



**CLEVELAND**

**Style: HG-4C - Single End (continued)**

**General Purpose  
Multi Flute**

cutting diameter	decimal equiv.	shank dia d <sub>2</sub> (in)	length of cut l <sub>2</sub> (in)	overall length l <sub>1</sub> (in)	no. of flutes	order number		
						Bright	TiN	TiCN
1-1/8	1.1250	1.000	2.000	4.500	4	C41275	C33231	C33292
1-1/8	1.1250	1.000	2.000	4.500	6	C75027	C75052	C75077
1-1/8	1.1250	1.000	4.000	6.500	4	C33378	C33399	C33421
1-1/8	1.1250	1.000	4.000	6.500	6	C75028	C75053	C75078
1-1/4	1.2500	.750	1.375	3.625	6	C75029	C75054	C75079
1-1/4	1.2500	.875	2.000	4.500	4	C33182	C33232	C33293
1 1/4	1.2500	.875	2.000	4.250	6	C75030	C75055	C75080
1-1/4	1.2500	1.000	2.000	4.500	4	C33183	C33233	C33294
1-1/4	1.2500	1.000	2.000	4.500	6	C75031	C75056	C75081
1-1/4	1.2500	1.000	4.000	6.500	4	C33379	C33400	C33422
1-1/4	1.2500	1.250	2.000	4.500	4	C41277	C33234	C33295
1-1/4	1.2500	1.250	2.000	4.500	6	C75032	C75057	C75082
1-1/4	1.1250	1.250	4.000	6.500	4	C41353	C33401	C33423
1-1/4	1.1250	1.250	4.000	6.500	6	C75033	C75058	C75083
1-1/4	1.2500	1.250	6.000	8.500	4	C41408	C33453	C33472
1-1/4	1.2500	1.250	6.000	8.500	6	C33435	C33454	C33473
1-3/8	1.3750	.750	1.375	3.625	6	C75034	C75059	C75084
1-3/8	1.3750	1.000	2.000	4.500	4	C33184	C33235	C33296
1-3/8	1.3750	1.000	2.000	4.500	6	C75035	C75060	C75085
1-1/2	1.5000	.750	1.375	3.625	6	C75036	C75061	C75086
1-1/2	1.5000	1.000	2.000	4.500	6	C33185	C33236	C33297
1-1/2	1.5000	1.000	4.000	6.500	4	C33380	C33402	C33424
1-1/2	1.5000	1.000	4.000	6.500	6	C75037	C75062	—
1-1/2	1.5000	1.250	2.000	4.500	4	C41283	C33237	C33298
1-1/2	1.5000	1.250	2.000	4.500	6	C75038	C75063	C75087
1-1/2	1.5000	1.250	4.000	6.500	4	C33381	C33403	C33425
1-1/2	1.5000	1.250	4.000	6.500	6	C75039	C75064	C75088
1-1/2	1.5000	1.250	8.000	10.500	4	C33436	C33455	C33474
1-1/2	1.5000	1.250	8.000	10.500	6	C33437	C33456	C33475
1-3/4	1.7500	.750	1.375	3.625	6	C75040	C75065	C75089
1-3/4	1.7500	1.250	2.000	4.500	6	C33186	C33238	C33299
1-3/4	1.7500	1.250	4.000	6.500	4	C33382	C33404	C33426
1-3/4	1.7500	1.250	4.000	6.500	6	C75041	C75066	C75090
2	2.0000	1.250	2.000	4.500	8	C33187	C33239	C33300

High Speed Steel

Center Cutting

**TECH TIP**

**Benefits of Multi Flute End Mills**

- Generally, multi flute end mills give smoother finishes than 2 flute end mills.
- Increased number of flutes mean more cutting edges, providing more cutting action.

Material Reference	Steel (HRC)				Stainless Steel			Cast Iron (HRC)		Aluminum and Non-Ferrous	Hi-Temp Alloy		Hardened Steel (HRC)
	Low Carbon		Alloy		Austenitic	Martensitic	PH	Gray	Nodular		Ni, Co, Fe Based Super Alloy	Titanium	
	13-38	>38	16-38	> 38	300 Series	400 series		18-22	22-32				
Hardness	13-38	>38	16-38	> 38	300 Series	400 series	PH	18-22	22-32			>45	
TiN	◆		◆					◆					
TiCN	☆		☆					☆		◆			

☆ = Best Performance    ◆ = Acceptable

