The IHC Beaver® 45 is reliable, fuel efficient and has low maintenance costs. This robust and highly productive dredger is equipped with state-of-the-art technology, including the following key features:

- low cost per cubic metre
- an exceptional rate of pumping power
- first class ergonomics and diagnostics
- Cutter Special® pump that combines high efficiency and a large ball passage to provide a high level of availability
- low maintenance and efficient power distribution with a single diesel engine
- environmentally friendly solutions, such as LED lighting
- enhanced safety features.

Reliable and efficient
The IHC Beaver® is well known for its robust construction, reliable operation and excellent performance. To date, Royal IHC (IHC) has supplied more than 800 of these standard cutter suction dredgers worldwide.

Transportable and deliverable from stock
IHC Beaver® dredgers can be dismantled for transport via road, rail or sea. A wide range of optional equipment is available, as well as complementary auxiliary equipment, such as work boats and discharge pipelines. These vessels are mostly delivered from stock.

Service and support
IHC can provide a complete package of spare parts, maintenance support, equipment training programmes, dredging advisory services and dredge operators for hands-on instruction and commissioning.

Main parameters
- Dredging depth: 10.0m (larger depth optional)
- Discharge diameter: 450mm (larger diameters optional)
- Total power: 746kW
IHC Beaver® 45 Cutter suction dredger

**Dimensions**
- Length overall (ladder raised), approx.: 26.1m
- Length over pontoons: 16.50m
- Breadth: 6.81m
- Depth: 2.01m
- Side pontoons: 11.75 x 1.89 x 1.97m
- Mean draught with full bunkers: 1.40m
- Maximum standard dredging depth: 10.0m
- Suction pipe diameter: 450mm
- Discharge pipe diameter: 450mm
- Total installed power: 746kW

**Swing width with 35° swing each side**
- At maximum dredging depth: 23.0m
- At minimum dredging depth: 28.5m

**Dredge pump**
- Type: IHC HRCS 108-23-45, single-walled
- Engine type: Caterpillar C32 TTA Acert
- Continuous engine power: 746kW @ 1,800rpm
- Specific fuel consumption: 204.9g/kWh
- Ball passage: 225mm

**Electrical installation**
- Voltage: 24V DC
- Battery capacity: 400 Ah

**Cutter**
- Type: IHC 1330-120, 5-bladed cutter
- Power at shaft: 110kW
- Diameter: 1,330mm
- Maximum speed, approx.: 34rpm

**Ladder and swing winches**
- Line pull, first layer: 57kN
- Maximum line speed: 25m/min
- Wire diameter: 18mm
- Drum diameter: 390mm
- Swing wires length: 100m
- Anchor weight: 360kg

**Spuds**
- Length: 13.85m
- Diameter: 457mm
- Weight: 2,260kg

**Spud hoisting cylinders**
- Force: 100kN
- Spud stroke (each time), approx.: 3.5m

**Deck crane**
- Lifting power: 20kN
- Outreach: 2.8m

**Other features**
- standard design, allowing for short delivery times and competitive pricing
- spare parts available from stock
- durable heavy-duty marine engine compliant with IMO Tier II
- efficient fuel consumption
- fresh-water engine cooling system
- dredge pump driven through integrated bearing block, clutch and reduction gearbox
- white iron-wear parts for the dredge pump
- cutter drive accepts temporary overload, resulting in high maximum cutter power
- reliable hydraulic system
- completely assembled and fully tested afloat before delivery
- dismountable and transportable by road, rail or sea
- ready for operation on arrival at site
- one-man operation
- wide range of services and auxiliary equipment available (including work boats, boosters and pipelines).

**Optional extra’s**
- spud-carriage installation
- anchor booms
- swivel bend
- non-return valve and vacuum-relieve valve
- production measurement, automation and positioning system
- Operator Assist System for online monitoring
- increased discharge pipeline diameter
- increased dredging depth
- life-cycle support packages (including training, technical support etc.)
- optional packages: comfort (including air conditioning); HSE (health, safety and environment); nautical; and inventory plus.

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**Output calculated for:**

- **Soil type**
  - A: Fine sand
  - B: Medium sand
  - C: Coarse sand
  - D: Coarse sand and gravel
  - E: Gravel

- **Decisive grain size**
  - A: 100μm
  - B: 235μm
  - C: 440μm
  - D: 1.3mm
  - E: 7mm

- **Situ density**
  - A: 1,900kg/m³
  - B: 1,950kg/m³
  - C: 2,000kg/m³
  - D: 2,100kg/m³
  - E: 2,200kg/m³

**Note**
Calculated output curves only indicate pumping capacity, based on the average available power on the pump shaft and free-flowing material. In actual practice, properties may vary from free-flowing, easily excavated to compacted, hard-to-excatate material. When used for estimation actual outputs, the nature of the material to be dredged and local job conditions must be considered. Please consult IHC for dredging conditions outside these curves.