pbinternational
Via Novara, 89
20153 Milan - Italy
Phone 02487791
Fax: 0240090010
Email: info@internationalpbi.it
Web: www.internationalpbi.it

APPLICATION NOTE

SAMPLING DATA RECORDING FROM "PINOCCHIO SUPER II" COMPRESSED AIR MICROBIAL SAMPLER

AIR-HANDS-SURFACES
N. 99/72
FEBRUARY 2008

APPLICATION NOTE

❑ Introduction

The following SOP is a Guide Line how a laboratory should prepare its own procedure to perform compressed air sampling data recording using the "Pinocchio Super II" and the "SAS software".

❑ Standard Operating Procedure

- OBJECT

Quantitative micro-organisms collection and sampling data recording in compressed air and gas lines in Clean Room.

- OBJECTIVE

Testing the microbiological quality of compressed air and gas and sampling data transfer to a P.C.

- TERMINOLOGY

Air flow meter, Colony Forming Unit, CFU, Clean Room, Contact Plate, Impaction, Litres per minute, Microbiological medium, P.C., Petri dish, Pressure Gauge, RODAC, software.

- RESPONSIBILITY

Production Manager or Laboratory Manager.

- MATERIAL

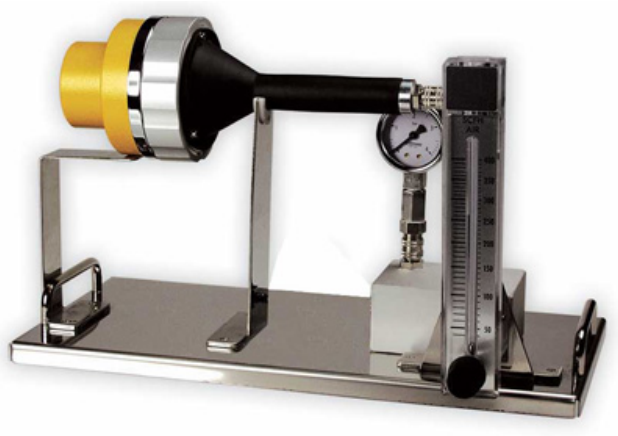
Equipments:

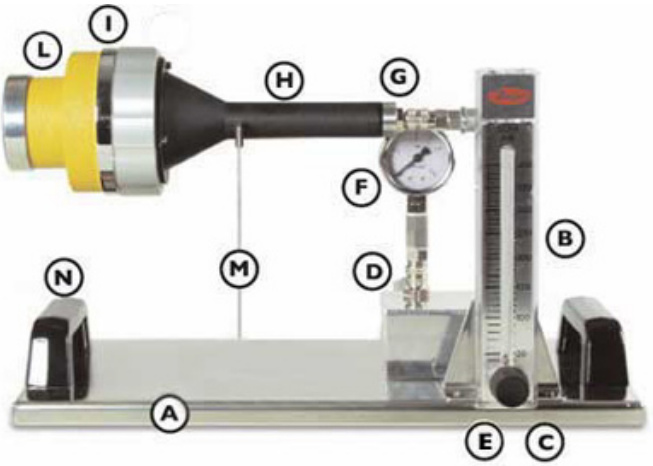
- "Pinocchio Super II" microbiological impaction sampler.

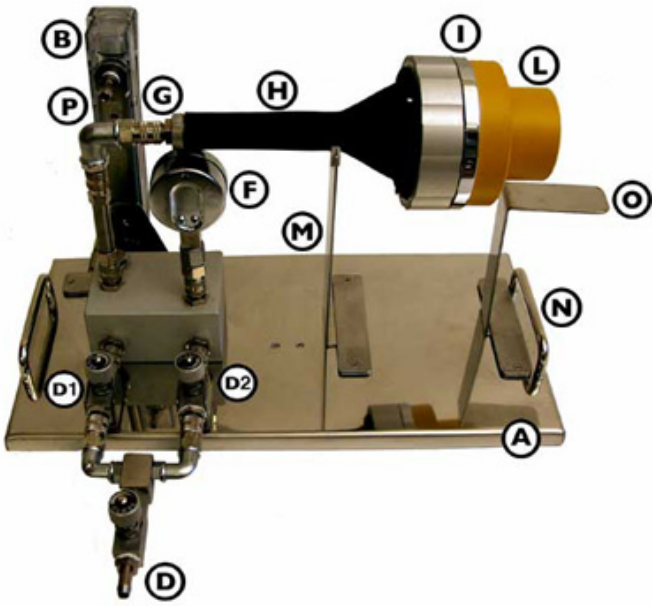
Components of "Pinocchio Super II":

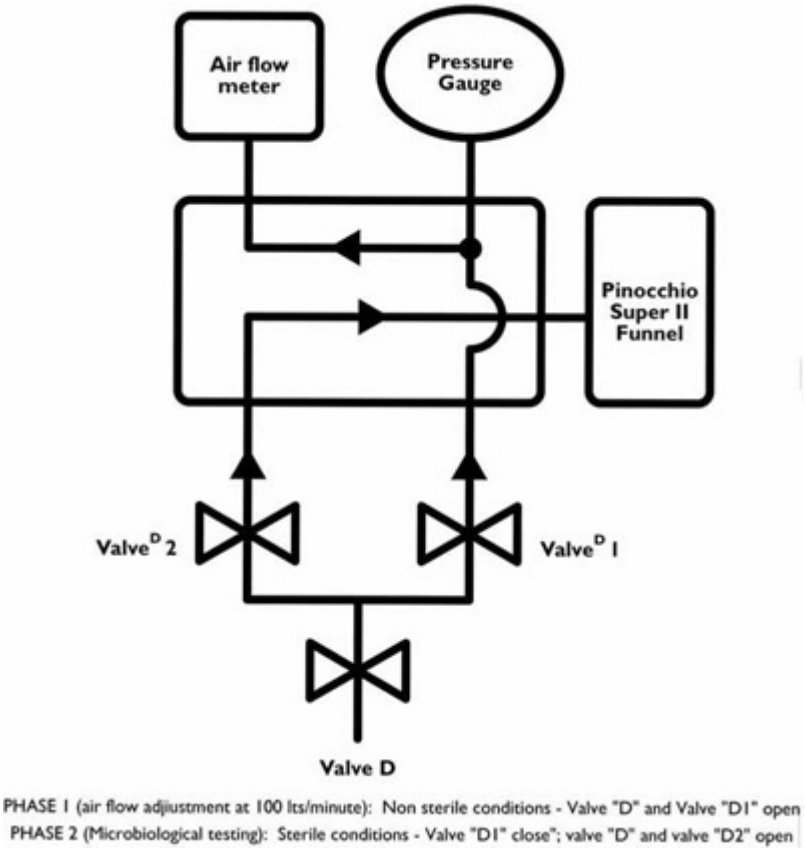
(a) Stainless steel base.
(b) Air flow meter
(the figures are in cubic feet per hour and therefore they should be transformed in litres)
(c) Adjustment knob of the air flow meter
(d) Two ways air inlet connection
(d1) Air inlet valve connection for air flow adjustment (no involved sterility in this phase of sampling)
(d2) Air inlet valve connection for microbiological air test (involved sterility in this phase of sampling)
(e) Triangular s/s metal plate
(f) Pressure gauge
(g) Double O-rings connection between the "Pinocchio Super II" and the "Pinocchio funnel"
(h) "Pinocchio funnel"
(i) "Pinocchio funnel head"
(l) Contact Plate housing
(m) "Pinocchio funnel" support
(n) Handle
(p) Air flow meter outlet
(o) SAS Super air sampler support (optional)

- "SAS Super" microbiological air sampler complete of Contact Plate filled with the sterile, suitable agar medium.









PHASE 1 (air flow adjiustment at 100 lts/minute): Non sterile conditions - Valve "D" and Valve "D1" open
PHASE 2 (Microbiological testing): Sterile conditions - Valve "D1" close"; valve "D" and valve "D2" open

Software:
- SAS Software for downloading the sampling data from the SAS Super air samplers (Code: 22536)
- Cable for SAS Software (Code: 26025)
- SAS Software for downloading the sampling data from the "SAS Super ISO" air samplers (Code: 89320)
- Cable for SAS Software (Code: 89320/89321).

Optional:
Reducer for 90 mm standard Petri dish

Note:
"Pinocchio Super II" may be used with or without SAS Super air sampler.

Consumables:
Sterile Contact plates (RODAC) or standard 90 mm Petri dish with TSA medium

- PROTOCOL

1. The compactness of “Pinocchio Super II” sampler provides the possibility to locate the sampling device where space is limited. The simple construction coupled with simple operation enable accurate report about air-gas microbiology quality.
2. The unit is completely dismantled for an easy cleaning and autoclave sterilisation. The pressure gauge and the air flow meter are not autoclavable. Follow the schematic drawing for assembling. All connections are of “quick” type.
3. Connect the unit to the desired point of sampling by a suitable sterile tubing. The inlet gas valve should be in closed position.
4. Insert the sampling data (name of operator, site of sampling, etc.) in the “SAS Super” air sampler.
5. Insert aseptically an identified Contact plate (RODAC) or Petri dish with sterile medium in the “SAS Super” air sampler and screw it to the conical “Pinocchio funnel head”. Do not connect them to the “Pinocchio Super II”.
6. Open the line of compressed air or gas line.
7. Open the (D) and (D1) gas valves and adjust the air flow on flow meter to 100 lts minute (or 180 lts minute according to the “SAS Super” used) to obtain a known volume of air and to wash the line for 2-3 minutes. Close the (D1) valve.

8. Connect the “Pinocchio Funnel” complete of “SAS Super” to the “Pinocchio Super II”.
9. Program on the “SAS Super” the volume of air to be aspirated at 100 lts/minute, switch on the “SAS Super” and, at the same moment, open the (D2) gas valve.
10. Close the (D) gas valve at the same moment the “SAS Super” stops (10 minutes = 1000 litres of air are collected).
11. Unscrew the head and transfer the Contact plate (RODAC) or Petri dish to the laboratory for incubation.
12. Connect the “SAS Super” air sampler to your P.C. using the cable. Your P.C. should be loaded with the suitable software. Follow the instruction of the software to download the sampling data into your P.C.
13. The “Pinocchio Super II” is ready for a new test.
14. Count the Colony Forming Units in the plate at the end of incubation time and report the results as CFU/1000 litres of gas/compressed air.
15. The air flow meter may be officially calibrated each year.