

Routers

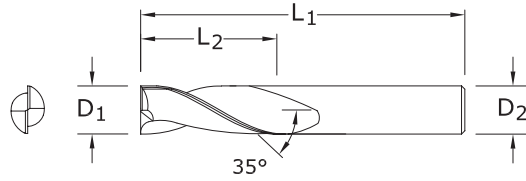


FRACTIONAL Up Cut



21

FRACTIONAL SERIES



| CUTTING DIAMETER D ₁ | LENGTH OF CUT L ₂ | OVERALL LENGTH L ₁ | SHANK DIAMETER D ₂ | EDP NO. | | STOCK |
|------------------------------------|---------------------------------|----------------------------------|----------------------------------|----------|--|-------|
| | | | | UNCOATED | | |
| 1/8 | 1/2 | 2 | 1/4 | 90001 | | ● |
| 5/32 | 5/8 | 2-1/2 | 1/4 | 90005 | | ● |
| 3/16 | 3/4 | 2-1/2 | 1/4 | 90009 | | ● |
| 1/4 | 3/4 | 2-1/2 | 1/4 | 90013 | | ● |
| 1/4 | 1 | 2-1/2 | 1/4 | 90017 | | ● |
| 5/16 | 1 | 2-1/2 | 5/16 | 90021 | | ● |
| 5/16 | 1 | 3 | 1/2 | 90025 | | ● |
| 3/8 | 1 | 2-1/2 | 3/8 | 90029 | | ● |
| 3/8 | 1-1/4 | 3 | 1/2 | 90033 | | ● |
| 1/2 | 1-1/4 | 3 | 1/2 | 90037 | | ● |
| 1/2 | 1-1/2 | 3-1/2 | 1/2 | 90041 | | ● |
| 1/2 | 2 | 4 | 1/2 | 90045 | | ● |
| 5/8 | 2 | 4-1/2 | 5/8 | 90049 | | ● |
| 3/4 | 2 | 4-1/2 | 3/4 | 90053 | | ● |

TOLERANCES (inch)

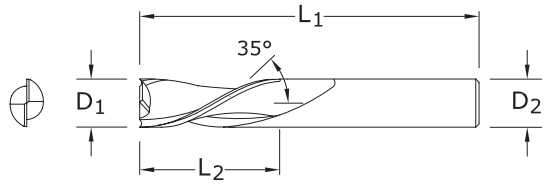
D₁ = +.000/- .003

D₂ = h₆

PLASTICS/COMPOSITES

- U.S. Stock Standard
- NOT STOCKED—
Call for Delivery

For patent information
visit www.kyocera-sgstool.com/patents



TOLERANCES (inch)

$D_1 = +.000/-0.003$

$D_2 = h_6$

PLASTICS/COMPOSITES

- U.S. Stock Standard
- NOT STOCKED—
Call for Delivery

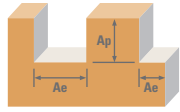
For patent information
visit www.kyocera-sgstool.com/patents









22
FRACTIONAL SERIES

| CUTTING DIAMETER D_1 | LENGTH OF CUT L_2 | OVERALL LENGTH L_1 | SHANK DIAMETER D_2 | EDP NO. | STOCK |
|---------------------------|------------------------|-------------------------|-------------------------|----------|-------|
| | | | | UNCOATED | |
| 1/8 | 1/2 | 2 | 1/4 | 91001 | ● |
| 5/32 | 5/8 | 2-1/2 | 1/4 | 91005 | ● |
| 3/16 | 3/4 | 2-1/2 | 1/4 | 91009 | ● |
| 1/4 | 3/4 | 2-1/2 | 1/4 | 91013 | ● |
| 1/4 | 1 | 2-1/2 | 1/4 | 91017 | ● |
| 5/16 | 1 | 2-1/2 | 5/16 | 91021 | ● |
| 5/16 | 1 | 3 | 1/2 | 91025 | ● |
| 3/8 | 1 | 2-1/2 | 3/8 | 91029 | ● |
| 3/8 | 1-1/4 | 3 | 1/2 | 91033 | ● |
| 1/2 | 1-1/4 | 3 | 1/2 | 91037 | ● |
| 1/2 | 1-1/2 | 3-1/2 | 1/2 | 91041 | ● |
| 1/2 | 2 | 4 | 1/2 | 91045 | ● |
| 5/8 | 2 | 4-1/2 | 5/8 | 91049 | ● |
| 3/4 | 2 | 4-1/2 | 3/4 | 91053 | ● |

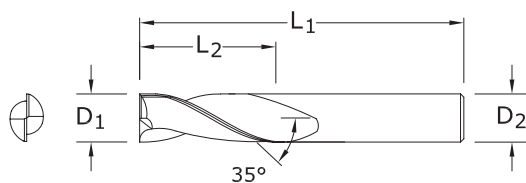
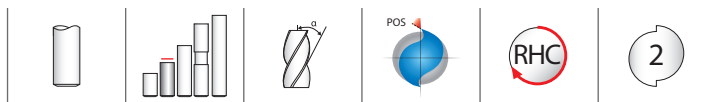
Cannot be supplied with Corner Radius Modifications

Up Cut Down Cut



| Series 21, 22 Fractional | Ae x D ₁ | Ap x D ₁ | Vc (sfm) | Diameter (D ₁) (inch) | | | | | | |
|--------------------------------|--|---------------------|-------------|--------------------------------------|-----|--------|--------|--------|--------|--------|
| | | | | 1/8 | 1/4 | 3/8 | 1/2 | 3/4 | | |
| HARDWOODS | Slot  | 1 | ≤ 1 | 1550 | RPM | 47368 | 23684 | 15789 | 11842 | 7895 |
| | | | | (1240-1860) | Fz | 0.0008 | 0.0015 | 0.0025 | 0.0030 | 0.0045 |
| | | | | Feed (ipm) | 76 | 71 | 79 | 71 | 71 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 1550 | RPM | 47368 | 23684 | 15789 | 11842 | 7895 |
| | | | | (1240-1860) | Fz | 0.0008 | 0.0015 | 0.0025 | 0.0030 | 0.0045 |
| | | | | Feed (ipm) | 76 | 71 | 79 | 71 | 71 | |
| SOFTWOODS | Slot  | 1 | ≤ 1 | 1950 | RPM | 59592 | 29796 | 19864 | 14898 | 9932 |
| | | | | (1560-2340) | Fz | 0.0010 | 0.0020 | 0.0030 | 0.0035 | 0.0055 |
| | | | | Feed (ipm) | 119 | 119 | 119 | 104 | 109 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 1950 | RPM | 59592 | 29796 | 19864 | 14898 | 9932 |
| | | | | (1560-2340) | Fz | 0.0010 | 0.0020 | 0.0030 | 0.0035 | 0.0055 |
| | | | | Feed (ipm) | 119 | 119 | 119 | 104 | 109 | |
| PLYWOODS | Slot  | 1 | ≤ 1 | 1950 | RPM | 59592 | 29796 | 19864 | 14898 | 9932 |
| | | | | (1560-2340) | Fz | 0.0013 | 0.0025 | 0.0040 | 0.0050 | 0.0075 |
| | | | | Feed (ipm) | 155 | 149 | 159 | 149 | 149 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 1950 | RPM | 59592 | 29796 | 19864 | 14898 | 9932 |
| | | | | (1560-2340) | Fz | 0.0013 | 0.0025 | 0.0040 | 0.0050 | 0.0075 |
| | | | | Feed (ipm) | 155 | 149 | 159 | 149 | 149 | |
| N PLASTICS | Slot  | 1 | ≤ 1 | 1950 | RPM | 59592 | 29796 | 19864 | 14898 | 9932 |
| | | | | (1560-2340) | Fz | 0.0008 | 0.0017 | 0.0025 | 0.0035 | 0.0050 |
| | | | | Feed (ipm) | 95 | 101 | 99 | 104 | 99 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 1950 | RPM | 59592 | 29796 | 19864 | 14898 | 9932 |
| | | | | (1560-2340) | Fz | 0.0008 | 0.0017 | 0.0025 | 0.0035 | 0.0050 |
| | | | | Feed (ipm) | 95 | 101 | 99 | 104 | 99 | |

rpm = Vc x 3.82 / D₁
ipm = Fz x 2 x rpm



21M
METRIC SERIES

TOLERANCES (mm)

$D_1 = +0,00/-0,08$

$D_2 = h_6$

PLASTICS/COMPOSITES

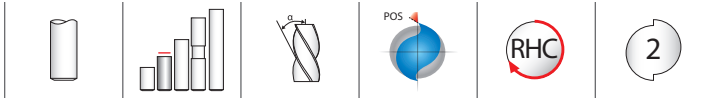
- U.S. Stock Standard
- NOT STOCKED—
Call for Delivery

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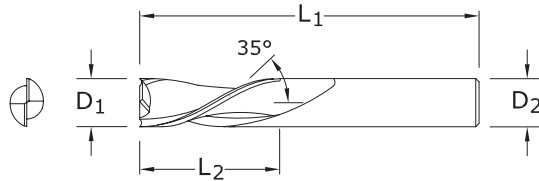
| mm | | | | EDP NO. | STOCK |
|---------------------------|------------------------|-------------------------|-------------------------|----------|-------|
| CUTTING DIAMETER D_1 | LENGTH OF CUT L_2 | OVERALL LENGTH L_1 | SHANK DIAMETER D_2 | UNCOATED | |
| 3,0 | 13,0 | 50,0 | 6,0 | 90101 | ● |
| 4,0 | 16,0 | 63,0 | 6,0 | 90107 | ● |
| 5,0 | 19,0 | 63,0 | 6,0 | 90109 | ● |
| 6,0 | 25,0 | 63,0 | 6,0 | 90113 | ● |
| 8,0 | 25,0 | 63,0 | 8,0 | 90121 | ● |
| 10,0 | 31,0 | 75,0 | 10,0 | 90129 | ● |
| 12,0 | 31,0 | 75,0 | 12,0 | 90137 | ● |

METRIC

Down Cut



22M
METRIC SERIES



| CUTTING DIAMETER D ₁ | LENGTH OF CUT L ₂ | OVERALL LENGTH L ₁ | SHANK DIAMETER D ₂ | EDP NO. | STOCK |
|------------------------------------|---------------------------------|----------------------------------|----------------------------------|----------|-------|
| | | | | UNCOATED | |
| 3,0 | 13,0 | 50,0 | 6,0 | 91101 | ● |
| 4,0 | 16,0 | 63,0 | 6,0 | 91107 | ● |
| 5,0 | 19,0 | 63,0 | 6,0 | 91109 | ● |
| 6,0 | 25,0 | 63,0 | 6,0 | 91113 | ● |
| 8,0 | 25,0 | 63,0 | 8,0 | 91121 | ● |
| 10,0 | 31,0 | 75,0 | 10,0 | 91129 | ● |
| 12,0 | 31,0 | 75,0 | 12,0 | 91137 | ● |

Cannot be supplied with Corner Radius Modifications

TOLERANCES (mm)

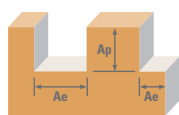
D₁ = +0,00/-0,08









D₂ = h₆

PLASTICS/COMPOSITES

- U.S. Stock Standard
- NOT STOCKED—
Call for Delivery

For patent information
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| Series 21M, 22M Metric | Ae x D ₁ | Ap x D ₁ | V _c (m/min) | Diameter (D ₁) (mm) | | | | | | |
|------------------------------|--|---------------------|---------------------------|------------------------------------|------|-------|-------|-------|--------|--------|
| | | | | 3 | 6 | 10 | 12 | 20 | | |
| HARDWOODS | Slot  | 1 | ≤ 1 | 470 | RPM | 49828 | 24914 | 14948 | 12457 | 7474 |
| | | | | (376-564) | Fz | 0.020 | 0.040 | 0.065 | 0.075 | 0.115 |
| | | | | Feed (mm/min) | 1993 | 1993 | 1943 | 1869 | 1719 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 470 | RPM | 49828 | 24914 | 8155 | 4241 | 1509 |
| | | | | (376-564) | Fz | 0.020 | 0.040 | 0.065 | 0.075 | 0.115 |
| | | | | Feed (mm/min) | 1993 | 1993 | 1060 | 636 | 347 | |
| SOFTWOODS | Slot  | 1 | ≤ 1 | 600 | RPM | 63610 | 31805 | 19083 | 15903 | 9542 |
| | | | | (480-720) | Fz | 0.025 | 0.050 | 0.075 | 0.090 | 0.140 |
| | | | | Feed (mm/min) | 3181 | 3181 | 2862 | 2862 | 2672 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 600 | RPM | 63610 | 31805 | 19083 | 15903 | 303467 |
| | | | | (480-720) | Fz | 0.025 | 0.050 | 0.075 | 0.090 | 0.140 |
| | | | | Feed (mm/min) | 3181 | 3181 | 2862 | 2862 | 84971 | |
| PLYWOODS | Slot  | 1 | ≤ 1 | 600 | RPM | 63610 | 31805 | 19083 | 15903 | 9542 |
| | | | | (480-720) | Fz | 0.030 | 0.065 | 0.100 | 0.125 | 0.190 |
| | | | | Feed (mm/min) | 3817 | 4135 | 3817 | 3976 | 3626 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 600 | RPM | 63610 | 31805 | 19083 | 15903 | 303467 |
| | | | | (480-720) | Fz | 0.030 | 0.065 | 0.100 | 0.125 | 0.190 |
| | | | | Feed (mm/min) | 3817 | 4135 | 3817 | 3976 | 115318 | |
| N PLASTICS | Slot  | 1 | ≤ 1 | 600 | RPM | 63610 | 31805 | 19083 | 15903 | 9542 |
| | | | | (480-720) | Fz | 0.020 | 0.040 | 0.065 | 0.090 | 0.125 |
| | | | | Feed (mm/min) | 2544 | 2544 | 2481 | 2862 | 2385 | |
| | Profile  | ≤ 0.5 | ≤ 1.5 | 600 | RPM | 63610 | 31805 | 19083 | 15903 | 9542 |
| | | | | (480-720) | Fz | 0.020 | 0.040 | 0.065 | 0.090 | 0.125 |
| | | | | Feed (mm/min) | 2544 | 2544 | 2481 | 2862 | 2385 | |

rpm = (V_c x 1000) / (D₁ x 3.14)
mm/min = Fz x 2 x rpm