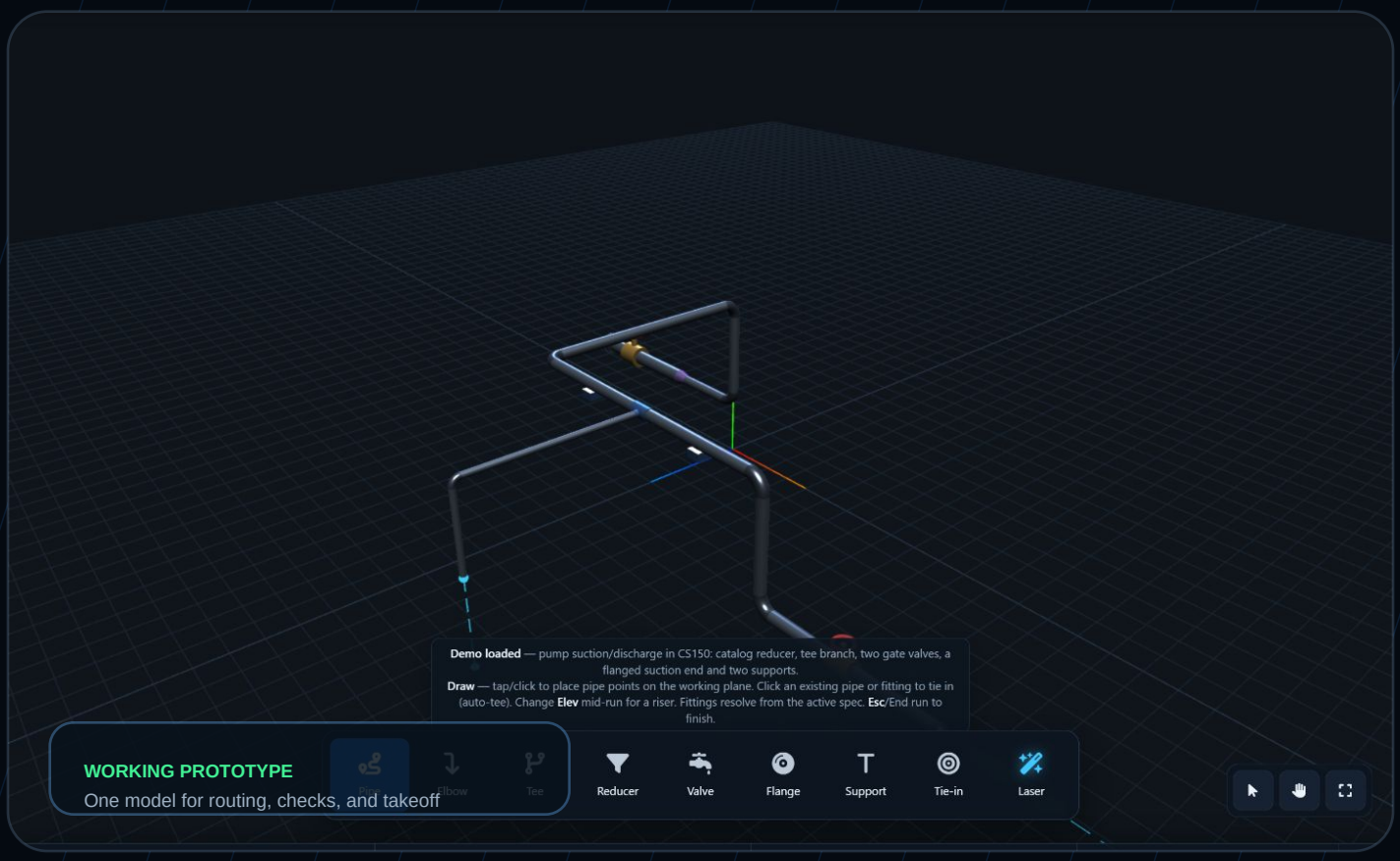
PIPEFORGE PRODUCT OVERVIEW

FROM FIELD INTENT TO FABRICATION LAYOUT

Build the pipe system first.

A focused visual workspace for modular piping and skid layouts - route pipe, lock elevations and tie-ins, place fittings and supports, then hand structured information into the BIM and fabrication workflow already in place.



Private concept. No endorsement, deployment, productivity gain, or engineering approval is implied.

Why this workflow fits fabrication teams

Process piping connects field measurements, design intent, detailing, metal fabrication, and off-site prefabrication. PipeForge focuses on the information that must move cleanly between those teams.

PROCESS PIPING 01

Joint-aware routing

Butt-weld, socket-weld, threaded, and grooved choices affect takeout, cut lengths, joints, BOM, and PCF.

PREFABRICATION 02

One geometry for totals

Exact lengths, elevations, checks, weld count, material items, and ISO preview update from the same model.

SUPPORT STRUCTURES 03

Pipe-linked support data

Station, XYZ, centerline, bare and insulated BOP, named datum, and fabrication height populate from the selected run.

DESIGN-BUILD 04

Review intent earlier

Field leadership can establish a route and dimensions before BIM specialists take over coordination, governance, and release.

THE RIGHT CATEGORY

The fast planning layer before full BIM

PipeForge is not positioned as a replacement for Revit, SysQue, Navisworks, Spoolfab, FabLogix systems, engineering, or QA. It gives those workflows cleaner early intent to review.

WORKFLOW

Five moves from setup to handoff

The main checks and production totals remain visible while the user builds. Support fabrication gets its own workspace so it never takes over the pipe-routing flow.

1

Set the job

Size, schedule, material, rating, joint type, and support palette.

2

Lay the route

Straight runs, fittings, branches, and exact feet-and-inches dimensions.

3

Lock intent

Rise/drop constraints, custom angle, laser path, plumb reference, and tie-ins.

4

Add supports

Auto-capture pipe, station, elevations, datum, BOP, and fabrication height.

5

Review outputs

BOM, cut length, weld count, checks, support CSV, ISO preview, and PCF.

SUPPORT DESIGNER

- Shows centerline, bare BOP, insulated BOP, datum, and fabrication height together.
- Uses a job-selected structural member, material, finish, plate, rod, and hardware palette.
- Keeps support members out of the piping BOM, ISO, and PCF.

FAIR COMPARISON

PipeForge removes the unrelated project machinery

The established programs are powerful, broader systems. PipeForge is easier specifically for modular pipe and skid layout because its workspace is built around that narrow route-to-fabrication task.

PROGRAM	PRIMARY JOB	SETUP / ADMIN	BEST FIT
PipeForge	Modular pipe/skid layout, field intent, support measurements, and fabrication planning	One focused job setup; browser workspace; portable local project file	Fast early layout and field handoff
Plant 3D	P&IDs;, specification-driven plant models, orthos, isometrics, reports, and BIM	CAD-manager templates, paths, specs/catalogs, desktop toolset, collaboration admin	Formal AutoCAD-centered plant authoring
AVEVA E3D	Data-centric multidisciplinary design, change control, drawings, and lifecycle handover	Unified Engineering environment, access/licensing, standards, cross-discipline data	Complex capital projects and global teams
Smart 3D	Enterprise facility design, constructability, modularization, and managed deliverables	Server/database environment, permissions, catalogs, models, and reports	Large owner/EPC programs
CADWorx / OpenPlant	Spec-driven plant authoring, formal isometrics/BOMs, multidisciplinary workflows	Desktop CAD/suite, project templates, spec/catalog setup, companion apps	Design-office plant workflows

WHERE PIPEFORGE IS EASIER

Opening one modular project, capturing tie-ins and elevations, routing pipe, checking totals, and recording support dimensions without entering a whole multidisciplinary environment.

WHERE ENTERPRISE SUITES ARE STRONGER

Whole-facility engineering, simultaneous multidisciplinary coordination, governed master data, formal drawing systems, digital twins, and long-term asset information.

PROPOSED PILOT

One skid. One current workflow. Measured honestly.

The team keeps its normal BIM, engineering, fabrication, and QA gates. PipeForge earns a place only if a small pilot shows a cleaner handoff.

PILOT ASSIGNMENT

Choose one modular skid or congested tie-in

Have a foreman or detailer model it in PipeForge, then pass the result into the normal BIM and fabrication review. Compare the new handoff with the current early-layout process.

MEASURE - DO NOT ASSUME

- Time from field measurements to a reviewable route
- Missing or ambiguous fabrication dimensions
- Manual re-entry required downstream
- Revision turnaround after a field change
- External PCF acceptance and data fidelity

PILOT TALKING POINTS

Faster narrow path	Direct routing, exact dimensions, constrained rise/drop, laser centerlines, plumb references, and tie-ins in one focused canvas.
Workforce leverage	Let field leadership capture layout intent while BIM specialists focus on coordination, standards, and the final system of record.
Support fabrication	Keep support measurements linked to pipe geometry while member selection and fabrication details remain in their own workspace.
Compatible handoff	Use CSV, ISO preview, portable project files, and PCF as bridges into the serious downstream stack - subject to pilot acceptance.

Boundaries: PipeForge is not engineering analysis, ASME/code approval, stress analysis, support-capacity verification, weld procedure qualification, or a construction-issued drawing system. No productivity, cost, safety, or error-reduction percentage is claimed without a controlled pilot.

SOURCES

Evidence behind the brief

Competitor capabilities and requirements were checked against vendor documentation on August 17, 2026. The comparison describes workflow focus, not feature parity.

01 **MSS - Pipe hangers and supports**

msshq.org/page/SP58

02 **PIP - Pipe support details**

pip.org/practices/page/6/

03 **AISC - Structural shapes database**

aisc.org/aisc/publications/steel-construction-manual/aisc-shapes-database-v160/

04 **Eaton - Pipe support systems**

eaton.com/us/en-us/catalog/support-systems.html

05 **Autodesk - Plant 3D**

autodesk.com/products/autocad/included-toolsets/autocad-plant-3d

06 **Autodesk - Specs and catalogs**

help.autodesk.com/cloudhelp/2025/ENU/Plant3D-SpecEditor/

07 **AVEVA - E3D Design**

aveva.com/en/products/e3d-design/

08 **Hexagon - Smart 3D project management**

docs.hexagonppm.com/r/en-US/Intergraph-Smart-3D-Project-Management/13/1254158

09 **Hexagon - CADWorx preparation**

docs.hexagonppm.com/r/en-US/CADWorx-Plant/24/358439

10 **Bentley - OpenPlant Modeler**

bentley.com/software/openplant-modeler/

PipeForge is a fabrication-layout and planning tool. Performance claims require a measured pilot, and engineering approval remains outside the application.