Working with Specifiers Towards a Sustainable Built Environment
Our determination to continually develop new, exciting designs and innovative production methods is matched only by our ongoing commitment to the environment and our community.

Eddie Robinson
Managing Director

Environmental Policy & Accreditations

Smart Architectural Aluminium has grown over 30 years to become one of the UK’s leading aluminium systems companies with a reputation for product innovation, design expertise, technical competence and quality service.

Located in Yatton, North Somerset in impressive 30,000 sq/m premises purpose built for the Company’s extrusion, powder coating and warehousing facilities. The Company has an annual turnover of over £40 million and employs 200 people.

Smart Architectural Aluminium is committed to working towards a greener working environment and to ensuring that every aspect of our activities is conducted in accordance with sound environmental practices and complies with UK and EU environmental regulations and legislation.

Our objective is to promote among our staff, customers, suppliers and stakeholders an understanding of environmental issues in the context of our business.

We recognise our responsibilities to deliver long term benefits to our people and the local community. Our common task is to ensure that we continually improve the environmental impact of our total global activities.

This policy is recognition, by the company, of its responsibility towards safeguarding the environment and we publish this statement as a commitment by both management and employees to minimise the environmental impact of its operations.

Eddie Robinson
Managing Director

In recognition of the impact of our activities Smart has attained and continues to maintain the following accreditations:

- ISO 14001:2009 Environmental Management Systems
Maximising quality whilst minimising environmental impact

Smart Architectural Aluminium are leading the way with the greenest manufacturing operation of its kind in the country

Environmental Principles at the Heart of Development

In 2010, Smart Architectural Aluminium completed development of a state-of-the-art extrusion and powder coat paint facility. The project brought manufacturing back to the UK with what is planned to be the most environmentally efficient manufacturing operation of its kind in the country. In 2011, Smart expanded their operation with the installation of a second aluminium extrusion press.

From the beginning of the development, the principle concern was the potential impact on the local environment. This was placed at the core of the planning process. The company undertook an extensive review that evaluated all aspects of the new development; the impact on local wildlife and habitat, the safe capture of waste materials and the impact of the additional activities on the local community.

This review process led the company to make a serious commitment to the environment and to apply for, and successfully attain ISO 14001:2009 Environmental Management Systems certification. As an ISO 14001 company, Smart regularly re-evaluate our procedures and working practices to ensure that we are continually working to minimise the impact of our activities on the environment.
Aiming for a 100% Carbon Neutral Production Operation

Efficient and Environmentally Friendly Production

Our Aim
Our aim is to operate a 100% carbon neutral and environmentally efficient service for our customers. We plan to achieve this through a combination of investment in efficient machinery, effective environmental management systems, waste capture and recycling and the use of sustainable power generation.

- **Working Towards a Carbon Neutral Production** – It is our aim to achieve 100% carbon neutral production operation
- **Sustainable Power Generation** – as part of our aim we are committed to generating 100% of our power requirements from sustainable natural resources.

Extrusion Press
Smart Systems have invested in state of the art extrusion equipment. We operate one 8” 2,200 tonne and one 8” 2,500 tonne extrusion press with a total capacity of 20,000 tonnes of extrusion per annum. Our extrusion presses utilise state of the art manufacturing software to minimise production waste, whilst maximising the efficient use of aluminium billets. 100% of waste aluminium from the extrusion process is captured and recycled into aluminium billets ready for production.

- **Reducing Energy Consumption** – We have invested in state of the art extrusion presses that recycle heat generated in the aging furnace to pre-heat extrusion dies. This significantly reduces the power requirements of the equipment.
- **Recycled Aluminium Billet** – Up to 30% of the aluminium used in our profiles is extruded from recycled aluminium billets.
Powder Coat Paint Line

Our horizontal powder coating paint line is the most advanced of its kind in the UK with a production capacity of 200sq/m per hour. We are able to offer a range of standard and non-standard finishes including RAL, metallic and our own Sensations range of textured finishes.

- **Chromate Free Pre-treatment** – Our pre-treatment process is alkaline based and 100% chromate free.
- **Rainwater Capture and Filtration** – Our rainwater capture system holds 220,000g of rainwater. The filtration treatment process cleans the water for use in the pre-treatment process. The water is then filtered again following use, and when released into the environment is cleaner than the mains drinking water.
- **Recycling of Ionized Water** – We continually recycle and reuse the ionized water used in the pre-treatment process.
- **Capture of 98% Powder Used in Powder Booth** – Advanced technology used in the powder booth captures 98% of excess powder sprayed in the coating process. The powder is then reused in the coating process.

Waste Capture

As an ISO 14001 company, we take the recycling and reduction of waste material very seriously. It is our policy to undertake a regular review process to monitor and identify possible sources of waste material and then put into place systems to capture and recycle where possible.

Smart operates an extensive waste capture & recycling policy for the following materials used in production and packaging:

- Aluminium
- Cardboard
- Polythene
- Paper
- Plastics
- Batteries
- Fluorescent tubes
- PVCu
Innovative designs for sustainable architecture

Smart Architectural Aluminium’s outstanding range of windows, doors and walling provide the ultimate solution for complete thermal efficiency.

Smart Fenestration Products
An integral part of the sustainable built environment

Fenestration products play an important role in increasing the energy efficiency of a building. As part of the solution to a sustainable built environment, Smart offer a range of products with high thermally efficient features that reduce heat loss and increase the overall performance of a building.

**Alitherm 300**
Aluminium windows featuring an extended Polyamide thermal break which provides excellent thermal performance. The system will achieve a Window Energy Rating ‘A’ grade and also complies with the latest requirements of Building Regulations Document L 2010.

- **Application**: Commercial side or top hung opening casement window
- **Features**: Designed to achieve a WER A rating
- **U Value**: 1.6 W/m²K or better
- **WER**: A
- **Testing**: BS 6375 Part 1
  - Air: 600pa
  - Water: 1200pa
  - Wind: 2400pa

**Aluminium:**
The ‘Cradle to Cradle’ Lifecycle

Aluminium is commonly referred to as the ultimate building material. It is durable, light-weight, resistant to both corrosion and pollutants giving aluminium products a life cycle measured in decades rather than years. It is 100% recyclable, losing none of its material qualities in the recycling process. Large reserves of bauxite ore and the high quality of recycled aluminium offer a building material that is sustainable and effectively inexhaustible.

- **Bauxite Mining**
- **Alumina Production**
Alitherm 700

Alitherm 700 (Parallel) is an innovative solution for enhanced natural ventilation. The system allows for a balanced, effective airflow whilst maintaining security and safety.

**Application**

Commercial parallel opening casement window system can also incorporate side or top hung hinges

**Features**

- Allows balanced, effective airflow whilst maintaining safety and security.
- Suitable for chain-operators, either individually or as part of a climate control system

**U Value**

1.6 W/m²K or better

**WER**

A

**Testing**

BS 6375 Part 1

Air

600pa

Water

600pa

Wind

2400pa

Smart Wall

Smart Wall is a shopfront screen and door system incorporating a Polyamide thermal break to provide enhanced thermal performance. Suitable for all types of commercial groundfloor screenwork and ideal for educational buildings.

**Application**

Thermal commercial entrance door and screen work hinge, swing or automatic opening doors

**Features**

- High security, fully thermal heavy duty doors
- Anti-finger trap
- Thermal low threshold
- Security grade 6 locking mechanism

**U Value**

2.0 W/m²K or better

**Testing**

LPS 1175 Level 2

EN 1627 Level 3

Recycling aluminium uses only 5% of the energy required to make primary aluminium.