

The ideal CNC milling machine for aluminium cutting as described:

Technical Data:

- 3.0 kW spindle
- automatic tool changer
- Installation dimensions (W x D x H) without terminal 1,740 mm x 1,740 mm x 1,950 mm
- Weight approx. 1,300 kg



DATRON M8Cube	✓
3.0 kW spindle with HSK-E 25 insert	✓
CNC hand-held control unit Pro B10-2 HSCpro	✓
Terminal with touchscreen, keyboard and integrated machine status display	✓
Minimum-quantity cooling lubrication system, incl. spray unit	✓
Tool changer for up to 24 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:

Vacuum Technology

DATRON vacuum plates feature high flexibility, high comfort of use and short changeover times.

- Vacuum distributor 2fold Pro
- Vacuum plate meandering groove 1,000 x 500 x 30 mm
- Vacuum pump 100 cbm, 3 x 400 V, 16 A, 1 1/4" Pro

XYZ Sensor

The XYZ sensor guarantees short setup times, increased precision and cost-efficiency by automatically measuring reference edges and height profile.

- Precision sensor ZTP-R
- 3D-(X,Y) extension for X, Y, Z sensor

Compact Centric Clamp

DATRON's compact centric clamps are high-quality and extremely accurate clamping systems.

- Specially developed slide geometry with a guide length of 150 mm
- Fully enclosed, 100% protected against soiling

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 representatives 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.



Cost-effective

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



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.



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.



CNC Machining system
DATRON M8Cube

HSC Aluminium Machining
Example: Electronics Industry



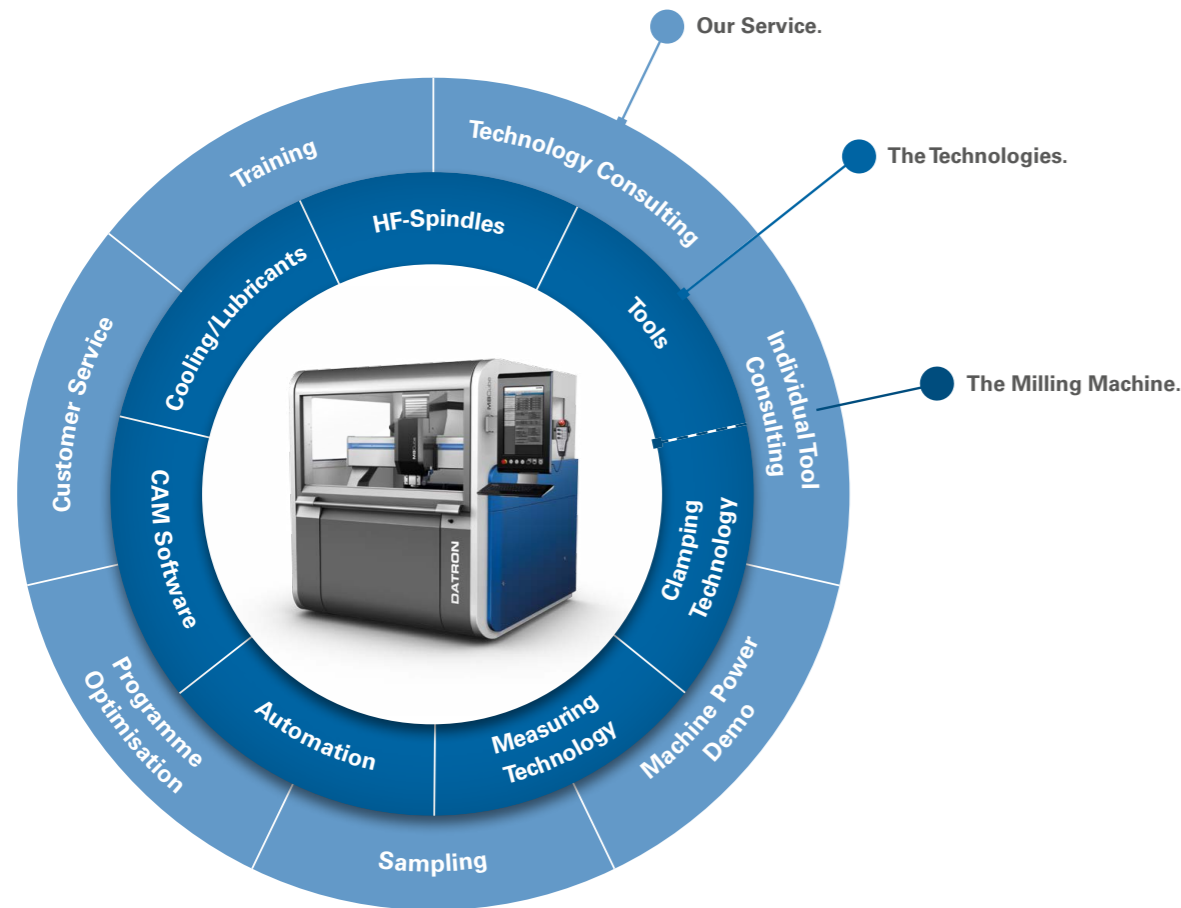
Watch the dynamic machining of aluminium using DATRON CNC technology!

Scan the QR code with your smartphone in order to watch the video or visit our YouTube channel and learn more about the diverse applications of DATRON CNC milling machines: www.youtube.com/DATRONAG

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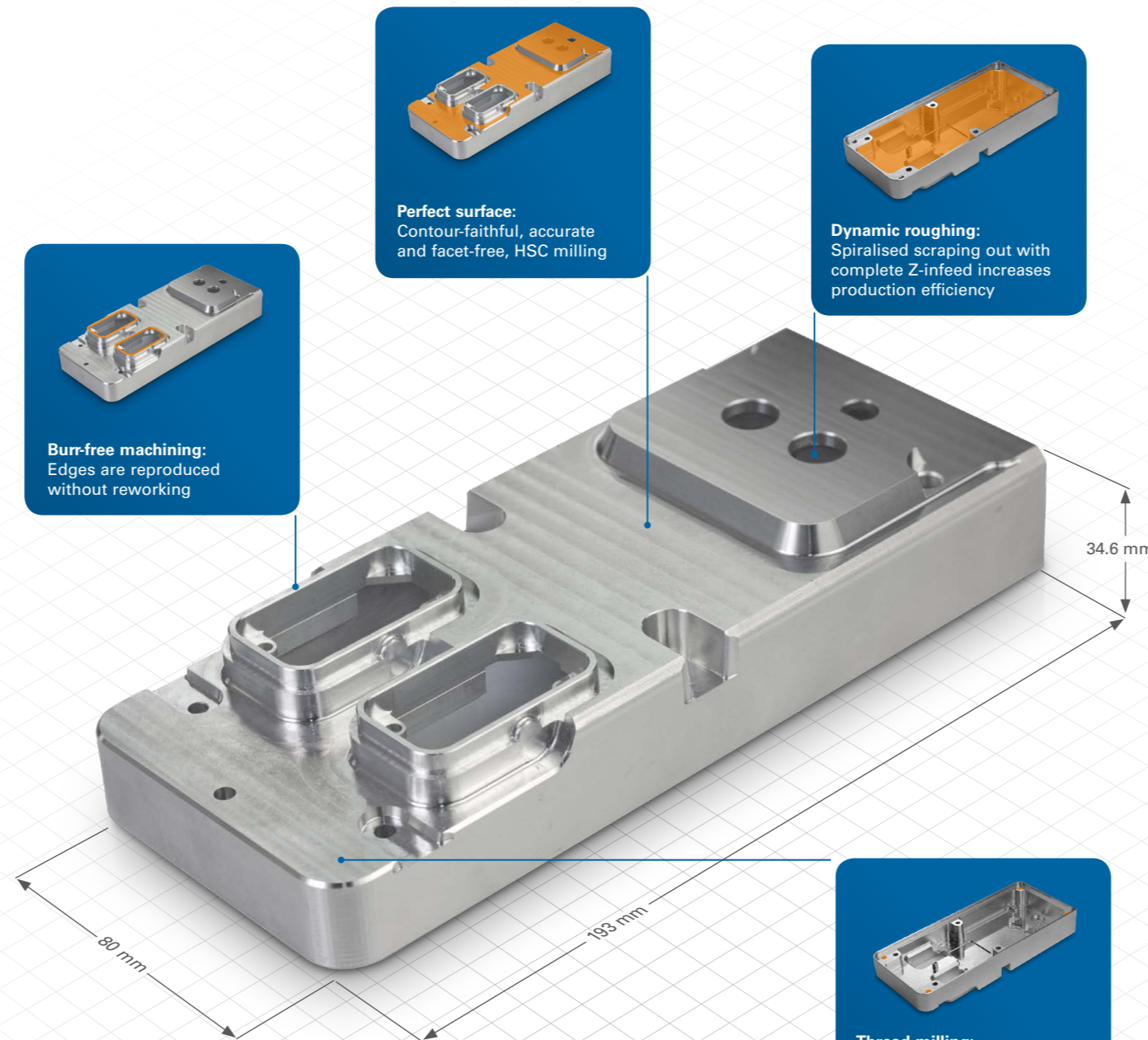
More than just machine construction – You Are in Expert Hands From A to Z

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.

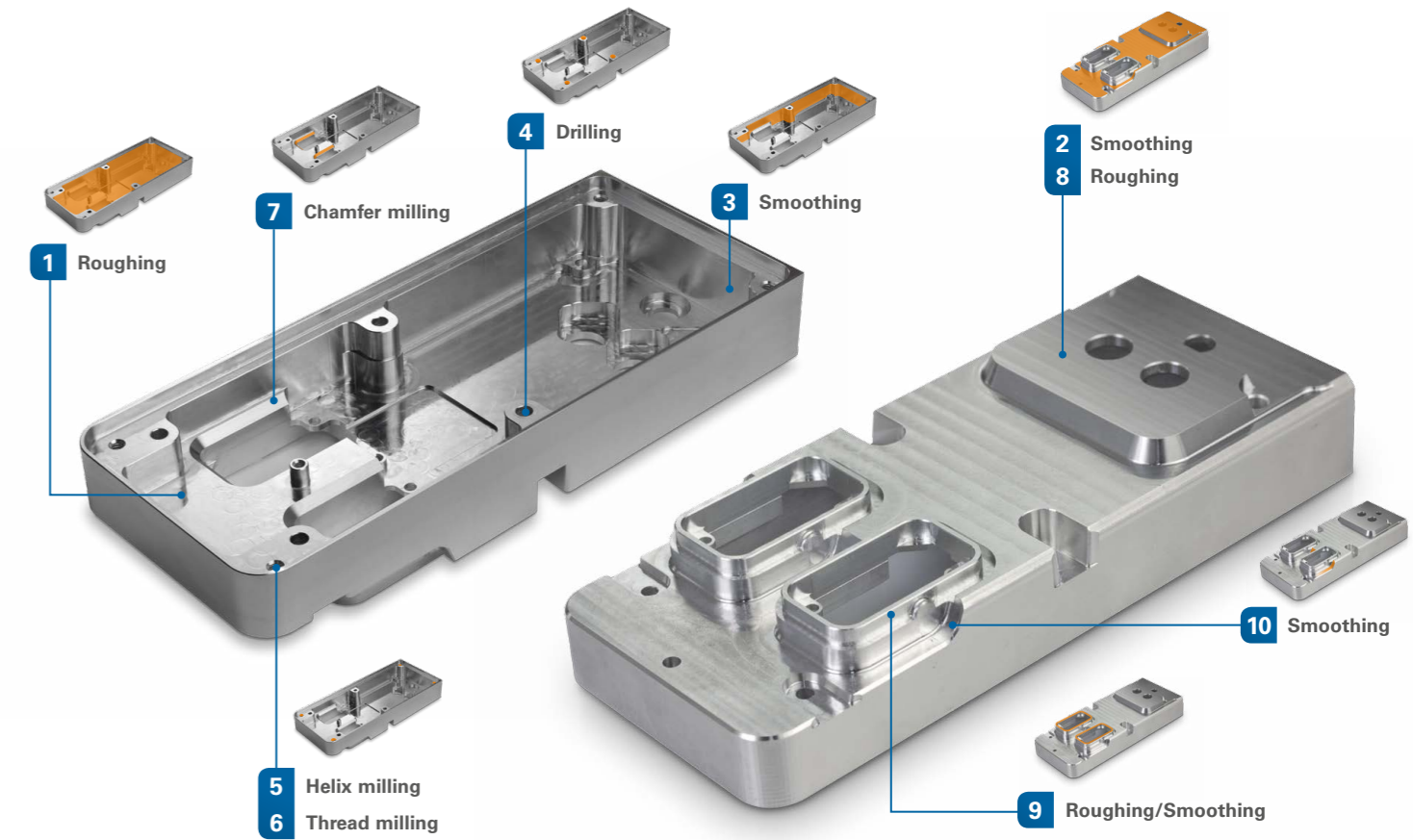


We Provide Solutions For Your Requirements

Especially in the electronics and in tool building industries short change-over times, faultless reproducibility and flexibly equipped milling cycles are key. With our combinations of modular machine systems, efficient accessories and highly precise tools you are well prepared for the production requirements of today and tomorrow. Even sophisticated shapes and surface geometries that were previously effected by other production techniques can be realized with DATRON technologies most economically.



Milling strategies used (Selection)



Machining:	1	2	3	4	5
	Roughing	Smoothing	Smoothing	Drilling	Helix milling
Milling tool:	End mill, Ø 10 mm	End mill with edge radius, Ø 8 mm, R1	End mill, Ø 6 mm	End mill, Ø 3 mm	End mill, Ø 2 mm
Number of flutes:	2	2	1	1	1
Speed:	33,000 rpm	25,000 rpm	34,000 rpm	40,000 rpm	40,000 rpm
Feed:	8 m/min	6 m/min	5 m/min	2.5 m/min	2.5 m/min
Infeed XY:	0.5 mm	4 mm	0.2 mm	0.6 mm	0.6 mm
Infeed Z:	24 mm	0.2 mm	5 mm	0.5 mm	0.5 mm
Dynamic:	5	2	1	3	23
Chord error CAM:	0.035 mm	0.015 mm	0.015 mm	0.025 mm	0.025 mm
Chord error PerfectCut:	0.05 mm	0.02 mm	0.02 mm	0.04 mm	0.04 mm
Art. No.	0068100L	0068080	0068496E	0068430L	0068492E

Machining:	6	7	8	9	10
	Thread milling	Chamfer milling	Roughing	Roughing/Smoothing	Smoothing
Milling tool:	Thread mill, Ø 2 mm, M2.5-M4	Countersink tool, Ø 8 mm	Monoblock tool, Ø 20 mm	End mill, Ø 10 mm	Ball nose end mill, Ø 3 mm
Number of flutes:	4	3	2	1	1
Speed:	35,000 rpm	25,000 rpm	36,000 rpm	35,000 rpm	40,000 rpm
Feed:	1 m/min	5 m/min	8 m/min	6 m/min	6 m/min
Infeed XY:	0.3 mm	0.2 mm	20 mm	10 mm	0.2 mm
Infeed Z:	0.6 mm	0.2 mm	1.5 mm	3 mm	0.2 mm
Dynamic:	2	2	5	5	3
Chord error CAM:	0.025 mm	0.025 mm	0.035 mm	0.035 mm	0.012 mm
Chord error PerfectCut:	0.04 mm	0.04 mm	0.05 mm	0.05 mm	0.02 mm
Art. No.	0068420	0068480	0078920	0068090K	0068173E

The perfect machining system for your application:

DATRON M8Cube

- **High dynamics** through optimised control and mechanical structure designed for speed and stiffness
- **Very high clamping performance** with the smallest tools by means of high-speed precision spindles with up to 60,000 rpm and 0.6 kW to 3.0 kW output
- **Stiff, vibration-free design** of the machine allows excellent surface finishes when machining
- **High precision** due to high-quality linear guides, ball screw spindles, HSK-E 25 tool inserts (optional) and precision-crafted structural elements



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 M8Cube and 3.0 kW spindle: **32 minutes**