

# Operation, construction and application of ultrasonic anilox rollers washer.









#### The principles of ultrasonic cleaning

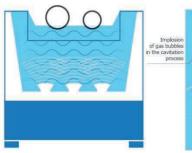
#### Cleaning anilox rolls using ultrasonic cleaners.

How does it work?



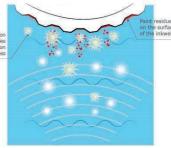
Anilox rolls in a bath with a professional -grade cleaning agent are subjected to ultrasonic waves Cleaning with a shock wave that does not cause mechanical damage to the surface of the anilox rolls.

What frequency should you choose for effective cleaning of the anilox rolls used by your printing house?



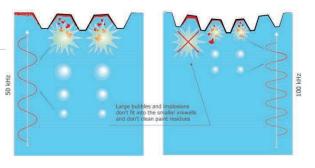
An electronic generator produces electric vibrations that are converted to ultrasounds in a piezoelectric transducer.

Ultrasounds are sound waves with frequencies above 16 kHz, inaudible to the human ear. They cause acoustic wind, radiation pressure and cavitation process in liquids



Cavitation involves the formation of very small vacuum bubbles in the liquid, their pulsation and implosion, resulting in a local pressure of up to several thousand bars.

In one cubic centimeter, millions of shock waves are created in 1 second, which causes the removal of dirt particles attached to the surface. The acoustic wind causes mixing of the liquid.



If a screen ruling is less than 300L/CM, we choose a frequency of 50 kHz.

Lower frequencies prolong the process of the formation of larger bubbles, the implosion of which provides for a better cleaning of larger ink fountains of anilox rolls.

If a screen ruling is above 300L/CM, we choose a frequency of 100 kHz.

Higher frequencies shorten the process of the formation of smaller bubbles, which are more numerous, and whose implosions provide for a better and more thorough cleaning of smaller ink fountains of anilox rolls.





### Ultrasonic anilox roller cleaning machine construction

- Washing and rinsing tanks
- Easy to operate pannel
- Ultrasonic transducers and generators
- Anilox roller support adjustment
- Cover
- Mechanical roller rotation
- Control panel
- Filtration system
- Dual operating frequency 50/100 kHz







#### **Custommade**

#### **Individually designed anilox washer**



yes, we care!

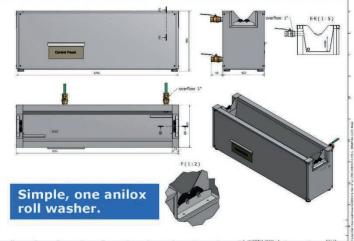
Quick, safe and very easy2use.

Cost-efficient washing system.

High precision cleaning results.

To configure your anilox ultrasonic cleaner we need detailed information:

- how many section you need in the machine;
- technical drawing of your anilox roll or anilox sleev;
- single or dual frequency? 50/100kHz.







#### Step by step cleaning process

- Prepare washing liquid
- Set up the appropriate width of the roller wash
- Degas the bath
- Set the required temperature (40-45 °C)
- Place the rolls in the washer
- Set frequency of washing 50/100kHz
- Set time of roller washing (25-30 minutes)
- Cooldown and rinse the roller in the washing section
- Wipe the anilox with a dust-free cloth
- Switch on bypass filtration (if equipped)







The gentle and deep cleaning process leaves the rolls perfectly clean and ready to reuse.









### 2 Definitely less chemicals

You use only 40% of the chemicals

QUICKER U device with a built-in liquid circulation
systems that allows re-use of the liquids.

40%







A complete cleaning cycle takes no longer than 25 minutes.









- 4 Reduced water consumption
- Up to 80% lower water consumption.







Cleaning machine is designed to work with all types of inks.









### 6 Reduce

Zero chance of damaging anilox roll, what often happens during manual cleaning.





## 7 Reduced environmental impact

Less water, less energy, less chemicals, lower disposal costs. The process in 100% safe to the operator.









8 The optimal solution

Custom-made machine will meet the needs of your printing house.







Simple installation, trouble-free operation, reliable and fully safe for the environment.









10 Proven effectiveness

Regular measurement of anilox rolls with the

Troika AniCam proves 100% cleaning efficiency.

You are guaranteed high and repeatable print quality.

