

IHC Beaver® 40 Cutter suction dredger



The IHC Beaver® 40 is equipped with state-of-the-art technology, including the following key features:

- low maintenance and efficient power distribution with a single diesel engine
- a dredge pump with a large ball passage and excellent suction performance
- environmentally friendly solutions, such as LED lighting
- white iron-wear parts for the dredge pump
- first class ergonomics and diagnostics
- safe operation using PLC controls and interlocks
- easy to operate for a single person from the operator's seat
- control cabin placed on dampers to improve comfort and reduce noise.

Reliable and efficient

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

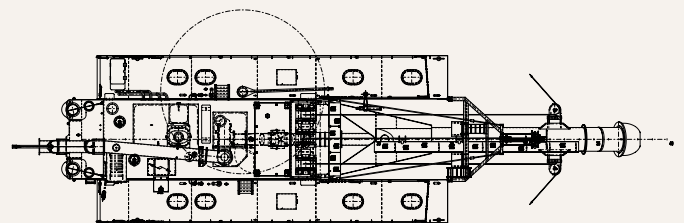
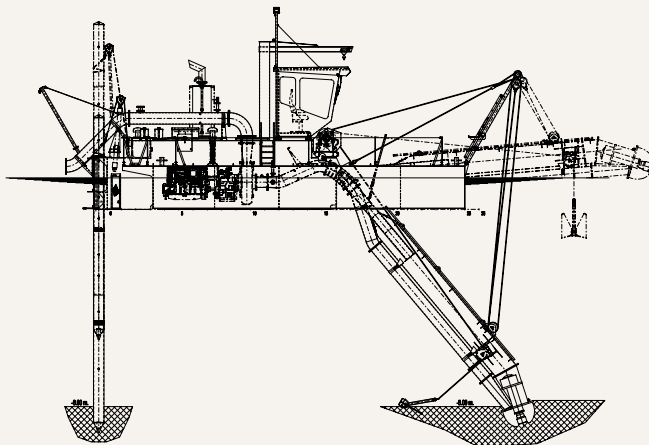
Transportable and deliverable from stock

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 Merwede 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.

PU 25AA-3



Main parameters

Dredging depth:	8.0m (larger depth optional)
Discharge diameter:	390mm (larger diameters optional)
Total power:	447kW

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Dimensions

Length overall (ladder raised), approx.	20.1m
Length over pontoons	12.50m
Breadth	5.72m
Depth	1.51m
Side pontoons	12.00 x 1.47 x 1.47m
Mean draught with full bunkers, approx.	1.10m
Maximum standard dredging depth	8.0m
Suction pipe diameter	390mm
Discharge pipe diameter	390mm
Total installed power	447kW

Swing width with 35° swing each side

At maximum dredging depth	18.0m
At minimum dredging depth	22.5m

Dredge pump

Type	IHC 900-175-350, single-walled
Engine type	Caterpillar C18 TA Acert
Continuous engine power	447kW @ 1,800rpm
Specific fuel consumption	213.4g/kWhr

Electrical installation

Voltage	24V DC
Battery capacity	200Ah

Cutter

Type	IHC 955-50
Power at shaft	52kW
Diameter	955mm
Maximum speed, approx.	33rpm

Ladder and swing winches

Line pull, first layer	40kN
Maximum line speed	25m/min
Wire diameter	16mm
Drum diameter	320mm
Swing wires length	100m
Anchor weight	240kg

Spuds

Length	11.0m
Diameter	368mm
Weight	1,369kg

Spud hoisting rams

Force	60kN
Spud stroke (each time), approx.	3.1m

Deck crane

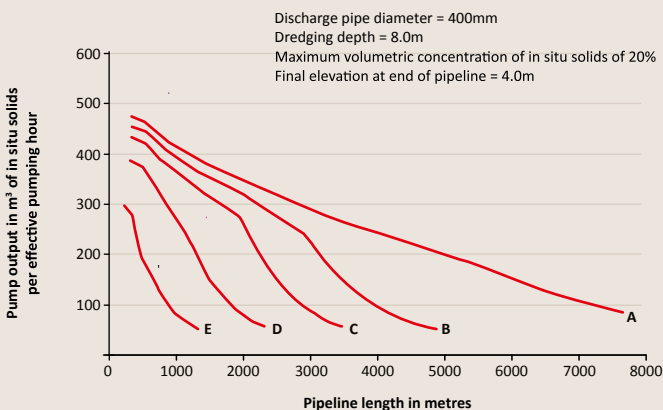
Lifting power	15kN
Outreach	2.80m

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
- cutter drive accepts temporary overload, resulting in high maximum cutter power
- reliable hydraulic system
- completely assembled and fully tested afloat before delivery
- dismantlable and transportable by road, rail or sea
- ready for operation on arrival at site
- special tools are supplied for connecting and disconnecting pontoons and the cutter ladder, and for maintenance of the dredge pump and diesel engine
- 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.



Output calculated for:

Soil type

A	Fine sand
B	Medium sand
C	Coarse sand
D	Coarse sand and gravel
E	Gravel

Decisive grain size

100µm
235µm
440µm
1.3mm
7mm

Situ density

1,900kg/m ³
1,950kg/m ³
2,000kg/m ³
2,100kg/m ³
2,200kg/m ³

Note:

Calculated output curves only indicate pumping capacity, based on the maximum 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-excavate 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 Merwede for dredging conditions outside these curves.