

High-Performance Solid Carbide End Mills • Hard Materials

Application Data • Series 7505 7545 7515 7525 • Vision Plus™



Series 7505 7545 7515 7525 • Vision Plus

| Material Group | Side Milling (A) and Slotting (B) | | TiAlN | | | Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%. | | | | | | | | | | | | | | |
|----------------|-----------------------------------|-------|----------|--------------------------|-------|---|---------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | A | | B | Cutting Speed – vc m/min | | | D1 – Diameter | | | | | | | | | | | | | |
| | ap | ae | ap | min | | max | mm | 4,0 | 5,0 | 6,0 | 8,0 | 10,0 | 12,0 | 14,0 | 16,0 | 18,0 | 20,0 | 25,0 | | |
| | P | 3 | 1 x D | 0,4 x D | 1 x D | 120 | – | 160 | fz | 0,026 | 0,033 | 0,040 | 0,055 | 0,067 | 0,077 | 0,087 | 0,096 | 0,104 | 0,111 | 0,125 |
| | 4 | 1 x D | 0,4 x D | 0,75 x D | 90 | – | 150 | fz | 0,024 | 0,030 | 0,036 | 0,049 | 0,059 | 0,069 | 0,077 | 0,084 | 0,091 | 0,097 | 0,107 | |
| H | 1 | 1 x D | 0,4 x D | 0,75 x D | 80 | – | 140 | fz | 0,024 | 0,030 | 0,036 | 0,049 | 0,059 | 0,069 | 0,077 | 0,084 | 0,091 | 0,097 | 0,107 | |
| | 2 | 1 x D | 0,3 x D | 0,5 x D | 70 | – | 120 | fz | 0,018 | 0,022 | 0,027 | 0,037 | 0,044 | 0,051 | 0,057 | 0,063 | 0,067 | 0,071 | 0,078 | |
| | 3 | 1 x D | 0,15 x D | 0,3 x D | 60 | – | 90 | fz | 0,014 | 0,018 | 0,021 | 0,029 | 0,035 | 0,041 | 0,046 | 0,051 | 0,055 | 0,059 | 0,067 | |
| | 4 | 1 x D | 0,1 x D | 0,15 x D | 50 | – | 70 | fz | 0,009 | 0,012 | 0,014 | 0,019 | 0,023 | 0,027 | 0,031 | 0,034 | 0,037 | 0,039 | 0,044 | |

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
For better surface finish, reduce feed per tooth.

Application Data • Series 7515 • Vision Plus™

Series 7515 • Vision Plus

| Material Group | Side Milling (A) and Slotting (B) | | TiAlN | | | Recommended feed per tooth (fz = mm/th) for side milling (A). For slotting (B), reduce fz by 20%. | | | | | | | | | | | | |
|----------------|-----------------------------------|-------|----------|--------------------------|----------|---|---------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | A | | B | Cutting Speed – vc m/min | | | D1 – Diameter | | | | | | | | | | | |
| | ap | ae | ap | min | | max | mm | 3,0 | 4,0 | 5,0 | 6,0 | 8,0 | 10,0 | 12,0 | 16,0 | 20,0 | 25,0 | |
| | P | 3 | 2 x D | 0,3 x D | 0,75 x D | 160 | – | 180 | fz | 0,019 | 0,026 | 0,033 | 0,040 | 0,055 | 0,067 | 0,077 | 0,096 | 0,111 |
| | 4 | 2 x D | 0,25 x D | 0,5 x D | 140 | – | 160 | fz | 0,017 | 0,024 | 0,030 | 0,036 | 0,049 | 0,059 | 0,069 | 0,084 | 0,097 | 0,107 |
| H | 1 | 2 x D | 0,25 x D | 0,5 x D | 120 | – | 140 | fz | 0,017 | 0,024 | 0,030 | 0,036 | 0,049 | 0,059 | 0,069 | 0,084 | 0,097 | 0,107 |
| | 2 | 2 x D | 0,2 x D | 0,4 x D | 80 | – | 130 | fz | 0,013 | 0,018 | 0,022 | 0,027 | 0,037 | 0,044 | 0,051 | 0,063 | 0,071 | 0,078 |
| | 3 | 2 x D | 0,1 x D | 0,2 x D | 70 | – | 100 | fz | 0,010 | 0,014 | 0,018 | 0,021 | 0,029 | 0,035 | 0,041 | 0,051 | 0,059 | 0,067 |
| | 4 | 2 x D | 0,05 x D | 0,05 x D | 50 | – | 70 | fz | 0,007 | 0,009 | 0,012 | 0,014 | 0,019 | 0,023 | 0,027 | 0,034 | 0,039 | 0,044 |

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.
Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.
For better surface finish, reduce feed per tooth.

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