



RDVT-01 Drawing Volume Tester

Application

A Vacutainer blood collection tube is a specialized container made of glass or plastic with a colored rubber stopper. This stopper creates a vacuum seal within the tube, making it easy to draw and control a specific volume of liquid, such as blood.

The color of the stopper indicates the presence of additives in the tube, which help stabilize and preserve the collected specimen for laboratory testing. These tubes may also have safety features and offer labeling options for efficient tracking and identification in healthcare settings.



Description of Test

Vacutainer needle are double ended, with one side being encased in a thin rubber coating for safety. When the needle is screwed into the translucent plastic needle holder, the rubber needle is inside the holder, and the exposed needle will be inserted into the vein.

When a vacutainer tube is inserted into the holder, its rubber cap is punctured by the inner needle and the vacuum in the tube pulls blood through the needle and into the tube. The filled tube is then removed and another can be inserted and filled the same way.

The amount of air evacuated from the tube predetermines how much blood will fill the tube before blood stops flowing.

Actual Test Process

Insert the pre-evacuated tube for testing into the puncture site of the testing system, ensuring that its pressure matches the pressure inside the vacuum chamber. Then, based on the different altitudes of the region where the pre-evacuated tube is used, create different pressure values inside it. After waiting for 1 minute, determine the drawing volume of the pre-evacuated tube by measuring the difference in weight before and after the test.

Technical Features

- 1.PLC Control and HMI Touch Screen:** The unit is equipped with a Programmable Logic Controller (PLC) for stable industrial-level control. It boasts a user-friendly Human-Machine Interface (HMI) touch screen for convenient operation.
- 2.Constant Pressure Control:** This system offers a convenient digital input mechanism. It automatically maintains a consistent pressure level within the tank, adjusting as the liquid level changes. This feature ensures the precision and accuracy of the testing process.
- 3.Embedded Vacuum Pump:** The system includes an integrated vacuum pump, effectively saving both space and additional costs for the user. This compact design enhances user convenience and efficiency during operation.

Main Parameters

Vacuum degree: 0~-40 KPa
 (Similar to altitude 3600m)
 Control: PLC and human machine interface
 Power: 220V, 50/60Hz

Similar Models

- BST-01 Ampoule Breaking Tester
- MPT-01 Medical Packaging Tester Tester
- TT-01 Torque Tester
- MCT-01 Motorized Cap Torque Tester



The Company reserves the right to update, modify, or amend this Catalog without prior notice.

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