

## Introduction:

To be used in conjunction with Vortex reverse flow dredge or with Vortex water pump only as the motive water source.

Water jets on four sides and front of Hydrate cleaning brush utilizing high volume water (62 m3/hr with Tornado pump) and up to 80 psi water pressure (with Tornado pump) generate severe turbulence to break up and disperse the hydrate build up with water pressure and flow.

Mechanical action of bi-directional rotary bush serves to further break up hydrates. Soft bristles avoid damage to sensitive EFL and HFL assets.

## Installation



- Connect inlet hose of dredge to male cam lock of tool.
- Operate dredge in blow function to eject water from end cap and sides of brush.

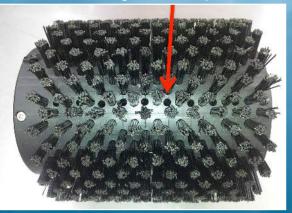
## -lydrate removal bru

- Two brushes are included in the kit
  - 1. Parallel brush specifically for class 1 to 4 torque buckets.
  - 2. Ball type brush for general cleaning
- Custom brushes are available upon request.
- End caps have 20mm and 38mm holes to fit class 1 to 4 socket shafts.



Water discharge holes each quarter.





# Specification

- Hydraulic requirement: Pressure = 1500 psi (103 bar) minimum. Supplied PRV valve is pre set to limit pressure seen at tool if 3000psi is sent to tool.
- Hydraulic flow = 4.2 gpm (16 lpm) Minimum
- Brush RPM = 1950 RPM (with OMM 8 motor)
- Brush torque = 11Nm (with OMM 8 motor)
- Weight of tool in air = 7kg
- Weight of tool in water = ...6 kg
- Tool dimensions: 55 cm long x 16 cm mm wide x 16 cm high (with class 1 to 4 brush installed).
- Class 1 to 4 brush =  $18 \text{ cm} \log x 16 \text{ cm} \text{ diameter.}$
- Core & bristles = polypropylene, Plug ends = Sanilite.
- General cleaning brush =  $14 \text{ cm} \log x 15 \text{ cm} \text{ diameter.Core} = \text{Sanilite}$ , bristles = polypropylene

## Inventory and Servicing

### Inventory:

- 1. One class 1 to 4 torque bucket cleaning brush.
- 2. One general purpose cleaning brush.
- 3. One tool base complete with fish tail ROV manipulator handle with pliable mounts.
- 4. Two sets of 3 meter long hydraulic hoses comprising -4 pressure, -4 return complete with complete with pre set pressure reducing valve allowing 3000psi hydraulic input pressure
- Consumables to be replaced at clients cost:
- Brushes.
- Servicina:

Wash with fresh water after each dive. Fit hydraulic caps to all open ports. Report all damage to Vortex as soon as possible.

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