

Fingerprint Development Chamber



- Designed for Ninhydrin, DFO and other tests**
- Rapid development in three minutes**
- Enhanced print clarity**
- Accurately controlled conditions**
- Maintenance free temperature and humidity sensing**
- Clear visual inspection of developing images**

The Weiss Gallenkamp Fingerprint Development Chamber was developed specifically to meet the requirements of the UK Home Office Fingerprint Research Group and is now used by virtually every police force in the UK and many within Europe. Users in the USA include the FBI as well as State Crime Detection Offices throughout the USA. It is available as a bench top chamber or a larger floor standing model, within which a wide range of size and shape samples can be processed.

Effective improvements over traditional methods of latent fingerprint detection on porous materials are achieved by optimising and accurately controlling the conditions under which exhibits are developed. The precisely controlled conditions of high temperature combined with high relative humidity, (80°C and 65% RH) accelerates the Ninhydrin process yielding excellent clarity in just three minutes, compared to a minimum 10 minutes and often much longer using more traditional methods. Fingerprints can now be detected with greater speed and higher throughput, with astonishing clarity.

The DFO (1.8 diasafuren-9-one) process can also be optimised by selecting the DFO process cycle, +100°C no humidity, making this chamber very versatile and reliable.

The use of both DFO and Ninhydrin is recognised as the most effective way of detecting prints on paper and similar porous surfaces but other processing methods requiring controlled humidity & temperature can also be used.

The chamber features a rapid recovery capacity to the optimum development condition after the chamber door is opened and closed - essential for rapid throughput of material. The multi-glazed observation window, strip light and integrated internal wiper (FDC 060 only) allows clear visual inspection of the developing images. For high accuracy and low maintenance a combined solid state temperature and humidity sensor is fitted, eliminating the need for frequent checking and replacement of wicks.

The chamber's generous working areas and flexible shelving systems enable large batches of operational material to be processed quickly and easily, thereby improving both productivity and efficiency. To change between the Ninhydrin and DFO processes requires only the press of a switch.

The sample treatment chamber is made from high quality, corrosion resistant stainless steel. Vapours produced during the development process are vented via a connection at the rear of the cabinet, which facilitates easy connection to a suitable extraction system.

As you would expect from one of Europe's leaders in controlled environment products, the chamber's design and build quality are of the highest standards to ensure long-term reliability, durability and controllability.

	<i>FDC018.XHX.C/E</i>	<i>FDC060.XHX.C/E</i>
Chamber Size		
Internal Dimensions	650mm(w) x 500mm(d) x 750mm(h) (26" x 20" x 30")	650mm(w) x 650mm(d) x 1400mm(h) (26" x 26" x 55")
Exterior Dimensions	1,140mm(w) x 630mm(d) x 922mm(h) (45" x 25" x 36")	1,365mm(w) x 910mm(d) x 1,960mm(h) (54" x 36" x 77")
Sample Storage Area	0.65 m ² , 7.2 ft ² nominal	2.1 m ² , 23.4 ft ² nominal
Shelf Loading	2 Levels (1 Shelf plus chamber floor)	5 Levels (4 Shelves plus chamber floor)
User Access	Full width/length insulated door with multi-glazed window	Full width/length insulated door with multi-glazed window
Gross Weight	98kg	335kg
Performance		
Temperature Range	+40°C to +100°C	+40°C to +100°C
Control Fluctuation	+/- 0.3°C	+/- 0.3°C
Humidity Range	50% to 90% rh over the temperature range	50% to 90% rh over the temperature range
Control Fluctuation	+/- 3% rh	+/- 3% rh
Facilities		
Controls	The required conditions of temperature and relative humidity for the development process are manually set by the user friendly controllers. A manual selection switch enables either humid or dry modes to be selected.	
Sample Protection	An independent upper temperature limit control is fitted.	
Observation Window	A full-length double glazed observation window is provided in the chamber door.	
Sensors	Combined solid state capacitance humidity and PT100 temperature sensor.	
Heating	Proportionally controlled, electrical heater with capacity for rapid recovery to the required controlled conditions for the development process.	
Humidification	Humidity is maintained by direct injection of water vapour.	

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