

ZUV - PILOT ROTARY UV EMBOSSING/CONTINUOUS CASTING MACHINE

ZUV is an embossing/continuous rotary casting system that employs a UV embossing/casting station, and Meyer bar coating unit for micro replication. And provides an easy and cost effective means of adjusting coat weight. This technology is primarily aimed at those wanting to replicate micro-structures such as lenses, Hoes, Hods, holographic gratings etc. on a trial scale/pilot run, prior to investing in large scale facilities and equipment and going into mass production.

ZUV is designed to emboss/cast onto transparent filmic substrates such as PET, PP, and PC/PMMA. A wide range of film calliper can be accommodated and replication from holographic or Microstructures supplied on electro-formed nickel shim, polymer shim or directly from etched cylinders.

ZUV has unwind and rewind carriers that will allow for both imperial (3") or metric (76mm) internal diameter spool cores and are securely locked into position using an airshaft mechanism.

Specification

Web width	250mm
Live area	200mm
UV curing area	220mm

Throughput	Max. 15m p/min
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Master mounting:	Bonded direct to blank cylinder, adhesive backed nickel/polymer shim mounted to cylinder blank or etched cylinder
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Un-wind (single axis)

Maximum reel o.d.	300mm
Frame construction	TIG welded channel steel and steel plate
Air shaft	76mm (3")
Guide roll	100
Tension	Automatic tension control system

Meyer bar coating unit

Frame construction	TIG welded channel steel and steel plate
Application roller	HCr plating driven by geared motor
Press roller	for Meyer bar, movement by air cylinder unit
Meyer bar:	Stainless steel, easily replaceable
Containment	Vessel with lifting device controlled manually
Guide roll	100
Air	Air treatment unit

UV curing/embossing unit

Frame construction	TIG welded channel steel and steel plate
Embossing roller	165mm diameter backing roller, Hcr plating, gear driven
UV curing	Hi UV lamp system, water-cooled
Venting	Exhaust fan

Re-wind (single axis)

Maximum reel o.d.	300mm
Frame construction	TIG welded channel steel and steel plate
Air shaft	76mm (3")
Guide roll	100
Tension	Automatic tension control system

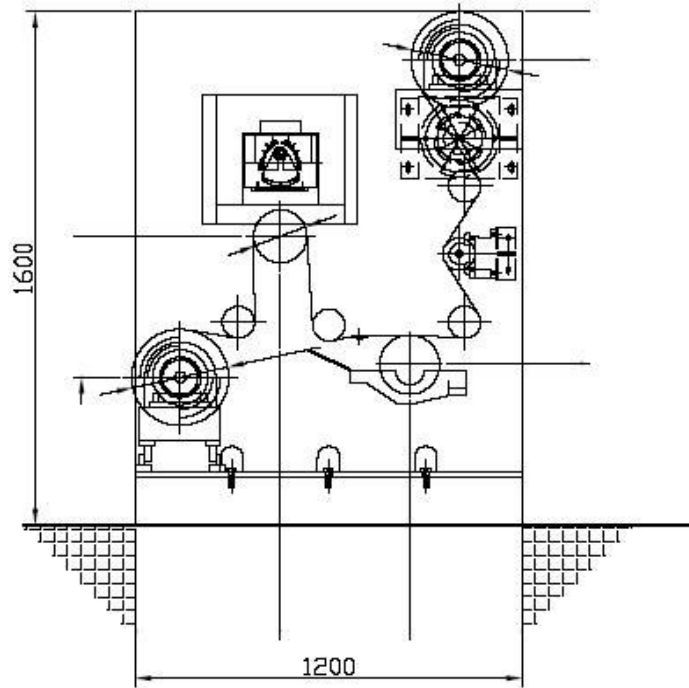
Operational Controls and Functions

Supply control	Master ON/OFF switch
Drive system	AC vector inverter with automatic tension control continuously Variable,
Material indication	Digital counter - total meters run
UV controller	Control panel, machine or wall mounted
Web tension	Automatic, closed loop system with adjustable unwind and rewind tensioners
Dimensions	Width: 1280mm, Height: 1600mm, Depth: 1250mm

Input requirements

Electrical supply	220-240 volts 20amp or as required 440volts 30amp or as required
Air supply	6Kg/cm ² dry, filtered and regulated
Water supply	Cold water for cooling unit

ZUV PILOT UV EMBOSSING/CASTING MACHINE 250 WEB



Optional upgrades:

1. Two sided synchronous - front and reverse coating/embossing station
2. Web guidance system: Although not normally required, this system will accommodate for poorly wound rolls of material. Tolerance of system is plus/minus 24mm run out.
3. Dual synchronous UV coating/embossing stations, for virtually seamless and continuous replication.
4. Magnetic mounting cylinder for easy change over of master.
5. Gravure or reverse Gravure coating (also allows for precise registration of structures)

Price: £P.O.A GBP**

** Does not include installation or training (2 engineers 2 Days £xxxGBP ea. per day plus Flights, Accommodation and Expenses). Packing and shipping also excluded. Shipping by customer preferred carrier.

Terms: tbc.

Systems of different sizes (rotary and sheet fed) and specifications are custom designed and built on demand