



LEADING THE WAY
WITH LED

AL TSA leads with LED

Cutting-edge LED lighting and electrical solutions for Africa.

- AL TSA is a leading industrial LED Lighting Solutions provider in Africa, as well as the largest lighting replacement company in Africa.
- AL TSA is registered in eight countries on the African continent: South Africa (Head office), Nigeria, Tanzania, Democratic Republic of Congo, Uganda, Kenya and Mozambique, Botswana, Ghana (agency).
- Across oceans AL TSA is registered in Chile, Australia, and Saudi to follow.
- Since 2011, AL TSA has grown significantly throughout Africa within its own network as well as through agency networks.
- AL TSA currently employs 150+ people internationally.
- AL TSA distributes its own premium range of LED lamps and luminaires, assembled in South Africa, to regional offices both nationally and internationally. AL TSA also distributes leading lighting brands internationally.

We transform the way energy is consumed by providing sustainable, environmentally friendly lighting solutions to benefit people, improve communities and impact positively on society as a whole.

We strive to be the leading supplier of ground-breaking LED lighting solutions, cutting-edge technology.

CUSTOMER ORIENTATED

AL TSA staff are dedicated to go the extra mile in building long-term relationships while helping customers feel good in their environments, with compliant lighting solutions and a profitable return on investment (ROI).

We partner with our customers on their journey to sustainable energy.

OUR VALUES

INTEGRITY:

We are honest, fair and demonstrate respect to our customers and colleagues.

ACCOUNTABILITY:

We follow through with what we say and hold ourselves to the highest standards.

HARD WORK:

We deliver outstanding results through our culture of exceptional service.

TEAM WORK:

We support one another to deliver results for our customers and our company.

INNOVATION:

We seek creative and innovative ways to solve our customers' challenges.



SOCIAL DEVELOPMENT

COMMUNITY DEVELOPMENT

EMPOWERING PEOPLE



AL TSA 5-Year Guarantee

We take immense pride in our ISO9001 national and internationally certified product range. We offer our customer a 5-year guarantee with an option to extend to 10 years.

Compliance

AL TSA ensures compliant lux levels over the full warranty period.

Product Range

AL TSA offers Indoor, outdoor and speciality lighting solutions that are ideally suitable for mining and industrial sites - especially areas that require robust, hard-wearing and explosion-proof luminaires.

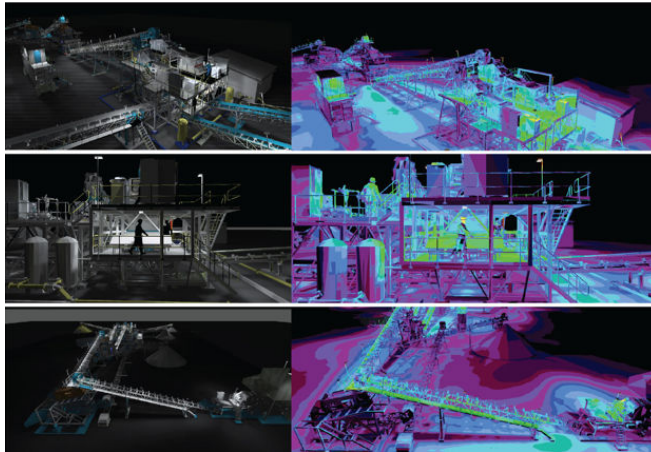
AL TSA takes pride in distributing a locally assembled range of 190+ lamps and luminaires:

- Long life -up to 100,000 hrs.
- High efficiency - up to 200lm/W.
- Compact, High-quality Profile Designs.
- Wide Operating Temperature Range -50° C to +55° C and up to 80° C on thermal resilient models.
- Easy Installation and low maintenance.
- Manufactured to withstand high, consistent volumes of dust and moist offering IP ratings of up to IP68.
- High electrical and mechanical specifications.
- All products carry a range of SANS and IEC certifications.
- Our EX range (Zone 0, 1, 2 and Zone 21, 22) carries IECEx certification.
- All products have battery backup and sensor options.

AL TSA Services

- On mine consultation.
- Lighting assessments and audits.
- Lighting proposals / ROI .
- Lighting designs.
- Replacement projects.
- Energy efficiency and optimization calculation.
- Eskom demand side management.

Lighting Design Simulation



Key Indicators	Total	
Quantities		
Old Qty Replaced	9,077	
New Qty Installed	6,342	
Power and Energy Saving		
Total Old Power	1,147,301	
Total New Power	457,916	
Max Power Saving (W)	689,385	60%
Monthly Old Energy (kWh)	580,968	
Monthly Energy Saving (kWh)	352,392	61%
Maintenance Saving		
Maintenance Rate (Annual % of Initial Cost)	20%	
Annual Saving on Maintenance	R 1,902,600	
Financial		
Total Supply Cost	R 11,901,705	
Total Installation Cost	R 1,124,230	
Total Installed Cost	R 13,169,935	
Cost per kW	R 28.76	
Preliminary & General Cost	R 658,497	
Contingency	R 395,098	
Crushing & Disposal	R 127,078	
High Lift Equipment	R 163,500	
Total Project Cost	R 14,350,608	
Potential Eskom DSM Subsidy	R 1,347,898	
Potential Eskom 12L Subsidy	R 469,292	
Total Project Cost Less DSM Subsidy	R 12,533,417	
Monthly Electricity Saving	R 659,347	
Monthly Financial + Maintenance Saving	R817,897	
Payback Period (Months)	15.3	
Net Monthly Cashflow Position for 5 yr rental deal	R 864,293	
Environmental Impacts		
Annual Savings of SO ₂ (Tons)	33.5	
Annual Savings of NO _x (Tons)	17.7	
Annual Savings of CO ₂ (Tons)	4,186	



Bringing sustainability and increased safety to the pipeline

AL TSA is the leading supplier of cutting-edge indoor, outdoor and explosion-proof LED lighting solutions. Our lighting solutions are purpose-made for hazardous environments where igneous liquids, gases, dust or vapours are present.

Lighting the way to sustainability

Efficient and effective lighting plays a key role in operator safety and visibility. Inadequate illumination and dark shadows between different zones or work areas can be serious risks to safety.

Whether it's an upstream, midstream or downstream oil and gas facility, there are areas within the facility where workers are exposed to vibration, dirt, grime, chemicals and highly inflammable material. These areas pose an increased risk to workplace safety. It is therefore critical that the selection of luminaires for these areas provide effective lighting that reduces the risk and improves safety standards.

AL TSA are experts at lighting solutions for hazardous areas. Our experience in this field guarantees that correct illumination in all areas will provide the highest level of safety for people and equipment.



Applications

- 1 HAZARDOUS AREAS
- 2 EXTERIOR FUNCTIONAL
- 3 INTERIOR FUNCTIONAL
- 4 PLANT AND EQUIPMENT
 - Winder house.
 - Processing plants.
 - Storage facilities.
- 5 TOWERS
- 6 PARKING AND PATHWAYS
- 7 SECURITY
- 8 ROADWAY
- 9 VEHICLE LIGHTING
- 10 WAREHOUSES
- 11 CONVEYOR

Ideal Products

Highbays

Floodlights and Highmasts

Bulkheads

Streetlights

EX Linear

EX Floodlights & Vapour Proof

Bulkheads & Vapour Proof

EX Streetlights

Conveyor Lighting

Solar Streetlights

Solar Floodlights

REFINERY SITE EXAMPLE



Hard-working and hard-wearing lighting

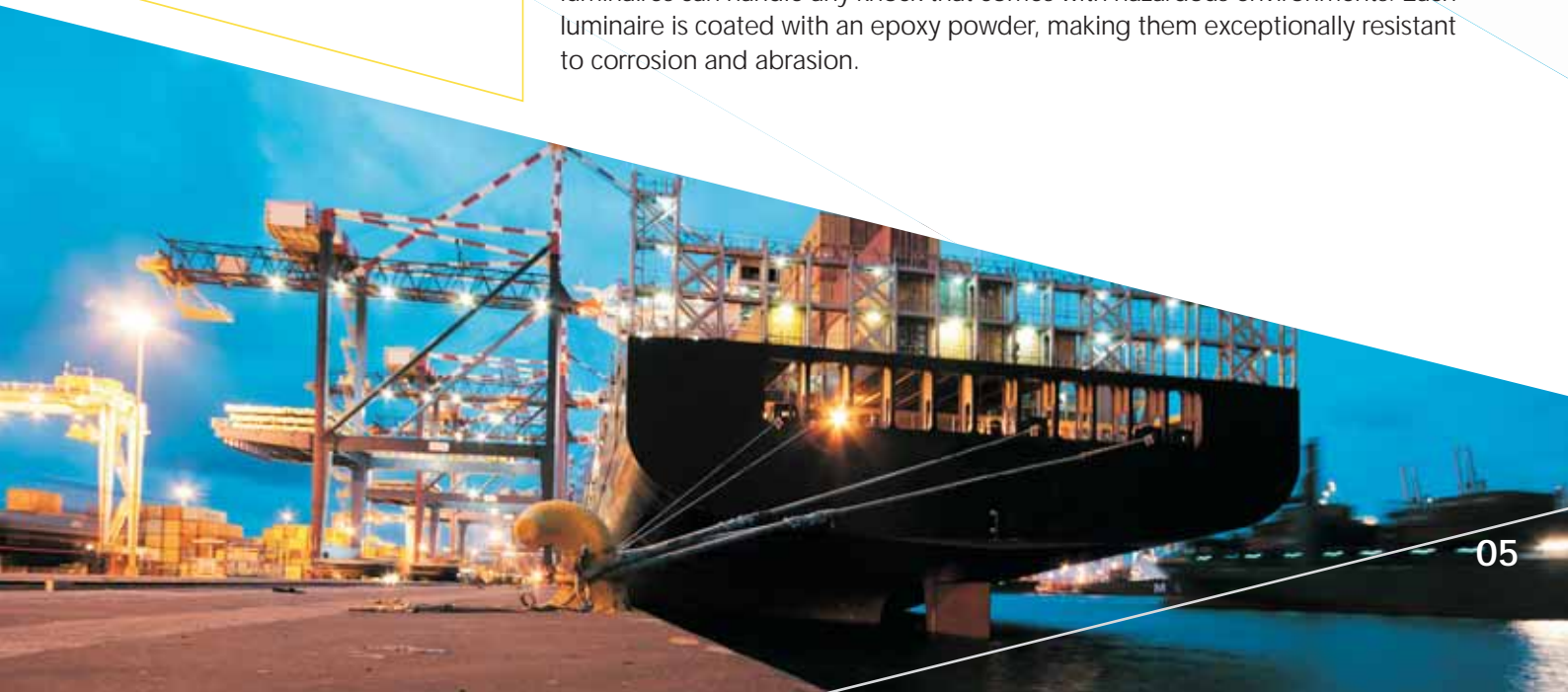
Reliability

ALTSAs luminaires have optimal thermal management that allows for a longer lifespan than the metal-halide/fluorescents traditionally used in the oil and gas sector. Our indoor and outdoor LEDs have a lifespan of up to 100,000 hours and are backed up by our 5 year guarantee. Given the low failure rate of our electrical components, ALTSAs LEDs are built to last.

The LED chipsets and drivers cater for high energy efficiency. This means that ALTSA luminaires require little or no maintenance and will continue to provide excellent quality of light for the duration of their lifespan.

Durability

ALTSA luminaires are engineered from high quality materials. This guarantees their suitability for each application in zone-rated areas. The robust design and high impact resistant tolerance (ranging from IK08 to IK10) means that our luminaires can handle any knock that comes with hazardous environments. Each luminaire is coated with an epoxy powder, making them exceptionally resistant to corrosion and abrasion.





Functionality

ALTSA luminaires are suitable for gas environments - Zone 0, 1, 2, Zone 20, 21, 22.

Our luminaires are ideal for high volume dust environments - dust groups include IIIC, IIIB and IIIA zones.

ALTSA's range of luminaires can withstand a wide temperature differential (-50°C to +70°C) including hot surface temperatures. Temperature classification zones range from T1 to T6 zones.

Gas	Dust	Characteristics
Zone 0	Zone 20	Highly likely to be present for long periods of time (>1000hrs per year) or even continuously
Zone 1	Zone 21	Possible but unlikely to be present for long periods of time (>10<1000hrs per year)
Zone 2	Zone 22	Not likely to be present in normal operation or infrequently and for short periods of time (<10 hours per year)

IECEx and ATEX Certified Lighting Solutions

IP65 or higher rating

Robust and durable design to withstand high temperatures

Corrosion resistant

80+ Colour Rendering Index



IK10 IP67

SANS



Various EX Compliant Protection Methods

[Ex i] Intrinsic Safety - electrical energy is restricted to a level which is below what which may cause ignition

[Ex d] Flameproof - enclosure that can withstand an explosion and prevent transmission

[Ex m] Encapsulation - encapsulated within a compound or resin so as to prevent contact with explosive atmosphere and limits the surface temperature

[Ex e] Increased Safety - increases security against excessive temperatures and sparks

[Ex p] Pressurized - internal pressure prevents ingress of flammable gas, vapour, dust or fibre and prevent ignition

[Ex o] Oil Immersion - immersed in a protective liquid or oil to prevent ignition

[Ex q] Powder - filled with quartz or glass powder to prevent ignition

Performance where it matters

ALTSA's LED Lighting Solutions are optimised for upstream, midstream and downstream facilities, and we can prove it:

- Improved lighting quality reduces the amount of lighting needed, lowers power consumption and improves energy efficiency.
- Input voltages ranging from AC100-300V.
- Low voltage operations DC12V,24V,36V and 48V.
- Improved environmental performance including no UV emissions.
- Enhanced quality and lighting distribution of the LED optics include a variety of symmetrical and asymmetrical beam angles.
- All our products come with a standard 5-year guarantee.

Portable Lighting Solutions

ALTSA LED Lighting offers portable lighting systems as a solution for areas where fixed lighting is not feasible or subject to theft. Our range includes Ex marked products designed for harsh and hazardous environments, whether they are in port or off-shore.

The portable luminaire range features lithium batteries with over 1000 switching cycles, ensuring high-quality performance. They provide between 2 and 10 hours of working light, offering flexibility and reliability - where you need it most.

Communication Systems

ALTSA Bluetooth Mesh (BTM) offers a smart lighting-based control system for monitoring and intervention in mining environments. Our luminaires feature integrated IoT networks for below ground control systems. With ALTSA Smart Lighting Systems, you can expect high standards of safety and reliability. Our smart illumination and user-friendly controls ensure visual navigation and easy communication above and below ground.

Benefits

- Improves general lighting levels to optimise efficiency.
- Reinforces safety procedures through visual alerts.
- Initiates alerts and emergency evacuations.
- Manages any human risks.
- Bluetooth mesh network topology allows devices to communicate with neighbouring devices and creates a robust, scalable network.
- The mesh network ensures reliable communication even in environments with obstacles or signal interference.
- Users can manage and adjust lighting settings, schedules and other perimeters via a control point (Mobile App, Control System).
- Bluetooth mesh incorporates security features to protect against unauthorized access and tampering.

Advantages

- Works off Bluetooth low energy and Bluetooth communication protocol to communicate through a wireless network.
- Eliminates the need for expensive and sensitive fibre optic cables running through rugged haulage environment. Avoids cable tampering and damage.
- Spacing of nodes every 20metre as opposed to a wired connection being required.
- Communicate through any device that has a Bluetooth low energy protocol available.

ALTSA BTM Sensors

Oxygen levels

Temperature and humidity

Electrical sensors

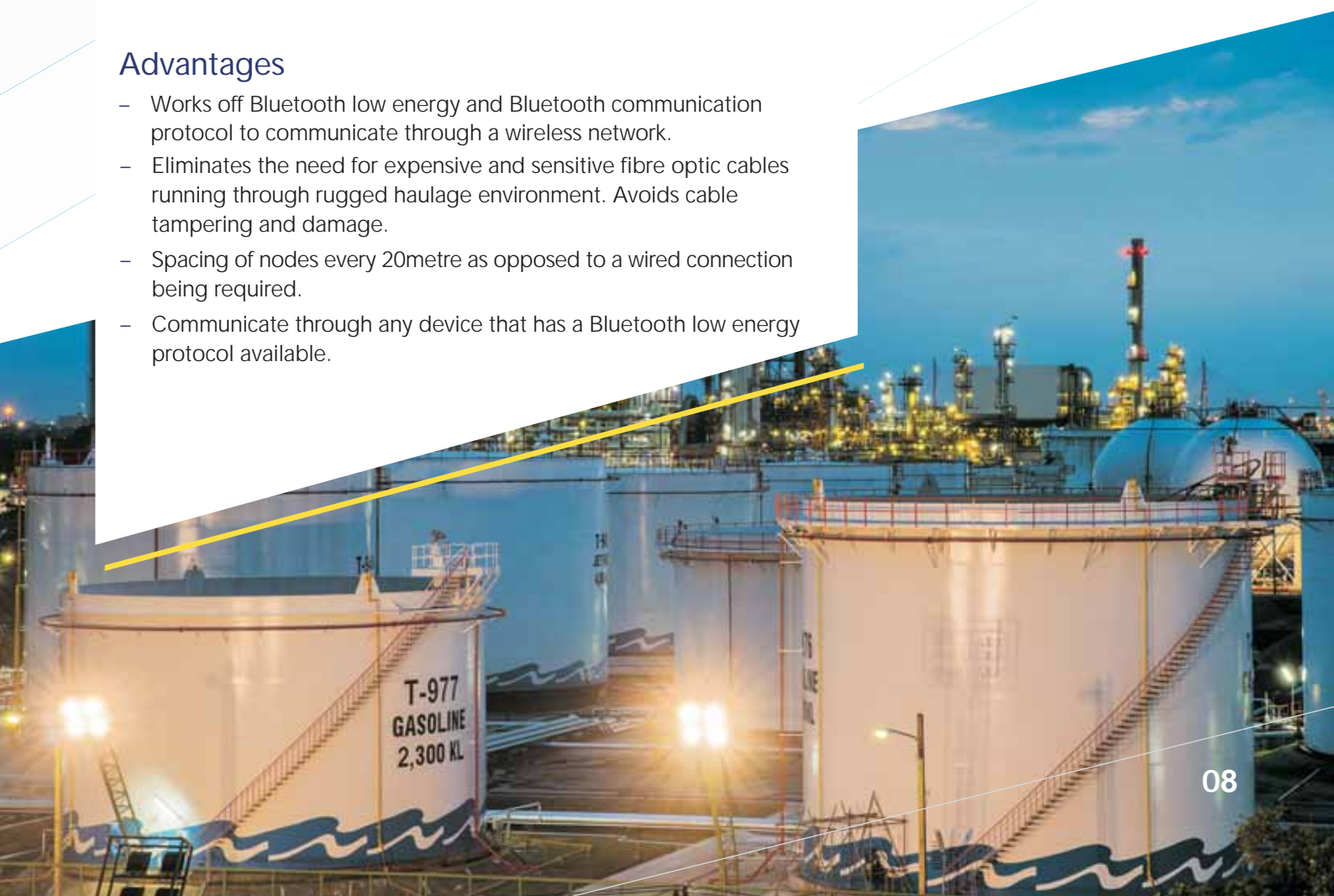
Water level sensors

Toxic gas levels (CO, CO², CH⁴, SO_x, NO_x, etc)

Loco and people monitoring

Seismic activity
(accelerometers/vibration)

Smoke detection



EXPLOSION PROOF



EXPLO TUBES
[VIEW DATASHEET](#)



SS MAX
[VIEW DATASHEET](#)



ALTA ALTBAY
[VIEW DATASHEET](#)



SWORDFISH
[VIEW DATASHEET](#)



TRITON HIGHBAY
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POLAR BEAR
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FOREST FROG
[VIEW DATASHEET](#)



SEA LION
[VIEW DATASHEET](#)



SHAFT
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GYD FLOODLIGHT
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PORTABLE FROG
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FLOODLIGHTS



SK FLOOD
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RHINO FLOOD
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MID FLOOD
[VIEW DATASHEET](#)



MINI FLOOD
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COOL FLOOD
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STREETLIGHTS



MAX II A&C
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H SERIES
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ST STREETLIGHT
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MAX SB
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S7 STREETLIGHT
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S8 STREETLIGHT
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GALAXY SOLAR
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MINI SOLAR
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AQUILA SOLAR
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EPSILON SOLAR
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SPLIT SOLAR
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FX SOLAR
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LK SOLAR
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FX SOLAR
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INTEGRATED SOLAR HIGHMAST
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OUTDOOR

HIGH MASTS



MAX HIGH MAST
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MAX STADIUM II
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MAX STADIUM III
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MEGA STADIUM
[VIEW DATASHEET](#)



VISTA
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HIGH BAYS



FLAT HIGH BAY
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SATURN HIGH BAY
[VIEW DATASHEET](#)



LINEAR HIGH BAY
SERIES
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GALAXY LINEAR
HIGH BAY
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LINEAR SERIES
HIGH BAY
[VIEW DATASHEET](#)



MAX LINEAR
HIGH BAY
[VIEW DATASHEET](#)



MX LINEAR
HIGH BAY
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HONEYCOMB
LINEAR HIGH BAY
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LINEAR SERIES
HIGH BAY
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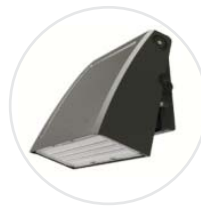
BULKHEADS



MAX BULKHEAD
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UP & DOWN
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ADJUSTABLE
WALLPACK
[VIEW DATASHEET](#)



SKEO WALL LIGHT
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CANOPY BULKHEAD
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VANDAL GUARD
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MID BULKHEAD
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BULKHEAD SERIES
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WALL PACK
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HAULAGE



HAULAGE LIGHTS
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HELUKABEL CABLE
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LINEAR



IP65 VAPOUR PROOF
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INTEGRATED
VAPOUR PROOF
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ITB TRI-PROOF
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H BATTEN
[VIEW DATASHEET](#)



OMEGA BATTEN
LINKABLE
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SLIM BATTEN
[VIEW DATASHEET](#)



BETA BATTEN
[VIEW DATASHEET](#)



GAMMA BATTEN
[VIEW DATASHEET](#)



LIGHT BAR LINEAR
[VIEW DATASHEET](#)



AL TSA BATTEN
[VIEW DATASHEET](#)



OFFICE LINEAR
SERIES
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LINEAR TRUNKING
SYSTEM
[VIEW DATASHEET](#)



VANDAL GUARD
LINEAR
[VIEW DATASHEET](#)



AL TSA CYRUS
LINEAR
[VIEW DATASHEET](#)



WRAP AROUND
BATTEN
[VIEW DATASHEET](#)



TP TRI-PROOF
BATTEN
[VIEW DATASHEET](#)



T-SERIES
TUNNEL LIGHT
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OWM STRIP LIGHT
[VIEW DATASHEET](#)

MINING STRIP LIGHTS



MINING STRIP LIGHT
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MYNA FLOODLIGHT



MYNA FLOODLIGHT
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CONVEYOR/SHAFT



CONVEYOR MASTER
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STOPE LIGHTING



ASTRA
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ELECTRA
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TUBES & LAMPS



LED BULBS
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GU10 BULB
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IP65 PAR38 & GL
[VIEW DATASHEET](#)



LED TUBES
[VIEW DATASHEET](#)



HIGH POWER LAMPS
[VIEW DATASHEET](#)



IP65 LAMPS
[VIEW DATASHEET](#)



TUBERON
[VIEW DATASHEET](#)



2G11 TUBE
[VIEW DATASHEET](#)

POST TOPS | SPOTLIGHTS | BOLLARDS



BOTANIC
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ATHOS
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CYRAH
[VIEW DATASHEET](#)



POST TOP SERIES
[VIEW DATASHEET](#)



SOLAR DIAMOND
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APOLLO
[VIEW DATASHEET](#)



ATLAS
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CYCLOPS
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RIO
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LINA
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VILA
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Reliable, quality components that go the distance

ALTSA supplies and distributes a wide range of high-quality, long lifespan electrical products essential for everyday use that are related lighting management solutions.

We facilitate custom specifications to manufacturers and offer a high degree of product format flexibility.

Solutions where you need them

ALTSA is an ISO 9001 company with a proven track record for successful installations at a number of commercial and industrial sites. Our products are IEC/SANS approved and carry multiple national and international accreditations.

We have managed numerous complex installations within the last ten years. Most notable is the Netcare Hospital project which required the installation of over 100,000 luminaires, 116 different products from our indoor and outdoor ranges. Over the project period of 3 years, we installed lighting at all the blue chip mining companies across South Africa which included switched and emergency back-up luminaires.

The ALTSA installation team employ stringent measures throughout the process to ensure the highest standards are met, consistently. Customer satisfaction is a part of our guarantee.



Commercial Cable Solutions (LV)

General Purpose House Wire (GP)

Flat Twin & Earth

Surfix (Norsk)

Cabtyre

Flex panel Cables

Welding Cable

Airdac Cable

Submersible Cable

Industrial Cable Solutions (MV/HV)

SWA Armored Cable

Aerial Bundle Cable

Aluminum Cable

Instrumentation & Communication

INTERBUS

PROFIBUS

CAN

Ethernet Cat5, Cat6, Cat7

PROFINET Cat5, Cat6, Cat7

Optical Fibe

Electrical solutions

ALTSA offers a full spectrum of low, medium and high-voltage cables catering for commercial and industrial industries.

Terminal & Junction Boxes



High Voltage Box

A high voltage terminal enclosure made from stainless steel. Ex e certified for installation of power distribution networks in explosion-hazardous areas. Equipped with M10 internal/external brass earth stud.



Splice Box

A series of splice boxes made from stainless steel. Ex op pr and Ex tb certified for safe protection of fibre optic cable splices in explosion-hazardous areas. Up to 8 splice trays, 12- fusion-type splices per tray. Equipped with return flange sealing.



Eave Box

A series of terminal and junction boxes made from aluminium. Ex e and Ex tD certified for installation in explosion-hazardous areas. Customizable configuration as per specification.

Plugs and Sockets



Plugs

PS*-7* plus for use with PS*-4* sockets in hazardous locations to create a connection point between two devices. Certified in Ex de and Ex tb for Zone 1/21 and Zone 2/22 applications. Made out of GRP. The plug cannot be removed until the switch is turned to the OFF position, this de-energizing the circuit.



Sockets

PS*-4* sockets for use with PS*-7* plugs in hazardous locations to create a connection point between two devices. Certified in Ex de and Ex tb for Zone 1/21 and Zone 2/22 applications. Made out of GRP. Each socket contains a disconnect switch.



Switch Disconnectors & Switches



Switches - Padlockable

A series of padlockable switch disconnectors and safety switches made from glass fibre reinforced polyester or stainless steel. Ex db eb and Ex tb certified for installation in explosion-hazardous areas. Various contact configurations and pole numbers available



Switches - Aluminium

A series of switch disconnectors made from aluminium. Ex d and Ex tD certified for installation in explosion-hazardous areas. Suitable for use in gas group IIC environments.



Motor Starter

A series of motor starters made from aluminium. Ex d and Ex tD certified for installation in explosion-hazardous areas. Suitable for Ex d motors. Various power ratings available. Coil voltage 415V.

Control Stations



SR Station

Control stations from the SR.CS2* series are ready for use in Class I, Division 2 environments. As all other control stations from the SR Series, these highly- flexible devices are fully customizable with accessories such as quarter turn locks, mounting brackets or gland plates.



GR Station

A series of control stations made from glass fibre-reinforced polyester. Ex de, Ex ib and Ex tb certified for installation in explosion-hazardous areas. Up to 68 operators per control station. Modern design with high impact resistance and easy installation due to easily accessible mounting point. Customizable configuration of operators, cable entry quantities and cable gland types as per specification.

Signaling Devices



Beacon

An Ex d and Ex tb certified Xenon beacon for installation in explosion hazardous areas. Made from marine grade LM aluminium. Supports automatic synchronisation with systems operation. Beacons can be set to "flip-flop" alternating mode with other units on multi-beacon systems.

ALTSA Cable Management Offering

Cable Trays

Light, Medium & Heavy Duty

Cable Ladders

Trunking Solutions

Wiring Ducts

Flex Covers

Utility Pole Systems

Conduits

Cable Management Systems

ALTSA provides cable management solutions that can ensure cable safety as well as increasing the lifespan of materials.

Cable management systems keep your working environment safe and tidy for employees and customers and prevent liabilities like tripping hazards by using floor cord covers to anchor foot snagging to the floor.

Cord covers offer twofold protection. They prevent tripping hazards around the workplace and they also help keep valuable cables from being crushed underfoot by people walking by.

Longevity

Cable management not only provides you with a cleaner and more organised workspace, it can also extend the life and maximise the performance of your cables.





AL TSA
Leading with LED

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