

HVAC OFFSHORE

- AHU
- SKID
- FAN COILS



When you need quality...



COVENT has supplied North Sea projects with AHUs since 1993, and with more than 20 years of experience, we have developed a range of AHUs for all kind of HVAC offshore projects.

Our range starts at 500 m³/h, and goes to 100.000 m³/h, both indoors and outdoors execution – even as 1x100%, 2x100% and 2x50% of airflow.

All Air Handling Units are customized with different solutions. Your specification is our delivery.



Indoors

Framework and corners are welded in a strong construction.

Hatches and doors screwed to the framework. Doors are normally delivered with windows for inspection of components inside.

Outdoors

Alternative outdoors AHUs, built as indoors but with roof in a sloop construction. Another alternative and a preferred execution, is a construction in the same framework construction, welded in a strong and rough execution.

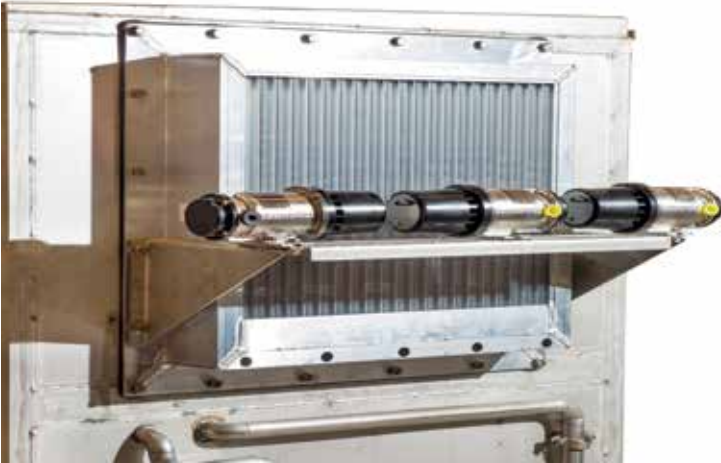
All outer skin panels in 1,5mm SS 316L sheet, welded to the framework, as a complete, tight construction. Roof in a sloop construction for water draining to the backside.



Flat-pack

Flat-pack is the ultimate alternative, when low-volume transportation space is necessary. Covent's technicians will make the assembling of the AHUs inside your HVAC room, making a complete MC/ commissioning on site or offshore where ever this solution is needed.

AIR INLET



All outdoors AHUs can be equipped with Louvre from WIDE, with or without heating element to avoid freezing in hazardous areas. To protect and taking care of the safety, we may put gas detectors in front of the Louvre.

Even a coalescer might be used just inside, to ensure elimination of humidity.

FILTER



As standard, all AHUs are equipped with CamGT filter in EU7-quality. Filter area for maintenance and handling from not-clean side are standard. Draining of water (humidity) from filters, to water trap mounted outside AHU.

DAMPER



All dampers are manufactured by NORSOK standard, either they are manual or automatic shut off dampers, backflow dampers or Fire & Gas dampers. Delivered only in SS 316L material, 3 (or 4) mm thickness. Automatic dampers are with 2 pcs of limit switch, and 1 solenoid.

FAN



For all offshore projects in the North Sea, we use only fans made in SS 316L quality, either as plug-or centrifugal fans. All fans comes with motor from company-nominated suppliers, in NORSOK standard. Fans will be supplied with VSD, IVC or without any regulation, just calculated for the motor speed. Normally delivered with DOL supply, up to 690V / 60Hz. All ATEX certified.

HEATER



Our electrical heaters are delivered with stainless steel elements and framework in SS 316L material. They are equipped with TSH and TSHH safety thermostat and a stand-still element included in the termination box. We only use ATEX certified quality. Hot water heater in material as required from project. Framework in SS 316L quality. All heaters are calculated to each project, to optimization of space and efficiency.

SOUND ATTENUATORS



We make sure that all noise from the AHU is below the required level. Our calculation software take care of the internal silencers and make the unit ready for use to your required level. If there isn't sufficient space for internal silencer, we can supply attenuators as part of the duct system, to be set on the in- or outlet from the AHU.

COOLING

When Sea water are used as cooling medium, all cooling coils are made of titanium tubes, with SS 316L fins. Framework built in SS 316L. All AHU are customized.

Coils delivered with drop eliminator and max. air velocity below 2,5 m/s. Condensation water is drained into a drip-pans and into a water trap for further draining. Water traps are always adjusted to

the pressure drop inside the AHU. Even Dx cooling coils are supplied when needed. These might be delivered with cooling machinery, integrated into the AHU. This option make the total installation offshore simple and efficient. The cooling system will be filled with gas before testing and complete FAT in the workshop.

INSTRUMENTATION



Any kind of instrument or electrical installation on AHUs will be executed in workshop preliminary to delivery from Covent. This include commissioning and test of the same.

The project defines the scope that will be delivered into the AHU, but normally an instrument panel for operating of dampers, vibration monitoring system for all motors, emergency stop of fan, transmitters of different kind, assembling of different signal to JB outside the AHU, internal lighting etc., are just some of the many features that might be included in an AHU.

Thyristor panel to electrical heater might be delivered together with AHU, as loose items, just to be installed in LER or other safe area.



SKID and FAN COILS

When an AHU isn't needed, a simple skid for fan and other items might be delivered.

Covent is a manufacturer of fan skids for different applications.

Skids might be equipped with dampers of any kind and attenuators based on the noise level accepted for in- and outlet. Skids are normally made in SS 316L quality, but for indoors application, even galvanized material can be delivered. Skids are delivered assembled on a common base frame, for 2 x 50% or 2 x 100%.

Just customized, as specification tells us.



Fan coils are another product in our range. Standard cooling capacity from 10 to 55 kW. Airflow from 1.500 to 9.000 m³/h.

Casing in stainless steel, delivered with cooling coil for chilled water, or dx coils. Even a heating coil might be installed internal the FanCoil if needed. Normally we deliver fans with EC motors, just to have a various speed of fans.

DOCUMENTATION



Documentation

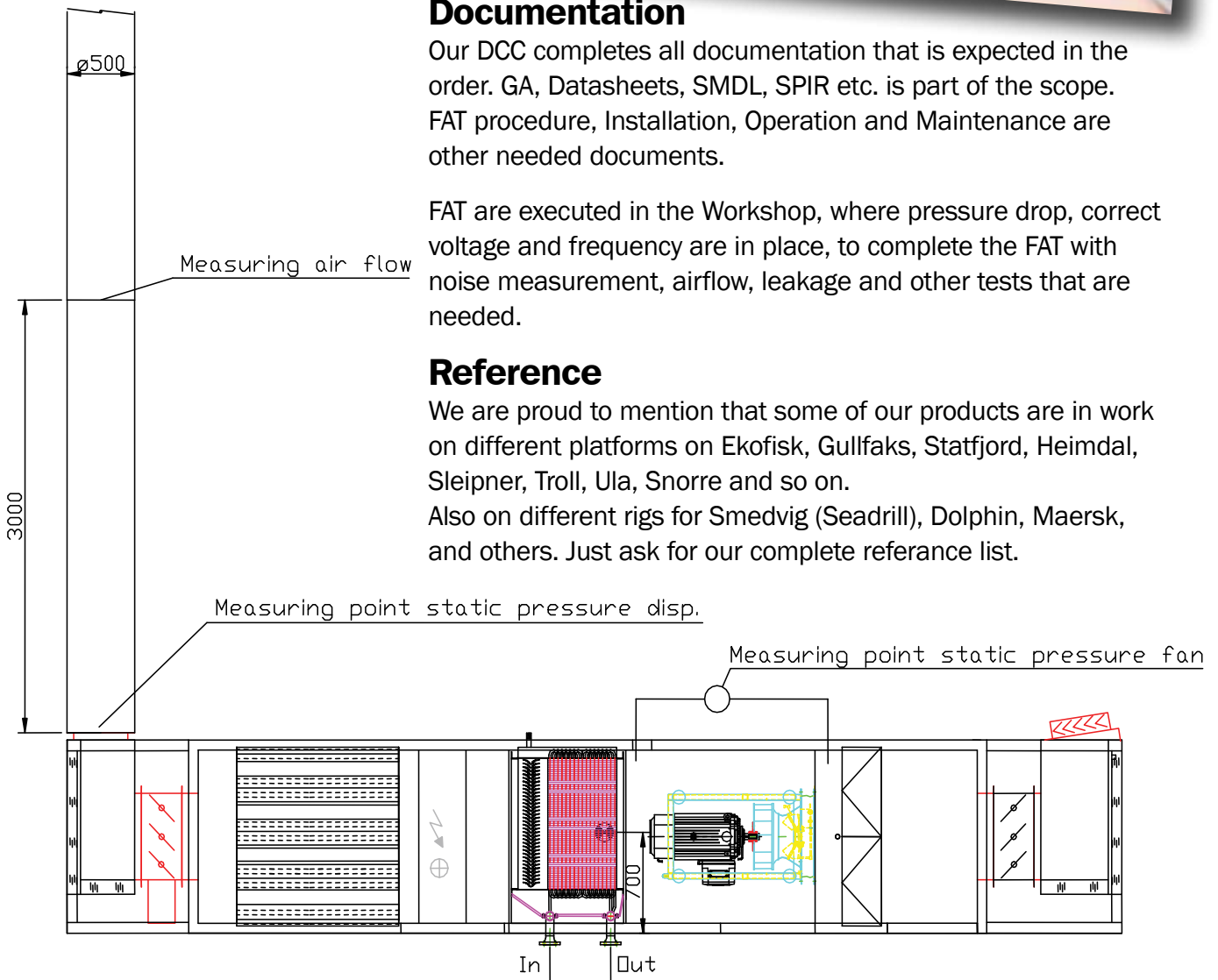
Our DCC completes all documentation that is expected in the order. GA, Datasheets, SMDL, SPIR etc. is part of the scope. FAT procedure, Installation, Operation and Maintenance are other needed documents.

FAT are executed in the Workshop, where pressure drop, correct voltage and frequency are in place, to complete the FAT with noise measurement, airflow, leakage and other tests that are needed.

Reference

We are proud to mention that some of our products are in work on different platforms on Ekofisk, Gullfaks, Statfjord, Heimdal, Sleipner, Troll, Ula, Snorre and so on.

Also on different rigs for Smedvig (Seadrill), Dolphin, Maersk, and others. Just ask for our complete reference list.





Factory in Bjerkreim, Norway.
Total of 10.000 m² manufacturing area.



The start factory of S&P in Barcelona, now just
1 of 16 worldwide.



Head office Barcelona.



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