

# JS-25 X3 Scan Head

# JoeScan

Technical Specifications Data Sheet

3-D Vision Profiling

## 3-D LASER SCANNING MADE FOR SAWMILLS

### Product Overview

The JS-25 X3 Scan Head is a high-performance, three-laser scanner, specifically designed for high-density, snapshot-scanning applications. It offers a winning combination of reliability, performance and ease of use.

**Easy to Use:** The X3 is part of JoeScan's proven and reliable JS-25 scanner platform, developed to make scanning systems easier to install and maintain. It requires only 24VDC and an Ethernet connection for operation.

The scanner uses an Ethernet interface, allowing the optimizer to communicate directly with the scanner without special hardware. The X3's built-in profile processing eliminates the need for large numbers of PCs to process the image data, resulting in a simpler, more reliable system. The interface enables users to configure and calibrate the scanner on their PCs and to view real-time profile data and camera images.

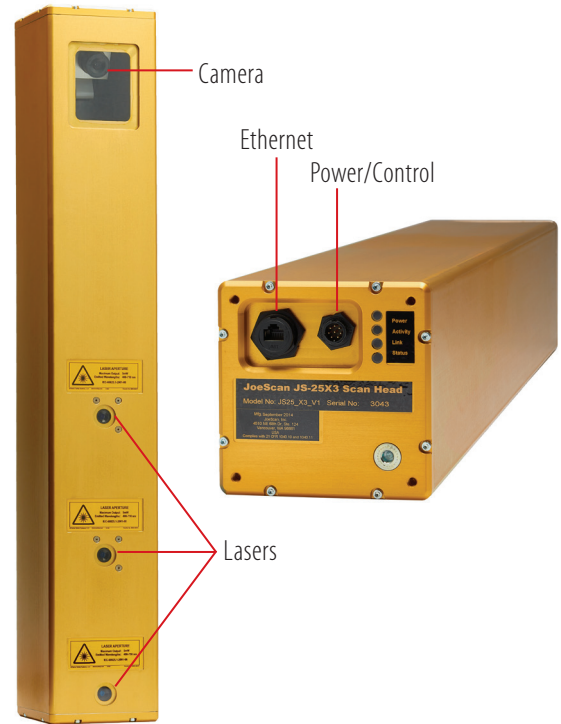
Power input to the scanner is via the iCONN Systems waterproof (8-pin) connector. This connector can also be used to connect and synchronize the scan head with other production-line components and optimizer programs. All scanners use JoeScan's reliable QuickPulse laser technology, which helps maximize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

The JS-25 X3 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:** Each scan head creates three scan zones that are 6" (152mm) apart and up to 48" (1219mm) wide. During the scanning process, the scan head can make up to 283 profile measurements per second on each laser line. This can provide a high-density lineal scan in as little as 6" (152mm) of travel.

**Rugged and Reliable:** Like all JoeScan products, the JS-25 X3 is designed for the most challenging environments. It withstands extreme vibration, and the aluminum housing is sealed to keep out dust and moisture.

*The JS-25 X3 is ideally suited for high density, snapshot-scanning applications, providing full scan coverage in just 6" (152mm) of travel.*

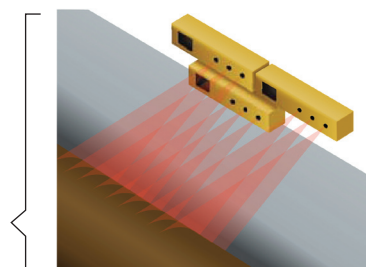


### Key Features

- Three lasers spaced 6" (152mm) apart
- Scan rate up to 283 profiles/second/laser
- Measurement accuracy up to +/- 0.030" (+/- 0,8mm)
- Industry standard Ethernet interface
- Rugged, 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

- Carriage headrig scanning
- Short-infeed lineal scanning
- EDLF scanning



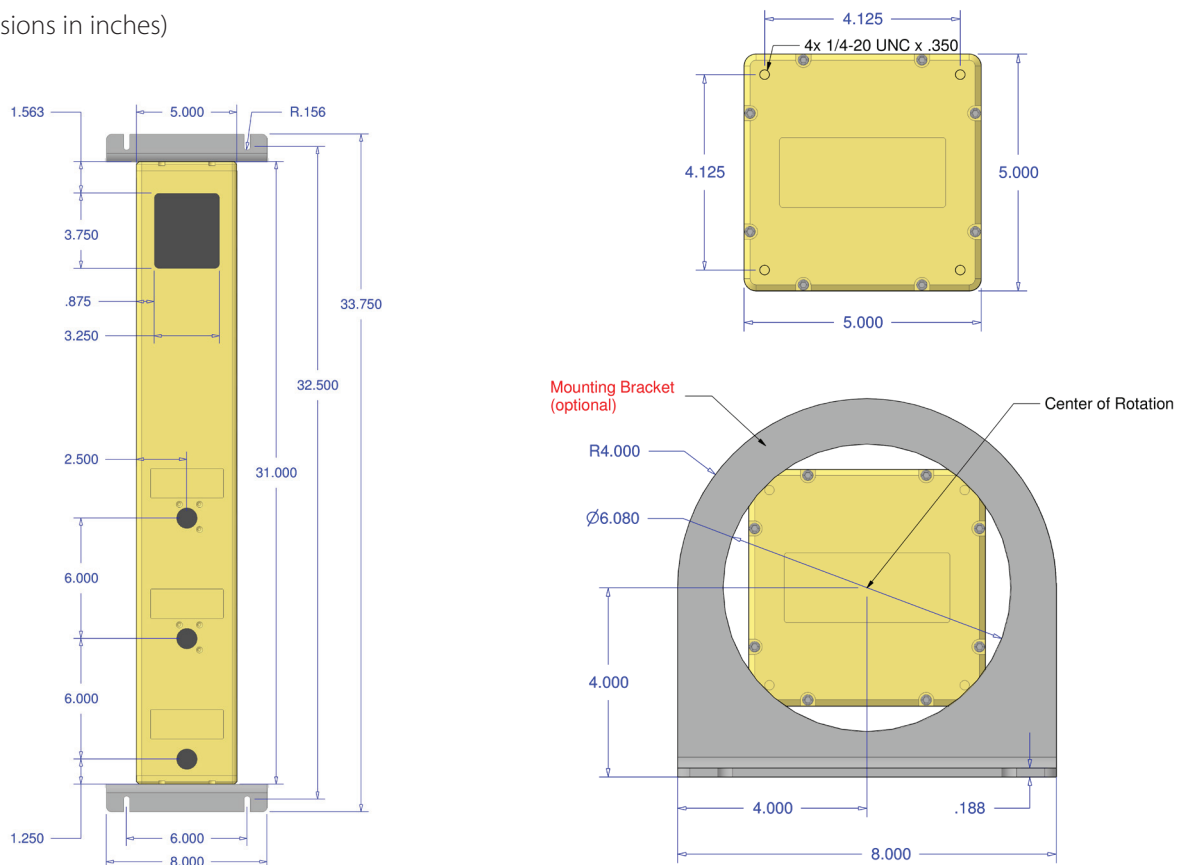
**Field of View**  
19" @ 36" standoff  
(483mm @ 914mm)  
48" @ 96" standoff  
(1219mm @ 2,4m)

**Depth of View**  
36" to 96"  
(914mm to 2,4m)

# JS-25 X3 Scan Head

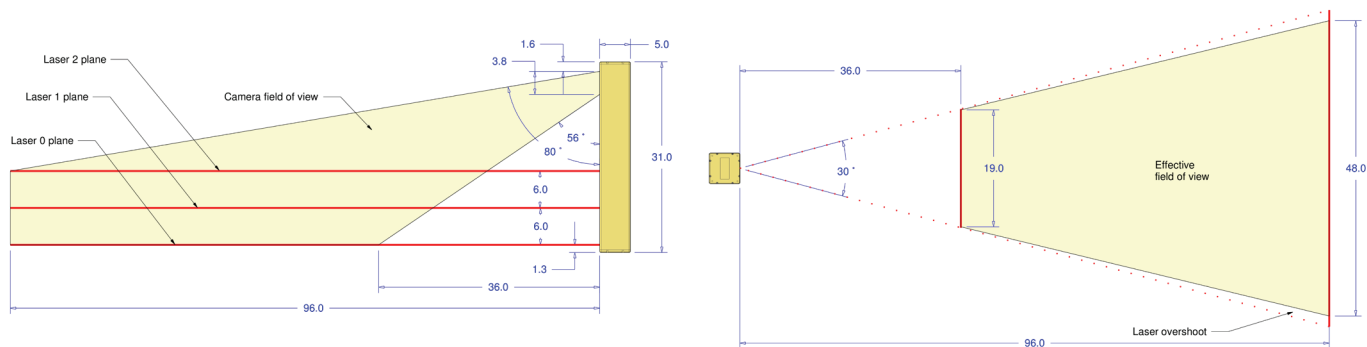
## Product Dimensions

(All dimensions in inches)



## Field-of-View Details

(All dimensions in inches)



# JS-25 X3 Scan Head

## Mounting Guidelines

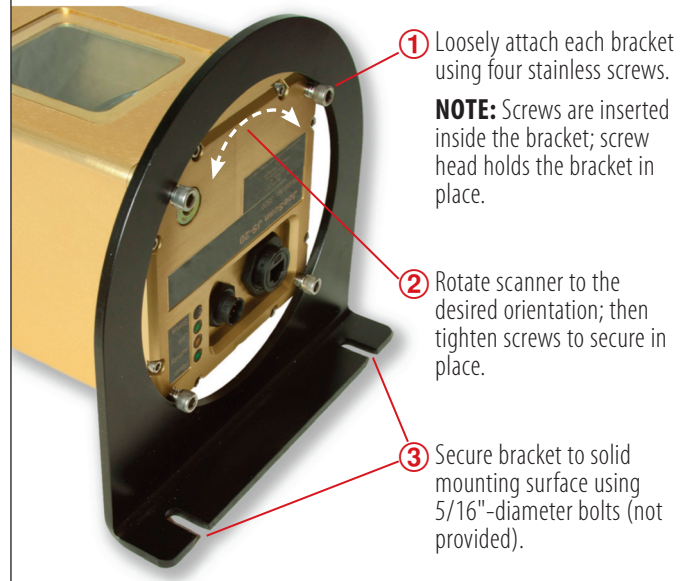
- An optional Mount Kit is available for this product.
- Attach brackets by inserting stainless ¼-20 x ½" screws into the four threaded holes on each end of the scanner.
- Maintain minimum clearances from the ends of the scanner (including brackets and screws) as shown below.



## Using the Optional Mount Kit

### KIT CONTENTS

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



## Product Warranty and Support

JoeScan products are proven to be durable and reliable, which allows it 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 it 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 protect against obsolescence.

# JS-25 X3 Scan Head

## Product Specifications

### General

Dimensions	31" x 5" x 5" (787mm x 127mm x 127mm)	
Weight	18 lbs. (8,2kg)	
Laser Type	Pulsed, Class IIIa	
Laser Color	Visible red	
User Interface	PC	
Data Interface	10/100BaseT Ethernet	

### System Performance

Depth of View	36" to 96"	(914mm to 2,4m)
Field of View	19" @ 36" standoff	(483mm @ 914mm)
	48" @ 96" standoff	(1219mm @ 2,4m)
Accuracy	+/- 0.030" @ 36" standoff	(+/- 0,8mm @ 914mm)
	+/- 0.100" @ 96" standoff	(+/- 2,5mm @ 2,4m)
Scan Rate	Up to 283 profiles/sec./laser	
Data Density	12 points/in @ 36" standoff	(12 points/25mm @ 914mm)
	5 points/in @ 96" standoff	(5 points/25mm @ 2,4m)
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



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

DESIGNED &  
ASSEMBLED  
IN THE  
**USA**

**JoeScan**