



Wasa Dredging Oy Ltd  
Company Presentation | May 2019

# BUSINESS OVERVIEW

WASA DREDGING – LEADING NORDIC CONDITIONS DREDGING OPERATOR



## At a glance

- Wasa Dredging is the leading marine and inland water construction company with the Nordic region as stronghold
  - Core business is backhoe dredging of hard soil
  - Unrivalled skillset in underwater blasting
- Four large dredging units and fleet market value estimated close to 50 MEUR (fleet owned by the Company)
  - In-house manufacturing of the equipment
- Headquartered in Vaasa, Finland and operational throughout the Northern Europe
- Business originally founded in 1985 by Kristian Backlund (CEO and owner)
- Order backlog of 70 MEUR and strong sales pipeline supporting the financial forecast

## Geographical coverage

- Key projects since 2010
- Vaasa (HQ)



Stronghold in the Nordics. New growth opportunities actively sought elsewhere in Europe

## Business areas

 Dredging	 Drilling and blasting	 Reclamation work	 Environmental dredging	 Equipment for charter	 Manufacturing of own equipment
<ul style="list-style-type: none"> <li>• Ability to dredge both hard and soft soil</li> <li>• Experienced to lead large and complex projects</li> <li>• High efficiency and operational flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Market leader in drilling and blasting of underwater bedrock</li> <li>• Superior quality and expertise</li> <li>• Capacity to blast up to 1 million m3 of bedrock on a yearly basis*</li> </ul>	<ul style="list-style-type: none"> <li>• Wide offering including all from simple off-shore dumping sites to advanced bund building and filling works</li> <li>• Strong experience especially from the last 5 years</li> </ul>	<ul style="list-style-type: none"> <li>• Typically relates to polluted masses or is about limiting the project's environmental impact</li> <li>• WD has developed special systems and equipment to comply with the strict requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Small business area</li> <li>• Mainly related to barges</li> </ul>	<ul style="list-style-type: none"> <li>• Manufacturing of dredging and blasting equipment for Company's own use</li> </ul>



# BUSINESS AREAS

FULL SERVICE OFFERING WITH UNRIVALLED EXPERTISE IN DRILLING AND BLASTING



## Business areas

### Dredging



- Capabilities for all types of dredging projects (e.g. harbours and fairway building)
- Ability to dredge both hard and soft soil, although specialized in hard soil
- Modern fleet outperforming the competition in efficiency and flexibility
- Capable of working in shallow waters or even dredge its own water depth

### Drilling and blasting



- Clear market leader and superior expertise
- Capacity to blast up to 1 million m3 of bedrock on a yearly basis\*
- Today, operates two combined dredging / drilling units ("Hector" & "Boulder") with ability to execute projects stand-alone
- In 2019, the new dredger, "Harald", will also be upgraded to a combi-unit with drill-tower

### Reclamation work



- Executes various tasks, from simple off-shore dumping sites to advanced bunds building and filling works
- Experience includes projects such as Rauma, Klintehamn and Kokkola
- Ability to tender for both land and sea-based construction projects
- Currently developing conveyor belt solution to decrease reclamation costs

### Environmental dredging



- Refers to project execution methodology that minimizes the environmental impact
- Increasing market demand
- WD has developed special systems and equipment to comply with the strict requirements (e.g. special buckets, turbidity and vibration meters and fish and mammal control systems)

### Equipment for charter



- Small part of the business mainly relating to the barges
- E.g. self-propelled barge "Sinann" was chartered to Dutch Marine Contractors for the Arkona Wind project
- Company planning to invest in a big spud pontoon during 2019 that would also be open for charter

### Manuf. of own equipment



- Purpose-built equipment
- In-house production minimises the equipment costs by up to 30-40% compared to market rates (based on designs owned by parent company, WDE)
- Winter season typical time to build new equipment and repair the existing

# KEY UNITS IN THE FLEET

PURPOSE BUILT FLEET FOR THE DEMANDING NORDIC CONDITIONS

Headers
Dredging unit
Self-propelled barge
Barge

## Hector\*



- Dredger - Wasa BHD 12000
- Length/width: 41m/15m
- Max dredge dept 22m (26m with special arm)
- Optional: Drill tower for blasting
- Software: Foreshore dredge Master Backhoe monitoring/recording

## Boulder



- Dredger - Wasa BHD 6000
- Length/width: 50m/12m
- Max dredge dept 17m
- Optional: Drill tower for blasting
- Software: Foreshore dredge Master Backhoe monitoring/recording

## Optimus



- Dredger - Wasa BHD 18000
- Length/width: 47m/17m
- Max dredge dept 24m and up to 26m with a special solution
- Software: Foreshore dredge monitoring/recording

## Harald



- Dredger - Length/width: 59m/14m
- Max dredge dept 22m (26m with special arm)
- Main engine: 1,044 kW
- Excavator: Hitachi EX 2500-6 (250 tonnes)
- To be refurbished during 2019 winter season\*\*

## Sinann & Boann



- Self propelled barges - SHB 1010-SP
- Loading capacity: 1,750 tonnes
- Length/width: 67m/11m
- Certificate: Loaded condition – 15 NM Offshore

## Miika II & Dana II



- Chartered from parent company WDE
- Towed barges - SHB 940
- Loading capacity: 1,823 tonnes
- Length/width: 64m/11m
- Certificate: Loaded condition – 15 NM offshore

## Laura & Jenna



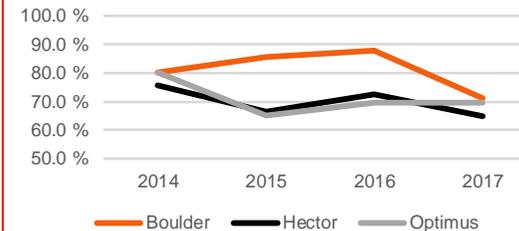
- Barges
- Loading capacity: 1,478 tonnes
- Length/width: 59m/10m
- Operation: Remote control for splitting
- Certificate: Loaded condition – 15 NM offshore

## Alex & Cellu



- Barges
- Length/width: 49m/9m
- Operation: Remote control for splitting and thrusters
- Certificate: Loaded condition – 20 NM offshore

## Dredging unit utilizations\*\*





# Wasa **OPTIMUS** Backhoe Dredger



## Specifications

Model:	Wasa BHD 18000
Construction and in service:	2014
Length:	47 metres
Width:	17 metres
Moulded depth:	4.0 metres
Deck crane:	EFFER 240
Excavator:	Hitachi EX 3600 (360 tonne)
Main engine:	1450 kW
Auxiliary engines:	2 x 120 kW
Booms:	14, 18 metres
Arms:	7, 9, 11.7 metres
Buckets:	22, 18, 14, 12 m <sup>3</sup>
Short configuration dredging depth:	17 metres using 22-18 m <sup>3</sup> bucket
Middle configuration dredging depth:	19 metres using 18 m <sup>3</sup> bucket
Long configuration dredging depth:	24 metres using 12 m <sup>3</sup> bucket
Max dredging depth, special config:	29 metres using 7 m <sup>3</sup> bucket
Spuds:	1.6 x 1.6 x 32 meters
Software:	Foreshore dredge Master Backhoe monitoring / recording
Class:	Bureau Veritas unrestricted navigation

**OPTIMUS**



# Wasa HECTOR

Backhoe Dredger/Drilling pontoon



## Specifications

Model:	Wasa BHD 12000 / Sea bow
Construction and in service:	2010
Length:	41 metres
Width:	15 metres
Moulded depth:	3.70 metres
Excavator:	Hitachi EX 2500/6 (250 tonnes)
Main engine:	1044 kW
Auxiliary engines:	1 x 80 kW, 1 x 120 kW
Booms:	13.6, 16 metres
Arms:	7, 9, 11 metres
Buckets:	14, 12, 9, 7.5 m <sup>3</sup>
Short configuration dredging depth:	16 metres using 12-14 m <sup>3</sup> bucket
Middle configuration dredging depth:	18 metres using 12 m <sup>3</sup> bucket
Long configuration dredging depth:	22 metres using 7.5 m <sup>3</sup> bucket, 23 m special configuration
Spuds:	1.4 x 1.4 x 28 metres
Optional:	Drill Tower for blasting, using Sandvik HL1560 hammer
Software:	Foreshore dredge Master Backhoe monitoring / recording
Class:	Bureau Veritas unrestricted navigation

**HECTOR**



Wasa  
**BOULDER**  
Backhoe Dredger / Drill Pontoon



### Specifications

Model:	WASA BHD 6000
Construction and in service:	2010
Length:	50.4 metres
Width:	12 metres
Moulded depth:	2.5 metres
Excavator:	Hitachi EX 1200/6 (120 tonnes)
Booms:	11.5 , 13 metres
Arms:	5, 7, 9 metres
Buckets:	4, 5.5, 6.4 m <sup>3</sup>
Short configuration dredging depth:	13.3 metres using 6.4 m <sup>3</sup> bucket
Middle configuration dredging depth:	14.9 metres using 6.4 m <sup>3</sup> bucket
Long configuration dredging depth:	18.5 metres using 4 m <sup>3</sup> bucket
Spuds:	0.8 x 0.8 x 24 metres
Optional:	Drill Tower for blasting, using Sandvik HL 1560 hammer
Software:	Foreshore dredge Master Backhoe monitoring / recording

**BOULDER**



# Wasa SHB1001-SP



## SHB1001-SP

### Specifications

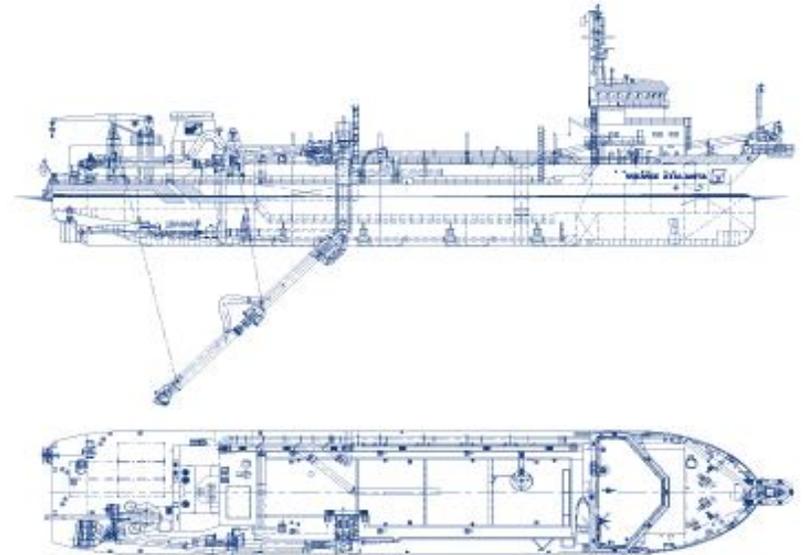
Model:	SHB 1001-SP
Type:	Self propelled
In service:	06 / 2017
Hopper volume:	1001 m <sup>3</sup>
Length:	66.5 meter
Width:	11.36 meter
Max Draught:	3.1 - 3.8 meter
Propulsion Engines:	2 x 469 kW
Auxiliary engine (hydraulics):	210 kW
Gen-sets:	2 x 100 kW, 420V 50 Hz
Emergency Generator:	93 kW
Classification Certificate:	Bureau Veritas - 15NM Offshore / 20NM from port Transfer unrestricted



**Equipment**

**Trailing suction hopper dredger  
Volvox Atalanta**

Principal particulars



**Volvox Atalanta**

<b>Name</b>	Volvox Atalanta		<b>Speed loaded</b>	12 kn
<b>Type</b>	Trailing suction hopper dredger		<b>Propulsion</b>	2 x 1,685 kW
<b>Classification</b>	Bureau Veritas, I + Hull + Mach + AUT-UMS, hopper dredger, unrestricted navigation, dredging within 15 miles from shore or within 20 miles from port, dredging over 15 miles from shore with H.S. < 2.5 m		<b>Bow thruster</b>	375 kW
<b>Year of construction</b>	1999		<b>Total power installed</b>	6,633 kW
<b>Dimensions</b>	<b>Length overall</b>	92.92 m	<b>Inboard dredge pump</b>	1,645 kW trailing 3,040 kW discharging
	<b>Breadth overall</b>	9.04 m	<b>Jet pump</b>	1,200 kW
	<b>Moulded depth</b>	8.50 m		
	<b>Dredging draught</b>	6.77 m		
<b>Hopper capacity</b>	4,682 m <sup>3</sup>			
<b>Deadweight</b>	6,267 tons			
<b>Maximum dredging depth</b>	30.0 m			
<b>Suction pipe</b>	• 900 mm			
<b>Discharge pipe</b>	• 750 mm			

**Contact**

Van Oord  
PO Box 6574  
3000 AN Rotterdam  
The Netherlands  
T +31 88 82 00000  
F +31 88 82 05000  
E info@vanoord.com  
I www.vanoord.com