

Miniatures Applications Tools

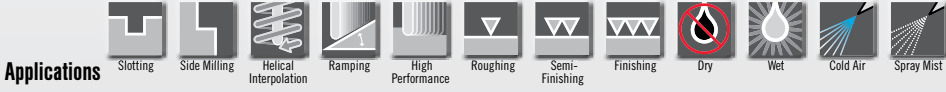
SS-2 / MSS-2	2 Flute Stub Length		78
SR-2 / MSR-2	2 Flute Standard Length		80
SS-2BN / MSS-2BN	2 Flute Stub Length Ball Nose		82
SR-2BN / MSR-2BN	2 Flute Standard Length Ball Nose		83
SS-4 / MSS-4	4 Flute Stub Length		84
SR-4 / MSR-4	4 Flute Standard Length		85
ACH / MAH Accuhold	Extension Holder (Also in Multiple Apps)		85



SS-2 2 Flute Miniature End Mills



Characteristics



Applications

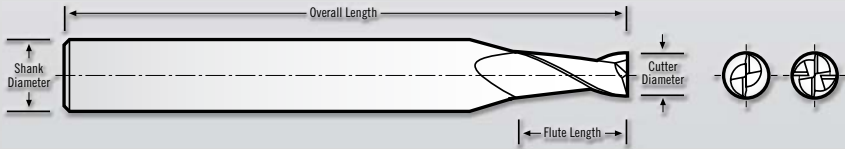


Materials



Coatings

**Hand-Select
+/- .0002"
Available**



SS/SR Tolerances

Cutting Dia. = ±.0005"
Shank Dia. = -.0001/--.0002"
LOC = +.003/--.000"
OAL = ±.040"/-.000"

MSS/MSR Tolerances

Cutting Dia. = ±.010mm
Shank Dia. = -.002/--.005mm
LOC = +0.10/-0.00mm
OAL = +1.00/-0.00mm



**Tight
Tolerances**

SS-2 2 Flute Tuff Grade Stub Length

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.005"	1/8"	.0100"	1-1/2"	SS-2-005	C-SS-2-005 T	C-SS-2-005 C	C-SS-2-005 A	C-SS-2-005 DLC
.006"	1/8"	.0120"	1-1/2"	SS-2-006	C-SS-2-006 T	C-SS-2-006 C	C-SS-2-006 A	C-SS-2-006 DLC
.007"	1/8"	.0140"	1-1/2"	SS-2-007	C-SS-2-007 T	C-SS-2-007 C	C-SS-2-007 A	C-SS-2-007 DLC
.008"	1/8"	.0160"	1-1/2"	SS-2-008	C-SS-2-008 T	C-SS-2-008 C	C-SS-2-008 A	C-SS-2-008 DLC
.009"	1/8"	.0180"	1-1/2"	SS-2-009	C-SS-2-009 T	C-SS-2-009 C	C-SS-2-009 A	C-SS-2-009 DLC
.010"	1/8"	.0150"	1-1/2"	SS-2-010	C-SS-2-010 T	C-SS-2-010 C	C-SS-2-010 A	C-SS-2-010 DLC
.011"	1/8"	.0165"	1-1/2"	SS-2-011	C-SS-2-011 T	C-SS-2-011 C	C-SS-2-011 A	C-SS-2-011 DLC
.012"	1/8"	.0180"	1-1/2"	SS-2-012	C-SS-2-012 T	C-SS-2-012 C	C-SS-2-012 A	C-SS-2-012 DLC
.013"	1/8"	.0195"	1-1/2"	SS-2-013	C-SS-2-013 T	C-SS-2-013 C	C-SS-2-013 A	C-SS-2-013 DLC
.014"	1/8"	.0210"	1-1/2"	SS-2-014	C-SS-2-014 T	C-SS-2-014 C	C-SS-2-014 A	C-SS-2-014 DLC
.015"	1/8"	.0225"	1-1/2"	SS-2-015	C-SS-2-015 T	C-SS-2-015 C	C-SS-2-015 A	C-SS-2-015 DLC
.016"	1/8"	.0240"	1-1/2"	SS-2-016	C-SS-2-016 T	C-SS-2-016 C	C-SS-2-016 A	C-SS-2-016 DLC
.017"	1/8"	.0255"	1-1/2"	SS-2-017	C-SS-2-017 T	C-SS-2-017 C	C-SS-2-017 A	C-SS-2-017 DLC
.018"	1/8"	.0270"	1-1/2"	SS-2-018	C-SS-2-018 T	C-SS-2-018 C	C-SS-2-018 A	C-SS-2-018 DLC
.019"	1/8"	.0285"	1-1/2"	SS-2-019	C-SS-2-019 T	C-SS-2-019 C	C-SS-2-019 A	C-SS-2-019 DLC
.020"	1/8"	.0300"	1-1/2"	SS-2-020	C-SS-2-020 T	C-SS-2-020 C	C-SS-2-020 A	C-SS-2-020 DLC
.021"	1/8"	.0315"	1-1/2"	SS-2-021	C-SS-2-021 T	C-SS-2-021 C	C-SS-2-021 A	C-SS-2-021 DLC
.022"	1/8"	.0330"	1-1/2"	SS-2-022	C-SS-2-022 T	C-SS-2-022 C	C-SS-2-022 A	C-SS-2-022 DLC
.023"	1/8"	.0345"	1-1/2"	SS-2-023	C-SS-2-023 T	C-SS-2-023 C	C-SS-2-023 A	C-SS-2-023 DLC
.024"	1/8"	.0360"	1-1/2"	SS-2-024	C-SS-2-024 T	C-SS-2-024 C	C-SS-2-024 A	C-SS-2-024 DLC
.025"	1/8"	.0375"	1-1/2"	SS-2-025	C-SS-2-025 T	C-SS-2-025 C	C-SS-2-025 A	C-SS-2-025 DLC
.026"	1/8"	.0390"	1-1/2"	SS-2-026	C-SS-2-026 T	C-SS-2-026 C	C-SS-2-026 A	C-SS-2-026 DLC
.027"	1/8"	.0405"	1-1/2"	SS-2-027	C-SS-2-027 T	C-SS-2-027 C	C-SS-2-027 A	C-SS-2-027 DLC
.028"	1/8"	.0420"	1-1/2"	SS-2-028	C-SS-2-028 T	C-SS-2-028 C	C-SS-2-028 A	C-SS-2-028 DLC
.029"	1/8"	.0435"	1-1/2"	SS-2-029	C-SS-2-029 T	C-SS-2-029 C	C-SS-2-029 A	C-SS-2-029 DLC
.030"	1/8"	.0450"	1-1/2"	SS-2-030	C-SS-2-030 T	C-SS-2-030 C	C-SS-2-030 A	C-SS-2-030 DLC
.031"	1/8"	.0465"	1-1/2"	SS-2-031	C-SS-2-031 T	C-SS-2-031 C	C-SS-2-031 A	C-SS-2-031 DLC
.032"	1/8"	.0480"	1-1/2"	SS-2-032	C-SS-2-032 T	C-SS-2-032 C	C-SS-2-032 A	C-SS-2-032 DLC
.033"	1/8"	.0495"	1-1/2"	SS-2-033	C-SS-2-033 T	C-SS-2-033 C	C-SS-2-033 A	C-SS-2-033 DLC
.034"	1/8"	.0510"	1-1/2"	SS-2-034	C-SS-2-034 T	C-SS-2-034 C	C-SS-2-034 A	C-SS-2-034 DLC

Miniatures

2 Flute Miniature End Mills **SS-2/MSS-2**



SS-2 2 Flute Tuffy Grade Stub Length —CONTINUED FROM PREVIOUS

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.035"	1/8"	.0525"	1-1/2"	SS-2-035	C-SS-2-035 T	C-SS-2-035 C	C-SS-2-035 A	C-SS-2-035 DLC
.036"	1/8"	.0540"	1-1/2"	SS-2-036	C-SS-2-036 T	C-SS-2-036 C	C-SS-2-036 A	C-SS-2-036 DLC
.037"	1/8"	.0555"	1-1/2"	SS-2-037	C-SS-2-037 T	C-SS-2-037 C	C-SS-2-037 A	C-SS-2-037 DLC
.038"	1/8"	.0570"	1-1/2"	SS-2-038	C-SS-2-038 T	C-SS-2-038 C	C-SS-2-038 A	C-SS-2-038 DLC
.039"	1/8"	.0585"	1-1/2"	SS-2-039	C-SS-2-039 T	C-SS-2-039 C	C-SS-2-039 A	C-SS-2-039 DLC
.040"	1/8"	.0600"	1-1/2"	SS-2-040	C-SS-2-040 T	C-SS-2-040 C	C-SS-2-040 A	C-SS-2-040 DLC
.041"	1/8"	.0615"	1-1/2"	SS-2-041	C-SS-2-041 T	C-SS-2-041 C	C-SS-2-041 A	C-SS-2-041 DLC
.042"	1/8"	.0630"	1-1/2"	SS-2-042	C-SS-2-042 T	C-SS-2-042 C	C-SS-2-042 A	C-SS-2-042 DLC
.043"	1/8"	.0645"	1-1/2"	SS-2-043	C-SS-2-043 T	C-SS-2-043 C	C-SS-2-043 A	C-SS-2-043 DLC
.044"	1/8"	.0660"	1-1/2"	SS-2-044	C-SS-2-044 T	C-SS-2-044 C	C-SS-2-044 A	C-SS-2-044 DLC
.045"	1/8"	.0675"	1-1/2"	SS-2-045	C-SS-2-045 T	C-SS-2-045 C	C-SS-2-045 A	C-SS-2-045 DLC
.046"	1/8"	.0690"	1-1/2"	SS-2-046	C-SS-2-046 T	C-SS-2-046 C	C-SS-2-046 A	C-SS-2-046 DLC
.047"	1/8"	.0705"	1-1/2"	SS-2-047	C-SS-2-047 T	C-SS-2-047 C	C-SS-2-047 A	C-SS-2-047 DLC
.048"	1/8"	.0720"	1-1/2"	SS-2-048	C-SS-2-048 T	C-SS-2-048 C	C-SS-2-048 A	C-SS-2-048 DLC
.049"	1/8"	.0735"	1-1/2"	SS-2-049	C-SS-2-049 T	C-SS-2-049 C	C-SS-2-049 A	C-SS-2-049 DLC
.050"	1/8"	.0750"	1-1/2"	SS-2-050	C-SS-2-050 T	C-SS-2-050 C	C-SS-2-050 A	C-SS-2-050 DLC
.051"	1/8"	.0765"	1-1/2"	SS-2-051	C-SS-2-051 T	C-SS-2-051 C	C-SS-2-051 A	C-SS-2-051 DLC
.052"	1/8"	.0780"	1-1/2"	SS-2-052	C-SS-2-052 T	C-SS-2-052 C	C-SS-2-052 A	C-SS-2-052 DLC
.053"	1/8"	.0795"	1-1/2"	SS-2-053	C-SS-2-053 T	C-SS-2-053 C	C-SS-2-053 A	C-SS-2-053 DLC
.054"	1/8"	.0810"	1-1/2"	SS-2-054	C-SS-2-054 T	C-SS-2-054 C	C-SS-2-054 A	C-SS-2-054 DLC
.055"	1/8"	.0825"	1-1/2"	SS-2-055	C-SS-2-055 T	C-SS-2-055 C	C-SS-2-055 A	C-SS-2-055 DLC
.056"	1/8"	.0840"	1-1/2"	SS-2-056	C-SS-2-056 T	C-SS-2-056 C	C-SS-2-056 A	C-SS-2-056 DLC
.057"	1/8"	.0855"	1-1/2"	SS-2-057	C-SS-2-057 T	C-SS-2-057 C	C-SS-2-057 A	C-SS-2-057 DLC
.058"	1/8"	.0870"	1-1/2"	SS-2-058	C-SS-2-058 T	C-SS-2-058 C	C-SS-2-058 A	C-SS-2-058 DLC
.059"	1/8"	.0885"	1-1/2"	SS-2-059	C-SS-2-059 T	C-SS-2-059 C	C-SS-2-059 A	C-SS-2-059 DLC
.060"	1/8"	.0900"	1-1/2"	SS-2-060	C-SS-2-060 T	C-SS-2-060 C	C-SS-2-060 A	C-SS-2-060 DLC
.061"	1/8"	.0915"	1-1/2"	SS-2-061	C-SS-2-061 T	C-SS-2-061 C	C-SS-2-061 A	C-SS-2-061 DLC
.062"	1/8"	.0930"	1-1/2"	SS-2-062	C-SS-2-062 T	C-SS-2-062 C	C-SS-2-062 A	C-SS-2-062 DLC



MSS-2 Metric 2 Flute Miniature Stub Length **METRIC**

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.15mm	3mm	.225mm	38mm	MSS-2-015	C-MSS-2-015 T	C-MSS-2-015 C	C-MSS-2-015 A	C-MSS-2-015 DLC
.20mm	3mm	.300mm	38mm	MSS-2-020	C-MSS-2-020 T	C-MSS-2-020 C	C-MSS-2-020 A	C-MSS-2-020 DLC
.25mm	3mm	.375mm	38mm	MSS-2-025	C-MSS-2-025 T	C-MSS-2-025 C	C-MSS-2-025 A	C-MSS-2-025 DLC
.30mm	3mm	.450mm	38mm	MSS-2-030	C-MSS-2-030 T	C-MSS-2-030 C	C-MSS-2-030 A	C-MSS-2-030 DLC
.35mm	3mm	.525mm	38mm	MSS-2-035	C-MSS-2-035 T	C-MSS-2-035 C	C-MSS-2-035 A	C-MSS-2-035 DLC
.40mm	3mm	.600mm	38mm	MSS-2-040	C-MSS-2-040 T	C-MSS-2-040 C	C-MSS-2-040 A	C-MSS-2-040 DLC
.45mm	3mm	.675mm	38mm	MSS-2-045	C-MSS-2-045 T	C-MSS-2-045 C	C-MSS-2-045 A	C-MSS-2-045 DLC
.50mm	3mm	.750mm	38mm	MSS-2-050	C-MSS-2-050 T	C-MSS-2-050 C	C-MSS-2-050 A	C-MSS-2-050 DLC
.55mm	3mm	.825mm	38mm	MSS-2-055	C-MSS-2-055 T	C-MSS-2-055 C	C-MSS-2-055 A	C-MSS-2-055 DLC
.60mm	3mm	.900mm	38mm	MSS-2-060	C-MSS-2-060 T	C-MSS-2-060 C	C-MSS-2-060 A	C-MSS-2-060 DLC
.65mm	3mm	.975mm	38mm	MSS-2-065	C-MSS-2-065 T	C-MSS-2-065 C	C-MSS-2-065 A	C-MSS-2-065 DLC
.70mm	3mm	1.05mm	38mm	MSS-2-070	C-MSS-2-070 T	C-MSS-2-070 C	C-MSS-2-070 A	C-MSS-2-070 DLC
.80mm	3mm	1.20mm	38mm	MSS-2-080	C-MSS-2-080 T	C-MSS-2-080 C	C-MSS-2-080 A	C-MSS-2-080 DLC
1.00mm	3mm	1.50mm	38mm	MSS-2-100	C-MSS-2-100 T	C-MSS-2-100 C	C-MSS-2-100 A	C-MSS-2-100 DLC
1.50mm	3mm	2.25mm	38mm	MSS-2-150	C-MSS-2-150 T	C-MSS-2-150 C	C-MSS-2-150 A	C-MSS-2-150 DLC

SR-2 2 Flute Miniature End Mills



SR-2 2 Flute Tuffy Grade Standard Length

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.010"	1/8"	.0300"	1-1/2"	SR-2-010	C-SR-2-010 T	C-SR-2-010 C	C-SR-2-010 A	C-SR-2-010 DLC
.011"	1/8"	.0330"	1-1/2"	SR-2-011	C-SR-2-011 T	C-SR-2-011 C	C-SR-2-011 A	C-SR-2-011 DLC
.012"	1/8"	.0360"	1-1/2"	SR-2-012	C-SR-2-012 T	C-SR-2-012 C	C-SR-2-012 A	C-SR-2-012 DLC
.013"	1/8"	.0390"	1-1/2"	SR-2-013	C-SR-2-013 T	C-SR-2-013 C	C-SR-2-013 A	C-SR-2-013 DLC
.014"	1/8"	.0420"	1-1/2"	SR-2-014	C-SR-2-014 T	C-SR-2-014 C	C-SR-2-014 A	C-SR-2-014 DLC
.015"	1/8"	.0450"	1-1/2"	SR-2-015	C-SR-2-015 T	C-SR-2-015 C	C-SR-2-015 A	C-SR-2-015 DLC
.016"	1/8"	.0480"	1-1/2"	SR-2-016	C-SR-2-016 T	C-SR-2-016 C	C-SR-2-016 A	C-SR-2-016 DLC
.017"	1/8"	.0510"	1-1/2"	SR-2-017	C-SR-2-017 T	C-SR-2-017 C	C-SR-2-017 A	C-SR-2-017 DLC
.018"	1/8"	.0540"	1-1/2"	SR-2-018	C-SR-2-018 T	C-SR-2-018 C	C-SR-2-018 A	C-SR-2-018 DLC
.019"	1/8"	.0570"	1-1/2"	SR-2-019	C-SR-2-019 T	C-SR-2-019 C	C-SR-2-019 A	C-SR-2-019 DLC
.020"	1/8"	.0600"	1-1/2"	SR-2-020	C-SR-2-020 T	C-SR-2-020 C	C-SR-2-020 A	C-SR-2-020 DLC
.021"	1/8"	.0630"	1-1/2"	SR-2-021	C-SR-2-021 T	C-SR-2-021 C	C-SR-2-021 A	C-SR-2-021 DLC
.022"	1/8"	.0660"	1-1/2"	SR-2-022	C-SR-2-022 T	C-SR-2-022 C	C-SR-2-022 A	C-SR-2-022 DLC
.023"	1/8"	.0690"	1-1/2"	SR-2-023	C-SR-2-023 T	C-SR-2-023 C	C-SR-2-023 A	C-SR-2-023 DLC
.024"	1/8"	.0720"	1-1/2"	SR-2-024	C-SR-2-024 T	C-SR-2-024 C	C-SR-2-024 A	C-SR-2-024 DLC
.025"	1/8"	.0750"	1-1/2"	SR-2-025	C-SR-2-025 T	C-SR-2-025 C	C-SR-2-025 A	C-SR-2-025 DLC
.026"	1/8"	.0780"	1-1/2"	SR-2-026	C-SR-2-026 T	C-SR-2-026 C	C-SR-2-026 A	C-SR-2-026 DLC
.027"	1/8"	.0810"	1-1/2"	SR-2-027	C-SR-2-027 T	C-SR-2-027 C	C-SR-2-027 A	C-SR-2-027 DLC
.028"	1/8"	.0840"	1-1/2"	SR-2-028	C-SR-2-028 T	C-SR-2-028 C	C-SR-2-028 A	C-SR-2-028 DLC
.029"	1/8"	.0870"	1-1/2"	SR-2-029	C-SR-2-029 T	C-SR-2-029 C	C-SR-2-029 A	C-SR-2-029 DLC
.030"	1/8"	.0900"	1-1/2"	SR-2-030	C-SR-2-030 T	C-SR-2-030 C	C-SR-2-030 A	C-SR-2-030 DLC
.031"	1/8"	.0930"	1-1/2"	SR-2-031	C-SR-2-031 T	C-SR-2-031 C	C-SR-2-031 A	C-SR-2-031 DLC
.032"	1/8"	.0960"	1-1/2"	SR-2-032	C-SR-2-032 T	C-SR-2-032 C	C-SR-2-032 A	C-SR-2-032 DLC
.033"	1/8"	.0990"	1-1/2"	SR-2-033	C-SR-2-033 T	C-SR-2-033 C	C-SR-2-033 A	C-SR-2-033 DLC
.034"	1/8"	.1020"	1-1/2"	SR-2-034	C-SR-2-034 T	C-SR-2-034 C	C-SR-2-034 A	C-SR-2-034 DLC
.035"	1/8"	.1050"	1-1/2"	SR-2-035	C-SR-2-035 T	C-SR-2-035 C	C-SR-2-035 A	C-SR-2-035 DLC
.036"	1/8"	.1080"	1-1/2"	SR-2-036	C-SR-2-036 T	C-SR-2-036 C	C-SR-2-036 A	C-SR-2-036 DLC
.037"	1/8"	.1110"	1-1/2"	SR-2-037	C-SR-2-037 T	C-SR-2-037 C	C-SR-2-037 A	C-SR-2-037 DLC
.038"	1/8"	.1140"	1-1/2"	SR-2-038	C-SR-2-038 T	C-SR-2-038 C	C-SR-2-038 A	C-SR-2-038 DLC
.039"	1/8"	.1170"	1-1/2"	SR-2-039	C-SR-2-039 T	C-SR-2-039 C	C-SR-2-039 A	C-SR-2-039 DLC
.040"	1/8"	.1200"	1-1/2"	SR-2-040	C-SR-2-040 T	C-SR-2-040 C	C-SR-2-040 A	C-SR-2-040 DLC
.041"	1/8"	.1230"	1-1/2"	SR-2-041	C-SR-2-041 T	C-SR-2-041 C	C-SR-2-041 A	C-SR-2-041 DLC
.042"	1/8"	.1260"	1-1/2"	SR-2-042	C-SR-2-042 T	C-SR-2-042 C	C-SR-2-042 A	C-SR-2-042 DLC
.043"	1/8"	.1290"	1-1/2"	SR-2-043	C-SR-2-043 T	C-SR-2-043 C	C-SR-2-043 A	C-SR-2-043 DLC
.044"	1/8"	.1320"	1-1/2"	SR-2-044	C-SR-2-044 T	C-SR-2-044 C	C-SR-2-044 A	C-SR-2-044 DLC
.045"	1/8"	.1350"	1-1/2"	SR-2-045	C-SR-2-045 T	C-SR-2-045 C	C-SR-2-045 A	C-SR-2-045 DLC
.046"	1/8"	.1380"	1-1/2"	SR-2-046	C-SR-2-046 T	C-SR-2-046 C	C-SR-2-046 A	C-SR-2-046 DLC
.047"	1/8"	.1410"	1-1/2"	SR-2-047	C-SR-2-047 T	C-SR-2-047 C	C-SR-2-047 A	C-SR-2-047 DLC
.048"	1/8"	.1440"	1-1/2"	SR-2-048	C-SR-2-048 T	C-SR-2-048 C	C-SR-2-048 A	C-SR-2-048 DLC
.049"	1/8"	.1470"	1-1/2"	SR-2-049	C-SR-2-049 T	C-SR-2-049 C	C-SR-2-049 A	C-SR-2-049 DLC
.050"	1/8"	.1500"	1-1/2"	SR-2-050	C-SR-2-050 T	C-SR-2-050 C	C-SR-2-050 A	C-SR-2-050 DLC
.051"	1/8"	.1530"	1-1/2"	SR-2-051	C-SR-2-051 T	C-SR-2-051 C	C-SR-2-051 A	C-SR-2-051 DLC
.052"	1/8"	.1560"	1-1/2"	SR-2-052	C-SR-2-052 T	C-SR-2-052 C	C-SR-2-052 A	C-SR-2-052 DLC
.053"	1/8"	.1590"	1-1/2"	SR-2-053	C-SR-2-053 T	C-SR-2-053 C	C-SR-2-053 A	C-SR-2-053 DLC
.054"	1/8"	.1620"	1-1/2"	SR-2-054	C-SR-2-054 T	C-SR-2-054 C	C-SR-2-054 A	C-SR-2-054 DLC
.055"	1/8"	.1650"	1-1/2"	SR-2-055	C-SR-2-055 T	C-SR-2-055 C	C-SR-2-055 A	C-SR-2-055 DLC
.056"	1/8"	.1680"	1-1/2"	SR-2-056	C-SR-2-056 T	C-SR-2-056 C	C-SR-2-056 A	C-SR-2-056 DLC
.057"	1/8"	.1710"	1-1/2"	SR-2-057	C-SR-2-057 T	C-SR-2-057 C	C-SR-2-057 A	C-SR-2-057 DLC
.058"	1/8"	.1740"	1-1/2"	SR-2-058	C-SR-2-058 T	C-SR-2-058 C	C-SR-2-058 A	C-SR-2-058 DLC
.059"	1/8"	.1770"	1-1/2"	SR-2-059	C-SR-2-059 T	C-SR-2-059 C	C-SR-2-059 A	C-SR-2-059 DLC
.060"	1/8"	.1800"	1-1/2"	SR-2-060	C-SR-2-060 T	C-SR-2-060 C	C-SR-2-060 A	C-SR-2-060 DLC
.061"	1/8"	.1830"	1-1/2"	SR-2-061	C-SR-2-061 T	C-SR-2-061 C	C-SR-2-061 A	C-SR-2-061 DLC
.062"	1/8"	.1860"	1-1/2"	SR-2-062	C-SR-2-062 T	C-SR-2-062 C	C-SR-2-062 A	C-SR-2-062 DLC

2 Flute Miniature End Mills **MSR-2**



MSR-2 2 Flute Standard Length **METRIC**

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.25mm	3mm	.75mm	38mm	MSR-2-025	C-MSR-2-025 T	C-MSR-2-025 C	C-MSR-2-025 A	C-MSR-2-025 DLC
.30mm	3mm	.90mm	38mm	MSR-2-030	C-MSR-2-030 T	C-MSR-2-030 C	C-MSR-2-030 A	C-MSR-2-030 DLC
.35mm	3mm	1.05mm	38mm	MSR-2-035	C-MSR-2-035 T	C-MSR-2-035 C	C-MSR-2-035 A	C-MSR-2-035 DLC
.40mm	3mm	1.20mm	38mm	MSR-2-040	C-MSR-2-040 T	C-MSR-2-040 C	C-MSR-2-040 A	C-MSR-2-040 DLC
.45mm	3mm	1.35mm	38mm	MSR-2-045	C-MSR-2-045 T	C-MSR-2-045 C	C-MSR-2-045 A	C-MSR-2-045 DLC
.50mm	3mm	1.50mm	38mm	MSR-2-050	C-MSR-2-050 T	C-MSR-2-050 C	C-MSR-2-050 A	C-MSR-2-050 DLC
.55mm	3mm	1.65mm	38mm	MSR-2-055	C-MSR-2-055 T	C-MSR-2-055 C	C-MSR-2-055 A	C-MSR-2-055 DLC
.60mm	3mm	1.80mm	38mm	MSR-2-060	C-MSR-2-060 T	C-MSR-2-060 C	C-MSR-2-060 A	C-MSR-2-060 DLC
.65mm	3mm	1.95mm	38mm	MSR-2-065	C-MSR-2-065 T	C-MSR-2-065 C	C-MSR-2-065 A	C-MSR-2-065 DLC
.70mm	3mm	2.10mm	38mm	MSR-2-070	C-MSR-2-070 T	C-MSR-2-070 C	C-MSR-2-070 A	C-MSR-2-070 DLC
.80mm	3mm	2.40mm	38mm	MSR-2-080	C-MSR-2-080 T	C-MSR-2-080 C	C-MSR-2-080 A	C-MSR-2-080 DLC
1.00mm	3mm	3.00mm	38mm	MSR-2-100	C-MSR-2-100 T	C-MSR-2-100 C	C-MSR-2-100 A	C-MSR-2-100 DLC
1.50mm	3mm	4.50mm	38mm	MSR-2-150	C-MSR-2-150 T	C-MSR-2-150 C	C-MSR-2-150 A	C-MSR-2-150 DLC



Videos Online

See RobbJack's miniatures in action online:
www.youtube.com/RobbJackCorp
 or
www.robbjack.com/videos



Speed & Feed

Speed & Feed Calculations now online at:
www.robbjack.com/speedfeed



SS/SR-2BN 2 Flute Miniature Ball End Mills

Characteristics

- Ball End
- 2 Flute
- 30° Helix

Applications

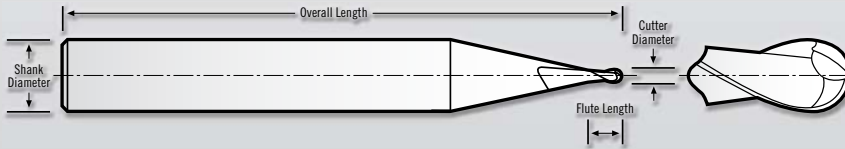
- Slotting
- Side Milling
- Helical Interpolation
- Conventional
- Ramping
- 3-D
- High Performance
- Roughing
- Semi-Finishing
- Finishing
- Dry
- Wet
- Cold Air
- Spray Mist

Materials

- Aluminum
- Copper
- Titanium
- Magnesium
- Cast Iron
- Steel
- Stainless Steel
- SUPER Alloys
- Plastics
- Composites
- 40 HRC Hardness
- BRASS

Coatings

- TiN
- TiCN
- AlTiN
- Diamond-Like Carbon (DLC)



SS/SR Tolerances
 Cutting Dia. = ±.0005"
 Shank Dia. = -.0001/--.0002"
 LOC = +.003/--.000"
 OAL = ±.060"

MSS/MSR Tolerances
 Cutting Dia. = ±.010 mm
 Shank Dia. = -.002/--.005 mm
 LOC = +0.10/-0.00 mm
 OAL = +1.00/-0.00 mm



SS-2BN 2 Flute Ball End Stub Length

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.010"	1/8"	.0150"	1-1/2"	SS-2-010BN	C-SS-2-010BN T	C-SS-2-010BN C	C-SS-2-010BN A	C-SS-2-010BN DLC
.015"	1/8"	.0230"	1-1/2"	SS-2-015BN	C-SS-2-015BN T	C-SS-2-015BN C	C-SS-2-015BN A	C-SS-2-015BN DLC
.016"	1/8"	.0240"	1-1/2"	SS-2-016BN	C-SS-2-016BN T	C-SS-2-016BN C	C-SS-2-016BN A	C-SS-2-016BN DLC
.020"	1/8"	.0300"	1-1/2"	SS-2-020BN	C-SS-2-020BN T	C-SS-2-020BN C	C-SS-2-020BN A	C-SS-2-020BN DLC
.025"	1/8"	.0375"	1-1/2"	SS-2-025BN	C-SS-2-025BN T	C-SS-2-025BN C	C-SS-2-025BN A	C-SS-2-025BN DLC
.030"	1/8"	.0450"	1-1/2"	SS-2-030BN	C-SS-2-030BN T	C-SS-2-030BN C	C-SS-2-030BN A	C-SS-2-030BN DLC
.031"	1/8"	.0465"	1-1/2"	SS-2-031BN	C-SS-2-031BN T	C-SS-2-031BN C	C-SS-2-031BN A	C-SS-2-031BN DLC
.040"	1/8"	.0600"	1-1/2"	SS-2-040BN	C-SS-2-040BN T	C-SS-2-040BN C	C-SS-2-040BN A	C-SS-2-040BN DLC
.047"	1/8"	.0750"	1-1/2"	SS-2-047BN	C-SS-2-047BN T	C-SS-2-047BN C	C-SS-2-047BN A	C-SS-2-047BN DLC
.055"	1/8"	.0825"	1-1/2"	SS-2-055BN	C-SS-2-055BN T	C-SS-2-055BN C	C-SS-2-055BN A	C-SS-2-055BN DLC
.060"	1/8"	.0900"	1-1/2"	SS-2-060BN	C-SS-2-060BN T	C-SS-2-060BN C	C-SS-2-060BN A	C-SS-2-060BN DLC

MSS-2BN Metric 2 Flute Ball End Stub Length **METRIC**

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.50mm	3mm	.750mm	38mm	MSS-2-050BN	C-MSS-2-050BN T	C-MSS-2-050BN C	C-MSS-2-050BN A	C-MSS-2-050BN DLC
.60mm	3mm	.900mm	38mm	MSS-2-060BN	C-MSS-2-060BN T	C-MSS-2-060BN C	C-MSS-2-060BN A	C-MSS-2-060BN DLC
.70mm	3mm	1.05mm	38mm	MSS-2-070BN	C-MSS-2-070BN T	C-MSS-2-070BN C	C-MSS-2-070BN A	C-MSS-2-070BN DLC
.80mm	3mm	1.20mm	38mm	MSS-2-080BN	C-MSS-2-080BN T	C-MSS-2-080BN C	C-MSS-2-080BN A	C-MSS-2-080BN DLC
1.00mm	3mm	1.50mm	38mm	MSS-2-100BN	C-MSS-2-100BN T	C-MSS-2-100BN C	C-MSS-2-100BN A	C-MSS-2-100BN DLC
1.50mm	3mm	2.25mm	38mm	MSS-2-150BN	C-MSS-2-150BN T	C-MSS-2-150BN C	C-MSS-2-150BN A	C-MSS-2-150BN DLC

Miniatures

2 Flute Miniature Ball End Mills **MSS/MSR-2BN**



SR-2BN 2 Flute Ball End Tuffy Grade Standard Length

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AITiN Coated	Tool Number DLC Coated
.010"	1/8"	.0300"	1-1/2"	SR-2-010BN	C-SR-2-010BN T	C-SR-2-010BN C	C-SR-2-010BN A	C-SR-2-010BN DLC
.015"	1/8"	.0450"	1-1/2"	SR-2-015BN	C-SR-2-015BN T	C-SR-2-015BN C	C-SR-2-015BN A	C-SR-2-015BN DLC
.016"	1/8"	.0480"	1-1/2"	SR-2-016BN	C-SR-2-016BN T	C-SR-2-016BN C	C-SR-2-016BN A	C-SR-2-016BN DLC
.020"	1/8"	.0600"	1-1/2"	SR-2-020BN	C-SR-2-020BN T	C-SR-2-020BN C	C-SR-2-020BN A	C-SR-2-020BN DLC
.025"	1/8"	.0750"	1-1/2"	SR-2-025BN	C-SR-2-025BN T	C-SR-2-025BN C	C-SR-2-025BN A	C-SR-2-025BN DLC
.030"	1/8"	.0900"	1-1/2"	SR-2-030BN	C-SR-2-030BN T	C-SR-2-030BN C	C-SR-2-030BN A	C-SR-2-030BN DLC
.031"	1/8"	.0930"	1-1/2"	SR-2-031BN	C-SR-2-031BN T	C-SR-2-031BN C	C-SR-2-031BN A	C-SR-2-031BN DLC
.040"	1/8"	.1200"	1-1/2"	SR-2-040BN	C-SR-2-040BN T	C-SR-2-040BN C	C-SR-2-040BN A	C-SR-2-040BN DLC
.047"	1/8"	.1410"	1-1/2"	SR-2-047BN	C-SR-2-047BN T	C-SR-2-047BN C	C-SR-2-047BN A	C-SR-2-047BN DLC
.050"	1/8"	.1500"	1-1/2"	SR-2-050BN	C-SR-2-050BN T	C-SR-2-050BN C	C-SR-2-050BN A	C-SR-2-050BN DLC
.055"	1/8"	.1650"	1-1/2"	SR-2-055BN	C-SR-2-055BN T	C-SR-2-055BN C	C-SR-2-055BN A	C-SR-2-055BN DLC
.060"	1/8"	.1800"	1-1/2"	SR-2-060BN	C-SR-2-060BN T	C-SR-2-060BN C	C-SR-2-060BN A	C-SR-2-060BN DLC

MSR-2BN Metric 2 Flute Ball End Tuffy Grade Standard Length **METRIC**

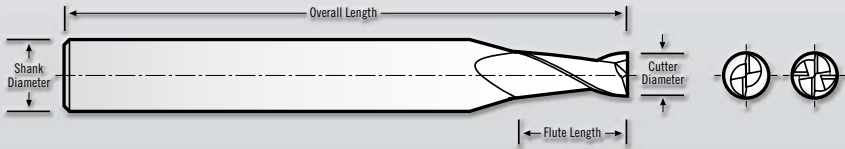
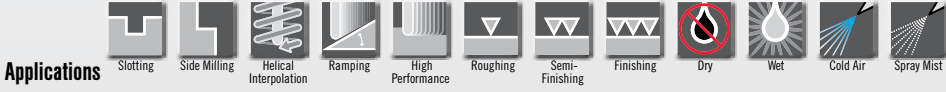
Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AITiN Coated	Tool Number DLC Coated
.50mm	3mm	1.50mm	38mm	MSR-2-050BN	C-MSR-2-050BN T	C-MSR-2-050BN C	C-MSR-2-050BN A	C-MSR-2-050BN DLC
.60mm	3mm	1.80mm	38mm	MSR-2-060BN	C-MSR-2-060BN T	C-MSR-2-060BN C	C-MSR-2-060BN A	C-MSR-2-060BN DLC
.70mm	3mm	2.10mm	38mm	MSR-2-070BN	C-MSR-2-070BN T	C-MSR-2-070BN C	C-MSR-2-070BN A	C-MSR-2-070BN DLC
.80mm	3mm	2.40mm	38mm	MSR-2-080BN	C-MSR-2-080BN T	C-MSR-2-080BN C	C-MSR-2-080BN A	C-MSR-2-080BN DLC
1.00mm	3mm	3.00mm	38mm	MSR-2-100BN	C-MSR-2-100BN T	C-MSR-2-100BN C	C-MSR-2-100BN A	C-MSR-2-100BN DLC
1.50mm	3mm	4.50mm	38mm	MSR-2-150BN	C-MSR-2-150BN T	C-MSR-2-150BN C	C-MSR-2-150BN A	C-MSR-2-150BN DLC



Videos Online

See RobbJack's miniatures in action online:
www.youtube.com/RobbJackCorp
 or
www.robjack.com/videos

SS/MSS-4 4 Flute Miniature End Mills



SS/SR Tolerances
 Cutting Dia. = ±.0005"
 Shank Dia. = -.0001/-.0002"
 LOC = +.003/-.000"
 OAL = ±.060"

MSS/MSR Tolerances
 Cutting Dia. = ±.010mm
 Shank Dia. = -.002/-.005mm
 LOC = +0.10/-0.00mm
 OAL = ±1.00/-0.00mm



SS-4 4 Flute Tuffy Grade Stub Length

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.031"	1/8"	.0465"	1-1/2"	SS-4-031	C-SS-4-031 T	C-SS-4-031 C	C-SS-4-031 A	C-SS-4-031 DLC
.040"	1/8"	.0600"	1-1/2"	SS-4-040	C-SS-4-040 T	C-SS-4-040 C	C-SS-4-040 A	C-SS-4-040 DLC
.047"	1/8"	.0705"	1-1/2"	SS-4-047	C-SS-4-047 T	C-SS-4-047 C	C-SS-4-047 A	C-SS-4-047 DLC
.050"	1/8"	.0750"	1-1/2"	SS-4-050	C-SS-4-050 T	C-SS-4-050 C	C-SS-4-050 A	C-SS-4-050 DLC
.055"	1/8"	.0825"	1-1/2"	SS-4-055	C-SS-4-055 T	C-SS-4-055 C	C-SS-4-055 A	C-SS-4-055 DLC
.060"	1/8"	.0900"	1-1/2"	SS-4-060	C-SS-4-060 T	C-SS-4-060 C	C-SS-4-060 A	C-SS-4-060 DLC

MSS-4 Metric 4 Flute Tuffy Grade Stub Length METRIC

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.80mm	3mm	1.20mm	38mm	MSS-4-080	C-MSS-4-080 T	C-MSS-4-080 C	C-MSS-4-080 A	C-MSS-4-080 DLC
1.00mm	3mm	1.50mm	38mm	MSS-4-100	C-MSS-4-100 T	C-MSS-4-100 C	C-MSS-4-100 A	C-MSS-4-100 DLC
1.50mm	3mm	2.25mm	38mm	MSS-4-150	C-MSS-4-150 T	C-MSS-4-150 C	C-MSS-4-150 A	C-MSS-4-150 DLC

Miniatures

4 Flute Miniature End Mills **SR/MSR-4**



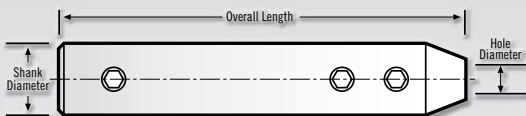
SR-4 4 Flute Tuffy Grade Standard Length

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.031"	1/8"	.0930"	1-1/2"	SR-4-031	C-SR-4-031 T	C-SR-4-031 C	C-SR-4-031 A	C-SR-4-031 DLC
.040"	1/8"	.1200"	1-1/2"	SR-4-040	C-SR-4-040 T	C-SR-4-040 C	C-SR-4-040 A	C-SR-4-040 DLC
.047"	1/8"	.1410"	1-1/2"	SR-4-047	C-SR-4-047 T	C-SR-4-047 C	C-SR-4-047 A	C-SR-4-047 DLC
.050"	1/8"	.1500"	1-1/2"	SR-4-050	C-SR-4-050 T	C-SR-4-050 C	C-SR-4-050 A	C-SR-4-050 DLC
.055"	1/8"	.1650"	1-1/2"	SR-4-055	C-SR-4-055 T	C-SR-4-055 C	C-SR-4-055 A	C-SR-4-055 DLC
.060"	1/8"	.1800"	1-1/2"	SR-4-060	C-SR-4-060 T	C-SR-4-060 C	C-SR-4-060 A	C-SR-4-060 DLC

MSR-4 Metric 4 Flute Standard Length **METRIC**

Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Tool Number Uncoated	Tool Number TiN Coated	Tool Number TiCN Coated	Tool Number AlTiN Coated	Tool Number DLC Coated
.80mm	3mm	2.40mm	38mm	MSR-4-080	C-MSR-4-080 T	C-MSR-4-080 C	C-MSR-4-080 A	C-MSR-4-080 DLC
1.00mm	3mm	3.00mm	38mm	MSR-4-100	C-MSR-4-100 T	C-MSR-4-100 C	C-MSR-4-100 A	C-MSR-4-100 DLC
1.50mm	3mm	4.50mm	38mm	MSR-4-150	C-MSR-4-150 T	C-MSR-4-150 C	C-MSR-4-150 A	C-MSR-4-150 DLC

Accuhold End Mill Extension Holder **ACH/MAH**



ACH Tolerances

Hole Dia. = +.00015/-0.00000"
 Shank Dia. = -.0001/-0.0003"
 OAL = ±.060"

MAH Tolerances

Hole Dia. = +.004/-0.000 mm
 Shank Dia. = +.000/-0.007 mm
 OAL = ±1.5 mm



ACH Accuhold – End Mill Extension Holder

Hole Diameter	Shank Diameter	Overall Length	Tool Number
1/8"	3/8"	3-1/4"	ACH-04
3/16"	1/2"	3-1/2"	ACH-06
1/4"	5/8"	4-1/4"	ACH-08
3/8"	3/4"	4-1/2"	ACH-12
1/2"	3/4"	4-3/4"	ACH-16
1/2"	1"	4-3/4"	ACH-16L

MAH Accuhold – Metric End Mill Extension Holder **METRIC**

Hole Diameter	Shank Diameter	Overall Length	Tool Number
3mm	10mm	82.5mm	MAH-03
4mm	12mm	110mm	MAH-04
5mm	12mm	110mm	MAH-05
6mm	16mm	125mm	MAH-06
8mm	20mm	135mm	MAH-08
10mm	20mm	135mm	MAH-10
12mm	25mm	150mm	MAH-12