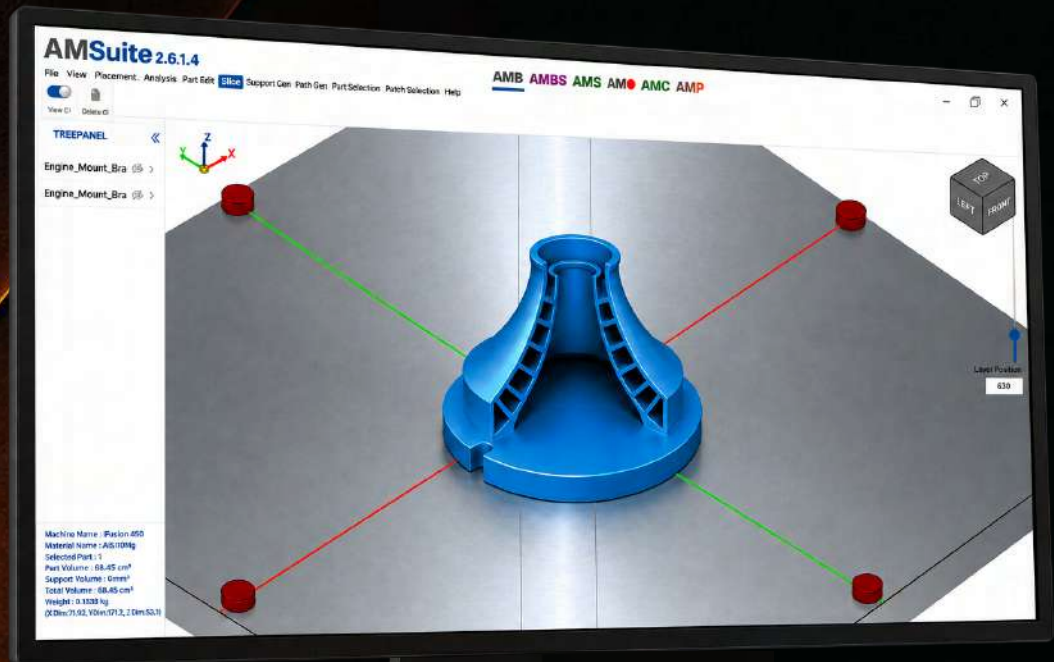


AMSuite

INTEGRATED SOFTWARE SUITE METAL ADDITIVE MANUFACTURING



AM Suite is a globally unique, full-stack software suite built specifically for metal additive manufacturing. Unlike single-purpose point solutions, AM Suite covers the complete AM workflow – from identifying the right parts to print, through design, build preparation, simulation, and process optimisation – in one connected ecosystem.

WHAT'S INSIDE EIGHT CONNECTED PRODUCTS





Identify the right parts for AM

Screening a legacy catalogue of thousands, or millions, of parts for AM suitability is impossible to do by hand. AM Identify automates the process ranking parts by cost, quantity, printability and geometric complexity so team your can focus on the opportunities that matter most.

Turn billions of legacy parts into a prioritised AM pipeline.

THE CHALLENGE

- Billions of parts sit in legacy systems — manually screening them is impossible
- AM expertise is scarce and takes time to build and sustain inhouse
- Good candidates get lost without a way to prioritise and track them

WHY AM IDENTIFY

- Specialised LPBF part identification that understands every challenge involved in printing a part
- Keeps your VAVE pipeline moving by continuously surfacing and prioritising new candidates

HOW IT WORKS

01 — Ingest

Pull part data directly from CAD files, PLM exports, or bulk STEP/ STL uploads — no manual re-entry needed.

03 — Cost model

Compare AM unit economics — machine time, powder, supports, post-processing — against conventional process at every order quantity.

02 — Analyse

Extract geometric features (wall thickness, overhangs, complexity) and check against machine build envelopes and process limits.

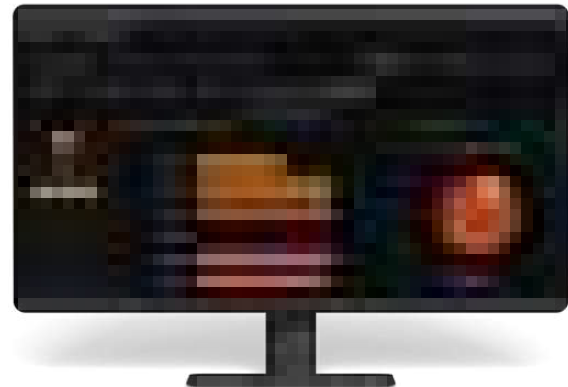
04 — Rank & report

Score every part on cost, quantity, printability and complexity, and output a prioritised, ready-to-action shortlist.

KEY FEATURES

- Automated part identification for AM
- Financial/Cost analysis
- Print-challenge flagging
- Configurable cost models for your machines and organisation
- Material Analysis
- CO2 impact calculator
- Part consolidation identifier

RISK & COST ANALYSIS

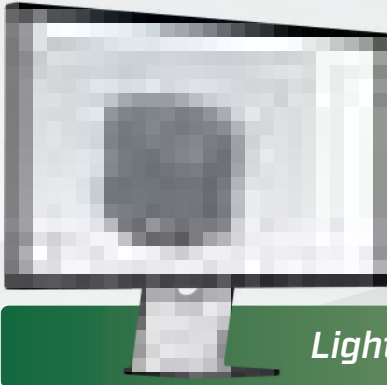


AMPartConsolidator

Multiple brackets, weldments and fastener assemblies can often be redesigned as a single AM part. AM Part Consolidator scans assemblies to surface consolidation opportunities — reducing part count, assembly labour, weight and points of failure before you ever open a CAD tool.

How it works: it reads assembly BOMs and mating geometry to flag groups of fastened or welded parts that share interfaces suitable for redesign into a single monolithic AM part, and estimates the resulting part-count, weight and assembly-time reduction.

AM IDENTIFY | IDENTIFY THE RIGHT PARTS FOR AM



Unlock performance with AM Creator

AM Creator brings lattice structures, topology optimization, and direct STP modification together in one tool — so engineers without specialist lattice or topology expertise can generate lightweight, high-strength, AM-ready designs in a fraction of the time manual iteration takes

Lightweight, high-strength AM designs without specialist effort.

THE CHALLENGE

- Manual design iteration is time-consuming and often produces sub-optimal results
- Lightweighting requires specialised expertise in lattice & topology methods
- Converting legacy CAD into AM-optimised geometry is a persistent bottleneck

HOW IT WORKS

01 — Import & set constraints

Bring in a native STP/STEP file and define load cases, keep-out zones and a target mass reduction.

03 — Add lattice

Fill shells or volumes with TPMS or strut-based lattice cells using implicit modelling, so cell size, wall thickness & density grading can be edited instantly without slow remeshing.

WHY AM CREATOR

- Automated lattice and topology workflows tailored specifically for AM
- Seamless STP import, modification, and AM-ready export

02 — Optimise

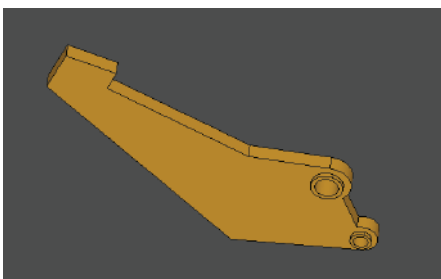
The topology engine redistributes material within the design envelope to meet stiffness and strength targets at minimum mass, respecting AM rules like self-supporting angles and minimum feature size.

04 — Validate & export

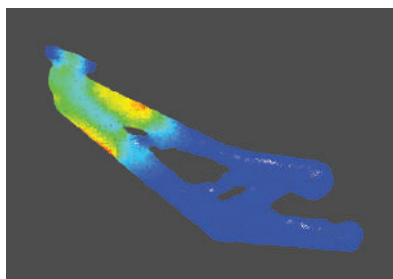
Every design is checked for AM-readiness — no isolated islands, no unsupported overhangs — before exporting straight into AM Builder or AM Simulation.

KEY FEATURES

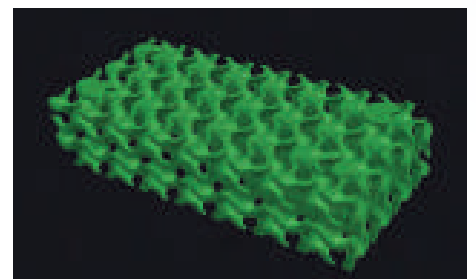
- Lattice structure design (TPMS & strut-based)
- STP file modification
- Customizable lattice parameters per AM process
- Topology optimisation
- Weight-reduction analysis
- AM-ready export formats



Original design



Topology-optimised for AM



TPMS lattice infill



Reimagining how parts are created

Generate parametric CAD files from text prompts, reference images, or sample STL files. AM Designer accelerates concept-to-production with AI-driven parametric design output, cutting design cycle time from weeks to hours.

From idea, image or STL to production-ready CAD in hours.

THE CHALLENGE

- Traditional CAD modelling is slow and requires deep expertise
- Iterating on design concepts takes weeks of manual CAD rework

HOW IT WORKS

01 — Describe

Start from a text prompt, a reference image, or a sample STL file.

03 — Compare

Multiple design variants are generated in parallel so you can evaluate options before committing.

WHY AM DESIGNER

- Generate production-ready parametric CAD from simple inputs
- Reduce design cycle time from weeks to hours with AI-assisted workflows

02 — Generate

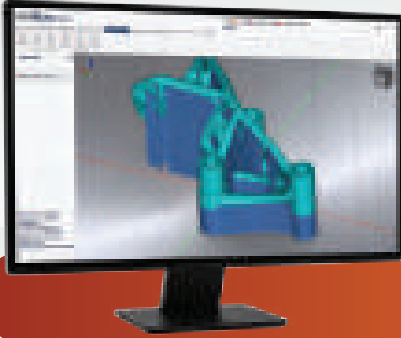
AM Designer interprets your input into a true parametric CAD model not a static mesh with dimensions you can edit directly.

04 — Export

The parametric model exports to standard CAD formats for further editing, including straight into AM Creator for lattice or topology refinement.



Parametric CAD generated from a simple text prompt



From CAD to first part, faster

AM Builder is the complete LPBF build-preparation engine — one intuitive platform for mesh repair, nesting, orientation, support generation, slicing and path planning, with an extensible plugin architecture that grows with your production needs.

One Workflow. From CAD to First Part.

THE CHALLENGE

- Fragmented toolchains force manual data transfer between prep steps
- Steep learning curves for data preparation slow AM adoption

WHY AM BUILDER

- Purpose-built for metal LPBF, with the shortest learning curve for metal printers
- Connects easily into the wider Intech software ecosystem for advanced benefits

HOW IT WORKS

01 — Repair

Automatically detects and fixes non-manifold edges, holes and inverted normals before any prep step runs.

03 — Orient

Scores candidate build orientations by overhang area, support volume and build time, then recommends the lowest-cost option.

02 — Nest

Packs multiple parts onto the build plate, optimizing for plate utilisation, part clearance and recoater travel direction.

04 — Support & path plan

Places supports only where overhang angle and thermal mass genuinely require them, then computes laser scan vectors and layer sequencing ready for the machine.

KEY FEATURES

- Automated mesh repair & editing
- Optimal build orientation
- High-speed slicing engine
- Support-volume minimization
- Intelligent part nesting
- Smart support generation
- Advanced path planning
- CNC connectivity for easy post-processing



Nesting, support generation & path planning in one workspace

AM BUILDER | FROM STL TO FIRST PART FASTER



Eliminate supports, slash costs

Support removal alone can add 30–50% to part cost and double lead times.

AM BuildSmart enables intelligent, support-free LPBF printing — auto-detecting support-critical zones and controlling laser power and powder dosing in real time to print with minimal or zero support structures.

Zero-support builds that cut cost and lead time.

THE CHALLENGE

- Support removal adds 30–50% to part cost and doubles lead times
- Support structures risk surface damage and limit complex geometries

HOW IT WORKS

01 — Risk-map the part

Identifies which overhangs and thin features are genuinely at risk of failure without supports, rather than applying blanket rules.

03 — Adapt in real time

Adjusts laser power and powder dosing dynamically in the identified risk zones to compensate for reduced thermal conduction where supports are minimal.

WHY AM BUILDSMART

- Seamless iFusion integration with intelligent, built-in support generation
- Native AM Builder integration
- Manual parameter tuning for support-free printing is unreliable at scale

02 — Minimise structure

Computes the smallest support footprint needed to hold the geometry stable and manage heat, in place of conservative default supports.

04 — Flow into AM Builder

The optimised support and parameter set feeds directly into your existing AM Builder workflow.

KEY FEATURES

- Auto-detect support-critical zones
- AM Optomet parameter-engine integration
- Intelligent powder dosing
- Optimal support-structure prediction
- Real-time laser power control
- Native AM Builder integration

VALIDATED RESULTS

METRIC	STANDARD PRINT	AM BUILDSMART PRINT
Build Time	29h 19m	26h 58m
Support Volume	32.75 cm ³	11.34 cm³

On this validated part: 65% less support material and an 8% faster build, with no change to part geometry.

Standard build
heavy support structure



AMBuildSmart
minimal support structure

AM BUILDSMART | INTELLIGENT SUPPORT-FREE LPBF PRINTING



Print right the first time

Failed prints waste expensive powder, machine time, and delivery schedules. AM Simulation applies LPBF-specific physics — not generic FEA — to predict thermal and mechanical distortion, recoater interference, and post-processing outcomes before a single layer is printed.

Get it right the first time — no wasted powder or machine time.

THE CHALLENGE

- Failed prints waste expensive powder, machine time and delivery schedules
- Traditional FEA tools are complex and not tailored to LPBF physics
- Trial-and-error erodes confidence in AM as a production method

HOW IT WORKS

01 — Model the build

Simulates the full plate — part plus supports — layer by layer, as it is built and cooled.

03 — Compensate

Where distortion would exceed tolerance, AM Simulation proposes geometry pre-compensation or extra support reinforcement to correct it on the next build.

WHY AM SIMULATION

- No FEA expertise required — built-in LPBF physics deliver accurate results out of the box
- Seamless integration with AM Builder for easy validation
- Flexible licensing — perpetual or pay-per-use to match your production volume

02 — Predict

LPBF-tuned thermal-mechanical physics estimates residual stress, distortion and recoater-interference risk before a single layer is printed.

04 — Extend to post-processing

The same physics engine models stress relief and distortion during heat-treatment cycles.

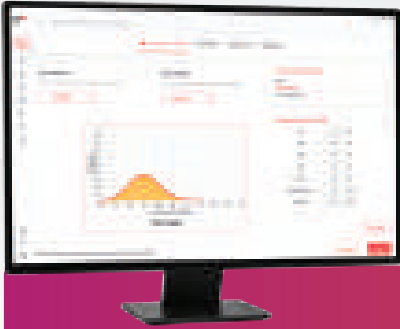
KEY FEATURES

- Thermal distortion prediction
- Mechanical distortion analysis
- Automated distortion compensation
- Recoater interference-zone prediction
- Heat treatment modelling
- Post-processing simulation



Predicted distortion on a printed lattice column

AM SIMULATION | PRINT RIGHT THE FIRST TIME



Master any alloy in days, not months

Developing print parameters for a new alloy traditionally takes months of costly trial and error, and parameters tuned for one machine rarely transfer to another.

AM Optomet is a vendor-agnostic, ML-driven parameter engine purpose-built for metal LPBF, automatically generating optimized parameters for any material, layer thickness and machine.

Explore. Optimise. Master—Any Alloy.

THE CHALLENGE

- Developing print parameters for new alloys takes months of costly experimentation
- Parameters tuned on one machine rarely transfer to other vendors or configurations
- Production-scale AM demands consistent quality across materials & machines

HOW IT WORKS

01 — Define the alloy

Select an existing material or define a custom composition, target layer thickness and machine using the built-in periodic-table interface.

03 — Confirm

A structured design-of-experiments plan suggests the minimum number of confirmation prints needed to validate the prediction.

WHY AM OPTOMET

- The only ML-based parameter engine purpose-built for metal LPBF on the market
- Vendor-agnostic — parameters transfer across machine brands & configurations

02 — Predict

A machine-learning model trained on prior build outcomes density, surface roughness, mechanical properties predicts an optimised parameter set without physical trial builds.

04 — Improve

Each build result feeds back into the model, sharpening future predictions, & because it reasons on process predictions transfer across LPBF brands with far less recalibration.

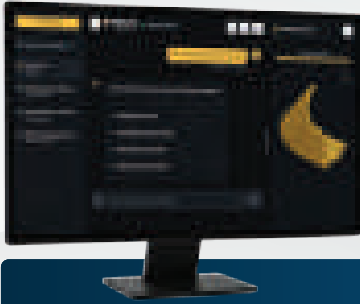
KEY FEATURES

- New alloy parameters generated in days
- Multi-layer-thickness optimisation
- Build-rate & productivity gains
- Surface-roughness optimisation
- Self-improving ML after every print
- Novel-alloy printability prediction
- Predicts yield, density, hardness, tensile strength & elongation for every parameter change



Define a custom alloy composition and generate optimised parameters

AM OPTOMET | ML-DRIVEN PARAMETER OPTIMIZATION



Always available, always learning

AM Co-pilot is an intelligent assistant trained on Intech's complete metal LPBF knowledge base, connecting seamlessly with every Intech software tool for end-to-end AM guidance from a single interface.

Scale scarce LPBF expertise across every engineer.

THE CHALLENGE

- LPBF expertise is scarce and hard to scale across teams
- Engineers spend hours searching documentation for print parameters
- Disconnected tools create workflow gaps and manual data transfer

HOW IT WORKS

01 — Ask

Pose a question in plain language about materials, parameters, a specific part, or a failed print.

03 — Connect

Wired into AM Builder, AM Simulation, AM Identify & AM Optomet AM Optomet it pulls live context about the job you're working on.

WHY AM CO-PILOT

- Instant access to Intech's entire LPBF knowledge base via natural language
- Unified orchestration across all Intech software from a single interface

02 — Retrieve

AM Co-pilot matches your question against Intech's curated LPBF knowledge base — materials, parameters, machine docs and failure modes — so answers are grounded, not generic.

04 — Learn

New prints, parameters & troubleshooting outcomes are logged back into the knowledge base, so answers keep improving.



Ask AM Co-pilot about materials, parameters or your uploaded part

THE COMPLETE SOFTWARE ECOSYSTEM FOR **METAL ADDITIVE MANUFACTURING**

From identifying the right parts to print, through design, build preparation, simulation and process Optimization – **AMSuite** connects every stage of the metal additive workflow in one ecosystem.



The INTECH Edge

Intech Additive is India's first OEM of industrial Metal Additive Manufacturing solutions provider. Leveraging over a decade of experience, the company has indigenously developed AMSuite, a comprehensive AM software ecosystem, designed to accelerate industrial adoption. This technology, paired with advanced Design for Additive Manufacturing (DfAM) expertise and holistic 360-degree solutions, enables the seamless integration and optimization of additive manufacturing within existing production workflows.

PARTNER WITH THE LEADERS WHO UNDERSTAND THE ENTIRE METAL ADDITIVE LIFECYCLE

Corporate Contact Information:

ADDRESS

INTECH ADDITIVE SOLUTIONS PRIVATE LIMITED
Plot #239, 11th Main Road, 2nd Cross Road,
3rd Stage, Peenya, Bengaluru, Karnataka 560058



+91 63664 50455
www.intechadditive.com
marketing@intechadditive.com