

Plasma clean  
Improved wettability and adhesion  
Functional nano-coatings

# Plasma Surface Treatment

**HPT-100 FI** Benchtop plasma treater



# HPT-100 FI Benchtop Plasma Treater

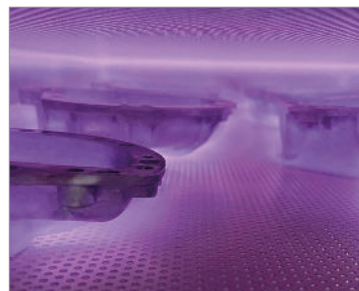
The HPT-100 FI is a microprocessor controlled benchtop plasma treatment system which is dedicated to cleaning and surface activation of a wide range of materials including polymers, metals, glass and ceramics, delivering optimum adhesion properties of otherwise difficult to bond materials.

The HPT-100 FI is perfect for occasional and low-throughput laboratory or production use. Operating with just ambient air removes the need for bottled gas connections, offering unbeatable value in a compact, bench-top unit with the ability to perform specific material treatments including;

- Plasma cleaning
- Plasma surface activation to improve adhesion
- PDMS & microfluidic devices
- PEEK & other engineering polymers
- PTFE
- Metals
- Ceramics
- Glass & optical devices



## Markets & Applications



**Aerospace &  
Automotive**

**Composites**



# Plasma Environment



## Plasma Environment

The HPT-100 FI features a 100mm diameter plasma process chamber in stainless steel with vacuum compatible materials throughout. Our proprietary, high stability HPS plasma generator is continuously variable over the entire 0-100W power range rather than being limited to discreet levels, delivering much finer control when processing delicate materials.



## Process Control

The 5.7 inch colour touchscreen provides a rich, user-friendly interface. Variables such as power level and plasma processing time can be freely set and then stored to produce a fully interlocked process cycle from a single keypress. A handy status display and end of process audible alarm informs the user of every step in the process.



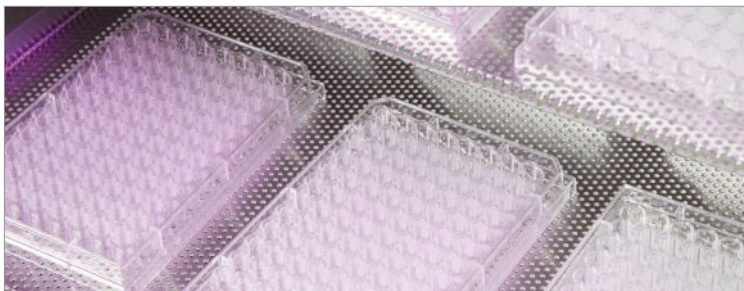
## Repeatable & Reliable

The HPT-100 FI delivers unmatched reliability and repeatability via recipe store software, a unique feature that is not offered on any other 'low-cost' plasma device. Up to four individual recipes, each having different settings, can be instantly recalled, ensuring that different work tasks are precisely replicated.

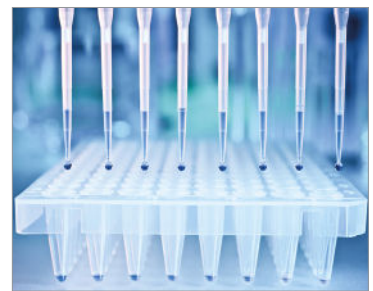


## Compact & Economical

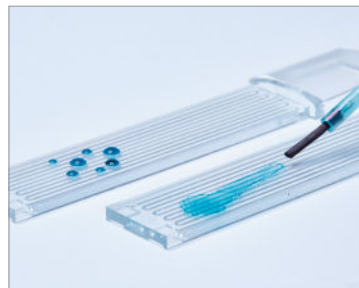
The HPT-100 FI does not require bottled gas for operation, only drawing in ambient air from the surroundings. Air plasma is suited to a wide range of routine plasma treatments for adhesion promotion, being particularly efficient for polymers. Ambient air operation means low running costs and zero ancillary equipment.



## Medical Plastics



## Microfluidics



# Some of Our Clients



*"Henniker provided visible results from the outset and confirming that we made the right decision in choosing a local UK manufacturer."*

Queen's University Belfast



*"We obtained quality results with their unit within minutes of setup & consistent results thereafter. The support they have provided has been rapid and helpful."*

Making Lab, Francis Crick Institute



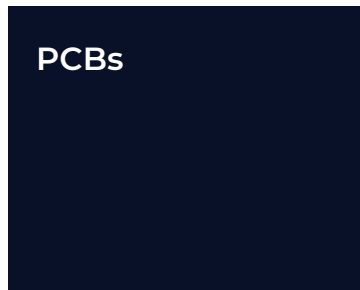
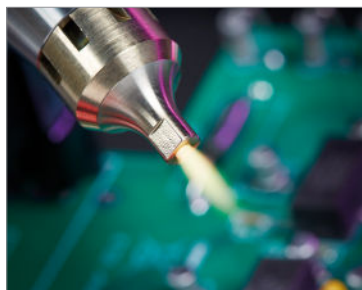
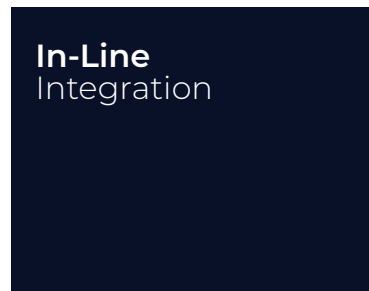
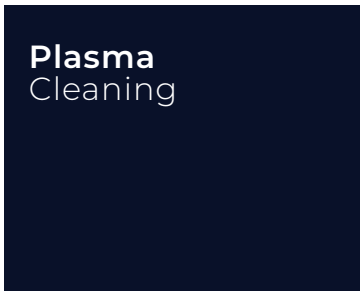
*"We are very impressed with the ease of use and reliability of our plasma unit and were producing results within minutes of setting it up."*

Warwick University



*"Our collaborative work with the team at Henniker was a very positive experience and one that we look forward to developing further."*

TWI



# HPT-100 FI Specifications

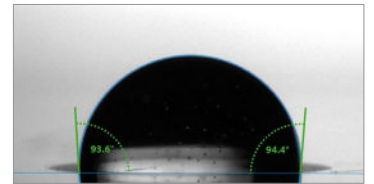
	BASE MODEL	OPTIONS
<b>ENCLOSURE</b>		
Dimensions	W 520mm x H 286mm x L 550mm (+50mm on rear for cables)	
Weight	~22kg	
<b>CHAMBER</b>		
Material	Stainless Steel	
Form	Cylindrical	
Dimensions	100mm dia. x 280mm L	
<b>REMOVABLE PARTS CARRIER</b>		
Material	Aluminium	
Form	Flat tray	perforated tray, others to suit application
Dimensions	90mm W x 255mm L	
<b>PLASMA POWER SUPPLY</b>		
Power	0-100W, continuously variable output	
Frequency	40 kHz	
<b>PROCESS CONTROL</b>		
Interface	5.7" Colour TFT with recipe store	
Gas channels	Ambient air	
Vent inlet	x1	
Process timer	1sec -99.59min	
Recipe store	Stores up to 4x recipes with individual parameters	
Vacuum pump	2-stage rotary pump	dry pump
<b>SERVICES</b>		
Electrical	210-250 VAC, 50-60Hz, 1500 VA (including pump), fused 6.3 A T	
Power cord	Suited to region	
Compliance	CE - UKCA - ROHS - WEEE	

## Benefits

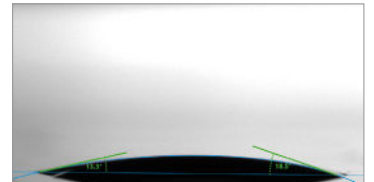
- compact benchtop unit
- user friendly TFT interface
- recipe store
- fast treatment time
- precise & repeatable
- no hazardous emissions

## Typical Process Results

- Material : HDPE
- Air plasma
- 90 seconds



**Contact Angle Before Treatment**

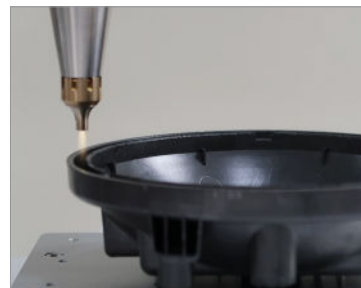


**Contact Angle After Treatment**

*Henniker strive for continuous improvement and specifications are subject to change without notice*



- benchtop systems
- high throughput systems
- atmospheric plasma
- robot systems
- surface test & analysis
- process development



## About Henniker

Henniker Plasma are an international leader in the design, development and manufacture of plasma surface treatment systems & advanced plasma processes.

Our products are installed worldwide and trusted to deliver consistent, reliable results in both leading research institutes and in critical manufacturing steps.

We are experts in plasma technology and surface science. We are trusted partners, valued for our courtesy, professionalism and dedication to delivering the correct solution for our clients.

## Services

### Contract plasma treatment

Our technical staff will be happy to discuss contract treatments, from small one-off batches to regular, large throughput requirements.

### Proof of concept treatment

Let's discuss your application and then we will provide a quick, no-nonsense feasibility study.

### Surface testing laboratory

With a comprehensive suite of surface analysis equipment, we are able to conduct a wide range of surface property tests, both before and after plasma treatment, in order to provide you with the whole picture.

### After sales support

We are proud of our reputation for being approachable, thorough and easy to work with.

*"Henniker's after sales support is first class. They have always been extremely responsive if we have ever had need to call on them."*

Steve Rackham, Teledyne

### Rental plasma systems

We carry a wide range of our standard equipment in stock and available for short or long term hire. This is particularly useful for in-house proof of concept trials or to satisfy short term contract work.

*"The low risk option of hiring a plasma unit for evaluation was a key reason that we chose to work with Henniker and one that enabled us to proceed with confidence."*

Dr. Chris Nicklin, Reinnervate

### Method development

We have invested significantly in laboratory facilities to assess, test and investigate all aspects of plasma surface modification on a wide range of materials. Coupled with extensive in-house and real-world knowledge, we can usually deliver a tailored treatment quickly and efficiently to suit your individual product or production needs.

*"The technical team at Henniker are very knowledgeable and supportive and always approachable. I have found it a pleasure to work with them."*

Simon Baxter, BAE Systems, AI

### Henniker Plasma

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Represented by:

