Ortho Clinical Diagnostics

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Specially designed for your lab. Because every test is the most important one.

The ORTHO VISION[™] Analyzer Technical Specifications





Intended Use

ORTHO VISION[™] Analyzer automates *in vitro* Immunohematology testing of human blood utilizing ORTHO BioVue[®] Cassette technology.

ORTHO VISION[™] Analyzer:

- Automates test processing functions including liquid pipetting, reagent handling, incubation, centrifugation, reaction grading and interpretation and data management requirements using ORTHO BioVue® Cassettes and digital image processing.
- Standalone instrument or interfaced to the Laboratory Information System (LIS).
- Monitors critical processing monitoring and provides for complete management of system maintenance and quality control.

Installation and Site Specifications

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

Physical Dimensions

ORTHO VISION[™] Analyzer

Width: 107.4 cm (42.3 in.)

Depth: 77 cm (30.31 in.)

Height: 88.9 cm (35 in.)

Height with maintenance door open: 137 cm (54 in.)

ORTHO VISION™ 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.) on left side front of table width

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 depth on left side – side of table

Weights

ORTHO VISION[™] Analyzer: 192 Kg (424 lbs) ORTHO VISION[™] Table: 120.2 kg (265 lbs)

Power Requirements

One dedicated (3-wired single phase; line-neutral and single circuit) AC power line for connection to facility power.

Input Voltage 100 - $240\,\mathrm{V}\,\mathrm{AC}\,50/60\,\mathrm{Hz}\,1000\,\mathrm{VA}$

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



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, and 1 Gb full duplex and automatic detection of duplex.
- Dynamic or Static IP Address, Subnet Mask and Default Gateway IP Address assigned by the IT department and provided to OCD.
- Female RJ45 connector on network port within 20 feet of system center.

Broadband Internet

A broadband Internet connection is required

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
- 12-13 x 100 mm, 12-13 x 75 mm
- 10.25 x 75 mm, 10.25 x 64 mm
- 15 x 92 mm Sarstedt 01.1605.100
- 13 x 90 mm Sarstedt 04.1931.100
- 2.0 mL and 1.5 mL micro-collection containers
- Wide variety of Pediatric Tubes

Sample and Test Processing

Continuous, random, STAT access and batch

Sample and Test Performance Characteristics

Column Agglutination Technology using ORTHO BioVue® Cassettes

TESTING		
ABO/Rh	Rh	Rh/K
Antibody Screen	Antibody Identification	Crossmatch
Direct Antiglobulin	Antigen Testing	QC Testing
Serial Dilutions for Titration Studies		

REAGENT TYPES		
ORTHO BioVue® Cassettes	Reagent Red Blood Cells	Diluents
Quality Control		



Monitor

System Performance Specifications

CAPACITY	
Samples	Up to 42 samples can be loaded, 6 Sample Racks holding 7 tubes each
ORTHO BioVue® Supply Drawer	148 ORTHO BioVue® Cassettes (7 sleeves of 20 + 8 in Dual Purpose Rack)
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	 6 bottles (ORTHO BioVue[®]) 1 x 50 mL position for ORTHO[®] BLISS 1 x 50 mL position for Red Cell Diluent 4 x 10 mL positions for red cell diluents
Heated Incubator	12 ORTHO BioVue® Cassettes
Room Temperature Incubator	24 ORTHO BioVue® Cassettes
Centrifuge	2 centrifuges; 10 ORTHO BioVue® Cassette per centrifuge
Waste	5.2 liters 100 ORTHO BioVue® Cassettes

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 via one of three user configurable physical interfaces:

- 1. ASTM over RS-232
- 2. ASTM over TCP/IP
- 3. Network shared folders (similar to ORTHO[®] AutoVue[®] Innova System)

ASTM protocol is configurable to one of three options:

- 1. Basic ASTM (no 'M' record)
- 2. Enhanced ASTM (very similar/backward compatible to AutoVue Innova)
- 3. Vision ASTM which adds in addition to Enhanced ASTM:
 - a. Error upload message if the order could not be processed.

To schedule an evaluation, please contact your local representative

- b. The LIS can download multi-tube orders.
- c. The LIS can send QC orders that specify the cassette/ reagent lots to use as well as the expected results.

who will arrange a time convenient for your schedule.

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

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, and 1 GB full duplex and automatic detection of duplex.
- 5 V 2.0/V 1.1 USB ports are available for:
 - Printer
 - Handheld barcode reader
 - Other devices

Printer Specifications

ORTHO VISION[™] Analyzer can be connected either to a network printer or to a local printer.



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