

Customer: Alcosystem AB
Ulvsundavägen 106
SE-168 67 Stockholm
Sweden

2011-02-12

Simple estimating report

MHF Test lab has on commission by Alcosystem AB controlled and performed a simple test of function on the product iBAC. The tests have been performed with wet gas simulators of the brand Guth 34°C and calibrated volume syringe. The date of tests is 2011-02-09 - 2011-02-11.

Method

To be able to make sure that iBAC shows the proper values we have controlled the uncertainty of measures, repeatability between sober and alcohol based blows and that iBAC receives the sample in the blow when the physical conditions are fulfilled to show the right levels of alcohol.

Result

The table shows the result of the tests with alcohol that was performed in room temperature.

Test number	Tested alcohol level 0,10 mg/l	Tested alcohol level 0,30 mg/l	Tested alcohol level 0,50 mg/l
1	0,102 mg/l	0,302 mg/l	0,480 mg/l
2	0,106 mg/l	0,302 mg/l	0,470 mg/l
3	0,102 mg/l	0,302 mg/l	0,460 mg/l
4	0,102 mg/l	0,299 mg/l	0,468 mg/l
5	0,101 mg/l	0,298mg/l	0,485 mg/l
6	0,102 mg/l	0,276 mg/l	0,485 mg/l
7	0,100 mg/l	0,308 mg/l	0,477 mg/l
8	0,105 mg/l	0,302 mg/l	0,470 mg/l
9	0,100 mg/l	0,306 mg/l	0,472 mg/l
10	0,104 mg/l	0,300 mg/l	0,468 mg/l

The time between the tests have been 3 minutes at 0,10 mg/l, 5 minutes at 0,30 mg/l and 8 minutes at 0,50 mg/l. Between a number of the alcohol blows have a sober blow been taken to verify that iBAC recovers and shows the value zero. The meter has not shown any indication of alcohol on the sober blows.

One of the basic requirements of an alcohol meter to show the proper alcohol levels is that iBAC takes the sample when the test person delivered at least 1 litre of air. At the tests that we performed regarding volume samples we can state that the



values are satisfying. No matter what flow or pressure we blew into iBAC the sample was taken at around 1,2 litres. When not enough air or too much air was delivered iBAC protested and a new sample had to be delivered.

We have also tested with accredited test gas solutions if iBAC shows the right values compared to alcohol values. We have been measuring at the limits 0,10 mg/l and 0,30 mg/l and had very satisfying values. At the alcohol concentration of 0,50 mg/l the spread was a little bigger but still within acceptable values.

Summary

iBAC from Alcosystem AB is one of the smallest meters on the market. Despite the small size we had results that meets the bigger and professional alcohol meters that is available on the market. iBAC have been very easy to deliver a sample in and the colour indicating diodes that communicates with the user has been clear. iBAC has taken the sample when the proper physical conditions have been fulfilled and all values have been very good or acceptable. In this simple test we have not been able to check the whole system but only tests regarding uncertainty of measures, volume and test of function in the meter.

Tibro 2011-02-12

MHF International road safety test lab

A handwritten signature in blue ink, appearing to read 'TJ', with a long horizontal flourish extending to the right.

Tomas Jonsson
Testleader