



**UV REPLICATION SYSTEMS**  
FOR NANO & MICRO STRUCTURES

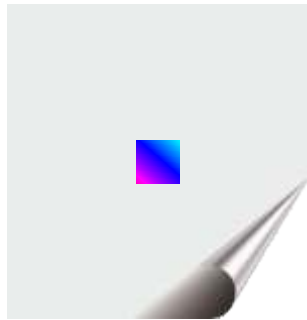


XRD Nano Limited  
United Kingdom

 **Xr 1000**   
Step and repeat UV recombiner

[www.xrdsnano.com](http://www.xrdsnano.com)

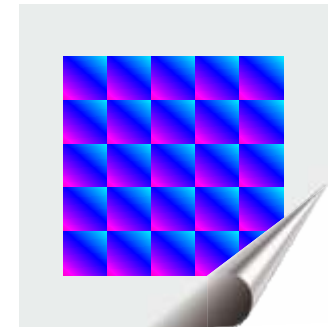
## Process



Single Image  
Polymer tool



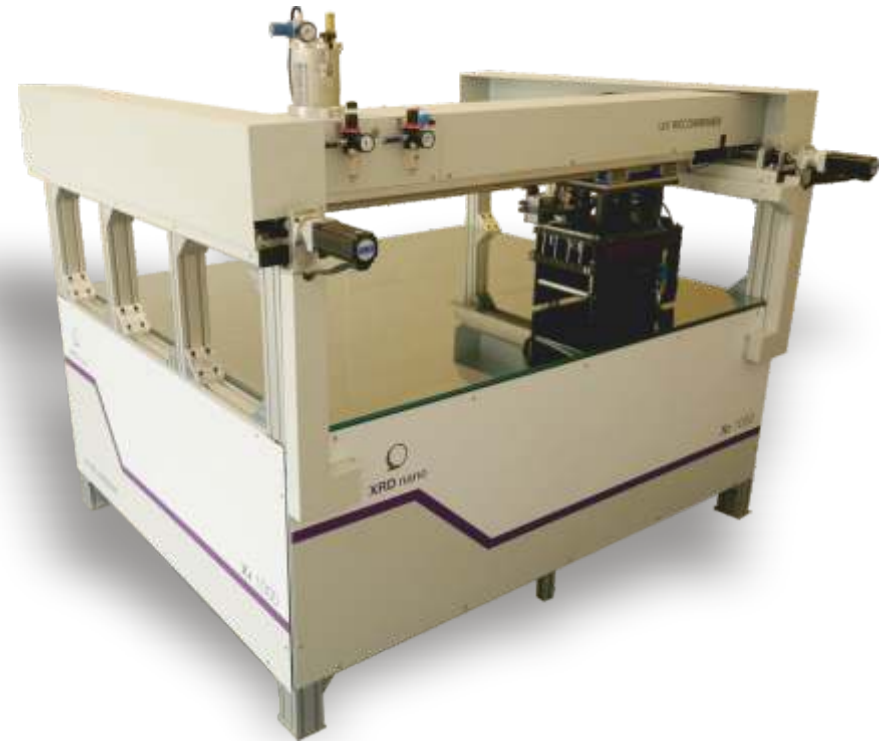
 **Xr 1000** //



Polymer Master

# Machine Layout

## **Xr 1000**



## Technical features

### **UV Print Head**

UV print head will enable the printing of diffraction/Hologram/Nano Structures in Register to a fixed '0' position. Addition capacity for background designs and creations of wide web images.

Inside the head has 1x unwind + and 1x rewind cylinders, which hold the polymer shim for replication.

Active working area: 1000 mm x 1000 mm (Any other size that a customer requires is also possible)

The maximum size of a single Image for replication is 125mm x 125mm.

The replication depth is 20 microns. For anything more than this, we need to test

Image placement accuracy = +/- 0.005 mm

Running Accuracy = +/- 0.005 mm



Available sizes of UV recombining

 **Xr 1000** 

Size : 1000 mm x 1000 mm

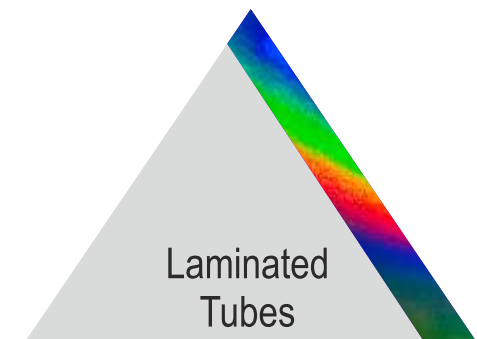
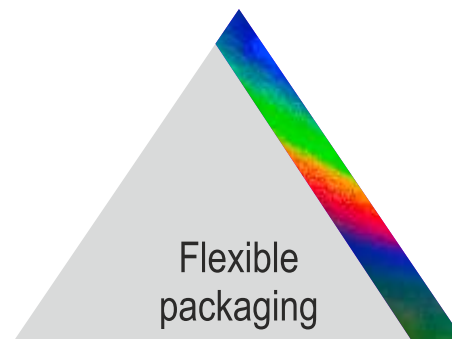
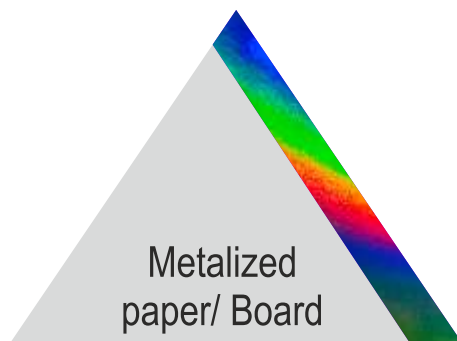
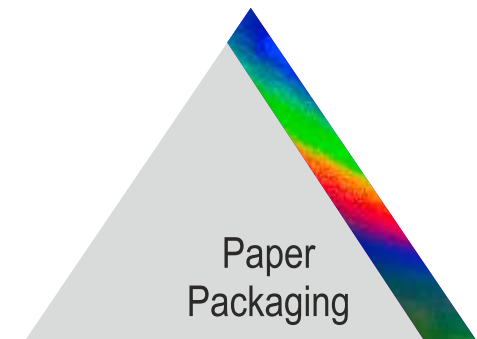
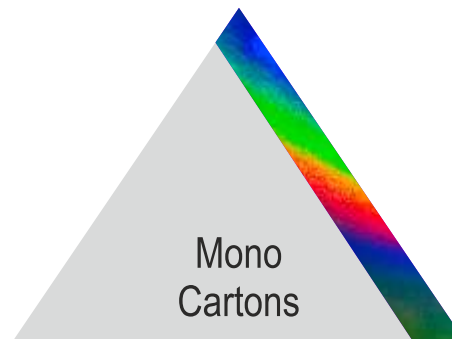
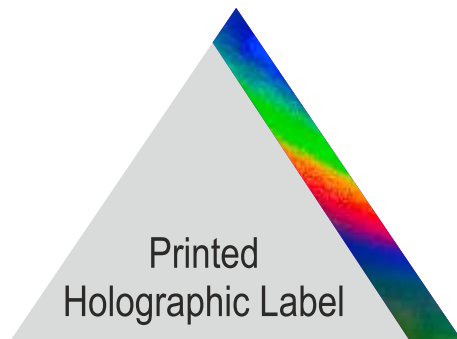
 **Xr 2000** 

Size : 2000 mm x 1000 mm

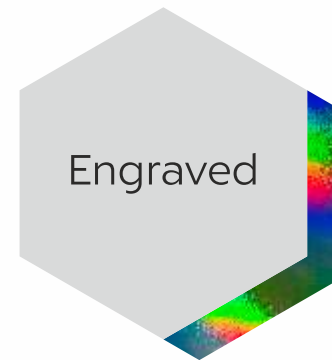
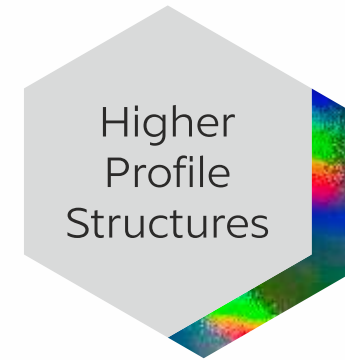
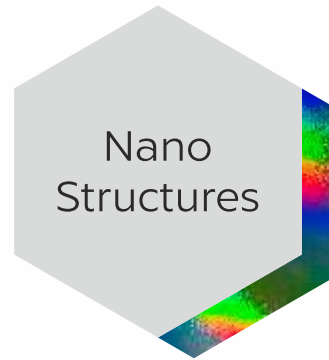
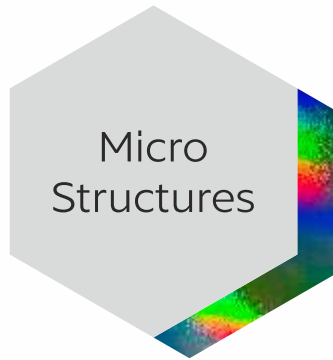
 **Xr Custom  
Build** 

Size : user defined

## UV Recombiner applications in packaging



## Holography



## UV REPLICATION SYSTEMS

FOR NANO & MICRO STRUCTURES

### Factory

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