



**MICRO
TOOLS**



Every company has a dominant strength that defines what it will contribute to the world. Ours is micro rotary grinding. It's what we do. It's who we are.

Since 1987, Kyocera has been manufacturing extremely tight tolerance rotary tools and miniature round parts for the world's most demanding applications. Over 75% of the 2 million tools we build each month are smaller than .020" in diameter. We have perfected the art of building tools that are barely visible to the naked eye!

Coming from this level of precision, we have optimized the company to do one thing well ... high volume consistency in micro precision rotary grinding. With diameters from 1/4" to .002", tolerances as tight as +/-50 millionths, and stunning surface finishes, we have provided our customers with answers to their toughest questions.

Our customers continually challenge us to push the envelope and we continue to deliver. We utilize state-of-the-art capability provided by 62 Swiss made Rollomatic CNC grinding centers, extensive automated optical inspection (AOI), CAD/CAM design capability, and SPC that supports our ISO 9001 & 9002 certifications.

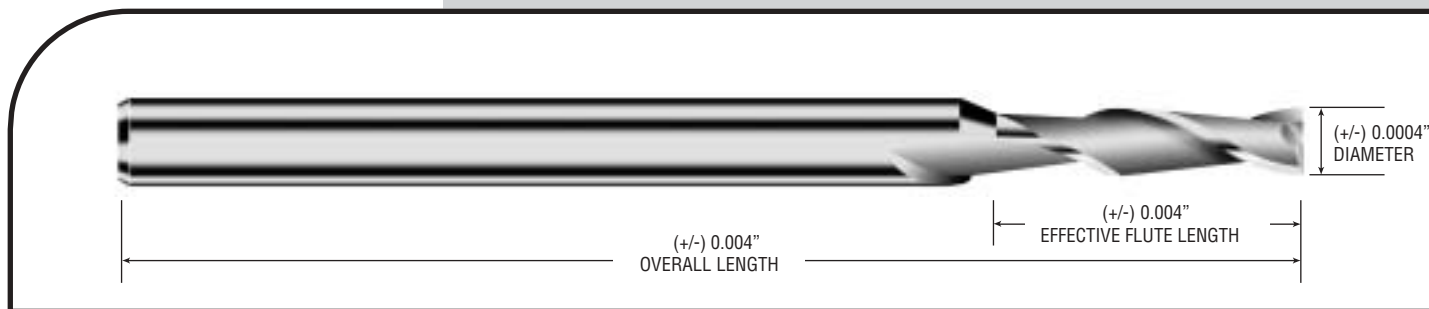
Every company has a dominant strength that defines what it will contribute to the world. Ours is micro rotary grinding. It's what we do. It's who we are.



 **KYOCERA**

*We deliver
manufacturing effectiveness
with engineered precision.*

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- Submicron grade solid carbide
- 30° helix for general purpose applications
- Coatings available upon request

SERIES 1610 - STANDARD - FRACTIONS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1610-0156.047	1/64	.047	1 1/2	1/8	61056
1610-0312.094	1/32	.094	1 1/2	1/8	61041
1610-0469.141	3/64	.141	1 1/2	1/8	61042
1610-0625.188	1/16	.188	1 1/2	1/8	61043
1610-0781.234	5/64	.234	1 1/2	1/8	61044
1610-0938.281	3/32	.281	1 1/2	1/8	61045
1610-1094.328	7/64	.328	1 1/2	1/8	61046
1610-1250.375	1/8	.375	1 1/2	1/8	61047
1610-1406.500	9/64	.500	2	3/16	61048
1610-1563.500	5/32	.500	2	3/16	61049
1610-1719.563	11/64	.563	2	3/16	61050
1610-1875.563	3/16	.563	2	3/16	61051
1610-2031.625	13/64	.625	2 1/2	1/4	61052
1610-2188.625	7/32	.625	2 1/2	1/4	61053
1610-2344.750	15/64	.750	2 1/2	1/4	61054
1610-2500.750	1/4	.750	2 1/2	1/4	61055

SERIES 1620 - STUB - FRACTIONS

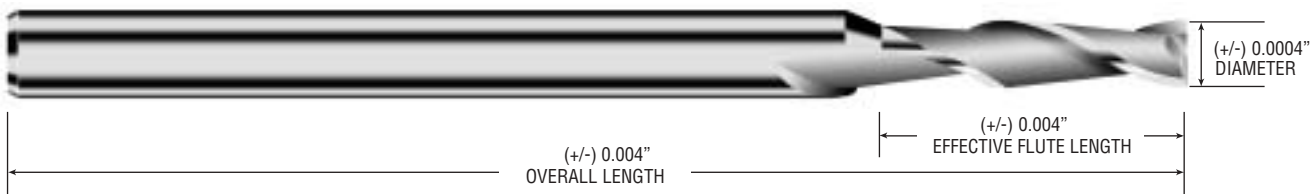
PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1620-0156.023	1/64	.023	1 1/2	1/8	62056
1620-0312.047	1/32	.047	1 1/2	1/8	62041
1620-0469.070	3/64	.070	1 1/2	1/8	62042
1620-0625.094	1/16	.094	1 1/2	1/8	62043
1620-0781.117	5/64	.117	1 1/2	1/8	62044
1620-0938.141	3/32	.141	1 1/2	1/8	62045
1620-1094.164	7/64	.164	1 1/2	1/8	62046
1620-1250.188	1/8	.188	1 1/2	1/8	62047
1620-1406.313	9/64	.313	2	3/16	62048
1620-1563.313	5/32	.313	2	3/16	62049
1620-1719.375	11/64	.375	2	3/16	62050
1620-1875.375	3/16	.375	2	3/16	62051
1620-2031.438	13/64	.438	2	1/4	62052
1620-2188.438	7/32	.438	2	1/4	62053
1620-2344.500	15/64	.500	2	1/4	62054
1620-2500.500	1/4	.500	2	1/4	62055

* 9/64 or larger is +/- .001"

CENTER CUTTING END MILLS

STANDARD LENGTH

2 Flute ■ Square End



- Submicron grade solid carbide
- 30° helix for general purpose applications
- Coatings available upon request

SERIES 1610 - DECIMALS

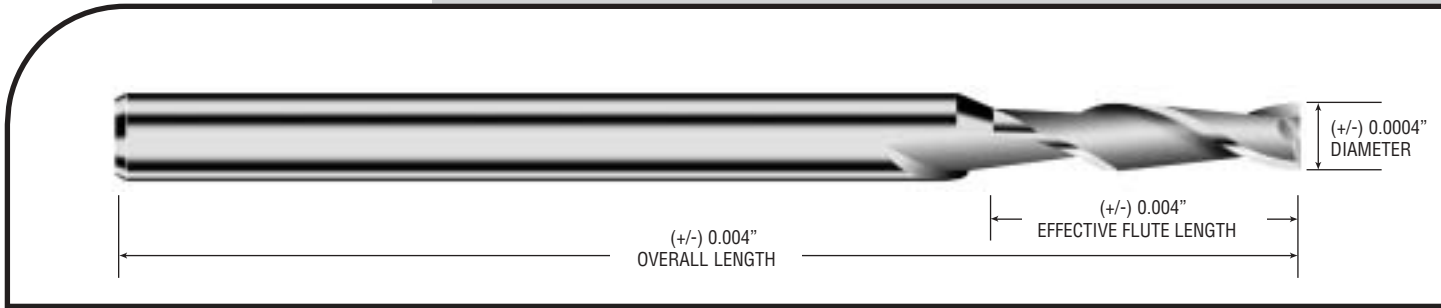
PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1610-0050.015	.005	.015	1 1/2	1/8	61001
1610-0060.018	.006	.018	1 1/2	1/8	61002
1610-0070.021	.007	.021	1 1/2	1/8	61003
1610-0080.024	.008	.024	1 1/2	1/8	61004
1610-0090.027	.009	.027	1 1/2	1/8	61005
1610-0100.030	.010	.030	1 1/2	1/8	61006
1610-0110.033	.011	.033	1 1/2	1/8	61007
1610-0120.036	.012	.036	1 1/2	1/8	61008
1610-0130.039	.013	.039	1 1/2	1/8	61009
1610-0140.042	.014	.042	1 1/2	1/8	61010
1610-0150.045	.015	.045	1 1/2	1/8	61011
1610-0160.048	.016	.048	1 1/2	1/8	61012
1610-0170.051	.017	.051	1 1/2	1/8	61013
1610-0180.054	.018	.054	1 1/2	1/8	61014
1610-0190.057	.019	.057	1 1/2	1/8	61015
1610-0200.060	.020	.060	1 1/2	1/8	61016
1610-0210.063	.021	.063	1 1/2	1/8	61017
1610-0220.066	.022	.066	1 1/2	1/8	61018
1610-0230.069	.023	.069	1 1/2	1/8	61019
1610-0240.072	.024	.072	1 1/2	1/8	61020
1610-0250.075	.025	.075	1 1/2	1/8	61021
1610-0260.078	.026	.078	1 1/2	1/8	61022
1610-0270.081	.027	.081	1 1/2	1/8	61023
1610-0280.084	.028	.084	1 1/2	1/8	61024
1610-0290.087	.029	.087	1 1/2	1/8	61025
1610-0300.090	.030	.090	1 1/2	1/8	61026
1610-0350.105	.035	.105	1 1/2	1/8	61027
1610-0400.120	.040	.120	1 1/2	1/8	61028
1610-0450.135	.045	.135	1 1/2	1/8	61029
1610-0500.150	.050	.150	1 1/2	1/8	61030
1610-0550.165	.055	.165	1 1/2	1/8	61031
1610-0600.180	.060	.180	1 1/2	1/8	61032
1610-0650.195	.065	.195	1 1/2	1/8	61033
1610-0700.210	.070	.210	1 1/2	1/8	61034
1610-0750.225	.075	.225	1 1/2	1/8	61035
1610-0800.240	.080	.240	1 1/2	1/8	61036
1610-0850.255	.085	.255	1 1/2	1/8	61037
1610-0900.270	.090	.270	1 1/2	1/8	61038
1610-0950.285	.095	.285	1 1/2	1/8	61039
1610-1000.300	.100	.300	1 1/2	1/8	61040

Tools individually packed

MICRO TOOLS

For additional information call 1-888-848-8449 or visit us at www.KyoceraMicroTools.com

CENTER CUTTING END MILLS



- Submicron grade solid carbide
- 30° helix for general purpose applications
- Coatings available upon request

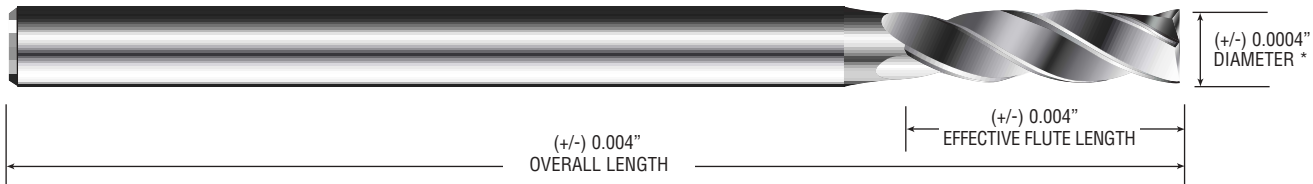
SERIES 1620 - DECIMALS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1620-0050.008	.005	.008	1 1/2	1/8	62001
1620-0060.009	.006	.009	1 1/2	1/8	62002
1620-0070.011	.007	.011	1 1/2	1/8	62003
1620-0080.012	.008	.012	1 1/2	1/8	62004
1620-0090.014	.009	.014	1 1/2	1/8	62005
1620-0100.015	.010	.015	1 1/2	1/8	62006
1620-0110.017	.011	.017	1 1/2	1/8	62007
1620-0120.018	.012	.018	1 1/2	1/8	62008
1620-0130.020	.013	.020	1 1/2	1/8	62009
1620-0140.021	.014	.021	1 1/2	1/8	62010
1620-0150.023	.015	.023	1 1/2	1/8	62011
1620-0160.024	.016	.024	1 1/2	1/8	62012
1620-0170.026	.017	.026	1 1/2	1/8	62013
1620-0180.027	.018	.027	1 1/2	1/8	62014
1620-0190.029	.019	.029	1 1/2	1/8	62015
1620-0200.030	.020	.030	1 1/2	1/8	62016
1620-0210.032	.021	.032	1 1/2	1/8	62017
1620-0220.033	.022	.033	1 1/2	1/8	62018
1620-0230.035	.023	.035	1 1/2	1/8	62019
1620-0240.036	.024	.036	1 1/2	1/8	62020
1620-0250.038	.025	.038	1 1/2	1/8	62021
1620-0260.039	.026	.039	1 1/2	1/8	62022
1620-0270.041	.027	.041	1 1/2	1/8	62023
1620-0280.042	.028	.042	1 1/2	1/8	62024
1620-0290.044	.029	.044	1 1/2	1/8	62025
1620-0300.045	.030	.045	1 1/2	1/8	62026
1620-0350.053	.035	.053	1 1/2	1/8	62027
1620-0400.060	.040	.060	1 1/2	1/8	62028
1620-0450.068	.045	.068	1 1/2	1/8	62029
1620-0500.075	.050	.075	1 1/2	1/8	62030
1620-0550.083	.055	.083	1 1/2	1/8	62031
1620-0600.090	.060	.090	1 1/2	1/8	62032
1620-0650.098	.065	.098	1 1/2	1/8	62033
1620-0700.105	.070	.105	1 1/2	1/8	62034
1620-0750.113	.075	.113	1 1/2	1/8	62035
1620-0800.120	.080	.120	1 1/2	1/8	62036
1620-0850.128	.085	.128	1 1/2	1/8	62037
1620-0900.135	.090	.135	1 1/2	1/8	62038
1620-0950.143	.095	.143	1 1/2	1/8	62039
1620-1000.150	.100	.150	1 1/2	1/8	62040

CENTER CUTTING END MILLS

STANDARD LENGTH

4 Flute ■ Square End



- Submicron grade carbide
- 30° helix for general purpose applications
- Coatings available upon request

SERIES 1810 - FRACTIONS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1810-0312.094	1/32	.094	1 1/2	1/8	81036
1810-0469.141	3/64	.141	1 1/2	1/8	81037
1810-0625.188	1/16	.188	1 1/2	1/8	81038
1810-0781.234	5/64	.234	1 1/2	1/8	81039
1810-0938.281	3/32	.281	1 1/2	1/8	81040
1810-1094.328	7/64	.328	1 1/2	1/8	81041
1810-1250.375	1/8	.375	1 1/2	1/8	81042
1810-1406.500	9/64	.500	2	3/16	81043
1810-1563.500	5/32	.500	2	3/16	81044
1810-1719.563	11/64	.563	2	3/16	81045
1810-1875.563	3/16	.563	2	3/16	81046
1810-2031.625	13/64	.625	2 1/2	1/4	81047
1810-2188.625	7/32	.625	2 1/2	1/4	81048
1810-2344.750	15/64	.750	2 1/2	1/4	81049
1810-2500.750	1/4	.750	2 1/2	1/4	81050

SERIES 1810 - DECIMALS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1810-0100.030	.010	.030	1 1/2	1/8	81001
1810-0150.045	.015	.045	1 1/2	1/8	81006
1810-0200.060	.020	.060	1 1/2	1/8	81011
1810-0250.075	.025	.075	1 1/2	1/8	81016
1810-0300.090	.030	.090	1 1/2	1/8	81021
1810-0350.105	.035	.105	1 1/2	1/8	81022
1810-0400.120	.040	.120	1 1/2	1/8	81023
1810-0450.135	.045	.135	1 1/2	1/8	81024
1810-0500.150	.050	.150	1 1/2	1/8	81025
1810-0550.165	.055	.165	1 1/2	1/8	81026
1810-0600.180	.060	.180	1 1/2	1/8	81027
1810-0650.195	.065	.195	1 1/2	1/8	81028
1810-0700.210	.070	.210	1 1/2	1/8	81029
1810-0750.225	.075	.225	1 1/2	1/8	81030
1810-0800.240	.080	.240	1 1/2	1/8	81031
1810-0850.255	.085	.255	1 1/2	1/8	81032
1810-0900.270	.090	.270	1 1/2	1/8	81033
1810-0950.285	.095	.285	1 1/2	1/8	81034
1810-1000.300	.100	.300	1 1/2	1/8	81035

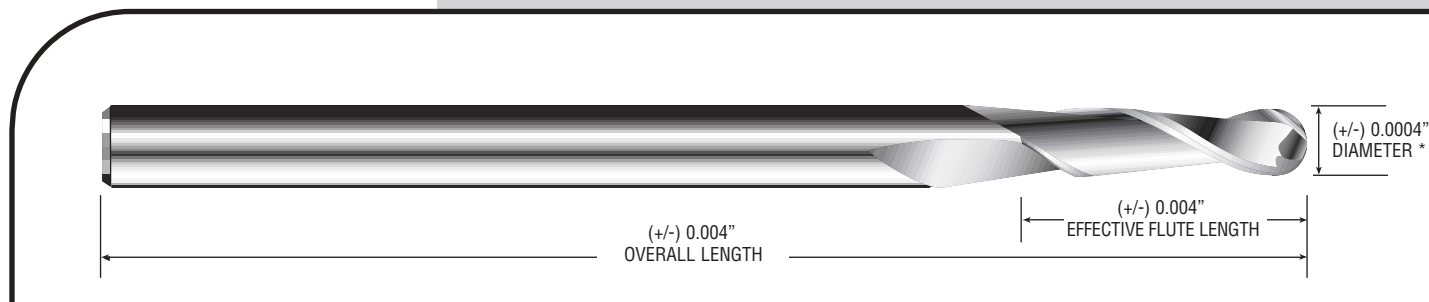
* 9/64 or larger is +/- .001"

Tools individually packed

MICRO TOOLS

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CENTER CUTTING END MILLS



- Submicron grade carbide
- 30° helix for general purpose applications
- Coatings available upon request

SERIES 1625 - FRACTIONS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1625-0156.047	1/64	.047	1 1/2	1/8	64056
1625-0312.094	1/32	.094	1 1/2	1/8	64041
1625-0469.141	3/64	.141	1 1/2	1/8	64042
1625-0625.188	1/16	.188	1 1/2	1/8	64043
1625-0781.234	5/64	.234	1 1/2	1/8	64044
1625-0938.281	3/32	.281	1 1/2	1/8	64045
1625-1094.328	7/64	.328	1 1/2	1/8	64046
1625-1250.375	1/8	.375	1 1/2	1/8	64047
1625-1406.500	9/64	.500	2	3/16	64048
1625-1562.500	5/32	.500	2	3/16	64049
1625-1719.563	11/64	.563	2	3/16	64050
1625-1875.563	3/16	.563	2	3/16	64051
1625-2031.625	13/64	.625	2 1/2	1/4	64052
1625-2188.625	7/32	.625	2 1/2	1/4	64053
1625-2344.750	15/64	.750	2 1/2	1/4	64054
1625-2500.750	1/4	.750	2 1/2	1/4	64055

SERIES 1625 - DECIMALS

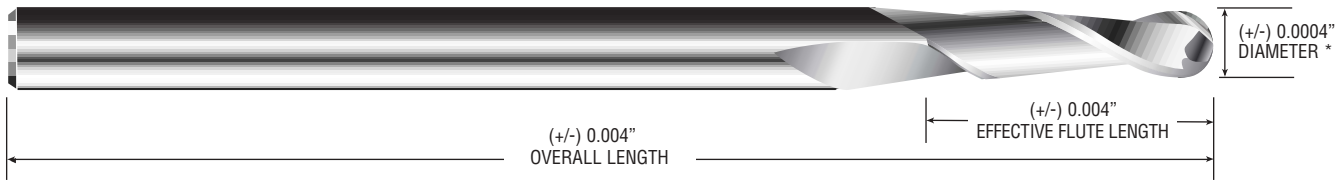
PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1625-0100.030	.010	.030	1 1/2	1/8	64006
1625-0150.045	.015	.045	1 1/2	1/8	64007
1625-0200.060	.020	.060	1 1/2	1/8	64008
1625-0250.075	.025	.075	1 1/2	1/8	64009
1625-0300.090	.030	.090	1 1/2	1/8	64010
1625-0350.105	.035	.105	1 1/2	1/8	64011
1625-0400.120	.040	.120	1 1/2	1/8	64012
1625-0450.135	.045	.135	1 1/2	1/8	64013
1625-0500.150	.050	.150	1 1/2	1/8	64014
1625-0550.165	.055	.165	1 1/2	1/8	64014
1625-0600.180	.060	.180	1 1/2	1/8	64016
1625-0650.195	.065	.195	1 1/2	1/8	64017
1625-0700.210	.070	.210	1 1/2	1/8	64018
1625-0750.225	.075	.225	1 1/2	1/8	64019
1625-0800.240	.080	.240	1 1/2	1/8	64020
1625-0850.255	.085	.255	1 1/2	1/8	64021
1625-0900.270	.090	.270	1 1/2	1/8	64022
1625-0950.285	.095	.285	1 1/2	1/8	64023
1625-1000.300	.100	.300	1 1/2	1/8	64024

* 9/64 or larger is +/- .001"

CENTER CUTTING END MILLS

STUB LENGTH

2 Flute ■ Ball Nose



- Submicron grade carbide
- 30° helix for general purpose applications
- Coatings available upon request

SERIES 1635 - FRACTIONS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1635-0156.023	1/64	.023	1 1/2	1/8	63041
1635-0312.047	1/32	.047	1 1/2	1/8	63042
1635-0469.070	3/64	.070	1 1/2	1/8	63043
1635-0625.094	1/16	.094	1 1/2	1/8	63044
1635-0781.117	5/64	.117	1 1/2	1/8	63045
1635-0938.141	3/32	.141	1 1/2	1/8	63046
1635-1094.164	7/64	.164	1 1/2	1/8	63047
1635-1250.188	1/8	.188	1 1/2	1/8	63048
1635-1406.313	9/64	.313	2	3/16	63049
1635-1563.313	5/32	.313	2	3/16	63050
1635-1719.375	11/64	.375	2	3/16	63051
1635-1875.375	3/16	.375	2	3/16	63052
1635-2031.438	13/64	.438	2	1/4	63053
1635-2188.438	7/32	.438	2	1/4	63054
1635-2344.500	15/64	.500	2	1/4	63055
1635-2500.500	1/4	.500	2	1/4	63056

SERIES 1635 - DECIMALS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1635-0100.015	.010	.015	1 1/2	1/8	63006
1635-0150.023	.015	.023	1 1/2	1/8	63011
1635-0200.030	.020	.030	1 1/2	1/8	63016
1635-0250.038	.025	.038	1 1/2	1/8	63021
1635-0300.045	.030	.045	1 1/2	1/8	63026
1635-0350.053	.035	.053	1 1/2	1/8	63027
1635-0400.060	.040	.060	1 1/2	1/8	63028
1635-0450.068	.045	.068	1 1/2	1/8	63029
1635-0500.075	.050	.075	1 1/2	1/8	63030
1635-0550.083	.055	.083	1 1/2	1/8	63031
1635-0600.090	.060	.090	1 1/2	1/8	63032
1635-0650.098	.065	.098	1 1/2	1/8	63033
1635-0700.105	.070	.105	1 1/2	1/8	63034
1635-0750.113	.075	.113	1 1/2	1/8	63035
1635-0800.120	.080	.120	1 1/2	1/8	63036
1635-0850.128	.085	.128	1 1/2	1/8	63037
1635-0900.135	.090	.135	1 1/2	1/8	63038
1635-0950.143	.095	.143	1 1/2	1/8	63039
1635-1000.150	.100	.150	1 1/2	1/8	63040

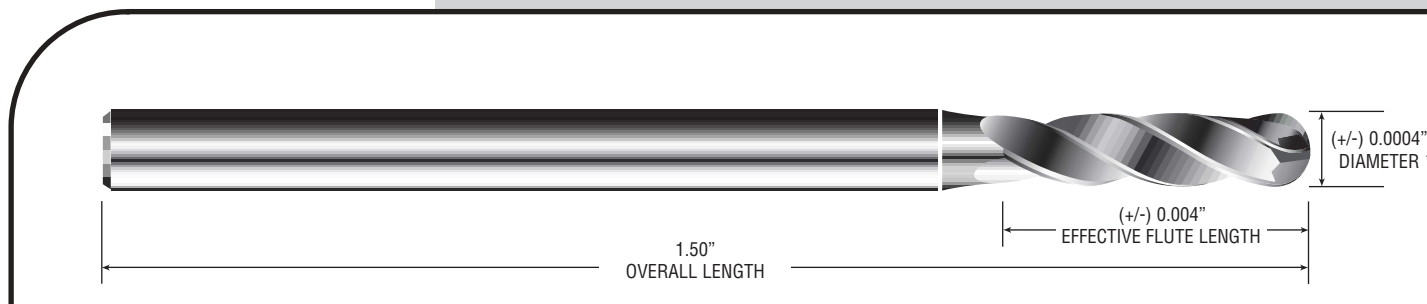
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SERIES 1825 - FRACTIONS

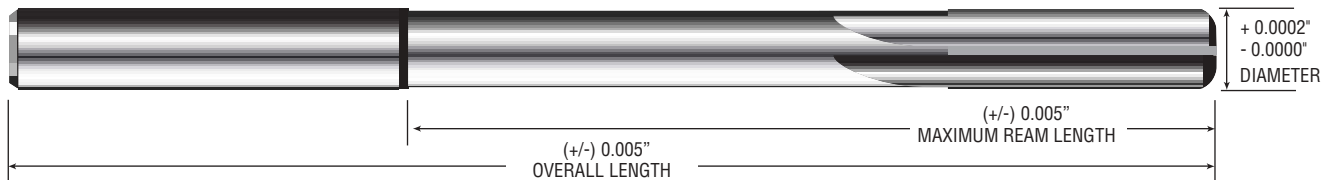
PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
1825-0312.094	1/32	.094	1 1/2	1/8	82036
1825-0469.141	3/64	.141	1 1/2	1/8	82037
1825-0625.188	1/16	.188	1 1/2	1/8	82038
1825-0781.234	5/64	.234	1 1/2	1/8	82039
1825-0938.281	3/32	.281	1 1/2	1/8	82040
1825-1094.328	7/64	.328	1 1/2	1/8	82041
1825-1250.375	1/8	.375	1 1/2	1/8	82042
1825-1406.500	9/64	.500	2	3/16	82043
1825-1563.500	5/32	.500	2	3/16	82044
1825-1719.563	11/64	.563	2	3/16	82045
1825-1875.563	3/16	.563	2	3/16	82046
1825-2031.625	13/64	.625	2 1/2	1/4	82047
1825-2188.625	7/32	.625	2 1/2	1/4	82048
1825-2344.750	15/64	.750	2 1/2	1/4	82049
1825-2500.750	1/4	.750	2 1/2	1/4	82050

* 9/64 or larger is +/- .001"

CHUCKING REAMERS

STANDARD LENGTH

4 Flute ■ Straight Flute



- Submicron Grade Carbide
- Diameter Tolerance + 0.0002" / - 0.0000"

SERIES 5400 - FRACTIONS

PART NUMBER	CUTTING DIAMETER	MAX REAM LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
5400-0312.0750	1/32	3/4	1 1/2	3/64	54001
5400-0469.0750	3/64	3/4	1 1/2	3/64	54002
5400-0625.0750	1/16	3/4	1 1/2	1/16	54003
5400-0781.1000	5/64	1	2	5/64	54004
5400-0938.1250	3/32	1 1/4	2 1/4	3/32	54005
5400-1094.1250	7/64	1 1/4	2 1/4	7/64	54006
5400-1250.1250	1/8	1 1/4	2 1/4	1/8	54007
5400-1406.1500	9/64	1 1/2	2 1/2	9/64	54008
5400-1563.1500	5/32	1 1/2	2 1/2	5/32	54009
5400-1719.1750	11/64	1 3/4	2 3/4	11/64	54010
5400-1875.1750	3/16	1 3/4	2 3/4	3/16	54011
5400-2031.2000	13/64	2	3	13/64	54012
5400-2188.2000	7/32	2	3	7/32	54013
5400-2344.2000	15/64	2	3	15/64	54014
5400-2500.2000	1/4	2	3	1/4	54015

SERIES 5400 - SPECIAL DIAMETERS

REAMER DIAMETER*	MAX REAM LENGTH	OVERALL LENGTH	SHANK DIAMETER
.0310 - .0465	3/4	1 1/2	3/64
.0470 - .0625	3/4	1 1/2	1/16
.0630 - .0780	1	2	5/64
.0785 - .0935	1 1/4	2 1/4	3/32
.0940 - .1090	1 1/4	2 1/4	7/64
.1095 - .1250	1 1/4	2 1/4	1/8
.1255 - .1405	1 1/2	2 1/2	9/64
.1410 - .1560	1 1/2	2 1/2	5/32
.1565 - .1715	1 3/4	2 3/4	11/64
.1720 - .1875	1 3/4	2 3/4	3/16
.1880 - .2030	2	3	13/64
.2035 - .2185	2	3	7/32
.2190 - .2340	2	3	15/64
.2345 - .2500	2	3	1/4

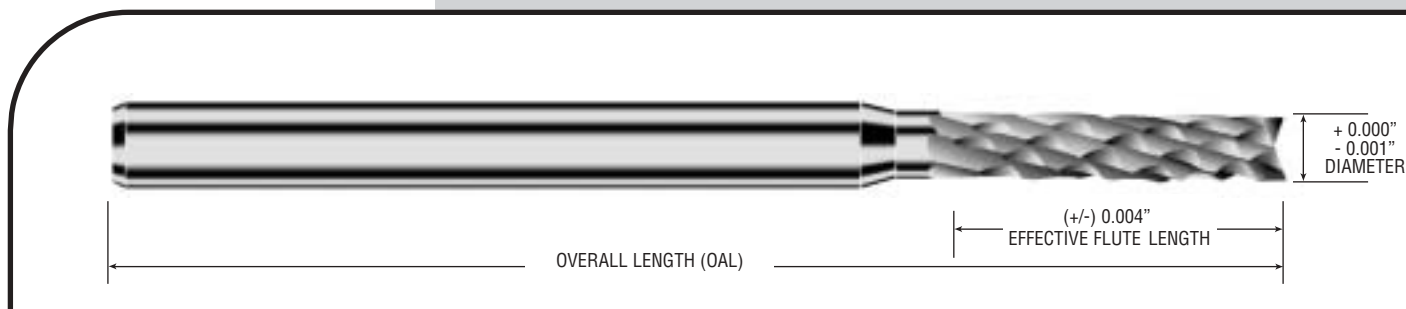
* 5 piece minimum for special diameters
 * Spiral flutes available upon request

Tools individually packed

MICRO TOOLS

For additional information call 1-888-848-8449 or visit us at www.KyoceraMicroTools.com

CHUCKING REAMERS



- Submicron Grade Carbide
- Diameter Tolerance + 0.000" / - 0.001"
- Fish Tail and Drill Point End Styles

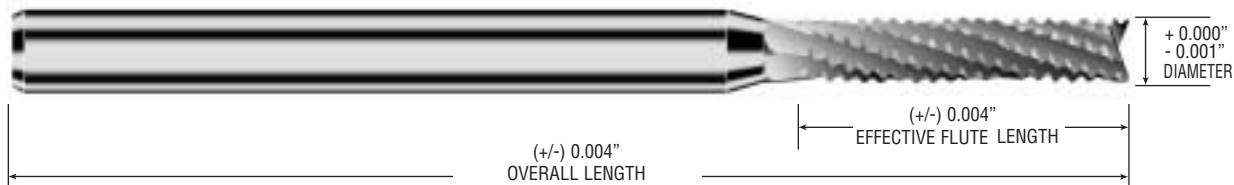
SERIES 2120 - FRACTIONS

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	END STYLE	EDP
2120-0312.255F	1/32	.255	1 1/2	1/8	Fish Tail	12002
2120-0312.255D	1/32	.255	1 1/2	1/8	Drill Point	12003
2120-0469.255F	3/64	.255	1 1/2	1/8	Fish Tail	12005
2120-0469.255D	3/64	.255	1 1/2	1/8	Drill Point	12006
2120-0625.255F	1/16	.255	1 1/2	1/8	Fish Tail	12008
2120-0625.255D	1/16	.255	1 1/2	1/8	Drill Point	12009
2120-0938.395F	3/32	.395	1 1/2	1/8	Fish Tail	12011
2120-0938.395D	3/32	.395	1 1/2	1/8	Drill Point	12012
2120-1250.500F	1/8	.500	1 1/2	1/8	Fish Tail	12014
2120-1250.500D	1/8	.500	1 1/2	1/8	Drill Point	12015
2120-1875.2625F	3/16	.625	2	3/16	Fish Tail	12017
2120-1875.2625D	3/16	.625	2	3/16	Drill Point	12018
2120-2500.2750F	1/4	.750	2	1/4	Fish Tail	12020
2120-2500.2750D	1/4	.750	2	1/4	Drill Point	12021
2120-2500.3750F	1/4	.750	2 1/2	1/4	Fish Tail	12023
2120-2500.3750D	1/4	1	2 1/2	1/4	Drill Point	12024
2120-2500.4100F	1/4	1	3	1/4	Fish Tail	12026
2120-2500.4100D	1/4	1	3	1/4	Drill Point	12027

ROUTERS

STANDARD LENGTH

Chip Breaker



- Submicron Grade Carbide
- Diameter Tolerance + 0.000" / - 0.001"
- Fish Tail and Drill Point End Styles

SERIES 2320 - FRACTIONS

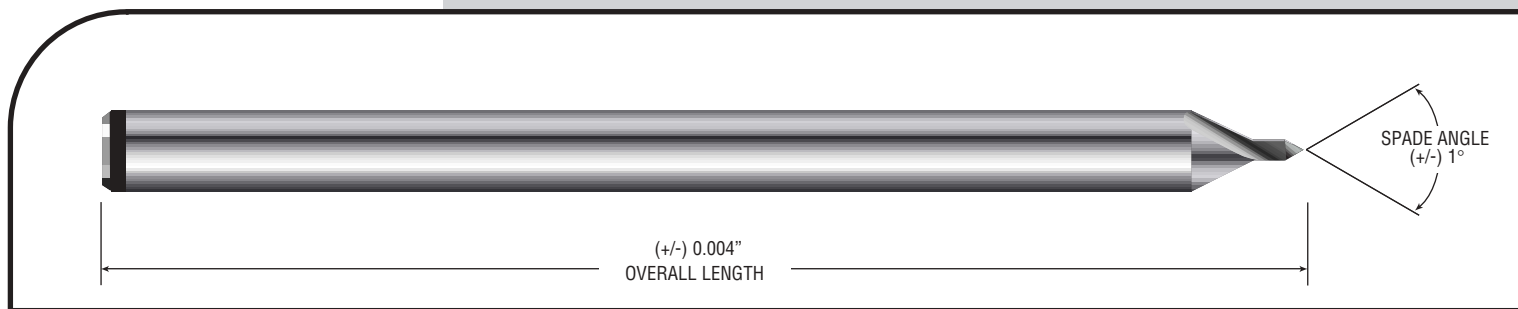
PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	END STYLE	EDP
2320-0312.255F	1/32	.255	1 1/2	1/8	Fish Tail	32002
2320-0312.255D	1/32	.255	1 1/2	1/8	Drill Point	32003
2320-0469.255F	3/64	.255	1 1/2	1/8	Fish Tail	32005
2320-0469.255D	3/64	.255	1 1/2	1/8	Drill Point	32006
2320-0625.255F	1/16	.255	1 1/2	1/8	Fish Tail	32008
2320-0625.255D	1/16	.255	1 1/2	1/8	Drill Point	32009
2320-0938.395F	3/32	.395	1 1/2	1/8	Fish Tail	32011
2320-0938.395D	3/32	.395	1 1/2	1/8	Drill Point	32012
2320-1250.500F	1/8	.500	1 1/2	1/8	Fish Tail	32014
2320-1250.500D	1/8	.500	1 1/2	1/8	Drill Point	32015

ROUTERS

Tools individually packed

MICRO TOOLS

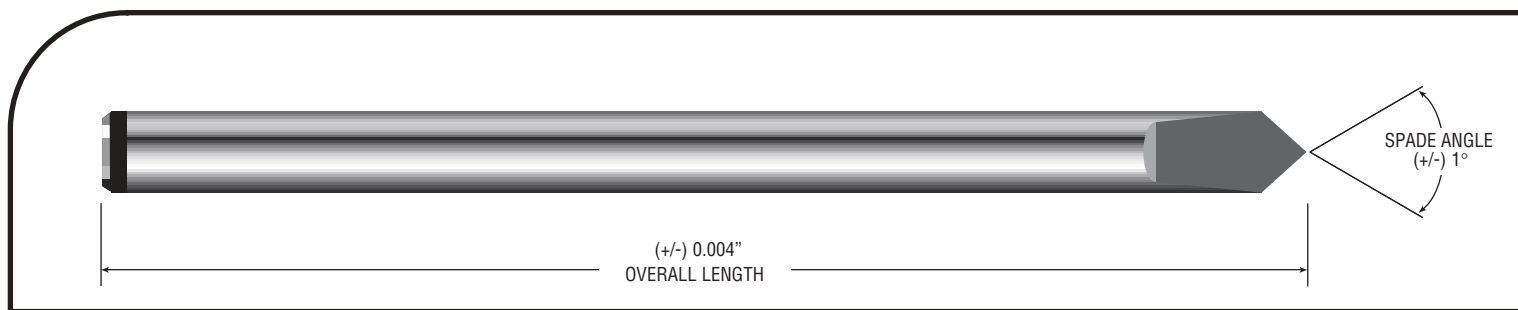
For additional information call 1-888-848-8449 or visit us at www.KyoceraMicroTools.com 11



- Submicron Grade Carbide
- 1/8" Shank

SERIES EGR1250 - 2 FLUTE ENGRAVING TOOLS

PART NUMBER	SHANK DIAMETER	SPADE ANGLE	OVERALL LENGTH	EDP
EGR1250-015	1/8	15°	1 1/2	85001
EGR1250-030	1/8	30°	1 1/2	85002
EGR1250-045	1/8	45°	1 1/2	85003



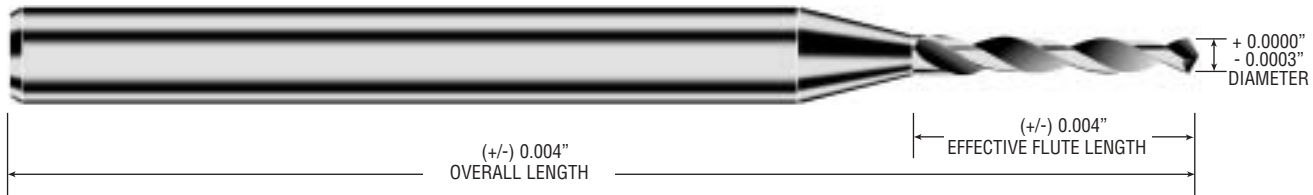
- Submicron Grade Carbide
- 1/8" Shank

SERIES SPD1250 - SPADE TOOLS

PART NUMBER	SHANK DIAMETER	SPADE ANGLE	OVERALL LENGTH	EDP
SPD1250-030	1/8	30°	1 1/2	85004
SPD1250-045	1/8	45°	1 1/2	85005
SPD1250-060	1/8	60°	1 1/2	85006
SPD1250-090	1/8	90°	1 1/2	85007
SPD1250-118	1/8	118°	1 1/2	85008

MICRO DRILLS

.0020" - .0260"



- Submicron Grade Carbide
- 1/8" Shank
- 1 1/2" Overall Length

PART NUMBER	DRILL DIAMETER	EFFECTIVE FLUTE LENGTH	EDP
225-0040.040	.10 MM	.040	22001
225-0050.040	.13 MM	.040	22002
225-0059.080	#97	.080	22004
225-0063.080	#96	.080	22005
225-0067.080	#95	.080	22006
225-0071.100	#94	.100	22007
225-0075.100	#93	.100	22008
225-0079.100	#92	.100	22010
225-0083.100	#91	.100	22011
225-0087.100	#90	.100	22012
225-0091.150	#89	.150	22013
225-0095.150	#88	.150	22014
225-0098.150	.25 MM	.150	22015
225-0100.150	#87	.150	22016
225-0105.150	#86	.150	22017
225-0110.150	#85	.150	22018
225-0115.150	#84	.150	22019
225-0118.225	.30 MM	.225	22020
225-0120.225	#83	.225	22021
225-0125.225	#82	.225	22022
225-0130.225	#81	.225	22023
200-0135.225	#80	.225	22024
200-0138.225	.35 MM	.225	22025
200-0145.225	#79	.225	22026
200-0156.250	1/64	.250	22027
200-0157.250	.40 MM	.250	22028
200-0160.250	#78	.250	22029
200-0177.250	.45 MM	.250	22030
200-0180.250	#77	.250	22031
200-0197.260	.50 MM	.260	22032
200-0200.260	#76	.260	22033

PART NUMBER	DRILL DIAMETER	EFFECTIVE FLUTE LENGTH	EDP
550-0040.070	.10 MM	.070	55001
550-0050.070	.13 MM	.070	55002
550-0059.120	#97	.120	55004
550-0063.120	#96	.120	55005
550-0067.120	#95	.120	55006
550-0071.150	#94	.150	55007
550-0075.150	#93	.150	55008
550-0079.150	#92	.150	55010
550-0083.150	#91	.150	55011
550-0087.150	#90	.150	55012
550-0091.220	#89	.220	55013
550-0095.220	#88	.220	55014
550-0098.220	.25 MM	.220	55015
550-0100.220	#87	.220	55016
550-0105.220	#86	.220	55017
550-0110.220	#85	.220	55018
550-0115.220	#84	.220	55019
550-0118.280	.30 MM	.280	55020
550-0120.280	#83	.280	55021
550-0125.280	#82	.280	55022
550-0130.280	#81	.280	55023
500-0135.280	#80	.280	55024
500-0138.280	.35 MM	.280	55025
500-0145.280	#79	.280	55026
500-0156.295	1/64	.295	55027
500-0157.295	.40 MM	.295	55028
500-0160.295	#78	.295	55029
500-0177.295	.45 MM	.295	55030
500-0180.295	#77	.295	55031
500-0197.310	.50 MM	.310	55032
500-0200.310	#76	.310	55033
500-0210.310	#75	.310	55034
500-0217.340	.55 MM	.340	55035
500-0225.340	#74	.340	55036
500-0236.340	.60 MM	.340	55037
500-0240.340	#73	.340	55038
500-0250.340	#72	.340	55039
500-0256.340	.65 MM	.340	55040
500-0260.340	#71	.340	55041

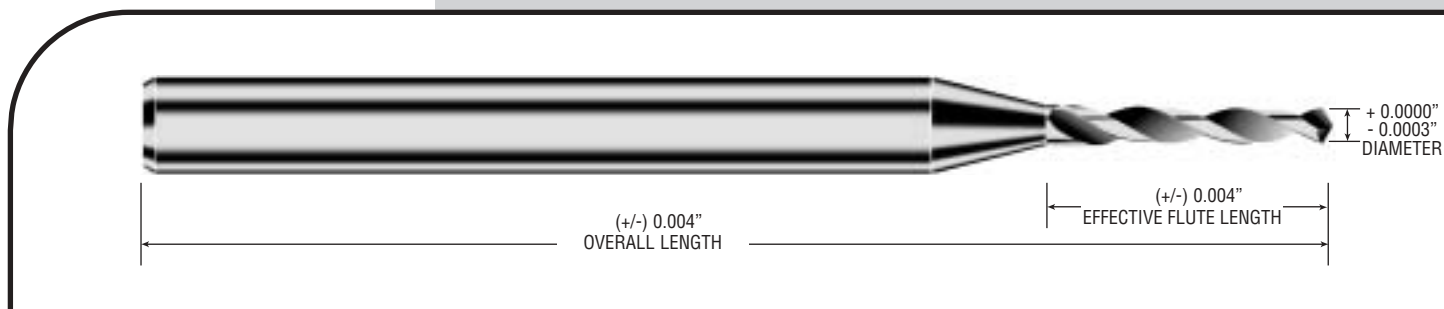
ULTRA PRECISION MICRO DRILLS

PART NUMBER	DRILL DIAMETER	EFFECTIVE FLUTE LENGTH
390/391	.0020 - .0079	CALL
Diameter Tolerance = +/- 50 Millionths		

MICRO TOOLS

MICRO DRILLS

.0276" - .1250"

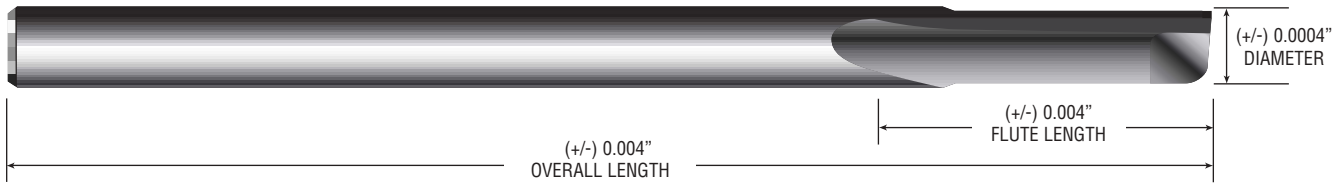


- Submicron Grade Carbide
- 1/8" Shank
- 1 1/2" Overall Length

PART NUMBER	DRILL DIA	EDP	PART NUMBER	DRILL DIA	EDP	PART NUMBER	DRILL DIA	EDP	PART NUMBER	DRILL DIA	EDP
100-0276.400	.70 MM	10001	100-0453.400	1.15MM	10026	100-0748.400	1.90 MM	10051	100-1004.400	2.55 MM	10076
100-0280.400	#70	10002	100-0465.400	#56	10027	100-0760.400	#48	10052	100-1015.400	#38	10077
100-0292.400	#69	10003	100-0469.400	3/64	10028	100-0768.400	1.95 MM	10053	100-1024.400	2.60 MM	10078
100-0295.400	.75 MM	10004	100-0472.400	1.20MM	10029	100-0781.400	5/64	10054	100-1040.400	#37	10079
100-0310.400	#68	10005	100-0492.400	1.25 MM	10030	100-0785.400	#47	10055	100-1043.400	2.65 MM	10080
100-0312.400	1/32	10006	100-0512.400	1.30 MM	10031	100-0787.400	2.00 MM	10056	100-1063.400	2.70 MM	10081
100-0315.400	.80 MM	10007	100-0520.400	#55	10032	100-0807.400	2.05 MM	10057	100-1065.400	#36	10082
100-0320.400	#67	10008	100-0531.400	1.35 MM	10033	100-0810.400	#46	10058	100-1083.400	2.75 MM	10083
100-0330.400	#66	10009	100-0550.400	#54	10034	100-0820.400	#45	10059	100-1094.400	7/64	10084
100-0335.400	.85 MM	10010	100-0551.400	1.40 MM	10035	100-0827.400	2.10 MM	10060	100-1100.400	#35	10085
100-0350.400	#65	10011	100-0571.400	1.45 MM	10036	100-0846.400	2.15 MM	10061	100-1110.400	2.80 MM	10086
100-0354.400	.90 MM	10012	100-0591.400	1.50 MM	10037	100-0860.400	#44	10062	100-1122.400	2.85 MM	10087
100-0360.400	#64	10013	100-0595.400	#53	10038	100-0866.400	2.20 MM	10063	100-1130.400	#33	10088
100-0370.400	#63	10014	100-0610.400	1.55 MM	10039	100-0886.400	2.25 MM	10064	100-1142.400	2.90 MM	10089
100-0374.400	.95 MM	10015	100-0625.400	1/16	10040	100-0890.400	#43	10065	100-1160.400	#32	10090
100-0380.400	#62	10016	100-0630.400	1.60 MM	10041	100-0906.400	2.30 MM	10066	100-1161.400	2.95 MM	10091
100-0390.400	#61	10017	100-0635.400	#52	10042	100-0925.400	2.35 MM	10067	100-1181.400	3.00 MM	10092
100-0394.400	1.00 MM	10018	100-0650.400	1.65 MM	10043	100-0935.400	#42	10068	100-1200.400	#31	10093
100-0400.400	#60	10019	100-0669.400	1.70 MM	10044	100-0938.400	3/32	10069	100-1201.400	3.05 MM	10094
100-0410.400	#59	10020	100-0670.400	#51	10045	100-0945.400	2.40 MM	10070	100-1220.400	3.10 MM	10095
100-0413.400	1.05 MM	10021	100-0689.400	1.75 MM	10046	100-0960.400	#41	10071	100-1240.400	3.15 MM	10096
100-0420.400	#58	10022	100-0700.400	#50	10047	100-0965.400	2.45 MM	10072	100-1250.400	1/8	10097
100-0430.400	#57	10023	100-0709.400	1.80 MM	10048	100-0980.400	#40	10073			
100-0433.400	1.10 MM	10024	100-0728.400	1.85 MM	10049	100-0984.400	2.50 MM	10074			
100-0440.400	1.12 MM	10025	100-0730.400	#49	10050	100-0995.400	#39	10075			

COMPOSITES FIBERGLASS ROUTERS

Single Flute ■ Standard Length



■ 1/4" Shank

SERIES 2350

PART NUMBER	CUTTING DIAMETER	EFFECTIVE FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	EDP
2350-2500.750	1/4	.750	3	1/4	85500

10 PIECE MICRO TOOL KIT

- .010", .030", 1/16", & 1/8" 2 Flute Square End Mills
- .030", 1/16", & 1/8" 2 Flute Ball Nose End Mills
- 1/32" 4 Flute Ball Nose End Mill
- 90 Degree Spade Tool
- .005" Micro Drill



PART NUMBER	SHANK DIAMETERS	NUMBER OF TOOLS	OVERALL LENGTH	EDP
MTK1	1/8	10	1 1/2	85900

MICRO TOOLS

Distributor _____ End User _____

City, State _____ Date _____ Request/PO No. _____

Phone _____ Fax _____ Quantities to Quote _____

INSTRUCTIONS

- Fill out General Tool Formatting section first, then specify type of tool and corresponding dimensions for quote.
- Please include tolerances and units when completing this form. When not included, inches and standard tolerances will be used.
- Fax request (along with any additional drawings/specifications) to Kyocera Micro Tools at 1-949-930-0888.
- For additional assistance, please contact Kyocera Micro Tools Customer Service at 1-888-848-8449.

GENERAL TOOL FORMATTING

TOOL MATERIAL: Carbide HSS Other: _____ **NUMBER OF FLUTES:** _____

CUTTING DIAMETER: _____ **SHANK DIAMETER:** _____ **OVERALL LENGTH:** _____

DIRECTION OF CUT: Right Hand Left Hand Straight **HELIX ANGLE:** _____

TOOL COATING: None TiN TiCN AlTiN TiAlN DLC PCD Other: _____

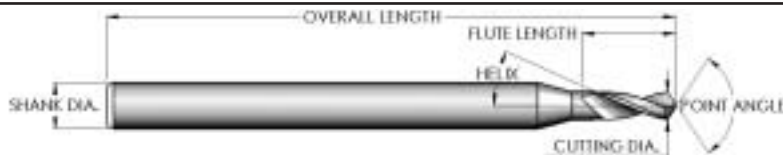
ENDMILL



TYPE OF CUT: Center Cutting Non-Center Cut **LENGTH OF CUT:** _____

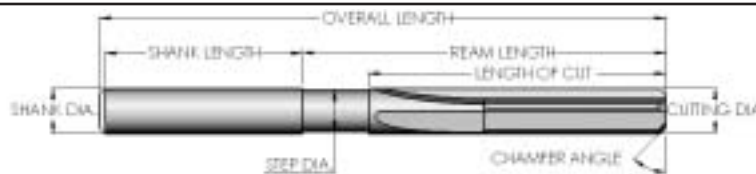
END STYLE: Square End Ball Nose Corner Radius: _____ **DISH ANGLE:** _____

DRILL



FLUTE LENGTH: _____ **POINT ANGLE:** _____

REAMER



LENGTH OF CUT: _____ **REAM LENGTH:** _____ **CHAMFER ANGLE:** _____

SHANK LENGTH: _____ **UNDERCUT DIA.:** _____

CUSTOM PARTS

PART MATERIAL: _____ **DIMENSIONS:** MAX 1/4" DIA. X 6" LENGTH

QUANTITY: _____ **PLEASE ATTACH PRINT**

FAX this form to Kyocera Micro Tools Customer Service: 1-949-930-0888

- **Payment Terms:** Net 30 days
- **FOB:** Kyocera - Irvine, California
- **Restocking Fee:** 15%
- **Minimum Order Quantity:** \$50 – net pricing
- **Customer Service:** 1- 888-848-8449

NOTE: Prices and specifications subject to change without notice. For more information, please visit www.KyoceraMicroTools.com.

Thank you.



62 Swiss Rollomatic CNC grinding centers provide the foundation of precision upon which all else is based.



Our CAD/CAM design capability allows for customer approval before any metal is ground.



Back-end processes include the significant use of automated optical inspection (AOI).

Tools individually packed

MICRO TOOLS

For additional information call 1-888-848-8449 or visit us at www.KyoceraMicroTools.com 17



MICRO TOOLS

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Irvine, CA 92614

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