

Classic IV | Classic V

Watermaster



Amphibious Multipurpose Dredger



Smart solution for hard work

Watermaster amphibious multipurpose dredger excels alone in the tasks that are conventionally handled with multiple separate machines. With its wide selection of quickly changeable attachments, the Watermaster can be utilized in deepening shallow waterways, preventing floods, removing invasive vegetation and trash, maintaining industrial ponds and in infrastructure projects in the water environment.

VERSATILE

Dredging, raking, piling - and more. From dry ground to 6 meters depth
Replaces several single purpose machines

MOBILE

Unique mobility in water and on land
No cranes, tugboats, assisting vessels, winches or wire-cables

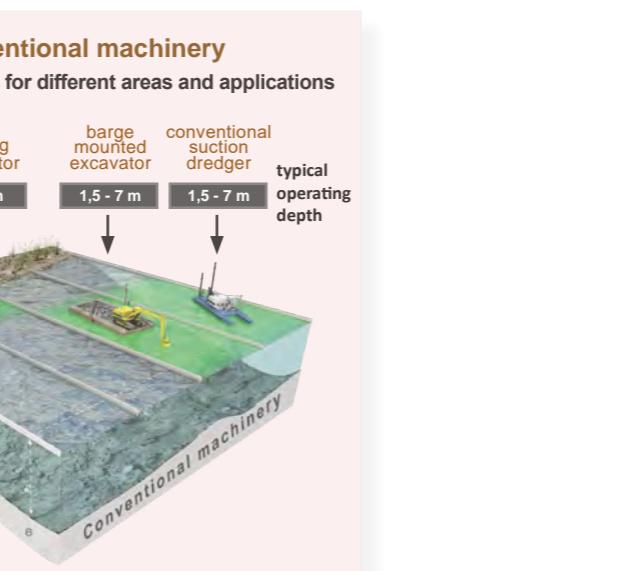
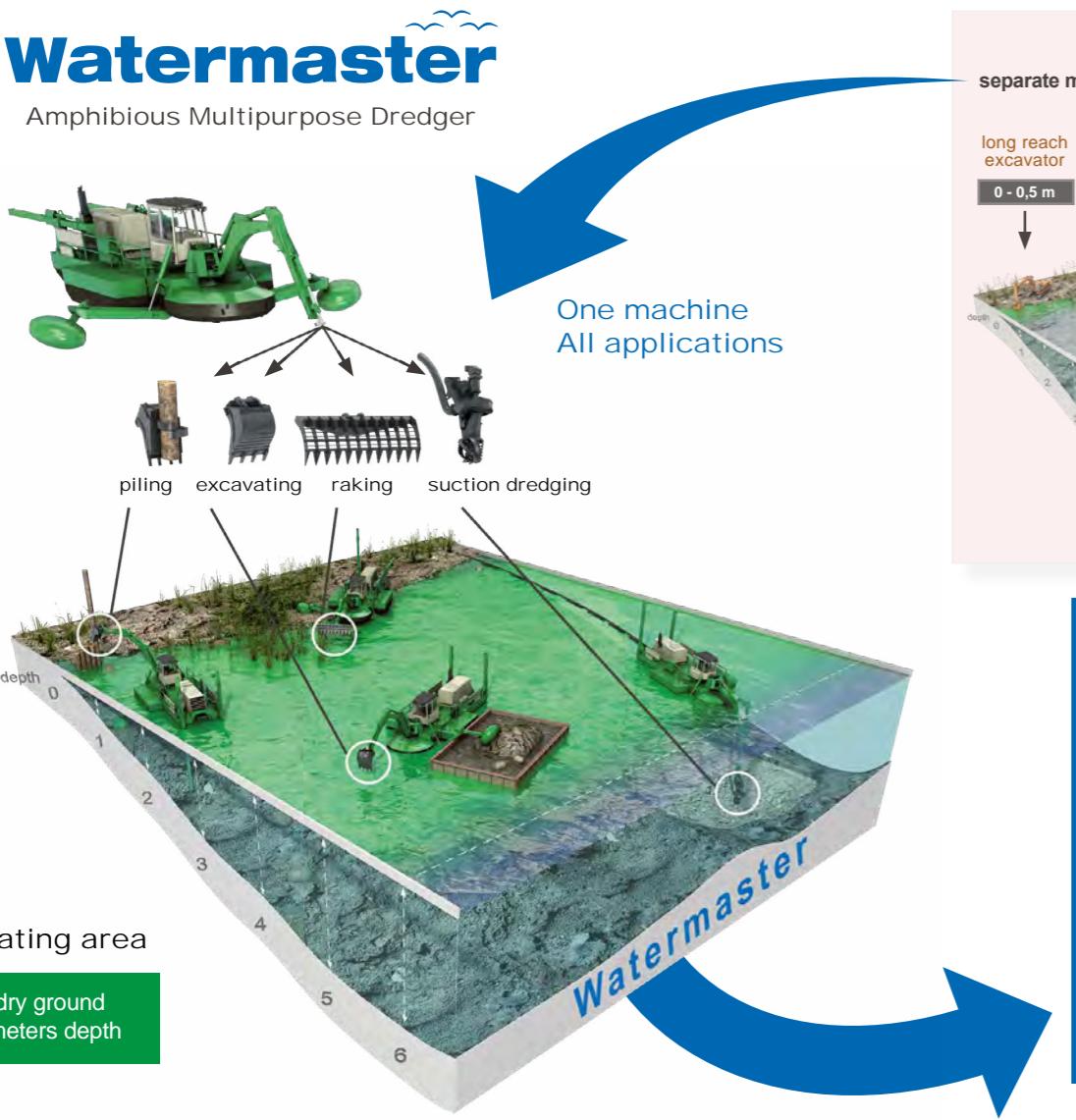
PROVEN

Hundreds of units operating worldwide in over 70 countries
Made in Finland



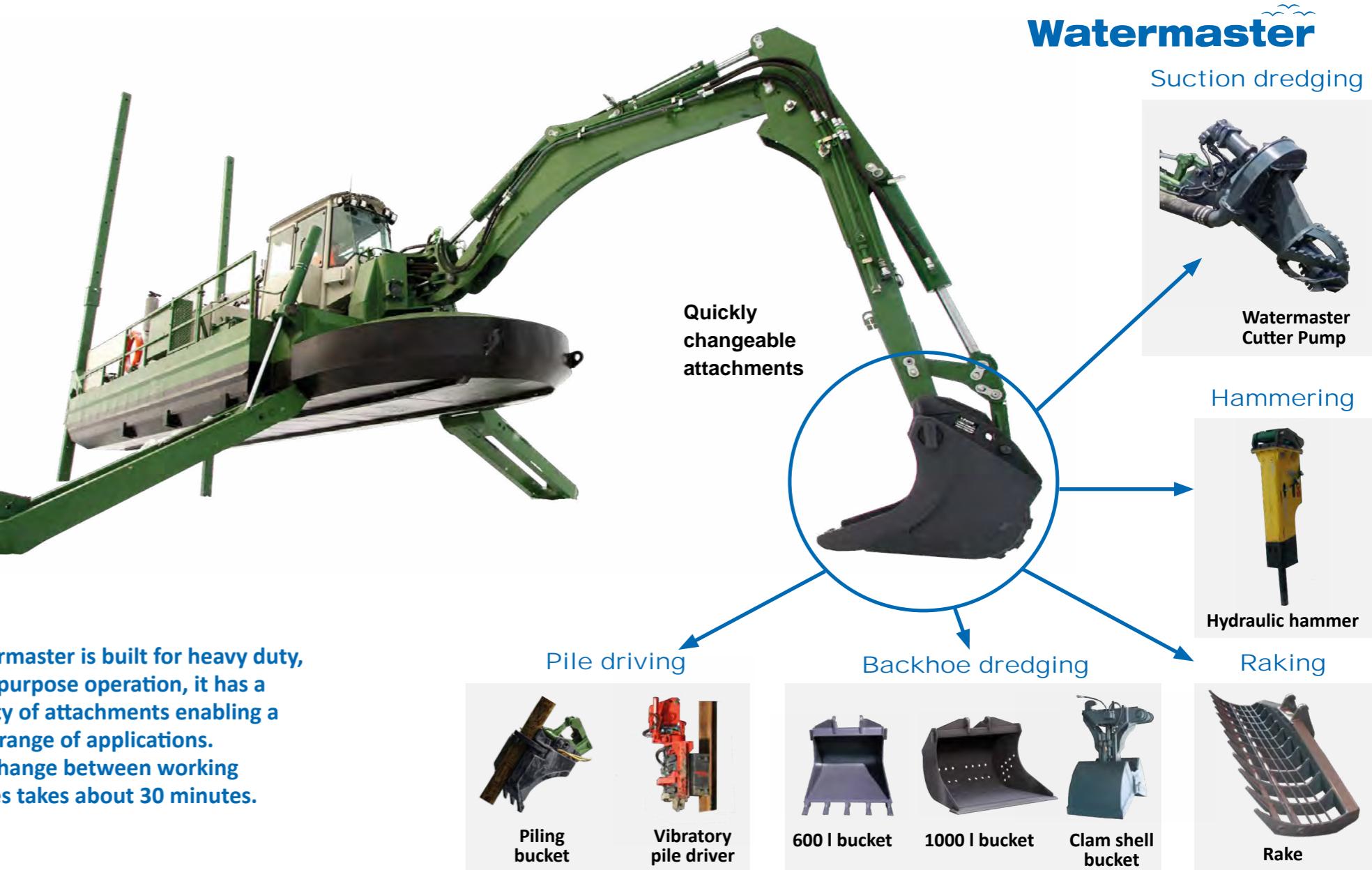
Watermaster

The Amphibious Multipurpose Dredger



One versatile machine
For all shallow water applications

Heavy duty versatility
With a large selection of attachments



SUCTION DREDGING

Suction dredging is the most efficient way to extract sediments from the bottom. The materials can be directly and accurately discharged to the final settlement area.

- Smart suction dredging concept (IWOS)
- Submersible pump allows working in very shallow waters or even from the dry land
- The maximum pumping distance is 1,5 km. Distance can be doubled with the Watermaster Booster Station
- Pumping capacity of sludge (solid material mixed with water) is approximately 600 m³/h with Classic IV and 900 m³/h with Classic V

BACKHOE DREDGING

Backhoe dredging is the best work method when the soil is very hard or contains big rocks or other large-sized objects unsuitable for pumping.

- Steady, independent anchoring with four stabilizers
- The most efficient backhoe dredging depth is 0 m – 4,5 m
- Backhoe dredging capacity of solids approximately 40-60 m³/h, depending on soil type and backhoe bucket
- Several attachments available: 600 l bucket with teeth, 700 l bucket without teeth, Clam shell bucket



RAKING

Water hyacinth and other invasive vegetation can be removed by raking. Debris-filled urban canals can also be cleaned using the same method.

- Watermaster's rake attachment is 2,75 m wide
- if the vegetation is rooted, the rake can remove the roots as well, which prevents new growth

PILE DRIVING

Piling is often required in construction projects and infrastructure projects. Watermaster can do the piling from the water, not only from the shore where the space is usually limited.

- Two attachments are available for piling work: the piling bucket (for wooden piles) and the vibratory pile driver (for both metal sheets and wooden piles)
- Watermaster grabs the piles from the side and can handle longer piles

Work modes

Examples of Watermaster work modes



1

TRANSPORT
on a standard trailer

Watermaster

2

MOBILIZE
without set-up times,
cranes and tugboats

3

WORK
without wire-cables, winches,
extra anchors and assisting vessels

Superior mobility

Watermaster is fully amphibious



TRANSPORT

Watermaster is transported as a complete unit so
there are no set-up times when arriving at the site

Watermaster



WALK

Watermaster is fully amphibious and can walk independently in and out of water without crane assistance



CRUISE

Watermaster has its own propulsion system so it can cruise to the site independently without tugboats

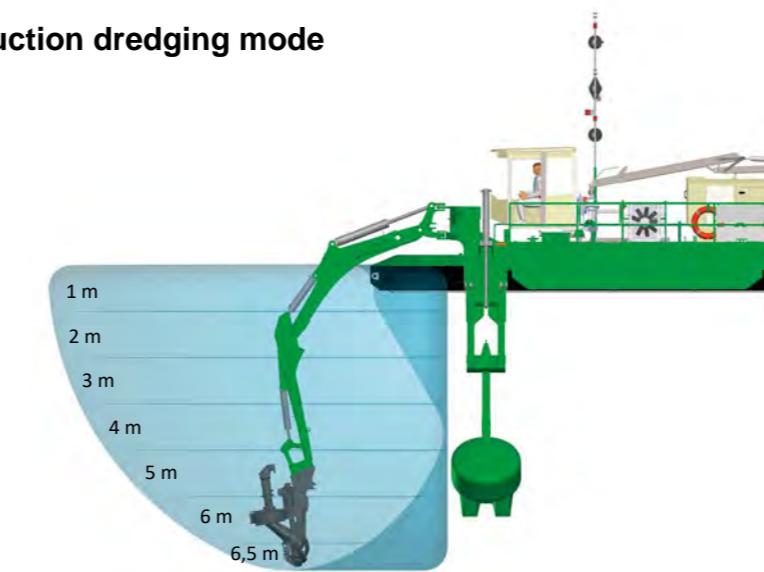


WORK

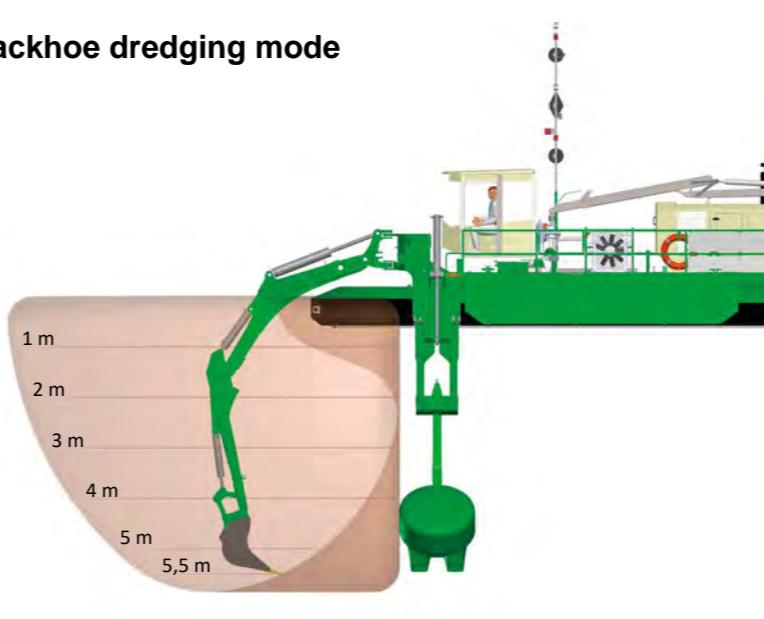
Watermaster has four stabilizers and a flexible excavator arm enabling steady and accurate anchoring and large work area

Watermaster

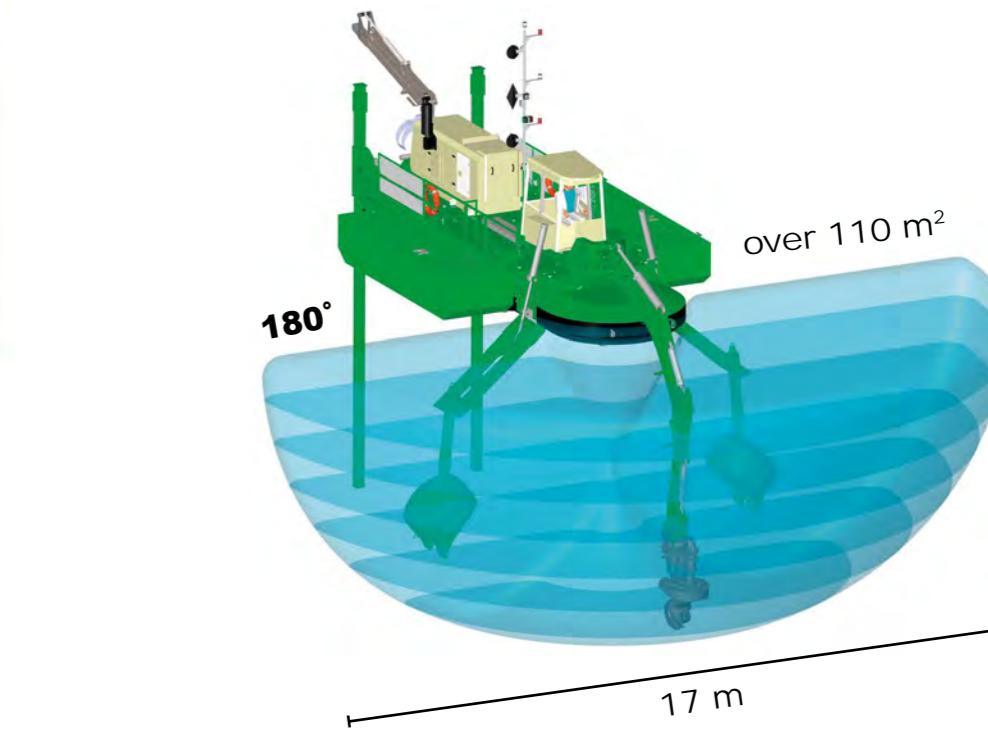
Suction dredging mode



Backhoe dredging mode



Work area



Watermaster specializes in shallow water work, from dry ground to 6 meters depth.

Work depths

Watermaster - the shallow water specialist

Watermaster



KEEP WATERWAYS OPERATIONAL

Dredging applications



PREVENT FLOODS

Environment applications



MAINTAIN PONDS

Industrial applications



BUILD INFRASTRUCTURE

Construction applications



Maintenance and deepening of waterways, rivers, tributaries, canals, lagoons, lakes, ponds and basins



Marina and harbor maintenance dredging



Beach revitalizing and land reclamation



Flood prevention and control



De-weeding water systems overrun by vegetation



Cleaning and restoring urban canals



DREDGING

ENVIRONMENT

INDUSTRIAL

CONSTRUCTION



Process water pond maintenance dredging at different industrial sites, for example mines



Recovering valuable materials from tailings- and drainage ponds



Tailings pond maintenance work at enrichment plants



Foundation work by pile driving



Strengthening shorelines by pile driving



Trench digging and laying and removing pipes and cables

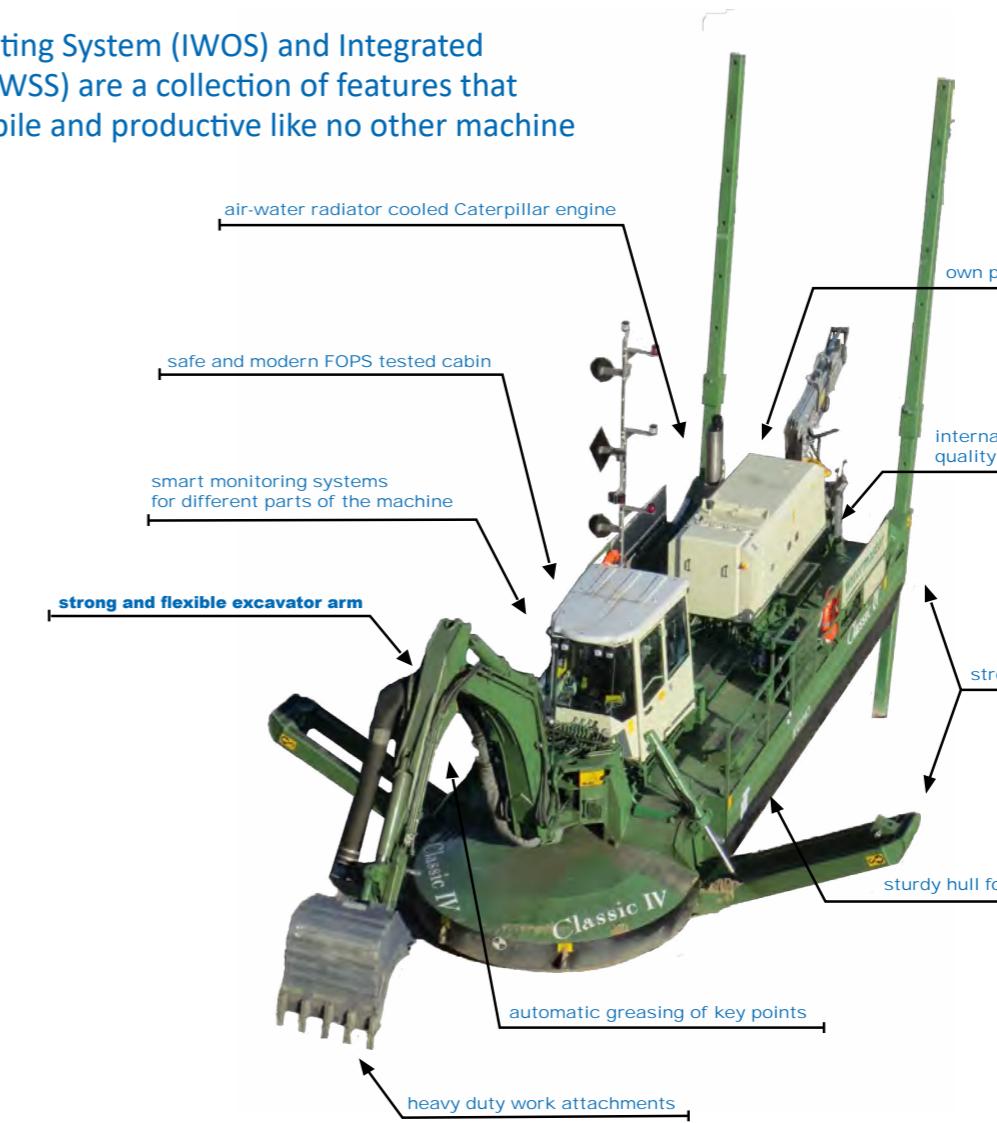


Watermaster Cutter Pump, flexible excavator arm and 4-point independent anchoring are the keys to high productivity

Watermaster

IWOS + IWSS = BETTER RESULTS

Integrated Watermaster Operating System (IWOS) and Integrated Watermaster Service System (IWSS) are a collection of features that enable Watermaster to be mobile and productive like no other machine



Integrated Advantages
IWOS & IWSS

Watermaster

IWOS

- Maximizes productive work time and results
- Enables quick and easy mobilization
- Enables multipurpose operation with heavy duty work attachments
- Makes Watermaster fully amphibious in all work modes
- Enables steady, safe and accurate anchoring and operation
- Enables environmental dredging – the right amount from the right place



Fully amphibious
in all work modes



Steady and accurate
anchoring and operation



Large work area
maximizes productivity



Heavy duty versatility
with a strong machine



Easy to maintain and
user-friendly

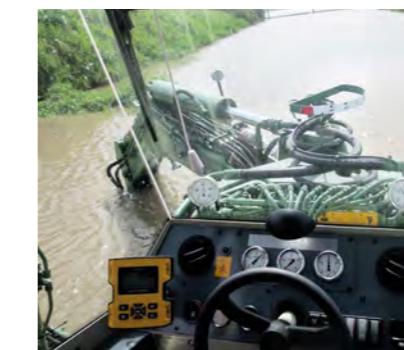
Smart monitoring systems for
different parts of the machine

Automatic central pressure-
greasing system

Design features that make
servicing the machine
convenient and easy

Internationally available quality
components

Watermaster service network
support throughout the whole
lifespan of the machine



Minimum downtimes

Concept systematically
developed since 1986

Completely documented and
certified serial product with
field-proven performance

Ecological and
economical work

Multipurpose functions and
smart operating principle
minimize the strain on the
environment and keep fuel
consumption and other
operational costs low

IWOS

Integrated Watermaster Operating System

IWSS

- Maximizes productive work time by minimizing required servicing time
- Maximizes machine's and components' lifespan and prevents damaging the machine
- Minimizes operational costs
- Makes Watermaster user-friendly and easy to maintain

IWSS

Integrated Watermaster Service System

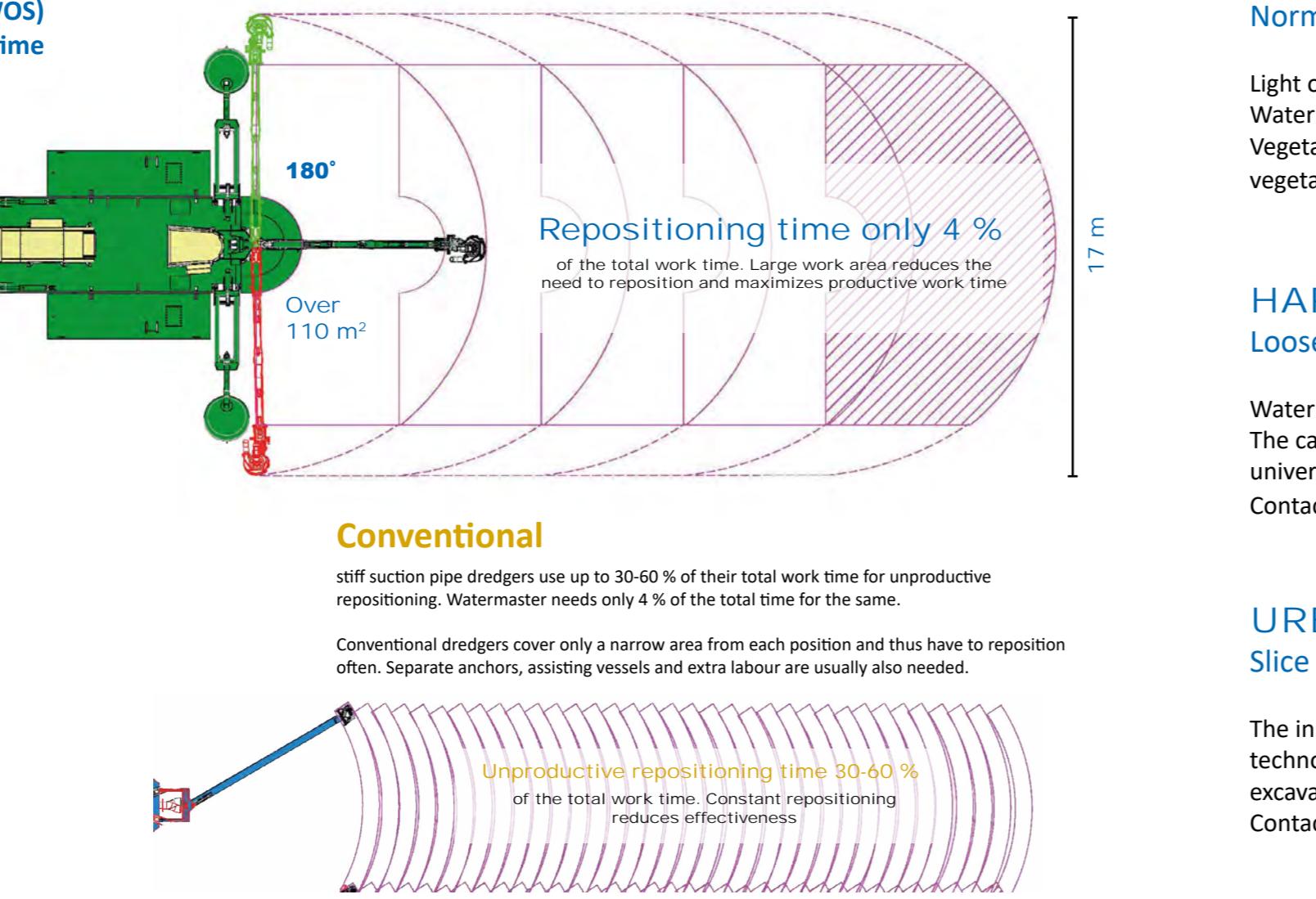
Watermaster's own state of the art Cutter Pump is an essential part of the Watermaster concept. Together with the Integrated Watermaster Operating System (IWOS) it enables 50 % to 100 % more effective pumping time compared to conventional methods.

Watermaster

Over 96 % of the total operation time is available for productive work and less than 4 % goes to repositioning the machine

Watermaster Cutter Pump, the strong, flexible excavator arm and independent anchoring with four tilting stabilizers allow Watermaster to efficiently cover a large area from each position and to reposition itself quickly.

It is ready to start working immediately after changing the position - no extra anchors, wire-cables or assisting vessels are needed.



Smart dredging

Watermaster concept

SOFT SOIL DREDGING Normal pumping

Light organic sediments and other soft soils are easy to pump using the Watermaster Cutter Pump with the universal cutter crown. The integrated Vegetation-Cutting Knife System (patented) prevents roots and other vegetation from disturbing the work.



HARD SOIL DREDGING Loosen and pump the hard soil

Watermaster can pump hard soils using the dedicated hard soil cutter crown. The capacity and pace of the work increases by 50-100 % compared to the universal cutter crown. Contact us to learn more.



URBAN DREDGING Slice and pump the soil containing trash

The innovative Watermaster Urban Dredging Concept (includes patented technology) enables suction dredging at debris-filled urban sites where only excavation work was previously possible. Contact us to learn more.



In 1986 Aquamec introduced a completely new way to approach all shallow water work - an Amphibious Multipurpose Dredger, the first Watermaster. The excellent concept has been perfected through continuous development work based on customer feedback and years of field experience.

Aquamec invests heavily in the development of the work attachments and methods as well. Over the years Aquamec has introduced several new attachments that had not been used with a dredger before, including a pile driver, hammer for underwater work and a rake.

The latest fruit of this work are the innovative new solutions for urban dredging and hard soil dredging - available for both Classic IV and Classic V.

1986
CLASSIC I

NEW REVOLUTIONARY INNOVATION –
AN AMPHIBIOUS MULTIPURPOSE DREDGER

1996

CLASSIC II

IMPROVED FUNCTIONALITY

2003

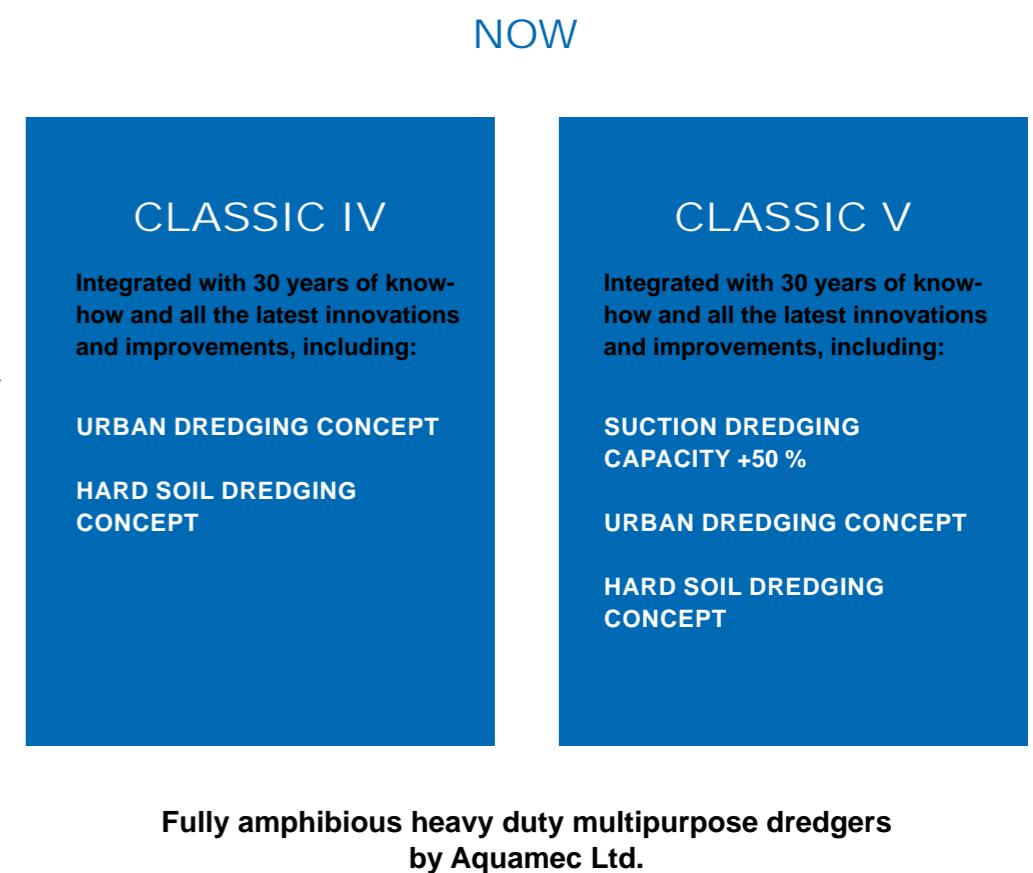
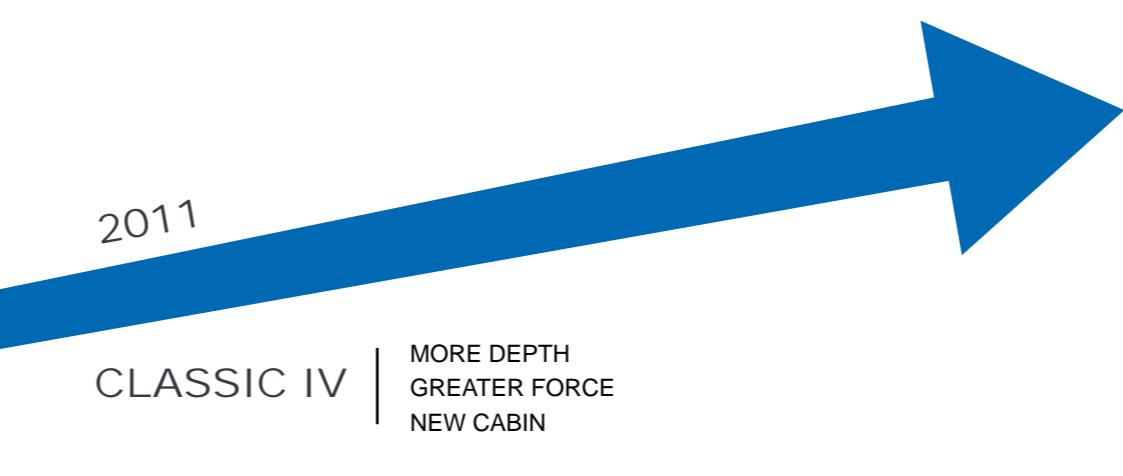
CLASSIC III

MORE CAPACITY

2011
CLASSIC IV
MORE DEPTH
GREATER FORCE
NEW CABIN

Watermaster

Technology innovator
AQUAMEC LTD.





Watermaster

WATERMASTER BY AQUAMEC LTD.
Aquamec develops, manufactures and markets
the Watermaster multipurpose machines.

Aquamec is part of Lännen MCE group of companies. Besides Watermaster the group is known for the brand names Lännen and Lundberg. The "MCE" stands for: Mobile Construction Equipment.

A SERIAL PRODUCT - MADE IN FINLAND
Watermaster is a fully tested and documented
serial product.

Watermasters are made in Finland and are manufactured using the highest standard components, labour and production facilities. The factory is equipped with modern CNC machine tools and welding robots.

Serial production ensures consistent high quality, quick delivery times, full documentation and easy service.

Watermaster
By Aquamec Ltd.

Safe FOPS certified cabin LX



Watermaster

TRAINING INCLUDED

Comprehensive local training ensures successful long-term operation.

Every delivery includes field training at the customer's work site by an authorized Watermaster trainer.

During training the local operators learn to operate and maintain the Watermaster dredger in a correct, efficient and safe way. The trainees do not need to have previous dredging experience.

AFTER-SALES SUPPORT

Service and spare parts always available.

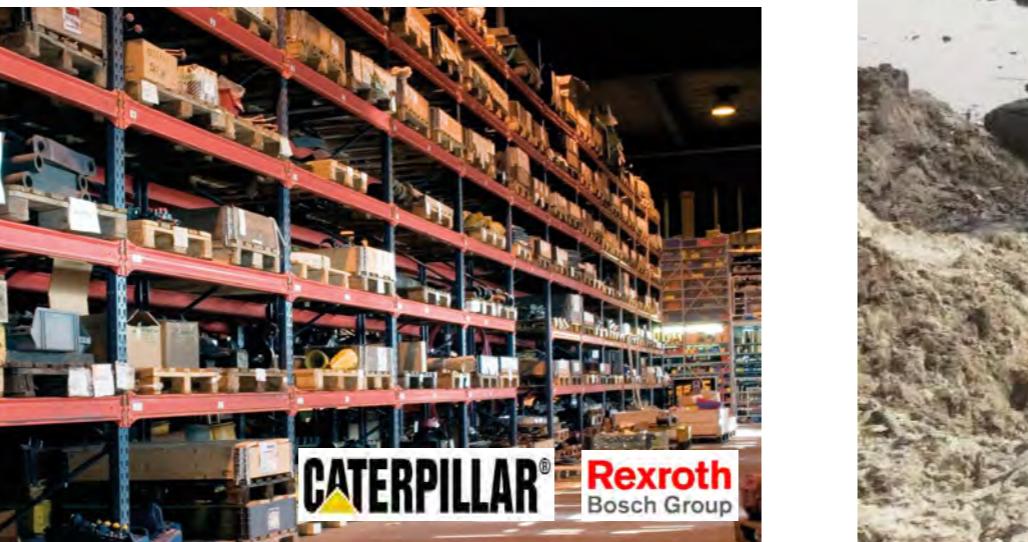
Watermaster's design principle is to use internationally known quality components. These components are easily available around the world.

There are several Watermaster spare parts and service points internationally.

A centralized spare parts stock is located at the factory in Finland supporting the end clients and service points worldwide.

Support

Always available



Watermasters are operating worldwide, from tropical to arctic climates



Made in Finland

Watermaster

QUALITY ASSURED

Watermasters are inspected and certified.

For quality assurance each Watermaster is inspected and approved by an independent Maritime Authority.

Watermaster's reliability is demonstrated through documents like: quality certificate ISO 9001, environmental certificate ISO 14001, safety certificate ISO 3349 and stability and trim calculations.

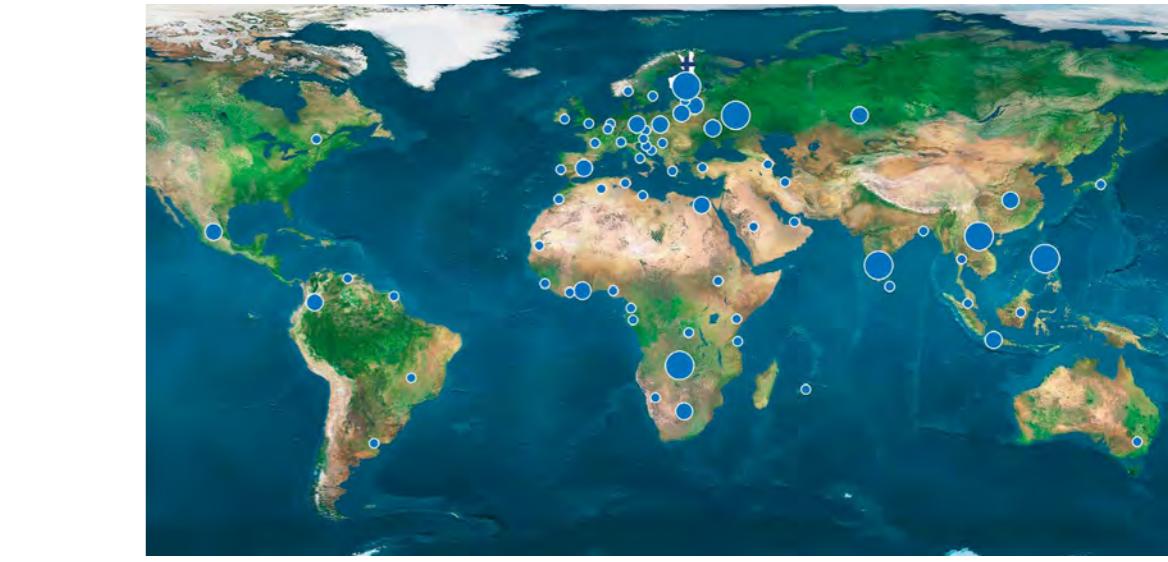


OPERATING WORLDWIDE

Over 300 references in over 70 countries.

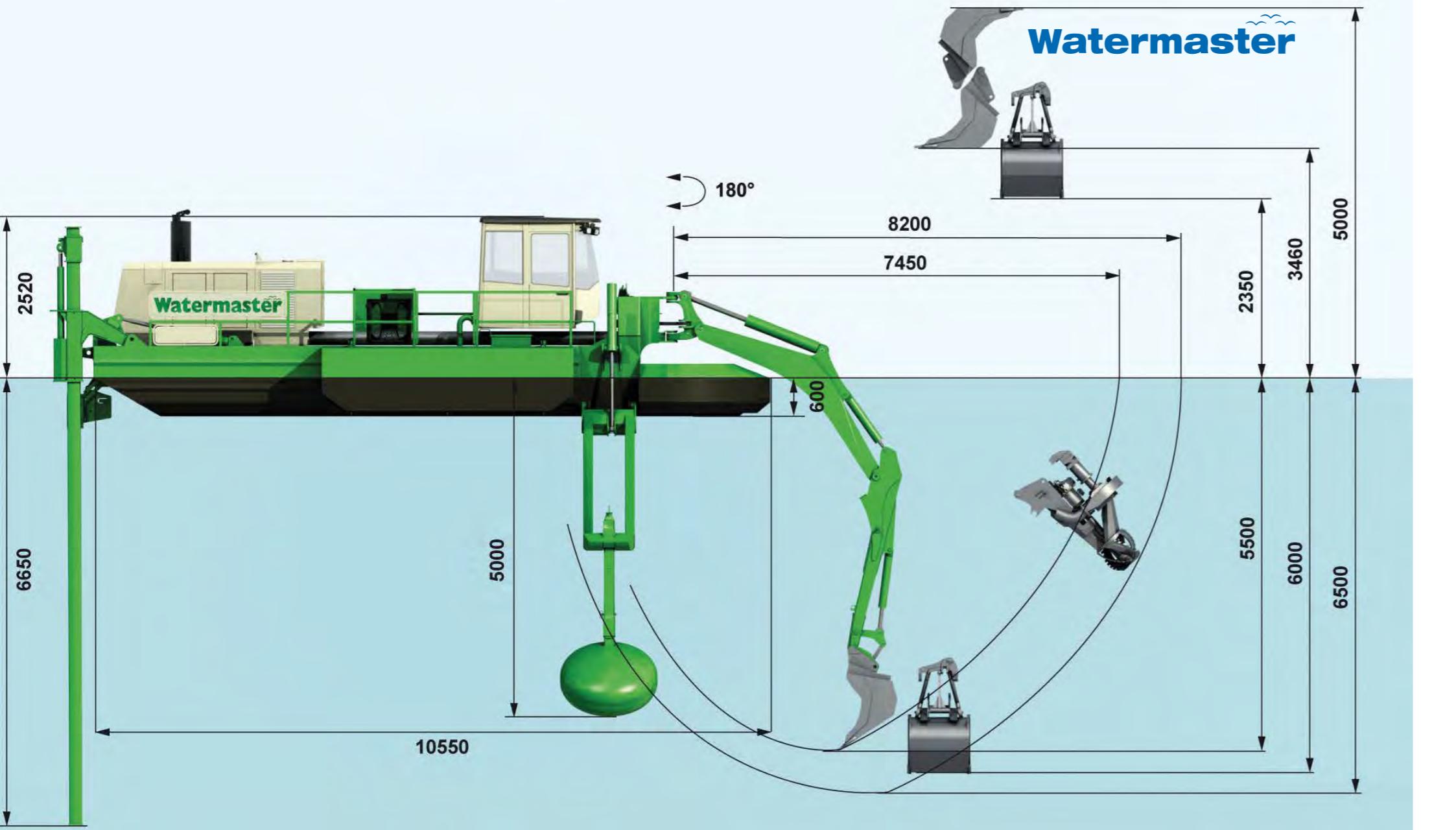
Watermasters have already completed thousands of shallow water projects around the world.

Contact us to learn more about Watermaster operations globally and to discuss Watermaster's suitability for your projects.



Watermaster
By Aquamec Ltd.

Watermaster



engine	Caterpillar C7.1, turbo charged, 6-cylinder diesel engine
• air-water radiator cooled	
• flywheel power at 2100 rpm	168 kW (Classic IV) 205 kW (Classic V)
	1200 l
	24 V
	2 x 170 Ah
cabin	modern FOPS certified cabin with excellent visibility
• additional seat for instructor	
• 10 work lights	
anchoring	independent anchoring and work movement without assisting vessels, winches or wire-cables
• two front stabilizers, max depth	5,0 m
• two rear tilting stabilizers, max depth	6,7 m
hydraulics	one axial piston pump for dredging and propeller
• operating pressure	max. 345 bar
one axial piston pump for digging and stabilizers	
• operating pressure	max. 230 bar
mobility	self-loading and self-unloading to/from a trailer
• moves independently in and out of water	
• self-propelled	
• fully amphibious in all work modes	
excavator	180°
• swinging angle	83 kN
• break-out force from bucket cylinder	47 kN
• digging force from arm cylinder	24,5 kN
• lifting capacity at max. reach	
• quickly changeable attachments	
certified quality	quality certificate ISO 9001
• environmental certificate ISO 14001	
• safety certificate ISO 3449	
certificates issued by authorized certification authority	
hull	length without boom
• one-piece hull divided into 7 watertight compartments	11,00 m
• corrosion resistant painting outside and inside	17,00 m
• protective skid bars on bottom	3,30 m
• mast, signal lights for dredging and navigation	3,15 m
	ca 19,50 t
transport dimensions and weight	
length with boom	
width	
height	
weight	

Amphibious Multipurpose Watermaster Classic

Technical specifications

smart solution for hard work

www.watermaster.fi

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