

# JULY NEWSLETTER

## DDSL SPECIALS



Hi,  
Welcome to our July issue newsletter. For many years we have specialised in building the larger diesel generator sets, above 1000kVA up to 4.4 MVA. What you may not be aware of is the fact that we specialise in containerising these sets in all shapes and sizes to meet the requirements of specific customers and their environment.

The main reason you don't know what we do is you rarely see the sets we build and more important you rarely hear them in operation. That of course is the main idea. Our sets are designed to work when the mains supply fails and customers are left with no power to keep their systems going. This can mean loss of everything from data, to food in freezers, loss of process and loss of lights to land planes.

Some of the most recent projects we have been involved in are shown below. If you have that special need please ring us and tell us what it is we really do love a challenge.

### Project one - University Hospital of Wales

This was a real challenge from the very outset. How to get a 3MVA, yes 3000kVA set, into a footprint of a 30ft ISO container, that's 100kVA per foot. That was all the space available to us. The next challenge was to achieve this with the least possible disruption to the hospital. Add the fact that this was a high voltage set, producing power at 11,000 volts and needed a large day fuel tank and transfer system within the same compound. We could go on with the specification, but let the photograph show what was achieved.

### Project two - Data centre in London

How can you achieve 55dB(A) from a 3000kVA set? The normal reply would be unprintable, but the photo shows what was achieved. To explain this, the average background noise is around 65dB(A) at 1 metre. So what did we do? We added a very special drop-over canopy to a standard MTU layout generator set on a very special base. The canopy weighed more than the set itself, but when the set was started, it was difficult to hear it running.

### Project three - another Data centre in London

This project required two trailer mounted temporary sets in 40ft ISO containers, to be built in short time, complete with step up transformers, 400V to 11,000V in 10 ft containers, 5000 litre day tanks built into containers and 15000 litre bulk tank. The challenge was that these needed to be in residential central London, low emissions and low noise! No problem after much work we achieved 75dB(A) and reduced smoke on start up, but then came another challenge, they needed to go under a restricted height tunnel to get to the place allocated to them. Special trailer with hydraulic system lowered the units and achieved the height.

### Project Four - A hire set with 1400kVA output and maximum 85dB(A) at 1 metre.

On paper easy to do. In reality, the set needed to withstand ambient temperatures of 50°C and have all the niceties expected of a hire set. Easy access to fuel input, easy connection of power cables, easy access to control panel and circuit breaker panel with internal lighting both AC and back-up DC emergency. All achievable, but you guessed then came the challenge, can we have this in a 20ft ISO style container? Answer YES! See photo. We achieve this with a roof mounted fan and remote radiator in a separate compartment to engine and alternator. The fan is variable speed drive controlled via temperature sensor in the engine coolant circuit.

This format of set is available from 500kVA to 1400kVA currently and we are working on designs to take this to 1700kVA+.



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