



MILLSTAR TOOLING

PCD-Tipped Hybrid Back Draft Inserts

Flexibility, Cost Efficiency, and Increased Tool Life Without the Chatter

BDS Hybrid Back Draft PCD-Tipped Bull Nose Inserts

Millstar's BDS combines PCD technology with the benefits of hybrid geometry, while offering the flexibility of an indexable tooling system.

Capabilities – PCD tipping increases productivity and extends tool life to give our customers significant savings over traditional cutting tools. It has consistently proven to be the most cost-effective solution for graphite and other super-abrasive applications. BDS hybrid geometry combined with PCD tipping also allows for greater depths of cuts and 90° side wall machining without the chatter.

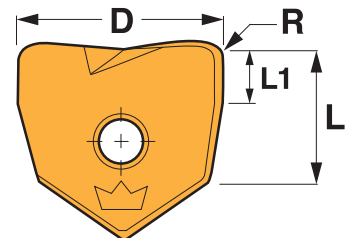
Innovative Geometry – Precision ground with a unique crossover design between flat bottom and back draft inserts, Millstar's BDS features a 7° relief after the 0.125" (3mm) straight wall standard geometry.

Versatility – BDS inserts fit into Millstar's vast selection of insert holders, making even the most difficult extended reach applications achievable with standard tooling. Millstar inserts and holders are expertly designed to exploit micro movement for a more concentric union that increases stability and eliminates chatter in any application.

Benefits of PCD (Poly-Crystalline Diamond)

- Bi-modal grade of Poly-Crystalline Diamond
- High material removal rates
- Up to 3 times faster than conventional carbide tooling
- Long tool life – up to 10 times that of carbide
- Ideal for machining Graphite, CFRP, High Silicon Aluminum, Carbon Fiber and Composites

CBN Tipping also available



BDS Bull Nose Insert, PCD Tipped – Metric (mm)

D	R	L	L1	Part Number
10.00	0.10	8.50	3.00	BDS-10-N0.1-PCD
10.00	0.80	8.50	3.00	BDS-10-N0.8-PCD
10.00	1.00	8.50	3.00	BDS-10-N1.0-PCD
12.00	0.10	9.95	3.00	BDS-12-N0.1-PCD
12.00	1.00	9.95	3.00	BDS-12-N1.0-PCD
16.00	0.10	11.55	3.00	BDS-16-N0.1-PCD
16.00	1.00	11.55	3.00	BDS-16-N1.0-PCD
16.00	1.30	11.55	3.00	BDS-16-N1.3-PCD
20.00	0.10	13.35	3.00	BDS-20-N0.1-PCD
20.00	1.00	13.35	3.00	BDS-20-N1.0-PCD
20.00	1.60	13.35	3.00	BDS-20-N1.6-PCD
25.00	1.00	19.95	3.00	BDS-25-N1.0-PCD
25.00	2.00	19.95	3.00	BDS-25-N2.0-PCD
32.00	1.00	23.35	3.00	BDS-32-N1.0-PCD
32.00	2.00	23.35	3.00	BDS-32-N2.0-PCD

BDS Bull Nose Insert, PCD Tipped – Imperial (Inch)

D	R	L	L1	Part Number
0.375	0.0313	0.357	0.125	BDS-0375-N02-PCD
0.375	0.0625	0.357	0.125	BDS-0375-N04-PCD
0.500	0.0150	0.380	0.125	BDS-0500-N015-PCD
0.500	0.0313	0.380	0.125	BDS-0500-N02-PCD
0.500	0.0625	0.380	0.125	BDS-0500-N04-PCD
0.625	0.0313	0.457	0.125	BDS-0625-N02-PCD
0.625	0.0625	0.457	0.125	BDS-0625-N04-PCD
0.750	0.0313	0.540	0.125	BDS-0750-N02-PCD
0.750	0.0625	0.540	0.125	BDS-0750-N04-PCD
0.750	0.1250	0.540	0.125	BDS-0750-N08-PCD
1.000	0.0625	0.740	0.125	BDS-1000-N04-PCD

