



Extract Technology's Rapid Execution of 7 Custom Lab Benches



Delivering Innovation to Protect

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The Need

An £11 billion company in the chemical industry, with 13,000 employees around the globe working to provide emission control technology for the natural environment, required a containment solution for its automotive business. Some of the company's processes and chemical reactions involved in the development of its automotive catalytic converters carried a level of health and

pollution risk if potent particles were released to the outer environment and manufacturing personnel were exposed to them.

Recognizing a need for operator and environmental protection, the company began a £1.5 million project termed the "E3 development project," which brought together processes from varying parts of one of the company's key sites in the UK into a centralised location—the E3 building. This allowed for a more streamlined and lean manufacturing approach, reducing operating costs and providing an area to contain the process and chemicals. For some of the processes involved, it was not cost-effective to upgrade and relocate various machines to the E3 building.

The project was initially kicked off with the tender requirement for seven off-containment benches to handle small scale powder processing achieving



a containment level of less than 10 micrograms/m³ over an eight-hour time weighted average.

Extract Technology was awarded the project based on the following:

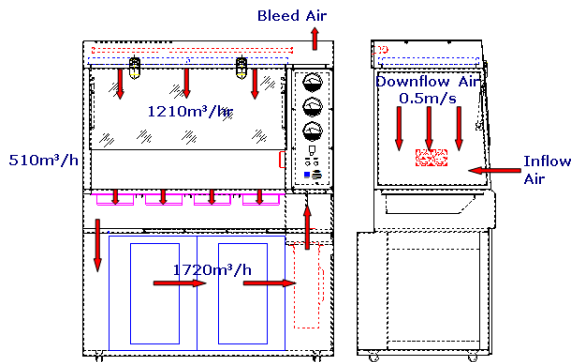
- Equipment quality
- Excellent customer service
- Aftermarket customer support
- Overall value

The lab bench was selected based on its suitability for the customer's process and its ability to achieve the required containment level.

The Solution

The Extract Technology Lab Bench is a self-contained ventilated work enclosure having re-circulatory airflow and a multi-stage dust filtration system.

Clean / HEPA filtered air is supplied from the downflow ceiling plenum over the whole working area. This vertical airflow effectively pushes any dust generated in the safe working area downward, through the perforated base plate into the filtration system. The vertical push/pull airflow captures dust at source, minimising contamination of apparatus and operator clothing.



Airflow is introduced through the open sash aperture to ensure contaminants are contained within the work area. The bench itself is provided on castors with a flying lead and plug for connection to a power supply.

The Challenge

Extract Technology was awarded the contract in January 2017 and it was essential that the machines were installed and commissioned in May 2017. The main contributor in Extract Technology's selection was minimal risk of schedule slippage to the client's May deadline. Extract Technology does not have to rely on sub-contract fabrications, as the manufacturing process is completed entirely in-house. Additionally, all other functions (e.g., electrical, mechanical, pneumatic, PLC programming and CAM), validation and project management are completed within Extract Technology's facility. This ensures reduced risk of delayed delivery.

Extract Technology delivered this client's order in full in four months. The client has subsequently stated they would definitely work with Extract Technology again and that all aspects of their relationship with the Extract team, from sales to engineering, was an excellent experience.

Learn more at extract-technology.com.

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