

THE IDEAL CNC MILLING MACHINE FOR ALUMINIUM CUTTING AS DESCRIBED:

Technical Data:

- + 1.8kW spindle
- + 22fold automatic tool changer
- + Installation dimensions (W x D x H) without terminal
94 cm x 119 cm x 191 cm
- + Weight approx. 900 kg

RECOMMENDATION!

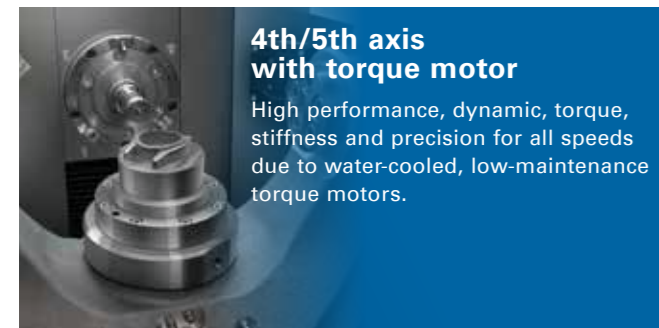


„-“= Kombination nicht möglich

DATRON C5	✓
1.8kW spindle with HSK-E 25 insert	✓
CNC hand-held control unit Pro B10-2 HSCpro	✓
Operating terminal with touchscreen, keyboard and integrated machine status display	✓
Minimum-quantity cooling lubrication system, incl. spray unit	✓
Tool changer for up to 22 HSK-E 25 tools	✓
Precision tool length sensor	✓
Software package PerfectCut	✓

Optional accessory technology packages:

We offer a series of powerful accessory combination packs at attractive prices



4th/5th axis with torque motor

High performance, dynamic, torque, stiffness and precision for all speeds due to water-cooled, low-maintenance torque motors.



Zero-point clamping element

Short set-up times, high repeatability and precision. Different clamping techniques available for individual requirements.



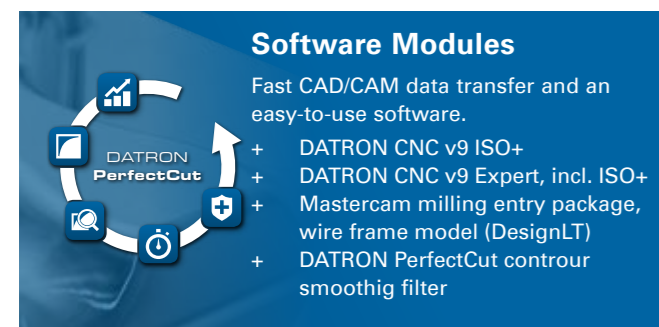
22fold tool changer

Easy inserting of up to four tools at once. Automatic tool length measurement up to 35 mm. Tool change possible during processing; no additional traverse path necessary for changing process.



CNC milling tools

Due to years of experience and intensive communication with our customers, we develop tools especially designed for high-speed machining.
+ Customer specific tool package



Software Modules

Fast CAD/CAM data transfer and an easy-to-use software.

- + DATRON CNC v9 ISO+
- + DATRON CNC v9 Expert, incl. ISO+
- + Mastercam milling entry package, wire frame model (DesignLT)
- + DATRON PerfectCut controur smoothig filter



Training

Our system training sessions allow you to acquire all the essentials to use our machines and systems effectively and efficiently in a very short time.

- + e.g. 3-days-training in DATRON Technology Centre, Mühlthal

OUR SERVICE IS ALWAYS AVAILABLE TO YOU!



Decentralised

We are represented wherever we are needed. The local service team of our partners abroad is at your disposal. Closeness saves time and money: for this reason, DATRON offers several service centres in Germany and worldwide at many of our more than 20 representative offices and agents.



Friendly and Reliable

Our hotline will help you to find solutions and solve problems, even with software and programming issues. A comprehensive stock of spare parts guarantees shortest delivery times.



Cost-effective

Teleservices, e-Messenger, remote maintenance: we offer the latest information technologies for the fastest possible diagnoses and cost effective service.



Competence

Trained staff and many years of application experience and in-house practice guarantee the high quality of DATRON's service worldwide. As a result you get sound and competent advice and fast troubleshooting.

DATRON
Smart Manufacturing Solutions

CNC Machining System DATRON C5

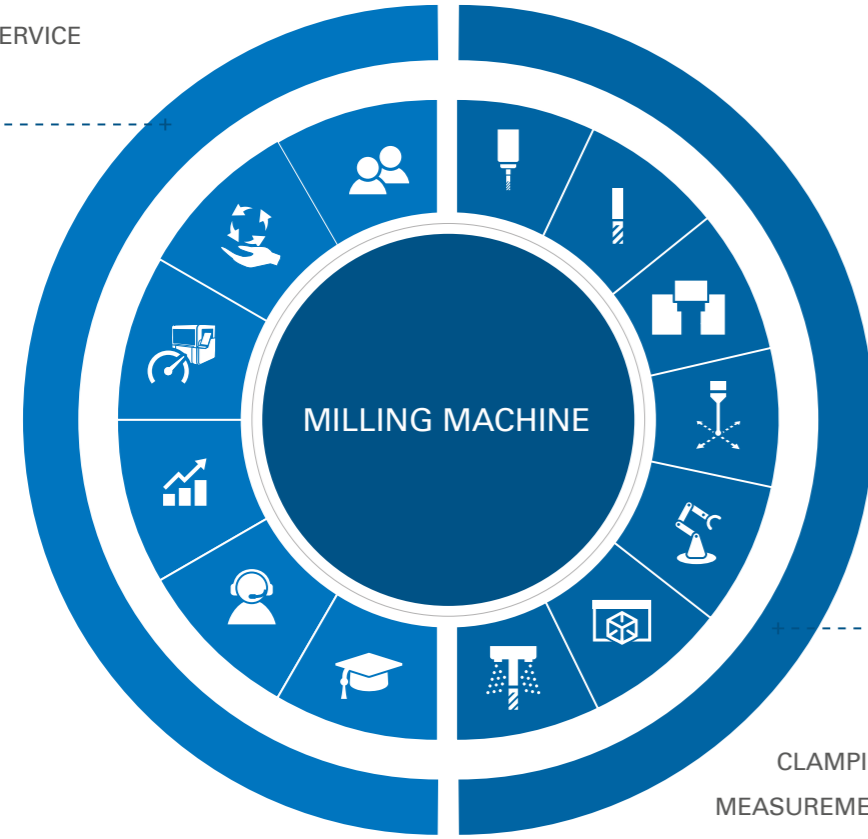
3D Engraving Example: Stamping dies



MORE THAN JUST MACHINE CONSTRUCTION – YOU ARE IN EXPERT HANDS FROM A TO Z

We at DATRON see ourselves as your partner for a successful production. Our service: Everything from one source. DATRON not only offers cutting-edge machine constructions with “Made in Germany” solidity and reliability. We accompany you through the entire workflow from technology consulting over the sales process, optimal maintenance and repair services up to training and give you tips for a energy- and cost-efficient production.

- TECHNOLOGY CONSULTING
- PROCESS SUPPORT
- MACHINE PERFORMANCE DEMO
- PROGRAM OPTIMISATION
- CUSTOMER SERVICE
- TRAINING



- HF SPINDELS
- MILLING TOOLS
- CLAMPING TECHNOLOGY
- MEASUREMENT TECHNOLOGY
- AUTOMATION
- CAM SOFTWARE
- COOLANTS/LUBRICANTS

THE PERFECT MACHINING SYSTEM FOR YOUR APPLICATION:

DATRON C5

- + Exzellent surface quality through rigid, vibration-free construction
- + Perfect reproducibility with high process reliability by using a rotary swivel axis with dynamic torque motor drive
- + Very high machining performance with the smallest tools through the use of a 1.8kW high-speed precision spindle with up to 48,000 rpm
- + Very high precision with high-quality linear guide, ball screws and linear scales



WE PROVIDE SOLUTIONS FOR YOUR REQUIREMENTS

The production of high quality stamping tools requires highest precision and flexibility. With PerfectCut, DATRON offers a highly reliable solution for 3D-engraving of complex geometries and surface structures. The combination of dynamics and smoothing filters ensures that you obtain extremely homogeneous surfaces. The high speed range of the DATRON spindle turns into a valuable competitive advantage when milling with small tools, because you create amazingly detailed surface structures and thus achieve an excellent stamping result.



Set-up and machining times

Very short set-up and machining times due to the perfect matching of CNC technology, software, tools and milling strategy, everything from one single source: DATRON.

Machining time with DATRON C5 and 1.8kW spindle:
78 minutes

MILLING STRATEGIES USED

(selection)



	1	2	3
Machining:	Face milling	Chamfer milling	Roughing 1
End mill:	Toric end mill Ø6mm R0.5	Countersink tool Ø3mm, 90°	End mill Ø2,0mm, R1
Number of flutes:	4	2	2
Revolutions:	8,000 1/min	12,000 1/min	30,000 1/min
Feed rate:	0.6 m/min	0.4 m/min	0.6 m/min
XY infeed:	5.0 mm	0.5 mm	0.1 mm
Z infeed:	0.5 mm	0.5 mm	1 mm
Dynamics:	3	3	3
CAM chord error:	0.01	0.01	0.01
PerfectCut chord error:	0.01	0.01	0.008
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	4	5	6
Machining:	Roughing 2	Pre-smoothing	Smoothing
End mill:	End mill Ø1.0mm, R0.5	End mill Ø0.6mm, R0.3	End mill Ø0.4mm, R0.2
Number of flutes:	2	2	2
Revolutions:	35,000 1/min	40,000 1/min	40,000 1/min
Feed rate:	0.6 m/min	0.8 m/min	1.2 m/min
XY infeed:	0.05 mm	0.05 mm	0.03 mm
Z infeed:	0.3 mm	0.1 mm	0.05 mm
Dynamics:	3	2	2
CAM chord error:	0.01	0.007	0.007
PerfectCut chord error:	0.008	0.005	0.005
Article No:	0068400	00684006	00684004