



centiel

continuous power availability



**Protects Power
for IDR 5 Billion
Multi-Pass Lab
Equipment**



SWISS
MADE

Case Study

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Location

Banten Province,
Indonesia Segment Production Factory

Challenge

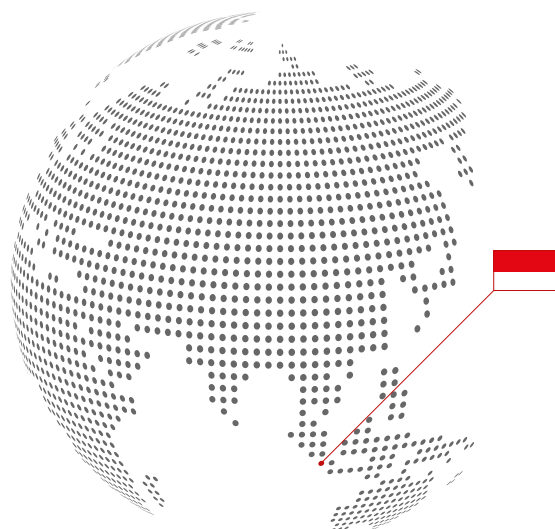
Limited floor-space, due to the size of the Multi-Pass Equipment covering approx. 95% of the room.

Power Protection Solution

60kW PremiumTower UPS capacity with 1 string of 40 VRLA Batteries

Results

Installation of swiss-made, three-phase standalone UPS, capable of handling a high-inrush current and dynamic load in a small footprint. The increased nominal rating benefits the total capacity and confidence for the user (kVA = kW). Fast and efficient installation including UPS, External Maintenance Bypass Panel, DC Switch Panel, Battery Cabinet, and VRLA Batteries



Our Customer

PT. Centielindo Daya Utama was appointed to supply and install CENTIEL's Swiss-made UPS Systems, to protect a new IDR 5 Billion Multi-Pass Filtration and Water Pump equipment by an industry-leading automotive components manufacturer with over 20 years of experience.

Our client is known for its reputation for producing the highest quality filtration products to various domestic markets located in Indonesia. Manufacturing the highest quality products requires efficient processes, accurate filter techniques, and reliable equipment. Investing IDR 5 Billion into Multi-Pass Filtration Lab and Water Pump equipment is key to delivering this level of quality.



Equally important is the investment made into the systems protecting the power supply to this equipment. The risk of damage to components during mains power failures and the cost of downtime were too high therefore investment in a reliable, efficient UPS system capable of managing the high inrush current during start-up was essential to protect the IDR 5 Billion equipment.



The Project

The selection process involved an interview and presentation by Centielindo and a rigorous review of the product specification by the client. Centielindo had previously worked with the client on similar projects and understood the importance of this process. The project called for a 60kW UPS system with 10 minutes autonomy with a particular focus on the UPS's capabilities when handling dynamic loads and high inrush currents. The UPS also need to fit within a small space, the dimensions of the UPS and its high efficiency were also areas of focus. Providing a full product presentation and a list of

the available solutions, Centielindo were able to demonstrate the CENTIEL's suitability and instil confidence into the client that their valuable equipment would be protected. The agreed solution was CENTIEL's best in class three-phase, standalone UPS, PremiumTower rated at 60 kW.

The project timescales were short, the UPS system needed to be in operation ahead of the Multi-Pass Equipment. Delays were not an option as the Multi-Pass installation and commissioning technician had already been scheduled to arrive from Europe.



The Challenges

The project presented the Centielindo team with several challenges, tight deadlines meant that designs needed to be signed off quickly with no room for changes later. The design included the positioning of the UPS and the associated external battery cabinets, working with limited floor-space, less than 5% of the room was allocated to the UPS system. The remaining floor-space was consumed by the Multi-Pass equipment, this meant that the external battery cabinets had to be located in a separate room.

Due to the type of equipment being protected the client had to be certain that the UPS system could manage the dynamic load and high inrush current, could a UPS with such a small footprint be capable of this? Demonstrating the 60kW system with small dimensions where CENTIEL achieve 1pf (Power Factor) $KVA = KW$, to a client that had never seen this capability in a system of this size before was challenging. However, with the technical information provided by CENTIEL, our team were able to remove any doubts from the client's mind.

In addition, every CENTIEL UPS system is designed with an electronic interlock which is a facility that links with an external maintenance bypass switch ensuring that the UPS is forced to internal static

bypass, should an operative close the external maintenance bypass switch outside of the correct bypass procedure. Some legacy UPS systems do not have this functionality which allows for the rectifier and inverter lines to work in parallel, resulting in damage to cables and fuses and exposing the critical load to risk. CENTIEL'S design ensures protection to the UPS and the load from human error.

Following the installation and commissioning of the UPS system, CENTIEL put PremiumTower to the test. While observing the dynamic load produced by the Multi-Pass equipment with an oscilloscope, the dynamic load produced was well-maintained by the UPS. The transition from mains power during a "mains failure" did not affect the Multi-Pass equipment, PremiumTower was proven to withstand the dynamic load, providing efficiency levels of 96.6%, lowest total cost of ownership and 120% overload capability.

Centielindo also provides preventive maintenance support to this client, ensuring the UPS and its batteries remain in normal operation, performing mains power failure simulations to make sure the UPS is fully operational if/when it is needed.

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