

PUREX PULSE JET COLLECTION UNIT 800i 2 TIER

Multi-stage fume extraction setup with accessory

PUREX
CLEAN AIR FOR EVERYONE



- Automated electronic flow regulation
- Automatic pulse blow out process
- High particle filtration and removal setup, accompanied by light weight filters
- Traffic light filter blocked warning system with audible and interface alarm
- Effective debris extraction and disposal accessory

Filtration System

Purex's **patent pending** Pulse Jet filtration technology is engineered to **extend** filter life, **minimise** downtime, and provide **cost-effective** solutions.

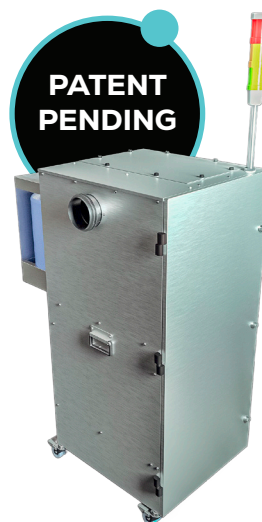
Specification

Machine	Purex Pulse Jet	800i 2 Tier	Collection Unit
Part Number	890920	080532D	190172
Wattage	0.036kW	2.4kW	N/A
Optimal Airflow	200-300m3/h		N/A
Height	1603mm	1155mm	1331mm
Width	517mm	571mm	580mm
Depth	675mm	675mm	642mm
Inlet	100mm	100mm	N/A
Outlet	100mm	100mm	N/A
Weight	83kg	83kg	60kg

Purpose and Methodology

The PPJ technology builds on the robust Purex 800i system, a market leader in extraction solutions for the coding industry. The PPJ unit uses compressed air to periodically clean filters, blowing debris into a collection tray for easy disposal. This system includes:

- **Purex Pulse Jet Unit:** Uses compressed air to clear filters, capturing the bulk of particles in a collection tray for safe disposal. The system uses F9 filters, capable of filtering up to 0.9 microns.
- **Purex 800i:** Generates the airflow that extracts particles through the PPJ. It uses a combination of pre-filters, HEPA, and carbon filters to capture even finer particles, ensuring clean air output.
- **Collection Unit:** Safely stores the particles collected by the PPJ, making disposal safe, easy and controlled.



**PATENT
PENDING**

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*Goods are subject to change | *Illustrations are 3D created visual representations

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Options

Machine Supplied With

Purex will provide, 100mm connection kits (the connection kit from process to machine, hose size may vary), to install these kits, jubilee clips will be provided. The machine will come equipped with a 8mm pneumatic push fit connection piece connecting to a airline, for the air tank to allow for the Purex Pulse Jet to pulse.

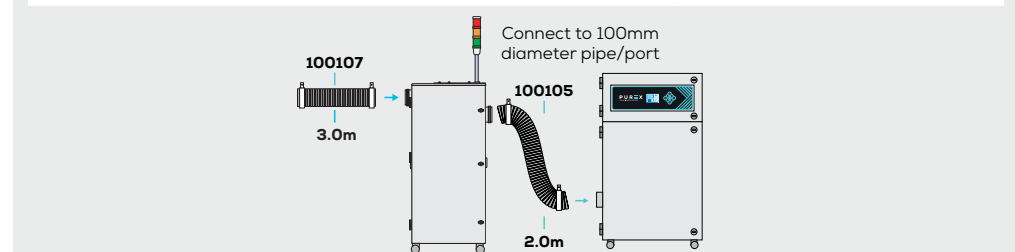
The Purex Pulse Jet is supplied with a detachable 4.5m long UK (13A) or European (16A) plug lead.

The 800i 2 Tier is supplied with 4.5m long hard wired cable and requires a 20 Amp fused spur.

Connection Kits

100107 | 100105

Hose End Diameter	Hose Length	Purex Inlet Diameter
100mm	5m	100mm



Installing the Machine

When beginning the installation of the Purex Pulse Jet, ensure these following points are already in-place for the installation:

- **6.2 bar / 90 PSI** is the optimum and maximum pressure that must be provided from a pre-existing airline
- The power supplied to the Purex Pulse Jet can be between **90V - 250V**
- An **interfacing guide** will be supplied with the Purex Pulse Jet, this should be followed to understand how to interface the Purex machine to the process machine. Aswell as a **max flow guide**, this must be carried out once all machine connections have been made, this will be provided within the installation pack.
- The water trap fitted to the rear of the unit has a pressure control valve built in. Make sure this is set to **90 PSI**

Real-World Testing

In partnership with a global leader in laser coding, the PPJ was tested in a high-demand environment where products were marked at a rate of up to 36,000 codes per minute, 24 hours a day. The existing filtration unit in use required a full filter replacement every two weeks, leading to significant downtime and cost. Which would be negated by the use of the Purex Pulse Jet, this is why Purex was invited to design a solution to improve this.

Results

During testing, the PPJ system proved remarkable improvements to production efficiency:

- **Cylinder filter lifespan:** Required changing every 3 weeks, During this time an average of 28 million codes had been completed.
- **Labyrinth pre-filter lifespan:** 6 weeks before needing replacement.
- **HEPA/Carbon filter lifespan:** 10 weeks before needing replacement.
- **Collection bin:** The PPJ collection tray was emptied into the collection bin at the start of every 8 hour shift. It was filled every 4 weeks with a significant amount of captured debris.

This resulted in drastically reduced downtime, fewer manual interventions, and long-term cost savings for the customer.