3M | DBI SALA® PROTECTA®

Fall Protection

Product selection for the

Wind energy industry.

www.3M.com/FallProtection

Wind energy.

This industry specific catalogue is dedicated to keeping wind energy workers safe while on the job!

Fall protection is a complicated issue and one of the most important faced by an employer or worksite supervisor. With over 37,000 reported incidents per year*, falls from heights almost always result in serious injury. In the wind energy industry, lack of proper fall protection can have serious consequences, even death.

*Source: www.hse.gov.uk/statistics

3M and the Wind Energy Industry.

Meeting wind energy challenges

At 3M, we understand that the Wind Energy industry is a diversified work environment. Not only is it constantly changing as the work progresses and technology evolves, but the industry itself is always innovating with new procedures and materials that present new challenges for your fall protection plan. Wind energy employees work in multiple scenarios where safety is always foremost on the job. These environments are specialised and multi-disciplined, demanding a full range of fall protection solutions to meet the needs of a variety of workplaces. That is why employers turn to 3M Fall Protection's leading brands DBI-SALA® & Protecta® for industry expertise, superior quality products and continual systems innovation.

Contents.

Our brands.

3M | DBI SALA® Fall Protection

3M™ DBI-SALA®: Safety without compromise for workers at height.

The DBI-SALA® brand embodies a commitment to excellence and innovation with its extensive range of fall protection solutions, designed to keep you working at height; safely, efficiently, comfortably. The ultimate in fall protection for any work environment.

3M | PROTECTA® Fall Protection

3M™ Protecta®: Trusted, quality fall protection.

With over 75 years experience, the Protecta® brand provides the complete line of fall protection products you can rely on, at exceptional value.

ABCs of fall protection.

A typical Personal Fall Arrest System (PFAS) incorporates key components often described as the ABCs of fall protection.

A

Anchorages

Anchorages are a secure point of attachment.

Anchorage connectors vary by industry, job, type of installation and structure. They must be able to hold fast under the load of a fall, working in suspension or a rescue.

B

Body support

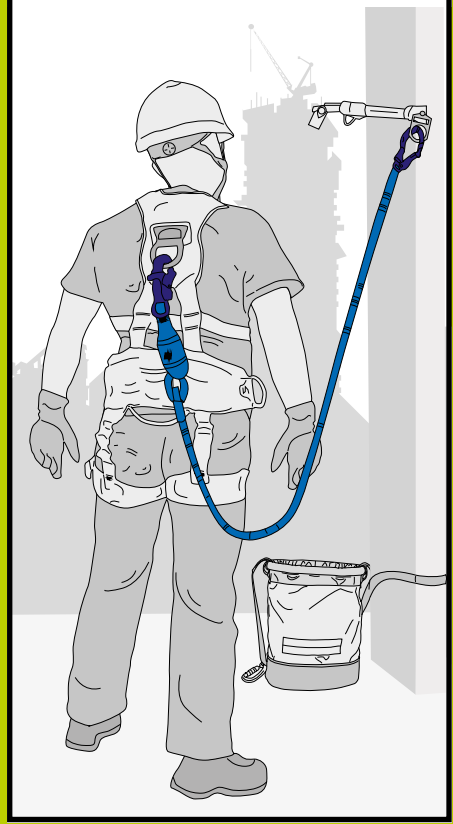
Harnesses distribute fall forces over the upper thighs, pelvis, chest and shoulders.

They provide a connection point on the worker for the personal fall protection system.

C

Connecting devices

Products such as shock absorbing lanyards or self-retracting lifelines connect a worker's harness to the anchorage.

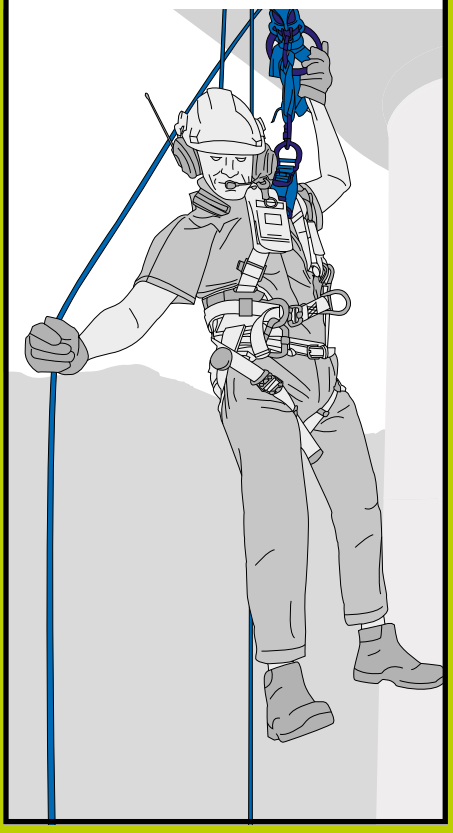


The (A) anchorage/anchorage connector, (B) body support and (C) connecting device - when used together - form a complete system for maximum worker protection. But don't forget the other important components of a comprehensive fall protection programme: (D) descent and rescue, (E) education and (F) fall protection for tools.

D

Descent and rescue

Descent and rescue devices are used to raise or lower a fallen worker to safety, or to retrieve him from a confined space.



E

Education

We offer a variety of best-in-class certified training courses for work at height and confined spaces at our state-of-the-art training centres located around the world.

We can also bring training to your workforce with our specialised demonstration vehicle providing an excellent introduction to fall protection.

F

Fall protection for tools

Helps make work environments safer and more productive by reducing dropped object incidents.

Wind turbine construction.

Fall protection challenges

When constructing wind turbines there are several danger areas where the worker is left open to fall risk.

- Tower Erection involves the use of the ladder system installed in the individual sections of the tower, some of which have a vertical fall arrest system in place which can be utilised, some which do not
- Nacelle work involves the installation of electrical control units, all of which will require cabling to be installed through the length of the tower. Whether working from the ladder or from a service lift, a minimum of a full body harness and lanyard will be required
- Workers will be required to work all day in fall arrest equipment. Harnesses used will need to be comfortable, lightweight, and have multiple anchor points. In addition, the equipment should incorporate tool carrying accessories and be very durable and built-to-last
- For added comfort and safety in these difficult to access areas, accessories such as Trauma Relief Straps should be considered as they allow a suspended user to 'stand up' in their harness in the event of a fall
- While working in the upper reaches of the tower, rescue can be almost impossible from the ground by conventional methods. Self-rescue, personal evacuation and easy to use casualty evacuation equipment is a necessity for personnel working on wind turbines.

A Anchorages

3M™ Protecta® Nylon Webbing Sling		18

B Body Support

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D Descent and Rescue

3M™ DBI-SALA® Rollgliss™ R550 Rescue Kit		27

Wind turbine maintenance.

Fall protection challenges

Maintenance of wind turbines is often very dangerous because it's conducted at extreme height or in very confined areas.

- Tower Maintenance involves the use of the ladder system installed in the individual sections of the tower, or the installed service lift to access electrical conduits and structural sections. In either case, a full body harness will be required, and either a ladder safety system or a lanyard to anchor into the lift
- Maintenance and repair of the control mechanisms for the blades will involve accessing the rotor hub which may be from the outside of the Nacelle
- Blade inspection and repair involves specialist access equipment and rope access techniques, and can be extremely hazardous and dangerous without the correct equipment
- Workers will be required to work all day in fall arrest equipment. Harnesses used will need to be comfortable, lightweight, and have multiple anchor points. In addition, the equipment should incorporate tool carrying accessories and be very durable and built-to-last
- For added comfort and safety in these difficult to access areas, accessories such as Trauma Relief Straps should be considered as they allow a suspended user to 'stand up' in their harness in the event of a fall
- While working in the upper reaches of the tower, rescue can be almost impossible from the ground by conventional methods. Self-rescue, personal evacuation and easy to use casualty evacuation equipment is a necessity for personnel working on wind turbines.

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D Descent and Rescue

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Wind turbine offshore maintenance.

Fall protection challenges

Offshore wind turbine maintenance presents its own unique challenges in addition to the ones already highlighted.

- Fall protection equipment for offshore workers is exposed to harsher elements and thus must be designed for extreme environmental conditions
- Self-retracting lifelines need to offer a high level of moisture ingress protection, with components completely sealed inside the housing to prevent saltwater corrosion
- Harnesses also should be washed more often because of excessive exposure to saltwater.

A Anchorages

3M™ DBI-SALA® Nylon Webbing Sling		18

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D Descent and Rescue

3M™ DBI-SALA® Rollgliss™ R550 Rescue Kit		27

Wind turbine rescue / evacuation.

Fall protection challenges

- While working in the upper reaches of the tower, rescue can be almost impossible from the ground by conventional methods. Self-rescue, personal evacuation and easy to use casualty evacuation equipment is a necessity for personnel working on wind turbines
- The essence of evacuation or rescue is speed. Rapid descent, available for multiple users in the event of fire or complete mechanical failure is an absolute must for personnel constructing or maintaining the wind turbine
- Self-rescue and casualty evacuation could be needed at any point along the tower, including the Nacelle at the top
- All rescue and evacuation equipment should be quick and easy to use. Non-installed, or temporary equipment will need to be lightweight and quick to use in relatively confined areas.

C Connectors

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D Descent and Rescue

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Product icons.

Harness icons.


Chest


Leg


Waist

Duo-Lok™ Buckle

Pass Through Buckle

Quick Connect Buckle

Lanyard icons.

Lanyards:


Lanyard


Carabiner


Screw Carabiner


Scaffold Hook


Snap Hook


Size of Gate Opening


Connector: Lanyard End


Connector: User End


Rope Type

Type:


Material Type

Material: Aluminium

Material: Steel

General icons.

Dimension

Kilogrammes

Maximum Load


Quantity


User

User (Value)

Type:

Material: Stainless Steel

Material: Thermoplastic

Breaking Point


Diameter

Certification

Certification (Value)

Certification (Value & Class)


Twin Leg

Coating: Galvanised Steel

Self-Retracting Lifelines icons.


Housing


Retrieval Winch

Rescue


Lifeline Material


Connector Material

Certification.

The European Commission has set out Directive 89/686/EEC detailing harmonised standards intended to control the design and use of rescue and personal protection equipment against falls from height. These standards must be adhered to, and are applicable in all the member states.

Fall Protection equipment relating to any of these harmonised standards must be tested by a notified body. The CE logo marked on equipment indicates conformity.

Only approved fall protection equipment may be used when working at height.

CE EN353-1	Guided type fall arresters including a rigid anchor line	CE EN364	Test methods
CE EN353-2	Guided type fall arresters including a flexible anchor line	CE EN365	General requirements for instructions for use, maintenance, periodic examination, repair, marking & packaging
CE EN354	Lanyards	CE EN397	Industrial safety helmets
CE EN355	Energy absorbers	CE EN795	Anchor devices
CE EN358	Belts and restraint lanyards for work positioning	CE EN813	Sit harnesses
CE EN360	Retractable type fall arresters	CE EN1497	Rescue harnesses
CE EN361	Full body harness	EN 341	Descender devices
CE EN362	Connectors	EN 1496	Rescue lifting devices
CE EN363	Personal fall protection systems		

3M™ Protecta® Nylon Webbing Sling

AM450/60	25 mm x 60 cm	0.06
AM450/80	25 mm x 80 cm	0.07
AM450/100	25 mm x 100 cm	0.11
AM450/150	25 mm x 150 cm	0.25
AM450/200	25 mm x 200 cm	0.25

3M Protecta anchor straps are built from top quality materials offering high strength and durability to stand up to the toughest environments. Anchorage connectors are the unsung heroes of most fall protection systems, often overlooked but critical components because they securely attach your system to the anchorage.

- Polyester webbing
- Four safety seams
- Visible colour.

A **Construction | Maintenance Offshore**

3M™ DBI-SALA® Ladder Anchor

2100174	22.2 kN	2.00

The ladder anchor is ideal for working in difficult to access areas on either side of a ladder. The product is manufactured from high grade corrosion resistance materials, making the anchor suitable for internal and external use.

- Simple and easy to install
- Suitable for aluminium ladders
- Large attachment eye to accommodate a scaffold hook
- No rung supports needed
- Installed over 2 rungs to spread load in the event of a fall to preserve the ladder.

A **Construction**

3M™ DBI-SALA® Powered Climb Assist System

Extremely tall or lengthy structures are often conducive to an assisted system which provides weight relief to reduce worker fatigue and improve climbing longevity. The Powered Climb Assist System from 3M DBI-SALA was specifically designed to provide assistance for those who climb the internal ladders of wind energy towers.

- Designed to be used in conjunction with a ladder safety system, such as the 3M™ DBI-SALA® Lad-Saf™ vertical system with sleeve
- Motor control unit provides five discrete speed level settings
- System provides an “adaptive” motor control system that adjusts to environmental conditions and climbing speed
- Personalised system adjustment of 25-55 kg (55-120 lbs) for a wide range of climbing styles and user weights for effortless ascent and descent
- Plug-n-play motor control unit design enables simple installation to cable tensioning unit - just plug the unit into the power outlet and you’re ready to climb!
- System accommodates a power supply range of 110 Vac - 240 Vac, 50-60 Hz-optional power cords available to match receptacles, ensuring global compatibility
- 9 kg (20 lb). motor control unit is easily transported to support multiple systems and towers
- System includes top and bottom pulley assemblies, wire cable, wire cable grip (with optional double lanyard and carabiner) and motor control and cable tensioning units.

A **Accessories**

3M™ DBI-SALA® Single Point Anchor

Anchor point suitable for use as a single attachment point for fall arrest or fall restraint by a single user.

7234110	22.2 kN	0.40

Top Bracket Pulley Assembly

Wire Cable

Wire Cable Grip

Cable Tensioning System

Plug-N-Play Motor Control Assembly

Bottom Bracket Pulley Assembly

6160039	21.63

3M™ DBI-SALA® ExoFit NEX™ Wind Energy Harness

The 3M DBI-SALA ExoFit NEX Harness gives workers the freedom and confidence to function to their maximum. Innovative safety devices and innovative design features helps workers to work smart, fast and safe, thereby increasing productivity. Designed using soft yet durable anti-absorbent, abrasion resistant webbing of lasting strength, harnesses can withstand higher demands, day in, day out. They are built to perform to the highest standards in the harshest environments. 140 kg capacity.

B **Maintenance**

	◄·····►			kg
1113210	S	DL	DL	1.86
1113211	M	DL	DL	1.91
1113212	L	DL	DL	1.95

TL
CE EN361
CE EN813

3M™ DBI-SALA® ExoFit NEX™ Wind Energy Harness with Belt

The 3M DBI-SALA ExoFit NEX Harness gives workers the freedom and confidence to function to their maximum. Innovative safety devices and innovative design features helps workers to work smart, fast and safe increasing productivity. Designed using soft yet durable anti-absorbent, abrasion resistant webbing of lasting strength, harnesses can withstand higher demands, day in, day out. They are built to perform to the highest standards in the harshest environments. 140 kg capacity.

B **Construction | Maintenance**
Offshore

	◄·····►				kg
1113215	S	DL	DL	TG	3.00
1113216	M	DL	DL	TG	3.05
1113217	L	DL	DL	TG	3.10

TL
CP
CE EN358
CE EN361

3M™ DBI-SALA® ExoFit NEX™ Suspension Harness

3M DBI-SALA ExoFit NEX Suspension Harnesses incorporate advanced technologies in the industry. These multi-use harnesses are ideal for professionals in the wind energy sector. The harnesses combine specialised designs, components and hardware to optimise rope rescue and industrial rope access work.

B **Maintenance**

	◄·····►			kg
1113960	S	DL	DL	2.20
1113961	M	DL	DL	2.30
1113962	L	DL	DL	2.40
1113963	XL	DL	DL	2.50

TL CP S CE EN358 CE EN361 CE EN813

3M™ DBI-SALA® ExoFit NEX™ XP Harness with Personal Flotation Device - SOLAS

Fall Arrest and Buoyancy Protection.

- Automatic and manual operation of PFD (Personal Flotation Device)
- Stainless steel hardware for enhanced corrosion resistance in harsh environments
- Central Chest D-ring for fall arrest and large rear D-ring for connections to fall protection systems.

The Personal Flotation Device (PFD) will activate and begin to inflate once it has been immersed in the water for three seconds. The inflation technology is based on water pressure, eliminating activation due to unintentional or accidental contact with water, such as rain or spray. The device can also be operated manually; simply pull the toggle. There is an inflation tube for oral inflation, which can also used to deflate the life jacket.

B **Offshore**

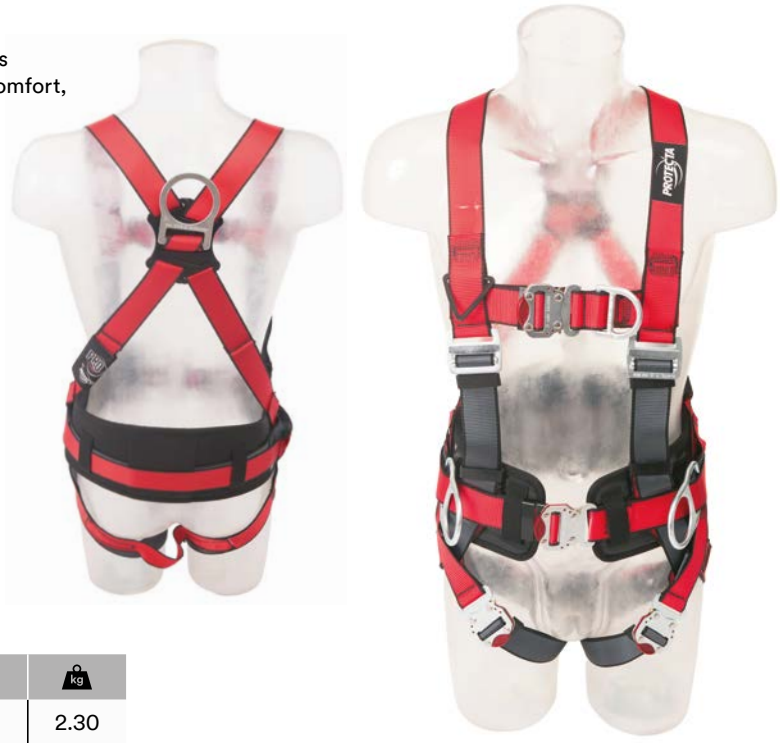
	◄·····►			kg
1109820	S	PT	PT	3.15
1109821	M	PT	PT	3.20
1109822	XL	PT	PT	3.30

CE EN361

3M™ Protecta® Pro™ Harness with Belt & Quick Connect Buckles

The new improved 3M Protecta Pro harness design offers the same stringent safety standards but with improved comfort, adjustability, webbing management and functionality. The extensive model range remains as one of the widest in the industry. Whatever your job demands, there is a 3M Protecta Pro harness for you.

B **Construction | Maintenance**
Offshore



	◄·····►				kg
AB214325NG	S	QC	QC	QC	2.30
AB214335NG	M/L	QC	QC	QC	2.40
AB214345NG	XL	QC	QC	QC	2.50

EN358
EN361

3M™ DBI-SALA® Work Positioning Trigger Lanyard - Rope

The 3M DBI-SALA adjustment system has been improved to give the option to easily adjust the length of the lanyard during use using the black trigger, even in harsh environments when the rope s wet and dirty.

This new version has a double action carabineer KJ5024 with an aluminium snaphook (ref: AJ567).

- Braided rope, diameter 11 mm
- Max weight capacity: 140 kg.

C **Construction | Maintenance | Offshore**

CE EN358
CE EN362

	◄·····►	≈Ø								kg
1200313	Adj to 2 m	11 mm		21 mm	A		21 mm	A	0.74

3M™ Protecta® Work Positioning Trigger Lanyard - Rope

The 3M Protecta adjustment system has been improved to give the option to easily adjust the length of the lanyard during use.

This new version has a triple action carabineer AJ572 with a zinc plated steel snaphook (ref: AJ523).

- Braided rope, diameter 10.5 mm
- Max weight capacity: 140 kg.

C **Construction | Maintenance | Offshore**

CE EN358

	◄·····►	≈Ø							kg
1200314	Adj to 2 m	10.5 mm		21 mm	S		24 mm	A	0.85

3M™ Protecta® Sanchoc™ Kernmantle Rope Lanyard

- 10.50 mm diameter kernmantle rope leg material
- Rope terminations sewn with high strength polyester thread
- Identification labels protected within transparent shock pack cover
- Wide range of designs and connector options available.

C **Construction | Maintenance | Offshore**

										CE EN355
	◄·····►									kg
AE5310RAK	1 m	■	2		17 mm	Ⓢ		60 mm	Ⓐ	1.60

3M™ DBI-SALA® EZ-Stop™ Lanyard - Edge Tested

3M DBI-SALA's EZ-Stop Edge Tested lanyards are designed to offer greater security to users exposed to falls over or around edges and tested rigorously over a 0.5 mm radius edge. All edge tested products in the DBI-SALA range are differentiated from DBI-SALA standard shock absorbing lanyards and bear the Edge tested logo.

- The fall arrest solution for all users working at height exposed to falls around or over edges
- 12 mm diameter rope offers durability whilst maintaining flexible handling for ease of use. Orange accenting indicates suitability for edge applications.

C **Construction | Maintenance | Offshore**

								CE EN355
	◄·····►							kg
1245555	1.5 m	■	2		21 mm		60 mm	1.50

3M™ DBI-SALA® Shockwave Force2™ Twin Lanyard with Trilock

- 1.8 m (6 ft.) double-leg 100% tie-off lanyard
- 3.6 m (12 ft.) free fall (3.6 m) and dual capacity rated
- Tech-Lite™ aluminium D-rings on each leg end for rescue.

C **Construction | Maintenance**

CE EN355

	◄·····►							kg
1246032	1.8 m	■	2		20 mm		60 mm	2.90

3M™ DBI-SALA® Sealed-Blok™ RSQ™ Self-Retracting Lifeline – Cable

3M DBI-SALA continues to set the standard for quality in fall protection. The 3M DBI-SALA Sealed-Blok SRL family has a fully comprehensive line of sealed SRLs and decades of proven field service.

Durable

- Stands up to harsh environments
- Heavy-duty design
- Corrosion resistant
- Stainless steel end-plates
- Aluminium housing.

Reliable

- Dynamic components sealed inside the housing (IP69K rated)
- Protects from particles entering product
- Protected against complete or continuous submersion in water
- Decades of service
- Field proven in the tougher environments
- Design extends maintenance intervals and product longevity.

C **Construction | Maintenance | Offshore**

CE EN360

EN 341 CLASS D

	◄·····►				RSQ	kg
3400917	25 m	SS	SS	■	■	23.50

3M™ Protecta® Rebel™ Self-Retracting Lifeline - Cable - 30 m

3M Protecta Rebel Self-Retracting Lifeline's are available with a heavy duty aluminium or a durable lightweight thermoplastic housing, providing an economical fall protection solution without compromising on performance or safety.

Integrated ergonomic carrying handle and top swivel connector ensure easy transport and installation. Built-in fall indicator hook allows visual yearly inspection.

3M Protecta Rebel Cable blocks meets the latest CE sharp edge certification when used with an extension sling.

C **Construction | Maintenance | Offshore**

CE EN360

	◄·····►				kg
3590690	30 m		T	G	13.40

3M™ Protecta® Viper™ LT Rope Grab with Carabiner

The 3M Protecta Viper LT Manual Rope Grab is a restraint and fall arrest device which can be used in a variety of vertical and horizontal applications. With its simple opening system, a user can move effortlessly and safely along a ø 12.5 mm rope to perform their daily tasks. Vertical fall arrest 100 kg user.

C **Construction Maintenance | Offshore**

CE EN353-2

	kg
AC4000	0.48

3M™ Protecta® Viper™ LT Rope

Kernmantle rope 12.55 mm dia. 25 kN screw gate carabiner, 17 mm opening.

CE EN353-2

	◄·····►	kg
AC4030	30 m	3.30

3M™ DBI-SALA® Offshore Sealed-Blok™ Self-Retracting Lifeline and Davit

- Proven reliability with decades of use in the oil and gas industry the Sealed-Blok is widely used off-shore
- GEOMET® coating on aluminium housing and internal drum and high grade stainless steel components throughout and a IP69 sealing rating ensure long product life. Davit and tag line available in A5 duplex stainless steel for enhanced corrosion resistance
- Patented internal magnetic brake in the Sealed-Blok SRL allows the cable to retract at controlled lower speed. This avoids damage to the painting of the ladder and preserves the lifetime of the recall spring
- Stainless steel attachment ring allows the user quick connection with a standard carabiner, reducing both user risk exposure and component weathering. Integrated fall indicator on the ring clearly shows if a fall has occurred
- The Sealed-Blok lock on speed accounts for the possible sudden drop of the transfer vessel, thus avoiding accidental lock-up of the block. This speed can be adjusted to suit individual site conditions
- Fast line feature allow easy cable replacement in-situ or onboard marine vessels and prevents time-costly removal from service
- Tag line retrieval system included, allows easy user attachment and prevents damage during cable release
- Dyneema tag line rope material allows trouble free operation and resistance in sea environment
- The use of a fixed bolt attachment, directly onto the Sealed-Blok, prevents any unnecessary wear through swinging of the block
- Custom attachment to existing platform structure is possible.

C Offshore

CE EN360

	Description	◄·····►				kg
3400838	SRL	15 m	SS	SS	■	16.62
6100297	Tag line	-	-	-	-	1.42
6100303	Davit	-	-	-	-	13.60

3M™ DBI-SALA® Rollgliss™ R350 Rescue System

The Rollgliss R350 rescue system provides efficient hauling, but more importantly, controlled lowering (a finger and thumb are all that is required to hold a load). This system also allows you to change the hauling ratios on the fly with quick release pulleys, allowing custom rigging for different applications and jobsites.

- Interchangeable pulley system with a 3:1 ratio standard
- Rope retention bar does not allow rope to twist or overlap
- Visual and audible function controls
- Static kernmantle rope for optimum performance
- Quick connect system allows fast insertion of various pulleys
- Weight capacity 150 kg.

D Rescue

CE EN341

EN 1496

	◄·····►	Ratio		kg
AG6350ST31/60	15 m	3:1	1	6.20

3M™ DBI-SALA® Rollgliss™ R550 Rescue and Descent Kit with Rescue Hub

Emergency Escape

Use the Rollgliss 550 rescue device as an escape device when it is imperative to get to the ground as quickly as possible.

Assisted Rescue Pick-Off

Use the Rollgliss 550 rescue device for an assisted pick-off rescue when a victim is unable to get to safety alone. Lower to the victim and hook up to them and use the device to descend to safety.

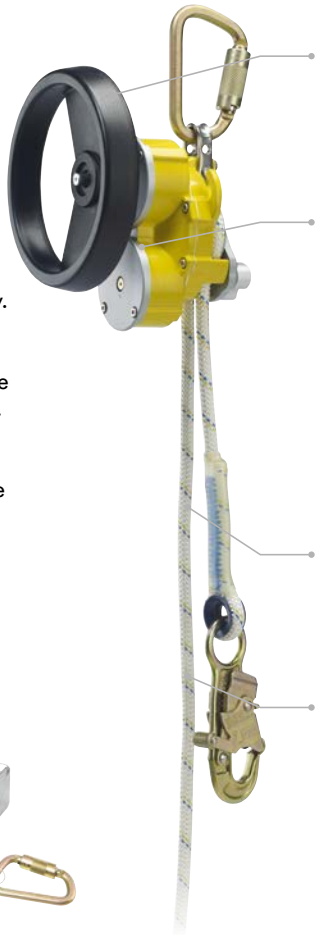
Assisted Rescue

Attach the Rollgliss 550 rescue device to the top of the wind turbine and lower the hook end to the victim and lower them to the ground.

Custom Rescue

The Rollgliss 550 rescue device can be used in many custom rescue situations. Use the system to repel down the structure to safety.

D Construction | Maintenance | Offshore | Rescue



Optional Rescue Hub

Allows to perform not only evacuation but also rescue

Bi-Directional Hub

Rope descends from either side which brings one hook up as the other goes down, allowing for immediate use after each descent

Optional Bracket

Allows quick and easy connection to the ladder rung in order to optimise effectiveness of the rescue

Durable Rope

9.5 mm (3/8") static kernmantle rope rated for durability

Multiple Length Options

Lengths from 10 to 200 m for 2 persons and from 10 to 500 m for 1 person

Weight Capacity

282 kg

3329090

AM450/120
AM450/80

2000112

3320003

AC202

AG570

9506162

CE EN341
CE EN365
EN 1496

Kit consists of:

	Description	kg
3329090/2	Rollgliss R550 Rescue System with rescue hub - 90 m (3329090)	8.01
	Twist Lock Self-Locking Carabiner (2000112)	0.23
	Edge protector (3320003)	0.50
	Carrying bag (9506162)	0.50
	3M™ Protecta® Cobra™ Vertical Lifeline Rope Grab (AC202)	0.80
	Pulley (AG570)	0.26
	2 x Nylon webbing slings, 1 × 25 mm x 120 cm (AM450/120), 1 × 25 mm x 80 cm (AM450/80)	0.14 / 0.07

3M™ DBI-SALA® Rollgliss™ R550 Humidity Resistant Case

Humidity resistant case for Rollgliss R550 rescue and descent device, fits up to 150 m.

D Maintenance Offshore | Rescue

	◄·····►	kg
9508289	63.5 × 48.3 × 39.1 cm	7.50

3M™ DBI-SALA® D-rings

- D-rings can be attached to virtually any tool under 2.3 kg (5 lbs) or 0.9 kg (2 lbs) using our Quick-Wrap Tape
- Creates an attachment point in less than a minute
- Dual D-rings allow for 100% tool tie-off during tool transfers.

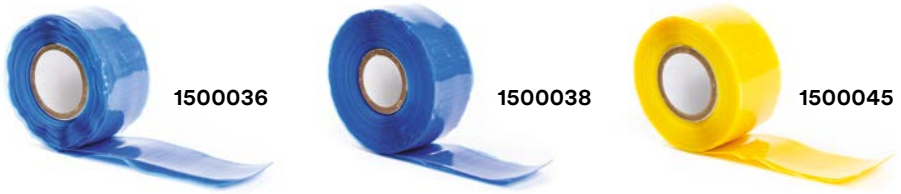
F Accessories

	Description				Non-conductive
1500003	D-ring 1.3 cm x 5.7 cm (0.5” x 2.25”)	0.13	0.9 kg (2 lbs)	10 Pack	No
1500005	D-ring 1.3 cm x 5.7 cm (0.5” x 2.25”) non-conductive	0.61	0.9 kg (2 lbs)	10 Pack	Yes
1500007	D-ring 2.5 cm x 8.9 cm (1” x 3.5”)	0.26	2.3 kg (5 lbs)	10 Pack	No
1500001	Dual D-ring small	0.22	0.9 kg (2 lbs)	10 Pack	No

3M™ DBI-SALA® Quick-Wrap Tape

- Heavy duty 2.54 cm (1”) wide tape conforms to the shape of whatever it is applied to
- Used with our D-rings and Tool Cinch Attachments to create instant tethering points on virtually any tool
- Made from a self-fusing silicone rubber that leaves no adhesive or residue behind
- Inner fibreglass webbing increases the strength of the tape and makes the tape resistant to sharp objects.

F Accessories

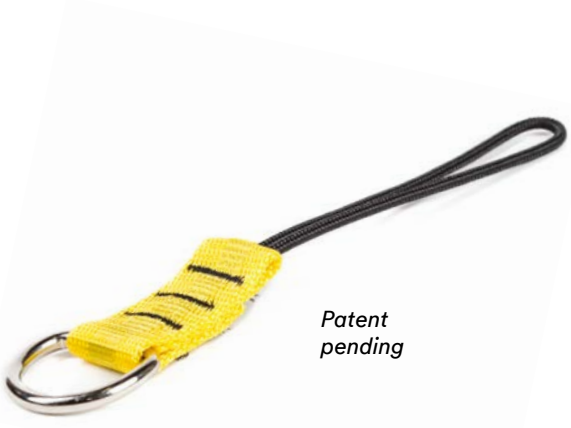


	Description			
1500045	Quick-Wrap, yellow	10	0.564	274 cm (108”)
1500036	Quick-Wrap, blue	10	0.56	274 cm (108”)
1500038	Quick-Wrap, blue, 2x length	1	0.45	548.6 cm (216”)

3M™ DBI-SALA® D-ring Cord

- Easily cinches to tools weighing up to 2.3 kg (5 lbs)
- Simply pass the loop end of a D-ring Cord through a pre-drilled hole or closed handle to create an attachment point
- Durable and reusable.

F Accessories



	Description			
1500009	D-ring Cord	0.29	2.3 kg (5 lbs)	10

3M™ DBI-SALA® Heat Shrink

- Heat Shrink protects 3M™ DBI-SALA® Quick Wrap Tape from abrasives and harsh work environments
- Heat Shrink links reduce in size by 200% when heat is applied.

F Accessories

	Description	kg	
1500019	Heat Shrink 1.9 cm x 4.5 cm (0.75” x 1.75”)	0.068	25
1500020	Heat Shrink 2.5 cm x 4.5 cm (1” x 1.75”)	0.068	25
1500021	Heat Shrink 3.8 cm x 5.1 cm (1.5” x 2”)	0.11	25
1500022	Heat Shrink 5.1 cm x 10.2 cm (2” x 4”)	0.113	10
1500023	Heat Shrink 7.6 cm x 10.2 cm (3” x 4”)	0.47	10

3M™ DBI-SALA® Quick Spins

- Simply slides onto the handle of a tool in seconds
- Swivel spin top makes them tangle resistant
- Reusable and suitable for non-conductive use.

F Accessories

Patented

	Description	kg	kg	
1500027	Small 1.5 cm (0.6”)	0.14	0.5 kg (1 lbs)	10
1500028	Medium 2 cm (0.8”)	0.12	0.5 kg (1 lbs)	10
1500029	Large 2.5 cm (1”)	0.15	0.5 kg (1 lbs)	10
1500030	X-Large 3.1 cm (1.2”)	0.18	0.5 kg (1 lbs)	10

3M™ DBI-SALA® Coil Tethers

Easy to clean and out of the way - exactly what a tether should be. The lightweight vinyl construction and compact design of our Coil Tethers makes them an ideal alternative to classic bungee tethers. Since we first introduced them to the marketplace, we’ve continued to refine and improve our line of coil lanyards with feedback from actual workers in the field.

F Accessories

Patented

1500064

1500068

	Description		kg	kg	◄·····► (relaxed)	◄·····► (stretched)
1500064	Hook2Hook Coil Tether	10	1.20	2.3 kg (5 lbs)	10.2 cm (4”)	157.5 cm (62”)
1500068	Trigger2Trigger Coil Tether	10	0.90	2.3 kg (5 lbs)	4.4 cm (1.75”)	70 cm (24”)

3M™ DBI-SALA® Adjustable Radio Holster

- Holster adjusts to fit virtually any hand-held radio, mobile phone, and many other devices
- Can be worn from belt or harness
- A Micro D-ring can be placed on the back of a device, and can then be tethered to a D-ring on the front of the Adjustable Radio Holster using a 1500066 Clip2Loop Coil Tether.

F Accessories

Patent pending

Can be worn from a belt or harness.

	Description	kg
1500089	Adjustable Radio Holster, Clip2Loop Coil Tether and Micro D-ring	0.10

3M™ DBI-SALA® Smart Tool Holsters

- Single and Dual Tool Holsters are equipped with D-rings that are load rated for 2.3 kg (5 lbs)
- Several variants of these holsters come with Retractors (indicated below). Retractors are load rated for 0.7 kg (1.5 lbs)
- Single and dual tool holsters feature Beacon High-Visibility Reflectors and the Quick-Mag Magnetic Tool Staging System
- A bottom drain vent allows the holster to perform even in wet conditions.

F Accessories

Patent pending

	Description	Retractors included	Attachment	kg
1500109	Dual Tool Holster with Retractors	2x	Harness	0.29

3M™ DBI-SALA® Adjustable Wristband with Retractor

Adjusts to any wrist size. A built-in retractor with an attached trigger can be used to quickly work with many hand tools.

F Accessories

	Description		kg	
1500083	Adjustable Wristband	10	0.40	2.3 kg (5 lbs)

3M™ DBI-SALA® Safe Buckets

With an integrated closure system that helps prevent dropped objects, 3M DBI-SALA Safe Buckets are designed to be the ideal companion for workers at height carrying heavy loads.

F Accessories

	Description	kg	kg
1500140	Standard safe bucket. Vinyl. Hook & loop closure. 38 cm / 31.75 cm (15" / 12.5") Capacity 1840 in.3	1.86	113.4 kg (250 lbs)

3M™ DBI-SALA® Small Parts Pouches

- Innovative self-closure system traps objects inside, making it nearly impossible for objects to fall out once placed in the bag
- Easy to retrieve objects since no opening or closing is necessary
- Compatible with most tool belts.

F Accessories

Patented

1500122

	Description	kg
1500122	Small Parts Pouch, vinyl yellow	0.27

3M™ Protecta® Cabloc™ vertical climbing system can be permanently installed to a ladder or other vertical structure that requires frequent access. It provides a safe, functional and practical means of access and egress.

The 3M Protecta Cabloc vertical climbing system can be used in several configurations with different cable, traveller and absorber options and components in either stainless or galvanised steel.

Features & Benefits.

The 3M Protecta Cabloc vertical climbing system is well known throughout the world and is a very popular choice for wind power companies.

- Top and bottom anchors for ladders available in either galvanised or stainless steel. Easy and quick to install, saving time for the installer
- Bottom anchor tension indicator. Provides visual indication that the cable is correctly tensioned
- 3M Protecta Cabloc Pro traveller which can be used on structures that incline up to 15°. To suit a wide variety of structures
- By passable intermediate cable guide for use with the 3M Protecta Cabloc Pro traveller. The traveller can smoothly bypass the new intermediate brackets without the need for user intervention allowing hands free continuous movement on the system
- Anti-inversion feature on the 3M Protecta Cabloc Pro traveller. Prevents the user mounting the traveller on the cable incorrectly
- The cable is supported at 10 m intervals with intermediate cable guides which prevents adverse wind chatter and cable fretting
- Traveller automatically follows user and locks in event of a fall. Providing uninterrupted movement for the user during ascent and descent whilst maintaining complete safety
- Components are made from high quality materials with corrosion resistant finishes which ensures 3M Protecta Cabloc climbing system is suitable for installation in a wide range of aggressive environments
- 3M Protecta Cabloc climbing system conforms with and is tested in accordance with EN353-1 standards, CNB/P/11.073 and is CE marked. This provides the end user with complete confidence that the system meets the latest standards and legislation
- Users can attach and detach at any point along the length of the climbing system allowing easy access to platforms and adjacent work areas.

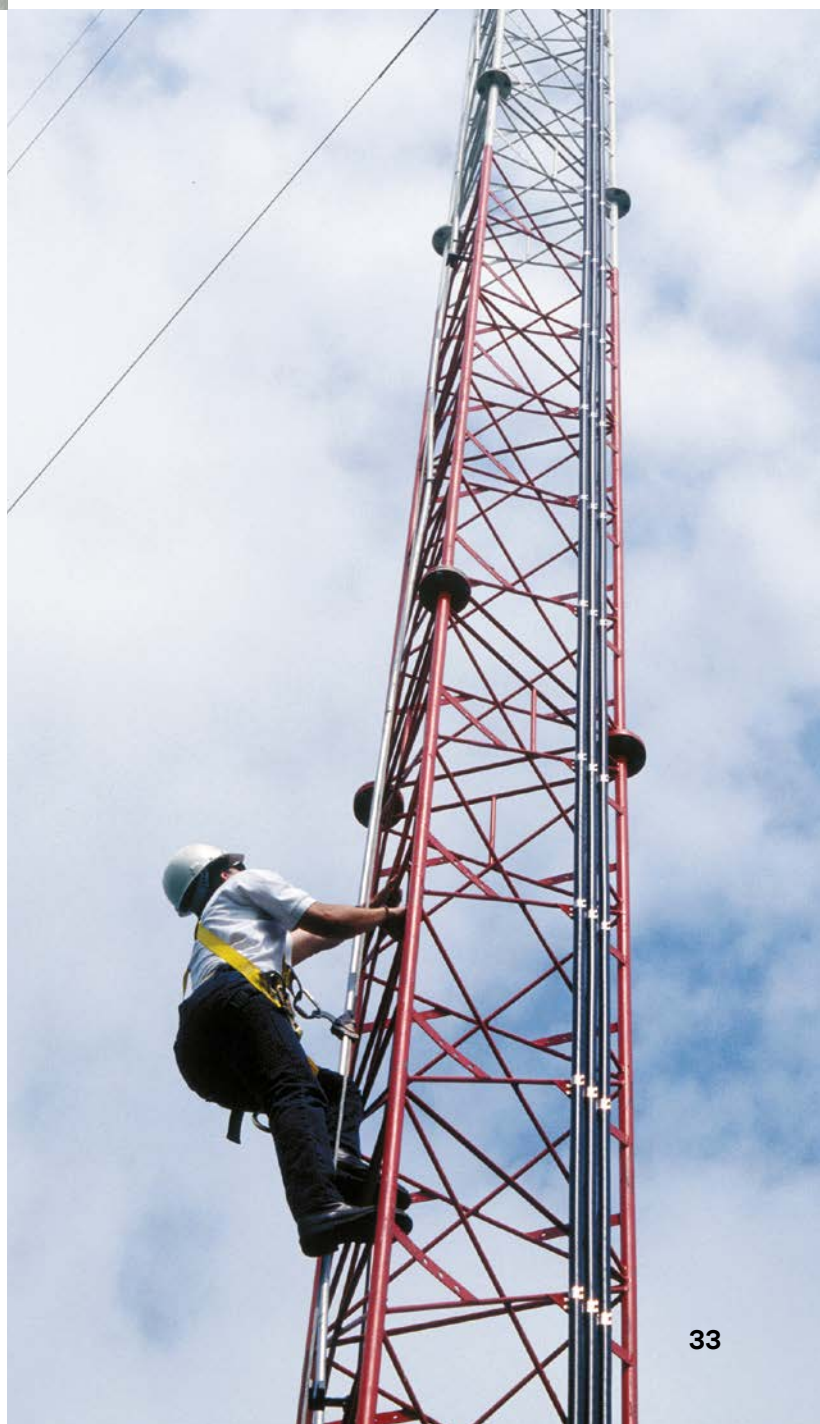
The 3M™ DBI-SALA® Lad-Saf™ permanently installed vertical safety system offers complete fall protection for the worker. It is designed to work with many different styles and lengths of ladders on structures like wind turbines, communication towers, buildings, water towers and more.

The flexible cable system consists of a top and bottom bracket that act as anchors for a steel cable that runs the length of the climbing area. The Lad-Saf X2 or Lad-Saf X3* traveller connects the worker to the system, automatically follows the user during the climb and locks onto the cable in the event of a fall, allowing the user to regain their footing.

*available Autumn 2017

Features & Benefits.

- Fast and simple do-it-yourself installation to most fixed ladders with rung clamps, bolts and standard tools reduces overall costs
- Extremely easy to use traveller travels with worker without being attended to, can be attached anywhere along the lifeline and locks in the event of a fall
- Depending upon your rung strength, the system can be used by 1, 2, 3 or 4 users for added worksite flexibility
- Hundreds of different brackets, styles and configurations are available to suit almost any application
- Stainless steel construction offers ultimate durability and corrosion resistance in harsh environments for added longevity*
- Integrated shock absorbing top bracket reduces forces imposed on the ladder structure during a fall for added safety
- Bypassable intermediate cable guides, 1 every 7.6 m, Prevents cable wear against the ladder and permits the climber to manually bypass without disconnecting for added safety and productivity
- Built-in tension indicator in the bottom bracket takes the guesswork out of installation and correct tensioning.



3M | Safety Training

Workers' lives are on the line every day, but ensuring their safety starts long before the job begins. No one understands this better than 3M Fall Protection. Our training is based on more than 70 years of expertise and jobsite implementation around the globe.

When it comes to protecting your work site, we deliver. We offer superior courses in world-class training facilities, based on standard curriculum's or custom programs specific to your jobsite.

Our training services include:

- Regional facilities to avoid extensive delegate travel or ability to facilitate courses at your own sites.
- Ability to build bespoke course programme's to ensure that training meets your specific company requirements.
- Access to and use of a wide range of fall protection equipment to ensure delegates receive a broad training experience.

From our network of state of the art training centres, we can offer a comprehensive portfolio of training specifically focused on the requirements of this fast developing industry. In addition we also offer on-site and bespoke training solutions to meed your specific requirements.

Visit www.capitalsafety-training.com for more information.

Wind industry training.

3M Safety Training (TAG) Manchester, UK

Located near Manchester, 3M Safety Training UK, is GWO certified and one of the UK's leading height safety training providers.

Our training courses draw upon the best expertise and equipment available. We offer an extensive range of courses including a selection of courses specifically designed for the Wind Energy industry and accredited by the GWO (Global Wind Organisation).

Facilities at our Manchester training centre include a 30 m decommissioned wind turbine which has been modified to simulate multiple turbine types. Choose from a selection of courses which include realistic hub rescue, blade work and emergency evacuation.

Courses are specifically tailored to meet the needs of turbine operators, service and maintenance crews, rescue teams, inspection and certification personnel. See pages 36-37 for a small selection of our courses. For a full list of courses and for more information visit:
www.capitalsafety-training.com
Or contact us on:
+44 (0) 1457 87 86 40
safetytraininguk@mmm.com

3M Safety Training Hamburg, Germany

Located in Hamburg, Germany, our 700 square-metre all weather, (GWO Certified) training facility offers multi-lingual training modules in the full scope of working at height safety.

For the wind industry, facilities include nacelle and rooftop areas with approved anchors and a realistic drive train.

Choose from a selection of courses which include realistic hub rescue, blade work and emergency evacuation.

Courses are specifically tailored to meet the needs of turbine operators, service and maintenance crews, rescue teams, inspection and certification personnel. See pages 36-37 for a small selection of our courses.

For a full list of courses and for more information visit:
www.capitalsafety-training.com
Or contact us on:
+49 (0) 40 54 75 27 44
hamburgtraining@capitalsafety.com

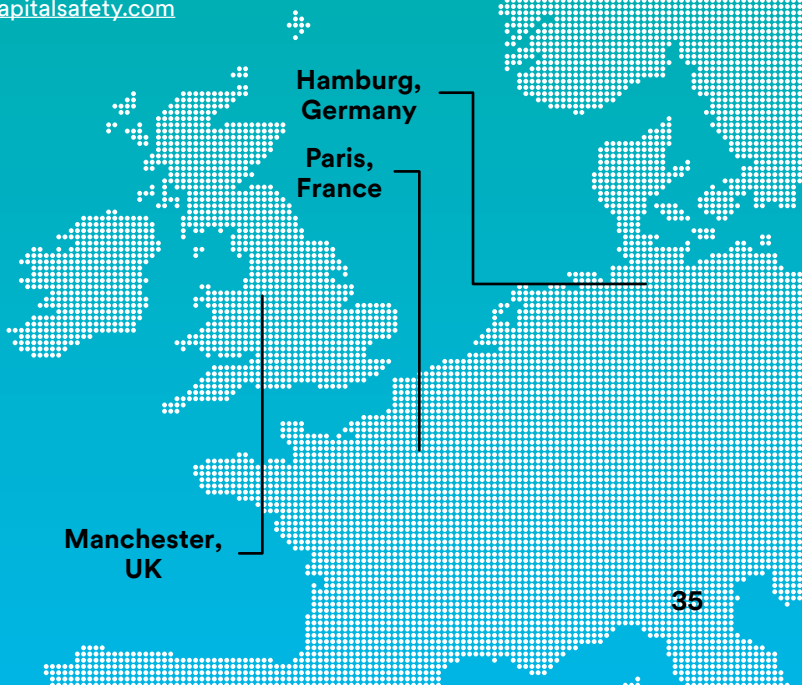
3M Safety Training (ITFH) Paris, France

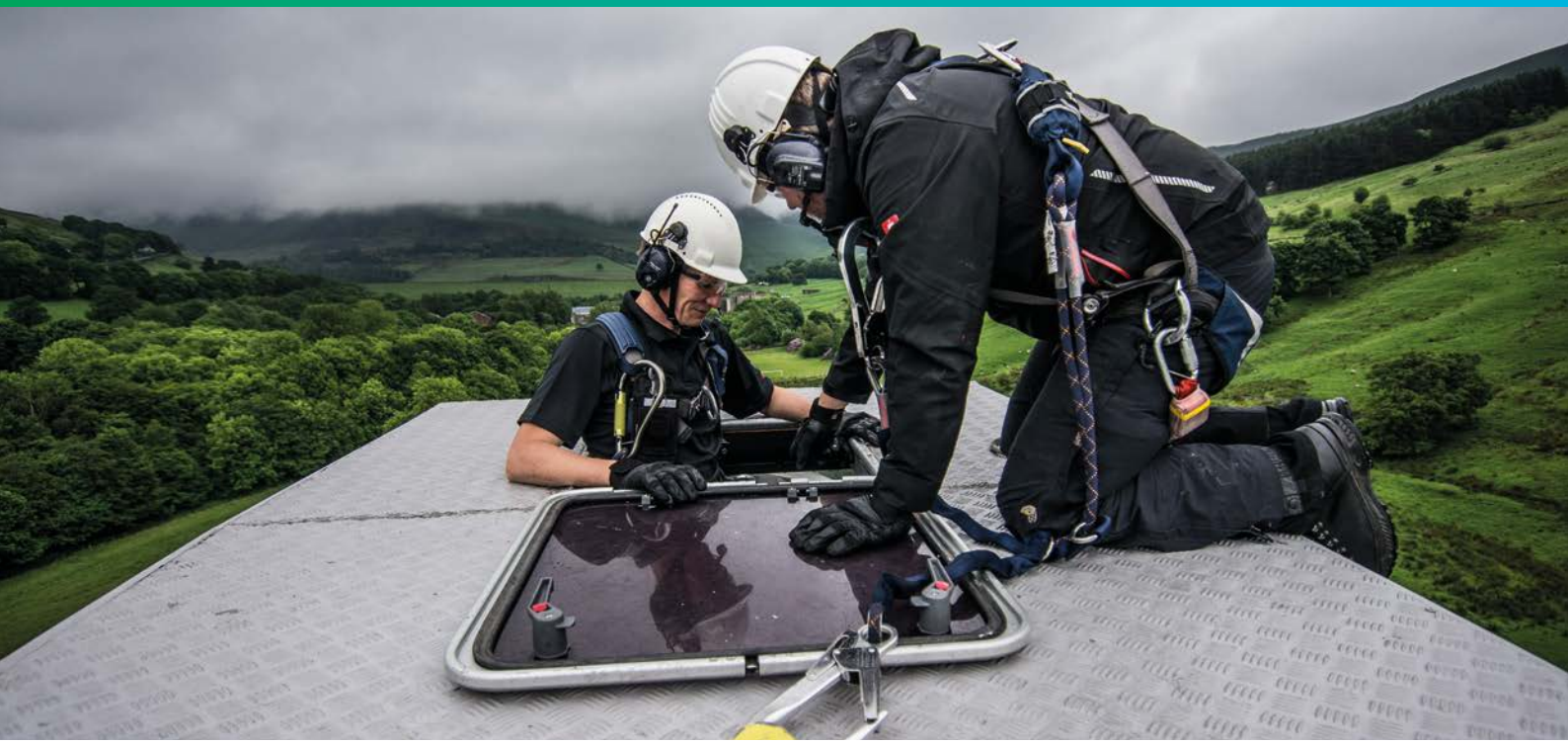
Located in Paris, France, 3M Safety Training is well positioned to deliver a full range of working at height safety training programmes.

The training centre offers more than 50 different training modules in work at height and the correct use of fall protection PPE. Facilities include scaffolding, ropes, lifelines, towers and confined space

As well as work at height, the centre also offers first aid courses and CACES® certification for the use of handling equipment such as fork lift trucks and cherry picker cranes. Our confined space courses are CATEC® approved.

If facilities are suitable, many courses can also be carried out at your site to avoid as much down time as possible for your team. Please contact us for more information.
www.capitalsafety-training.com
+33 (0) 1 47 82 34 91
contact@itfh.com





In addition to the courses listed, we are also able to offer further wind energy courses and customised training according to your needs. Please contact your nearest training centre (see page 34) for further details.

GWO Combined 5 Modules Training

Duration

7 days

The aim of this course is to provide the requirements of the Global Wind Organisation (GWO) Basic Safety Training (BST) in a single package. The GWO BST forms the basic safety training requirements for anyone working in the wind industry.

This package includes the 1.5 day Sea Survival training, which is the minimum additional requirement for offshore work (2 days for RUK, MST Certification). The training is jointly accredited by Renewable UK and the Global Wind Organisation. Those attending will gain a comprehensive understanding of: sea survival equipment and techniques; transfer between vessels, transfer between vessel and wind turbine and rescue procedures.

Course available:

- Manchester

Hub Rescue Training

Duration

1 day

This course is designed to equip those attending with the skills required to access and rescue from a range of different situations on wind turbines.

With a key focus being the hub area, all techniques are generic in concept rather than tailored to a specific wind turbine. They are designed to equip students with the ability to problem solve and develop solutions regardless of the wind turbine type.

Course available:

- Manchester
- Hamburg

First Aid - GWO Training

Duration

2 days

The aim of this course is to provide individuals with the basic first aid skills, knowledge and practical guidance that will enable them to work in a safe manner in the wind industry. The course will enable the delegate to meet emergency response training requirements for personnel new to the global wind industry. It is designed to accommodate personnel working in both the onshore and offshore sectors.

Course available:

- Manchester
- Hamburg

GWO - Working at height and rescue Training

Duration

2 days

The training is jointly accredited by Renewable UK and the Global Wind Organisation. The RUK/GWO Work at Height and Rescue module is designed to provide wind industry personnel, with the basic skills that will enable them to work safely at height and respond effectively to emergencies. It is designed for personnel working in either the onshore or offshore wind sectors.

Course available:

- Manchester
- Hamburg

Manual Handling - GWO Training

Duration

1/2 day

The aim of this course is to provide individuals with the basic manual handling skills, knowledge and practical guidance that will enable them to work in a safe manner in the wind industry. The course will enable the delegate to meet emergency response training requirements for personnel new to the global wind industry. It is designed to accommodate personnel working in both the onshore and offshore sectors.

Course available:

- Manchester
- Hamburg

Fire Awareness - GWO Training

Duration

1/2 day

To provide personnel with the basic skills that will enable them to work in a safe manner in the wind industry and to meet emergency response training requirements for personnel new to the global wind industry. It is designed to accommodate personnel working in both the onshore and offshore sectors.

Course available:

- Manchester
- Hamburg

Harness donning and emergency evacuation of wind turbine

Duration

3 day

The aim of this course is to acquire theoretical and practical knowledge on the use of harnesses and fall arrest systems to evolve safely for all work and access to elevations on wind sites

The course will teach you how to choose and check the right PPE depending on the work condition, adjust your harness, risk asses access and the working area on wind sites, choose suitable anchorages, move on horizontal and vertical lifelines, create temporary anchorages, create temporary lifelines, use a mobile fall arrester and use a self-retracting lifeline.

The final day will be at customer site for practical training of how to self-evacuate from a wind turbine as well as using an evacuator to rescue another person.

Course available:

- Paris

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www.3M.co.uk/safety

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3M Fall Protection Business

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Redditch, B98 9HL, UK

Capital Safety Group (EMEA)
Le Broc Center, Bâtiment A, Z.1. 1re Avenue – BP15
06511 Carros Le Broc, Cedex, FRANCE

Phone 00 800 999 55500 Email informationfallprotection@mmm.com Web 3M.com/FallProtection