



Beaver[®] 30E cutter suction dredger

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The Beaver[®] 30E is a fully electrically powered version of the standard Beaver[®]. With zero emissions and limited noise disturbance, the Beaver E fully complies with the latest environmental regulations and is therefore also suitable to work in the most sensitive environments.

In comparison to conventional diesel powered dredgers, the electrically powered dredger is more energy efficient. The dredger is ready to go instantly, because the electrical dredge pump drive delivers its full power immediately and doesn't require pre-heating. The electrical dredge pump drive also requires less maintenance.

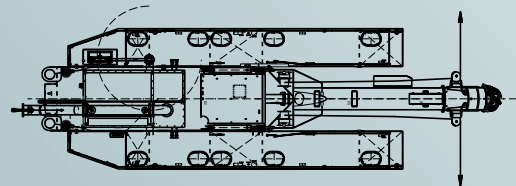
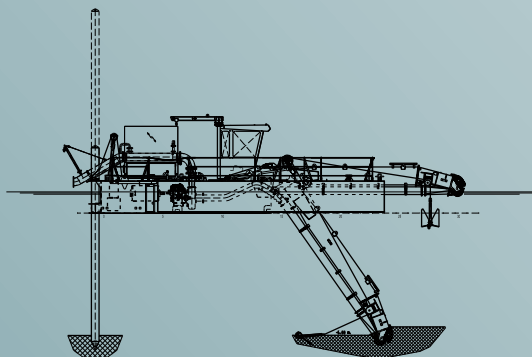
Sticking to the heart of the Beaver[®]: a highly efficient and straightforward dredger, technical changes have been kept to a minimum. The Beaver E is suitable for all common dredging projects, such as land reclamation, maintenance dredging and aggregates dredging. All current standard Beavers[®] types are available in an electrical version.

The Beaver[®] 30E is equipped with state-of-the-art technology, including the following key features:

- low maintenance and efficient power consumption
- an easy execution dredge pump for easy maintenance
- environmentally friendly solutions
- white iron-wear parts for the dredge pump
- easy maintenance using relays controls
- easy to operate for a single person from the operator's seat
- deck crane capable for pump maintenance
- dismountable and transportable in 40ft containers.

Uncover the potential

Whatever the challenge, at IHC Dredging we support you to find the optimal solution. Offering a wide range of dedicated vessels, equipment and services, we improve efficiency across your entire operation and work together towards a more sustainable performance.



Main parameters

Dredging depth	6.0m
Discharge diameter	300mm (larger diameters optional)
Total power	425kVA

Dimensions

Length over pontoons	± 12m
Breadth	4.5m
Depth	1.35m
Average draught (50% consumables)	0.9m (approx.)
Maximum design draught	0.96m
Maximum standard dredging depth	6.0m
Suction pipe diameter	310mm
Discharge pipe diameter	310mm
Total installed power	336kW

Swing width with 35° swing each side

At maximum dredging depth	14.5m
At minimum dredging depth	18.0m

Dredge pump

Type	IHC-600-150-240 EasyX
E-Motor power	270kW

Electrical installation

Power supply	3x 690Vac
Power	425kVA
Voltage	230Vac / 24V DC
Battery capacity	110Ah

Cutter

Type	IHC Edge 830-50
Power at shaft	30kW
Diameter	830mm
Maximum speed, approx.	35rpm

Swing winches

Line pull, first layer	25kN
Maximum line speed	22m/min
Wire diameter	12mm
Drum diameter	273mm
Swing wires length	75m
Anchor weight	160kg

Ladder hoisting ram

Retracting force	208kN
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Spuds

Length	8.6m
Diameter	324mm
Weight	724kg

Spud hoisting cylinders

Force	33kN
Spud stroke (each time), approx.	2.5m

Deck crane

Lifting power	7.5kN
Outreach	1.6m

Other features

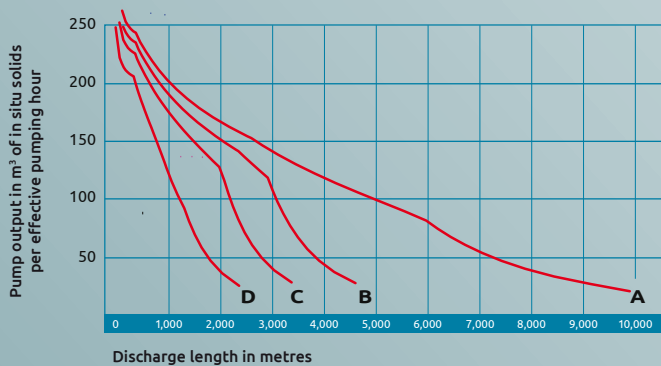
- spare parts available from stock
- completely assembled and fully tested afloat before delivery
- dredge pump driven through integrated bearing block, clutch and reduction gearbox easy and fast assembly and dismantling
- ready for operation on arrival at site
- ladder hoisting by hydraulic cylinders
- special tools are supplied for connecting and disconnecting pontoons and the cutter ladder, and for maintenance of the dredge pump
- wide range of services and optional equipment available (including work boats, boosters and pipelines).

Optional extras

- Swing Angle Measurement
- air conditioning
- generator set
- increased discharge pipeline diameter
- increased dredging depth
- life-cycle support packages (incl. training, technical support, etc.)
- optional packages: HSE (health, safety and environment) and nautical.

Pump output

Discharge pipe diameter = 300mm
Dredging depth = 6.0m
Maximum volumetric concentration of in situ solids of 20%
Final elevation at end of discharge pipe = 4.0m



Output calculated for:

Soil type	Decisive grain size	Situ density
A Fine sand	100µm	1,900kg/m³
B Medium sand	235µm	1,950kg/m³
C Coarse sand	440µm	2,000kg/m³
D Coarse sand and gravel	1.3mm	2,100kg/m³

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 Dredging for dredging conditions outside these curves.