

Blood Typing **Manager**

Don't let your
process test you.
Easy. Efficient. Secure.

A centralized management tool that connects all your Immunohematology data, delivering fast results, increasing lab productivity and enhancing safety.

TYPING

GRIFOLS

Ease the burden of complexity

Healthcare institutions face growing challenges. They are pressured to maintain laboratory performance with fewer personnel, hold the line on costs, and at the same time improve patient care and satisfaction.

The solution to these problems lies in tools to improve workflow efficiencies by reducing turnaround time for result release and blood availability.

Blood Typing Manager middleware connects all your Immunohematology laboratory data, enhancing productivity and delivering rapid and safe results for your patients.

It complements Grifols instruments by providing advanced features that support your growth.

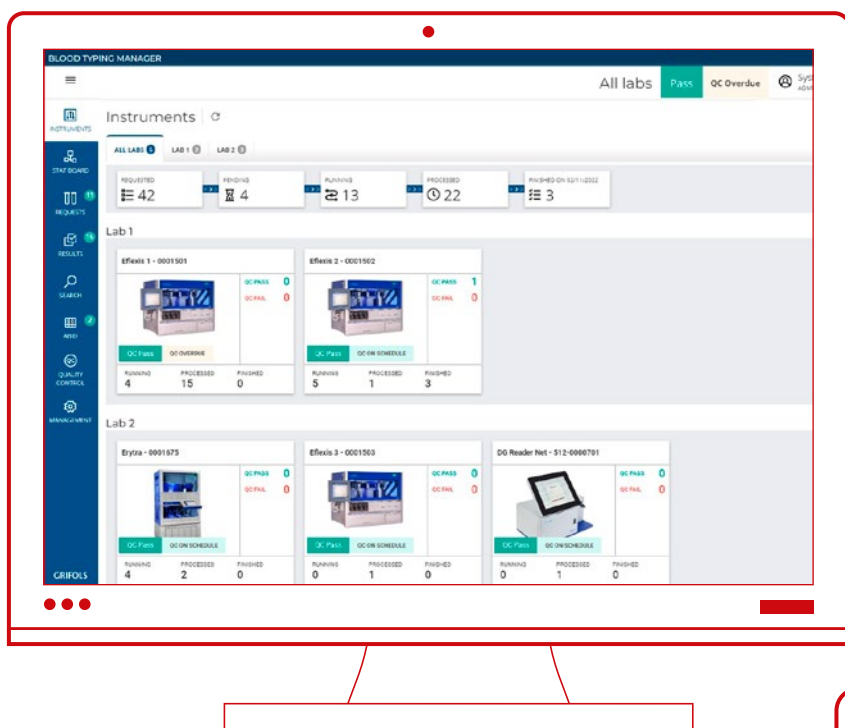
“BTM is very simple. We get to the results information very quickly, and the results are easy to read. The intuitive and friendly way to manage the Quality Control, and the helpful tool for the automatic identification of alloantibodies were very appreciated.”

— Dr. Anne Marie Osta,
Cholet Hospital, France

“Blood Typing Manager is an easy to use and very intuitive middleware. Getting started is fast, and the settings are quite flexible.”

— Dr. Michel Bendahan,
XLABS, France

Blood Typing Manager dashboard



Convenient **real-time operations** monitoring for multiple instruments and laboratories, including workload summary and quality control information



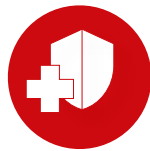
Efficient results management in a **centralized database** of samples and quality controls processed within the network

All your results, secured at your fingertips



Ease of use

- Minimize risk of errors while increasing operational efficiency with an **up-to-date, highly intuitive interface**
- Deliver a consistent user experience within Grifols IH automated solutions, allowing easier training and adoption by staff
- Ease result analysis with **auto-validation** and auto-export capabilities, including **customizable rules** to alert you about rare results before validation and force the review of the desired special results



Enhanced safety

- Deliver **safer results** on time by reducing manual data handling procedures and paperwork, thus achieving cost savings
- Protect your patients by automatically comparing current results with historical results, thereby identifying result **discrepancies within the lab or network** database
- **Follow up your operations and results properly with enhanced traceability** of processes, including an audit trail



Streamlined operations

- **Improve workflow** management in a multi-site, multiple instrument laboratory environment, allowing quicker availability of blood, thanks to a **centralized dashboard** and **unique database**
- Simplify data handling processes with customizable **reflex rules** and the capability to manually create new test requests or samples, giving staff more time to focus on complex cases
- Optimize resources with **remote real-time access** to information, facilitating core labs to centralize network results review



Improved efficiency

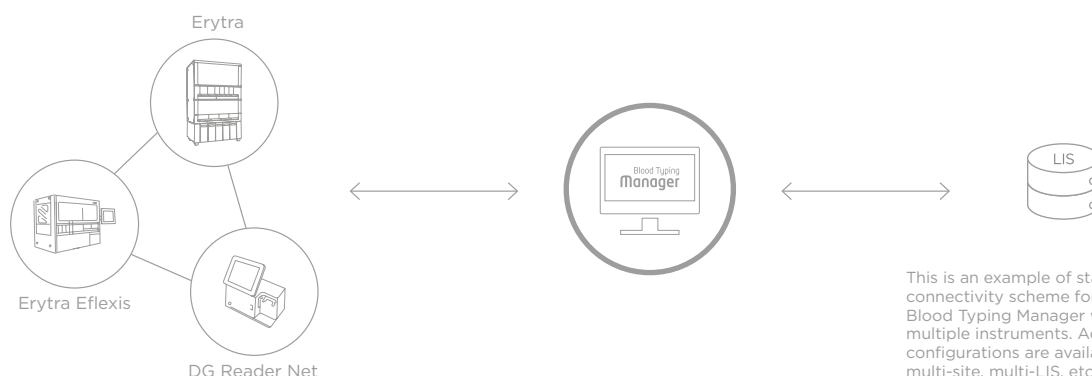
- Centralize your **quality control** management and **increase efficiency** of your expert staff's working hours
- Remove analysis subjectivity and lower time for results release with the optional **Antibody Identification Module**, which helps you make decisions on unexpected antibody results
- Avoid test repetition with optional additional checkpoints, for example, the patient demographic double data entry



Secured data

- Have confidence knowing that the confidentiality, integrity, and availability of your data are in safe hands. Grifols designs products with cybersecurity in mind
- Patient data is securely managed in Blood Typing Manager, complying with **data protection** and **cybersecurity standards**
- Keep your lab running smoothly with Secure Remote Connectivity, a tool for the technical support team to **remotely access** the middleware to reduce incident handling time while optimizing system uptime

Blood Typing Manager



This is an example of standard connectivity scheme for Blood Typing Manager with multiple instruments. Additional configurations are available: multi-site, multi-LIS, etc.

Technical specifications

INSTALLATION

Component	Server Computer Specification	Client Computer Specification
CPU	Intel 4 cores 3GHz or faster	Intel Celeron or faster
Memory	8 GB or more	4 GB or more
Hard drive	250 GB or more, 7200 rpm or faster	250 GB or more
Operating system	Windows 10 v1607 (or higher), or Windows Server 2016 (or higher)*	Not applicable
Web browser	Not applicable	Google Chrome and Microsoft Edge

ORDERING INFORMATION

Code	Description
21040401	Blood Typing Manager Core Module
21040402	Blood Typing Manager Multi-site Plus (> 5 sites)
21040403	Blood Typing Manager Antibody Identification Module

*Windows 10 is recommended for environments of up to 4 concurrent users and 5 connected instruments. In other environments, Windows Server 2016 or above is recommended.

SOFTWARE CONNECTIVITY

LIS connectivity	Bidirectional connectivity to one or more LIS
LIS protocol	Serial port: HL7, File sharing: HL7, TCP/IP: HL7
Instrument connectivity	File sharing or TCP/IP connectivity to unlimited number of IH Grifols instruments
IH Grifols instruments compatibility	Erytra, Erytra Eflexis, DG Reader Net
Sites connectivity	Multiple laboratory connectivity sharing a unique database
Client PC connectivity	Web access (HTTPS)
Technical support and remote connectivity	Compatible with Grifols Secure Remote Support tool that provides remote desktop and file transfer capabilities for troubleshooting for technical support

STANDARDS

Regulatory standards	CE Mark, FDA 510k; ISO 13485 & ISO 14971; IEC 62304 & IEC 62366-1, UKCA mark according to UK Medical Devices Regulation 2002
Cybersecurity standards	AAMI TIR57: Principles for medical device security
Data protection standards	HIPAA (Health Insurance Portability and Accountability Act). 45 CFR Parts 160, 164 Regulation (EU) 2016/679 (General Data Protection Regulation)

DIAGNOSTIC
Support & Services

With you every step of the way

We deliver solutions to facilitate high-quality patient care with a dedicated and responsive team of professionals.

GRIFOLS

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