Carbide
Drill Mills Microlion wila hanta.
Drill mills have a nose with a pointed tip and can drill holes or create angled features in a piece of stock. They are used for slotting, side profiling, chamfering, spotting, countersinking, and cutting grooves in milling tasks.


## Keyway End Mills

27C <cleveano
Keyway end mills make slots in parts so that key stock can be inserted into the slots when mating other components with the parts. These end mills are typically undersized, which means they create an undersized slot to ensure a snug, secure fit when key stock is inserted into the slot.

| $\begin{aligned} & \text { Milling } \\ & \text { Dia. } \end{aligned}$ | Length of Cut | Overall Length | Shank Dia. | Helix Angle | Brand | Item No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bright (Uncoated) Finish |  |  |  |  |  |  |
| 2 Flutes |  |  |  |  |  |  |
| $1 / 8$ in | 3/8 in | $25 / 16$ in | $3 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GE44 |
| 3/16 in | 7/16 in | $25 / 16$ in | $3 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GF73 |
| 1/4 in | $1 / 2$ in | $27 / 16$ in | $3 / 8$ in | $30^{\circ}$ | Cleveland | 438N58 |
| $3 / 8$ in | $9 / 16$ in | $21 / 2$ in | $3 / 8$ in | $0^{\circ}$ | Cleveland | 438U19 |
| $3 / 8$ in | 9/16 in | $25 / 16$ in | $3 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GJ07 |
| $1 / 2$ in | 1 in | 3 in | $1 / 2$ in | $15^{\circ}$ | YG-1 Tool Company | 55GK31 |
| $5 / 8$ in | 13/16 in | $3^{7 / 16}$ in | $5 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GL14 |
| $5 / 8$ in | $15 / 16$ in | $33 / 4$ in | $5 / 8$ in | $0^{\circ}$ | Cleveland | 438U21 |
| $3 / 4$ in | $15 / 16$ in | $37 / 8 \mathrm{in}$ | $3 / 4$ in | $0^{\circ}$ | Cleveland | 438 U 22 |
| $3 / 4$ in | $15 / 16$ in | $39 / 16$ in | $3 / 4$ in | $15^{\circ}$ | YG-1 Tool Company | 55GM13 |
| 1 in | $15 / 8$ in | $41 / 2 \mathrm{in}$ | 1 in | $0^{\circ}$ | Cleveland | 438 U 24 |
| $11 / 2$ in | $15 / 8$ in | 4112 in | $11 / 4$ in | $30^{\circ}$ | Cleveland | 438N60 |

TiN Finish
2 Flutes
55GG63

| Milling Dia. | Length <br> of Cut | Overall Length | Shank Dia. | Helix Angle | Brand | Item No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TiCN Finish |  |  |  |  |  |  |
| 2 Flutes |  |  |  |  |  |  |
| 1/4 in | 1/2 in | $27 / 16 \mathrm{in}$ | $3 / 8$ in | $30^{\circ}$ | Cleveland | $438 \mathrm{F90}$ |
| $11 / 2$ in | $15 / 8$ in | $41 / 2$ in | $11 / 4 \mathrm{in}$ | $30^{\circ}$ | Cleveland | 438G06 |
| $11 / 4$ in | $15 / 8$ in | $41 / 2$ in | $11 / 4$ in | $30^{\circ}$ | Cleveland | 438G04 |
| $11 / 8$ in | $15 / 8$ in | $41 / 2$ in | 1 in | $30^{\circ}$ | Cleveland | 438G03 |
| $13 / 8$ in | $15 / 8$ in | $41 / 2$ in | 1 in | $30^{\circ}$ | Cleveland | 438G05 |
| TiN Finish |  |  |  |  |  |  |
| 2 Flutes |  |  |  |  |  |  |
| 1/4 in | 1/2 in | $25 / 16$ in | 3/8 in | $15^{\circ}$ | YG-1 Tool Company | 55GG63 |
| 1/4 in | 1/2 in | $27 / 16$ in | $3 / 8$ in | $30^{\circ}$ | Cleveland | 438F74 |
| 5/16 in | 9/16 in | $25 / 16$ in | $3 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GH44 |
| $3 / 8$ in | 9/16 in | $25 / 16$ in | $3 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GJ08 |
| 1/2 in | 1 in | 3 in | $1 / 2$ in | $15^{\circ}$ | YG-1 Tool Company | 55GK32 |
| $5 / 8$ in | 13/16 in | $37 / 16$ in | $5 / 8$ in | $15^{\circ}$ | YG-1 Tool Company | 55GL15 |
| $3 / 4$ in | $15 / 16$ in | $37 / 8$ in | 3/4 in | $30^{\circ}$ | Cleveland | 438F81 |
| $7 / 8$ in | $11 / 2$ in | $41 / 8$ in | $7 / 8$ in | $30^{\circ}$ | Cleveland | 438F83 |
| $11 / 2$ in | $15 / 8$ in | $41 / 2$ in | $11 / 4$ in | $30^{\circ}$ | Cleveland | 438F88 |
| $11 / 8$ in | $15 / 8$ in | $41 / 2$ in | 1 in | $30^{\circ}$ | Cleveland | 438F85 |

