



Advanced Seismic Instrumentation & Research

A-MHL

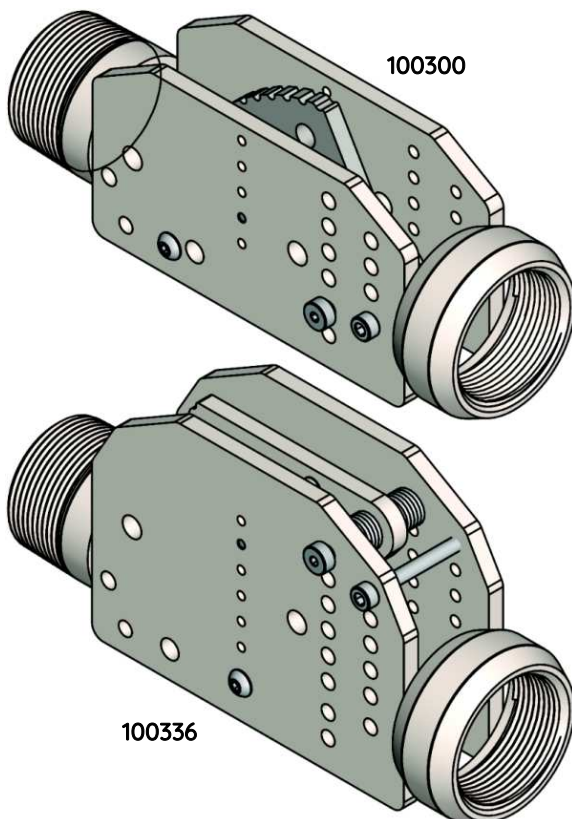
P/N 100300 & 100336

Downhole Mechanical Hole Lock System

The A-MHL is ASIR's system for mechanical coupling of our downhole sondes into boreholes when not being lowered to the bottom of the well or fixed in place with grouting. The hole lock is fixed to the bottom of the sensor and requires the additional use of a sinkerbar for proper coupling.

ASIR's most recent development to this product is the use of a dissolving shear pin hole lock system that eliminates the requirement for a control mechanism from the surface.

A dissolving shear pin deploys the hole lock after a certain time after submersion into the well fluid (e.g. 8 hours for conditions at 1000m depth and 40°C). ASIR can manufacture different shear pins to provide longer or shorter time allowances. Key factors that impact the time to trigger include depth of deployment (pressure) and temperature of the well water.



Features

- > time delayed lock engagement method OR trip cord from surface
- > provides strong coupling force to borehole wall with cam
- > attaches easily to ASIR sondes
- > retrievable by direct pull of the instrument out of the well

Specifications

Allowable Borehole ID (P/N 100300)	95 to 155 mm
Allowable Borehole ID (P/N 100336)	157 to 226 mm
Coupling Force	5x instrument weight
Cam Range of Travel	20 mm
Top Connection to Sonde	NPT 1.5"F
Bottom Connection to Sinker Bar	NPT 1.5"F
Material	Stainless Steel
Depth Rating	1500 m
Power Requirements	None

Dimensions

Length	205 mm
Width	62 mm