

VASI being one of the main suppliers of ultrasonic boltmeters, also has a rental pool of Delta Sigma instruments and transducers.

The instruments are available for rental with an initial training, online or on-site.

The instruments are supplied with necessary accessories like couplant fluid, transducers, chargers, cables, instruction manuals and calibration certificates.



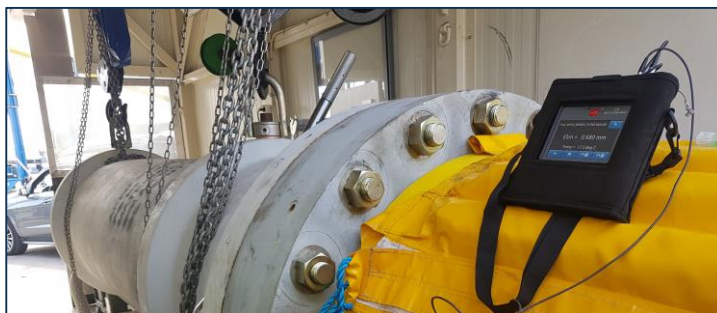
### **Delta Sigma Ultrasonic Bolt Load & Elongation Measurement Instrument**

The Delta Sigma pulse-echo ultrasonic time-of-flight(TOF) measurement device; measures, displays, stores and transfers bolt load and elongation data in a new, single purpose unit. The Delta Sigma uses a rugged, sealed color touch screen for all operator I/O. The screen uses proven medical touch panel hardware. The measurement system is a hybrid technique, using the best of both analogue and digital signal processing techniques for fast signal acquisition and precise single shot TOF measurement.

All data is logically presented on a 4.3” color, resistive touch screen, usable with gloves. Data and digital signal traces are stored for later display and transfer. The unit has automatic temperature compensation through an included magnetic temperature probe. The novel memory system has a secure sector for all bolt data and a “public” sector for transfer via USB to a computer

The Delta Sigma is powered by proven Li Ion batteries or through dual charger inputs: fast charge standard external 9V supply or the waterproof micro USB connector from any standard 5V USB device, battery pack or power supply.

Intuitive software developed specifically for bolting industry, the automatic echo detection algorithm has been developed with input from the most experienced users and electronic developers in the bolt tightening industry! Communicate to any PC with standard USB connection.



## Intuitive Operations

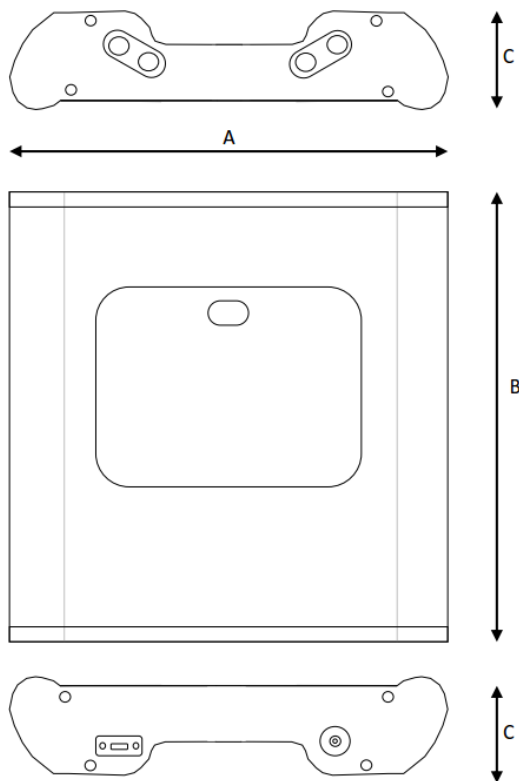
- No buttons or confusing arrows and abbreviations, programmable touch pad QWERTY alphanumeric input.
- Creation, storage, retrieval of individual projects (group of fasteners)
- Bolt types for projects (geometry, material, etc.) stored individually for repeated use/retrieval
- Flexible bolts/readings per project; no setup limits
- Temperature, signal parameters, scope trace and date/time stored with each reading

## Weight and Dimensions

- Small, lightweight, rugged
  - A = 6,88" / 175mm
  - B = 7,08" / 180mm
  - C = 1,61" / 41mm
- 3.186 lb / 1445 Grams
- 480x272mm - 24bit color, sunlight readable touch panel display

## Fast digital signal: location, amplitude and threshold detection

- Real time signal tracking
- Storage of individual signal parameters for qualitative Remove and Replace reading comparison



## RENTAL CONDITIONS

### 1. Introduction

These rental conditions apply to the rental of machinery and equipment unless the parties have entered into another written agreement.

### 2. Rental period

The rental period is calculated from the day the equipment is ordered and kept available for the lessee, possibly delivered to the carrier. The rental period runs until the equipment has been returned to the agreed location. Minimum rental period is 3 days unless otherwise agreed. If a specific rental period has not been agreed, this runs until one of the parties has terminated the lease

### 3. Calculation of rent, invoicing and payment

Delivery day prices apply unless otherwise agreed. The prices apply to the equipment throughout the rental period. Rates do not include any value added tax or other government taxes or fees. The lessee covers the actual current expenses in connection with the use of the equipment, such as for fuel, oil, cleaning and protective equipment. Payment is made 30 days after delivery unless otherwise agreed. In the event of late payment, the buyer shall pay default interest in accordance with Norwegian Law LOV-1976-12-17-100 on interest in the event of late payment.

### 4. Use of the Equipment.

The lessee must use the equipment properly and only for the tasks and under such conditions for which it is intended. All use must be in accordance with user instructions and safety regulations relevant to the equipment. All instructions given must be followed. The lessee must in particular ensure that the equipment:

- only used by people who have been adequately trained.
- only used in the agreed place and in an environment for which it is intended.
- do not use in excess of capacity or in a manner that imposes an unusual load on the equipment.
- be protected against damage and theft, and that the equipment is not altered or modified in any way.
- be used in accordance with all relevant rules and regulations, and that the necessary permits are obtained.
- be taken out of service immediately if a fault or excessive load is suspected. In such cases, VASI must be notified immediately.
- returned in the same condition as it was handed out, washed and cleaned.

### 5. Subletting

The lessee is not entitled to sublet the equipment.

### 6. Damage and loss

The lessee must cover all costs and expenses that may arise in connection with damage to the equipment during the rental period. The same applies to claims from third parties as a result of damage if the equipment has caused unless the lessee can document that all user instructions, safety regulations, instructions and the provisions in section 4 have been followed.

### 7. Insurance

The lessee undertakes to insure the equipment against damage throughout the rental period, unless it has been agreed that VASI shall be responsible for insurance and VASI will be charged an insurance premium. The lessee is responsible for liability insurance.

### 8. Limitation of liability

VASI is not responsible for the equipment meeting the lessee's needs. The lessee is responsible for all property and personal injuries that may be caused to the landlord or third parties during the rental period. VASI is not responsible for such damages unless someone at VASI has shown intent or gross negligence.

### 9. Disputes

Any dispute that may arise shall be settled in accordance with Norwegian law at VASI venue unless otherwise agreed

### Shipping Address:

Verktøy AS Industri  
Ravnåsveien 3  
1254 Oslo  
Norway

