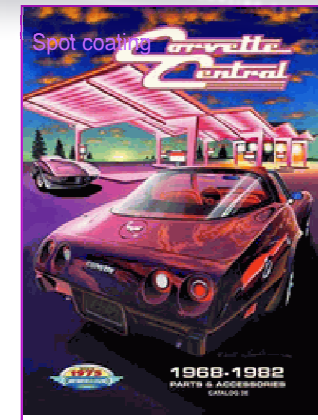




- **Ultra Violet (UV)** coatings are protective and durable material with a high levels of gloss, used in magazines, automotive brochures, annual reports, direct mail and promotional inserts.
- **UV coatings** are an ideal solution to give magazine covers a shinier, durable, high quality appearance which makes it stand out from the rest. " adds value to the printed products by making them unique and more eye-catching,".
- **UV coatings** can be applied as a flood over an entire web width, or in spots to highlight specific areas.
- **Finishes** can range from a flat mat appearance to a high-gloss, which gives products a distinct "wet" look that makes colors and images jump of the page.
- **Inline UV curing** is a rapidly growing technology. In recent years, manufacturer's requirements for higher quality, faster and more consistent processes have increased dramatically.





Unit configuration:

In its simplest and common form, the UV coater consists of four basic parts:

1. Chambered Doctor Blade System

This is a totally enclosed fountain chamber that feeds directly the metering (gravure) roll with a relatively heavy flow of material, it contains dual doctor blades in order to contain and meter the flow. Unlike the conventional open pan design with metering pan roll and trailing doctor blade, this chambered system is cleaner, more efficient and completely eliminates the need for the large supply of coatings normally required in a fountain system. More important, it is an improved means in maintaining high uniformity in transfer from gravure and Anilox rolls.

2. Anilox roll

The Anilox roll is usually a stainless steel ceramic coated roll, engraved over its entire surface with tiny cells that can be of different shapes, angles and volume. The purpose of the Anilox roll is to supply a metered pre-determined volume of fine film to the plate cylinder (only the coatings remaining in the cells to be transferred). Metering is achieved via a doctor blade that skims the extra material from the surface of the Anilox roll.

Note: Anilox rolls are carefully selected based on the desired finish, film thickness, type of substrates and the required level of gloss.

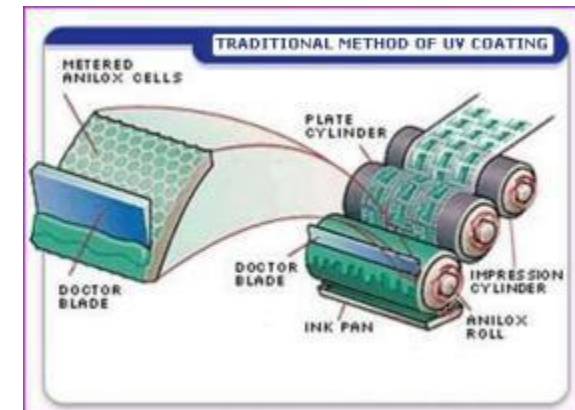
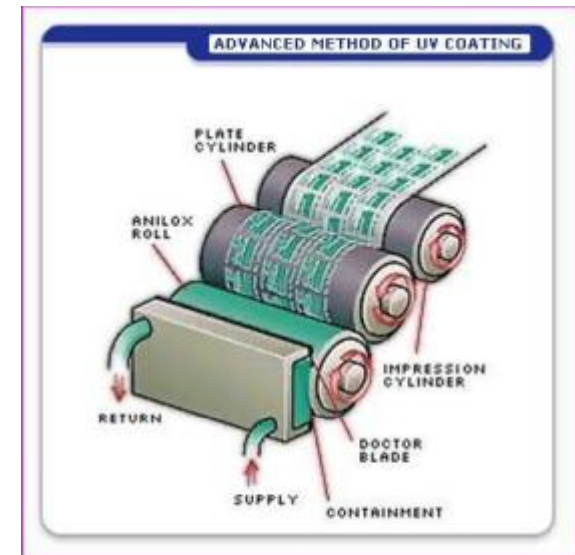
3. Plate cylinder

The plate cylinder is generally a stainless steel cylinder and placed between the Anilox (transfer) roll and the impression cylinder. It is undercut to accept a Photopolymer plate with a specific surface finish required to pick the finely metered coating from the cells of the Anilox roll and release the film to the web.

Note: Plate cylinder can be magnetic coated to accept a metal back plate or bare metal to accept a sticky back plate.

4. Impression cylinder

The impression cylinder is smooth polished metal cylinder that supports the substrate as it comes in contact with the plate cylinder. The surface speed of the impression cylinder must be identical to that of the plate cylinder and the substrate.





APPLY "UNIQUE COATING"

Unique coatings such as UV Varnish, scratch-off and texture varnish can be applied. UV Gloss or dull varnish might be used to highlight a particular product or to protect the outside of the piece during mailing..



Texture, Pseudo - Embossing

High Gloss, Matte & Satin Coatings

UV Glitter Coatings

Glueable UV Coating

UV Pearlescence Coatings



UV VARNISH COATING

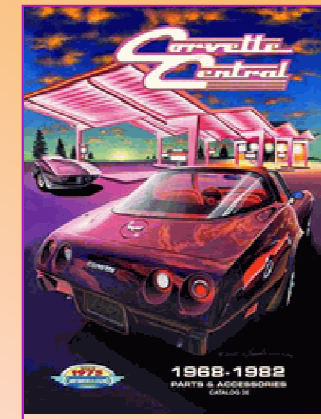
UV Thermochromic Coatings In Multiple Colors

UV Glow-in-the-dark Coatings in Multiple Colors

UV Silver /Gold Scratch-off

UV Laminating " Cast & Cure"

UV Magnetic Varnish



Textured varnishes generally are used to create a unique tactile feel to the printed piece that increases consumer appeal.

Scratch-off are great ways to hide a message or an image from consumers & entice them to get them involved with the piece to view the hidden image.



HIGH SPEED- FLEXUV COATER

Description:

- Designed for full coverage or in register spot coating (± 0.015 ")($\pm .38$ mm)
- Designed to apply a wet coating film to the desired level of gloss

Side Frames: Blanchard Ground, 2.5" (64mm) thick steel

Bearings: Spherical Roller (transfer)- Double row ball Bearing (plate/imp.)

Drive: Belt

Impression Cylinder:

- Nickel plated tubular steel
- Mounted in eccentrics with 1/4" (6mm) opening at Off impression
- On-the-run impression adjustment to the plate cylinder w/dial readouts

Plate (Blanket) Cylinder:

- Stainless steel core with surface mounted ceramic magnets
- Standard undercut .067" (1.7mm)
- Mounted in eccentrics with 1/4" (6mm) opening, at Off impression
- Motorized 360° circumferential register control and $\pm 1/4$ " (6mm) sidelay.

Transfer Cylinder:

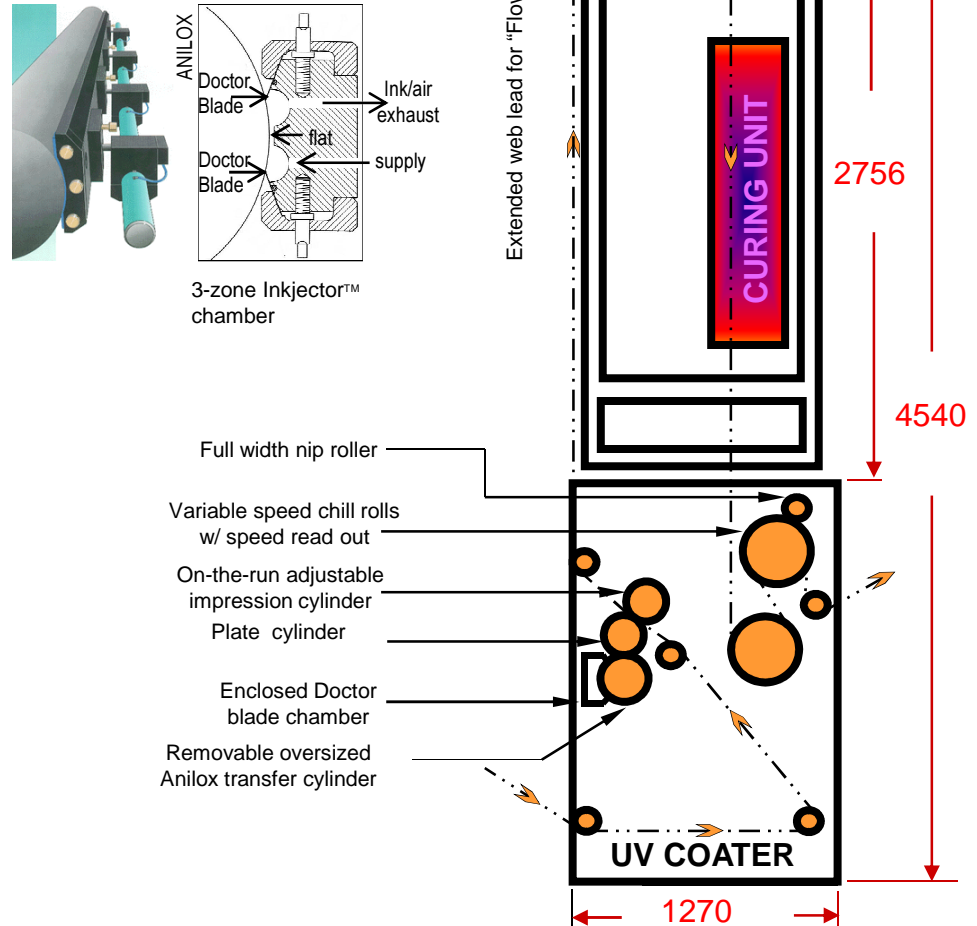
Removable laser etched ceramic over steel anilox, oversized.

Doctor Blade (Patented):

Enclosed loop. Three-chamber doctor blade assembly with programmable feed and return peristaltic circulation pump.

Note: Unlike other enclosed systems, this unique device is designed to prevent foaming, due to the presence of air residue in the gravure cells, by having a "flat" located in the cavity center that helps in driving the air out and change significantly the performance of a properly engraved cylinder.

The streaming fluid becomes linear across the "flat" opposed to circular / turbulent movement. The now linear and pressurized fluid stream accelerates in flow velocity. As the velocity and the hydraulic pressure increase, they drive the fluid into the cell and draw the remaining air out of the cell by means of Venturi effect.





HIGH SPEED- FLEXUV COATER

Chill Rolls:

- Two 10-inch (254mm) diameter water cooled rolls with double shell spiral wrapped
- Variable speed with full width on-the-run adjustable nip roller with \pm speed readout

Web Lead:

Extended web lead from point of print to UV curing for longer "Flow Out" time

UV Curing System:

- **Six lamp system housing**
- Air cooled, shutter controlled, 400watt lamp cartridge @ 250fpm cure speed each
- Membrane master PLC control panel, 3 powers level
- Lamp transformer cabinet
- Thermostatically balanced, individually air cooled lamp housing exhaust system
- Allen Bradley "Contrologic" PLC control system
- Exhaust blower

Press interface and auto-control management:

- Required signal from the press are 5%, 10%, 20%
- Once lamps are at operating temperature, shutters open at 10% of press speed and chills are turned on.
- ON/OFF Auto-Impression is set for \pm 20% of press speed.
- "E" Stop, all system goes off instantaneously.
- Status alarm screens read: UV level, clutch, impression, doctor blade, shutters etc..

Required spares consumable:

- 6 UV lamps, 1 imperial tool kit, 4 sets of replacement doctor blade housing

Listed as optional:

Web-up platforms, ladders, handrails, UV positive pressure air filtration system, and automatic cut-off control

By GOSS:

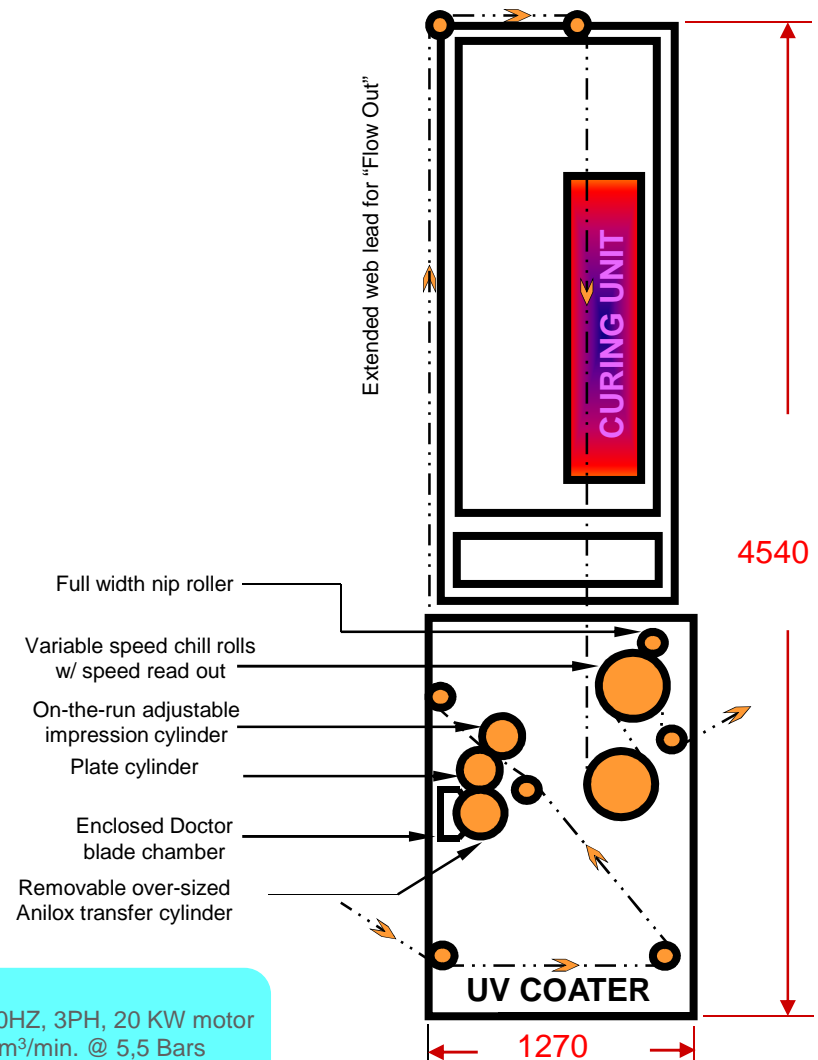
(1) Main drive motor (20KW), (4) press stations, (2) web severers & (3) web break detectors

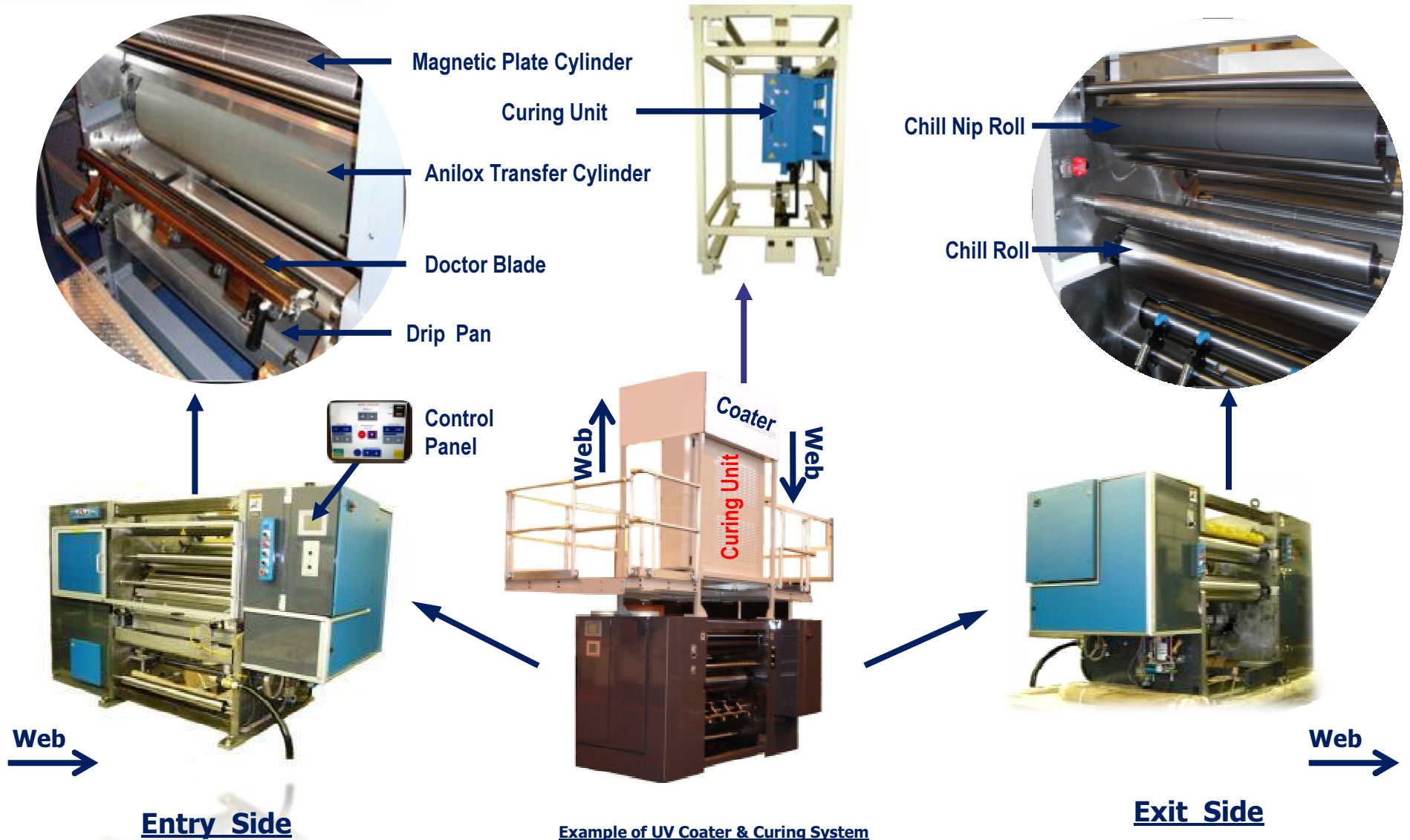
Specifications:

- Recommended for Maximum production speed of 50,000IPH
- Designed for maximum web width of 965mm
- Paper weight $\text{g/m}^2 = 74 - 148$ coated stock

Requirements:

Electrical = 400VAC, 50HZ, 3PH, 20 KW motor
Air (controls) = 0,0224 m^3/min . @ 5,5 Bars
Chilled water = 113 LPM @ 60°C
Weight = 6000KG







HIGH SPEED- FLEXUV COATER

◀◀ MAIN



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