

1-800-GRAINGER (472-4643)



TiAlN Coated Finish
4 Flutes
48HD82



General Purpose Finishing Carbide Square End Mills

Milling Dia.	Length of Cut	Overall Length	Shank Dia.	Shank Type	Helix Angle	Brand	Item No.
2 Flutes (Uncoated) Finish							
1/32 in	3/64 in	1 1/2 in	1/8 in	Straight	30°	Widia Hanita	48GZ03
1/4 in	3/4 in	2 1/2 in	1/4 in	Straight	30°	OSG	2TXG7
1/4 in	3/4 in	2 1/2 in	1/4 in	Straight	35°	Cleveland	33FY39
3/32 in	3/4 in	2 1/2 in	3/16 in	Straight	30°	OSG	30L866
3/16 in	13/16 in	2 1/2 in	3/16 in	Straight	30°	OSG	2TXH2
3/8 in	1 1/2 in	4 in	3/8 in	Straight	37°	Widia Hanita	48HM25
3/8 in	1 1/2 in	4 in	3/8 in	Straight	0°	Cleveland	33FY50
3/8 in	1 in	2 1/2 in	3/8 in	Straight	30°	OSG	2TXH4
1/2 in	1 in	3 in	1/2 in	Straight	30°	OSG	2TXJ5
1/2 in	1 in	3 in	1/2 in	Straight	35°	Cleveland	33FY66
1/2 in	1 1/2 in	6 in	1/2 in	Straight	35°	Cleveland	33FY71
5/8 in	1 1/4 in	3 1/2 in	5/8 in	Straight	30°	OSG	2TXK2
5/8 in	1 1/4 in	3 1/2 in	5/8 in	Straight	35°	Cleveland	33FY75
3/4 in	1 1/2 in	4 in	3/4 in	Straight	30°	OSG	2TXK6
3/4 in	1 1/2 in	4 in	3/4 in	Straight	35°	Cleveland	33FY82
3/4 in	2 1/4 in	5 in	3/4 in	Straight	35°	Cleveland	33FY86
3/4 in	3 in	6 in	3/4 in	Straight	35°	Cleveland	33FY87
3/4 in	1 1/2 in	4 in	3/4 in	Straight	35°	Cleveland	33FY88
1 in	1 1/2 in	4 in	1 in	Straight	30°	OSG	2TXK7
1 in	1 1/2 in	4 in	1 in	Straight	35°	Cleveland	33FY91
1 in	2 1/4 in	5 in	1 in	Straight	35°	Cleveland	33FY95
5.00 mm	16.00 mm	51.00 mm	5.00 mm	Straight	30°	OSG	30L840
6.00 mm	19.00 mm	64.00 mm	6.00 mm	Straight	30°	OSG	30L854
10.00 mm	25.00 mm	70.00 mm	10.00 mm	Straight	30°	OSG	30L901
16.00 mm	32.00 mm	89.00 mm	16.00 mm	Straight	30°	OSG	30L940
3 Flutes							
5/16 in	1 1/4 in	3 1/4 in	5/16 in	Straight	37°	Widia Hanita	48HW87
3/8 in	2 1/2 in	4 in	3/8 in	Straight	37°	Widia Hanita	48HX07
1/2 in	2 in	4 in	1/2 in	Straight	37°	Widia Hanita	48HW92
1/2 in	2 1/2 in	5 in	1/2 in	Straight	37°	Widia Hanita	48HX40
3/4 in	1 1/2 in	4 in	3/4 in	Straight	38°	Widia Hanita	48JF47
12.00 mm	25.00 mm	76.00 mm	12.00 mm	Straight	38°	Widia Hanita	48KZ93
4 Flutes							
1/8 in	1/2 in	1 1/2 in	1/8 in	Straight	30°	Widia Hanita	48HD91
1/8 in	1/2 in	1 1/2 in	1/8 in	Straight	30°	Cleveland	33FY279
1/8 in	1 in	3 in	1/8 in	Straight	30°	OSG	2TYD1
1/8 in	1 in	3 in	1/8 in	Straight	30°	Widia Hanita	48HD94
3/16 in	3/8 in	2 in	3/16 in	Straight	30°	Widia Hanita	48HD98
3/16 in	3/8 in	2 in	3/16 in	Straight	30°	Cleveland	33FY292
1/4 in	1/2 in	2 in	1/4 in	Straight	30°	Widia Hanita	48HE10
1/4 in	1/2 in	2 in	1/4 in	Straight	30°	OSG	2TXW1
1/4 in	3/4 in	2 1/2 in	1/4 in	Straight	30°	Cleveland	33GA08
1/4 in	3/4 in	2 1/2 in	1/4 in	Straight	30°	Widia Hanita	48H12
1/4 in	3/4 in	2 1/2 in	1/4 in	Straight	30°	OSG	30M052
1/4 in	1 1/8 in	3 in	1/4 in	Straight	30°	OSG	2TYA4
1/4 in	1 1/8 in	3 in	1/4 in	Straight	30°	Cleveland	33GA15
1/4 in	1 1/2 in	4 in	1/4 in	Straight	30°	OSG	2TYD6
5/16 in	13/16 in	2 1/2 in	5/16 in	Straight	30°	Widia Hanita	48HE23
5/16 in	7/8 in	2 1/2 in	5/16 in	Straight	30°	Cleveland	33GA22
5/16 in	1 1/8 in	3 in	5/16 in	Straight	30°	OSG	2TYA6
5/16 in	1 3/8 in	4 in	5/16 in	Straight	30°	OSG	2TYD8
11/32 in	7/8 in	2 1/2 in	11/32 in	Straight	30°	OSG	30M080
3/8 in	5/8 in	2 in	3/8 in	Straight	30°	OSG	2TXW3
3/8 in	7/8 in	2 1/2 in	3/8 in	Straight	Variable	—	36N247
3/8 in	7/8 in	2 1/2 in	3/8 in	Straight	Variable	OSG	56G96
3/8 in	1 in	2 1/2 in	3/8 in	Straight	30°	Cleveland	33GA32
3/8 in	1 in	2 1/2 in	3/8 in	Straight	30°	Widia Hanita	48HE34
3/8 in	1 in	2 1/2 in	3/8 in	Straight	30°	OSG	30M092
3/8 in	1 1/8 in	3 in	3/8 in	Straight	30°	OSG	2TYA7
3/8 in	1 3/4 in	4 in	3/8 in	Straight	30°	Cleveland	33GA42
3/8 in	1 3/4 in	4 in	3/8 in	Straight	30°	OSG	2TYD9
7/16 in	2 in	4 in	7/16 in	Straight	30°	OSG	2TYA9
15/32 in	1 in	3 in	15/32 in	Straight	30°	OSG	30M123
1/2 in	1 in	3 in	1/2 in	Straight	30°	Widia Hanita	48HE55
1/2 in	1 in	3 in	1/2 in	Straight	30°	Cleveland	33GA55
1/2 in	1 in	3 in	1/2 in	Straight	30°	OSG	30M135
1/2 in	1 in	3 in	1/2 in	Straight	Variable	—	36NP31
1/2 in	1 1/2 in	6 in	1/2 in	Straight	30°	Cleveland	33GA61
1/2 in	2 in	4 in	1/2 in	Straight	30°	Cleveland	33GA63
1/2 in	2 in	4 in	1/2 in	Straight	30°	OSG	2TYC1
1/2 in	2 in	4 in	1/2 in	Straight	30°	Widia Hanita	48HE57
1/2 in	3 in	6 in	1/2 in	Straight	30°	OSG	2TYE3
1/2 in	3 in	6 in	1/2 in	Straight	30°	Cleveland	33GA64
1/2 in	3 in	6 in	1/2 in	Straight	30°	Widia Hanita	48HE59
9/16 in	1 1/8 in	3 1/2 in	9/16 in	Straight	30°	OSG	30M141
9/16 in	1 1/4 in	3 1/2 in	9/16 in	Straight	30°	Cleveland	33GA66
3/4 in	3/4 in	3 in	3/4 in	Straight	30°	OSG	2TXW6
3/4 in	1 1/4 in	3 1/2 in	3/4 in	Straight	30°	OSG	30M145
3/4 in	1 1/4 in	3 1/2 in	3/4 in	Straight	30°	Cleveland	33GA68
3/4 in	1 1/4 in	3 1/2 in	3/4 in	Straight	30°	Widia Hanita	48HE80
3/4 in	1 1/4 in	3 1/2 in	3/4 in	Weldon Flat	30°	Widia Hanita	48HE87
3/4 in	1 3/8 in	5 in	3/4 in	Straight	Variable	OSG	56GD04
3/4 in	2 1/4 in	5 in	3/4 in	Straight	30°	Cleveland	33GA72
3/4 in	2 1/4 in	5 in	3/4 in	Straight	30°	OSG	2TYC3
3/4 in	3 in	6 in	3/4 in	Straight	30°	OSG	2TYE5
11/16 in	1 3/8 in	4 in	3/4 in	Straight	30°	OSG	30M151
3/4 in	7/8 in	3 1/2 in	3/4 in	Straight	Variable	OSG	56GD05
3/4 in	1 in	3 in	3/4 in	Straight	30°	OSG	2TXW9
3/4 in	1 1/2 in	4 in	3/4 in	Straight	30°	Cleveland	33GA75
3/4 in	1 1/2 in	4 in	3/4 in	Straight	30°	OSG	30M159
3/4 in	1 1/2 in	4 in	3/4 in	Weldon Flat	30°	Widia Hanita	48HF05
3/4 in	1 1/2 in	4 in	3/4 in	Straight	30°	Widia Hanita	48HE95
3/4 in	1 1/2 in	4 in	3/4 in	Straight	Variable	—	36NX81
3/4 in	1 1/2 in	4 in	3/4 in	Straight	Variable	OSG	56GD06
3/4 in	2 1/4 in	5 in	3/4 in	Straight	30°	OSG	2TYC5
3/4 in	2 1/4 in	5 in	3/4 in	Weldon Flat	30°	Widia Hanita	48HF07
3/4 in	3 in	6 in	3/4 in	Straight	30°	Cleveland	33GA80
3/4 in	3 in	6 in	3/4 in	Straight	30°	Widia Hanita	48HE99

Milling Dia.	Length of Cut	Overall Length	Shank Dia.	Shank Type	Helix Angle	Brand	Item No.
3/4 in	3 in	6 in	3/4 in	Straight	30°	OSG	2TYE7
1/2 in	1 1/2 in	4 in	1/2 in	Straight	30°	Cleveland	33GA81
1/2 in	1 1/2 in	4 in	1/2 in	Straight	30°	OSG	30M169
1/2 in	2 1/4 in	5 in	1/2 in	Straight	30°	Widia Hanita	48HF15
1/2 in	3 in	6 in	1/2 in	Straight	30°	Cleveland	33GA83
1 in	1 1/2 in	4 in	1 in	Straight	30°	Widia Hanita	48HF21
1 in	2 1/4 in	5 in	1 in	Weldon Flat	30°	Widia Hanita	48HF30
1 in	3 in	6 in	1 in	Straight	30°	OSG	2TYC8
1 in	3 in	6 in	1 in	Straight	30°	Widia Hanita	48HF25
3.00 mm	8.00 mm	60.00 mm	6.00 mm	Straight	Variable	OSG	56GD11
4.00 mm	14.00 mm	51.00 mm	4.00 mm	Straight	30°	OSG	30M018
5.00 mm	16.00 mm	51.00 mm	5.00 mm	Straight	30°	OSG	30M032
6.00 mm	13.00 mm	60.00 mm	6.00 mm	Straight	Variable	OSG	56GD14
6.00 mm	19.00 mm	64.00 mm	6.00 mm	Straight	30°	OSG	30M048
7.00 mm	19.00 mm	64.00 mm	8.00 mm	Straight	30°	OSG	30M058
8.00 mm	21.00 mm	64.00 mm	8.00 mm	Straight	30°	OSG	30M072
10.00 mm	25.00 mm	70.00 mm	10.00 mm	Straight	30°	OSG	30M098
12.00 mm	25.00 mm	76.00 mm	12.00 mm	Straight	30°	OSG	30M127
14.00 mm	30.00 mm	89.00 mm	14.00 mm	Straight	30°	OSG	30M137
16.00 mm	32.00 mm	89.00 mm	16.00 mm	Straight	30°	OSG	30M147
20.00 mm	38.00 mm	102.00 mm	20.00 mm	Straight	30°	OSG	30M161
25.00 mm	38.00 mm	102.00 mm	25.00 mm	Straight	30°	OSG	30M171
25.00 mm	76.00 mm	153.00 mm	25.00 mm	Straight	30°	OSG	2TYE9
DLC							
3 Flutes							
1/8 in	2 1/4 in	4 1/2 in	7/8 in	Straight	35°	OSG	56GA76
TiAlN Coated Finish							
2 Flutes							
1/8 in	1/2 in	2 in	1/8 in	Straight	30°	Widia Hanita	48GZ08
1/8 in	1/2 in	1 1/2 in	1/8 in	Straight	30°	OSG	2TXF4
3/16 in	3/8 in	2 in	3/16 in	Straight	30°	OSG	2TXG3
1/4 in	3/4 in	2 1/2 in	1/4 in	Straight	30°	OSG	2TXG9
3/16 in	13/16 in	2 1/2 in	5/16 in	Straight	30°	OSG	2MYF6
3/8 in	1 in	2 1/2 in	3/8 in	Straight	30°	OSG	2TXH6
1/2 in	1 in	3 in	1/2 in	Straight	30°	OSG	2TXJ7
3/8 in	1 1/4 in	3 1/2 in	3/8 in	Straight	30°	Widia Hanita	48HA18
3/8 in	2 1/4 in	5 in	3/8 in	Straight	30°	Widia Hanita	48HA20
3/4 in	1 1/2 in	4 in	3/4 in	Straight	30°	OSG	2TXK8
3/4 in	1 1/2 in	4 in	3/4 in	Straight	35°	Cleveland	33GJ50
3/4 in	3 in	6 in	3/4 in	Straight	30°	Widia Hanita	48HA44
1 in	2 1/4 in	5 in	1 in	Straight	35°	Cleveland	33GJ63
3 Flutes							
1/4 in	1/2 in	2 in	1/4 in	Straight	30°	Widia Hanita	430055
3/8 in	1 1/8 in	3 in	3/8 in	Straight	30°	Widia Hanita	430071
1/2 in	2 in	4 in	1/2 in	Weldon Flat	30°	Widia Hanita	430061
3/4 in	1 1/2 in	4 in	3/4 in	Weldon Flat	30°	Widia Hanita	430067
3/4 in	1 1/2 in	4 in	3/4 in	Straight	30°	Widia Hanita	430082
1 in	2 1/4 in	5 in	1 in				