

## **XDI – Xtreme Digital Imaging**

XDI is a gravure ceramic cylinder. These cylinders can be engraved with a variety of graphic images, patterns, logos, text or cells. Similarly to the current technology that enables the possibility of engraving graphics directly into polymer, digital graphics software and laser technology is now available to enable engraving directly into proven durable ceramic surfaces. Harper has consistently manufactured ceramic anilox rolls for the Flexographic industry with hardness levels above 1200 vickers and with coating density of more than 99%. Ceramic cylinders have a homogenous coating with the same density through it's entire thickness. Each cylinder undergoes proprietary surface finishing based on the final end product use. Through extensive testing we have the ability to achieve surface at varying levels necessary to maintain minimal hazing.

XDI ceramic cylinders can have a variety of patterns and volumes on the same cylinders. This is possible due to the process of digitally creating the patterns or graphics via computer software prior to engraving. Combining the process of creating digital files with laser engraving technology along with proprietary finishing process has resulted in a product that greatly contributes to improvements in the bottom line.

Durability of the ceramic cylinders with engravings to specifications that fits customers' needs results in consistent lay-down of product for longer periods of time during a press run. In some cases the durability has also enabled the ability to increase press speeds, resulting in improvements in production output.

Transitioning to ceramic gravure cylinders does involve adjustment to the press setup; specifically the dr. blade and dr. blade angles will more than likely have to be different, ink formulation adjustments might need to be made, and cleaning practices will need to be altered. Care and maintenance is a critical part of maximizing the benefits ceramic gravure cylinders. It's important to stress that ceramic gravure cylinder do require immediate cleaning attention after each use. Cleaning practices will need to be adjusted accordingly.

XDI cylinders can be a good fit and bring great benefits based on your needs provided you are ready to make the necessary adjustments.

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