



**CadRam**  
BY REGALEAD

# C1

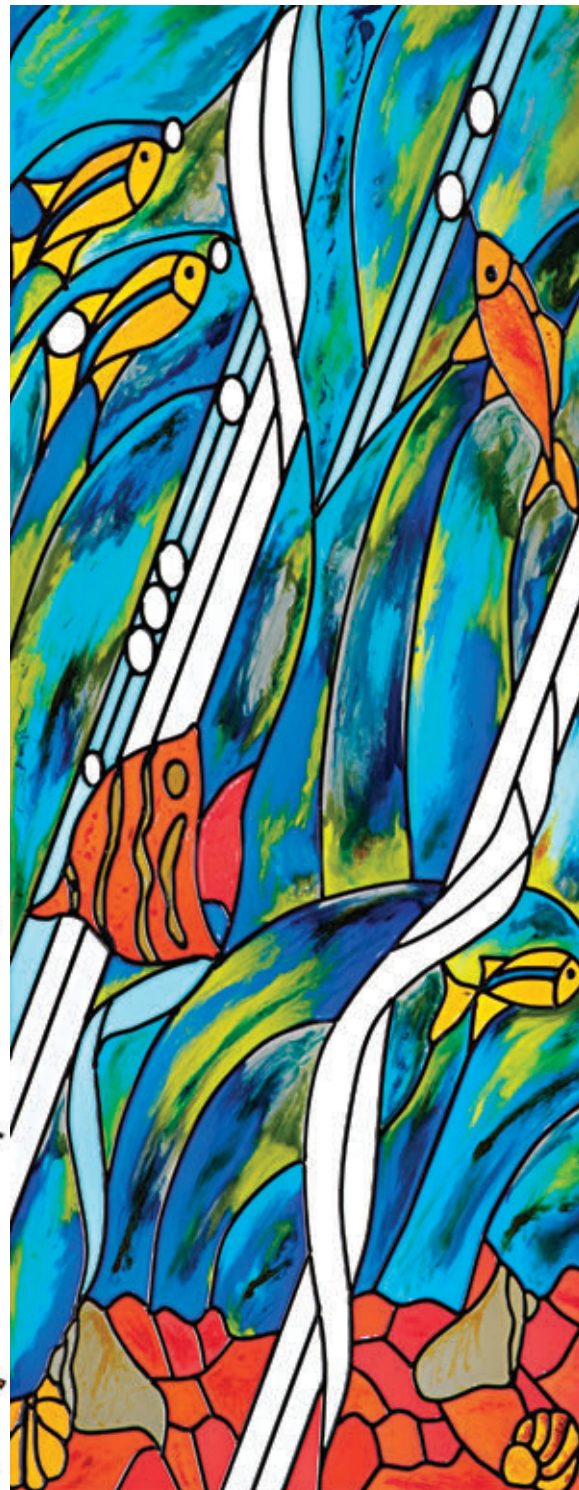
## Resin Dispensing System

### Index

Introduction	C2
ArtPlot v5.0 Software	C6
Resin Dispensing Machinery	C7
Application Machinery Options	C10
Application Machinery Spares	C11
Resin System Products	C12

# Introduction

The CadRam decorative resin system is based around a range of high-quality, colour-stable and pigmented lead-free resins that are machine dispensed to create incredibly detailed and cost effective works of decorative glass art. With a wide range of outline relief colours, the system also incorporates an infill colouring system that creates an infinite palette of colours offering real 'life' to any design.



## Features and Benefits

### Computer controlled plotting:

- High speed plotting up to 100mm/second
- Accurate to within 0.01mm

### Mixable pigment system:

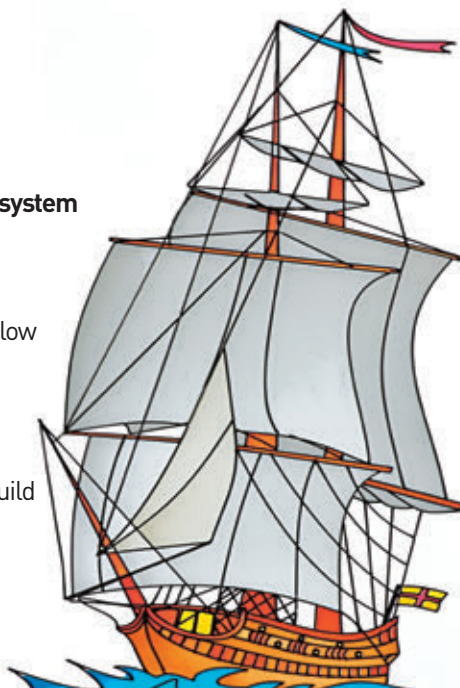
- Limitless colour options
- Ability to blend and mix colour

### Bespoke servo-controlled pump system

- Quick change of colours
- Reduced air inclusion in mix
- Greater accuracy of speed and flow

### Full system manufactured and supplied from single source

- Consistent quality of machine build
- Ability to develop custom size machinery
- Shorter lead times





## Applications

Although the resins are primarily designed to be applied to flat glass surfaces, they can also be used on any non-porous surface, such as ceramic tiles and even on metal surfaces. The wide range of compatible products and the speed and accuracy of the resin dispensers, make it ideal for many decorative surface applications, including:

- Glazed doors and fanlights
- Windows
- Shower screens
- Mirrors
- Ceiling light panels
- Glazed partitions
- Advertising signs

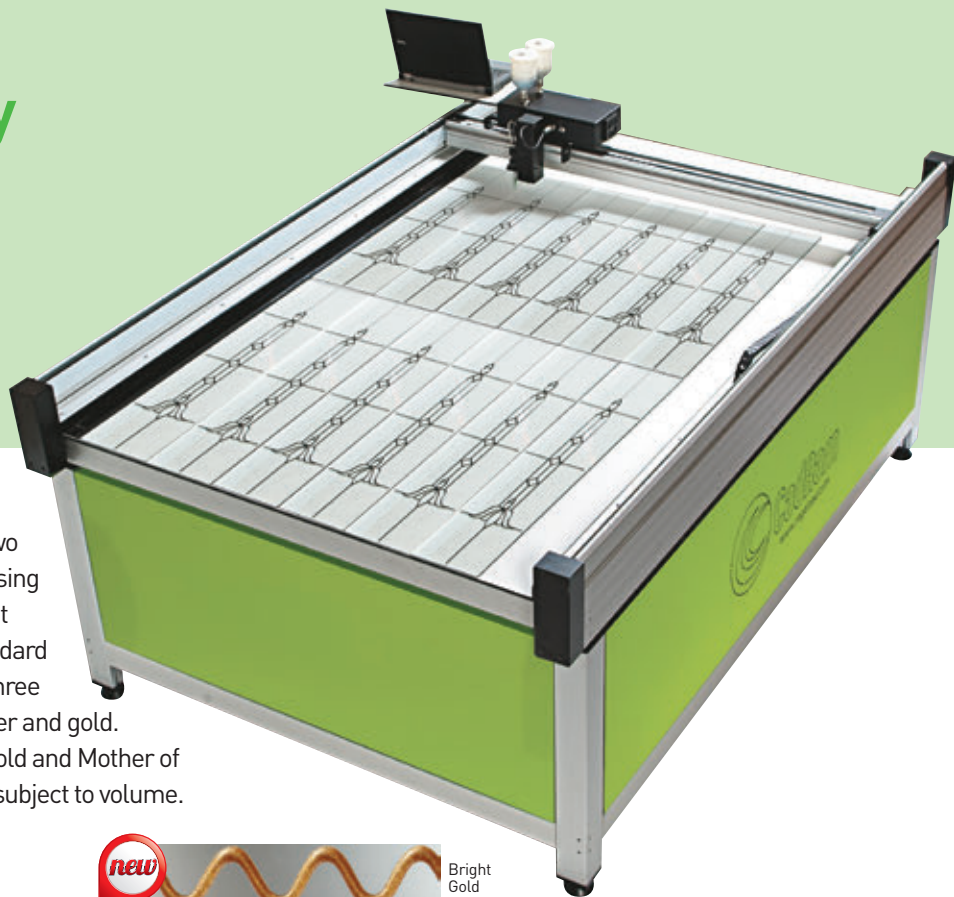
## Performance

CadRam resins have been used in the glass industry worldwide for over 10 years in climates as varied as those in the Ukraine, India and New Zealand with no reported failures.

CadRam products have also been extensively tested in UVA 10 year performance guarantee and weathering cabinets. The results were excellent (data available on request) - allowing customers to give a 10 year performance guarantee.



# Outline Technology



## Outline Colour System

The unique CadRam resin formula requires two components to be mixed at the time of dispensing to create a UV and weather-stable product that cures (touch dry) in under two hours. The standard range of colours are: black, grey, white, plus three metallic finishes - antique (a copper look), silver and gold. For 2015 we have 2 new colours with Bright Gold and Mother of Pearl. Bespoke colours can also be supplied, subject to volume.

## Crystal Clear Resin System

To create this unique look on glass, the CadRam Crystal Clear resin system is dispensed in the same way as our standard outline products. The glass-like optical qualities of the Crystal Clear resin creates a 'cut glass' look which is equally suitable for traditional, Victorian-look glass and modern styles. Crystal can be combined with infill pigments to create an infinite range of coloured or transparent outlines.



1

### design...

Design your pattern using our GlassEye software or corel, autocad or similar.



2

### convert...

Our in-house software ARTPLOT converts the files and controls the plot.



3

### plot...

CadRam machinery then plots the outline accurately at speeds up to 100mm/second.



# Infill Technology



## Infill Resin System

By mixing and adding the range of 12 standard pigments to the 2-part clear base infill resin, it is possible to create infinite colours and shades. With our Satin infill base, it is possible to also create a translucent, satin finish for colour. This complete freedom of colour availability, makes CadRam a unique option for the decorative glass market. In addition to these standard pigments, 9 fluorescent colours are available that glow under UV light conditions making these colours ideal for signage or decorative glass design in clubs, restaurants and other commercial applications.



4

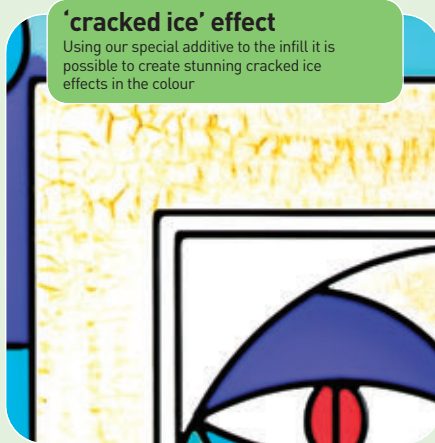
### add colour...

Once dry, coloured resin infill is applied by hand.



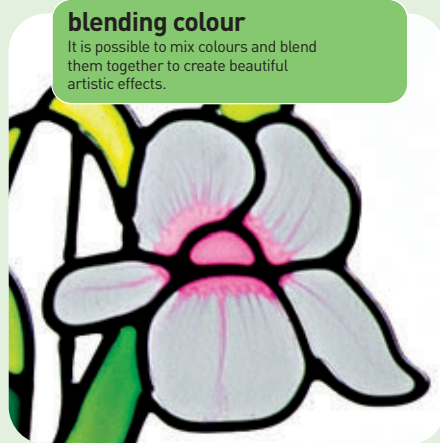
### 'cracked ice' effect

Using our special additive to the infill it is possible to create stunning cracked ice effects in the colour.



### blending colour

It is possible to mix colours and blend them together to create beautiful artistic effects.



# ArtPlot v5.0

## Intuitive Control Software

The latest version of ArtPlot has been developed with touch screen compatibility and a whole host of new features to create a machine control interface that is both intuitive for the user and designed to speed-up production time.



### Key Features

- Touchscreen compatible
- Direct .dxf import
- Save files as .ipf including all settings - ideal for repeat designs
- Stack design - plot multiple designs
- Windows 8 compatible
- Pump control direct from the software
- Online and offline support
- Internet linked diagnostics
- Pre-loaded with over 1500 designs



Machinery support is via a library of online tutorials and how-to videos which are available offline and live support during UK office hours with remote access to the ArtPlot software (internet connected computer needed). Regular software and design library updates are available through our dealer network intranet site [www.mycadram.com](http://www.mycadram.com)



# HDDS Range

Resin Dispensing System



## Key Features

- Fast accurate plotting up to 70mm/second
- Lightweight aluminium construction
- Increased levels of control through intelligent pumps
- Elimination of air bubbles via an innovative mixing system
- Quick-change pumps allowing rapid change of colour
- intuitive software allowing flexibility and speed of operation
- UK designed and manufactured



# Standard Machine Sizes

We offer the highly versatile HDDS equipment in a range of sizes to suit most requirements and, as we manufacture all machinery in our own factory, we can manufacture custom sized machinery up to 2.7 metres in length and 1.5 metres wide.

## Technical Specifications

### Bed Height

Standard Bed Height	900mm +/- 20mm
---------------------	----------------

### Working Height

Gantry Height Above Table	Maximum 50mm
---------------------------	--------------

### Speed

Plotting Speed	Up to 100mm/sec
----------------	-----------------

Dispensing Speed	Up to 70 mm/sec
------------------	-----------------

### Precision

Positioning Resolution	Up to 0.40mm
------------------------	--------------

Addressable Resolution	Up to 0.40mm
------------------------	--------------

Repeatability	Up to 0.20mm
---------------	--------------

### Dispensing System

CadRamMk6 Pumps	Two component servo motor driven pumps. Delivery (bead width) controlled by computer. Gantry mounted open outline resin canisters supply static mixer dispensing tip via aluminium mixing head.
-----------------	---

### Transport System

X Drive System	Dual guidance rails with dynamic positioning belt driven by an under-table mounted servo motor.
----------------	---

Y Drive System	Dual guidance rails with dynamic positioning belt driven by gantry-mounted servo motor
----------------	--

Z Drive System	Dual guidance rails with ball-screw driven by a servo motor.
----------------	--

### Software

CADRAM Artplot® V5	Accepts HPGL (plt) plot file
--------------------	------------------------------

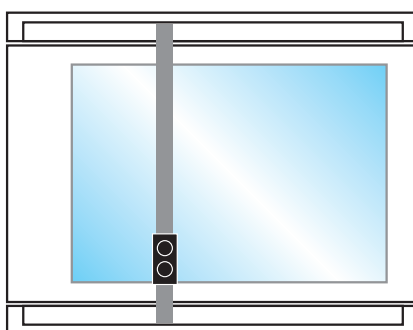
### Power Requirements

Power Supply	230V, 110V, 60Hz and 24V -28V DC
--------------	----------------------------------

Power Consumption	50-150 Watts
-------------------	--------------

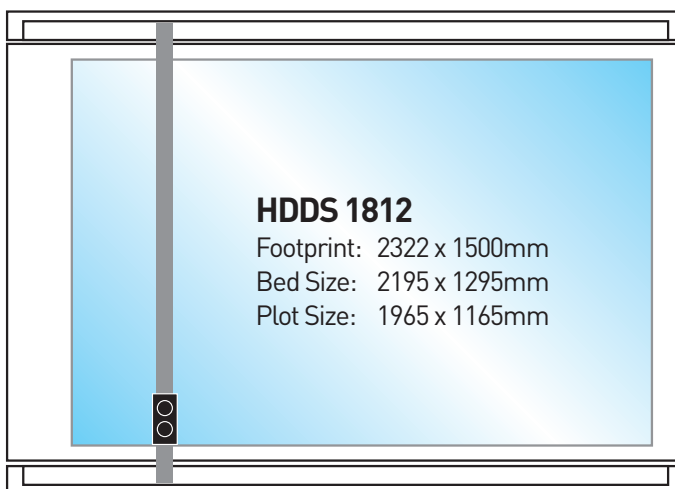
### Environment

Operating Temperatures	+5°C to +40°C
------------------------	---------------



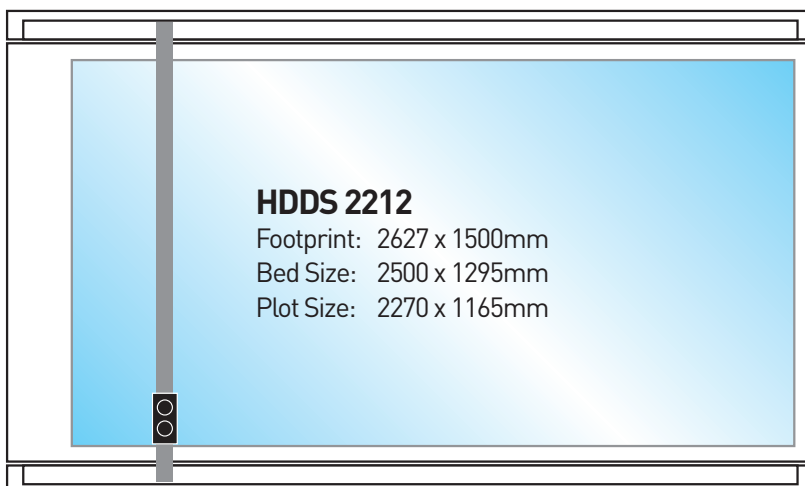
### HDDS Mini

Footprint: 1407 x 960mm  
Bed Size: 1280 x 740mm  
Plot Size: 1050 x 605mm



### HDDS 1812

Footprint: 2322 x 1500mm  
Bed Size: 2195 x 1295mm  
Plot Size: 1965 x 1165mm

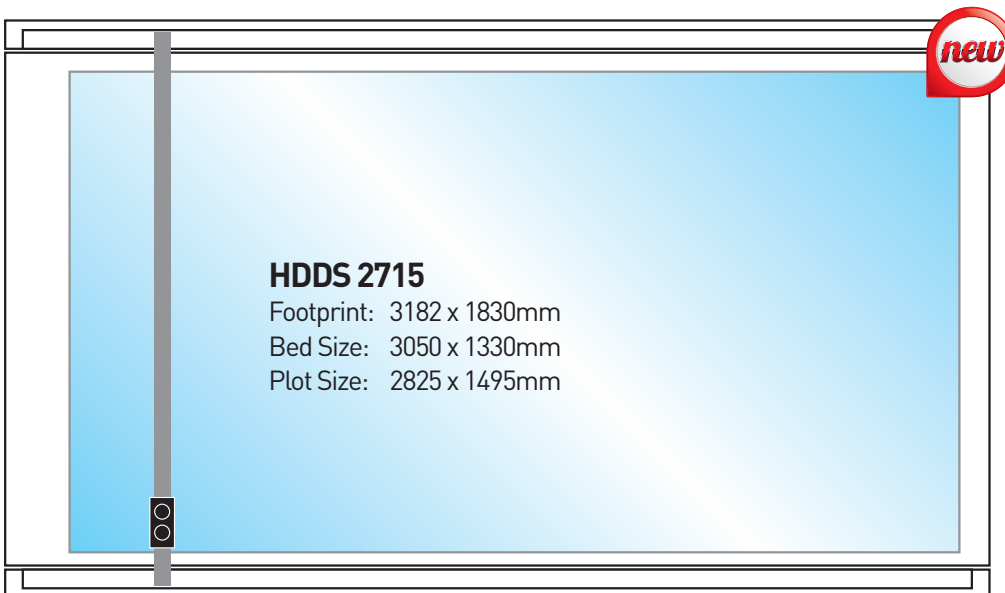
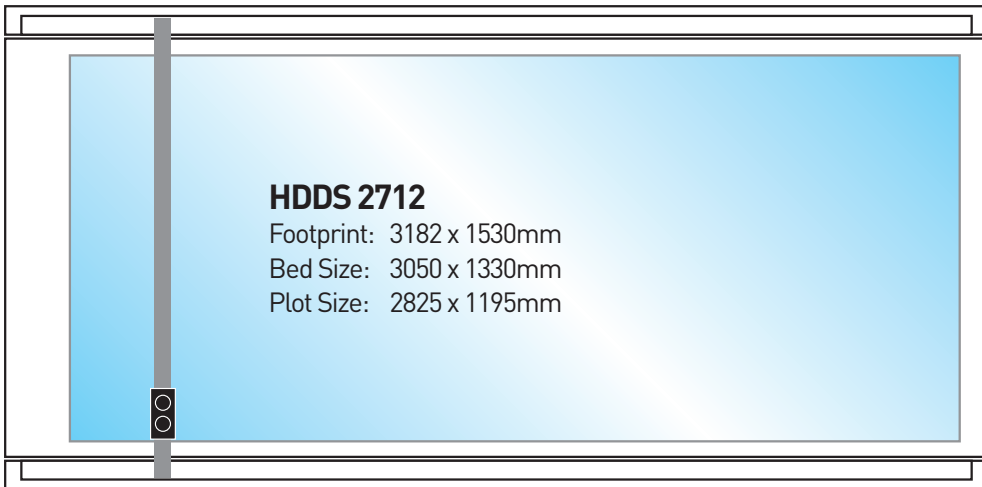
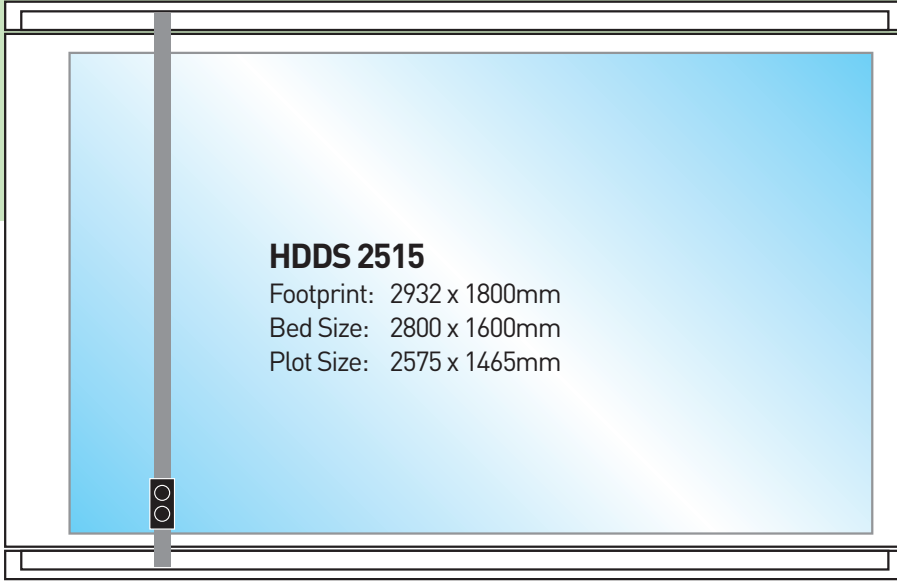


### HDDS 2212

Footprint: 2627 x 1500mm  
Bed Size: 2500 x 1295mm  
Plot Size: 2270 x 1165mm







# Application Machinery Options



## Pump Sets

100:1 Gearing Ratio

**3mm**  
Full 3mm pump assembly with quick change cable. Ideal for use with clear resins, pearl, bright gold and metallic outlines.



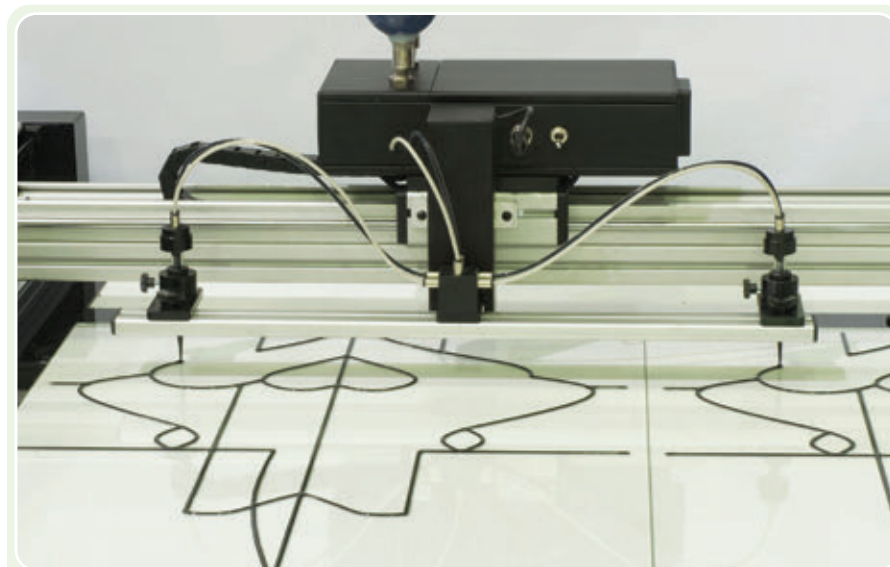
**5mm**  
Full 5mm pump assembly with quick change cable. Ideal for use with plain colours and for wider line widths.



## 3mm Pump Set (CRI)

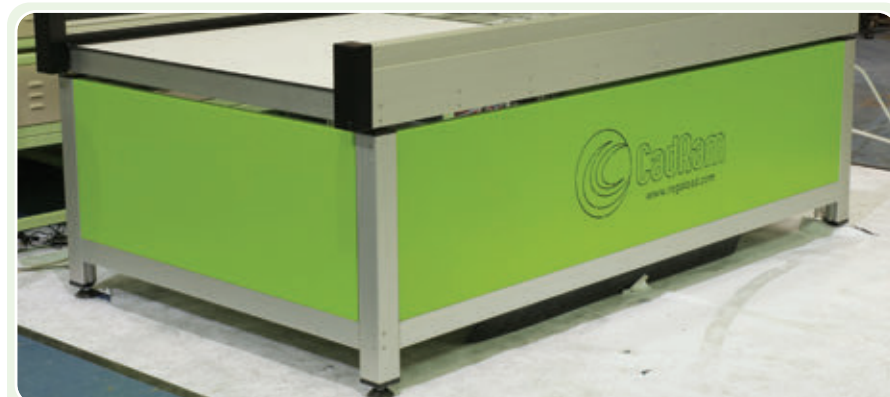
30:1 Gearing Ratio

Full 3mm pump assembly including fixing plate for use on CRI machinery.



## Double Head Applicator

An ideal enhancement for any larger volume producer allowing 2 identical plots at the same time with an special pump and dispenser. Easy change system for switching between standard and double head plotting. Available for 2712, 2212 and 1812 machines only.



## Machinery Cladding

CadRam branded steel cladding for 3 sides of the machine. Ideal for discreet storage under the machine

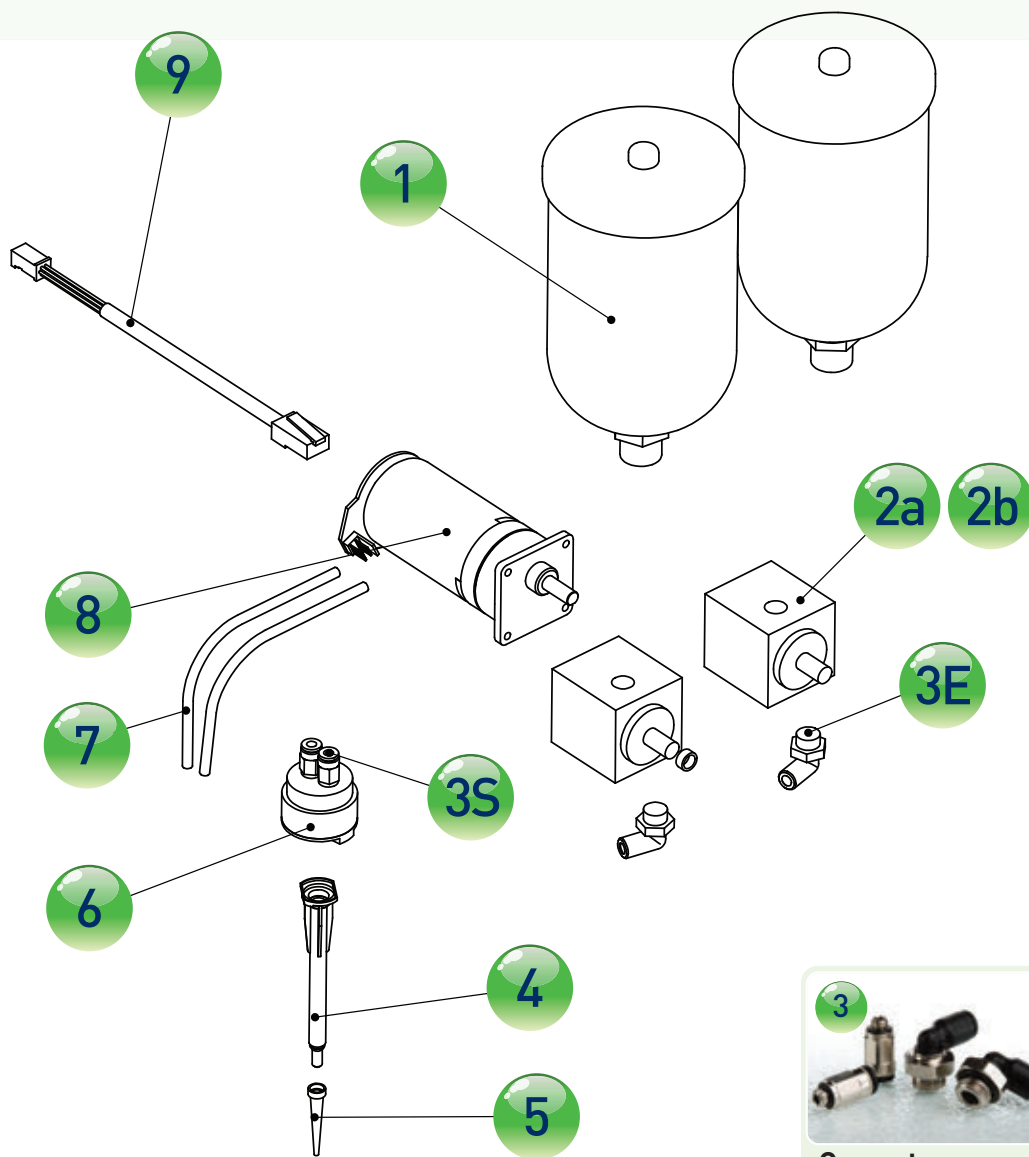


## Computer Stand

Sturdy aluminium computer stand with screen holder and shelf for keyboard and mouse. CadRam branded.

# Application Machinery Spares

## Pump and Dispensing Assembly



**1**  
**Hoppers**  
Set of 2.



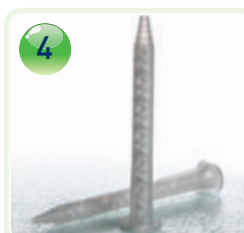
**2a**  
**3mm Pump**  
Set of 2.



**2b**  
**5mm Pump**  
Set of 2.



**3**  
**Connectors**  
For connecting tube to pump or mixing head.  
3E 4mm ELBOW (Pack of 2)  
3S 4mm STRAIGHT (Pack of 2)



**4**  
**Static Mixers**  
Pack of 10.



**5**  
**Tips**  
1mm: Green, 1.5mm: Grey, 2mm: White. (Pack of 10).



**6**  
**Mixing Head**  
Single. With straight connectors.



**7**  
**PTFE Tube**  
5 metre length.



**8**  
**Pump Motor**  
Single. 15V with encoder.



**9**  
**Pump Cable**  
Single.



# Resin System Products

## Outline Resins



### Outline - Part A

5 litres, 2.5 litres or 1 litre.  
Antique Copper, Black, Bright Gold, Clear, Gold, Grey Pewter, Mother of Pearl, Silver, White.



### Outline - Part B

Available in 5 litres, 2.5 litres or 1 litre.  
Black, Bright Gold, Clear, Mother of Pearl, Grey Pewter, White.  
Metallic B (for use with 'Part A' Copper, Silver, Gold).



## Infill Resins

We offer a range of infill resins for colouring and adding texture to decorative glass designs. The products are a two-component system with a 50:50 mix ratio and can then be pigmented to create the desired colour.



### Infill - Part A

5 litres, 1.25 litres or 500ml



### Infill - Part B

5 litres, 1.25 litres or 500ml



### Stipple Effect - Part A

1.25 litres



Stipple A should be mixed with clear infill B to create a textured effect similar to Stippolyte glass- offering a level of obscurity and contrast to the infilled area. The effect created is the same whether applied to clear glass or satin glass. Stipple Infill can also be combined with our range of Pigments to create coloured texture.



### Satin Infill - Part B

1.25 litres or 500ml



Satin Infill should be mixed with clear Infill A, to create a finish similar to satin etched glass. When combined with transparent pigments, the Satin Infill creates a translucent effect.



## Pre-mixed Infill



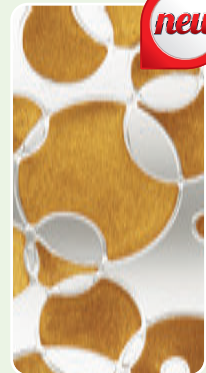
### Infill - Part B Pre-mix

1.25 litre, ready-mixed Part B Infill, pigmented to closely match the most popular Stained Glass Art Film colours.



### Gold Glitter - Infill A

500ml or 125ml



Our new high concentration Gold Glitter Infill needs to be mixed in 50:50 ratio with Clear Infill B.

## Pigments



### Pigment

500ml or 125ml

Black	Cerise	Ruby	Yellow3R
Blue	Green	Violet	White
Brown	Red	Yellow	



### HD Pigment

500ml or 125ml

Black	Cerise	Ruby	Yellow3R
Blue	Green	Violet	White
Brown	Red	Yellow	



### Fluorescent Pigment

125ml

Blue	Orange	Tango
Green	Pink	Yellow
Lemon	Red	White



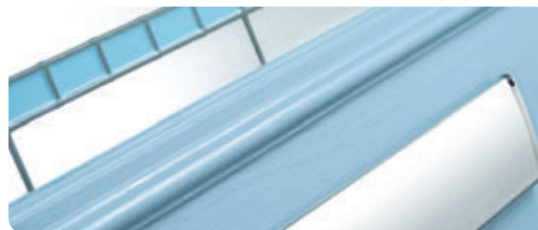
### Cracked Ice

250ml. For internal application only. Apply before infill to create stunning 'cracked ice' effects in the colour.



### Matched Pigment

New for 2015 we are pleased to announce the introduction of a range of 25 opaque pigments matched perfectly to the range of DoorColour™ colours. It is now possible to have decorative glass matched to the colour of the PVC or GRP door.



# Resin System Products

## Accessories & Consumables



### Open Mixing Pots

Calibrated (Pack of 50).



### Closed Mixing Pots

Calibrated (Pack of 25).



### Pipettes

3ml (Pack of 50).  
1ml (Pack of 50).



### Flushing Fluid

1 Litre. For removal of resin and cleaning of pumps.



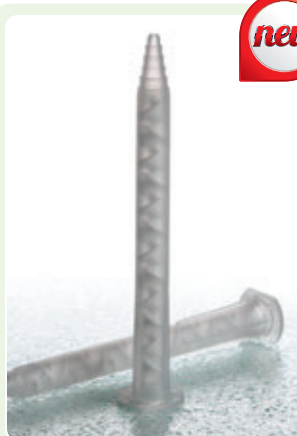
### Static Mixers

Pack of 10.



### Tips

1mm - Green, 1.5mm - Grey,  
2mm - White. (Pack of 10).



### CRI Static Mixers

Pack of 10.



### Metal Tips

1mm - Green, 1.5mm - Grey,  
2mm - White. (Pack of 10).  
**Leur lock not included.**



### Economy Application Bottle

60ml. An alternative to mixing pot and pipette. (Pack of 10).



### Metal Tip Application Bottle

60ml bottle with cap. (Pack of 10).  
**Tips not included.**



### Tube

5 metres.