



Witbox 2 3D Printer

About BQ

BQ are one of the European leaders in technology - manufacturing 3D printers, robotics, smart phones and tablets from their factory in Spain. Building on the success of the Witbox (which ranked in the top five best 3D printers worldwide) BQ have developed the Witbox 2 - a ready-to-use printer perfect for an educational environment, offering exceptional value for money. The Witbox 2 combines a huge print area (the volume of five reams of A4 paper!) with phenomenal precision and print quality. Classroom safety is a key feature, with the fully enclosed, lockable design.



Designed for Reliability

In any 3D printer the extruder is a key component, and poor design or manufacture can result in endless frustration. BQ have designed and developed a new extruder for the Witbox 2, incorporating a Double Drive Gear traction system which provides consistent and flawless filament feed. A wide range of exciting filaments are compatible such as bronze, copper, wood, brick, silk, linen, colour change, fluorescent, and even truly flexible materials like FilaFlex. In fact any filament can be used, and BQ have such confidence in their design that this will not affect the 2 year warranty provided with the printer.



About the Hardware

The auto-levelling system employs inductive sensor technology using a magnetic field to calibrate tip height with utmost precision. The resulting print quality is impeccable, and no manual adjustments are required.



A LokBuild base is included avoiding the need for messy adhesives, hair-spray, acetone or masking tape. This unique product provides a stable printing surface with excellent adhesion, avoiding warpage, and the frustration (and possible printer damage) caused by prints lifting part way through a build. When printing is complete the model can be removed cleanly with minimal effort.

Software

To prepare the model for printing, the Witbox 2 is fully compatible with well-known Cura or Slic3r software. Both packages are simple, intuitive and widely used in the 3D printing industry. Files can be transferred directly via USB, or saved to SD card and loaded via the built in reader.



Specifications

Max Build Size:	297 x 210 x 200mm
No. Extruders:	1
Model Material:	PLA (+ others)
Slice Resolution:	0.02mm (20 microns)
Interface:	SD Card (Connects to computer via USB)
Weight:	34kg
Dimensions:	508(W) x 484(D) x 461(H)mm
Warranty:	2 Year Return to Base

Prices £*

*See Pricing Information on page 2

Witbox 2 3D Printer

MP-WB2	Witbox 2 3D Printer with LokBuild Base. Includes machine, downloadable software + 1 reel 1kg PLA material.
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Mixed Filament Pack

TMP-WBM10-PK1	Witbox Filabuster Pack. Mixed Pack of 25 x 10m 'wraps' of PLA filament for Witbox. 14 standard colours + 4 fluorescent colours + 7 specialist filaments + 1 empty filament reel (filament colours may vary)
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Standard PLA Filament

TMP-WBMR-COL	Witbox Reel of 1.75mm PLA Filament (1kg, 330m approx). 17 Colours Available.
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Flexible Filament

TMP-WBM10-FFCOL	Witbox 10m 'wrap' of Flexible Filament. Available in Silver, Skin Colour 1 and Skin Colour 2 (Brown)
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Colour Change Filament

TMP-WBM10-CGCOL	Witbox 10m 'wrap' of Colour Change Filament. Available in Blue Green to Yellow Green; Grey to White; UV White to Purple. Please specify colour required.
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Other Specialist Filament

TMP-WBM10-WF	Witbox 10m 'wrap' of Woodfull Filament
TMP-WBM10-BZ	Witbox 10m 'wrap' of Bronze Filament
TMP-WBM10-CU	Witbox 10m 'wrap' of Copper Filament

Accessories

TMP-WB-FP	Witbox LokBuild Base 305 x 305mm
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Recommended Software

SOLIDWORKS (page 18)

Desktop Waterjet

TECHSOFT WAZER



The First Desktop Waterjet

What is Wazer?

WAZER is the first waterjet cutter that can fit in every workshop. It cuts through any material and is compact and contained, making it, clean, safe and quiet to operate. WAZER's digital control achieves detail and accuracy impossible by hand, while freeing you up to complete other tasks.

Traditional waterjets cost upwards of \$100,000, but with WAZER, we're changing that, bringing this advanced technology to every workshop.



Wazer is the only waterjet machine to be DIRECTLY CONTROLLED through TechSoft Design V3

What You Can Cut

WAZER can cut through any material, which allows you to make things with professional-grade quality.

Why WaterJet?

Waterjet technology has significant advantages over conventional cutting methods:

- Cuts any material
- Achieves intricate detail
- Requires no ventilation
- Results in a smooth surface finish
- No heat-induced material warping

Waterjets, however, are known for being large and expensive machines that require significant infrastructure and high maintenance. For these reasons most individual makers and small businesses don't have access to a waterjet, so we decided to make one that could be used with a limited budget and minimal space.

Technology

WAZER works by combining sand-like abrasive particles with a high-pressure water stream. The mixture exits the nozzle and cuts through the workpiece, removing material through a micro-erosion process. The abrasive used, referred to as "garnet", consists of rock that is ground to very small and consistent particle sizes. Garnet is a commodity, it is non-toxic and is easily disposable.



Custom Knife



Bakers Rack



Glass Art



Penny Necklace



Wheelchair Umbrella Mount



Belt Drive Bicycle

UPDATED

**Additional
Products**

Laser Cutting / Engraving



Laser Cutters and Engravers

Why Invest in a LaserCAM System?

Lasers are about the simplest way possible to get from CAD drawing to finished product. They work with extraordinary accuracy and delicacy, are quick to produce results, and the finished edge is usually just that - finished. With a few important exceptions, lasers will cut and engrave a huge variety of materials, so just about every area of Design and Technology is able to get the benefit. LaserCAM is, essentially, a 2D machine so it will find its place alongside milling and knife cutting machines, to give students a realistic experience of real-world practice, and to give them the right mix of tools for specific applications.

The TechSoft Advantage

TechSoft have an exclusive arrangement to supply LaserCAM and we work closely with the manufacturers to ensure that the machines meet all necessary standards for price, safety and quality. TechSoft will install your machine, provide training, and be your first point of contact in case of a problem, so any issues will be dealt with quickly. We are proud of our reputation for excellent customer service and person-to-person contact is an important feature of this. In addition, you will have unlimited access to technical support by phone or email.

LaserCAM Star Range (Air-Cooled Metal Tubes)

For well over a decade TechSoft have been supplying the LaserCAM Star Range (formerly just known as LaserCAM). These machines are high quality machines with air-cooled metal CO₂ laser tubes. TechSoft have developed features in TechSoft Design V3 (formerly 2D Design V2) to make output direct and seamless. LaserCAM Star is the only laser cutting and engraving machine on the market to have this 'designed-in' compatibility. Although initially more expensive, our experience finds that the tubes last for on average around seven years so longevity is assured.



LaserCAM Star is the only laser cutting & engraving machine with guaranteed direct output from TechSoft Design V3

LaserCAM GT Range (Water-Cooled Glass Tubes)

Due to popular demand, TechSoft have now introduced a budget range of laser cutters, the LaserCAM GT Range. These laser cutters have water-cooled CO₂ glass tubes and come complete with a water cooler. Output from TechSoft Design V3 is via an intermediary file which must be loaded into the LaserCAM GT software to drive the machine.

So What Can I Cut With a LaserCAM?

Apart from metals and vinyls, most workshop plastics, textiles and graphic materials are fine. Some timber products give inconsistent results due to density, or the resins used in manufacture. There's no harm in experimenting with 'stock' material but for reliable results TechSoft supply laser-quality plywood and MDF in a range of thicknesses. Suitable material up to 12 - 15mm thick will cut well and the power of the laser will largely dictate speed of cut rather than ultimate depth.



Laser Cutting / Engraving

TechSoft CAM Air-Cooled Metal Tube

LaserCAM Star A3+



A compact machine where the extraction system doubles as a wheeled base unit - ideal if the machine has to be shared between rooms, or if space is really tight.

Specification

Laser Power: 30W
 Axis Travel: 450 x 310 x 150mm
 Max. Head Speed: 1524mm/sec
 Max. Resolution: 1000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 70 kg (LaserCAM only)
 60 kg (Extractor only)
 Dimensions: 690(W)x900(D)x895(H)mm
 (including extraction unit)
 Extractor: TMA-EXT3
 Extractor On/Off: Auto-switching and auto over-run for extraction/air-assist.

LaserCAM Star A2+



Ideal for Education

For most schools, this machine offers the ideal balance between work area, cost and space needed in the workshop or studio. 30W of laser power will do everything you ask of it - 60W will do it much faster.

Specification

Laser Power: 30 or 60W
 Axis Travel: 660 x 495 x 210mm
 Max. Head Speed: 1524mm/sec
 Max. Resolution: 1000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 180 kg (LaserCAM only)
 70 kg (Extractor only)
 Dimensions: 960(W)x890(D)x1020(H)mm
 (NOT including extraction unit)
 Extractor: TMA-EXT1BX
 Extractor On/Off: Auto-switching and auto over-run for extraction/air-assist.

LaserCAM Star A1+



A compact package for large scale work, the A1+ machine features advanced optical systems to ensure consistent performance across the work area. 100W laser power will clearly be an advantage to achieve maximum throughput for large projects.

Specification

Laser Power: 60 or 100W
 Axis Travel: 1000 x 600 x 230mm
 Max. Head Speed: 1524mm/sec
 Max. Resolution: 1000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 259 kg (LaserCAM only)
 70 kg (Extractor only)
 Dimensions: 1450(W)x820(D)x1064(H)mm
 (NOT including extraction unit)
 Extractor: TMA-EXT1X
 Extractor On/Off: Auto-switching and auto over-run for extraction/air-assist.

Optional Extra - Rotary Attachment

A Rotary Attachment is the only accessory you might want in addition to the standard LaserCAM package. We have written an extra dialog box into TechSoft Design to make it simple to set the design area of your cylindrical shape. To output, just tick the 'Use Rotary' option. A Rotary Table adds a new dimension to laser work allowing great scope for lighting, jewellery and decorative project work - we think its well worth having.



LaserCAM Star is the only laser cutting & engraving machine with guaranteed direct output from TechSoft Design V3

- High Quality Machines
- Air-Cooled Laser Tube
- Long Term Investment (7 years average tube lifetime)
- Direct Control from TechSoft Design V3

What's Included in Each Package

Complete Extraction System

High capacity, auto-switching extraction unit with integral air-assist compressor. Self-regulating for optimum flow rate. LCD display to monitor filter condition.

Free Education Training Pack

The Training Pack gives you everything you need to reinforce the training provided on installation and to have the machine earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through a series of projects that illustrate the full potential of the machine.



Commissioning & Training

The cost of the LaserCAM Star also includes commissioning and training on the same day.

Warranty

UK Mainland & Ireland: 2 Year On-Site
 Elsewhere: 2 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-LCA3P-30NR	LaserCAM A3+ 30W Package Includes machine, extractor, training pk, commissioning & training	
MP-LCA2P-30NR	LaserCAM A2+ 30W Package Includes machine, extractor, training pk, commissioning & training	
MP-LCA2P-60NR	LaserCAM A2+ 60W Package Includes machine, extractor, training pk, commissioning & training	
MP-LCA1P-60NR	LaserCAM A1+ 60W Package Includes machine, extractor, training pk, commissioning & training	
MP-LCA1P-100NR	LaserCAM A1+ 100W Package Includes machine, extractor, training pk, commissioning & training	

Optional Extra

TMA-LC-R	Rotary Attachment for LaserCAM (Please state model when ordering)	
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Recommended Materials

See details of these packs on page 29, and a full range of materials on pages 26 - 29

TPM5-LC3	Mixed Materials Pack for A3+ (Save £15)	
TPM5-LC2	Mixed Materials Pack for A2+ (Save £20)	
TPM5-LC1	Mixed Materials Pack for A1+ (Save £25)	

Recommended Software

TechSoft Design V3 (page 12)

LaserCAM GT A2+



This machine is the smallest in the range and offers a good balance between work area, cost and space needed in the workshop or studio. It should be noted that this is the only machine in the range that will fit through a standard single door.

Specification

Laser Type: Water-Cooled CO₂, Glass Tube
 Laser Power: 80W
 XY Travel: 600 x 500mm
 Max Head Speed: 1000mm/sec
 Max Resolution: 4000dpi
 Focus: Auto
 Positioning: Red Beam Pointer
 Interface: USB
 Weight: 220kg (LaserCAM only)
 70kg (Extractor only)
 Dimensions : 1320(W)x960(D)x1050(H)mm
 (NOT including extraction unit)
 Extractor: TMA-EXT11
 Extractor On/Off: Manual

LaserCAM GT A1+



An area of 1000 x 600mm will cover most needs for large scale work at an incredibly low price. The machine comes with a 100W glass laser tube to achieve maximum throughput for large projects. Double door access will be required.

Specification

Laser Type: Water-Cooled CO₂, Glass Tube
 Laser Power: 100W
 XY Travel: 1000 x 600mm
 Max. Head Speed: 1000mm/sec
 Max. Resolution: 4000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: 260kg (LaserCAM only)
 70kg (Extractor only)
 Dimensions : 1570(W)x1060(D)x1050(H)mm
 (NOT including extraction unit)
 Extractor: TMA-EXT11
 Extractor On/Off: Manual

LaserCAM GT A0+



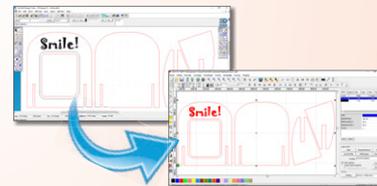
For extra large work, the A0+ machine should be considered as it has a working area of 1300 x 900mm. The machine comes with a 120W glass laser tube and requires double door access.

Specification

Laser Type: Water-Cooled CO₂, Glass Tube
 Laser Power: 120W
 XY Travel: 1300 x 900mm
 Max. Head Speed: 1000mm/sec
 Max. Resolution: 4000dpi
 Focus: Auto
 Positioning: Red beam pointer
 Interface: USB
 Weight: TBC
 70kg (Extractor only)
 Dimensions: TBC
 Extractor: TMA-EXT11
 Extractor On/Off: Manual

Optional Extra - Rotary Attachment

A Rotary Attachment is the only accessory you might want in addition to the standard LaserCAM GT package. A Rotary Table adds a new dimension to laser work allowing great scope for lighting, jewellery and decorative project work.



- Low Cost Machines
- Water-Cooled Glass Laser Tube
- Water-Cooler Included
- Links to TechSoft Design V3 via intermediary software

What's Included in Each Package

Complete Extraction System

High capacity, extraction unit. (Air assist compressor also included).

Free Education Training Pack

The Training Pack gives you everything you need to reinforce the training provided on installation and to have the machine earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through a series of projects that illustrate the full potential of the machine.



Commissioning & Training

The cost of the LaserCAM GT also includes commissioning and training on the same day.

Warranty

UK Mainland & Ireland: 1 Year On-Site
 Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-GTEA2P-80NR	LaserCAM GT, A2+ 80W Package <i>Includes machine, extractor, honeycomb table, training pk, commissioning & training</i>
MP-GTNA1P-100NR	LaserCAM GT, A1+ 100W Package <i>Includes machine, extractor, honeycomb table, training pk, commissioning & training</i>
MP-GTNA0P-120NR	LaserCAM GT, A0+ 120W Package <i>Includes machine, extractor, honeycomb table, training pk, commissioning & training</i>

Optional Extras

TMA-GT-R	Rotary Attachment for LaserCAM GT Series
WR-LGT-A2P	1 Year Extended Warranty for LaserCAM GT A2+ 80W (MP-GTEA2P-80NR)
WR-LGT-A1P	1 Year Extended Warranty for LaserCAM GT A1+ 100W (MP-GTNA1P-100NR)

Recommended Materials

See details of these packs on page 29, and a full range of materials on pages 26 - 29

TPM5-LC2	Mixed Materials Pack for A2+ (Save £20)
TPM5-LC1	Mixed Materials Pack for A1+/A0 (Save £25)

Recommended Software

TechSoft Design V3 (page 12)

How WAZER Works

Hardware: WAZER has unique features that make it appropriate for a small workshop environment:

Software: With WAZER, going from design to cutting is fast. Design your part in whichever software you're used to, like Solidworks, Adobe Illustrator or Google SketchUp (or if you aren't familiar with any we'll suggest a basic, easy-to-learn, software for you). Load that drawing file (DXF and SVG) into WAZER software and let the easy to use software guide you through setting up your cut.

Offering

WAZER comes as a desktop unit with a separated pump box, which can be placed anywhere within the vicinity of the machine. There are optional removable legs to convert WAZER into a stand-up unit.

Abrasive Usage

The materials listed above were cut with WAZER using abrasive particles (garnet) at a rate of 0.33 pounds per minute. WAZER uses garnet made specifically for waterjets that must be continually purchased in order to operate the machine. Abrasive will be available on our website, but WAZER will also work with approved third party suppliers.

Only for Mild Steel?

Emphatically – yes! Plasma torches will cut a vast range of materials but the waste products will include metal powders and oxides. Mix them together and you have the basis of Thermite – an extremely dangerous, potentially explosive, compound. **For this reason, it is extremely important that PlasmaCUT is used exclusively for mild steel.**



PlasmaCUT 1000/2000



Prices £*

*See Pricing Information on page 2

What's Included



Produce Virtually Anything on Demand with Direct to Object Printing

VersaUV Printers

VersaUV printers are specialised printers that can print directly onto a wide range of materials including acrylic, wood, fabric, leather, etc. They are ideal for personalising a wide range of goods including pens, mobile phone cases, personalised awards, industrial goods, etc. Any business enterprise will soon re-coup the cost of the machine just by selling personalised mobile phone cases, for example.

What Kind of Surface Can I Print Onto?

The VersaUV printers are capable of printing onto, not only flat surfaces, but also uneven surfaces where the unevenness is up to 2mm. The flatbed construction of the VersaUV printers, together with their built-in laser alignment system, automatically adjusts the distance between the print-head and the surface of the material for optimum printing results. The object itself can be up to 100mm thick.

About the Technology

VersaUV printers use ECO-UV Ink which is designed for flexibility so that it can stretch around complex corners and curves. The integrated UV-LED lamp instantly cures ink during printing. The lamp requires no warm-up time, making it efficient to use and cool to touch.

What about Safety?

Each VersaUV printer features a protective cover to fully encase moving parts and prevent dust entering the print area. It also serves to protect the operator from UV light during operation. The long-life, low temperature UV-LED curing lamp is ozone free and is a safe alternative to conventional UV lamps. The ECO-UV ink is contained inside cartridges so the user never comes into direct contact with it before it has been cured. After curing, the ink is of course perfectly safe to touch.

An optional, but highly recommended, air filtration system is available for use with each VersaUV printer. This includes an activated carbon filter which effectively removes odour and volatile substances that occur during printing. The extraction unit fits neatly underneath the printer.

What Colour and Textures Can I Create?

For vibrant full colour printing a base layer of white ink can be used as a primer on clear or dark coloured materials. Layers of clear ink can be applied to create an 'embossing' effect or 3D texture. The Roland Texture System Library supplied has 72 ready-to-use texture patterns so with just one click you can create some very attractive designs.

What Software Do I Need?

Images can be designed in virtually any graphics package, though we would, of course, recommend TechSoft 2D Design (see page 12). The image is then transferred to the RIP software provided with the printer, ie., VersaWorks 6. The texture patterns, white base primer, etc., can be added to the design before outputting to the machine.

Are there any Optional Extras?

Aside from the extraction unit which we would highly recommend, the only other optional hardware accessory is a rotary unit called the RotaPrint® which allows the system to print onto cylindrical items with a diameter between 40mm and 76mm. Coto Design software, as alternative to the included VersaWorks 6 software is also available as an optional extra.



Keyring Graphics



Personalise USB Keys



Pens



Magnets



Dashboard Pane



Award



Golf Balls



Tin



Bottles



Coasters



Phone Case



Pocket Watch



Acrylic Frame

VersaUV LEF-12i



The ideal, affordable, starter machine for anyone wanting to get started in the fast-growing market for personalised print and bespoke goods and services. Small enough to fit into any studio, office, workshop or retail environment, the LEF-12i is a compact device which prints directly onto a huge range of items and substrates.

Specification

Max Print Area:	305 x 280mm
Ink Configuration:	CMYK + Gloss + White
Print Resolution:	1,440dpi (max)
Ink Curing:	UV-LED lamp
Interface:	Ethernet
Dimensions:	999 _(W) x 862 _(D) x 549 _(H) mm
Weight:	85kg

VersaUV LEF2-200



The LEF2-200 is the latest addition to the Roland VersaUV LEF series of flatbed printers. Featuring a 500mm print width in a great stylish design, the LEF2-200 offers brilliant colour printing capabilities on a vast array of materials.

Specification

Max Print Area:	508 x 330mm
Ink Configuration:	CMYK + White + White or CMYK + White + Primer or CMYK + White + Gloss
Print Resolution:	1,440dpi (max)
Ink Curing:	UV-LED lamp
Interface:	Ethernet
Dimensions:	1202 _(W) x 962 _(D) x 549 _(H) mm
Weight:	110kg

VersaUV LEF2-300



The LEF2-300 is the largest in the Roland VersaUV LEF series of flatbed printers. Featuring a 800mm print width, four print heads and two long life, low temperature UV-LED lamps for faster curing, the LEF-300 significantly increases productivity.

Specification

Max Print Area:	800 x 360mm
Ink Configuration:	CMYK + Gloss + Gloss + White or CMYK + Primer + Gloss + White
Print Resolution:	1,440dpi (max)
Ink Curing:	2 x UV-LED lamps
Interface:	Ethernet
Dimensions:	1560 _(W) x 955 _(D) x 576 _(H) mm
Weight:	144kg

Extraction Units



RL-UV-LEF12EXT



RL-UV2-LEF200EXT

An optional, but highly recommended, air filtration system is available for each machine. Each extraction unit sits neatly underneath the printer and includes an activated carbon filter which effectively removes the odour and volatile substances that can occur during printing.

What's Included

Software

Roland VersaWorks™ 6 (RIP & Print management software)
N.B. 2D Design V2 outputs to the TrueVIS via VersaWorks™ 6 software. The link is provided by the VersaWorks printer driver (File > Print in 2D Design V2).
Windows Printer Driver

Warranty

UK Mainland & Ireland:	1 Year On-Site
Elsewhere:	1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

VersaUV Machines

RL-UV-LEF12	Roland VersaUV LEF-12i Desktop Flatbed Printer*
RL-UV2-LEF200	Roland VersaUV LEF2-200 Flatbed UV Printer*
RL-UV2-LEF300	Roland VersaUV LEF2-300 Flatbed UV Printer*

EcoUV4 Ink (for VersaUV machines)

RLP-EUV4-2COL*	220cc EcoUV4 Ink Cartridge. Available in Cyan, Magenta, Yellow, Black, White & Gloss.
RLP-EUV4-PR	220cc EcoUV Printer.
RLP-EUV4-5COL*	500cc EcoUV4 Ink Cartridge. (N.B. For use with LEF-300 only). Available in Cyan, Magenta, Yellow, Black, White & Gloss.

*A full set of inks must be purchased with the machine. The LEF2-200 and LEF-300 have different ink configurations that cannot be altered after purchase.

Recommended Extras

RL-UV-LEF12EXT	BOFA Extractor for Roland VersaUV LEF-12i
RL-UV2-LEF200EXT	BOFA Extractor for Roland VersaUV LEF2-200
RL-UV2-LEF300EXT	BOFA Extractor for Roland VersaUV LEF2-300

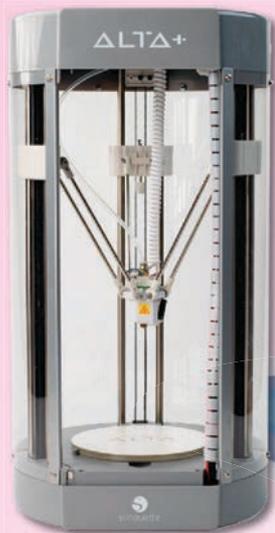
Optional Extras

RL-UV2-LEF200ROT	SC Rotary Device for Roland VersaUV LEF2-200
RL-UV-LEF300ROT	SC Rotary Device for Roland VersaUV LEF-300
RL-SW1	Coto Design Software (includes dongle)

Recommended Software

TechSoft Design V3 (page 12)

Silhouette Alta Plus



Versatile 3D Capable Miller/Router/Engraver The Ideal Machine for Schools

What is an Alta+ 3D printer?

The Silhouette Alta Plus 3D printer is a low cost machine which introduces 3D Printing technology to younger students, primary schools, and home users. Class sets of the machines could be handed out for use with multiple small groups in a classroom, avoiding the bottleneck effect and giving students the opportunity to see their design turn to reality.

This machine is lightweight, durable, reliable, and simple to use. It is happy to be used only occasionally (without hours of maintenance, setup and fiddling!) then popped into a cupboard ready for next time.

Using the Alta Plus is an experience that can be shared amongst groups of several students; due to the 360° transparent, lockable enclosure, the build can be viewed from all round. It's a fascinating experience too! Based on the Delta parallel robot design, the motion system consists of three arms connected to universal joints printing on a circular build platen. The build platen itself is removable, and is prepared by applying a pre-cut, disposable adhesive layer to ensure effective bonding every time. There are other advantages too – this design of printer can change direction instantly making prints much faster, and the simple construction uses fewer parts, reducing maintenance, costs and keeping everything very lightweight.

Support

As always, the support team at TechSoft are ready to offer technical assistance for the lifetime of the printer over the telephone or by email. Our warehouse stocks a wide range of coloured filament, and the rest is up to the imagination of your students!



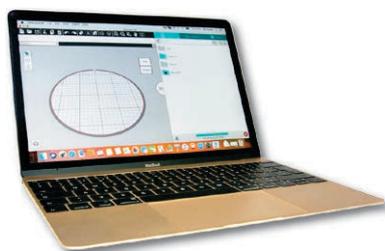
Specifications

Max Build Size:	124 x 124 x 130mm
No. Extruders:	1
Model Material:	PLA
Slice Resolution:	0.05mm
Interface:	USB
Weight:	4.4kg
Dimensions:	250(W) x 229(D) x 476(H)mm

Software

Silhouette 3D - 3D Printing Software

3D printing software can be intimidating to new users, and this is certainly an issue with most printers at this price point. Generic slicing software is often used, and this can be complicated by its very nature as it is designed to work with models from many different manufacturers.



The Alta Plus 3D printer uses dedicated, purpose designed software, which is very simple to use. Load a 3D model, use the simple controls to position it, click 'print' - then sit back and watch.

Prices £*

*See Pricing Information on page 2

MP-SL2	Silhouette Alta Plus 3D Printer	
Consumable Parts		
TMP-SLM-TAPE1	Pack of Silhouette Alta Platform Tape. Contains 50 sheets	
TMP-SLM-PLAT1	Replacement Platform for Silhouette Alta 3D Printer	
PLA Filament		
TMP-SLMP-COL	Silhouette Reel of 1.75mm PLA Filament (0.5kg). Available in Black, Blue, Green, Pink, Red, White and Yellow	

Recommended Software

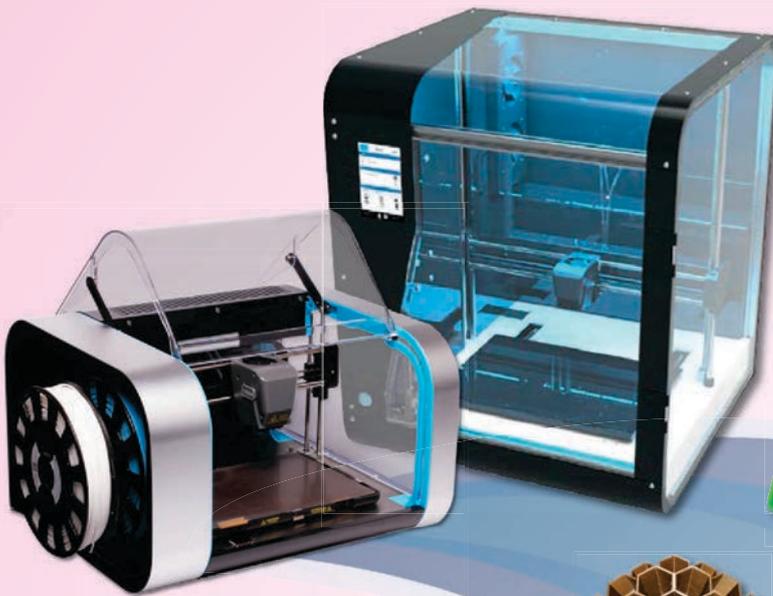
SOLIDWORKS (page 18)

Robox Range: RoboxDual & RoboxPRO

RoboxDual & RoboxPRO 3D Printers

What is a Robox?

There are two models to choose from in the Robox range – RoboxDual and RoboxPRO. What they have in common is simplicity, reliability and professional build quality in a wide range of materials, without the need for setup or tweaking. Both models have been designed with safety and visibility in mind - the transparent cover is automatically locked when a build is in progress, also preventing thermal shrinkage which is often a problem when using engineering materials such as ABS, Nylon or polycarbonate with open-frame 3D printers.



About the Hardware

The removable print bed is made from polyetherimide, a plastic that becomes sticky when hot - no tape or glue is required! Once the bed cools down items lift away easily without the need for tools. Heads for different applications can be swapped without tools with the simple HeadLock™ system. The SmartExtruder™ feed system allows high flow rates, automatic loading, and measures the filament used. The nozzles use patented needle-valve flow control to lock off and prevent unwanted material escaping from the nozzle. Dual material heads allow the capability to use two materials in the same build - if breakaway or soluble support materials are used models of unlimited complexity are possible.



Extractor for RoboxDual & Original Robox



TMA-EXT3D-RBX1
(Shown here with MP-RBX2)

Robox Extractor collects air from the build area and filters it through two stages of a replaceable filter containing Activated Charcoal and HEPA sections. The unfiltered air is collected from the build area by two precisely ducted centrifugal brushless 24 volt fans.

One extractor can be used with up to two RoboxDual / Original Robox's provided a stacker (TMA-EXT3D-RBX1ST) is also purchased. The stacker and extractor are 'sandwiched' between the two Robox.

3D Printer Filament Storage Cabinet



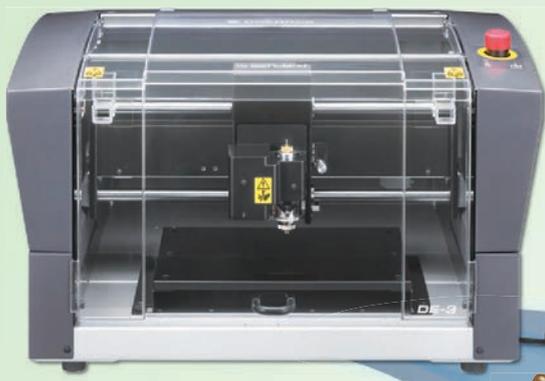
SF-RBXP-STD1

This cabinet stores and protects 3D printer filament to prevent material degradation and failed prints. The cabinet includes a transparent, lockable door and internal lighting. It has also been optimised to serve as a worktop for RoboxPRO.

Features include; internal lighting, lockable glass door with metal frame, analog thermal hygrometer, fully adjustable spool hanger, 4 filament feed ports, 2 PTFE Tube (length 0.6m), 4 caster wheels.

External dimensions: 500(W) x 615(D) x 700(H)mm

Roland DE-3E



DIRECT CONTROL DESIGN
Roland Engravers/ Millers are the only engraving/milling machines to be DIRECTLY CONTROLLED from TechSoft Design V3



Milling/Engraving Machine, Ideal for PCB Production

What is a DE-3E?

The DE-3E (the successor to the EGX-350E) has been developed by Roland primarily for use as an engraving machine but, with 40mm of usable Z-axis to play with, it is still an excellent 3D capable machine. The generous bed size, fast axis travel and 50W spindle motor all make it a serious contender as a main CNC milling resource. Build quality is superb (as you would expect from Roland) and the machine is quiet enough to run in a workshop or studio environment. The entire machining envelope is enclosed by a robust, interlocked case so safety is assured and dust and debris will be largely contained. Operation for 2D work is simple and output is direct from 2D Design V2 with a familiar, simple dialogue to set up tool depths, feeds and speeds.

Machine control is via a remote Handy Panel but, apart from switching the machine on to start with, most of the control will be via software through the output dialog box so the Handy Panel will see little use until you start to do 3D work. Top loading tools and the unique TechSoft collet system make tool setting very easy, accurate and reliable. If your main priority is for 2D and 2.5D modelling in light material and PCB production (in particular) then this may well be all the machine you will ever need – more power and bigger capacity is simply not needed for this sort of work.

Unique to this machine is an Active Surface Tracking system (effectively a floating-head arrangement) to maintain consistent cutting depth even on bowed or curved surfaces. If the machine's sacrificial bed is kept skimmed and flat, then this feature is unlikely to be a big advantage, but if you do need to engrave an uneven surface then Active Tracking could well get you out of a tight spot.

Also unique to the DE-3E is a laser pointer which can be used for accurately locating the XY work origin for 'awkward' shapes or if using a vice. It can also be used to preview the engraving area or tool path.

With the DE-3E, you will have a versatile and competent machine. at surprisingly low cost.

Specification

Axis Travel:	305 x 230 x 40mm
Max. Machinable:	305 x 230 x 37mm
Max Feed Rate (X, Y):	60mm/sec
Max Feed Rate (Z):	30mm/sec
Spindle Speed Range:	5000 to 20000rpm
Resolution:	0.01mm
Interface:	USB or Ethernet
Weight:	35kg
Dimensions:	616(W) x 587(D) x 390(H)mm

What's Included

Free Education Training Pack

The Training Pack gives you everything you need to get the machine out of the box and earning its keep in the shortest time possible. We have distilled key information into a series of tutorials that will guide you through setting-up, and then a series of projects that illustrate the full potential of the machine for simple 2D profiling, PCB isolation engraving and 3D profiling. Each pack contains a project CD, a booklet to guide you and a selection of tools, collets and materials. This includes TechSoft's own tooling and collet system to make tool set-up and tool changing a breeze. Completing the Training Pack is not onerous; it will provide a sample set of project ideas - some of which are shown below - and the confidence to develop your own ideas.



Includes Tools and Accessories

Slot Drill (TA-SD4-2); Ball Nosed Cutter (TA-BN4-2); Engraving Tool (TA-ECT4-40); VCarving Tool (TA-VCHS4E-90); Lower Collet (TA-LC-TS30); Extraction Attachment (TA-EGX-EXTRING, MMP-EXT-ADAPPTPT); Upper Collets (2 x TC-UC-1164); Hex Tool (TA-HEXTOOL20); Sacrificial Bed (TC-CAMM2-BED); Lower Bed (TC-EGXACR-BED, TC-EGXMF-BED); USB Cable (CB031); Tape (TA-TAPE)

Warranty

UK Mainland & Ireland: 1 Year On-site
 Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

MP-RL-DE3E	Roland DE-3E (inc. TechSoft Training Pack)	
MP7-RL-DE3E	DE-3E Workstation Package. Includes Machine, TechSoft Training Pack, TechSoft Workstation inc. auto-switched extractor, underbench storage, in-built sockets & Gratnell Trays. See page 205.	

Recommended Extras

TF-WS3-C1	TechSoft Workstation for Milling, 1400x800x850mm, inc. extractor. See page 205.	
MM-EXTRACTION36	Numatic Standard Extractor, Single Motor (included in TechSoft Workstation TF-WS3-C1). See page 190.	
RL-ROTO-SWITCH	Mains Switching Unit (included in TechSoft Workstation TF-WS3-C1). See page 91.	

Recommended Tooling For details of these packs and other tooling see page 86

TP-MIX-350E	Mixed Tool Pack (General set of tools) Save £5	
TP-PCB-350E	PCB Tool Pack (Specialist PCB tools) Save £5	

Recommended Materials

See details of this pack on page 91, and our full range of materials on pages 87-91

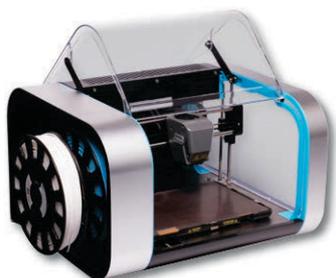
TPM2-EGX350	Mixed Pre-Cut Materials Pack Save £10	
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Recommended Software

TechSoft Design V3 (page 12), TechSoft PCB V3 (page 14) and SOLIDWORKS (page 18)

* N.B. Extraction only required if cutting fine dust materials e.g., foam, MDF, etc.

RoboxDual 3D Printer



MP-RBX2

The RoboxDual includes a Dual Material Head with two extruders giving the ability to print two materials simultaneously. As well as printing in two colours, the dual material head makes it possible to create support structures using a breakaway or dissolvable material. A standard single material head is also supplied with a RoboxDual, and can be changed in minutes for simple models where the QuickFill™ technology will be an advantage.

An optional extractor (see opposite) is available so that output air can be purified via removable HEPA and active charcoal filters.

Specification

Max Build Size: 210 x 150 x 100mm
No. Extruders: 2
Model Materials: PETG, PLA, ABS and more
Slice Resolution: 0.02mm (20 microns)
Interface: USB
Dimensions: 370(W) x 340(D) x 240(H)mm
Weight: 9.5kg

RoboxPRO 3D Printer



MP-RBXP1

The RoboxPRO offers a significant increase in build volume, whilst retaining the proven technology of the smaller machines. In addition to the QuickFill™ and DualMaterial™ heads, this model includes the SingleX head fitted with 0.6mm nozzle, making it possible to use abrasive engineering grade materials with high structural strength. The RoboxPRO is fitted with a 5" touchscreen control panel, and it is possible to monitor and control printing remotely.

The build chamber is climatically controlled and output air is purified via in-built removable HEPA and active charcoal filters.

Specification

Max Build Size: 300 x 210 x 400mm
No. Extruders: 2
Model Materials: PETG, PLA, ABS and more
Support Materials: Breakaway or Soluble
Slice Resolution: 0.05mm (50 microns)
Interface: Ethernet & WIFI
Dimensions: 510(W) x 510(D) x 610(H)mm
Weight: TBC

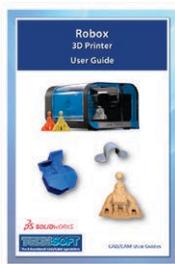
Software

The intuitive Automaker software provides a straightforward three step process – Add file > Choose Quality > Print. The microchipped SmartReel™ filament system tells the software which material is loaded, so print settings are programmed automatically. Calibrations are automatic – there are no manual adjustments, bed levelling or preparation before printing.



What's Included

Each Robox is supplied with a TechSoft User Guide. This gives you everything you need to get the machine out of the box and earning its keep in the shortest time possible. Not only does it take you step by step through using the Automaker software to manufacture a pre-designed 3D part, it also shows how to design and then manufacture your first 3D part using SOLIDWORKS 3D CAD software (60 day trial version supplied for any educational users that do not have this software).



Prices £*

*See Pricing Information on page 2

Education Packages

MP-RBX2	RoboxDual 3D Printer. Includes machine, software, TechSoft User Guide + 1 reel material.
MP-RBXP1	RoboxPRO 3D Printer. Includes machine, software, TechSoft User Guide + 1 reel material.

Optional Extras

TMP-RBX-AP1	AutoMaker PRO Control and Slicing Software. 12 Month License. (expands the capabilities of AutoMaker 4 software which is supplied)
TMA-EXT3D-RBX1	Extractor for RoboxDual
TMA-EXT3D-RBX1ST	Stacker for using one Extractor with two RoboxDual / Original Robox's
SF-RBXP-STD1	3D Printer Filament Storage Cabinet <i>Ideal for RoboxPro</i>

Consumable Parts

N.B. Print heads have an expected lifetime of 500 hours

TMP-RBX-MH1	QuickFill™ Single Material Head
TMP-RBX-MH2	Dual Material Head (for RoboxDual & PRO)
TMP-RBX-MH3	SingleX Head
TMP-RBX-BED1	Standard ThermoSurface Bed Sheet
TMP-RBX-BED2	Alternative LokBuild Bed Sheet
TMA-EXT3D-RBX1F	Replacement HEPA Filter for Robox Extractor or RoboxPRO

Materials and Accessories

For our full range of accessories and materials see page 60

Recommended Software

SOLIDWORKS (page 18)

Robox Materials

SmartReel Enhanced Materials

PETG CarbonFill* is an extremely stiff, zero-warp filament reinforced with 20% carbon fibre. CarbonFill is ideal for printing models and prototypes that need to be dimensionally stable, light in weight and with a uniquely matte, high quality surface. The material would typically be used to create RC parts, automotive and aerodynamic parts such as drones.



Fiberforce NYLFORCE Carbon* is composed of a tough nylon reinforced with 20% carbon fibres. The material is perfect for precise and stable prints of parts that need to withstand high temperatures, strains and impacts. NYLFORCE Carbon is ideally suited to the production of high-performance prototypes and end-use parts that stand up to rigorous testing and wear and tear. The material meets the demanding needs of the production environment, allowing the replacement of metal tooling for applications such as forming and end-of-arm tooling.”

Fiberforce NYLFORCE Glass* is composed of a tough nylon reinforced with 15% glass fibres. Glass fibres provide a reflective sparkle within the printed object while enabling precise, structurally strong prints. NYLFORCE Glass is a great choice for functional parts and structural models, maintaining the toughness and layer bonding of nylon with the increased stiffness and reduced warpage from the addition of the glass fibre. Uniquely, models and parts printed with NYLFORCE Glass can be dyed with clothing dye (e.g. RIT dye) for any colour.

TMP-RBXMPE-CF	Robox Reel of PETG CarbonFill (0.7kg, 240m)	
TMP-RBXMN-CF	Robox Reel of Nylon NYLFORCE Carbon (0.7kg, 240m)	
TMP-RBXMN-GF	Robox Reel of Nylon NYLFORCE Glass (0.7kg, 240m)	

**IMPORTANT! - Carbon and glass fibres are abrasive and will result in fast wear of regular nozzles – they must be used in conjunction with the SingleX™ Experimental head (TMP-RBX-MH3). You will invalidate your warranty on any other head used with this filament.*



RL-TX-BTHB12



What is a VersaSTUDIO BT-12?

The Roland VersaSTUDIO BT-12 is a compact printer that allows you to print directly onto light coloured cotton or cotton-mix fabric (min 50% cotton). It is usually supplied together with the HB-12 dryer which fixes the ink to the fabric. It has been designed to be simple, safe and easy to use so that anyone can create original products of exceptional quality without special skills or training and is ideal for small business enterprises.

How does it Work?

First you import your design in PNG or JPG format into the design software that comes with the machine. You then load your fabric into an A4 or A5 cassette which you then insert into the printer. You then simply choose "Print" in the software. Once printed, you transfer the fabric to the dryer which then fixes the ink to it.



What Quality Image Can I Expect?

With a resolution of up to 1,200dpi, even designs with photos print beautifully to offer personalised, professional products such as T-shirts, cushion covers, Tote bags, etc.

What is the Difference from Sublimation or LIT?

With sublimation or LIT, the image must be printed onto transfer paper and then heat pressed onto the final media (see pages 118-122). Sublimation media must be polyester-based whereas LIT can be used on a variety of different media. With the BT-12 the image is printed directly onto any cotton or cotton-mix fabric (50% cotton minimum) and then inserted into the HB-12 dryer to fix the ink to the fabric. It is a completely "safe" process as the dryer is a fully enclosed heater system.

How Much Space Does It Take Up?

The printer can be stacked on top of the HB-12 finisher to provide a complete printing process in the smallest possible space – only 419(W) x 760(D) x 513(H)mm.

What Software Do I Need?

The VersaSTUDIO BT-12 comes complete with Roland design software which consists of simple operation screen for importing and editing images easily before printing them. Imported image formats include jpg and png. The design itself could be a piece of clip-art, or could have been drawn in any graphics program – we would recommend 2D Design V2 (page 12) of course!

Specifications

VersaSTUDIO BT-12:

Printable Area: 291 x 204mm (with A4 standard tray)
204 x 142mm (with A5 tray)
Printable Fabric: 50 to 100% light coloured cotton
Fabric Thickness: Up to 4mm
Ink: BT-12 Ink
Interface: USB or Ethernet
Weight: 24kg
Dimensions: 399(W) x 760(D) x 293(H)mm
(419(W) x 760(D) x 513(H)mm when stood on dryer)

HB-12 Dryer Unit:

Weight: 16.5kg
Dimensions: 419(W) x 675(D) x 235(H)mm

Warranty:

UK Mainland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

Direct to Material Printer

RL-TX-BTHB12	Roland BT-12 Direct to Textile Printer + HB-12 Unit. <i>N.B. Order Inks separately.</i>
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Starter Pack of Ink (only available when purchased with machine)

RLP-BT12-IP4	Starter Pack of 4 inks (140ml black & 100ml each of cyan, magenta & yellow)
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Other Consumables and Accessories

See details of our full range of consumables and accessories on page 23.

*Please state which colour when ordering

NEW
see also Product
Guide Pages 120-3

Image Transfer

Large Format Sublimation



RL-TX-RT640M



About Texart

Roland Texart is a range of large format dye-sublimation printers which can produce vibrant colours on a wide range of materials. With the RT640 base model, the printing is always done onto transfer paper which is then applied to the final product using a heat press. Any image can be transferred in this way to fabrics including polyester, mixed polyester/cotton, lycra or nylon, as well as polyester coated surfaces and pre-treated metals. For smaller items, any of the heat presses supplied by TechSoft can be used (see page 123 in our main Product Guide and page 13 in this supplement). For large rolls of fabric, a calendar heat press is required (supplied separately).

The enhanced RT640M dye-sublimation printer also has the ability to print directly onto single or double-sided pre-coated polyester fabrics such as flag polyester, mesh, backlit, voile, block out and banners. To "finish" the transfer a Calendar Reactivator Oven is required (supplied separately).

The Technology

Sublimation is when a solid changes into a gas and back to a solid without going through a liquid stage. Once the ink is on the special transfer paper, the heat and pressure of the heat press causes the ink to turn into gas which then transfers into the fibres. The gas cools, returns to a solid state, and forms a permanent bond with polymer fibres. The result is an extremely durable and light-resistant print which is washable and requires no further finishing.

Why Invest in a Texart Printer?

The Texart range of dye-sublimation printers is a cost-effective solution for users wanting to enter the textile printing sector, offering versatility of production with a relatively low investment and a fast return for that investment by selling personalised goods. Colleges and Universities with a Textile department are sure to benefit from one of these printers which will enable students to design their own images to transfer onto fabric, and subsequently incorporate into garments.

Texart Ink and Software

There are three ink configurations to choose between (N.B. the configuration cannot be changed at a later date):

Option 1: Cyan, Magenta, Yellow, Black

Produces vivid colours with rich blacks and sharp details. Can be used with either Roland VersaWorks software or Roland ErgoSoft software.

Option 2: Cyan, Magenta, Yellow, Black, Light Cyan, Light Magenta, Orange and Violet

The addition of Orange and Violet ink delivers an extremely wide gamut, with bright reds, intense oranges and deep purples, while Light Cyan and Light Magenta offer subtle graduations and delicate skin tones. Roland ErgoSoft software must be used with this eight colour configuration.

Option 3: Cyan, Magenta, Yellow, Black, Orange, Violet, Fluorescent Yellow and Fluorescent Pink

The Fluorescent Pink and Yellow ink produces hundreds of vivid fluorescent colours and soft pastel shades for fashionable sportswear, décor and eye-catching signs. Roland ErgoSoft software must be used with this eight colour configuration.

Specifications

Printing Resolution: Max. 1440dpi
Print Ink: Texart Ink
Max Print Width: 1615mm
Media Width: 259 - 1625mm
Media Thickness: 1mm (max)
Interface: Ethernet
Weight (with stand): 160kg
Dimensions (with stand): 2650(W) x 795(D) x 1600(H)mm
Power Requirements: 240V, 13A Socket

Warranty:

UK Mainland: 1 Year On-Site
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page 2

Texart Sublimation Printer

RL-TX-RT640	Texart Dye Sublimation Printer. Includes machine, Roland ErgoSoft OR VersaWorks software.
RL-TX-RT640M	Texart Multi-Function Dye Sublimation Printer. Includes machine, Roland ErgoSoft OR VersaWorks software.

Texart Ink

RLP-TXI-COL*	Texart Ink (1 litre). Black, Cyan, Magenta, Yellow, Light Cyan, Light Magenta, Orange, Violet, Fluorescent Pink OR Fluorescent Yellow.
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* Inks must be ordered separately according to the colour configuration chosen - see options under the heading "Texart Ink and Software".

Image Transfer

Sublimation - ID Cards

NEW
see also Product
Guide Pages 120-3



Specifications

Javelin DNA Single Sided, Pro Single Sided & Pro Dual Sided:

Print Mode: Automatic Feed, Dual Sided
 Print Methods: Thermal Transfer (Monochrome), Dye-Sublimation Colour
 Print Speed: Mono: 800CPH, Colour: 180-200CPH
 Fonts/Images: 300 dpts per inch (11.8 dots per mm) resolution
 Software Drivers: Windows 10, 8, 7, XP Server 2003/2008, Vista
 Power Source: Input: 100V-240V, 50/60HZ, Output: DC 24V, 2.5A
 Card Type: PVC & Composite PVC
 Card Thickness: 0.4 - 1.2mm
 Card Width/Length: ISO CR-80-ISO 7810 (53.98mm(W) x 85.60mm(L))
 Weight: 3.7kg
 Dimensions: 184(W) x 305.6(D) x 228(H)mm

Warranty:

UK Mainland: 30 Months Return to Base
 Elsewhere: 30 Months Return and Collect

Prices £*

*See Pricing Information on page 2

GN-PRT-CARD2	Javelin DNA Single Sided Plastic ID Card Printer. Includes Designer Create Software	
GN-PRT-CARD3	Javelin DNA Pro Single Sided Plastic ID Card Printer. Includes Designer Create Software	
GN-PRT-CARD4	Javelin DNA Pro Double Sided Plastic ID Card Printer. Includes Designer Create Software	

Other Consumables and Accessories

See details of our full range of consumables and accessories on page 250.

Roland BT-12 Printer Consumables

BT-12 Ink

RLP-BT12-B	140ml Black Pigment Ink	
RLP-BT12-CMY*	100ml Pigment Ink <i>Available in Cyan, Magenta and Yellow.</i>	

Cassette Trays for BT-12

RLP-BT12-TRAYA5	A5 Tray for Roland BT-12	
RLP-BT12-TRAYA4	A4 Tray for Roland BT-12	

Cleaning Materials for BT-12

RLP-BT12CC-COL*	Cleaning Cartridge <i>Available in Black, Cyan, Magenta and Yellow.</i>	
RLP-BT12-CL	Cleaning Liquid	
RLP-BT12-CT	Cleaning Tool	
RLP-BT12-CS	Cleaning Stick	
RLP-BT12-CP	Cleaning Pad	

Other Consumables for BT-12

RLP-BT12-FF	Fan Filter	
RLP-BT12-WIB	Waste Ink Box	

ID Card Printer Consumables

GNA-PRT-CRD1	Pack of 100 White Plain Plastic Cards	
GNT-PRT-RIB1	Four Colour Ribbon for GN-PRT-CARD2	
GNA-PRT-RIB2	Four Colour Ribbon for GN-PRT-CARD4	
GNA-PRT-CC2	Pack of 100 Cleaning Cards	
GNA-PRT-CC1	Pack of 50 Long Cleaning Cards	

* Please state which colour when ordering

Laminators

Laminators



These heavy duty laminators feature a double heating system utilising a hot roller and plate, providing high quality lamination. They have clear instructions on the front and a digital display for precise settings, helping to reduce difficulty of use.

With an operating speed of 550mm per minute, this product also features an anti-jam reverse function, helping to keep your workstation running smoothly.

Specification	AR-LAMINATOR3	AR-LAMINATOR4
Media Size:	A3	A2
LCD Screen:	Yes	Yes
Pouch Thickness:	500 Microns	500 Microns
Temperature Settings:	Adjustable	Adjustable
Photo Capable:	Yes	Yes
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect	

Prices £*		*See Pricing Information on page 2	
AR-LAMINATOR3	Expert EX320R A3 Heavy Duty Office Laminator		
AR-LAMINATOR4	Expert EX450R A2 Heavy Duty Office Laminator		

Foil Fusing Machine



The FoilTech FT-12 is a hand fed foil fusing machine. The whole process could not be simpler. First you must print your desired image onto a standard sheet of A4 paper using a laser printer. You image can be created in any software, though we would, of course, recommend TechSoft Design V3 for this purpose. Next you must choose which colour foil you wish to use – there are plenty of colours to choose from - silver or gold look are particularly popular. Then, having loaded the machine with the foil, set the desired temperature and speed using the digital controls, start the machine running, engage the impression lever and feed in your printed image. A fantastic foiled image will emerge.

Foiled images have a multitude of uses. For example, in the crafts industry they can command a high retail price, or in education they can give that extra special 'edge' to many projects.

Specification	
Stock Size:	Up to 340mm wide
Feed System:	Manual
Foil Rolls:	150mm length x 300mm width
Electrics:	220 Volts
Weight:	22kgs
Dimensions:	520 x 400 x 220(H)mm
Warranty:	UK Mainland: 1 Year Return to Base Elsewhere: 1 Year Return and Collect

Prices £*		*See Pricing Information on page 2	
AR-FOILM1	FoilTech Foil Fuser FT-12. Hand fed offline, Sublimation Foiling Machine		
AR-FOIL150-COL1	320mm x 150m Roll Foil for use with FoilTech Machine. Available in various colours		
AR-FOIL150-RD1	320mm x 150m Roll Foil for use with FoilTech Machine. Red Burgundy Metallic Bright 41		
AR-FOIL75-COL2	320mm x 75m Roll Satin Matte Foil for use with FoilTech Machine. Available in blue teal, copper and pink fuschia		
AR-FOIL150-COL3	320mm x 150m Roll Transparent Holographic Film for use with FoilTech Machine		
AR-FOIL150-FFC	320mm x 150m Roll Fusing Film Coated for use with FoilTech Machine		
Laminating Film			
AR-FOIL150-LAM1	320mm x 150m PermaLam Matte Laminating Film for use with FoilTech Machine		
AR-FOIL150-LAM2	320mm x 150m PermaLam Gloss Laminating Film for use with FoilTech Machine		



Light Pad Boxes, Panels, Beam-Boxes

This range of LED Light Pad Boxes are professional high quality aids giving superior contrast and even spread of light from the back lights making them invaluable for ease of artwork preparation, tracing designs and patterns for stencilling and displaying slides and transparencies and also inspection.



Prices £*		*See Pricing Information on page 2
AR-LIGHTBOX25	A3 LED Light Pad Box (297 x 420mm)	
AR-LIGHTBOX24	A2 LED Light Pad Box (420 x 584mm)	

The Wafer Light Panel is ultra slim and highly portable making it ideal for calligraphy, stencilling, scrap-booking, embossing, quilting, embroidery and sewing. The side-lit LED system has a low operating temperature and its acrylic screen provides even light distribution with full brightness control thanks to the touch sensitive dimmer. The panel has a grey bezel with non-slip feet.



Prices £*		*See Pricing Information on page 2
AR-LIGHTBOX23	A4 Wafer LED Light Panel (210 x 297mm)	
AR-LIGHTBOX18	A3 Wafer LED Light Panel (297 x 420mm)	

The ultimate in professional back-lit work surfaces. With a super portable, simple and stylish design the BeamBox A4 light box ensures a perfectly even light distribution and perfectly smooth work surface. The light boxes feature a white casing and white trim and are the perfect creative companion for design, art, and tracing work as well as being suitable for quality control and industrial inspection stations. With an integrated stainless steel, touch sensitive dimming switch, the light level can be set exactly right with step-less fine control and an edge-to-edge illuminated acrylic screen really makes your creations shine. For added durability, toughened glass screens are available as an option - perfect for working with hard metal parts or cutting against. This low voltage light box is also completely sealed - making it splash and dust proof.



Prices £*		*See Pricing Information on page 2
AR-LIGHTBOX20	A4 Beam-Box LED Light Box (420 x 584mm)	
AR-LIGHTBOX17	A3 Beam-Box LED Light Box (297 x 420mm)	
AR-LIGHTBOX19	A2 Beam-Box LED Light Box (420 x 584mm)	
AR-LIGHTBOX21	A1 Beam-Box LED Light Box (594 x 841mm)	
AR-LIGHTBOX22	A0 Beam-Box LED Light Box (841 x 1189mm)	

User Friendly, Low Cost, Low Temperature Casting

Engage your students in the latest training technology by simulating real life MIG, TIG and ARC welding at any angle - whilst significantly reducing costs and training hours too.

The Soldamatic augmented reality training system offers students an advanced, realistic welding simulator. It allows them to repeatedly practice their technique without any additional costs, as well as minimising physical risks and gas emissions.

Students work with real 3D objects combined with virtual computer generated images to give them the most realistic welding experience possible.

Features:

- Simulate MIG, TIG and Arc Welding
- Simulate full 360 degree welding on a variety of work pieces at a variety of work angles
- Included analysis module grades both welding technique and weld defects
- Includes pre-defined training courses
- Captures and grades students work creating a comprehensive portfolio of individual students evidence
- Includes teacher software for real time student monitoring and custom course creation
- Welding mask features integrated vision and sound systems for a truly immersive welding training experience
- Arc welding features motorised stick to accurately simulate electrode usage
- Three difficulty levels allows for student progression until they are 'ready for the welding booth'



Specification

Supported Welding Processes:	Manual Arc Welding, MIG/MAG, TIG, GMAW, FCAW, GTAW
Supported Joints:	V-butt joint, lap joint, T-joint, pipe V-butt joint and pipe T-joint
Welding Positions: ISO 6947:2011 ANSI/AWS A3.0M/A3.0:2011	PA, PC, PF/PG, PE, PH/PJ, H-L045/J-L045, PB, PD, 1F, 2F, 3F, 4F, 1G, 2G, 3G, 4G, 5G, 6G
Workpiece Positions:	Plan, vertical, flat, overhead
Voltage Selection:	10V-30V MIG/MAG (GMAW), FCAW 12V-32V
Intensity (Amperage) Selection:	Electrodo (SMAW) 50A-240A MIG/MAG (GMAW), FCAW, TIG (GTAW) 25A-270A
Polarity Selection:	DC+, DC-, AC
Shielding Gas Selection:	CO2, Argon, Helium and mixtures. Optional: O2, Nitrogen, etc.
Wire Speed Selection:	MIG/MAG (GMAW), FCAW 1.2-20.0m/min
Base Material Selection:	Carbon Steel. Optional: Stainless steel, aluminum, nickel, copper, etc.
Workpiece Thickness Selection:	3, 6 and 10mm. Optional: Other thicknesses on request.
Electrode Stick Selection:	Base, Rutile, Optional: Celulosic etc...
Electrode Stick Diameter Selection:	2.50, 3.25 and 4.00mm
Wire Diameter Selection (solid wire):	0.8, 1.0 and 1.2mm
Filler Rod Selection:	2.00 and 2.40mm
Weight:	15kg (without accessories) 30kg (with accessories)
Dimensions:	400 x 230 x 440mm
Power Requirements:	115-230V 5A-11A 50-60Hz
Any Other Requirements:	Computer

What's Included

Accessories

Augmented Reality Welding Simulation System including:

- Advanced AR Simulator
- Welding torches (SMAW, SMAW (FCAW) and GTAW)
- GTAW Filler Rod
- Five workpieces
- Welding mask with augmented reality vision system
- Workstand allowing full 360 degree welding
- Teaching software

Warranty

UK Mainland & Ireland: 1 Year Return to Base
Elsewhere: 1 Year Return and Collect

Prices £*

*See Pricing Information on page <->

MM-WELDSIM1	One Station Soldamatic IE Augmented Reality Welding Simulation Set. <i>Includes augmented reality simulator (control box, helmet and lifetime education version software), education welding joints, welding torches for GMAW/FCAW, SMAW and GTAW and welding gloves. N.B. Optional workstand and TIG pedal must be ordered separately. Essential Setup and Training must also be ordered separately</i>
MM-WELDSIMSTD	Workstand for Soldamatic Welding Simulator
MM-WELDSIMPED	TIG Pedal for Soldamatic Welding Simulator
MM-WELDSIMTRN	Soldamatic IE Augmented Reality Welding Simulation System Setup & Training (for up to 10 stations)

Desks / Trolleys

Teacher's Desks

L-Shaped teachers desk with modesty panels in two sections, cable management trough and with locking drawer. Designed so that the short return butts against a wall to pick up power and network. Fitted with modesty panels all round.



Prices £*		*See Pricing Information on page 2
SF-DESK15RP	Right Hand L Shaped Teacher's Desk with Drawer	
SF-DESK15LP	Left Hand L Shaped Teacher's Desk with Drawer	

Optional Extra

SF-CB139	Mobile Lockable Pedestal c/w shallow drawer and cupboard.	
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Trolleys

The Gratnells Column Equipment trolley is supplied fully assembled with the runners welded in place. Just pop in the trays and you can use them instantly.

Each column will take 6 shallow trays or 3 deep trays.

Dimensions: 1055(W) x 420(D) x 850(H)mm.



Prices £*		*See Pricing Information on page 2
SF-TROLLEY51	Gratnells Treble Column Equipment Trolley with Fixed Runners, Grey c/w 75mm castors. 850 x 1055 x 420mm. Trays need to be ordered separately.	
SF-TROLLEY52	Gratnells Double Column Equipment Trolley with Fixed Runners, c/w 75mm castors. Grey. 720(W) x 420(D) x 850(H)mm. Trays need to be ordered separately (takes 6 shallow or 3 deep or 2 extra deep or 2 jumbo trays per column).	
SF-GT-SH-COL	Shallow Gratnell Tray. 312x427x75mm. Available in Royal Blue, Green, Light Grey, Red, Translucent and Yellow. Please state colour required.	
SF-GT-DP-COL	Deep Gratnell Tray. 312x427x150mm. Available in Royal Blue, Green, Light Grey, Red, Translucent and Yellow. Please state colour required.	
SF-GT-EDP-COL	Extra Deep Gratnell Tray. 312x427x225mm. Available in Royal Blue, Green, Light Grey, Red, Translucent and Yellow. Please state colour required.	
SF-GT-JM-COL	Jumbo Gratnell Tray. 312x427x300mm. Available in Royal Blue, Green, Light Grey, Red, Translucent and Yellow. Please state colour required.	

Designed to provide high capacity storage especially suitable for hand tools and small components. Fitted with 125mm diameter castors and side mounted push/pull handles for easy movement. Panels can be fitted vertically or at an incline.



Prices £*		*See Pricing Information on page 2
SF-TROLLEY42	Panel Storage Trolley, 1000 x 650 x 1600mm. Supplied with 6 x louvre panels and 108 x No. 3 bins (each 148 x 240 x 128mm). 125mm castors, 2 swivel and brake, 2 fixed.	

Professional heavy duty maintenance mobile cabinet with a 30mm multiplex worktop, lockable drawers and cupboard creating a mobile workstation and storage solution. Includes lockable cupboard with shelf, reinforced welded steel housing for strength and long service life. Fully extendable drawers with drawer interlocks prevent accidental opening in transit. High quality rubber tyred castors with brakes for excellent mobility.



Prices £*		*See Pricing Information on page 2
SF-TROLLEY32-M	Mobile Maintenance Cabinet, 1050 x 600 x 980mm, 30mm mpx top, 2 braked castors, 1 x 725mm cupboard with shelf, drawers 3 x 100mm, 2 x 125mm, 1 x 175mm.	

This mobile drawer pedestal can be used in conjunction with the teacher's desk. It is of a sheet steel construction with a melamine panel top with matching PVC edges. High quality engineering slides are used on drawers. The 75mm diameter rubber tyred castors are provided with foot brakes on the front pair.



Prices £*		*See Pricing Information on page 2
SF-CB139	Mobile Lockable Pedestal c/w shallow drawer and cupboard.	

Project Storage

Ideal for organising large artwork. Fitted with steel legs and black D-handles for a modern and practical design. Drawers - 35mm deep to comfortably organise your artwork. Available in grey, beech or oak.



N.B. Similar product shown

Prices £*		*See Pricing Information on page 2
SF-CB176	A1 6 Drawer Designfile Plan Chest, 1050(W) x 725(D) x 800(H)mm.	

A simple storage solution for art & design portfolios. Three tier design featuring 8mm diameter stainless steel hoops mounted on a fully welded powder coated steel frame. Having four heavy duty castors it is ideal when you wish to relocate the unit or share the storage between classrooms. The mobile version also allows for easy access behind the unit for cleaning. Provides 72 spaces on three levels.



Prices £*		*See Pricing Information on page 2
SF-RACKSTOR7D	A2/A3 Folder Rack Storage, three tier racks, fitted with castors.	

MakerSpace Trolleys

The Gratnells MakerSpace trolley holds standard Gratnells trays on StopSafe runners, allowing easy and safe access to components. The tool hangers can be moved and changed to suit many objects. You can customise your MakerSpace trolley with different tray combinations and additional hooks and bins.

Suitable for loads up to 85kg.
Dimensions: 760(W) x 560(D) x 1170(W)mm.



N.B. Image shows yellow trays. Blue trays will be supplied unless specified otherwise.

Prices £*		*See Pricing Information on page 2
SF-TROLLEY50	Gratnell MakerSpace Trolley in Silver c/w 3 Deep Trays, 12 Royal Blue Shallow Trays, 12 green mini bins, roll holder, 5 single hooks and 5 double hooks	



Gratnells MakerSpace STEM/STEAM Treble Trolley. Includes 2 louvered side panels, 8 silver deep trays, 16 silver shallow trays, 12 mini bins in green, 5 single hooks and 5 double hooks. Fitted with StopSafe runners. 75mm braked castors. Self-assembly required. Dimensions 1020(W) x 430(D) x 1025(H)mm. Trolley available in silver only. Trays are available in other colours if required.

Prices £*		*See Pricing Information on page 2
SF-TROLLEY54	MakerSpace STEM/STEAM Treble Trolley	



Gratnells MakerSpace STEM/STEAM Double Trolley. Includes 2 louvered side panels, 4 silver deep trays, 8 silver shallow trays, 12 mini bins in green, 5 single hooks and 5 double hooks. Fitted with StopSafe runners. 75mm braked castors. Self-assembly required. Dimensions 690(W) x 430(D) x 1025(H)mm. Trolley available in silver only. Trays are available in other colours if required.

Prices £*		*See Pricing Information on page 2
SF-TROLLEY55	MakerSpace STEM/STEAM Double Trolley	



Gratnells MakerHub Trolley. Takes standard size boards (600 x900mm). Comes complete with 4 silver deep Gratnells trays and two white boards. Includes 75mm braked castors. Self-assembly required. Dimensions 685(W) x 430(D) x 1430(H)mm Trolley available in silver only. Trays are available in other colours if required.

Prices £*		*See Pricing Information on page 2
SF-TROLLEY53	MakerHub Trolley	

N.B. All the above are also available with 1500mm column centres at an additional cost of #07162 per unit

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