ATEXOR

PORTABLE LIGHTING SOLUTIONS
FOR DEMANDING CONDITIONS

SLAM

LIGHTING THE WAY
TO SAFE WORK

INDEX

THE ATEXOR STORY

Atexor is formed by two companies that have a combined history spanning over almost 60 years. These companies Centaurea Oy and Mica Elektro Oy both shared a passion for safe and comfortable working environments. This passion has created the success that today is called Atexor.

The year was 1976. A huge explosion at an ammunition factory in Lapua, Finland, killed dozens of workers, many of them women. It was a disaster that shocked the nation and planted a seed in a young man, who had quit his job at the factory just a few days earlier. In a lifelong pursuit of better, safer working tools, particularly lights, he established Centaurea in 1991 in Seinäjoki, Finland, to focus on lighting solutions for shipyards and the defense industry.

After purchasing a number of new F18 Hornets, the Finnish defense forces asked Centaurea to create portable, explosion-proof work lights for aircraft maintenance. Thus began the era of SLAM® portable lighting solutions for hazardous areas.

Further south in the Finnish capital Helsinki, a young engineer was working in his garage on a problem. The year was 1983, and his cousins, both firefighters, were constantly struggling with their handheld lights. The lights used ordinary batteries, and there were never enough on hand. In the worst cases, they had to stop at the local store on the way to a fire.

The rechargeable handheld lights on the market were notoriously unreliable and even dangerous. This young engineer set about making a durable handheld light with a strong, rechargeable battery with electronics designed to maximize safety. When he gave his first prototypes to his cousins for testing they were ecstatic. Mica Elektro and MICA products were born, and the rest, as they say, is history.


EX
Danger
Explosive atmosphere
ATEX Category 1
Flammable material present for long periods.
(More than 1000 hours per year)

ATEXOR TODAY

Today the rich combined experience of Centaurea and Mica Elektro has formed ATEXOR OY, wholly owned by Teknopower Group. Teknopower Group companies develop, manufacture and market luminaires and lighting systems for the most demanding environments. Teknopower is a leading expert company in lighting with partners operating in more than 20 countries around the world.

From the very beginning, certified safety lamps for explosion hazardous areas have been a core part of the offering from both companies. With an ISO 9001:2008 quality system and ATEX certified production, the R&D and manufacturing teams based in Finland are tirelessly working to create better, safer and more durable lighting solutions. The Atexor portfolio includes high-end products and services that can be tailored to meet specific customer needs.

Testing is key to all Atexor products. All components, materials, battery technologies and LEDs are tested for longevity and performance. Tests are carried out in three stages, in receiving goods, in R&D and lastly to the finalized products. We are able to provide the customers with a test report when delivering products and spare parts. Designing proper control electronics for LEDs is often neglected, leading to overheating in LED lights and reduce lumens output. In Atexor we take those details seriously. Atexor products are designed for long-term use and are readily serviceable. This is why Atexor can offer its products with such confidence.

All Atexor products are designed and manufactured in Finland. In addition to ATEX and IECEx certified products, Atexor also offers products with GOST, DNV and other product relevant certifications.

Atexor plays an active role in international committees developing standards for equipment used in explosion hazardous areas. Our main focus is to improve safety for people working with portable lighting equipment.


SLAM
PRODUCTS

AN EX-LIGHTING SYSTEM WITH EVERYTHING YOU NEED

SLAM® SETS

• **ALL SAFETY ELEMENTS** IN ONE PACKAGE • SIMPLE AND FAST TO ORDER AND IMPLEMENT IN USE • COMPLETELY **CERTIFIED FOR TEMPORARY INSTALLATIONS** IN HAZARDOUS AREAS • **MODIFY FREE** TO SUIT DIFFERENT TYPES OF CONFINED SPACES

Safe lighting is a prerequisite for safe work: each component needs to provide a consistent level of protection against hazards. Each set includes all the elements you need to light your workspace safely and effectively. Just choose the appropriate SLAM® set.

Each set includes a transformer to give you safe voltage, EX-protected lights and antistatic brackets. There is no need for a separate bonding cable and the sets also include an emergency light for worker safety in case of a power failure. You can rest assured that all aspects of safety in confined space are considered. Naturally all sets can be modified to meet your specific needs.

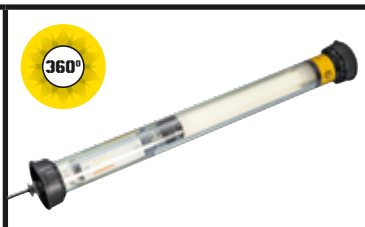
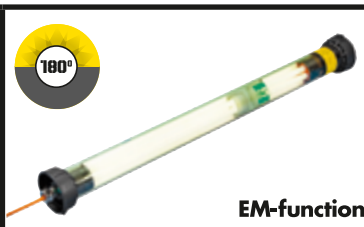
SLAM® TANK SET

APPLICABLE EX-CERTIFIED CABLE REELS AND EXTENSION CABLES AVAILABLE TO PURCHASE SEPARATELY

THE TANK SET INCLUDES:

- ONE PORTABLE 24VAC **EX TRANSFORMER** • THREE EX FLUORESCENT **WORK LIGHTS**
- ONE EX FLUORESCENT **EMERGENCY LIGHT** • EIGHT **EX BRACKETS** AND EIGHT **STRAPS**

The SLAM® Tank Set comprises of all the basic yet critical elements that are needed for safe work in confined hazardous areas: low-voltage, proper explosion-protection and an emergency back-up. Low 24V voltage is provided by a portable and truly elastic ATEX-transformer and lightweight 24V fluorescent ATEX- work lights. One of these lights is an emergency unit, guaranteeing safe exit in case of a power failure. Standard cable length is 20 meters. Working in a confined space has never been safer.

			 EM-function
	TRANS 400EX	HORNET 2X36W	HORNET EMERGENCY 18W+40W
Code	CSTR400EX	CSH236	CSHEM1840

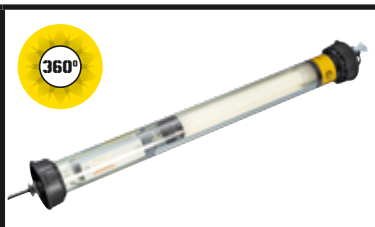
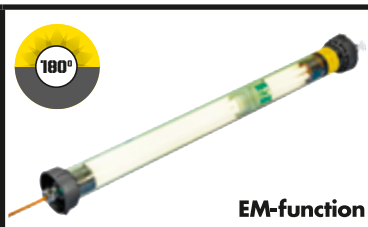
SLAM® EXTENDED TANK SET

APPLICABLE EX-CERTIFIED CABLE REELS AND EXTENSION CABLES AVAILABLE TO PURCHASE SEPARATELY

THE EXTENDED TANK SET INCLUDES:

- ONE PORTABLE 42VAC **EX TRANSFORMER** • THREE EX FLUORESCENT **WORK LIGHTS**
- ONE EX FLUORESCENT **EMERGENCY LIGHT** • EIGHT **EX BRACKETS** AND EIGHT **STRAPS**

In vast spaces such as large storage terminals there is often a need for longer range between the work lights and the step-down transformer. Yet the other fundamental explosion-safety parameters cannot be questioned. That is where SLAM® Extended Tank Set kicks in. Long-distance function is reached by built-in Ex-socket outlets that allow to link lighting units in series. By default, the low-voltage is 42V. Standard cable length is 20 meters.

	TRANS 400EX	HORNET 2X36W	HORNET EMERGENCY 18W+40W
			 EM-function
Code	CSTR400EX	CSH236	CSHEM1840

SLAM® LED TANK SET

APPLICABLE EX-CERTIFIED CABLE REELS AND EXTENSION CABLES AVAILABLE TO PURCHASE SEPARATELY

THE LED TANK SET INCLUDES:

- ONE PORTABLE 24VAC **EX TRANSFORMER** • FOUR EX LED WORK LIGHTS
- EIGHT **EX BRACKETS** AND EIGHT **STRAPS**

LEDs are already paving their way to be the standard light source for many industries around the world. The SLAM® LED Tank Set brings numerous extra advantages thanks to the LED technology: energy efficiency, longer lifetime, superior mechanical performance, reduced service costs as well as improved temperature class (T4). Standard cable length is 20 meters. All of the above mentioned make this set the best choice for professional operators striving for a long-term quality investment and uncompromised safety at work.

		
	TRANS 400EX	HORNET LINEAR 2LED
Code	CSTR400EX	CSHL2LED

SLAM® 12VAC TANK SET

APPLICABLE EX-CERTIFIED CABLE REELS AND EXTENSION CABLES AVAILABLE TO PURCHASE SEPARATELY

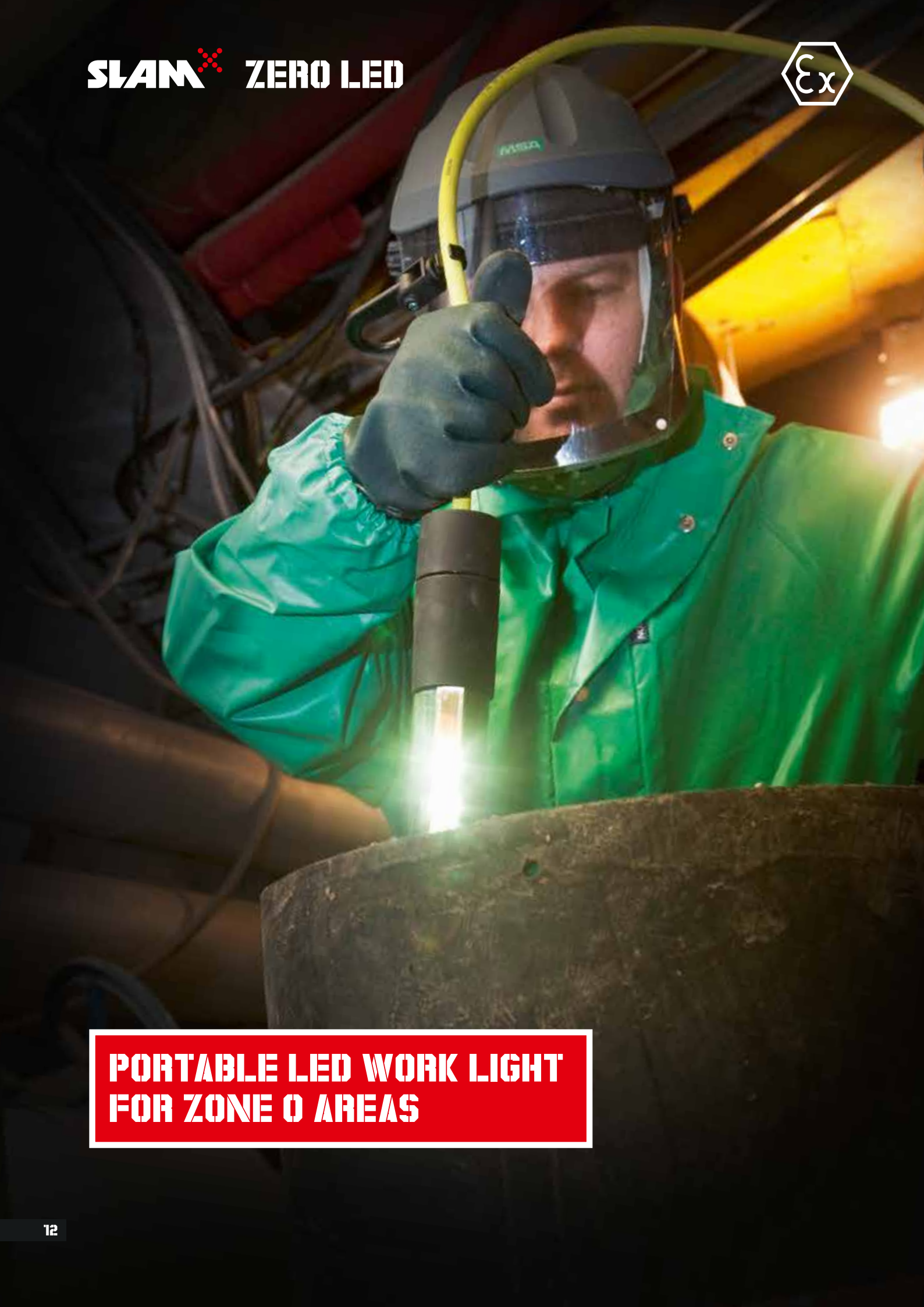
THE 12VAC LED TANK SET INCLUDES:

- ONE PORTABLE 12VAC **EX TRANSFORMER** • FOUR EX 12V FLUORESCENT **WORK LIGHTS**
- EIGHT **EX BRACKETS** AND EIGHT **STRAPS**

In some conditions 12VAC is required in order for lighting to meet security standards. This concerns confined spaces where moisture could provide a risk of electric shock for the operator. The SLAM® 12VAC Tank Set with four 12VAC extra-low voltage ATEX -work lights and suitable ATEX-transformer, is suitable for areas where maximum safety needs to be achieved.

NOTICE: Due to the low voltage, cables are limited to 20 meters or less.

		
	TRANS 400EX	HORNET LINEAR 2X18W
Code	CSTR400EX	CSHL218

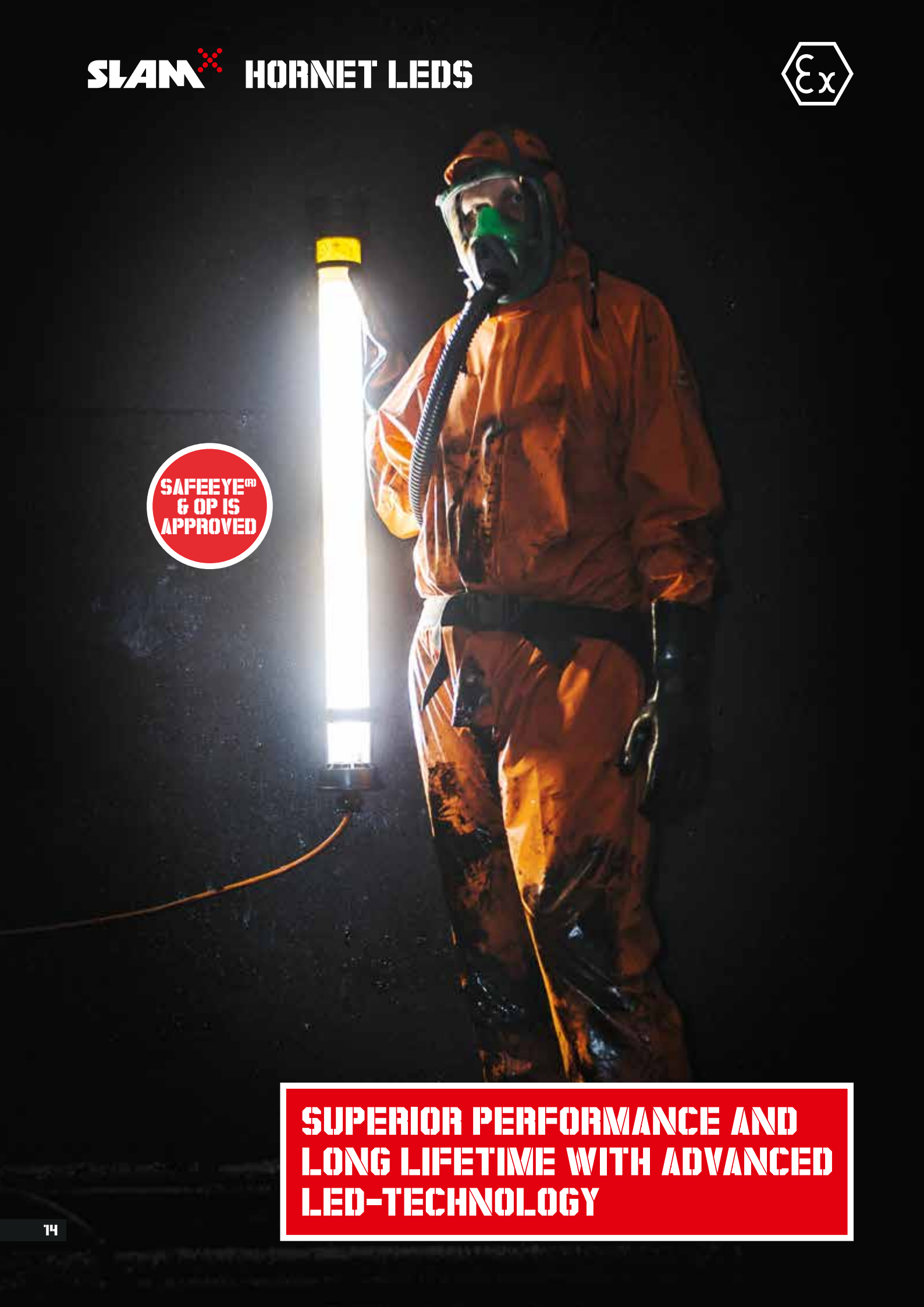

SLAM ZERO LED
PORTABLE LED WORK LIGHT
FOR ZONE 0 AREAS

SLAM® ZERO LED 3X3W

• LIGHT UNIT EX-CERTIFIED FOR ZONES 0 AND 21 WITH TEMPERATURE CLASS T6 • CABLE REEL WITH CONTROL UNIT EX-CERTIFIED FOR ZONES 1 AND 21 • **EASY TO USE AND TRANSPORT** • **EXTREMELY DURABLE** LIGHT UNIT • OPTICAL IRRADIANCE CONSIDERED • EASILY REPLACEABLE ANTI-STATIC FILM • CABLE LENGHT **UP TO 150 METERS**

For close-range inspections in narrow spaces, SLAM® Zero is the easy, reliable way to go. Just plug in the power cable and get to work with this rugged and handy light. Hold, hang or lower the Zero into position from the cable. Full Zone 0 certification and the best temperature class rating mean you can take this work light just about anywhere. And if it gets dirty – just pull of and replace the protective film over the light, and you are good to go.

TECHNICAL DATA	LAMP UNIT	CONTROL UNIT
Certification	Ex II 1 G Ex ma op is IIC T6 Ga Ex II 1 D Ex t/ma IIIC T65°C Da IP 66/IP67	Ex II 2(1) G Ex e mb IIC T6 Gb Ex II 2(1) D Ex t IIIC T60°C Db, IP 65/IP64
Ingress protection	IP66	IP65/64
Operating temperature	-20 to +40 °C	-20 to +40 °C
Supply voltage	12VDC to lamp unit	24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC/VDC
Power	9 W	
Dimensions	262 x 50 mm (without hook) 340 x 50 mm (with hook)	350 x 545 x 250 mm (reel, up to 80 m cable) 430 x 710 x 250 mm (reel, up to 150 m cable)
Weight	0.65 kg	14 kg (with 80 m cable)



SUPERIOR PERFORMANCE AND LONG LIFETIME WITH ADVANCED LED-TECHNOLOGY

SLAM® HORNET 1LED, SLAM® HORNET 2LED, SLAM® HORNET LINEAR 2LED

• EX-CERTIFIED FOR ZONES 1 AND 21 • **IMPROVED TEMPERATURE CLASS** T4 • LINKABLE IN SERIES • PATENTED **SAFEEYE® LED TECHNOLOGY** INSIDE • SELECT FROM A WIDE RANGE OF **SPECIALLY DESIGNED FIXINGS** • EXTREMELY DURABLE CONSTRUCTION • LIGHT TUBE COVERED WITH EASILY REPLACEABLE ANTI-STATIC FILM • **OPTICAL IRRADIANCE CONSIDERED**

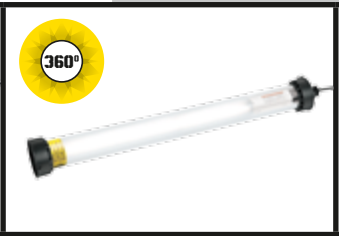
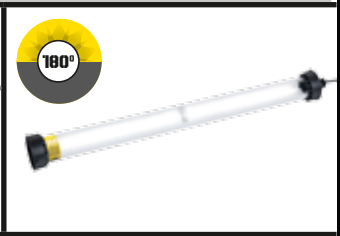
LEDs are the light source of today and SLAM® Hornet LED work lights truly reflect their unquestionable benefits compared with more conventional light sources such as halogen and incandescent bulbs: energy efficiency, longer lifetime, superior mechanical performance and reduced service costs. And thanks to SafeEye®, LED work lights produce a smooth, non-irritating light. Using Hornet LEDs in hazardous areas allow also an improved T-class of T4 making it possible to enter various areas with T4 requirement for example in petrochemical refineries.

SafeEye®

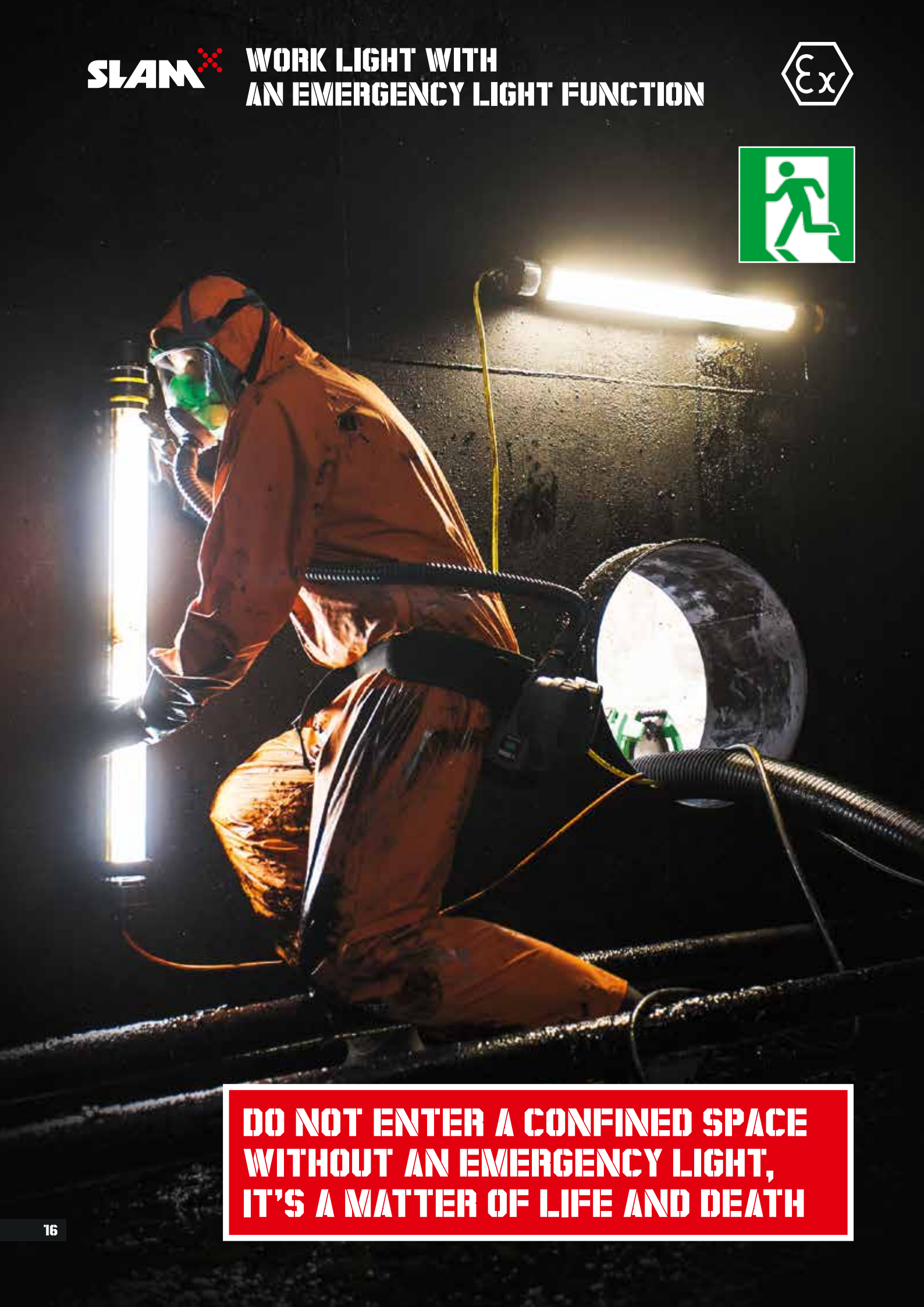
Raw LED light is blinding and painful. SLAM SafeEye® is a diffuser solution that makes LED work lights safer and more pleasant to work with. SafeEye protects eyes and makes the LED light output smoother by spreading the beam without significantly reducing lumens.

OPTICAL IRRADIATION

Light-emitting diodes, or LEDs, are the lights of the future. LEDs last longer, use less energy, and put out a tremendous amount of light. In fact, so much that they can be rather dangerous. Their output is comparable to a laser – extremely intense and concentrated, being able to ignite small particles in the air passing through the beam of light. Therefore, industrial standard IEC/EN 60079-28 was created to define opis – optical irradiation on inherently safe level. One way to implement opis is just to reduce the power of the LED light source. But there is a disadvantage: reduced light output of work lights. Another method is to diffuse the LED light, change the beam from a concentrated energy source to one that is spread out over a larger area. All SLAM® LED lights are opis rated and safe for eyes, yet they give maximum light output.

			
TECHNICAL DATA	**HORNET 1LED**	**HORNET 2LED**	**HORNET LINEAR 2LED**
Code	CSH1LED	CSH2LED	CSHL2LED
Certification	II 2 G Ex emb op is IIC T4 Gb II 2 D Ex tb op is IIIC T90°C Db IP66	II 2 G Ex emb op is IIC T4 Gb II 2 D Ex tb op is IIIC T90°C Db IP66	II 2 G Ex emb op is IIC T4 Gb II 2 D Ex tb op is IIIC T90°C Db IP66
Ingress protection	IP66 (with Stahl socket IP 54)	IP66 (with Stahl socket IP 54)	IP66 (with Stahl socket IP 54)
Operating temperature	-20 to +40 °C	-20 to +40 °C	-20 to +40 °C
Supply voltage	24VAC/DC, 42VAC/DC, 110VAC/DC, 230VAC	24VAC/DC, 42VAC/DC, 110VAC/DC, 230VAC	24VAC/DC, 42VAC/DC, 110VAC/DC, 230VAC
Frequency	0 Hz (DC), 50 Hz, 60 Hz	0 Hz (DC), 50 Hz, 60 Hz	0 Hz (DC), 50 Hz, 60 Hz
Dimensions	535 x 115 mm (A-cable in) 575 x 115 mm (C-cable in, socket out)	865 x 115 mm	1020 x 115 mm
Weight	1.8 kg	3.1 kg	3.4 kg
Variables	A-cable in, C-cable in, socket out	A-cable in, C-cable in, socket out	A-cable in, C-cable in, socket out

WORK LIGHT WITH AN EMERGENCY LIGHT FUNCTION



DO NOT ENTER A CONFINED SPACE WITHOUT AN EMERGENCY LIGHT, IT'S A MATTER OF LIFE AND DEATH

SLAM® HORNET EMERGENCY 18W+40W

• EX-CERTIFIED FOR ZONES 1 AND 21 • EQUIPPED WITH A **BATTERY BACK-UP SYSTEM** • 90 MINUTES BATTERY DURATION • LINKABLE IN SERIES • **EXTREMELY DURABLE** • WIDE RANGE OF SPECIAL FIXINGS AVAILABLE • **STRONG LIGHT OUTPUT** • VERSATILE IN USE

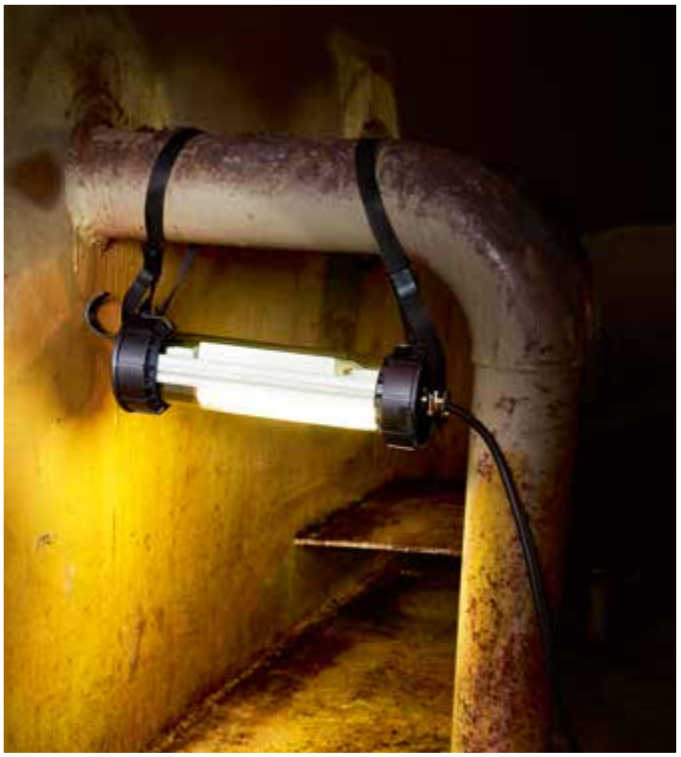
The SLAM® Hornet Emergency 18+40W plays a key role in safety at work. It provides appropriate exit route lighting under power failures and total darkness. The unit is typically placed next to a critical exit points such as a tank manhole, ladder, inner door or narrow passageway. It gives sufficient light to find the way out into safer areas and emergency collection points. Under normal use the unit provides full illumination (58W). Battery mode keeps the 18W lamp illuminating for 90 minutes indicating the way to exit.

TECHNICAL DATA	HORNET EMERGENCY 18W+40W
Code	CSHEM1840
Certification	II 2 G Ex e ib mb IIC T3 Gb, II 2 D Ex tb IIIC T90°C Db IP 66
Ingress protection	IP66
Operating temperature	-20 to +40 °C
Supply voltage	24VAC – 42VAC – 110VAC – 230VAC
Power in normal conditions	18 W + 40 W
Power during electricity cuts	18 W (with 30 % illumination)
Battery operational during electricity cuts	Up to 90 minutes
Dimensions	1020 x 115 mm Ø
Weight	3.9 kg
Variables	A-cable in, C-cable in, socket out

SLAM HORNET: SHORT

COMPACT WORK LIGHT FOR NARROW SPACES

SLAM® HORNET 1X18W, HORNET 1X36W

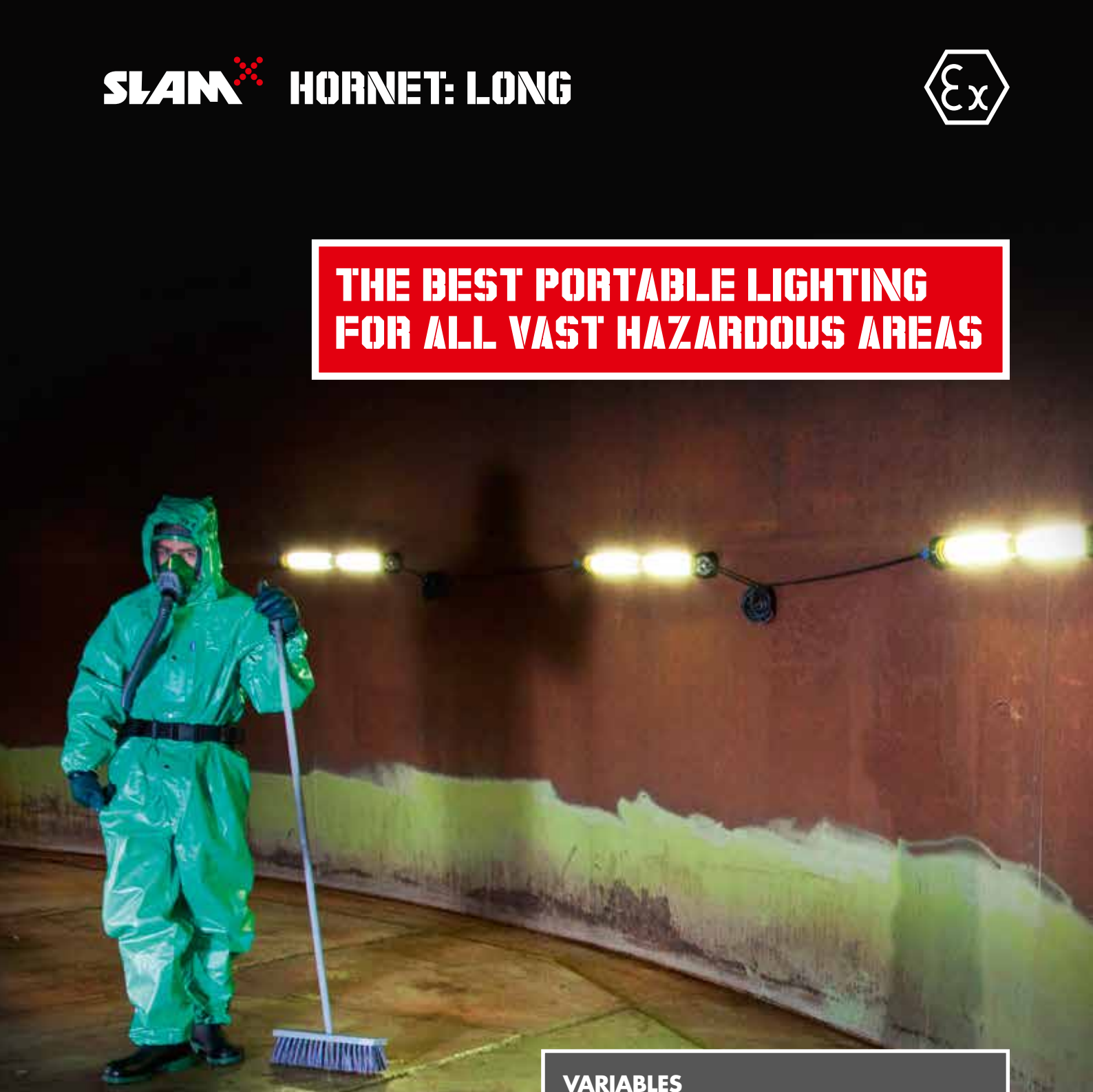


- EX-CERTIFIED FOR ZONES 1 AND 21 • **COMPACT, LIGHTWEIGHT CONSTRUCTION**
- STRONG YET SMOOTH LIGHT OUTPUT • WIDE SELECTION OF **SPECIALLY DESIGNED FIXINGS**
- LIGHT TUBE COVERED WITH EASILY REPLACEABLE ANTI-STATIC FILM

Entering narrow confined spaces such as aircraft fuel tanks, small control rooms or truck pump stations, there is always a need for handy, lightweight and reliable ATEX-work light. SLAM® Hornet 18W and 36W work light is your best bet in such places. They produce a decent amount of eye-friendly light, don't heat up excessively and thanks to plenty of accessories are versatile in use, wherever you go.

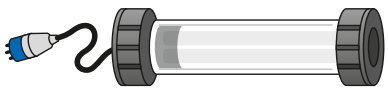
TECHNICAL DATA	HORNET 1X18W	HORNET 1X36W
Code	CSH118	CSH136
Certification	II 2 G Ex emb IIC T3 Gb II 2 D Ex tb IIIC T90°C Db IP 66	II 2 G Ex emb IIC T3 Gb II 2 D Ex tb IIIC T90°C Db IP 66
Ingress protection	IP66	IP66 (with Stahl socket IP54)
Operating temperature	-20 to +40 °C	-20 to +40 °C
Supply voltage	12VAC/VDC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC/VDC	12VDC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC/VDC
Power	18 W	36 W
Dimensions	335 x 115 mm	540 x 115 mm (A-cable in) 580 x 115 mm (C-cable in, socket out)
Weight	0.75 kg	1.65 kg
Variables	A-cable in	A-cable in, C-cable in, socket out

THE BEST PORTABLE LIGHTING FOR ALL VAST HAZARDOUS AREAS

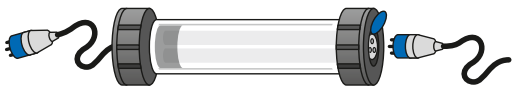


VARIABLES

SLAM® LIGHTS COME WITH TWO OPTIONS FOR SUPPLYING POWER



A Single male connection on end of power cable to power supply.



C Has an EX-approved socket on the other end of the light. This allows linking in EX-hazardous area.

SLAM® HORNET 2X36W, HORNET LINEAR 2X36W

• EX-CERTIFIED FOR ZONES 1 AND 21 • **LIGHTWEIGHT AND DURABLE CONSTRUCTION** • LINKABLE UNITS – **LESS NEED FOR POWER SOURCES** AND CABLES • IN-BUILT EX-SOCKETS ENABLE SLAM® HORNETS TO BE LINKED INSIDE OF EX-AREA • WIDE RANGE OF SPECIALLY DESIGNED SLAM® CLICK'N FIX FIXINGS • LIGHT TUBE COVERED WITH **EASILY REPLACEABLE ANTI-STATIC FILM**

A tested portable lighting solution for vast hazardous spaces, the SLAM® Hornet long luminaries can be easily linked together, providing 180 ° or 360 ° lighting as needed. Replaceable anti-static film helps keep lights clean. EX-certified socket on the light allows you to move and alter the lighting installation without having to switch off the power. Hornet long tubes can be ordered with any major EX-socket built-in. The Hornet long tube is an antistatic, easy-to-service construction. The Hornet Linear is ideal for situations where 360 degree lighting is not necessary i.e. for wall or ceiling fixed solutions.

TECHNICAL DATA	HORNET 2X36W	HORNET LINEAR 2X36W
Code	CSH236	CSHL236
Certification	II 2 G Ex emb IIC T3 Gb II 2 D Ex tb IIIC T90°C Db IP 66	II 2 G Ex emb IIC T3 Gb II 2 D Ex tb IIIC T90°C Db IP 66
Ingress protection	IP66	IP66
Operating temperature	-20 to +40°C	-20 to +40°C
Supply voltage	24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC/VDC	12 VDC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC/VDC
Power	72 W	72 W
Dimensions	865 x 115 mm	1020 x 115 mm
Weight	2.7 kg	3.0 kg
Variables	A-cable in, C-cable in, socket out	A-cable in, C-cable in, socket out

EX-TRANSFORMER ON THE MOVE

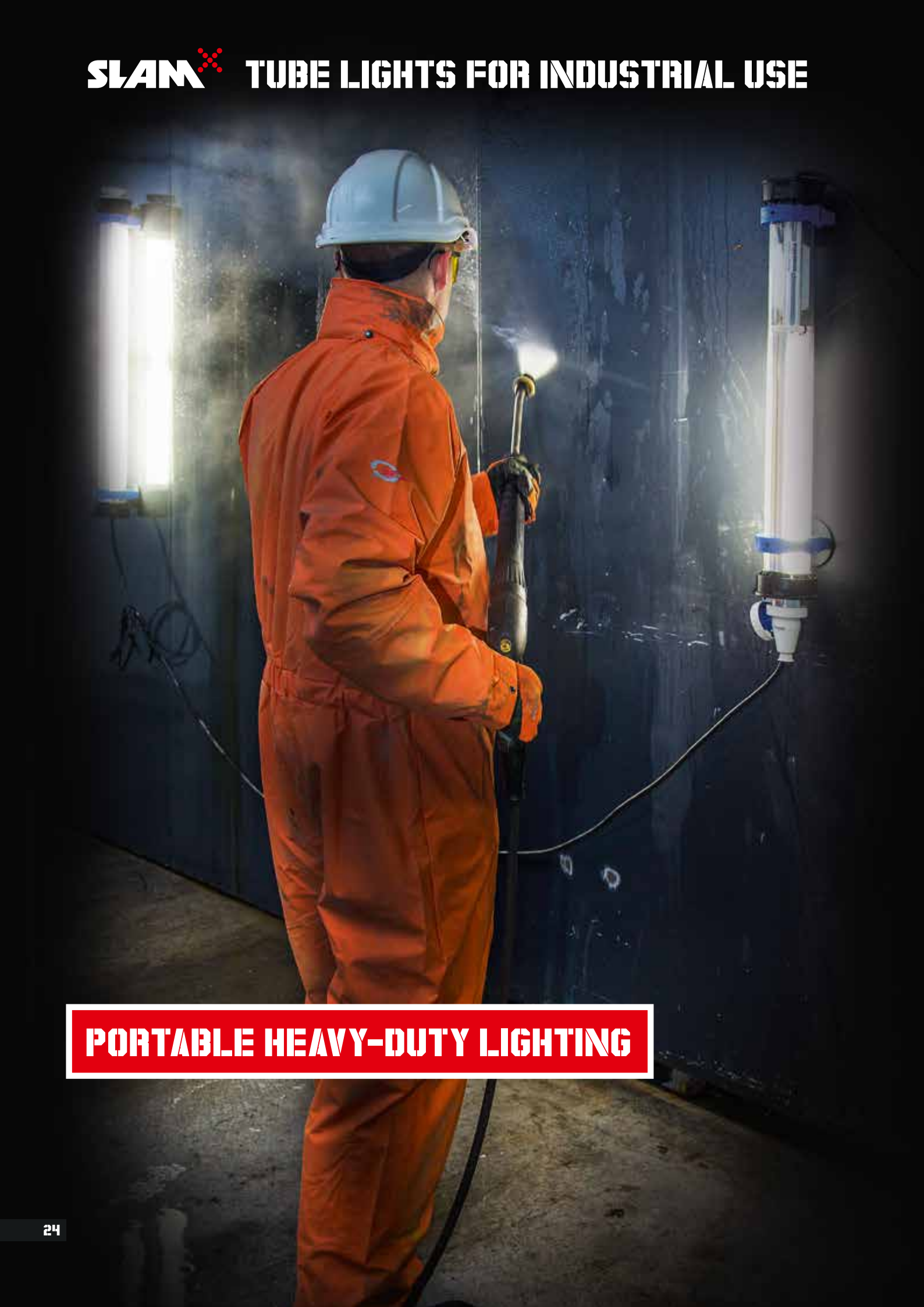
SLAM® TRANS 200EX, SLAM® TRANS 400EX

• EX-CERTIFIED FOR ZONES 1 AND 21 • **FULLY PORTABLE** TRANSFORMER WITH COMPLETE EX-CERTIFICATION • ERGONOMIC HANDLES AND SHOULDER STRAP • CAN BE MOVED WHILE POWERED ON • **ELASTIC AND SOFT** ENCLOSURE BOUNCES WHEN HIT • AVAILABLE WITH **2 OR 4 SOCKET OUTLETS**

For temporary lighting, a portable transformer that can take in 110–230V and supply safe current to hazardous areas is critical. The first and only EX-certified portable transformer on the market, SLAM® Trans can easily be carried by handles or shoulder strap. You can safely move the transformer from one place to another without having to power down. This is the only EX-certified transformer on the market with a soft shell as opposed to stainless steel shell. This makes it extremely durable and long-lasting – and a bouncing effect is guaranteed when dropped from a decent height!

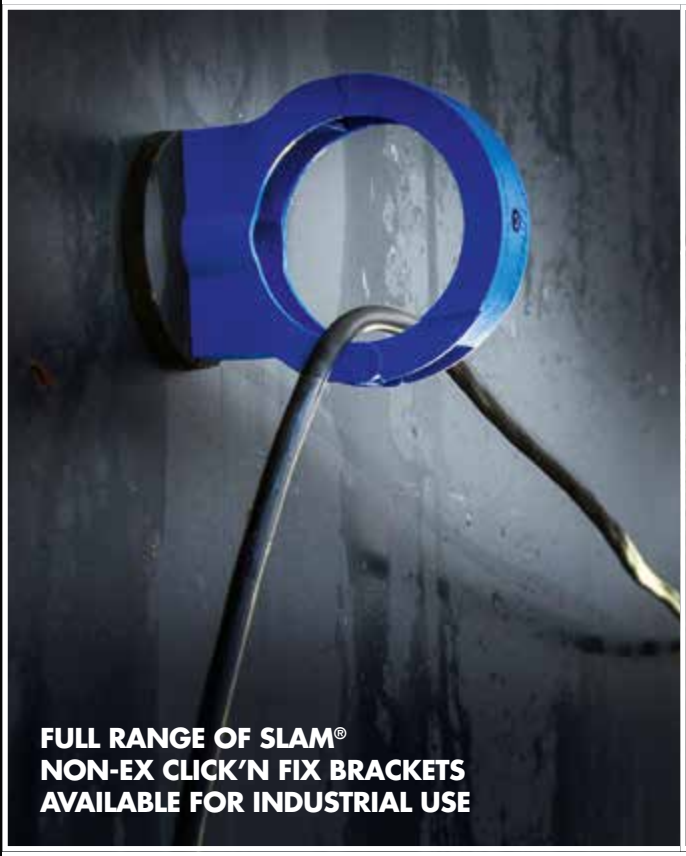
	HIGH-TEMP! 	
TECHNICAL DATA	**TRANS 200EX**	**TRANS 400EX**
Code	CSTR200EX	CSTR400EX
Certification (equipment certificate)	II 2 G Ex e mb IIC T4 Gb II 2 D Ex t IIIC T70°C	II 2 G Ex e mb IIC T4 Gb II 2 D Ex t IIIC T70°C Db
Ingress protection	IP66	IP66
Operating temperature	-20 to +50 °C	-20 to +40 °C
Supply voltages	230VAC	110VAC – 230VAC
Output voltages	12VAC – 24VAC – 48VAC	12VAC – 24VAC – 48VAC
Output current	max. 10 A	max. 16 A
Power	200 VA	400 VA
Dimensions	532 x 356 x 313 mm	532 x 356 x 313 mm
Weight	17 kg (with 10 m cable)	19 kg (with 10 m cable)
Surface materials	Dissipative elastomer and aluminium	Dissipative elastomer and aluminium
Variables	Ex socket outlets 2 or 4 pcs (types upon request) Supply cable type and length upon request Plug upon request	Ex socket outlets 2 or 4 pcs (types upon request) Supply cable type and length upon request Plug upon request

SLAM TUBE LIGHTS FOR INDUSTRIAL USE



PORTABLE HEAVY-DUTY LIGHTING

SLAM® TUBE



• STRONG LIGHT OUTPUT • **FOR WET CONDITIONS** (IP66) • **DURABLE, YET LIGHTWEIGHT** CONSTRUCTION • WIDE RANGE OF LIGHT OUTPUT OPTIONS

The tube series provides you with all the elements you might need in rough conditions: waterproof enclosure, strong and non-blinding light output. It is easy to install on scaffolds, tripods, walls and roofs – making the actual set-up of temporary lighting less time-consuming and expensive.

				
TECHNICAL DATA	**TUBE 1X18W**	**TUBE 1X36W**	**TUBE 2X36W**	**TUBE LINEAR 2X36W**
Code	CST118	CST136	CST236	CSTL236
Ingress protection	IP66	IP66	IP66	IP66
Operating temperature	-20 to +40 °C	-20 to +40 °C	-20 to +40 °C	-20 to +40 °C
Supply voltage	12VAC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC	12VDC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC	24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC	12 VDC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC
Power	18 W	36 W	72 W	72 W
Dimensions	335 x 115 mm	540 x 115 mm	740 x 115 mm	1020 x 115 mm
Weight	1.25 kg	1.55 kg	2.55 kg	2.8 kg
Variables	A-cable in	A-cable in, C-cable in, socket out	A-cable in, C-cable in, socket out	A-cable in, C-cable in, socket out

SLAM GRAND LIGHT FOR INDUSTRIAL USE

PORTABLE WORK LIGHT FOR VAST SPACES

SLAM® GRAND 3X40W

• **STRONG 3X40W LIGHT OUTPUT** (3 LAMPS IN 1 ENCLOSURE) • EACH LAMP AND BALLAST IS INDEPENDENT (IF ONE FAILS, OTHERS KEEP WORKING) • **PRISMED DIFFUSER** ALLOWS A SMOOTH AND LARGE LIGHT CURVE • **LIGHTWEIGHT** • TWO BUILT-IN SOCKETS FOR LINKING

When you need efficient lighting for a vast space SLAM® Grand is the best option. Three large fluorescent lamps generate light independently within a single Grand unit, if one ballast fails, the others will not be affected. Sockets on either end of the unit can be used to chain Grands together. The Grand puts out excellent, smooth 180-degree light that can be positioned in any direction. Despite large size, the total unit weights only 9 kilos, allowing truly portable use.

TECHNICAL DATA	GRAND 3X40W
Code	CSG340
Ingress protection	IP54
Operating temperature	-20 to +40 °C
Supply voltage	24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC/VDC
Power	120 W
Dimensions	780 x 345m x 255 mm
Weight	9 kg
Variables	A-cable in, C-cable in, socket out with 2x sockets

ACCESSORIES

TO MAKE YOUR LIGHTING SOLUTION COMPLETE

SLAM® CLICK'N FIX SERIES
EX-CERTIFIED AND ANTISTATIC

- EX-CERTIFIED • **EASY AND FAST** FIXING SYSTEM • **DIFFERENT OPTIONS** FOR FASTENING
- ALL CLICK´N FIX BRACKETS COME WITH SECURING SCREWS

SLAM Click 'n Fix is the easiest fixing system for portable lighting. No lighting system is complete without anti-static brackets to ensure every part of it is safe. You can find SLAM-brackets that suit most surfaces, even or un-even. All the brackets are durable and easy to use. Every Click´n Fix comes with a securing screw for improved safety.

SLAM® MAGNETIC BRACKET

Strong and fully antistatic magnetic fixing that does not require separate bonding wires! Also **good for cable control**, get rid of those cables lying on the floor. In The SLAM Magnetic bracket comes in two different versions. A bracket that fixes solidly to the magnet and a floating bracket for uneven surfaces such as corrugated iron.

BEFORE:
Extra bonding wire needed.

NOW:
No bonding needed.

SLAM® SINGLE BRACKET

Imagine a situation where you need to attach the work light onto the surface where no magnet or other part can attach. With SLAM Single Bracket you have an option of screwing the bracket firmly onto the surface and attach the work light there. This is an ideal solution for example for wooden and brick walls.

SLAM® SCAFFOLD BRACKET

This EX-certified antistatic bracket is specially designed to attach to scaffolding pipes, **ideally suited for industrial settings** such as painting work. The bracket includes a pipe contact part with sharp teeth and a tightening strap to ensure fast mounting.

SLAM® UNISTRUT BRACKET

In specific industries where Unistrut® -tracks are used, **the SLAM Unistrut Bracket is the perfect solution**. The bracket is equipped with Unistrut -part to enable proper fixing safely and without headache.

SLAM® S-HOOK BRACKET

For pipes and scaffolds it may sometimes be advisable to attach with an S-Hook. **SLAM® S-Hook Bracket unites them all: work light, the fixing bracket and S-Hook-system**. This is without a doubt the perfect solution in areas where you want to make the installation with convenience and without too much time wasted.

SLAM® S-HOOK KIT

Approved to Ex-area use SLAM® S-Hooks. Two hooks in one kit. Verified to EX-area use.

SLAM® HANGING STRAPS

You can count on adjustable hanging straps anywhere you go. **They are flexible, literally do not contain any stressing weight and may be adjusted (tightened) in line with your work site requirements such as pipes, masts and supports of various sizes**. They are also easier to demount rather than conventional cable ties.

SLAM® PROTECTIVE FILM

All SLAM® work lights come with a protective film over the light housing. When the lights get dirty, **the protective film can be removed and replaced** with a new sheet. 10 pcs in one set. Available to all SLAM® lights.

SLAM® EXTENSION CABLES AND SLAM® CABLE REELS

• EX-CERTIFIED FOR ZONES 1 AND 21 • COMPLETELY ATEX-CERTIFIED AS EQUIPMENT • **IDEAL ELEMENTS** FOR SETTING UP A TEMPORARY SLAM-LIGHTING SYSTEMS • REEL EQUIPPED WITH **PROPER ANTISTATIC WHEELS** • PART OF SYSTEM ATEX- CERTIFICATION OF SLAM TANK SETS

A comprehensive SLAM® solution is available when you need a movable electrical distribution system to Ex-hazardous job sites. Thanks to SLAM® cables and cable reels you can bring the electrical distribution close in one safe and fully certified package. Suitable for all supply voltages and all major Ex-sockets available.

The SLAM® Cable Reel 16EX gives you a long distance power source in hazardous job sites with 1 or 2 sockets and maximum 150m output cable. It ensures electrical distribution in an easily portable and safe way.

The EX-certified SLAM® Extension Cable is ideal for complete temporary SLAM® lighting system. The extension cables may be a maximum of 25 m long and equipped with any conforming EX-certified plugs and mobile sockets (such as CEAG, ATX, Stahl or Marechal).

TECHNICAL DATA	REEL 16EX	EXTENSION CABLES EX
Code	CSR16EX	CSEC16EX
Certification	II 2 G Ex e d IIC t¤ Gb II 2 D Ex tb IIIC 120°C Db IP 66	II 2 G Ex de IIC T4 Gb II 2 D Ex tb IIIC T120°C Db IP 66
Ingress protection	IP66	IP66
Operating temperature	-20 to +40 °C	-20 to +40 °C
Supply voltage	12VAC/VDC, 24VAC/VDC, 42VAC/VDC, 110VAC/VDC, 230VAC	12VAC/VDC, 24VAC/VDC, 42VAC/VDC,110VAC/VDC, 230VAC
Cable lengths	Small reel 15–50 m cable Big reel 50–80 m cable	1–25 m cable
Dimensions	Small reel 460 x 550 x 275 mm Big reel 580 x 720 x 325 mm	–
Operating current	16A (max)	16A (max)
Variables	1C: With one Ex-socket 2C: With two Ex-sockets	1C: With one Ex-mobile socket
Cable types	Orange: PUR Yellow: Metal braiding + PUR	Black: Rubber Orange: PUR Yellow: Metal braiding + PUR

SERVICES

THE SERVICES PRESENTED HERE ARE IN ADDITION TO OUR STANDARD PRODUCT SERVICING AND SERVICE TRAINING. SERVICE TRAINING CAN BE ORGANIZED IN OUR OR THE CLIENT'S FACILITIES ANYWHERE IN THE WORLD.

ENSURE THE BEST USE OF OUR PRODUCTS WITH DESIGN AND TRAINING

ON CALL EXPERTISE

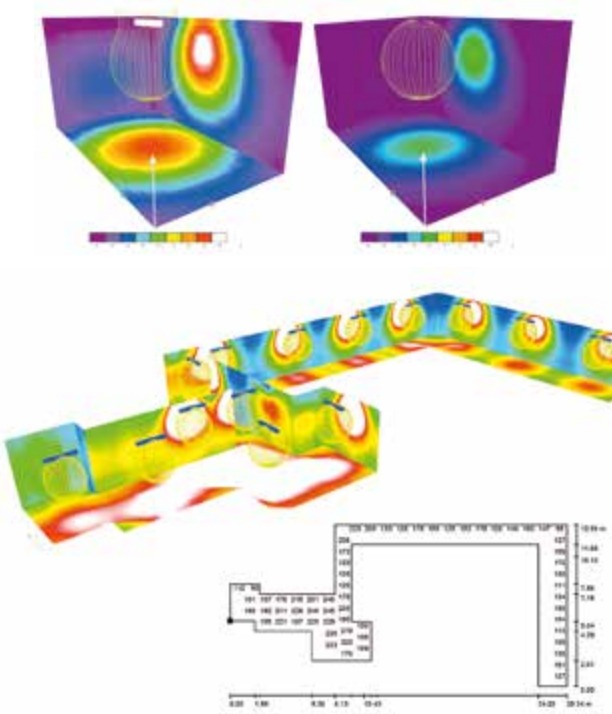
SLAM® is more than just off-the-shelf products. To get the right lighting that is adequate and provides a safe environment to work in, the installation needs to be designed and planned carefully.

EXPERT LIGHTING DESIGN SERVICE

With this service, Atexor puts its expertise in designing temporary lighting solutions for EX-rated hazardous areas to use for the benefit of its clients. This service incorporates all the planning and documentation needed to **ensure a proper temporary lighting solution** is designed for the client's space.

Atexor uses its **in-depth knowledge and special design tools** to assess the lighting needs for the defined space. The assessment takes into account applicable standards, and calculations are made to ensure adequate light is present in all areas of the space, leaving no dark corners or blind spots. Proper exit lighting is also included in the design.

Temporary lighting options are presented with schematic drawings of the proposed installation and precise lumens calculations for the space.

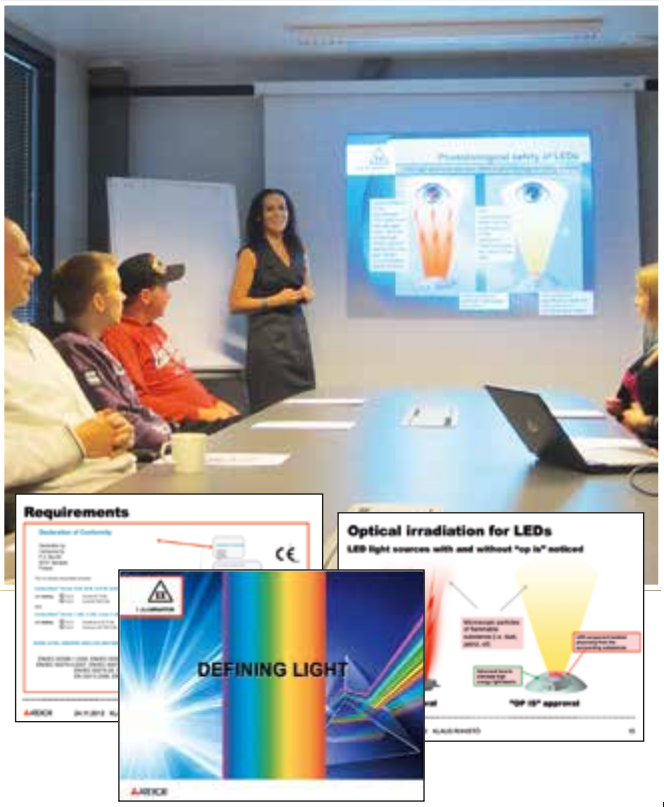


ATEXOR TRAINING

Better illumination means better performance. That is the main object of Atexor Training. The courses bring clients up to date on **all the key aspects of safe temporary lighting**. Each course is tailored for the specific needs of the client and can be held at the client's or Atexor's premises.

The courses can cover anything from basic to advanced information about safety and temporary lighting. The core explanations and discussions typically focus on what **good lighting means when working in confined spaces** and how much light is really needed for a given area.

Special issues such as the ATEX directive, Optical Irradiation, and many others can be included as well.



MICA

PRODUCTS

MICA-BRAND

MICA® is the leading brand of portable lighting for professional use since 1983. MICA®-products are of equal high quality to SLAM®-products. All MICA®-products are developed and manufactured by Atexor in the same facilities in Finland as SLAM®-products. This ensures the consistent and reliable quality of each lighting solution. From the very beginning, Ex / GOST / ATEX / IECEx -certified safety handlamps have been a core part of Atexor's MICA® range.

THE TECHNOLOGY

Developed in conjunction with professional users around the world, the system combines highly advanced electronics with practical design. MICA®-products make use of latest LED-technology and best materials.

COMPLETE RANGE

From powerful industrial hand lamps to compact lamps for close quarters, you can find exactly what you need from the MICA®-range. Every rechargeable and dependable MICA® tool is designed and manufactured for extreme situations. MICA®-products are available as both EX-protected and as non-EX-protected for conditions, that do not require EX-protection.

You can always find the right product no matter what your occupation or working conditions are. MICA®-products are ideal for example for industrial emergency lighting, mining, military, construction, service & repair, railways, as well as search and rescue.

ADDED SECURITY

MICA-products have many extra functions that increase the safety of their users. Most models are available with the Mica EM emergency function. When the handlamp is in a charger, it can detect a power outage and turn on automatically. Many MICA®-products also come with a signalling function. Most MICA®-products come with visible battery capacity indicator and all MICA® lamps have low battery warning. Advanced electronics prevent deep discharge of the battery and indicate low battery charge. A flashing light beam tells you there is 20–30 minutes of operating time left.


BRIGHT TOOLS FOR
PROFESSIONALS

MICA® HANDLAMPS

MICA IL-800 ZONE 1 AND IL-800 ZONE 0 Ex

The MICA IL-800 benefits users with a combination of smart design and robust materials. An exceptional handlamp in many ways, the IL-800 is well suited for use in explosion hazardous areas, oil & gas industry applications, or most any other dangerous and demanding setting.

The extremely robust IL-series handlamps are widely acknowledged for their durability and technology. With high-powered LEDs providing a service life of around 50 000 hours, bulb changes are not an issue.

MICA ML-808 Ex

The Mica ML-808 is the most recent addition to the professional MICA handlamp series. The new ML-808 is the only truly pocket-sized rechargeable torch for Ex-hazardous areas. The entire construction of the lamp has been redesigned while maintaining the familiar look. The ML-808 is backed up with the trusted MICA MLC fast charger, also used with its predecessors.

Some of the MICA -range products are equipped with red/ green LED matrix for signalling.

Some examples of MICA-products can be seen here. To view all MICA-products, please visit our website on www.atexor.com

SAFETY GUIDE

HOW TO IMPROVE WORK SAFETY IN HAZARDOUS AREAS?

1 SELECT EQUIPMENT CLEARLY CERTIFIED AS PORTABLE

- Portable Ex-equipment is designed for temporary use in hazardous areas.
- Ex-certificate of such unit should clearly state the word "Portable".
- Fixed Ex-lights and Ex -hand lamps do not meet the same criteria as portable Ex-lights.

All Slam-units are designed and certified for portable use.

2 ONE EQUIPMENT CERTIFICATE PER PRODUCT

- One complete certificate for the whole unit is required.
- Standard: IEC/EN 60079-0 part 13
- Assembling a unit of separate Ex-components does not meet safety requirements.

3 SECURE EQUIPOTENTIAL BONDING IN EX-AREAS

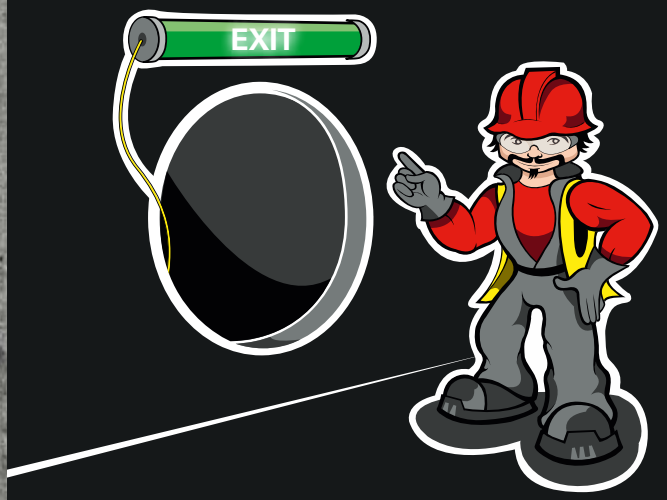
- The outer metallic parts in hazardous areas must be bonded
- Metallic tools may have a different charging level than the surrounding space.
- Failure of equipotential bonding may lead to spark and a fatal accident.

Slam-units and their accessories meet the requirements set for equipotential bonding in hazardous areas.

4 USE ANTISTATIC MATERIALS IN HAZARDOUS AREAS

- Plastic parts taken to hazardous areas must be antistatic.
- Protective plastic films and bags against dirt must be antistatic.
- Non-antistatic materials in hazardous areas may lead to spark and a fatal accident.

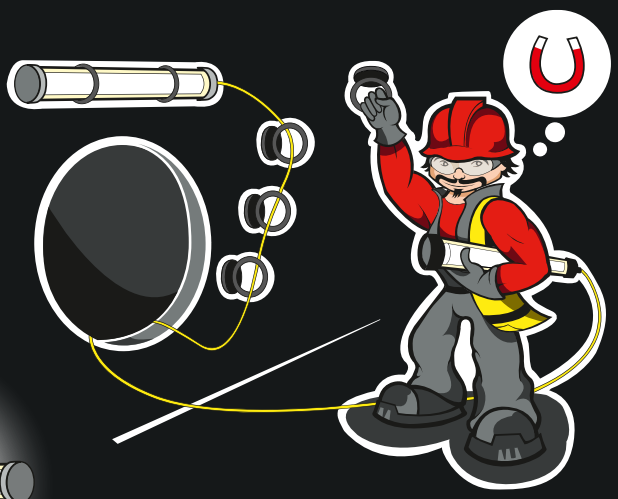
Slam-units certified for hazardous areas are antistatic. Bonding wires are not needed.



5 ESTABLISH TEMPORARY EMERGENCY LIGHTING

- Temporary exit-routes (manholes, stairways) must be designated in Ex-areas.
- Portable Ex-emergency work lights are to be used in such lighting units.
- Such units provide safe exit under power failures.

Slam Hornet Emergency is an optimum portable solution for illuminating critical exit points in hazardous areas.



6 GET RID OF CABLES ON THE FLOOR

- Cables on the floor increase the risk of injury.
- Increase safety by attaching cables to the floor or the wall.

Slam-range provides you plenty of options to reduce and control the amount of cables in job sites.

7 SAFE NON-IRRITATING LIGHT

- Raw LED-light is painful and blinding.
- Diffused light makes LED -work lights safer and more pleasant to work with.

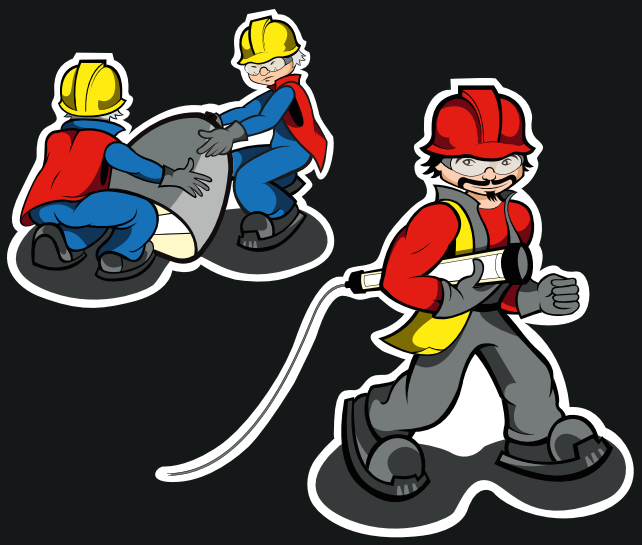
Slam SafeEye protects eyes and makes the LED light output smoother by spreading the beam without significantly reducing lumens.

SELECTION OF EQUIPMENT

STEPS FOR SAFE CHOOSING

1 INTENDED PURPOSE OF EQUIPMENT

- In case the equipment is used as portable, the certificate should state this in the description of equipment.
- If not mentioned it is likely that the unit is not tested or accepted for portable use.
- Portable Ex-luminaire and non-portable Ex-luminaire have different requirements.



2 CLASSIFICATION OF EX-AREA

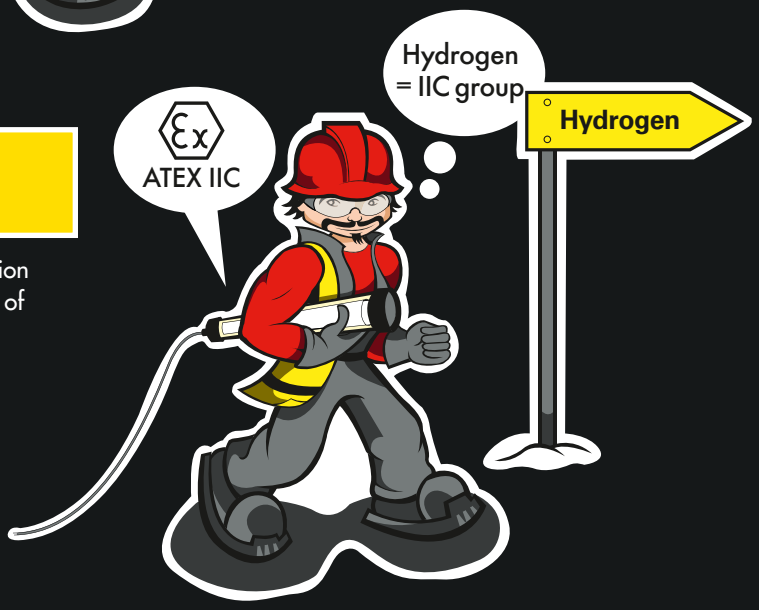
- Compare the equipment certificate with the area classification.
- Examples:
  - Equipment category 2 = Zone 1 and 2
  - EPL marking Gb = Zone 1 and 2

Make sure that the equipment CATEGORY is suitable for the particular Ex-area classification.

3 SUBSTANCE EXPLOSION GROUP

- Compare the equipment certification to the explosion group of the substance that is creating the danger of explosion.
- Examples:
  Hydrogen → Explosion group IIC
  Ethylene → Explosion group IIB
  Naphtha → Explosion group IIA

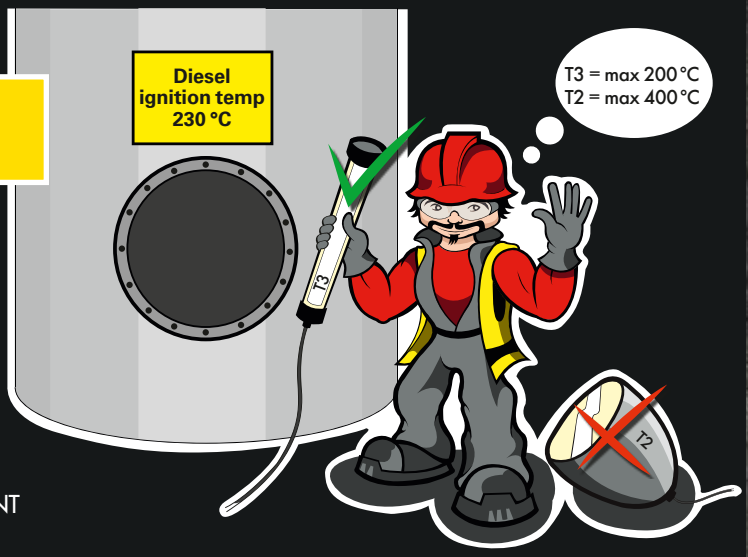
Make sure that the equipment EXPLOSION GROUP is suitable for the particular Ex-area classification.

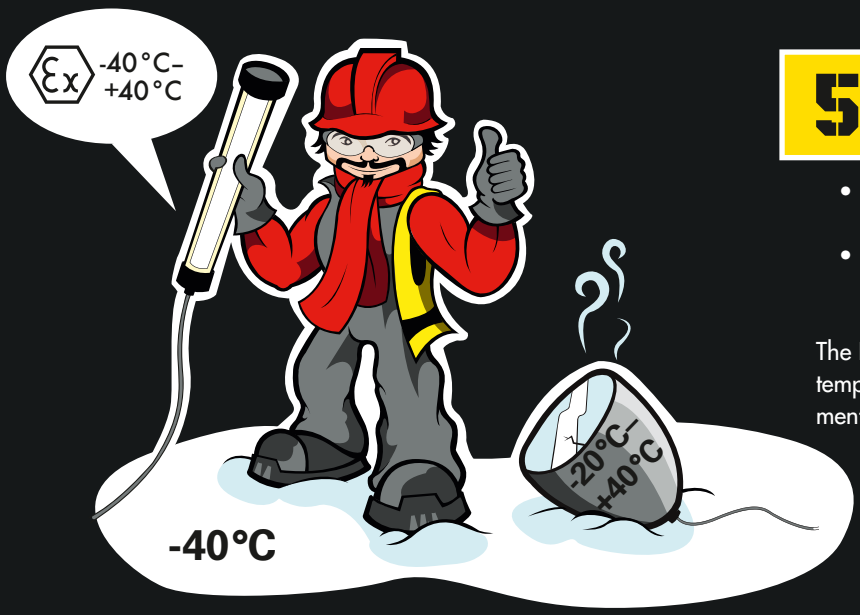


4 TEMPERATURE RATING OF EQUIPMENT

- Compare the equipment certification to the highest acceptable temperature of substance that is creating the danger of explosion.
- Examples:
  - Hydrogen → Ignition temp 560 °C = T1
  - Ethylene → Ignition temp 425 °C = T1
  - Diesel → Ignition temp 230 °C = T3
  - Diethyl ether → Ignition temp 195 °C = T4

Make sure the equipment's HIGHEST TEMPERATURE POINT is suitable for the particular Ex-area classification.





5 AMBIENT TEMPERATURE

- Notice the ambient temperature of the application of use.
- Notice also other criteria e.g. heavy mechanical stress and effect of chemicals.

The Ex-certificate is valid between ambient temperatures of -20 °C to +40°C if not otherwise mentioned in the certificate.

6 TURN-KEY SOLUTIONS AVAILABLE FOR YOU

- Further questions?
- Atexor is at your disposal

WE ARE THERE FOR YOU

WE AT ATEXOR ARE HERE TO HELP YOU WITH ANY NEEDS CONCERNING OUR PRODUCTS OR SERVICES. IF YOU NEED GUIDANCE IN CHOOSING THE RIGHT SOLUTIONS TO SUIT YOUR NEEDS AND WORKING CONDITIONS, PLEASE CONTACT US.

• ATEXOR OY • P.O.BOX 42 • FIN-00381 HELSINKI, FINLAND
• TEL. +358 20 734 3250 • FAX. +358 20 734 3298

www.atexor.com