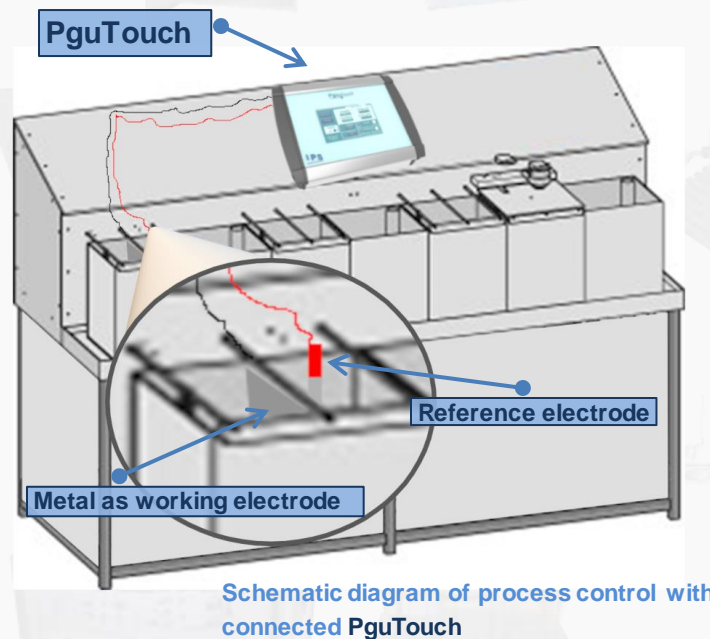


# Application Note

## Process control ("in situ") during pretreatment of metallic components

A very interesting application is the use of our **PguTouch** for accompanying process control ("in situ") during the pretreatment of metallic components, such as facade elements or sheet metal for the automotive industry.

Such a process is divided into several work steps, which can be recorded, for example, by measuring the rest potential of the component to be coated. Depending on the work step, a different process potential arises.

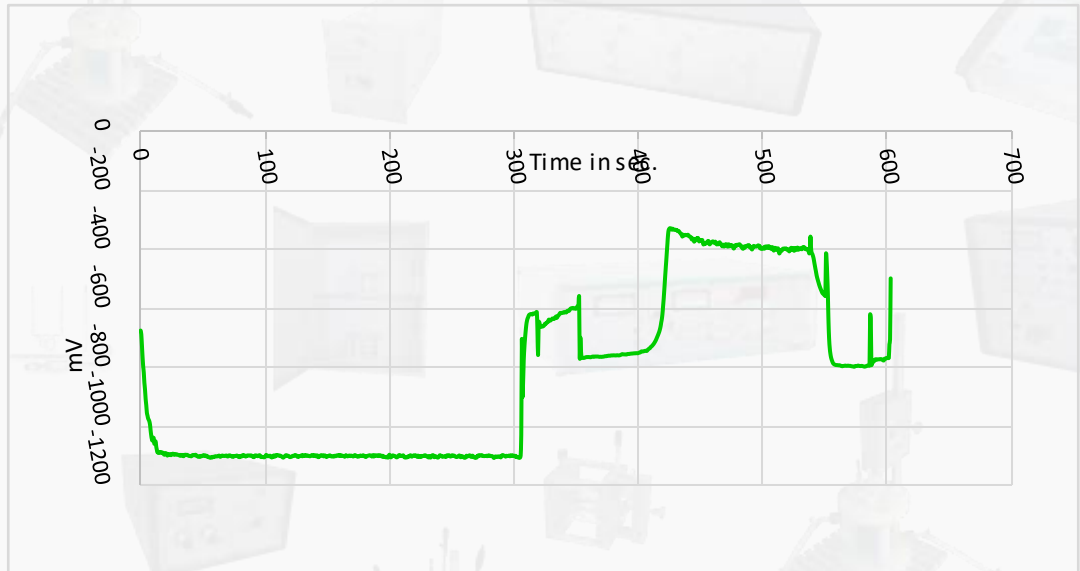


In order to be able to carry out such a process measurement, it is important that no compensating currents flow within the system (process and measuring system) which would falsify the measuring signal. The danger of mutual interference is always present when two electrical devices are supplied via a common power connection. This is usually unavoidable, since all sockets in a factory are usually connected to each other at least via the neutral conductor and the protective conductor.

This is where the special properties of **PguTouch** come into play. The **PguTouch** as a laboratory and field measuring instrument can be supplied with the necessary operating voltage both via the general house network and via a battery pack. With a battery pack of 20,000 mAh, the device can operate for up to 10 hours. By using the battery operation it is guaranteed that there are no equalizing currents between the running process and the measuring instrument. Another advantage is that the **PguTouch** stores the measured values on a built-in SD card. An interface connection to a computer, which in turn could cause compensating currents to other devices, is not necessary. The data can be transferred to the computer after the measurements have been completed.

Here is a representation of a typical measuring process (degreasing, staining, passivation) created on the basis of recorded data of the **PguTouch**:

Time	mV +Ag
0	-494,3076
0,5	-509,0059
1	-525,5023
1,5	-537,9127
2	-550,0277
2,5	-558,3776
3	-566,5219
3,5	-571,3518
4	-576,1681
4,5	-578,4054
5	-579,8326
5,5	-578,2878
6	-578,6311
6,5	-579,1977
7	-579,4773
7,5	-578,9316
8	-582,1244
8,5	-579,0027
9	-579,8229
9,5	-580,0383
10	-580,2295



Graph plot

Data records from  
PguTouch