B BRAUN
SHARING EXPERTISE

NEW

PRESCRIPTION | PATIENT ACCESS | PREPARATION | APPLICATION | DISCHARGE MANAGEMENT

Advanced Application of Blood & Blood Products with Sangofix®

Hygienic transfusion set with improved design

Advanced and Hygienic Blood Application

Supports clean processes and improves patient care

Blood plays an important role in maintaining the body's systems

Blood performs three major functions:[1]

- Blood is the primary means to of **transporting** oxygen, nutrients and hormones through our body and, in exchange, carries waste products to the eliminating organs.
- Blood helps to **regulate** many functions in our body. For instance it helps to maintain the correct body temperature.
- As a part of our immune system, blood helps to **protect** our body from pathogens and exogenous substances. In the case of vascular injuries, it protects from blood loss by coagulating and sealing the wound.[2]

Blood components are used to correct abnormalities in the blood, which cannot be corrected by any other means. Common reasons for blood transfusions are:

- Severe blood loss caused by an accident or surgery,
- Chronic anemia or
- Bleeding and clotting disorders.[3]

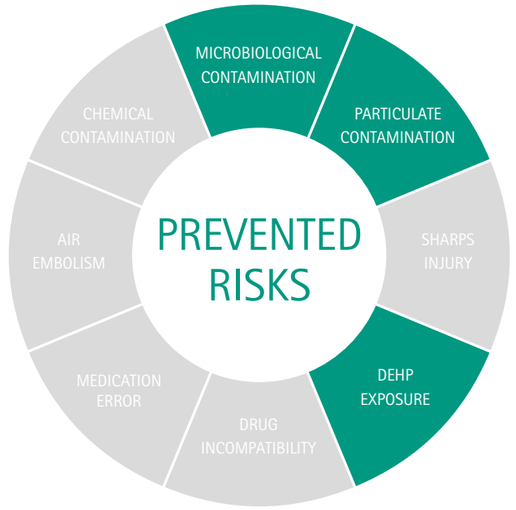
Blood spillages during transfusion interrupt your clinical process

Blood or blood products are frequently given to your patients in **emergency situations** to sustain or save their lives. These situations **put pressure on you as an health-care worker** and may lead to complications, such as blood exposure.

Coming in **contact with blood interrupts the clinical process** and is therefore a major inconvenience to yourself and your patient. Any blood that leaks during the transfusion can end up on the bed, floor, shoes, clothing, unprotected skin or gloves. Changing bed linen, changing your uniform, cleaning the environment and/or disinfecting your skin are some of the consequences of having blood present in your daily work.[4]

If you are the person experiencing the event, you need to deal with spills immediately,[5] which can result in less time dedicated to patient care.

Sangofix® comes with the PrimeStop cap and Spin-Lock® Connector to reduce blood spills while priming the set as well as accidental leaks during the application. The **improved design supports clean processes** with less risk of contamination as well as reduced clean-up time and use of material.



Sangofix® – Improved Design

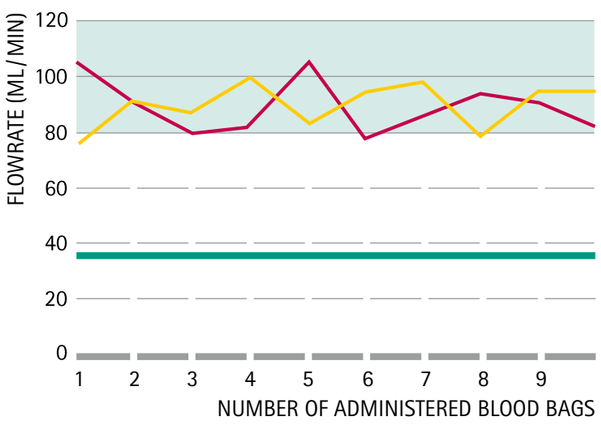
Designed to avoid leaks, infusion of clots and loss of blood

Filter capacity

Due to its high viscosity and the coagulation effect, the administration of blood or blood products requires an integral filter of 170-200 µm. Sangofix® has a 200 µm blood filter, complying with the latest ISO standards for transfusion equipment for medical use.[6] It **retains particles** larger than 200 µm and helps to prevent blood clots and cellular debris resulting from storage. The hanging filter basket arrangement and the high quality filter material support a soft impingement of blood drops.

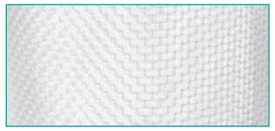
During a laboratory test, Sangofix® with a filter surface of 11 cm² was used to successively administer 10 erythrocyte concentrates. The flow rate of each administration was measured. All measurements fulfilled the DIN EN ISO 1135-4 requirements.*

With the newly designed Sangofix® it was possible to downsize the drip chamber and consequently to **decrease waste products** without impairing the filter capacity, relative to B. Braun's well established Sangofix® ES.**



200 µm / 11 cm² particle filter

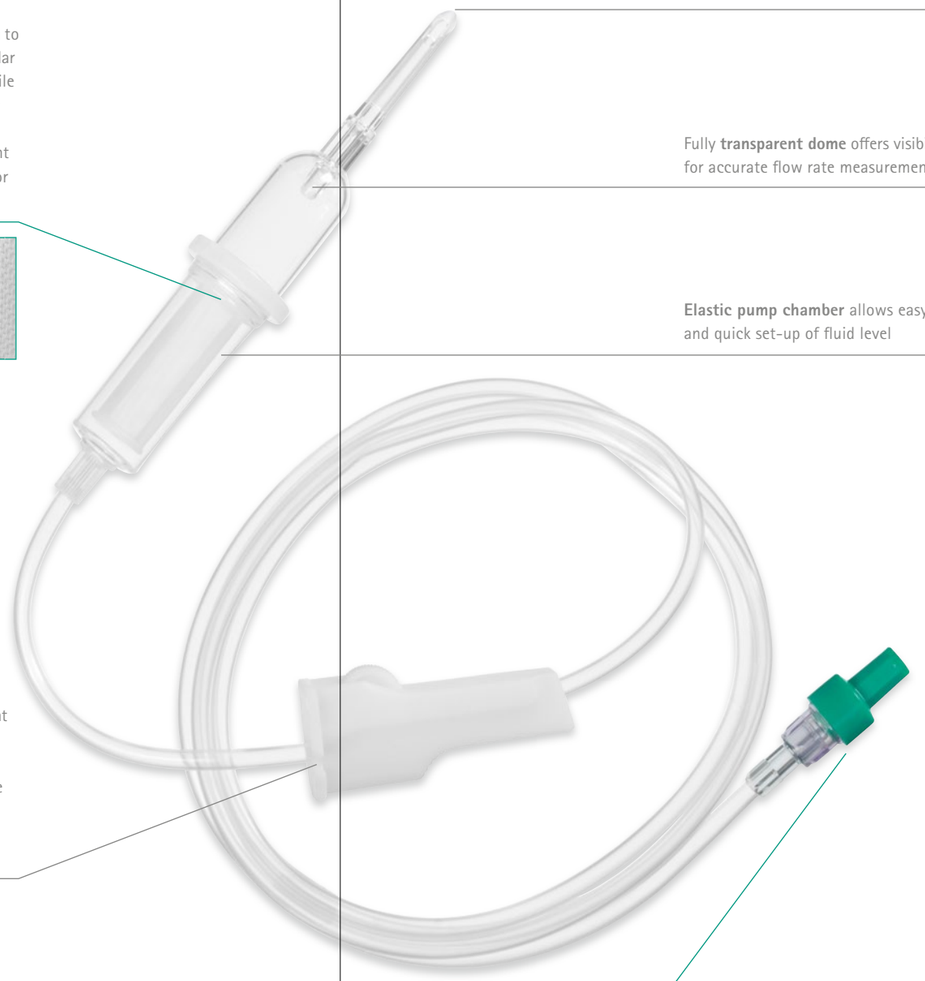
- Retains larger particles >200 µm to help to avoid blood clots and cellular debris resulting from storage while providing a higher flow rate than required by ISO
- Hanging filter basket arrangement and high quality filter material for soft impingement of blood drops



CLOSED SYSTEM

Roller clamp

- Enables fine and flexible adjustment of flow rates to precisely control application of blood
- Ergonomic design for comfortable and effortless handling
- Secure spike protection at roller clamp for safe disposal



Clear, **non-vented piercing spike with blunt tip** to prevent puncturing of bag

Fully **transparent dome** offers visibility for accurate flow rate measurement

Elastic pump chamber allows easy and quick set-up of fluid level

NEW

Spin-Lock® Connector with PrimeStop

- Rotating collar of Spin-Lock® Connector prevents twisting of IV line during connection
- Protective cap lined with a hydrophobic, bacteria-tight membrane stops blood leaks while priming the set

Spin-Lock® with PrimeStop cap

Sangofix® is equipped with the PrimeStop cap and Spin-Lock® Connector, specifically set up for the administration of blood and blood products.

The PrimeStop cap stops blood leaks while priming the set and thus **lowers the risk of blood exposure which could lead to microbiological contamination**. Lined with a hydrophobic, bacteria-tight membrane, the protective cap stops fluid but allows air to go through. It prevents the escape of any solution or contaminants into the adjacent environment and is thus a closed system referring to NIOSH 2004 definition.[7] The Spin-Lock® Connector is designed to prevent kinking of the IV line while connecting.

YOUR BENEFITS

- Supports clean processes with less risk of microbiological contamination
- Helps to prevent particulate contamination while maintaining a flow rate even higher than required by ISO Standard
- Decrease of waste products without impairing the filter capacity

* Lab Test. The erythrocyte concentrates had the blood group AB rh*, an age of 34 to 42 days and a volume of 312-367 ml. Massive transfusions have to be conducted according to the national blood transfusion and hygienic guidelines.

** Reducing the size of the drip chamber achieved a weight reduction of 52.4%.

Product Specifications

Sangofix® blood administration sets and complementary products

Blood administration sets		Description	Units per box	Code No. (REF)
Gravity Sets				
	**Sangofix®**	▪ 200 µm / 11 cm² blood filter ▪ Non-vented ▪ Spin-Lock® Connector **with PrimeStop** ▪ Length 150 cm ▪ DEHP-free	100	4117301
	Sangofix®	▪ 200 µm / 11 cm² blood filter ▪ Non-vented ▪ Spin-Lock® Connector **with PrimeStop** ▪ Length 180 cm ▪ DEHP-free	100	4034228
	**Sangofix® Air**	▪ 200 µm / 11 cm² blood filter ▪ **Vented** ▪ Luer-Lock Connector ▪ Length 180 cm ▪ DEHP-free	100	4116011F
	**Sangofix® Air Piggy Back**	▪ 200 µm / 11 cm² blood filter ▪ **Vented** ▪ Luer-Lock Connector ▪ **Length 40 cm** ▪ **PVC-free**, DEHP-free	25	4062866
	**Sangopur®**	▪ **80 µm / 10 cm² pre-filter, 40 µm / 22 cm² blood filter** ▪ Non-vented ▪ Luer-Lock Connector ▪ Length 150 cm ▪ DEHP-free	50	4146581
Perfusor® Space Sets				
	**Sangopur® Pediatrics-Set**	▪ **80 µm / 10 cm² pre-filter, 40 µm / 22 cm² blood filter** ▪ Non-vented ▪ Female Luer-Lock Connector ▪ **Length 4 cm** ▪ DEHP-free	50	4146492

Blood administration sets		Description	Units per box	Code No. (REF)
Infusomat® Space Lines				
	**Infusomat® Space Line for blood administration**	▪ 200 µm / 11 cm² blood filter ▪ Vented ▪ Luer-Lock Connector ▪ Length 250 cm ▪ DEHP-free	100	8270066SP
	**Infusomat® Space Line for blood administration**	▪ 200 µm / 11 cm² blood filter ▪ Vented ▪ **Needle-free injection port** ▪ Luer-Lock Connector ▪ Length 250 cm ▪ DEHP-free	100	8270074SP

Complementary Products	Description
	**Introcan Safety® 3** In addition to its fully automatic safety mechanism, Introcan Safety® 3 closed IV catheter is equipped with a multi-access septum to help prevent blood exposure during catheter insertion and while disconnecting a device from the catheter hub. Its stabilization platform aims at reducing catheter related complications.
	**Caresite® extension set** Extension sets with Caresite® valve allow needle-free handling which helps to prevent needle-stick injuries and manipulation of the catheter away from the insertion site and to reduce movement of the IV catheter inside the vein.
	**Askina Secure® IV** Askina Secure® IV's transparent adhesive film with border is designed to provide a stable fixation of the catheter, in order to help reduce catheter movement.
	**Combi-Stopper** Combi-Stopper closing cones can be used to seal male and female ports such as the line at the patient connector or the filled syringe, to help reduce the risk of microbial contamination.
	**Omniflush®** Omniflush® is a ready-to-use flush syringe, which supports the flushing process of IV access devices. It avoids unnecessary preparation steps and thus helps prevent the risk of contamination during preparation of the flush solution.
	**SwabCap® (1) and Softa® Cloth CHX 2 % (2)** SwabCap® is a disinfection cap for needle-free swabable valves which acts as a physical barrier to touch and airborne contamination between line accesses. Softa® Cloth CHX 2 % is a ready-to-use tissue which can be used as a disinfecting cleaner prior to line access.

For specific ordering informations please ask your B. Braun representative or see the respective product brochures.

LITERATURE

1. Thews, G. (1999): Anatomie, Physiologie, Pathophysiologie des Menschen, Stuttgart, p. 109
2. Faller, A., ed. by. M. Schünke (2016): Der Körper des Menschen, 17th edition (1st edition in 1966), Stuttgart New York, p.120-161
3. Guidelines for the Administration of Blood and Blood Components Issued by the National Blood Users Group, 2004
4. Reducing blood exposure, risks and costs associated with SPIVC insertion. By Deborah Richardson, MS, RN, CNS and Louis Kaufman, PhD
5. NHS: The Revised Healthcare Cleaning Manual. Last accessed. 01.12.2016. Link: http://www.nrls.npsa.nhs.uk/EasySiteWeb/getresource.axd?AssetID=61814
6. DIN EN ISO 1135-4 – Transfusion Sets for Single Use
7. Quality Labs Biomaterial testing: Test Report: Closed System test by means of Sodium Fluorescein for PrimeStop Cap of Sangofix®

B. Braun Melsungen AG | Hospital Care | 34209 Melsungen | Germany
Tel. +49 5661 71-0 | www.bbraun.com

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