

# PREMIUM (10% COBALT) MICROGRAIN CARBIDE SOLID CARBIDE 4 FLUTE END MILLS

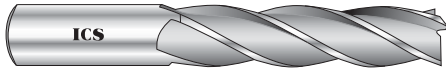
**ICS USA**

**HEAVY DUTY**

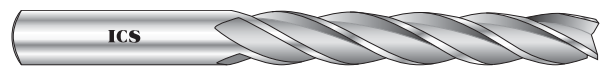
**CENTER CUTTING**

Micro-Grain Solid Carbide End Mills were developed for machining tough work hardening metals, stainless steel, titanium, monel, inconel, and super alloys. It is extremely shock resistant.

## 4 FLUTE - SINGLE END (LONG)



## 4 FLUTE SINGLE END (EXTRA LONG)



SIZE	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	PRICE EACH	
				SOLID CARBIDE	TIN COATED
				SCDEM-4L	SCDEM-4LT
1/8	1/8	3/4	2-1/4	\$18.60	\$21.06
3/16	3/16	3/4	2-1/2	22.00	25.14
1/4	1/4	1-1/8	3	28.22	31.92
5/16	5/16	1-1/8	3	37.82	42.74
3/8	3/8	1-1/8	3	44.40	49.34
1/2	1/2	2	4-1/2	85.02	95.20
5/8	5/8	2-1/4	5	159.00	170.36
3/4	3/4	2-1/4	5	211.12	227.06
1	1	2-1/4	5	380.40	399.44

SIZE	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	PRICE EACH	
				SOLID CARBIDE	TIN COATED
				SCDEM-4XL	SCDEM-4XLT
1/8	1/8	1	3	\$21.60	\$24.06
3/16	3/16	1-1/8	3	25.42	28.54
1/4	1/4	1-1/2	4	35.60	40.64
5/16	5/16	1-5/8	4	45.02	50.66
3/8	3/8	1-3/4	4	55.80	61.46
1/2	1/2	3	6	138.02	153.48
5/8	5/8	3	6	223.80	241.62
3/4	3/4	3	6	278.02	297.68
1	1	3	6	480.02	502.20

## 4 FLUTE - DOUBLE END (STUB)



## 4 FLUTE DOUBLE END (STUB-BALL NOSE)



SIZE	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	PRICE EACH	
				SOLID CARBIDE	TIN COATED
				SCDEM-4S	SCDEM-4ST
1/16	1/8	1/8	1-1/2	\$16.60	\$17.32
3/32	1/8	3/16	1-1/2	16.60	17.32
1/8	1/8	1/4	1-1/2	15.80	16.60
5/32	3/16	5/16	2	21.02	21.42
3/16	3/16	3/8	2	22.62	22.84
7/32	1/4	1/2	2-1/2	27.80	29.82
1/4	1/4	1/2	2-1/2	27.80	29.82
5/16	5/16	1/2	2-1/2	31.82	35.00
3/8	3/8	9/16	2-1/2	39.00	41.42
7/16	7/16	5/8	2-3/4	65.02	69.80
1/2	1/2	5/8	3	77.02	80.52

SIZE	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	PRICE EACH	
				SOLID CARBIDE	TIN COATED
				SCDEM-4SB	SCDEM-4SBT
1/16	1/8	1/8	1-1/2	\$22.62	\$25.42
3/32	1/8	3/16	1-1/2	22.62	25.42
1/8	1/8	1/4	1-1/2	21.80	24.60
5/32	3/16	5/16	2	26.62	29.60
3/16	3/16	3/8	2	27.40	30.38
7/32	1/4	1/2	2-1/2	35.02	40.62
1/4	1/4	1/2	2-1/2	35.02	40.62
5/16	5/16	1/2	2-1/2	47.82	55.20
3/8	3/8	9/16	2-1/2	57.42	64.82
7/16	7/16	5/8	2-3/4	79.02	92.18
1/2	1/2	5/8	3	90.22	103.60

TOLERANCES  
Flute Dia.: + .000 - .002"  
Shank Dia.: - .0001 - .0004"

**NOTE** Titanium Carbonitride, Titanium Aluminum Nitride, Zirconium Nitride, and Aluminum Titanium Nitride Coated End Mills are available. See page 7 for more information.