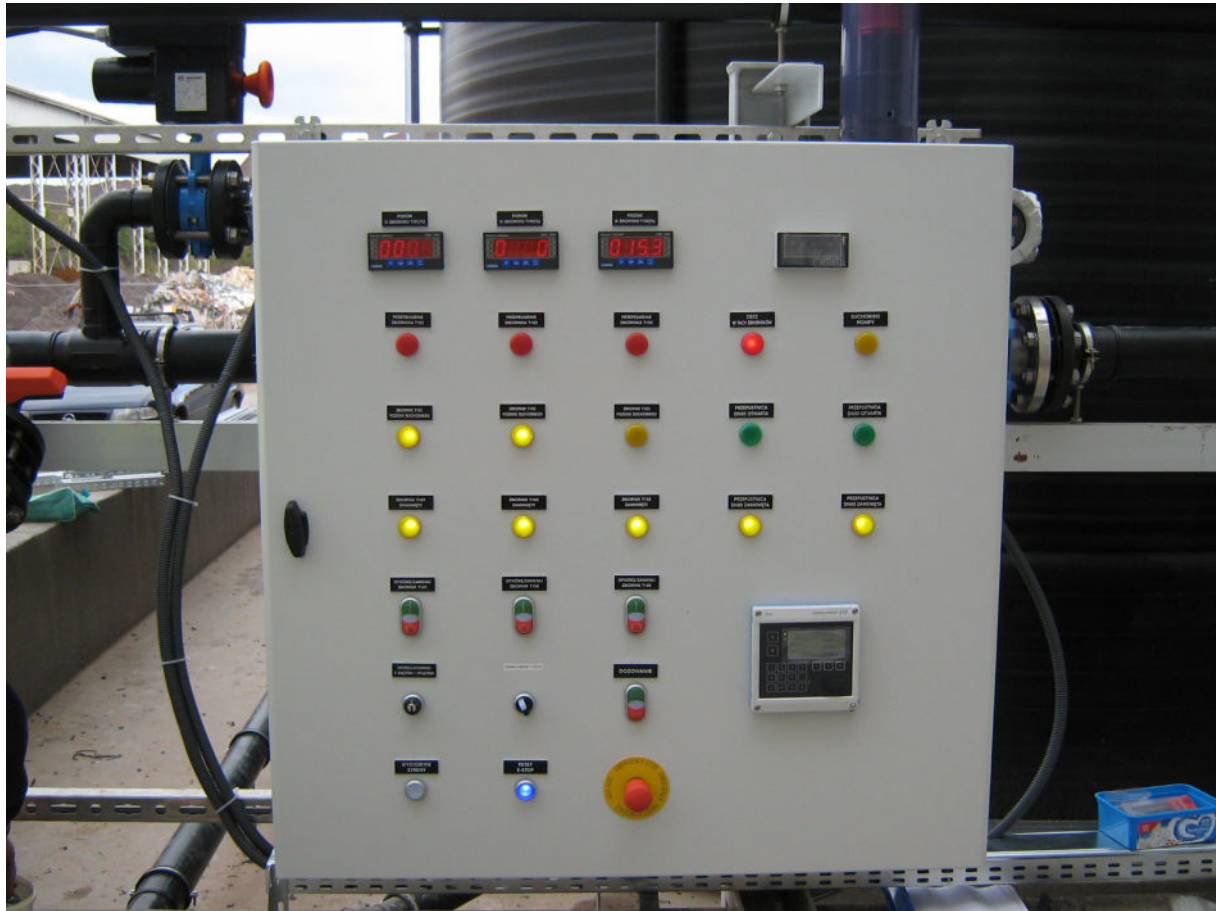


A distribution system for sulfuric acid.



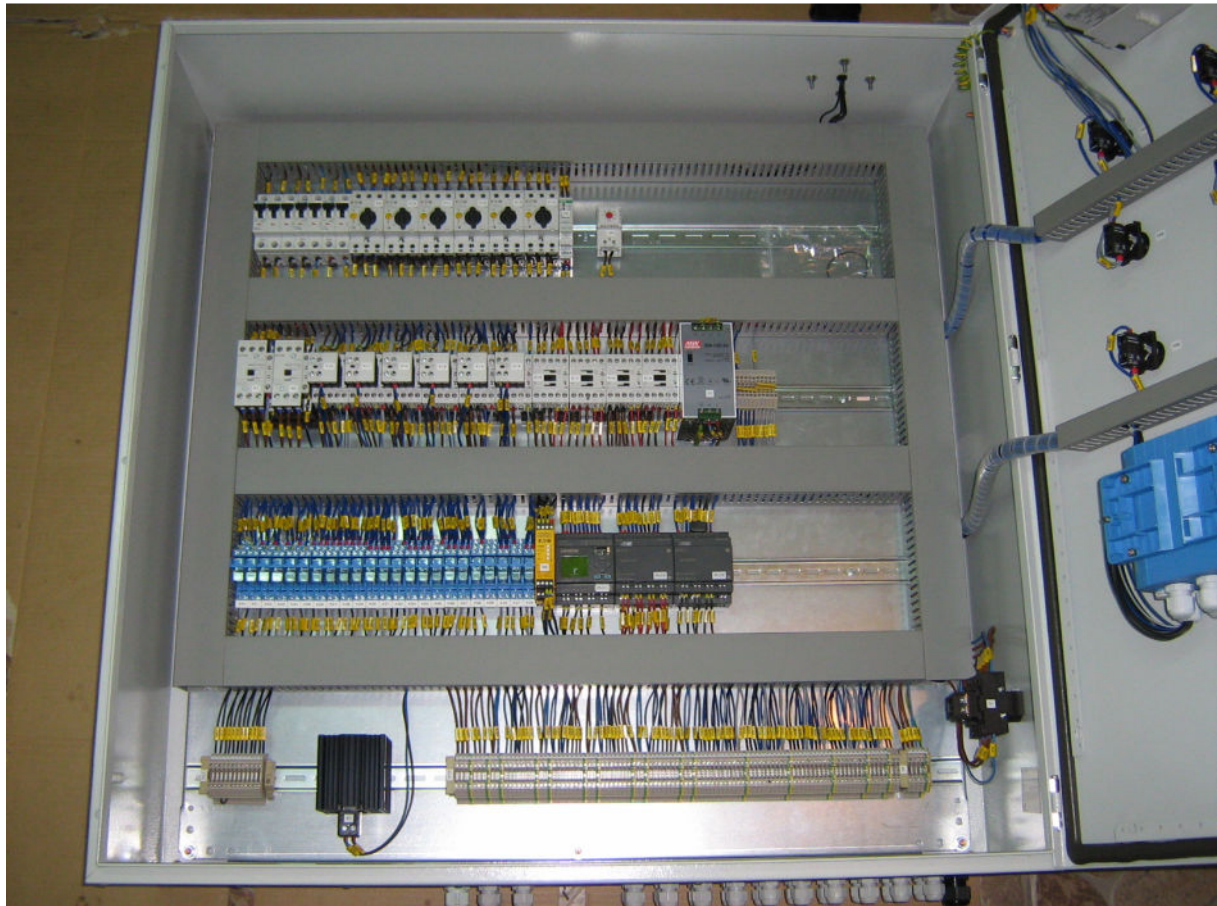
Picture 1. External view

System is designed for storage of sulfuric acid and precise loading of cistern trucks. Liquid is stored in three tanks each 80 m³ volume. Liquid level is measured by means of ultrasonic sensors. Additionally storage tanks are equipped in leak and overflow sensors. The operator specifies the volume of acid to be transferred. In the first phase the acid flows through two throttles – first with larger and second with smaller diameter. At the end the larger throttle is closed and the fluid flows only through smaller throttle in order to increase the precision of the distribution. There are five throttles in the installation. Each throttle is three phase 400 V AC electric motor equipped in open and close position limit switches and a heater.

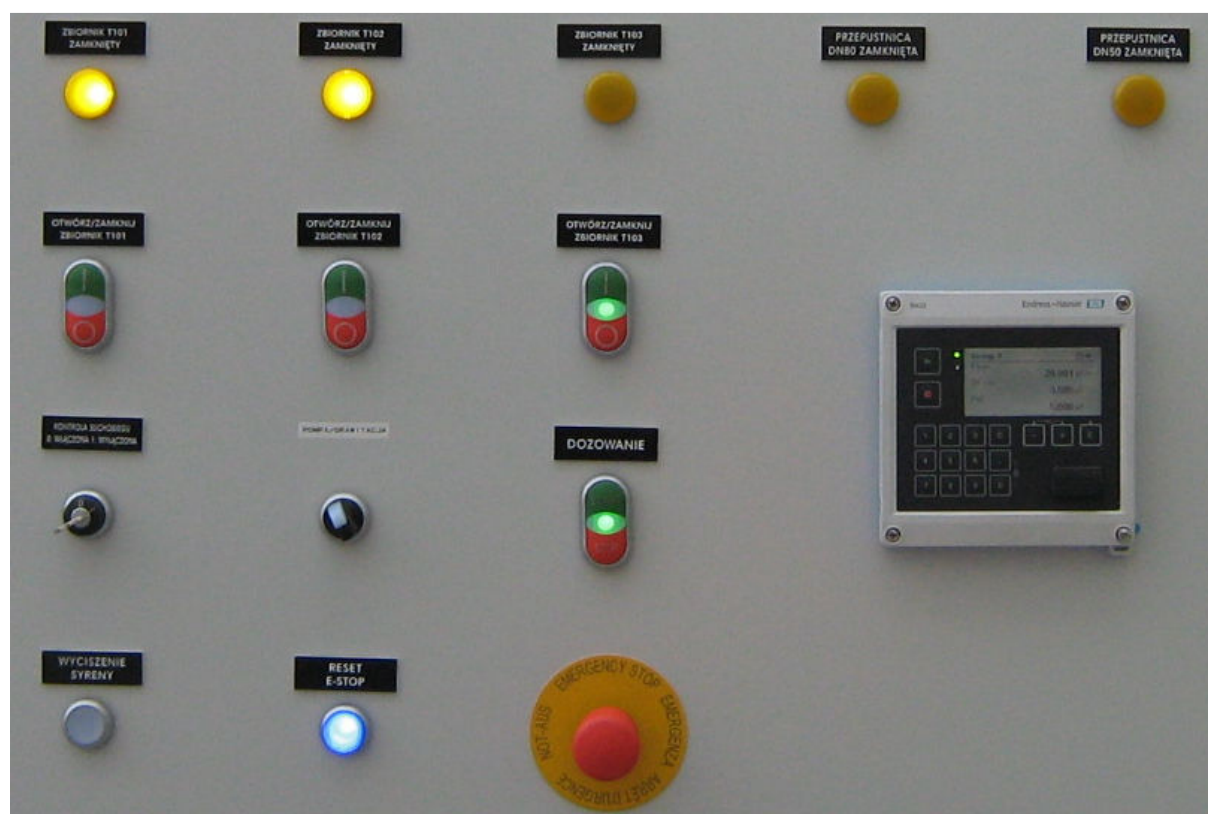
There are Siemens Logo! PLC and Endress+Hauser RA33 batch controller installed in the system.

Key features:

- ✓ Automatic loading of cistern trucks with given volume of sulfuric acid.
- ✓ Increased loading precision through the use of bypass with reduced diameter .
- ✓ Monitoring the level of the acid in the storage tanks.
- ✓ Supervision of the leak and overflow sensors.
- ✓ Alarms display and indicators.



Picture 2. Internal view



Picture 3. Controls, indicators and RA33 batch controller.