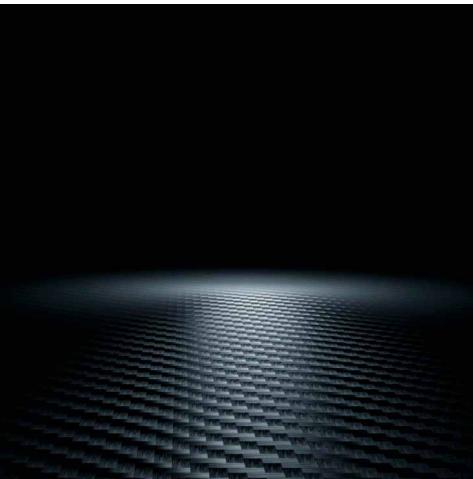


Diamond Cutting Tools for Composites



PCD CUTTING TOOLS FOR THE AEROSPACE AND COMPOSITE INDUSTRIES



Production plants and R&D facilities in Europe and North America enable Cruing to supply tested and award winning products worldwide.



JEC Europe



JEC Americas

CHALLENGERS

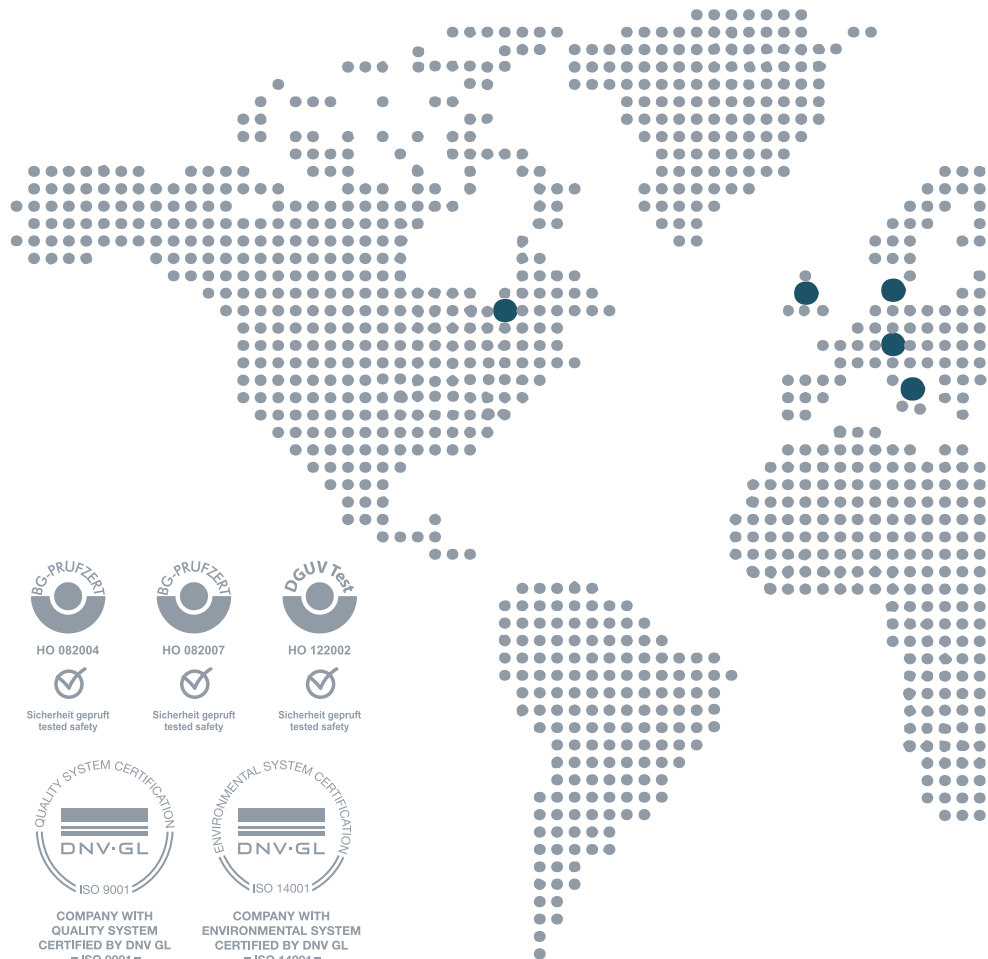


WINNER 2008



EXPERIENCE COMPOSITES

INNOVATION AWARDS 2016



HO 082004



Sicherheit geprüft
tested safety



HO 082007



Sicherheit geprüft
tested safety



HO 122002



Sicherheit geprüft
tested safety



ISO 9001

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =



ISO 14001

COMPANY WITH
ENVIRONMENTAL SYSTEM
CERTIFIED BY DNV GL
= ISO 14001 =

OUR EXPERIENCE TO OFFER ADVANCED SOLUTIONS

Thanks to its 50 years worth of experience, Cruing provides and suggests the latest solutions in composite machining and offers a wide range of PCD drills and mills tailored to specific customer needs.



Cruing is one of the most important groups for diamond cutting tools and works closely with many of the world's leading aerospace manufacturers, F1 racing teams and luxury yacht builders.





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.

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.

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.**





Dust Free Machining

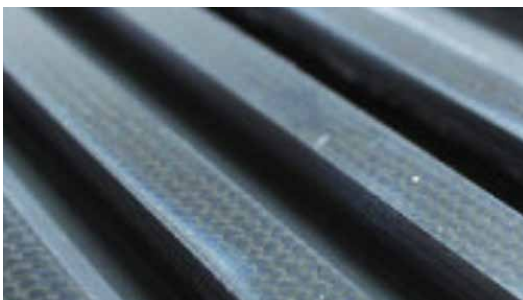
Health and Safety standards at the workplace advise that dust created through machining processes should be reduced at source and must fall within the Workplace Exposure Limits (WEL), this is where the Aerotech® System can help.

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®



With Aerotech®



Aero Drill

Drilling solutions for perfect holes

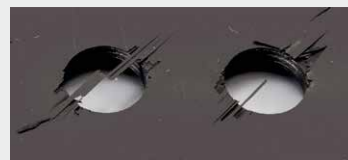
Cruing AeroDrill series offers unique designs for **PCD Straight and Twist drills, Countersinks and One-shot drill and countersinks.**

Many leading producers of CFRP parts for the Aerospace industry have already qualified Cruing drills and are benefitting from the performances of one of the most cost-effective drills available today.



- Unique uninterrupted PCD point
- Special drill point geometry and side profile
- Cutting edge optimized for unidirectional and woven CFRP
- Enhanced hole quality, precision and surface finish
- No delamination at hole entry/exit
- Extreme wear resistance for long tool life
- With external and internal coolant supply

See the difference that the new AeroDrill 101-Uni provides on unidirectional CFRP.



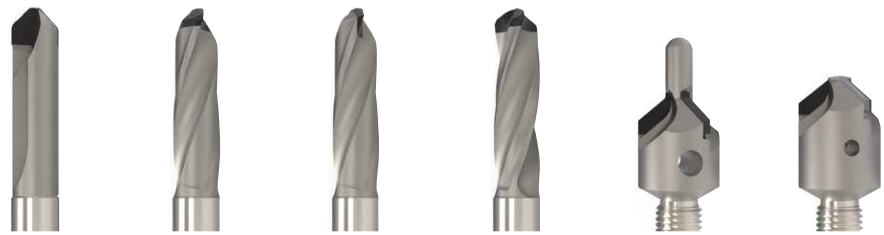
Standard drill




AeroDrill 101-Uni specifically developed for unidirectional CFRP




Tool Programme Drilling



		Twist-Drill Series				Countersink Series	
	Straight-Flute Series	AeroDrill 101	AeroDrill ST2	AeroDrill NX2	AeroDrill ST3	AeroDrill 801	AeroDrill 802
Technical design	Diameters (mm)	3,0 - 20,0	2,5 - 4,5	4,5 - 16,0	2,5 - 9,0	2,0 - 20,0	2,0 - 20,0
	Number of cutting edges	2	2	2	3	2/3	2/3
	Helix angle	0°	25°	25°	25°	0°	0°
	Cutting material	PCD	PCD	PCD	PCD	PCD	PCD
	Shank	DIN 6535 form HA	DIN 6535 form HA	DIN 6535 form HA	DIN 6535 form HA	Thread	Thread
Application		CNC drilling	CNC drilling	CNC drilling	CNC drilling	Hand-held countersinking (integral pilot)	Hand-held countersinking (interchangeable pilot)
Tool body		Solid carbide	Solid carbide	Solid carbide	Solid carbide	Steel	Steel
Available with through coolant		●	●	●	●		
Page		8	9	9	10	11	11

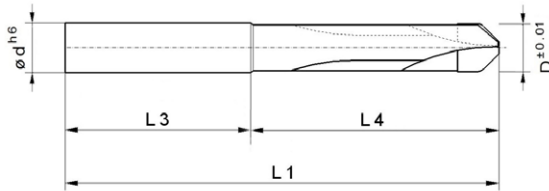


		One-shot Drill & Countersink Series		
		AeroDrill 101-V	AeroDrill ST2-V	AeroDrill NX2-V
Technical design	Drilling diameters (mm)	3,0 - 20,0	2,5 - 4,5	4,5 - 16,0
	Number of cutting edges	2+2	2+2	2+2
	Helix angle	0°	25°	25°
	Cutting material	PCD	PCD	PCD
	Shank	DIN 6535 form HA	DIN 6535 form HA	DIN 6535 form HA
Application		CNC one-shot drilling & countersinking	CNC one-shot drilling & countersinking	CNC one-shot drilling & countersinking
Tool body		Solid carbide	Solid carbide	Solid carbide
Available with through coolant		●	●	●
Page		12	13	13



Straight-Flute Drill Series

AeroDrill 101



Technical features:

- High density PCD cutting edges: 2
- Solid carbide straight fluted body
- Helix angle: 0°
- Cutting tolerance: +/- 0,01
- Balance: G2,5 < 1 gr/mm
- Diameters range: from 3,0 to 20,0 mm
- Shank form: DIN 6535 HA
- Through coolant from 4,00 mm



Through coolant on request

Applications:

- For CNC automated drilling of CFRP and hard composite materials

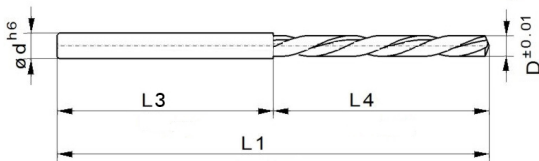
D	L1	L4	L3	d	Z
3,00	60	30	30	4	2
3,01-4,00	60	30	30	4	2
4,01-5,00	70	40	30	6	2
5,01-6,00	70	40	30	6	2
6,01-7,00	80	40	40	8	2
7,01-8,00	80	40	40	8	2
8,01-9,00	80	40	40	10	2
9,01-10,00	80	40	40	10	2
10,00-11,00	80	40	40	12	2
11,01-12,00	80	40	40	12	2
12,01-13,00	80	40	40	14	2
13,01-14,00	80	40	40	14	2
14,01-15,00	80	40	40	16	2
15,01-16,00	80	40	40	16	2

Available up to 20 mm on request.



Twist-Drill Series

AeroDrill ST2 AeroDrill NX2



Technical features:

- High density PCD cutting edges: 2
- Solid carbide twist body
- Helix angle: 25°
- Cutting tolerance: +/- 0,01
- Balance: G2,5 < 1 gr/mm
- Diameters range: from 2,5 to 16,0 mm
- Shank form: DIN 6535 HA
- Through coolant from 4,00 mm



Through coolant on request

Applications:

- For CNC automated drilling of CFRP and hard composite materials

AeroDrill ST2

D	L1	L4	L3	d	Z
2,50-3,00	60	30	30	4	2
3,01-3,50	60	30	30	4	2
3,51-4,00	60	30	30	4	2
4,01-4,50	60	30	30	6	2

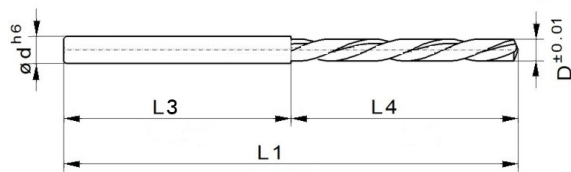
AeroDrill NX2

4,51-5,00	70	40	30	6	2
5,01-6,00	70	40	30	6	2
6,01-7,00	80	40	40	8	2
7,01-8,00	80	40	40	8	2
8,01-9,00	80	40	40	10	2
9,01-10,00	80	40	40	10	2
10,01-11,00	80	40	40	12	2
11,01-12,00	80	40	40	12	2
12,01-13,00	80	40	40	14	2
13,01-14,00	80	40	40	14	2
14,01-15,00	80	40	40	16	2
15,01-16,00	80	40	40	16	2



Twist-Drill Series

AeroDrill ST3



Technical features:

- High density PCD cutting edges: **3**
- Solid carbide twist body
- Helix angle: **25°**
- Cutting tolerance: **+/- 0,01**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 3,0 to 9,0 mm**
- Shank form: **DIN 6535 HA**
- Through coolant from **4,00 mm**



Through coolant on request

Applications:

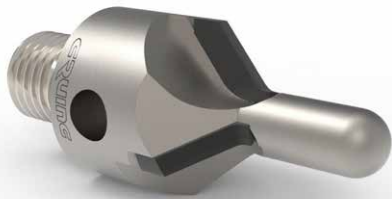
- For CNC automated drilling of CFRP and hard composite materials
- **Extended tool-life and lower delamination**

D	L1	L4	L3	d	Z
3,00-3,50	60	30	30	4	3
3,51-4,00	60	30	30	4	3
4,01-4,50	60	30	30	6	3
4,51-5,00	60	30	30	6	3
5,01-5,50	70	40	30	6	3
5,51-6,00	70	40	30	6	3
6,01-6,50	80	40	40	8	3
6,51-7,00	80	40	40	8	3
7,01-7,50	80	40	40	10	3
7,51-8,00	80	40	40	10	3
8,01-8,50	80	40	40	12	3
8,51-9,00	80	40	40	12	3



Countersink Series

AeroDrill 801 AeroDrill 802



Technical features:

- High density PCD cutting edges: 2/3
- Straight flutes
- Helix angle: 0°
- Pilot tolerance: +/- 0,05
- Balance: G2,5 < 1 gr/mm
- Pilot diameters range: from 2,0 to 20,0 mm
- Shank form: thread (metric or imperial)



Through coolant on request

Applications:

- For hand-held drilling of CFRP and hard composite/metallic stack materials
- With **integral** (801) or **interchangeable** (802) pilot
- Available for 100° and 130° countersinking
- Available with **customised pilot on request**



AeroDrill 801

D	Dref	Asv	Metric TH	Imperial TH	Z
10,00	3	100°/130°	M6x1,0	1/4" x 28 UNF	2/3
12,00	3	100°/130°	M6x1,0	1/4" x 28 UNF	2/3
14,00	3	100°/130°	M8x1,0	3/8" x 24 UNF	2/3
17,00	4	100°/130°	M8x1,0	3/8" x 24 UNF	2/3

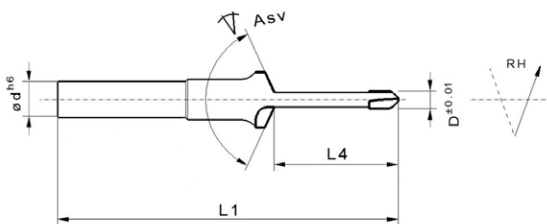
AeroDrill 802

10,00	2,5	100°/130°	M6x1,0	1/4" x 28 UNF	2/3
12,00	3	100°/130°	M6x1,0	1/4" x 28 UNF	2/3
14,00	3	100°/130°	M8x1,0	3/8" x 24 UNF	2/3
17,00	4	100°/130°	M8x1,0	3/8" x 24 UNF	2/3



One-Shot Drill & Countersink Series

AeroDrill 101-V



Technical features:

- High density PCD cutting edges: **2+2**
- Solid carbide straight fluted body
- Helix angle: **0°**
- Cutting tolerance: **+/- 0,01**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 3,0 to 16,0 mm**
- Shank form: **DIN 6535 HA**
- Through coolant from **4,00 mm**



Through coolant on request

Applications:

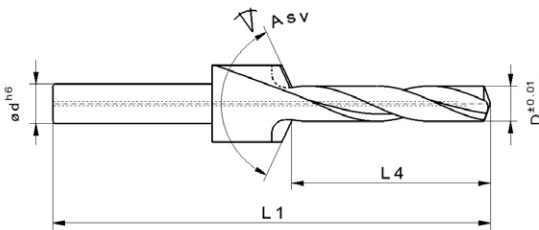
- For CNC automated one-shot drilling & countersinking of CFRP and hard composite materials
- Available for 100° and 130° countersinking

D	L1	L4	ASV	Z
3,00	80	30	100°/130°	2+2
3,01-4,00	80	30	100°/130°	2+2
4,01-5,00	90	40	100°/130°	2+2
5,01-6,00	90	40	100°/130°	2+2
6,01-7,00	100	40	100°/130°	2+2
7,01-8,00	100	40	100°/130°	2+2
8,01-9,00	100	40	100°/130°	2+2
9,01-10,00	100	40	100°/130°	2+2
10,01-11,00	100	40	100°/130°	2+2
11,01-12,00	100	40	100°/130°	2+2
12,01-13,00	100	40	100°/130°	2+2
13,01-14,00	100	40	100°/130°	2+2
14,01-15,00	100	40	100°/130°	2+2
15,01-16,00	100	40	100°/130°	2+2



One-Shot Drill & Countersink Series

AeroDrill ST2-V AeroDrill NX2-V



Technical features:

- High density PCD cutting edges: **2+2**
- Solid carbide twist body
- Helix angle: **25°**
- Cutting tolerance: **+/- 0,01**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 2,5 to 16,0 mm**
- Shank form: **DIN 6535 HA**
- Through coolant from **4,00 mm**



Through coolant on request

Applications:

- For CNC automated one-shot drilling & countersinking of CFRP and hard composite materials
- Available for 100° and 130° countersinking

AeroDrill ST2-V

D	L1	L4	ASV	Z
2,50-3,00	80	30	100°/130°	2+2
3,01-3,50	80	30	100°/130°	2+2
3,51-4,00	80	30	100°/130°	2+2
4,01-4,50	80	30	100°/130°	2+2

AeroDrill NX2-V

D	L1	L4	ASV	Z
4,51-5,00	90	40	100°/130°	2+2
5,01-6,00	90	40	100°/130°	2+2
6,01-7,00	100	40	100°/130°	2+2
7,01-8,00	100	40	100°/130°	2+2
8,01-9,00	100	40	100°/130°	2+2
9,01-10,00	100	40	100°/130°	2+2
10,01-11,00	100	40	100°/130°	2+2
11,01-12,00	100	40	100°/130°	2+2
12,01-13,00	100	40	100°/130°	2+2
13,01-14,00	100	40	100°/130°	2+2
14,01-15,00	100	40	100°/130°	2+2
15,01-16,00	100	40	100°/130°	2+2

Aero Mill High-performance milling

Cruing AeroMill series offers **PCD cutters designed for milling CFRP, composites and light alloys.**

AeroMill series covers the complete range of cutting tools commonly used within the Aerospace and composite industries. **Edge milling, ball-nose and face milling solutions**, all qualified by leading manufacturers cutting CFRP parts.



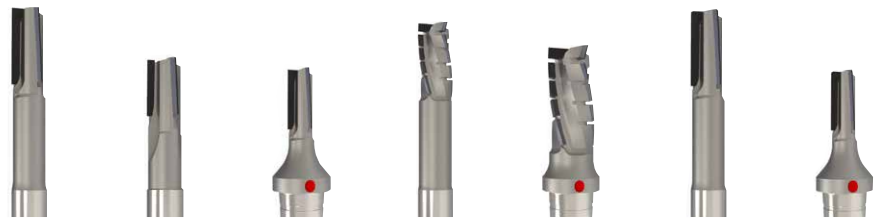
- No chatter and vibration
- Increased edge retention
- No delamination
- Super-fine surface finish
- Low Ra values
- Solid-carbide or heavy metal tungsten alloy body
- With external and internal coolant supply

AeroMill cutters are also available with **HSK20C cones** for use with the **Aerotech®**, **Basic®** & **Reach® holders**. This allows users of HSK20C cutters the possibility to **utilize the same cutter across various applications**, thus reducing the assortment of cutters required and increasing the potential to cover emergencies.


HSK20C cutters connect to their holders both radially and axially for full metal-to-metal contact and **provide a fixed zero point**, allowing the CNC machine operator to maintain a constant setting of the machines Z axis after changing between similar tools.



Tool Programme Milling




End-Mill Series

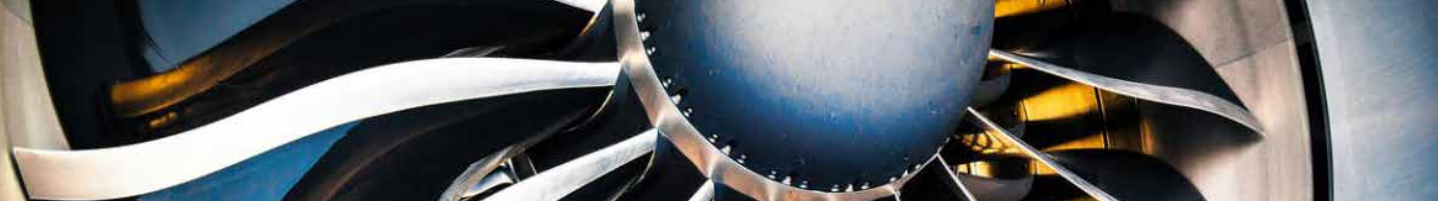
Technical design		AeroMill M11	AeroMill M12	AeroMill M13	AeroMill M18	AeroMill M19	AeroMill M31	AeroMill M32
	Diameters (mm)	9,0 - 25,0	3,0 - 25,0	10,0 - 25,0	14,0 - 20,0	14,0 - 20,0	10,0 - 25,0	12,0 - 25,0
	Number of cutting edges	2/3	1/2/3	2/3	3	3	2/3	2/3
	Helix angle	0° - 5°	0° - 5°	0° - 5°	0° - 5°	0° - 5°	0° - 5°	0° - 5°
	Cutting material	PCD	PCD	PCD	PCD	PCD	PCD	PCD
	Shank	DIN 6535 form HA	DIN 6535 form HA	HSK20C	DIN 6535 form HA	HSK20C	DIN 6535 form HA	HSK20C
Application		CNC finishing	CNC finishing	CNC finishing	CNC pre-finishing & large volume removal	CNC pre-finishing & large volume removal	CNC edge finishing & inside corner rounding	CNC edge finishing & inside corner rounding
Tool body		Heavy metal tungsten alloy	Solid carbide	Heavy metal tungsten alloy	Heavy metal tungsten alloy	Heavy metal tungsten alloy	Heavy metal tungsten alloy	Heavy metal tungsten alloy
Available with through coolant		●	●		●		●	
Air cooled dry cutting (with Aerotech System)				●		●		●
Page		16	16	16	18	18	20	20



Ball-Nose Series

Face-Mill Series

Technical design		AeroMill M21	AeroMill M22	AeroMill M23	AeroMill M28	AeroMill M29	AeroMill M41	AeroMill M42
	Diameters (mm)	10,0 - 25,0	4,0 - 25,0	10,0 - 25,0	20,0 - 40,0	25,0 - 40,0	25,0 - 80,0	25,0 - 50,0
	Number of cutting edges	2/3	1/2/3	2/3	2+2	2+2	4/8	4/5
	Helix angle	0° - 5°	0° - 5°	0° - 5°	10° - 25°	10° - 25°	0° - 10°	0° - 10°
	Cutting material	PCD	PCD	PCD	PCD	PCD	PCD	PCD
	Shank	DIN 6535 form HA	DIN 6535 form HA	Thread	DIN 6535 form HA	Thread	DIN 6535 form HA	HSK20C
Application		CNC slotting & profiling	CNC slotting & profiling	CNC slotting & profiling	CNC profiling & pre-finishing	CNC profiling & pre-finishing	CNC high-speed facing	CNC high-speed facing
Tool body		Heavy metal tungsten alloy	Solid carbide	Heavy metal tungsten alloy	Heavy metal tungsten alloy	Heavy metal tungsten alloy	Heavy metal tungsten alloy	Heavy metal tungsten alloy
Available with through coolant		●	●		●		●	
Air cooled dry cutting (with Aerotech System)								●
Page		22	22	22	24	24	26	26



End-Mill Series

AeroMill M11
AeroMill M12
AeroMill M13



Technical features:

- High density PCD cutting edges: 1/2/3
- Heavy metal tungsten alloy body (M11-M13)
- Solid carbide body (M12)
- Helix angle: 0° - 5°
- Cutting tolerance: +/- 0,01
- Balance: $G2,5 < 1 \text{ gr/mm}$
- Diameters range: from 3,0 to 25,0 mm
- Shank form: DIN 6535 HA (M11-M12) or HSK20C (M13)

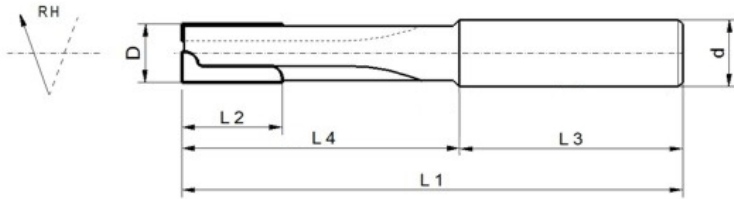


Through coolant on request

Applications:

- For CNC automated cutting of CFRP, aluminium and light alloy materials
- Particularly indicated for **finishing** operations
- Available with through coolant, if operating with Basic and Reach tool holders
- For use with Aerotech System for **air cooled dry cutting**
- **Customised finishing cutters** available on request

AeroMill M11 – AeroMill M12



AeroMill M11 (heavy metal tungsten alloy body)

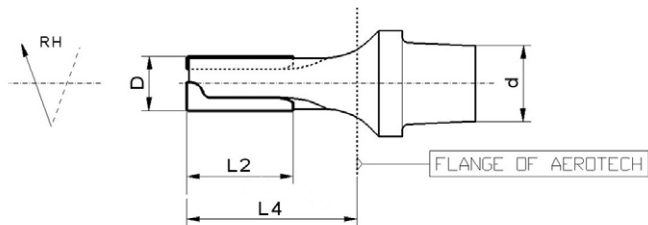
D	L1	L2	L4	L3	d	Z	HDP
9,01-10,00	75	15	35	40	10	2/3	3
10,01-11,00	75	15	35	40	12	2/3	3
11,01-12,00	75	15	35	40	12	2/3	3
12,01-13,00	85	15	35	50	14	2/3	3
13,01-14,00	85	15	35	50	14	2/3	3
14,01-15,00	100	20	50	50	16	2/3	4
15,01-16,00	100	20	50	50	16	2/3	4
16,01-20,00	100	20	50	50	20	2/3	4
20,01-25,00	100	20	50	50	25	2/3	4

AeroMill M12 (solid carbide body)

3,00	50	8	20	30	4	1	2
4,00	60	10	30	30	6	1	2
6,00	60	15	30	30	6	2/3	2
6,00	100	20	70	30	6	2/3	2
8,00	60	15	30	30	8	2/3	2
8,00	100	20	70	30	8	2/3	2
10,00	75	15	35	40	10	2/3	3
10,00	100	20	60	40	10	2/3	3
12,00	75	15	35	40	12	2/3	3
12,00	100	20	60	40	12	2/3	3

Available up to 25 mm on request.

AeroMill M13



D	L1	L2	L4	d	Z	HDP
12,00-16,00		15	20	HSK20C	2	3
12,00-16,00		15	20	HSK20C	3	3
12,00-16,00		20	25	HSK20C	2	3
12,00-16,00		20	25	HSK20C	3	3
12,00-16,00		25	30	HSK20C	2	3
12,00-16,00		25	30	HSK20C	3	3

Available from diameter 10 mm to 25 mm on request.



End-Mill Series

AeroMill M18 AeroMill M19



Technical features:

- High density PCD cutting edges: **3**
- Heavy metal tungsten alloy body
- Helix angle: **0° - 25°**
- Cutting tolerance: **+/- 0,01**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 14,0 to 20,0**
- Shank form: **DIN 6535 HA (M18)**
or **HSK20C (M19)**

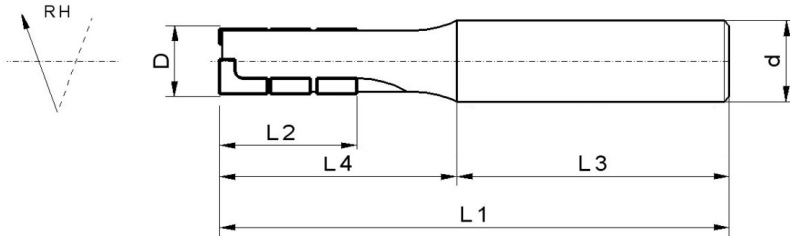


Through
coolant
on request

Applications:

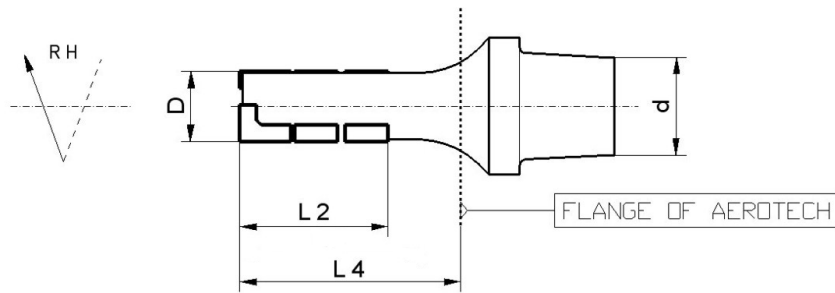
- For CNC automated cutting of CFRP, aluminium and light alloy materials
- Particularly indicated for **pre-finishing** and **large volume** removal operations
- "Easy-Flow" design for more efficient dust and chip evacuation
- Available with through coolant, if operating with Basic and Reach tool holders
- For use with Aerotech System for **air cooled dry cutting**
- **Customised pre-finishing cutters** available on request

AeroMill M18



D	L1	L2	L4	L3	d	Z	HDP
14,01-16,00	80	15	30	50	16	3	3
16,01-20,00	80	15	30	50	20	3	3

AeroMill M19



D	L1	L2	L4	d	Z	HDP
14,01-16,00		15	20	HSK20C	3	3
16,01-20,00		15	20	HSK20C	3	3

Available up to 25 mm on request.

End-Mill Series

AeroMill M31 AeroMill M32



Technical features:

- High density PCD cutting edges: **2/3**
- Heavy metal tungsten alloy body
- Helix angle: **0° - 5°**
- Cutting tolerance: **+/- 0,01**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 10,0 to 25,0 mm**
- Shank form: **DIN 6535 HA (M31)**
or **HSK20C (M32)**

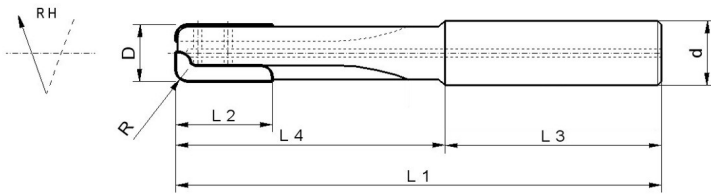


Through
coolant
on request

Applications:

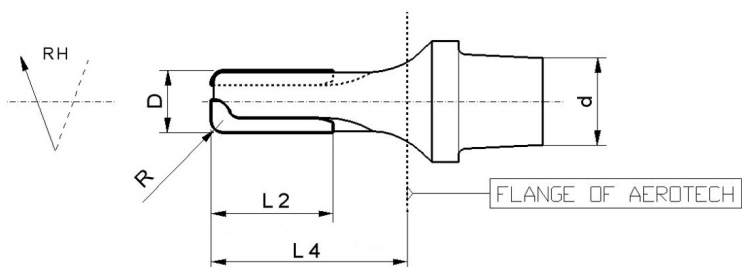
- For CNC automated cutting of CFRP, aluminium and light alloy materials
- Particularly indicated for simultaneous **edge finishing** and **inside corner** rounding operations
- Available with through coolant, if operating with Basic and Reach tool holders
- For use with Aerotech System for **air cooled dry cutting**
- Customised "bull nose" finishing cutters available **on request**

AeroMill M31



D	L1	L2	L4	L3	d	Z	HDP
10,00-11,00	75	15	35	40	12	2/3	3
11,01-12,00	75	15	35	40	12	2/3	3
12,01-13,00	85	15	35	50	14	2/3	3
13,01-14,00	85	15	35	50	14	2/3	3
14,01-15,00	100	20	50	50	16	2/3	4
15,01-16,00	100	20	50	50	16	2/3	4
16,01-20,00	100	20	50	50	20	2/3	4
20,01-25,00	100	20	50	50	25	2/3	4

AeroMill M32



D	L1	L2	L4	L3	d	Z	HDP
12,00-16,00		15	20		HSK20C	2	3
12,00-16,00		15	20		HSK20C	3	3
12,00-16,00		20	25		HSK20C	2	3
12,00-16,00		20	25		HSK20C	3	3
12,00-16,00		25	30		HSK20C	2	3
12,00-16,00		25	30		HSK20C	3	3



Ball-Nose Series

AeroMill M21
AeroMill M22
AeroMill M23



Technical features:

- High density PCD cutting edges: **1/2/3**
- Heavy metal tungsten alloy body (M21-M23)
- Solid carbide body (M22)
- Helix angle: **0° - 5°**
- Cutting tolerance: **+/- 0,01**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 4,0 to 25,0 mm**
- Shank form: **DIN 6535 HA (M21-M22)**
or **thread (M23)**

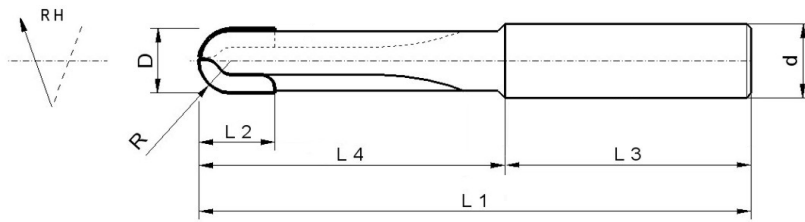


Through
coolant
on request

Applications:

- For CNC automated cutting of CFRP, aluminium and light alloy materials
- Particularly indicated for **high speed precision machining of 3-dimensional contoured shaped components** (slotting & profiling)
- **Customised ball nose cutters available on request**

AeroMill M21 – AeroMill M22



AeroMill M21 (heavy metal tungsten alloy body)

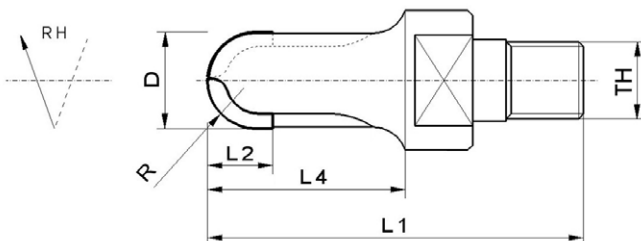
D	L1	L2	L4	L3	d	Z	HDP
10,00	100	8	55	45	10	2	3
12,00	100	9	50	50	12	2/3	3
16,00	100	10	50	50	16	2/3	3
20,00	100	12	45	55	20	2/3	3

AeroMill M22 (solid carbide body)

D	L1	L2	L4	L3	d	Z	HDP
4,00	50	6	20	30	6	1	2
6,00	100	6	60	40	8	2	3
8,00	100	7	60	40	8	2	3
10,00	100	8	55	45	10	2	3
12,00	100	9	50	50	12	2/3	3
16,00	100	10	50	50	16	2/3	3
20,00	100	12	45	55	20	2/3	3

Available up to 25 mm on request.

AeroMill M23

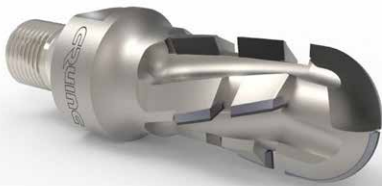


D	L1	L2	L4	TH	Z	HDP
10,00	78	8	41	M16	2	3
12,00	78	9	41	M16	2/3	3
16,00	78	10	41	M16	2/3	3

Available up to 25 mm on request.

Ball-Nose Series

AeroMill M28 AeroMill M29



Technical features:

- High density PCD cutting edges: **2+2**
- Heavy metal tungsten alloy body
- Helix angle: **10° - 25°**
- Cutting tolerance: **+/- 0,02**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 16,0 to 40,0 mm**
- Shank form: **DIN 6535 HA (M28)**
or **thread (M29)**

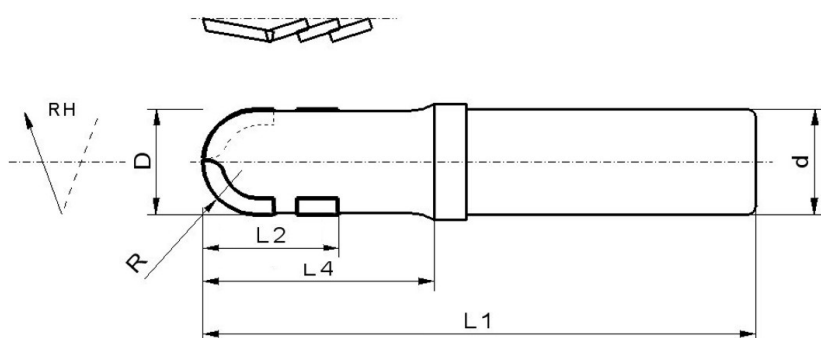


Through
coolant
on request

Applications:

- For CNC automated cutting of CFRP, aluminium and light alloy materials
- Particularly indicated for **multi-role operations of profiling and pre-finishing** (ball nose cutter w/out axial angle and pre-finishing cutter with converging axial angle)
- "Easy-Flow" design for more efficient dust and chip evacuation
- **Customised multi-role cutters** available on request

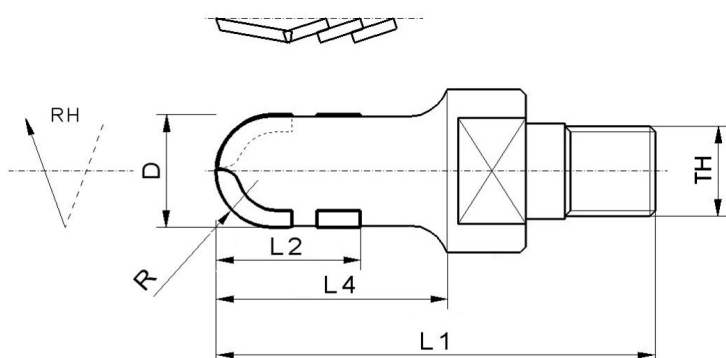
AeroMill M28



D	L1	L2	L4	d	Z	HDP
20,00	150	30	55	25	2+2	3
25,00	150	50	55	25	2+2	3
32,00	150	50	55	25	2+2	3

Available up to 40 mm on request.

AeroMill M29



D	L1	L2	L4	TH	Z	HDP
25,00	78	50	55	M16	2+2	3
32,00	78	50	55	M16	2+2	3
40,00	78	50	55	M16	2+2	3



Face-Mill Series

AeroMill M41 AeroMill M42



Technical features:

- High density PCD cutting edges: **4/8**
- Heavy metal tungsten alloy body (up to 40 mm)
- Case hardened body (over 40 mm)
- Helix angle: **0° - 10°**
- Cutting tolerance: **+/- 0,02**
- Balance: **G2,5 < 1 gr/mm**
- Diameters range: **from 25,0 to 80,0 mm**
- Shank form: **DIN 6535 HA (M41)** or **HSK20C (M42)**

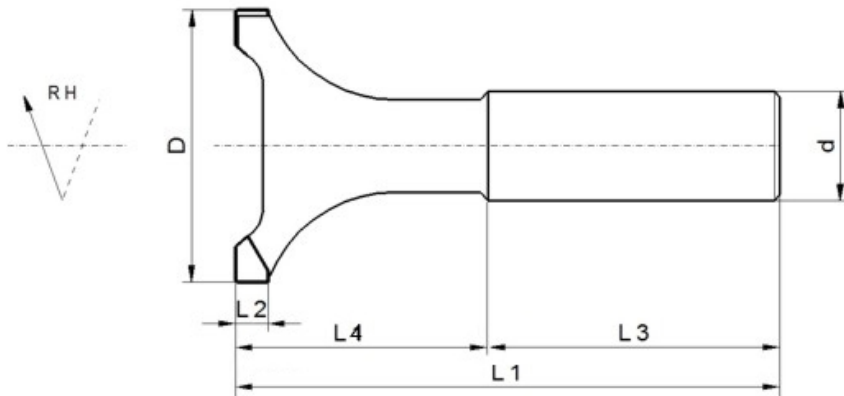


Through coolant on request

Applications:

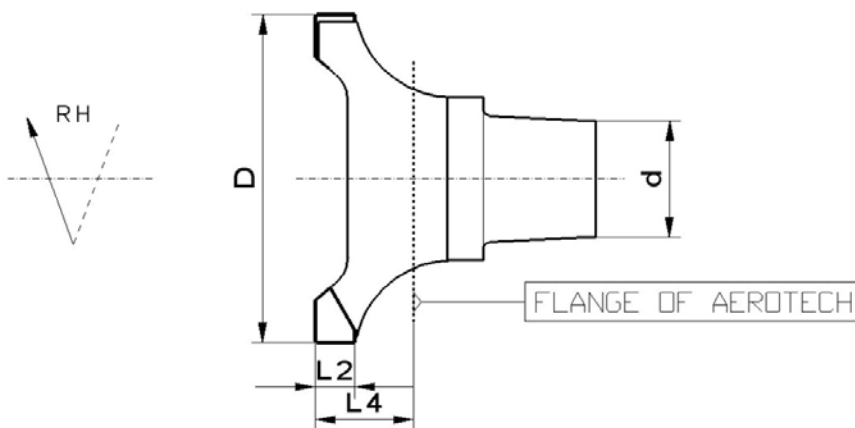
- For CNC automated cutting of CFRP, aluminium and light alloy materials
- Particularly indicated for **high speed facing** operations
- "Easy-Flow" design for more efficient dust and chip evacuation
- Profiled "GlideCut" edges to reduce cutting pressure
- Available with through coolant, if operating with Basic and Reach tool holders
- For use with Aerotech System for **air cooled dry cutting**
- **End-cut-to-centre design** available up to 40 mm diameters
- **Customised multi-role cutters** available on request

AeroMill M41



D	L1	L2	L4	L3	d	Z	HDP
25,00	100	10	45	55	25	4	3
32,00	100	10	45	55	25	4	3
40,00	100	10	45	55	25	5	3
60,00	100	10	45	55	25	8	3
70,00	100	10	45	55	25	8	3
80,00	100	10	45	55	25	8	3

AeroMill M42



D	L1	L2	L4	L3	d	Z	HDP
25,00		10	12		HSK20C	4	3
32,00		10	12		HSK20C	4	3
40,00		10	12		HSK20C	5	3
50,00		10	12		HSK20C	5	3



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