

**PHYSIC~TECH**

# Underwater Treadmill for the Canine Physiotherapy



Hydrotherapy with **PHYSIO** **TECH**





## The method of treatment which ideally represents the needs of today's veterinary medicine

The canine hydrotherapy with an underwater treadmill is a veterinary method of treatment valued for many years in the area of the orthopedics and neurology as an addition to the classic treatments. It is based on the controlled application of the Archimedes principle and on three elements: buoyancy, temperature and motion in the water.

Because of the buoyancy the weight is relieved, the motion is more painless and the animals are motivated to move despite illness or injury. Often an operation does not suffice to achieve a satisfactory result. Only with a corresponding physiotherapeutic treatment is it possible to achieve relieve from pain, full use of the motion extent and conservation of the muscular tissue.

Altogether, hydrotherapy seems to have a very positive effect to the skeleton, neuro muscular heart circulation and respiratory system.

## Possible fields of application of canine hydrotherapy

Therapeutical support for:

- ▶ preoperative conditioning
- ▶ post-operative rehabilitation
- ▶ illness in the muscular and skeletal area (dysplasia, arthritis, paralysis)
- ▶ injury of the ligaments, muscles, chords, spinal column
- ▶ training against obesity and for endurance and muscle stamina
- ▶ training for performance dogs and working dogs



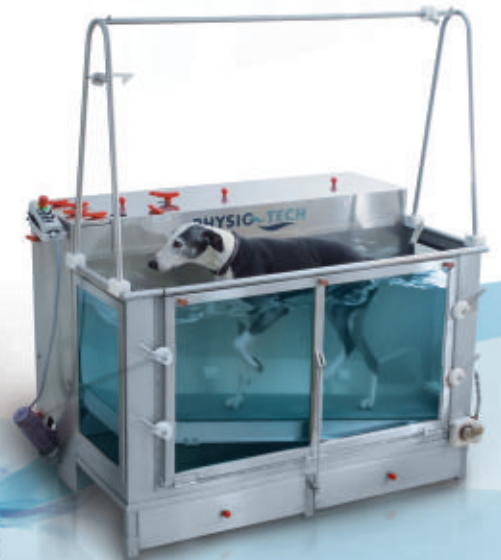
## Multiple possibilities, individual settings!

The PHYSIO-TECH Underwater Treadmill enables the therapist to execute different exercises. By the individual, technical coordination for every single dog the impact, which has an effect on the animal, can be adjusted optimally.

On the one hand the dog can be relieved by the adjustable water-level, on the other hand the rehabilitation or training effect can be increased by the sloping position of the treadmill, by the individually adjustable speed of the treadmill or by additional water resistance (by means of a counter current installation). The water temperature can also be variable adjusted and thus the heart circulatory system can be strengthened, and tensed muscles can be relaxed.

All these options are helpful to increase the mobility, the coordination of the limbs and the physical strength of the patient. Therefore the PHYSIO-TECH Underwater Treadmill is the optimal solution for most rehabilitation patients with restricted mobility.

The next chapter shows how the treatment is applied.



# The Treatment Process

- > Water is filled from the water supply into the storage reservoir and can be preheated when required.
- > The non-slip rubber mat is attached to the front door and the dog steps comfortably into the therapy basin over the lowered front door.
- > The front door is locked and the rubber mat is removed.
- > The water is pumped from the storage reservoir into the therapy basin until the water-level reaches approximately the chest height of the dog. The exact water quantity varies according to the individual constitution and the illness of the animal.
- > Slowly start the treadmill with the remote control and adapt the treadmill speed to the respective individual conditions.
- > To finish the treatment, adjust the treadmill speed slowly down to a standstill. The water is then pumped back into the storage reservoir via the built-in filter. The water can be re-used for the next treatment.
- > The dog is towelled off in the therapy basin. The rubber mat is replaced and the dog exits the therapy basin through the front door.





**PHYSIG-TECH**

# Underwater Treadmills

## Model BASIC+

This PHYSIO-TECH Underwater Treadmill is of small, compact design and is suitable for dogs up to the size of a normal built Alsatian. It is available with and without a valve enclosure (not retrofittable). To optimize handling with the BASIC+ model we offer optional accessories (can be retrofitted).

## Model XXL

The PHYSIO-TECH Underwater Treadmill Model XXL with an appropriately higher water-level is suitable for dogs of all sizes and races. As a choice we offer two sloping options: a manual sloping position (basic equipment) or an automatic sloping position as an option. An upgrade from the manual sloping position to the automatic sloping position cannot be retrofitted. To optimize working with the model XXL we offer optional accessories (can be retrofitted).

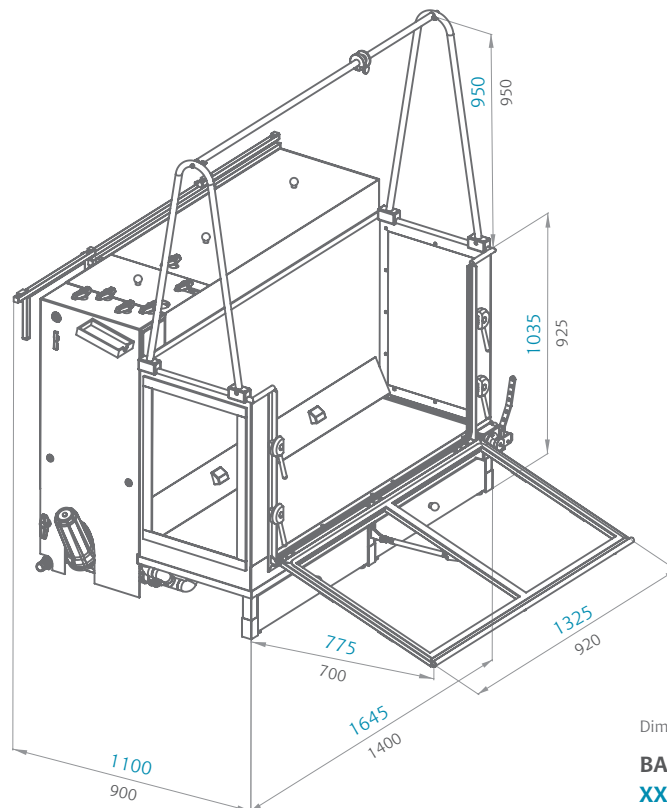
## Model DeLUXE

The PHYSIO-TECH Underwater Treadmill Model Deluxe with an appropriately higher water-level is suitable for dogs of all sizes and races. It has the same size as the Model XXL; however, it is fully automated and equipped with all available technical features and options.



To be able to comply as much as possible with the different demands of our customers, we offer three underwater treadmills in two different sizes.

In the smaller type of our PHYSIO-TECH Underwater Treadmills dogs can be treated up to the size of a normal Alsatian. Furthermore, the XXL and DeLUXE models allow the therapy of extremely big dogs, such as a German mastiff or Irish Alsatian.



Dimensions of our treadmills

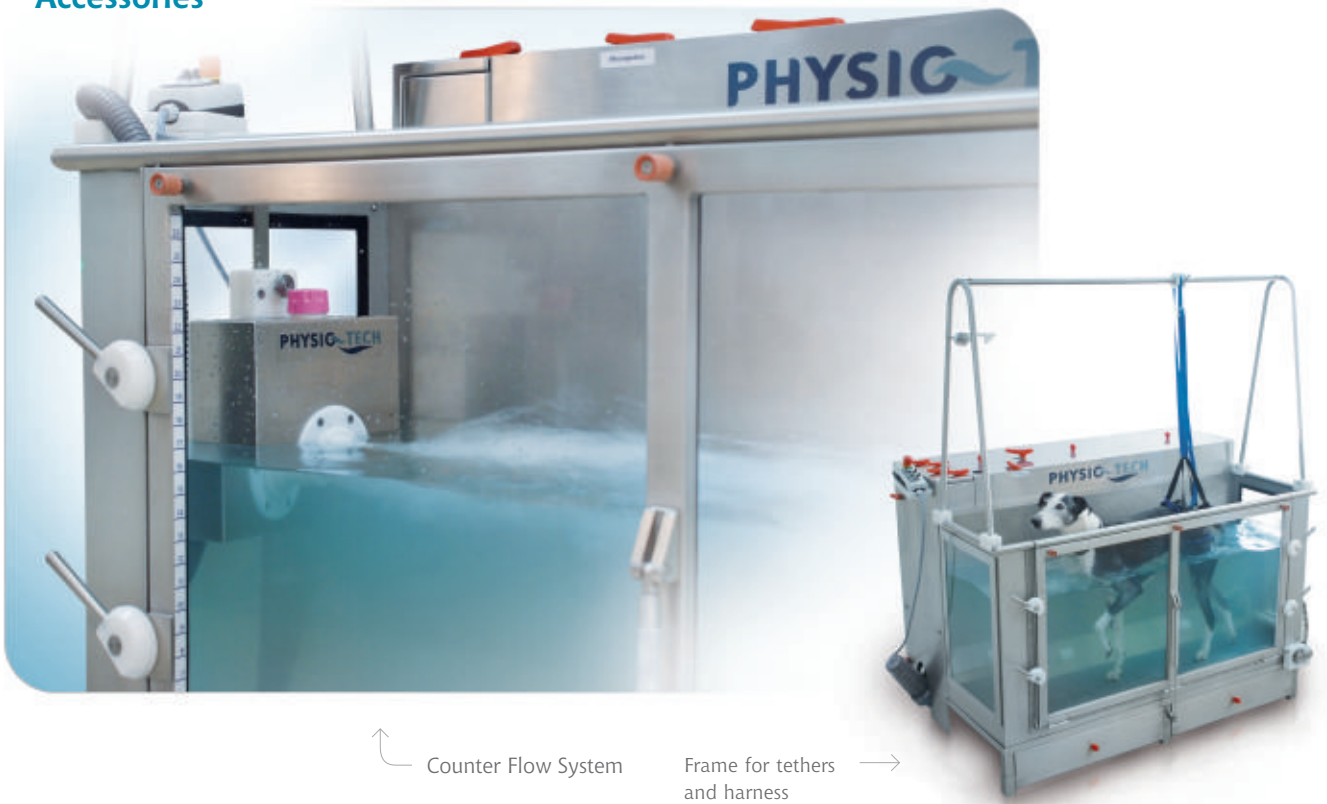
**BASIC+**  
**XXL DeLUXE**



EQUIPMENT	MODELS			
	BASIC +	XXL	DeLUXE	
01 HEATING	✓	✓	✓	for an optimal water temperature
02 TREADMILL REVERSE	✓	✓	✓	to change the treadmill direction of rotation, so that the animal can be inspected from both sides
03 TREADMILL SPEED AJUSTABLE	✓	✓	✓	suitable speed for the physical condition of the patient
04 GAS SPRING FOR ENTRANCE DOOR	✓	✓	✓	makes opening and closing of the front door easier
05 RUBBER MAT FOR ENTRY	✓	✓	✓	anti skid rubber mat for safe entry and exit
06 RETRACTABLE STEPS	—	✓	✓	for a comfortable working level
07 UNDERWATER MASSAGE	✓	✓	✓	with a firm, adjustable jet of water
08 ELEVATION FOR SMALL DOGS	✓	✓	automatic	can be lifted to the second level; this also prevents strain to the back of the therapist at work
09 TREADMILL INCLINATION	✓	✓ <sup>*</sup>	automatic	to increase the training effect * available in a manual (14%) or automatic version (0-14 %); the automatic option can not be retrofitted
		option automatic		
10 INTERNAL FILTER	✓	✓	✓	mechanical filter, filters hair and major contamination
11 EXTERNAL FILTER WITH UV LAMP	OPTION	✓	✓	removes smaller contamination and with a UV lamp disinfects the water
12 STEEL SHEET ENCLOSURE FOR VALVES/PIPES	OPTION	✓	✓	must be ordered with basic configuration; this option can not be retrofitted
13 COUNTER FLOW SYSTEM	OPTION	OPTION	✓	to increase the training effect
14 FRAME FOR TETHERS AND HARNESS	OPTION	OPTION	✓	for the treatment of dogs with limited or no mobility
15 SOFTWARE AQUA PC	OPTION	OPTION	✓	hardware for the acquisition of therapy data
16 SOFTWARE AQUA PRAXIS	OPTION	OPTION	OPTION	software for the acquisition of therapy data
17 ACCESSORY RACK	OPTION	OPTION	✓	for the safe storage of the accessories, e.g. counter current device, protective plate guard

All PHYSIO-TECH Underwater Treadmills can be ordered in different equipment variations.

## Accessories



## Equipment



# The PHYSIO-TECH Software as an Accessory

## AquaPraxis

The AquaPraxis software\* is administration software especially for small animal physiotherapy practices. It manages customer data, ties in treatment data as well as products data, and can be used to automatically create invoices. In addition, the case history, treatment progress and additional information can be stored.

\* German version

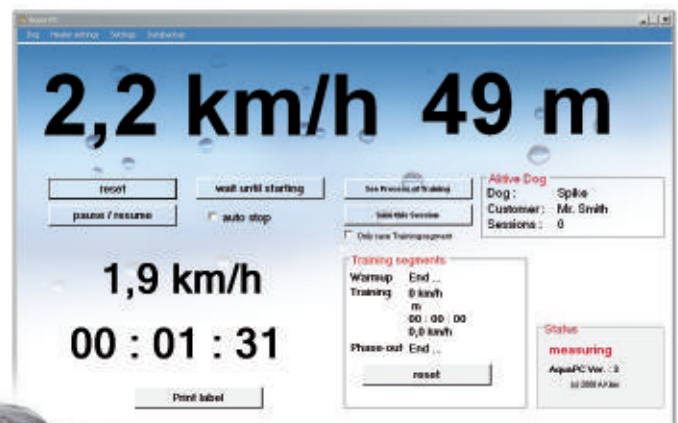


## AquaPC

The AquaPC software extends the possibilities of the therapy by the acquisition of therapy data. We provide the software for the direct connection to the control cabinet.

AquaPC offers the following parameters:

- Display of speed, distance, elapsed time etc.
- Automatic identification of training intervals, such as start and end of training. Only the actual treatment part will be recorded.
- The display of the data of all previous therapy sessions shows the therapist the Status Quo to continue earlier treatments appropriately. The customer gets a comprehensible overview of the training success.
- Timer-controlled heating (warm water at start of work).



# Technical Features and Advantages of the PHYSIO-TECH Underwater Treadmill

## Construction optimized for more operator convenience, security and hygiene

Many of the therapy basins introduced on the market also strive for the same therapy objectives; however their design is of a more complex nature, they require a much greater floor space and demand a higher technical understanding by the user in terms of operation and maintenance.

Owing to the low extents and the light weight, the PHYSIO-TECH Underwater Treadmill can be installed without modifications to structural measures in almost every animal medical practice.

- Only a floor space of 2 square meters is needed for the underwater treadmill.
- The storage reservoir is attached to the therapy basin so that no additional space is needed for a watertank.
- For transport the device can be disassembled so that it passes through standard doors.
- The pipes and pumping system are mounted along side the storage reservoir. This reduces the height of the underwater treadmill and allows for an optimal filling of the therapy basin and makes it easier to work with the patient.
- Accessories like treadmill elevation, treadmill sloping, top rack or countercurrent massage can be easily attached to the therapy basin.
- The gas-pressurized spring makes opening and closing of the entry door easy.
- The control of the treadmill is carried out with a remote control.



	BASIC +	XXL	DeLUXE
Weight (net weight)	ca. 175 kg	ca. 215 kg	ca. 220 kg
Weight (maximum water level)	ca. 495 kg	ca. 835 kg	ca. 840 kg
Maximum water capacity	320 L	620 L	620 L
Treadmill distance above floor			
at home position of treadmill	27 cm	27 cm	27 cm
at maximum elevation of treadmill	48 cm	48 cm	48 cm
Maximum depth of water over treadmill	58 cm	58 cm	58 cm
Inclination from home position	16 %	14 % / 0-14 %	0-15 %
Measurements treadmill	144 × 36 cm	154 × 43 cm	154 × 43 cm
Power requirements (AC)	230 V (16 A)	230 V (16 A)	230 V (16 A)
Motor power	350 W	350 W	350 W
Pump power	900 W	900 W	900 W
Heating power	3 KW	3 KW	3 KW



## Water consumption and profitability

The PHYSIO-TECH underwater treadmill consists of two chambers: The water storage reservoir and the therapy basin with the treadmill. Both are connected by a water pump and a mechanical filter which filters out particles down to  $50 \mu$  while pumping the water from one basin to the other. This way the water can be reused several times since hair and pollution matter remain in the filter. This saves time, energy and money.

In addition we install an external filter. This external filter also removes small suspended matters and in conjunction with a UV lamp sterilizes the water. The water turbidity occurring after some treatments is reduced considerably overnight.

With two filter systems you do not only save up water, but – and this is particularly important to us - you also increase the treatment hygiene.



## Operation and maintainability

The more secure and simple the operation and maintenance of the treadmill, the higher the state of security. Our patented technical construction makes the removal of the treadmill for maintenance and cleaning purposes extremely easy. Neither screws nor fixtures have to be removed to take out the treadmill. The therapy basin and the storage reservoir can easily be cleaned mechanically. No technical knowledge is required.

## Entrance and exit friendly

The dog can enter the therapy basin stress-free on ground level; therefore there is no need for a mechanical hoisting device. Over the entry door the dog enters and exits the therapy basin free from fear like over a gangway. The door is equipped with a high-quality mineral glass plate so that the animal can be observed at any time. A non-slip rubber mat is placed on the door during entrance and exit.



## Installation and initial operation

The installation and initial operation of the underwater treadmill is rather simple: required are a tap water inlet and outlet, a 230 volt power supply and a floor covering suitable for a damp location. Connecting the treadmill is similar to the principle of installing a washing machine. The water protected control cabinet is attached to the wall and connected to the power outlet with a standard plug.

## Product Quality

The PHYSIO-TECH Underwater Treadmill uses high-quality materials to guarantee a long life span and simple care. The treadmill is made of stainless steel with a brushed surface, all gears are made of high-grade steel and the casters consist of high-strength synthetic material. The treadmill belt is robust and has a gripping surface to avoid slipping of the animal. The treadmill itself is constructed extremely flatly and is attached to the bottom of the therapy basin so that the water demand is lowered to a minimum. Thus dogs of every size can be treated in the therapy basin; smaller dogs can be treated from above using the treadmill elevation. The treadmill extends completely over the base area of the therapy basin. At the rear panel of the therapy basin a protective cover is mounted to hide the driving gears, at the same time this cover locks the treadmill into position.

The treadmill is powered by an external mounted electric motor which guarantees slip free power transmission even with heavy dogs. PHYSIO-TECH uses a gear motor for the direct speed regulation with a frequency converter.

Pumping, activating the treadmill, as well as the direct regulation of the treadmill speed can be carried out comfortably with a remote control. The entire installation is operated through a control cabinet with FI switch (ground fault circuit breaker) and 230 Volts (16A) of electric power. For safety reasons a well accessible emergency shut-off switch is integrated into the remote control.





**PHYSIO-TECH**

[www.physio-tech.com](http://www.physio-tech.com)

# The Advantages of the PHYSIO-TECH Underwater Treadmill

## Stress free handling of the dog

Simple entry and exit via the entry door, fitted to all three models.

## Multiple possibilities, individual settings

- treadmill elevation
- treadmill inclination
- underwater massage
- countercurrent system
- frame for tethers and harness

## Optimal customer and patient data management

AquaPraxis Software  
AquaPC Software

## Hygiene and water consumption economy

- The double filtration and disinfection with a UV lamp permits a long time use of the therapy water.
- High-quality materials and production quality
- Simple access for cleaning and maintenance.
- Treadmill can be erected and removed easily.
- Storage reservoir and therapy basin are easy to open and to clean.

## Minimal installation requirements

- installation space requirements only approx. 2 m<sup>2</sup>
- only 230 V, 16 A electric power required
- straightforward transport through standard doors
- normal load on floors
- bathtub fitting for the filling and cleaning
- water drain

## Service including delivery, installation and training

To guarantee the best quality-price-service relation on the market, PHYSIO-TECH delivers the products directly from its own factory in Germany, takes care of installation and provides an initial operating training.







## FAQ

### **Can I sufficiently relieve big dogs?**

Due to the flat construction of the PHYSIO-TECH Underwater Treadmill a water depth of 67 cm over treadmill level can be reached. Even a German mastiff is sufficiently relieved of its weight at this depth of water.

### **Can I also give therapy comfortably to small dogs?**

Because of the treadmill elevation dogs can exercise on a height of 48 cm over the floor level. They can be reached comfortably and ergonomically during the therapy.

### **How can I train sports dogs and working dogs for performance?**

By the individually configurable treadmill speed, the possibility to adjust the treadmill in a sloping position or by adding an additional resistance (underwater massage, countercurrent device) the training effects can be increased.

### **How can I treat dogs with restricted mobility?**

The top rack with tethers is the optimal solution for patients with restricted mobility. The dog is kept safe in straps and is fixed to the top rack in an optimal position while the treadmill motion stimulates and reactivates nerves and muscles.

### **Is the training hygienic for dogs in the PHYSIO-TECH Underwater Treadmill?**

Although the therapy water can be re-used for several treatments, the training is hygienic for the dogs. Two filters and a UV lamp take care that the water is cleaned mechanically and biologically. Dirt parts are removed and bacteria are killed. In addition, there are no distracting components in the storage reservoir or in the therapy basin. The treadmill can be lifted into the vertical position with one hand movement and can be completely removed without using tools. All elements can therefore be cleaned comfortably and thoroughly.







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