



Giotto

EFFICIENT - SAFE - RELIABLE



**DELCON**

*Our technology Your health*

## Automatic blood components extractor

- ✓ It works with any conventional or T&B bags
- ✓ Two electronic presses fully controlled for speed, position and force
- ✓ Automatic air removal procedures
- ✓ Fine buffy-coat controls while using T&B bags
- ✓ Flow regulator with high precision optical sensor
- ✓ Five sealing clamps
- ✓ 16 pre-loaded Procedures
- ✓ Up to five scales
- ✓ RFID writer-reader and barcode
- ✓ LED dashboard for tubes positioning
- ✓ Wi-Fi, Ethernet or RS485 communication mode

You can download full Specifications and the Technical Data Sheet from our website [www.delcon.it](http://www.delcon.it)

GIOTTO is an automatic extractor designed to prepare blood components from centrifuged blood in single use plastic bags manufactured upon the International Standard ISO 3826 and the European Directives no. 93/42 and 2007/47 MDD. It can prepare high quality blood components with any kind of commercially available bag, either conventional or TOP & BOTTOM type.

GIOTTO is available in two main versions, basic and with double press, each with different configuration for computer connection.

- Electronic main press with integrated scale fully controlled for speed, generated force and position.
- Secondary press with integrated scale and same controls of main press (only with GIOTTO code GIO.DB.00.P2X).
- Five programmable sealing clamps.
- External sealing handle available as option.
- Flow regulator with auto-zeroing optical sensor.
- Eight optical sensors on main press for fine control of BC volume and haematocrit.

- Three scales to read the net weights of all components (four with version GIO.DB.XXX.P2) plus one external as option.
- Communication mode available as RS485, Wi-Fi or Ethernet (see versions of GIOTTO available).
- Barcode reader or COMBO RFID Tags reader-writer with integrated barcode (options).
- Graphic LCD Display white-blue back lighted with guided menu and membrane keyboard.
- 16 pre-loaded Programs as standard. Up to fifty additional PROGRAMS can be generated and stored by using the dedicated SDM software.
- Automatic air removal and additive solution transfer available as standard routine.
- GIOTTO can read automatically all weights of components or, at the end of each extraction, can weight up to five different bags as net or gross weight and thus record all data (after or before tubing disconnection).

GIOTTO can deliver several information to SDM for each extraction procedure:

1. Serial number of GIOTTO
2. Description of the performed Program
3. Number of the performed Program
4. Net weight of Plasma extracted
5. Net weight of Buffy Coat
6. Net weight of whole blood
7. Net weight of Plasma transferred into BC bag
8. Net weight of transferred SAG-M
9. Net weight of PL transferred back into the main bag
10. Net weight of PL extracted into other satellite bags
11. Net weigh of Platelets Concentrate
12. Net weight of packed RBC
13. Separation date
14. Time of separation
15. Duration of separation
16. Error codes if any
17. Tens of different and customizable codes, either as barcode labels or RFID Tags are available too

## COMMUNICATION AND TRACEABILITY

Communication mode via RS485, Wi-Fi or Ethernet.

Codes handling can be done either as barcode labels or RFID Tags.

Cross-matching of each code by customized filters and/or fixed masks.

Internal data base with automatic LOG saving for all operations and extraction procedures.

## MAIN PRESS

Electronically controlled. Wide controls on whole stroke. Possibility to generate up to five independent speed-pressure profiles with controls on pressures, speeds, position, feedback with optical sensors for best handling of BC layer and phase time out for each Program.

## QUALITY AND SAFETY

All optical sensors perform automatically an auto-calibration to zero at any new separation. Dynamic LEDs indicators for correct tubes positioning showing the clamps to use, activates all separation long. Precise control of final buffy-coat volume with fine adjustment of haematocrit while using top and bottom bags.

• = active sensor to hold on the BC level

D\* = distance to define precisely the desired final volume

## FLEXIBILITY

16 pre-loaded extraction Programs with most common applications for double, triple, quadruple and quintuple conventional and Top & Bottom bags. Possibility to expand the list up to 50 Programs.

Up to five integrated scales for automatic weighting and recording of all blood preparations.

Five programmable welding clamps for manual or automatic operation: available as option a sixth portable tube sealer.

Air removal routine available as standard.

Secondary press available to perform most complex procedures rapidly and precisely: filter priming, air removal from plasma bag, fast SAG-M transferring (only with versions GIO.DB.XXX.P2).

## DATA MANAGEMENT AND COMPUTER

SDM-Software Data Management is a specific application designed for remote controls of GIOTTO and for collection & handling of separation data. SDM should be installed on a computer with Windows® XP, VISTA or 7 (computer and Microsoft® software not included). To communicate with the available GIOTTO, SDM may use RS485, Wi-Fi or Ethernet connections. By using SDM you can do the following remote operations on all GIOTTO connected to the net:

- modify any Program available on each GIOTTO
- generate new Programs of separation
- download the data of each single extraction procedure performed by GIOTTO

- generate Reports based on the executed extraction procedures
- generate Reports based on the executed extraction procedures applying for customizable filters to fit the minimal quality standards of the blood bank. The Reports can be printed directly through the pre-defined printer of computer or saved as .csv or Word file (may requires Microsoft Office® on computer)
- by using the optional printer label (see options) it is possible to prepare customizable adhesive labels to be populated with net or gross weights, ID bags, ID Operator and some more



**ORDERING INFORMATION – Available versions of GIOTTO**

**GIOTTO - Single press blood component extractor**

**GIO.DB.485**

Single press version, three scales, standard RS485 communication. Includes LinkEx Core.

**GIO.DB.LAN**

Single press version, three scales, standard RS485 communication, Ethernet module. Includes LinkEx Core.

**GIO.DB.WIFI**

Single press version, three scales, standard RS485 communication, Wi-Fi module. Includes LinkEx Core.

**GIOTTO - Double press blood component extractor**

**GIO.DB.485.P2**

Double press version, four scales, standard RS485 communication. Includes LinkEx Core.

**GIO.DB.LAN.P2**

Double press version, four scales, standard RS485 communication, Ethernet module. Includes LinkEx Core.

**GIO.DB.WIFI.P2**

Double press version, four scales, standard RS485 communication, Wi-Fi module. Includes LinkEx Core.

**Optional accessories**

**GIO.DB.40**

External scale with tray.

**SEL000001**

Optional sealing handle with two coaxial cables.

**CCD-BARCD1**

CCD barcode reader.

**LSR-BARCD1**

LASER barcode reader.

**Accessories for PC communication**

**GIO.DB.WIFI\_AP**

Wi-Fi access point

**CAB-LAN.5**

LAN Ethernet cable (5m)

**HUB-PC**

HUB Ethernet, 16 entries

**CAB-485.5**

RS485 network cable (5m)

**ADAP-485-USB**

RS485 network adapter for USB computer connection



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For ordering and technical information, please download the full DataSheet from our website.

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