

# Harvester RS 2000

FOR AQUATIC WEED CONTROL

**WATERWAYS AND AREAS  
RECREATIONAL WATER AREAS  
FACTORY WATER AREAS  
HARBOURS  
SHORELINES  
WATER RESERVES**



RS-Planering Ltd



# Prevent Control Improve

FLOOD DAMAGE

EUTROFICATION

WATER QUALITY

The **Harvester RS 2000** eliminates and controls problems caused by water vegetation. Different flora and growing habits do not limit the Harvester RS 2000 operation.

## PROBLEM

Problems caused by water vegetation usually arise from human action that changes the normal ecological balance. Eutrophication and ultimately overgrowth endanger the condition of watercourses. They also have an injurious effect on water quality and thereby on human health. Flood problems and lowering of water levels are often caused by vegetation, which also endangers water traffic. To ensure safer water traffic, vegetation often has to be removed using various measures. Additionally, professional fishing becomes more difficult and the recreational use of watercourses is restricted.

Nature conservation measures are also needed to safeguard the survival of bird and fish species in their natural habitats. Nor must we forget the need to raise scenic values in densely populated areas, either.

## SOLUTION

The Aquatic Weed Harvester RS 2000 eliminates or controls problems caused by water vegetation. The RS series and its accessories can be supplemented, if necessary, to form a series of machines which ensures effective and economical work, **cutting at depths down to**

**2.0 metres.** Different flora and growing habits do not limit the machine's operation.

**Cutting at  
depths  
down to  
2 metres**







**Good visibility**  
**Ergonomic controls**  
**Low noise level (75 db)**  
**Automatic air condition**



Lowrance side sonar

#### CONSTRUCTION

The construction of the Weed Harvester RS 2000's front conveyors is ideal for the removal of light, low, floating algae. It also has sufficient capacity to cut and transport an abundant, or even heavy, vegetation mass. Thanks to its small draught the machine's working area is the widest possible. The small draught also means that the vegetation mass which has been cut can be carried straight to the shore or to the shore conveyor.

#### RESULT

It is important for the whole working process that vegetation cut from the waterway should be removed.

The Aquatic Weed Harvester RS 2000 and its accessories ensure a good result efficiently and reliably. Cutting is the best restoration method if done in time. The water area can be saved or a bad trend slowed down.

Modern manufacturing methods and a carefully designed high quality product guarantees operation in even the most demanding operating environments.

Customized training is provided for both users and maintenance staff as part of the delivery.

RS Planering Ltd is also able to take into account the customers special needs concerning machines for water restoration work.

#### MOVING

The RS 2000 aquatic weed harvester has two paddle wheels which can be steplessly adjusted. Both wheels have their own hydraulic circuits, so changes in course and steering are exact. The machine can also turn around in place. The aluminium paddle wheels are easily detachable for road transportation. Optionally paddle wheels can be replaced with weed protected hydraulic propellers.

#### CUTTER

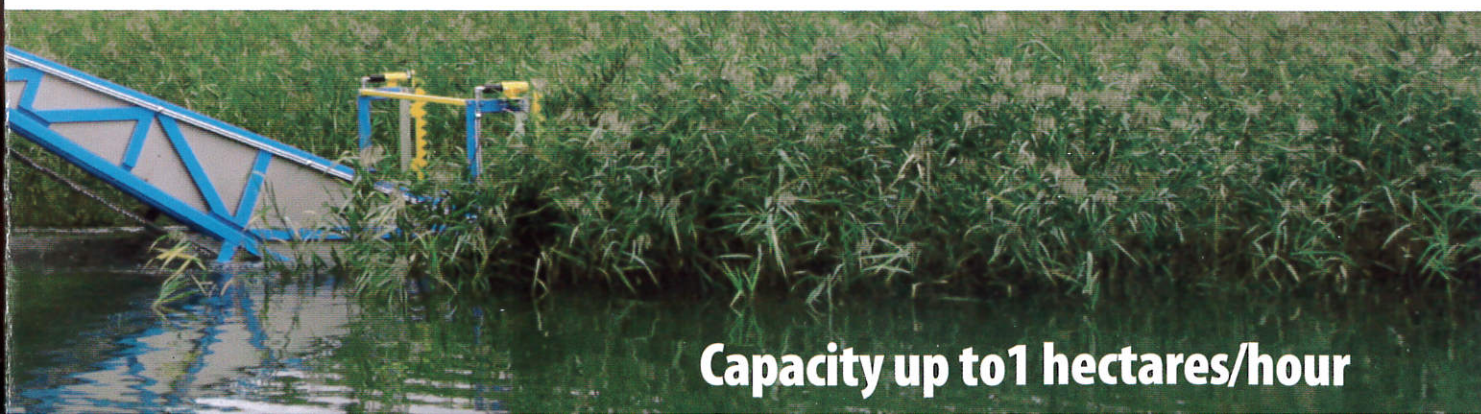
The cutting width is 2.5 m with one horizontal cutter and two vertical double cutters. The cutter pieces can easily be replaced individually. In the event of bottom contact, there is

a safety shield under the horizontal cutter and belt. The whole of the front conveyor is also protected against collisions.

#### CONTROL BRIDGE

In addition to the safety guard rail, the aquatic weed harvester has a rain/sun shelter to protect the driver. A fibreglass cabin permitting good visibility over the aquatic weed harvester's whole working area is optional equipment. An ergonomic seat and the conveniently placed steering devices guarantee driver comfort. The machine's electrical apparatus is protected against moisture and is corrosion free. The guard rail and the cabin can be tilted down to achieve the generally accepted driving height. Efficient working lights also allow the weed harvester to work in the dark.

**cutting is  
the best  
restoration  
method**



**Capacity up to 1 hectares/hour**





## EDC-engine control

Engine RPM is pre-set

Easy to adjust with buttons

- RPM
- fuel
- temp gauges
- charging
- hydraulic oil temp and level

Warning lights

Cruise control (optional)



**Crane with grab**  
**Hydraulic winch**  
**Support legs**



**Powerful  
hydraulically driven  
high pressure  
cleaner**





## CONVEYORS

The front conveyor is equipped with an aluminium lamella belt suitable for collecting weeds and aquatic plants. It has a long lifetime, even when used in salt water. Lamellas are easy to replace individually, so if damaged the whole belt/net does not need to be replaced. The belt in the rear conveyor is made of UV-resistant PVC. The conveyors have sufficient movement speed to deal efficiently with the water flowing from the vegetation mass. As an option, the front conveyor lamellas can be changed to stainless/galvanized netting which is suitable for removing small fibrous algae mass.

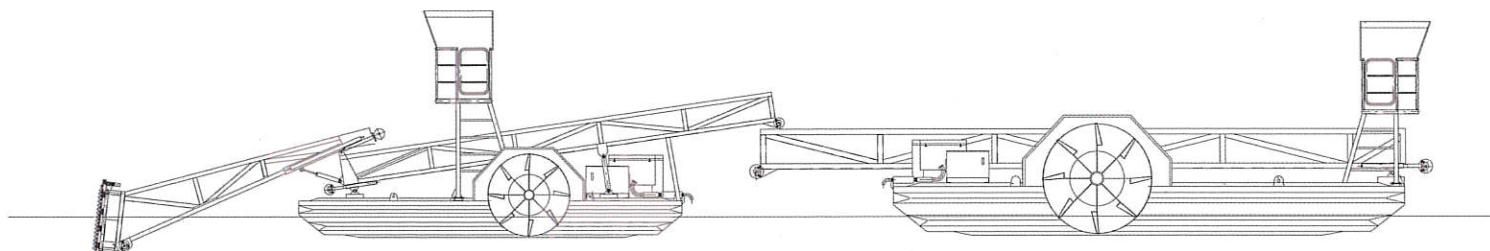
## CONSTRUCTION

All iron parts of the machine are sandblasted and anti-corrosion painted with high quality marine paint. The hull is divided into five watertight compartments, each with a manhole. The inner part of the hull is also anti-corrosion painted.

## RELATED MACHINES AND DEVICES

### Barge

Barges equipped with partly the same technology are available for long transfer distances. The aquatic weed harvester can then be used more effectively in the cutting work.

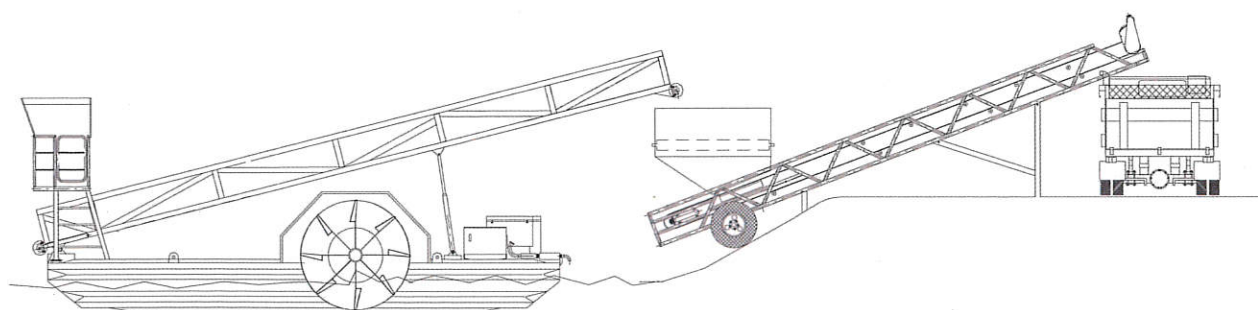


RS-2000 Weed Harvester

RS-3000 Transport Barge

### Shore conveyor

When land conditions are difficult, the cut /collected mass can be transferred from the aquatic weed harvester/or barge onto a lorry by means of a shore conveyor equipped with its own petrol or diesel/hydraulic aggregate. The shore conveyors can be made in various lengths, 8-20 metres.



RS-3000 Transport Barge

RS-4000 Shore Conveyor



# SPECIFICATIONS **Harvester RS 2000**

## Engine

- Low emission Diesel, four stroke, water-cooled/air-cooled
- Cylinders 4 depending on size and additional equipment
- Power 50-90 kW depending on size and equipment

## Control panel instruments

- Oil pressure gauge
- Temperature gauge for cooling water
- Volt gauge
- Hydraulic oil temperature gauge
- Hydraulic oil level gauge
- Fuel gauge
- The engine stops if there is a problem with oil pressure or temperature

## Hydraulic system

- 2 load sensing variable displacement pump
- 11-13 pc load sensing valves depending on additional equipment
- 2 pc high pressure filters
- 7 pc hydraulic motors
- Operating system max. 200 bar
- 6-9 pc hydraulic cylinders depending on additional equipment
- Hydraulic hoses protected against UV-radiation
- Control valves/Electric couplings 24V
- Joysticks for paddle-wheel control and to control cutting depth and micro-switches for store conveyor

## Tank, coolant and lubricant capacity

- Fuel tank capacity 200 litres, for approximately 24 hours
- Radiator 14.0-20 l, 50% antifreeze and lubricant
- Coolant system is corrosion protected
- Hydraulic oil tank capacity 200 litres
- Biodegradable hydraulic oil (as optional)
- Engine oil 5-12 l

## Operating dimensions

- Cutting/collecting width 2500 mm
- Portable cutting depth max. 2000 mm
- Front conveyor width 2500 mm
- Cutting blades, self-sharpening, hardened special steel bottom protection, hydraulic protection against overloading
- Special lamellas for trash collecting
- Conveyor material steel, self-concentrating
- Minimum draught 0,65 m

## Store conveyor

- Length 8500 - 9500 mm depending on hull size
- Width 2500 mm
- Capacity 2.5-3.5 ton depending on hull size
- Volume 12-15 m<sup>3</sup> depending on hull size
- Unloading time less than 25 seconds
- Unloading height 1.2 - 2.5 m above water level, remote controlled

## Conveyor material

- Conveyor PVC with cords
- Safeguard against UV radiation
- Self-concentrating

## Propulsion/paddle wheels

- Diameter 1900 mm
- Width 500 mm
- Material Marine aluminium
- Speed 0 - 62 rpm, both directions easy to mount and dismount, with 8 screws protected by a fibreglass shield

## Additional equipment

- Cabin
- A/C
- Toolbox
- Crane
- Trailer for road transport
- Radio/cd-player
- Side sonar
- Echo sounder
- High pressure washer
- Winch
- Dredging pump
- Shore conveyor RS 4000
- Heater

## Transport dimensions

- Length 12.1 - 12.7 m
- Width 3.05 m
- Height 3.0 m /Without cabin
- Weight 7.0-8.5 t depending on equipment
- Noise level 75 dB/A

## Standard equipment

- 4 working lights halogen, 60W/24V
- Operators seat, allowing comfortable working position for the operator for marine use
- Construction is based on ship building technology



RS 2000 in China

The manufacturer reserves the right to change specifications.

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