



ACCELLA

- managing the flows

Accella is a module-based software offering unique functionality for automation, operation and administration for petroleum terminals and oil distribution. Accella can be configured for individual terminals as well as network-based solutions for the central operation of regional, national and global terminal chains.

Based on in-depth knowledge of the value-chain, we offer scalable systems and services with documented increase of efficiency and reduced cost of operation. In today's market, where the trends show tough margins and hard competition, it is essential for management to have web-based access to real-time information from Accella.

Accella//ADDit - Additive & Dyeing Concept

FEATURES

Robust and extremely accurate additive injector

Continuous additive injection – no problem with samplings

Mechanical totalizer – reconciliation possibilities

Software application program handles injectors from several manufacturers

Flushing function – begins and ends each load with pure product

No need for a dedicated additive injector for each additive to prevent contamination

General

The Accella//ADDit is a complete concept for additive injection. This module supports PetroOnline's own injection unit as well as injection units from other additive injection unit suppliers.

ADDOTRONIC - PETROONLINE Injection Unit

Addotronic is designed to add additives into pressurized pipe systems that transport petroleum products. The system is designed for use in Hazardous Area 1. The additive injection system can process up to 8 different additives with individual, adjustable rates through a single common injection point (standard version). A unique continuous injection principle combined with advanced control and monitoring functions provides extreme accuracy and ensures the quality of the final product.



The injection unit is mounted at the loading bay as close as possible to the injection point.

Flushing function

There are two flushing functions:

1. Flushing of loading arm
2. Flushing of injection unit

To obtain **flushing of loading arm**, AccellaADD allows unadditized product to flush the loading arm at the beginning and end of each new load. Adjustments are made during the injection cycle to compensate for unadditized product volume.

To prevent commingling and contamination of additives for multi-additive applications which require extreme product integrity, the injection unit may be equipped with an extra flushing valve to **flush the injection unit** with pure product at the end of each load.

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The figure under shows the blending progress as a function of main flow and time, and shows how each load begins and ends with pure product.

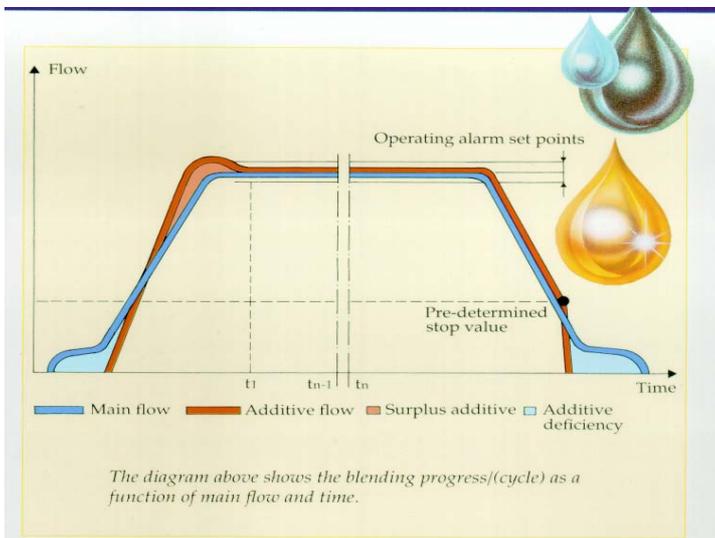


Figure 3: Additive regulation & compensation

Configuration

The advanced AccellaADD module allows for easy input of all necessary additive parameters. Blending rate (in ppm - parts per million), cleaning on/off, cleaning volume, pulse-counting signals for main product and additive, alarms and toleration limits are all examples of configurable parameters. Screenshots of some configuration examples are shown below.

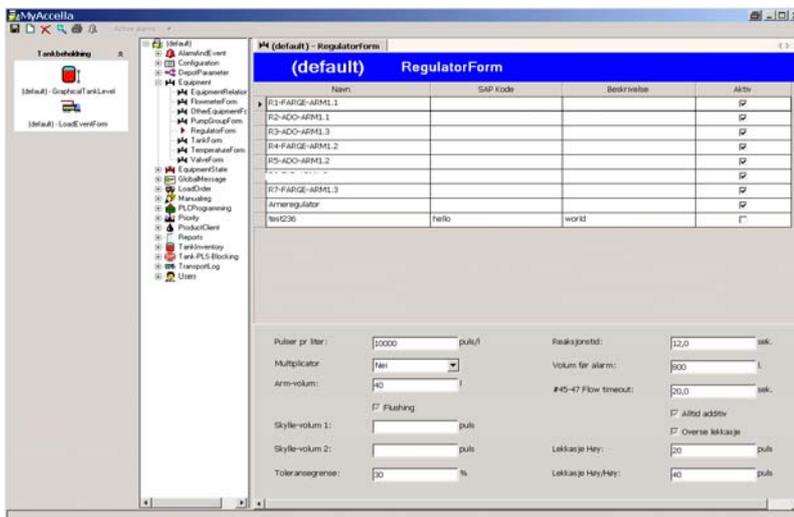


Figure 4: Additive regulation configuration

Complete Security

AccellaADD includes alarm functions, which monitor both blending accuracy and process control.

Blending accuracy is monitored throughout the injection process and alarms are generated if the blending ratio is outside of a specified range. If an accuracy alarm occurs, loading stops. Upon loading completion, AccellaADD checks the preset blending ratio against the achieved ratio and marks the load if it is out of the accepted range.

Alarms are generated if there is leakage of additive outside of a loading process.

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