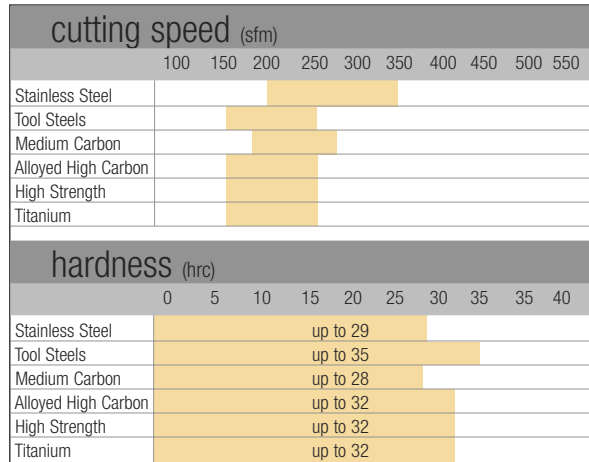


This Double End endmill has the same geometry and application design as our General Purpose Single End Mill. Four-flute configuration with center cutting permits plunging and milling on many ferrous and most non-ferrous materials, and offers lower chip-load for size control and finish. TiAlN coated for increased speed and feed capabilities and enhanced tool life.

4 FLUTE D/E STUB LENGTH TiAlN COATED					
Cutting Diameter	Shank Diameter	Flute Length	Overall Length	Code No.	Price \$
(in.)	(in.)	(in.)	(in.)		
1/16	1/8	1/8	1-1/2	102-330	15.20
3/32	1/8	3/16	1-1/2	102-332	15.20
1/8	1/8	1/4	1-1/2	102-334	14.70
5/32	3/16	5/16	2	102-336	18.90
3/16	3/16	3/8	2	102-338	18.90
7/32	1/4	1/2	2-1/2	102-340	22.20
1/4	1/4	1/2	2-1/2	102-342	22.20
5/16	5/16	1/2	2-1/2	102-344	34.00
3/8	3/8	1/2	2-1/2	102-346	35.90
7/16	7/16	9/16	2-3/4	102-348	48.70
1/2	1/2	5/8	3	102-350	56.90

cutting conditions				
Materials				Cutting Speed (SFM)
Main Group	Sub-Group	Condition	Hardness (HRC)	
Stainless Steels	300 Series, 400 Series	Annealed	<29	200-350
Tool steels	01, A-2,D-2 H-13,P-20	Annealed	<35	150-250
Medium Carbon	1030, 1035, 1038, 1040, 1045, 1050	Normalized	<28	190-275
Alloyed high carbon	1065, 1070, 1080, 1090, 1095, 1561, 1572	Normalized	<32	150-250
High strength	4140, 4340	Normalized	<32	150-250
Titanium	Commercially pure	Annealed	<32	150-250



SPEEDS & FEEDS P. 42

tolerances		
Size	Diameter	Shank Diameter
3/32 thru 1"	+ .000"-.002"	+ .0000"-.0005"

