



**DRAGFLOW**  
ULTIMATE EFFICIENCY

**DREDGING**

# DRAGFLOW

ULTIMATE EFFICIENCY

WE HAVE A DEEP ATTITUDE

Growth of global population, tourism, transportation of people and goods together with increased awareness of the need to protect the planet are shaping the future of dredging technologies.

Dredging is becoming a crucial activity for the development of our society. Creating new land or developing and maintaining an efficient harbour network, as well as restoring dam capacity and productivity or opening safe and efficient water-ways are basic activities to sustain economic growth in most countries. But more and more new challenges demand efficient and reliable dredging solutions such as the installation new wind turbines and off-shore platforms, clean-up polluted areas to restore the original environment or fast reaction in civil emergencies.

Dragflow has been involved in the production of dredge systems for more than 25 years. A business that begun in the early 80's specifically for costal protection along the Italian and European coast, thanks to the passion of the people and engineers working in the company, has rapidly evolve into an international recognized partner for the most challenging dredging projects.

# DREDGING

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## About Dragflow

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 solutions for those clients operating in specialized sectors who 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.

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## Technology

As a recognized leader in the production and marketing of submersible dredge pumps, Dragflow has gained over the years 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.

Thanks to the experience in leading technology projects, Dragflow continuously enhances its ability to deliver high-quality products.

## People

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 and Service

Dragflow products are made with an exceptional structural quality to achieve low maintenance and service costs with long life of components and wear parts.

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.

With its distribution network around the world, Dragflow is able to give consultancy, service and assistance worldwide.

## Proven Worldwide – Global Sales And Service Presence

Dragflow pumps are being used in the world's harshest environments. Our global sales and service network ensures that we provide the highest level of sales and after-sales service.



# DREDGING WITH SUBMERSIBLE PUMPS

## Unbeatable efficiency

Dredging and solids reclamation are energy intensive operations. The main challenge for manufacturers of dredging equipment is to develop efficient machines that can reduce the use of energy and thus contain the operating cost of projects.

Dragflow has been fully concentrated on submersible dredge pump technology since the beginning and is now able to provide the widest range of electric and hydraulic submersible pump on the market. The presence of a double blade agitator together with pump suction directly in contact with the material make Dragflow pumps able to move slurries with solid content up to 70% by weight.

Higher solid concentration means using energy to move solids instead of water! It means possibility to work with smaller diesel engines and reduced discharge pipe diameters. The result is a considerably reduced operating cost per cubic meter while keeping total daily production at the same level of bigger size cutter suction dredges.



## High Versatility

The Dragflow submersible dredge pump is a versatile tool. It can be attached to the boom of an excavator and run using the excavators hydraulics or it can be suspended from a crane or an A-frame to form a high efficient suction dredger.

Design of dredgers comes out to be extremely simplified with possibility to reduce capital cost and have high working depth without any increase in the cost of equipment.

Pumps can be provided with cutter heads and thus form a submersible cutter dredger, with high pressure water jets to work in extremely concentrated mud or it can be equipped with an auger head for environmental dredging operations.





## HARBOR AND MARINA DREDGING

Commercial Ports as well as tourist harbours water depth has to be maintained to keep the facility in full operation. Cleaning and maintenance of ports, marinas and waterways are therefore an important sector of activity for Dragflow and its customers.

Dragflow solutions are a competitive alternative to more traditional cutter suction dredges because the submersible agitator pump technology allows operators to keep a much higher solid concentration in the dredged slurry thus permitting lower operational cost per cubic meter of extracted material.



Coastal protection has been the first application for Dragflow pumps. The 4000km of coast of the Italian peninsula cannot miss the appointment with the massive presence of international tourists in the summer seasons. For more than 25 years Dragflow has proudly played an important role to serve contractors providing a defence against flooding and the erosion of land. Dragflow has become a new standard along the years: thanks to the higher solid concentration provided by Dragflow technology it is possible to considerably reduce the cost per cubic meter of pumped material. More solid means less water into the slurry thus more production with same energy consumption.

## LAND RECLAMATION AND COASTAL PROTECTION



Thanks to Dragflow technology cleaning of ponds and waterways have never been so efficient and safe. Transportable remote controlled Dragflow dredging systems, together with high efficient submersible agitator pumps, are setting a higher standard on the market. Dragflow pumps, in comparison with suction technologies, have the ability to handle more solid in the slurries. This allows use of smaller line diameters maintaining the same hourly production of an equivalent suction dredge.

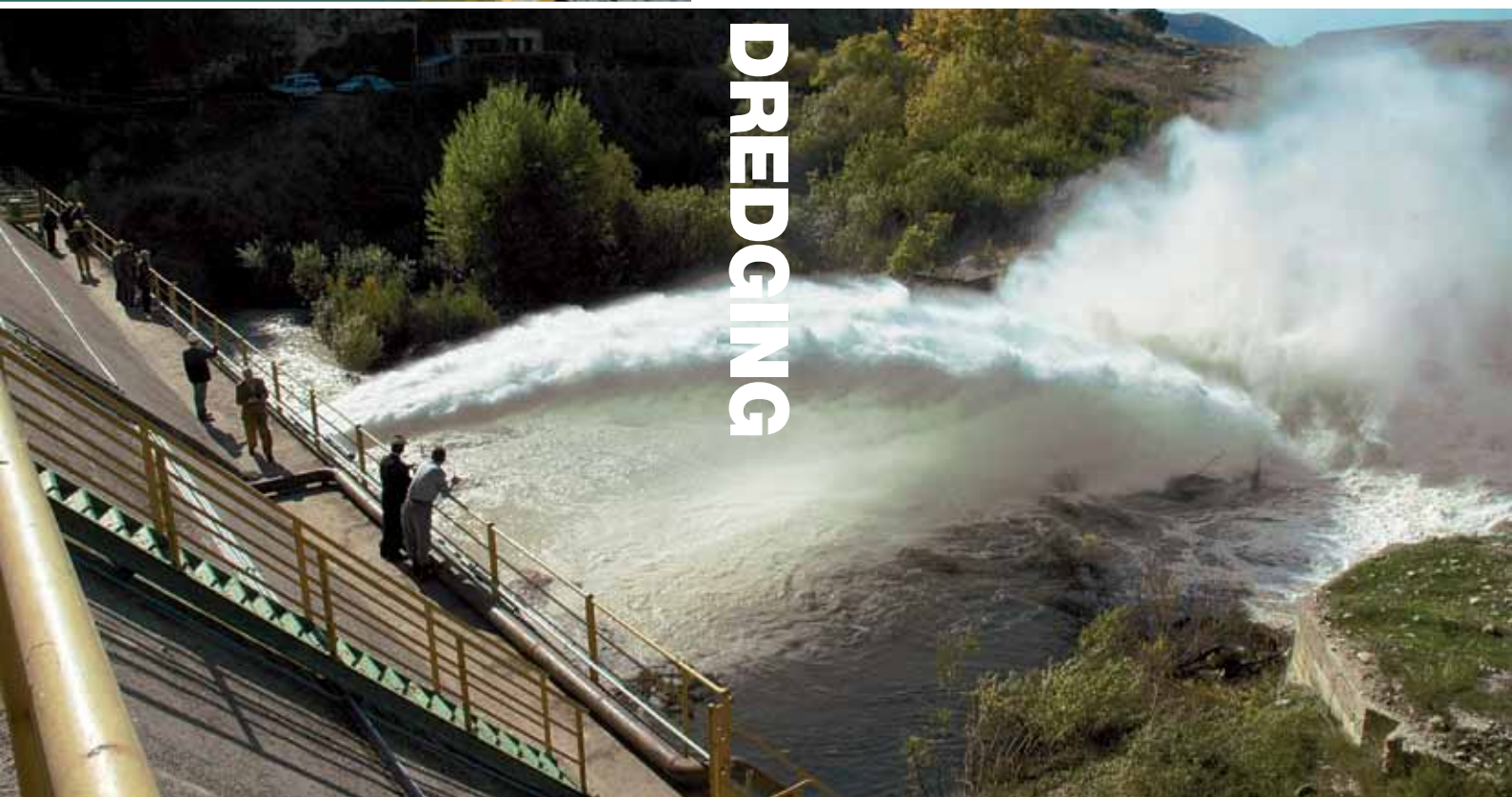
## CHANNEL AND POND CLEANING





# OFF-SHORE AND HIGH DEPTH DREDGING SYSTEM

High depth projects can be very challenging not only for the high pressure environment where the pumps are required to work but also in terms of equipment installation and handling. Dragflow has not only the widest range of submersible dredge pumps and excavators that can work in high depth and deep-sea water (with successful projects up to 250m of working depth) but it is able to provide a complete tailor made solution that includes umbilical oil hose systems, hydraulic spoolers for oil hoses and hydraulic powerpacks for the offshore and oil & gas industry. Each system can be integrated with remote controls and remote monitoring functionalities in order to increase operational efficiency and personnel safety.



**DAM DREDGING**

Dam cleaning is a crucial operation to keep the energy plant in a safe and efficient operating status. Dragflow can be a reliable and flexible partner for dam dredging projects thanks to quick delivery of high depth dredge system, remote controlled dredges or turnkey equipment for sediments removal.



## ENVIRONMENTAL DREDGING

With increase awareness of environmental problems specific jobs are now focused to cleaning up polluted materials in sections of ports and rivers within industrial areas. Dragflow submersible pumps are an ideal solution for such projects thanks to the low turbidity created during operations that allow remove contaminated sediments without harming the surrounding environment and to the high efficiency of the submersible pump technology that permit the lowest energy consumption per cubic meter of extracted material.

# GEOTEXTILES FILLING

Dragflow hydraulic pumps are ideal to fill-up geotextiles. Thanks to variable rotation speed of the pump the system production can be easily adjusted in order to guarantee best mixing with eventual polymer and optimize fill-up cycles.



# CIVIL EMERGENCIES

Dragflow has partnered with other manufacturers in the construction of complex machines to be used during civil emergencies and fire-fighting operations. Thanks to specific design capabilities of Dragflow engineering team our dredge systems can be a reliable integration for other OEMs. Dragflow works closely with its customers to ensure that its custom built equipment meet their individual requirements and expectations.



For sand and gravel application efficiency is crucial. The cost per ton of extracted material can heavily change the profitability of the plant. Dragflow solutions are a competitive alternative to more traditional cutter suction dredges because the submersible agitator pump technology allows keeping a much higher solid concentration in the dredged slurry thus permitting lower operational cost per cubic meter of material extracted. This means possibility to reduce discharge line diameter and water usage together with an overall reduction of fuel consumption per extracted ton. But Dragflow pumps are not only used for material extraction. The electric line is also widely used in washing plants and sludge ponds.

## SAND AND GRAVEL



### Electric Pumps (EL Series)

- Power: from 5 to 150 Horse Power
- Capacity: from 30 to 1000 m<sup>3</sup>/h
- Head: from 5 to 75 m
- Discharge distance: up to 1.200 m

### Hydraulic Pumps (HY Series)

- Power: from 24 to 400 Horse Power
- Capacity: from 60 to 1200 m<sup>3</sup>/h
- Head: from 5 to 65 m
- Discharge distance: up to 1300 m

### Dragflow dredges

- Dredges with hoist (DRH Serie)
- Dredges with telescopic boom (DRT Serie)
- Ladder dredges with submersible pump (DRS Serie)
- Remote controlled dredges (DRP Serie)
- Amphibious dredges (DRM Serie)
- Booster stations

### Off-Shore and High Depth Dredging:

- Dredges with working depth up to 100m
- Hydraulic spoolers
- Oil Hose umbilicals
- Containerized remote controlled power units

### Advanced Control Panels

- Touch Screen to analyze pump parameters and performance
- USB/SD storage of parameters history
- 3G / Network wireless connection to monitor pump operation and performance from remote locations

### Power Packs (DP and EP series)

- Engine: Diesel or Electric
- Variable oil flow oil pumps

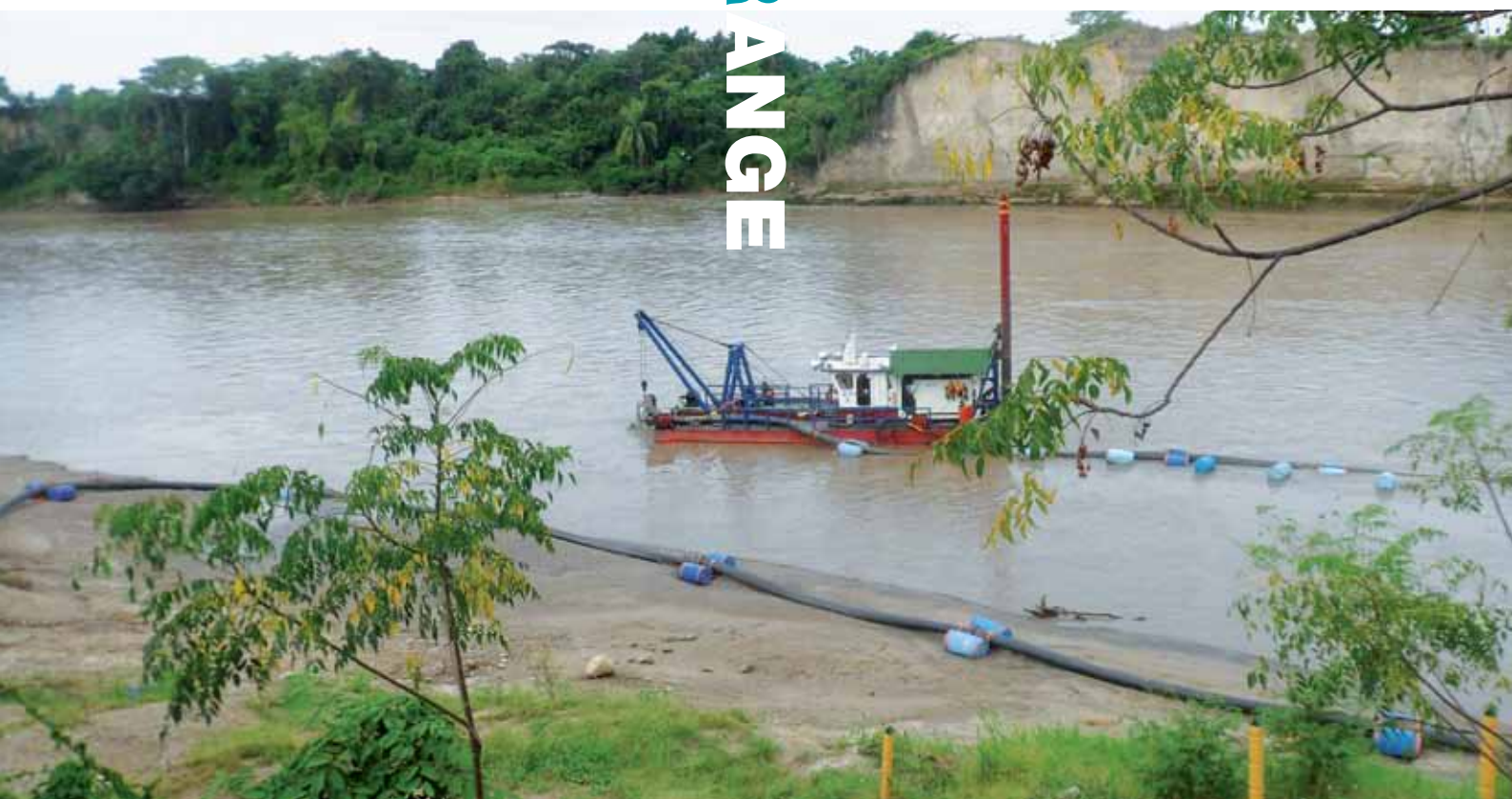
#### Options

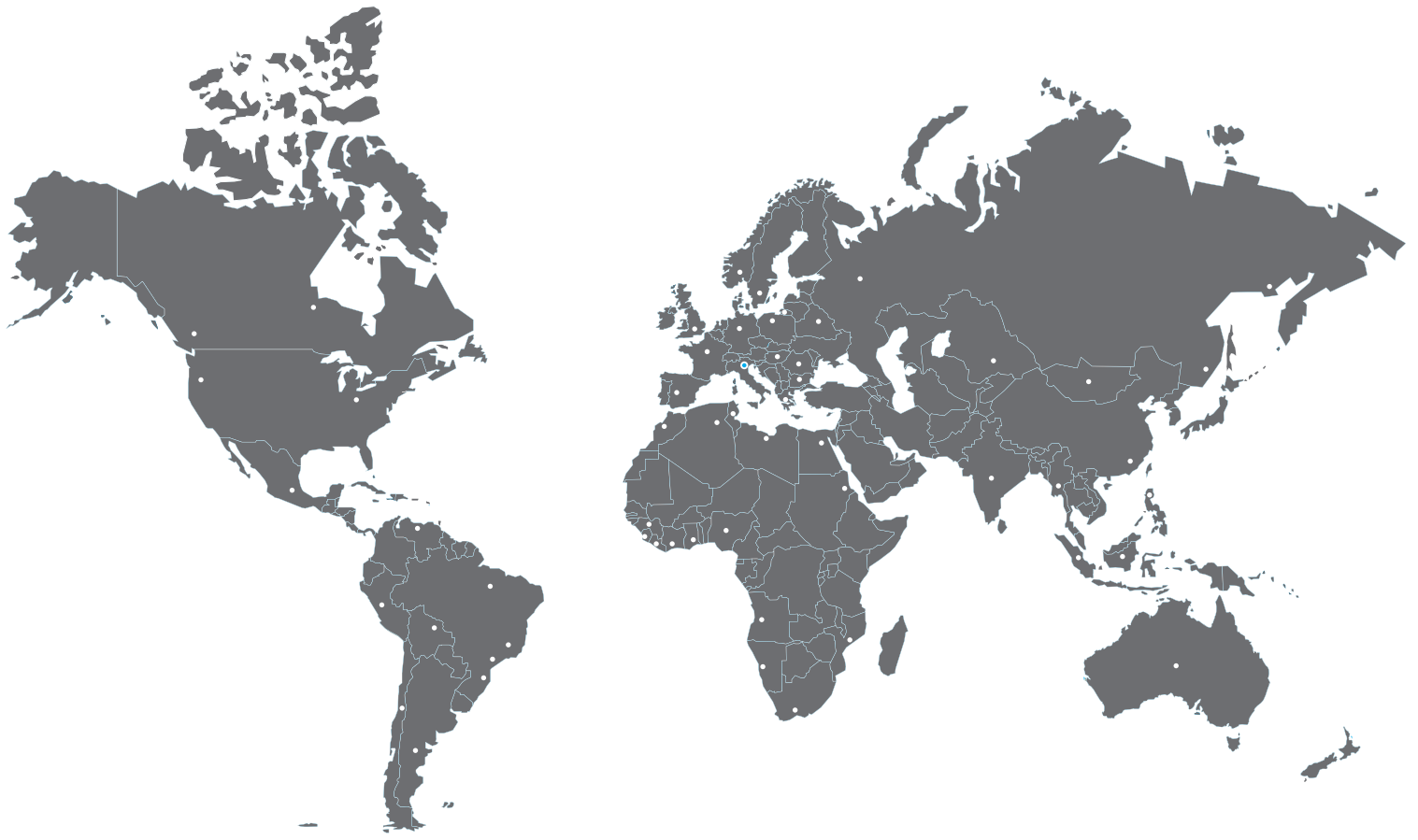
- Sound proof canopy
- Remote control
- Container Style
- Operator Cabin
- Winches and Hoists

### Dredging Excavators (EXHY Series)

- Power: from 11 to 30 Horse Power
- Speed: from 30 to 50 rpm
- Oil: 35 / 46 / 58 l/min
- Pressure: 250 bar

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**WHERE WE ARE**

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