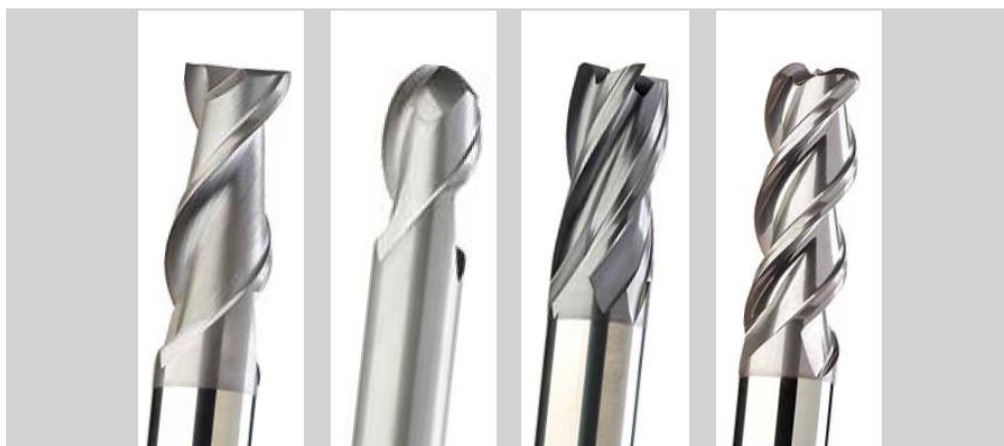




# High Performance Solid Carbide End Mills Product Overview

The Right Tool at the Right Time



*High Performance Carbide End Mills*



# Introduction



- Dormer's new range of solid carbide high performance end mills are designed to provide customers with a high quality range of milling cutters that are recommended across all industry sectors.
- Within the new range there are cutters specifically designed for Aluminium, Alloy Steels and Heat Resistant Alloys.

# Surface Treatments

- TiCN Coating
  - Eliminates micro-welding and adhesive wear that can happen when machining ductile materials
  - Holds sharp edges and corners preventing built-up edge
  - Excellent erosion resistance
  - Low coefficient of friction
  
- AlTiN Coating
  - Enhanced temperature capability
  - Extremely high hot hardness essential when machining heat resistant materials
  - Strong adhesion—molecular bond to substrate metal
  - Holds sharp edges or corners
  - Excellent abrasion and erosion resistance

# Features & Benefits

## ■ Aluminum Cutters

- These new cutters have been developed for high performance machining of aluminum and its alloys
- The geometry promotes chatter free operation which improves material removal rates and surface finish
- They are designed to achieve high productivity and long tool life when machining these materials
- The high quality surface finish in the flutes and on the cutting edges reduces friction against the work piece material and improves chip evacuation
- The range is designed to offer the user a solution for contouring, slotting, roughing or finishing
- Included in the range are cutters with corner radius for applications and components with fillet radii or complex surface contours

# S400HA Solid Carbide 2-Flute End Mill

## Solid Carbide 2-Flute End Mill

Regular Length, Square End, 42° Helix

### S400HA

TiCN coating increases surface hardness, and abrasion resistance while resisting edge buildup. The unique combination of a higher rake angle and deeper flutes provides excellent chip evacuation at higher metal removal rates in Aluminum and Non-Ferrous applications.



Cutting Diameter Tolerance = + 0 / - 0.0012"

Shank Diameter Tolerance = + 0 / - 0.0003"

d1 Ø Inch	d1 decimal Inch	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	S400HA
1/16	0.0625	1/8	1/8	1.1/2	2	S400HA1/16	46612209
3/32	0.0938	1/8	1/4	1.1/2	2	S400HA3/32	46612260
1/8	0.1250	1/4	5/16	1.3/4	2	S400HA1/8	46612261
3/16	0.1875	1/4	7/16	2"	2	S400HA3/16	46612262
1/4	0.2500	3/8	3/4	2.1/2	2	S400HA1/4	46612263
5/16	0.3125	3/8	13/16	2.1/2	2	S400HA5/16	46612264
3/8	0.3750	3/8	1"	2.1/2	2	S400HA3/8	46612265
1/2	0.5000	1/2	1"	3"	2	S400HA1/2X1	46612266
1/2	0.5000	1/2	2"	4"	2	S400HA1/2X2	46612267
5/8	0.6250	5/8	1.1/4	3.1/2	2	S400HA5/8	46612268
3/4	0.7500	3/4	1.1/2	4"	2	S400HA3/4X1.1/2	46612269
3/4	0.7500	3/4	3"	5.1/2	2	S400HA3/4X3	46612270



# S400HA Solid Carbide 2-Flute End Mill

Higher Rake Angle & Deeper Flute design provides excellent chip evacuation when machining Aluminum & Non-Ferrous materials

## S400HA

Slotting

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
1/8	10000	27.56
5/32	10000	35.43
3/16	10000	39.37
1/4	10000	47.24
5/16	8000	55.12
3/8	8000	66.93
1/2	8000	82.68
9/16	6000	70.87
5/8	6000	74.80
11/16	4000	55.12
13/16	4000	62.99

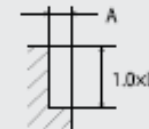


The FEED, in long & extra long types, should be reduced by around 50%.

Side Cutting

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
1/8	10000	35.43
5/32	10000	43.31
3/16	10000	51.18
1/4	10000	59.06
5/16	8000	70.87
3/8	8000	82.68
1/2	8000	102.40
9/16	6000	86.61
5/8	6000	94.49
11/16	4000	70.87
13/16	4000	74.80

A: Ø 1/8-Ø 3/8 = 0.25xD  
Ø 1/2-Ø 13/16 = 0.5xD



RPM=Revolution Per Minute  
FEED=Inch/minute



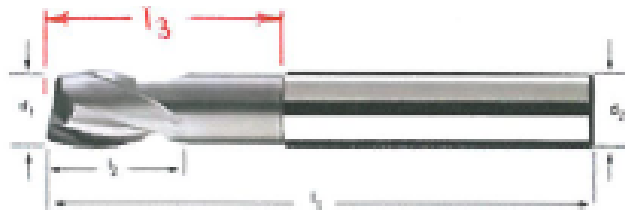
# S401HA Solid Carbide 2-Flute End Mill

## Solid Carbide 2-Flute End Mill

Regular Length, Corner Radius, 30° Helix, Necked

### S401HA

TiCN coating increases surface hardness, and abrasion resistance while resisting edge buildup. Provides excellent chip evacuation in Aluminum and Non-Ferrous applications. Excellent cutting qualities in Copper and free machining Stainless Steel applications.



Cutting Diameter Tolerance = + 0 / - 0.0012"

Shank Diameter Tolerance = + 0 / - 0.0003"

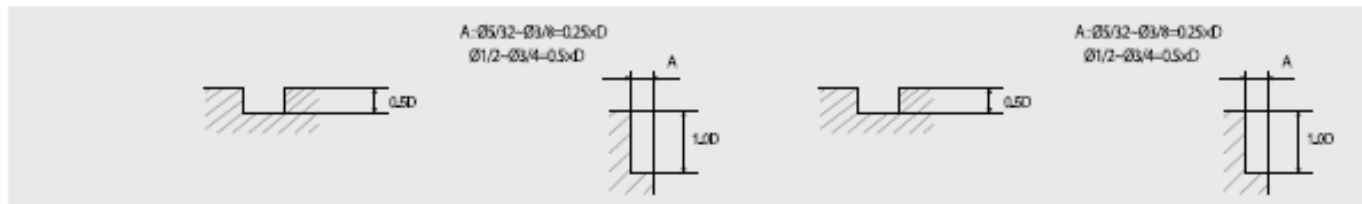
d1 Ø Inch	d1 decimal Inch	r ± 0.0010	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	l3 Inch	d3 decimal Inch	e-Code	<b>S401HA</b>
5/32	0.1563	0.012	1/4	3/16	2"	2	3/8	0.140	S401HA5/32	46612271
1/4	0.2500	0.020	1/4	5/16	2.3/8	2	3/4	0.226	S401HA1/4	46612272
5/16	0.3125	0.024	5/16	3/8	2.3/4	2	1.1/8	0.282	S401HA5/16	46612273
3/8	0.3750	0.031	3/8	1/2	3.1/8	2	1.1/2	0.336	S401HA3/8	46612274
1/2	0.5000	0.040	1/2	9/16	3.1/2	2	1.1/2	0.460	S401HA1/2	46612275
5/8	0.6250	0.051	5/8	3/4	4"	2	1.3/4	0.566	S401HA5/8	46612276
3/4	0.7500	0.063	3/4	1"	4"	2	1.3/4	0.670	S401HA3/4	46612277

# S401HA Solid Carbide 2-Flute End Mill

Corner Radius 2-Flute design provides excellent chip evacuation when machining Aluminum & Non-Ferrous materials. Excellent Cutting Qualities on Copper & free machining Stainless Steel

## S401HA

Material	Aluminum – Aluminum Alloy				Copper Alloy			
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
R.012x5/32	10000	36.35	10000	42.40	3000	9.10	3000	10.60
R.020x1/4	10000	45.40	10000	60.60	3000	11.50	3000	15.15
R.024x5/16	8000	54.50	8000	69.60	2300	13.62	3000	17.55
R.031x3/8	8000	66.60	8000	81.75	2300	16.62	3005	20.60
R.040x1/2	8000	81.75	8000	103.00	2300	20.52	3005	25.75
R.051x5/8	6000	75.70	6000	93.90	1800	19.05	1800	23.60
R.063x3/4	4000	60.60	4000	75.70	1150	15.15	1150	19.10



The FEED, in long & extra long types, should be reduced by around 50%.

RPM=Revolution Per Minute  
FEED=Inch/minute





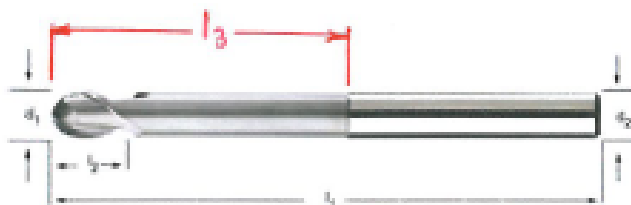
# S402HA Solid Carbide 2-Flute End Mill

## Solid Carbide 2-Flute End Mill

Long Reach, Ball Nose, 37° Helix, Necked

### S402HA

TiCN coating increases surface hardness, and abrasion resistance while resisting edge buildup. Provides excellent chip evacuation in Aluminum and Non-Ferrous applications. Suitable for step-milling applications.



Cutting Diameter Tolerance = + 0 / - 0.0012"

Shank Diameter Tolerance = + 0 / - 0.0003"

d1 Ø Inch	d1 decimal Inch	r ± 0.0010	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	l3 Inch	d3 decimal Inch	e-Code	S402HA
1/4	0.2500	1/8	1/4	3/8	4"	2	2.1/4	0.220	S402HA1/4X2.1/4	46612278
3/8	0.3750	3/16	3/8	1/2	4"	2	2.1/4	0.345	S402HA3/8X2.1/4	46612279
1/2	0.5000	1/4	1/2	5/8	5"	2	2.1/4	0.470	S402HA1/2X2.1/4	46612280
1/2	0.5000	1/4	1/2	5/8	6"	2	3.1/4	0.470	S402HA5/8X2.1/4	46612281
1/2	0.5000	1/4	1/2	5/8	6"	2	4"	0.470	S402HA3/4X2.1/4	46612282
5/8	0.6250	5/16	5/8	3/4	5"	2	2.1/4	0.585	S402HA1X2.1/4	46612283
5/8	0.6250	5/16	5/8	3/4	6"	2	3.1/4	0.585	S402HA1/2X3.1/4	46612284
5/8	0.6250	5/16	5/8	3/4	7"	2	4.1/4	0.585	S402HA1/2X4	46612285
3/4	0.7500	3/8	3/4	1"	5"	2	2.1/4	0.710	S402HA5/8X3.1/4	46612286
3/4	0.7500	3/8	3/4	1"	6"	2	3.1/4	0.710	S402HA5/8X4.1/4	46612287
3/4	0.7500	3/8	3/4	1"	7"	2	4.1/4	0.710	S402HA3/4X3.1/4	46612288
1"	1.0000	1/2	1"	1.1/8	5"	2	2.1/4	0.980	S402HA3/4X4.1/4	46612289
1"	1.0000	1/2	1"	1.1/8	6"	2	3.1/4	0.980	S402HA1X3.1/4	46612290
1"	1.0000	1/2	1"	1.1/8	7"	2	4.1/4	0.980	S402HA1X4.1/4	46612291



## S402HA Solid Carbide 2-Flute End Mill

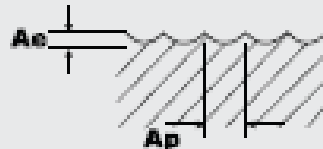
2-Flute Ball Nose Extended Neck design  
suitable for step-milling in Aluminum &  
Non-Ferrous materials

### S402HA

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
R1/8x1/4	11200	55.10
R5/32x5/16	8600	63.00
R3/16x3/8	8600	74.00
R1/4x1/2	8600	94.50
R5/16x5/8	6800	85.00
R3/8x3/4	4300	69.30

$$A_e = 0.2 \times D$$

$$A_p = 0.5 \times D$$



RPM=Revolution Per Minute  
FEED=Inch/minute

The FEED, in long & extra long types, should be reduced by around 50%.

# S403HA Solid Carbide 3-Flute End Mill

## Solid Carbide 3-Flute End Mill

Regular Length, Square End, 45° Helix

### S403HA

TiCN coating increases surface hardness, and abrasion resistance while resisting edge buildup. The unique combination a 3-Flute design and 45° high helix allows for harmonic balance at high speed for high velocity milling in Aluminum and Non-Ferrous applications.



Cutting Diameter Tolerance = + 0 / - 0.0005"

Shank Diameter Tolerance = + 0 / - 0.0003"



d1 Ø Inch	d1 decimal Inch	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	<b>S403HA</b>
1/8	0.1250	1/8	3/8	1.1/2	3	S403HA 1/8	46612292
3/16	0.1875	3/16	9/16	2"	3	S403HA 3/16	46612293
1/4	0.2500	1/4	5/8	2.1/2	3	S403HA 1/4	46612294
5/16	0.3125	5/16	5/8	2.1/2	3	S403HA 5/16	46612295
3/8	0.3750	3/8	1"	2.1/2	3	S403HA 3/8	46612296
7/16	0.4375	7/16	1.1/4	2.3/4	3	S403HA 7/16	46612297
1/2	0.5000	1/2	1.1/4	3"	3	S403HA 1/2	46612298
5/8	0.6250	5/8	1.5/8	3.1/2	3	S403HA 5/8	46612299
3/4	0.7500	3/4	1.5/8	4"	3	S403HA 3/4	46612300
1"	1.0000	1"	2"	5"	3	S403HA 1	46612301

## S403HA Solid Carbide 3-Flute End Mill

3-Flute design & 45° Helix allows for harmonic balance at high speed for high velocity milling of Aluminum & Non-Ferrous materials

### S403HA

Slotting

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
1/8	10000	33.05
5/32	10000	42.50
3/16	10000	47.25
1/4	10000	56.70
5/16	8000	66.15
3/8	8000	80.30
1/2	8000	99.15
9/16	6000	85.05
5/8	6000	89.75
11/16	4000	66.15
13/16	4000	75.60



The FEED, in long & extra long types, should be reduced by around 50%.

Side Cutting

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
1/8	10000	42.50
5/32	10000	52.00
3/16	10000	61.40
1/4	10000	70.90
5/16	8000	85.05
3/8	8000	99.20
1/2	8000	122.90
9/16	6000	103.95
5/8	6000	113.40
11/16	4000	85.05
13/16	4000	89.75



RPM=Revolution Per Minute  
FEED=inch/minute



# S404HA Solid Carbide 3-Flute End Mill

## Solid Carbide 3-Flute End Mill

Regular Length, Corner Radius, 45° Helix

### S404HA

TiCN coating increases surface hardness, and abrasion resistance while resisting edge buildup. The unique combination a 3-Flute design with corner radii and 45° helix allows for harmonic balance at high speed for high velocity milling in Aluminum and Non-Ferrous applications.



Cutting Diameter Tolerance = + 0 / - 0.0005"

Shank Diameter Tolerance = + 0 / - 0.0003"

d1 Ø Inch	d1 decimal Inch	r ± 0.0010	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	S404HA
1/2	0.5000	0.060	1/2	1.1/4	3"	3	S404HA1/2XR.060	46612302
5/8	0.6250	0.060	5/8	1.5/8	3.1/2	3	S404HA5/8XR.060	46612303
3/4	0.7500	0.060	3/4	1.5/8	4"	3	S404HA3/4XR.060	46612304
1"	1.0000	0.060	1"	2"	5"	3	S404HA1XR.060	46612305
1/2	0.5000	0.120	1/2	1.1/4	3"	3	S404HA1/2XR.120	46612306
5/8	0.6250	0.120	5/8	1.5/8	3.1/2	3	S404HA5/8XR.120	46612307
3/4	0.7500	0.120	3/4	1.5/8	4"	3	S404HA3/4XR.120	46612308
1"	1.0000	0.120	1"	2"	5"	3	S404HA1XR.120	46612309

# S404HA Solid Carbide 3-Flute End Mill

3-Flute design with Corner Radius & 45° Helix allows for harmonic balance at high speed for high velocity milling of Aluminum & Non-Ferrous materials



## S404HA

Slotting

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
1/8	10000	33.05
5/32	10000	42.50
3/16	10000	47.25
1/4	10000	56.70
5/16	8000	66.15
3/8	8000	80.30
1/2	8000	99.15
9/16	6000	85.05
5/8	6000	89.75
11/16	4000	66.15
13/16	4000	75.60

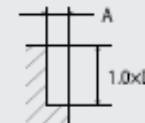


The FEED, in long & extra long types, should be reduced by around 50%.

Side Cutting

Material	Aluminum – Nonferrous Metals	
Diameter	RPM	Feed
1/8	10000	42.50
5/32	10000	52.00
3/16	10000	61.40
1/4	10000	70.90
5/16	8000	85.05
3/8	8000	99.20
1/2	8000	122.90
9/16	6000	103.95
5/8	6000	113.40
11/16	4000	85.05
13/16	4000	89.75

A:  $\phi 1/8 - \phi 3/8 = 0.25 \times D$   
 $\phi 1/2 - \phi 13/16 = 0.5 \times D$



RPM=Revolution Per Minute  
FEED=inch/minute

# Features & Benefits

- Finishing Cutter
  - The Multi-flute endmills are available with 6 to 8 flutes
  - Designed to provide superior surface finishes in most materials, particularly hardened materials
  - 45 degree helix and flute construction enables high speed machining while retaining superior surface finish
  - Ceramic (AlTiN) coating gives the possibility to adopt dry machining

# S405HA Solid Carbide Multi-Flute End Mill

## Solid Carbide Multi-Flute End Mill

Long Length, Square End, 45° Helix

### S405HA

AlTiN coating increases surface hardness, and improves tool life allowing higher metal removal rates. This 6-8 Flute Finisher with corner protection design and 45° high helix for high speed cutting and finish milling of high hardened materials while providing superior workpiece finishes.



Cutting Diameter Tolerance = + 0 / - 0.0012"

Shank Diameter Tolerance = + 0 / - 0.0003"

d1 Ø Inch	d1 decimal Inch	r ± 0.0010	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	S405HA
1/4	0.2500	0.020"	1/4	1/2	2 1/4	6	S405HA1/4XR.020	46660543
5/16	0.3125	0.020"	5/16	3/4	2 1/2	6	S405HA5/16XR.020	46660544
3/8	0.3750	0.020"	3/8	7/8	2 7/8	6	S405HA3/8XR.020	46660545
3/8	0.3750	0.030"	3/8	7/8	2 7/8	6	S405HA3/8XR.030	46660546
1/2	0.5000	0.020"	1/2	1	3 1/4	6	S405HA1/2XR.020	46660547
1/2	0.5000	0.030"	1/2	1	3 1/4	6	S405HA1/2XR.030	46660548
5/8	0.6250	0.030"	5/8	1 1/4	3 5/8	6	S405HA5/8XR.030	46660549
5/8	0.6250	0.060"	5/8	1 1/4	3 5/8	6	S405HA5/8XR.060	46660550
3/4	0.7500	0.030"	3/4	1 1/2	4 1/8	8	S405HA3/4XR.030	46660551
3/4	0.7500	0.060"	3/4	1 1/2	4 1/8	8	S405HA3/4XR.060	46660552
3/4	0.7500	0.090"	3/4	1 1/2	4 1/8	8	S405HA3/4XR.090	46660553



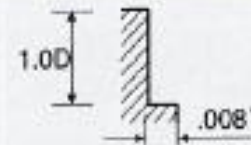
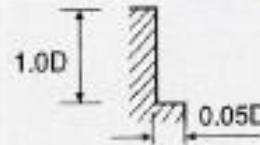
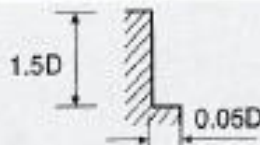


# S405HA Solid Carbide Multi-Flute End Mill

6-8-Flute Finisher with Corner Radius & 45° High Helix for high speed cutting & finish milling of high hardened materials while providing superior workpiece finishes. Suitable for dry milling.

## S405HA

MATERIAL	CARBON STEELS ALLOY STEELS CAST IRON		ALLOY STEELS TOOL STEELS		HARDENED STEELS	
HARDNESS	~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH	~ 1750N/mm²		1750 ~ 2080N/mm²		2080N/mm² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
1/4	16800	240.00	8400	120.00	4200	58.00
5/16	12600	240.00	6300	120.00	3200	58.00
3/8	10000	235.00	5000	120.00	2500	58.00
1/2	8400	200.00	4200	100.00	2100	50.00
5/8	6300	150.00	3150	75.00	1600	37.00
3/4	5000	120.00	2500	58.00	1260	30.00



RPM=REVOLUTION PER MIN.  
FEED=inch/min.



# Features & Benefits

## ■ Unequal Helix Cutters

- The unequal helix geometry is designed to increase stability during the machining process
- This reduces the possibility of vibration meaning there is less risk of chipping at the cutting edges
- These cutters can therefore perform at increased speeds and feeds, resulting in high metal removal rates
- For the customer this means higher productivity over conventional style milling cutters
- Increased stability of Unequal helix cutters means they can be used in a wide variety of applications. Excellent performance can be achieved on older machines in most styles of tool holders
- Included in the range are cutters with corner radii to protect the corner in difficult machining applications

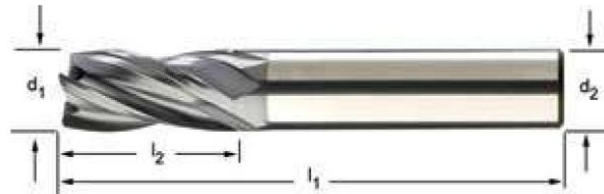
# S406HA Solid Carbide 4-Flute End Mill

## Solid Carbide 4-Flute End Mill

### Regular Length, Corner Radius, Unequal Helix

#### S406HA Cylindrical Shank Type

AlTiN coating increases surface hardness, and improves tool life allowing higher metal removal rates. These unequal helix Inox cutters with corner radii are designed for higher speeds and deeper cuts. Provides superior workpiece finishes by eliminating vibrations and harmonics. Excellent for most materials under 40 R”c”



Cutting Diameter Tolerance = + 0 / - 0.0012"  
Shank Diameter Tolerance = + 0 / - 0.0003"



d1 Ø Inch	d1 decimal Inch	r ± 0.0012	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	<b>S406HA</b>
1/8	0.1250	0.015	1/8	3/8	1.1/2	4	S406HA1/8	46612328
3/16	0.1875	0.015	3/16	7/16	2"	4	S406HA3/16	46612329
1/4	0.2500	0.020	1/4	1/2	2.1/2	4	S406HA1/4	46612330
5/16	0.3125	0.020	5/16	13/16	2.1/2	4	S406HA5/16	46612331
3/8	0.3750	0.020	3/8	7/8	2.1/2	4	S406HA3/8	46612332
7/16	0.4375	0.020	7/16	1"	2.3/4	4	S406HA7/16	46612333
1/2	0.5000	0.030	1/2	1"	3"	4	S406HA1/2	46612334
9/16	0.5625	0.030	9/16	1.1/8	3.1/2	4	S406HA9/16	46612335
5/8	0.6250	0.040	5/8	1.1/4	3.1/2	4	S406HA5/8	46612336
3/4	0.7500	0.040	3/4	1.1/2	4"	4	S406HA3/4	46612337
1"	1.0000	0.040	1"	1.1/2	4"	4	S406HA1	46612338

# S406HA Solid Carbide 4-Flute End Mill

4-Flute Unequal Helix Inox Cutter with Corner Radius. Designed for higher speeds, deeper cuts and better metal removal rates. Provides superior workpiece finishes by eliminating vibrations & harmonics. Excellent for most materials under 40 R”c”

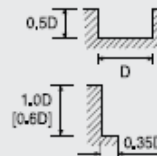
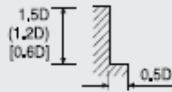
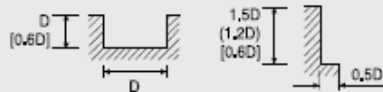
- Alloy steels cast iron / stainless steels 300, 400series / titanium
- Inconel

RPM=Revolution Per Minute  
FEED=inch/minute

## \* Titanium Machining

- On full slot cuts, Reduce R.P.M and I.P.M by 35%.
- Speeds and feeds subject to coolant quality, quantity and pressure.

MATERIAL	ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES		TITANIUM		INCONEL	
HARDNESS	~ HRC 20									
STRENGTH	~ 1000N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1/8	12735	10.23	9625	7.25	13475	7.63	8320	7.63	2565	2.05
3/16	8490	10.91	6385	8.27	12000	8.43	5550	8.43	1685	1.82
1/4	6370	11.46	4810	9.60	6815	9.60	4160	9.61	1285	2.48
5/16	5100	12.95	3850	10.71	5390	10.71	3330	10.71	1025	2.83
3/8	4245	18.35	3210	15.38	4490	15.38	2770	15.38	855	4.13
7/16	4010	24.45	2750	20.90	3850	20.90	2380	20.73	735	5.49
1/2	3500	25.85	2400	21.02	3370	21.02	2080	21.02	640	5.58
9/16	3110	26.01	2140	21.16	2990	21.16	1850	21.16	570	5.73
5/8	2800	26.11	1925	21.20	2700	21.20	1660	21.20	510	5.58
3/4	2340	23.96	1600	19.43	2250	19.43	1390	19.43	425	5.17
1	1755	17.44	1200	14.73	1685	15.11	1040	15.11	315	4.26



- \*1.2 x D Axial cutting depth should be applied for Short length series DIA over 5/16mm
- \*0.6 x D Axial cutting depth should be applied for Stub length series.

RPM=Revolution Per Minute  
FEED=inch/minute

# S406HB Solid Carbide 4-Flute End Mill

## Solid Carbide 4-Flute End Mill

### Regular Length, Corner Radius, Unequal Helix

#### S406HB Weldon Flat Shank Type

AlTiN coating increases surface hardness, and improves tool life allowing higher metal removal rates. These unequal helix Inox cutters with corner radii are designed for higher speeds and deeper cuts. Provides superior workpiece finishes by eliminating vibrations and harmonics. Excellent for most materials under 40 R”c”



Cutting Diameter Tolerance = + 0 / - 0.0012"

Shank Diameter Tolerance = + 0 / - 0.0003"



d1 Ø Inch	d1 decimal Inch	r ± 0.0012	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	S406HB
3/8	0.3750	0.020	3/8	7/8	2.1/2	4	S406HB3/8	46612339
7/16	0.4375	0.020	7/16	1"	2.3/4	4	S406HB7/16	46612340
1/2	0.5000	0.030	1/2	1"	3"	4	S406HB1/2	46612341
9/16	0.5625	0.030	9/16	1.1/8	3.1/2	4	S406HB9/16	46612342
5/8	0.6250	0.040	5/8	1.1/4	3.1/2	4	S406HB5/8	46612343
3/4	0.7500	0.040	3/4	1.1/2	4"	4	S406HB3/4	46612344
1"	1.0000	0.040	1"	1.1/2	4"	4	S406HB1	46612345

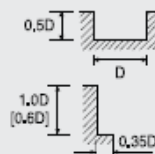
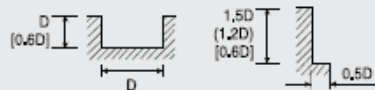
# S406HB Solid Carbide 4-Flute End Mill

4-Flute Unequal Helix Inox Cutter with Corner Radius. Designed for higher speeds, deeper cuts and better metal removal rates. Provides superior workpiece finishes by eliminating vibrations & harmonics. Excellent for most materials under 40 R”c”

- ➔ Alloy steels cast iron / stainless steels 300, 400series / titanium
- ➔ Inconel
- **Titanium Machining**
  - ➔ On full slot cuts, Reduce R.P.M and I.P.M by 35%.
  - ➔ Speeds and feeds subject to coolant quality, quantity and pressure.

RPM=Revolution Per Minute  
FEED=inch/minute

MATERIAL	ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES		TITANIUM		INCONEL	
HARDNESS	~ HRC 20									
STRENGTH	~ 1000N/mm <sup>2</sup>									
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1/8	12735	10.23	9625	7.25	13475	7.63	8320	7.63	2565	2.05
3/16	8490	10.91	6385	8.27	12000	8.43	5550	8.43	1685	1.82
1/4	6370	11.46	4810	9.60	6815	9.60	4160	9.61	1285	2.48
5/16	5100	12.95	3850	10.71	5390	10.71	3330	10.71	1025	2.83
3/8	4245	18.35	3210	15.38	4490	15.38	2770	15.38	855	4.13
7/16	4010	24.45	2750	20.90	3850	20.90	2380	20.73	735	5.49
1/2	3500	25.85	2400	21.02	3370	21.02	2080	21.02	640	5.58
9/16	3110	26.01	2140	21.16	2990	21.16	1850	21.16	570	5.73
5/8	2800	26.11	1925	21.20	2700	21.20	1660	21.20	510	5.58
3/4	2340	23.96	1600	19.43	2250	19.43	1390	19.43	425	5.17
1	1755	17.44	1200	14.73	1685	15.11	1040	15.11	315	4.26



\*1.2 x D Axial cutting depth should be applied for Short length series DIA over 5/16mm  
\*0.6 x D Axial cutting depth should be applied for Stub length series.

RPM=Revolution Per Minute  
FEED=inch/minute

# S407HA Solid Carbide 4-Flute End Mill

## Solid Carbide 4-Flute End Mill

Regular Length, Corner Radius, Unequal Helix

### S407HA

AlTiN coating increases surface hardness, and improves tool life allowing higher metal removal rates. These unequal helix Steel cutters with corner radii are designed for higher speeds and deeper cuts. Provides superior workpiece finishes by eliminating vibrations and harmonics. Excellent for most materials under 40 R”c”



Cutting Diameter Tolerance = + 0 / - 0.0012"  
Shank Diameter Tolerance = + 0 / - 0.0003"



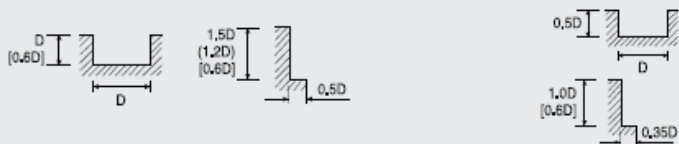
d1 Ø Inch	d1 decimal Inch	r ± 0.0012	d2 Ø Inch	l2 Inch	l1 Inch	# of Flutes	e-Code	S407HA
1/8	0.1250	0.010	1/8	3/8	1.1/2	4	S407HA1/8	46612317
3/16	0.1875	0.010	3/16	7/16	2"	4	S407HA3/16	46612318
1/4	0.2344	0.015	1/4	1/2	2.1/2	4	S407HA1/4	46612319
5/16	0.3125	0.015	5/16	13/16	2.1/2	4	S407HA5/16	46612320
3/8	0.3750	0.015	3/8	7/8	2.1/2	4	S407HA3/8	46612321
7/16	0.4375	0.015	7/16	1"	2.3/4	4	S407HA7/16	46612322
1/2	0.5000	0.025	1/2	1"	3"	4	S407HA1/2	46612323
9/16	0.5625	0.025	9/16	1.1/8	3.1/2	4	S407HA9/16	46612324
5/8	0.6250	0.035	5/8	1.1/4	3.1/2	4	S407HA5/8	46612325
3/4	0.7500	0.035	3/4	1.1/2	4"	4	S407HA3/4	46612326
1"	1.0000	0.035	1"	1.1/2	4"	4	S407HA1	46612327



# S407HA Solid Carbide 4-Flute End Mill

4-Flute Unequal Helix Steel Cutter with Corner Radius. Designed for higher speeds, deeper cuts and better metal removal rates. Provides superior workpiece finishes by eliminating vibrations & harmonics. Excellent for most materials under 40 R”c”

MATERIAL	ALLOY STEELS CAST IRON		STAINLESS STEELS 300SERIES		STAINLESS STEELS 400SERIES	
HARDNESS	~ HRC 20					
STRENGTH	~ 1000N/mm <sup>2</sup>					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
1/8	12735	10.23	9625	7.25	13475	7.63
3/16	8490	10.91	6385	8.27	12000	8.43
1/4	6370	11.46	4810	9.60	6815	9.60
5/16	5100	12.95	3850	10.71	5390	10.71
3/8	4245	18.35	3210	15.38	4490	15.38
7/16	4010	24.45	2750	20.90	3850	20.90
1/2	3500	25.85	2400	21.02	3370	21.02
9/16	3110	26.01	2140	21.16	2990	21.16
5/8	2800	26.11	1925	21.20	2700	21.20
3/4	2340	23.96	1600	19.43	2250	19.43
1	1755	17.44	1200	14.73	1685	15.11



\*1.2 x D Axial cutting depth should be applied for Short length series DIA over 5/16mm  
\*0.6 x D Axial cutting depth should be applied for Stub length series.

RPM=Revolution Per Minute  
FEED=inch/minute



## SOLUCIONES

Ofrecemos una amplia gama de maquinaria CNC, herramientas de corte, medición y sujeción, así como accesorios, abrasivos y suministros especializados en la industria metal-mecánica.

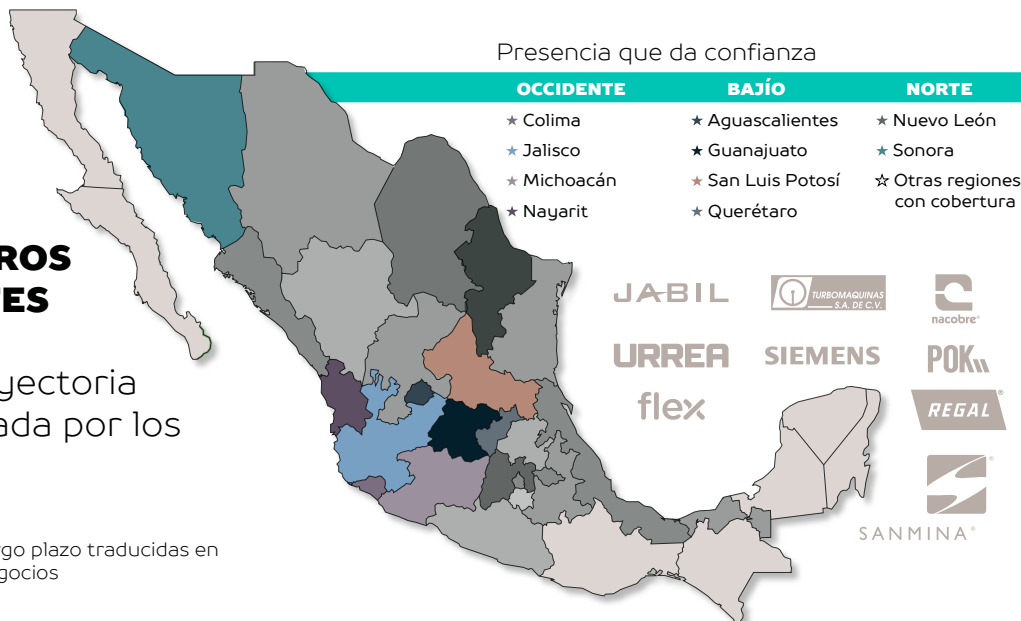
## COBERTURA Y EXPANSIÓN

Presencia que da confianza

### NUESTROS CLIENTES

Una trayectoria respaldada por los mejores

Alianzas de largo plazo traducidas en sinergia de negocios



## VENTAJAS ÚNICAS

contamos con distribuciones exclusivas que pondrán a su taller o empresa, sin importar su tamaño, al frente del mercado gracias a soluciones de alto valor.



### Contáctanos:



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