

DRAGFLOW[®]

PUMPING THE IMPOSSIBLE



dredges catalogue



ISO 9001

FM 537604



TAILOR MADE SOLUTIONS FOR HEAVY DUTY APPLICATIONS

Company profile



History

Dragflow S.r.l. was born at the end of the 1980's as a manufacturer of heavy duty submersible agitator pumps specifically designed for handling slurries with a high content of abrasive solids.

Thanks to the passion and brilliance of its team of technicians and engineers, Dragflow S.r.l. has proven to be not just a simple alternative for handling solids with conventional products and systems, but provides solution for those clients operating in specialized sectors that must face extreme conditions and solve very difficult applications.

Many successful cases and customer satisfaction have encouraged us to continue with the research and further development of our products.

Technology

As a recognized leader in the production and marketing of submersible dredge pumps, Dragflow has gained over the year's remarkable international experience and first rate reputation in the production of dredges, for marine and energy sectors as well as in mining for minerals and other materials.

The Dragflow team constantly works not only to find new technological solutions that improve the performance of its products, but also to design specific solutions for contractors and end users, optimizing sustainable operations with energy savings and reducing the environmental impact and overall costs.

Quality

Dragflow invested in ISO9001 Quality Certification and in its information systems, because it believes in the importance of business process management, not only for improving efficiency but also to provide excellent service to Customers.

Dragflow products are made with an exceptional structural quality to maximize the benefits of the customer's initial investment to achieve low maintenance and service costs and long life of components and wear parts.

Service

With its distribution network around the world, Dragflow is able to give consultancy, service and assistance worldwide, assistance which begins from the very first contact.

We offer to our Customers specialized support during the selection and configuration of products, technical training courses, updates about products and spare parts kits and optimization for every available configuration.

Our technical and commercial department is always at the customer's disposal to offer prompt assistance, quick delivery of spare parts and constant attention to every aspect of after sales service.





EASY AND QUICK ASSEMBLY: Dragflow dredges are specifically designed and manufactured for easy assembly, both on the ground or in the water, also in arduous conditions.

The installation of a dredge requires three easy steps which can be carried out in five working hours:

1. Positioning of the hull and clamping through vertical pins,
2. Positioning of the power unit,
3. Pump fixing.

EASY TRANSPORTATION: Hulls are built in disassembled modules for easy road transportation or for modular transport by containers.

EASY TO HANDLE: our dredges are designed to be handled by an operator with a minimum experience of naval equipment.

HIGH WORKING DEPTH WITH SMALL FLOATING DIMENSIONS: Depth up to 100m.

LIMITED DRAUGHT: our dredges have a limited draught, also suitable to work in shallow water conditions.

EASY ACHIEVEMENT OF NAVAL REGISTER CERTIFICATIONS: Our dredges are built according to the RINA regulations (Italian Naval Register), and their small structure has permitted rapid certification from the naval registers of competence.

SHORT DELIVERY TIMES: the standard delivery time is 16 to 18 weeks.

HIGH PRODUCTIVITY: Dragflow pumps are designed to pump fluids containing a high percentage of solids (up to 40% of volume).

The agitator rotates at the same speed as the pump producing an active cone that can put the solids in suspension and produce a homogeneous mixture which can be easily pumped.

HIGH ABRASION RESISTANCE: The material specification of the components allow the pumping of highly abrasive slurries. All wearing parts are made of Chrome Hard VI with hardness 600/650 Brinnell.

FLEXIBILITY: The dredging pump can be used on different applications and challenging projects.



Main features

Types of dredges



Dragflow has developed different dredging solutions to satisfy clients' demands. Every project presents its own particular requirements that must be considered during the selection of the machine that best fits the working conditions. We have outlined three different type of dredges that are distinguished by the technology adopted to handle the pump.

DRH SERIES – DREDGE WITH STEEL CABLES

Small dimensions and big dredging depth, the dredge with steel cables, is user friendly, represents the best solution used in many touristic harbours and is the best financial compromise between performance and initial investment. This dredge is built with technology that is suitable also for applications where deep dredging is needed without depth restrictions. This unit is easy to transport and assemble and versatile when the working place is not easy to reach.

DRT SERIES – DREDGE WITH TELESCOPIC BOOM

Precision and excellent control of dredging depth. The dredge equipped with a telescopic boom guarantees precision and control, for use in operations in which a predetermined precise dredging depth has to be maintained. In combination with a powerful monitoring system, allows "surgical" operations. Perfect examples could be trade harbours where it is essential to remove a precise polluted layer of the sea floor that will be treated with draining systems. Normal dredging could involve an excessive quantity of drain material to be treated, resulting in increased costs and additional loading on the sludge treatment plant.

DRS SERIES –DREDGE WITH LADDER

Present meets future. A classic architecture of naval dredging equipment that combines the advantages of using a submersible dredging equipment: higher productivity and less cost.. This solution is suitable to perform dredging operations on very compact land. The lifting of material is made by the combined action of the excavators, fixed to the pump at the end of the ladder, that disaggregate the layers of sea floor.



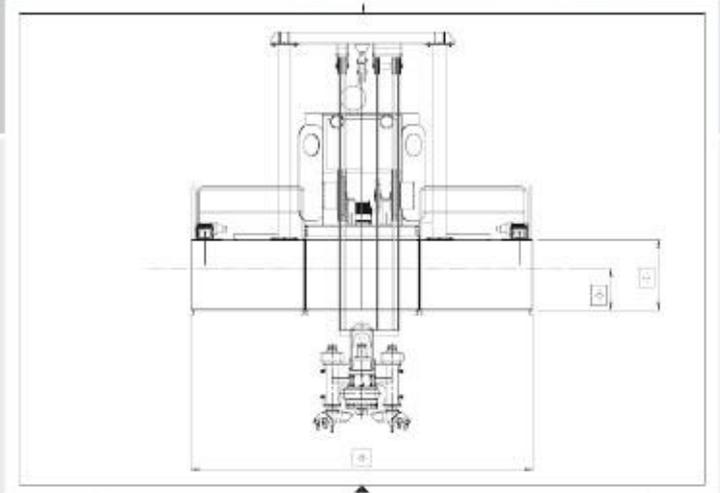
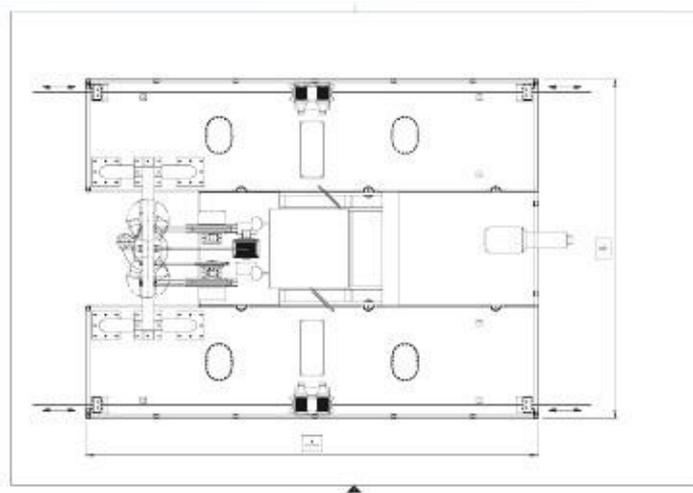
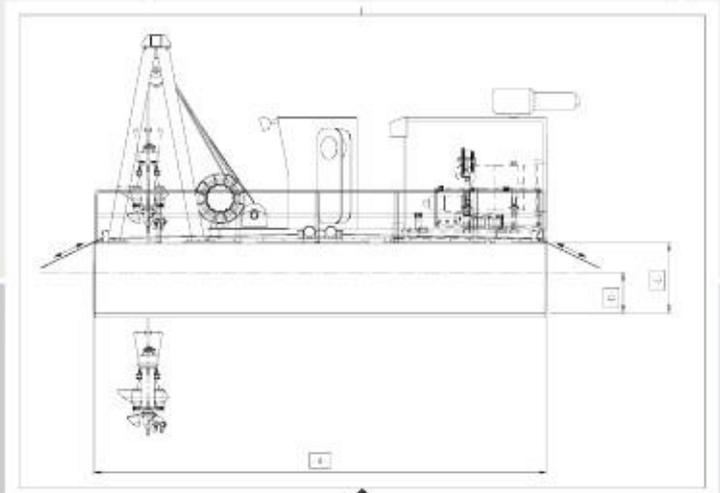
The three types of dredges can have different options:

- Engine:
 - Electric motor,
 - Diesel.
- Dredge pump power:
 - HY35/HY50/HY85(HC)(160)with excavators/jet-ring,
 - HY300/HY400 with excavators / jet-ring.
- Equipment:
 - Full-optional: Dredge complete with soundproof canopy and operator cabin with air conditioning and controls,
 - Basic: Dredge with power pack protected by plastic roll up bad weather canvas and controls on the side of power-pack.



DRH Series DREDGE with STEEL CABLES

	DRH 035/050/085	DRH 300/400
Main dimensions		
Length [a]	8m	12 m
Width [b]	6m	8m
Height [c]	1m	1.8 m
Modular Structure	3 steel floaters	4 steel floaters
Oil capacity	220 liters	430 liters
Fuel capacity	540 liters	1260 liters
Protection	Antifouling paint and cathodic protection Beams anti-breakthrough	
Certification	R.I.N.A. Certification	
Pump handling		
Pump handling	N°1 hoist for lifting dredging unit	
Dredging Depth	Up to 100 m	
Hydraulic Power Pack		
Engine	Diesel/Electric motor	Diesel/Electric motor
Electric plant	12/24 V	12/24 V
Hydraulic plant	No. 1 oil pump variable flow – dredging pump No. 1 oil pump variable flow - excavators No. 1 oil pumps variable flow - winches and hoist	
Dredging unit		
Dredging Pump	Dragflow Pump HY35, HY50, HY85 or HY85/160	Dragflow Pump HY300 or HY400
Delivery	From 100 to 250 mm	From 250 to 350 mm
Impeller diameter	From 380 mm a 490 mm	760 mm
Capacity	From 100 to 850 m ³ /h of mixture	From 720 to 1200 m ³ /h of mixture
Solid Capacity	25-30%	25-30%
Discharge distance	Up to 600 m	Up to 1 Km
Solid handling	From 35 to 90 mm	120 mm
Weight	From 500 to 1000 Kg	From 3500 to 3600 Kg

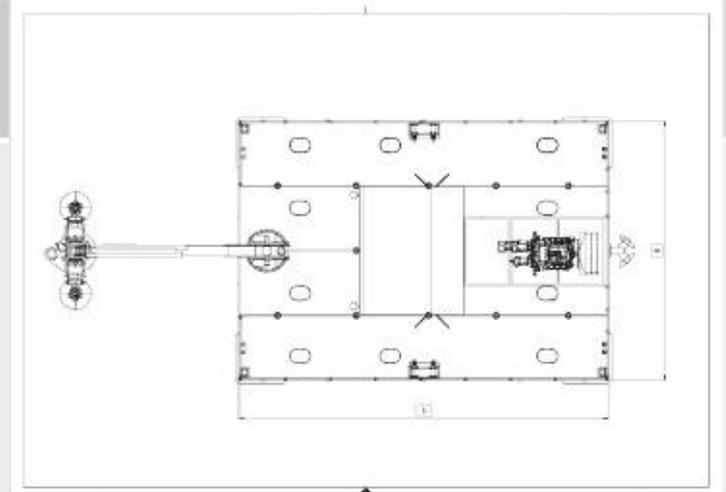
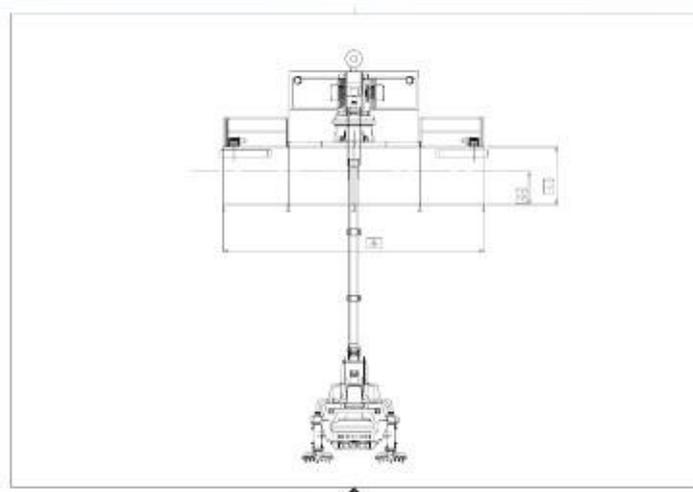
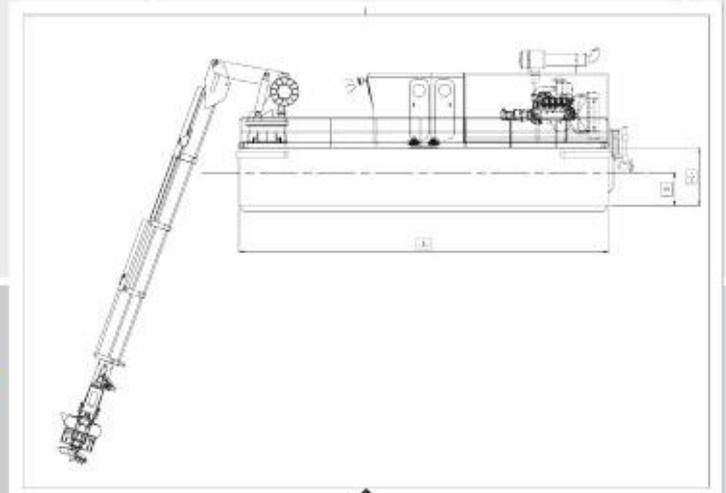


	DRH 035/050/085	DRH 300/400
Excavators and Jet-Ring		
Excavators	Dragflow EXHY20 and EXHY35 Power from 11 kW/30 RPM to 30 kW/50 RPM	
Jet Ring	Breakup with jet of water at high pressure From 30 to 200 m ³ /h at 6-8 bar	
Operator Cabin		
Features	<ul style="list-style-type: none"> - Side opening doors with lock - Air conditioning with heat pump - Hydraulic and electric controls - Front position, navigation and maintenance lights 	
Winches		
Type	N° 4 hydraulic winches	
Length	50 meters (or longer)	
1° layer	5,7 mt. - 4600 Kg	
Diameter	12 mm	
Equipment		
Base	Hull complete with oil-pressure plant, protection by plastic bad weather cloth and with central system controls next to the plant	
Full Optional	Hull complete with soundproof, oil-pressure plant and operator cabin with air conditioning and central system controls	



DRT Series DREDGE with TELESCOPIC BOOM

	DRT 035/050/085	DRT 300/400
Main dimensions		
Length [a]	8m12 m	
Width [b]	6m8m	
Height [c]	1,5 m1,8 m	
Modular Structure	3 steel floaters4 steel floaters	
Oil capacity	220 liters430 liters	
Fuel capacity	540 liters1260 liters	
Protection	Antifouling paint and cathodic protection Beams anti-breakthrough	
Certification	R.I.N.A. Certification	
Pump handling		
Pump handling	N°1 telescopic boom	
Dredging Depth	Up to 20 m	
Hydraulic Power Pack		
Engine	Diesel/Electric motor	Diesel/Electric motor
Electric plant	12/24 V	12/24 V
Hydraulic plant	No. 1 oil pump variable flow – dredging pump No. 1 oil pump variable flow - excavators No. 1 oil pump variable flow - winches and telescopic boom	
Dredging unit		
Dredging Pump	Dragflow Pump HY35, HY50, HY85 or HY85/160	Dragflow Pump HY300 or HY400
Delivery	From 100 to 250 mm	From 250 to 350 mm
Impeller diameter	From 380 mm a 490 mm	760 mm
Capacity	From 100 to 850 m ³ /h of mixture	From 720 to 1200 m ³ /h of mixture
Solid Capacity	25-30%	25-30%
Discharge distance	Up to 600 m	Up to 1 Km
Solid handling	From 35 to 90 mm	120 mm
Weight	From 500 to 1000 Kg	From 3500 to 3600 Kg

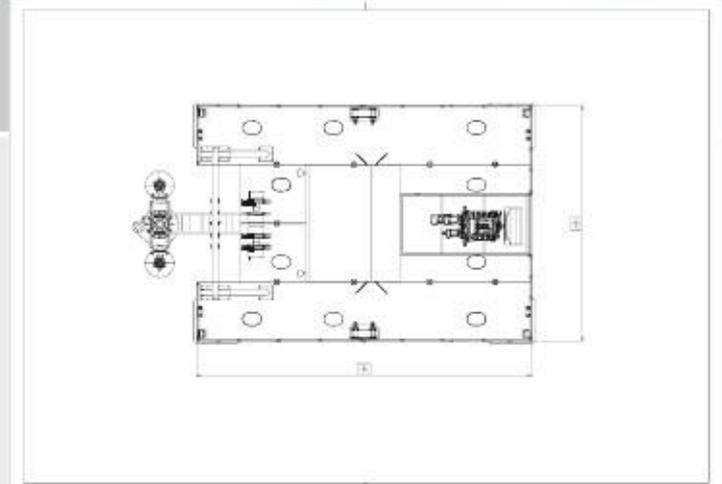
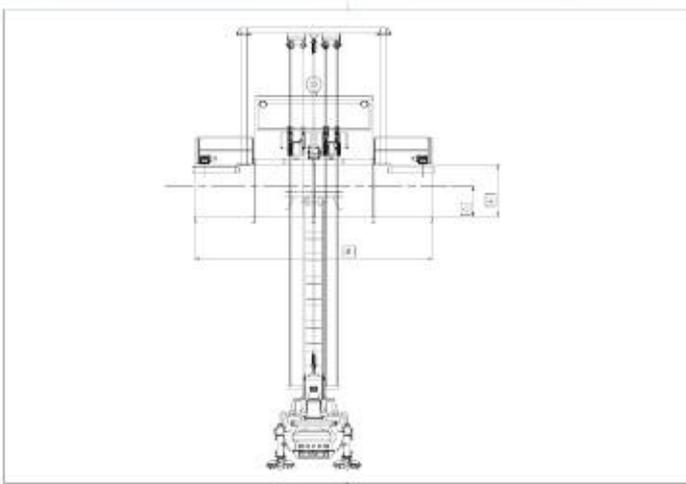
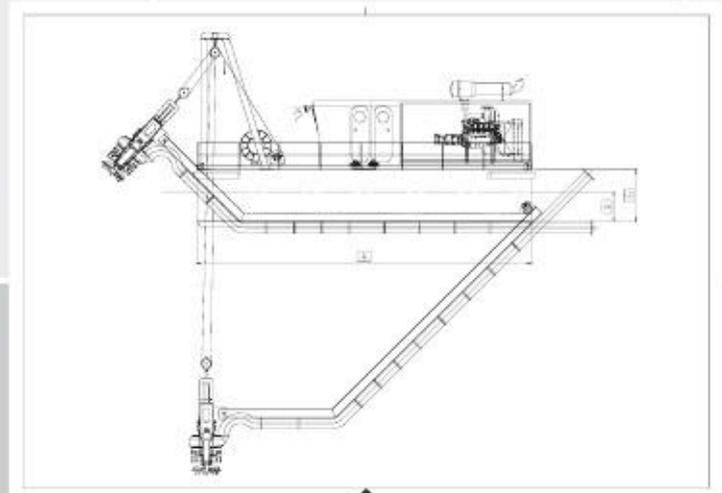


	DRT 035/050/085	DRT 300/400
Excavators and Jet-Ring		
Excavators	Dragflow EXHY20 and EXHY35 Power from 11 kW/30 RPM to 30 kW/50 RPM	
Jet Ring	Breakup with jet of water at high pressure From 30 to 200 m ³ /h at 6-8 bar	
Operator Cabin		
Features	<ul style="list-style-type: none"> - Side opening doors with lock - Air conditioning with heat pump - Hydraulic and electric controls - Front position, navigation and maintenance lights 	
Winches		
Type	N° 4 hydraulic winches	
Length	50 meters (or longer)	
1° layer	5,7 mt. - 4600 Kg	
Diameter	12 mm	
Equipment		
Base	Hull complete with oil-pressure plant, protection by plastic bad weather cloth and with central system controls next to the plant	
Full Optional	Hull complete with soundproof, oil-pressure plant and operator cabin with air conditioning and central system controls	



DRS Series DREDGE with LADDER

	DRS 035/050/085	DRS 300/400
Main dimensions		
Length [a]	8m	12 m
Width [b]	6m	8m
Height [c]	1,5 m	1,8 m
Modular Structure	3 steel floaters	4 steel floaters
Oil capacity	290 liters	430 liters
Fuel capacity	540 liters	1260 liters
Protection	Antifouling paint and cathodic protection Beams anti-breakthrough	
Certification	R.I.N.A. Certification	
Pump handling		
Pump handling	N°1 ladder hydraulic commended	
Dredging Depth	Up to 20 m	
Hydraulic Power Pack		
Engine	Diesel/Electric motor	Diesel/Electric motor
Electric plant	12/24 V	12/24 V
Hydraulic plant	No. 1 oil pump variable flow – dredging pump No. 1 oil pump variable flow - excavators No. 1 oil pump variable flow - ladder dredge	
Dredging unit		
Dredging Pump	Dragflow Pump HY35, HY50, HY85 or HY85/160	Dragflow Pump HY300 or HY400
Delivery	From 100 to 250 mm	From 250 to 350 mm
Impeller diameter	From 380 mm a 490 mm	760 mm
Capacity	From 100 to 850 m ³ /h of mixture	From 720 to 1200 m ³ /h of mixture
Solid Capacity	25-30%	25-30%
Discharge distance	Up to 600 m	Up to 1 Km
Solid handling	From 35 to 90 mm	120 mm
Weight	From 500 to 1000 Kg	From 3500 to 3600 Kg



	DRS 035/050/085	DRS 300/400
Excavators and Jet-Ring		
Excavators	Dragflow EXHY20 and EXHY35 Power from 11 kW/30 RPM to 30 kW/50 RPM	
Jet Ring	Breakup with jet of water at high pressure From 30 to 200 m ³ /h at 6-8 bar	
Operator Cabin		
Features	<ul style="list-style-type: none"> - Side opening doors with lock - Air conditioning with heat pump - Hydraulic and electric controls - Front position, navigation and maintenance lights 	
Winches		
Type	N° 4 hydraulic winches	
Length	50 meters (or longer)	
1° layer	5,7 mt. - 4600 Kg	
Diameter	12 mm	
Equipment		
Base	Hull complete with oil-pressure plant, protection by plastic bad weather cloth and with central system controls next to the plant	
Full Optional	Hull complete with soundproof, oil-pressure plant and operator cabin with air conditioning and central system controls	

Accessories





HULL WITH BUILT-IN TANK

To increase the working period between refueling it is possible to use modular floaters with built-in diesel tanks.

DELIVERY PIPES AND FLOATERS

The success of dredging operation depends on type and quality of delivery pipes and floaters that support the discharge line.

Dragflow provides two different types of pipes: - Flexible delivery pipes: they are subjected to higher abrasion, but guarantee the most handling versatility during dredging operations,- Surface delivery pipes: designed to transport the material to the discharge point.

Dragflow offers both options according to customer's needs and preferences.

We supply floaters in two categories:

- Floaters for flexible pipe: these floaters have a particular structure that permits them to withstand the water pressure due to the depth of the work,
- Floaters for surface delivery pipe.

HYDRAULIC OIL SPOOLS

Spools permit the recovery of oil hoses. Dragflow provides two different types:

- Spring spools: maximum dredging depth 12m,
- Motorized spools.

BOOSTER PUMPS

It is possible to couple dredging pumps with booster pumps to cover a longer delivery distance. They are powered by diesel or gas engines or electrical motors.

Accessories

AZIMUTHAL STERN THRUSTER

Azimuthal stern thruster with hydraulic driving gear provides propulsion to the pontoon and acts as a shaft with a rudder angle of +/-40°.

WINCHES OF DIFFERENT LENGTHS

The standard cable length of swing winches is 50m for all three different types of dredges.

On request two additional models are available:

- Winches with a cable length of 133m,
- Winches with a cable length of 211m.

ANTI-TURBIDITY BELL

Sea sediments can be polluted by metals, hydrocarbons, bacteria and chemical substances which in most cases are toxic, resilient and accumulate as debris. A digging operation without turbidity limitation of the surrounding waters could prevent serious damage to the marine ecosystem.

This problem has been solved by Dragflow by the production of a bell to limit water turbidity.

DREDGING MONITORING SYSTEM

Our Dredging Monitoring System allows the display of work in progress on a PC screen, with a top and side view of the dredging unit. Control tools are available both to the operator on the machine and to remote operators.

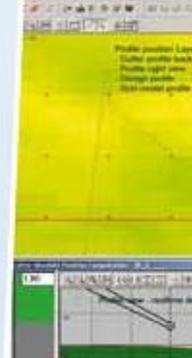
The terrestrial digital model is updated in real time recording the dredging operation and the extracted material.

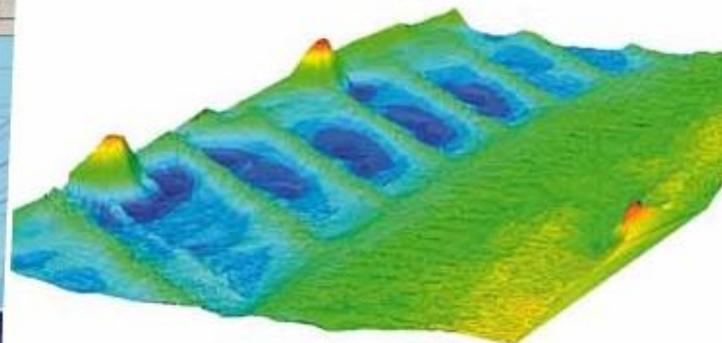
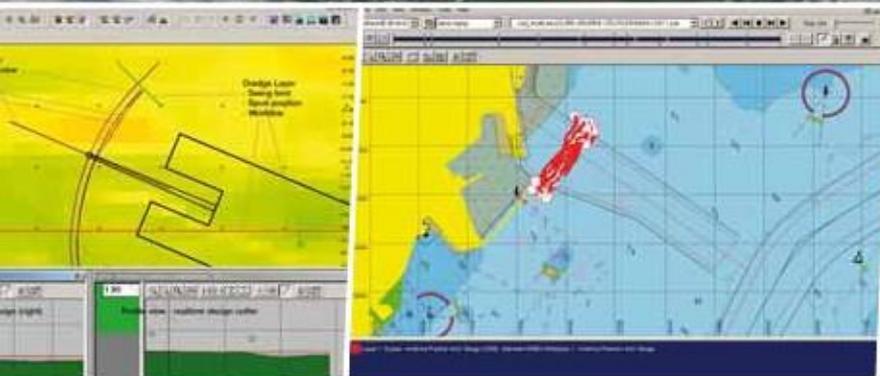
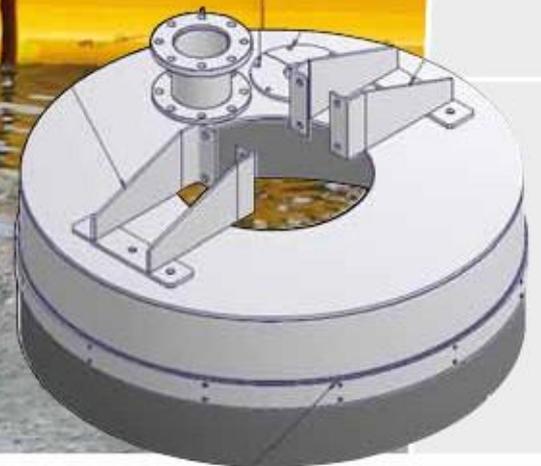
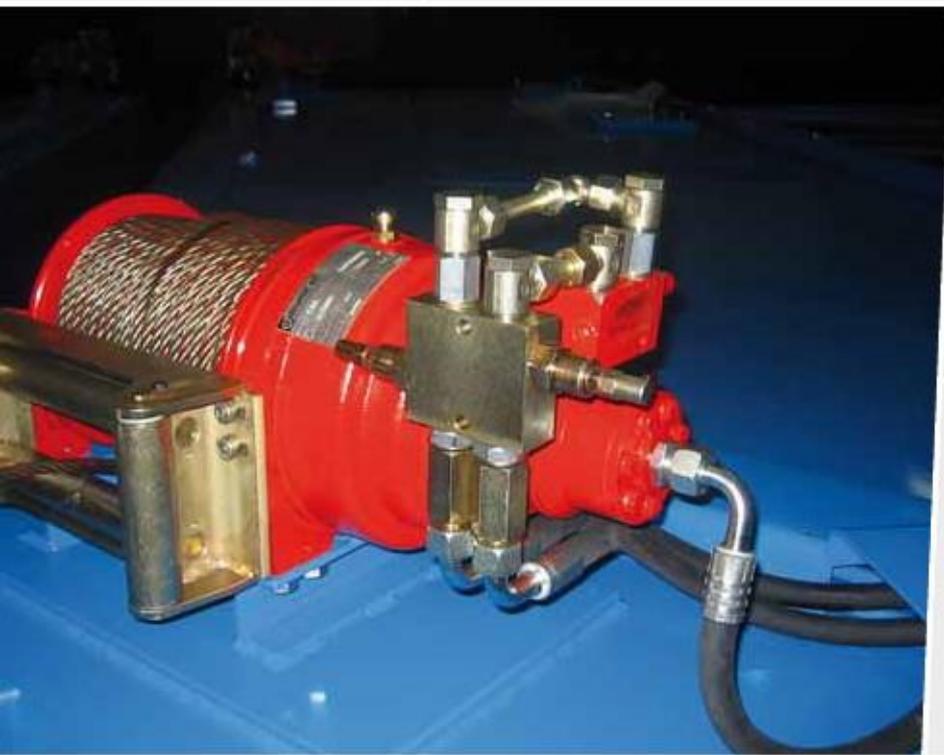
Several kits are available, starting from one for tracking the location of dredging up to a kit for a complete monitoring of work in progress.

Dragflow supplies all the necessary tools, software and sensor setting and training for all the operators who will use the monitoring system.

STABILIZERS

Coupling with, or in alternative, to swing winches it is possible to have stabilizer spuds moved by hydraulic winches.





Worldwide



Presence



The Dragflow sales network is available throughout the world. Our partners are ready and qualified to help you in the selection of the right equipment that will best fit your needs and support you with spares and after sales service delivering a solution package for your dredging and maintenance projects.



ACE CENTRO ENTERPRISES

P. O. Box 95325,
M-03 / M-04 Art Beat Building,
Off Al Dhafra Street, Muroor Road,
Abu Dhabi, U.A.E.

E: sales@acecentro.com

F: +971 2 6737800

T: +971 2 6737900

W: www.acecentro.com