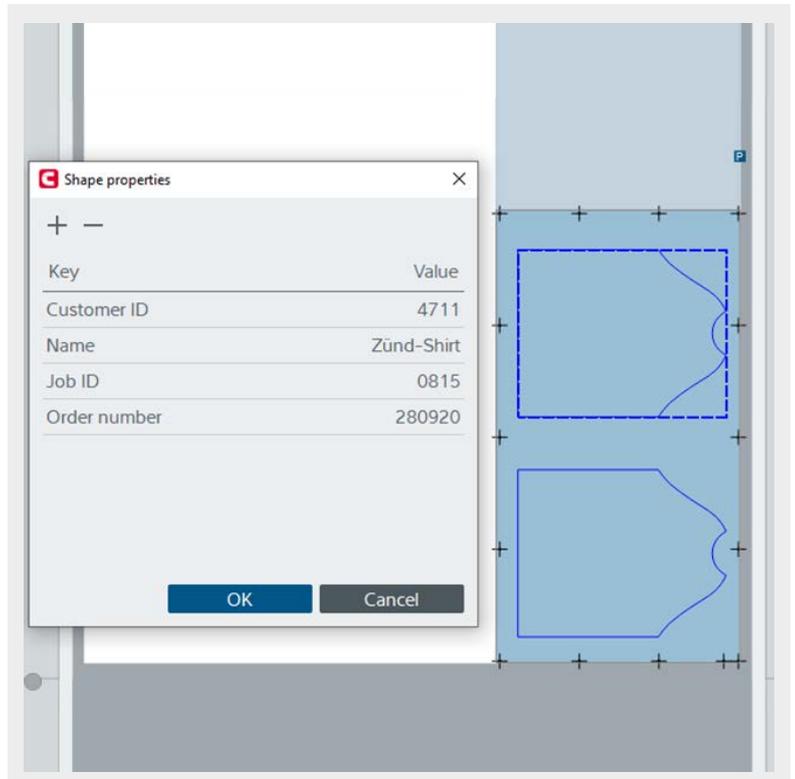


# Zünd Cut Center 3.3 (10-2020)

## Essential new features

### Metadata

ZCC files have been expanded to include metadata. Metadata is used to define e.g. cut parts associated with a particular set, kit, customer, order number, and so on. Metadata enables precise identification of individual parts, which also facilitates tracking, sorting, grouping, and stocking.



### Visualizing Option

This new option enables marking and identifying cut parts with an inkjet tool (Leibinger), projector, monitor, and labeling system. Metadata supplies all relevant data for these processes and makes identifying, sorting, and kitting much quicker and easier.



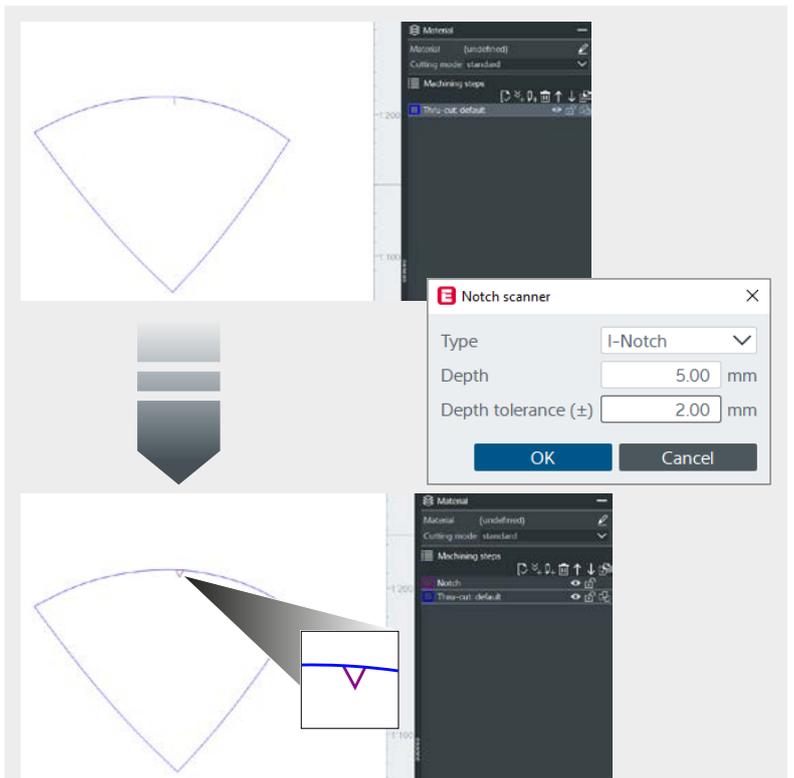
### Pick and Place Interface Option

This option connects Zünd Cut Center - ZCC through an existing user interface, Modbus TCP, with robotic automation for picking and placing. The robot receives commands for identifying the part that needs to be picked and removed next, and for placing it in a specified Location – a stack or box. Metadata supplies all necessary information for sorting, picking, stacking or boxing.



### Notch Scanner

There are many cut files containing notches merged to the cutline. To make sure the appropriate tool is used for this process (i.e. the Notching Marking Module - NMM), ZCC now gives users the option to extract I- and V-notches from the cut path. This reduces the time it takes to manually make these modifications and ensures more efficient processing with the NMM.



# Zünd Cut Center 3.2 (02-2019)

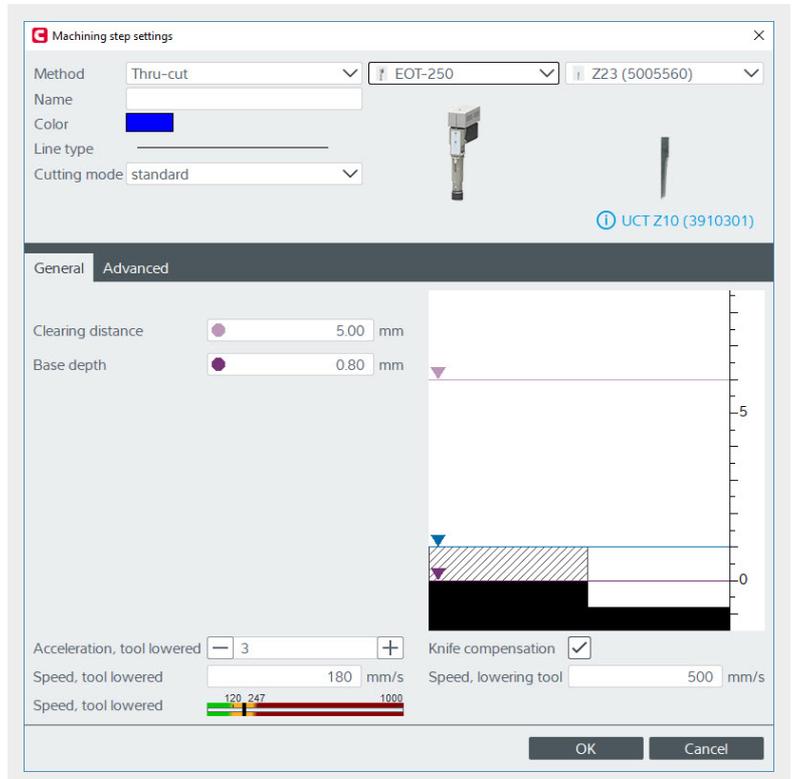
## Essential new features



### Help with oscillating tool settings

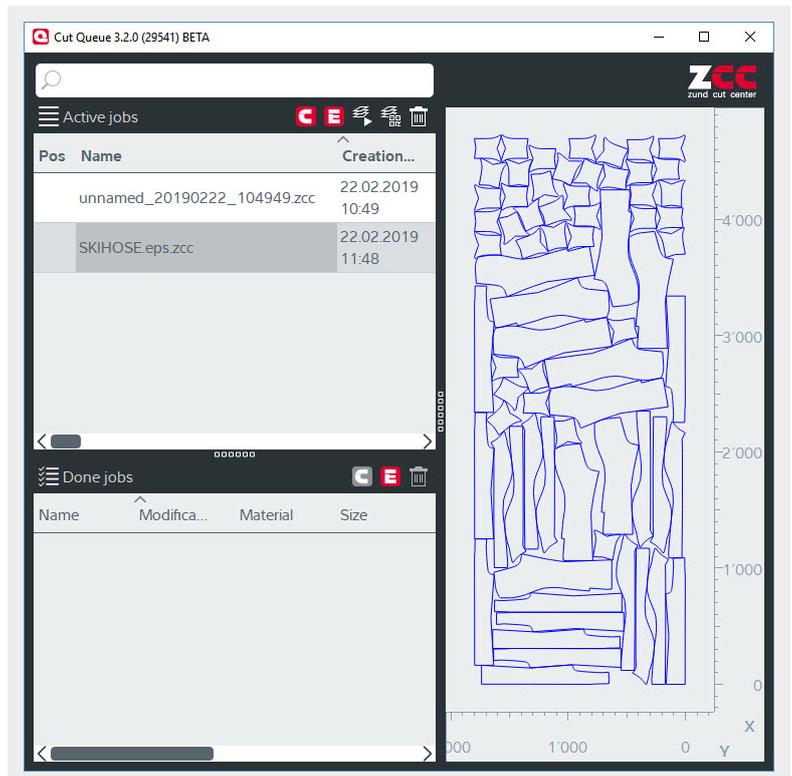
When using oscillating tools, it can be difficult to determine the right combination of cut speed and quality level. Incorrect combinations may cause the oscillating tool to perforate rather than cut properly.

A new, color-coded visual guide helps the user easily determine optimal speed and quality settings.



### Automatic nesting

Expanded nesting functions permit automatically nesting a set of parts during data import. For example, a DXF file containing parts to be cut can be saved to a hot folder from which they can be automatically nested and then sent to the Cut Queue.



### Nesting report now available in PDF

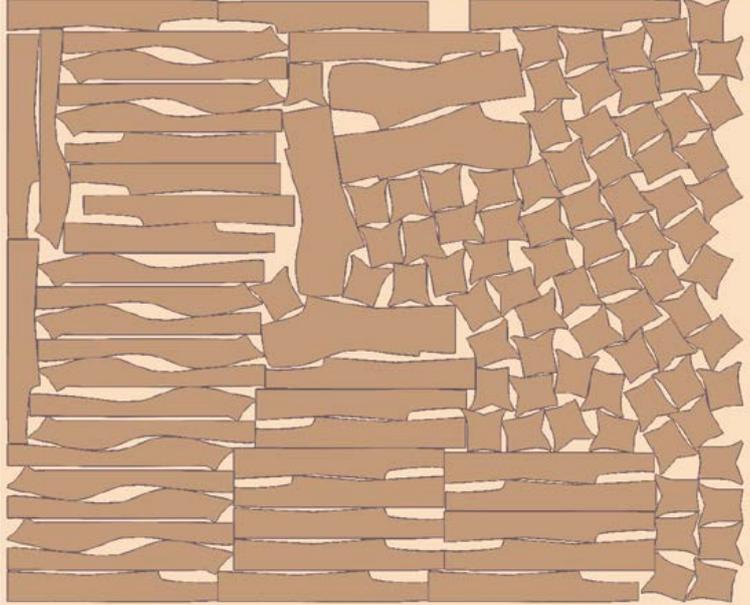
The nesting report can now be exported as a PDF file. It contains the marker layout, piece count, and the most relevant nesting data.



**Nesting Report**

Job: SKIHOSE.eps      Order ID:        
Nesting time: 22.02.2019 13:36      Efficiency: 89.73%

Time:	64 sec	Material:	Fabrics	Used length:	4 763.61mm
Shapes nested:	70/70	Material size:	unbounded / 1'800.00mm	Used pages:	1



# Zünd Cut Center 3.1 (06-2018)

## Essential new features

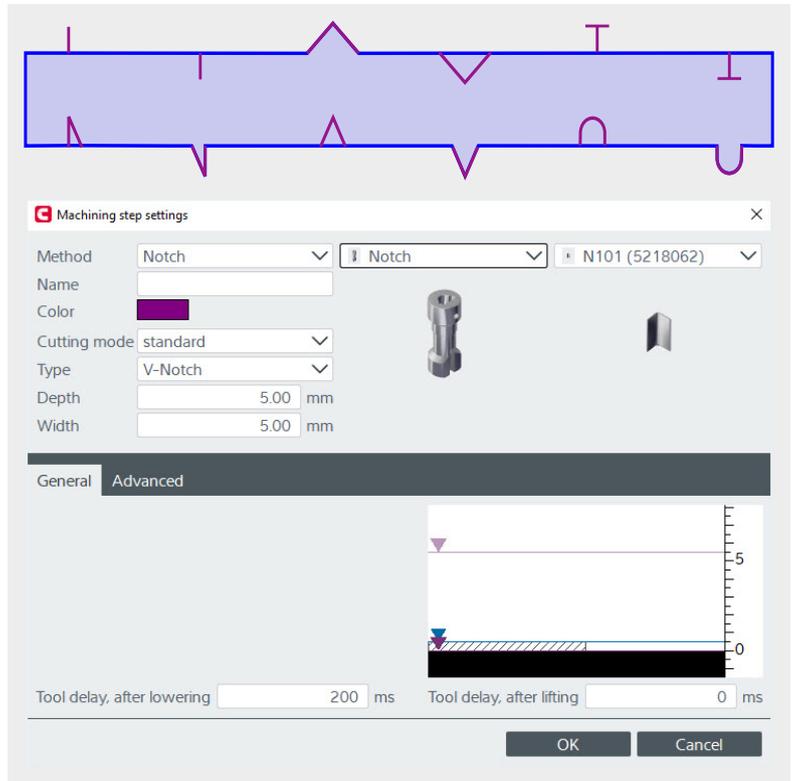


### New Notch processing method

ZCC 3.1 already supports the forthcoming Notch module – NMM. The new *Notch* processing method facilitates internal and external notches and includes the six types I, V, T, L, R and U. Each of the different notch types can be assigned individual dimensions.

The notches are created automatically when importing from AAMA, ASTM, and DXF files.

The Cut Editor also facilitates the manual creation, processing, and removal of notches.



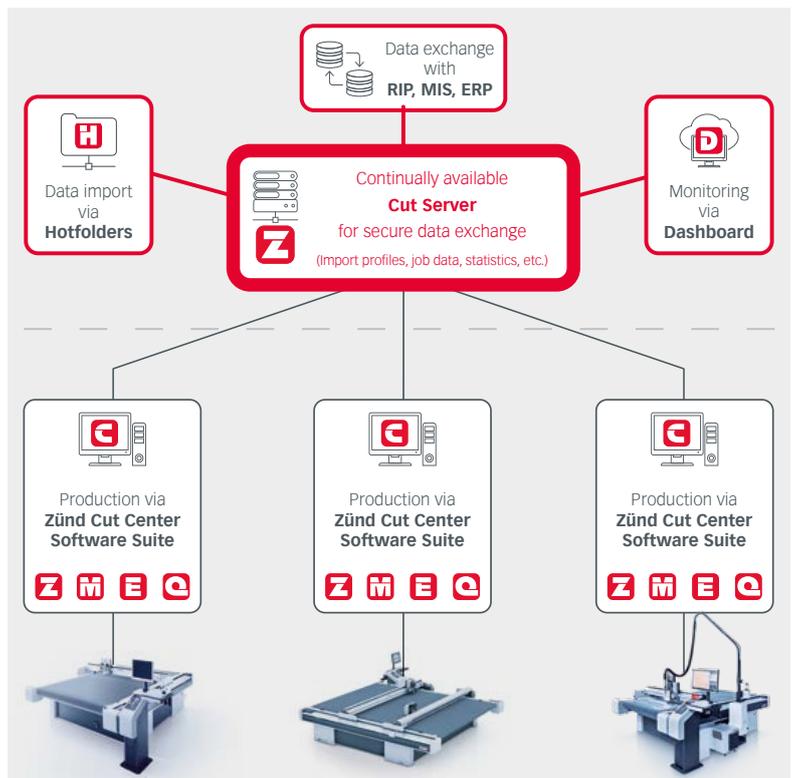
### Server only license

The *Server only* license allows for moving the automatic data import via hot folder as well as the dashboard server functions to a separate computer. This relieves the cutter's base computer and thus increases its performance.

The *Server only* license includes all functions of the basic license with the *Cut Queue* option, with the following exceptions:

- Process jobs (Cut Editor)
- Produce jobs (Cut Center)
- Barcode and batch production

The *Server only* functions can be executed within a virtualized computer, whereby the software license must be installed on a physical computer.



### Board Handling System 150

The ZCC now includes all job processes required for fully automatic board feeding and pickup with the BHS 150.

The "Barcode production" menu of the Cut Queue now also includes the "Board feeder 150" code reader. This detects QR codes already during feeding from the bottom of the material without interruption.



# Zünd Cut Center 3.0 (12-2017)

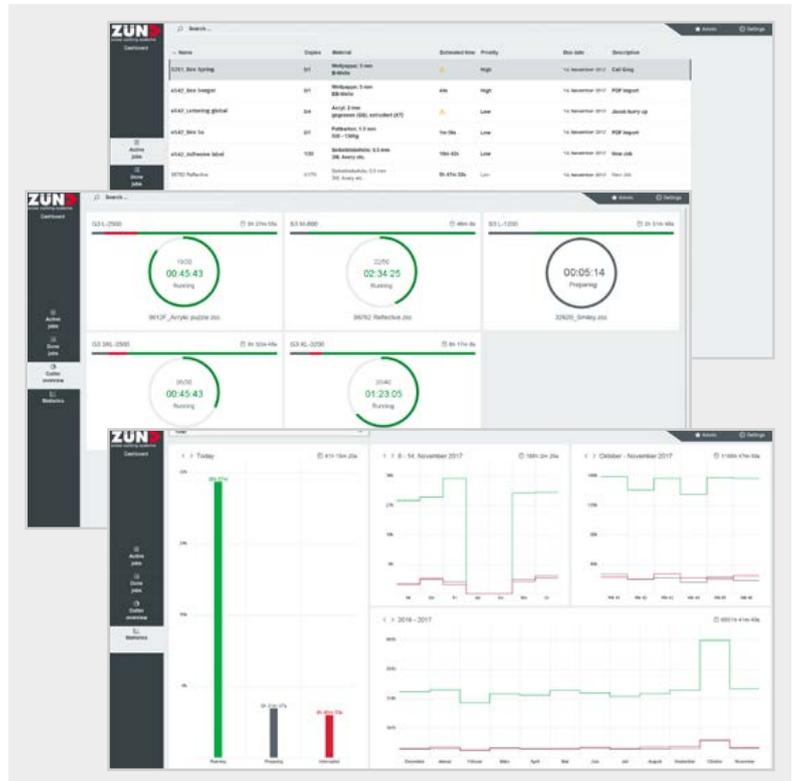
## Essential new features



### Dashboard

The dashboard gives area managers and production staff easy and secure remote access to relevant production data around the clock. It allows you to always keep an eye on the precise status of each order and utilization of your Zünd cutter.

The dashboard is a browser-based application and can thus be run on devices with different operating systems.



### Over Cutter Camera – OCC

The high-resolution camera above the working area detects all registration marks. It enables rapid and fully automatic detection of the registration points.





# Zünd Cut Center 2.7 (12-2016)

## Essential new features



### Paging with roll feed

In roll processing, material advances usually occur after everything on the table/in the cutting area has been completed. By selecting the paging function, the user can now make the system advance after each page. This facilitates off-loading cut pieces in jobs that are shorter than the maximum table length.



### Automatic export of job information

In Cut Manager, the user can choose to automatically export job information, such as total processing time and cut length, as XML or CSV file. This makes it even easier to gather and analyze production data.



Name	Date/time	Material	Size
3d werbetafel 16m...	16.07.2013 14:28:58	Corrugated sandwich; 16 mm; Honey...	545.068 x 997...
3D Werbetafel 16mm d...a-2.zcc	16.07.2013 14:28:58	Corrugated sandwich; 16 mm; Honey...	517.068 x 927...
3D Werbetafel 16mm d...a.zcc	16.07.2013 14:28:58	Corrugated sandwich; 16 mm; Honey...	517.068 x 911...
3d Test.pdf.zcc	16.07.2013 14:28:58	Wood; 16 mm; MDF - medium density fiberboard	12 x 12
3A_Logo_Outlines.e...	16.07.2013 14:28:58	Hardfoam; 25 mm; Gatorfoam <35kg/m3	800 x 800
2xstool_wood1 519...8956.zcc	16.07.2013 14:28:58	Corrugated sandwich; 10 mm; Weben...	874.250 x 946...
2C_Plotdatei_10N...	16.07.2013 14:28:57	Polycarbonate; 0,24 mm; PC	300 x 212.659
2_porestasys_CMY...	16.07.2013 14:28:57	Folding Carton; 1 mm; 900g - 1500g	151.835 x 25
2.70BC_TEST.d2.zcc	16.07.2013 14:28:57	Corrugated; 7 mm; BC-Welle	1323 x 531
02_media1560x305...	16.07.2013 14:28:57	Expanded PVC; 5 mm; Forex®, Sintra®, Körtex®, Caltec®	3050 x 1560
02_3915.dxf.zcc	16.07.2013 14:28:57	Corrugated; 3 mm; B-Welle	1308 x 950
01_media1600x270...	16.07.2013 14:28:57	Corrugated; 3 mm; B-Flute	2599.46 x 1699
00_07004_1eft 51b...654f.zcc	16.07.2013 14:28:57	Polyester fabric; 0.5 mm; Coated textile	2128 x 813.998



### 3.6 kW routing module RM-L

The water-cooled 3.6 kW router module is designed for maximum performance. The RM-L is equipped with a pneumatic collet. In conjunction with an 8-bit capacity automatic bit changer, the RM-L router module is a fully automated system capable of processing jobs that require different types of bits.

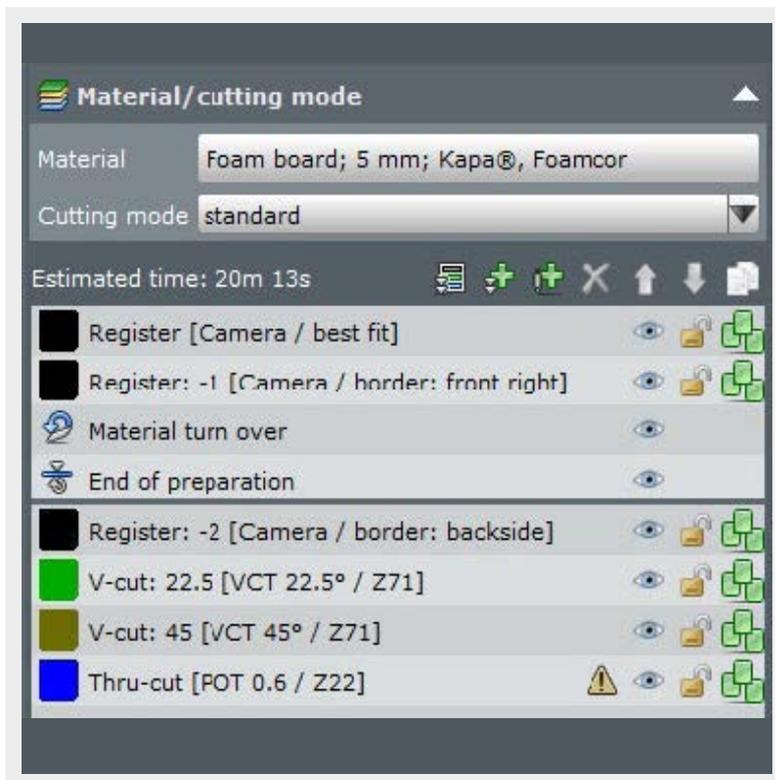
The RML-tool is completely integrated with Zünd Cut Center ZCC.



### Saving preparation steps

The preparation steps selected during setup are saved together with the cut file. If the job needs to be repeated in the future, there is no need to go through the preparation procedure again.

With the function „perform preparation only“, cut files can be prepared for batch processing. Batch processing can then be performed without repeating the preparation steps for each job individually.



# Zünd Cut Center 2.6 (6-2016)

## Essential new features



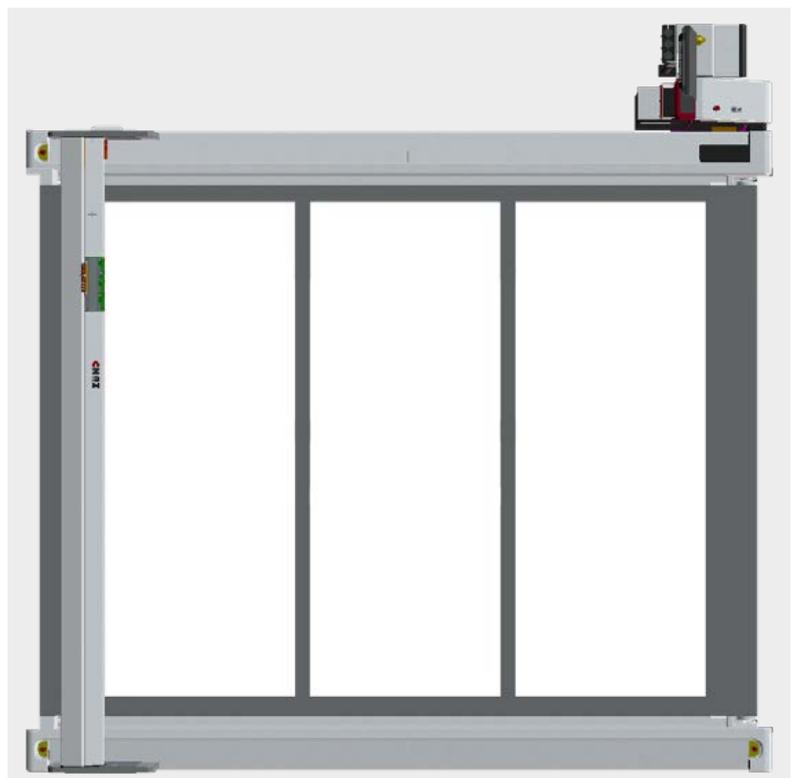
### Dual beams for maximum productivity

Depending on the job, one cutter with two beams operating independently of each other can double the throughput. ZCC controls the workflow and optimally distributes the cutting/processing tasks between each beam, ensuring maximum productivity.



### Manually loading multiple sheets

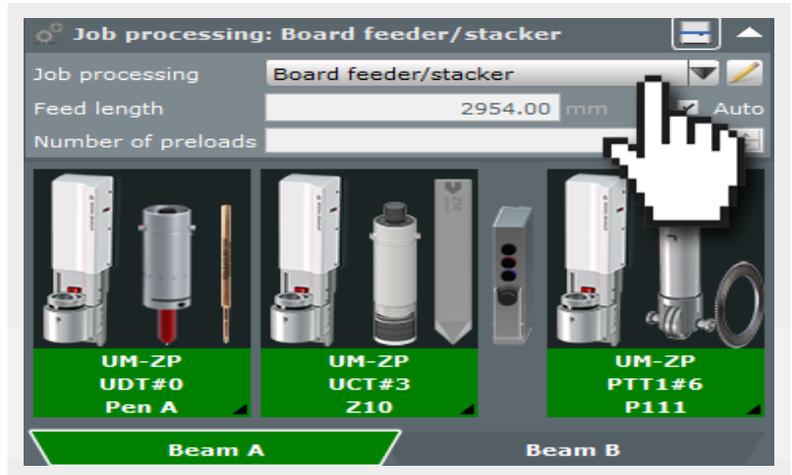
It is now possible to manually load and lay out multiple sheets/boards on the cutter for processing. Doing so extends the active processing time between loading and unloading, which frees up the operator to perform other tasks. In addition, multiple sheets cover more of the vacuum area, which optimizes material hold-down. All Zünd cutter series (S3, G3, D3) support this function.



### Single-beam operation

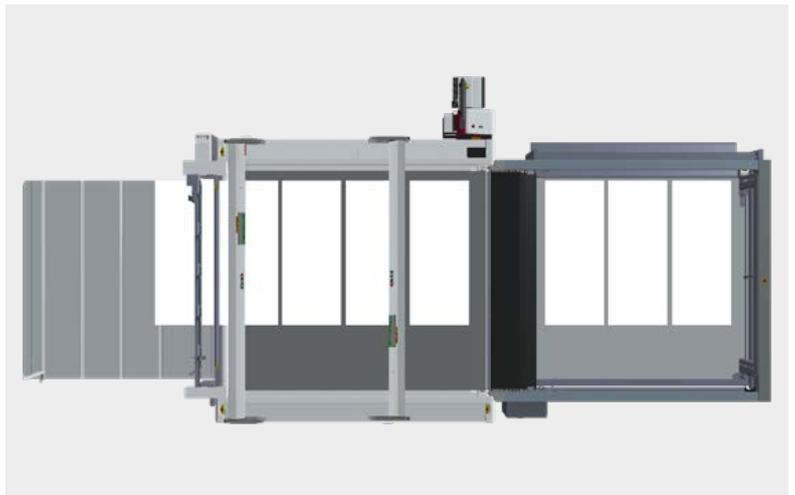
A dual-beam cutter can also be run with only one beam (beam A) in operation.

If, for instance, the router option is installed only on beam A, beam B can be deactivated.



### Jobs utilizing both beams

The dual-beam cutting system can process rolled and sheeted/board materials, no matter whether the job consists of multiple smaller sheets/boards or full-size ones.



### Registration capabilities

As is the case with single-beam cutters, the Zünd ICC camera system in combination with Zünd Cut Center ensures perfect registration and compensation on dual-beam systems.



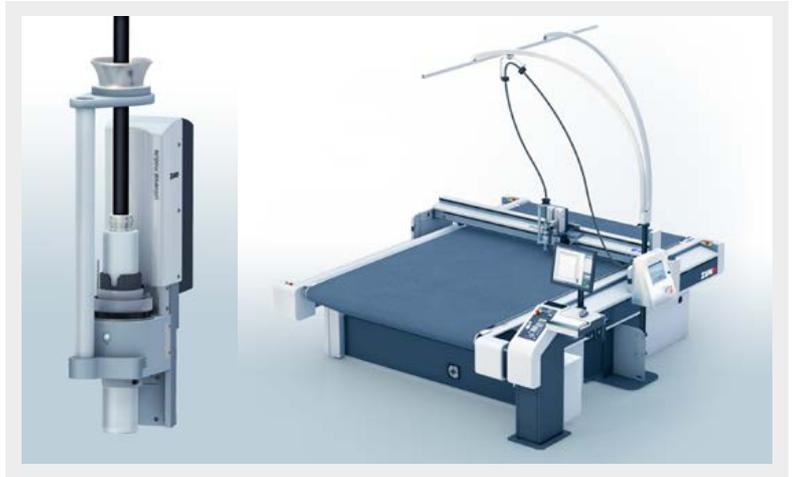
# Zünd Cut Center 2.5 (10-2015)

## Essential new features



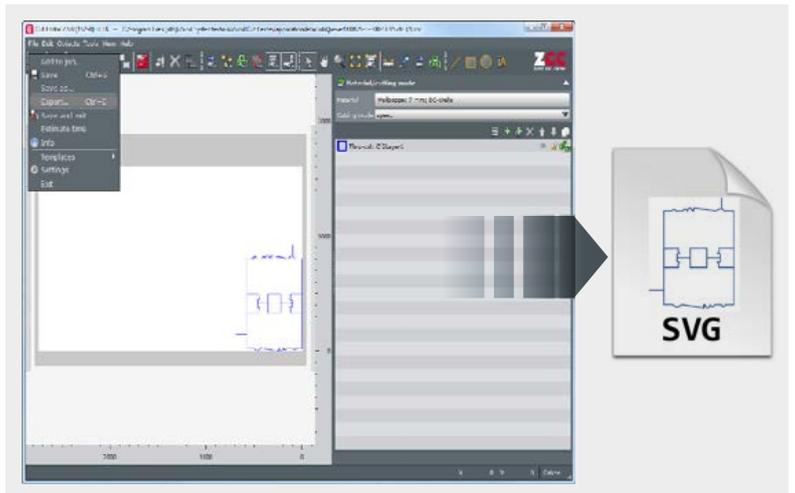
### Now supporting Leibinger inkjet

The versatile Leibinger Jet 3 inkjet printer is ideally suited for labeling a wide variety of materials. Its many applications include labeling with text or barcodes or drawing/plotting lines. The Ink Jet Tool - IJT is now fully supported in Zünd Cut Center.



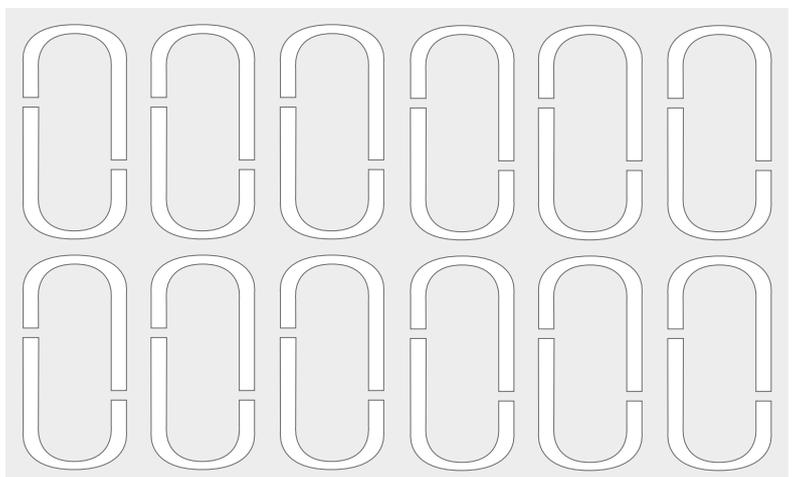
### SVG export

Cut data can now be exported from Cut Editor as SVG file for import in other systems. All objects under a method are combined into a group.



### Automatic bridging during import

Bridges can now be inserted automatically while importing cut files. The number of bridges and distance between them are user definable. This feature is also available when importing files via hot folders.



**Batch processing:  
cut files retrievable via barcode**

Users can now retrieve files easily with a barcode scanner and add them to a batch. Once batch processing is launched, simply scan in the jobs you wish to include.



# Zünd Cut Center 2.4 (6-2015)

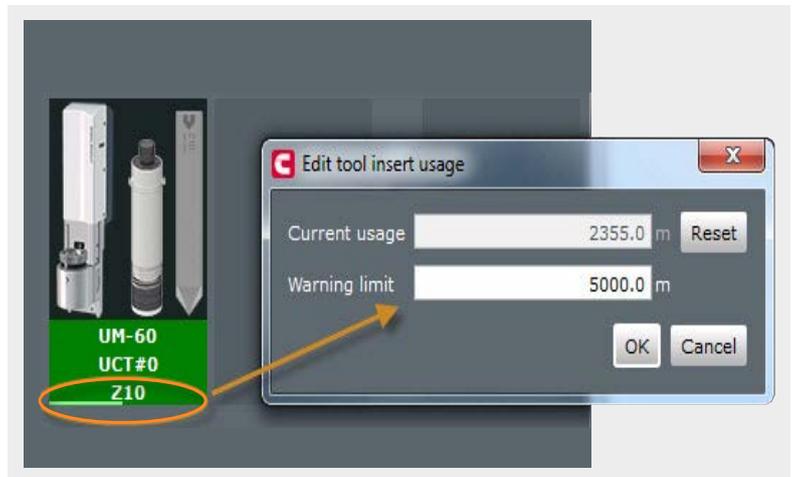
## Essential new features



### Tool usage monitoring

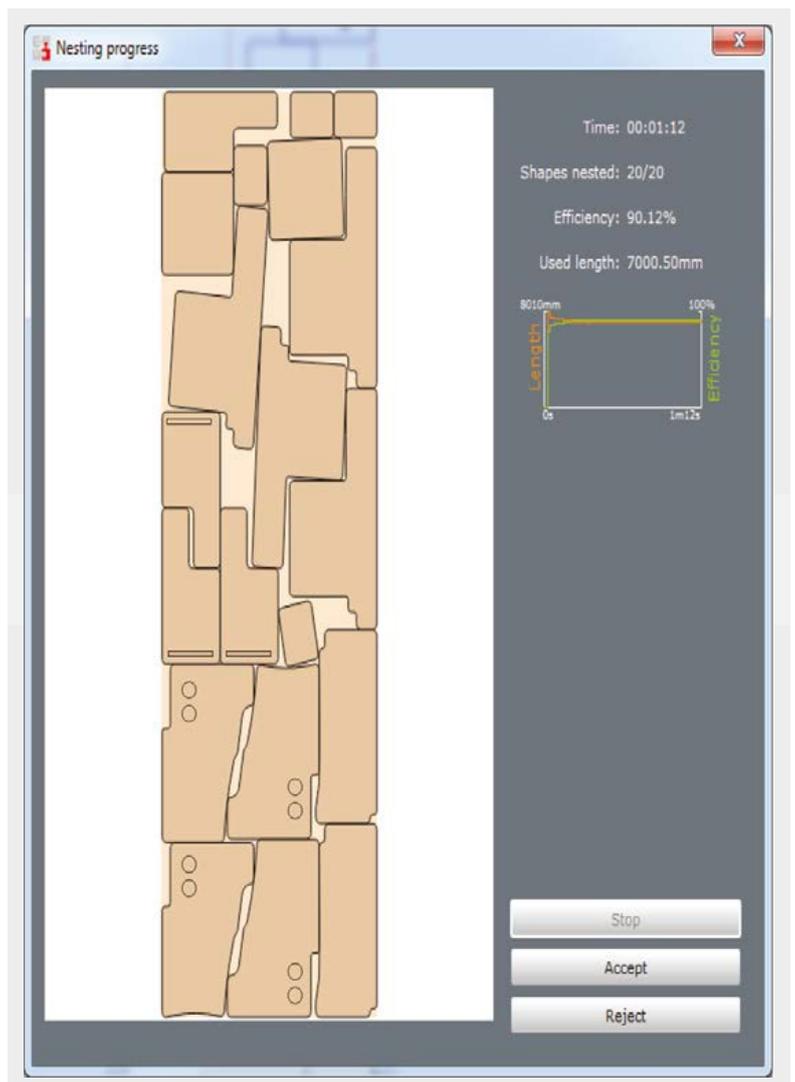
Previously, it was often difficult to determine the wear on a blade or bit, which tended to create unnecessary waste. ZCC now tracks tool usage and lets the user know when a blade/bit has reached the end of its expected lifespan and needs to be changed.

The data used for tool monitoring is based on past experience and has to be set up individually.



### Nesting

A user-friendly nesting option integrated in Cut Editor automatically calculates the most efficient placement of individual parts or groups of parts on rolled and sheeted/board materials. The automatic nesting function uses powerful algorithms that ensure optimal nesting of even the most complex patterns. This saves time, maximizes material yield, and keeps waste to a minimum.



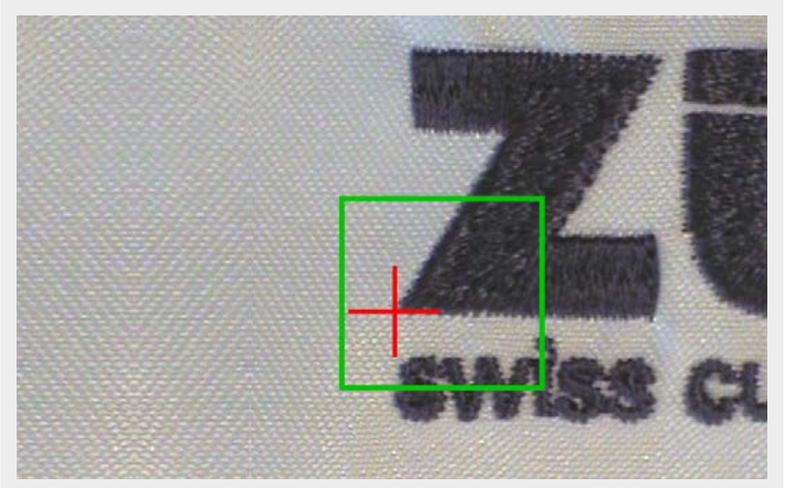
### Automatic Router Bit Changer – ARC

The Automatic Router Bit Changer is fully integrated with Zünd Cut Center - ZCC. The ARC offers the user a magazine that can hold a combination of up to 8 different router bits for processing. The system automatically selects the correct bit for the job and material at hand, guaranteeing optimal results. This eliminates the potential for operator errors that can easily occur in higher-volume routing applications.



### User-definable register marks

Before now only symmetrical shapes were permissible for use as register marks. Starting with Vers. 2.4, register marks in any shape can be captured and correctly interpreted by ZCC.



### Border recognition for rolled materials

Following each advance, the system checks the border of the material. If it detects any movement, ZCC compensates for it and moves all objects accordingly.

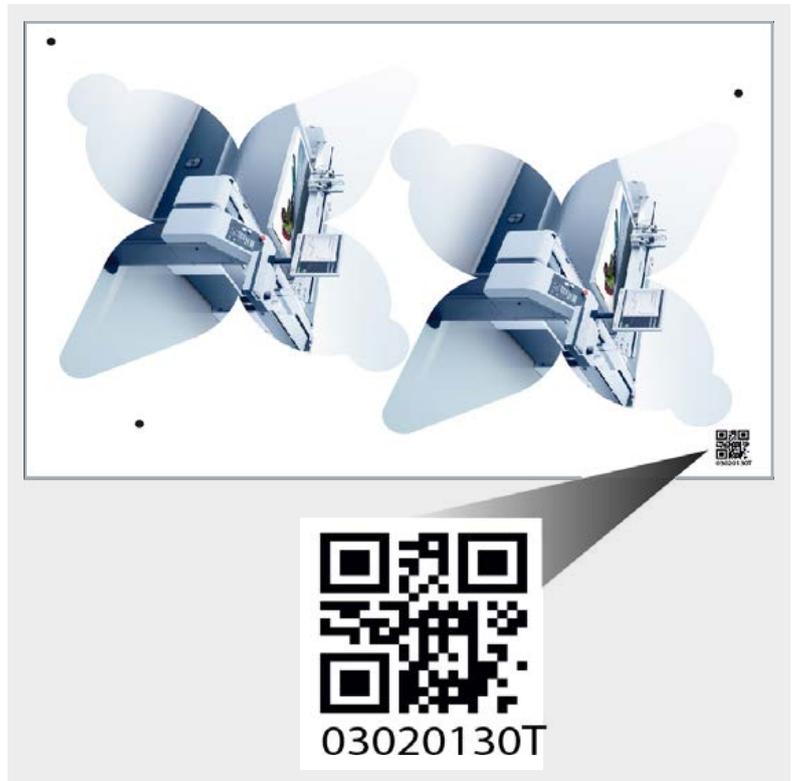


# Zünd Cut Center 2.3 (9-2014)

## Essential new features

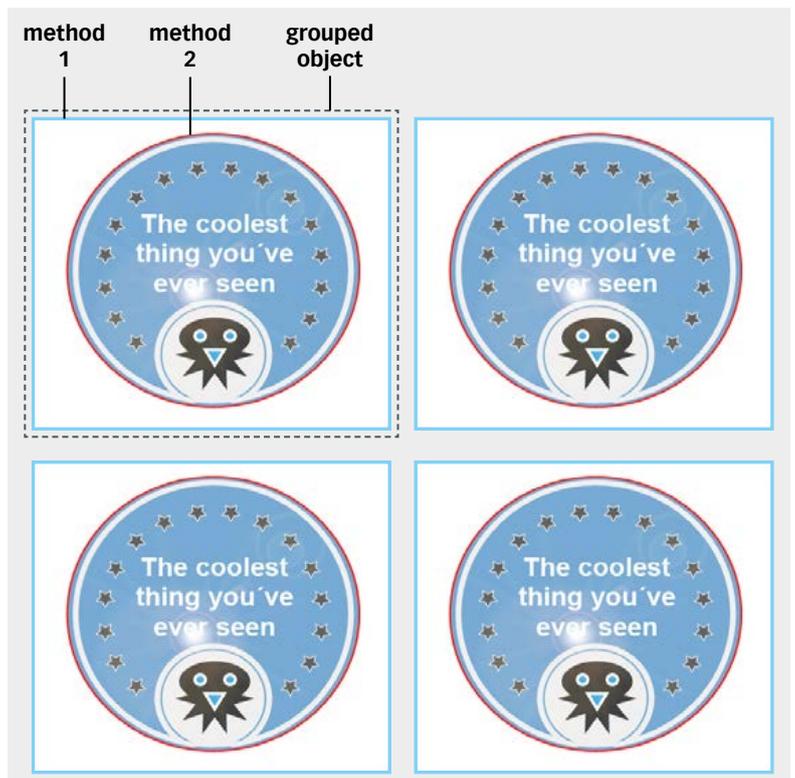
### Automated production with QR-code capture now also for rolled materials and in tandem production mode

With ZCC V.2.3, QR-code capture has been expanded for use with rolled materials and in tandem production workflows.



### Object-by-object processing function

Before now processing methods could be specified only sequentially for the entire job. With the function *object-by-object processing*, one grouped object can now be completely finished before going on to the next one.

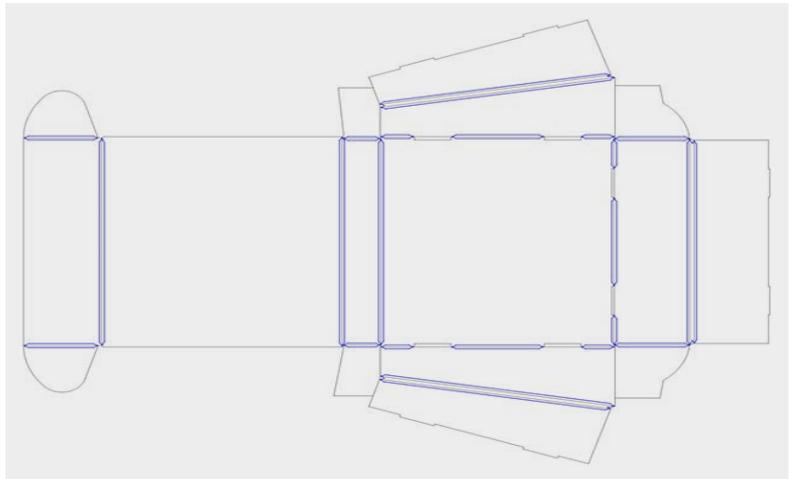


### Creasing counters

The use of creasing counters significantly enhances the quality of creases. In Cut Editor, you can now create counters to match crease lines with just a few mouse clicks.

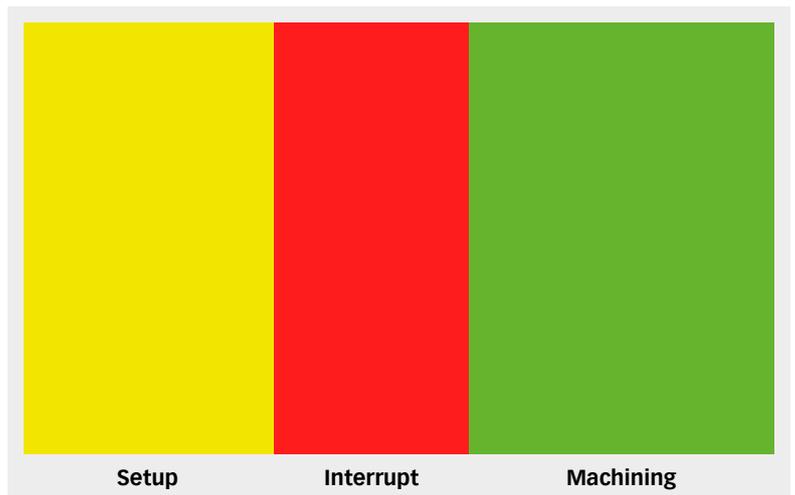
#### Tip:

Use creasing counters in a tandem production workflow. The tandem setup guarantees maximum throughput for producing top-quality folding boxes.



### Cutter capacity and productivity indicator

The Cut Queue offers tools and methods for increasing your productivity. The software automatically calculates cutter capacity and, with a three-color status bar, permits the user to see at a glance in what ways producing a job could be made more efficient.



### Integrated Tool Initialization – ITI

ZCC with Integrated Tool Initialization (for G3 cutters) enables the following new functions:

- Automatic blade/bit failure control
- Automatic recalibration at user-defined intervals to compensate for blade wear during processing.



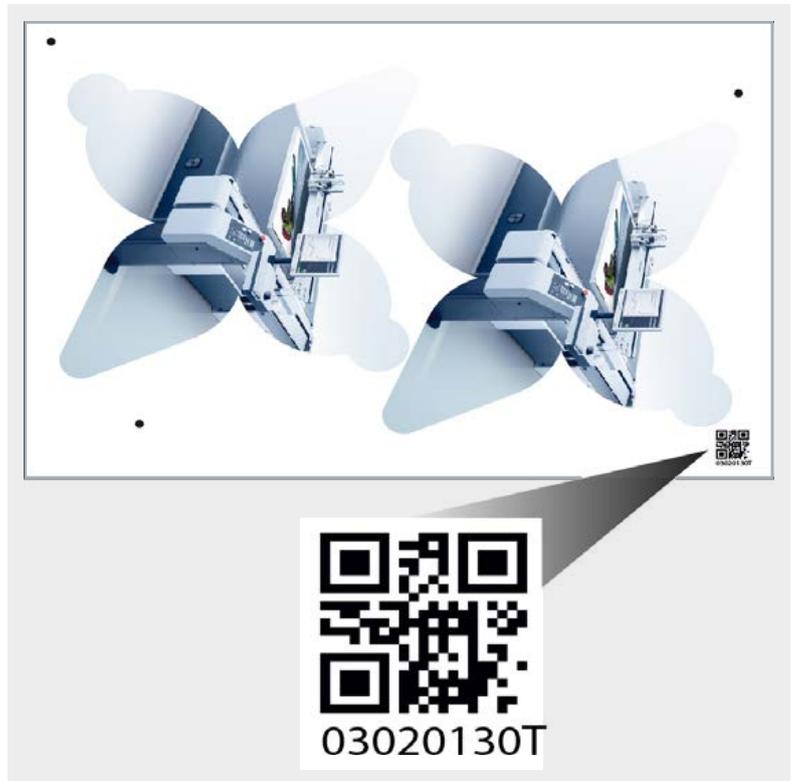
# Zünd Cut Center 2.2 (4-2014)

## Essential new features



### Automated production with QR codes

Job retrieval via QR code is the next step in fully automated processing/finishing of sheeted and board materials. It is now possible to process a sequence of different jobs without operator intervention: after the materials are loaded automatically with the Board Handling System - BHS or the sheet feeder, the ICC camera captures a QR code; the corresponding file is retrieved automatically, opened in Zünd Cut Center, and processing begins.



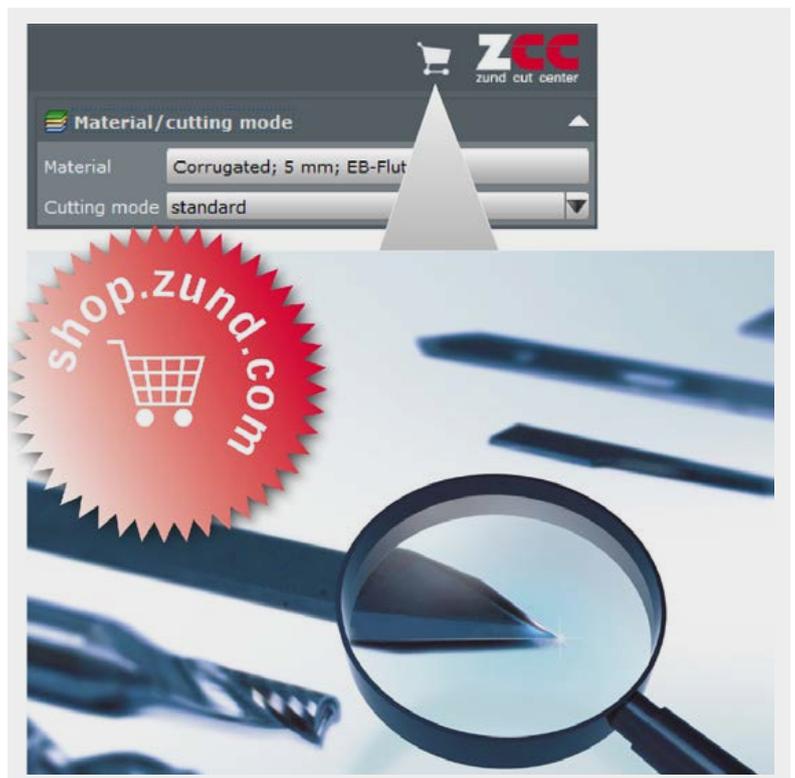
### Zünd Webshop

From anywhere within the European Union, you can now order blades, bits and other accessories directly through the Zünd Webshop. Click on the shopping cart symbol in Zünd Cut Center, Cut Manager or Cut Queue to access our online store.

Customer benefits:

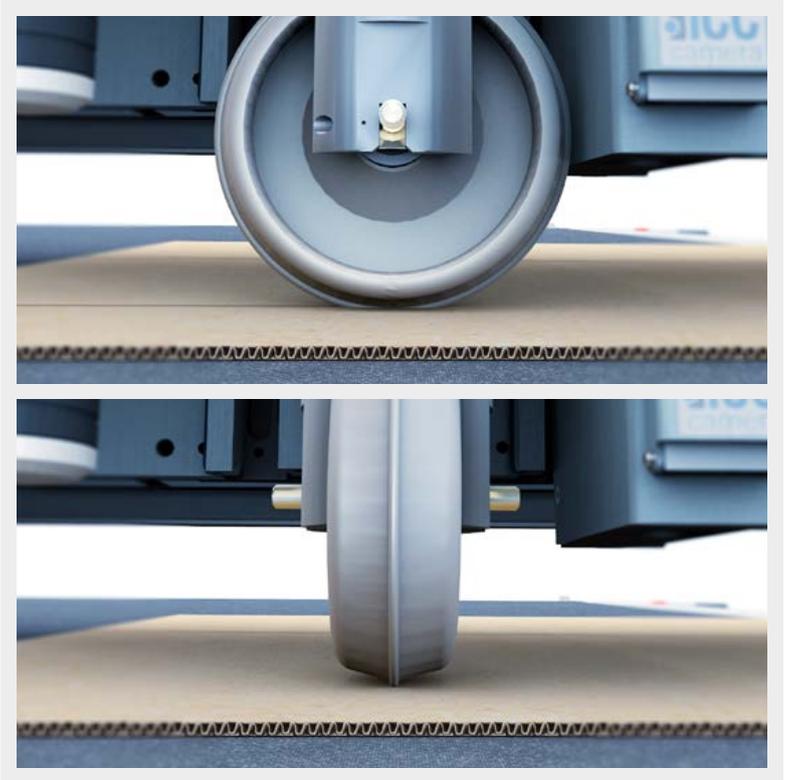
- 24/7 order placement
- 48-hour delivery time within EU
- Free shipping for orders above €400
- Easy payment options with Visa, Mastercard or direct bank transfer
- Processing parameters for original Zünd accessories included in Zünd Cut Center.

Take full advantage of the capabilities of your Zünd Cutter! (Internet connection required)



## Creasing

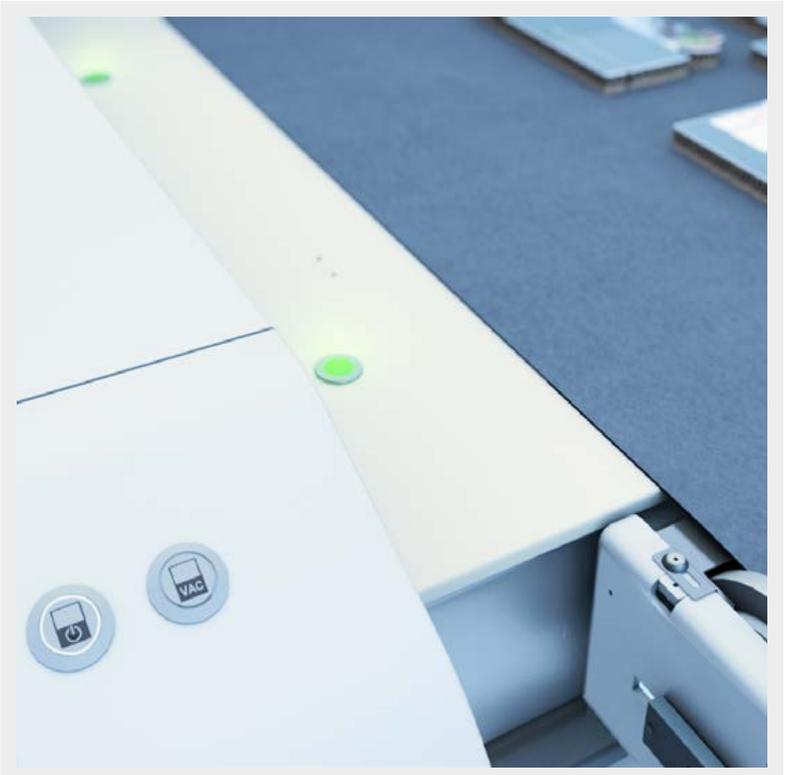
In addition to the pressure mode, creasing depths for creasing tools CTT1/2/3 can be set differently for creasing with or against the flute/grain.



## Tandem vacuum system

The following functions have been added to the tandem vacuum option:

- Work front or rear section of cutter ONLY: Zünd Cut Center now lets you define which half of the cutter is used as default cutting area. This permits limiting short-run production to one vacuum area, which results in greater energy efficiency.
- Continue processing in cutter section where processing approval has been granted: the cutter no longer automatically switches back and forth between the two vacuum sections; instead, it continues processing on the side where approval was granted first.



# Zünd Cut Center 2.1 (9-2013)

## Essential new features



### Job info export

Use job info export for generating and analyzing order statistics. Just export an XML file and import it into e.g. Microsoft Excel.



Name	Date/Time	Material	Size	Production time
3d werbetafel 16m...	16.07.2013 14:28:58	Corrugated sandwich; 16 mm; Honey...	545.068 x 997.514	16m 24s
3D Werbetafel 16mm dick.ai-zcc	16.07.2013 14:28:58	Corrugated sandwich; 16 mm; Honey...	517.068 x 927.76	25m 36s
3D Werbetafel 16mm dick.ai-zcc	16.07.2013 14:28:58	Corrugated sandwich; 16 mm; Honey...	517.068 x 911.885	2h 15m 17s
3d Test.pdf-zcc	16.07.2013 14:28:58	Wood; 16 mm; MDF - medium density fiberboard	12 x 12	36m 42s
3A_Logo_Outlines.e...	16.07.2013 14:28:58	Hardfoam; 25 mm; Gatorfoam <35kg/m3	400 x 400	58m 41s
Dixtool_wood1 0190426-zcc	16.07.2013 14:28:58	Corrugated sandwich; 10 mm; Weben...	874.258 x 946.34	1h 35m 0s
2C_Plotdaten_10N...	16.07.2013 14:28:57	Polycarbonate; 0.24 mm; PC	300 x 212.650	22m 40s
2_porestaysv_CM...	16.07.2013 14:28:57	Folding Carton; 1 mm; 500g - 1500g	151.835 x 25	2h 46m 22s
2.708C_TEST.d12.zcc	16.07.2013 14:28:57	Corrugated; 7 mm; BC-Welle	1323 x 531	1h 31m 12s
02_media1560x305...	16.07.2013 14:28:57	Expanded PVC; 5 mm; Form@, Sitrag®, Komatex®, Celbac®	3050 x 1560	35m 20s
02_3915.d12.zcc	16.07.2013 14:28:57	Corrugated; 3 mm; B-Welle	1308 x 950	1h 6m 3s
01_media1600x270...	16.07.2013 14:28:57	Corrugated; 3 mm; B-Flute	2599.48 x 1499.58	1h 3m 5s
00_07004_left 01054f-zcc	16.07.2013 14:28:57	Polyester fabric; 0.5 mm; Coated textile	2128 x 813.990	18m 5s
...	...	...	...	...



### Cut-time estimation in Cut Editor

Processing time is an important factor in production planning. Already in Cut Editor, you can now see the estimated processing time per copy. This feature makes e.g. daily production planning very simple and efficient.



**Job info**

Job name:

Job description:

Job created by:

Number of copies:  Priority:

Due date:  Order ID:

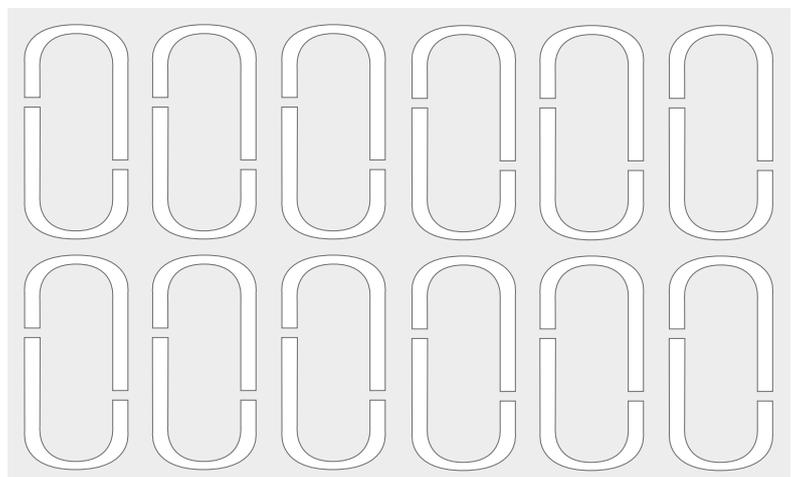
	Estimated time	Down distance	Up distance	No. of up/down
1 Setup	3m	0.00 mm	0.00 mm	0
2 Register	20s	0.00 mm	1858.89 mm	0
3 Crease	41s	5595.00 mm	1948.16 mm	60
4 Thru-cut	50s	4911.67 mm	1123.01 mm	5
<b>5 Total</b>	<b>4m 51s</b>	<b>10506.67 mm</b>	<b>4930.06 mm</b>	<b>65</b>

OK

### Automatic bridging

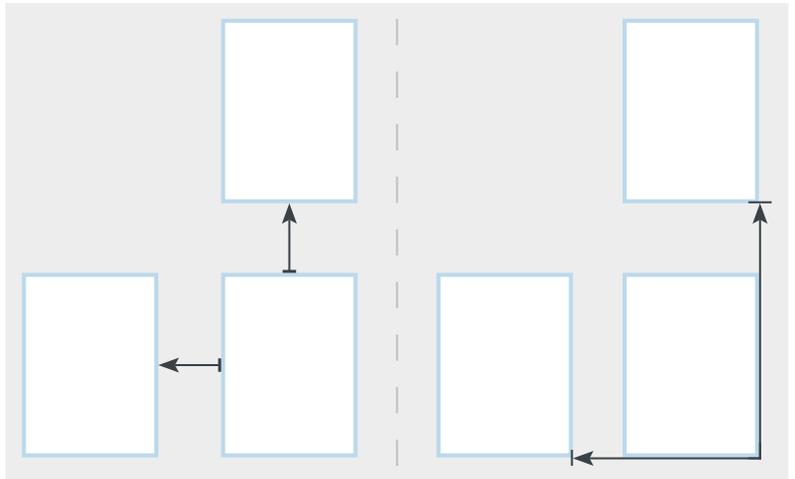
Insert bridges for all objects with a mouse click. The number of bridges and minimum distance between them can be specified individually.

Especially in routing applications, bridges prevent cut objects from moving. In addition, with all cut objects still attached, unloading becomes a simple, one-step process.



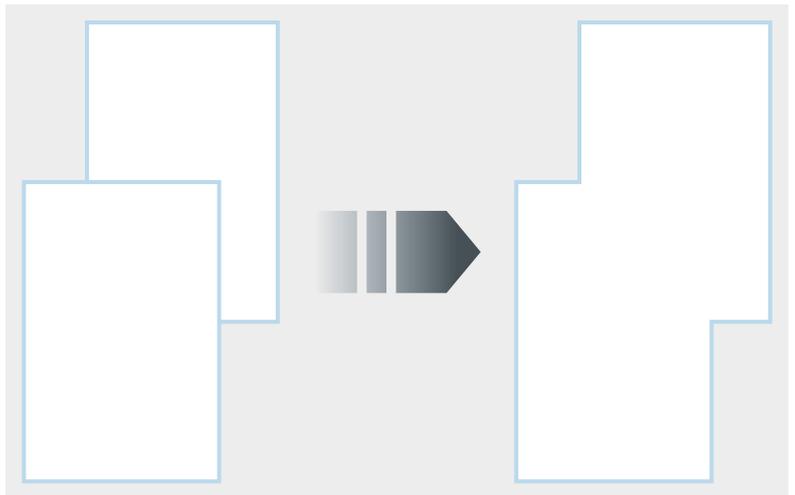
### Multiple copies

Choose between «distance between shapes» and «distance from shape to shape».



### Unite operation

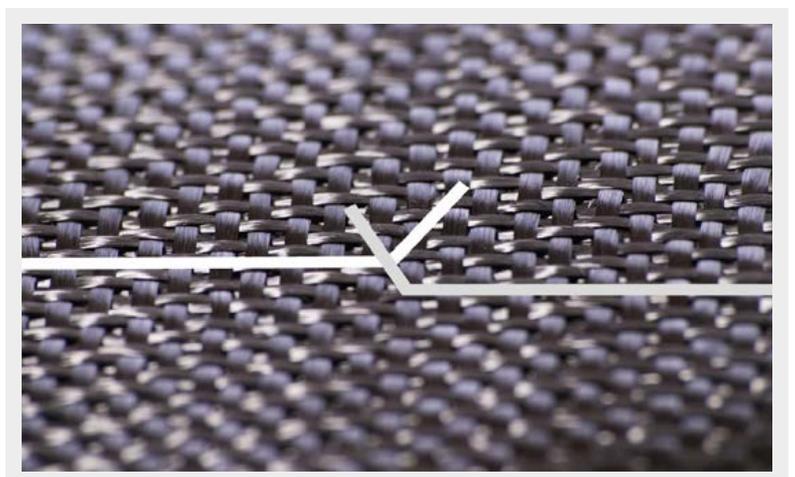
Several overlapping objects may be combined into one.



### Feed connection cut

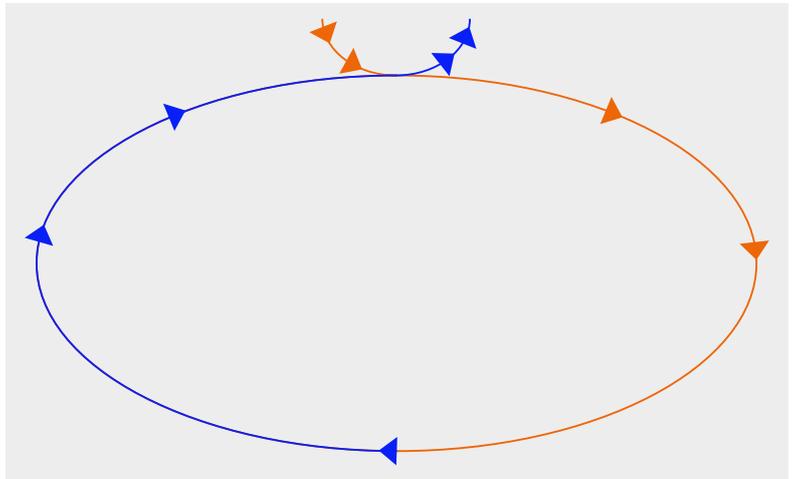
This function guarantees consistent cut quality, especially with textiles.

When the cut path extends beyond the length of the working area, advancing the material becomes necessary and with it, an interruption to the cutting process. The function «feed connection cut» ensures that no fibers are left uncut.



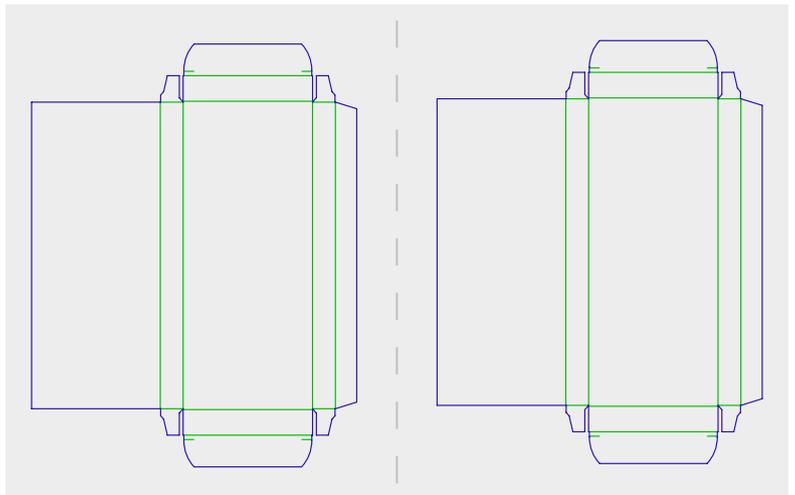
### Lead-in/lead-out

Start and end points are positioned outside the cut path. Especially for routing applications, this function helps produce superior cutting results with invisible entry/exit points.



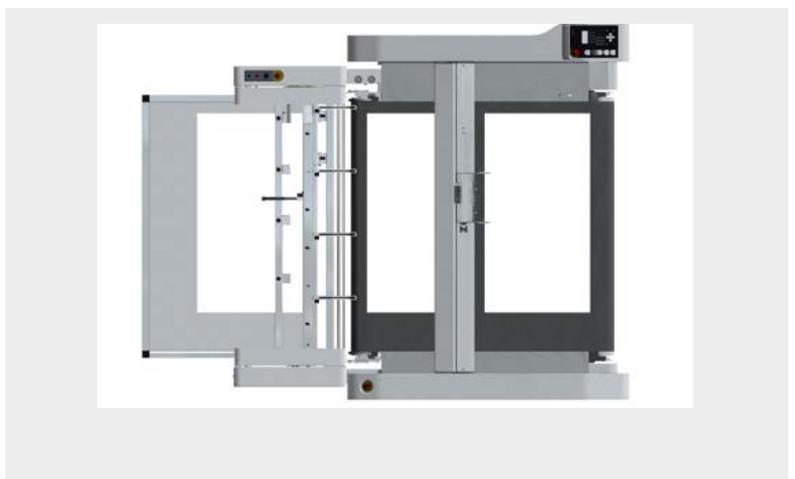
### Cut-off function

Cut-offs or separation cuts can be applied after each copy/page or at the end of production. The length and position of the cuts are user definable. Use this function for rolled material (e.g. vinyl, films) or longer boards.



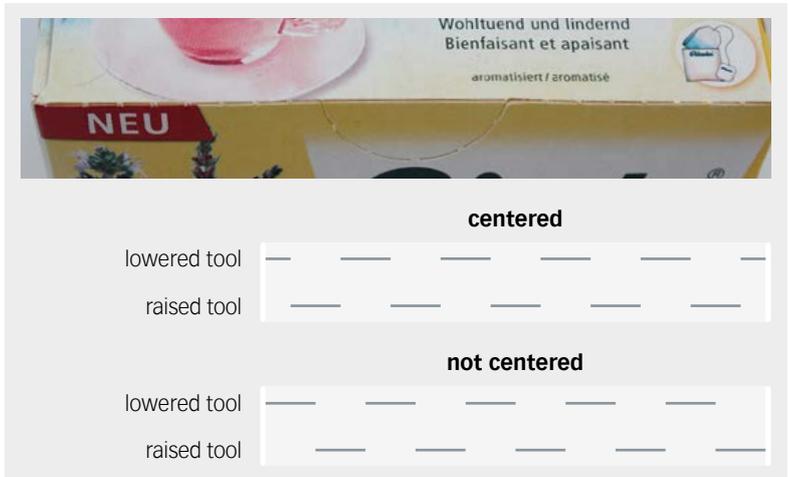
### Multi-page loading function with BHS/Sheetfeeder

The Board Handling System (BHS) and Zünd sheetfeeder allow for multiple loading for extended uninterrupted cutting time and covering more working area. The appropriate number of loads may be calculated automatically. This multiple-load function increases coverage of the vacuum area, which helps achieve superior vacuum hold-down.



### Line type patterns

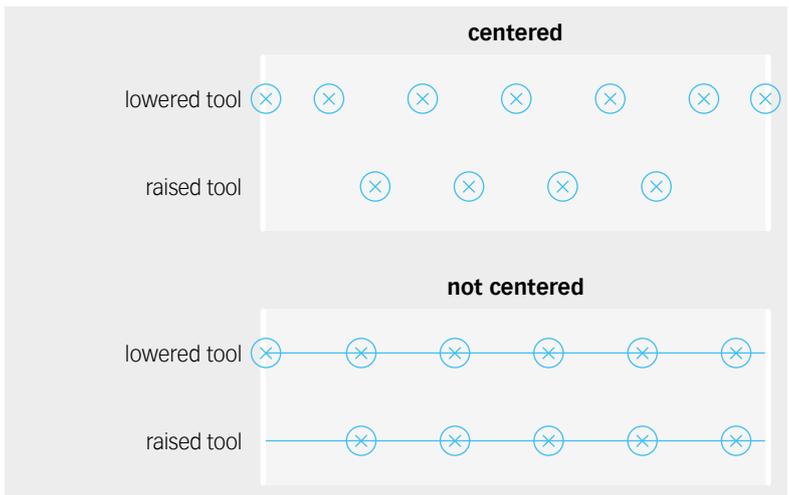
The line types for individual methods may include patterns. These are controlled with additional settings and are a great option for e.g. creating optimal perforations in packaging designs.



### Line type pattern dotted with drill/punch

With the methods «drill» or «punch», select the dotted line pattern. This will produce a line of drilled or punched holes.

Distance and number of holes are user definable. The hole diameter is equivalent to the diameter of the tool being used.



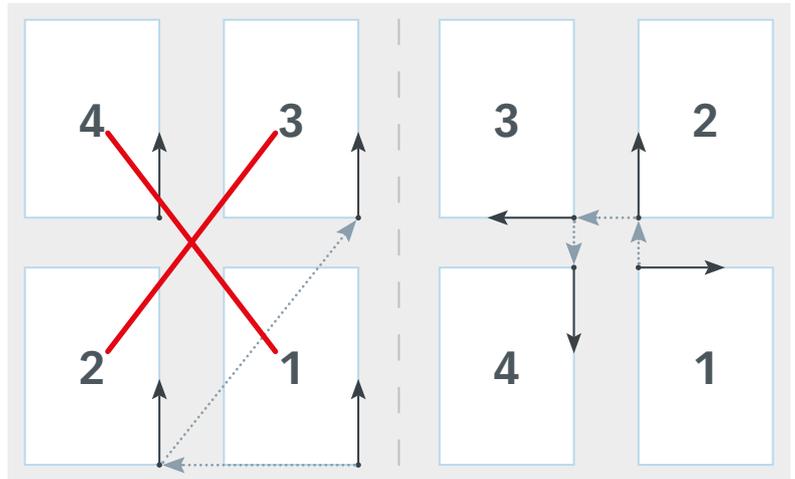
# Zünd Cut Center 2.0 (3-2013)

## Essential new features



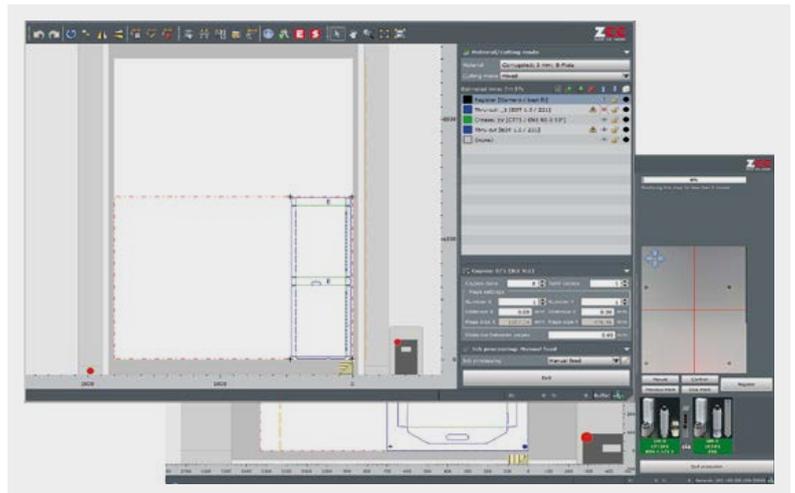
### Cut path optimization

Take advantage of ZCC's automatic cut-order optimization: The software automatically makes adjustments to the cut paths to achieve the fastest-possible production time. Starting points and cut direction are automatically selected to minimize travel distances with the raised tool.



### Simultaneous job preparation

With ZCC 2.0, you can prepare jobs while the cutter is producing. Several Cut Centers can be open at the same time for assigning methods, tools, or job processes.



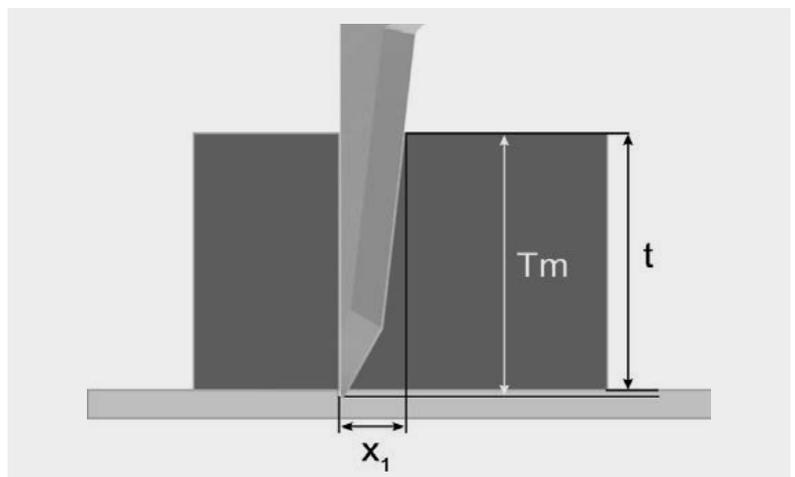
### Overcut compensation

Optimize cut quality with the new compensation feature in ZCC 2.0. Cut paths are adjusted based on material thickness and blade in use.

t...material thickness

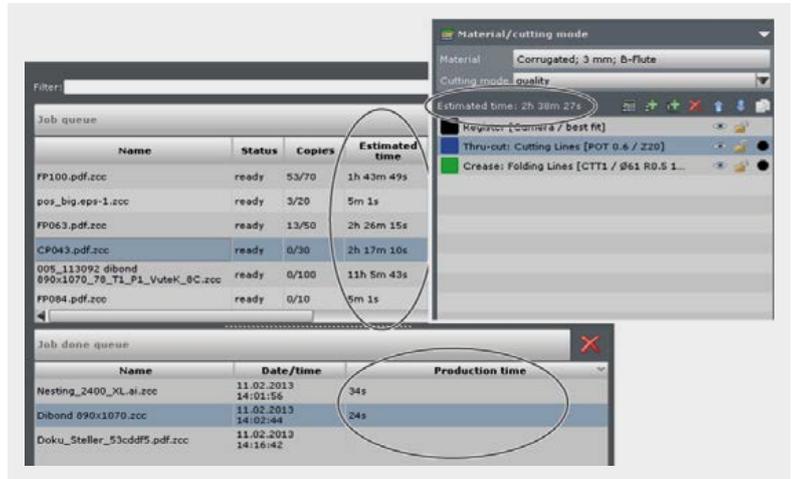
TM...cutting depth

x1...overcut



### Production time calculation

Facilitate your production planning! In the Cut Queue, each pending job shows an estimated production time. Besides pure processing, the estimate also includes the time required for job-specific setup and material advances. While the job is in production, Cut Center continues to display the estimated time until completion. Any changes, e.g. as a result of longer setup times, are immediately taken into account. Once the job is completed, the total production time is saved and displayed in the Cut Queue. The ZCC XML-interface allows for e.g. integrating this production data into your production planning system.



### Batch processing

Use the batch processing option to select multiple jobs in the Cut Queue for processing in the assigned order. For example, select a number of jobs in the evening, and have the cutter produce them overnight.



### E-Mail notification

Set up the cutter, start the job, and let it run. If any operator intervention is required, you are notified by email.

