



Anilox Rollers and Sleeves

Quality always, safety first



Glue and collecting rollers for the production of laminated cardboard

High quality and easy to use. Precision cylinders for the glue unit that ensure stable and repeatable glue transfer. The durable ceramic coating based on chromium oxide (Cr_2O_3) and the metallic coating based on tungsten carbide (WC) ensure a longer service life and save glue consumption. The ink cells structures engraved directly with laser light make it possible to individually adapt the dosing cylinder to the customer's needs - all this is provided by the Global Flexo glue roller.

Global Flexo adhesive units, technical specifications:

GLUE CYLINDER WITH METAL COATING

- new bodies in accordance with the machine manufacturer's specifications;
- regeneration services, restoring the nominal diameter in the AST surfacing process;
- high mechanical and chemical strength of ceramic working coatings (high hardness > 1,100 HV and low porosity < 2.0%);
- standard NiCr coating and sealing to protect against corrosion to further extend the service life;
- manufacturing tolerance T.I.R. < 10 μm .

COLLECTING CYLINDER WITH CERAMIC COATING

- new bodies in accordance with the machine manufacturer's specifications;
- regeneration services, restoring the nominal diameter in the AST surfacing process;
- high mechanical and chemical resistance of metallic working coatings (high hardness > 1,400 HV and low porosity < 2.0%);
- dedicated open structures, shaped in the direct engraving process, better process efficiency and better cleaning;
- standard NiCr coating and sealing to protect against corrosion to further extend the service life;

The role played by Global Flexo cylinders:

Advantages:

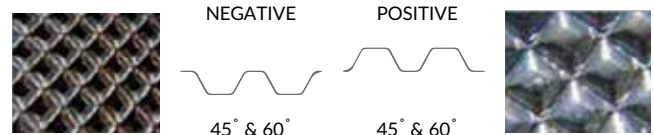
- Stable process for high machine speeds;
- glue's savings;
- stable, even and repeatable glue transfer;
- low tolerances T.I.R. & O.D.;
- longer life service.

Eliminate and limit:

- corrosion and peeling of galvanic chrome coatings;
- risk of formation, elimination of peripheral scratches;
- bending and boating of the cylinder.

The capacity of the anilox structure of the glue roller is becoming more and more important for the proper operation of the glue unit.

Negative and positive structures of ink pots

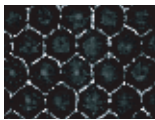
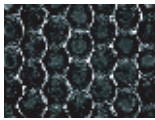






Innovative working coatings – CARBILOX

Carbide-based metallic coatings, applied in the HVOF / HVAF supersonic metallization process, ensure:

- greater mechanical strength, thanks to higher microporosity (> 1,400 Hv) and higher adhesion strength to the substrate, while maintaining quite good flexibility, which in turn minimizes the risk of peripheral scratches and edge damage during everyday use of tools in production;
- higher ink transfer by reducing porosity (< 0.5%) in combination with a high-energy and short-pulse direct laser engraving process;
- high work safety, through the conductivity value in accordance with the ATEX 95 directive of the European Parliament, specifying the requirements for ensuring safety and protection of people against explosions in spaces where such a risk exists;
- compliant requirements for the approval of plastic materials and products intended for food-contact in accordance with current regulations of the European Commission;
- low value of the contact angle at the phase boundary, and therefore even higher actual ink transfer and less complicated cleaning process, and consequently less interference in the environment by limiting the chemicals used;
- possibility of regeneration of old tools, regardless of the working coating placed on them, through full energy control of the process of applying new material for a new working coating.

Ink cells standard structures

Microscopic photo	Description	Advantages
 	<p>Universal Standard Class multi purpose hexagonal structure applications and any twist angle (standard 30 and 60 degrees), optimal for ink cells liniatures from 40 to 600 l/cm.</p>	<ul style="list-style-type: none"> • A reliable, fully predictable structure in use for many years. • Wide range of liniatures from 40 to 600 lines per centimeter. • Precise and uniform ink transfer. • High efficiency of the printing process. • Easy cleaning process of the raster coating. • Possibility of opening the ink cells to improve the uniformity of transferred high-viscosity inks.
 	<p>Hybrid Class structure of ink cells allows for increased liniatures Printing plate with guarantee of high optical density. Perfect for applications in combined printing: plain surfaces, small text, raster elements.</p>	<ul style="list-style-type: none"> • Precise and uniform transfer. • Wide range of liniatures from 40 to 600 lines per centimeter. • Simplified cleaning process and longer service life. • Higher optical density for the same liniature.
 	<p>Open structures – flow Snake i Uni Line for many applications depending on the size of engraving geometry. It works well in printing on paper substrates using water-based inks.</p> <p>It comes in four basic variants:</p> <ul style="list-style-type: none"> + „Uni-Line” – to be used use with adhesives, varnishes and color printing + „Uni-Line TOP” – to be used with high-quality inks viscosity (for example, in so-called dry offset) + „Uni-Line Pack” to be used with high-gloss varnishes + „Uni-Line White” – to be used for high-quality piles and for whites with high opacity 	<ul style="list-style-type: none"> • Precise and uniform transfer. • A clean printing form, thus better efficiency of the printing process. • Easy cleaning process of the raster coating. • High optical density. • Limitin „the ghost” effect.

We have the latest Twin Track engraving technology from Applied Laser Engineering Ltd, thanks to which we are able to meet the individual requirements of a specific printing process, both in terms of modeling dedicated ink cells structures and increasing the ink capacity in terms of specific rulings for generally available structures.

Dedicated ink pot structures for special applications:

Glitter and pearl paints/varnishes - Inks with pigments with large particles, such as glitter, pearl and metallic, require a large ink capacity and proper flow of the paint between the ink pots and the engraved geometry of the dosing coating. **Structure proposal:** Hybrid Class Long lub Uni Line TOP. **Liniature proposal and ink volume:** 30-60 l/cm; 20-60 cm³/m².

Tactile and structural varnish - This application was traditionally done using screen printing. Advances in anilox and coating technology have now opened the door to this flexographic printing application. The goal is to apply the perfect amount of coating to provide a tactile experience. **Structure proposal:** High Standard Class with Twin Track technology. **Liniature proposal and ink volume:** 30-60 l/cm; 20-60 cm³/m².

Soft touch varnish - Soft touch varnish creates an extremely smooth and subtle texture that resembles velvet to the touch. **Structure proposal:** Hybrid Class Long. **Liniature proposal and ink volume:** 60-100 l/cm; 15-20 cm³/m².

Metallic inks - In order to obtain maximum gloss, the metallic flakes contained in the paint pigment must be distributed evenly and flat on the surface of the printed layer. The choice of anilox engraving must be appropriate to the type of pigment used in the paint, but open and flow structures work best. **Structure proposal:** Uni Line TOP. **Liniature proposal and ink volume:** 40-80 l/cm; 20-27 cm³/m².



ABOUT US



GLOBAL Flexo is the only Polish and one of the few in the world manufacturer of advanced tools for the printing industry. High quality services and technical support are provided by management staff with over 20 years of professional experience. The dynamically developing company is a supplier of services and products to customers from all over the world. The plant producing sleeves and dosing cylinders, modernized in 2019, is equipped with the latest devices for metallization, processing and, above all, shaping of working coatings in the process of direct engraving with laser light. The research and development department, in constant cooperation with scientific institutions, guarantees the development of technological ideas and ensures smooth implementation of developed technical solutions for sale.

www.globalflexo.pl

GLOBAL Flexo Sp. z o.o.
phone: +48 82 561 11 50
e-mail: biuro@globalflexo.pl

Manufacturing plant:
PL 22-174 Brzeźno
Brzeźno 39, Poland

