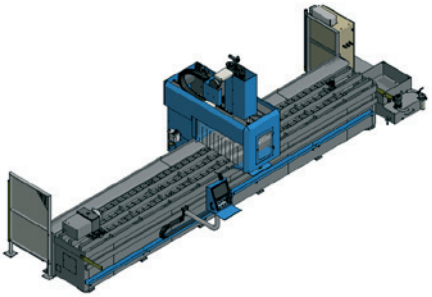
CMA®
MACHINE TOOLS

Flexible solutions for drilling, milling and tapping

SANDFELD A/S
VÆRKTØJSMASKINER
Birkegårdsvej 2 · 7400 Herning · Denmark · Phone +45 97 11 92 22 · www.sandfeld.com

3RD cantilever machining center



- Drilling up to Ø42 mm
- X/Y 3 x 0,6 up to 10,5 x 0,6 m
- Graphical programming
- Toolchanger
- Chipconveyor
- Shuttle operation - pendular mode
- Special length on request

3RD

Model	3RD-3006	3RD-4506	3RD-6006	3RD-7506	3RD-9006	3RD-10506
Drilling capacity*	6 versions from max. Ø22 to max. Ø42 mm					
Tapping capacity*	6 versions from max. M20 to max. M30					
Spindle motor	13,1 kW					
Spindle speed	6 versions from max. 2000 to max. 6000 rpm (optional 12000 rpm)					
Max. torque	6 versions from max. 83 to max. 250 Nm					
Spindletype	BT 40 (optional CAT 40)					
Length of table	3050 mm	4575 mm	6100 mm	7625 mm	9150 mm	10650 mm
Width of table	580 mm					
Table capacity	1000 kg/m² (580 kg per m machine length)					
Stroke X-Axis	3050 mm	4575 mm	6100 mm	7625 mm	9150 mm	10650 mm
Stroke Y-Axis	600 mm					
Stroke Z-Axis	450 mm					
Distance spindle-table	125-575 mm (option up to 745 mm)					

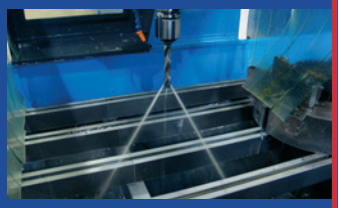
*depending on type of tool, cutting speed and feed

3RD-6006

Practical examples and options 3RD und GRD

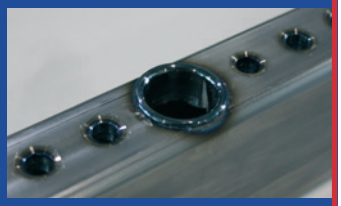
Toolchanger

Drilling and milling

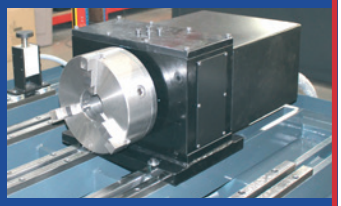


Internal cooling

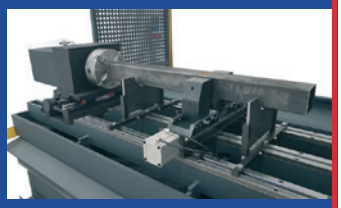
Thread cutting/milling



Flow drilling



4th axis



Tube processing with 4th axis

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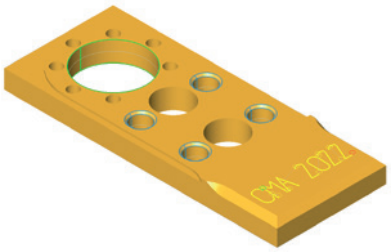
Options for 3RD- or GRD-models

- Internal cooling through spindle
- Spraying system for minimal quantity lubrication
- Spraying system for pasta (flow drilling)
- Automatic system for correcting the workpiece height (Z-reader)
- Renishaw touch probe for automatic zero point search
- CAD/CAM software for converting 3D drawings
- 4th axis (rotative axis) for round, square and rectangular tubes
- Pneumatic and hydraulic clamping systems (single or multi)
- Milling package plus with 2 motors on the X-axis (free of backlash)



CMA®

Programming 3RD, GRD, BRD

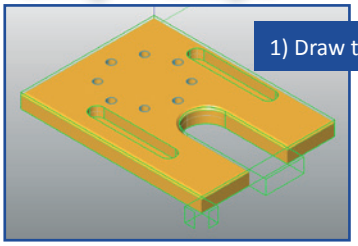
- ***No knowledge of CNC-programming required***
- ***Cutting data are determined automatically***
- ***Easy graphical programming of all sort of machining operations***
- ***Optimum nesting options, including pendular mode***
- ***3D simulation and collision warning***
- ***New programs can be written while program is running (back-edit)***
- ***Convert 2D DXF and opt. 3D drawing to machine programs***

The control is the heart of the machine for several reasons. Therefore, it must combine ease of use, accuracy and reliability.

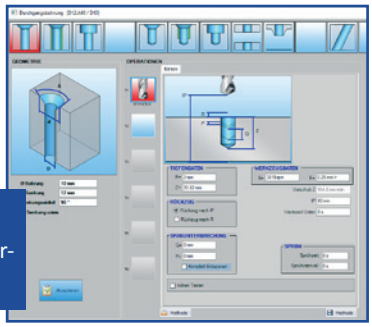
In order to be user-friendly, it must offer a diversity of options, but it should be complete and easy to program and not stress the operator with an unnecessarily large number of options which he does need for processing. The control should only offer what is required to perform the task or to be able to create the machine program. The data to be entered or even complete processing sequences (methods) should be entered or suggested automatically where possible.

In short: as much as necessary, as less as possible, but still free editable in every step.

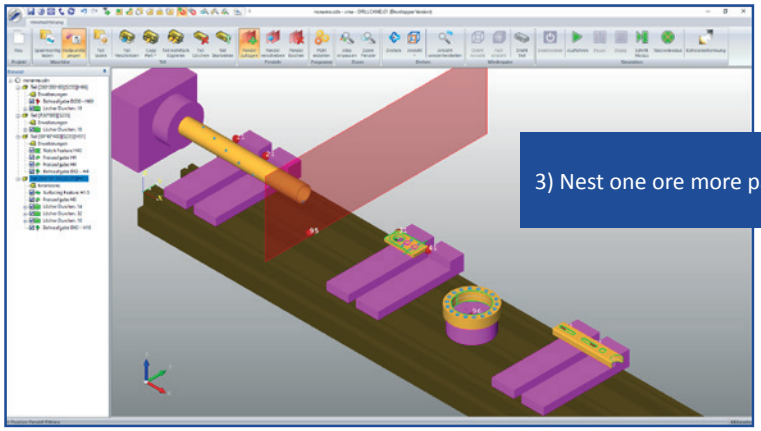
Only 4 steps



1) Draw the part (or import drawing)



2) Define tools (or select method) the cutting data, detphs, feed during milling etc. are determined automatically



3) Nest one ore more parts on the zero points

N5 M7 T5 (21 WSP BOHRER)
N10 G52 Q163
N15 G80 G40 S3789 G95 F0.1 M3
N20 G54 H91
N25 G90 G0 Z232
N30 G0 X-106.246 Y-44.009
N35 G0 Z12 M83

4) ISO Ppogram is created

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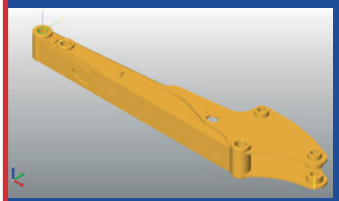
Options



Import and convert 3D drawing

Programming on external PC

Floating license

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Family-owned with over 60 years of experience
Complete development and production in-house
10.000 m² production area

CMA was founded in 1951 in Alzira, Spain and is currently run as a family business in the 2nd and 3rd generation.

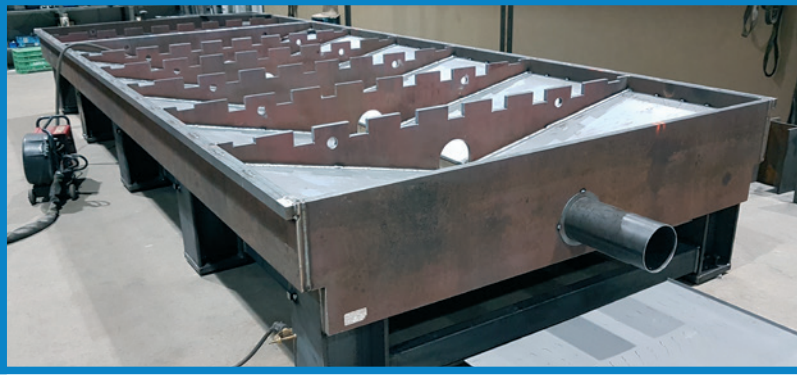
At the beginning, CMA was focused on the repair of agricultural machinery. Due to economic developments, a different path was taken over time.

In 1991 the company started to produce tapping machines. Since 2002, CMA has also included Rapid Drilling Machines in its range. Over time, these developed into fully-fledged CNC machining centers.

Approximately 1.000 tapping-machines and over 125 machining centers are currently produced and installed worldwide every year.

Over the years CMA has built up a global dealer-network in order customers around the world have a local contact person, are advised in their native language and optimally provided with up-to-date information.

Our goal/philosophy “developing machines for your future” is based on the constant input and feedback of the endusers and our dealers.



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