

**TRAK**® MACHINE  
TOOLS



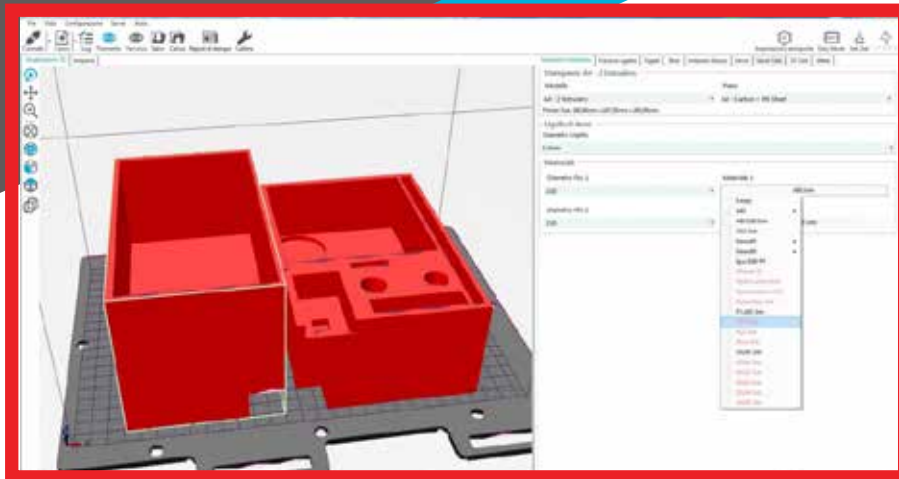
SOUTHWESTERN INDUSTRIES, INC.

## Industrial Printers for Your Shop

- High quality, functional parts.
- Low cost per part.
- Accurate, repeatable process.



# Reliable Results



## Software Interface

- Easy to use and reliable in industrial applications



## Build Chamber

- Generous capacity for parts up to 23.6" x 11.8" x 19.6"
- Individually controlled heating elements to achieve optimal accuracy and finish from the material you use
- HEPA filtered air flow to limit contamination



## Build Plate

- Reusable bed for thousands of prints with minimal maintenance
- Removable build plate utilizes magnetic locators for precise positioning
- High tech carbon construction with ultem coating that holds parts firm while printing, but allows of easy release once cooled

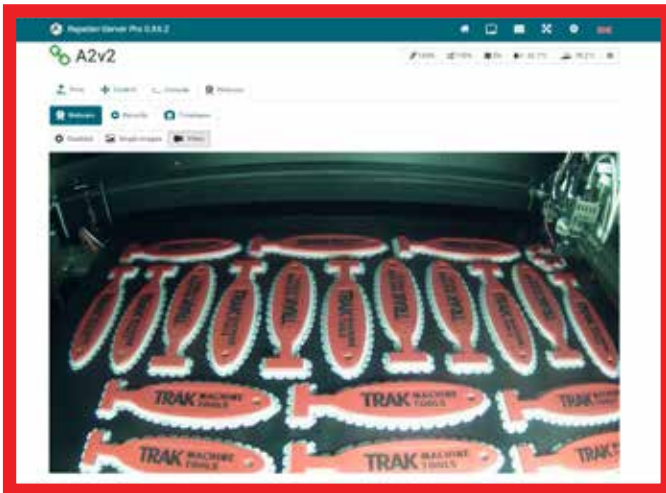
## Three Extruders

- Prints up to three polymers at the same time
- Two extruders for build material allows combinations of materials on a single build
- One for support material
- Liquid cooling at each extruder for precise temperature control



## Integrated Camera & Web Monitoring

- Through a print server the printers can be networked to manage them locally or remotely, making them compliant with the Industry 4.0 decree
- Monitor the build process from another location
- Make remote adjustments through the web interface



## Combine Materials for Lower Cost

The part shown here was made with a combination of two different build materials. For the internal shaft, IGUS Iglidur is used for self-lubricating and hardness. To minimize the part expense, the body is made of ASA.



## ABS & ASA

You will love the results you get when printing these standards of the industry. We offer formulations in different colors especially made for 3D Printers.

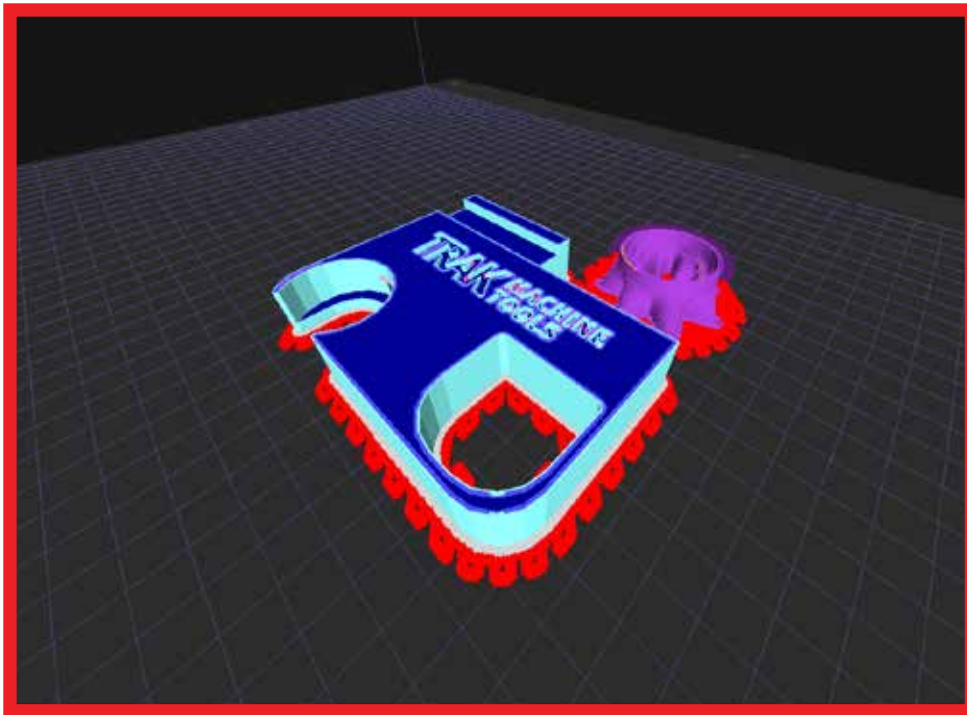
# Open Materials

## Materials development is the new technology frontier in 3D Printing

Many of the world's top chemical engineers are racing to develop the thermoplastics of tomorrow. But many new, innovative materials already exist. With the **Open Materials** platform, you are free to explore and develop superior solutions.

## Powerful, Flexible User Interface

**KISSlicer** is powerful software that prepares STL files for optimized printing. The user interface enables you to select preloaded settings or to adjust dozens of variables yourself.



- **Adaptive Layer Control** - enables you to optimize layers
- **Preload** - precise control of how the printer extrudes filament
- **Expert Mode** - enables you to precisely set variables for your own unique configurations
- **Fractional Number of Loops** - improves bonding between loops and infill
- **Lock Paths** - lets you configure different styles for different parts on a single print
- **Wizards** - guides the processes of setting up Profiles and Tuning the material flow

...and dozens more innovative features!





## Design For Additive (like never before)

Your imagination gets a boost from the multi-material capability of 3ntr printers. The part to the left is the result of combining formerly separate parts to achieve a single design, integrating a hose and filter housing.



## Support Material

With the 3ntr, you can have a different support material and build material. Choices include break-away and soluble material that complement the build material. Your part finishes and delicate features will come out beautifully.



## Large & Complex

This part requires the precision of an Industrial Grade 3D Printer. Complex parts often use soluble support material to preserve the precision of the delicate features.



## Rubber-like Materials

The controlled build chamber and powerful software enables you to make soft, flexible components.



## Multiple Colors

You can print in two colors simultaneously.

# Specifications

<b>Dimensional Data</b>	<b>A2</b>	<b>A4</b>
Printer Dimensions	940 x 715 x 1125 mm 37 x 32 x 44.3"	528 x 515 x 615 mm 20.7 x 20.2 x 24.2"
Printer Weight	110 kg   242 lbs.	43 kg   94 lbs.
Shipping Dimensions	1041 x 831 x 1321 mm 41 x 32.7 x 52"	681 x 620 x 920 mm 26.8 x 24.4 x 36.2"
Shipping Weight	226 kg   498 lbs.	69 kg   152 lbs.

<b>Electro / Mechanical Data</b>	<b>A2</b>	<b>A4</b>
Ambient Operating Temperature	16-32° C   61-90° F	
Storage Operating Temperature	5-40° C   41-104° F	
AC Input	220/230 Vac - 15A	110/120 - 15A
Connectivity	USB, Micro SD, LAN	
Steel Cabinet / Frame Construction	2mm (.08") Powder Coated	

<b>Printing Specifications</b>	<b>A2</b>	<b>A4</b>
Printer Technology	Fused Filament Fabrication	
Number of Extruders	3	
Build Volume - W x D x H <sup>1</sup>	600 x 300 x 500 mm 23.6 x 11.8 x 19.6"	295 x 155 x 200 mm 11.6 x 6.1 x 7.8"
Positioning Precision - X-Y	11 Microns   .000433"	
Positioning Precision - Z	40 Microns   .0002"	
Positioning Precision - Extruders	.9 Microns	
Filament Diameter	2.85 mm +/- .1 mm	
Standard Nozzle Diameter <sup>2</sup>	.4 mm   .01575"	
Maximum Extruder Temperature <sup>3</sup>	430° C   806° F	
Maximum Heated Bed Temperature <sup>4</sup>	110°C or 230°F (110v)   130°C or 266° F (220v)	
Maximum Heated Chamber Temperature <sup>5</sup>	80°C or 176°F (110v)   90°C or 194°F (220v)	
Minimum Layer Thickness	50 Microns   .00197" (.3mm nozzle)	

<sup>1</sup> A4 depth (D) is 39 mm (1.54") less with three nozzles installed, A2 is 35 mm (1.38") less

<sup>2</sup> Available nozzles: .3 mm, .4 mm, .6 mm, .8 mm & .4 mm hardened anti-abrasion

<sup>3</sup> Standard / Optional maximum nozzle temperature: 430° C on 2 of 3 nozzles

<sup>4</sup> Measured at the heater on the aluminum print base

<sup>5</sup> In conjunction with heated bed at maximum temperature

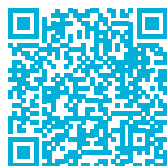
*All specifications are subject to change due to ongoing research and product development.*

# Materials Library

Materials are the new technology frontier in FFF Printing. We offer this Library in order to share what we've learned about printing successfully, giving you the cost savings and performance you need without the science project of figuring out a new material. [www.trakmt.com/materials](http://www.trakmt.com/materials)

The screenshot shows the top navigation bar with links: Home, Products, Service Parts, Resources & Support, About Us, Contact Us, MyTRAK. The TRAK Machine Tools logo is on the left, and the page title is "Additive Manufacturing Materials Library". Below the title are three columns: "About Open Materials" (text describing the library's purpose), "Build Materials" (listing ABS, ABS-CF, ABS-ESD, ABS-MG94, ASA, iglide I180-PF, PA 645B - Bridge, PA 910), and "Support Materials" (listing HIPS, Hydrofill, SSU00, SSU05, SSU09, SSU301).

The screenshot shows the "Carbon Fiber ABS" page. The navigation bar includes Home, Products, Service Parts, Resources & Support, and About. The page title is "Carbon Fiber ABS" with the category "ABS (Acrylonitrile Butadiene Styrene)". A "Material Information" table lists Name: Carbon Fiber ABS and Source: Airwolf 3D. A description explains that Carbon Fiber ABS is a composite material offering stability and strength. An image of a printed part is shown with the label "ABS - CF". A sidebar on the left lists other materials under "Build Materials": ABS, ABS - CF, ABS - ESD, ABS - MG94, ASA, iglide I180-PF, PA 645B - Bridge, PA 910, PA 12CF35, PA6CF20, PC, PC-ABS, and PC-ABS - 2in.



Request a Sample Part Today!



Introducing the

# TRAK VMC2

Support your Printing with a real machine tool.

- Designed for second operations.
- Easy to learn and use.
- Strong and rigid construction.
- Portable for moving to the job.



**TRAK** MACHINE  
TOOLS



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