

# M.S. NARWAL

## Survey vessel M.S. Narwal

**M.S. Narwal** is Aqua Vision's trailerable survey vessel for year-round inland and near coastal applications. Operational in the Netherlands within **24h**



### Features

**M.S. NARWAL** is a multipurpose work boat specially equipped for hydrographic measurements in **rivers, channels, lakes and coastal areas**. In the **closed heated cabin** are seats for the skipper, surveyor and two extra person. There are two cockpit tables for **survey and navigation monitors**. There is 12 VDC and a Victron inverter for 220 VAC power supply and battery charging.

### Equipment

Standard equipment includes a high accuracy RTK **dGPS** system, pitch, roll and heading sensors, echo sounder and an Acoustic Doppler Current Profiler (**ADCP**). Moreover, there is a **hand winch** to lower auxiliary sensors and sampling equipment.

### Applications

With a small draft **M.S. NARWAL** easily reaches **shallow parts of lakes and rivers**. Moreover, the vessel is **trailerable** and therefore quick to launch in a large area. We are able to operate the vessel anywhere in the Netherlands within 24 hours.

## Survey equipment

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- **RTK dGPS / GLONASS** real-time kinematics for high accuracy positioning, model Septentrio AsteRx2\_DR GNSS
- Octans GIV **gyrocompass** and motion sensor (IXSEA)
- ADCP for measurement of currents, discharge and sediment concentration, model 600 or 1200 kHz Workhorse Monitor (Teledyne RD Instruments)
- **Multibeam echo sounder** for bathymetric surveys (R2Sonic 2020 dual head)
- Multi-parameter probe for measurement of turbidity, sediment concentration, salinity, temperature and depth, model OBS-3A (Campbell Scientific, Inc.)
- Water sampling pump
- Sediment sampling equipment
- Electric deck crane

## Safety equipment

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- VHF maritime radio-telephone, call name PB8769
- Extra handheld VHF maritime radio-telephone (auxiliary power)
- Raymarine radar with AIS class-B transponder
- Tri-Lens radar reflector
- Navigation lights
- Safety beacon light
- Searchlight
- Rain-draining cockpit aft
- Windshield wiper
- Automatic Bilge pump
- Fire extinguisher
- Life jackets
- Safety buoy

## Specifications

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|------------------------|--------------------------------------|
| • Shipyard             | Zwagers Boating                      |
| • Model                | Alumax 750                           |
| • Year of construction | 2010                                 |
| • LOA                  | 7,6 meters                           |
| • BOA                  | 2,5 meters                           |
| • Draft                | 0,40 meters                          |
| • Min. freeboard       | 0,80 meters                          |
| • Weight               | 2750 kg                              |
| • Main engine          | 1 x 170 hp Volvo Penta inboard       |
| • Fuel capacity        | 200 ltr                              |
| • Maximum speed        | 20 knots                             |
| • Power                | 12 volt<br>220 VAC board power (5kW) |