MCS®+: Multicomponent Collection System

The only true multicomponent system

HAEMONETICS®
THE Blood Management Company™

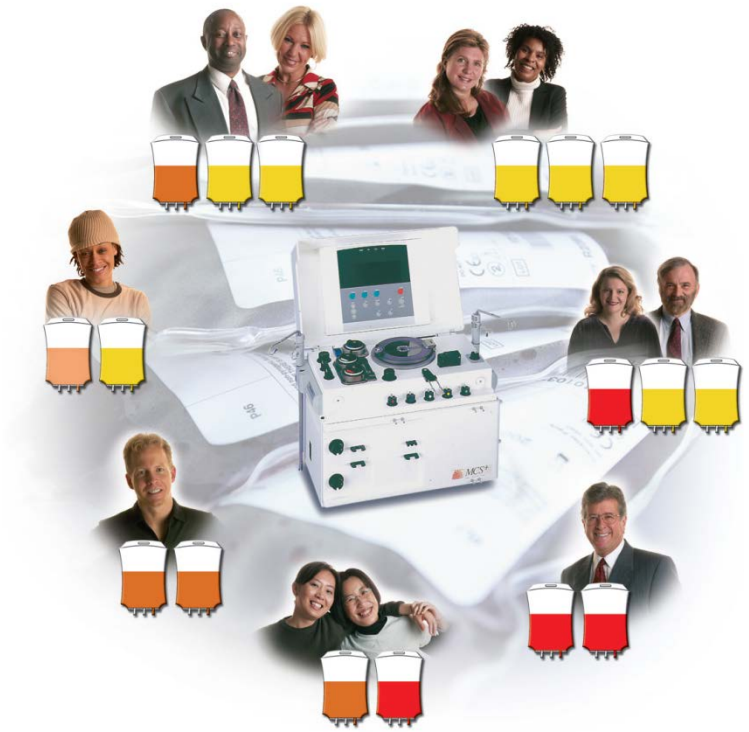
Applications

Component donations

- Platelets
- Red blood cells
- Plasma
- All blood component combinations

Patient treatments

- Stem cells
- Plasma exchange
- Autologous red blood cells
- Therapeutic cell removal



Multicomponent collection

MCS +

- → + automated Platelet Collection
- → + automated Red Cell Collection
- → + automated Plasma Collection
- → + combinations of all above
- + therapeutic applications

MCS®+: Multicomponent Collection System

Key advantages

- Lightweight at 27.5 kg
- Reliable
- Good product quality
- Real multicomponent device
- Fast set-up and tear-down
- No secondary component processing
- Minimal operator involvement and time
- Quiet device

Applications

- **Plasma** is collected to be transfused(**FFP)**:
  - Substitution of coagulation factors and plasma proteins in cases of massive bleeding, transplantation, clotting disorders, burns
- **Plasma** is collected for **industrial fractionation (PPP)**:
  - Most often plasma is fractionated and sold to pharmaceutical companies as raw material for manufacture into biopharmaceuticals.
- **Platelets** are collected to be transfused:
  - Patients undergoing surgery, chemotherapy
  - Hemophilia, bleeding disorders
- **Red Blood cells** are collected to be transfused:
  - Severe hemorrhage (surgery, emergency)
  - Anemia, Thalassemia
- **Stem cells** are collected to be transfused:
  - Leukemia treatments, repopulate the whole bone marrow and grow new blood cells after chemotherapy
- **Plasma exchange** is done on a patient:
  - Removal and replacement of plasma with donor plasma or other fluids in order to treat a variety of diseases eg. Guillain-Barré syndrome or Hyperviscosity syndrome

Plasma applications

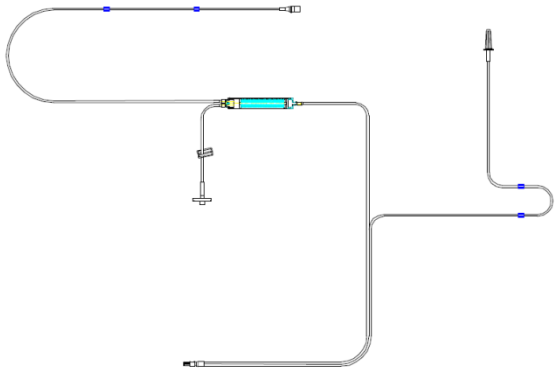
Plasma Collection protocols

- PPP&FFP, Platelets poor Plasma & Fresh Frozen Plasma
  - Therapeutic plasma collection with closed sets (623E, 622HS, 623HS)
  - Fractionation plasma collection with pre-connected or bundled sets (627, 792, 782, 782HS-P, 792P, 625B, 625HS, 690, 692, 699, SC690, SC692, 620, 620E)
  - Utilization of standard BMB or HS core bowl.
  - Optional Saline compensation

Disposables

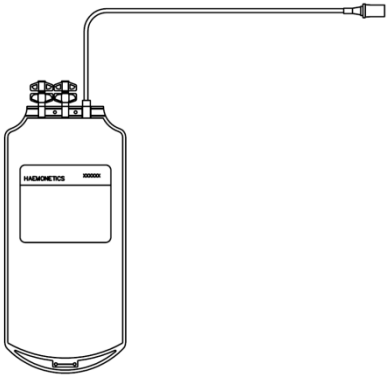
Unbundled sets → The customer creates his own set (Commercial plasma collection):

Needle
Donor harness
Centrifuge bowl
Collection part **(bottle or bag(s))**



Donor harness

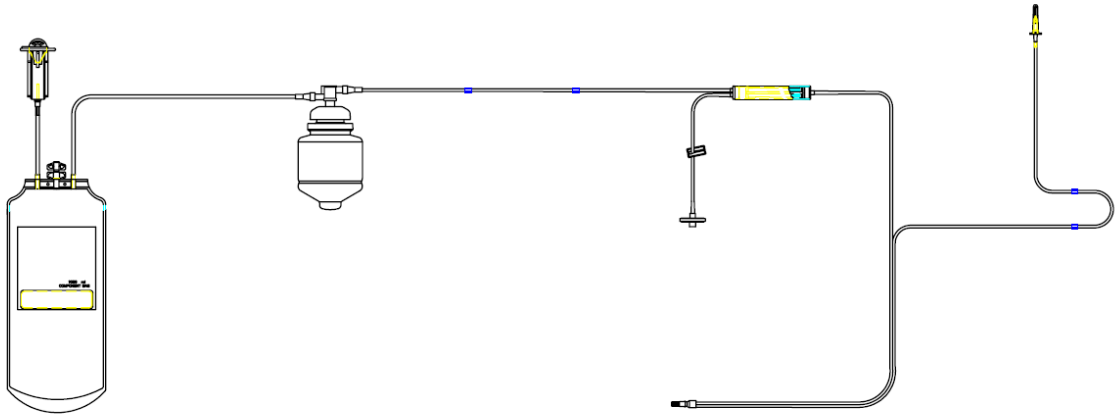
Bowl



Bag

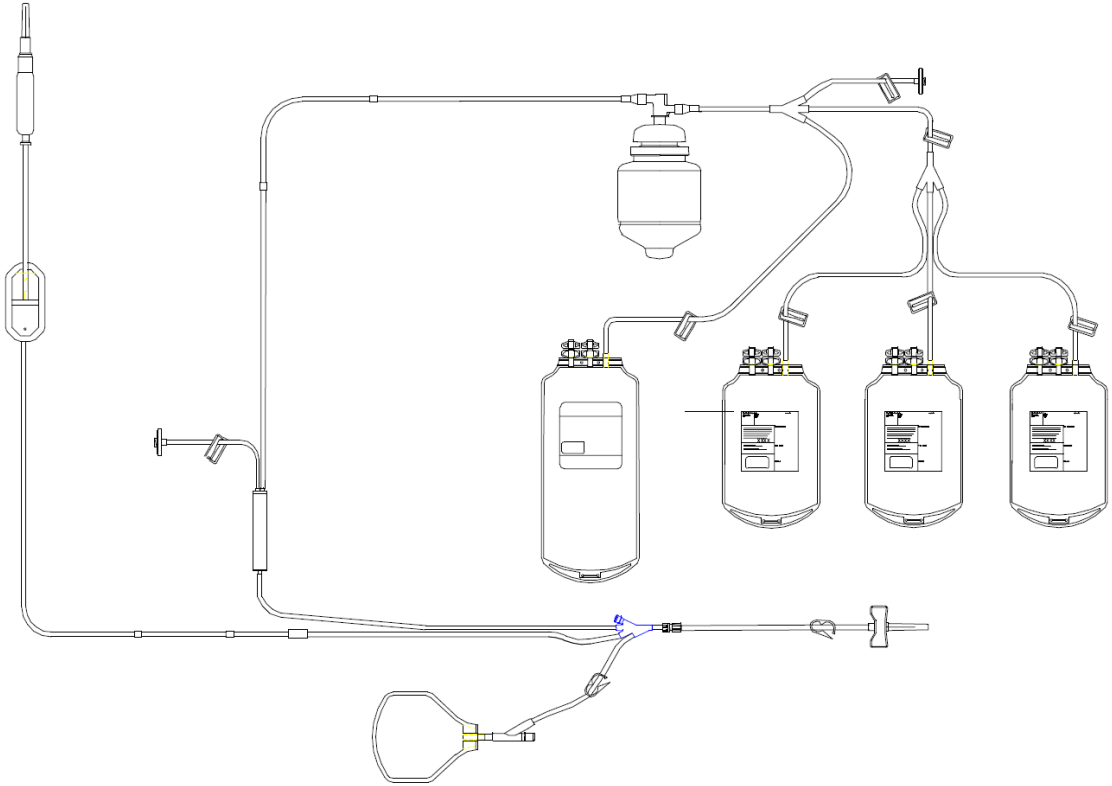
Disposables

Pre-connected sets → **Sets are connected but** not „closed“ **(PPP** or **FFP**):



Disposables

Closed sets → Sets are connected and closed**: They contain** bacterial filters **on the connections**
(Fresh frozen plasma collection):



Platelet applications

Platelets Collection protocols

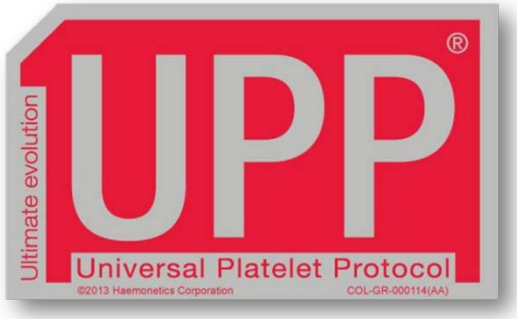
- LDP, Leukodepleted platelets (994CF-E)
  - Standard Platelets collected in plasma
  - Concurrent PPP plasma collection and Saline compensation
  - Continuous Platelet Leukocyte filtration

- LDPRBC, Leukodepleted platelets and Red Cells Collection (946FF)
  - Standard Platelets collected in plasma
  - 1 unit of RBC re-suspended in SAG-M
  - Concurrent PPP plasma collection and Saline compensation
  - Continuous Platelet Leukocyte filtration
  - Manual Red Cells leukocyte filtration

Platelet applications

Platelets Collection protocols

- UPP, Universal platelets protocol
  - Standard Platelets collected in plasma (997CF-E)
  - Concentrated Platelets collected in additive (999F-E)
  - Concurrent RBC re-suspended in SAG-M (949FF-E)
  - Concurrent PPP plasma collection
  - Optional Saline compensation (997CF-E)
  - Continuous Platelet Leukocyte filtration
  - Manual Red Cells leukocyte filtration (949FF-E)



Disposables

Disposable sets for platelets collections: **99*X*CF-E-BA**

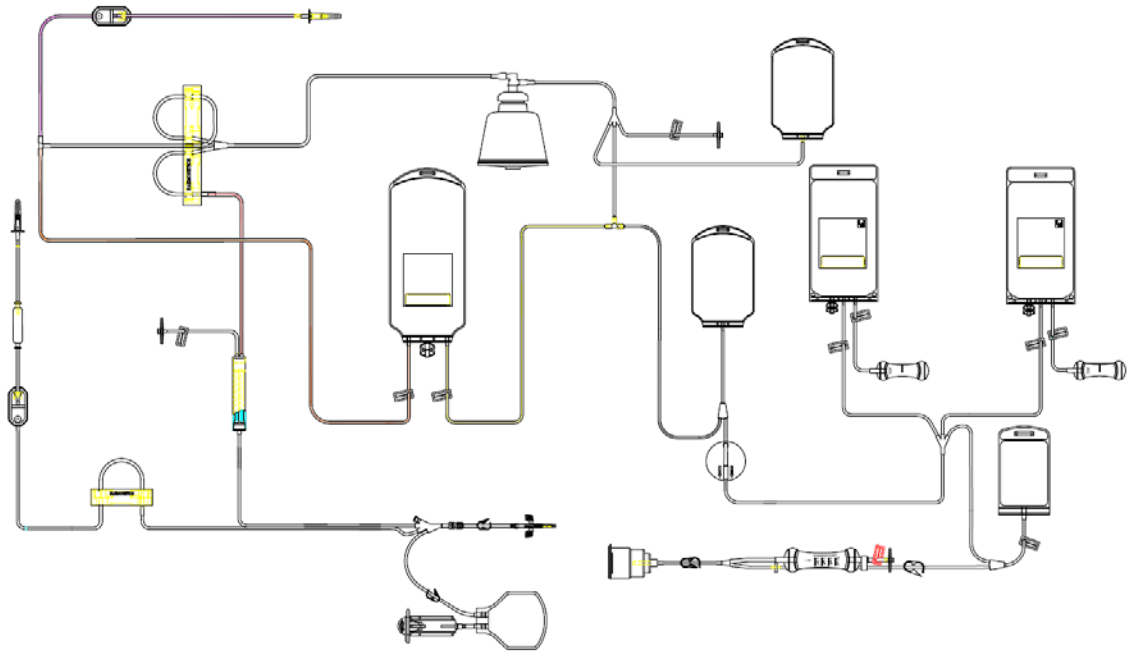
9 → MCS+ disposable set

9 → Platelets application

CF → Continuous filtration for platelets

E → Europe

BA → Bacterial sampling system



Red Cells applications

Red Blood Cells Collection protocols

- SDR&TAE, Single Donor Red Blood Cells & Therapeutic Autologous Erythropheresis.

  SDR

  - 2 units of Buffy Coat removed RBC (942)
  - 2 units of Leukodepleted RBC (948F)

  TAE

  - 3 units of buffy coat removed RBC (944)

  - Red Cells re-suspended in SAG-M
  - Optional Saline compensation

Red Cells applications

Red Blood Cells and Plasma Collection protocol

- RBCP+, Red Blood Cells & Plasma
  - 1 unit of Buffy Coat removed RBC and 2 units of plasma (941)
  - 1 unit of Leukodepleted RBC and 2 units of plasma (947F)

  - Red Cells re-suspended in SAG-M
  - Optional Saline compensation

Disposables

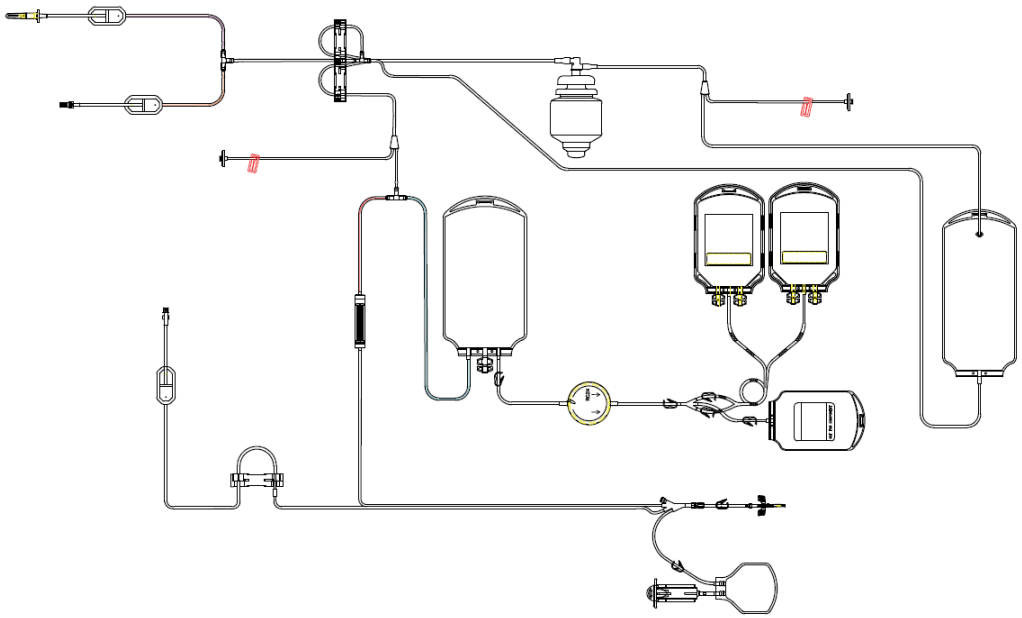
Disposable sets for red cell collections: **94*X*FF**

9 → MCS+ disposable set

4 →Red cell applications

F → Filter for platelets

F→ Filter for red cells



Therapeutic applications

Therapeutic protocol

- TPE, Therapeutic Plasma Exchange protocol (980E, 981E)
  - Extract plasma from a patient
  - Substitution fluid monitored by the device
  - 2 type of bowls 125ml, 225ml

- PBSC, Peripheral Blood Stem Cells (970E, 971E)
  - Stem Cells (PBSC): collects a mononuclear cell concentrate (MNC) used for peripheral stem cell transplantations.
  - Therapeutic Platelet Reductions (TPR): reduce the platelet count of patients with abnormally high platelet counts
  - Therapeutic Leukocyte Reductions (TLR): reduce the white cell count of patients with abnormally high white cell.
  - Optional Saline compensation

Disposables

Disposable sets for therapy:

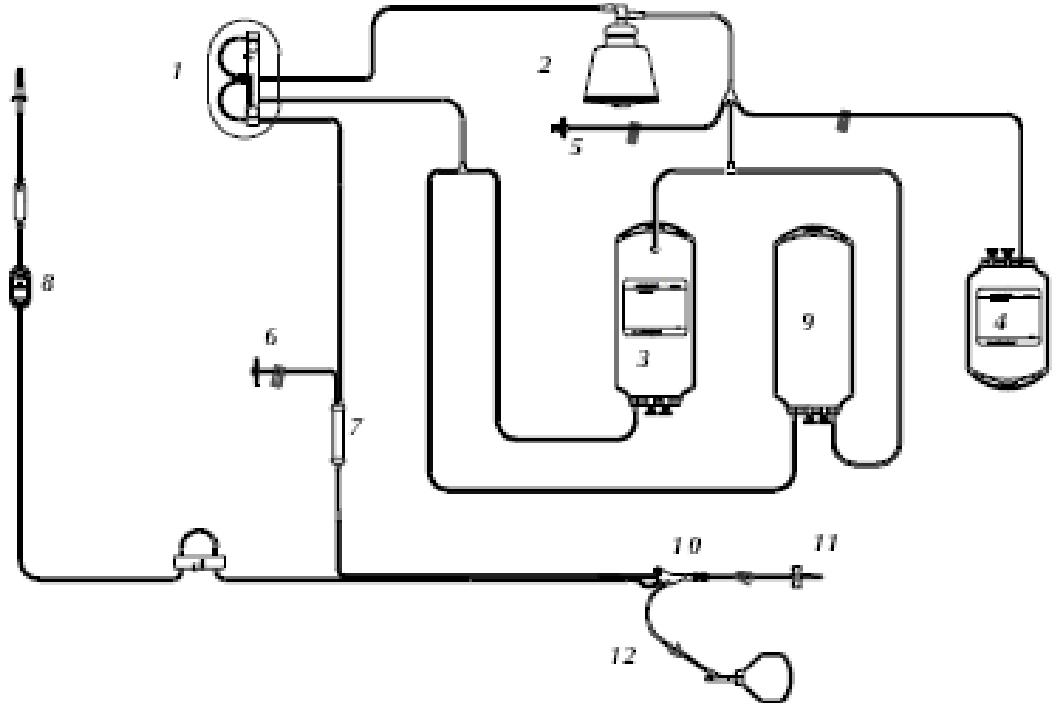
9Y*X*E

9 → MCS+ disposable set

7 or 8 →Therapy application

0 or 1→ 0 for 225ml bowl
1 for 125 ml bowl

E →International sets



Questions