

# Tools Solutions for the windenergy sector







On-site Calibration – Container Solutions



On-site Calibration – Truck Solutions



# Tools handling and calibration made easy!

**On site calibration and customised tools containers or kits in combination with online management of tools and associated documentation in our Tool Management System keeps tools handling under control.**

We are the perfect partner when looking for an experienced supplier for tools, calibration, service, repair and maintenance. Years of experiences amassed over more than 20 years in the wind turbine industry ensure that we are not only able to supply tools solutions when needed but also the correct solution for the specific task.

## Tool management system

With a mission and desire to make tools handling easy for our customers, we provide solutions that contain the correct tools but also generate an overview that is outstanding. With our Tool Management System, all sold, serviced or repaired tools are digitally registered in our system and tagged with a QR code for reading all information and full traceability on each tool. We provide you with access to our Tool Management System for a continuous overview of all your tools which have been through our system, making it possible to view service intervals, documentation, reports and track your tools.

## Tools calibration










Bringing tools for calibration is time consuming and very costly. We now provide fully equipped calibration solutions for hydraulic, electrical tools and electrical instruments on

site. Get all your tools calibrated, serviced or saves you a lot of time ensures that your tools will always be in perfect condition.

## Our experience and know-how

Being a hydraulic and electrical tools supplier to the major wind turbine manufacturers and service providers from the outset, we know all the brands available on the market and the strengths and specifications of each individual brand. Not only can we help you choose the right tool, but also the most profitable solution for you.

Our tools solutions:

-  **On-site Calibration – Container Solutions**
-  **On-site Calibration – Truck Solutions**
-  **Tools Container**
-  **Tool kits**
-  **Tools - Hydraulic**
-  **Tools - Electric**
-  **Generator Sets**
-  **Power Packs**
-  **Service Solutions**



On-site Calibration – Container Solutions





## On-site Calibration – Container Solutions



**Fully equipped container for calibration, service and repair including skilled technicians.**

### Calibration

- Torque tools up to 50,000 Nm – in accordance with ISO5393
- Hydraulic equipment
- Tensioning equipment
- Pressure gauges up to 2,500 bar – in accordance with DS/EN 837
- Electrical equipment
- Temperature equipment
- Digital gauge
- Caliper
- Air pressure gauge
- PAT test

### Application

- Perfect for extensive and ongoing service, repair and calibration for a period for more than 1 week.
- Installation and service of wind turbines
- Offshore oil & gas
- Extensive construction sites

### Repair and maintenance

- Hydraulic equipment
- Electrical equipment

### Electrical safety test

- All electrical equipment

### Cost-effective advantages

- Increase availability – tools remain on site, no need for shipment to and from service shop
- Ensured completion of calibration jobs
- Digital registration of tools – keeping track of service intervals



#### FEATURED SERVICES

- Service, repair & maintenance
- Tool Management System



## On-site Calibration – Truck Solutions



**Fully equipped truck for calibration, service and repair including skilled technicians.**

### Calibration

- Torque tools up to 50,000 Nm – on the basis of ISO5393
- Hydraulic equipment
- Tensioning equipment
- Pressure gauges up to 2,500 bar – on the basis of DS/EN 837
- Electrical equipment
- Temperature equipment
- Digital gauge
- Caliper
- Air pressure gauge
- PAT test

### Application

- Perfect for calibration, service or repair tasks lasting less than 1 week. Flexible and available with short delivery time.
- Installation and service of wind turbines
- Offshore oil & gas
- Extensive construction sites

### Repair and maintenance

- Hydraulic equipment
- Electrical equipment

### Electrical safety test

- All electrical equipment

### Cost-effective advantages

- Increase availability – tools remain on site, no need for shipment to and from service shop
- Ensured completion of calibration jobs
- Digital registration of tools – keeping track of service intervals

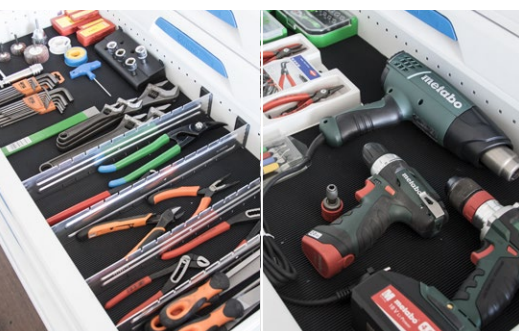


#### FEATURED SERVICES

- Service, repair & maintenance
- Tool Management System



## Tools Container



**All the tools you need, gathered in one place. Mobile tools container with tools in accordance with by you or with assistance from HYTOR.**

### Examples of content

- Torque and tensioning tools
- Nutrunners
- Power packs
- Electrical tools
- Shackles
- Slings
- Generators
- Compressors
- Hand tools
- Consumables

### Application

- Perfect for total control and easy handling of tools all gathered in one place.
- Installation and service of wind turbines
- Offshore oil & gas
- Extensive construction sites

### Cost effective advantages

- Saves costs and time on administration
- Avoids frustration in regards to loss of tools
- One point of access with regard to ordering tools
- All tools gathered in one place
- Always serviced and calibrated tools available



#### OPTIONS

- Purchase
- Rental
- Lease

#### FEATURED SERVICES

- Service, repair & maintenance
- Calibration
- Tool Management System
- Tools handling



## Tool kits



**Customised to the tools you need, and easy to handle. Dual-layer foam to easily pinpoint if any tools are missing.**

### Scope

- Designed and adapted to the job in question
- Foam-cut spaces for each tool
- Two-colour, layered foam, provides fast overview
- Easy to locate if any tools are missing
- Specified according to wind turbine type and size
- Available in custom coloured foam depending on the application

- Wheels and handles for easy handling

- Specialised lifting bags - easy to access the tools without removing the bag

### Cost effective advantages

- Reduces loss of tools
- Optimises the work flow - only the tools needed for the job are available
- Increases efficiency and ensures that the job is safely and correctly carried out



#### OPTIONS

- Purchase
- Rental
- Lease

#### FEATURED SERVICES

- Service, repair & maintenance
- Calibration
- Tool Management System
- Tools handling

### Application

- Perfect for service and commissioning of wind turbines
- Oil & gas
- Extensive construction sites



## Tools - Hydraulic



**Powerful and precise hydraulic tools from the most popular brands on the market. Advice and guidance to help you choose the most suitable and cost-effective hydraulic tools.**

### Scope

- Extensive range of hydraulic tools for torque, tension, lifting and flange handling
- Torque range up to 100,000 Nm
- Tension range up to 5,000 kN
- Cylinders up to 1,200 ton
- Hand pumps
- Most popular brands on the market
- To be combined with hydraulic power packs, including data logging

### Experience and knowledge

- Decades of experience
- Help in choosing the best and most cost-effective tool for the job in question
- Tool Management System included in all new tools

### Special tools

- Flange alignment
- Generator alignment tools



#### OPTIONS

- Purchase
- Rental
- Lease

#### FEATURED SERVICES

- Service, repair & maintenance
- Calibration
- Tool Management System
- Tools handling

### Application

- Any precise and powerful torque, tension lifting of flange assignment
- Wind turbine installation and service
- Oil & Gas
- Construction sites



## Tools - Electric



**Powerful and precise electrical tools from the most popular brands on the market. Advice and guidance to help you choose the most suitable and cost-effective hydraulic tools.**

### Scope

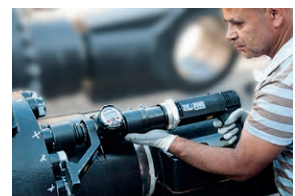
- Electrical and battery-driven torque tools
- Complete with data logging
- Option to monitor the torque process
- Full traceability due to scan of user, product and flange
- Torque range up to 13,000 Nm

### Advantages

- No pump needed
- Easy to handle
- Full traceability

### Experience

- Decades of experience with electrical tools
- Full service and repair enhances in-house expertise
- Ability to advise when to choose electrical tools rather than hydraulic tools



#### OPTIONS

- Purchase
- Rental
- Lease

#### FEATURED SERVICES

- Service, repair & maintenance
- Calibration
- Tool Management System
- Tools handling





## Generator Sets



Wide range and size to suit any purpose.

### Scope

- Customised solutions
- Design and dimensioning of individual generator sets
- Add-ons
- Service onshore, offshore or in house by our skilled technicians
- Separate fuel tanks 1,000 - 3,000 L
- Quality generators from the most popular brands available on the market

### Range

- 3 - 2,000 kVA
- 110 - 690 voltage

### Application

- Temporary power supply for installation and commissioning
- Back up and emergency power supply for wind turbines



#### OPTIONS

- Purchase
- Rental
- Lease

#### FEATURED SERVICES

- Service, repair & maintenance
- Tool Management System
- Tools handling



## Power Packs



Hydraulic power packs in various sizes, primarily for use with torque and tensioning tools.

### Scope of hydraulic wrench pumps

- Hydraulic torque wrench pumps with complete data logging as an option
- 1, 2 or 3-step hydraulic pumps
- Fully automatic hydraulic pumps; when pump is adjusted the bolt is fully torqued before the pumps stops
- The fully automatic function is amongst the fastest on the market

### Range of hydraulic wrench pumps

- 0 - 800 bar
- 110 - 440 volt

### Scope of tensioning pumps

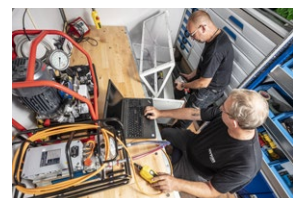
- Fully automatic tensioning pumps to ensure that the desired pressure is kept throughout the job
- Data logging as add-on
- Regular and fully automatic tensioning pumps available

### Range tensioner pumps

- 0 - 4,000 bar
- 110 - 440 volt

### Application

- Perfect for installation and service of wind turbines
- To be combined with hydraulic tools primarily for torque and tensioning jobs
- Oil & gas
- Construction sites



#### OPTIONS

- Purchase
- Rental
- Lease

#### FEATURED SERVICES

- Service, repair & maintenance
- Calibration
- Tool Management System
- Tools handling



## Service Solutions



We provide you with the knowledge on tools, application and service, making you the expert.

- Training of crew in correct torque and tensioning of bolts
- Service training - education of crew in how tools and power packs must be serviced
- Generator service on-site, offshore or in house
- Refuelling of generators
- Bolt tensioning and torque, including certificate

## Options



### Purchase

- Pay-and-go solution.
- Lowest cost method of acquiring vital equipment when funds are available.



### Rental

- For short-term infrequent use.
- HYTOR is responsible for maintenance and calibration.
- Inexpensive way to use premium tools, to get the job done quickly and accurately.



### Lease

- When purchasing is not an option.
- The ideal option for obtaining more efficient, cost-saving equipment which cannot be purchased within the operation budget.

## Services



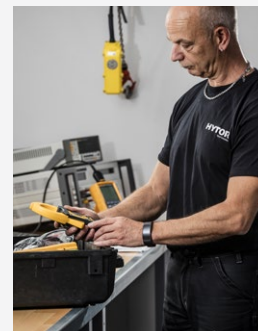
### Service, repair & maintenance

- Service performed on customer-owned equipment on site or at HYTOR workshop.
- Fully specified service report is of course included.



### Calibration

- Calibration of torque and tensioning tools, both manual and hydraulic.
- Manual torque tools: up to 3,000 Nm
- Hydraulic torque tools: up to 50,000 Nm
- Electric tools: up to 15,000 Nm



### Tool Management System

- View and keep track of entire tools fleet.
- Online tracking of service and calibration intervals on tools. Service and calibration reminders.



### Tools handling

- Full service and handling arrangement for your equipment including stock handling.
- Handling, service and calibration is controlled and managed by HYTOR.





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