

# **Weight measurement for automatic metering system**

**Customer:** «ALIAN-Paint», Ltd., Karaganda region, Karaganda

## **RECONSTRUCTION OBJECT SPECIFICATION**

The plant specialized in production of water dispersing paints, producing 210 tons per year according to the Franch firm Sfromap license is put into operation in February, 2004. All production is situated on 4 levels, where on the upper floors there is dry components preparation system, and on two lower ones there are capacities with components, also metering system and packing. For paint production it is used till 20 different components on the recipe. Automatic control system is constructed on the basis of controller Simatic S7-300 from Siemens, visualization systems WinCC, also weight terminal of the firm Metler Tolledo. During a period of commission there weren't any censures to the Siemens products, and the weight terminal of the firm Metler Tolledo is constantly broken down and required the repair. This weight terminal finally had been broken in January, 2006, and system modernization exigency had appeared.

### **Requirements to system**

- It is necessary to provide required accuracy of weight measurement
- Integrated new weigh terminal, it is necessary to provide project accuracy of metering.
- It is necessary to provide display of empty weight, own weight and mass of the metering components, operator's interface structures aren't broken in the visualization system.
- New weight measurement system should be combined with installed platform scale from the firm Metler Tolledo (i.e. using strain sensors of outside producers.)
- New scales shouldn't lead to reducingg of production values.

## **SOLUTION AND AUTOMATION SYSTEM CHARACTERISTICS**

It was selected weight terminal SIWAREX U of two-chanal discharge from Siemens to realize the received task. Integrated weight terminal in existing automatic control system, we provided realization of required capabilities, used the second chanal for making of additional platform scales on the finished-products storage area at the same time. In this case sensors of USSR production in 1976 were used as strain sensors. It was given the guarantee 1 year on the implement weight measurement system.

### **Project implementation period, expenses**

Project implementation period is 10 days, commissioning is February, 2006, contract cost is 350.000 tenge.

