AUTODESK **CONSTRUCTION CLOUD**™ | **Assemblin**

Assemblin Adopts Autodesk Construction Cloud on Complex Hospital Project for Greater Transparency

Having a well-made facade is great, but equally important are the inner workings of a building. This is where Assemblin, an end-to-end installation and service partner, comes in. With over 5,900 employees and operations in Sweden, Norway, and Finland, Assemblin designs, installs, and maintains technical systems, including electricity, heating, sanitation, ventilation, and automation across the Nordic region. Tasked with a large-scale modernisation project, Assemblin was in the market for a connected construction solution that increased visibility into critical project data on one platform, eliminating redundancy and making information simpler to find and access, reducing project risk across stakeholders.
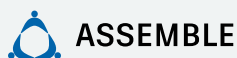
Assemblin

Customer Snapshot

FIRM SIZE:	1,000+
FIRM TYPE:	SPECIALTY CONTRACTOR
REVENUE:	$1.5 BILLION
FOCUS AREA:	INSTITUTIONAL
HQ:	HÄGERSTEN, SWEDEN

PHASE:

DESIGN · **PLAN** · BUILD · OPERATE

PRODUCTS:

AUTODESK® BIM 360®

ASSEMBLE

VALUE DRIVERS:

Cost

Quality

Schedule

Taking a Unique Approach to Technology Adoption

Dedicated to providing the highest level of service to its customers, Assemblin evaluates and implements technology to deliver smart, sustainable, and efficient solutions. With all of Assemblin's offerings in-house, the company can provide a turnkey solution that supports the construction lifecycle from design to handover.

"The difference between Assemblin and the other installation firms in the region is that we have the capabilities to support the entire construction lifecycle from design to production to the long-term maintenance of ventilation systems," explains Sophie Olsson, BIM Coordinator at Assemblin Ventilation.

The company also uses technology to increase operational efficiency and cost control, ultimately benefiting the customer.

Fredrik Engdahl, Head of Business Development at Assemblin Ventilation, says that the company has a strong team that works with software to develop unique solutions. And because their teams work closely together, they can communicate and transfer data to their customers seamlessly.

Assemblin is accelerating the adoption of technology and BIM to automate and visualise processes. This, in turn, enables the firm to drive efficiencies in coordination and communication and deliver sustainable installations that make buildings functional and comfortable."

Complex and Connected Project Leads to New Tracking Methods

In Malmö, Sweden, Region Skåne (county council) is modernising the large hospital area to create a better care and work environment. One part of the development is the new healthcare building with Skanska as the main contractor. Assemblin is contracted by Skanska and Region Skåne, and as part of the assignment Assemblin will consult on the ventilation system's planning and design, and then the company will produce, deliver, and install the equipment.

The building, which consists of two towers — 10 and 11 stories high — is interconnected with culverts and connecting corridors. The building will add more than 100,000 square meters of new space dedicated to 10 wards with 244 single patient rooms, 23 operating rooms, receptions, arrival ward for planned surgery and intensive care ward with separate places for children,

public environments with pharmacies, kiosks, cafés etc.

"It's a large and complex project, to say the least, which is why Assemblin decided to use Assemble and BIM 360 within Autodesk Construction Cloud™. The company expects the platform to improve transparency, coordination, and collaboration while reducing project risk across stakeholders.

Specifically, Assemble and BIM 360 give Assemblin better visibility into critical project data on one platform, eliminating redundancy and making information simpler to find and access.

"Everything is interconnected, and teams can visualise the project with ease. This helps reduce the risk of rework and minimise confusion. We love that the information is tightly-integrated, connected, and laid out very specifically," adds Olsson.

Utilising BIM for Visualisation, Quantification, and Asset Coding

Given the Malmo hospital project's scope and complexity, Assemblin requires a tool to keep all stakeholders on the same page.

"The installations are very tight, and you have to be in the same place with everyone else – including electricians, heating, and ventilation," remarks Engdahl. So, it's challenging both from a design and production point of view. And since it's a hospital, it's a very intense project."

While Assemblin has been using 3D modeling for takeoffs, they needed a tool that would create

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>
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> Assemblin Ventilation

seamless information sharing, in customisable views. So for this project, the company used Assemble to communicate easily with 3D drawings instead.

"Viewing the 3D model on an iPad in Assemble is a big step for us in terms of digitalisation," mentions Olsson.

Having a digital representation of the drawings gave Assemblin's team more accuracy when determining the quantity of materials and costs for the project.

"All that information allowed us to have a better understanding of what was needed and answer stakeholder questions throughout the different phases of the project," remarks Carlos Heredia Fuentes, Project Engineer at Assemblin Ventilation. "With Assemble we have a long-term clear picture of a project both as a 3D model and as an organised list."

With Assemble, Assemblin could create unique views based on each stakeholder's specific needs. The team could also enrich the model by adding highly-customisable Assemble properties to model objects.

This allowed the right people to access the necessary information much more efficiently, enabling them to view the project with a level of detail they didn't previously have.

"They could turn the model upside down and see it from every corner. They could view the different properties of the product in much more detail. I think that's a crucial thing – to see the length, height, and where things should sit," explains Olsson.

The field team also found the Assemble mobile app very easy-to-use and highly customisable. Before using Assemble, Assemblin used different colors in the drawings to show where they were in the project.

"It was hard. Then you had to scan it, so the documentation process was cumbersome," recalls Engdahl.

Thanks to Assemble, viewing the status of the project has become easier.

"Now when we are in production or have the properties installed, the project leaders can see it right away when they open Assemble," says Olsson.

She continues, "Assemble provides a more efficient and faster way to track the installation status. With Assemble, we can have a holistic view of the project in a matter of minutes, where before, we had to go out to the field and manually highlight and mark up the drawing and then go back to the office."

What's more, Assemble added transparency between the team and project owners, who now can log into the system to see the status of the installations and production schedule.

"Prior to Assemble, if the customers wanted to see what we were invoicing, they had to go to the site to check the job status," explains Heredia Fuentes. "Now, we invite them into Assemble, and they can see the status of the project and where we are in production without making the trip. That transparency is invaluable.

Improving Communication and Coordination with Digital Construction Technology

"BIM 360 allows us to easily organise and manage project documents and data in a folder structure that's unique to this project," says Heredia Fuentes. "Our team can readily access and review the latest model and receive daily updates to see how the project is progressing."

With a common data environment in BIM 360, communication is streamlined between stakeholders, and there is a single source of truth for models. This benefits the project in the following areas:

Quality: Having the ability to better communicate with each other and view model properties in a lot more detail enables project stakeholders to work efficiently and produce higher-quality output.

Cost: The improved project processes lead to time savings, better collaboration, and more accurate data, helping Assemblin get more done with less.

Schedule: BIM 360 paves the way for more transparency, allowing stakeholders to check on the project status and take action quickly – which is a must, given the tight schedule of the project.

All in all, the Assemblin team said that BIM 360 made everyone's job a lot easier, and even those who were hesitant to adopt new technologies saw tremendous value in the platform.

"With other tools, our experience was that some people might like technology while others aren't so keen to adopt it. But in the case of BIM 360, it's been extremely positive. Even people who are considered 'anti-digitalisation' had a great response," says Engdahl.

Onward and Upward

Assemble and BIM 360 help Assemblin be more efficient and profitable – and not just in this single project.

According to Engdahl, the Malmo new healthcare building project serves as an excellent model that they can use for future projects.

"For us, this project is an excellent base, and there are processes that we could incorporate into other projects and offices."

The standards and processes that Assemblin developed will benefit and streamline the company's initiatives going forward.

For example, the checklists that the team used are repeatable and can be applied to future projects. As Olsson explains, "stakeholders can choose which checklist they want to have on their project, and then it's created. So it's like a standard that they are loading in whenever they start a new project."

What's more, the learnings and data the team has gathered will significantly improve Assemblin's forecasts and bids. "In the future, our prognosis will be much better, and forecasts will be much more accurate," says Engdahl.

And since BIM 360 improves Assemblin's visibility into a project's assets, the team will better manage those assets and ultimately allow the company to be more efficient.

Finally, Autodesk Construction Cloud makes handover a breeze, thanks to the fact that all project data is stored in a single platform.

Engdahl recalls when the team had to change project leaders and needed to hand over the project from one person to the next. "We were sitting in the meeting going through the process, and with Assemble and BIM 360, the handover phase took minutes instead of hours. It's just so much easier."

Autodesk Construction Cloud helped Assemblin streamline its processes across the entire project lifecycle, assisting stakeholders in collaborating better while improving efficiency and profitability without compromising on quality.

And the best part? This is just the beginning. Because Assemblin developed standards and repeatable processes with Autodesk, those benefits will serve the company in the years to come.