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## **Amalgam separator. Efficiency test according to ISO/ FDIS 1143**

Amalgam separator, forwarded by the client.

Marking:	15 2000 (According to the client) The tested Amalgam separator was marked "Amalganfilter Type - 151191" and a hand written number 3.
Arrival at SP:	2000-01-18
Date of testing:	2000-01-19--26

### **Project**

Test of separation efficiency. Three tests with an empty amalgam separator (0%) and three tests with a separator filled to the maximum filling level (100%).

### **Method**

ISO/FDIS 11143:1999-07-15 ("Final Draft International Standard"). Standard amalgam samples were used (10 g - ISO 11143 January 2000).

## Results

Test	Flow (L/min)	Filling level (%)	Amount passing separator (g)	Degree of separation (%)
"1"	approx.3	0	0.347	96.5
"2"	3,0*	0	0.419	95.8
"3"	3,0*	0	0.443	95.6
"4"	3.0*	100**	0.477	95.2
"5"	3.0*	100**	0.492	95.1
"6"	3.0*	100**	0.490	95.1

\*The flow was set to 2.5 L/min during the first two minutes of the test. This gives a total of 3.0 L/min including the amalgam sample (1.0 L during 2 min) during the first 2 min of the test. During the last 8 min the flow was set to 3.0 L/min.

\*\*The filling material consisted of 150 mL lead powder (0.040 mm < x < 0.200 mm), 150 mL lead powder (0.200 < x < 0.280 mm) supplied by the client, and glass pellets 700 mL with 1 mm diameter. The total volume was 1000 mL according to the client.

Before the tests 1 L "Filterhjaelp" was poured into the amalgam separator. The solution was supplied by the client.

During the Test-1 the flow was unstable.

After filling the amalgam separator to 100%, 18.7 L of water which had passed the separator at a flow of 2.0 L/min was filtered. The weight of the material collected on the filter was 0.0041 g.

The efficiency of the amalgam separator is defined as the lowest mean value from the two test series at different filling levels (0% respectively 100%). **The test shows an efficiency of 95.1%.**

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