



WATER • WASTEWATER • STORMWATER  
**SOLUTIONS**

1-800-EJP-24HR | [www.ejprescott.com](http://www.ejprescott.com)

# 3D SCANNING SERVICES

## Applications:

- Pumping Stations
- Elevated and Digester Tanks
- Pipe Galleries
- Filter Pump Rooms
- Sedimentary Basins
- Flocculation Basins
- Large Format Pipe Runs
- Water Purification Systems
- Polymer Rooms



## Benefits:

3D Laser Scanning allows Team EJP to provide precise data (1mm) in a short amount of time. The 3D laser scanning technology enables our technicians to capture data accurately and efficiently in locations where accessibility is difficult and in areas that may be unsafe. The smallest details can be captured in highly congested areas.

Team EJP can provide reliable, accurate as-built information for facility upgrades and expansions. 3D laser scanning can aid in design, construction sequencing, and scheduling, plus reduce change orders.

## Deliverables and Services:

Team EJP can provide numerous file types that work with AutoCAD, AutoCAD Plant 3D, and AutoCAD recap. The data can be customized to meet the needed specifications for the project or the knowledge level of the user.

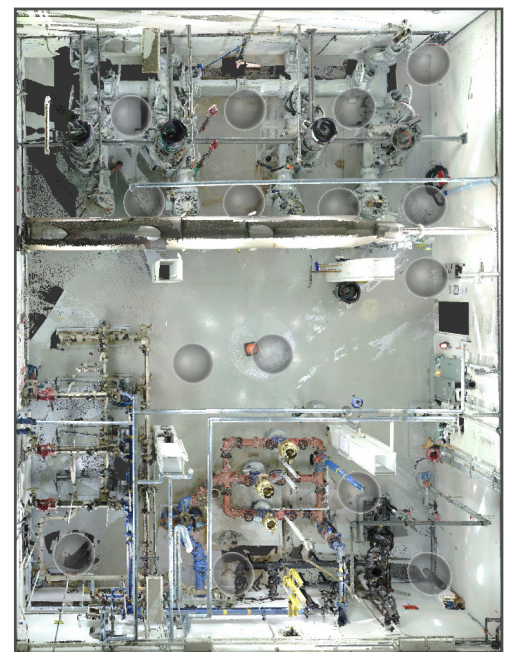
We will work closely with clients to develop project phasing and sequencing, custom equipment tagging, pipe scheduling, and sorting phasing. Team EJP can assign properties of pipes, including pipe material specifications and conduct volume calculations and deformation analysis.

## Deliverables:

- Raw point-cloud scan data
- Ordered scan files in any of the below formats
- 2D Auto CAD Drawings
- 3D Auto CAD Drawings

## Exported File Types:

- RCP
- RCS
- CPE
- E57
- VRML
- DFX
- XYZ Text
- XYZ Binary
- IGES
- FLS
- POD





WATER • WASTEWATER • STORMWATER  
**SOLUTIONS**

1-800-EJP-24HR | www.ejprescott.com

# 3D SCANNING SERVICES

| Ranging Unit                          |  |
|---------------------------------------|--|
| Unambiguity Interval                  | 614m for up to 0.5 mil pts/sec 307m at 1 mil pts/sec |
| Range <sup>1</sup>                    |  |
| 90% Reflectivity (white)              | 0.6 - 70m  |
| 10% Reflectivity (dark-gray)          | 0.6 - 70m  |
| 2% Reflectivity (black)               | 0.6 - 50m  |
| Range Noise <sup>2</sup> (mm)         |  |
| @10m 90% (white)                      | 0.3  |
| @10m 10% (dark-gray)                  | 0.4  |
| @10m 2% (black)                       | 1.3  |
| @25m 90% (white)                      | 0.3  |
| @25m 10% (dark-gray)                  | 0.5  |
| @25m 2% (black)                       | 2.0  |
| Max. Measurement Speed (mil. pts/sec) | Up to 1  |
| Ranging Error <sup>3</sup> (mm)       | ±1   |
| Angular Accuracy <sup>4</sup>         | 19 arcsec for vertical/horizontal angles             |
| 3D Point Accuracy <sup>5</sup>        | 2 @10m 3.5 @25m                                      |

| Additional Performance Specifications |   |
|---------------------------------------|---|
| Color Unit                            |   |
| Color Resolution                      | Up to 165-megapixel color   |
| HDR Camera                            | Exposure bracketing 2x, 3x, 5x  |
| Parallax                              | Minimized due to co-axial design  |
| Deflection Unit                       |   |
| Field of View                         | 300° vertical <sup>6</sup> / 360° horizontal  |
| Step Size                             | 0.009 (40,960 3D-pixel on 360°) vertical / 0.009 (40,960 3D-pixel on 360°) horizontal |
| Max. Scan Speed                       | 97Hz (vertical)   |
| Laser (Optical Transmitter)           |   |
| Laser Class                           | Laser Class 1   |
| Wavelength                            | 1550nm  |
| Beam Divergence                       | 0.3mrad (1/e)   |
| Beam Diameter at Exit                 | 2.12mm (1/e)  |

