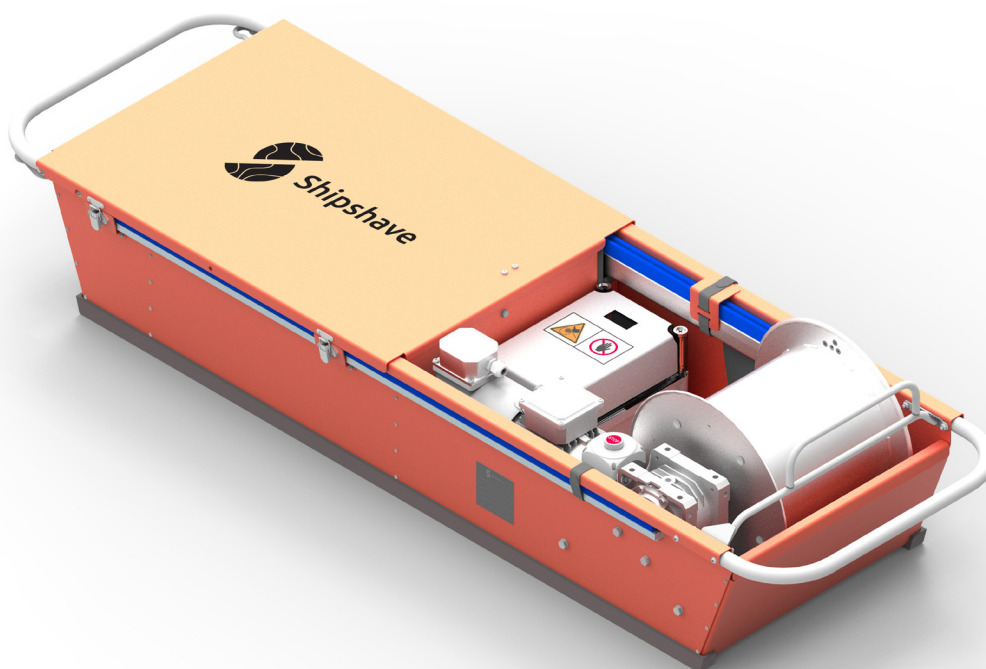




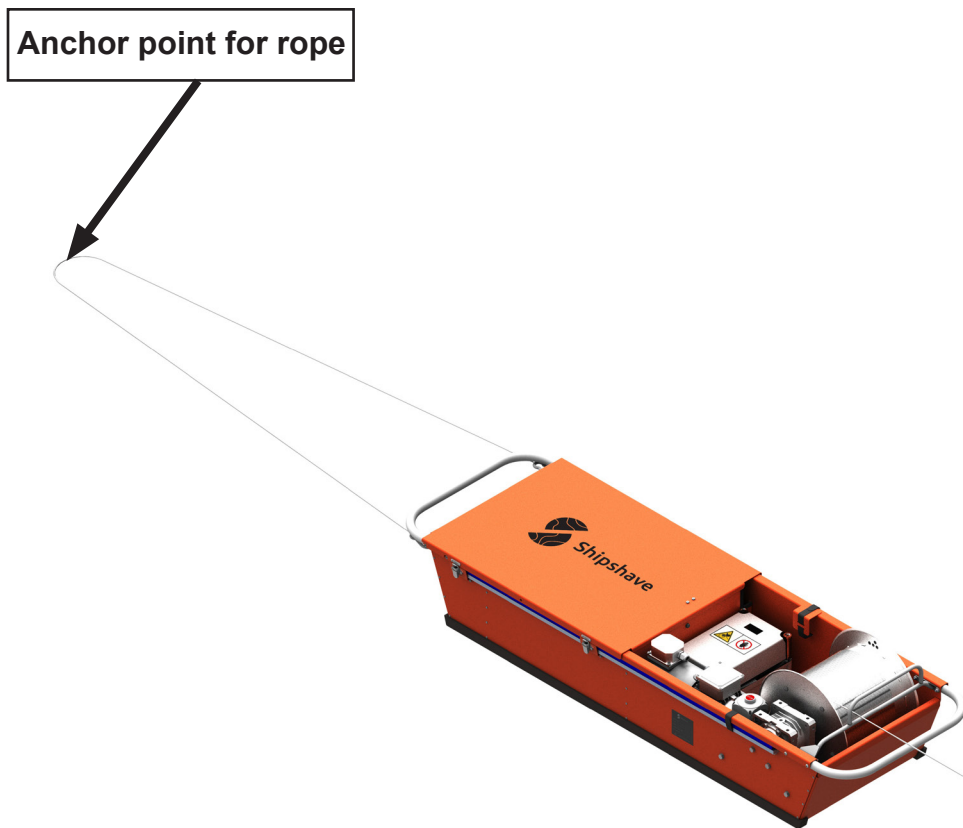
Technical manual Shipshave Winch ITCH



1.0 Technical data :

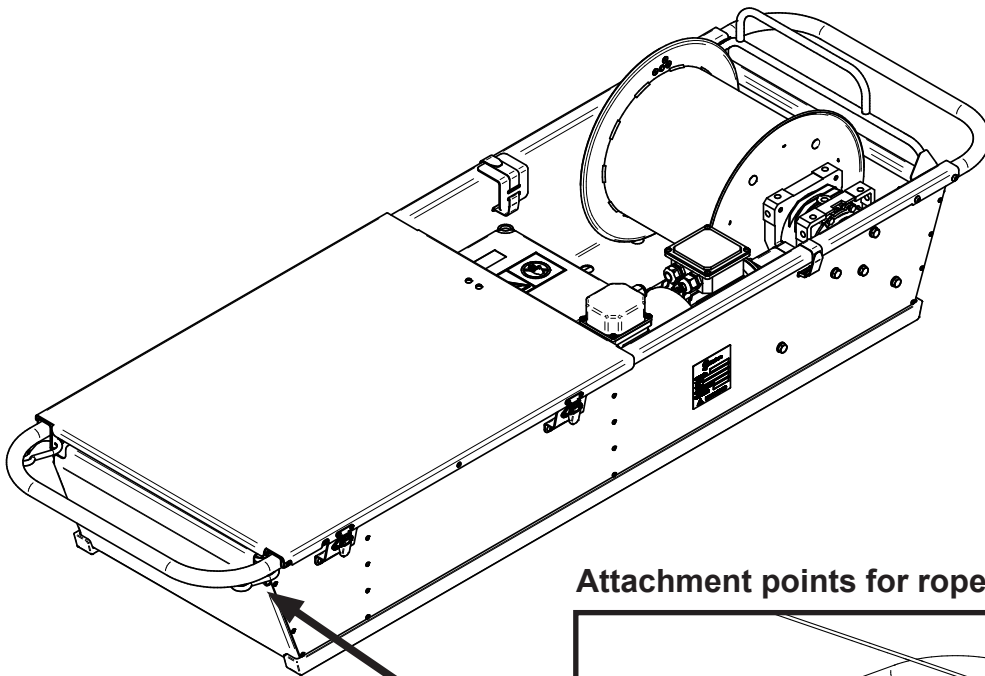
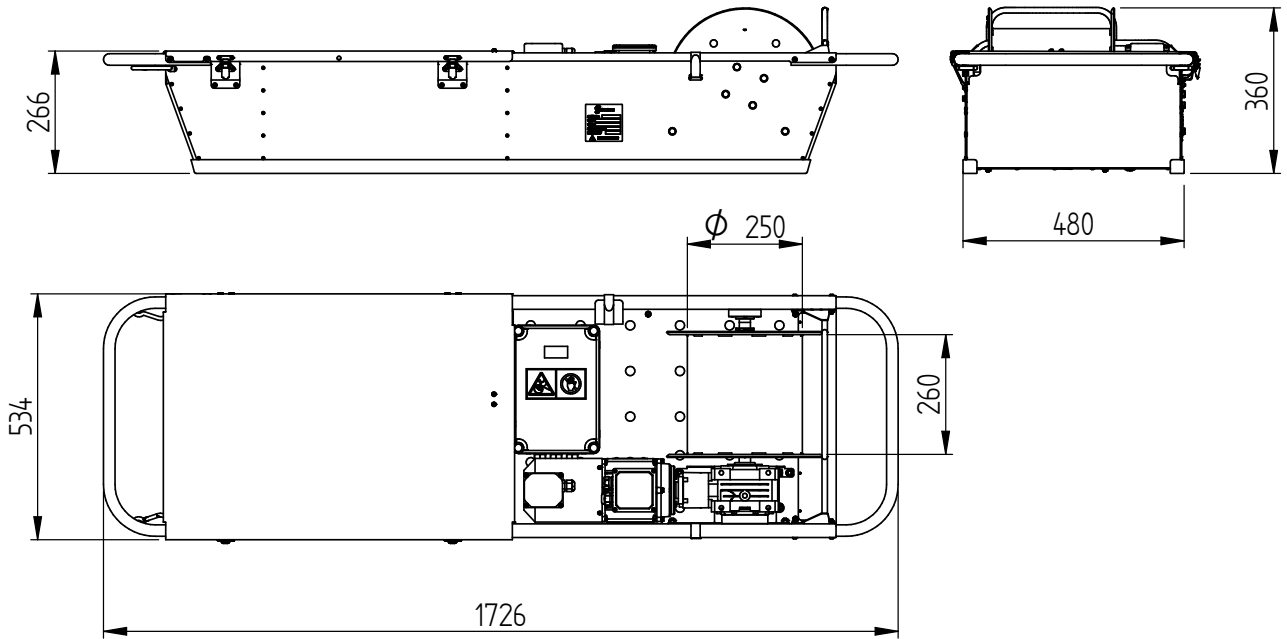
- Portable lightweight electrical pulling winch for cleaning ship hulls
- Chassis in seawater-resistant aluminium and acid resistant steel A4, powder coated.
- Chassis contains motor, gearbox, rope-drum, control box with pendant station, integrated toolbox.
- Motor and gearbox protected with 4 layers of 2K-paint
- Designed to be carried between two persons by handlebars

Technical data :	
Power connection	230V / 50/60Hz single phase (w/plug and cable)
Power circuit	10 Amp
Electrical motor	0,37 kW, 1370 rpm, IP55
Gearbox ratio out	8 rpm
Pendant station control	4-button, IP67
Cable length Pendant station	12 m
Control box w/freq.inverter	IP67
Anchor point for pulling	230 kg
Max.Pulling force	200 kg
Pulling speed	1 – 13,85 m/min (6 – 100Hz)
Max.length of rope	400m for Ø4mm rope
Weight	43 kg

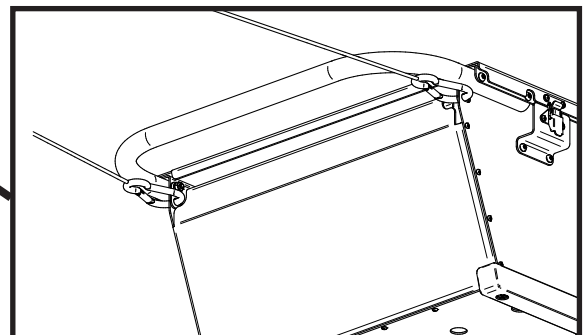


1.1 Measurement Shipshave :

All figures are in mm :



Attachment points for rope :



1.2 Safety



Take particular NOTE of this symbol!

It means that there are safety-related issues that describes precautions, which the operator must take into consideration in order to avoid any accidents.

Before operating the machine, doing adjustments/repairs, the user or servicepersonell or owner, must follow the general safety instructions in this manual.

Read and understand the general safety-instructions :

Safety at work is your responsibility! Use of machin.

1.3 General Safety instructions



Supervision

The operator shall have full overview of the machine, its parts and the working area where the machine is operation in, so that it can work in a safe and secure manner.

Function of machine

The operator shall fully understand the function of the machine and how to operate it. This to ensure that the work and performance is safe and according to intended usage.

Think safety at work

Keep distance from moving parts. When performing maintenance/repair, disconnect power supply.

Spareparts

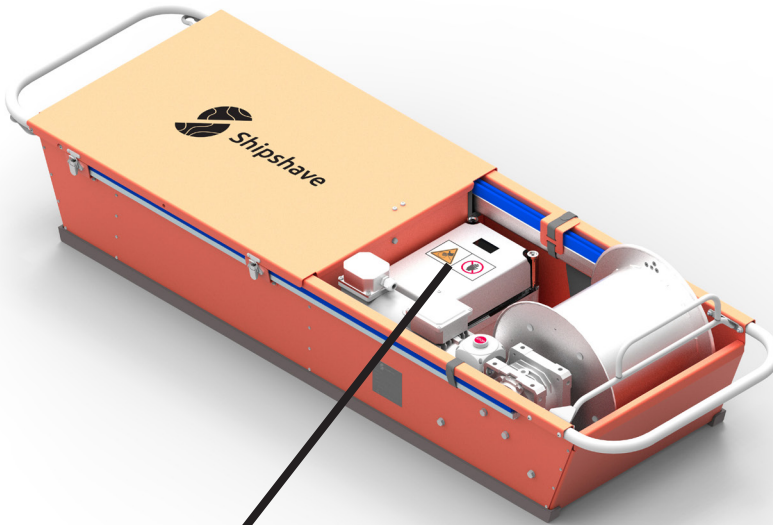
Only use genuine spare parts. If using spare parts from third party suppliers, guarantee is not valid.

Maintenance

Make sure that the machine is maintained according to instructions and is kept in good condition in general.

Never make changes to the original design and how the machine is meant to work.

1.4 Overview of warning signs



Sign 1

Sign 2

Warning sign 1:

Rotating drum with rope. Use caution when operating. Keep away from rope inlet, and drum. Severe injuries can occur.

Warning sign 2:

Only to be used by authorized and trained personell. Keep away from rotating parts when operating.

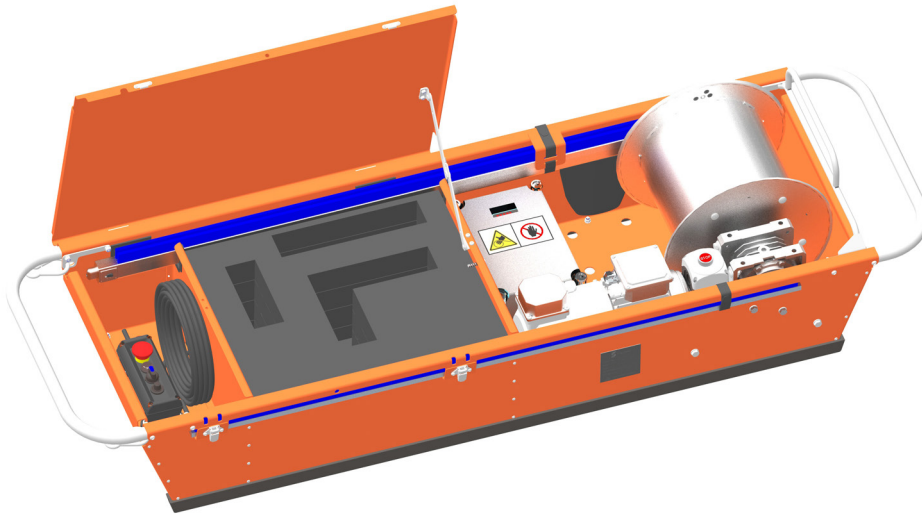
2 Maintenance



Important!

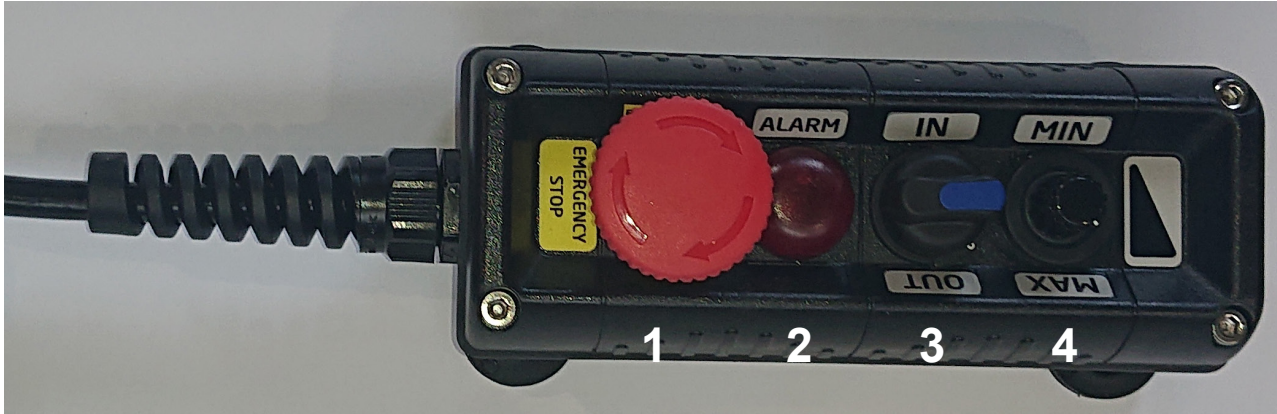
Always disconnect powercable, when performing adjustments and/or maintenance.

- Flush winch gently with freshwater after each use to remove salt.
- Inspect winch for wear and damage before and after use.
- Inspect rope for wear and damage after use.



Operating Hz	Pulling force in Kg with loose rope	Speed (meters/min)
6	140	1,00
12	150	1,80
18	160	2,66
24	190	3,50
30	200	4,60
42	210	6,10
48	215	6,88
54	220	7,64
60	230	8,56
70	210	9,80
80	190	11,13
100	150	13,85

3 Functions for Controlsystem Shipshave



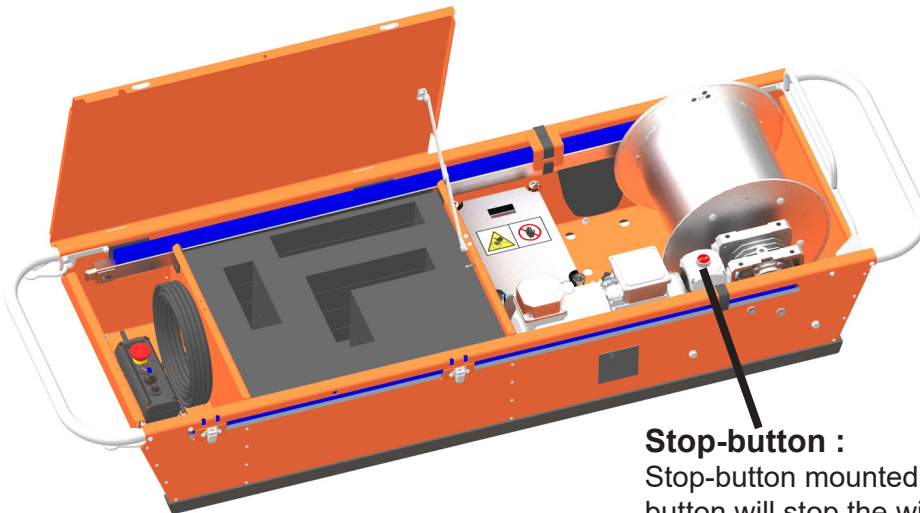
Type of switches :

1. **Emergency-stop** (push for full stop in case of emergency, or for reset of machine)
2. **Alarm light** (on if activated)
3. **OUT**=run winch out, **IN**=run winch in, **NEUTRAL**=Off and position for restart after alarm
4. **Speed regulation** + / - 1 – 13,85 m/min (from 6Hz – 100Hz)



Display :

Shows chosen operation speed in frequency, Hz.



Stop-button :

Stop-button mounted in chassis. Engaging this button will stop the winch. Normal reset has to be performed on hand-held Pendant station

