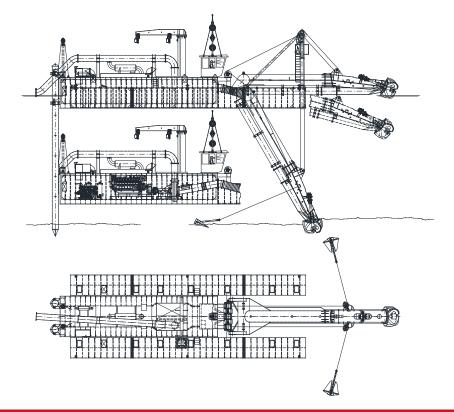
# **Cutter Suction Dredger**

**SGT 550** 





Italdraghe is specialized in manufacturing cutter suction dredgers, dredging systems with deep water submergible pumps, floating and onshore booster stations.



# **VERSATILITY**

italdraghe differentiates from other players in the market for its flexibility given by custom made dredgers designed in order to satisfy specific customer needs.

#### QUALITY

Italdraghe masters the production of high-quality dredgers thanks to a deep know-how and expertise of the dredging industry developed over a more than 60 years' experience in the sector.

#### **EFFICIENCY**

Thanks to its exceptional pumping rate, low maintenance costs and low cost per cubic meter, Italdraghe can offer its clients highly efficient dredgers.

| MAIN DI                             | MENSIONS            |  |  |  |  |
|-------------------------------------|---------------------|--|--|--|--|
| Overall length, ladder raised       | 39,00 m             |  |  |  |  |
| Length over pontoons                | 26,50 m             |  |  |  |  |
| Overall width                       | 8,16 m              |  |  |  |  |
| Main pontoon                        | 15,50x3,95x3,00 m   |  |  |  |  |
| Side pontoons                       | 25,80x2,00x2,00 m   |  |  |  |  |
| Maximum standard dredging depth     | 16 m                |  |  |  |  |
| Average draught, approx             | 0,95 m              |  |  |  |  |
| Suction diameter                    | 650 mm              |  |  |  |  |
| Delivery diameter                   | 550 mm              |  |  |  |  |
| MAIN DIESEL ENGINE                  |                     |  |  |  |  |
| Caterpillar 3516C                   |                     |  |  |  |  |
| Continuous power at rpm             | 1.492 kW @ 1600 rpm |  |  |  |  |
| AUXILIA                             | RY ENGINE           |  |  |  |  |
| Caterpillar C18                     |                     |  |  |  |  |
| Power at rpm                        | 599 kW @ 1800 rpm   |  |  |  |  |
| DREDG                               | ING PUMP            |  |  |  |  |
| Italdraghe SGT 550                  |                     |  |  |  |  |
| CUTTER                              |                     |  |  |  |  |
| Power                               | 250 kW              |  |  |  |  |
| Speed range continuous              | 0 - 30 rpm          |  |  |  |  |
| Diameter                            | 2.000 mm            |  |  |  |  |
| LADDER AND SWING WINCHES            |                     |  |  |  |  |
| Max first layer pull                | 150 KN              |  |  |  |  |
| Wire diameter                       | 24 mm               |  |  |  |  |
| Wire length                         | 150 m               |  |  |  |  |
| Anchor weight                       | 1.000 kg/each       |  |  |  |  |
| SPUDS                               |                     |  |  |  |  |
| Hydraulically operated jacks        |                     |  |  |  |  |
| Diameter                            | 609 mm              |  |  |  |  |
| Length                              | 19,50 m             |  |  |  |  |
| Weight                              | 4.410 kg/each       |  |  |  |  |
| ELECTRICAL INSTALLATION             |                     |  |  |  |  |
| 28 kVA 280/400 V AC - 50 HZ 24 V DC |                     |  |  |  |  |
| CLASSIFICATION                      |                     |  |  |  |  |

# CLASSIFICATION

Bureau Veritas Class I, ★ Hull • MACH Dredger - no propulsion Coastal area

# MAIN CHARACTERISTICS

- Available custom made in order to satisfy specific customer requests
- Easy to operate by a single person from the control cabin
- Dismountable and transportable by road, rail or sea
- On site operator at delivery time for mounting and testing the dredger
- · Moved by diesel or electric engine
- · Environmental friendly dredger
- · Low maintenance costs
- · Exceptional rate of pumping power
- · Highly efficient in terms of fuel consumption
- Large engine room that enables the operator to perform maintenance in security and in comfort
- · Spare parts available from stock
- · Lifetime technical support from the company

# **ADDITIONAL FEATURES**

- · Spud carriage installation
- Anchor booms
- · Auger head
- Swivel bend
- Discharge and vacuum-relief valve
- Positioning system
- Increased dredging depth
- Increased discharge pipeline length/diameter
- Control cabin placed on dampers to improve comfort and reduce noise
- · Air conditioning
- Wide range of services and optional equipment available - pipelines, boosters and work boats
- · In loco operators' training
- Galley

|   | 1300 - |  |
|---|--------|--|
| þ   | 1200 - |  |
| mpe   | 1100 - |  |
| m C   | 1000 - |  |
| olid<br>n³/   | 900 -  |  |
| of s<br>ır (r   | 800 -  |  |
| m <sup>3</sup>  | 700 -  |  |
| d in  | 600 -  |  |
| sure  | 500 -  |  |
| Output measured in $m^3$ of solid pumped per pumping hour $\{m^3/h\}$ | 400 -  |  |
| nt n  | 300 -  |  |
| utp   | 200 -  |  |
| 0   | 100 -  |  |
|   |        |  |
|   |        | 0 600 1200 1800 2400 3000 3600 4200 4800 5400 6000 |
|   |        | Discharge length in m                              |

| CURVE | MATERIAL TYPE        | GRAIN SIZE | SPECIFIC DENSITY |
|-------|----------------------|------------|------------------|
|       | Fine sand            | 0,10 mm    | 1,90 t/m³        |
|       | Medium sand          | 0,24 mm    | 1,95 t/m³        |
|       | Coarse sand          | 0,44 mm    | 2,00 t/m³        |
|       | Coarse sand + gravel | 1,30 mm    | 2,10 t/m³        |
|       | Gravel               | 7,00 mm    | 2,20 t/m³        |

The curves represented in the graph indicate the maximum output. Please note that to calculate the effective output, they have to be adjusted according to the type of material to be pumped and the specific working conditions.

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