

CUSTOMER: AÉROPORT AIMÉ CÉSAIRE**EQUIPMENT:** POWER PLANT
3 x 2200 kVA**LOCATION:** FORT-DE-FRANCE
MARTINIQUE

KOHLER-SDMO ENSURES UNINTERRUPTED AIR TRAFFIC AROUND THE WORLD

AIRPORT

Opened in 1949, the international airport of Aimé Césaire Fort-de-France/Le Lamentin is ideally located at the heart of Martinique. Its infrastructure includes a freight terminal of some 9,400m² with an annual capacity of 20,000 to 30,000 tonnes and a general aviation zone, adjoining the freight terminal and control tower, designed to receive planes of less than 7 tonnes. The available surface area for aircraft parking covers some 21,000m². A car park for 1,650 vehicles and an array of shops, restaurants and business premises also form part of the airport concession.



EXPRESSION OF NEED: AIRPORT EXTENSION WITH A REQUIREMENT FOR SIGNIFICANT BACK-UP ENERGY

Celebrating its 20th anniversary in 2015, Aimé Césaire Airport is planning to modernise its facilities due to the exponential rise in freight and passenger traffic in recent years. The airport is currently reaching saturation point and it is becoming vital to create facilities able to offer the highest quality of service, against the objective of enhancing the position of Aimé Césaire Airport as a major and attractive hub.

A 20 million euro infrastructure modernisation and development project has therefore been implemented by the airport operator (SAMAC) in order to reach capacity of 2.5m passengers by 2030.

In the project programme is the addition of an extra 22,000m² to the existing 18,000m², including the construction of baggage handling areas, departure lounges and a wider range of shops and restaurants.

SAMAC therefore called on Assistance 97, an exclusive KOHLER-SDMO distributor for 25 years in Guadeloupe, Martinique and French Guyana, in order to redesign its equipment to meet the airport's growing requirements in back-up energy.



PROJECT IMPLEMENTATION: INSTALLATION OF 3 x 2200 kVA GENERATING SETS TO MEET THE GROWING POWER REQUIREMENTS

The airport initially had a KOHLER-SDMO power plant consisting of two generating sets each of 1000 kVA and one generating set of 1600 kVA.

With the extension of the airport, demand has grown to a power plant capable of supplying 7 megawatts alongside the requirement of increasing the installation's independent fuel supply while enabling the integration of existing technical installations.

In the event of a mains outage, the new power plant must be able to supply power to all of the electrical installations in the departure halls and the safety lighting system for the two air terminals that will make up Aimé Césaire Airport following the extension.

The challenge is therefore to maintain passenger flows and to prevent any flight delays or cancellations in the event of a power cut.

This is why Aimé Césaire Airport approached Assistance 97 and KOHLER-SDMO for the supply of three 2200 kVA generating sets installed in 40-foot containers, including control cabinets and the installation of two 50m³ diesel tanks and the erection of a self-stabilised 10m-high shaft.



**KOHLER-SDMO SOLUTION: A PARTNERSHIP
BASED ON CUSTOMER FOCUS AND
ANTICIPATING NEEDS**

In view of the electrical power to be supplied, the addition of step-up transformers in the containers is vital in order to convert the generating sets' low voltage output into high voltage.

Due to the space taken up by the transformers, it was necessary to adapt the equipment layout within the containers. The exhaust silencers designed to reduce noise emissions were notably fixed on the roofs.

Furthermore, specially reinforced paint was applied in order to protect the containers from rust given the humid climate in Martinique and its proximity to the sea.

Assistance 97 and Aimé Césaire Airport are delighted with the new installation. A new order is also currently in production for the installation of a fourth generating set of 2200 kVA during 2017. This requirement notably coincides with a change in the airport's air conditioning system.

KOHLER-SDMO and Assistance 97 had already anticipated this requirement as the installation can already be electrically expanded to 9 megawatts. The fourth generating set will only need to be connected up, thanks to the exhaust and civil engineering work already completed.

"Everything complies with the specifications we produced in collaboration with KOHLER-SDMO, right down to the very last detail. We are in regular contact and there is always someone available to answer any questions we may have and to propose solutions. It's a win-win partnership that works extremely well. "

Frédéric NESTY, Executive Director, Assistance 97

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