

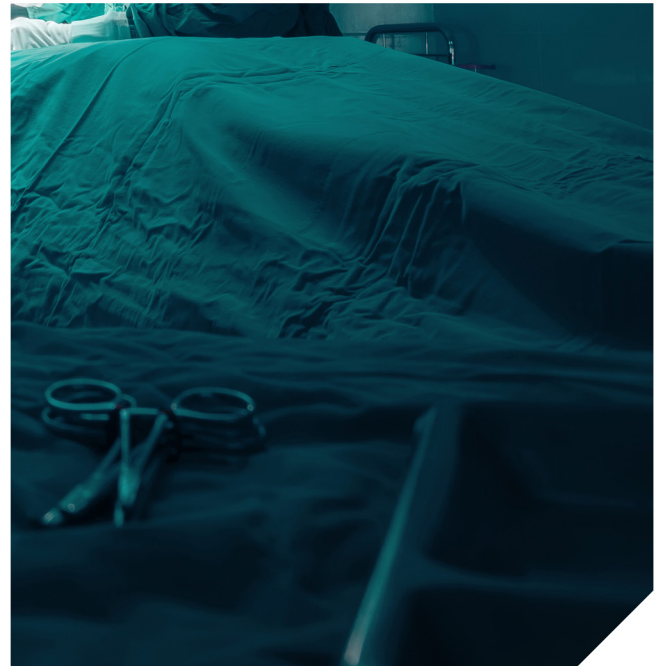
Coromatic

Operations
Secured

24/7

Østfold hospital

Backup power solution





CASE STUDY ØSTFOLD HOSPITAL

Backup power solution

The Østfold Kalnes hospital in Sarpsborg, Norway, is the Østfold region's new hospital and has become operational in stages throughout 2016. The hospital provides both specialist and general medical care for the 300,000 inhabitants of the Østfold county. The hospital also has one of the largest emergency departments in Norway and expects to receive more than 100 patients on a daily basis. The total area of the hospital is 85,500 sqm. Construction of the new hospital began following a decision by the Southern and Eastern Norway Regional Health Authority in 2010 to build a new regional hospital.

Background

The ongoing digitalization of society is also having a major impact on healthcare. Construction of the new hospital has therefore focused on future-proof operation, and on designing the infrastructure to ensure that the hospital's services are able to benefit from the digitalization process, both now and in the future.

The handling of all patient information, for example, such as medications, diagnoses and test results, is fully digital. By eliminating paperwork, the hospital expects to reduce human error and therefore increase patient safety. Many of the hospital's devices are also fully digitalized, such as X-ray units and patient monitoring.

In other words, the hospital's ability to use digital information and devices is often a

matter of life and death. And to ensure reliable and uninterrupted digital communication, the power supply is central. The power supply is also critical for life-supporting equipment in the operating rooms, the correct temperature in the wards and functioning transport systems and elevators. Securing the power supply at all hours, every day of the year, requires a stable and robust power system.

Securing the power supply at all hours, every day of the year, requires a stable and robust power system.

Solution

Early in the design phase, the hospital therefore began to plan the capacity and type of backup power solution that would be required. A main condition was meeting the requirements of Norwegian regulators. With mains power

failure the gen.sets will start up and secure the hospital with emergency power within 15 seconds. In addition, the design of the ventilation system was crucial to meet the requirements regarding sound noise.

A public procurement process was conducted during the planning phase for an emergency power solution. Quality and cost were equally important parameters in the procurement process.

The hospital subsequently selected Coromatic as both its design consultant and installation partner for the construction and installation of the actual emergency power facility.

Coromatic has in-depth experience from its participation in similar projects both here in Norway and internationally,” says Trond Vegard Stang, at Østfold Kalnes Hospital.

“In the procurement process, Coromatic demonstrated cutting-edge expertise in the field of design, project management, installation and service required for this type of business-critical emergency power.

The company also has in-depth experience from its participation in similar projects both here in Norway and internationally,” says Trond Vegard Stang, responsible for power (elektroansvarlig) at Østfold Kalnes Hospital.

Coromatic commenced the project by designing an emergency power solution together with the hospital's project management. The design and implementation of the emergency power solution proved challenging on several planes.

Firstly, the hospital has a wide range of high-voltage devices, and the construction also required a variety of technical connections. Moreover, the clear guidelines of Norwegian regulators were mandatory.

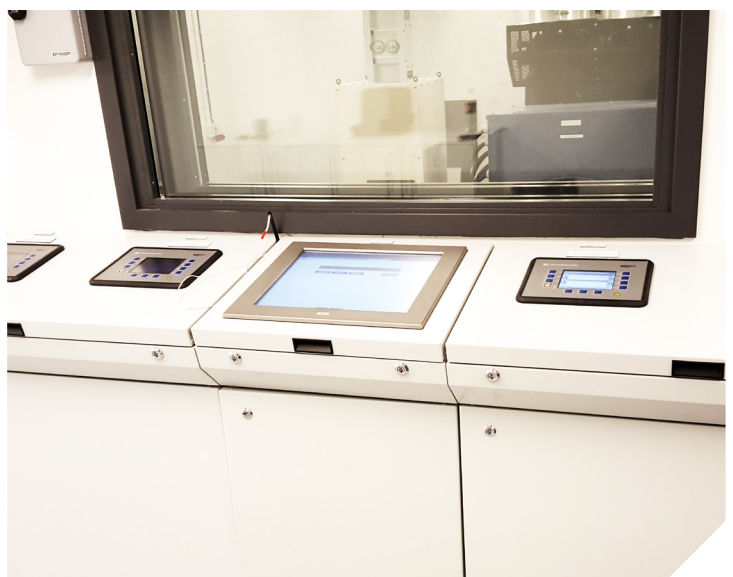


When the design phase was complete, Coromatic began working on the actual implementation and construction of the emergency power facility.

Three diesel generator sets of 2,200 kVA each were chosen. In the event of a power failure, these will supply the hospital's high-voltage line with backup power within 15 seconds.

In addition to supplying the diesel generator sets, Coromatic's contract also included construction of the actual emergency power facility and control management system. Coromatic also built a ventilation system, a cooling system, fuel solutions and a 35 meter chimney.

To ensure a future-proof facility, the hospital has also made enough room to install an additional gen.set.



Results

After the installation, which took place in accordance with the agreed plan, Coromatic worked together with the hospital to conduct extensive testing of the emergency power solution. Testing has shown that the emergency power solution has achieved the set goals.

The emergency power facility will be tested regularly, on a monthly basis, by the hospital's own maintenance staff. Coromatic has also secured a service contract with yearly maintenance and 24/7 support for the entire facility.

Sections of the new Østfold Kalnes hospital became operational in May 2016, while the whole hospital became fully operational in November the same year. The emergency power facility has already been in automatic operation during an area-wide power failure, allowing business at the hospital to continue as usual.

“Coromatic has proved a highly reliable turnkey supplier of emergency power to the new hospital. The winning concept of design consultancy combined with the actual construction and implementation has helped Coromatic take an overall approach to our needs.

In the event of a power failure, I feel very confident that we will be able to continue our business as usual,” says Trond Vegard Stang, responsible for power (elektroansvarlig) at Østfold Kalnes Hospital.



Find more information on **coromatic.no**



Delivery to more than

50

countries worldwide



Number

1

in the Nordics



Delivery to more than

50%

of the largest Nordic corporations



More than

1,000

critical facilities projects delivered



COROMATIC.no Norway Phone: +47 22 76 40 00	COROMATIC.se Sweden Phone: +46 8 564 605 90	COROMATIC.dk Denmark Phone: +45 66 17 62 60	COROMATIC.fi Finland Phone: +358 10 231 60 60	COROMATIC.com International Phone: +46 8 564 605 90
---	--	--	--	--



Coromatic ensures that organizations can keep their business operations running without disruptions. As the leading provider of Critical Facilities Solutions, such as data centers, we safeguard power and data communications supply.

