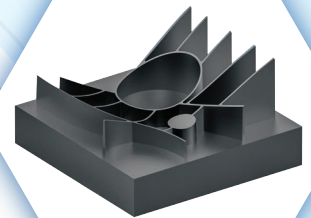
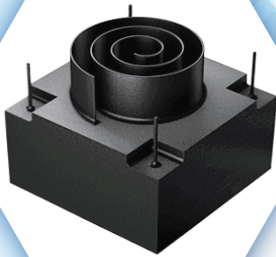


High Precision Milling Tools Graphite Machining



High Precision Milling Tools for Graphite Machining

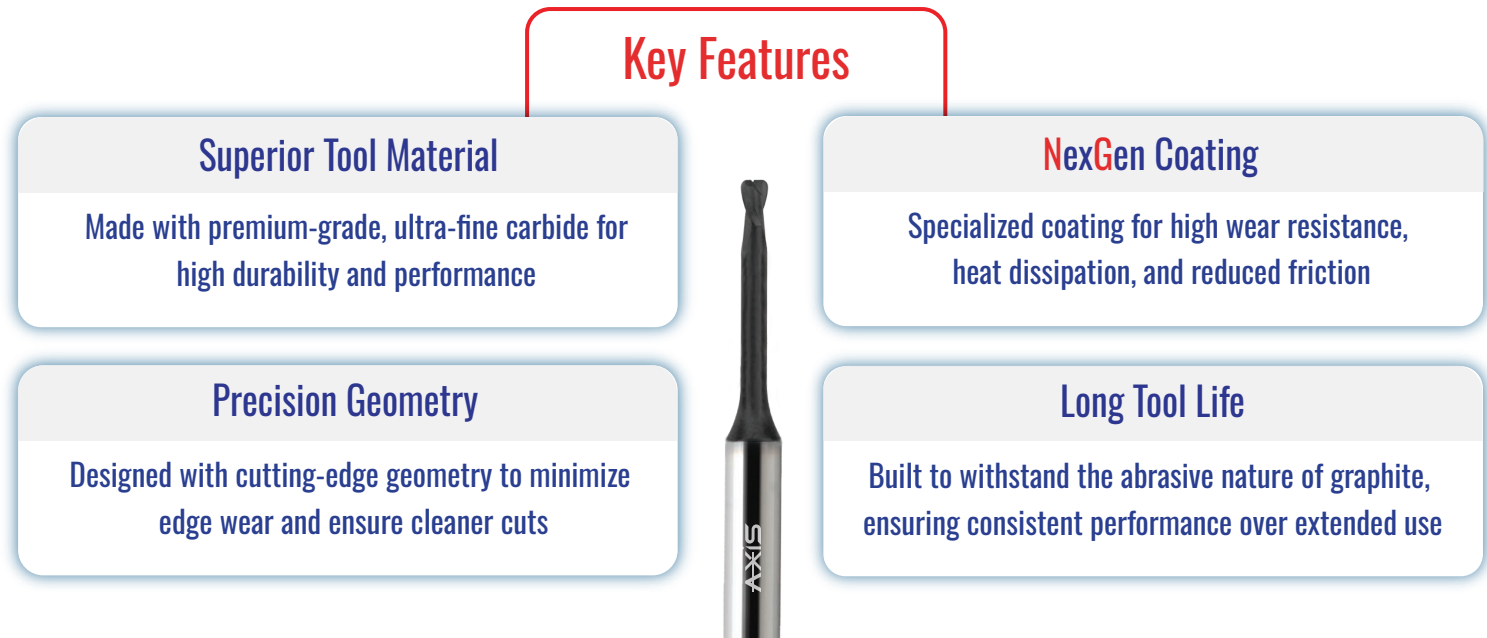
Maximize Efficiency and Accuracy

Graphite is a highly abrasive material, but with AXIS high-performance milling tools, you can achieve exceptional precision, superior surface quality, and maximize efficiency. Engineered specifically for graphite machining, our tools offer unparalleled wear resistance and extended tool life, even in the most demanding environments.

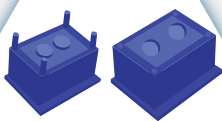


Key Challenges in Graphite Electrode Machining:

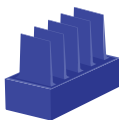
- **Optimized Tool Geometry for Efficient Chip Removal** : High RPMs require precision-balanced tools with ample chip room to ensure smooth chip evacuation. Our tools are designed with optimal geometries that enhance both machining efficiency and product quality, enabling you to achieve top-tier results in graphite machining.
- **Advanced High-Speed Machining**: With spindle speeds ranging from 30,000 to 60,000 RPM, modern high-speed machining centers allow for accelerated feeds, significantly reducing cycle times while enhancing surface finish and edge quality. This is crucial for intricate electrode designs where fragile micro-tools are often used, ensuring lower cutting forces and reduced tool breakage.



Applications



Precision Mold & Die making



EDM Electrodes



Aerospace Components

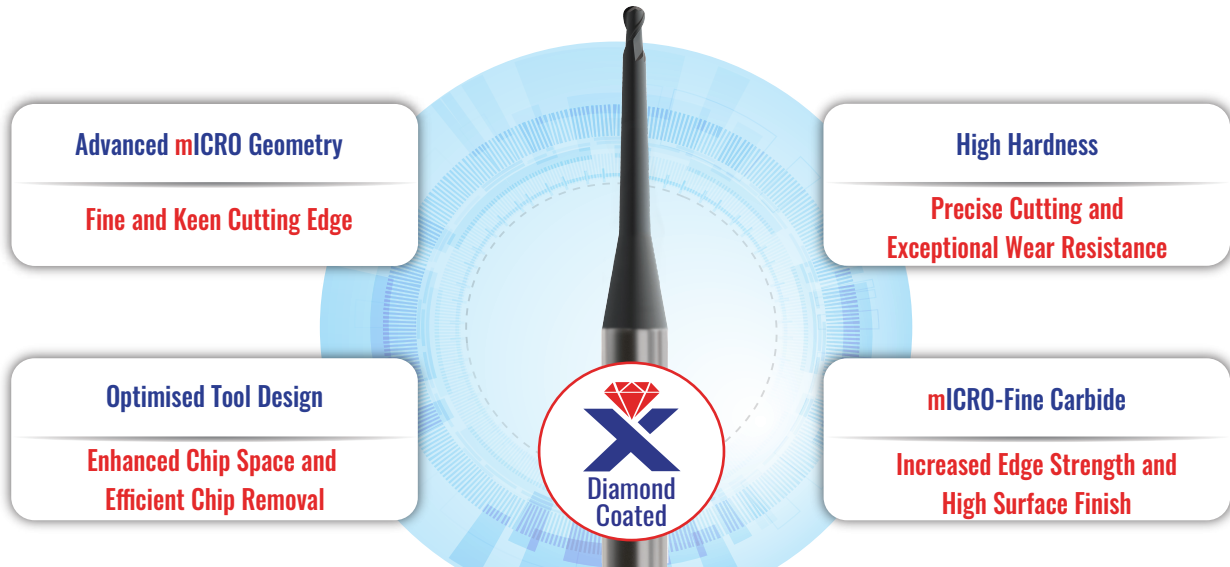


Automotive Parts

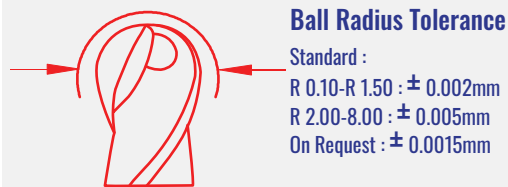
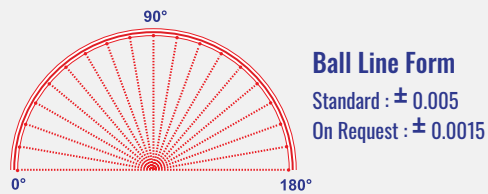
NexGen CVD Diamond Coatings

AXIS introducing CVD Diamond coated tools for machining of Graphite Electrodes and other graphite parts. As graphite is brittle in nature, so machining is also very difficult. Graphite electrodes used in EDM need to be precise and accurate. At AXIS, we provide tools with close tolerances and highly uniform CVD Diamond Coating resulting into high quality and precise machining of graphite electrodes.

High Exceptional Performance



Accurate & Consistent Profile



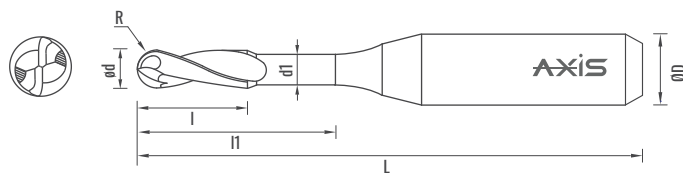
AXIS Portfolio

Article	Tool Drawing	Series	Dia Range (mm)	Dia Tolerance	Concentricity
B200-SN		2 Flute Ballnose End Mill Diamond Coated	0.10 -12.00	+ 0.00 / - 0.010 for $\varnothing < 6.00$ + 0.00 / - 0.015 for $\varnothing \geq 6.00$	$0.003 \leq \varnothing 6.00, L \leq 60.00$ $0.005 > \varnothing 6.00$
E215-SN		2 Flute End Mill Corner Radius Diamond Coated	0.10 - 6.00	+ 0.00 / - 0.010 for $\varnothing < 6.00$ + 0.00 / - 0.015 for $\varnothing \geq 6.00$	$0.003 \leq \varnothing 6.00, L \leq 60.00$ $0.005 > \varnothing 6.00$
E218-SN		4 Flute End Mill Corner Radius Diamond Coated	4.00 - 12.00	+ 0.00 / - 0.020 for $\varnothing < 4.00$ + 0.00 / - 0.030 for $\varnothing \geq 4.00$	0.010

2 Flute Ballnose End Mill Diamond Coated

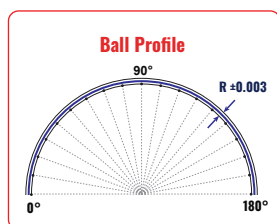


B200-SN



Dia Tolerance :
+ 0.00 / - 0.010 for Ød < 6.00
+ 0.00 / - 0.015 for Ød ≥ 6.00

Concentricity :
0.003 ≤ Ø 6.00, L ≤ 60.00
0.005 > Ø 6.00



APPLICATION

Suitable for milling Graphite,
CFK/GFK, Green stage ceramic /
Carbides and Non ferrous

ADVANTAGES

Higher dimensional accuracy

Improved process capability

Extreme wear resistance
CVD Diamond Coating

Assured quality control

PACKING

Single tool per pack

ON REQUEST

Special Sizes / Inch Sizes

Ød	R ±0.003	l	l1	d1	L	ØD h5
0.10	0.05	0.15	0.2	0.09	60	4.00
0.10	0.05	0.15	0.4	0.09	60	4.00
0.15	0.075	0.2	0.3	0.14	60	4.00
0.15	0.075	0.2	0.6	0.14	60	4.00
0.20	0.10	0.3	0.6	0.18	60	4.00
0.20	0.10	0.3	1.0	0.18	60	4.00
0.20	0.10	0.3	1.5	0.18	60	4.00
0.30	0.15	0.5	0.5	0.27	60	4.00
0.30	0.15	0.5	1.0	0.27	60	4.00
0.30	0.15	0.5	1.5	0.27	60	4.00
0.30	0.15	0.5	3.0	0.27	60	4.00
0.30	0.15	0.5	4.5	0.27	60	4.00
0.30	0.15	0.5	6.0	0.27	60	4.00
0.40	0.20	0.6	2.0	0.36	60	4.00
0.40	0.20	0.6	4.0	0.36	60	4.00
0.40	0.20	0.6	6.0	0.36	60	4.00
0.40	0.20	0.6	8.0	0.36	60	4.00
0.50	0.25	0.7	2.5	0.45	60	4.00
0.50	0.25	0.7	5.0	0.45	60	4.00
0.50	0.25	0.7	7.5	0.45	60	4.00
0.50	0.25	0.7	10.0	0.45	60	4.00
0.60	0.30	1.0	3.0	0.55	60	4.00
0.60	0.30	1.0	6.0	0.55	60	4.00
0.60	0.30	1.0	9.0	0.55	60	4.00
0.60	0.30	1.0	12.0	0.55	60	4.00
0.80	0.40	1.2	4.0	0.75	60	4.00
0.80	0.40	1.2	8.0	0.75	60	4.00
0.80	0.40	1.2	12.0	0.75	60	4.00
0.80	0.40	1.2	16.0	0.75	60	4.00
1.00	0.50	1.6	5.0	0.95	60	4.00
1.00	0.50	1.6	10.0	0.95	60	4.00
1.00	0.50	1.6	15.0	0.95	60	4.00
1.00	0.50	1.6	20.0	0.95	60	4.00
1.50	0.75	2.4	5.0	1.40	60	4.00

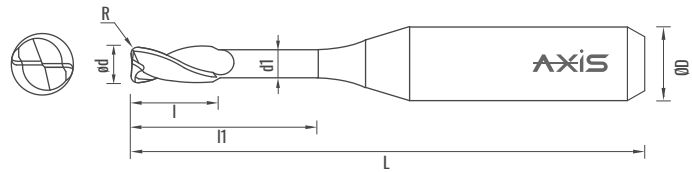
B200-SN

ød	R ±0.003	l	ll	d1	L	ØD h5
1.50	0.75	2.4	10.0	1.4	60	4.00
1.50	0.75	2.4	15.0	1.4	60	4.00
1.50	0.75	2.4	20.0	1.4	60	4.00
2.00	1.00	3.0	6.0	1.9	60	4.00
2.00	1.00	3.0	12.0	1.9	60	4.00
2.00	1.00	3.0	18.0	1.9	60	4.00
2.00	1.00	3.0	24.0	1.9	60	4.00
2.00	1.00	3.0	30.0	1.9	60	4.00
3.00	1.50	3.5	9.0	2.9	60	6.00
3.00	1.50	3.5	14.0	2.9	60	6.00
3.00	1.50	3.5	18.0	2.9	60	6.00
3.00	1.50	3.5	24.0	2.9	60	6.00
3.00	1.50	3.5	30.0	2.9	60	6.00
3.00	1.50	3.5	35.0	2.9	70	6.00
3.00	1.50	3.5	45.0	2.9	100	6.00
4.00	2.00	4.0	12.0	3.8	60	6.00
4.00	2.00	4.0	16.0	3.8	60	6.00
4.00	2.00	4.0	24.0	3.8	60	6.00
4.00	2.00	4.0	30.0	3.8	60	6.00
4.00	2.00	4.0	35.0	3.8	70	6.00
4.00	2.00	4.0	40.0	3.8	100	6.00
5.00	2.50	5.0	15.0	4.8	60	6.00
5.00	2.50	5.0	30.0	4.8	60	6.00
5.00	2.50	5.0	50.0	4.8	100	6.00
6.00	3.00	6.0	18.0	5.8	60	6.00
6.00	3.00	6.0	30.0	5.8	60	6.00
6.00	3.00	6.0	35.0	5.8	70	6.00
6.00	3.00	6.0	45.0	5.8	100	6.00
6.00	3.00	6.0	60.0	5.8	100	6.00
8.00	4.00	8.0	30.0	7.7	70	8.00
8.00	4.00	8.0	80.0	7.7	140	8.00
10.00	5.00	10.0	30.0	9.7	70	10.00
10.00	5.00	10.0	100.0	9.7	150	10.00
12.00	6.00	12.0	30.0	11.7	80	12.00
12.00	6.00	12.0	100.0	11.7	150	12.00

2 Flute End Mill Corner Radius Diamond Coated

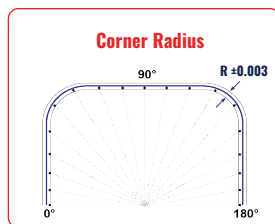


E215-SN



Dia Tolerance :
+ 0.00 / - 0.010 for Ø < 6.00
+ 0.00 / - 0.015 for Ø > 6.00

Concentricity :
0.003 ≤ Ø 6.00, L ≤ 60.00
0.005 > Ø 6.00



APPLICATION

Suitable for milling Graphite,
CFK/GFK, Green stage ceramic /
Carbides and Non ferrous

ADVANTAGES

Higher dimensional accuracy

Improved process capability

Extreme wear resistance
CVD Diamond Coating

Assured quality control

PACKING

Single tool per pack

ON REQUEST

Special Sizes / Inch Sizes

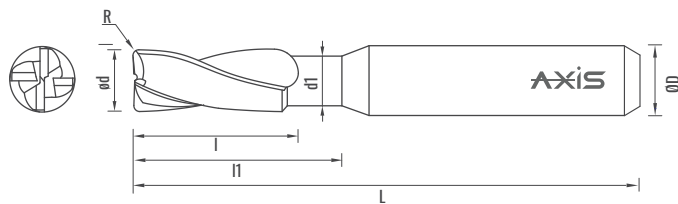
Ød	R ±0.003	l	l1	d1	L	ØD h5
0.10	0.01	0.15	0.2	0.08	60	4.00
0.10	0.01	0.15	0.4	0.08	60	4.00
0.15	0.01	0.2	0.3	0.13	60	4.00
0.15	0.01	0.2	0.6	0.13	60	4.00
0.20	0.02	0.3	0.6	0.17	60	4.00
0.20	0.02	0.3	1.0	0.17	60	4.00
0.20	0.02	0.3	1.5	0.17	60	4.00
0.30	0.02	0.5	0.5	0.25	60	4.00
0.30	0.02	0.5	1.0	0.25	60	4.00
0.30	0.02	0.5	1.5	0.25	60	4.00
0.30	0.02	0.5	3.0	0.25	60	4.00
0.30	0.02	0.5	4.5	0.25	60	4.00
0.30	0.02	0.5	6.0	0.25	60	4.00
0.40	0.02	0.6	2.0	0.34	60	4.00
0.40	0.02	0.6	4.0	0.34	60	4.00
0.40	0.02	0.6	6.0	0.34	60	4.00
0.40	0.02	0.6	8.0	0.34	60	4.00
0.50	0.05	0.7	2.5	0.44	60	4.00
0.50	0.05	0.7	3.5	0.44	60	4.00
0.50	0.05	0.7	5.0	0.44	60	4.00
0.50	0.05	0.7	7.5	0.44	60	4.00
0.50	0.05	0.7	10.0	0.44	60	4.00
0.60	0.05	1.0	3.0	0.54	60	4.00
0.60	0.05	1.0	6.0	0.54	60	4.00
0.60	0.05	1.0	9.0	0.54	60	4.00
0.60	0.05	1.0	12.0	0.54	60	4.00
0.80	0.05	1.2	4.0	0.74	60	4.00
0.80	0.05	1.2	8.0	0.74	60	4.00
0.80	0.05	1.2	12.0	0.74	60	4.00
0.80	0.05	1.2	16.0	0.74	60	4.00
1.00	0.05	1.6	5.0	0.94	60	4.00
1.00	0.05	1.6	10.0	0.94	60	4.00
1.00	0.05	1.6	15.0	0.94	60	4.00
1.00	0.05	1.6	20.0	0.94	60	4.00

ød	R ±0.003	l	l1	d1	L	ØD h5
1.00	0.10	1.6	5.0	0.94	60	4.00
1.00	0.10	1.6	10.0	0.94	60	4.00
1.00	0.10	1.6	15.0	0.94	60	4.00
1.00	0.10	1.6	20.0	0.94	60	4.00
1.50	0.05	2.4	5.0	1.40	60	4.00
1.50	0.05	2.4	10.0	1.40	60	4.00
1.50	0.05	2.4	15.0	1.40	60	4.00
1.50	0.05	2.4	20.0	1.40	60	4.00
1.50	0.15	2.4	5.0	1.40	60	4.00
1.50	0.15	2.4	10.0	1.40	60	4.00
1.50	0.15	2.4	15.0	1.40	60	4.00
1.50	0.15	2.4	20.0	1.40	60	4.00
2.00	0.05	3.0	6.0	1.90	60	4.00
2.00	0.05	3.0	12.0	1.90	60	4.00
2.00	0.05	3.0	18.0	1.90	60	4.00
2.00	0.05	3.0	24.0	1.90	60	4.00
2.00	0.05	3.0	30.0	1.90	60	4.00
2.00	0.15	3.0	20.0	1.90	60	4.00
2.00	0.30	3.0	6.0	1.90	60	4.00
2.00	0.30	3.0	12.0	1.90	60	4.00
2.00	0.30	3.0	18.0	1.90	60	4.00
2.00	0.30	3.0	24.0	1.90	60	4.00
2.00	0.30	3.0	30.0	1.90	60	4.00
3.00	0.05	3.5	9.0	2.80	60	6.00
3.00	0.05	3.5	18.0	2.80	60	6.00
3.00	0.05	3.5	30.0	2.80	60	6.00
3.00	0.05	3.5	45.0	2.80	100	6.00
3.00	0.30	3.5	9.0	2.80	60	6.00
3.00	0.30	3.5	18.0	2.80	60	6.00
3.00	0.30	3.5	30.0	2.80	60	6.00
3.00	0.30	3.5	45.0	2.80	100	6.00
3.00	0.50	3.0	8.0	2.90	60	6.00
4.00	0.05	4.0	12.0	3.80	60	6.00
4.00	0.05	4.0	24.0	3.80	60	6.00
4.00	0.05	4.0	40.0	3.80	100	6.00
4.00	0.50	4.0	12.0	3.80	60	6.00
4.00	0.50	4.0	24.0	3.80	60	6.00
4.00	0.50	4.0	40.0	3.80	100	6.00
5.00	0.05	5.0	15.0	4.80	60	6.00
5.00	0.05	5.0	30.0	4.80	60	6.00
5.00	0.05	5.0	50.0	4.80	100	6.00
5.00	0.50	5.0	15.0	4.80	60	6.00
5.00	0.50	5.0	30.0	4.80	60	6.00
5.00	0.50	5.0	50.0	4.80	100	6.00
6.00	0.05	6.0	18.0	5.80	60	6.00
6.00	0.05	6.0	30.0	5.80	60	6.00
6.00	0.05	6.0	60.0	5.80	100	6.00
6.00	0.50	6.0	18.0	5.80	60	6.00
6.00	0.50	6.0	30.0	5.80	60	6.00
6.00	0.50	6.0	45.0	5.80	100	6.00
6.00	0.50	6.0	60.0	5.80	100	6.00

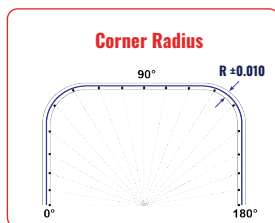
4 Flute End Mill Corner Radius Diamond Coated



E218-SN



Dia Tolerance :
+ 0.00 / - 0.020 for $\varnothing < 4.00$
+ 0.00 / - 0.030 for $\varnothing \geq 4.00$
Concentricity :
0.010 max.



APPLICATION

Suitable for milling Graphite,
CFK/GFK, Green stage ceramic /
Carbides and Non ferrous

ADVANTAGES

Higher dimensional accuracy

Improved process capability

Extreme wear resistance
CVD Diamond Coating

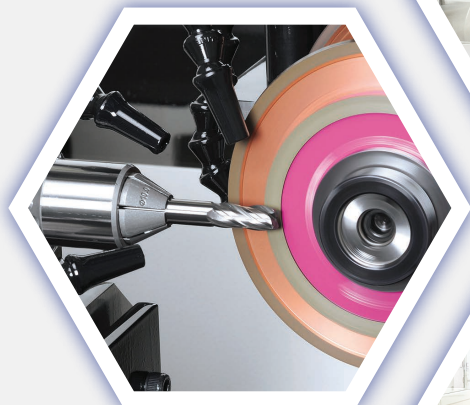
PACKING

Single tool per pack

ON REQUEST

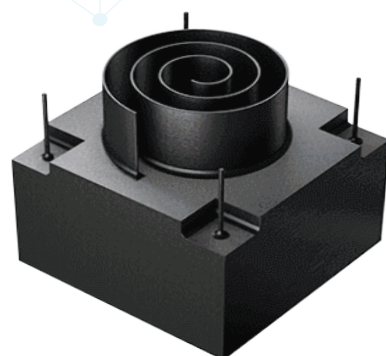
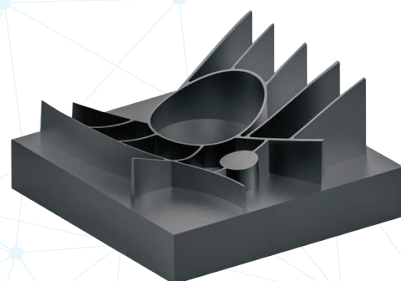
Special Sizes / Inch Sizes

$\varnothing d$	$R \pm 0.010$	l	$l1$	$d1$	L	$\varnothing D$ $h5$
4.00	0.50	6.0	10.0	3.80	60	6.00
6.00	0.50	9.0	20.0	5.80	60	6.00
6.00	0.50	9.0	60.0	5.80	100	6.00
6.00	1.00	9.0	20.0	5.80	60	6.00
6.00	1.00	9.0	60.0	5.80	100	6.00
8.00	1.00	12.0	30.0	7.80	90	8.00
8.00	1.00	12.0	80.0	7.80	140	8.00
10.00	1.00	20.0	30.0	9.80	100	10.00
10.00	1.00	20.0	100.0	9.80	150	10.00
12.00	1.00	24.0	30.0	11.80	100	12.00
12.00	1.00	24.0	100.0	11.80	150	12.00



AXIS

Unmatched Precision
Milling Tools Crafted for Graphite Machining



High Precision Milling Tools Graphite Machining



IND-SPHINX PRECISION LTD (Unit B)

1 Taksal Road Parwanoo - Kasauli Marg
Parwanoo Himachal Pradesh India 173220

☎ +91 1792 232860 / 352600

✉ info@axis-microtools.com 🌐 www.axis-microtools.com



AXIS Europe GmbH

Danziger Str. 3, 88250 Weingarten

☎ +49 (0)751 560 1589 - 0

✉ info@axis-europe.eu 🌐 www.axis-europe.eu



QUALITY • PRECISION • CONSISTENCY

