KONICA MINOLTA

DIGITAL HIGH-SPEED LASER CUTTER
RETHINK EFFICIENCY

MOTIONCUTTER®
DIGITAL HIGH-SPEED LASER SYSTEM

Giving Shape to Ideas

UNIQUE SYSTEM FOR CREATIVE APPLICATIONS
RETHINK INNOVATION

Enhance your finishing versatility and extend your range of creative print offerings with the MOTIONCUTTER® digital high-speed laser cutter. The ingenious MOTIONCUTTER® can cut, kiss cut, engrave, crease and (micro)perforate – and with all of these functions it can also personalize, utilizing the NAMECUT® feature. Konica Minolta has partnered with MOTIONCUTTER® to offer this versatile accessory as an attractive functionality enhancement to Konica Minolta portfolio on industrial printing market.

The idea of the MOTIONCUTTER® first became reality in 2015 – the solution was developed with a practical approach based on the hands-on experience of a printer and user. It took several years of development efforts to finetune the six different MOTIONCUTTER® applications that are supported by various patents and have since met with a lot of professional interest.

THE MOTIONCUTTER® PRINCIPLE

The MOTIONCUTTER® principle is as simple as it is ingenious: The sheets, printed or plain, are delivered through a stack feeder and moved onto a special conveyor belt that passes through the system. Positioned above the belt, the mirror laser follows the movement of the sheet and cuts the desired shape while in motion. With a guaranteed output of 600-watt laser power (nominal 450-watt laser bulb) deflected precisely by one of the fastest mirror systems, even complex jobs are processed at highest speed. Another boost to productivity, the different MOTIONCUTTER® functions can run simultaneously for each sheet – all together in one pass.

THE MOTIONCUTTER® APP

The intuitive MOTIONCUTTER® App drives the whole system needing just a few touches: Via the 24" touch panel, the operator can easily control all processes. Job files are imported through hot folders and, matched with a corresponding format template and paper profile template, a job can be executed instantly.

THE MOTIONCUTTER® AUTOMATION SUITE

The MOTIONCUTTER® App keeps complex processes simple and is easy to use, even in the Automatic Mode with Workflow System Integration. Once this connection is set, the operator starts the system with the tip of his finger. A barcode reader then triggers every sheet in the feeder and loads the matching job file. Through an XML file from the Workflow System, the MOTIONCUTTER® App is configured; every sheet can be a different job file using a different substrate. Once a job is processed, an XML report is delivered in real time. Offering 100% production control, the Automation Suite turns MOTIONCUTTER® into a self-running system.

ALL IN ONE PASS
RETHINK VALUE

MOTIONCUTTER® offers six different functions that can be used individually or in any conceivable combination. They can even all run simultaneously for each sheet – adding up to virtually unlimited possibilities.

CUT

The range of possibilities is infinite and goes from simple technical cuts to complex filigree ornaments.

KISS CUT

Precise laser control allows to cut only the first layer of an adhesive without marking the back paper.

ENGRAVE

Remove print and coatings to create stunning visual effects. Use on thicker materials to make them stand out and come alive.

CREASE

Keep the integrity of your print as the laser creases don't break the paper fibres on folding. Excellent for prototyping or even long runs.

PERFORATE

From micro-perforation up to holding points: Choose the perforation that suits your substrate and your requirements.

NAMECUT®

Cut names or any other personalized data from a CSV file or QR code and reach people in a very personal and emotional way.

Looking at the entire process, MOTIONCUTTER® streamlines the individual steps and provides a unique solution that delivers the finished product, separating it from the waste, to a shingling belt or, for instance, inline to your packing line. The software is integrated – highly flexible and economical.

MOTIONCUTTER® has low operating costs, needs almost no downtime for maintenance, and features a design for 24/7 use that is based on high-quality components of well-known suppliers.

10 GOOD REASONS FOR MOTIONCUTTER

1. INCREASE YOUR SCOPE WITH THE MOTIONCUTTER®

Say yes to new customers and creative jobs that give a boost to profitability!

2. AMAZINGLY CREATIVE APPLICATIONS

Impress your customers with new, inspiring print offerings, whether customized product packaging, clever display materials, or else … anything is possible!

3. ONE-OF-A-KIND TECHNOLOGY

Shapes are cut with the mirror laser in motion, following the movement of the sheet.

4. HIGHLY EFFICIENT LABEL PRODUCTION

Only cut labels, not their backing – thanks to the MOTIONCUTTER® Kiss Cut feature with precise laser control.

5. VDP WITH A TWIST

Produce personalized output with a unique touch with MOTIONCUTTER's patented NAMECUT® feature.

6. UNLIMITED MEDIA PROCESSING

Feed virtually any specialist media for enhanced applications and a boost to creativity!

7. INTUITIVE, SUPER-EASY OPERATION

Thanks to the intelligent MOTIONCUTTER® App and 24'' touch screen.

8. 100% PRODUCTION CONTROL

Turn the MOTIONCUTTER® into a self-running system, with the MOTIONCUTTER® App and Automation Suite.

9. FLEXIBLY SCALABLE DESIGN

Start with the stand-alone MOTIONCUTTER® and later extend and enhance your functionality and convenience, as and when your customers' demand for new applications increases

10. EXCELLENT ROI

MOTIONCUTTER® impresses with low operating costs, almost no downtime for maintenance, and a 24/7 German design using high-quality components – all adding up to a fantastic and fast return on investment.

TECHNICAL SPECIFICATIONS

PILE FEEDER 20

Min. paper dimension 210 x 297 mm (A4) Max. paper dimension 530 x 750 mm (Can be extended to 1,000 mm length)

Max. pile height approx. 600 mm

Paper thickness 80–500 gsm (depending on the volume)

Double sheet control

Alignment bridge

Control integrated

PILE FEEDER 23

Min. paper dimension 210 x 297 mm (A4) Max. paper dimension 585 x 1,000 mm

Max. pile height approx. 600 mm

Paper thickness 80–500 gsm (depending on the volume)

Double sheet control

Alignment bridge

Control integrated

CABINET

Safety standard IEC 60825-1:200, Class 1 laser system

Movable with pallet truck

4 leveling feet

Coverings powder coated with poly-carbonate windows

Front window as automated lift door, 2-channel integrated in safety circuit

Fixed built in laser head

Fixed built in turbo fan system for smoke/dust extraction above and below the conveyor belt; max. suction power approx. 3,500 m^3/h

External connections for suction hose

Screwed on 24" Touch-PC

BELT SYSTEM

Belt System removable to the left side of the machine

Patented metal mesh belt, endlessly welded

Belt Speed continuously adjustable from 0-45 m/min.

Dynamic tolerance ± 0,2 mm

Axial fans for vacuum generation

Max. infeed width 585 mm

CLEANING STATION

Cleaning station with sponge roller for automated belt cleaning

Sponge roller easy to change

Reservoir and tank with circulating pump, approx. 35 liters filling capacity, water level sensor-controlled

Control integrated

Remote maintenance

LASER HEAD

Safety standard IEC 60825-1:200

Class 4 laser bulb

Wavelength 10,6 µm

nominal 450 Watt CO_2 sealed-off laser source / guaranteed output 600 Watt

Puls frequence 0,01–100 kHz

Closed water cooling circuit with external chiller

50 mm deflection mirrors for small spot size approx. 220 µm

3 Axis (X-, Y-, Z-Axis) with dynamic beam expander

max. deflection speed 11,000 mm/s.

expected life time approx. 15,000 operating hours

Physical working area 512 x 512 mm on 20" and 580 x 580 mm on 23" version

Dynamic tolerance ± 0,2 mm

Remote maintenance

SOFTWARE

Operating System Windows 10 Enterprise

MOTIONCUTTER® App Version 2.1 unlimited

8 different laser functions in one job

Linestyle function for free editing of perforations of any kind

NAMECUT® function for personalization out of a CSV-file (optionally QR-code)

Import of .svg-files including embedded pictures and fonts

Hotfolder-Workflow

Prepare jobs and create job lists

Save paper profiles

Save complete job data with all parameters

HIGHEST EFFICIENCY WITH ADDITIONAL OPTIONS
RETHINK PRODUCTIVITY

AUTOMATION SUITE (OPTIONAL)

Job recognition by barcode reading

Transfer of job settings in file name or XML out of a workflow system

Transfer of XML job reportings

Automated job file handling

NAMECUT® function for personalization out of a printed QR-code

100% production control and automation on every sheet!

POSITION SENSOR (OPTIONAL)

Optical positioning system for on-the-fly correction of X-/Y-Position of the laser processing lines to the print

Reading one centered mark at the beginning of the sheet

Software controlled

Easy traning and calibration routines

Remote maintenance

MANUAL WASTE SEPARATION (OPTIONAL)

Manually adjustable waste separation

Stripping system for mechanical separation between products and waste

Manual adjustment of the divider to the pattern on the sheet

Software controlled waste separation

Stripping system for fully automated separation between products and waste

Software controlled adjustment of the divider to the pattern on the sheet

Air blower zone to blow out small cut outs and for dedusting

Control integrated

Remote maintenance

SHINGLING BELT (OPTIONAL)

Software controlled belt delivery to take over laser cut products
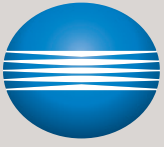
Dividing of jobs on the belt by adding feed distance

High capacity due to a length of 2,250 mm

Height adjustable

Remote maintenance