# 22 IDEX V3


## HIGH-TEMPERATURE
# 3D PRINTER

**DESIGNED FOR THE WORKSHOP**

**PEEK, ULTEM™, PPSU, AND MORE**

Print the world's strongest thermoplastics for Jigs, Fixtures, Tooling, and more. Work with Carbon Fiber, Glass-filled and ESD-Safe polymers, to create strong, end-use parts.

**ENGINEERED IN THE USA**

VISIONMINER.COM

# ENGINEERED FOR INDUSTRIAL PERFORMANCE

The 22 IDEX V3 takes high-performance FDM printing to the next level, combining dual independent 500°C extruders, a fully enclosed, actively heated chamber, and a 200°C triple-Z self-leveling build platform—all built on an ultra-rigid motion system designed for long-term precision. With an open-material ecosystem and advanced automation features, the V3 unlocks the true potential of in-house additive manufacturing for professionals working with PEEK, PEKK, ULTEM™, PPSU, and other engineering thermoplastics.


**500°C**
INDEPENDENT DUAL HOTENDS
MIRROR, DUPLICATE, OR MULTI-MATERIAL

**200°C**
5-AXIS BUILD PLATFORM
MECHANICAL SELF-LEVELING

**100°C**
ACTIVELY HEATED CHAMBER
FOR HIGH-TEMPERATURE POLYMERS

## VIRTUALLY UNLIMITED MATERIALS

**PEEK** (Victrex, Solvay, etc -- all grades)
**PEI** (ULTEM 1010, 9085, Carbon Fiber)
**PPSU/PPSF** (Polyphenylsulfone)
**PSU** (Polysulfone)
**PPS** (Polyphenylene sulfide)
**ABS** (Acrylonitrile butadiene styrene)
**NYLON** (Polyamide)
**CARBON-FIBER REINFORCED POLYMERS**
**GLASS-FIBER REINFORCED POLYMERS**

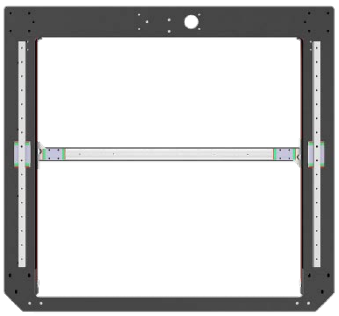
**PLA**
**PCTG**
**PETG**
**ASA**
**TPU/TPE**
**OBC**
**HIPS**
**PP**
**PC**

**PPE/PS**
**PVDF**
**TPI**
**PEKK**
**PES**
**SOLUBLE**
**R&D MATERIALS**
**+++AND MORE**



+1-833-774-6863
contact@visionminer.com

# QUALITY CONSTRUCTION
## MADE USING TOP-OF-THE-LINE COMPONENTS



## LINEAR RAILS
### PRECISION MOTION SYSTEM

We were tired of poor construction and cheap components - when building the 22 IDEX, we ensured it was constructed only with the highest quality components, giving you the precision of an industrial machine on your desk. Robust high-temp stepper motors, linear rails, German wiring and industry leading electronics means you get consistent print quality and accuracy, while minimizing overall system maintenance. Using High-Temperature rails and extra-wide Kevlar Belts, the 22 IDEX stays in-spec with ease.

## TRIPLE MOTOR Z-AXIS
### TRUE SELF-LEVELING BUILD PLATFORM

Most printers require manual leveling, in addition to planar-offset or mesh-leveling. Not so, with the 22 IDEX - we've integrated three Z-Axis motors to physically level the build platform before each print, combined with a 144+point mesh leveling process to eliminate all guesswork. This means that your prints will start at the perfect height, every single time. It's a game-changer.

## NON-PLANAR READY
### 6 INDEPENDENT AXIS AND 5 DEGREES OF FREEDOM

The self-leveling bed and auto-squaring XY gantry not only makes great prints, but enables non-planar printing to an entirely new level -- you're not just buying any other 3D Printer, the 22 IDEX is prepared to take on a whole new world of multi-axis 3D Printing. All 6 axes are independent, giving you a full 5 degrees of freedom, meaning your machine is already prepared for the next generation of non-planar printing and slicing software, once it becomes available.

# DETAILED SERVICE & SUPPORT

**We're here to help -- that's our promise, because when you win, we win.**

We've built our support system for engineers and professionals who want full control—no downtime, no guesswork. Our machines come backed by an extensive library of step-by-step training videos and diagnostic walkthroughs, covering everything from installation and calibration to troubleshooting and advanced material tuning.

And for those who prefer written detail, our in-depth technical documentation is available 24/7 at wiki.visionminer.com. You'll find everything from exploded diagrams and part replacement procedures to slicer profiles, firmware settings, and real-world fix logs—created by the same team that builds and supports these machines.

Whether you're in a lab in Stockholm or a factory in Barcelona, you can get up and running fast—with the exact same resources our own team uses. No time zone delays, no language barriers—just clear, actionable information when and where you need it.

# INDUSTRY-PROVEN TECH
# MADE USING CUTTING-EDGE PARTS

## BUILT-IN FILAMENT DRYING SYSTEM

**HANDLE THE HYGROSCOPIC POLYMERS WITH EASE**

The filament on the 22 IDEX is stored inside the chamber while printing -- this means that when using the heated chamber with hygroscopic filaments (read: most filaments), the filament is kept dry, eliminating much of the oozing, blobbing, and poor surface finishes due to moisture.


## AUTO SHUTOFF AND SAFETY SYSTEMS

**DESIGNED FOR PRACTICAL DAY-TO-DAY PRODUCTION**

Safety is paramount, in the workplace and workshop. We've implemented robust measures to ensure the safety of you and your team - the printer will automatically shut down if it senses overheating, thermal runaways, or electrical errors. High-quality Solid State Relays and German wires are just a fraction of the safety features designed into the machine, from the ground up.

## DUAL-GEARED DIRECT DRIVE EXTRUDERS

**HARDWARE TO HANDLE THE CHALLENGING MATERIALS**

Want to print Flexible materials? Go for it! Carbon Fiber and Glass Fiber filaments? No problem! These powerful extruders can handle not only the toughest filaments, but the softest ones too.

## COPPERHEAD® TOOL HEADS

**HARDWARE TO HANDLE THE CHALLENGING MATERIALS**

Crank out more parts in less time, with one of the most efficient hotend designs available. On top of that, the 22 IDEX comes with hardened steel nozzles, standard. This means you can produce parts in CF Nylon, CFPEEK, or any other abrasive composites, straight out of the box.

## OPEN-SOURCE FIRMWARE

**DUET 3 REPRAP FIRMWARE, SILENT TRINAMIC STEPPER DRIVERS**

Unlimited extensibility with industry-standard electronics -- add a Raspberry Pi, more motors, other features -- plus, you can use any slicer you want, on any system - Windows PC, Mac, or Linux. Modify to your heart's content.

## ANY SLICER, ANY COMPUTER, ANY MATERIAL

**WEB INTERFACE MEANS: YOUR COMPUTER, TABLET, OR PHONE WILL WORK, AS-IS.**

The Integrated WiFi (or ethernet, for our DOD customers) web interface and standard RepRap firmware makes the machine easy to control, from anywhere in the shop. Use your workstation, laptop, tablet or phone to control the printer -- using macros, or custom configurations you develop for your own needs.



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# SPECIFICATIONS

## PRINTING TECHNOLOGY

Fused Filament Fabrication (FFF/FDM)

## FILAMENT DIAMETER

- 1.75 mm Standard
- Fully Open Material System

## TEMPERATURE SPECS

- **NOZZLES:** 500°C
- **BUILD PLATFORM:** 200°C+
- **CHAMBER:** 100°C+

## BUILD VOLUME

- 350 x 350 x 450 mm
- 13.7 x 13.7 x 17.7 in
- 55,000 $cm^3$
- 3,356 $in^3$
- RGB Lighting
- Convection Heating

## POSITION ACCURACY

- X/Y: 10 µm
- Z: 7 µm

## LAYER RESOLUTION

- 0.005” (125 micron, all axes)
- 40–500 Micron Standard Layers

## SPEED

- Max Travel Speed: 500 mm/s
- Printing Speeds: 30–200 mm/s

## SAFETY FEATURES

- CE Certification
- Auto Shutoff Option
- Overheat & Thermal Runaway Protection
- German-manufactured Wiring
- High-Quality Components

## FUME EXTRACTION / FILTRATION

- Optional 2” inlet/outlet for external system
- Optional HEPA + Active Carbon Filter System

## TOOL HEADS

- LGX Pro High-Temp Dual-Gear Extruders
- Dual Slice Engineering Copperhead® Hotends
- Hardened Steel Nozzles (Standard)
- Filament Runout Sensors

## NOZZLES

- E3Dv6-style M6x1 threaded
- Included: Hardened Steel 0.4mm
- Options: any M6x1 threaded nozzle

## BUILD PLATFORM MATERIAL

- High-Temperature Carbon Fiber Build Plate
- Borosilicate Glass
- Optional PEEK+CF Composite

## MOTION SYSTEM

- Linear Rails
- Ultra Wide 12mm Belts
- High-Temp Stepper Motors
- 6 Independent Axis and 5 DoF
- Silent Trinamic Stepper Drivers
- Quad X/Y-Axis Motors
- Triple Z-Axis Motors
- Self-Squaring X/Y Gantry

## BUILD PLATFORM LEVELING

- True Automatic Mechanical Bed Leveling
- Three Z-axis Motors
- Adaptive Multi-Point Mesh Leveling
- Servo-docked leveling sensor

## POWER CONSUMPTION

- 110V AC, 50/60Hz
- Standard USA Plug
- 240V Conversion: swap heaters + power supplies

# SPECIFICATIONS

## INPUT FILE TYPE

- Standard G-code (RepRap-based)

## COMPATIBLE SLICERS

- PrusaSlicer, Simplify3D, Orca Slicer, +more

## OPERATOR INTERFACE

- Duet Web Control Interface
- Modular WiFi Module
- Integrated Ethernet
- USB Terminal Connection

## INTERNAL STORAGE

- 16GB (expandable via micro SD)

## SUPPORTED COMPUTER OPERATING SYSTEMS

- Windows, macOS, Linux, Android, iOS
- Accessed via Standard Web Browser

## MAINBOARD CONTROLLERS

- Duet 3
- Duet 3HC Expansion Board

## MATERIALS (SUPPORTED FILAMENTS)

- Any 1.75mm Filament:
  PEEK, PEKK, CFPEEK, AM200 PAEK, PEI, ULTEM™ 9085, ULTEM™ 1010, PPSU, PA/CF, Nylon (PA66, PA6, PA12), PC, PC Alloys, ABS, ASA, PETG, HIPS, PLA, PVA, TPU, ESD, Metal-Filled, Glass-Filled, Soluble Supports, and more.
- 100% Open Material System
- Compatible with break-away and soluble supports
- Designed for Carbon & Glass Fiber composites

## MATERIAL / FILAMENT STORAGE

- Integrated Heated Chamber Storage
- Protects against moisture
- Supports long-duration prints with hygroscopic polymers
- Accepts external feeds for oversized (2kg+) spools

## WARRANTY

- 1-Year Standard Limited Warranty
- Premium & Extended Warranties Available

## SUPPORT

- Documentation at https://wiki.visionminer.com
- Video Tutorials on all major functions
- American Support Team - Pacific Standard Time

## OPERATING TEMPERATURES

- Operating: 64–86°F (18–30°C)
- Storage: 50–113°F (10–45°C)

## MACHINE DIMENSIONS

- **Printer Dimensions:**
  535 x 568 x 739 mm
  21.6” x 22.36” x 29.09“
- **Recommended Footprint:**
  1000 x 600 x 1000 mm
  40” x 24” x 40”
- **Machine Weight:** 200 lbs (90.7 kg)

## SHIPPING DIMENSIONS & WEIGHT

- 220 lbs / 100 kg
- Export Crate: 27” x 26” x 37”
- Cardboard Box: 27” x 26” x 33”

## ORIGIN INFO

- Engineered in the USA
- Manufactured in Ukraine




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