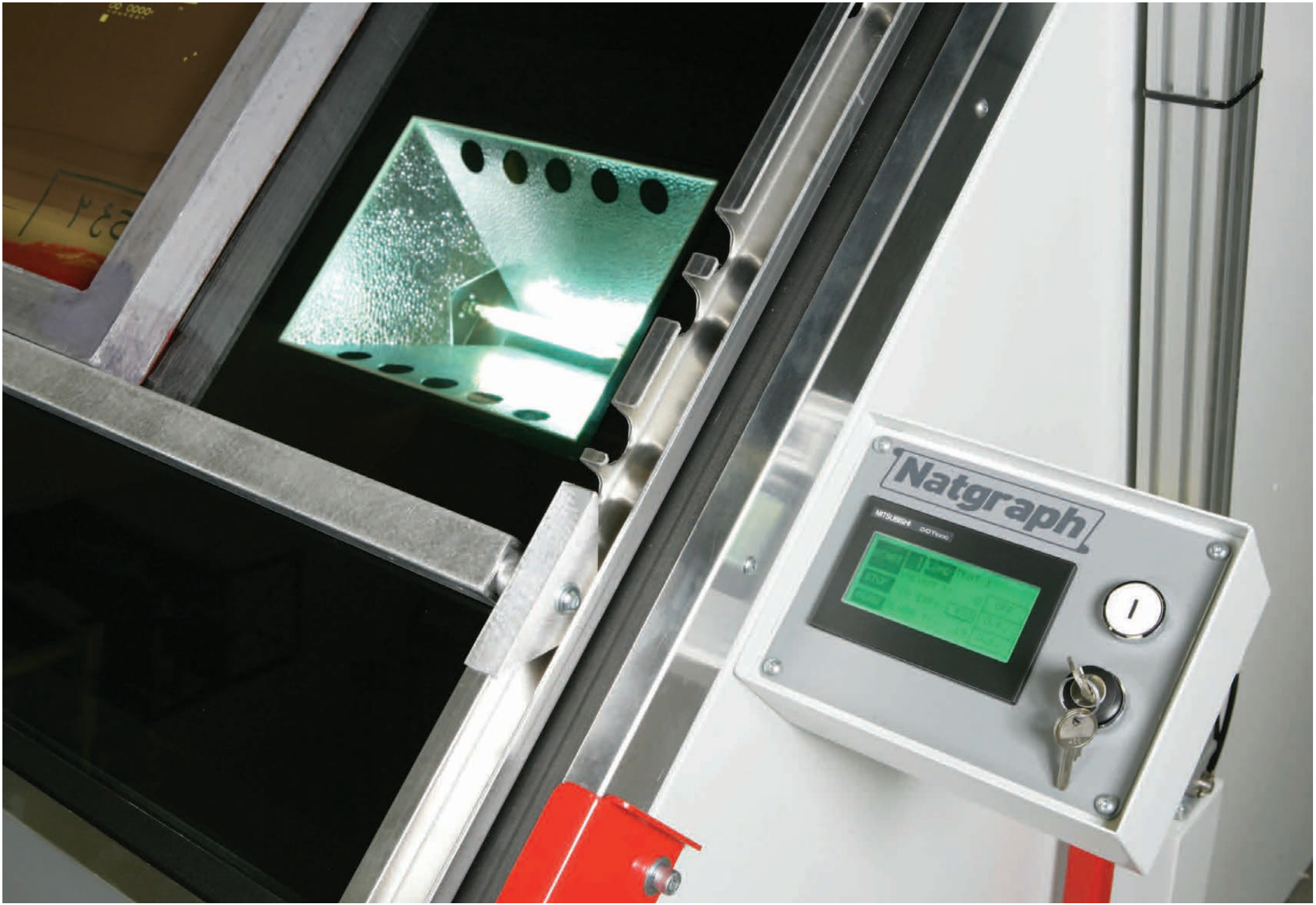
Angled Exposure Systems

Natgraph have introduced the Angled Exposure Systems to meet the demands of a changing industry by combining a standard stencil exposure machine with the ability to also expose Computer to Screen (CtS) photo stencils produced with wax jet or ink jet applied positive images. In developing this new concept, Natgraph have designed a unit that overcomes the problems experienced in high quality and high volume photo stencil processing.

This unit is the ultimate in fully automatic operation, with touch screen control of every aspect of the process that can be saved to memory for instant re-call. The sloping design of the glass allows easy loading/unloading and reduces the possibility of scratching the glass. It also allows the Metal Halide Light Source to be positioned further away from the stencil than in conventional enclosed systems. This improves light distribution and lowers glass temperature therefore improving definition and reducing film positive distortion.

Available in 3 standard sizes, with a variety of light sources, this system will accept a wide range of frame sizes. All models include a PLC based operating system giving the operator full control of all parameters and automatic operation, allowing better use of manpower within the stencil department.

For industrial, graphic and textile applications this is the ultimate exposure system capable of exposing all types of photo stencil automatically in the minimum of floor-space to the highest quality and consistency.


Natgraph

Angled Exposure Systems

The Natgraph range of Angled Exposure Systems has been developed to increase productivity in the busy stencil processing department as well as being flexible enough to optionally expose CtS stencils in a controlled environment and ensure consistent image quality. This fully enclosed design allows easy loading and unloading of screen frames whilst reducing the possibility of accidental glass scratching.

The distance between the wide angle reflectors of the Metal Halide Light Source and the toughened glass is increased using this design and so light distribution is improved whilst reducing the heating effect. The main exposure chamber is also vented, so the glass temperature is lower than conventional self contained systems with horizontal glass. This reduces film positive distortion.

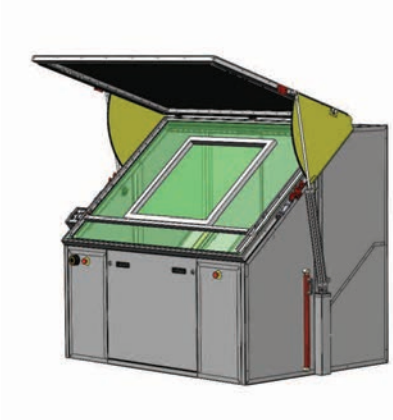
An optional glass temperature monitor and refrigeration unit can be incorporated into the units control system to guarantee glass temperature in the most demanding of environments.

In standard exposure mode, the rubber frame is lowered via the touch screen by the twin pneumatic cylinders and the process begins, the two vacuum pumps operate to give a quick ‘pull down’ to a high vacuum, the light source is then energised. The exposures are controlled by a light integrator incorporated into the PLC control system. Each exposure is energy dependent and so consistent exposures are guaranteed, each and every time. At the end of the exposure the light source switches off, the vacuum is automatically vented and the rubber frame rises.

Exposure and vacuum times for all types of photo emulsions can be put into the memory function for instant recall, thus ensuring consistent exposures. Two UV safe inspection lights are installed for checking alignment of screen frames etc. The PLC records lamp life and constantly checks lamp output.

Metal Halide Light Sources from 4/6kW with Natgraph’s Rapid Start System or Automatic Shutter Systems are fitted depending upon application and model size. The light sources can be fitted with either Diazo (420nm) or Photopolymer (365nm) lamps.

These units require a three phase power and compressed air supply to operate.



Angled Exposure System Features

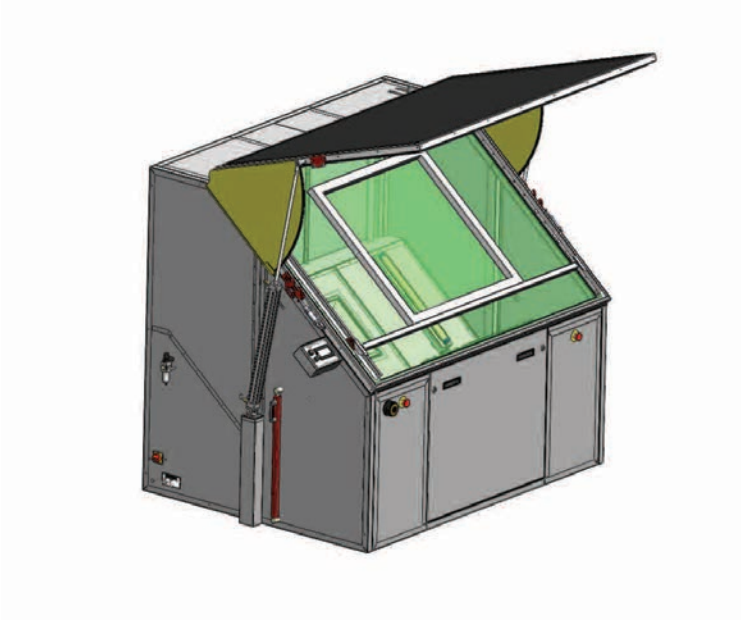
- Fully Automatic Touch Screen Control
- Integrated Exposure Control
- Angled glass for easy load / unload
- Adjustable Vacuum times
- Pneumatic lifting of rubber and glass frames
- Exposes CTS wax or ink jet stencils
- Rapid Start or Automatic Shutter option
- Two Vacuum pumps
- Automatic Bleed
- Inspection Light
- Available in 3 sizes

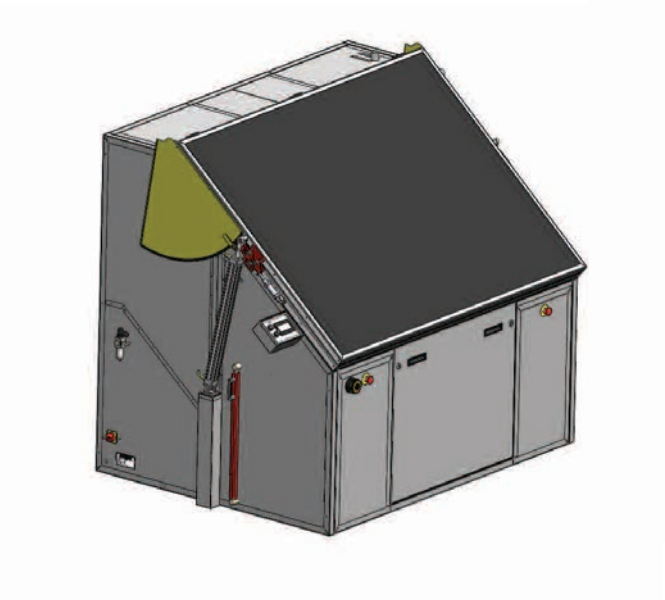
Easy access for maintenance

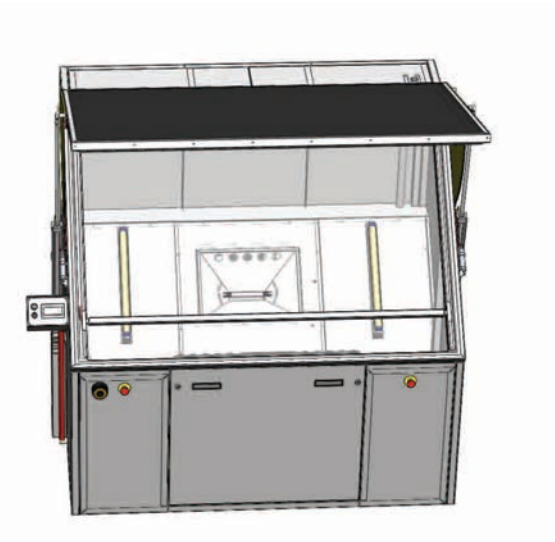
Two vacuum pumps

Pneumatic lifting of frames

Fully automatic







Specifications:

Angled Exposure Systems

Model No.	3	4	5
Maximum Frame Size	127 x 171cm (50" x 67")	173 x 230cm (68" x 90")	tbc
Height	188cm (74")	219" (86")	tbc
Width	221cm (87")	280cm (110")	tbc
Depth	165cm (65")	195cm (76")	tbc
Weight	675kgs. (1488lbs.)	925kgs. (2039lbs.)	tbc
Voltage	Three Phase 400V 50Hz.AC		
Power	8.5kW		
Current	38 Amps		
Compressed Air	5 bar / 7 Litres / Minute		

The manufacturer's policy is one of continuous improvement and the manufacturer therefore reserves the right to change or modify the design without prior notice. The technical specifications given are therefore for information only.

Download our brochures at:
www.natgraph.co.uk

t +44 (0) 115 97 95 800
f +44 (0) 115 97 95 700
e info@natgraph.co.uk

Natgraph Ltd,
Dabell Avenue,
Blenheim Industrial Estate,
Nottingham, NG6 8WA, UK