



## CABLE DREDGES

**DRAGFLOW**  
— — —  
■ ■ ■ ULTIMATE EFFICIENCY

**SUBMERSIBLE  
DREDGING PUMPS**



**REMOTE CONTROLLED  
DREDGES**



## AMPHIBIOUS DREDGES



## CABLE DREDGES



# DRH: Easy to handle and versatile Cable Dredges

Our Cable dredges (DRH) are successfully used in all those applications where it is necessary to have tools that are manageable and able to work even at great depths.

The small size and modular design allow these dredges to be transported even in remote and difficult to reach locations. Assembly and installation are simple and take only a few hours. These features help to reduce project start-up times and costs.

Our DRH dredges are simple to use: thanks to intuitive controls, they can be managed by a single operator on board.

Available in different versions (with the possibility of hydraulic or electrical power supply), they can be equipped with a wide range of pumps and accessories to perform even in the most difficult situations. The largest model can provide a flow rate of up to 4000 m<sup>3</sup>/h.

The limited draft and the possibility of rapidly obtaining naval certifications are additional points of strength because they allow DRH to operate in very varied contexts, from artificial ponds to ports, from dams to mining basins.





# Main features

- **Easy** to use
- **High productivity**
- Possibility of **working at high depth** with a small hull
- **Maximum flexibility:** each dredge can be equipped with different pump models and numerous accessories
- **Limited draft**
- **Fast delivery times**
- **Speed and cost-effectiveness of transport** thanks to the modular design
- Extremely **fast assembly** and start-up **times**

# Main applications

- Cleaning of **canals and rivers**
- Dredging of **ports and marinas**
- Desilting industrial **artificial lakes**
- Dredging of **dam reservoirs**
- Emptying of **mineral tailing ponds**
- Filling of **geotubes**
- Cleaning of **reservoirs** in the food industry
- Removal of **sludge** from industrial or mining processes



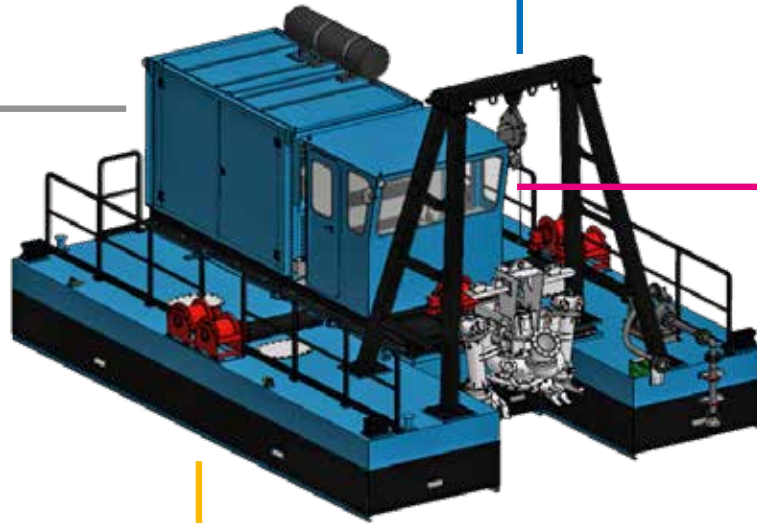
**Our line of cable dredges is also available in automatic version.**



# DRH85 | DRH85/160

[hydraulic pump]

electric or diesel power unit



## Hydraulic hoist

- Manages the descent and ascent of the pump
- Depth meter



## Operator's cabin

- Command and control panel
- Heating and air conditioning
- Ergonomic seat for the operator
- Safety equipment



## Power unit

- Soundproof cabin
- Diesel engine or electric motors
- Oil pumps

## Winches (x4)

- To move the dredge
- Steel cables up to 210 m
- Possibility of additional propeller for movement

## Hull

- Two pontoons 8x1.8x1.25 m with central hull
- Low draft



### DRH DIMENSIONS SET UP

|        |        |
|--------|--------|
| Length | 8 m    |
| Width  | 6 m    |
| Height | 5 m    |
| Weight | 30 ton |



### TRANSPORT

Transportable in 4 containers 40'.



### MODULAR DESIGN

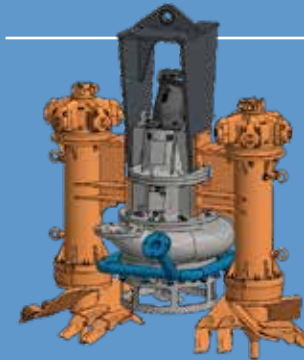
|                   |  |
|-------------------|--|
| <b>Dimensions</b> | Two pontoons 8x1,8x1,25 m with central hull. |
| <b>Draft</b>      | 60 cm  |



### RANGE OF DREDGING PUMPS

|                   |  |
|-------------------|--|
| <b>HY85</b>       | MAX FLOW RATE [m³/h]: 500<br>MAX PUMPING DISTANCE [m]: 800<br>DISCHARGE DIAMETER: DN150<br>MAX SOLID PASSAGE: 60 mm  |
| <b>HY85HC</b>     | MAX FLOW RATE [m³/h]: 1000<br>MAX PUMPING DISTANCE [m]: 500<br>DISCHARGE DIAMETER: DN250<br>MAX SOLID PASSAGE: 90 mm |
| <b>HY85/160</b>   | MAX FLOW RATE [m³/h]: 600<br>MAX PUMPING DISTANCE [m]: 1500<br>DISCHARGE DIAMETER: DN250<br>MAX SOLID PASSAGE: 60 mm |
| <b>HY85/160HC</b> | MAX FLOW RATE [m³/h]: 1000<br>MAX PUMPING DISTANCE [m]: 700<br>DISCHARGE DIAMETER: DN250<br>MAX SOLID PASSAGE: 90 mm |

Performance will depend on the actual site conditions and duty point.



### ACCESSORIES

#### Excavators

- Motor power: 14.5 kW
- Replaceable teeth
- Hydraulic motor with radial pistons
- Oil flow rate: 35 l/min each
- Weight : 500 kg
- Speed: 50 r.p.m.
- Torque: 2.6 kNm
- Rotation in both directions

#### Integrated jet ring system

- Thanks to the high-pressure water jets, it allows to disintegrate the material and have a higher concentration of solids in the mixture
- Flow rate: 60-200 m³/h
- Pressure: 6-7 bar
- Power supply: high pressure horizontal pump

#### Propeller

- To move and rotate the dredge
- Hydraulic driven
- Maneuverable from the cabin

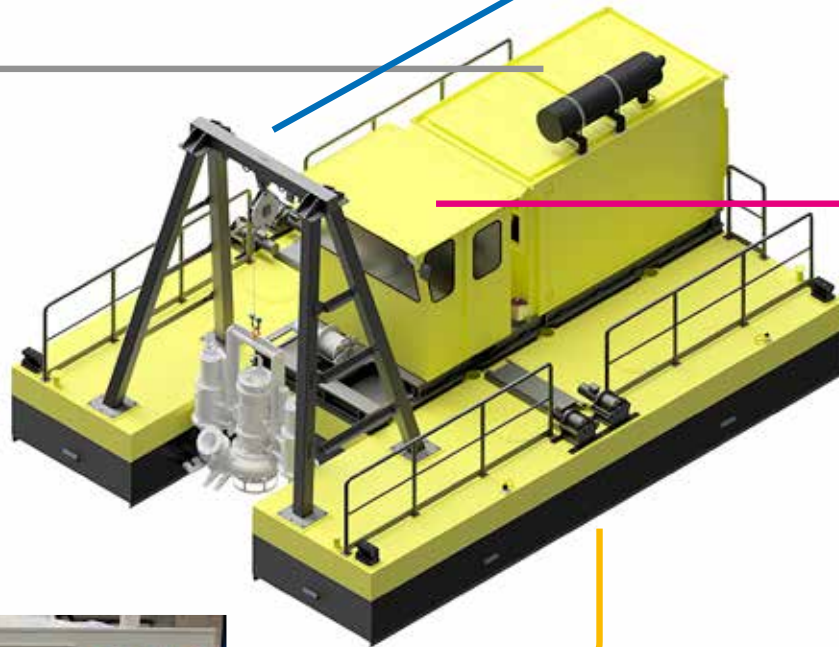
| ACCESSORIES          | STANDARD | FULL OPTIONAL | HIGH DEPTH |
|----------------------|----------|---------------|------------|
| Winches              | ✓        | ✓             | ✓          |
| Hoist                | ✓        | ✓             | ✓          |
| Operator's cabin     | ✓        | ✓             | ✓          |
| Control panel        | ✓        | ✓             | ✓          |
| Depth meter          | ✓        | ✓             | ✓          |
| GPS                  |          | ✓             | ✓          |
| Propeller            |          | ✓             | ✓          |
| Hose reel            |          | ✓             | ✓          |
| Bathymetry system    |          | ✓             | ✓          |
| Pressure compensator |          |               | ✓          |

**DRH85 | DRH85/160**

# DRH85e | DRH 85/160e

[electric pump]

generator and/or transformer set



## Electric hoist

- Manages the descent and ascent of the pump
- Depth meter



## Operator's cabin

- Command and control panel
- Heating and air conditioning
- Ergonomic seat for the operator
- Safety equipment



## Generator and/or transformer set

- Soundproof cabin
- Diesel engines

## Winches (x4)

- To move the dredge
- Steel cables up to 210 m
- Possibility of additional propeller for movement

## Hull

- Two pontoons 8x1.8x1.25 m with central hull
- Low draft



## RANGE OF DREDGING PUMPS

**EL60\*** MAX FLOW RATE [m<sup>3</sup>/h]: 500  
MAX PUMPING DISTANCE [m]: 500  
DISCHARGE DIAMETER: DN150  
MAX SOLID PASSAGE: 60 mm

**EL60HC\*** MAX FLOW RATE [m<sup>3</sup>/h]: 700  
MAX PUMPING DISTANCE [m]: 300  
DISCHARGE DIAMETER: DN250  
MAX SOLID PASSAGE: 90 mm

**EL1204\*** MAX FLOW RATE [m<sup>3</sup>/h]: 600  
MAX PUMPING DISTANCE [m]: 1000  
DISCHARGE DIAMETER: DN150  
MAX SOLID PASSAGE: 60 mm

**EL1204HC\***  
MAX FLOW RATE [m<sup>3</sup>/h]: 700  
MAX PUMPING DISTANCE [m]: 500  
DISCHARGE DIAMETER: DN250  
MAX SOLID PASSAGE: 90 mm

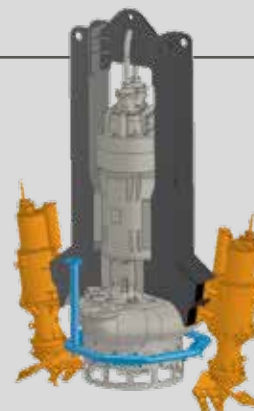
\* = can mount side excavators

Performance  
depends on  
the actual site  
conditions and  
duty point.

THE SAME HULL OF  
THE MODELS DRH85  
AND DRH85/160 CAN  
BE EQUIPPED WITH  
ELECTRIC GENSET AND  
ELECTRIC PUMPS

### ZERO-EMISSION DREDGER:

WHEN ELECTRICITY IS  
SUPPLIED FROM A LOCAL  
RENEWABLE SOURCE



## ACCESSORIES

### Excavators

- Motor power: 9 kW
- Replaceable teeth
- Electric motor
- Weight: 800 kg
- Speed: 25 r.p.m.
- Torque: 3,2 kNm
- Rotation in both directions

### Integrated jet ring system

- Thanks to high pressure water jets, allows to disintegrate the material and have a higher concentration of solid in the mixture
- Flow rate: 60-200 m<sup>3</sup>/h
- Pressure: 6-7 bar
- Power supply: high pressure horizontal pump

### Propeller

- To move and rotate the dredge
- Hydraulic driven
- Maneuverable from the cabin

| ACCESSORIES          | STANDARD | FULL<br>OPTIONAL | HIGH<br>DEPTH |
|----------------------|----------|------------------|---------------|
| Winches              | ✓        | ✓                | ✓             |
| Hoist                | ✓        | ✓                | ✓             |
| Operator's cabin     | ✓        | ✓                | ✓             |
| Control panel        | ✓        | ✓                | ✓             |
| Depth meter          | ✓        | ✓                | ✓             |
| GPS                  |          | ✓                | ✓             |
| Propeller            |          | ✓                | ✓             |
| Hose reel            |          | ✓                | ✓             |
| Bathymetry system    |          | ✓                | ✓             |
| Pressure compensator |          |                  | ✓             |

**DRH85e | DRH 85/160e**

# DRH300 | DRH400 | DRH600

[hydraulic pump]

powerpack with diesel or electric motor



## Hydraulic hoist

- Manages the descent and ascent of the pump
- Depth meter



## Operator's cabin

- Command and control panel
- Heating and air conditioning
- Ergonomic seat for the operator
- Safety equipment



## Power unit

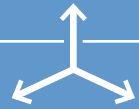
- Soundproof cabin
- Diesel or electric motors
- Oil pumps

## Winches (x4)

- To move the dredge
- Steel cables up to 210 m
- Possibility of additional propeller for movement

## Hull

- Two pontoons 11.5x1.8x1.8 m and central frame
- Low draft



### DRH DIMENSIONS SET UP

|        |           |
|--------|-----------|
| Length | 11.5 m    |
| Width  | 8 m       |
| Height | 7.5 m     |
| Weight | 45/60 ton |



### TRANSPORT

Transportable in 5 containers 40'.



### MODULAR DESIGN

|                   |  |
|-------------------|--|
| <b>Dimensions</b> | Two pontoons 11.5x1.8x1.8 m and central frame. |
| <b>Draft</b>      | 80-90 cm                                       |



### RANGE OF DREDGING PUMPS

|                |   |
|----------------|---|
| <b>HY300</b>   | MAX FLOW RATE [m <sup>3</sup> /h]: 2000<br>MAX PUMPING DISTANCE [m]: 1000<br>DISCHARGE DIAMETER: DN250<br>MAX SOLID PASSAGE: 120 mm     |
| <b>HY400</b>   | MAX FLOW RATE [m <sup>3</sup> /h]: 2000<br>MAX PUMPING DISTANCE [m]: 2000<br>DISCHARGE DIAMETER: DN300-350<br>MAX SOLID PASSAGE: 120 mm |
| <b>HY400HC</b> | MAX FLOW RATE [m <sup>3</sup> /h]: 3000<br>MAX PUMPING DISTANCE [m]: 1000<br>DISCHARGE DIAMETER: DN450<br>MAX SOLID PASSAGE: 120 mm     |
| <b>HY600</b>   | MAX FLOW RATE [m <sup>3</sup> /h]: 2500<br>MAX PUMPING DISTANCE [m]: 3000<br>DISCHARGE DIAMETER: DN350-400<br>MAX SOLID PASSAGE: 120 mm |
| <b>HY600HC</b> | MAX FLOW RATE [m <sup>3</sup> /h]: 4000<br>MAX PUMPING DISTANCE [m]: 1000<br>DISCHARGE DIAMETER: DN450<br>MAX SOLID PASSAGE: 120 mm     |

Performance depends on actual site conditions and duty point



### ACCESSORIES

#### Excavators

- Motor power: 25 kW
- Replaceable teeth
- Hydraulic motor with radial pistons
- Oil flow rate: 60 l/min each
- Weight : 600 kg
- Speed: 50 r.p.m.
- Torque: 4.5 kNm
- Rotation in both directions

#### Integrated jet ring system

- Thanks to the high-pressure water jets, it allows to disintegrate the material and have a higher concentration of solid in the mixture
- Flow rate: 100-200 m<sup>3</sup>/h
- Pressure: 6-7 bar
- Power supply: high pressure horizontal pump

#### Propeller

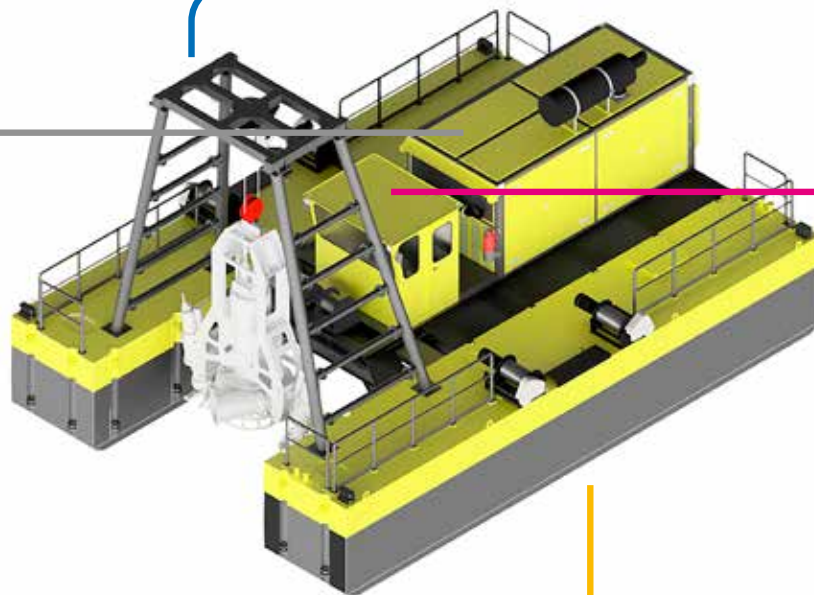
- To move and rotate the dredge
- Hydraulic driven
- Maneuverable from the cabin

| ACCESSORIES          | STANDARD | FULL OPTIONAL | HIGH DEPTH |
|----------------------|----------|---------------|------------|
| Winches              | ✓        | ✓             | ✓          |
| Hoist                | ✓        | ✓             | ✓          |
| Operator's cabin     | ✓        | ✓             | ✓          |
| Control panel        | ✓        | ✓             | ✓          |
| Depth meter          | ✓        | ✓             | ✓          |
| GPS                  |          | ✓             | ✓          |
| Propeller            |          | ✓             | ✓          |
| Hose reel            |          | ✓             | ✓          |
| Bathymetry system    |          | ✓             | ✓          |
| Pressure compensator |          |               | ✓          |

# DRH300 | DRH400 | DRH600

# DRH300e

[electric pump]



## Electric hoist

- Manages the descent and ascent of the pump
- Depth meter



## Operator's cabin

- Command and control panel
- Heating and air conditioning
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- Safety equipment



## Generator or transformer set

- Soundproof cabin
- Diesel engines

## Winches (x4)

- To move the dredge
- Steel cables up to 210 m
- Possibility of additional propeller for movement

## Hull

- Two pontoons 11,5x1,8x1,8 m with a central frame
- Low draft



## RANGE OF DREDGING PUMPS

Performance depends on the actual site conditions and duty point.

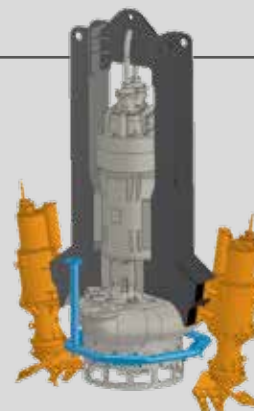
- EL110\*** MAX FLOW RATE [m<sup>3</sup>/h]: 600  
MAX PUMPING DISTANCE [m]: 1000  
DISCHARGE DIAMETER: DN200  
MAX SOLID PASSAGE: 60 mm
- EL150\*** MAX FLOW RATE [m<sup>3</sup>/h]: 1700  
MAX PUMPING DISTANCE [m]: 600  
DISCHARGE DIAMETER: DN250  
MAX SOLID PASSAGE: 120 mm
- EL180\*** MAX FLOW RATE [m<sup>3</sup>/h]: 1000  
MAX PUMPING DISTANCE [m]: 900  
DISCHARGE DIAMETER: DN200-250  
MAX SOLID PASSAGE: 60 mm
- EL300\*** MAX FLOW RATE [m<sup>3</sup>/h]: 2000  
MAX PUMPING DISTANCE [m]: 1000  
DISCHARGE DIAMETER: DN250  
MAX SOLID PASSAGE: 120 mm
- EL300HC** MAX FLOW RATE [m<sup>3</sup>/h]: 3000  
MAX PUMPING DISTANCE [m]: 700  
DISCHARGE DIAMETER: DN450  
MAX SOLID PASSAGE: 120 mm

\* = can mount side excavators

THE SAME HULL OF MODELS DRH300, DRH400 AND DRH600 CAN BE EQUIPPED WITH ELECTRIC GENSET AND ELECTRIC PUMPS

### ZERO-EMISSION DREDGER:

WHEN ELECTRICITY IS SUPPLIED FROM A LOCAL RENEWABLE SOURCE



## ACCESSORIES

### Excavators

- Motor power: 9 kW
- Replaceable teeth
- Electric motor
- Weight: 800 kg
- Speed: 25 r.p.m.
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- Thanks to high pressure water jets, allows to disintegrate the material and have a higher concentration of solid in the mixture
- Flow rate: 60-200 m<sup>3</sup>/h
- Pressure: 6-7 bar
- Power supply: high pressure horizontal pump

### Propeller

- To move and rotate the dredge
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| ACCESSORIES          | STANDARD | FULL OPTIONAL | HIGH DEPTH |
|----------------------|----------|---------------|------------|
| Winches              | ✓        | ✓             | ✓          |
| Hoist                | ✓        | ✓             | ✓          |
| Operator's cabin     | ✓        | ✓             | ✓          |
| Control panel        | ✓        | ✓             | ✓          |
| Depth meter          | ✓        | ✓             | ✓          |
| GPS                  |          | ✓             | ✓          |
| Propeller            |          | ✓             | ✓          |
| Hose reel            |          | ✓             | ✓          |
| Bathymetry system    |          | ✓             | ✓          |
| Pressure compensator |          |               | ✓          |

# DRH300e

# Dragflow monitoring system

Dragflow has developed a monitoring system for the full range of dredges that allows operators and project managers to keep track of key indicators of a project such as placement, area coverage, and more. The information is collected by a series of sensors on board and saved on a cloud-based system accessible to operators on the dredges and offsite project managers. This telemetry package also allows remote diagnosis and downtime prevention that greatly increases efficiency of the overall dredging operation.

The Dragflow monitoring system is customized for each application and can include following accessories:

## Positioning and Bathymetry

- **GPS System:** precise mapping and positioning within the dredging area for effective coverage and better planning. The system can be combined with sensors such as Encoder pulley, flow meter, densimeter and more for data crossing.
- **Echosounder:** the serial interface can connect to the GPS system via RS232 communication, and elaborate georeferenced maps, useful to make the work more easy and accurate.

## Work parameters

- **Flowmeter:** the electromagnetic flow meter provides flow measurements in real time for the operator. In combination with the densimeter, it is possible to quantify the volume of material actually removed.
- **Density meter:** provides real-time density measurements in the discharge pipe for all types of solids. The meter uses ultrasonic technology to measure density and it is specifically designed for dredging and mineral applications.

## Working depth meter

In order to determine the location of the dredging pump during operations, depending on the application Dragflow dredges can be equipped with encoder pulleys or piezoresistive transducers to provide real-time information to the operator.



**FLOWMETER**



**DREDGING APPLICATIONS:**

## **PORT DREDGING**





**DREDGING APPLICATIONS:**

**PORT  
DREDGING**

**MINING APPLICATIONS:**

## **DREDGING IN MINING DAM**





**DREDGING APPLICATIONS:**

**SAND  
EXTRACTION**

**DREDGING APPLICATIONS:**

## **DREDGING IN DAM**





**DRAGFLOW**  
PUMPING THE IMPOSSIBLE  
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**DRAGFLOW**  
PUMPING THE IMPOSSIBLE

**DREDGING APPLICATIONS:**

**PORT  
DREDGING**

**DREDGING APPLICATIONS:**

**SAND  
EXTRACTION**





**MINING APPLICATIONS:**

**DREDGING  
IN MINING DAM**





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