ES S³

SPHERICAL SCANNING SYSTEM

BEARING BALL INSPECTION SYSTEM

ECLIPSE
SCIENTIFIC
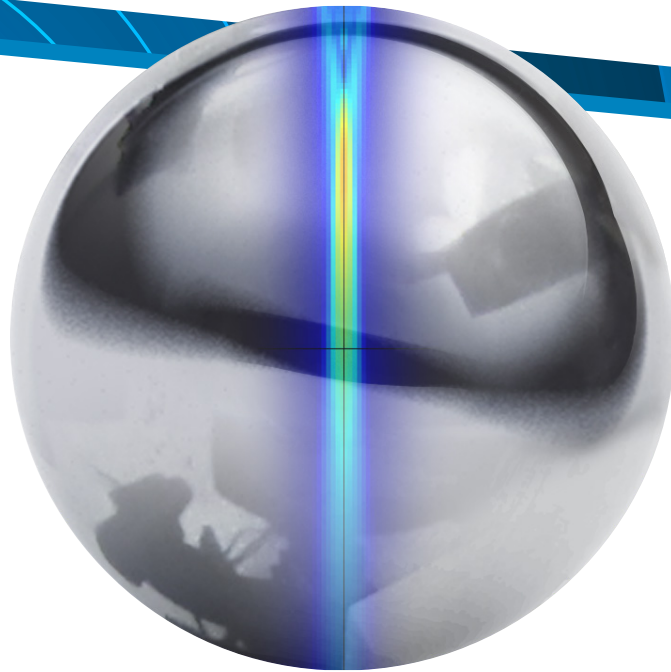
Eclipse Scientific, known for developing solutions to challenging problems, has engineered a full volume inspection of steel bearing balls ranging in size from 50mm to 70mm. Longitudinal and transverse ultrasonic inspections are performed simultaneously for increased flaw detection.

- Bearing Balls Diameter: 50, 55, 60, 65 and 70 mm (contact us for custom size requirements)
- Loading Table Capacity: 500 balls
- UT Inspection: Full volumetric with high probability of detection of flaws $\geq$ 0.5mm diameter
- Inspection Rate: 2-3 balls/min
- Fully automated scanning and sorting of balls into pass or fail trays
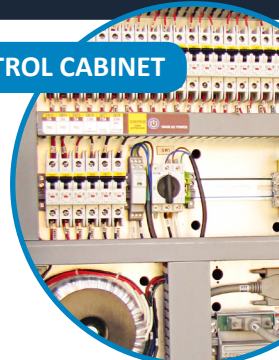
INNOVATIVE SOFTWARE

Intuitive software interface allows users to monitor and control the inspection process as well as generate reports of scan activities including detailed inspection data, dates, fail-pass status, and calibration. Inspection database and high resolution data files allow analysis of ball failure modes.
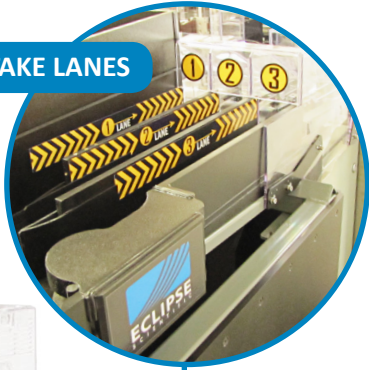
DROP DOWN KEYBOARD

AIR & WATER FILTRATION SYSTEM
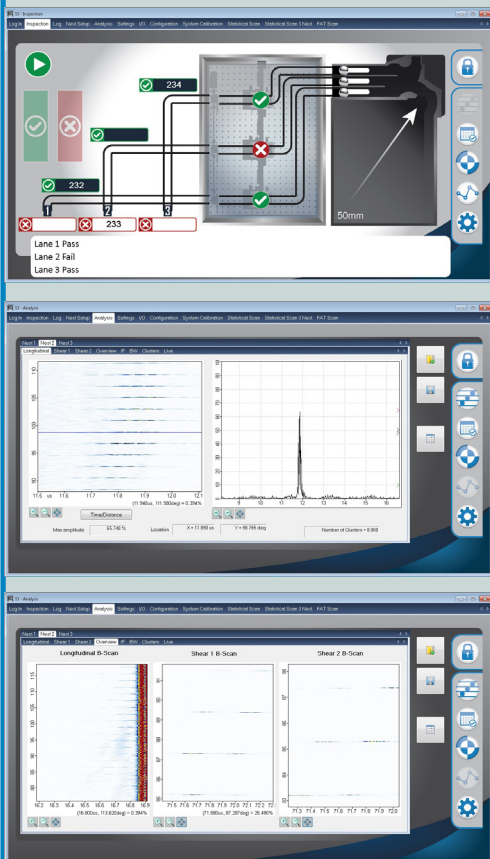
Designed for industrial environments, the S3 system contains a fully enclosed digitally controlled cooling system that is not affected by external air quality. A fully online UPS and Surge arrestor protects the system from surges, spikes, and other power disturbances.
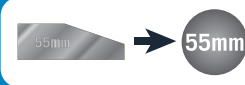
ES S³ > SPHERICAL SCANNING SYSTEM

INTAKE LANES

1 2 3

STANDARD COMPATIBLE BALL SIZES

50mm → **50mm**	55mm → **55mm**	60mm → **60mm**
65mm → **65mm**	70mm → **70mm**	

Contact us for custom size requirements.

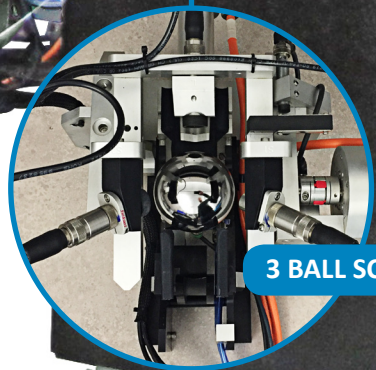**SAFE LOADING ZONE**

SAFETY FOOTWEAR REQUIRED

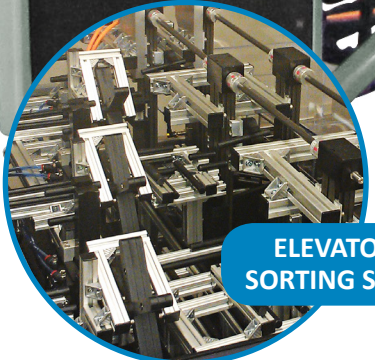DO NOT ADJUST THE LOADING TABLE HEIGHT WHILE TABLE IS LOADED

⚠ WARNING

**LOADING TABLE**

3 BALL SCANNERS

ELEVATORS & SORTING STATION

OVERVIEW

- Overall dimensions: 3.9m x 1.5m x 2.3m
- Weight: 1200 kg
- Power Input: 220-240 V (110-120 V available), 50 – 60 Hz auto-sensing
- Pneumatic: 100 PSI, 1 cfm
- UPS: 3000 VA / 2.7 kW
- Cooling Unit: 8000 BTU
- Operational Requirements: 18°C – 24°C / 40% – 70% humidity
- Storage Requirements: 0°C – 40°C / 20% – 80% humidity non-condensing
- Immersion Tank Capacity: 550 Liters
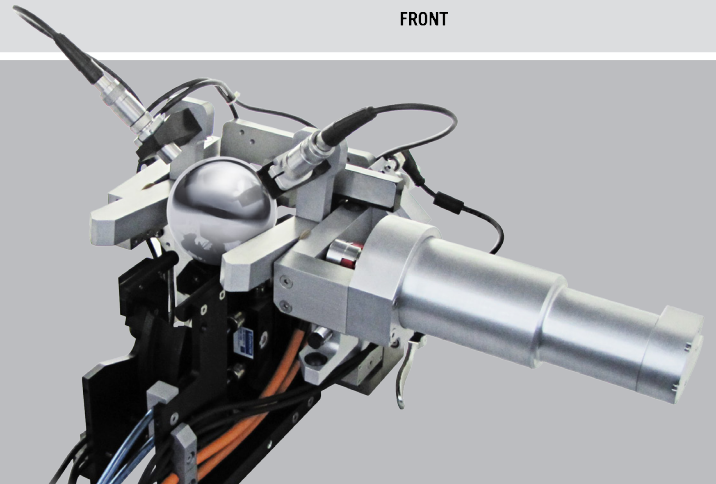- 40 micron pneumatic filter with auto-drain liquid reservoir

3.9m

1.5m

TOP

2.3m

FRONT
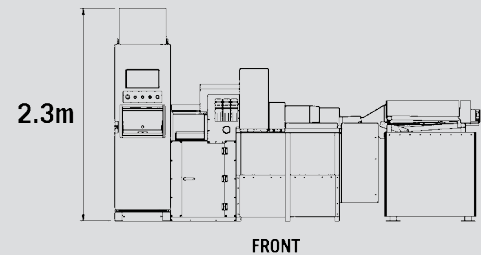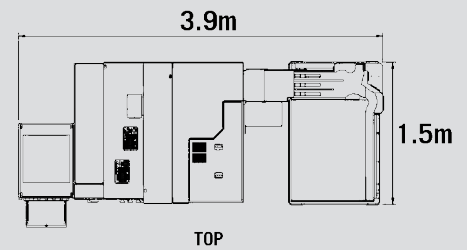
ULTRASONIC

Data Acquisition
- 16 Channel conventional UT
- 300V square wave pulser
- 25 MHz bandwidth
- 100 MHz sampling, 12 bits vertical resolution
- 4-axis encoder input

Transducers
- 15 Mhz
- Point focused

EXTRAS

- Powerful PC with Intel Core i7 4.0 GHz processor, 16 GB RAM, and 12 TB HDD
- Separate 256 GB Solid HDD for fast OS boot-up & operation
- 16 Channel Ultrasonic pulser/extremely low noise receiver and 4-axis encoder input for extremely high speed scanning
- Powerful, low noise linear motor amplifiers and power supplies for interference free operation
- Uninterrupted Power Supply (UPS) with power conditioner
- Power Surge Protection
- Closed cooling system for reliable system performance
- Convenient touch sensitive monitor
- Heavy duty fold away keyboard tray
- Lockable equipment cabinet doors for security
- Password protected digital thermostat
- Long life 10 micron water filtration and UV filter
- Heavy duty industrial water circulation pump
- Adjustable pneumatic actuators for fine control

SCAN   SORT
LOAD

ISO
9001:2008
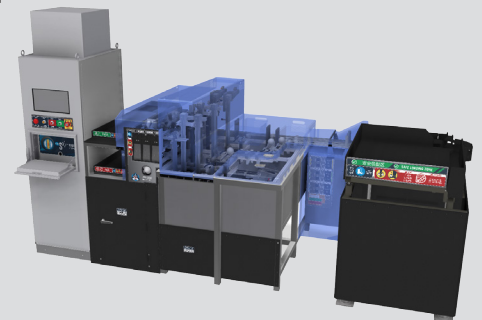
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