286.52	130	8	1.13	28.575	1.13	28.575	1	33.4
											6	1.38	34.925	1.38	34.925	1	33.4
											4	1.63	41.275	1.63	41.275	1	33.4

CAGL - CAGM Mounting reference



CAGD Mounting reference



n = Number of units to install

L_r = Length of room

W = Width of room

NOTES

Do not place the cooler directly over or next to a door.

Do not place produce directly in front of the cooler.

Do not place coolers in front of each other at a distance less than their air throw indicated in the technical specification sheet.

In the case of electric defrost units, make sure to leave a free space of at least the length of the unit on the electric connection side to remove the heaters in case of failure.

The minimum distance between units must be 6" for hot gas and air defrost units.

If you have reduced space or special room construction, please contact your local sales office to receive the correct advice on unit mounting.

6.Refrigerant piping

Type, sizing and installation of all piping must be in accordance with the recommended and accepted practices for refrigeration applications.

7.Drain line

The drain line must be pitched to effectively drain condensate. All drain lines subject to freezing temperatures must have drain line heaters and be insulated. Drain line traps must also be heated to prevent freezing up of the drain line and trap.

8.Wiring

All wiring must be done in strict accordance with local and national electrical codes. Fan motor(s), local isolators, electrical heater elements and controllers must be wired in accordance with the electrical wiring diagrams provided. Use copper conductors of appropriate size only. All electrical installations should only be performed by qualified and authorized personnel

WARNING

For thermal motor protection, the installed thermal contacts must be used and wired according to the circuit diagram attached to the unit.

9. Installation

The installation and maintenance of this equipment should be performed only by qualified professional personnel who are familiar with this type of equipment. The equipment is pressurized with dry air. All equipment must be evacuated before charging the system with refrigerant. All field wiring should be checked and be in strict conformity with the equipment requirements, as well as all national and local codes. Use the name plate electrical data for conductor and fuse sizing. Avoid contact with any sharp edges or sharp coil surfaces. These can be a potential injury hazard. Make sure that all power sources are disconnected before any service work is done on equipment.

WARNING

Before starting up unit make sure all accessible electrical parts are secured!

10.Start-up

At start-up the following items should be checked:

- Check all screwed connections, specially at parts with movement.
- Check tube connections, make sure that brackets are in place and connection screws are secured.
- Check electrical connections of motors, heater elements and any additional components, if applicable.
- Run the fans and check the direction of rotation. Make sure that there is no transport damage.
- The system should be properly evacuated.
- During the test run observe the equipment and take notice of the following:
 - Silent operation of the fans (bearings, contacts, balance)
 - Power requirements of electrical motors
 - Leakages
 - Check superheat
- After 48 hours of operation re-check the equipment, especially all rotating parts.

11.Maintenance and service

Preventive maintenance for commercial air coolers	As Required	Monthly	Every 3 months	Every 6 months	Every year
CLEAN using a brush, pressurized water, or a mild detergent. Make sure the product you use is approved for your particular application. NEVER USE ACID BASED CLEANER.	X				
RINSE coil until no residue remains	X				
CHECK each fan rotates freely and quietly. Replace any motor that vibrates or makes unusual noise		X			
INSPECT unit for unusual vibration in ventilators or casing. Determine which ventilator is causing vibration		X			
INSPECT Drain pan to ensure that drain is clear of any obstructions, including ice buildup			X		
INSPECT for ice accumulation in coil			X		
CHECK all blades for wear, cracks or dents.			X		
CHECK calibration of defrost controller				X	
CHECK that heaters are working accordingly during defrost				X	
CHECK heater current consumption against the electrical schematic				X	
CHECK drain line heater is working properly				X	
CHECK all fan screws are tight, and torque if needed				X	
INSPECT unit for corrosion on fins, tray, casing, soldered joints, copper tubes					X
INSPECT unit for oil stains in headers, return bends and coil fins. Check for possible leaks					X
INSPECT all wiring for wear, tears, and unprotected wire. Replace any wiring necessary					X
INSPECT all ground connections are tight					X

11.1 Fan motors and heaters

The only electrical components vulnerable to potential malfunction are the fan, motors, and electrical defrost heaters. In the event of motor or heater failure, the affected motor should be removed from the unit and tested separately. If the motor and/or heaters continue to malfunction, then they will need to be replaced.

11.2 Drain pan

Periodic inspection of the drain pan is recommended. Accumulated dirt and dust should be cleaned out with soap and warm water. If a sign of improper drainage is apparent then the drain line pitch, drain line heater (if applicable) and drain trap should be checked for proper operation.

Unit can be cleaned using warm water and soap. Special care should be taken when cleaning the unit around the electrical areas including motor, wiring and junction boxes. Water could potentially damage the electrical motor.

11.3 Inspection and maintenance

Verify the following points when visually inspecting the equipment:

- Secured screw connections
- Leakages
- Silent operation of the fans
- General state of the unit such as cleanliness and corrosion

The cleaning of the finned heat exchanger is of the utmost importance to ensure smooth operation and long life of the equipment.

- There is no general rule how often it should be cleaned. Frequency and method of cleaning depend on the customer and must be determined by the customer's operating personnel. If need be, ice must be defrosted with a hot air drier or hot water.

- The equipment is always supplied in a clean condition. If, during installation and/or first operation hours, contamination reaches a state where capacity can be affected, it is necessary that the unit is cleaned before operation. When cleaning the unit, **it must be out of operation and all electrical power disconnected.**

Mechanical Cleaning of the Heat Exchanger

- Blow down the fins with air (only suitable for light, dry and dusty deposits).
- Cleaning with compressed air (maximum pressure 6 bar, minimum distance from fins – 8 inches).
- If some contamination is located mainly at the inlet of the fins, clean with a soft brush or use an industrial vacuum cleaner.

Hydraulic Cleaning of the Heat Exchanger

- For oil containing deposits it is acceptable to add detergent to the water. Make sure not to deform the fins.
- When using chemical substances make sure they do not attack the heat exchanger material and casing. Rinse the heat exchanger and casing after treatment.
- When cleaning with liquid or compressed air the fans must be switched off. Do not spray them directly.
- Clean the coil from top to bottom in order to allow the contamination to drain downwards. Cleaning must be continued until all contamination has been removed.
- **Always clean/spray in the direction of the fins. Never clean at 90° to the fins!**
- Maximum allowed vapor pressure 6 bar. Maximum allowed water pressure before the outlet 80 to 100 bar.

12. Electrical data

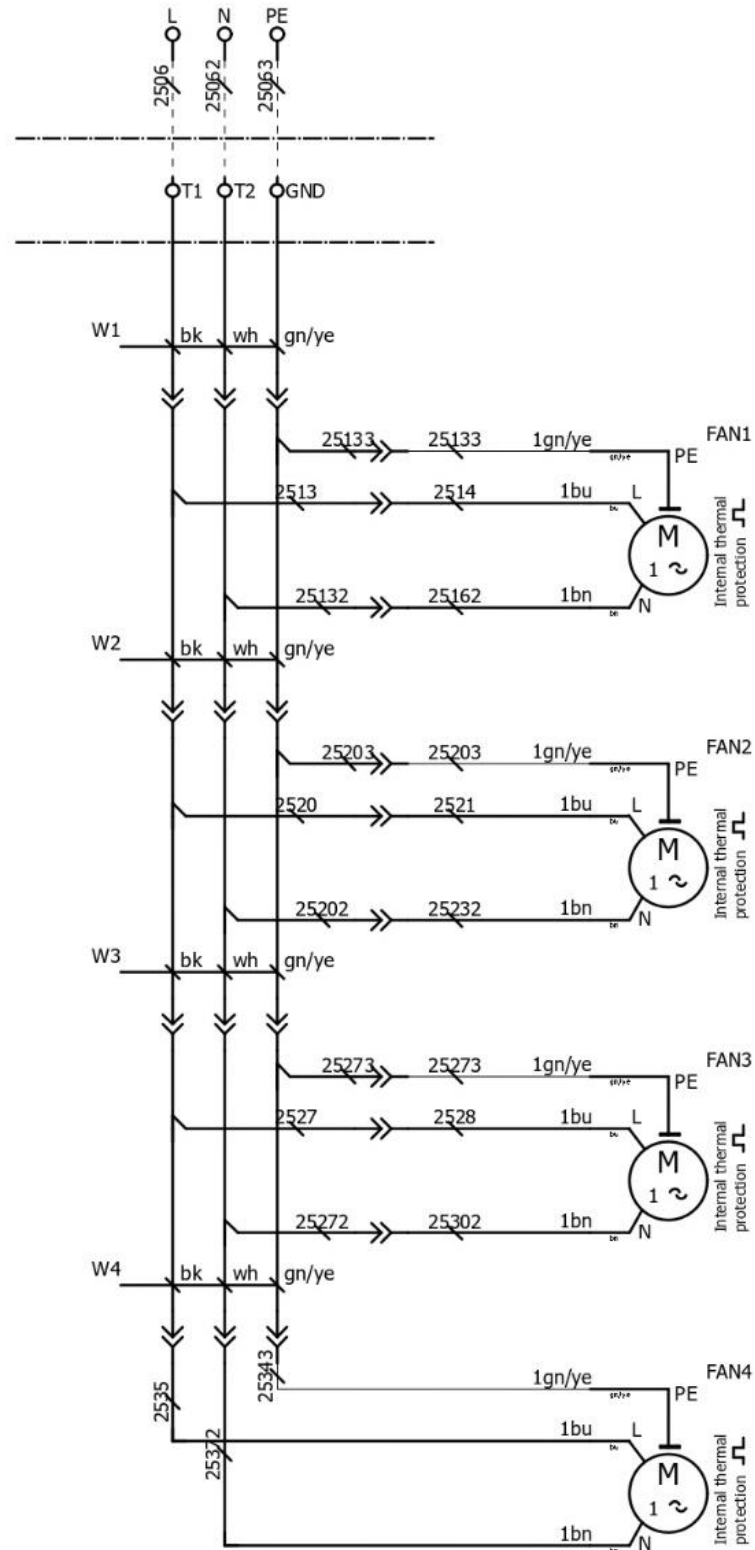
CAGL (Air Defrost) Electrical Data															
Model	Fan Data			Fan motor Data				Fan motor Data				Fan motor Data			
	Fan #	Diameter		Voltage "A" 115/1/60				Voltage "X" 230/1/60				Voltage "W" 230/1/50			
		in	mm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm
CAGL	4 FPI														
0480...	1	11 3/4	300	100	0.85	0.85	1630	100	0.38	0.38	1600	70	0.34	0.34	1400
0790...	2	11 3/4	300	100	0.85	1.7	1630	100	0.38	0.76	1600	70	0.34	0.68	1400
0970...	3	11 3/4	300	100	0.85	2.55	1630	100	0.38	1.14	1600	70	0.34	1.02	1400
1150...	4	11 3/4	300	100	0.85	3.4	1630	100	0.38	1.52	1600	70	0.34	1.36	1400
1300...	5	11 3/4	300	100	0.85	4.25	1630	100	0.38	1.9	1600	70	0.34	1.7	1400

CAGM (Air Defrost) Electrical Data															
Model	Fan Data			Fan motor Data				Fan motor Data				Fan motor Data			
	Fan #	Diameter		Voltage "V" 230/3/60				Voltage "X" 230/1/60				Voltage "W" 230/1/50			
		in	mm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm
CAGM	4 FPI														
0930...	1	15 3/4	400	220	0.63	0.63	1560	260	1.14	1.14	1260	190	0.83	0.83	1310
1340...	2	15 3/4	400	220	0.63	1.26	1560	260	1.14	2.28	1260	190	0.83	1.66	1311
1600...	3	15 3/4	400	220	0.63	1.89	1560	260	1.14	3.42	1260	190	0.83	2.49	1312
1800...	4	15 3/4	400	220	0.63	2.52	1560	260	1.14	4.56	1260	190	0.83	3.32	1313

CAGM (Air Defrost) Electrical Data															
Model	Fan Data			Fan motor Data				Fan motor Data				Fan motor Data			
	Fan #	Diameter		Voltage "L" 460/3/60				Voltage "J" 400/3/60				Voltage "S" 400/3/60			
		in	mm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm
CAGM	4 FPI														
0930...	1	15 3/4	400	230	0.85	0.85	1520	210	0.36	0.36	1430	140	0.27	0.27	1340
1340...	2	15 3/4	400	230	0.85	1.7	1520	210	0.36	0.72	1430	140	0.27	0.54	1341
1600...	3	15 3/4	400	230	0.85	2.55	1520	210	0.36	1.08	1430	140	0.27	0.81	1342
1800...	4	15 3/4	400	230	0.85	3.4	1520	210	0.36	1.44	1430	140	0.27	1.08	1343

CAGD (Air Defrost) Electrical Data															
Model	Fan Data			Fan motor Data				Fan motor Data				Fan motor Data			
	Fan #	Diameter		Voltage "A" 115/1/60				Voltage "X" 230/1/60				Voltage "W" 230/1/50			
		in	mm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm	Watts	Amps	Total Amps	rpm
CAGD	4 FPI														
0580...	1	13 3/4	350	100	0.85	0.85	1050	80	0.36	0.36	1050	60	0.27	0.27	900
0940...	2	13 3/4	350	100	0.85	1.7	1050	80	0.36	0.72	1050	60	0.27	0.54	900
1200...	3	13 3/4	350	100	0.85	2.55	1050	80	0.36	1.08	1050	60	0.27	0.81	900
1320...	4	13 3/4	350	100	0.85	3.4	1050	80	0.36	1.44	1050	60	0.27	1.08	900

Typical wiring diagram for single phase supply and air defrost.



Use copper conductor of the appropriate size only.

13. Spare parts

CAGL Model	Fan		Main J/Box		Drain
	VT.Num.				
	115V-1Ph-60Hz	230V-1Ph-50/60Hz	115V-1Ph-60Hz	230V-1Ph-56/60Hz	
0480...	VT0397U	VT0396U	4512	4512	BGAB034
0790...	VT0397U	VT0396U	4512	4512	BGAB034
0970...	VT0397U	VT0396U	4512	4512	BGAB034
1150...	VT0397U	VT0396U	4512	4512	BGAB034
1300	VT0397U	VT0396U	4512	4512	BGAB034

CAGM Model	Fan			Main J/Box		Drain
	VT.Num.					
	115V-1Ph-60Hz	230V-3Ph-60Hz	400/460V-3Ph-50/60Hz	230V-1Ph-56/60Hz	230/400/460V-3Ph-50/60Hz	
0930...	VT0339U	VT0395U	VT0357U	4512	4607	BGAB114K
1340...	VT0339U	VT0395U	VT0357U	4512	4607	BGAB114K
1600...	VT0339U	VT0395U	VT0357U	4512	4607	BGAB114K
1800...	VT0339U	VT0395U	VT0357U	4512	4607	BGAB114K

CAGD Model	Fan		Main J/Box	Drain
	VT.Num.			
	115V-1Ph-60Hz	230V-1Ph-50/60Hz		
0580...	VT0344U	VT037U	4511	AZ151.5NG
0940...	VT0344U	VT037U	4511	AZ151.5NG
1200...	VT0344U	VT037U	4512	AZ151.5NG
1320...	VT0344U	VT037U	4512	AZ151.5NG

Optional parts

Low Profile			
CAGL Model	Heater coil		Heater tray
	Heater Number		Heater Number
	Designation X, W		Designation X, W
0480...	U07EC06900350230		U07EC06900350230
0790...	U07EC11700620230		U07EC11700450230
0970...	U07EC16400680230		U07EC16400680230
1150...	U07EC21301200230		U07EC21300900230
1300...	U07EC26001400230		U07EC26001100230

Medium Profile						
CAGM Model	Heater coil			Heater tray		
	Heater Number			Heater Number		
	Designation X, W, V	Designation L	Designation S, J	Designation X, W, V	Designation L	Designation S, J
0930...	U07EC09600550230	U07EC09600550460	U07EC09600550400	U07EC09600650230	U07EC09600650460	U07EC09600650400
1340...	U07EC16401100230	U07EC16401100460	U07EC16401100400	U07EC16401100230	U07EC16401100460	U07EC16401100400
1600...	U07EC23201600230	U07EC23201600460	U07EC23201600400	U07EC23201600230	U07EC23201600460	U07EC23201600400
1800...	U07EC30002100230	U07EC30002100460	U07EC30002100400	U07EC30002100230	U07EC30002100460	U07EC30002100400

Dual Discharge	
CAGD Model	Heater tray
	Heater Number
	Designation X, W
0580...	U12EE07000700230
0940...	U12EE13001300230
1200...	U12EE19001300230
1320...	U12EE25001500230

14. Troubleshooting

Troubleshooting for Air Cooler Units		
Symptoms	Possible Causes	Possible Corrective steps
1. Fan is not working	1.1 Main switch Open	1.1.1 Close Switch
	1.2 Blown Fuses	1.2.1 Check for short circuits or overloads. Replace damaged fuse
	1.3 Damaged timer or defrost thermostat	1.3.1 Replace controller
	1.4 Unit in defrost cycle	1.4.1 Wait until cycle completion
	1.5 Coil does not get cold enough to reset thermostat	1.5.1 Increase fan delay time after defrost cycle
	1.6 Motor is burnt	1.6.1 Check for Voltage surge and replace motor
	1.7 Ventilator does not turn	1.7.1 Check for any obstruction (ice, debris, etc..) and remove 1.7.2 Check junction box in fan for any short circuit and repair
2. Room Temperature too High	2.1 Room thermostat set too high	2.1.1 Reduce thermostat setting
	2.2 Low refrigerant in system	2.2.1 Check for leaks and charge additional refrigerant in system
	2.3 Coil blocked with Ice	2.3.1 Make manual defrost in coil. Check defrost system.
	2.4 Unit cooler too close to doors	2.4.1 Relocate unit or add strip/air curtain to door
	2.5 Excessive Air infiltration due to open doors	2.5.1 Check for door seals and replace if necessary 2.5.2 Keep doors closed as long as possible
	2.6 Product has just been loaded into cold room	2.6.1 Wait until product temperature is lower
	2.7 System is turned off	2.7.1 Turn on refrigeration system
	2.8 Power surge in system fails	2.8.1 Restore power surge
	2.9 Poor air flow in room	2.9.1 Make sure all fans turn in correct direction 2.9.2 See Possible cause 1.7 2.9.3 See Symptom 4. 2.9.4 Check unit placement recommendations
3. Ice build-up on ceiling around unit and/or on fan nozzles, blades, or grill	3.1 Defrost cycle is too long	3.1.1 Decrease time on defrost
	3.2 Fan delay not working after defrost cycle.	3.2.1 Adjust defrost thermostat correctly, or go to 3.3
	3.3 Defective defrost thermostat or timer	3.3.1 Replace component
	3.4 Too many defrosts	3.4.1 Reduce number of defrosts per day
4. Coil not clearing frost after defrost cycle	4.1 Heater not working	4.1.1 Make sure all heaters are working.
	4.3 Not enough defrost cycles per day	4.3.1 Increase the number of defrost cycles per day
	4.4 Defrost cycle too short	4.4.1 Increase time on defrost thermostat or timer for longer cycle
	4.5 Defrost Thermostat or timer not working	4.5.1 Replace component

Symptoms	Possible Causes	Possible Corrective steps
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3. Ice build-up on ceiling around unit and/or on fan nozzles, blades, or grill	3.1 Defrost cycle is too long	3.1.1 Decrease time on defrost
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	3.3 Defective defrost thermostat or timer	3.3.1 Replace component
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	4.4 Defrost cycle too short	4.4.1 Increase time on defrost thermostat or timer for longer cycle
	4.5 Defrost Thermostat or timer not working	4.5.1 Replace component

Symptoms	Possible Causes	Possible Corrective steps
5. Uneven coil frosting during refrigeration cycle	5.1 Circuits do not have flow	5.1.1 Refrigerant might be frozen, check mix concentration
	5.2 After defrost, dripping time too short	5.2.1 Increase time for dripping
	5.3 Located too close to door opening	5.3.1 Relocate unit
6. Ice accumulation on drain pan	6.1 Drain line heater not working	6.1.1 Check heater power supply 6.1.2 Change drain line heater
	6.2 Tray heater not working	6.2.1 Check heater power supply 6.2.2 Change tray heater
	6.3 Unit tilted improperly	6.3.1 Level unit to horizontal position
	6.4 Drain line plugged	6.4.1 Clean drain line 6.4.2 Insulate drain line properly (if blocked with ice)
	6.5 Thermostat not working	6.5.1 Replace defective component
	6.6 Drain line without water tramp	6.6.1 Install water tramp in drain line outside cold room
7. Water accumulation on drain pan or water spreading outside unit	7.1 Drain line plugged	7.1.1 Clean drain line
	7.2 Drain pan not placed properly in unit after maintenance	7.2.1 Make sure drain pan is leveled towards the back
	7.3 Unit tilted improperly	7.3.1 Level unit to horizontal position
8. Refrigerant leaking	8.1 Leak in the unit	8.1.1 Frozen refrigerant expansion might have caused a leak in the unit



16. Reference data

Service Record CAGL / CAGM / CAGD

Güntner

A data sheet for each installation and each unit cooler must be filed out, with one copy for the owner, another of the installing contractor and the original for Güntner.

If another firm is to handle service and maintenance, additional copies should be prepared as necessary.

System Reference Data

The following information should be filled out and signed by the Refrigeration Installation Contractor

Date System Installed: _____

Installer and Address: _____

Air Cooler(s)

Air Cooler Model No. _____

Air Cooler Serial No. _____

Electrical _____ Volts _____ Phase _____

Ambient at Start-Up _____ °F

Design Box Temperature _____ °F

Operating Box Temperature _____ °F

Thermostat Setting _____ °F

Defrost Setting _____ /day _____ minutes fail-safe _____ /day _____ minutes fail-safe