

Proportional dosing for increased quality and lower costs

Problem case

Mac Baren Tobacco Company A/S in Svendborg, Denmark, is one of the world's leading manufacturers of smoking, rolling and smokeless tobacco, exporting to more than 60 countries in the world. The Mac Baren brand is known all over the world as quality tobacco for pipe smokers.

Formerly, Mac Baren used VA flow meters with regulating valves to control the volume of the flavor, which is added to the pipe tobacco. However, this method called for the constant presence of an operator for current, manual adjustment of the addition and they had to know exactly how many liters were necessary for a given volume of tobacco production to get a constant average dosing.

Mac Baren decided on automatic flavoring and installed a weighing belt in front of the cylinder where the flavor dosing is injected. They wanted a system, which could automatically dose the various flavor mixtures proportionally with the tobacco flow. However, the problem of constant flavor dosing was, that the tobacco did not come in consistent quantities. Some of the tobacco was therefore overflavorised and some was underflavorised.

Fluidwell solution

Mac Baren contacted the Danish Fluidwell distributor Løwener to discuss the best solution for a proportional dosing system. Løwener advised to install a weighing belt for the successive registration of the tobacco flow in kilogram/hour and a Rheonik mass flow meter for the flavor measuring.

Additionally the core of the new solution included a Fluidwell ratio controller F124-A for proportional dosing. The two analogue signals from the tobacco weighing belt and the flavor flow meter were connected to the F124-A ratio controller. The F124-A is very user-friendly, the operator enters the requested dosing percentage and the additive percentage can easily and rapidly be changed into a new recipe (additive percentage) by means of the arrow keys at the front of the control system. The F124-A control system is equipped with a PI(D) controller, and the analog output controls a quick reacting pneumatically operated needle valve, which can easily follow the tobacco flow, despite its often very fluctuating character.

Results

- ✔ An exact and more constant flavoured tobacco of higher quality.
 - ✔ Less costs in waste of expensive flavor additives due to the more exact dosing
 - ✔ Less costs in personnel deployment with more efficient use of time and capacity
 - ✔ Flexible in use and water resistant, easy cleaning without the need for a protective cabinet
- Needless to say, Mac Baren was very satisfied with the results of the excellent suggestion made by Løwener. The combined solution brings all they hoped to seek and more!

More advantages

The plain, sensitive menu structure of the F-Series without confusing abbreviations and difficult codes is the same for all Fluidwell versions, products and series. Know one, know them all! Save time, hassle and costs with the same functioning and easy installation and maintenance. You've got to have a Fluidwell!

More information on the Fluidwell F-Series: [General information Fluidwell F-Series](#)
[Information and datasheet F124](#)
[General brochure Fluidwell F-Series](#)

Pipe tobacco



Mac Baren pipe tobacco



Weighing belt for tobacco flow



F124-A Ratio Controller

