

Practical Advice

There are a large number of factors that affect egg incubation and these must be considered when trying to improve hatching success. Brinsea Products have many years experience in bird breeding and in talking to many successful breeders and are therefore happy to offer sound, practical guidance to incubator users.

Brinsea have published two books: **'Nests, Birds and Incubators'** by Dr C Deeming – a fascinating insight into the world as seen from an egg's point of view by one of the leading authorities on the subject – and the **'Brinsea Incubation Handbook'** which is a short, practical summary of incubator types, the effects of temperature, humidity and turning on the embryo plus troubleshooting tips.

In addition Brinsea stocks a selection of books concerned with keeping and breeding a wide range of species. The list below is a selection of popular titles. Check the website or call the sales line for the full selection.

The **'Brinsea Incubation Handbook'** is available as a free download from the website. Also within the customer service section are incubation tips and Frequently Asked Questions and datasheets on all the main products, in .pdf download format. Brinsea will endeavour to answer incubation questions over the phone but our support line gets very busy during the Spring so please check the website first if possible.

Books

Nests, Birds and Incubators	V90	D.C. Deeming
Guineafowl Past and Present (NEW)	V245	M. Roberts
Domestic Ducks and Geese in Colour	V260	M. & V. Roberts
Chickens at Home	V270	M. Roberts
Ducks and Geese at Home	V290	M. Roberts
British Large Fowl	V440	M. & V. Roberts
Turkeys at Home	V360	M. & V. Roberts
Incubation at Home	V330	M. Roberts
Modern Free Range	V295	M. Roberts
Wildfowl at Home	V380	A. Birkbeck
Free Range Poultry	V500	K. Thear
Poultry for Anyone	V200	V. Roberts
Quail: Their Breeding and Management	V240	G. E. S. Robbins
How to Hatch Geese	V370	Dr. L. Munro
Practical Incubation	V450	R. Harvey
Introduction to Ornamental Pheasants	V100	K.C.R. Howman
The Book of Geese	V460	D. Holderread
Avian Incubation	V640	D.C. Deeming

VIDEOS - UK (PAL) FORMAT ONLY

Practical Incubation	V610	R. Harvey
Hand Rearing Parrots	V630	R. Harvey, R. Low

Brinsea offers design innovation and a clear appreciation of the requirements of bird and reptile breeders to ensure the best chance for hatching success.

Five international patents have been granted for innovations associated with Brinsea's incubation products. But innovation is of little value unless applied effectively, which is why Brinsea continues to work with breeding centres of excellence and experts in the field, as well as conducting in-house test and development programs – always checking that improvements are effective in practice and designs are practical and reliable. The result is a comprehensive range of products that suit all small scale bird and breeding needs. We have received widespread acclaim and are used by breeding centres as diverse as the Wildfowl and Wetlands Trust at Slimbridge, the National Birds of Prey Centre, the Roslin Institute and numerous zoos, conservation organisations and universities throughout the world.

Quality and reliability

Incubator or brooder breakdown can have the most serious and heartbreaking consequences. Brinsea's ISO9001 2000 accreditation means that the manufacture of our products is subject to a continuous and independently assessed program of quality control. No other manufacturer of comparable products world-wide holds this standard. As a result we confidently offer a free 2 Year Guarantee with every incubator and brooder.

A price list covering all prices for products contained in this brochure plus spare parts and consumables is available on request at the sales number below or the website.

In order that we can continue our policy of innovation and improvement we reserve the right to alter specifications of any product without notice.

Brinsea

THE INCUBATION SPECIALISTS



The latest incubation innovations

Contact Incubation

The **Contaq X3** joins the groundbreaking **Contaq X8** launched last year. These radical designs provide improved hatch rates for 'wild' species by mimicking the natural nest. Eggs have evolved to hatch best in nests where they are warmed by contact with the parent's body and the X3 and X8 warm eggs in the same way. They incorporate sophisticated logic control which allows the user to copy the behaviour of a particular species to offer the best possible chances of success. Field trials have shown significant increases in the number of eggs that hatch and the health of the chicks. See Page 2.

Octagon DX series

Further improvements with the launch of the DX versions which incorporate wire egg dividers for increased airflow and improved temperature consistency and tougher automatic turning systems. The Plus and Pro versions of the 20 have improved thermometer accuracy too. Upgrade kits are available to bring earlier Octagon 20's and 40's up to current spec. See page 4.

eggWISE incubation management software

New software to provide simple management of birds and eggs. It calculates whether you have incubation humidity correct ... **eggWISE** offers similar functions to that of existing packages many times the price! See page 11.

Incubators Page 2

Brooders Page 10

Accessories Page 11

Breeding Packs Page 14

Reptile Breeding Products Page 15

Books and Videos Page 16

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Contact Incubation

Mimicking the natural incubation process of the nest.

Conventional artificial incubation is very artificial. It surrounds the eggs with warm air, rotating them regularly but not changing their environment greatly.

This has proved successful for the mass breeding of poultry, particularly as, over many generations, the breeding programmes have self-selected for birds which flourish in the artificial environment. But for other species, artificial incubation is less satisfactory.

Compare this artificial environment with natural incubation in the nest. The bird sits on the eggs with a brood patch, often plucked to bare skin, passing body warmth from the bird to the egg through a small contact area. At irregular intervals the bird gets up and rearranges the eggs. This exposes them to cool air. When she settles down, a different part of the egg is in contact with the brood patch. Some species even leave the eggs exposed, letting them cool while they forage for food or defend their territory.

In the last few years there has been considerable academic research on egg incubation. This shows that for some species in the nest there can be a temperature difference across the egg of over 10 degrees. The top of the egg, in contact with the brood patch, can be as high as 40 degrees centigrade while the bottom of the egg can be as low as 29 degrees whilst brooding. (And during bird absences, the whole egg can fall to as low as 20 degrees). How heat flow, the developing embryo and the brood patch interacting to produce strong chicks, have proved to be far more complex than previously suspected. It is now established that the heat flow through the egg, passed downward from the contact area, is important in determining embryo growth and successful incubation.



Building on this research, Brinsea has created Contact Incubation Technology (CIT). This reproduces the brood area by

inflating a plastic skin with warm air. As it inflates, the skin presses gently but firmly on the eggs sitting on rollers on a moveable base. Air can flow through this base, creating an environment which mimics the nest. Deflating the skin simulates the bird standing while moving the base reproduces the natural egg movements: **CIT is the complete combination of bird and nest.**

Production CIT machines have followed up the initial success of the prototypes to produce outstanding breeding results. In the first (2004) breeding season that CIT incubators were available, Brinsea estimates that 30% of commercially bred falcons in the UK were incubated in CONTAQ X8 machines.

One falcon breeder, based in Wales, has used the CONTAQ X8 for species that are normally more difficult to hatch. In one batch of 50 viable, fertile eggs in the machine, only 3 failed to hatch. This is almost 95% hatching, higher than their normal average of between 85% and 90% across all species.

A second breeder, in Yorkshire, started the 2004 season with a single CONTAQ X8 and then added a second. All their eggs were incubated in these machines, with a 10% increase in hatch rates.

But breeders of other species also use CIT: a parrot breeder in the English Midlands has found that the CONTAQ X8 produces far higher hatch rates, even with problematic eggs, than he normally achieves.

Now the CONTAQ X8 has been joined by the Contaq X3, extending the benefits of CIT to breeders with smaller space available for their incubation areas.

"We were delighted with the results. With such a diverse collection our breeding season is very long and we are not able to set eggs under other species of birds, or even bantams. This incubator seems very good at mimicking the birds."

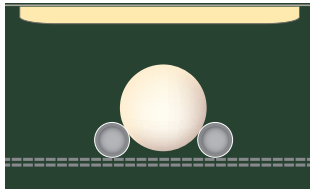
**Jemima Parry-Jones,
National Birds of
Prey Centre, UK**

The Contaq X8 and NEW X3 - Better than the real nest

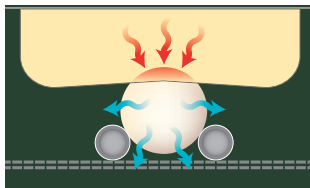


CONTAQ X3

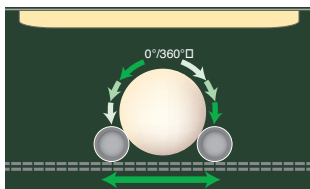
ref. Q1000



Eggs cooled and ventilated beneath deflated skin.



Skin inflates to warm egg through simulated brood patch.



Skin deflates and moving base simulates natural egg movement.

Although CIT aims at reproducing the environment of bird and nest, with the Contaq X8 and X3 the incubation environment can be seen as better than the real nest. There are no predators and no egg damage from inexperienced brood birds, no risks of disease or disturbance interrupting the parents. The professional breeder or advanced amateur now has an incubator which can be relied on to produce consistently higher yields of precious eggs, for birds of prey, parrots and endangered species.

The electronic controls, based on well-proven technology, can be used to define precisely the environment required, control the temperature of the skin, the time it spends sitting on the eggs and away from the eggs, and the amount of movement to take place for each change of egg position.

Contaq X8 (ref. Q2000)

Designed for the professional breeder and the experienced amateur, the CONTAQ X8 will be the incubator of choice for those engaged in breeding rare species, falcons, parrots, or any other situation where eggs are expensive or rare.

NEW Contaq X3 (ref. Q1000)

Identical specification and features to the X8 with around 30% the egg capacity.

These revolutionary incubators are the first commercially available products to warm eggs by thermal contact from above, just as happens in nature. Emphasis has been placed on flexibility of controls, top quality construction for hygiene and durability as well as the patented Contact Incubation Technology.



Control System

The CONTAQ Series recreate the brood patch with a warm air-filled plastic diaphragm (the skin), which can be inflated and deflated. A conveyor belt system rotates the eggs.

Through a simple 3 button, menu-driven interface the breeder can control:

Temperature: of the skin

Humidity level: of the egg chamber

Cooling: duration and interval that the skin is retracted from the eggs, simulating the bird leaving the nest.

Turning: direction, angle and frequency of egg rotation with the option to randomise egg turning within user defined limits.

Alarm: for low temperature, high temperature and if the lid is not closed. Internal alarm sounder and message on the display. Provision for optional phone dialler which calls up to 5 numbers to warn of alarm status.

Power Back-up: battery may be connected at same time as mains for auto back-up.

Future-proof

Brinsea is planning PC software to monitor and control multiple incubators. An easy upgrade will allow the CONTAQ Series to include these features.

Construction

Designed for ease of sterilisation and long operational life. Egg chamber is food grade stainless steel, other parts are high quality ABS and structural polyurethane foam with durable, cleanable finish.



Total Control

Temperature - the primary control

Successful egg incubation and animal care depends on control of temperature above all other factors. All Brinsea incubators are designed first and foremost to provide the best control of temperature possible.

Cabinet design and materials used succeed in isolating the eggs from the harmful effects of external temperature variations. Furthermore the highly successful Octagon range of incubators all feature the Omnitherm™ heating system which, coupled with Brinsea's proven proportional band temperature control circuitry, ensures the finest and most consistent control of temperature possible - for the best hatching results possible.

All Brinsea models in the Octagon range, with the exception of the Octagon 10, feature digital temperature displays. These are individually calibrated for accuracy and allow easy and reliable monitoring of the air temperature inside the incubator from outside the cabinet.

Humidity - subtle but crucial

All Brinsea incubators and exotic bird brooders include provision for regulating humidity. The more sophisticated models have the option of our unique Humidity Management System which provides both adjustable and accurate control of humidity; when combined with our refined temperature system this provides a controlled environment in which to successfully brood or incubate.

Turning

The Polyhatch and Hatchmaster moving tray system of automatic egg turning has been widely mimicked for its flexibility and the virtual impossibility of damage to eggs.

The Octagon range goes one step further and turns the whole incubator resulting in no internal turning mechanisms to injure chicks or trap dirt and bacteria. Furthermore any of the Octagon range allows eggs to be turned semi-automatically by manually rolling the incubator onto its octagonal faces.

Octagon DX Series

The very popular Octagon range of incubators feature external turning which turns the whole cabinet; protecting the eggs and chicks from moving parts and leaving the interior easy to clean. The Octagonal shape allows the same turning method to be achieved by hand if necessary.

Further improvements have been made to all the highly successful Octagon 20 and 40 Digital models giving better airflow and a more robust turning system. The specialist Octagon Pro-20 DX model also has improved thermometer accuracy.

The Octagon DX Series features Omnitherm heating, external turning, flexible egg handling, insulation and fan assisted airflow.

All other features and specifications are as the previous Digital model.

COMPARISON CHART

Egg Capacity (Approx.)	Octagon 20 DX		Octagon 40 DX
	Octagon 10	Standard Plus/Pro*	
Quail	24	60 / 42	120
Pheasant	12	40 / 28	80
Hen	10	24 / 16	48
Duck	8	20 / 14	40
Goose	3	9-12 / 6-9	18-24
Amazon / Macaw	not recommended	24 / 16	48

Dimensions

Incubator only*

	Octagon 10	Octagon 20 DX Standard Plus/Pro*	Octagon 40 DX
W x D x H – inches	13½ x 6 x 6	12½ x 9 x 9½	24 x 9 x 9½
W x D x H – mm	340 x 150 x 150	325 x 235 x 243	620 x 235 x 243

With cradle

	Octagon 10	Octagon 20 DX Standard Plus/Pro*	Octagon 40 DX
W x D x H – inches	16 x 6½ x 9	15½ x 9 x 11	27½ x 9 x 11
W x D x H – mm	405 x 165 x 230	405 x 235 x 280	710 x 235 x 280

Weight

	Octagon 10	Octagon 20 DX Standard Plus/Pro*	Octagon 40 DX
Incubator	2.4 lb / 1.1 kg	4.4 lb / 2.0 kg	7.7 lb / 3.5 kg
Autoturn cradle	2.0 lb / 0.9 kg	2.0 lb / 0.9 kg	3.3 lb / 1.5 kg

Power

	Octagon 10	Octagon 20 DX Standard Plus/Pro*	Octagon 40 DX
maximum	25 Watts	45 Watts	75 Watts
typical	12 Watts	25 Watts	38 Watts

Electricity supply 220/240v, 50Hz or 115v, 60Hz as ordered

For Octagons 100 & 250 see page 7

* Octagon 20 DX Plus and Pro20 only available with cradle included.

Octagon 10 (10 eggs*)

Ref.A010i, Autoturn Cradle Ref.A020X

Small, reliable, easy to use

The tiny incubator with great performance. Accurate temperature control, natural convective ventilation and our unique Omnitherm™ all-round heating make it simple to use and ideal for beginners and for teaching.

Careful design and the use of modern materials and manufacturing techniques have enabled this tiny high quality incubator to be available at a very reasonable price.

- Extremely simple to use
- Holds 10 hen eggs but adaptable for other sizes
- Ideal for beginners to use with small numbers of quail, hen, duck or small goose eggs
- Excellent visibility of the incubating eggs and chicks
- Omnitherm™ heating and electronic temperature control
- Available with either semi or fully automatic egg turning (with Autoturn Cradle)
- Ventilation by natural convection; not suitable for automatic humidity control
- Tough construction, easy to clean and energy efficient



Octagon 20 DX (24 eggs*)

Ref.A026i

Flexible, quality small incubator, Brinsea's top selling model.

The Octagon 20 DX incubator is the solution to the incubation of small numbers of eggs – providing the control and reliability to ensure top hatch rates, time after time.

- Electronic temperature control with independent in-built digital thermometer – easy to use for beginners and experts alike
- Computer-grade fan and Omnitherm™ heating ensure precise, stable temperature
- Fully automatic egg turning with cradle (semi-automatic without cradle)
- Accessories available for the most demanding applications: fully automatic humidity control, high/low temperature and power failure alarm, wet bulb thermometer, Spot Check high accuracy digital thermometer, etc
- Lift out tray holds all sizes of eggs
- Upgrade earlier Octagon 20 MkIII's and Digital models with a DX upgrade kit (Part No A0252)



Octagon 40 DX (48 eggs*)

Ref.A040i

Twice the capacity of the Octagon 20 DX

The Octagon 40 DX is similar in all respects to the Octagon 20 DX but twice the length and twice the egg capacity.

- Upgrade earlier Octagon 40 Digital models with a DX upgrade kit (Part No A042)

* Approx. capacity equivalent to domestic fowl eggs.

Octagon 20 DX Plus (16 eggs*) *Ref.A026i*

The Octagon 20 DX with improved specification.

The Octagon 20 DX Plus incubation system is an ideal package for the serious breeder of parrots, birds of prey or any species requiring close monitoring of humidity as well as precise control of temperature – without the added cost of complete, automatic humidity control. Knowing what's going on allows the operator to make the necessary changes to humidity to optimise egg weight loss and ensure good hatches.

In addition to the standard Octagon 20 DX with autoturn cradle are a Spotcheck digital thermometer with calibration certificate and wet bulb thermometer to ensure complete accuracy of temperature and humidity readings. The unique egg 'cushions' eliminate the effects of vibration making the Octagon 20 DX Plus the better bet for more demanding and valuable eggs.

- Holds about 26 macaw or similar eggs but adjustable for other sizes
- Eggs held on a foam mat between cushioned dividers to isolate any vibration or shock
- Electronic temperature control with independent in-built digital thermometer
- Additional calibrated Spot Check digital thermometer
- Computer-grade fan and Omnitherm™ heating ensure precise, stable temperature
- Fully automatic egg turning with no internal moving parts
- Upgrade earlier Octagon 20 Plus with a DX upgrade kit (Part No A0262)



Octagon Pro-20 DX (16 eggs*) *Ref.A023P*

Control and refinement for valuable eggs

The Octagon Pro-20 DX incubation system is the ultimate package for the serious breeder of parrots, birds of prey or any species requiring close automatic control of humidity as well as precise control of temperature – providing the control and reliability to ensure top hatch rates, time after time.

The Pro-20 builds on the standard Octagon 20 DX with precise, continuous management of humidity, unique egg 'cushions' to eliminate the effects of vibration, individually calibrated digital thermometer, automatic hourly egg turning and comprehensive instruction booklet. The only non-contact incubator for rare or valuable eggs.

- Comprehensive incubation package providing automatic control and digital monitoring of humidity as well as temperature, suited to exotic species, parrots and birds of prey
- Holds about 26 macaw or similar eggs but adjustable for other sizes
- Eggs held on a foam mat between cushioned dividers to prevent any vibration or shock
- Electronic temperature control with independent in-built digital thermometer
- Additional calibrated Spot Check digital thermometer
- Computer grade fan and Omnitherm™ heating ensure precise, stable temperature
- Fully automatic egg turning with no internal moving parts
- Upgrade earlier Octagon 20 Pro models with a DX upgrade kit (Part No A0262)



* Approx. capacity equivalent to domestic fowl eggs.

Octagon 100 (180 eggs*) **and 250** (380 eggs*)
Digital Incubators

Octagon 100 - Ref.A0100i : Octagon 250 - Ref.A0250i

A fundamental re-appraisal of incubator design has resulted in the cylindrical shape and Omnitherm™ heating of these top quality larger incubators.

Their state-of-the-art performance makes the Octagon 100 Digital and 250 Digital suitable for exotic species, game, waterfowl, ostrich and emu eggs at competitive prices.

The Octagon 100 Digital can hold the equivalent of 180 hens eggs (6 Ostrich) and the Octagon 250 Digital up to 380 hens eggs (12 Ostrich).

- Larger, table top, front loading incubators offering exceptional performance and versatility, capacities up to 380 hen eggs. Suitable for all types of egg including exotic birds, waterfowl, emu and ostrich
- Circular inside for hygiene and perfect air flow
- Circular outside for simple, automatic turning of any sized eggs without internal moving parts
- Moulded construction in thick (20mm, ¾") insulated polyurethane with durable surface
- Omnitherm™ all-round heating over the entire curved surface for optimum temperature stability
- Coaxial, computer-grade fan for smooth, silent air movement
- Options include automatic humidity control, high/low temperature alarm, power failure alarm and high temperature override control. Independent digital thermometer fitted as standard

Although supplied as standard with a set of universal egg trays, the Octagon 100 or 250 may be specified complete with special egg trays for ostrich, emu/rhea, hen or pheasant.

- Egg tray (universal inc. dividers or special) Ref. A1009X
- Hatching covers (each) Ref. A1002X

Maximum Setting Capacity

Species	Per tray	Octagon 100	Octagon 250
Quail	150	600	1050
Partridge	84	336	588
Pheasant	70	280	490
Hen	54	162	378
Duck	35	105	175
Goose	20	60	100
Macaw	70+	280+	490+
Emu/Rhea	9	18	36
Ostrich	6	6	12

Dimensions	Octagon 100	Octagon 250
W x H x D	21.75" x 25.5" x 25.5"	28" x 25.5" x 32.5"
W x H x D	550 x 650 x 650mm	710 x 830 x 650mm
Weight (incubator)	27 lb. (12.2 Kg)	40 lb. (16.8 Kg)
Autoturn Cradle	add 8 lb. (3.6 Kg)	add 8 lb. (3.6 Kg)
Power consumption (Maximum)	100 Watts	150 Watts
Power consumption (Typical)	50 Watts	75 Watts
Electricity supply:	115v. 60Hz. or 230v. 50Hz. as ordered.	

Digital Humidity Management Module (H122) *Ref.EH123*



Modular Hatcher (65 eggs*) *Ref.AMH60*

The ideal hatching environment

This flexible still-air hatcher system is specifically designed to be used in conjunction with the Octagon 100 or 250 incubator, but is equally suitable for use with other setters.

- Isolation of hatching eggs is common practice in commercial hatcheries where hatching success is paramount.
- The Brinsea Modular Hatchers bring this system within the reach of all breeders.

Why use a separate hatcher?

Developing embryos need different conditions as they near hatching point which can be a problem if mixed with eggs at earlier stages of incubation.

The specific requirements for eggs in the last 48 hours of incubation are:

- Turning of the eggs should cease – mechanisms can damage emerging chicks.
- Higher humidity levels – high humidity reduces the chance of membranes drying and becoming tough as the chick hatches. Still-air conditions are usually preferable (no circulating fan).

The other distinct advantage of separate hatchers is that the mess associated with hatching is kept away from the setter, so the hatcher can be thoroughly cleaned and disinfected between hatches. A separate hatcher allows eggs to be set fresh at weekly intervals, improving hatchability. At no stage in this system are incubation conditions compromised.

A taller ratite version is available which holds 10 ostrich eggs (or equivalent). *Ref.ARH60*



Still-Air Incubators

Brinsea's still-air incubators are recognised as long-standing class leaders. They offer an unbeatable combination of reliability, longevity, simplicity and value for money. The natural convection system in Brinsea's still-air incubator range provides near ideal conditions for hatching and is flexible and easy to use.

Construction

Each machine is moulded from integrally skinned structural polyurethane which has a core of thermal insulation and hard, durable, impervious surfaces making it readily washable and tough enough to withstand scrubbing. Polyurethane is amongst the toughest of plastics and must not be confused with cheap, fragile alternatives like expanded polystyrene. The excellent thermal properties of polyurethane foam result in low heat losses and low power consumption.

Temperature control

Temperature control is provided by Brinsea's proven proportional electronic system. The sensor and thermometer are mounted in a swivel clip which facilitates easy adjustment to suit a wide range of egg sizes. Fine temperature adjustment is made by turning an externally mounted, multi-turn spindle.

Automatic egg turning

The Polyhatch and Hatchmaster 'A' turn the eggs completely automatically and safely on an hourly cycle. Brinsea's patented system ensures safe and reliable rotation of almost any sized eggs without the need to purchase accessories*. If hatching in a Polyhatch or Hatchmaster 'A' the turning system can be disconnected and with the end covers (supplied) in place and the dividing rods removed, there is no opportunity for the chicks to injure themselves on the turning mechanism.

**Note: For quail or other very small eggs, special egg troughs are recommended. These are not supplied as standard but are available from stock (Ref.CP0112).*

12v Polyhatch and Hatchmaker

12v incubators have been developed for situations where mains supplies are unreliable or for transporting eggs during incubation. The very low power consumption enables them to be run from ordinary vehicle batteries for many hours between charges. 12v incubators must not be connected direct to mains power, but can be operated from the mains via a 12v transformer/rectifier capable of an output of 2.5 amps (Hatchmaker) and 4 amps (Polyhatch). The voltage is not critical and may be from 11 to 14 volts provided it is reasonably constant.

Polyhatch (42 eggs*) *Ref.CP01*

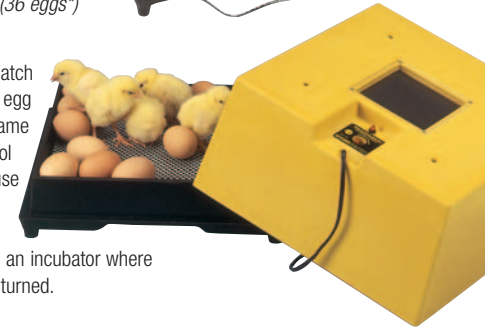
The Polyhatch has become the standard against which other small incubators are compared.

It combines simplicity with sophistication. Naturally convected air provides a temperature gradient similar to that found in nests. Precise temperature control at exactly the right height overcomes the vagaries often associated with still-air incubation. Automatic egg turning with moving floor is adjustable for virtually any species and is practically unknown to damage eggs.



Hatchmaker (36 eggs*) *Ref.CH01*

Smaller than the Polyhatch and without automatic egg turning, but with the same fine temperature control system. It is ideal for use as a small hatcher (in conjunction with an automatic setter) or as an incubator where the eggs can be hand turned.



Hatchmaster "A" and "H" (104-160 eggs*) *'A' Ref.DHA01*

Feature the same temperature control system as the Polyhatch but with a larger egg capacity.

'H' Ref.DHH01

The "A" provides automatic moving floor egg turning and external humidity adjustment. The "H" is designed especially as a still-air hatcher for use with auto-turning setters. Both machines have external top-up of water trays.



** Approx. capacity equivalent to domestic fowl eggs.*

Hatchmaker and Hatchmaster 'H' Incubators or Hatchers

Whilst both the Hatchmaker and Hatchmaster 'H' can be used effectively to incubate from day one through to hatching by turning the eggs by hand, the lack of automatic egg turning makes these models suitable for reptiles or as hatchers when used in conjunction with an automatic setter.

Brinsea recommend hatching in a separate machine for the following reasons:

- Automatic egg turning of later batches of eggs can be continued without fear of damage to emerging chicks.
- Contamination of the automatic incubator is virtually eliminated so no pauses are required for cleaning. This enables one batch of eggs to follow another without interruption.
- The higher humidity conditions required for hatching can be maintained in the hatcher, thus avoiding any compromise in the conditions required for eggs at earlier stages.

GET THE BUG!

Brinsea User Group

Keep up-to-date with the latest bird breeding information from Brinsea by subscribing to our free email bulletin service.

www.brinsea.com

Chick Brooders

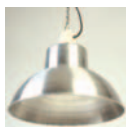
Cosy Lamp Chick Brooder

Clean, safe and economical chick brooder ideal for up to about 50 chicks or ducklings and suitable for most waterfowl, quail, etc. Clear plastic and glowing lamps let you view progress. Uses standard lamp bulbs (supplied) wired in series to give very long life.



Ref.HA02

Infra-Red Brooding Lamp



Tough, reliable low cost chick brooding lamp supplied complete with either 150 to 250 Watt emitters. Designed to be suspended above the chicks, the lamps include a length of chain.

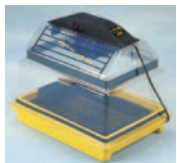
150W - Ref.HB150 / 250W - Ref.HB250

Chick Enclosure Panels (set of 8)

Waterproof enclosure system suitable for the Cosylamp or Infra Red brooding lamps. Ref.HE100



Octagon 20 Rearing Module



Allows the Octagon 20 to be used as a low cost, high performance brooder for baby

parrots and other altricial species. The top of the Octagon 20 provides the temperature and ventilation control and the module gives the chicks the space they need and all-round visibility. For use in a room temperature not less than 22°C, 72°F.

Complete Ref.A030A - Top only Ref.A030

TLC-4 Intensive Care Brooder

Ref.HD100

The advanced Octagon Thermal Life-support Cabinet for better brooding of exotic birds. Altricial species of birds (including all parrots and birds of prey) are blind and helpless when they hatch and it is some weeks before they are able to move around, control their body temperature and feed themselves.

During this period the young birds need to be kept in a clean, temperature controlled environment as free as possible from airborne contaminants such as fungal spores and dust. As they grow and develop down and feathers they can gradually tolerate lower temperatures and the breeder needs to be able to reduce the chamber temperature easily, whilst still maintaining control.

Young birds also benefit from being able to see humans from within the chamber; during this early stage in their development it is essential for young birds to become familiar with the presence of people if they are to be tame in adulthood.

The TLC-4 is specifically designed for this purpose...

- Double skin insulated cabinet and Omnictherm™ all-round heating to eliminate cool-spots
- Proven proportional band electronic temperature control
- Positive pressure with gentle fan ventilation – twin filters, for removal of harmful bacteria and fungi
- Water reservoir for increasing humidity with external sight-glass and top-up
- Permanent calibrated digital temperature display – independent of control circuit
- Curved, smooth interior completely free from fans, sensors etc., within the chamber for ease of cleaning – no vulnerable edges for birds to chew
- Tough, easily cleaned surfaces
- Sliding door provides maximum accessibility but no external obstruction when open
- Switchable internal light



Unique positive pressure filter system



Humidifying air filter.

- Stackable safely without shelves or special racks
- Large volume suitable for a wide range of species
- Flush-fitting carrying handle in top.
- Internal dimensions – Floor diameter: 370mm, 14½ inches Min height: 345 mm, 13½ inches.

Incubation Accessories

Monitoring the conditions within the incubator and the changes in the eggs as incubation progresses is necessary if the breeder is to be consistently successful.

Observing Development

Candling Lamps

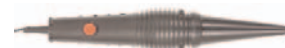
Candling is a traditional technique for monitoring the development of the embryo within the egg. It allows infertile eggs to be removed before they become infected and contaminate the others, the rate of enlargement of the airspace within the egg to be monitored as a gauge of incubation humidity and for more detailed analysis of development such as vein growth. Three models are available:



Standard (Ref.F150) an effective, low cost, all purpose lamp ideal for identifying infertile eggs with pale, plain shells (most species of duck, chicken, goose etc.)



High Intensity (Ref.F160) A halogen light source provides a much more powerful beam than the standard lumen and is more rugged and longer-lasting. Ideal for monitoring development in dark and mottled or very large eggs (e.g. quail, pheasant etc. as well as ratites)



'Cool-Lume' High Intensity (Ref.F170)

A refined version of the High Intensity with all the advantages of the power and durability plus a solid acrylic 'cool-cone' (patent applied for) which intensifies the light beam and virtually eliminates heat transfer to the shell. This means that eggs can be examined for extended periods without risk of overheating the embryo – a real risk with conventional candling lamps. Ideal for all high value eggs (for example, parrots and parrot-like species, birds of prey etc.), particularly where detailed analysis of development is required.

Checking Temperature

Thermometers

Accurate temperature is essential for successful incubation and a reliable, accurate thermometer is a must.

Liquid-in-glass

 (Ref.14.231)

Traditional, accurate and reliable glass thermometers built to Brinsea's specification covering the range of 25 - 40°C

Digital 'Spotcheck'

 (Ref.25.64)

Compact, easy to read and extremely accurate digital incubation thermometer.

Discriminates to 10th of a °C or °F and accurate to +/-0.1°C at 37.5°C - compare that to most types available! Covers the range 32 to 43°C and includes a remote sensor allowing the display to be outside the incubator. Operates from watch-type battery (included) which lasts for about 8 months of continuous use.

Temperature Alarm Module

Protects eggs by warning of mains failure or any incubation temperature change. It is an essential safeguard for

valuable eggs and is fully user adjustable. Available as a stand-alone (T20) for use with any incubator or fitted to the Octagon 100 or 250 (T100). The T100 will also provide secondary temperature control in the event of primary control failure. Optional phone dialler calls you when the alarm triggers. (T20 - Ref.ET20 / T100 - Ref.ET100)

Incubation Software

eggWISE

 (Ref.G2000)

To get the best hatch rates it is important to accurately record, manage and analyse incubation data. eggWISE is purpose written and easy to use software which helps breeders to optimise their incubators and breeding programs.



Features include:

- Graphical egg weight loss analysis (either singly or by batch) to ensure the correct incubation humidity is used.
- Fresh egg weight calculation. Allows the breeder to determine how far through incubation an egg is.
- Full taxonomy database – alphabetical species list with incubation times.
- Recording of breeding bird details and tracking of offspring.
- Management of multiple incubators: which eggs are in which machine and records the individual incubator environmental settings used.
- Automatic notification when an egg is due to be transferred to a hatcher or is due to hatch.
- Daily 'to do' list.



ioniser

Designed specifically for bird rooms and incubation rooms.

iondisc 500 (Ref.LID10)

The iondisc fits a standard lamp holder and should hang near the centre of the room for best removal of dust and



bacteria from the air. For rooms up to 540 sqft (50m²)

Incubation Disinfectant

Brinsea disinfectant

100ml - Ref.14.35 / 600ml - Ref.14.36 (fully biodegradable).



Formulated to be used for sanitising eggs, incubators and brooders. Available in concentrated form, Brinsea's Incubation Disinfectant is both safe and effective against yeasts, fungi, viruses and bacteria which can cause fatal damage to the growing embryo.

100ml of disinfectant concentrate makes 10 litres (2.64 gallons)



Humidity

Humidity Management Module

If you are concerned that incorrect humidity is reducing your hatching success then Humidity Management can help. The Brinsea Automatic Humidity Management Module applies the latest technology to eradicate the problem. Simple to install, highly accurate and easy to use.



Failures of embryos late in incubation ('death in shell' of the fully formed chick) or weak, wet chicks can be prevented with the use of the Brinsea Humidity Module.

All breeders looking to improve incubation management can apply the Humidity Management Module to enhance the results of their breeding programme of any species in most types of forced draught (fan assisted) incubators. The electronically controlled module provides both continuous digital display and control of the Relative Humidity (RH) in forced draught incubators. Simply adjust the dial to achieve the desired humidity level shown on the digital display and the unit will maintain that level, compensating for atmospheric changes, ventilation levels etc., giving the user full control of incubation humidity.

The free-standing H22 version (Ref.EH23) is designed to compliment the Brinsea Octagon 20 DX and 40 DX incubator or Parrot Rearing Module but can be used with any forced draught incubator up to about 1,000 hens eggs capacity. All Octagon 20 MkII, Octagon 20 & 40 Digital and DX model incubators are fitted with a blank plate which is removable to accommodate the Humidity Management sensor unit, making fitting extremely straightforward. The combination of Octagon 20 DX or 40 DX and H22 Humidity Management Module gives unbeatable control of a small incubation environment and is highly recommended where top hatch rates are demanded from small numbers of eggs.

The higher output H222 version (Ref.EH223) is suitable for larger incubators up to approximately 10,000 hens eggs capacity.

The H122 version (Ref.EH123) is identical in function to the H22 but can only be used in conjunction with the Brinsea Octagon 100 and 250 incubators where it is mounted on the control rail.



All units are calibrated before leaving the factory and a re-calibration service is available from Brinsea.

Specification

Sensor:	Precision bulk-polymer design
Accuracy:	+/- 3%RH
Hysteresis:	0
Stabilisation time:	5 minutes
Water Transfer:	In-built peristaltic pump
Max flow rate:	H22/H122 33ml/hr:2cubic ins/hr H222 240ml/hr:14.6 cubic ins/hr
Control Setting & Metering:	Indicated in % RH (linear)
Electrical supply:	H22 & H222 230vAC or 115vAC @ 6VA H122 15vAC feed from temperature control module
Dimensions: WxDxH	170mm x 200mm x 120mm - 6 3/4" x 8" x 4 3/4"

Checking humidity levels by monitoring egg weight loss

Egg Balances

Monitoring egg weight loss during incubation is the most reliable method of establishing correct incubation humidity level. The models of egg balances shown below are selected and used in our own research. For more information about the technique please contact Brinsea Products Ltd and request the 'Humidity in Incubation' information sheet or visit www.brinsea.com

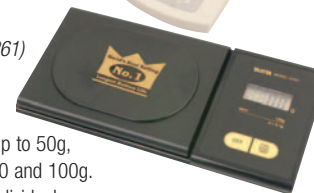
Standard (Ref.14.26)

Range up to 2Kg/4.4lb, accuracy of +/- 1g/.035oz Ideal for weighing batches of eggs together.



Precision (Ref.14.261)

Range up to 100g/3.5oz, accuracy +/- 0.1g up to 50g, +/- 0.2g between 50 and 100g. Ideal for weighing individual eggs extremely accurately. Our reference balance.



Checking humidity directly

Wet bulb thermometers (Ref.A023W)

Comparing wet and dry bulb thermometers is the most accurate, low cost method for directly measuring Relative Humidity in forced draught (fan assisted) incubators. Simple, direct reading hygrometers are available but vary widely in accuracy and are not recommended.



Brinsea's wet bulb thermometer is designed to integrate easily with the Octagon 20 DX, 40 DX, 100 and 250 incubators and comes with a conversion chart showing Relative Humidity level against wet bulb temperature.



Feeders and Drinkers

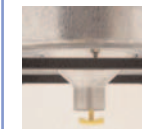
Scattergrain Game Feeders

Brinsea Scattergrain feeders use a purpose designed hopper which holds about 38kg/83lb (1.5 bags) of feed. This convenient capacity allows one whole bag to be added before the hopper is empty. They are made from vermin- proof galvanised steel and come complete with tubular legs. The large rim makes refilling easy and the lid is a secure, weather-tight fit.



Two types of feeder are available:

Scattergrain Peckfeed (Ref.J300)



a "demand" feeder. Rotation of the tab adjusts the flow rate.

Peckfeed kit also available for adapting your own hoppers. (Ref.J350)

Scattergrain Rotary (Ref.J400)



a battery-operated fully automatic rotating disc feeder which is triggered by daybreak and includes an inbuilt sounder.

Rotary Kit also available for adapting your own hoppers. (Ref.J400)

NiCad re-chargeable batteries for the Scattergrain Rotary (4 required per feeder) (Ref.25.55)

Charger for above batteries (Ref.25.05)

Charger and pack of 4 batteries for Scattergrain Rotary (Ref.J460)

Poultry/Waterfowl Feed and Water Vessels

Tough, sturdy, low cost polypropylene general poultry, waterfowl and game feed troughs and drinkers. Feed troughs available in 10"/250mm or 22"/260mm lengths, drinkers in 1ltr/1 1/2pts and 4ltr/7pts capacities. Water vessels twist fit onto the bases to help prevent water spillage, incorporate carrying handles and the bases have a large footprint for stability.

Feed Troughs

Drinkers

- 10" Chick Feed Trough (Ref.K120)
- 22" Chick Feed Trough (Ref.K130)
- 1Ltr Drinker (Ref.K120)
- 4 Ltr Drinker (Ref.K120)

Complete Bird Breeding Packs

Complete breeding pack of products at a cost saving over individual products.

Beginners Box (Ref.N102)

The ideal package for those interested in small scale egg incubation and brooding but without either specialist knowledge or a large budget. Included is all the equipment you will need (including full operating instructions) and also a free book aimed at introducing the basics of both incubation and brooding to the beginner along with handy hints and a troubleshooting guide aimed at helping you enjoy continued hatching success.

The Beginners Box includes:

- Octagon 10 Incubator (capacity of approx. 10 poultry eggs)
- Standard Egg-Lume Candling Lamp
- Infra-red Chick Brooding Lamp (150kw)
- 10"/250mm Feed Trough
- 1litre/1½pints Drinker

PLUS FREE

- Brinsea Incubation Disinfectant Concentrate
- 'Incubation at Home' book by Michael Roberts
- £15 Money Off voucher – buy an autoturn cradle for your Octagon 10 and save £15.

Breeders Box (Ref.N111)

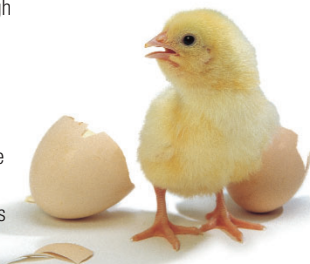
Complete breeding pack containing all the equipment and information to incubate and raise poultry, game or waterfowl on a small scale.

The Breeders Box includes:

- Octagon 20 DX Incubator
- Automatic Turning Cradle
- Standard Egg-Lume Candling Lamp
- Infra-red Chick Brooding Lamp (150kw)
- 10"/250mm Feed Trough
- 1litre/1½pints Drinker

PLUS FREE

- Brinsea Incubation Disinfectant Concentrate
- 'Incubation at Home' book by Michael Roberts



Chicken & Egg Box (Ref.N310)

Featuring the successful Polyhatch 42 hen egg automatic incubator, the Chicken & Egg Box is ideal for making small scale poultry rearing not only successful but profitable.

The Chicken & Egg Box includes:

- Polyhatch Automatic Incubator
- Standard Egg-Lume Candling Lamp
- Cosylamp Brooder
- 22"/260mm Poultry Feeder
- 100ml Incubation Disinfectant Concentrate

PLUS FREE

- 4litre/7pints Poultry Drinker
- 'Modern Free Range' book by Michael Roberts: a comprehensive guide to poultry farming on a small scale; including tips on where to buy eggs, selling produce, as well as breeding and keeping your birds.

The Classroom Pack (Ref.N410)

Hatching eggs in the classroom is easy, fun and provides a range of educational topics for teachers. This pack includes all the equipment required plus 'The Egg Story' lesson plan – a detailed set of teacher's notes, photographs, activity sheets and CD-ROM. Suitable for years 2 and above. Included is advice on acquiring fertile eggs and finding homes for the chicks.

The Classroom Pack includes:

- 'The Egg Story' Lesson Plan Manual and CD-ROM
- Octagon 20 DX incubator with fully automatic egg turning (approx. 24 hen egg capacity)
- Wet & Dry Bulb Thermometers for measuring humidity
- Egg-Lume Candling Lamp to watch embryo development
- Brooder Module
- Plastic Chick Enclosure
- Feed Trough
- Drinker
- Full operating and troubleshooting instructions

PLUS FREE

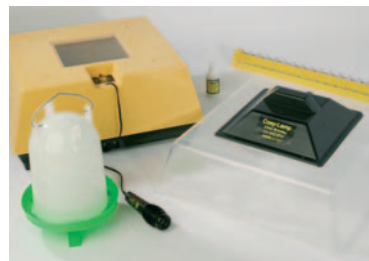
- Brinsea Incubation Disinfectant Concentrate
- Fertile egg supplier list



Beginners Box (Ref.N102)



Breeders Box (Ref.N111)



Chicken & Egg Box (Ref.N310)



The Classroom Pack (Ref.N410)

Reptilian Products



Hatchmaker R (Ref.CH02)

Reptile eggs require particular conditions to hatch successfully and Brinsea Products, the Incubation Specialists, can now provide the equipment needed to precisely match the needs of reptile breeders.

Incubation conditions for reptiles

Reptile eggs develop best in warm humid conditions and buried in clean, absorbent material. Temperature control can affect the sex of the hatchlings as well as the number that successfully hatch and so must be consistent, stable and accurately controllable. Reptile eggs absorb moisture during incubation (unlike birds eggs) and require very high humidity levels to prevent dehydration. Unlike birds eggs they must not be turned. The very long incubation periods for many reptiles can cause problems with hygiene, allowing bacteria to grow in the warm humid environment.

The Hatchmaker R has been developed by Brinsea to provide these conditions in a complete product that is also safe and reliable, and complete with detailed instructions for the novice reptile breeder.

Incubator Features

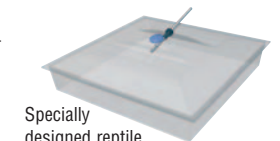
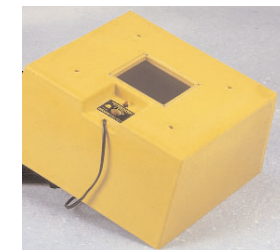
The incubator cabinet is tough and well insulated with an observation window and is fitted with the temperature control system which can be finely adjusted without opening the lid. Inside is the removable, purpose designed reptilian egg chamber which is almost sealed and allows the eggs to be maintained at virtually 100% humidity.

Oxygen supply to the chamber is regulated by a simple vent control. The inner chamber is formed from clear plastic and is easily cleaned. The incubation thermometer (built to Brinsea's specification) fits into the lid of the inner chamber and can be viewed through the cabinet window without disturbing the eggs.

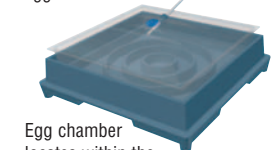
Vermiculite, supplied with the incubator, half fills the inner chamber and is soaked in water. The eggs are then partially buried in the vermiculite. Condensation will not form on the inside of the lid of the chamber while the incubator is in use - preventing drips falling on the incubating eggs.

A 12v d.c version of the Hatchmaker R is available allowing the incubator to run from a car battery or other 12v supply (supply must be rated at 2.5A or more).

Overall incubator dimensions (mm):	356 x 356 x 200 high / 14" x 14" x 8" high
Internal egg chamber dimensions (mm):	280 x 280 x 50 high / 11" x 11" x 2" high (minimum)
Typical egg capacities:	Leopard geckos 120, European tortoises 70, Bull snakes 20
Weight:	3.5Kg
Power consumption:	30W (max) 15W (typical)
Power supply:	230v 50Hz, 115v 60Hz or 12v d.c. as ordered
Contents: Incubator, reptilian incubation chamber, vermiculite, thermometer, user instructions	



Specially designed reptile egg chamber.



Egg chamber locates within the incubator base.