

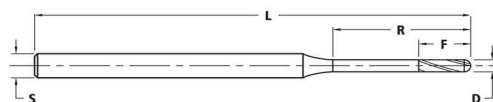
BLACK DIAMOND SELECT-MINI/MICRO SERIES

Elite Performance Long Reach & Standard End Mills



MICRON Select-MINI SERIES

Worlds smallest
most accurate
micro end mills!



TOLERANCES

All 1/8" Shanks have
an H6 Tolerance

$D \pm 0.0005"$

$S + 0.0000" - 0.0002"$

$L \pm 0.005"$



BALL-

CUTTER DIAMETER	FLUTE LENGTH	OVERALL REACH	AMORPHOUS DIAMOND		
D	F	R	2FL	4FL	PRICE
.005	.007	NONE	MMB2-005		
.005	.015	NONE	MMB2-005-R.015		
.005	.008	.025	MMB2-005-R.025		
.005	.008	.050	MMB2-005-R.050		
.008	.012	NONE	MMB2-008	MMB4-008	
.008	.024	NONE	MMB2-008-R.024	MMB4-008-R024	
.008	.012	.040	MMB2-008-R.040	MMB4-008-R.040	
.008	.012	.080	MMB2-008-R.080	MMB4-008-R.080	
.010	.015	NONE	MMB2-010	MMB4-010	
.010	.030	NONE	MMB2-010-R.030	MMB4-010-R.030	
.010	.015	.050	MMB2-010-R.050	MMB4-010-R.050	
.010	.015	.100	MMB2-010-R.100	MMB4-010-R.100	
.010	.015	.150	MMB2-010-R.150	MMB4-010-R.150	
.010	.015	.200	MMB2-010-R.200	MMB4-010-R.200	
.015	.023	NONE	MMB2-015	MMB4-015	
.015	.045	NONE	MMB2-015-R.045	MMB4-015-R.045	
.015	.023	.075	MMB2-015-R.075	MMB4-015-R.075	
.015	.023	.150	MMB2-015-R.150	MMB4-015R.150	
.015	.023	.250	MMB2-015-R.250	MMB4-015-R.250	
.015	.023	.300	MMB2-015-R.300	MMB4-015-R.300	
.020	.060	NONE	MMB2-020-R.060	MMB4-020-R.060	
.020	.030	.100	MMB2-020-R.100	MMB4-020-R.100	
.020	.030	.200	MMB2-020-R.200	MMB4-020-R.200	
.020	.030	.300	MMB2-020-R.300	MMB4-020-R.300	
.020	.030	.400	MMB2-020-R.400	MMB4-020-R.400	
.025	.0375	NONE	MMB2-025	MMB4-025	
.025	.075	NONE	MMB2-025-R.75	MMB4-025-R.075	
.025	.0375	.125	MMB2-025-R.125	MMB4-025-R.125	
.025	.0375	.250	MMB2-025-R.250	MMB4-025-R.250	
.025	.0375	.500	MMB2-025-R.500	MMB4-025-R.500	

SQUARE-

CUTTER DIAMETER	FLUTE LENGTH	OVERALL REACH	AMORPHOUS DIAMOND		
D	F	R	2FL	4FL	PRICE
.002	.003	NONE	MMS2-002		
.005	.007	NONE	MMS2-005		
.005	.015	NONE	MMS2-005-R.015		
.005	.008	.025	MMS2-005-R.025		
.005	.008	.050	MMS2-005-R.050		
.008	.012	NONE	MMS2-008	MMS4-008	
.008	.024	NONE	MMS2-008-R.024	MMS4-008-R024	
.008	.012	.040	MMS2-008-R.040	MMS4-008-R.040	
.008	.012	.080	MMS2-008-R.080	MMS4-008-R.080	
.010	.015	NONE	MMS2-010	MMS4-010	
.010	.030	NONE	MMS2-010-R.030	MMS4-010-R.030	
.010	.015	.050	MMS2-010-R.050	MMS4-010-R.050	
.010	.015	.100	MMS2-010-R.100	MMS4-010-R.100	
.010	.015	.150	MMS2-010-R.150	MMS4-010-R.150	
.010	.015	.200	MMS2-010-R.200	MMS4-010-R.200	
.015	.023	NONE	MMS2-015	MMS4-015	
.015	.045	NONE	MMS2-015-R.045	MMS4-015-R.045	
.015	.023	.075	MMS2-015-R.075	MMS4-015-R.075	
.015	.023	.150	MMS2-015-R.150	MMS4-015R.150	
.015	.023	.250	MMS2-015-R.250	MMS4-015-R.250	
.020	.030	NONE	MMS2-020	MMS4-020	
.020	.060	NONE	MMS2-020-R.060	MMS4-020-R.060	
.020	.030	.100	MMS2-020-R.100	MMS4-020-R.100	
.020	.030	.200	MMS2-020-R.200	MMS4-020-R.200	
.020	.030	.400	MMS2-020-R.400	MMS4-020-R.400	
.025	.0375	NONE	MMS2-025	MMS4-025	
.025	.075	NONE	MMS2-025-R.75	MMS4-025-R.075	
.025	.0375	.125	MMS2-025-R.125	MMS4-025-R.125	
.025	.0375	.250	MMS2-025-R.250	MMS4-025-R.250	

Tool Dia. Roughing Finishing

1/64	.0005	.0002
1/32	.0008	.0004
1/16	.0015	.0005
3/32	.002	.001
1/8	.002	.001
3/16	.003	.0015
1/4	.004	.002
3/8	.0065	.003
1/2	.008	.004

Cutting Speed for Graphite* (sfm)

Soft	1000 - 2125
Medium	750 - 1500
Hard	500 - 1300

CAUTION: Balanced holders should be used
for spindle speeds exceeding 10,000 RPM.

Most applications allow for maximum
Spindle speeds!

CAUTION: Speeds and feeds above
are general guidelines and may change
with application.

FEATURES:

- Miniature and Micro
- Stub and Standard flute
- Special Diameters
- Special long reaches
- T.I.R. controlled to 1 / 3 industry standards

APPLICATIONS:

- Graphite machining
- Medical and Optical
- Ceramics
- Plastics
- Engraving
- Aluminum



"Quickest lead times for special tools in the industry!"

Don't see what you need? Give us a call or email. Couldn't fit everything on line card!