2026
Suzhou China

FASTFORM

From Prototype to Mass Production
FastForm·Redefine Rapid Manufacturing

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Product Brochure

From Prototype to Mass Production
FastForm·Redefine Rapid Manufacturing

FAST FORM

CATALOGUE

CATALOG

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ABOUT US

COMPANY PROFILE 01

From Prototype to Mass Production
FASTFORM·Redefining Rapid Manufacturing

FASTFORM 3D TECHNOLOGY CO., LTD, English abbreviation "FastForm," was co-founded by PhD researchers from Nanyang Technological University and Huazhong University of Science and Technology.

As a leading provider of metal 3D printing solutions, FastForm delivers comprehensive additive manufacturing systems for global healthcare, general industrial manufacturing, and consumer electronics sectors. The company has built a complete industry chain technology platform spanning equipment development, materials science, process automation, intelligent software, and data infrastructure.

Leveraging a fully independent R&D framework, FastForm has developed China's first comprehensive additive manufacturing product line — ranging from desktop to industrial-scale systems (Desk-Fab/FF-M140/M220/M300/M420/M800).

The company's flagship Fastlayer intelligent industrial platform combines open architecture with advanced AI algorithms to establish a centralized process data hub. This innovation enables the critical shift from "experience-based" to "data-driven" manufacturing, earning 38 domestic and international patents. FastForm's solutions now power digital transformation across healthcare, industrial manufacturing, consumer electronics, aerospace, and other advanced manufacturing sectors. With nearly 3,000 systems installed globally, FastForm products reach customers in over 80 countries.

As a pioneer in China's additive manufacturing industrialization and mass production, FastForm adheres to a strategic framework built on "technology independence, intelligent processes, and global service." The company remains committed to advancing AI-driven innovation and integrated software-hardware solutions, continuously delivering on its founding promise to "From Prototype to Mass Production — FastForm Redefines Additive Manufacturing " Empowering manufacturers worldwide to achieve digital and intelligent transformation.

FASTFORM

2016年
FOUNDED IN

80+
EXPORT COUNTRIES

3000+
GLOBAL INSTALLATION

10000m²+
FACTORY AREA

02 DEVELOPMENT HISTORY

FASTFORM
Development History

2016

- **Apr.**
  The company was established with angel investment.
- **Oct.**
  Successfully developed China's first commercial dual-laser dual-galvo M500 system, breaking foreign technological monopolies.
- **Nov.**
  Awarded funding under the 7th batch of the 'HaiChuang Program' (Overseas High-level Talent Innovation and Entrepreneurship Program).

2017

- **Oct.**
  The FastLayer system has been successfully developed and patented.

2020

- **Jul.**
  Signed contract for the M800 system - one of China's largest build-volume industrial 3D printers at the time.

2021

- **Sep.**
  Jiangsu Company was established, marking the beginning of a new development chapter.

2022

- **Sep.**
  The dual-laser dental-specific system was successfully launched, establishing itself as one of the most efficient dental 3D printing solutions on the market at that time.

2023

- **May.**
  Launched the cost-effective FF-M140C system, redefining single-laser metal 3D printing.
- **Nov.**
  Completed Series A strategic financing with participation from Huagong Tech (SZSE: 000988) and multiple institutional funds.
- **Dec.**
  Launched the multi-laser FF-M420Q system for shoe molds and consumer electronics applications, leading to a new era of industrialized metal 3D printing.

2024

- **Jun.**
  Launched the industrial mass-production model FF-M300S.
- **Dec.**
  Launched the desktop metal 3D printer - DeskFab.

FASTFORM

03 PATENT CERTIFICATE

18+ Authorized Patents

A Metal Wire Additive Manufacturing Equipment and Additive Manufacturing Method Based on Alternating Magnetic Field

Real - time Detection Software V1.0 for Metal 3D - Printing Melten Pool

Scanlab Galvo Distortion Automatic Calibration Software

FastLayer Slicing Software V1.1

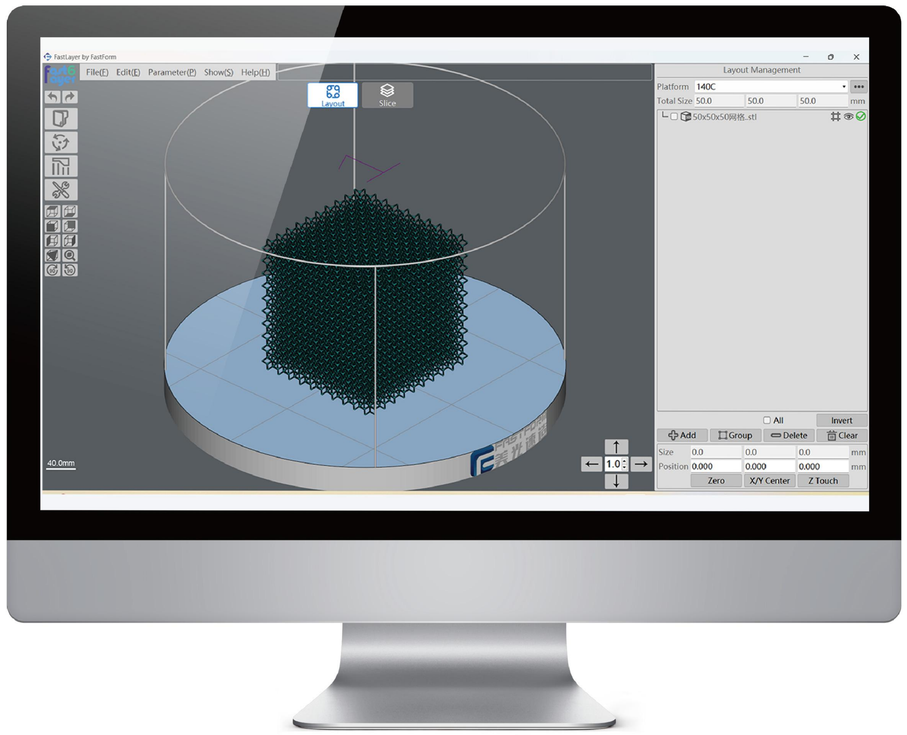
30+ Software Copyrights

High - Temperature - Resistant Material 3D Printer

Metal 3D - Printing Filtration System

High - tech Enterprise Certificate

04 SOFTWARE INTRODUCTION



FastLayer

Intelligent Model Preprocessing Engine

Utilizing AI-powered topology optimization algorithms to automatically identify stress concentration areas in complex models such as aero-engine blades and medical implants.

Intelligently Generates lightweight Support Structures and Optimized layout Solutions

"Supports multi-model differential parameter configuration (120+ core parameter library), enabling one-click slicing for specialized processes such as gradient material components and conformal cooling molds."

Large-Scale Industrial Data Processing

The world's first metal slicing system supporting 10GB-level binary data (e.g., satellite fuel tank brackets, nuclear reactor components).

Featuring a CUDA-based GPU acceleration architecture, it delivers 300% higher slicing efficiency compared to conventional software, with daily processing capacity reaching 20 sets of 2.5-meter-scale aerospace components.

AI Self-Repairing Process

"Integrated GAN-based intelligent repair module automatically corrects non-manifold edges, holes, and normal errors, achieving 99.6% pass-through rate for damaged models;

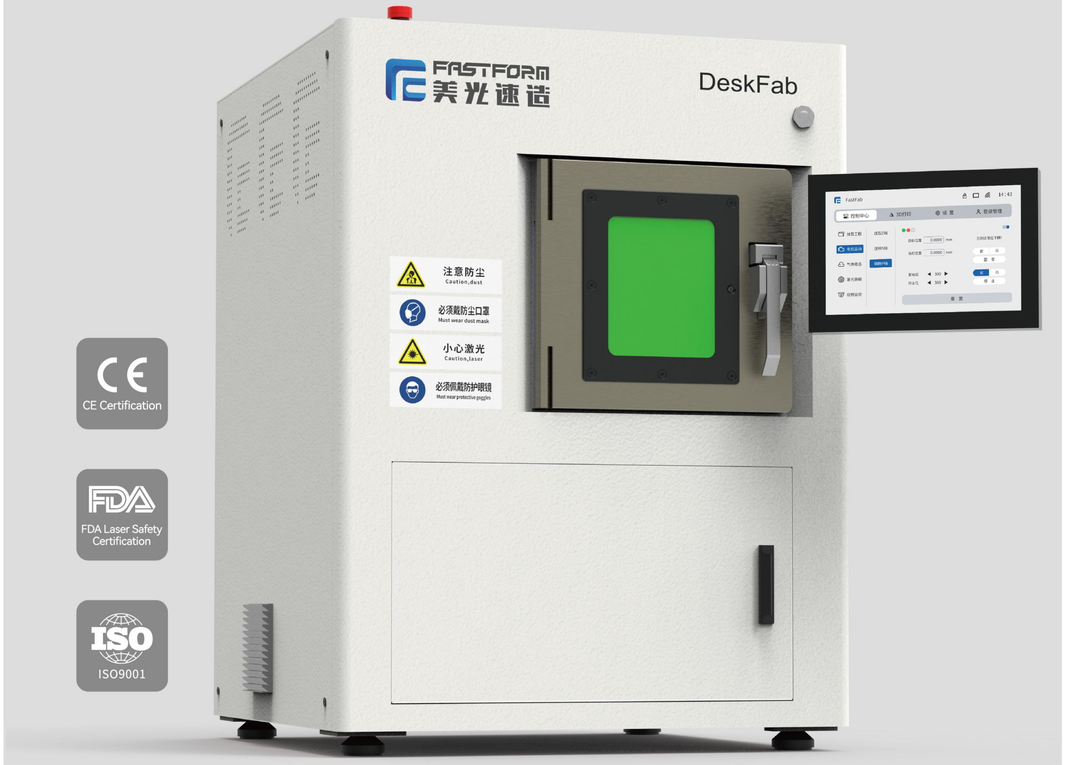
Real-time thermo-mechanical coupling simulation system predicts and compensates for printing deformation in titanium/aluminum alloys, ensuring ±15μm dimensional accuracy for critical features."

Multi-laser Lntelligent Collaborative Control

In the dynamic stitching mode of the 36 - galvanometer, the AI path planning algorithm achieves the precise control of the heat - affected zone overlap rate within 5%;

The stress optimization algorithm makes the tensile strength dispersion of the multi - laser stitching area less than 3%, reaching 98% of the mechanical properties of the overall formed part.

05 PRODUCT INTRODUCTION



DeskFab series

Desktop 3D Printer series

DeskFabH1 — Desktop metal 3D printer dedicated to education and scientific research;

DeskFabX1 — Desktop metal 3D printer specialized for dentistry.

Dental

Education Research

FUNCTIONAL CHARACTERISTICS

- All-in-one Integration
  Space Revolution
- Permanent Filtration System
  0 Cost, 0 Replacement, 0 Risk
- One-to-N intelligent collaboration
  Education & Scientific research
- One-click printing & one-click typesetting
  Friendly master it for beginners
- LFPT - Light Following Powder Spreading Technology
- Multi-functional metal 3D printer
  Available for multiple metal materials

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Building Volume	Φ100×70mm	Printer Dimensions	615×655×850mm（L×W×H）
Machine Weight	140kg	Protective Gas	Nitrogen, Argon
Laser Power	Single laser, 300W	Recoater Type	Flexible soft blade
Layer Thickness	20-80μm（adjustable）	Powder feeding Type	Top powder feeding,one-way recoating
Rated Power	1kW	Baseplate Installation	Quick-release magnetic fixed
Layout Method	Fully automatic layout and path planning	Filtration Lifetime	Permanent filter ≥ 30,000 hours
Software	FastForm FastLayer slicing software & FastFab control software		
Printing Materials	Cobalt-chromium alloy, titanium alloy, pure titanium		

APPLICATION DEMONSTRATION

05 PRODUCT INTRODUCTION

CE Certification

FDA Laser Safety Certification

ISO9001

FF-M140 series

Desktop 3D Printer M140 series

FF-M140H-Single Laser metal 3D printer for education & scientific research;

FF-M140C-Single Laser metal 3D printer for dentistry.

Dental

Education Research

FUNCTIONAL CHARACTERISTICS

- 7 years of verification
  Worry-free operation
- FastForm programmed own software ,
  Open source for parameter database
  Simply work-flow for operation
- Worry-free after-sales service
  Worry-free usage
- Permanent filtration system
  0 cost,0 replacement, 0 risk
- Supports up to 120μm layer thickness process development
- >7 years of verification ,built-in HD camera
  Online remote monitoring and operation
  Real-time tracking production status

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Building Volume	Φ140mm*H100mm/Φ140mm*H170mm	Printer Dimensions	970×815×1750mm（L×W×H）
Protective Gas	Nitrogen, Argon	Layer thickness	20μm-120μm（adjustable）
Machine Weight	450kg	Recoater Type	Flexible soft blade
Beam size	50-100μm（adjustable）	Laser Power	Single laser, 1x500W
Rated Power	1.5kW	Baseplate Installation	Magnetic fixed /Screw fixed
Layout Method	Fully automatic layout and path planning	Filtration Lifetime	Permanent filter ≥ 30,000 hours
Software	FastForm FastLayer slicing software & FastFab control software		
Printing Materials	Stainless steel, titanium alloy, tool steel, high-entropy alloy, cobalt alloy, aluminum alloy, copper alloy, etc.		

APPLICATION DEMONSTRATION

05 PRODUCT INTRODUCTION

CE Certification

FDA Laser Safety Certification

ISO9001

FF-M220 series

Dual-Laser Metal 3D Printer M220 Series
FF-M220—Medical &Dental Metal 3D Printer;
FF-M220—Prototype Metal 3D Printer.

Prototype Dental Medical

FUNCTIONAL CHARACTERISTICS

- Dual-laser large-format Production efficiency increased by 200%
- One-click printing & one-click typesetting Friendly master it for beginners
- Stable equipment Mature process
- Permanent filtration system 0 cost,0 replacement, 0 risk
- LFPT - Light Following Powder Spreading Technology
- Worry-free after-sales service Worry-free operation

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Building Volume	220×140×100/220mm(L×W×H)	Printer Dimensions	1200×750×1820mm（L×W×H）
Protective Gas	Nitrogen, Argon	Layer thickness	20μm-150μm（adjustable）
Machine Weight	550kg	Recoater Type	Flexible soft blade
Beam size	60-100μm（adjustable）	Laser Power	Dual lasers, 2x500W
Rated Power	2kW	Baseplate Installation	Magnetic fixed /Screw fixed
Layout Method	Fully automatic layout and path planning	Filtration Lifetime	Permanent filter ≥ 30,000 hours
Software	FastForm FastLayer slicing software & FastFab control software		
Printing Materials	Stainless steel, titanium alloy, tool steel, high-entropy alloy, CoCr alloy, aluminum alloy,copper alloy, etc.		

APPLICATION DEMONSTRATION

05 PRODUCT INTRODUCTION

CE Certification

FDA Laser Safety Certification

ISO9001

FF-M300 series

Industry Metal 3D Printer M300 Series

FF-M300H—Metal 3D printer for education & scientific research;

FF-M300S—Metal 3D printer for prototyping;

FF-M300—Metal 3D printer for mold manufacturing.

Prototype Mold Consumer electronics Education Research

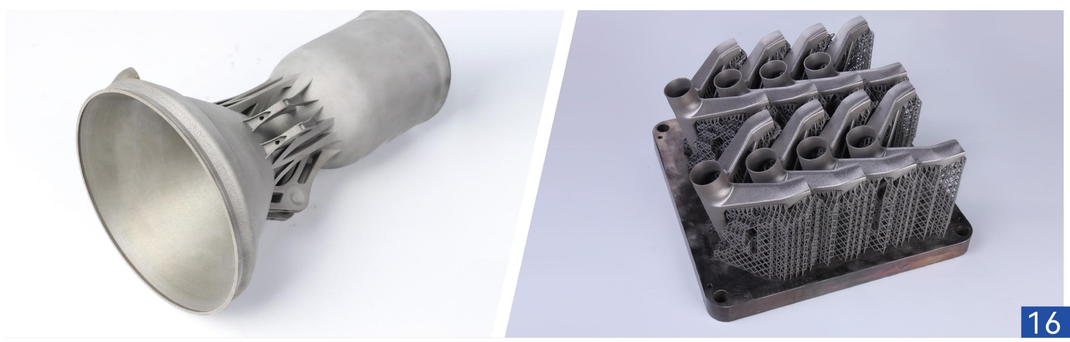
FUNCTIONAL CHARACTERISTICS

- Dual ultra-fast engines
  Double the efficiency
- Ultimate mechanical structure
  Space cost reduced by 30%
- Zero-touch dynamic
  Seamless stitching
- Permanent filtration system
  0 cost,0 replacement, 0 risk
- Powder circulation system integrated for all series

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Building volume	300×300×400mm（L×W×H）	Printer Dimensions	1960×930×2222mm（L×W×H）
Protective Gas	Nitrogen, Argon≤2L/min	Recoating type	Top powder feeding, bidirectional recoating
Machine Weight	1230kg/1260kg	Recoater Type	Flexible Soft blade
Optical system	F-theta lens	Laser Power	2, 4 lasers (optional), 1x500W
Scanning speed	10m/s（max）	Rated Power	4kW / 6kW
Forming rate	100cm³ /h（max）	Filtration System	Permanent filter ≥ 30,000 hours
Software	FastForm FastLayer slicing software & FastFab control software		
Printing Materials	Tool steel, stainless steel, titanium alloy, superalloy, aluminum alloy, etc.		

APPLICATION DEMONSTRATION



05 PRODUCT INTRODUCTION

CE Certification

FDA Laser Safety Certification

ISO9001

FF-M420 series

Industry Metal 3D Printer M420 Series

FF-M420 — Metal 3D Printer for Mold Applications;

FF-M420 — Metal 3D Printer for Consumer Electronics;

FF-M420 — Metal 3D Printer for Aerospace.

Mold

Consumer electronics

Education Research

Aerospace

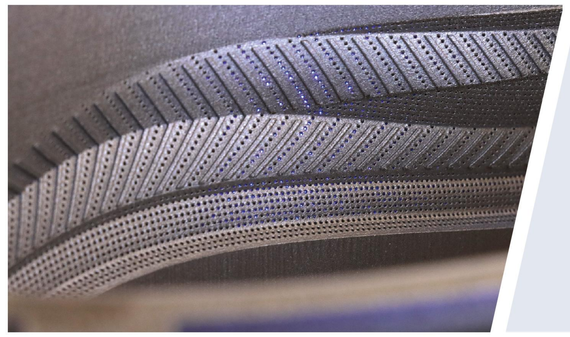
FUNCTIONAL CHARACTERISTICS

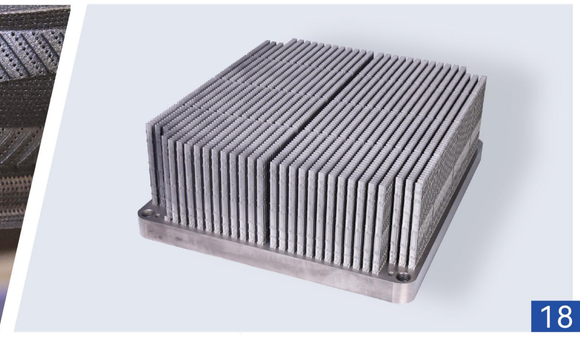
- 8 lasers + LFPT Bidirectional recoating
  Production efficiency increased by 300%
- Ultimate mechanical structure
  Small volume light weight
- Zero-touch dynamic
  Seamless stitching
- Permanent filtration system
  0 cost,0 replacement, 0 risk
- FastLayer
  One-click typesetting one-click slicing
  one-click hollowing
- Large-scale solutions
  Worry-free machine purchase

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Building Volume	420×420×450mm（L×W×H）	Printer Dimensions	2753×1150×2340mm（L×W×H）
Protective Gas	Nitrogen, Argon	Recoating Type	Top powder feeding, bidirectional recoating
Machine Weight	2000kg	Recoater Type	Flexible soft blade
Rated Power	10kW	Laser Power	4, 8 lasers (optional), 1x500W
Scanning speed	10m/s（max）	Galvo type	Raster-type high-precision digital encoding lens
Forming rate	240cm³/h（max）	Filtration Lifetime	Permanent filter ≥ 30,000 hours
Software	FastForm FastLayer slicing software & FastFab control software		
Printing Materials	Tool steel, stainless steel, titanium alloy, superalloy, aluminum alloy, etc.		

APPLICATION DEMONSTRATION





05 PRODUCT INTRODUCTION

CE Certification

FDA Laser Safety Certification

ISO9001

FF-M800 series

Large-size Metal 3D Printer M800 Series
FF-M800 — Metal 3D Printer for Mold;
FF-M800 — Metal 3D Printer for Aerospace.

Consumer electronics | Military | Automotive | Aerospace

FUNCTIONAL CHARACTERISTICS

- LFPT (Light-Following Powder Spreading Technology)
  Reduce 15 seconds per layer
  Saving 41 hours for 10K layers
- Say goodbye to single-layer limitations
  Dual-layer wind field redefines the heat dissipation logically
- Zero-touch dynamics
  Seamless stitching
- FastLayer ultra-large-scale industrial data processing
  Efficiency increased by 300%
- FastFab AI intelligent control with full-dimensional quality inspection during 3D printing process

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Building Volume	650×650×1100mm（L×W×H）	Printer Dimensions	6600×4050×5800mm（L×W×H）
Protective Gas	Nitrogen, Argon	Preheating temperature	200℃
Machine Weight	6000kg	Recoating Type	Top powder feeding, bidirectional recoating
Rated Power	20kW	Laser Power	6, 8 lasers (optional), 1X500W
Scanning speed	10m/s（max）	Galvo type	Raster-type high-precision digital encoding lens
Forming rate	240cm²/h（max）	Filtration Lifetime	Permanent filter ≥ 30,000 hours
Software	FastForm FastLayer slicing software & FastFab control software		
Printing Materials	Tool steel, stainless steel, titanium alloy, superalloy, aluminum alloy, etc.		

APPLICATION DEMONSTRATION

05 PRODUCT INTRODUCTION

CE安全认证

FDA激光安全注册认证

ISO9001

AiForm-G1 series

AI Liquid Cooling Industry-Specific Solutions

Industrial Manufacturing

Thermal Management

Power Electronics

Aerospace

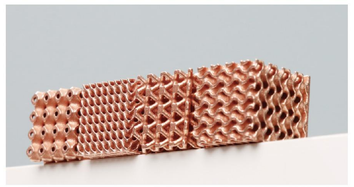
FUNCTIONAL CHARACTERISTICS

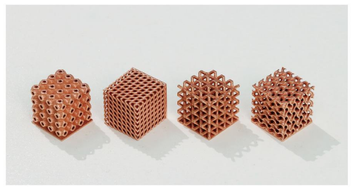
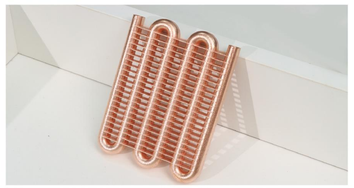
- Micro-level Printing Defines the Precision Limition
- "Zero-penetration" Ultra-high density Forming
- Industry-customized Solutions
- FastLayer/FastFab Full-stack Self-developed System
- Permanent filter 0 Cost 0 Replaceable 0 Risk

TECHNICAL PARAMETERS

Name	Parameters	Name	Parameters
Build Size	140×140×180mm（L×W×H）	Laser Source	Single-mode Green Fiber Laser 500W
Computing Power	TFLOPS	Beam Diameter	15-40um
Focus System	Scene Intelligent Focusing	Scanning Speed	Max.7m/s
Printing Accuracy	Min. wall thickness 0.1mm	Layer Thickness	20-120um
Dimension	1770×810×1750mm（L×W×H）		

APPLICATION DEMONSTRATION



06 GLOBAL LAYOUT

5+

Overseas after - sales service outlets

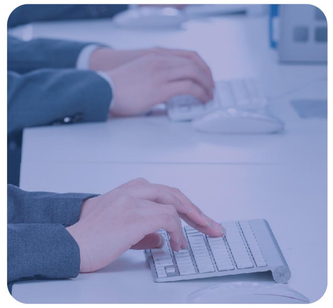
80+ countries

Sales into the global market

3000+ units

Global sales deployment

07 SERVICE SUPPORT



FASTFORM • Dedicated service to meet all needs

Comprehensive training system

A systematic and comprehensive training process, combined with high-standard practical operation assessments, ensures users can master operation and application skills in a short time and generate benefits rapidly.

Intimate equipment maintenance plan

Intimate equipment maintenance plans provide professional installation and debugging services, regular follow-up visits, timely sharing of new technology applications, and lifelong equipment maintenance support.

Lifetime technical support

Professional technical and process development team can deeply customize solutions for users, collaborate to develop optimal new material processes, and provide lifelong technical support.

Efficient and fast after-sales service

24/7 around-the-clock after-sales service ensures rapid response, providing instant online support and on-site maintenance services to eliminate customer worries.