

## ***SPECIFICATION***

### **Product Data Sheet**

#### **Product Name: SCREW ELEVATOR**

The SCREW ELEVATOR is an electrically-driven machine, used to elevate fish crops from the water level - to assist in fish loading. A hydraulic, controlled system enables Elevator leveling on its site positioning activity.

#### **Operation**

The Elevator design is based on the "Archimedes Screw" concept: the fish are delivered from the water level (lower side) and elevated with the aid of the sleeved, rotating screw. Upon reaching the desired height, determined by the length and the mounting angle, they are fed through an adjustable, directional outlet, at the upper end.



*General View – Towed Version*

#### **Mounting and Positioning**

The Elevator can be mounted on a variety of chassis, adapted to customer needs:

- a) Direct, fixed mount on any type of floor – "factory based";
- b) Fixed mount on a fishing raft;
- c) Mobile: wheeled and towed; etc.

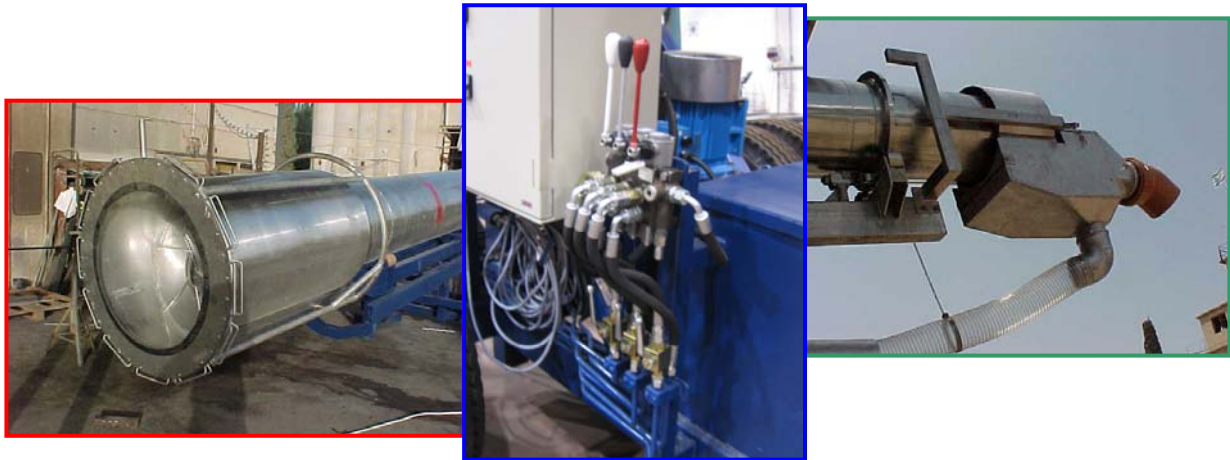
The positioning is determined according to the environment: when used in direct elevating mode from a pond, for example – it should be placed close to the pond rim. The leveling is enabled and assisted with a hydraulic system of an array of pistons, powered with a hydraulic power electrically driven pumps (PSU).

#### **Model Definitions**

The Elevators can be ordered in a variety of model configurations, according to their use:

- a) Stationary (fixed) or towed;
- b) Choice of sizes (screw lengths);
- c) Choice of structural materials: SAE 304, SAE 316 or St 37 (SAE A570);
- d) Choice of screw material: SAE 304, SAE 316.

Mounting chassis are chosen according to the intended use.



*Intake, Hydraulic Positioning Controls and Outlet - Views*

**Specifications** (Given for 10 m, towed model)

**General:**

- |                      |                                  |
|----------------------|----------------------------------|
| 1. Footprint:        | 250 cm (W) x 1095 cm (L)         |
| 2. Height:           | up to 4.2 m (fish outlet)        |
| 3. Screw Dimensions: | 10 m long, 570 mm basic diameter |
| 4. Estimated Weight: | 3,000 kg                         |

**Structural:**

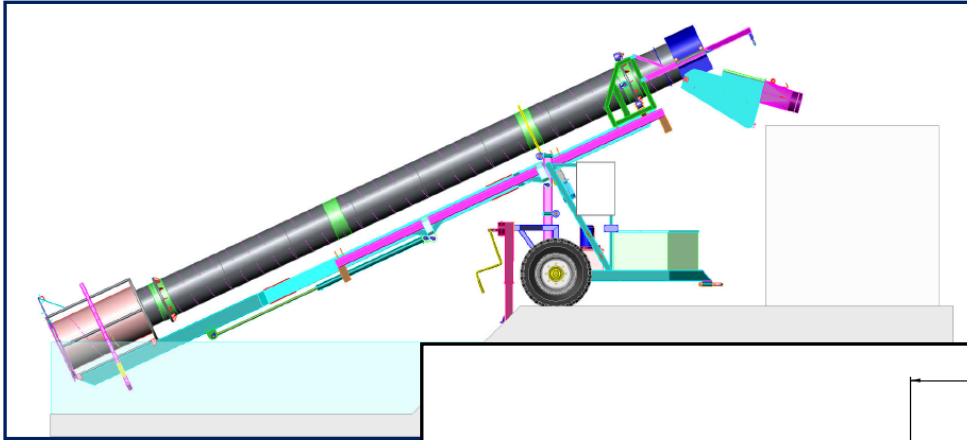
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|--------------------------|---|
| 1. Towing:               | 2-wheel axle, fixing wedges included; L-218 100x25 cm<br>- Dead-weight balanced structure |
| 2. Positioning:          | 4 hydraulic pistons (dual pivots, single thrust)  |
| 3. Positioning Control:  | 3 movement selectors (levers)   |
| 4. Stabilization:        | Manually operated jacks (x2)<br>Extendable/adjustable aft support                         |
| 5. Inlet:                | Secured, safe intake, integral net adaptor/holder   |
| 6. Outlet:               | 250 mm dia., pivoted, angular adjustment  |
| 7. Water Drain:          | Excess water separation and drain, upper side   |
| 8. Screw Material:       | Choice of SAE 304, SAE 316  |
| 9. Structural Materials: | Choice of SAE 304, SAE 316, St 37 (SAE A570)  |

**Performance:**

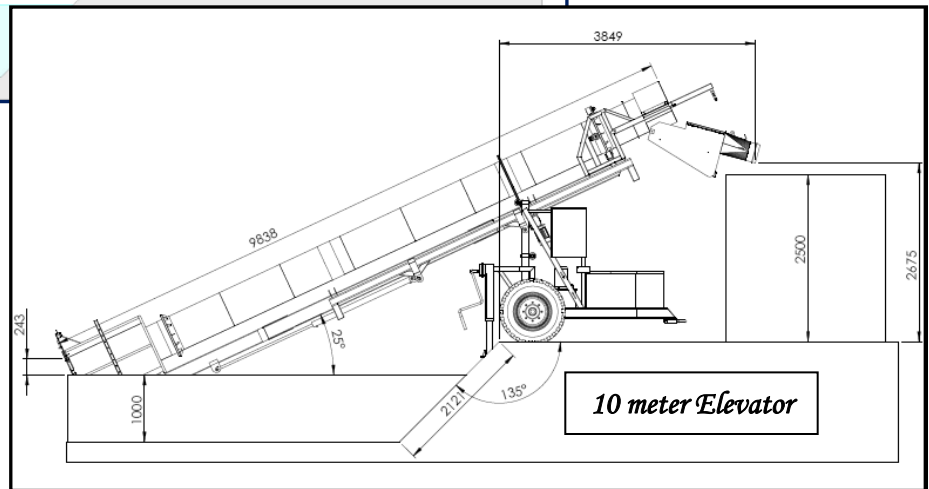
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| 1. Elevating Capacity: | Up to 12 ton/hr  |
| 2. Gear Motor:         | Screw rotation, 2.2 kW, 4.8A, 1450 RPM   |
| 3. Hydraulic PSU:      | Power-pack, 2.2 kW, 4.8A, 1450 RPM   |
| 4. Control:            | Screw rotating rate, Electronic Control Panel (PLC) enabled<br>- Remote Control, Screw rotating rate (additional, in parallel) |
| 5. Safety:             | Rotating motion - protective pull-cable interrupted  |

**Interfaces:**

- |                  |                                     |
|------------------|-------------------------------------|
| 1. Power Supply: | 3-Phase, 220/380V, 50/60 Hz, 4.0 kW |
|------------------|-------------------------------------|



*Engineering Drawings –  
General View and  
Dimensions*



**How to order**

The Catalog Number defines the main features of the Screw Elevator on Order:

Cat. No.: **60 1 A B C D**

**60** - AquaMaof Site Equipment

**1** - Elevator Models

**A** - Screw Material: 1 - SAE 304  
2 - SAE 316

**B** - Construction Material: 1 - SAE 304  
2 - SAE 316  
3 - St 37 (SAE A570)

**C** - Elevator Type: 0 - Special Purpose (Type=0)  
1 - Towed (Field)  
2 - Factory Based  
5 - Raft Mounted

**D** - Screw Lengths:

0 - Special, ____ m	1 - 6 m
2 - 8 m	3 - 10 m
4 - 12 m	5 - 15 m
6 - 3 m, for C (Type=0) only	7 - 6 m, for C (Type=0) only