Finally, there is an easier way...

EQUUS
ENVIRONMENTAL
Cool • Clean • Comfortable

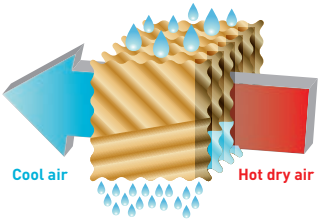
...to provide thermal comfort and enhanced air quality in Equine environments.

A Complete Solution

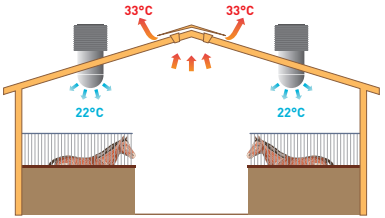
Equus Environmental offers various installation options for evaporative cooling which represents an affordable opportunity to managing the conditions within the modern equine environment.
Cooling is provided by the natural process of evaporative cooling. Hygiene standards are improved by providing improved ventilation and carefully designed air flows to reduce both dust levels and insect population.
Employees benefit from the cooler and cleaner environment which creates a more productive and healthier workplace.
Evaporative cooling automatically controls the building temperature. A constant flow of fresh, cool air removes odours and other contaminants. Permeable fabric duct systems are employed to ensure draught free conditions.

Evaporative cooling gives you fresh, cool, spring days in the middle of summer.

- Fixed, temporary or portable solutions
- Improved air quality
- Improved thermal comfort
- Ventilation without draughts
- Reduced odour, dust and flies



As warm air passes over wet filter pads, water naturally evaporates into the air.
The air is cooled as it gives up the heat required to evaporate the water.



Where?

- Traditional stables - poor ventilation, leading to dust accumulation, poor air quality and thermal discomfort, especially at warmer times of the year. Suitable for all types of construction. (e.g. brick, wood, cladding, etc)
- Racing stables
- Temporary stabling
- Studs - stables, covering sheds
- Indoor arenas
- Equine veterinary practices (stables, working areas)
- Riding schools
- Unsaddling enclosures at racecourses
- Racecourse stabling
- Holding areas for horses at equestrian events
- Tented villages at equestrian events
- Covered or indoor sales rings
- Horse walkers
- Treadmill rooms
- Horseboxes

Comfort

FACT

The upper temperature limit for comfort in both horses and people is around 25°C.

FACT

In the last 3 years, the UK shade temperature has exceeded 25°C on an average of more than 80 days per year.

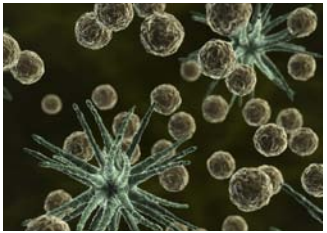
FACT

Above 25°C horses are less comfortable and have to work harder to control their body temperature.

FACT

Temperatures above 25°C lead to:

- Increased requirement for dietary energy to maintain condition
- Dehydration, which can adversely effect the gastro-intestinal tract
- Drying of the respiratory tract and increased risk of respiratory disease
- Electrolyte loss through sweating
- Reduced resting and recovery



Air Quality

FACT

Respiratory problems are the 2nd most common reason for a vet to be called to see a horse, accounting for an estimated ¼ of all calls.

FACT

Allergic and infectious respiratory disease is common in horses and is increasing; poor air quality in stables is a contributory factor in causation.

FACT

Around ⅓ of the people working with horses on a regular basis have evidence of occupational respiratory disease* – caused by being in the same environment as the horse.

FACT

Even good quality, dust-extracted forage and bedding contains significant amounts of mould spores, pollen, dust, bacteria and mites.

FACT

Whilst it is difficult to maintain good air quality in stables, air quality outside is also frequently poor due to pollution, pollen, moulds and dust.

*Respiratory symptoms and lung function in a cohort of UK equine (horse) stable yard staff. Preedy DF, Kendrick AH, Franklin SH, Jarad NA and Marlin DJ. American Thoracic Society, 2003.

Why?

Performance and working horses spend a significant proportion of every 24 hours stabled. Therefore the stable environment is crucial to their health and well-being. Horses and people are usually comfortable until the ambient temperature exceeds ~25°C (referred to as the upper limit of the thermoneutral zone).
Stabled horses are at an increased risk of respiratory disease due to dust that accumulates in stables, even on low-dust managements and due to cross-infection from virus and bacteria with horses in close proximity.

How?

- Quick and easy to retrofit or design into new builds
- Takes up minimal space
- Quiet
- Does not produce drafts
- No requirement for fully enclosed areas - can be open sided

Hygiene

Dust levels are reduced by carefully designed air flow patterns.
The air flows are designed to minimise cross contamination between animals reducing the risk of infection.
Insects do not thrive in cool air flows and odour is reduced.

Employee working conditions

High temperatures lead to a loss of productivity. Contaminants in the air should be removed with adequate ventilation systems to prevent occupational respiratory disease.
An Equus Environmental solution addresses both of these issues.

Low cost

Typically an evaporative cooler is 25% of the capital installation cost of a refrigerant based industrial air conditioning system.
This, together with only 10% of the running cost, makes evaporative cooling a practical and realistic solution to people cooling in industrial and commercial operations.

Carbon Trust loan eligibility assistance available.
(Up to 5 years interest free for qualifying SME establishments).

Key advantages

Improved thermal comfort leads to:
Improved level of rest and recovery from exercise.
Less water and electrolyte loss.
Less drying of the respiratory tract.
Reduced susceptibility to disease, especially respiratory disease.
Less energy expended on thermoregulation.
Improved fertility.
More efficient weight gain in growing animals.

Improved air-circulation
Less airborne dust.
Lower burden of respiratory disease.
Less odour e.g. ammonia.
Improved air-quality for horses and staff (1/3 of people working with racehorses have been shown to have occupational respiratory disease).

Structured air-circulation
Less risk of airborne carriage of respiratory virus or bacteria between horses in the same stables.

Added benefits
Reduces flies.
Specific technology minimises risk of waterborne infections common in traditional air-conditioning, such as Legionella.
50% of the cost of A/C to buy.
25% of the cost of traditional A/C to install.
10% the cost of A/C to run.

ECP SPECIFICATION

Air Flow	4 m^3/s
Approximate area covered	300 m^2
Power input	1.5 KW
Operating weight	90 KG
Height	1000 mm
Width	1100 mm
Depth	1100 mm

PERFORMANCE

@30°C 40%RH	
Temperature drop	9°C
Cooling Effect	34 KW
Water usage	70 L/Hr

WARRANTY
2 years on all parts

For more information visit
www.equusenviro.com

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