

# EXT 1070 Titan™ Pellet 3D Printer

High-speed industrial additive manufacturing solution with innovative pellet-extrusion technology and optional milling spindle toolhead



# Transforming industrial production additive manufacturing with up to 10X faster print speed and 10X savings on materials

**A true workhorse, the EXT 1070 Titan Pellet is optimized for continuous operation and built to meet the unique needs of our industrial customers around the globe.**

Our pellet-extrusion additive manufacturing (AM) technology reduces per part costs and delivers higher part performance with lights-out reliability. EXT Titan Pellet systems are relied on by diverse companies across industries including aerospace, automotive, foundry, government/defense, healthcare, furniture and consumer products with applications from tooling to end-use part production.



## REDUCED PART COST

Up to 10X faster print speeds and 10X reduction in raw material costs compared to filament 3D printing, drastically lowering per part cost vs. FDM/FFF printers.



## LIGHTS-OUT RELIABILITY

EXT Titan Pellet systems are built for lights-out manufacturing on the production floor with industrial CNC motion control systems, servos on all axes and ultra-reliable extruders.



## HIGHER PART PERFORMANCE

With a wide range of pellet feedstocks available, including high-temperature and fiber-reinforced materials, EXT Titan Pellet systems enable customers to use the right material for their industrial production applications.



## MORE THAN JUST MACHINES

Our experts can help you with material validation, process refinement, toolpath development, post-processing, and more. Our global service team has you covered to maximize machine uptime when it's time for maintenance.

## Application Examples

- Sandcasting Tools & Patterns
- Thermoforming Molds
- Refractory Molds
- Composite Layup Tooling
- Manufacturing Jigs and Fixtures
- Automotive and Marine Components
- Aerospace Ducting
- HVAC Components
- Furniture, Lighting, Decor
- Mannequins, Statuary
- End-Use Parts
- Full-Scale Prototypes
- and more

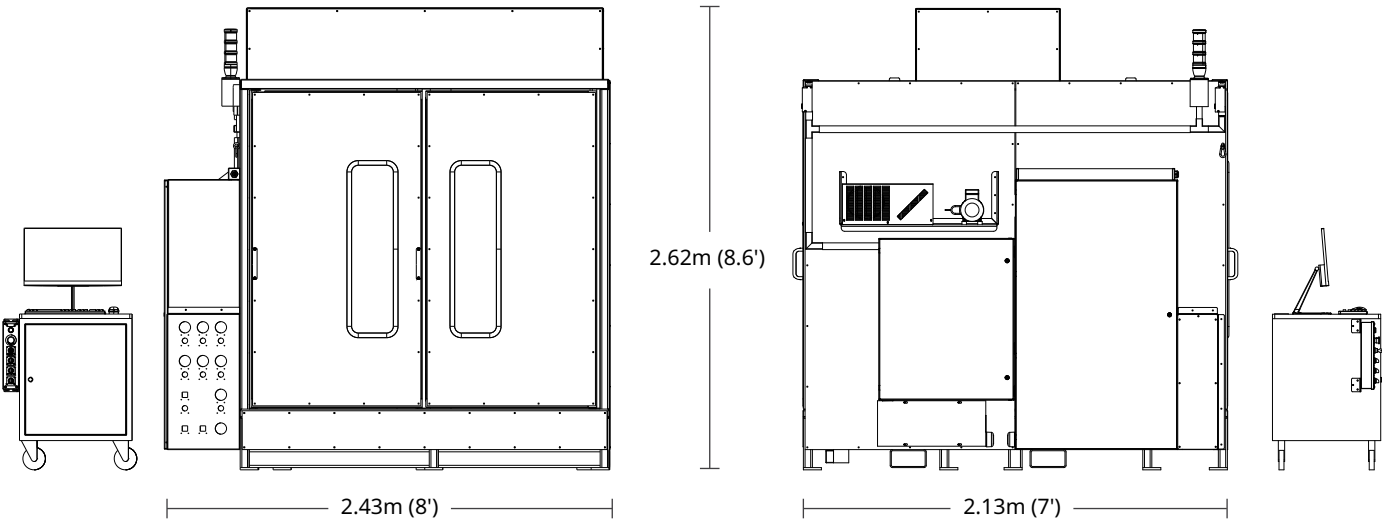


# Purpose Built. Production Ready: Highly configurable large-format industrial pellet extrusion with milling spindle option

The EXT 1070 Titan Pellet is our flagship pellet extrusion system, offering a generous build volume, flexible configurations, and industrial performance for tooling and production.

Standard features include welded and precision-machined steel frame, active bed and chamber heating, industrial CNC motion controller, servo motors on all axes, and industrial PC HMI. The EXT 1070 comes standard with a single high-throughput, precision pellet extruder but may be configured with up to three toolheads including a second pellet extruder, a filament extruder, and a milling spindle. A pellet dryer and air filtration unit are optional.

## EXT 1070 Titan Pellet Specifications



<b>Standard Model Build &amp; Cut Volume (XYZ)</b>	1070mm x 1070mm x 1118mm (42" x 42" x 44") 1041mm x 990mm x 990mm (41" x 39" x 39")
<b>LT Model Build Volume (XYZ)</b>	1070mm x 1070mm x 1219mm (42" x 42" x 48")
<b>Maximum Temperatures</b>	Pellet Extruder: 400°C Print Bed: 140°C Build Chamber: 80°C
<b>Print Speeds</b>	Up to .5m/sec
<b>Rapid Travel Speeds</b>	Up to 1m/sec
<b>Available Nozzle Diameters</b>	0.6–9.0mm, 2mm standard
<b>Pellet Extruder Throughput</b>	1–30* lbs. per hour
	*max flow rate with 9 mm nozzle
<b>Recommended Slicing Software</b>	Simplify3D

<b>Standard Model Toolhead Options</b>	Single or Dual Pellet , + Single or Dual Filament , + Spindle up to 3 heads total
<b>LT Model Toolhead Options</b>	Single Pellet , + Single or Dual Filament
<b>Standard Certifications</b>	CE, KC, NFPA-79 Compliant
<b>Standard Safety Equipment</b>	Door Interlocks, Material Run-out Detection, Stack Light
<b>Optional Ancillary Equipment</b>	Pellet Dryer, Air Filtration
<b>Power Input</b>	208V 3 Phase, 60 amp
<b>Machine Weight (uncrated)</b>	2,041 kg (4,500 lb)
<b>Dimensions</b>	2.43m x 2.13m x 2.62m (8' x 7' x 8.6')



## Why print with pellets?

### Speed, low cost, and a huge selection of industrial materials.

**As the raw form of most thermoplastics, pellets are the lowest cost feedstock available for additive manufacturing, and they're available in hundreds of formulations.**

From high-strength fiber-reinforced industrial plastics to highly flexible elastomers, pellet extrusion offers a broad range of material choices. Our open materials architecture enables customers to choose between buying materials on the open market or buying certified, production-ready pellets direct from 3D Systems. Either way, our application engineers can help you select the right material and the best print parameters for your specific application to ensure your manufacturing success.

The following production-proven pellet materials are available directly from 3D systems:

#### **High Performance/Filled Materials**

- ABS CF10
- ABS CF20
- PP CF15
- PP GF30
- PC CF20
- Nylon CF5
- Nylon CF10
- Nylon CF35
- PEI CF20
- PEI GF20
- PEKK GF30

#### **Standard Materials**

- ABS
- PETG
- PLA
- PP

#### **Flexible Materials**

- TPE 25 Shore A
- TPE 40 Shore A
- TPU 85 Shore A

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