



## 3D MODELING AND SCANNING

# Providing Fast, Accurate Data for Better Informed Design



# Bahnsen

Mechanical Systems  
An EMCOR Company

**3D laser scanning is an efficient tool for creating a detailed record of site conditions**, helping even the most complex projects improve design accuracy and efficiency, while minimizing clashes.

The team at Bahnsen Mechanical Systems self performs site 3D scanning to develop a point cloud file of existing or installed conditions using the Trimble X7 laser scanner. The file that's created can then be used to model existing conditions for as-built or future design use.

### SOFTWARE SYSTEMS

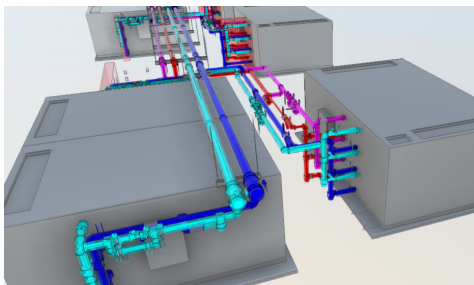
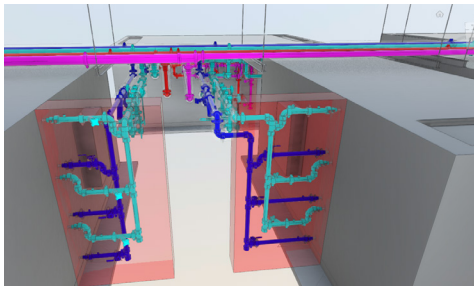
Revit 2020-2024

Trimble Sysque

Navisworks

Autodesk RECAP

Autodesk Construction Cloud



### Quick, Accurate 3D Scans

3D scanning records the exact location of structures, equipment, and components, creating accurate records that can be used by operations staff or design professionals. 3D modeling allows designers to quickly check for inconsistencies in the design before construction begins, when it's less expensive to make changes.

### Experience You Can Trust

Our teams have extensive experience with the Trimble X7 laser scanner system, utilizing it to scan multiple facilities covering areas larger than 150,000 square feet. We've also used it in industrial manufacturing facilities with very dense equipment layouts to develop sophisticated Revit models and leveraged it on multiple retrofit jobs for our own self-performed work.

Beneficial for both new construction and remodel projects, 3D scanning and modeling services help bridge the gap between design and reality, saving teams time and money.

### A Range of Project Applications

**Laser scanning can be used to help improve design accuracy and minimize rework on a number of systems, including:**

- > Mechanical piping
  - Chilled water
  - Hot water
  - Steam/steam condensate
  - Natural gas
  - Compressed air
- > Ductwork / air systems
  - Filtration, comfort, and process air
- > Mechanical equipment
- > Electrical conduit
- > Cable trays

### WHAT CAN WE DO FOR YOU?

**Bahnsen Mechanical Systems**  
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