IFS software powers £200m Aston Martin F1™ Team smart factory project for both client and prime contractor

Running a £200m project for Aston Martin Aramco Cognizant F1™ Team, main contractor McLaren Construction Group is creating a major new Smart Factory campus and wind tunnel testing facility at the team's site in Silverstone. With a shared focus on performance, precision, efficiency and real-time data, both organizations use IFS software to run their day-to-day business operations.

Expanding the original 1991 factory, and with phased completion from May 2023, three new buildings spanning 37,000 m2 will house the team's design, manufacturing and marketing operations, a staff hub and logistics center and a new wind tunnel with a steel-belt rolling-road. Occupying land across the road from the historic Silverstone Circuit, it will be the first time an F1™ team has occupied a new, purpose-built factory in almost 20 years.

Like Aston Martin F1™ Team, the principal contractor, McLaren Construction Group, uses IFS across its operations. In the case of this project, IFS has helped the group to minimize the amount of construction waste leaving the site to just 10%.

"McLaren Construction are delighted to be working with Aston Martin F1™ Team and Ridge Partners to deliver this state of the art, first new build F1 facility since 2004, located adjacent to the famous Silverstone racing circuit."

Gary Cramp, Managing Director Midlands and North, McLaren Construction Group

About Aston Martin F1™ Team

Aston Martin Aramco Cognizant F1™ Team is a British motor racing team competing in the Formula One World Championship. Based in Silverstone, United Kingdom the company has over 600 employees.

A unified, connected, sustainable campus

The new factory will house every manufacturing resource within a single campus for the first time. The Street, a 160m long road-like thoroughfare, runs right through the center of the facility, physically linking all operations. The factory will be the first F1 facility to take full advantage of smart factory intelligence systems, effectively operating as a sophisticated, highly efficient machine. Designed from the outset to be a wireless, adaptive, streamlined intelligent facility, its information streams, monitoring systems and manufacturing processes are all tied together by data in the cloud.

Sustainability is integral to the new campus, both during construction its throughout its operational lifetime. Stuart Rutledge, Project Manager for Aston Martin Aramco Cognizant F1™ Team, explains the design ethos. “Firstly, the fabric of the building enjoys high performance cladding, minimizing heat loss in winter and heat gain during summer. Secondly, air source heat pumps we will reduce the need for gas heating. Thirdly, solar panels will generate 1.8 megawatts of panel of power for our own use on site, automatically directed to high usage areas like manufacturing. For Building 1 alone, these measures will save approximately 230 tons of carbon dioxide a year. “From a construction standpoint, we've also managed to eliminate 90% of waste leaving the site, meaning only 10% or less is going to landfill,” he says.

Growing success with IFS

The Aston Martin F1™ Team first implemented IFS three years ago, initially for financial data. Since then, the solution has been implemented company-wide, including production, engineering and manufacturing operations, and, with the mobile App, trackside at race events globally. Application modules currently in use include Finance; Supply Chain including Warehouse Data Collection; Engineering & Product Design; Manufacturing; Document Management; Quality Management; and CRM.

Enabling focused, performance-driven outcomes

Competing globally in 23 F1 championship races a year, the team is responsible for the concept, design, manufacture, build and logistical delivery of the cars throughout the world. It’s a demanding, complex and fast-paced operation. Explains Simon Cayzer, Production Control Manager for Aston Martin Aramco Cognizant F1™ Team, “The bill of materials for the car, excluding gearbox and engine, is around 20,000 items. We’ll have around 60,000 shop orders for our internal manufacturing, and our externally sourced parts run to some 28,000 purchase order line items per year.”

Getting upgrades and parts to the circuit as fast as possible is critical. “There are many instances when we have to deliver parts extremely quickly,” says Cayzer. “They could be released at five o'clock in the evening and required at the circuit by following morning, so it’s vital we can see the status of our parts or our assemblies from anywhere in the world. IFS gives us the real-time data and ERP agility to ensure accurate visualization of our components and assemblies and where they are on their journey.”

Benefits seen using IFS

- Increased visibility
- Enhanced efficiency
- Better project control
- Automated processes
- Easier to share and analyze information
- More accurate decision-making

"We've built a solid foundation here with IFS in the last three years. We're very much looking forward to continuing that digital journey through our new bespoke Formula One™ Facility."

Simon Cayzer, Production Control Manager, Aston Martin Aramco Cognizant F1™ Team

Moment of Service™

In what ways does Cayzer feel IFS supports the team to achieve race-winning performance? “Our moment of service is essentially the start of the race. At that point as a production team, we've delivered all we can to the race team. IFS is at the heart of ensuring all planning, data, procurement, manufacture, build and logistics happen in time to make our car leave the grid when the flag drops.”

Find out more

For further information, e-mail to info@ifs.com, contact your local IFS office or visit our web site, ifs.com