The BD Vacutainer® System

The BD Vacutainer® Blood Collection System is a closed evacuated system, which consists of a sterile double-ended needle with safety valve, BD Vacutainer® One-Use holder and a sterile BD Vacutainer® Evacuated Blood Collection Tube with predetermined draw. The majority of BD Vacutainer® Blood Collection Tubes are made of clear latex-free PET (Polyethylene Terephthalate) which is shatter-resistant and offers a clinically tested, safer alternative to glass.*

*Plastic blood tubes improve safety. Wayman DJ. Plastics News, June 6, 1994:52

1. Multi-sample BD Eclipse™ safety needle with safety shield
2. Safety valve for multi-sampling
3. BD Vacutainer® One-Use Holder
4. BD Hemogard™ Safety Closure
5. Sterile BD Vacutainer® Evacuated Blood Collection Tube

Visually check the sterility seal on the needle. Twist and remove white cap

Screw holder securely onto needle

Rotate pink safety shield back toward holder Twist green needle cap and pull off

Perform venipuncture according to procedures

After removal, immediately cover needle by pushing pink safety shield forward with thumb

Dispose of needle and holder as one unit into nearest sharps container

BD Hemogard™

BD Vacutainer® Blood Collection Tubes incorporate the latex-free BD Hemogard™ closure[1], which has two parts: an inner stopper and an outer protective cap. The BD Hemogard™ closure protects the user from contact with patients' blood and is easier to remove than conventional stoppers[2], and The BD Hemogard™ closure may also be removed using an automated system.

BD Vacutainer® Blood Collection Tubes can be recapped using secondary over-caps.

BD Microgard™

The BD Microgard™ closure helps protect the healthcare worker from exposure to potentially infected blood with the "twist assist" cap which reduces the risk of splatter upon removal of the cap.

Tube Dimensions

BD Vacutainer® tubes come in three main sizes, each with a range of different draw volumes.
Other sizes are available and the offering varies from tube to tube. For details of tube sizes per additive please refer to the relevant tube section.

13mm x 75mm

Shown actual size

1.8mL
2mL
2.5mL
2.7mL
3mL
3.5mL
4mL
4.5mL
5mL

13mm x 100mm

Shown actual size

4mL
4.5mL
5mL
6mL
7mL

16mm x 100mm

Shown actual size

6mL
8mL
8.5mL
9.5mL
10mL

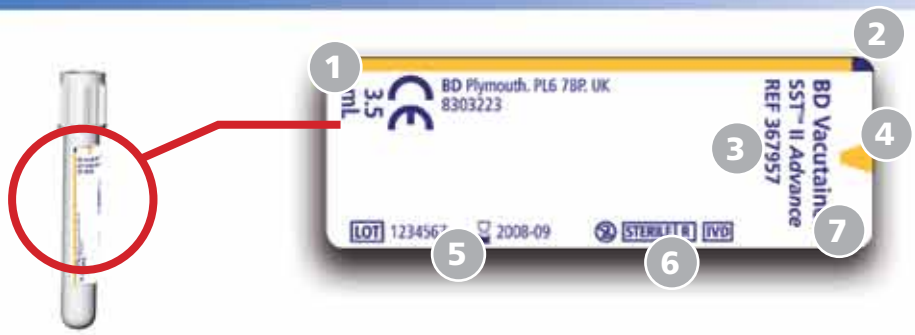
1.1990 Winner of the Industrial Designers Society of Americas "Socially Responsible Design" Award
2. VS5713- A comparative Evaluation of the 16mm BD Hemogard™ Closures with Respect to User Exposure to Blood and Cap Removal and Reinsertion Forces. 09/99

BD Vacutainer® Tube Handling Guide

ORDER OF DRAW [1]	COLOUR	TUBE TYPE	NUMBER OF INVERSIONS	MINIMUM CLOTTING TIME	CENTRIFUGATION CONDITIONS
Discard Tube (if using wingset)		EST or glass "no additive" serum tube	N/A	N/A	N/A
Blood Culture		Aerobic Blood Cultures Bottles	N/A	N/A	N/A
		Anaerobic Blood Cultures Bottles	N/A	N/A	N/A
Citrate		PET Sodium Citrate	3-4	N/A	2000-2500 x g (RCF) for 10-15 mins at 25°C [1]
		Glass Sodium Citrate & CTAD	3-4	N/A	1500 x g (RCF) for 15 mins at 25°C [1]
		Sodium Citrate ESR	8-10	N/A	N/A [2]
		ACD	8-10	N/A	N/A
Serum		Serum non gel with silica. Note: If using glass "No additive" serum tube, please take before citrate	5-6	60 mins	≤1300 x g (RCF) for 10 mins at 25°C
		BD RST (BD Rapid Serum Tube)	5-6	5 mins	1500-2000 x g (RCF) for 10 mins at 23-27°C
		BD SST™ II *Advance* (BD Serum Separator Tube)	5-6	30 mins	1300-2000 x g (RCF) for 10 mins at 25°C [3]
Heparin		Lithium & Sodium Heparin	8-10	N/A	≤1300 x g (RCF) for 10 mins at 25°C
		BD PST™ II (BD Plasma Separator Tube)	8-10	N/A	1300-2000 x g (RCF) for 10 mins at 25°C
Haematology		EDTA	8-10	N/A	N/A
		Crossmatch Note: If using Serum Crossmatch tube with clot activator please collect after serum tubes	8-10	N/A	N/A
PPT		BD PPT™ EDTA gel tube (BD Plasma Preparation Tube)	8-10	N/A	1100-1500 x g (RCF) for 10 mins at 25°C
Trace Element		Trace Element Note: If using Serum Trace element tube with clot activator please collect after serum tubes	8-10	N/A	≤1300 x g (RCF) for 10 mins at 25°C
Glucose		NAF Na2EDTA	8-10	N/A	≤1300 x g (RCF) for 10 mins at 25°C
Proteomics/ Molecular Tubes		BD CPT™ (BD Cell Preparation Tube)	8-10	N/A	1500-1800 x g (RCF) for 15-20 mins at 25°C
		BD™ P700	8-10	N/A	1100-1300 x g (RCF) for 10 minutes
		BD™ P800	8-10	N/A	1100-1300 x g (RCF) for 10 and 20 minutes respectively for the 2.0 and 8.5 mL tubes
		BD™ P100	8-10	N/A	2000-3000 x g (RCF) for 5 minutes
		PAXgene™	8-10	N/A	10 minutes at 3000–5000 x g (RCF)

1. Citrate tubes should be centrifuged at a speed and time to consistently produce platelet-poor plasma (platelet count <10,000/µL per CLSI guideline)
2. Stand for 60 minutes before reading
3. Other centrifugation conditions may be utilized

Tube



1. Draw volume
2. Fill line indicator
3. BD catalogue reference number
4. BD Vacutainer® Notch Label - visual guide for proper placement of secondary labelling
5. Product expiration date and lot number
6. Symbol for sterilisation
7. Tube type & additive concentration (if applicable)

Other tube labels are available, please refer to tube sections in this catalogue.

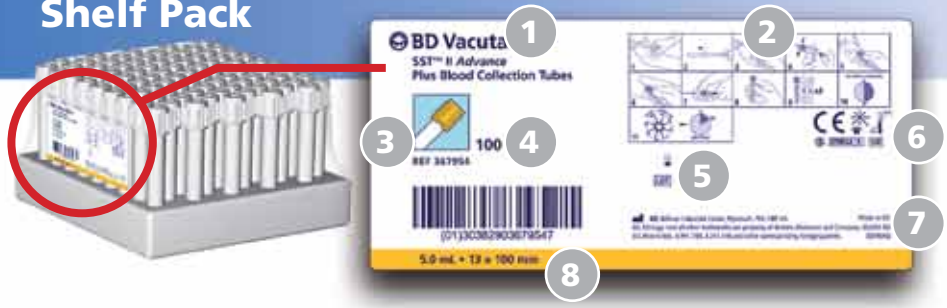
Paper Label
The standard label providing a free text space for writing patient ID & sample information.

Block Label
A formatted paper label with defined areas for writing specific patient ID & sample information.

See Through Label
Product specifications are sprayed directly onto the tube with no provision for hand written information.
This system reduces the risk of tubes getting stuck in sample racks when multiple layers of inhouse patient identifier labels are subsequently applied to the tube.

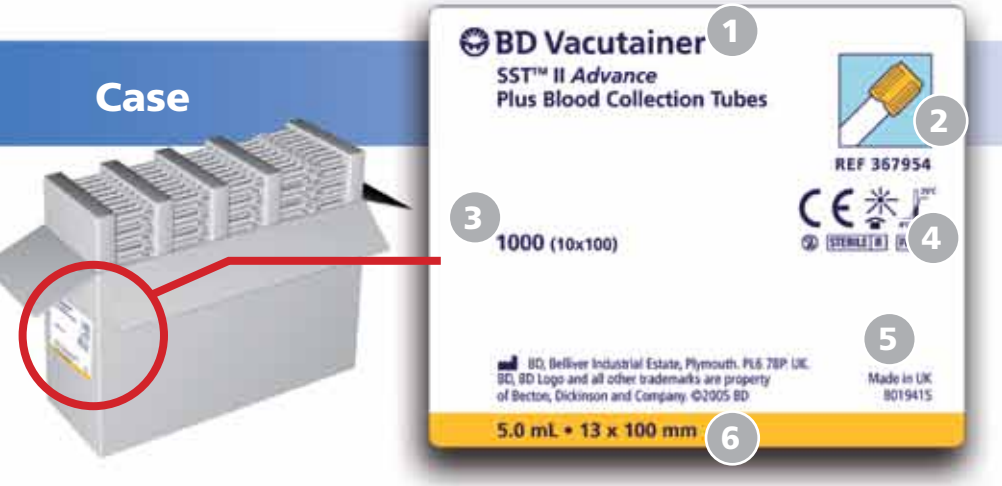
Mylar Label
In the same format as a paper label but with the additional benefit of being see through to allow greater visibility of sample.

Shelf Pack



1. Tube type and additive concentration (if applicable)
2. Pictorial instructions for use
3. BD catalogue reference number
4. Shelf pack quantity
5. Product expiration date and lot number
6. Relevant symbols
7. Country of origin
8. Draw volume and tube size

Case



1. Tube type and additive concentration (if applicable)
2. BD catalogue reference number
3. Case quantity
4. Relevant symbols
5. Country of origin
6. Draw volume and tube size