

Mobile Lighting Towers

With growing legislation around Health & Safety, sustainability and the environment, formal lighting schemes are becoming more commonplace in quarries.

Mobile site lighting offers efficient and cost-effective benefits for a site, which include:

- **Maintaining peak operational performance and production**
- **Improved site safety with better visibility and clarity of light**
- **Enhanced site security**
- **Lighting solutions that can service multiple areas of the site**

What is it?

With many variants of lighting tower on the market, choosing the correct lighting set for your site can be a difficult and daunting task. Clear and defined objectives are essential to determine which products should and can be used.

These can vary from ensuring limited disruption to residential neighbours, reducing environmental degradation and disturbing areas of outstanding natural beauty, along with mitigating risk and delivering improved health & safety and security on site.

Adopting a formal strategy ensures that the quarries can establish the lighting scheme's effects on the surrounding environment, along with meeting site needs and operator requirements.

The majority of lighting tower manufacturers and suppliers through their engineering department will help support this, often working with external consultants and decision makers to ensure that the correct products are specified.

Why is it important to me?

Safety is paramount when choosing a lighting tower. The operations

manual should always be consulted before use, especially with regards to stabilisation as lighting sets will more often than not be set up on uneven ground.

When choosing a lighting tower, areas to consider include:

- Safety, for example stabilising legs, an emergency stop and ensuring the mast cannot be raised without the handbrake on (only on towable units, mast slew locks etc)
- Key features such as a hydraulic mast, dusk/dawn sensor, timer etc
- Engine performance, ensuring you meet site legislation on noise and environmental standards
- Run time, the approximate length of time the machine can operate without the need to refuel
- Area illumination, the optimum level of lux should be taken into consideration to ensure site needs, legislations and environmental issues are all met. As a guide, lighting requirements for safety in medium risk areas is 20 lux, increasing to 50 lux for areas considered to be high risk

Lighting towers with advanced safety systems should also be taken into consideration, as they help to provide an additional level of safeguarding through measures such as:

- A handbrake application requirement before operation (on towable units)
- Automatic mast descent on handbrake release
- An audible alarm when lowering or raising the mast
- Correct positioning of the emergency stop button before operations can proceed

As a general guide, standard practice in starting lighting towers is to ensure:

- All four stabiliser legs have been deployed correctly
- Checking the unit is level using the variable length stabilisers legs and the built-in spirit levels
- Starting the unit as per instructions
- Turning on the lights one by one, this practice should also be followed when turning off

The following are examples of mobile site lighting solutions, which may meet your site requirements.

Knowledge & Innovation Factsheets

www.quarrying.org



TL90 Metal Halide - Key Features

- 4 X 1000W Metal Halide Light Heads
- 9M Mast
- Up to 85 hour runtime
- 100L fuel capacity (bundled fuel tank)
- Super silent operation at just 60dB(A) at 7m
- 10 units per artic flatbed/low loader



TL90 LED - Key Features

- 4 x 300W LED Light Heads
- 9M Mast
- Up to 177 hours run time
- 130L fuel capacity (bundled fuel tank)
- Super silent operation at just 60dB(A) at 7m
- 10 units per artic flatbed/low loader



SL80 Pallet Light LED - Key Features

- 4 x 300W LED Light Heads
- Up to 265 hours run time
- 170L fuel capacity (bundled fuel tank)
- Super silent operation at just 60dB(A) at 7m
- 22 units per euro trailer
- 8M mast



Where Next?

Institute of Quarrying

IQ supports professionals working within the quarrying and minerals products industry through membership and training. These factsheets are produced across a range of topics to share ideas and best practice.

Further information can be found via the careers section on the IQ website <https://www.quarrying.org/careers>

Ace Plant

To uncover more about Ace Plant and their range of innovative site solutions for hire or purchase visit www.aceplant.co.uk or contact them on 01908 562 191.

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