

Courses for the Wind Turbine Industry



Approved by DNV-GL according to the GWO-standards





Rescue Center Denmark's standard offers to the wind industry include:

GWO Basic Safety Training

Working at Heights and Manual Handling combined	2 days
First Aid	2 days
Fire Awareness	½ day
Manual Handling	½ day
Sea Survival	1 day

GWO Basic Safety Training - Refresher

Working at Heights with Manual Handling refresher	1 day
First Aid- refresh	1 day
Fire Awareness- refresh	½ day
Manual Handling- refresh	½ day
Sea Survival- refresh	1 day

GWO Basic Technical Training

Hydraulics	1,2 days
Mechanical	2 days
Electrical	1,3 days

Other GWO Courses

GWO Slinger signaller	2 days
GWO Blade Repair	10 days

Special courses for the wind turbine industry

Confined Space	2 days
Advanced Rescue	5 days
Advanced Rescue Refresher	2 days
ActSafe Equipment lifting	1 day
ActSafe Personal positioning, Inside WTG's	4 days
ActSafe Personal Positioning, Inside/Outside WTG's and blades	5 ddays

On the following pages you can read about the individual courses and the opportunities, there are at Rescue Center Denmark. We also offer complete course packages, so you don't have to waste time booking the necessary courses at various training providers. Our GWO activities meet the demands of the GWO standards, we are also accredited according to ISO 9001, ISO 14001 and OHSAS 18001 standards. All ActSafe training containing lifting of persons meet the ISO 22846-1 and 2 standards (Standards for Rope Access systems)

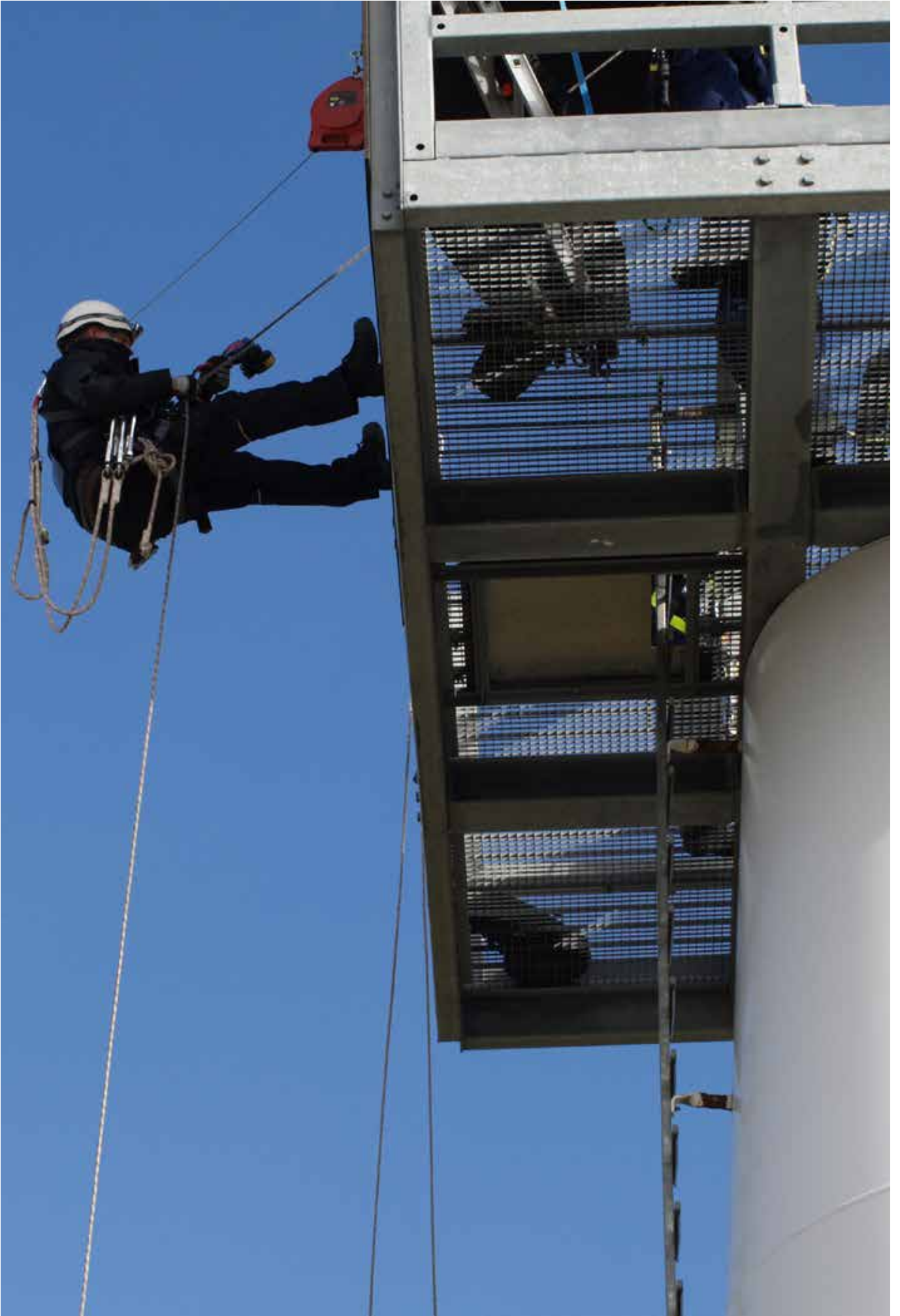
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Why GWO?

The Global Wind Organization (GWO) is an association of Wind Turbine owners and manufacturers with the aim of supporting an injury-free work environment in the wind industry as well as ensuring a professional and technical knowledge of wind turbine design and maintenance.

The associated companies, in the Global Wind Organization, has jointly developed standards for safety and technical training for the wind turbine industry. This means that the GWO-standards are recognized in the wind industry globally, as the minimum standards for safety and technical training. If you change your job or are going to work abroad, your GWO safety and technical trainings are recognized and you are good to go in a new company or country

Training provider

An approved training provider must have a management system in place, the management system must describe how the requirements in the standards are fulfilled and keep records and documentation. The requirements in the standard is regarding instructor competences, safety during training, equipment used, certification and equipment maintenance and the facilities used in general. As an approved training provider, you must be audited against the GWO-standard ones a year. This is your guarantee for a professional and competent training provider.

WINDA

WINDA is a global database designed with the primary purpose of verifying the certification status of GWO certified training providers and the training status of delegates who have attended GWO certified training courses.

How to register

The WINDA ID is the unique personal identification number you get when you register in WINDA.

It is formed of a combination of letters and numbers representing your initials, a six-digit code and two letters representing the country of your nationality. For example, the WINDA ID: JS123456GB would represent JohnSmith123456GreatBritain

The WINDA ID is used by training providers. When a training has been successfully completed, a training record is uploaded to the delegate's profile.

The WINDA ID is also used by employers. If you give them your WINDA ID, they can check and verify your GWO trainings online. For WINDA registration, see link below:

<https://winda.globalwindsafety.org/register/delegate/>

Rescue Center Denmark.

Rescue Center Denmark was established in 2012 by merging the training activities from Kursuscenter Vest regarding wind, fire and rescue and the training activities from EUC Vest regarding training of emergency care assistants. Rescue Center Denmark has for many years cooperated with the biggest manufacturers within the wind turbine industry regarding safety procedures and safety training. Rescue Center Denmark aim for the highest quality in our training. All our instructors have a background relevant to the topics he/she is teaching and at least 5 years work experience. Before any new instructor is allowed to teach on his/her own, they have to go through a training program described in the procedures in the ISO 9001 management system. In addition to that, all instructors are expected to study and pass a Diploma in Pedagogy, within the first two years of employment. In that way we secure the highest standard of instructors. Our skilled instructors combined with realistic practical training areas with a real tower, real nacelle, indoor working at heights etc. ensures a training of the highest standard. With the results of our delegate evaluations testifies. Rescue Center Denmark is audited once a year towards the GWO-standard and all our ISO-standards by DNV-GL.

Jobs in the wind industry

For employees who want a job in the wind turbine industry, we recommend a comprehensive course, consisting of:

- The three modules in Basic Technical Training, a total of 4½ days
- The three modules in Basic Safety Training, a total of 4½ days and you can work onshore, add a day of Sea Survival and you can also work offshore.
- A total of 9 or 10 days of training and you have the training needed for a job in the wind turbine industry.

All modules comply with the GWO Training Standards and are therefore recognized globally in the wind industry.



About Rescue Center Denmark

The course modules are individual modules and are registered separately in WINDA. However, at Rescue Center Denmark, you will always be able to take the modules as a "package solution" as the modules are always conducted continuously.

Should additional training be required e.g. "On-site" training or other wishes - please contact us and we will look into a solution to your specific educational needs. Or, to put it another way: If you do not find what you are looking for, then give us a call: We adapt solutions, express courses and supplementary training to meet your specific needs.

For a number of years, Rescue Center Denmark has built up expertise and know-how in training for the wind turbine industry, among other things, through collaboration with major manufacturers within the industry. This also means that we have developed and expanded our training facilities to a high level with masts, turbines and nacelle that provide an optimal and realistic training environment in accordance with the intentions of the GWO standard. The training facilities are not only included in the module "working at heights" but also form the framework for the other course modules, so that the effect of the training optimized to a realistic wind turbine environment.

Rescue Center Denmark also offers a wide range of technical courses in electrical control, steering, bolt tension, hydraulics, etc. For many years we have conducted these courses for the oil and gas industry and the wind turbine industry. Our practical

exercises are adapted to the individual industry so that the participants work as far as possible with the bolt dimensions and tools used in the industry.

For more information please contact
Rescue Center Denmark,
Business consultant Dan Berg Nielsen
Mail: dbn@rescuecenter.dk
Phone: +45 20 60 81 37.

Prices, accommodation and registration via
www.rescuecenter.dk or on
phone: +45 79 13 45 55

ISO Certifications:

ISO 9001, Management system
ISO 14001, Environmental management
ISO 22846-1 and 2 Standards for Rope Access systems
OHSAS 18001, Occupational Health and Safety Assessment Serie as auditor of the certifications
DNV-GL is used

We have the following equipment:

RedPro, DD, Milan, Aztec, Rollgleiss, ID´s, Troll, Ralf, ActSafe and ActSafe rescue kit.

We do provide certification and recertification on the equipment mentioned above.

On the following pages you will find the different courses for the wind industry.



GWO Basic Safety Training

Basic Safety Training According to the GWO standards, 5½ days

Working at Heights and Manual Handling combined	2 days
First Aid	2 days
Fire Awareness	½ day
Manual Handling	½ day
Sea Survival	1 day

The GWO safety trainings Working at Heights and Manual Handling combined, First Aid, Fire Awareness are sufficient to work in onshore wind turbines. If, on the other hand, you have to work in offshore wind turbines, wind turbines at sea, you must have the GWO Sea Survival module in addition to the 3 modules mentioned above.

GWO Basic Safety Training content

Working at Heights and Manual Handling combined (2 days)

2 days working at heights and manual handling in a combination of practice and theory. The use of personal safety equipment, evacuation drills and rescue equipment, as well as the inclusion of ergonomic considerations and conditions in connection with the tasks and jobs in a wind turbine. Some practical exercises are conducted 20 meters in height and are trained in both masts, ladders and towers.

First Aid (2 days)

First Aid, with focus on accidents and First Aid in connection with work in the wind industry. It includes theory as well as practical exercises in a realistic environment for example inside a tower or a nacelle

Fire Awareness (1/2 day)

Basic education in fire extinguishing in different situations with the most commonly used fire extinguishers. There is training in the evacuation from a nacelle in the case of fire. Teaching is conducted with a run through of the theoretical information followed by practical exercises.

Manual Handling (1/2 day)

Manual handling with focus on the difficulty accessing working places and the restricted working space in the wind industry. Training comprises of a theoretical introduction and practical exercises.

Sea Survival (1 day)

Training sea safety with a combination of theory and practical. There is a run through of the safety equipment and it's use during evacuation from a vessel and during man over board exercise.

Rescue Center Denmark conduct this training through subcontractor.

Delegate prerequisites

There is a maximum weight limit on Working at Heights, so that the participant including equipment may not be over 136 kg. Weight of equipment is 10-12 kg depending on manufacturer.

The Delegates shall also have a personal Delegate profile in WINDA and provide their own WINDA ID prior to completing the BST training.

WINDA

The instructor will continuously assess the individual delegate on efforts and results. After successful completion, each module is registered in WINDA under the delegates personal WINDA ID. All modules are valid for 24 months and must be refreshed **before** the expiry date.

Booking

Prices, accommodation and bookings:
www.rescuecenter.dk or phone: +45 7913 4485

Attention

If one or more of the participants speak a different language than Danish, the course is thought in English.

Our offers are put together as a package deal due to the request from the wind industry. However if there is a request for a single module we can also accommodate this need.



GWO Basic Safety Training - Refresher

Modules in the training: Basic Safety Training Refresh (BST-R) 5 course modules with the following duration and subjects:

Working at Heights with	
Manual Handling refresher	1 day
First Aid	1 day
Fire Awareness	½ day
Manual Handling	½ day
Sea Survival	1 day

All modules are valid for 24 months.

Content of modules.

The content of the refresher modules is the same as the content in Basic Safety Training but the refreshment duration time is reduced and there is a repetition of the skills learned on a Basic Safety Training course. The modules consist mainly of practical exercises where the theory being rehearsed during the exercises, we think this gives the best learning outcomes.

Validity rules and refresher deadlines

Refresher deadlines are exactly 24 months. However, if a delegate refresh a certificate in a period 2 months before the original expiry date the expiry date from the original certificate is kept and the new 24 months validity starts from that date.

For example:

A certificate that expires on the 30/09-2016 is refreshed on the 31/7-2016. The new certificate will be valid until 30/09-2018.

However, if a certificate or training record is renewed outside of two months of expiry, it must carry the new date of certification.

Delegate prerequisites for the BSTR

Delegates shall possess valid BST/BSTR certificates or training records in WINDA for the relevant Modules prior to attending BSTR training. The Delegates shall also have a personal Delegate profile in WINDA and provide their own WINDA ID prior to completing the BST training.

The medical demands are the same as on a Basic Safety Training course. There is also a maximum weight limit on Working at Heights, so that the participant including equipment may not be over 136 kg. Weight of equipment is 10-12 kg depending on manufacturer.

Booking

Prices, accommodation and booking,
www.rescuecenter.dk or phone: +45 7913 4434

Attention.

If one or more of the participants speak a different language than Danish, the course is thought in English.



GWO Basic Technical Training

Basic Technical Training (BTT) consists of three course modules with the following duration and subjects:

Basic Technical Training GWO-standard BTT, 4 ½ days

Hydraulics	1,2 days
Mechanical	2 days
Electrical	1,3 days

Hydraulics (1,2 days)

Basic level hydraulics inclusive of Pascal's law, PPE, knowledge of hydraulic systems, pumps, pressure, power transmissions, sensors, connections, oil filters etc. It is at a basic level, in relationship to wind turbines with a focus on personal safety and general safety, including risk analysis at hydraulic installations.

Mechanical: (1½ day)

Basic mechanical knowledge about the main components in wind turbines: Foundations, tower, nacelle etc. Knowledge of gear systems, bolts, bolt tightening, welding, tools (Measuring and tightening) brake systems, lubrication, cooling, inspection, related to wind turbines with focus on personal and general safety.

Electrical: (1½ days)

Basic electricity, personal security, measuring Basic knowledge about electricity, personal and general safety around electrical installations, measuring equipment, prevention of unexpected start up.

Electrical components:

Motors, relays, diodes, transformers, sensors etc., basic theory and diagram study, wind turbine electrical system - functional systems and the main components.

Delegate prerequisites for the BTT

All personnel participating in Basic Technical Training shall be medically fit and capable of fully participating.

Furthermore, Delegates shall have created a personal Delegate profile in WINDA and provide their own WINDA ID prior to completing the BTT training. However, if a delegate continues onto a GWO Basic Safety Training (which there is a demand for in the wind industry), there is an upper weight limit to the working at heights training on 136 kg including equipment. Weight of equipment is 10-12 kg depending on manufacturer.

WINDA

The instructor will continuously assess the individual delegate on efforts and results. After successful completion, each module is registered in WINDA under the delegates personal WIND ID.

The Basic Technical Training is an enduring qualification and therefore a validity period does not apply to this training. This is based on the assumption that the Delegate is actively working in a wind turbine environment. If there is an extended period of absence from applying the skills, retraining and recertification may be required according to national legislation and company policy.

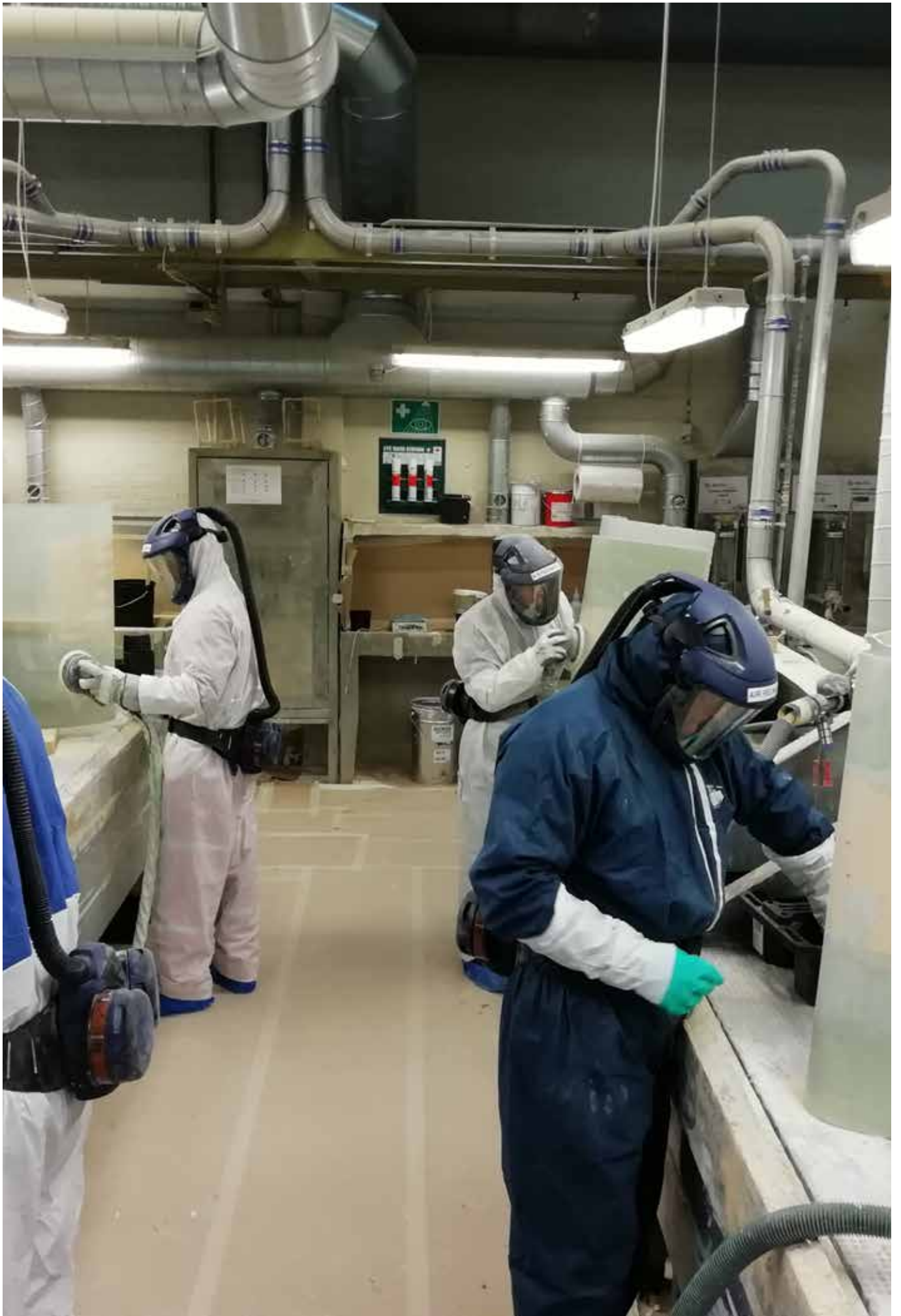
Booking

Prices, accommodation and booking.

www.rescuecenter.dk or phone: +45 7913 4434

Attention.

If one or more of the participants speak a different language than Danish, the course is thought in English.



Other GWO courses

GWO Blade Repair

10 days

GWO Slinger Signaller

2 days

GWO Blade Repair (10 days)

The course is offered in cooperation with AMU Syd in Ribe where the training also takes place. The training is conducted in accordance with the GWO standard for Blade Repair. The course will enable the delegates to carry out inspections and basic repairs of wind turbine blades according to the work instructions available, as well as being able to document the inspection and the work done. There is a great deal of focus on own and others' safety when working with composite materials.

Delegates prerequisites

Delegates must have created a personal delegate profile in WINDA and provide their own WINDA ID prior to completing the GWO Blade Repair training. At the start of the course, a health declaration must be completed and signed, the delegates are expected to be in generally physically good shape and especially have no respiratory problems. It is recommended that the delegates have completed the course "Pers. safety when working with epoxy and isocyanates", as there may subsequently be requirements for this course to be permitted to work on wind turbine blade repair in Denmark. During the Working at Heights safety course, which may be a requirement for performing repairs on-site, the participants' weight must not exceed 136 kg incl. Equipment, equipment weighs 10-12 kg depending on manufacture. The safety trainings are mandatory.

WINDA registration and validity

After completing the course module successfully, Rescue Center Denmark registers the completed module in WINDA under the delegate's personal WINDA-ID. The blade repair training is an enduring qualification and therefore a validity period does not apply to this training. This assumes that the delegate is actively working with composite inspection and repair.

Booking

Prices, accommodation and registration

Mail: pej@amusyd.dk or phone: +45 7637 3792

Attention

If one or more of the participants do not speak Danish, the course will be conducted in English language.

GWO Slinger Signaller (2 days)

The course provides the delegates with the knowledge and skills to perform rigger tasks that imply simple lifting operations where a lifting plan has been prepared and all known risks are described. Delegates will be able to predict any risks and take preventative action to avoid accidents. After the course, the delegates will be able to perform rigging tasks and have a clear communication with the crane operator in a safe and correct manner. The delegate will know different rigging tools, applications, labeling and approval rules. The course is conducted according to the GWO standard Slinger Signaller.

Delegates prerequisites

Delegates must have created a personal delegate profile in WINDA and provide their own WINDA ID prior to completing the GWO Slinger Signaller training. At the start of the course, a health declaration must be completed and signed, and the delegates are expected to be in generally physically good shape. Otherwise, there are no additional requirements for participation.

WINDA registration and validity.

After completing the course module successfully, Rescue Center Denmark registers the completed module in WINDA under the delegate's personal WINDA-ID. The slinger signaller training is an enduring qualification and therefore a validity period does not apply to this training. This assumes that the delegate is actively working with slinger signalling tasks.

Booking

Prices, accommodation and registration

www.rescuecenter.dk or phone: +45 7913 4555.

Attention

If one or more of the delegates do not speak Danish, the course will be conducted in English language.



Special offer to the wind industry

Confined Space	2 days
Advanced Rescue	5 days
Advanced Rescue Refresher	2 days

All modules are valid for 24 months.

Confined Space (2 days)

Content: Confined Space theory, methods to risk assessments, safety risks, use of gas measures and monitoring oxygen content. Use of breathing apparatus and Air Line systems, security and rescue equipment with practical exercises.

Advanced Rescue (5 days)

Content: Correct and secure rescue of a casualty from a wind turbine incl. hub, nacelle, lift and tower. Secure and correct use of rescue equipment in rescue situations, correct and secure assistance to rescue teams. Correct and secure attachment and placement of the unconscious on a spine board or marine board. Secure and correct evacuation of a casualty from a wind turbine.

Advanced Rescue Refresher (2 days)

Content: The refresher module follows the content of the 5 day Advanced Rescue course, but is time wise shortend and is repetition and control of the knowledge and skills from the initial course

Delegates prerequisites

Course requirement (Advanced Rescue only): GWO First Aid, GWO Working at Heights and GWO manual handling.

At Advanced Rescue refresher, the participant must have a valid Advanced Rescue or Advanced Rescue refresher certificate.

Did you find what you were looking for?

If there is a need to supplement training wishes, for example "on-site" training or other wishes such as training on demand, or training to fit the customer's needs -then contact us and we will find a solution perfect for you.

Booking

Prices, accommodation and registration
www.rescuecenter.dk or phone: +45 7913 4555.

Attention

For further informations please contact
RescueCenter Denmark,
Business Consultant, Dan Berg Nielsen
Mail: dbn@rescuecenter.dk
Phone: +45 2060 8137



Courses in safe use of the ActSafe Power Ascender

ActSafe Equipment lifting	1 day
ActSafe Personal positioning/Inside WTG´s	4 days
ActSafe Personal positioning/Inside/Outside WTG´s incl. blades	5 days

All modules are valid for 24 month.

Rescue Center Denmark cooperates with the leading manufactures and blade repair companies within the wind industry, to create and develop the best training possible for correct and safe use of the ActSafe power ascender.

ActSafe Power Ascender is ideal as lifting tool for equipment and tools as well as for lifting personnel and positioning specialists, eg. when inspecting or repairing wind turbine blades. Rescue Center Denmark educates in the use of ActSafe in a safe and effective manner according to ISO 22846-1 + 2 (Standards for Rope Access systems) Power Ascender. Our experienced instructors are familiar with the conditions in wind turbines, so the training will give students the best skills and knowledge of the full usability of the ActSafe Power Ascender.

ActSafe Equipment Lifting. 1 day.

Course content: Slinger Banksman theory and practical lifting exercises.

ActSafe functionality and inspection. Safety instructions, guidelines and legislation for ActSafe, lifting equipment and accessories. Safe lifting and prelifting control measures.

Delegate prerequisites:

There are no prerequisites needed to participate in this training.

ActSafe Personal Positioning inside towers/WTG´s. 4 days.

This course gives competencies for working inside WTG´s and includes equipment lifting.

Course content: Person lifting/man riding. Bringing experts or themselves in position for working at difficult reachable work places using the Ascender according to manufactory and HSE recommendations inside WTGs. The use of back up ropes and to have emergency plans in place before the job is started.

Delegate prerequisites:

GWO Working at Heights and GWO First Aid or equivalent.

ActSafe Personal Positioning outside towers/Blades/WTG´s 5 days.

This course gives competencies for both working inside and outside WTG´s including equipment lifting.

Course content: Person lifting/man riding. Bringing experts or themselves in position for working, at difficult reachable work places using the Ascender according to manufactory and HSE recommendations inside/outside WTGs and Blades. The use of back up ropes and to have emergency plans in place before the job is started.

Delegate prerequisites:

GWO Working at Heights and GWO First Aid or equivalent.

Validity

All certificates are valid for two years or according to national legislation.

ActSafe Power Ascender courses including lifting of persons, for the wind turbine industry are approved by DNV-GL according to ISO 22846-1 and -2. (Standards for Rope Access systems.)

Attention

If one or more of the delegates do not speak Danish, the course will be conducted in English language.

Booking.

Prices, accommodation and registration

www.rescuecenter.dk

Phone: +45 7913 4555.

For further informations:

Dan Berg Nielsen

Mail: dbn@rescuecenter.dk

Phone: +45 2060 8137

For employees who want a job in the wind turbine industry, we recommend a comprehensive course, consisting of:

- The three modules in Basic Technical Training, a total of 4½ days
- The three modules in Basic Safety Training, a total of 4½ days and you can work onshore, add a day of Sea Survival you can also work offshore.
- A total of 9 or 10 days of training and you have the basic training needed for a job in the wind turbine industry.

All modules are according to the GWO Training Standards and therefore recognized globally in the wind turbine industry

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