

NEW 30,000ft² FACILITY

The beginning of 2016 was a major turning point for Axium Process when we moved into a 30,000 ft² facility, trebling the size of our original manufacturing area.

We fully streamlined and integrated all our processes creating a truly “one stop shop” that encompasses professional CAD drawing office facilities, a CNC equipped machine shop, MIG, TIG, Automatic Orbital welding and metal fabrication departments, a high specification metal polishing and surface finishing department as well as bead blasting and an electro-polishing operation.

We also invested heavily in comprehensive inspection facilities and testing procedures to meet the stringent validation requirements for the most demanding of applications.

Axium Process is one of the UK’s leading hygienic stainless steel fabricators and our expertise has been built on years of diverse and practical experience with projects in major sectors ranging from nuclear, aerospace, pharmaceutical, food, beverage and dairy applications. Our scope of supply includes fully automatic filtration systems, stainless steel frameworks, heat exchangers, wedge-wire and sintered mesh filters, tanks and pressure vessels through to component customisation, pipework fabrication, tees, bends and manifolds.



FLYING HIGH

Working directly with key partners, over 90% of Airbus A320 aircraft in production today are fitted with Axium Process stainless steel tubular components.

We manufacture high volume and bespoke stainless steel sheet metal, handrail and plumbing fittings for cabin architecture and galley monuments. With total commitment to strict aerospace quality, cer-



tification and delivery standards, we continue to invest in new technology and skills to further develop our position in the industry.



BESPOKE EQUIPMENT FOR PILOT SCALE UNIT OPERATIONS

Design, development, supply and commissioning of pilot scale unit operations:

- MF, UF, NF & RO membrane pilot plants
- Membranes (all configurations)
- Customised membrane housings

- Interchangeable heat exchangers designed for steam or electrical heating
- Air Ducts • Fluidised Beds
- Ion Exchange Units
- Mixing Skids (interchangeable baffles and impellers)
- Flow test rigs

STOP PRESS...

HP350 FILTRATION CELL

NEW!

Flexible and versatile bench-scale unit designed for rapid assessment of membrane selection – contact our projects department for further information.



GLOBAL PRODUCER OF ICE CREAM IS USING EFFLUENT TREATMENT SYSTEM DESIGNED, BUILT AND COMMISSIONED BY AXIUM PROCESS

R&R Ice Cream, the World's third largest ice cream manufacturer, has completed a four year, £25 million investment programme at its Leeming Bar factory in North Yorkshire which includes an on-site effluent treatment system, designed, built and commissioned by filtration specialists, Axium Process.



The investment programme helped R&R to increase its production capability at the site by more than 20% and meant that the capacity of Axium's on-site effluent treatment plant had to be increased from 600,000 litres to 1.5 million litres per day.

The effluent treatment plant was expanded with very little disruption to R&R's daily production and uses primarily both Ultrafiltration (UF) and double pass Reverse Osmosis (RO) separating technology.



The 2.5 fold expansion scope of supply also incorporated fully automated additional processes designed, installed and commissioned by Axium to further enhance the quality and condition of the raw effluent entering the membrane system: removable sump debris catcher, aeration and mixing of large effluent holding tanks, triplex liquid solid separator pre-filtration, vertical shell and tube pasteurizers system (powered using excess heat from an onsite CHP plant), temperature controlled air cooling system and a pH

adjustment tank were all new additions to the plant and located on the same size foot print as the old plant.

The superior quality conditioned raw effluent is now passed through the 4 x UF skids, with the UF permeate passed through a pair of double stage, double pass RO's to recycle 90% of the effluent received to clean water for reuse back in the factory. The 10% concentrated waste from the UF/RO batch process is retained and transported to an anaerobic digester where it is used to produce bio-methane.

IT'S NO YOLK...

Membrane technology can provide revenue streams from by-products.

Egg processors are finding membrane technology of great interest as recent trials have proven that extracted protein and albumen from egg shells, once purified, can be used in animal

feeds and may even be supplied into the human food chain.

Membranes are excellent for this type of application as there are 6-8 different proteins in egg that can be of interest, and if separated in a pure form, can provide an additional revenue that is both sustainable and of high value.

RESEARCH & DEVELOPMENT

Our pilot plant trials and new in-house laboratory are available as an extended research facility for manufacturers wishing to develop and optimise their processes, helping them to determine at an early stage a process feasibility, plant design and an evaluation of the likely operating costs.

Operating across a wide range of industries, we routinely carry out trials for a wide range of applications including dilute sugar stream concentration, dyestuff desalting and concentration, process waste water and waste volume minimisation, effluent treatment, precursor purification, final filtration of bottled water, recovery of cleaning chemicals, enzyme concentration and purification, clarification of fruit juice and quarg cheese production to name but a few.

We work closely with each customer drawing up a test protocol prior to the trials and providing a sample analysis together with a detailed report upon completion.



'CAN DO' ATTITUDE GOES A LONG WAY



Axium Process has earned an international reputation for its filtration expertise and 'can do' attitude, supplying filtration systems to Europe, Serbia, Ireland and the Middle East. We include as part of our services: product and process development, suggestions where possible to reduce plant costs, design, build, validation, testing and qualification to the highest levels, technical and training support and an after sales support package that will be tailored to accommodate customer requirements.

FMB Oxford are beaming at Axium's quality fabrication

FMB Oxford, a recognised and established leader in the supply of beamlines and beamline components to

the scientific community, are using a series of complex pipework fabrications produced by Axium Process to transfer liquid nitrogen as part of the cooling system used on their beam technology products.

The company was looking for a stainless steel manufacturer that could deliver a high end, custom fabrication service where quality, integrity of welds and a reliable delivery were consistently high.

Axium Process specialises in high end stainless steel fabrication and routinely produces and installs bespoke pipework



fabrications where system integration or high tolerances are critical.

inTank Technologies Clean up with Pure-Screen Filters



inTank Technologies is a One Stop Shop for Tank Cleaning Solutions and prides itself on the level of technical and on-site support that it can give to its customers. For this reason, the company chose Axium Process as one of its key filter suppliers because of the level of service and



technical support Axium Process has become renowned for throughout the process industries.

"Axium's Pure-Screen wedge-wire filters are used to filter any debris from

CIP returning solutions as well as to protect the tank cleaning heads from scaling and plugging. Not only do we receive a high quality stainless steel filter that is both robust and versatile, but we can have total confidence that we are being supplied with the right solution for the right application" states Jackie Kennedy, inTank Technologies Director.

Axium Process manufactures a comprehensive range of 316L stainless steel filters which can be fabricated to customer requirements and includes wedge-wire and sintered mesh elements designed for filtration levels from 5 micron up to 6000 micron as standard.

Continuity, quality, traceability

Weld integrity is essential in the industries we operate in and to further strengthen our position in the manufacture of bespoke hygienic stainless steel fittings and compo-



nents our orbital welders can provide the "perfect weld" for customers that require continuity, quality and a high level of consistency. By using detailed welding procedures which are stored in the machine's memory and quickly retrieved, our tubular components can be rapidly reproduced to the same specification providing comprehensive weld data logging for customers requiring full traceability.

WE SPECIALISE IN HIGH END MACHINED AND FABRICATED COMPONENTS TO CUSTOMER SPECIFICATION



Axium Process is your 'One Stop Shop' specialising in design and customised fabrications, providing technical expertise and delivering engineering solutions to meet your needs.



NEW LITERATURE

316L STAINLESS STEEL FILTERS

- Custom built • High-specification
- Simple and easy to maintain



Meet our inspection team

Quality control is paramount and our new factory has been equipped with a dedicated inspection department boosted by a significant investment in the latest professional test equipment, digital measuring and recording systems. Our inspection team is CSWIP qualified, the internationally recognised mark of competence for inspection standards; and is responsible for the approval of all goods into and out of the factory ensuring detailed inspection procedures are maintained at all times.

"As a key supplier of stainless steel components and fabrications for high profile, high-tech industries, such as the Aerospace and Pharmaceutical sectors we routinely receive requests for full traceability dossiers detailing manufacturing procedures and materials for every component part and process. This could include weld maps, welding procedures and qualifications, testing procedures and certificates, surface finish and TSE certification to name but a few" states Darren Jones, Inspection Manager. "We are committed to quality and procedures are in place to ensure every component passing through Axium receives 100% inspection so it meets the end users expectations in terms of quality, packaging and on-time delivery".



Darren Jones (L) and Matthew Watkins

OUR COMPREHENSIVE STOCK OF HYGIENIC STAINLESS STEEL COMPONENTS, TUBE AND PIPE FITTINGS IS CONTINUOUSLY EVOLVING IN LINE WITH CUSTOMER REQUIREMENTS

- Stainless Steel Filters
- Tube and Pipe Fittings (ASME, Clamp, RJT, DIN, IDF, SMS)
- Valves
- Manways
- Sample Valves
- FDA approved seals
- Sprayballs
- Sightglasses
- Flexible Hoses

Components can be customised to suit customer requirements.



Please see our website's continually updated **INFORMATION CENTRE** for:

- Product Information • Product Brochures • Data Sheets • Photo Gallery • Latest Press Releases

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FS 83081