



NANNO-SKARV FOR SIDE SCAN SONAR



THE SKARV PRODUCTS

We proudly present our new LARS product range for side scan sonars. Lidan SKARV products are a new evolution of Launch and Recovery Systems. Today the SKARV is available in 4 sizes, with a tow capacity up to 18 kN. Designed for launch and recovery of a side scan sonar from deck down through water surface, and for towing the side scan sonar.

Distinctive features of the Skarv products:

- Easy installation
- Safety for personnel and sonar
- Light weight and modular
- USV ready

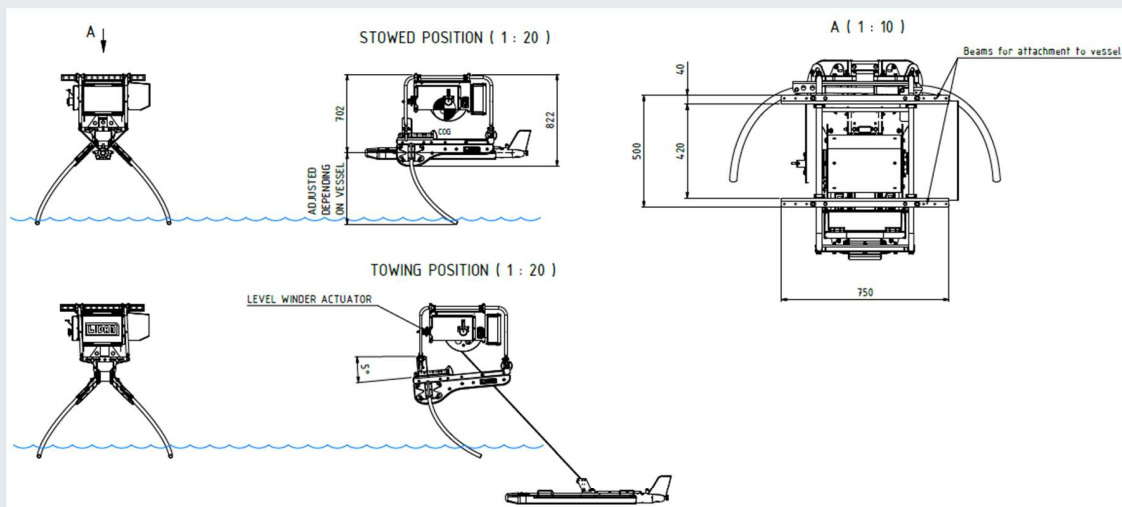
USV's come with high demands on light weight, minimum foot print and reliability. Lidan Marine is working with leading USV manufacturing companies to deliver LARS equipment to meet the latest technology. The equipment is designed to be shipped integrated on e.g. USV's, and to be remotely operated.



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NANNO-SKARV FOR SIDE SCAN SONAR



Nanno-SKARV for side scan sonar

The Nanno-SKARV for side scan sonar is a complete Launch and Recovery System that combines Winch & Launch-Frame with docking unit. The system is particularly designed for launching a side scan sonar between the hulls of a catamaran. The system is roof mounted between the hulls of the vessel, where Launch and Recovery of the sonar is done. Intended for side scan sonar's up to a length of 1 800 mm and a weight of 40 kg. Various docking saddles available depending on Sonar.

Launch Frame Characteristics

Side scan sonar length:	Up to 1 800mm (5.6 ft)
Side scan sonar weight:	Approx. 40kg (90 lbs)
Safe towing load:	1 kN (225 lbf)
Safe towing load (45° turn):	1 kN (225 lbf)
Footprint dimensions:	N/A
Outreach (towpoint):	N/A
Freeboard height:	N/A
Approx weight:	75 kg (165 lbs)

Winch Characteristics

Towing force:	1 kN (225 lbf)
Average speed:	60m/min (200ft/min)
Umbilical cable:	300m (985 ft)
	Dia. 6.53mm (0.257")
Approx weight (excl. umbilical):	40 kg (90 lbs)
Power:	12 or 24 VDC, 2kW

Note: Other winches and configurations are available. Contact Lidan for more information.