

# Stream Gauging Winches

## WATER FLOW

### General Description

HyQuest Solutions' stream gauging winches are **hand-operated single drum winches** capable of handling gauging weights using a winch board or bridge crane (up to 70 kg (154 lb) with HyQuest Solutions' 4 wheel bridge crane 4WBC). The winches are designed for ease of operation and serviceability in the field: **robust, compact, portable, light-weight, and handled easily and safely by one person**. They can be deployed from boats or bridges.

Special attention is paid to safety: An automatic Weston Brake locks the drum if the handle is released. This holds the load in any position - for **safe and smooth sounding operation**.

HyQuest Solutions' winches are equipped with Amergraph cables. **The special construction of Amergraph cables combines two purposes**: They permit the suspension in the stream of the current meter and heavy Columbus weights and at the same time they are the medium for carrying the meter signals to a counting device.

The winches' **depth counters** register in centimetres and are protected within the frame.

### Use with current meter

Some elaborate features support current metering: A silver-plated slip ring conducts the signal from the sounding drum to the current meter counter. The counter can be installed at the winch itself, i.e. close to the winch operator instead of deep in the water at the current meter. The single layer of the signal cable on the drum prevents damage of the internal conductor and premature replacement.

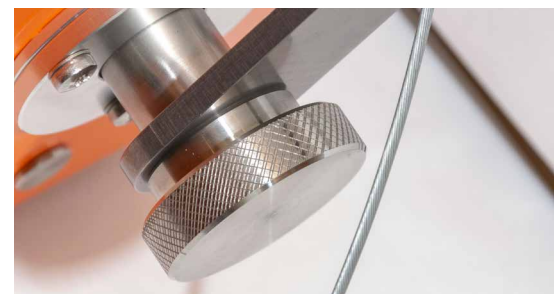
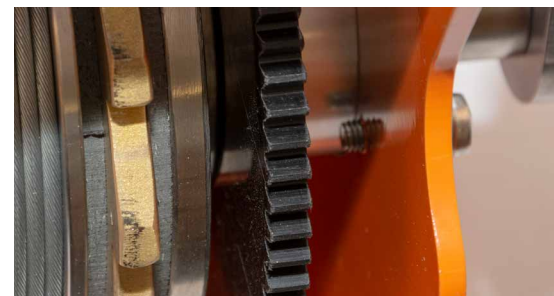
### Applications

HyQuest Solutions' winches are used for the vertical positioning of current meters with or without gauging weights, sediment samplers and other suitable hydrometric equipment, amongst others in the areas of

- Hydrometry
- Hydrology
- Water Quality Analysis
- Sediment Sampling
- Discharge Measurement

### Features

- Type: single drum winches
- Safety: Weston Brake
- Adjustable manual drum handle
- Portable: lightweight, carry handle, robust carry case
- Choice of drum capacity and cable diameter (see flip side)



## Technical Specifications

**Load Capacity**

- 45 Kg (99 lbs) when used stand alone on a SAN22SS winch frame or with the 3WBC bridge crane
- 70 kg (154 lbs) when used with the 4WBC bridge crane

**Material**

- Sounding drum: cast aluminium
- Slip ring: silver-plated
- Frame: robust stainless steel grade 304, powder coated
- Amergraph cable: insulated innercore of 6 copper and 6 stainless steel wires, outer strands of 15 galvanised wires

**Counter** Five digit resettable, registering depth in centimeters, 1 cm resolution (1/10 of a foot)

**Mounting**

- 4 x M10 mounting holes for winch board with outrigger model SAN22SS
- 4 x M10 mounting holes to suit 'A Reel' type trolley

**Drum Capacity (cable length)** Choice of 3 winch models and 2 cable diameters:

	WS250	WS400	WS500
<b>2.5 mm diameter cable</b>	25 m (84 ft)	40 m (131 ft)	50 m (164 ft)
<b>3.2 mm diameter cable</b>	20 m (65 ft)	30 m (99 ft)	40 m (131 ft)

**Dimension & Weight**

	WS250	WS400	WS500
<b>L x W x H (mm)</b>	461 x 280 x 270	580 x 280 x 270	660 x 280 x 270
<b>L x W x H (")</b>	18.1 x 11.0 x 10.6	23.0 x 11.0 x 10.6	26.0 x 11.0 x 10.6
<b>Weight</b>	25 kg (55 lb)	27 kg (60 lb)	33 kg (73 lb)

## Accessories



**Bridge Cranes 4WBC and 3WBC:** HyQuest Solutions' bridge cranes (3 or 4 wheels) are collapsible units for discharge measurement or for sediment sampling from bridges. The bridge cranes are made from structural aluminium and stainless steel. They are simple to put up and fold down into a compact sized package for transport.



**Winch Board SAN22SS:** The SAN22SS winch board with outrigger assembly is used to deploy a winch from boats or bridges.



**Sediment Samplers:** HyQuest Solutions offers modular equipment (choice of samplers and accessories) for sediment sampling.



**Current Meters** (e.g. OSS-B1), **current meter counters** and **gauging weights:** HyQuest Solutions provides the complete equipment for mobile suspended meter measurements. The gauging weight protects the current meter against heavy debris damage. Its streamlined shape reduces the resistance to flowing water.

Please ask for details.

## Reseller

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