



CET Equine Spas

DESIGNED FROM THE HORSE OUT

Brochure



"CET Equine Spas are the
obvious choice on Engineering
and Medical grounds"

US Olympic Team Vet

The Professional's Choice



CET Equine Spas

The Therapeutic Advantage

CET Equine Spas are "the obvious choice on engineering and medical grounds", says the US Olympic Team Vet.

You have invested a lot of time, money and effort to produce a class winning horse. Protect your investment and your peace of mind with the world's safest, most effective, longest lasting, cost efficient equine spa therapy.

Manufactured from the highest quality marine grade stainless steel, CET Equine Spas are designed for a 20 plus year life span resulting in the lowest lifetime costs by far.

Since we started manufacturing equine spas, we focused on the safety of both the horse and the operator and the hygiene of the Equine Spa. Besides the superb filtration system, attention has been paid to increasing chilling efficiency, lowering running costs and reducing overall chemical usage, making the CET Equine Spa the greenest spa on the market.

CET produce three full sized Equine Spas, namely the Premier, Deluxe and Classic models as well as the world's only truly portable CET Mini-Spa.

All CET Equine Spas come with a "starter kit", containing anti-rear straps, 2 horse nappies, salts, chemicals and test strips for testing the water quality and a manual. Installation and training is provided on site, at a time to suit you. As the spas are portable, if you decide to move to another building or location, it is straight forward.



Why Hydrotherapy: A veterinary perspective

To properly understand how the low temperature hydrotherapy of Equine Spas works we need to review how the body reacts to the trauma of strains, cuts and bruises. When soft tissue is injured through a cut, tear or by concussive trauma the body releases enzymes and proteins causing the blood vessel walls in that vicinity to dilate and become more porous.

Lymphocytes are directed to the site of the trauma passing through the porous membranes and entering the injured tissues to begin fighting the infection. The extra fluids, carrying the oxygen and proteins for tissue repair, pool around the injured area causing edema or swelling which helps to immobilise the injury. Tissue damage also triggers the secretion of hormones which cause much of the pain the horse feels in order to prevent overuse of the affected limb. Additionally, the increased blood flow to the site of the injury results in a rise in temperature in the tissues in that vicinity.

The three main symptoms of inflammation, namely pain, heat, and swelling, occur in varying degrees depending on the site, nature, and severity of the injury. The downside of inflammation is that it may rage out of control and hinder the healing process resulting in secondary tissue damage or hypoxic injury, which can compound the problem. In addition, blood vessels in the area are put under increasing pressure by the fluid build-up, thereby slowing down the flow of blood and lymphatic fluid.

The safest way to break the destructive cycle of secondary cell injury and excess swelling is to use the horse's circulatory system to sweep away excess fluids that have collected in the tissues.

While anti-inflammatory agents such as bute reduce swelling and heat, they may also mask pain confusing the diagnostic picture. Also, the use of corticosteroids to control heat and inflammation may have the disadvantage of shutting down the whole healing process.



How it works

Equine Spa hydrotherapy relies on the following four basic factors:

1. Temperature

The application of cold triggers three basic reactions. Firstly, at a cellular level, the metabolic response of the cells is reduced, so the cells need less oxygen to function and thereby suffer less hypoxic injury. Secondly, the permeability of the blood vessel walls is decreased, thus reducing the amount of fluid that accumulates in the injured area. And thirdly, the cold numbs the area to a certain degree, acting as a topical analgesic.

One of the best things about cold is that it does not override the beneficial effects of the healing process. Please note that the application of cold should not be overdone. The overuse of ice, for example, can cause tissue damage.

2. Salt Concentration

The salt concentration of the water has an impact on the healing process. Higher salt concentrations will draw away more of the fluids that accumulate around an injury. Additionally, the proportion of various salts has been found to allow injuries to heal more quickly.

3. Depth of Water

The greater the depth of the water, the greater the physical pressure exerted on the tissues. This, again, aids the dispersal of accumulated fluids.

4. Aeration

Aeration of the water has a two fold effect: it increases the dissolved oxygen level of the water and subjects the soft tissue to a gentle massaging action. It is thought that the increased oxygen level aids the healing process much as hyperbaric chambers do for humans, while the massage effect influences dispersal of fluids. In addition, horses tend to relax more than in still cold water as is evidenced by reduced heart rates.

What it treats

Low temperature hydrotherapy can be used to treat a variety of leg issues by removing painful inflammation and fluid at the root of the problem and repairing tissue quickly.

The following **conditions** typically respond well to hydrotherapy treatment:

- Joint Conditions
- Laminitis
- Brittle Hooves / Hoof Injuries
- Ligament Injuries
- Tendonitis
- Shin Splints / Sore Shins
- Soft Tissue Injuries
- Abscesses
- Windgalls / Windpuffs

In addition, low temperature equine hydrotherapy has also proven effective as a **preventative modality** and as an **aid to recovery** when used pre- and post-competition.

Research on Cryotherapy in the treatment of Laminitis

Equine laminitis: Cryotherapy reduces the severity of lesions
(Pollitt et al. 2009)

Laminitis can be devastating for both horse and owner, as it not only leads to loss of performance but is the second biggest killer of horses, after colic.

Recent research indicates early cryotherapy treatment may improve outcomes for horses suffering with acute laminitis.

This key research, conducted by expert equine veterinarians Prof. Christopher C. Pollitt and Dr. Andrew W. van Eps of the Australian Equine Laminitis Research Unit at the University of Queensland into the benefits of cryotherapy for prevention of laminitis in the Distal Limb during the developmental stage of the disease, has proved that cryotherapy sessions improve the pathology of acute laminitis.

Investigation

In order to carry out the experiment, 3 groups of 6 normal Standardbred horses were used.

Continuous cryotherapy, using a mixture of ice and water, was applied for 72h to the distal limbs of Group 1.

Groups 2 and 3 were administered oligofructose to induce laminitis. Group 2 was treated with cryotherapy for 72 hours (straight after dosing).

Results

The cryotherapy treatment proved effective in cooling the distal limb of the horses that underwent 72h of treatment in comparison with the control group.

More importantly:

- **No lameness** was observed in the treated limbs of these horses.
- **Laminitis histology scores** in the treated limbs **were considerably lower** than those of the corresponding untreated forelimbs.
- **Laminitis histology scores** in the treated limbs of the **overall group** resulted **significantly lower** than those of the untreated limbs.
- When applied to just one foot, **cryotherapy significantly reduced the severity of acute laminitis in this study.**

Pollitt and van Eps propose that continuous, medium to long term cryotherapy applied to the distal limbs of horses safely and effectively improves the clinical signs and pathology of acute laminitis.



"Cryotherapy exerts a myriad of potent protective effects on tissue".

(Pollitt et al. 2009)



Why Choose CET Equine Spas?

So what gives CET Equine Spas that Therapeutic Advantage?

Medical Grounds

The CET Therapeutic Advantage is achieved by maximising water quality and by ensuring optimum therapeutic temperatures throughout the treatment session.

Water Quality

The quality of the CET Equine Spa filtration system ensures the water remains crystal clear and eliminates the need for potentially hazardous flocculant.

In contrast, the use of cartridge filters leads to a build up of harmful Totally Dissolved Solids [TDS], resulting in unhealthy, cloudy water. TDS are typically controlled by the addition of flocculant [a clarifier produced by mixing aluminium with hydrochloric acid], which may have long-term negative side effects.

When trialling a competitor spa with cartridge filtration, a current client reported, "we had firm instructions from the manufacturer not to fully empty the spa or it would cause problems with the filtration. This meant that the first horse in the morning was stepping into the now warm water left over from the last treatment the night before. I was not happy with this aspect at all."

In contrast, the CET Equine Spa range completely empties the treatment chamber, which consequently eliminates this problem.

Maintaining Therapeutic Temperatures

The CET Equine Spa is the only spa that chills the water in the treatment chamber as well as the water in the reservoir thereby maintaining the water at the optimum temperature during the whole treatment session. A temperature display at the front of the spa confirms this feature.

Our approach avoids the water in the treatment chamber increasing in temperature during the session, returning to the reservoir warm, thus reducing the therapeutic effect of the treatment.





Engineering Grounds

The main engineering advantages focus on safety, longevity and good design.

Safety

CET Equine Spas are the only spas with both a neck-guard and side safety rails as standard for the Premier model, minimising the risk of horses jumping out thereby avoiding the potential for injury to both horse and operator.

The spas can be supplied without the neck-guard or without side safety rails on request, but they are strongly recommended on safety grounds.

Longevity

CET Equine Spas carry the longest warranty on the market with the spa body warranted for 4 years. This demonstrates the confidence the manufacturer has in the build quality and the longevity of the materials.

Managing Director, Colin Edgar says, "we have more spas over a decade old on the market today than all other spa manufacturers combined. We fully expect our spas to last at least 20 years and this makes them the best value spas with the lowest lifetime costs by far."

Good Design

Often keeping it simple is good. We try to keep everything simple wherever possible and practical, but it's also vital to ensure that the operator cannot easily cause problems through misuse. Thus all pumps, ozonators and chillers in the CET Equine Spas are protected by flow switches, which in the event of no flow turn them off to prevent them running dry and causing expensive failures.

Likewise the blower is protected by a timer, which prevents it being accidentally left running overnight.





Features and Benefits

"As we manufacture the spas in-house, we can adopt design changes or meet specific customer requirements in a fast and effective way", reports Colin Edgar, Managing Director of CET.

With focus on safety, hygiene and ease of use, we paid special attention to the following aspects:

Door Design

- Single lever action on front and rear doors
- Half door option at clients request [single lever action - no unbolting]
- Clear door option at clients request [no additional cost]

Flexible Hose

- Handheld flexible hose for treating injuries above water level

Environmentally Friendly

- Variable speed pump – reduces running costs by up to 80%
- Ozonator – reduces chemical usage by up to 90%
- Unique chiller design – reduces heat gain, minimising running costs
- Fully insulated tank, pipes, treatment chamber and filters – reduces heat gain thereby lowering running costs

Fully emptying.

No flocculant
required.





Easy Access and Loading

- Large easy access hatches provide instant access for maintenance issues.
- Entry and exit ramps to match the flooring of the spa for easy loading.

Superior Filtration

- Sand filters provide high water quality with easy maintenance routines.
- Good to know: Any disinfection process will add chemical by-products over time which will lead to a build up of Totally Dissolved Solids (TDS) which may become harmful. The backwash process (which is used to clean sand filters) helps counter-act the build up of TDS.
- No cartridge filters: not only improved water quality but reduced labour costs as cartridge filters require regular cleaning.

Warranty

- Longest warranty in the market: 4 years on the spa body.
- 12 months on electrical and other components.

After Sales Service

- Nominated service engineers provide a local service in most countries – ask for details.





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