



Plasma Jet Desktop Printer

PRODUCT NUMBER:
PJP DT155

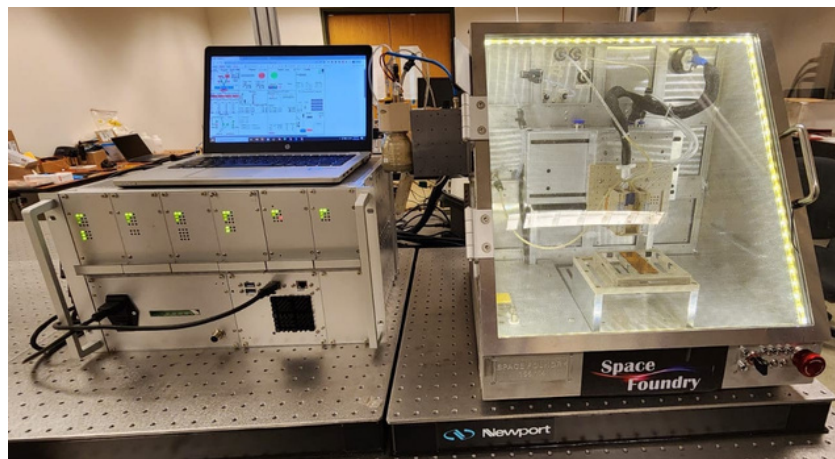
PRODUCT CATEGORY:
Desktop Printer

PRODUCT OVERVIEW

Plasma Jet Printer

Stand-alone desktop printer powered by Space Foundry's Plasma Jet printing technology, offering single-step printing of conductors and dielectrics, eliminating the need for any pre- or post-treatment. Designed for ease of operation, PJP DT155 is capable of multi-material printing for simultaneous and/or sequential deposition of a wide variety of aerosolizable inks, both off the shelf nanoparticle inks and custom salt based solution.

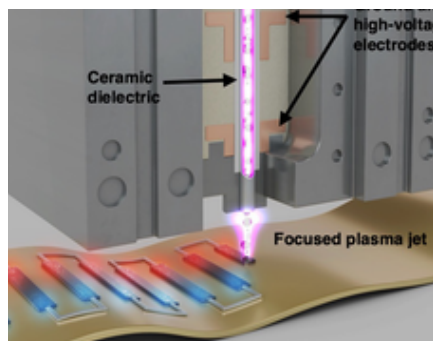
PJP DT155 is controlled by SpaceCAT, offering advanced automation, integrated G-code generation, as well as a comprehensive HMI. Includes hardware, software, industrial safety, and installation services.



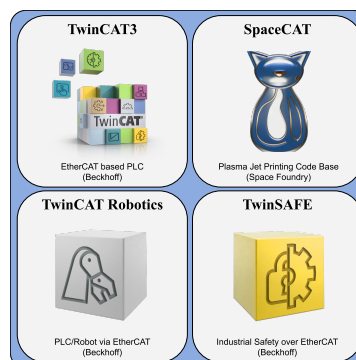
PRODUCT FEATURES

PJP DT155 offers:

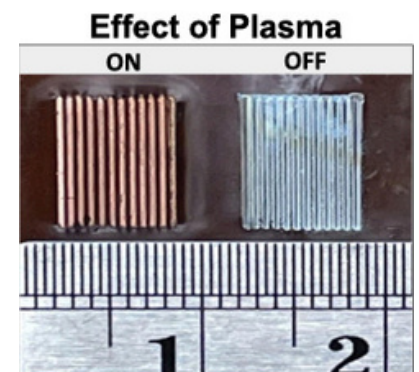
01 Single Step Deposition
Conductor & Dielectric



02 Industrial PLC with
Advanced Automation



03 Optimized for recipe
development in R&D labs

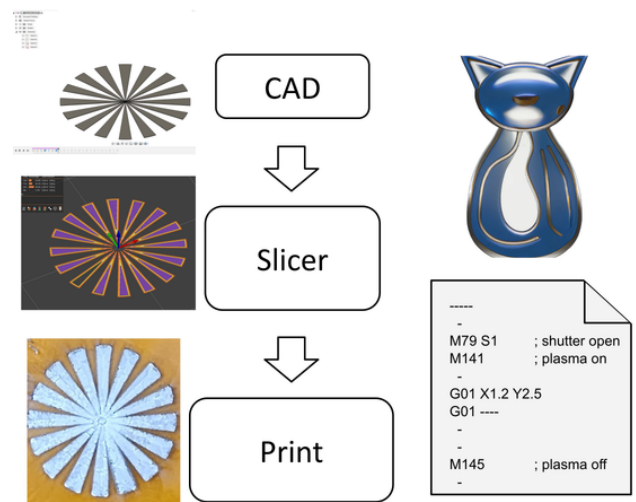


PLC, HMI & ADVANCED AUTOMATION

The PLC is developed in Beckhoff TWINCAT** using the EtherCAT fieldbus, offering a tightly integrated solution for Plasma Jet Printing including a comprehensive HMI

The SpaceCAT software bundle offers integrated G-code generation and full automation of the printing process via M-code and custom G-code functions.

To help kickstart customer projects from day 1, a fully automated G-code with an optimized process for printing silver will be shared upon installation and training.



TECHNICAL DATA SPECIFICATION

Product Characteristics	Description	Specifications
PLC based control	Offer industrial Connectivity	Beckhoff TwinCAT**
Plasma Jet Printhead	SpaceFoundry PJP PH156	75um line width
HMI	HTML5-based User Interface	HMI or Automation (G-code/M-code)
Print Characteristics	High conductivity, excellent adhesion and reliable thickness control	No curing required
Gas	Argon or Helium	For Conductors 5% H2/Argon
Ink	Both off the shelf nanoparticle inks & salt based solution	Any aerosolizable ink
Tuning of electronic structure	Increased conductivity of metals through reducing gas, oxidation using Oxygen, organics through inert gas printing	
Multi-material printing	Allows printing of range of materials including metals, dielectrics, organics	

INDUSTRIAL AUTOMATION AND SAFETY

✓ G-code and M-code Automation

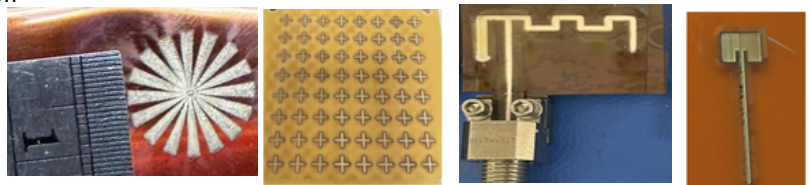
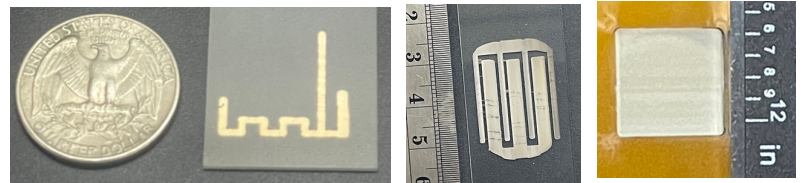
Printing can be fully automated via extensive M-code library and automation functions.

✓ Full-fledged PLC based on EtherCAT

Modular framework with vast peripheral expansion capabilities including multi-material printing.

✓ Industrial Safety

Safety (based on TwinSAFE*) offering SIL3-PLC industrial safety logic over the EtherCAT fieldbus including plasma interlock.



5'x5' FSS

2.4GHz, -20dB

X band

INSTALLATION, TRAINING & SUPPORT

This is a plug-and-play system that includes hardware, software, installation services and training, as well as remote customer support (via Space Foundry's ticket system). Extended warranty and contracts for consumables and enhanced customer support is available.

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CONTACT US!

Address: 1009 Timothy Dr
San Jose, CA 95133, USA

Phone: +1 408 688 6978

E-mail: ram@spacefoundry.us
www.spacefoundry.us