



TECHNICAL SPECIFICATIONS

ORTHO VISION® SWIFT ANALYZER

FOR ID-MTS™ GEL CARDS

SPECIALLY DESIGNED FOR YOUR LAB. BECAUSE EVERY TEST IS A LIFE.™

INTENDED USE

ORTHO VISION® *Swift* Analyzer automates in vitro Immunohematology testing of human blood utilizing ID-MTS™ Gel Cards.

ORTHO VISION *Swift* Analyzer:

- Automates test processing functions including liquid pipetting, reagent handling, incubation, centrifugation, reaction grading and interpretation, and data management requirements using ID-MTS Gel Cards and digital image processing.
- Standalone instrument or interfaced to the Laboratory Information System (LIS).
- Fully compatible with ORTHO CONNECT™ to maximize the efficiency of your data, workflow, and resources for integration across your lab or network.

INSTALLATION AND SITE SPECIFICATIONS

Although trained service personnel install the ORTHO VISION *Swift* Analyzer at the laboratory site, the site must be prepared according to site specifications.

ANALYZER SPECIFICATIONS

Physical Dimensions

■ ORTHO VISION *Swift* Analyzer

Width: 107.4 cm (42.3 in.)
Depth: 77 cm (30.3 in.)
Height: 88.9 cm (35 in.)
Height with maintenance door open: 137 cm (54 in.)

■ ORTHO VISION *Swift* Analyzer Table Dimensions (highly recommended)

Table without shelf:
121.9 cm (48 in.) x 76.2 cm (30 in.) x 76.2 cm (30 in.)

Table with shelf at the front:
121.9 cm (48 in.) x 106.7 cm (42 in.) x 76.2 cm (30 in.)
Occupies 61 cm (24 in.) in depth on left front of table.

Table with the shelf on the side:
152.4 cm (60 in.) x 76.2 cm (30 in.) x 76.2 cm (30 in.)
Occupies 61 cm (24 in.) in width on left side of table.



ANALYZER
ORTHO VISION®
Swift

1. Monitor
2. Sample and Reagent Load Door
3. Dual Purpose Drawer
4. ID-MTS Gel Card Waste Drawer
5. Supply Drawer
6. Liquid System
7. Shelf Attachment Positions

Electrical Data

- Data voltage: 100–240 V AC
- Transient overvoltage: Category II
- Frequency: 50/60 Hz
- Power consumption: 1,000 VA
- Power requirement: One dedicated (3-wired single phase; line-neutral and single circuit) AC power line for connection to facility power.

Hardware

16 GB RAM, 1 TB Solid State Hard Drive

Software

- Operating system: Windows 10 IoT Enterprise
- Antivirus system: Cylance Artificial Intelligence Platform (in development)

Weights

ORTHO VISION *Swift* Analyzer: 190 Kg (419 lbs)

ORTHO VISION *Swift* Analyzer Table: 92 kg (202 lbs)

Environmental Specifications

- Operating temperature: 18–30° C (64.4–86.0° F)
- Site relative humidity: 15–85% RH (non-condensing)
- Maximum altitude: 2438.0 m (8000 ft.)
- Heat output: 3412 BTU/hr
- Noise level: Average 51 dB(A)

System Performance

- **Samples:** Up to 42 samples can be loaded, 6 Sample Racks holding 7 tubes each
- **ID-MTS Gel Card Supply Drawer:** 120 ID-MTS Gel Cards (6 sleeves of 20)
- **Reagent Red Blood Cell Supply:** Supports 3 independent RBC racks, each can hold 11-3 mL vials or 6-10 mL vials, including various combinations. The 10 mL rack can accommodate reverse grouping and antibody detection (screen) RRBC. The 3 mL rack can accommodate reverse group, antibody detection and antibody identification RRBC.
- **Diluent:** 2 100 mL positions to accommodate MTS™ Diluent 2 and MTS™ Diluent 2 Plus; 2 10 mL positions to accommodate other diluent; Onboard liquid reagent capacity of 4.7 L of saline and 1 L of deionized water.
- **Heated Incubator:** 12 ID-MTS Gel Cards
- **Room Temperature Incubator:** 16 ID-MTS Gel Cards
- **Centrifuge:** 2 centrifuges; 10 ID-MTS Gel Cards per centrifuge
- **Waste:** 5.2 liters; 80 ID-MTS Gel Cards; External 10 L liquid waste drain kit available; Optional off-board plumbing draining available

SAMPLE SPECIFICATIONS

Supported Sample Types

- Centrifuged whole blood
- Plasma and Serum
- Packed red blood cells

Supported Sample Tube Sizes

- 16 x 100 mm, 16 x 75 mm
- 2-13 x 100 mm, 12-13 x 75 mm
- 10.25 x 75 mm, 10.25 x 64 mm, 10.25 x 47 mm
- Wide variety of Sarstedt Tubes
- 2.0 mL and 1.5 mL micro-collection containers
- Wide variety of Pediatric Tubes

For additional sample tubes supported please refer to the sample rack selection guide.

Sample and Test Processing

Continuous, random, STAT access, and batch

Sample Handling

- Automatic cap detection without workflow interruption
- Automatic clot detection
- Automatic liquid level detection

Sample and Test Performance Characteristics

Column Agglutination Technology using ID-MTS Gel Cards

Testing

ABO/Rh	Direct Antiglobulin
Monoclonal Rh Phenotyping	Antigen Testing
Antibody Screen	QC Testing
Antibody Identification	Selected Cell Panels
Crossmatch	
Serial Dilutions for Titration Studies	

Reagent Types

ID-MTS Gel Cards	Diluents
Reagent Red Blood Cells	Quality Control

Specimen Types

Plasma
Packed Red Blood Cells
Serum

CONNECTIVITY

e-Connectivity® Remote Connectivity

Provides the ability to connect your system to Ortho Clinical Diagnostics in a way that enables remote diagnostics, as well as monitor and review system configuration, data, and performance.

e-Connectivity Technology Ready Network Connection Requirements:

- Category 5e cable with male RJ45 connector for SSL connection included.
- Continuous broadband connection or direct connection to the site LAN with access to the Internet at a speed greater than or equal to 128 kbps.
- Support local area network port speeds of automatic, 10/100 Mbps with half and full duplex.
- Dynamic or Static IP Address, Subnet Mask, and Default Gateway IP Address assigned by the IT department and provided to Ortho.
- Female RJ45 connector on network port within 20 feet of system center.

Broadband Internet

A broadband internet connection is required.

System Computer and Interface Specifications

- **Interface Specification:** Bidirectional protocols for a Laboratory Information System (LIS).
- **Remote Review Capable:** An external computer on the laboratory's network where Authorized personnel on an external computer can review results.

LIS Specifications

- **LIS Interface:** Interface via one of three user configurable physical interfaces.
 - ASTM over RS-232
 - ASTM over TCP/IP
 - Network shared folders
- **ASTM Protocol:** Configurable to one of three options.
 - Basic ASTM (no 'M' record)
 - Enhanced ASTM
 - Vision ASTM, which adds in addition to Enhanced ASTM: Error upload message if the order could not be processed; The LIS can download multi-tube orders; The LIS can send QC orders that specify the card reagent lots to use as well as the expected results
- **Barcode Symbolologies**

NW7 (Codabar)	Code 3 of 9 (Code 39)
ISBT 128	Code 2 of 5 (Interleaved)
Code 128 (A, B, & C subtypes)	

Communication Ports

- I/O ports include:
 - 1 DB-9 serial port (RS-232 port for LIS support)
 - 1 RJ45 LAN port supports port speeds of automatic, 10/100 Mbps with half and full duplex.
- 5 V 2.0/V 1.1 USB ports are available for printer, handheld barcode reader, other devices

Printer Specifications

ORTHO VISION *Swift* Analyzer can be connected either to a network printer or to a local printer.

Because **Every Test is a Life**™

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Ortho Clinical Diagnostics