

# **FISHFARM 1.0**

PRODUCT CARD

#### **FISHFARM**

# BASIC DESCRIPTION

#### PRODUCT NAME FISHFARM 1.0

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Freshwater fish farming

**TECHNOLOGY TYPE** 

Fishfarm – RAS

SIZE (incl. tolerance limits) 10 × 10 × 2 m (w × d × h) Fishfarm 1.1 (rainbow trout)

25 x 10 x 2 m (w × d × h) Fishfarm 1.2 (African catfish)

#### **5 x 14 x 1.5 m** (w × d × h)

Fishfarm 1.3 (Nile tilapia/African catfish)

#### S FISH DENSITY

Fishfarm 1.1 (rainbow trout) – 120 kg/m<sup>3</sup> Fishfarm 1.2 (African catfish) – 350 kg/m<sup>3</sup> Fishfarm 1.3.1 (Nile tilapia) – 150 kg/m<sup>3</sup> Fishfarm 1.3.2 (African catfish) – 350 kg/m<sup>3</sup>

#### MATERIAL

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plastic, metal

#### PRODUCT FUNCTION

recirculation aquaculture system

#### SALES MARKET worldwide

FISHFARM is characterised by high fish production, significantly lower water source requirements, and very limited discharge pollution. The fish in FISHFARM systems are fed exclusively with granulated feed respecting the specific requirements of individual fish species. The FISHFARM technology is environmentally friendly, sustainable, and efficient.

### FISHFARM IS A 100% CZECH-MADE PRODUCT.

FISHFARM technology – recirculation aquaculture systems (RAS) are modern technology for intensive farming of fish and other aquatic fauna, which are being increasingly used in aquaculture. RAS works on the principle of water recirculation, meaning that water is filtered and recycled for more efficient and more sustainable fish breeding.

FISHFARM technologies are the future of intensive fish farming. Only FISHFARM systems make it possible to breed fish intensively in a fully controlled environment, while remaining ecological and sustainable, with minimal impact on the surrounding ecosystems.

#### FISHFARM 1.1 - RAINBOW TROUT FARMING

This technology is an excellent system for intensive fish farming in a fully controlled environment with environmentally friendly, sustainable production and a minimal impact on the surrounding ecosystem. FISHFARM 1.1 – trout farming technology prepared for optimum rearing of this freshwater fish species.

#### FISHFARM 1.2 – AFRICAN CATFISH FARMING

This technology is adapted for the optimum breeding of African catfish, an increasingly popular species with European consumers. This system offers excellent technology for intensive fish farming in a fully controlled environment with environmentally friendly, sustainable production and a minimal impact on the surrounding ecosystem.

#### FISHFARM 1.3.1 - NILE TILAPIA FARMING

This technology offers another step forward in our excellent intensive fish farming technology. This variant is specially designed for optimum breeding conditions for Nile tilapia, known for their excellent taste and rich nutritional value. Our technology enables intensive rearing of this fish species in a fully controlled environment with an emphasis on environmentally friendly and sustainable production.

#### FISHFARM 1.3.2 – AFRICAN CATFISH FARMING

FISHFARM 1.3.2 is the latest extension of our portfolio of advanced technologies for intensive fish farming. This version is specially adapted for the optimum rearing of African catfish, an increasingly popular species with European consumers. As with the previous versions, we are upholding our commitment to producing fish in an environmentally friendly and sustainable way. Thanks to the fully controlled environment, all negative impacts on the surrounding ecosystem are minimised and a highquality fish supply is guaranteed.

#### **FISHFARM**

# TECHNICAL SPECIFICATION

PRODUCT SURFACE FINISH

#### MATERIALS USED

polypropylene with UV protection

#### COMPONENTS AND CONTROL UNITS

Fish tanks, biofilter, filtration cascade (sedimentation filter, drum filter, biofilter) + storage tank with pump, pump, immersion UV emitter, instantaneous water heater, compressors, tank aeration elements, and biofilter.

WATER AND ELECTRICITY CONSUMPTION (ESTIMATE)

Electricity requirement – 400 kWh/day Water consumption: FISHFARM 1.1 – 12 m<sup>3</sup>/day FISHFARM 1.2 – 15 m<sup>3</sup>/day FISHFARM 1.3 – 12 m<sup>3</sup>/day





## BENEFITS, ASSETS AND KEY FEATURES

#### Fundamental benefits of FISHFARM:

#### Save water

Saving water is one of the main assets of the FISHFARM system. The technology recycles and filters water to minimise the need for new water to be supplied to the system. This is especially beneficial in areas with a shortage of water sources.

#### **Environmental control**

(minimal impact on the surrounding ecosystems)

FISHFARM enables better control and optimisation of environmental conditions for fish. The system makes it possible to monitor and adjust the water temperature, pH, oxygen level, and other parameters for improved fish growth, health, and performance.

#### Reduced risk of fish diseases

(elimination of disease from the external environment) Thanks to better environmental control, the FISHFARM system reduces the risk of fish disease and parasites.

Clean water and good hygienic conditions help minimise the need for antibiotics and chemical medicines.

#### Effective use of space

(high breeding intensity in a small space)

FISHFARM is a vertical and intensive fish production system. This system can be placed in a confined space, which is frequently the case in urban areas, allowing high fish density in a small area.

Absence of predators

Optimal conditions for growth all year round

FISHFARM can be built almost anywhere

Stable and controlled environment, efficient operation (energy saving)

High and sustainable production

Benefit for human health (healthy food)

**Environmental benefit** 

The FISHFARM technology is greener, more sustainable, and more efficient than conventional fish farming. It is chemical-free, works in winter, and people have less work with it.

#### **FISHFARM**

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# CAPACITY & PRODUCTION

ANNUAL FISH PRODUCTION (ESTIMATE) **Fishfarm 1.1** (rainbow trout) – **120 t/year Fishfarm 1.2** (African catfish) – **350 t/year Fishfarm 1.3.1** (Nile tilapia) – **45 t/year Fishfarm 1.3.2** (African catfish) – **100 t/year** 





## CERTIFICATES AND STANDARDS

#### **CE** Declaration of Conformity

Produced in:





#### **FISHFARM**

## APPLICATION/ IMPLEMENTATION

#### **1.** Commercial fisheries:

FISHFARM is becoming an increasingly popular choice for commercial fish farming focusing on catfish, tilapia, trout, and other species. This system reduces the need for large quantities of fresh water and minimises the risk of pollutants leaching out into the surrounding environment.

#### 2. Urban and indoor farms:

FISHFARM can be implemented in urban and indoor farms with limited space and limited access to traditional water sources. This allows for fresh fish production in large urban areas.

#### Research institutes, universities, and other educational facilities:

FISHFARM can be used in research and education facilities for studying fish farming, aquatic environments, and ecosystems.

#### **4.** Hydroponic farms:

FISHFARM can be combined with a hydroponic farm to create an aquaponic farm where fish are farmed together with plants, which allows for water recirculation and both fish and plant production in the same environment.

#### 5. Deserts:

Thanks to its low water demand, FISHFARM can also be used for fish and aquatic plant production in deserts, where there is a shortage of accessible water resources.

#### 6. Recovery of endangered fish species:

FISHFARM can be used for rearing and recovering endangered species of fish and other aquatic organisms in a controlled environment.

#### 7. Landscape aquaculture systems:

In some cases, FISHFARM may be used as part of landscape aquaculture systems combining different fish breeding methods with protection of the aquatic environment.

#### 8. Catering and food processing industry:

Some restaurants and food processing plants operate an inhouse FISHFARM system to get fresh fish and other aquatic products for their menus.

#### 9. Home aquariums:

Private individuals may use smaller versions of the FISHFARM system for keeping fish and other aquatic organisms in home aquariums.





# FISHFARM





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Member of the GFF investment group