

Stronger.
More flexible.
More productive.

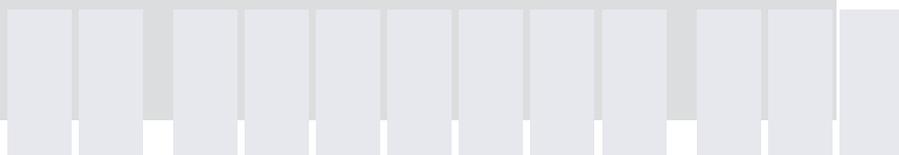
LEIBLINGER

12

LENServo



... welcome
to the 12th dimension.



A power play in banknote
and security printing.

LENservo

12

The **LENservo12** from Leibinger is a digital, servomotor-driven numbering system consisting of 12 number and letter wheels. Mounted on printing cylinders, it features a top speed of 80,000 revolutions per minute and can, for example, mark up to 12,000 banknotes per hour, automatically setting a new security code every 80 milliseconds.



LENservo

Benefit from a numbering system that converts twelve number and letter wheels in fractions of a second.



→ 01

Planning and producing

The LENServo12 fulfills the requirements of many security printing companies, which use a 12-digit code – consisting of up to 12 letters and or figures – as a security feature, for example, on banknotes, passports, lottery tickets, waybills or insurance papers. The electronic numbering system combines well-known Leibinger attributes such as robustness, reliability and precision with maximum flexibility and production efficiency. Whereas mechanical numbering machines are linked to forward or backward counting, the LENServo12's numbering sequences can be programmed entirely freely thanks to the servomotor drive.

→ 02

Performance and quality



The use of ideally sized servomotors that are more powerful than ever, in conjunction with state-of-the-art control electronics,

maximizes both performance and efficiency. Moreover, the motors were designed to work more quickly than standard printing machines to ensure that the LENServo12 will never lead to production bottlenecks in the future. Another plus is that, in spite of their enormous power delivery, the new drives, like all Leibinger numbering systems, only produce low operating temperatures, which makes a fan entirely unnecessary.

→ 03

Simple and efficient

With the LENServo12, printed sheets move to the finishing line much more quickly – and new numbers can be digitally assigned in milliseconds. After numbering, the banknotes no longer need to go through lengthy collection, but can proceed directly to further processing. And since the number of moving parts has been reduced to a minimum, and vulnerable components such as gears or electronic contacts have been entirely eliminated, the potential sources of error have also been reduced. A key requisite for the LENServo12's ability to reliably meet the high demands of a three-shift operation.

→ 04

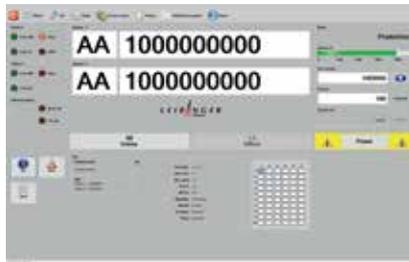
Practical and flexible

To ensure 100% correct letter and number sequencing, the LENServo12 is equipped with encoders on the servomotors. Additionally, Leibinger makes use of a globally unique feature – developed in house – which controls switching of the mechanical wheels using magnets, in order to shut off the numbering on the printing machine, before an incorrect security code can be printed. In the case of purely camera-based monitoring, a complete printed sheet would have to be written off. We can also support those who may wish to consistently prevent such losses with special material coating combinations for number and letter wheels. These meet even more stringent requirements in terms of pressure life or resistance to wear in the case of highly abrasive printing inks.

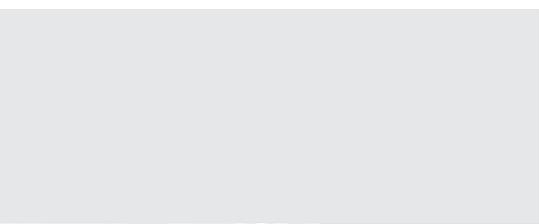
LENservo ¹²

Now with 12 motor-driven number and letter wheels.

The new LENservo12 can print banknotes with a minimum size of 112 x 60 mm with security codes of up to 32 mm in length, or banknotes with a minimum size of 120 x 60 mm with security codes of up to 38 mm in length. All you need to do is enter the output number on the touchscreen, and the numbering system starts in numbering sequences that you can program freely.



→ Up to **12,000** banknotes per hour



Straight to the point faster

Automation minimizes set-up effort with adjusting pins and increases your throughput.

Top performance in series



Whether in sheet-fed or web presses, the LENservo12 ensures brilliant results. Exceptionally reliable in three-shift operation.



100 % stable

Skip control via encoders on the servomotors and magnets on the mechanical wheels guarantee jerk-free printing.

Uniquely reliable

German engineering and a two-year warranty – definitely a sound decision.

Made in Germany



Good, better, best

To achieve optimum productivity and reliability with numbering systems, you need more than just as many servomotors as possible. The perfect interplay of all components makes all the difference.

Expertise and brand quality
around the globe.

Numbering machines and systems from Leibinger are known for their outstanding quality and reliability in banknote and security printing companies around the world – and have been since 1948. When manufacturing our high-precision “made in Germany” solutions, we make sure that the interaction of springs, retaining pawls, axes, number wheels, housings and drive mechanisms – including the engraving – is guaranteed for several millions of numbering operations.

80,000

revolutions per minute



A new security code
in just

80

milliseconds



After 70 years of our being on the market, banknotes encoded with Leibinger numbering machines are in circulation in infinite numbers – around the world.



95

percent of components
are manufactured
in Tuttlingen,
Germany

LEIBINGER

As compact as always,
yet 12 times automatic.

LENservo¹²

In spite of cashless payment systems, banknotes are still in great demand. They are a small miracle of security technology – thanks to increasingly sophisticated visually or tactile recognizable features, as well as properties that cannot be identified without tools. The key characteristics that make counterfeiting difficult and support verification have always been number and letter combinations. The challenge is that, every time the press is rotated, the numbering machines need to set a new security code before inking. With the LENservo12, this is done in just 80 milliseconds for 12 number and letter wheels. And not chronologically, but in completely free numbering sequences.

LENservo



Can be used for all conceivable sequences and check digit systems.

→ 01 High-tech made in Germany

Decades of experience and expertise in numbering technology have gone into the LENservo12. The system was entirely developed and manufactured in Germany, which can be seen in the robust number and letter wheels, as well as the high-quality stainless steel housing. State-of-the-art hardware and software make this machine a top performer in banknote and security printing.

→ 02 Hand in hand with production

The large variety of machine-specific interfaces and compact installation dimensions allow you to integrate the LENservo12 into all printing solutions relevant to security printing. Depending on the layout, 12 freely programmable plus additional manually adjustable number/letter wheels are available to you. Starting numbers do not need to be set manually and resetting after press stops is not necessary.



→ 03 Everything under perfect control

The LENservo 12's control unit is located outside the numbering system and communicates over a slipper unit, using the unique interface developed by Leibinger. The user-friendly control panel with a Windows-based touchscreen provides easy access to all relevant information. Fully customizable, it can be deployed for job and user management – including production logs, error notification and management reports.



→ 04 Wheel changing in < 90 seconds

Maintaining and replacing numbers and letter wheels are much easier than with conventional systems. Modular in design, the LENservo12 allows easy separation of mechanics and electronics. Thanks to a patented folding mechanism, you can open the numbering machine in just a few easy steps, and remove and clean the complete wheel set – while the electronic parts remain in the housing.



At home
the world over.

12
LENservo



**International
expertise**

More than 150 dealers around the world specialize in continuous inkjet printers, numbering machines and camera verification systems from Leibinger.

**A consistent
customer orientation**

Thanks to this extensive worldwide dealer network, Leibinger offers you personalized advice and flawless service. No ifs and buts. And for the entire service life of your machine.

**Partnership
at its best**

Leibinger will be happy to provide you directly with customized product solutions, as well as standard solutions and original brand-quality replacement parts.

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