Aerotech®

Air cooled dry cutting

CRUING
thinking beyond

Aerotech®

Air Cooled Dry Cutting

The Aerotech® System is a revolutionary tooling solution that thoroughly evacuates hot dust particles produced during cutting operations.

By effectively air cooling the material and cutter, it significantly **reduces machining temperatures**.

This allows manufacturers of composite parts to consider dry cutting their components, providing a practical alternative to machining with coolants.

Award Winning

Winner of four international awards for innovation and technology, the Aerotech® System has been qualified by leading tier 1 manufacturers and aircraft OEMs for the machining of their composite components.

CHALLENGERS WINNER 2008 · JEC Europe WINNER 2013 INNOVATION AWARD · JEC Americas WINNER 2013 INNOVATION AWARD · EXPERIENCE COMPOSITES INNOVATION AWARDS 2016

HBG Holz-Berufsgenossenschaft · IfW Institut für Werkzeugmaschinen · Universität Stuttgart · DGUV Test · Fraunhofer IPA

Patent Aerotech **EP 1940585** - Patent Faceplate **EP 10173827**

Aerotech®

Dust Free Machining

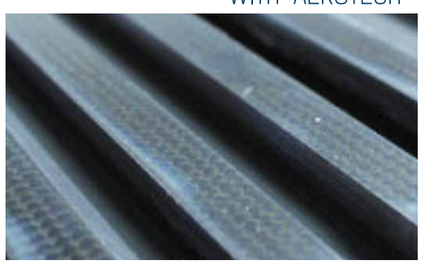
Health and Safety standards at the workplace advise that dust created through machining processes should be reduced at source and must fall within the Workplace Exposure Limits (WEL), this is where the Aerotech® System can help.

By capturing the dust at the point of cut and evacuating it directly into the CNC extraction shroud the **Aerotech® will greatly reduce, or even eliminate, airborne dust** that would otherwise pollute the work cell and contaminate the air.

WITHOUT AEROTECH®

Airborne dust can travel easily into other production areas and offices spaces. Avoiding airborne dust helps to provide cleaner breathable air for the entire factory.

WITH AEROTECH®

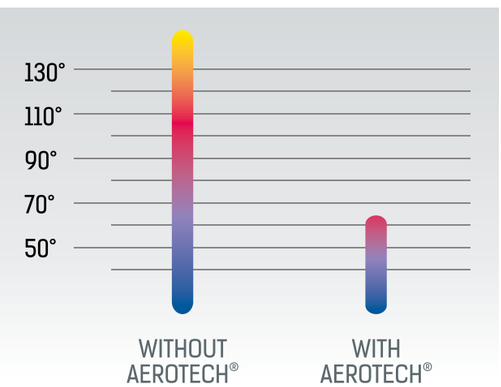


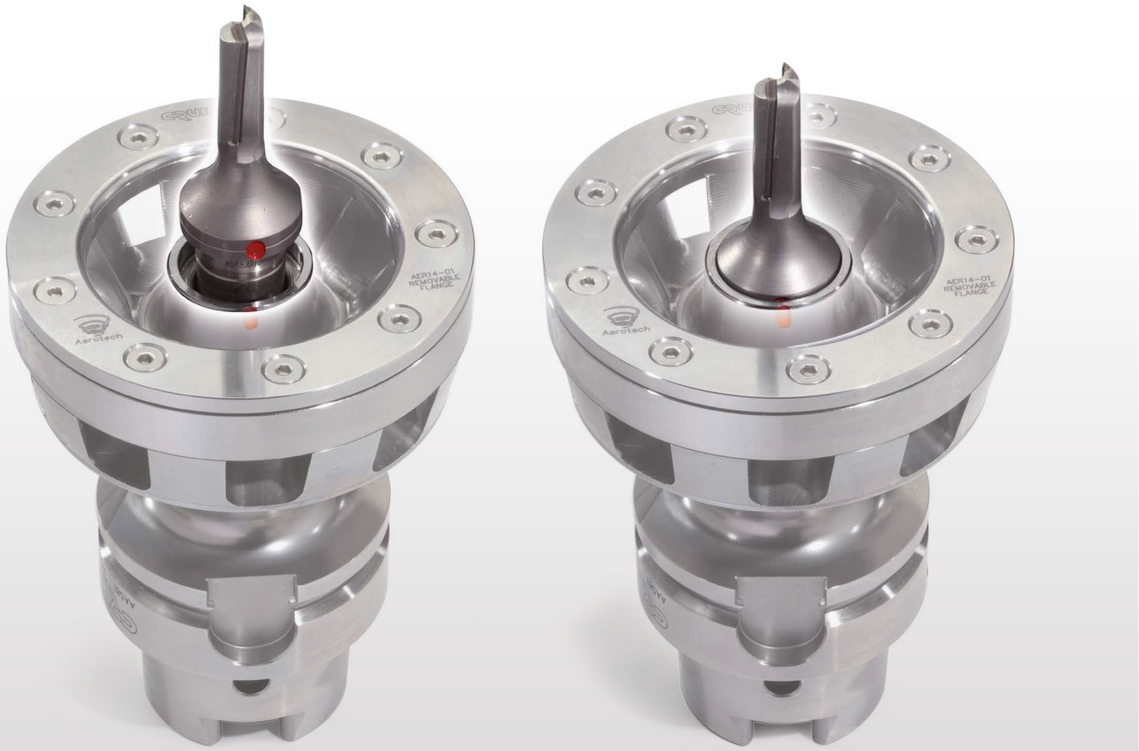
Efficient and cost-effective

The fluid dynamic model of the Aerotech® System impeller has been designed to suck in air at the point of cut and efficiently evacuate it through the Aerotech extraction ports. At operational RPM it can produce a high speed airflow of more than 80 m/sec. at the point of cut, sucking up and forcing away the dust into the centralized extraction system. The velocity of this airflow provides **efficient and cost-effective air cooling** and a dust free work environment.

Lower cutting temperatures

Heat generated through friction while cutting very abrasive, hard materials is what causes cutter failure and shorter cutter life. Being able to cut at lower temperatures is often a prerequisite for tier 1 and aircraft OEMs.





Qualified by tier 1 & aircraft OEMs

The qualities of the Aerotech® System are exemplified by the unique HSK20C cutters developed by Cruing in tandem with the Aerotech® System and available worldwide through the Cruing network of companies and selected partners.

HSK20C cutters are qualified by leading tier 1 and aircraft OEMs for the machining of their composite components.

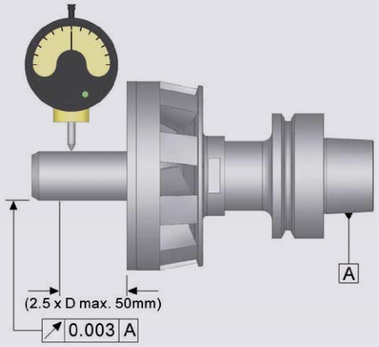
These cutters have an integral HSK cone for metal-to-metal contact both radially and axially.

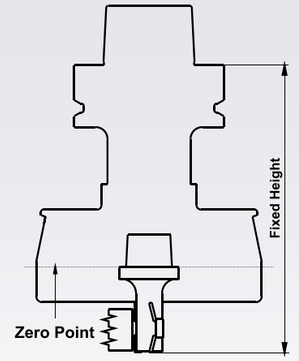
This guarantees permanent static accuracy and a fixed zero point, allowing the CNC machine operator to maintain a constant height of the machine's Z axis after changing between similar tools.

10 years in the field

First launched in 2008, the Aerotech® System has a proven track record of **precision and absolute reliability in demanding tier 1 production environments** producing CFRP components for aircraft OEMs.

Since the Aerotech® is manufactured from a solid piece of steel it has a permanent balance class of G<2.5 at 25.000 RPM and is also case hardened to 58HRC. The Aerotech® System is without doubt one of the most precise and reliable tool holding devices available in the market.





Engineered for purpose

The Aerotech® System has been specifically researched & developed, designed and engineered for purpose. Cruing are the pioneers and leaders in these combined sectors: Air Cooled Dry Cutting & Dust Free Machining. **Aerotech® is the future in CNC machining of composite parts.**

Stay on schedule

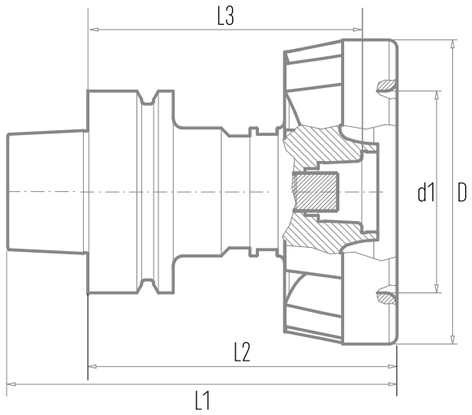
Cruing is specialized in the design and manufacture of PCD tools for composite materials: PCD technology combined with the **Aerotech® System is your 'best practice'**, putting you on course to achieving shorter lead times and allowing aircraft manufacturers to deliver to customers on schedule.

Aerotech® System

Art. Code AER-11A

TECHNICAL FEATURES

Machine interface:	HSK-F 63
Weight:	1,9 kg (without cutter)
N-max:	24.000 Rpm
Run-out:	< 0.003 mm x 2.5 D
Torque:	250 Nm

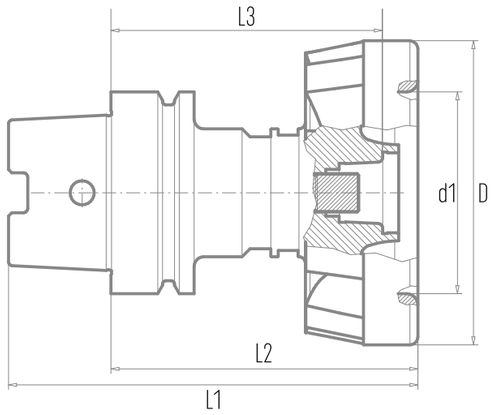


D	d1	L1	L2	L3
95	63	121	96	85

Art. Code AER-16A

TECHNICAL FEATURES

Machine interface:	HSK-A 63
Weight:	1,9 kg (without cutter)
N-max:	24.000 Rpm
Run-out:	< 0.003 mm x 2.5 D
Torque:	250 Nm



D	d1	L1	L2	L3
95	63	128	96	85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Germany

Cruing Germany
Bösingerstraße 5
78727 Oberndorf
Germany
Tel. +49 074238659148
Mob. +49 015140392345
info@cruing.de
www.cruing.de

Italy

Cruing Italy
Via Scozia, 14
Zona Industriale 64026
Roseto degli Abruzzi (TE)
Italy
Tel. +39 085.8930787
Fax. +39 085.8930790
info@cruing.com
www.cruing.com

U.S.A. / Canada

FS Cruing Diamond
Corporation
55 Administration Rd.
Unit 1 Concord
Ontario-Canada
L4K 4G9
ph +1 9057380145
Fax. +1 9057384615
1-800-461-5319
info@fscruing.com
www.fscruing.com

United Kingdom / Ireland

Cruing UK
Building One, Office "B"
Radway Green
Business Park
Crewe, Cheshire
CW2 5PR - UK
ph +44(0) 1270872924
Fax. +44(0) 1270872931
info@cruing.co.uk
www.cruing.co.uk

Denmark

Cruing DK
Fuglsang Naes 7A
7400 Herning
Denmark
Tel. +45 97120705
Mob. +45 29401447
info@cruing.dk
www.cruing.dk