

Airway: Complete Climate Control.



Hatchery excellence.
Made easy.

Jamesway 

Our Promise

Why Choose Us?

All our solutions are designed to manage all your Hatchery Ventilation Service needs within the hatchery, from one control.

Each system is designed with **quality** and **efficiency** in mind, while being **easy to install, operate** and **maintain**.

- **Ventilation is the fuel for your incubators. No matter the hatchery size or type of bird, accurate temperature, humidity and pressure control ensures the success of your hatch.**
- **For ideal incubating conditions in any climate, delivering 100% fresh air for increased biosecurity.**
- **All our systems are VFD controlled for energy efficiency.**
 - Heat recovery from your embryos
 - Full redundancy for peace of mind
 - Reliable, with easy to find replacement parts




Jamesway
Airway

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CC3: Plug and Play Solution

Climate Control System

**CC3:
A robust
and reliable
system that
pays for itself.**

The CC3 is a packaged ventilation system designed to provide the ideal incubation conditions to ensure chick quality and maximize hatchability. This complete climate control system with built-in redundancy is designed to provide individual room ventilation and

pressure control while administering water from its integrated chilled/hot water system. These essential functions and its innovative design make the CC3 the most sought after hatchery ventilation system in the world.

Savings from Day One

The CC3 arrives factory-tested and ready for installation, requiring minimal use of contractors and startup time. With outside ground level installation in one central location, it will save valuable building space and reduce future maintenance costs.



Reduce your Energy Costs

Each CC3 comes equipped with dehumidification and an energy efficient **Heat Recovery System** that when combined with the reduced load on the chiller means substantial reductions in electrical consumption.

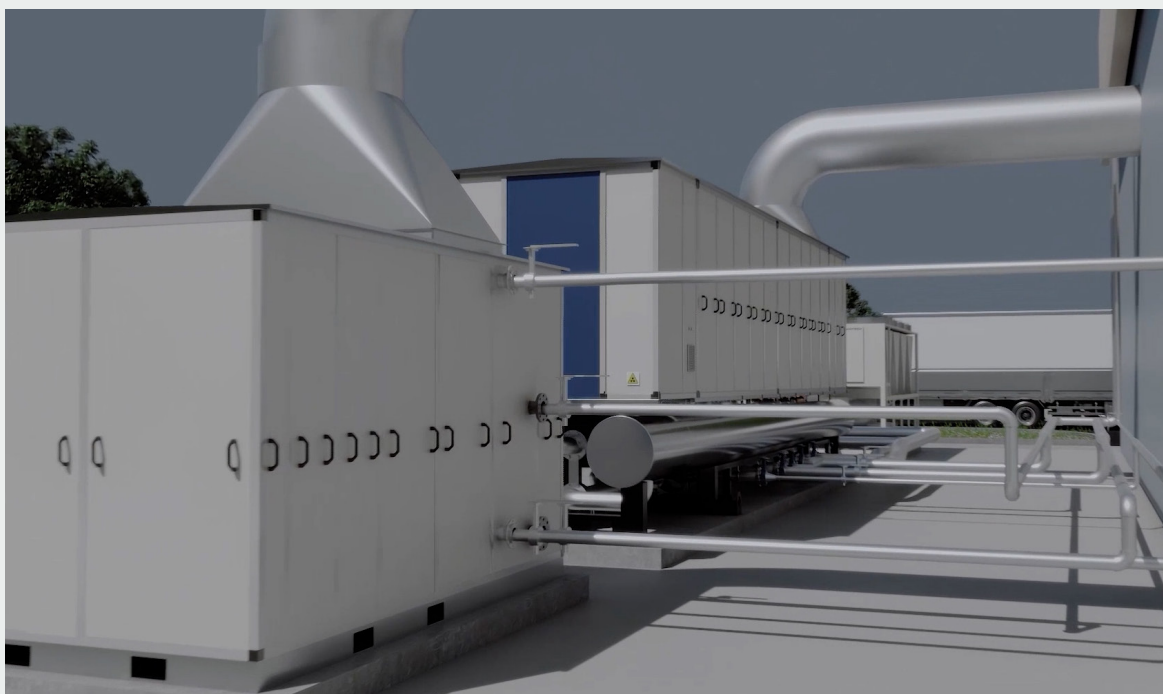
All motors are **VFD Controlled**, increasing energy efficiency and tailoring air or water supply.

Optional **Dry Air Cooling Module** offers additional energy savings by reducing water chiller demand.

Range of Capacities

Model	Weekly Egg Set
C05	380,000
C07	500,000
C10	760,000
C14	1,000,000

A Modular unit can be attached to the CC3 to increase capacity. All units require an external water chiller.

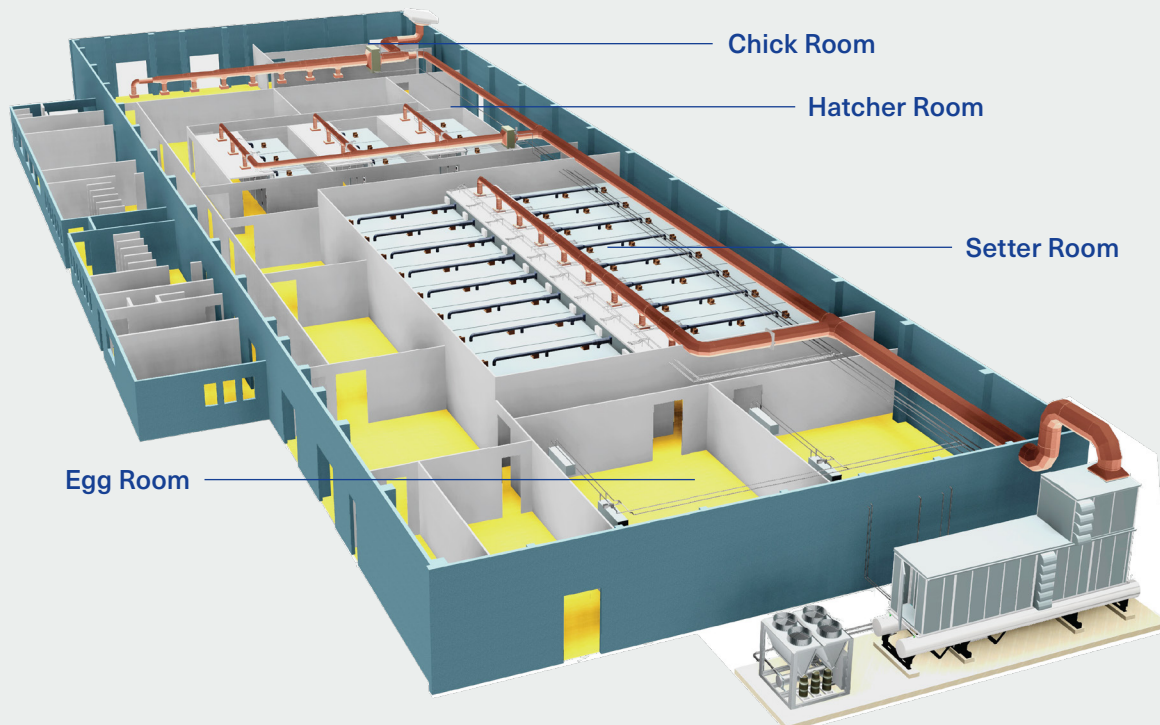


CC3: Plug and Play Solution

The Powerful PLC Control

Specifically designed for hatchery ventilation, the dynamic PLC control system oversees and manages all the room conditions by automatically adjusting the amount of heat, humidity, air pressure and water flow accordingly to increase the efficiency.

The integrated control is able to communicate with either the Hatchcom or Maestro control system, and will manage all functions to optimize the operation of the CC3 and maximize hatchery performance.



CC3: Specifications

CC3 Systems

		C05		C07		C10		C14	
THERMAL SYSTEM		HE	DE	HE	DE	HE	DE	HE	DE
Setter/hatcher/egg store application	Eggs/wk	380,000		507,000		761,000		1,015,000	
Nominal (HR/cooling coil) supply fan airflow	m3/s	2.6		3.4		5.1		6.8	
Maximum supply fan airflow	m3/s	N/A		4.42		6.63		8.84	
External resistance	Pa	500		500		500		500	
Nominal supply fan	kW	4		11		15		22	
Dry air cooling supply fan	kW	N/A		3		7.5		7.5	
HR coil capacity	kW	90		120		180		240	
Cooling coil	kW	74	190	99	267	149	403	198	538
Max. chiller capacity (incl. egg & chick room)	kW	220	347	500	520	730	1000	1000	1386
Maximum boiler requirement	kW	90	N/A	200	34	301	51	401	68
ELECTRICAL DATA/REQUIREMENTS									
Basic CC3 unit	kW	23	22	38	30	47	42	64	68
Basic CC3 unit + Dry air cooling module	kW	N/A	N/A	41	33	54	50	72	75
Maximum current loading @ 3 ph 50Hz 380V	A	41	39	66	53	86	80	115	120
Maximum current loading @ 3 ph 60Hz 220V	A	71	68	113	91	149	138	198	207
HYDRONIC PUMP SYSTEMS									
Incubator/ventilation pumps @ 350kPa	L/s (kW)	10 (11)	14 (11)	20 (11)	20 (11)	20 (11)	30 (15)	30 (15)	55 (30)
Hot water circulation pumps @ 350kPa	L/s (kW)	1 (1)	N/A	2.9 (4)	0.4 (0.9)	4.4 (5.5)	0.6 (1.2)	4.6 (5.5)	0.8 (1.2)
Base tank capacity	L/s	2000	2000	2000	2000	4800	4800	6000	6000
GAS FIRED HOT WATER HEATER (G20 NG)									
Natural gas heaters -supply pressure	m/bar	20		20		20		20	
LPG (Propane) gas heaters - supply pressure	m/bar	37		37		37		37	
Approx. maximum output	m3/h	9	N/A	17	4	25	4	34	8
Maximum output	kW	84	N/A	168	42	252	42	336	84
No. of water heaters	#	2	N/A	4	1	6	1	8	2
UNIT DIMENSIONS/WEIGHT									
Width	mm	2200		2200		2300		2300	
Length	mm	6000		9200		10800		10800	
Total Height	mm	2300		2330		3450		3450	
Weight*	kg	5000		6500		8000		9500	

*Weights are estimates only and will vary according to the specification of each unit

Information above correct at time of print. Please contact us to check the latest specification.



Modular: Flexibility with Efficiency

Modular Ventilation System.

Create the perfect environment for your hatchery while saving energy

The Modular is a cost effective and flexible ventilation system designed for hatcheries of any size with easy-to-install ground level modules to ventilate all incubation and process rooms. With built-in redundancy, the system provides 100% fresh air and is equipped with our Heat Recovery System to dehumidify incoming air, maximize chick quality and reduce energy costs.



With its integrated PLC, the Modular system automatically manages the correct temperature, humidity, water flow and room pressures in the setter and hatcher rooms, creating the optimal environment for the incubation equipment. Variable frequency drive (VFD) controls supply fans to maintain room pressure while saving energy.

Lower your Installation and Maintenance Costs

All modules can be based at external locations at ground level to save on valuable building space.

Modules have simple inter-connections for chilled water, hot water and system communications.

Easy to install and scalable for expansions.

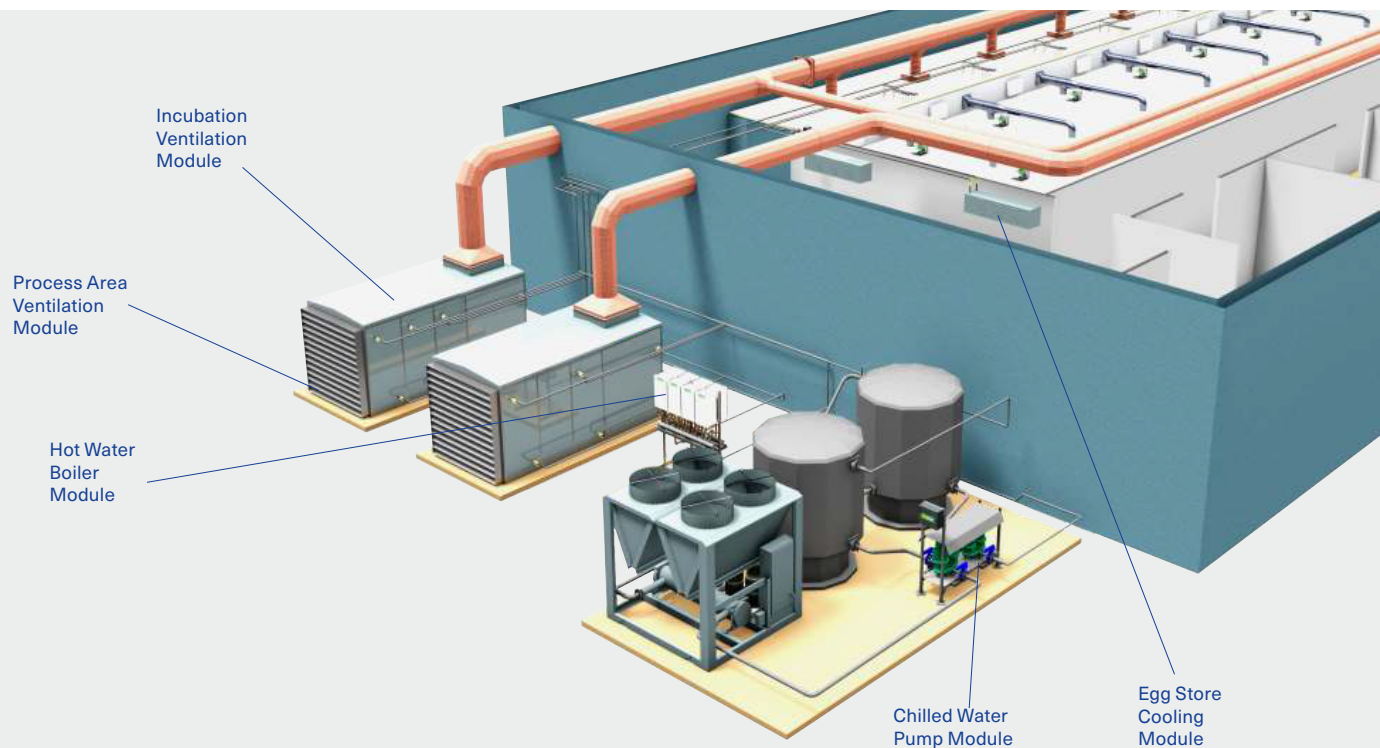
Hot Water Heating

Floor mounted module with up to 560 kW heat using natural gas or liquid propane, or 60 kW of electric heating*. Integrated hot water circulation pump, controller and expansion tank. Optional twin head pump available for redundancy.

*Other fuel sources are available such as diesel or oil



Modular: Flexibility with Efficiency



FOR YOUR SPECIFIC LOCATION - Both Modular and CC3 come in two energy savings options for any climate (both with Heat Recovery)

HEAT RECOVERY - Warm water, produced by removing the heat in the setters and hatchers, is pumped through a Heat Recovery Coil in the AHU warming the incoming air for free! This water then goes back to the chiller at a much lower temperature significantly reducing the load on the chiller and lowering energy requirements.

REDUNDANCY FOR SECURITY - Double or quadruple fan systems with EC Motors for better energy efficiency and Redundancy.

DOUBLE HEAD VFD PUMPS - redundancy with double head motors for more safe and precise flow and pressure as well as better energy efficiency



For ideal incubating conditions in any climate, delivering 100% fresh air for increased biosecurity.

Hatchery excellence. Made easy.



Modular: Specifications

Ventilation Modules

		M02	M05	M07	M11	M16	M22
THERMAL SYSTEM							
Setter/hatcher/egg store application	Eggs/wk	191,000	381,000	507,000	761,000	1,140,480	1,520,640
Nominal supply fan airflow	m³/s	1.3	2.5	3.4	3.4	5.0	7.5
External resistance	Pa	500	500	500	500	500	500
Cooling coil capacity	kW	43	86	115	172	258	344
Heat recovery coil capacity	kW	30	60	80	119	179	239
Heating coil capacity (HE models only)	kW	60	120	159	239	358	478
ELECTRICAL DATA/REQUIREMENTS							
Electrical power supply	kW	2.2	4.0	5.8	7.5	11.0	15.0
Maximum current loading @ 3ph 50Hz 380V	A	4.0	7.0	9.0	13.0	20.0	27.0
Maximum current loading @ 3 ph 60Hz 220V	A	7.0	12.0	25.0	23.0	34.0	46.0
HYDRONIC PUMP SYSTEMS							
Width	mm	1390	1950	2030	2110	2310	2910
Length	mm	2850	3050	2900	3850	3950	4550
Total Height	mm	1650	1650	1550	2300	2450	2500
Weight*	kg	965	1400	1550	2250	2330	2650

*Weights are estimates only and will vary according to the specification of each unit

Chilled Water Pump Module

		MCWP01	MCWP02	MCWP05	MCWP08	MCWP10	MCWP15
HYDRONIC PUMP SYSTEMS							
Incubator/ventilation pumps @ 350kPa	L/s (kW)	5 (4)	12 (11)	24 (15)	36 (30)	48 (30)	71 (45)
Chiller circulation pumps @ 185kPa	L/s (kW)	6 (3)	15 (5.5)	30 (11)	45 (15)	60 (18.5)	89 (30)
ELECTRICAL DATA/REQUIREMENTS							
Electrical power supply	kW	7.0	16.5	25	45	48.5	75
Maximum current loading @ 3ph 50Hz 380V	A	13	29	45	80	87	134
Maximum current loading @ 3 ph 60Hz 220V	A	22	51	77	139	150	232
HYDRONIC PUMP SYSTEMS							
Width	mm	1200	1300	1300	1300	1300	1300
Length	mm	2300	2300	2300	2300	2300	2600
Total Height	mm	1500	1500	1500	1890	1890	1890
Weight*	kg	530	810	950	1400	1450	2450

*Weights are estimates only and will vary according to the specification of each unit

Information above correct at time of print. Please contact us to check the latest specification.

Hot Water Boiler Modules

		MHW-1	MHW-2	MHW-4	MHW-8
GAS FIRED HOT WATER HEATER REQUIREMENTS					
Natural gas heaters - supply pressure	mbar	20	20	20	20
LPG (Propane) gas heaters - supply pressure	mbar	37	37	37	37
Approx. maximum consumption	m3/hr	5	11	22	43
Maximum output	kW	57	114	228	456
No. of water heaters	#	1	2	4	8
HYDRONIC PUMP SYSTEMS					
Hot water circulation pumps @350kPa	L/s (kW)	1(3)	2(3)	4.(5.5)	8(5.5)
ELECTRICAL DATA/REQUIREMENTS					
Electrical power supply	kW	3.1	3.1	5.8	6.0
Maximum current loading @ 3 ph 50Hz 380V	A	5	6	10	11
Maximum current loading @ 3 ph 50Hz 220V	A	9	10	18	19
OVERALL UNIT DIMENSIONS/WEIGHT					
Width	mm	1000	1000	1000	1000
Length	mm	1850	1850	1850	1850
Total Height	mm	1850	1850	2100	2100
Weight*	kg	220	275	395	850

*Weights are estimates only and will vary according to the specification of each unit

Hot Water Pump Module

		MHWP-1	MHWP-2	MHWP-3	MHWP-4
HYDRONIC PUMP SYSTEMS					
Hot water circulation pumps @350kPa	L/s (kW)	2(3)	8(5.5)	12(7.5)	20(15)
ELECTRICAL DATA/REQUIREMENTS					
Electrical power supply	kW	3	5.5	7.5	15
Maximum current loading @ 3ph 50Hz 380V	A	5	10	13	27
Maximum current loading @ 3 ph 60Hz 220V	A	9	17	23	46
HYDRONIC PUMP SYSTEMS					
Width	mm	1050	1050	1050	1050
Length	mm	1210	1210	1210	1210
Total Height	mm	1050	1050	1050	1050
Weight*	kg	150	180	200	270

*Weights are estimates only and will vary according to the specification of each unit

Information above correct at time of print. Please contact us to check the latest specification.



ART: The Best Rooftop System

The Airway ART.

Our rooftop solution offers Heat Recovery without air recirculation for improved biosecurity. Providing hatchery ventilation that is refrigerant free, requires less maintenance and uses **100% fresh air**.

- Based on the Airway Modular concept
- Available in HE and DE models
- 400V, 200V and 480V
- Integrated modulating valves

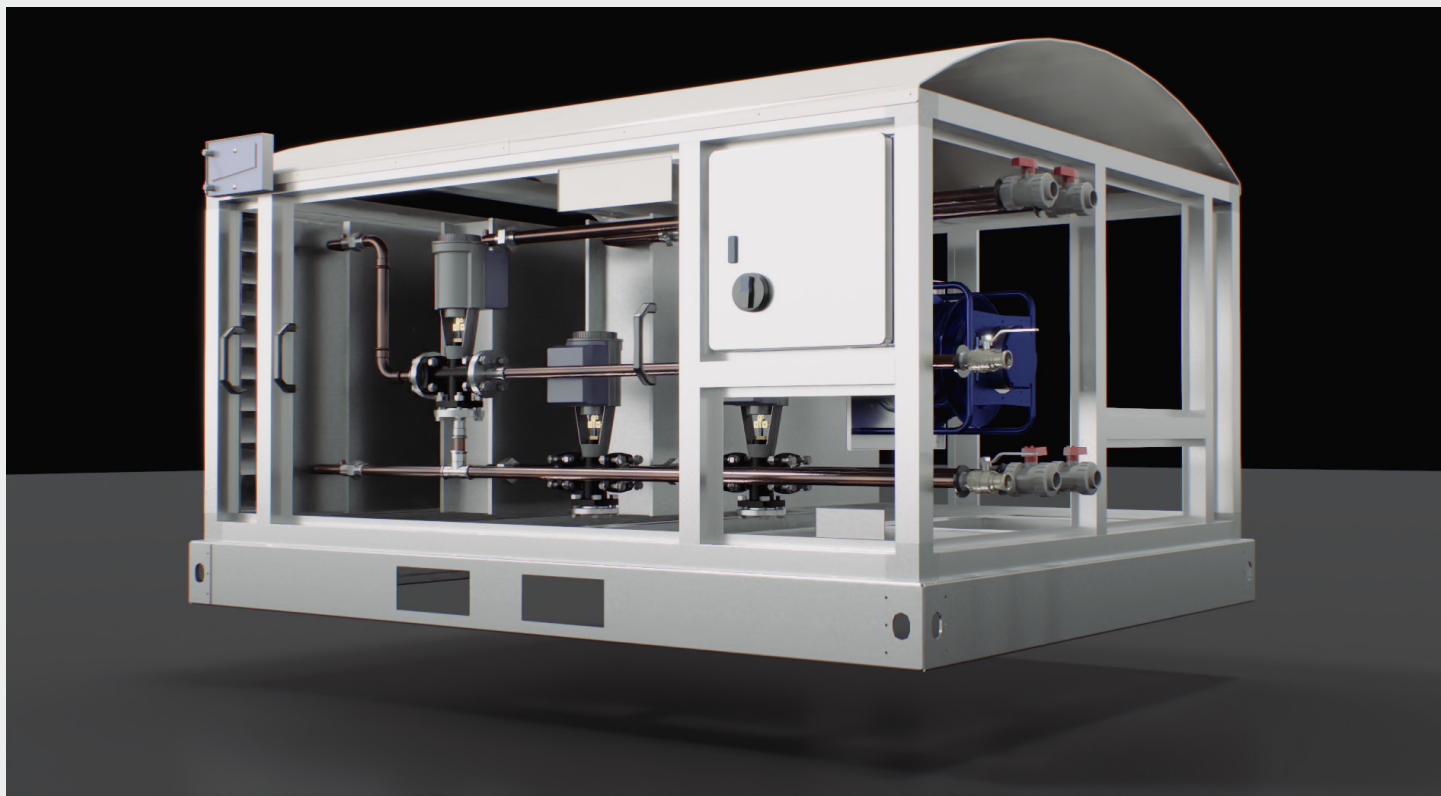


** We also offer other RTU solutions for special cases.*

Airway ART

One system to compliment your hatchery. Installed at ground or rooftop level, it's safe, easy to use, and inexpensive to operate and maintain. With premium components that can be purchased off the shelf, the ART is a service pack system that helps your incubators excel in performance with easy operation and low maintenance.

All systems are VFD controlled for optimal energy efficiency and designed to ensure your hatchery will receive optimized ventilation. See immediate energy savings with the Jamesway Heat Recovery System that uses heat from your growing eggs.



Hatchery excellence. Made easy.



ART: The Best Rooftop System

ART - Benefits

- Environmentally Friendly (No Refrigerant)
- Less Maintenance
- Provides 100% Fresh Air
- Energy Efficient Supply Fan
- Heat Recovery



ART: Specifications

ART UNIT SIZE		1		1.5		2.5		4		5		7.5		10		
Type		DE	HE	DE	HE	DE	HE	DE	HE	DE	HE	DE	HE	DE	HE	
Air Flow	m³/s	0.5		0.7		1.2		1.9		2.4		3.5		4.7		
	cfm	1000		1500		2500		4000		5000		7500		10000		
COIL CAPACITY																
Cooling Coil Capacity	kW	36	16	54	24	91	40	145	65	181	81	272	121	362	162	
Heat Recovery Coil Capacity		8	11	12	17	19	28	31	45	93	56	58	84	77	112	
Heating Coil		-	22	-	34	-	56	-	90	-	112	-	168	-	224	
Filter Type		G4														
FANS																
Fan Type		Centrifugal EC														
External Static Pressure	Pa	250						450				450				
400V/3P/50Hz	kW/A	0.15/0.5		0.23/0.6		0.59/1.1		1.14/1.8		1.6/2.5		1.0/1.9		1.6/2.6		
460/3P/60Hz		0.15/0.4		0.23/0.5		0.59/1.1		1.14/1.6		1.6/2.2		1.0/1.6		1.6/2.3		
230V/3P/60Hz		0.15/0.5		0.22/0.7		0.59/1.6		1.15/3.1		1.6/4.2		1.2/3.4		1.6/4.4		
Efficiency Class		IE 4														
Fan Qty.	Nos.	1									2					
Power Supply		230V/3P/60Hz, 400V/3P/50Hz, 460V/3P/60Hz														
DIMENSION AND WEIGHT (HE&DE)																
Width [W]	mm	1660						1880				2100				
Length [L]		2160						2750				3400				
Height [H]		1180						1580				2000				
DUCT CONNECTION																
Width [X]	mm	800						800				1000				
Length [Y]		600						600				600				
Weight	Kg	1000		1050		1250		1600		1650		2100		2350		



Our Experts

Expert Planning and Installation.

Our hatchery experts will prepare the optimal Airway design for your operation. We consider your budget, available power supply, geographic location, bird type... you name it. No one knows hatchery HVAC like Jamesway!

We design the solution, supply the equipment and commission the control systems. All installations are done by local contractors, saving you money and establishing local relationships. Our technicians are specifically trained and know how to commission Airway so that your operation enjoys all the benefits. Our ventilation specialists are available to assess, advise and troubleshoot existing and future HVAC solutions.



WHAT TO CONSIDER WHEN PLANNING YOUR CURRENT AND FUTURE VENTILATION NEEDS!

- Embryos and day-old birds need the right environment.
- Have you planned correctly, since under-sizing or over-sizing can inhibit efficiency and affect hatch results?
- What are your heating options: natural gas, propane, electric or hot water?
- What are your ventilation options: single-unit ventilation, heat recovery, water chillers?
- What are your installation options: rooftop units, indoor, ground-mounted?
- Have you considered biosecurity, redundancy, alarming, spare parts, supply availability and future growth?
- Are your costs realistic and in-line with future plans?
- Does your designer understand the particular, highly specialized environment of the hatchery.

VENTILATION SYSTEMS. MADE EASY!



278

Ventilation
systems installed
worldwide



230

Combined years
proudly serving the
poultry industry



115

Global sales and
service team supporting
our customers



Check out our website for more information on Jamesway Chick Master products and services:

www.jamesway.com

www.jameswayparts.com

parts.chickmaster.com

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