



Rev A 110569927

Beaver[®] 30 cutter suction dredger

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

- low maintenance and efficient power distribution with a single diesel engine
- an easy execution dredge pump for easy maintenance
- environmentally friendly solutions, such as LED lighting
- 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 for pump maintenance
- dismantlable and transportable in 40ft containers.

Reliable and efficient

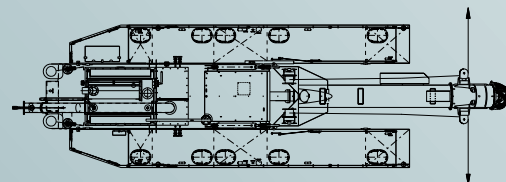
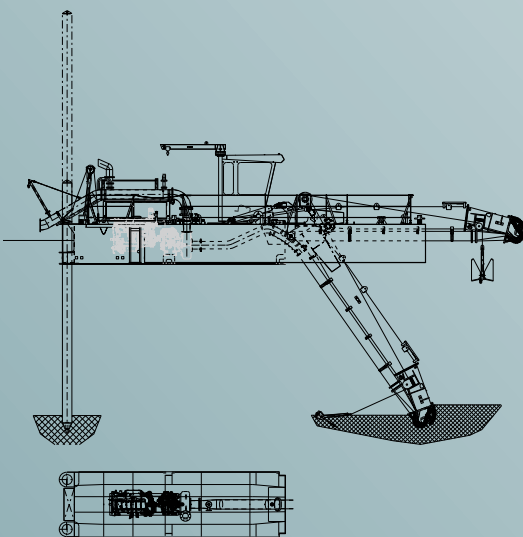
The Beaver[®] is well known for its robust construction, reliable operation and excellent performance. To date, Royal IHC has supplied more than 800 of these standard cutter suction dredgers worldwide.

Transportable and deliverable from stock

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

Royal 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	6.0m
Discharge diameter	300mm (larger diameters optional)
Total power	294kW

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	310 mm
Discharge pipe diameter	310 mm
Total installed power	294kW

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
Engine type	Scania DI13
Heavy duty power	294kW @ 1,800rpm
Specific fuel consumption	205g/kWh

Electrical installation

Voltage	24V DC
Battery capacity	100Ah

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	208 kN
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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

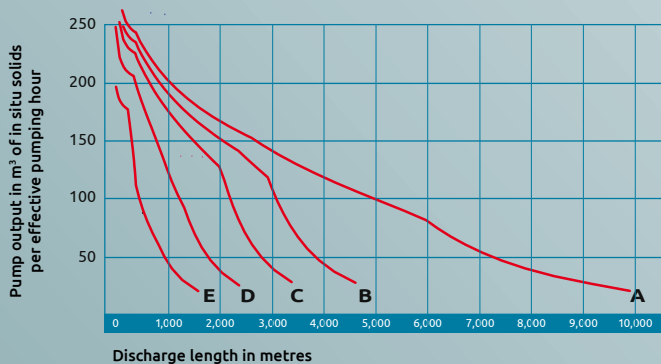
- standard design, allowing for short delivery times and competitive pricing
- spare parts available from stock
- fresh-water engine cooling system
- completely assembled and fully tested afloat before delivery
- dredge pump driven through integrated bearing block, clutch and reduction gearbox easy and fast assembly and dismantling
- ready for operation on arrival at site
- hydraulic ram for ladder hoisting
- 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 optional equipment available (including work boats, boosters and pipelines).

Optional extras

- beaverkit
- swivel bend
- discharge valve and vacuum-relief valve
- life-cycle support packages (incl. training, technical support etc.)
- Swing Angle Measurement
- optional packages: comfort, HSE (health, safety and environment), nautical and inventory plus
- air conditioning
- harbor generator set.

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/m ³
B Medium sand	235µm	1,950kg/m ³
C Coarse sand	440µm	2,000kg/m ³
D Coarse sand and gravel	1.3mm	2,100kg/m ³
E Gravel	7mm	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 for dredging conditions outside these curves.