

# AIRWAY

Your Worry Free  
Hatchery Ecosystem

**JAMESWAY**





## **Customizable, flexible HVAC systems for the most efficient and effective hatcheries. Why do you need it?**

Ventilation is the fuel for the incubators and hatchers. No matter the hatchery size or the species being hatched, accurate temperature, humidity and pressure control ensures the success of the hatch.

- Complete control over the environmental control system ensures the most productive hatch every time.
- Using the correct data about temperature and humidity assures consistent quality hatch and best value for the investment.
- **Quality chicks = greater numbers of saleable chicks and fewer culls.**
- A properly sized chilled and hot water system is essential for incubation success.
- Humidity control in your room ensures your machines are the most efficient and that the level of the egg's moisture is ideal.



## Easy to use and install ventilation is part of the Worry Free Hatchery

One of the most important parts of the incubation process is the quality of the air which flows around your eggs. This air is the fuel for your machines and your hatchery. Jamesway's ventilation solutions are designed to make your hatchery ecosystem operate at maximum efficiency and productivity.

**Packaged ventilation systems designed for easy installation in your hatchery**

**Optimized ventilation supplying 100% fresh air creating the perfect environment for Element and Modular systems**

**Three systems allowing you to choose the right option for your needs**



A packaged ventilation system. We deliver, you connect your electricity, gas (optional), water and controls then you are ready to go.



For a flexible and expandable approach, use our modular ventilation option.



Customized rooftop units provide the perfect environment for each room, independently.

## The AirWAY Element

Minimize installation time and cost. Save on building space. Think inside the box. The Element is a complete external, packaged mechanical room and air handling system; pre-tested and readily installed. The Element sits outside your building on a concrete pad freeing up valuable floor space within the hatchery. Operation and maintenance are simple.



### Connection is Easy

With all the connections ready you can be up and running hours after delivery

- Easy to maintain
- Removable panels
- Door access to control room
- One unit to maintain
- Built-in water tanks for a closed water system
- Twin head pumps for redundancy

## Energy Efficiency & Peace of Mind Security

Twin head pumps and motors on the system offer full redundancy on water circulation.

The control system automatically switches between pumps periodically and upon failure.

All motors are VFD controlled, increasing energy efficiency and tailoring air or water supply to the hatchery's needs. Manual override is available on all VFDs.

Individual pressure control for each room improves bio-security.

Size options: Cubic Feet per Minute		
E5	5,400 CFM	Average 387k weekly egg set
E7	7,200 CFM	Average 507k weekly egg set
E10	10,800 CFM	Average 761k weekly egg set
E14	14,400 CFM	Average 1.015m weekly egg set

## Optimised Ventilation System

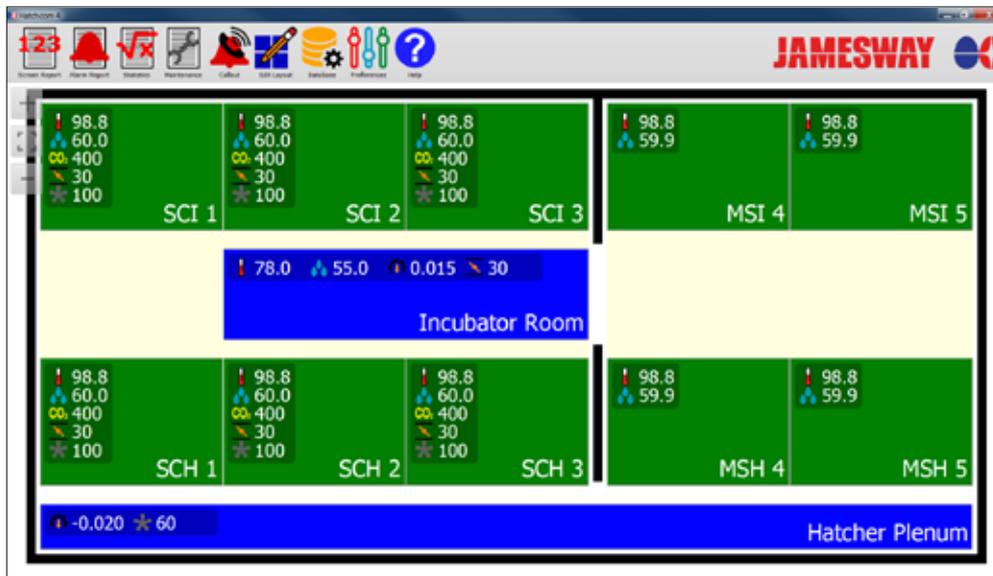
- Supplies 100% fresh air to your hatchery for increased bio-security.
- Fresh air is filtered, heated, cooled and dehumidified before entering the hatchery.
- Optional top up coils to increase the precision of conditioning
- Use returning embryonic heat for dehumidification or winter heating whenever possible.



## The AirWAY Element is available two ways

**DE** - for warm, humid climates; dehumidification cooling coil and heat recovery coil.

**HE** - for colder climates: dehumidification, heat recovery and supplemental heating coils supplied by onboard natural gas, liquid propane or electric boilers.



Your hatchery can be controlled with our Guardian software integrated into Hatchcom or through the touch screen mounted within the Element.

## Options

- On-board hot water for incubation and ventilation heating - HE model.
- AirWAY Modular add ons as required.
- Egg storage cooling through chilled water fan coils.
- Chick holding area ventilation fully independent temperature control.
- Duct mounted coils for independent room temperature control.
- Hatchcom System.

## The AirWAY Modular

Flexible ventilation system for hatcheries of any size.

100% fresh air modules can be ground mounted near to supply lines and required spaces.

Air handlers are 100% fresh air, with chilled water cooling, dehumidification, and heating as required.

Additional modules include skid-mounted twin head pumps for chilled and hot water supply redundancy. Skid mounted boilers with redundancy are also available.

The system may be used along with the Element or stand-alone; provides for easy expansion.



### Master Controller

A centralized PLC based controller with HMI touchscreen interface based within the hatchery links all modules, room sensors, and field devices through remote controllers in each of the rooms being serviced.

Size options: Cubic Feet per Minute		
M2	2,700 CFM	Average 191k weekly egg set
M5	5,500 CFM	Average 381k weekly egg set
M11	11,000 CFM	Average 761k weekly egg set
M16	16,500 CFM	Average 1.140m weekly egg set
M22	22,000 CFM	Average 1.520 weekly egg set

The flexible approach allows for any combination of sizes/quantities to be selected to suit the specific requirements.



## Hot Water Heating

Floor mounted module with up to 560 kW heat using natural gas, liquid propane or 60 kW of electric heating.

Integrated hot water circulation pump, controller and expansion tank. Optional twin head pump available for redundancy.

For HE systems both the incubation and ventilation heating need to be considered in the boiler selection.

## The AirWAY Classic

AirWAY Classic is a simple to use, single room ventilation system. Available with mechanical cooling and your choice of heating (natural gas, propane, hot water or electric). These units may be roof or ground mounted.

Integrated hot gas reheat provides efficient and effective dehumidification.

Recirculated air from a single room provides increased stability.

Single room ventilation tailors the output to the room's specific needs.

Compatible with Jamesway's Guardian ventilation controls, your data can be integrated into Hatchcom providing an entire hatchery view at your fingertips.

Boilers, chillers, and pumps are all available to provide what your hatchery needs.

Mix and match with our other ventilation systems for a fully customized design.



# Whatever System you choose make sure you are controlling it with Hatchcom and Guardian

## Hatchery Environment Control System

Jamesway's integrated Guardian/  
Hatchcom control and monitoring  
system for collecting and managing  
the ventilation and incubation data.

Hundreds of hatcheries worldwide  
trust Jamesway to control their  
ventilation.

Incubator Room 1	73.8F 45.1%RH +.013 "H2O 45%	Plenum 1	62 % -.021 "H2O
Incubator Room 2	77.8F 52.1%RH +.017 "H2O 68%	Plenum 2	43 % -.022 "H2O
Incubator Room 3	75.9F 43.7%RH -.006 "H2O 50%	Plenum 3	57 % +.003 "H2O
Egg Room	64.7F 54.1%RH	Plenum 4	92 % -.033 "H2O

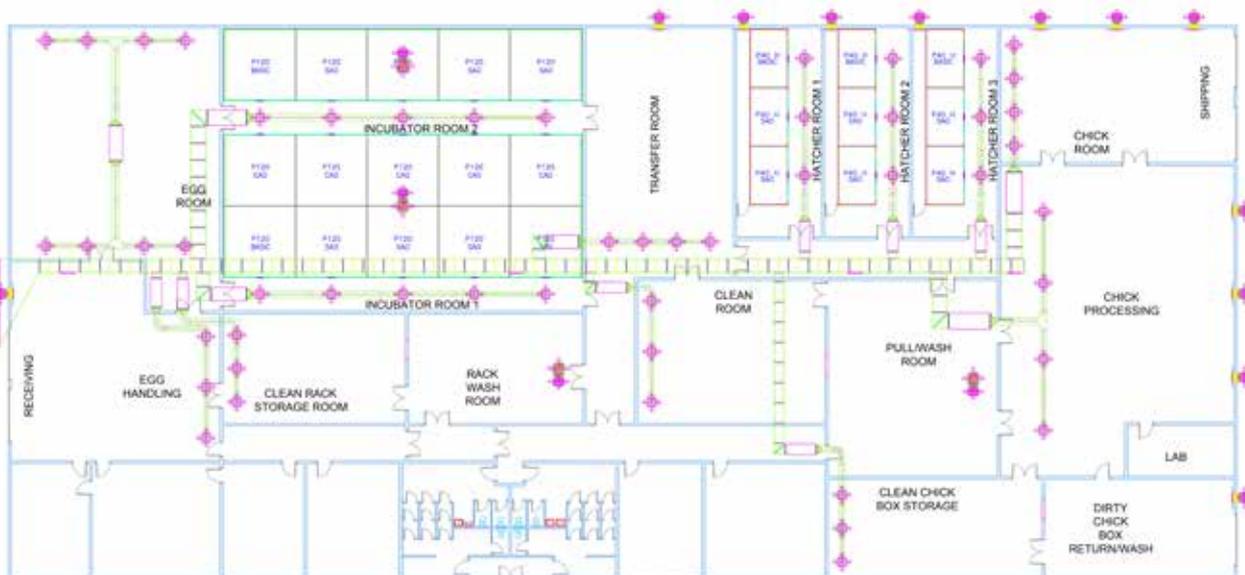
## Worry Free Management for your Hatchery Ecosystem.

Our Guardian system will control temperature, humidity, and pressure easily in any room in your hatchery, as well as the exhaust plenum pressures for your incubators and hatchers. It has the ability to control most HVAC equipment so it will merge seamlessly with your existing systems – to ensure the room is always operating efficiently.

Guardian controlled ventilation means one thing for the incubation process: stability. Incubators and hatchers receiving the correct quality air are better able to control their interior environment. The result is a larger and healthier hatch. Extending controls to the egg and chick room will give further assurance that your product is well-taken care of and that you have done your best to produce Platinum quality birds.

## Jamesway Expert Planning and Installation Services

- Our hatchery experts will prepare the optimal AirWAY design for your operation. We consider your budget, available power supply, geographic location, the species...you name it. No one knows hatchery HVAC like Jamesway!
- We design the solution, supply the equipment and commission the control systems.
- All installation is 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, multiple unit ventilation, heat recovery, water chillers?
- What are your installation options: rooftop units, indoor, ground-mounted?
- Have you considered bio-security, redundancy, alarming, spare parts, and supply availability?
- Are your costs realistic and in-line with future plans?
- Does your designer understand the particular, highly specialized, environment of the hatchery?
- Has future growth been considered?

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