



# Consolution

*"Solutions for a more efficient business"*

➤➤➤ **Case Study:**  
**PROCESS DESIGN**

➤➤➤ **Customer:**

➤➤➤ **Project:**  
**SKID MOUNTED BLENDING  
PLANT**

## **Our Challenge:**

Our client manufactures a glass syntactic polyurethane material at their site in the UK. The material is made in large batches using mixing vessels which are fed from bulk storage tanks and the finished, liquid material is filled into drums for despatch worldwide.

The challenge was to design a process and identify the relevant equipment which would allow the material to be made at customer premises overseas without requiring a large capital investment in plant and equipment.

## **The Solution**

Design an alternative method of processing the same material using an in-line blending process rather than a batch process. This improved the throughput and ensured that the equipment used for manufacturing could be skid mounted and can therefore be transportable.

**The project was completed successfully in late 2008  
and brought on line early 2009**

**Brian Kirkland: Director**

**Process and equipment design:**

- Process design and conversion from a batch process to an in-line blending process
- Blending Plant and equipment specification, testing and approval
- Process testing, equipment trials and project management
- Instrumentation control loop design and specification for the skid mounted plant and equipment.
- Control Panel design and build to functional requirements for external application including all G/A's, Schematics and parts lists.
- Integration design of control system which allows process control on the skid and between the skid and any other site- based equipment.

**Control and instrumentation:**

- Bespoke design & build of main control panel
- Installation and commissioning of level, pressure and flow instrumentation
- Control and alarm handling via Moeller PLC.
- Remote I/O collection and distribution to other user interfaces.

**Installation and commissioning:**

- Control panel design and build
- Installation and commissioning of instrumentation, electrical and pneumatic control equipment  
Finished plant commissioning and testing

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