

Things to Consider

Light Towers

Here are some of the things that you need to consider when buying a light tower.

How large an area do you need to light?

Generally four 1000w metal halide lamps at a height of 30 feet will illuminate an area of 5000 sq meters (54,000 sq feet) to a lux level of 20, enough light for safe movement of people and machinery as well as less detailed work such as carpentry and concrete pouring. Of that area approximately one third will be illuminated between 50 to 200 lux suitable for detailed electrical work and blueprint reading.

If a larger area is required consideration should be given to:

- Increasing the number of lamps.
- Adding satellite masts powered by the base unit.
- Using higher output lamps.

Do you require additional electrical power?

On some sites it may be advantageous to have electrical power available to power tools, block heaters, welders, space heaters, or other electrical devices. A light tower can be provided that has reserve generation capability. The tower can be fitted with electrical distribution equipment to permit easy and safe-to-use additional power.

A word of caution though, diesel powered generator sets cannot be operated for prolonged periods of time under too little load. So, a tower with an over-sized generator set does occasionally need enough load to prevent excessive carbon deposits inside the engine.

How much run time do you require between refueling?

Fuel consumption is most directly affected by the load applied to the generator set. Our sales people can supply approximate fuel consumption based on factory specifications of new equipment. Using this information and the fuel capacity of the unit, an approximate run time can be calculated.

Adding auxiliary tanks to the unit or use of external fuel tanks can assist in extending run time.

Many other factors including altitude, humidity, ambient temperatures, fuel and air quality can greatly effect run time. At higher altitudes, where oxygen levels are lower, in humid areas, or in high ambient temperatures, engine adjustments may need to be made if equipment is to be operated for extended times in these conditions.

In cold conditions a fuel pre-heater may be required and the use of arctic-grade fuel improves fuel flow.

In extreme cold conditions including a radiator shutter with thermostatic coolant control will improve run time as well as increase engine life.

How much time between engine services would best suit your application?

Having engines equipped with shutdowns to protect against high coolant temperatures, low oil pressure and low oil levels, you are afforded good protection against unexpected engine failures reducing the need for continuous monitoring. Good maintenance practices are also good protection against unexpected interruptions of production and equipment failure.

Service intervals can also be increased with extended oil sumps and effective oil filtration systems.

Will the Light Tower be used in areas sensitive to noise?

If the unit is to be used in areas near living quarters, offices, and so on consideration should be given to upgrading the standard exhaust system to a residential or hospital grade silencer. Noise levels can also be lowered by sound attenuating the canopy. Care should be taken when positioning the equipment to direct radiator and exhaust away from sensitive areas.

