JS-25 SX Scan Head

JoeScan

3-D Vision Profiling

Product Overview

The JS-25 SX is JoeScan's standard-range scanner, ideally suited for a broad range of applications. This single-laser scanner can deliver fast and accurate measurements at an operating distance up to 5′, with a field of view up to 32″ wide. It provides a winning combination of reliability, performance and ease of use.

Easy to Use: The SX is based on JoeScan's proven and reliable JS-20 scanner platform, developed to make scanning systems easier to install and maintain. It requires only 24VDC and an Ethernet connection for operation, and it can be installed in any orientation in minutes using the optional Mount Kit.

Because the scanner uses an Ethernet interface, it is easy to communicate with the scanner without special hardware or proprietary software. This interface also allows users to view real-time profile data and camera images, and to configure and calibrate the scanner using a simple Web browser on their PCs.

Power input to the scanner is via the iCONN Systems waterproof (8-pin) connector. This connector can also be used to connect and synchronize the scan head with other production-line components and optimizer programs. All scanners use JoeScan's reliable QuickPulse laser technology, which keeps all scan heads synchronized and helps maximize the laser life.

The JS-25 SX is fully backward compatible with scanners in the JS-20 product family. It can serve as a drop-in replacement in systems that use JS-20 scan heads.

Fast and Accurate: The SX is one of the fastest and most accurate scanners on the market today. It can make up to 850 profile measurements per second, with each profile containing up to 242 data points. Measurement accuracy ranges from +/- 0.025″ (at 20″ standoff) to +/- 0.040″ (at 60″ standoff).

Rugged and Reliable: Like all JoeScan products, this model is designed for the most challenging environments. It withstands extreme vibration, and the aluminum housing is fully sealed to keep out dust and moisture.

Camera

Ethernet

Power/Control

Laser

Key Features

- Single laser with field of view up to 32″
- Scan rate up to 850 profiles per second
- Measurement accuracy up to +/- 0.025″
- Easy-to-use Ethernet interface
- One-click, automatic calibration
- Encoder-synchronized scanning
- Rugged, fully sealed aluminum housing
- Image View feature for easy troubleshooting
- Backward compatible with JS-20 scan heads
- 5-year defect warranty and 10-year product support policy

Typical Applications

- Lineal scanning of boards, cants and small-to-medium logs

*The **JS-25 SX** is JoeScan's standard-range scanner. It is ideally suited for a broad range of applications that require accurate profile measurements.*

Depth of View
20" to 60"

Field of View
10" @ 20" standoff
32" @ 60" standoff
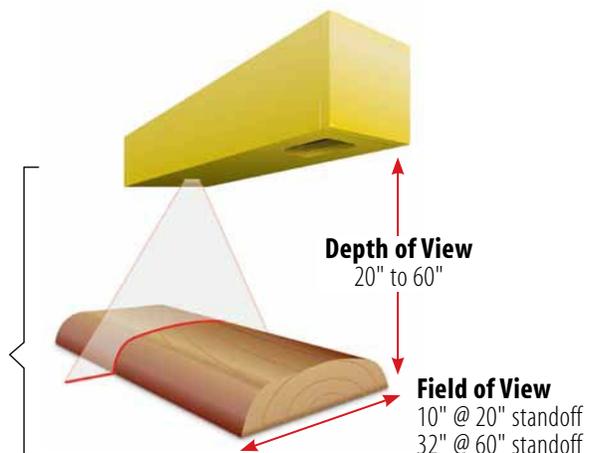
Product Dimensions
(All dimensions in inches)
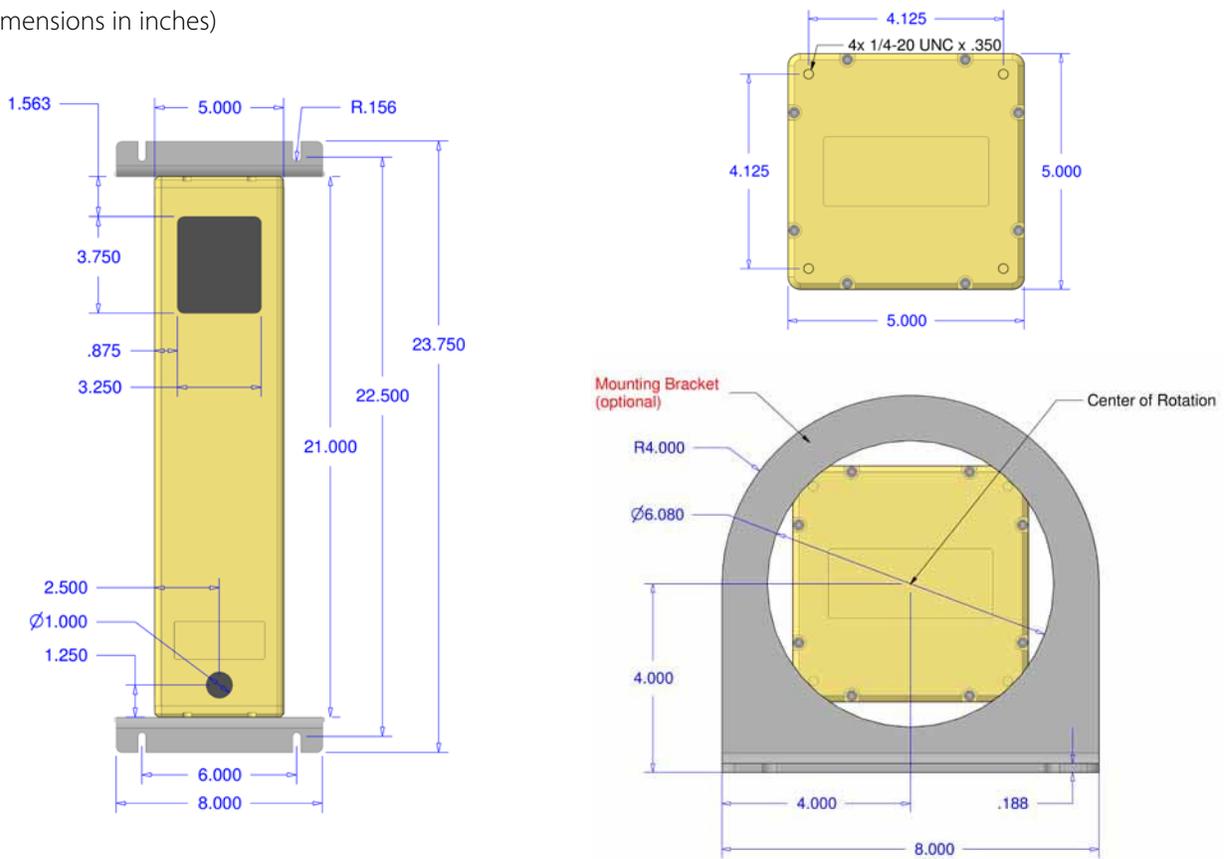
Field-of-View Details
(All dimensions in inches)

JS-25 SX Scan Head
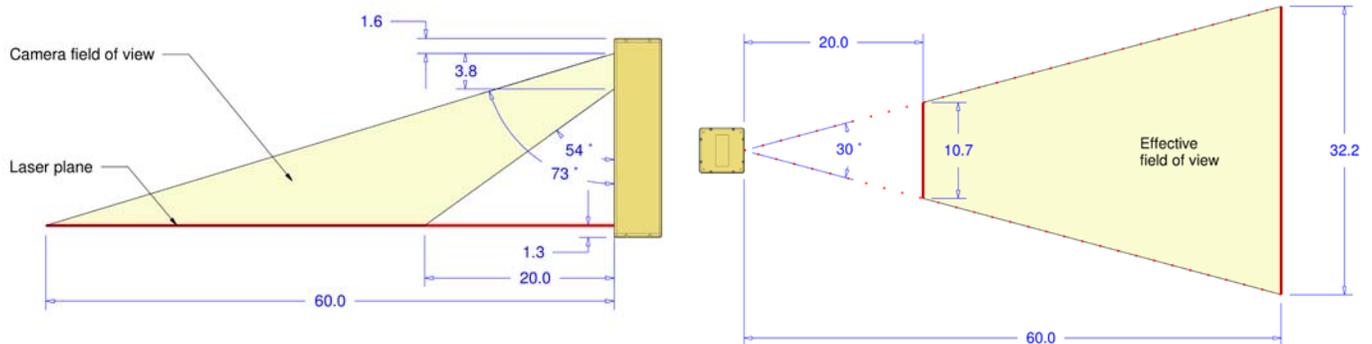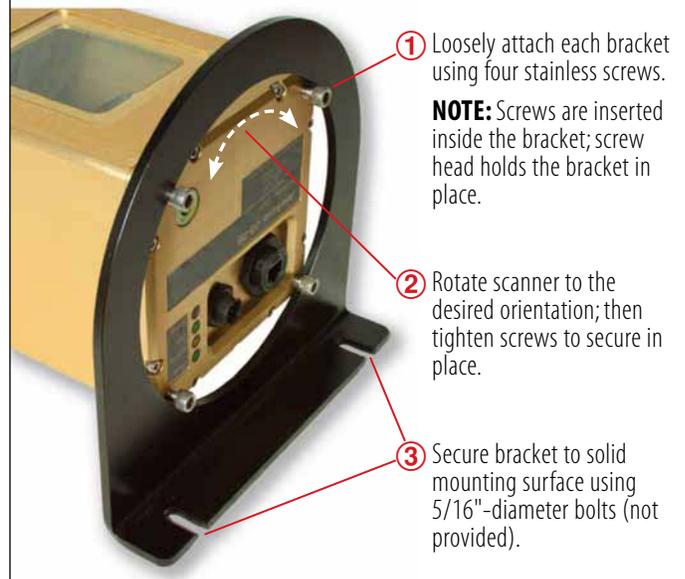
Mounting Guidelines

- An optional Mount Kit is available for this product.

- Attach brackets by inserting stainless ¼-20 x ½" screws into the four threaded holes on each end of the scanner.

- Maintain minimum clearances from the ends of the scanner (including brackets and screws) as shown below.

Laser End
Minimum clearance = 0.5"

Camera End
Minimum clearance = 1.5"

Using the Optional Mount Kit

KIT CONTENTS
(2) scanner brackets
(8) stainless screws ¼-20 x ½"

① Loosely attach each bracket using four stainless screws.

NOTE: Screws are inserted inside the bracket; screw head holds the bracket in place.

② Rotate scanner to the desired orientation; then tighten screws to secure in place.

③ Secure bracket to solid mounting surface using 5/16"-diameter bolts (not provided).

Product Warranty and Support

JoeScan products are proven to be durable and reliable, which allows JoeScan to offer an industry-leading warranty and a long-term product support policy.

All products are covered by a **5-year limited warranty*** that begins when the product ships from JoeScan. If a scan head is found to be faulty, JoeScan will either repair or replace the product at no charge. It's that simple.

What's more, JoeScan offers a **10-year product support policy**. After the warranty period, JoeScan will provide support – including technical assistance and product repair services – at the customer's expense for 10 years after the product's original shipping date. If JoeScan is unable to provide product support, then JoeScan will supply a replacement scanner that has equivalent or enhanced capabilities.

Additional details about the warranty and product support policy are available upon request.

* *Warranty is limited to product defects and damage caused by normal wear and tear. It does not cover damage caused by accidents or improper use.*

JoeScan offers an industry-leading warranty and a long-term product support policy. The 5-year warranty helps eliminate unexpected maintenance costs. JoeScan adds to that a 10-year product support policy to ensure that each scan head can provide years of unfailing service.

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JS-25 SX Scan Head

Product Specifications

General

Dimensions	21" x 5" x 5"
Weight	12 lbs.
Laser Type	Pulsed, Class IIIa
Laser Color	Visible red
User Interface	PC
Data Interface	10/100BaseT Ethernet

System Performance

Depth of View	20" to 60"
Field of View	10" @ 20" standoff 32" @ 60" standoff
Accuracy	+/- 0.025" @ 20" standoff +/- 0.040" @ 60" standoff
Scan Rate	Up to 850 profiles/sec.
Data Density	20 points/inch at 20" standoff 7.5 points/inch at 60" standoff
Number of Data Points	Up to 242

Environmental

Operating Temp	-20° to 50°C (0° to 120°F)
Lighting	Fully operational between indoor lighting (no sunlight) and complete darkness

Power Supply

Voltage Range	20 - 28VDC
Max Current	0.35A @ 24VDC
Voltage Ripple	< 5Vpp

Quadrature Encoder/Start Scan Inputs

Primary Signaling Standard	RS-422 differential
Alternate Signaling	Open collector on "+" channel (+ channels have built-in 2k pull-up to 5V)
Input Voltage Range	0 - 5VDC
Max Encoder Rate	100,000 pulses/sec. differential

PC Requirements

The diagnostic and calibration software (JSDiag) will run on any operating system with Java® 1.5 installed, including Microsoft® Windows®, Mac OS® X, Linux®, Oracle® Solaris and others.

Optional Accessories

JS-25 Control Cable (iCONN Systems waterproof 8-pin connector)
LTW Sealed Ethernet Cable
Mount Kit

iCONN Systems Waterproof Connector

Wire Color	Pin	Function
White	1	Encoder B -
Green	2	Encoder B +
White/Black	3	Start Scan -
White/Red	4	Start Scan +
White/Yellow	5	Encoder A -
White/Green	6	Encoder A +
Black	7	Ground
Red	8	+24VDC

Warranty/Support

5-year product warranty (free repair or replacement of defective products)
10-year product support policy

LASER RADIATION
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
Maximum Output: 5mW
Emitted Wavelengths: 400-710 nm
IEC-60825.1-2001-08

Illustrations, descriptions and technical specifications are not binding and are subject to change without notice.

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