



Polyurethane Evolution

27/06/2007 - INTERFIL Mexico Expand its product Range

The air filter plant recently manufactured for the Mexican factory INTERFIL, existing producer of oil filters, completes the range of products they are able to supply throughout Mexico and for export to the most important car industries in central North America.

The plant is composed of a 24 station turntable, each station having a press with platen dimensions of 500 x 500 mm. The design of the presses incorporates a parallel stroke of the upper platen combined with a book opening action to provide an ideal operator interface for loading new paper element packs. The lower platen is provided with electrical heating controlled by an independent electrical panel.

This plant configuration was developed to permit production of 400 filters per hour including all the peripheral tasks such as the spraying of release agents onto the moulds, insertion of the paper element packs, pouring into the lower mould, polymerisation and extraction of the completed filters.

A critical element in the functionality of this plant is our new Impact 2 Low Pressure Metering Unit which incorporates a Siemens industrial PLC to provide accurate and precise control overall processing parameters. The metering unit is linked to three colour dosing units to enable rapid colour change of the filter gasket to be made.

When operating constantly at low metering outputs it is essential that highly accurate and reliable metering pumps are utilised. In addition the design and proportion of the microdosing mixing head has been given particular attention and is now manufactured within our new production department for both high and low pressure mixing heads.

Precise distribution of the PU gasket into the narrow mould cavities is performed on a special purpose 2-axis manipulator, which features rapid and accurate movement on the X and Y axes. All pouring programmes are set on a Siemens computerised numerical control (CNC Unit) which also interfaces with the low pressure microdosing machine to ensure that filters are of the correct shape size and colour are produced.

In order to provide a complete service to the customer, the scope of our supply also included twenty four resin patterns to enable a number of aluminium production moulds to be cast in accordance with the number different models to be produced.

During the project phase OMS co-operated closely with SAS of Turin, a leading manufacturer of paper pleating machinery, to ensure that the different development phases reached final commissioning stage with a customer at the same time.

This level of co-operation in the filter manufacturing sector enables us to offer to new customers increasingly higher levels of technological input to their projects.