

DISTINCTIVE GEOMETRIES , APPLICATION AGILITY AND COATING TOUGHNESS

ALL MAKE **SOMTA TOOLS** PROUD LEADERS OF **WORLD CLASS CUTTING TOOLS**

THAT CAN ENDURE IN ANY MACHINED MATERIAL



PROUD

AGILE

ENDURING

DISTINCTIVE

TOUGH





Manufacturers & Suppliers of Drills, Reamers, End Mills, Bore Cutters, Taps & Dies, Toolbits, Solid Carbide Tooling, Carbide Insert Tooling, Custom Tools and Surface Coatings

Somta Tools was founded in 1954 by Samuel Osborn Ltd of Sheffield, England, through its subsidiaries Osborn Steels and Osborn Mushet Tools. The name Somta was chosen as the acronym for these companies operating in South Africa.

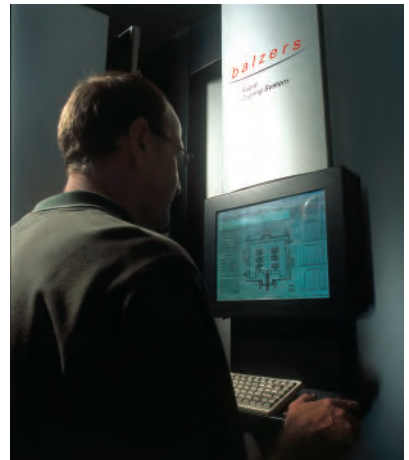
Somta continues to operate from its original site on Moses Mabhidia (formerly Edendale) Road in Pietermaritzburg. Somta's expansion has been brought about by the acquisition of two cutting tool companies during the 1980's. Additional growth is realised by continual investment in new plant, with emphasis on state of the art CNC equipment such as Junker, Normac, Rollomatic, Walter, Reinecker and Reishauer machines including new ANCA and Walter CNC grinding machines to further expand solid carbide range manufacturing capacity.

From humble beginnings in 1954 with 20 employees, Somta has grown into one of the largest cutting tool manufacturers in the southern hemisphere, operating from offices and modern manufacturing facilities laid out over 3 hectares with a complement of over 400 employees.

The factory in Pietermaritzburg manufactures 7 000 standard items and a further 3 000 made-to-order items to serve local markets and export markets in over 70 countries worldwide.

Somta Tools specialises in the design and manufacture of standard and custom tools for the industrial and "do it yourself" markets. Product categories can be summarised as drills, cutters, reamers, threading tools and toolbits, which are made in a wide range of sizes, using various materials (HSS and Solid Carbide) and Balzers PVD surface coatings to extend wear life.

The company's vision of "To manufacture and supply superior cutting tools, driven by a culture of service excellence, to global and domestic markets" is supported by ISO 9002 which was achieved in 1991 and ISO 9001 in 2003 and 2008.
















































Somta has an integrated state of the art Balzers PVD Rapid coating system in its manufacturing programme, offering the innovative range of Balzers BALINIT® high performance coatings on all cutting tools.



ICON

























LEGEND & DESCRIPTION

Material	HSS	High Speed Steel	HSS Co5	5% Cobalt High Speed Steel	HSS Co8	8% Cobalt High Speed Steel	HSS Co8e	8% Cobalt HSS, Eccentric Relief Sharpening		
	HSS V3	3% Vanadium High Speed Steel	*SOLID CARBIDE	9-10% Cobalt, 0.2-0.8 µm Grain size.	CARBON STEEL	Carbon Steel				
Finish	BLUE FINISH	Steam (HOMO) Temper	BRIGHT FINISH	No Surface Treatment	COATED	Oerlikon Balzers coating specially adapted to suit application.				
	GOLD OXIDE	Steam (HOMO) Temper Straw Colour	TiAIN	Titanium Aluminium Nitride (Black Finish)	TiN	Titanium Nitride (Gold Finish)				
Type	TYPE N	Type N Standard	TYPE W	Type W For Soft Materials	TYPE H	Type H For Hard Materials	TYPE FS	Parabolic Flute Strong Core		
	CBA	Colour Band Application								
Milling Profile		Staggered Teeth Side & Face Cutters		Straight Teeth Side & Face Cutters			Fine Pitch Flat Crest Rough Semi-finishing Profile		Coarse Pitch Flat Crest Rough Semi-finishing Profile	
		Fine Pitch Knuckle Type Roughing Profile		Coarse Pitch Knuckle Type Roughing Profile						
Standard	ISO 529	ISO Standard 529	DIN 371	DIN Standard 371	WORKS STD.	Factory Specifications				
	RF	Refined Flute	QS	Quick Spiral	H 7	Reamer to produce H7 Tolerance				
Shank		Flatted Shank h6 Tolerance		Plain Shank h7 Tolerance		Threaded Shank h8 Tolerance		Carbide Plain Shank h6 Tolerance		
		Morse Taper Shank MT 3 - 5								
Point Angle								Drill Point Angles		
		Countersink Angles								
Lengths		Drills Stub Series		Drills Jobber Series		Drills Long Series		Drills Extra Length Series		
		End Mills Regular Series		End Mills Long Series						
Flute Helix Angle										Right hand helix
				Left hand helix						
Centre Drills		Form A Standard		Form B Protected		Form R Radius				
		To Suit 1 in 10 Taper		To Suit 1 in 50 Taper		To Suit 1 in 48 Taper				
Inclination	1:10		1:50		1:48					

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ICON

LEGEND & DESCRIPTION... from previous page

Threads	M	Metric	MF	Metric Fine	BSW	British Standard Whitworth	BSF	British Standard Whitworth Fine		
	UNC	Unified National Coarse	UNF	Unified National Fine	BSPT	British Standard Pipe Taper "F" Series	BSP	British Standard Pipe (Fine) "G" Series		
	NPS	National Pipe Straight	NPT	National Pipe Taper	BA	British Association	BSB	British Standard Brass		
				Thread Form - with 47 1/2°/55°/60° flank angle						
Tolerance							Tolerance on cutting Diameter			
			Woodruff Tolerance					Corner Rounding Tolerance		
Application						Direction of Cut				
		Taper, Through & Blind Hole			Through & Blind Hole			Blind Hole Tapping		Through Hole Tapping
		Left Hand Cutting			Right Hand Cutting					Hand Taps

GENERAL

MATERIAL DESCRIPTIONS

Materials	Code 0	Code 1	Code 2	Code 3	Code 4	Code 5	Code 7
Free Cutting Steels	x	x	x	x	x	x	x
Carbon Steel	x	x	x	x	x	x	x
Alloy Steel	x	x	x	x	x	x	x
Stainless Steel	x	x	x	x	x	x	x
Heat Resisting Alloys		x	x				
Nimonic Alloys				x	x	x	x
Titanium	x	x	x	x	x	x	x
Tool Steel				x	x	x	x
Cast Irons	x	x	x	x	x	x	x
Nickel	x						
Manganese Steels		x	x			x	x
Aluminium Alloys	x	x	x	x	x	x	x
Magnesium Alloys		x	x			x	x
Zinc Alloys						x	x
Copper	x	x	x	x	x	x	x
Synthetics / Plastics	x	x	x	x	x	x	x



INDEX

SHANK CUTTERS

PRODUCT	SPEC.	CODE TYPE	RANGE	PAGE
Solid Carbide 3 Flute Roughing End Mills - Regular Length Knuckle Form - Coarse Pitch Flatted Shank - Uncoated for Aluminium  <p>Maximum stock removal at high feed rates in profiling applications.</p>	WORKS STD.	03C	6-20	88
Solid Carbide 3 Flute Roughing End Mills - Regular Length Flat Crest - Coarse Pitch Flatted Shank - Coated  <p>Maximum stock removal at high feed rates in profiling applications.</p>	WORKS STD.	03D	6-20	88
Solid Carbide 4 Flute Roughing End Mills - Regular Length Knuckle Form - Fine Pitch Flatted Shank - Coated  <p>Maximum stock removal at high feed rates in profiling applications.</p>	WORKS STD.	03E	6-20	89
Solid Carbide 4 Flute Roughing End Mills - Regular Length Flat Crest - Fine Pitch Flatted Shank - Coated  <p>Maximum stock removal at high feed rates in profiling applications.</p>	WORKS STD.	03F	6-20	90
Solid Carbide 6 Flute Finishing End Mills Regular Length - Plain Shank - Coated  <p>Designed for peripheral milling as a finishing operator.</p>	WORKS STD.	03G	6-20	90
NEW Solid Carbide 6 Flute Hi-Feed End Mills Regular Length - Plain Shank - Coated  <p>Designed for peripheral milling of contours and complex shapes in hard materials.</p>	WORKS STD.	03H	6-20	91
Solid Carbide 2 Flute Ball Nose Finishing End Mills Regular Length - Plain Shank - Coated  <p>Designed for peripheral milling of contours and complex shapes in hard materials.</p>	WORKS STD.	03I	4-20	91
Solid Carbide 2 Flute Ball Nose Finishing End Mills Long Series - Plain Shank - Coated  <p>Designed for peripheral milling of contours and complex shapes in hard materials.</p>	WORKS STD.	03J	4-20	92
NEW Solid Carbide 4 Flute VariCut End Mills Flatted Shank - Coated  <p>For roughing and finishing with high metal removal rates eliminating the use of multiple tools. Designed for tougher materials including Stainless steel and Titanium.</p>	DIN 6527L	03V	5-20	93
NEW Solid Carbide 2 Flute End Mills - Regular Length Plain Shank - Uncoated for Aluminium  <p>Milling keyways and slots to size in one cut. Designed for plunging operations.</p>	WORKS STD.	02A	1-16	94

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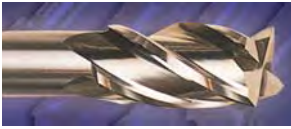
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SHANK CUTTERS... from previous page



PRODUCT	SPEC.	CODE TYPE	RANGE	PAGE
<p>NEW Solid Carbide 3 Flute End Mills - Regular Length Plain Shank - Uncoated for Aluminium</p> <p>Multi-purpose tool used for slotting and profiling.</p> 	WORKS STD.	02R	2-16	94
<p>NEW Solid Carbide 3 Flute Ball Nose End Mills - Regular Length Plain Shank - Uncoated for Aluminium</p> <p>For finishing of contours at high feed rates where a superior finish is required.</p> 	WORKS STD.	02S	3-16	95
<p>NEW Solid Carbide 3 Flute Toroidal End Mills - Regular Length Plain Shank - Uncoated for Aluminium</p> <p>For minimum vibration in heavy profile machining. Faster machining up to 1 x D depth of cut</p> 	WORKS STD.	02U	3-16	95
<p>Solid Carbide 2 Flute End Mills Regular Length - Plain Shank Coated and Uncoated</p> <p>Milling keyways and slots to size in one cut. Designed for plunging operations. High tensile steels and other difficult materials.</p> 	WORKS STD.	03A	1-20	96
<p>Solid Carbide 2 Flute End Mills Long Series - Plain Shank Coated and Uncoated</p> <p>Milling keyways and slots to size in one cut. Designed for plunging operations. High tensile steels and other difficult materials.</p> 	WORKS STD.	03B	3-20	97
<p>Solid Carbide 4 Flute End Mills Regular Length - Plain Shank Coated and Uncoated</p> <p>For profile milling, high tensile steels and other difficult materials.</p> 	WORKS STD.	03K	1-20	97
<p>Solid Carbide 4 Flute End Mills Long Series - Plain Shank Coated and Uncoated</p> <p>For profile milling, high tensile steels and other difficult materials.</p> 	WORKS STD.	03L	3-20	98
<p>Solid Carbide 2 Flute Ball Nose End Mills Regular Length - Plain Shank Coated and Uncoated</p> <p>Milling keyways and slots to size in one cut. Designed for plunging operations. Produces a radius at the bottom of the cut.</p> 	WORKS STD.	03M	1-20	99
<p>Solid Carbide 2 Flute Ball Nose End Mills Long Series - Plain Shank Coated and Uncoated</p> <p>Milling keyways and slots to size in one cut. Designed for plunging operations. Produces a radius at the bottom of the cut.</p> 	WORKS STD.	03N	3-20	100
<p>Solid Carbide 4 Flute Ball Nose End Mills Regular Length - Plain Shank Coated and Uncoated</p> <p>For profile milling, high tensile steels and other difficult materials.</p> 	WORKS STD.	03P	1-20	100

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SHANK CUTTERS... from previous page

PRODUCT	SPEC.	CODE TYPE	RANGE	PAGE
2 Flute End Mills (Slot Drills) Regular Length - Threaded Shank - HSS Milling keyways and slots to size in one cut. Designed for plunging operations.	 DIN 327	321	1.5-50	101
	BS 122	323	1/4-3/4	102
2 Flute End Mills (Slot Drills) Long Series - Threaded Shank - HSS Milling keyways and slots to size in one cut. Designed for plunging operations.	 BS 122	326	2-20	102
	2 Flute End Mills (Slot Drills) Regular Length - Threaded Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. High tensile steels and other difficult materials.	DIN 327	348	1.5-50
BS 122		349	1/16-2"	104
2 Flute End Mills (Slot Drills) Long Series - Threaded Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. High tensile steels and other difficult materials.	 BS 122	350	2-50	105
	2 Flute End Mills (Slot Drills) Regular Length - Flatted Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. High tensile steels and other difficult materials.	 DIN 327	305	2-25
2 Flute End Mills (Slot Drills) Regular Length - Plain Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. High tensile steels and other difficult materials.		 DIN 327	310	2-25
	2 Flute Ball Nose End Mills Regular Length - Threaded Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. Produces a radius at the bottom of the cut.	 DIN 327	340	2-25
2 Flute Ball Nose End Mills Regular Length - Flatted Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. Produces a radius at the bottom of the cut.		 DIN 327	337	2-25
	2 Flute Ball Nose End Mills Regular Length - Plain Shank HSS-Co8e - TiAlN Coated and Uncoated Milling keyways and slots to size in one cut. Designed for plunging operations. Produces a radius at the bottom of the cut.	 DIN 327	312	2-25
3 Flute End Mills Regular Length - Threaded Shank HSS-Co8e - TiAlN Coated and Uncoated Multi-purpose tool used for slotting and profiling. High tensile steels and other difficult materials.		 BS 122	342	3-25

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PRODUCT	SPEC.	CODE TYPE	RANGE	PAGE
Multi-Flute End Mills - Regular Length Threaded Shank - HSS For profile milling.		BS 122	301 2.5-50	109
			303 1/8-2"	110
Multi-Flute End Mills - Long Series Threaded Shank - HSS For profile milling.		BS 122	306 3-50	110
Multi-Flute End Mills Regular Length - Threaded Shank HSS-Co8e - TiAlN Coated and Uncoated For profile milling, high tensile steels and other difficult materials.		BS 122	344 2.5-50	111
			345 1/8-3/4	112
Multi-Flute End Mills Long Series - Threaded Shank HSS-Co8e - TiAlN Coated and Uncoated For profile milling, high tensile steels and other difficult materials.		BS 122	346 3-50	112
Multi-Flute End Mills Regular Length - Flatted Shank HSS-Co8e - TiAlN Coated and Uncoated For profile milling, high tensile steels and other difficult materials.		DIN 844	359 3-25	113
Multi-Flute End Mills Regular Length - Plain Shank HSS-Co8e - TiAlN Coated and Uncoated For profile milling, high tensile steels and other difficult materials.		DIN 844	314 3-25	113
Roughing End Mills - Regular Length Threaded Shank - Knuckle Form Coarse Pitch - HSS-Co8 - TiAlN Coated Maximum stock removal at high feed rates in profiling applications.		BS 122	316 6-20	114
Roughing End Mills - Long Series Threaded Shank - Knuckle Form Coarse Pitch - HSS-Co8 - TiAlN Coated Maximum stock removal at high feed rates in profiling applications.		BS 122	318 10-20	114
Roughing End Mills - Regular Length Flatted Shank - Knuckle Form Coarse Pitch - HSS-Co8 Maximum stock removal at high feed rates in profiling applications.		DIN 844	330 6-40	115
Roughing End Mills - Regular Length Flatted Shank - Flat Crest - HSS-Co8 Maximum stock removal at high feed rates in profiling applications.		DIN 844	368 6-40	115
Corner Rounding Cutters Threaded Shank - HSS-Co8 To produce a true radius up to a quarter of a circle application.		DIN 6518 FORM D	363 2-20	116
Corner Rounding Cutters Flatted Shank - HSS-Co8 To produce a true radius up to a quarter of a circle application.		DIN 6518 FORM B	363 2-20	116

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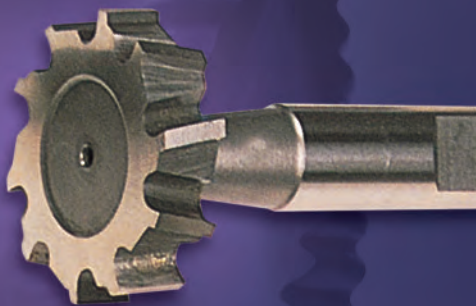


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Woodruff Cutters - Threaded Shank - HSS-Co5 To produce a seat to suit woodruff keys.		BASED ON DIN 850 TO SUIT DIN 6888 KEY	366	10.5-45.5	117
		BASED ON BS 122	367	204-1212	118
Woodruff Cutters - Flatted Shank - HSS-Co5 To produce a seat to suit woodruff keys.		DIN 850	374	10.5-45.5	117
T-Slot Cutters - Threaded Shank - HSS-Co5 For opening out the bottom of previously milled slot to form a T-slot.		BASED ON ISO 3337 DIN 851	371	6-22	119
T- Slot Cutters - Flatted Shank - HSS-Co5 For opening out the bottom of previously milled slot to form a T-slot.		DIN 851	385	6-22	119
Dovetail Cutters - Threaded Shank - HSS-Co5 To produce dovetail slides for machine tool tables, jigs and fixtures.		BASED ON DIN 1833 ISO 3859	376	16-40	120
Dovetail Cutters - Flatted Shank - HSS-Co5 To produce dovetail slides for machine tool tables, jigs and fixtures.		DIN 1833 FORM C	386	16-40	120
Inverted Dovetail Cutters Threaded Shank - HSS-Co5 To produce opposite section of dovetail slide to Dovetail cutter.		BASED ON DIN 1833 ISO 3859	378	16-40	121
Inverted Dovetail Cutters Flatted Shank - HSS-Co5 To produce opposite section of dovetail slide to Dovetail cutter.		DIN 1833 FORM D	389	16-40	121
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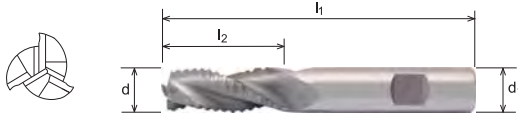




S H A N K C U T T E R S



Solid Carbide 3 Flute Roughing End Mills for Aluminium



* Sub-micron carbide grade of European origin

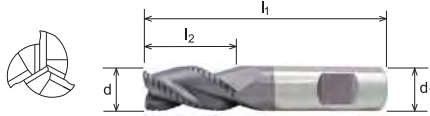
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6	13	57	6	03C0600
8	16	63	8	03C0800
10	22	72	10	03C1000
12	26	83	12	03C1200
16	32	92	16	03C1600
20	38	104	20	03C2000

Code
03C

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE W	
	Z 3	
NR	UNCOATED FOR ALUMINIUM	

Suited Materials
ALUMINIUM

Solid Carbide 3 Flute Roughing End Mills



* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
6	10	57	6	03D0600X
8	16	63	8	03D0800X
10	19	72	10	03D1000X
12	22	83	12	03D1200X
16	32	92	16	03D1600X
20	38	104	20	03D2000X

Code
03D

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	
	Z 3	
NF	COATED	

Suited Materials		
CARBON & ALLOY STEEL	STAINLESS STEEL	
CAST IRON	HEAT RESISTING ALLOYS	TITANIUM



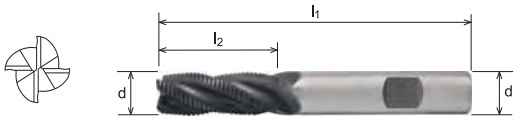
Description	Ref No.	Code
Solid Carbide 3 Flute Roughing End Mill Set - Coated	03DS	03D0000X
THIS SET CONTAINS:		
6.0mm - 03D0600X		
8.0mm - 03D0800X		
10.0mm - 03D1000X		
12.0mm - 03D1200X		
16.0mm - 03D1600X		

Set also available for Aluminium (03C)



SHANK CUTTERS

Solid Carbide 4 Flute Roughing End Mills



* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
6	13	57	6	03E0600X
8	16	63	8	03E0800X
10	22	72	10	03E1000X
12	26	83	12	03E1200X
16	32	92	16	03E1600X
20	38	104	20	03E2000X



Description	Ref No.	Code
Solid Carbide 4 Flute Roughing End Mill Set - Coated	03ES	03E0000X
THIS SET CONTAINS:		
6.0mm - 03E0600X		
8.0mm - 03E0800X		
10.0mm - 03E1000X		
12.0mm - 03E1200X		
16.0mm - 03E1600X		

Code
03E

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	
30°	Z 4	∅ h6
HR	COATED	

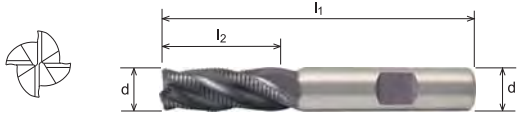
Suited Materials		
CARBON & ALLOY STEEL		
STAINLESS STEEL	CAST IRON	TITANIUM



SHANK CUTTERS



Solid Carbide 4 Flute Roughing End Mills



* Sub-micron carbide grade of European origin

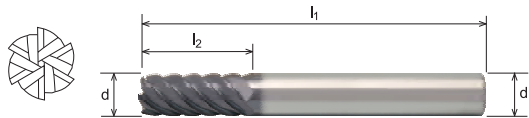
d	l ₂	l ₁	d ₁	Code
6	13	57	6	03F0600X
8	16	63	8	03F0800X
10	22	72	10	03F1000X
12	26	83	12	03F1200X
16	32	92	16	03F1600X
20	38	104	20	03F2000X

Code
03F

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	
	Z 4	
HF	COATED	

Suited Materials		
CARBON & ALLOY STEEL	STAINLESS STEEL	
CAST IRON	HEAT RESISTING ALLOYS	TITANIUM

Solid Carbide 6 Flute Finishing End Mills



* Ultra fine carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
6	15	60	6	03G0600W
8	20	75	8	03G0800W
10	25	80	10	03G1000W
12	30	100	12	03G1200W
16	40	110	16	03G1600W
20	45	120	20	03G2000W

Code
03G

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE H	
	Z 6	
COATED		

Suited Materials
HARDENED STEELS, IRONS

Description	Ref No.	Code
Solid Carbide 6 Flute Finishing End Mill Set - Coated	03GS	03G0000W
THIS SET CONTAINS:		
6.0mm - 03G0600W		
8.0mm - 03G0800W		
10.0mm - 03G1000W		
12.0mm - 03G1200W		
16.0mm - 03G1600W		

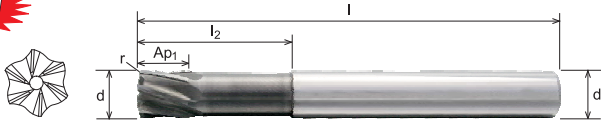


SHANK CUTTERS

Solid Carbide 6 Flute Hi-Feed End Mills



NEW



* Ultra fine carbide grade of European origin

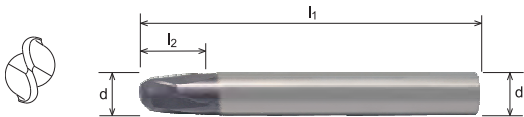
d	l ₂	l ₁	d ₁	Ap ₁	r	Code
6	18	63	6	0.32	0.63	03H0600W
8	24	76	8	0.42	0.83	03H0800W
10	30	89	10	0.53	1.04	03H1000W
12	36	100	12	0.63	1.24	03H1200W
16	48	110	16	0.84	1.66	03H1600W
20	60	125	20	1.05	2.07	03H2000W

Code
03H

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE H	
	Z 6	
COATED		

Suited Materials
HARDENED STEELS, IRONS

Solid Carbide 2 Flute Ball Nose Finishing End Mills



* Ultra fine carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
4	4	50	4	03I0400W
6	6	50	6	03I0600W
8	8	63	8	03I0800W
10	10	76	10	03I1000W
12	12	76	12	03I1200W
16	16	89	16	03I1600W
20	20	104	20	03I2000W

Code
03I

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE H	
	Z 2	
COATED		

Suited Materials
HARDENED STEELS, IRONS



Description	Ref No.	Code
Solid Carbide 2 Flute Ball Nose Finishing End Mill Set - Coated	03IS	03I0000W
THIS SET CONTAINS:		
6.0mm - 03I0600W		
8.0mm - 03I0800W		
10.0mm - 03I1000W		
12.0mm - 03I1200W		
16.0mm - 03I1600W		

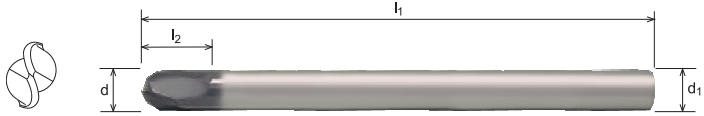
Set also available in Long Series (03J)



SHANK CUTTERS



Solid Carbide 2 Flute Ball Nose Finishing End Mills



* Ultra fine carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
4	4	76	6	03J0400W
6	6	76	6	03J0600W
8	8	100	8	03J0800W
10	10	100	10	03J1000W
12	12	125	12	03J1200W
16	16	125	16	03J1600W
20	20	150	20	03J2000W

Code
03J

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE H	
15°	Z 2	h6
COATED		

Suited Materials
HARDENED STEELS, IRONS

Please Note:

Solid Carbide specials can also be manufactured according to customer samples/ drawings. Contact our carbide representative for enquiries.

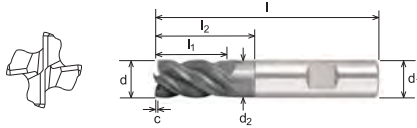


SHANK CUTTERS

Solid Carbide 4 Flute VariCut End Mills



NEW



* Sub-micron carbide grade of European origin

d	l ₁	l ₂	l	d ₁	d ₂	c	Code
5	13	18	57	6	4.8	0.2 x 45°	03V0500X
6	13	18	57	6	5.8	0.2 x 45°	03V0600X
8	19	24	63	8	7.7	0.25 x 45°	03V0800X
10	22	32	72	10	9.7	0.25 x 45°	03V1000X
12	26	36	83	12	11.6	0.3 x 45°	03V1200X
16	32	42	92	16	15.5	0.4 x 45°	03V1600X
20	38	48	104	20	19.5	0.4 x 45°	03V2000X



Description	Ref No.	Code
Solid Carbide 4 Flute VariCut End Mill Set - Coated	03VS	03V0000X
THIS SET CONTAINS:		
5.0mm - 03V0500X		
6.0mm - 03V0600X		
8.0mm - 03V0800X		
10.0mm - 03V1000X		
12.0mm - 03V1200X		

Code
03V

Properties		
M	DIN 6527L	*SOLID CARBIDE
TYPE N		40°
Z 4		COATED

Suited Materials		
CARBON & ALLOY STEEL	STAINLESS STEEL	
CAST IRON	HEAT RESISTING ALLOYS	TITANIUM

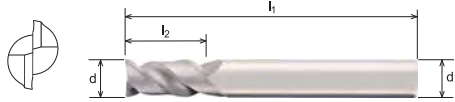


SHANK CUTTERS



Solid Carbide 2 Flute End Mills for Aluminium

NEW



* Sub-micron carbide grade of European origin

Code
02A

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE W	e8
	45°	Z 2
	UNCOATED FOR ALUMINIUM	
h6		

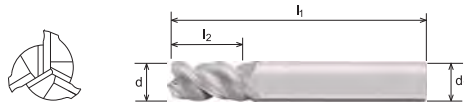
d	l ₂	l ₁	d ₁	Code
1	3	50	6	02A0100
2	6	50	6	02A0200
3	8	57	6	02A0300
4	11	57	6	02A0400
5	13	57	6	02A0500
6	13	57	6	02A0600
8	19	63	8	02A0800
10	22	75	10	02A1000
12	26	83	12	02A1200
16	32	92	16	02A1600

Suited Materials
ALUMINIUM

Code
02R

Solid Carbide 3 Flute End Mills for Aluminium

NEW



* Sub-micron carbide grade of European origin

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE W	e8
	45°	Z 3
	UNCOATED FOR ALUMINIUM	
h6		

d	l ₂	l ₁	d ₁	Code
2	3	50	6	02R0200
3	6	50	6	02R0300
4	8	57	6	02R0400
5	11	57	6	02R0500
6	13	57	6	02R0600
8	13	57	6	02R0800
10	19	63	8	02R1000
12	22	75	10	02R1200
16	26	83	12	02R1600

Suited Materials
ALUMINIUM

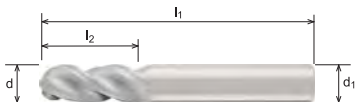


SHANK CUTTERS

Solid Carbide 3 Flute Ball Nose End Mills for Aluminium



NEW



* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
3	12	38	3	02S0300
4	15	51	4	02S0400
5	20	64	5	02S0500
6	20	64	6	02S0600
8	20	64	8	02S0800
10	25	70	10	02S1000
12	25	76	12	02S1200
16	35	89	16	02S1600

Code

02S

Properties

M WORKS STD. *SOLID CARBIDE

TYPE W e8

40° Z 3

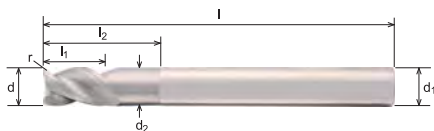
UNCOATED FOR ALUMINIUM h6

Suited Materials

ALUMINIUM

Solid Carbide 3 Flute Toroidal End Mills for Aluminium

NEW



* Sub-micron carbide grade of European origin

d	l ₁	l ₂	l	d ₁	d ₂	r	Code
3	4.5	12	55	3	2.8	0.2	02U0300
3	4.5	12	55	3	2.8	0.5	02U0301
4	6	12	55	4	3.8	0.2	02U0400
4	6	12	55	4	3.8	0.5	02U0401
5	7.5	15	58	5	4.8	0.2	02U0500
5	7.5	15	58	5	4.8	0.5	02U0501
6	9	18	63	6	5.8	0.2	02U0600
6	9	18	63	6	5.8	0.5	02U0601
6	9	18	63	6	5.8	1	02U0602
8	12	24	76	8	7.7	0.5	02U0800
8	12	24	76	8	7.7	1	02U0801
10	15	30	89	10	9.7	0.5	02U1000
10	15	30	89	10	9.7	1	02U1001
12	18	36	100	12	11.6	0.5	02U1200
12	18	36	100	12	11.6	1	02U1201
16	24	48	110	16	15.5	1	02U1600
16	24	48	110	16	15.5	2	02U1601

Code

02U

Properties

M WORKS STD. *SOLID CARBIDE

TYPE W e8

39/40/41° Z 3

UNCOATED FOR ALUMINIUM h6

Suited Materials

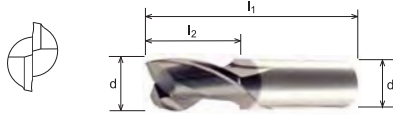
ALUMINIUM



SHANK CUTTERS



Solid Carbide 2 Flute End Mills



* Sub-micron carbide grade of European origin

Code
03A

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	e8
	30°	Z 2
	COATED OR UNCOATED	
	h6	

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
1	3	39	3	03A0100X	8	16	63	8	03A0800X
1.5	5	39	3	03A0150X	10	19	72	10	03A1000X
2	7	39	3	03A0200X	12	22	83	12	03A1200X
2.5	7	39	3	03A0250X	14	22	83	14	03A1400X
3	8	39	3	03A0300X	16	26	92	16	03A1600X
4	8	57	6	03A0400X	18	26	96	18	03A1800X
5	10	57	6	03A0500X	20	32	104	20	03A2000X
6	10	57	6	03A0600X					

Suited Materials
GENERAL



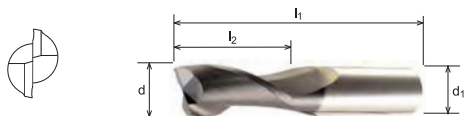
Description	Ref No.	Code
Solid Carbide 2 Flute End Mill Set - Coated	03AS	03A0000X
THIS SET CONTAINS:		
4.0mm - 03A0400X		
5.0mm - 03A0500X		
6.0mm - 03A0600X		
8.0mm - 03A0800X		
10.0mm - 03A1000X		
12.0mm - 03A1200X		

For uncoated - specify product code excluding "X" at the end.



SHANK CUTTERS

Solid Carbide 2 Flute End Mills



* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
3	19	57	3	03B0300X
4	19	57	4	03B0400X
5	25	64	5	03B0500X
6	28	76	6	03B0600X
8	29	76	8	03B0800X
10	32	102	10	03B1000X

d	l ₂	l ₁	d ₁	Code
12	51	102	12	03B1200X
14	57	127	14	03B1400X
16	57	127	16	03B1600X
18	57	127	18	03B1800X
20	57	127	20	03B2000X

For uncoated - specify product code excluding "X" at the end.

Code
03B

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	
	30°	Z 2
	COATED OR UNCOATED	
	h6	

Suited Materials
GENERAL

Solid Carbide 4 Flute End Mills



* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code
1	3	39	3	03K0100X
1.5	5	39	3	03K0150X
2	7	39	3	03K0200X
2.5	7	39	3	03K0250X
3	9	39	3	03K0300X
4	11	57	6	03K0400X
5	13	57	6	03K0500X
6	13	57	6	03K0600X

d	l ₂	l ₁	d ₁	Code
8	19	63	8	03K0800X
10	22	72	10	03K1000X
12	26	83	12	03K1200X
14	26	83	14	03K1400X
16	32	92	16	03K1600X
18	32	96	18	03K1800X
20	38	104	20	03K2000X

Code
03K

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	
	30°	Z 4
	COATED OR UNCOATED	
	h6	

Suited Materials
GENERAL



Description	Ref No.	Code
Solid Carbide 4 Flute End Mill Set - Coated	03KS	03K0000X
THIS SET CONTAINS:		
4.0mm - 03K0400X		
5.0mm - 03K0500X		
6.0mm - 03K0600X		
8.0mm - 03K0800X		
10.0mm - 03K1000X		
12.0mm - 03K1200X		

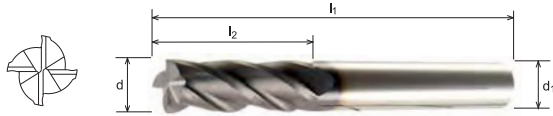
For uncoated - specify product code excluding "X" at the end.



SHANK CUTTERS



Solid Carbide 4 Flute End Mills



* Sub-micron carbide grade of European origin

Code
03L

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	h10
	30°	Z 4
	COATED OR UNCOATED	
	h6	

Suited Materials
GENERAL

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
3	19	57	3	03L0300X	12	51	102	12	03L1200X
4	19	57	4	03L0400X	14	57	127	14	03L1400X
5	25	64	5	03L0500X	16	57	127	16	03L1600X
6	28	76	6	03L0600X	18	57	127	18	03L1800X
8	29	76	8	03L0800X	20	57	127	20	03L2000X
10	32	102	10	03L1000X					



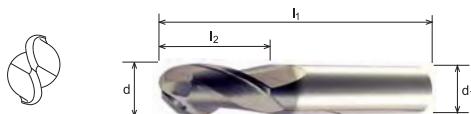
Description	Ref No.	Code
Solid Carbide 4 Flute End Mill Set - Coated	03LS	03L0000X
THIS SET INCLUDES:		
4.0mm - 03L0400X		
5.0mm - 03L0500X		
6.0mm - 03L0600X		
8.0mm - 03L0800X		
10.0mm - 03L1000X		
12.0mm - 03L1200X		

For uncoated - specify product code excluding "X" at the end.



SHANK CUTTERS

Solid Carbide 2 Flute Ball Nose End Mills



* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
1	3	39	3	03M0100X	8	16	63	8	03M0800X
1.5	5	39	3	03M0150X	10	19	72	10	03M1000X
2	7	39	3	03M0200X	12	22	83	12	03M1200X
2.5	7	39	3	03M0250X	14	22	83	14	03M1400X
3	8	39	3	03M0300X	16	26	92	16	03M1600X
4	8	57	6	03M0400X	18	26	96	18	03M1800X
5	10	57	6	03M0500X	20	32	104	20	03M2000X
6	10	57	6	03M0600X					



Description	Ref No.	Code
Solid Carbide 2 Flute Ball Nose End Mill Set - Coated	03MS	03M0000X
THIS SET INCLUDES:		
4.0mm - 03M0400X		
5.0mm - 03M0500X		
6.0mm - 03M0600X		
8.0mm - 03M0800X		
10.0mm - 03M1000X		
12.0mm - 03M1200X		

For uncoated - specify product code excluding "X" at the end.

Code
03M

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	e8
	30°	Z 2
	COATED OR UNCOATED	
h6		

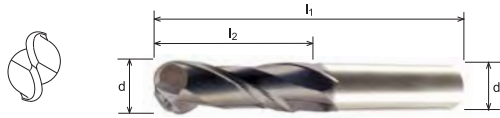
Suited Materials
GENERAL



SHANK CUTTERS



Solid Carbide 2 Flute Ball Nose End Mills



Code
03N

* Sub-micron carbide grade of European origin

Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	e8
	30°	Z 2
	COATED OR UNCOATED	
h6		

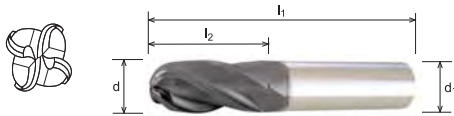
d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
3	19	57	3	03N0300X	12	51	102	12	03N1200X
4	19	57	4	03N0400X	14	57	127	14	03N1400X
5	25	64	5	03N0500X	16	57	127	16	03N1600X
6	28	76	6	03N0600X	18	57	127	18	03N1800X
8	29	76	8	03N0800X	20	57	127	20	03N2000X
10	32	102	10	03N1000X					

For uncoated - specify product code excluding "X" at the end.

Suited Materials
GENERAL

Code
03P

Solid Carbide 4 Flute Ball Nose End Mills



Properties		
M	WORKS STD.	*SOLID CARBIDE
	TYPE N	h10
	30°	Z 4
	COATED OR UNCOATED	
h6		

* Sub-micron carbide grade of European origin

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
1	3	39	3	03P0100X	8	19	63	8	03P0800X
1.5	5	39	3	03P0150X	10	22	72	10	03P1000X
2	7	39	3	03P0200X	12	26	83	12	03P1200X
2.5	7	39	3	03P0250X	14	26	83	14	03P1400X
3	9	39	3	03P0300X	16	32	92	16	03P1600X
4	11	57	6	03P0400X	18	32	96	18	03P1800X
5	13	57	6	03P0500X	20	38	104	20	03P2000X
6	13	57	6	03P0600X					

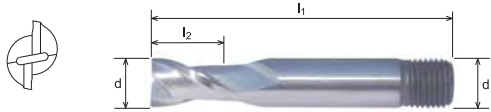
For uncoated - specify product code excluding "X" at the end.

Suited Materials
GENERAL



SHANK CUTTERS

2 Flute End Mills (Slot Drills) - Regular Length



d	l ₂	l ₁	d ₁	Code
1.5	2.5	48	6	3210150
2	4	48	6	3210200
2.5	5	49	6	3210250
3	5	49	6	3210300
3.5	6	50	6	3210350
4	7	51	6	3210400
4.5	7	51	6	3210450
5	8	52	6	3210500
5.5	8	52	6	3210550
6	8	52	6	3210600
6.5	10	60	10	3210650
7	10	60	10	3210700
7.5	10	60	10	3210750
8	11	61	10	3210800
8.5	11	61	10	3210850
9	11	61	10	3210900
9.5	11	61	10	3210950
10	13	63	10	3211000
10.5	13	70	12	3211050
11	13	70	12	3211100
12	16	73	12	3211200
13	16	73	12	3211300

d	l ₂	l ₁	d ₁	Code
14	16	73	12	3211400
15	16	73	12	3211500
16	19	79	16	3211600
17	19	79	16	3211700
18	19	79	16	3211800
19	19	79	16	3211900
*20	19	79	16	3212000
*22	26	102	25	3212200
24	26	102	25	3212400
25	26	102	25	3212500
26	26	102	25	3212600
28	26	102	25	3212800
30	26	102	25	3213000
32	32	112	32	3213200
35	32	112	32	3213500
36	32	112	32	3213600
38	38	118	32	3213800
*40	38	118	32	3214000
*42	38	118	32	3214200
*45	38	118	32	3214500
*50	45	125	32	3215000

* Lengths not to DIN 327

Code
321

Properties		
M	DIN 327	HSS
	TYPE N	e8
	30°	Z 2
h8		

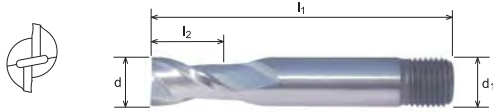
Suited Materials
GENERAL



SHANK CUTTERS



2 Flute End Mills (Slot Drills) - Regular Length



Code
323

Properties		
INCH	BS 122	HSS
	TYPE N	e8
		Z 2
\varnothing h8		

Suited Materials
GENERAL

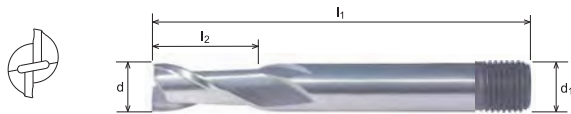
d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
1/4	11	56	1/4	3230635	1/2	19	67	1/2	3231270
3/8	14	60	3/8	3230953	3/4	25	77	5/8	3231905

Code
326

Properties		
M	BS 122	HSS
	TYPE N	e8
		Z 2
\varnothing h8		

Suited Materials
GENERAL

2 Flute End Mills (Slot Drills) - Long Series



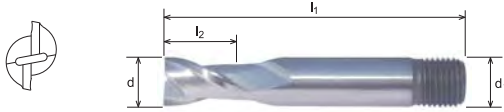
d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	51	6	3260200	9	22	82.5	10	3260900
2.5	6.5	54	6	3260250	9.5	22	82.5	10	3260950
3	11	60.5	6	3260300	10	22	82.5	10	3261000
3.5	12.5	66.5	6	3260350	11	22	89	12	3261100
4	12.5	66.5	6	3260400	12	25.5	95	12	3261200
4.5	12.5	66.5	6	3260450	13	25.5	95	12	3261300
5	12.5	70	6	3260500	14	28.5	101.5	12	3261400
5.5	16	76	6	3260550	*15	31.5	108	12	3261500
6	16	76	6	3260600	16	31.5	108	16	3261600
6.5	16	76	10	3260650	17	35	114.5	16	3261700
7	16	76	10	3260700	18	35	114.5	16	3261800
7.5	16	76	10	3260750	19	38	120.5	16	3261900
8	19	79.5	10	3260800	20	38	120.5	16	3262000
8.5	22	82.5	10	3260850					

* Not to BS 122



SHANK CUTTERS

2 Flute End Mills (Slot Drills) - Regular Length



d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
1.5	2.5	48	6	3480150	13	16	73	12	3481300
2	4	48	6	3480200	14	16	73	12	3481400
2.5	5	49	6	3480250	15	16	73	12	3481500
3	5	49	6	3480300	16	19	79	16	3481600
3.5	6	50	6	3480350	17	19	79	16	3481700
4	7	51	6	3480400	18	19	79	16	3481800
4.5	7	51	6	3480450	19	19	79	16	3481900
5	8	52	6	3480500	*20	19	79	16	3482000
5.5	8	52	6	3480550	*22	26	102	25	3482200
6	8	52	6	3480600	24	26	102	25	3482400
6.5	10	60	10	3480650	25	26	102	25	3482500
7	10	60	10	3480700	26	26	102	25	3482600
7.5	10	60	10	3480750	28	26	102	25	3482800
8	11	61	10	3480800	30	26	102	25	3483000
8.5	11	61	10	3480850	32	32	112	32	3483200
9	11	61	10	3480900	35	32	112	32	3483500
9.5	11	61	10	3480950	36	32	112	32	3483600
10	13	63	10	3481000	38	38	118	32	3483800
10.5	13	70	12	3481050	*40	38	118	32	3484000
11	13	70	12	3481100	*42	38	118	32	3484200
11.5	13	70	12	3481150	*45	38	118	32	3484500
12	16	73	12	3481200	*50	45	125	32	3485000

For TiAlN coated - specify product code with an "A" at the end.

* Lengths not to DIN 327

Code

348

Properties

M	DIN 327	HSS Co8e
	TYPE N	e8
	30°	Z 2
h8	UNCOATED OR TiAlN	

Suited Materials

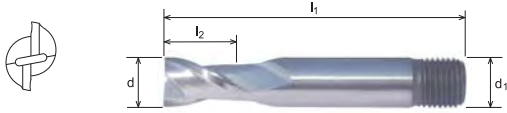
GENERAL



SHANK CUTTERS



2 Flute End Mills (Slot Drills) - Regular Length



Code
349

Properties		
INCH	BS 122	HSS Co8e
	TYPE N	
	30°	Z 2
	UNCOATED OR TiAlN	

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
1/16	2.5	48	1/4	3490159	7/8	25	100	1"	3492223
1/8	8	51	1/4	3490318	1"	27	95	1"	3492540
3/16	10	52	1/4	3490476	1.1/8	30	95	1"	3492858
1/4	11	56	1/4	3490635	1.1/4	35	117	1.1/4	3493175
5/16	13	60	3/8	3490794	1.3/8	40	111	1.1/4	3493493
3/8	14	60	3/8	3490953	1.1/2	43	115	1.1/4	3493810
7/16	17	65	1/2	3491111	1.5/8	48	118	1.1/4	3494128
1/2	19	67	1/2	3491270	1.3/4	48	118	1.1/4	3494445
9/16	22	69	1/2	3491429	1.7/8	51	118	1.1/4	3494763
5/8	22	72	5/8	3491588	2"	51	118	1.1/4	3495080
3/4	25	77	5/8	3491905					

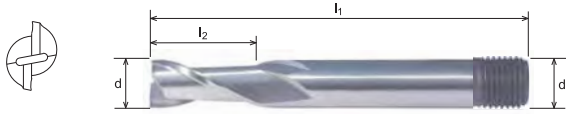
For TiAlN coated - specify product code with an "A" at the end.

Suited Materials
GENERAL



SHANK CUTTERS

2 Flute End Mills (Slot Drills) - Long Series



d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	51	6	3500200	*15	31.5	108	12	3501500
2.5	6.5	54	6	3500250	16	31.5	108	16	3501600
3	11	60.5	6	3500300	17	35	114.5	16	3501700
3.5	12.5	66.5	6	3500350	18	35	114.5	16	3501800
4	12.5	66.5	6	3500400	19	38	120.5	16	3501900
4.5	12.5	66.5	6	3500450	20	38	120.5	16	3502000
5	12.5	70	6	3500500	22	41.5	140	25	3502200
5.5	16	76	6	3500550	24	41.5	152.5	25	3502400
6	16	76	6	3500600	25	44.5	159	25	3502500
6.5	16	76	10	3500650	26	44.5	159	25	3502600
7	16	76	10	3500700	28	47.5	159	25	3502800
7.5	16	76	10	3500750	30	51	159	25	3503000
8	19	79.5	10	3500800	32	51	159	32	3503200
8.5	22	82.5	10	3500850	35	54	159	32	3503500
9	22	82.5	10	3500900	36	54	159	32	3503600
9.5	22	82.5	10	3500950	38	57	159	32	3503800
10	22	82.5	10	3501000	40	63.5	159	32	3504000
11	22	89	12	3501100	42	63.5	159	32	3504200
12	25.5	95	12	3501200	45	63.5	159	32	3504500
13	25.5	95	12	3501300	50	63.5	159	32	3505000
14	28.5	101.5	12	3501400					

Code

350

Properties

M	BS 122	HSS Co8e
	TYPE N	e8
	30°	Z 2
h8	UNCOATED OR TiAlN	

Suited Materials

GENERAL

For TiAlN coated - specify product code with an "A" at the end.

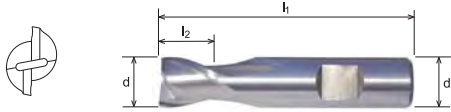
* Not to BS 122



SHANK CUTTERS



2 Flute End Mills (Slot Drills) - Regular Length



Code
305

Properties			
M	DIN 327	HSS Co8e	
	TYPE N		$e8$
	30°	Z	$Z 2$
	$h6$	UNCOATED OR TiAlN	

Suited Materials
GENERAL

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	48	6	3050200	9.5	11	61	10	3050950
2.5	5	49	6	3050250	10	13	63	10	3051000
3	5	49	6	3050300	11	13	70	12	3051100
3.5	6	50	6	3050350	12	16	73	12	3051200
4	7	51	6	3050400	13	16	73	12	3051300
4.5	7	51	6	3050450	14	16	73	12	3051400
5	8	52	6	3050500	15	16	73	12	3051500
5.5	8	52	6	3050550	16	19	79	16	3051600
6	8	52	6	3050600	17	19	79	16	3051700
6.5	10	60	10	3050650	18	19	79	16	3051800
7	10	60	10	3050700	19	19	79	16	3051900
7.5	10	60	10	3050750	20	22	88	20	3052000
8	11	61	10	3050800	22	22	88	20	3052200
8.5	11	61	10	3050850	24	26	102	25	3052400
9	11	61	10	3050900	25	26	102	25	3052500

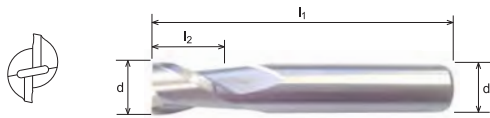
For TiAlN coated - specify product code with an "A" at the end.

Code
310

Properties			
M	DIN 327	HSS Co8e	
	TYPE N		$e8$
	30°	Z	$Z 2$
	$h7$	UNCOATED OR TiAlN	

Suited Materials
GENERAL

2 Flute End Mills (Slot Drills) - Regular Length



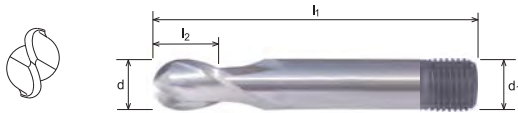
d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	48	6	3100200	9.5	11	61	10	3100950
2.5	5	49	6	3100250	10	13	63	10	3101000
3	5	49	6	3100300	11	13	70	12	3101100
3.5	6	50	6	3100350	12	16	73	12	3101200
4	7	51	6	3100400	13	16	73	12	3101300
4.5	7	51	6	3100450	14	16	73	12	3101400
5	8	52	6	3100500	15	16	73	12	3101500
5.5	8	52	6	3100550	16	19	79	16	3101600
6	8	52	6	3100600	17	19	79	16	3101700
6.5	10	60	10	3100650	18	19	79	16	3101800
7	10	60	10	3100700	19	19	79	16	3101900
7.5	10	60	10	3100750	20	22	88	20	3102000
8	11	61	10	3100800	22	22	88	20	3102200
8.5	11	61	10	3100850	24	26	102	25	3102400
9	11	61	10	3100900	25	26	102	25	3102500

For TiAlN coated - specify product code with an "A" at the end.



SHANK CUTTERS

2 Flute Ball Nose End Mills - Regular Length



d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	48	6	3400200	12	16	73	12	3401200
3	5	49	6	3400300	13	16	73	12	3401300
4	7	51	6	3400400	14	16	73	12	3401400
5	8	52	6	3400500	15	16	73	12	3401500
6	8	52	6	3400600	16	19	79	16	3401600
7	10	60	10	3400700	18	19	79	16	3401800
8	11	61	10	3400800	*20	19	79	16	3402000
9	11	61	10	3400900	*22	26	102	25	3402200
10	13	63	10	3401000	24	26	102	25	3402400
11	13	70	12	3401100	25	26	102	25	3402500

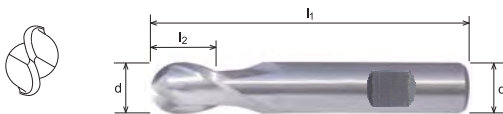
For TiALN coated - specify product code with an "A" at the end.
* Lengths not to DIN 327

Code
340

Properties		
M	DIN 327	HSS Co8e
	TYPE N	e8
		Z 2
h8	UNCOATED OR TiALN	

Suited Materials
GENERAL

2 Flute Ball Nose End Mills - Regular Length



d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	48	6	3370200	10	13	63	10	3371000
2.5	5	49	6	3370250	11	13	70	12	3371100
3	5	49	6	3370300	12	16	73	12	3371200
3.5	6	50	6	3370350	14	16	73	12	3371400
4	7	51	6	3370400	16	19	79	16	3371600
5	8	52	6	3370500	18	19	79	16	3371800
6	8	52	6	3370600	20	22	88	20	3372000
7	10	60	10	3370700	22	22	88	20	3372200
8	11	61	10	3370800	24	26	102	25	3372400
9	11	61	10	3370900	25	26	102	25	3372500

For TiALN coated - specify product code with an "A" at the end.

Code
337

Properties		
M	DIN 327	HSS Co8e
	TYPE N	e8
		Z 2
h6	UNCOATED OR TiALN	

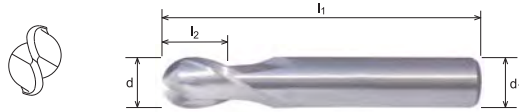
Suited Materials
GENERAL



SHANK CUTTERS



2 Flute Ball Nose End Mills - Regular Length



Code
312

Properties			
M	DIN 327	HSS Co8e	
	TYPE N		e8
		Z 2	
	UNCOATED OR TiAlN		
	h7		

Suited Materials
GENERAL

d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
2	4	48	6	3120200	12	16	73	12	3121200
3	5	49	6	3120300	13	16	73	12	3121300
4	7	51	6	3120400	14	16	73	12	3121400
5	8	52	6	3120500	15	16	73	12	3121500
6	8	52	6	3120600	16	19	79	16	3121600
7	10	60	10	3120700	18	19	79	16	3121800
8	11	61	10	3120800	20	22	88	20	3122000
9	11	61	10	3120900	22	22	88	20	3122200
10	13	63	10	3121000	24	26	102	25	3122400
11	13	70	12	3121100	25	26	102	25	3122500

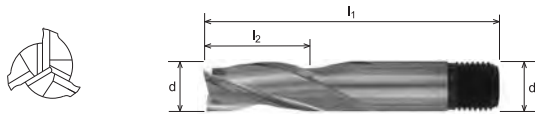
For TiAlN coated - specify product code with an "A" at the end.

Code
342

Properties			
M	BS 122	HSS Co8e	
	TYPE N		e8
		Z 3	
	UNCOATED OR TiAlN		
	h8		

Suited Materials
GENERAL

3 Flute End Mills - Regular Length



d	l ₂	l ₁	d ₁	Code	d	l ₂	l ₁	d ₁	Code
3	9.5	54	6	3420300	13	24.5	70	12	3421300
4	12.5	57	6	3420400	14	28.5	73	12	3421400
5	16	60.5	6	3420500	*15	26.5	71	12	3421500
6	16	60.5	6	3420600	16	26.5	77	16	3421600
7	15	60.5	10	3420700	18	35	80	16	3421800
8	18	63.5	10	3420800	19	38	83.5	16	3421900
9	21	66.5	10	3420900	20	38	83.5	16	3422000
10	21	66.5	10	3421000	22	41.5	98.5	25	3422200
11	19	66.5	12	3421100	25	44.5	101.5	25	3422500
12	24	70	12	3421200					

For TiAlN coated - specify product code with an "A" at the end.

* Not to BS 122



SHANK CUTTERS

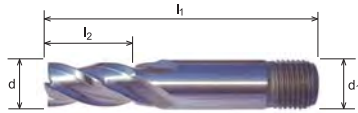
Multi-Flute End Mills - Regular Length



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
2.5	6.5	51	6	4	3010250
3	9.5	54	6	4	3010300
3.5	12.5	57	6	4	3010350
4	12.5	57	6	4	3010400
4.5	12.5	57	6	4	3010450
5	16	60.5	6	4	3010500
5.5	16	60.5	6	4	3010550
6	16	60.5	6	4	3010600
6.5	16	60.5	10	4	3010650
7	15	60.5	10	4	3010700
7.5	18	63.5	10	4	3010750
8	18	63.5	10	4	3010800
8.5	21	66.5	10	4	3010850
9	21	66.5	10	4	3010900
9.5	21	66.5	10	4	3010950
10	21	66.5	10	4	3011000
10.5	19	66.5	12	4	3011050
11	19	66.5	12	4	3011100
12	24	70	12	4	3011200

d	l ₂	l ₁	d ₁	Z Teeth	Code
13	24.5	70	12	4	3011300
14	28.5	73	12	4	3011400
*15	26.5	71	12	4	3011500
16	26.5	77	16	4	3011600
18	35	80	16	4	3011800
19	38	83.5	16	4	3011900
20	38	83.5	16	4	3012000
22	41.5	98.5	25	6	3012200
24	41.5	98.5	25	6	3012400
25	44.5	101.5	25	6	3012500
28	46	104.5	25	6	3012800
30	46	104.5	25	6	3013000
32	51	112.5	32	6	3013200
35	54	116	32	6	3013500
38	54	116	32	6	3013800
40	55.5	117.5	32	6	3014000
45	57	119	32	6	3014500
50	65	127	32	8	3015000

* Not to BS 122

Code
301

Properties		
M	BS 122	HSS
	TYPE N	
	Z	4 - 8

Suited Materials
GENERAL



SHANK CUTTERS



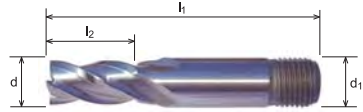
Multi-Flute End Mills - Regular Length



CENTRE CUT
3/4" and below



CENTRE HOLE
sizes above 3/4"



Code
303

Properties		
INCH	BS 122	HSS
	TYPE N	
	30°	Z
		4 - 8

Suited Materials
GENERAL

d	l ₂	l ₁	d ₁	Z Teeth	Code
1/8	10	54	1/4	4	3030318
3/16	13	57	1/4	4	3030476
7/32	16	60	1/4	4	3030556
1/4	16	60	1/4	4	3030635
9/32	16	60	3/8	4	3030714
5/16	18	64	3/8	4	3030794
3/8	22	67	3/8	4	3030953
7/16	22	67	1/2	4	3031111
1/2	24	70	1/2	4	3031270
9/16	29	73	1/2	4	3031429
5/8	32	77	5/8	4	3031588
11/16	35	80	5/8	4	3031746
3/4	38	83	5/8	4	3031905

d	l ₂	l ₁	d ₁	Z Teeth	Code
13/16	38	95	1"	6	3032064
7/8	41	98	1"	6	3032223
15/16	41	98	1"	6	3032381
1"	43	102	1"	6	3032540
1.1/8	46	105	1"	6	3032858
1.1/4	51	113	1.1/4	8	3033175
1.3/8	54	116	1.1/4	8	3033493
1.1/2	54	116	1.1/4	8	3033810
1.5/8	54	116	1.1/4	8	3034128
1.3/4	57	119	1.1/4	8	3034445
1.7/8	62	124	1.1/4	8	3034763
2"	65	127	1.1/4	8	3035080

Code
306

Properties		
M	BS 122	HSS
	TYPE N	
	30°	Z
		4 - 8

Suited Materials
GENERAL

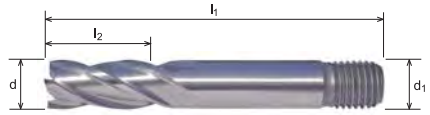
Multi-Flute End Mills - Long Series



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
3	19	63.5	6	4	3060300
4	25.5	70	6	4	3060400
5	31.5	76	6	4	3060500
6	31.5	76	6	4	3060600
7	34	79.5	10	4	3060700
8	34	79.5	10	4	3060800
9	37	82.5	10	4	3060900
10	37	82.5	10	4	3061000
11	41.5	89	12	4	3061100
12	49.5	95	12	4	3061200
13	50	95	12	4	3061300
14	57	101.5	12	4	3061400
*15	58.5	103	12	4	3061500
16	58.5	108.5	16	4	3061600

d	l ₂	l ₁	d ₁	Z Teeth	Code
18	70	115	16	4	3061800
19	76	121.5	16	4	3061900
20	76	121.5	16	4	3062000
22	85.5	143	25	6	3062200
24	92	149	25	6	3062400
25	100	157	25	6	3062500
28	98.5	157	25	6	3062800
30	98.5	157	25	6	3063000
32	101.5	163.5	32	6	3063200
35	101.5	163.5	32	6	3063500
38	101.5	163.5	32	6	3063800
40	101.5	163.5	32	6	3064000
45	101.5	163.5	32	8	3064500
50	101.5	163.5	32	8	3065000

* Not to BS 122



SHANK CUTTERS

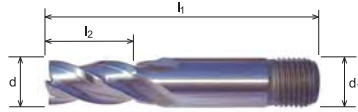
Multi-Flute End Mills - Regular Length



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
2.5	6.5	51	6	4	3440250
3	9.5	54	6	4	3440300
3.5	12.5	57	6	4	3440350
4	12.5	57	6	4	3440400
4.5	12.5	57	6	4	3440450
5	16	60.5	6	4	3440500
5.5	16	60.5	6	4	3440550
6	16	60.5	6	4	3440600
6.5	16	60.5	10	4	3440650
7	15	60.5	10	4	3440700
7.5	18	63.5	10	4	3440750
8	18	63.5	10	4	3440800
8.5	21	66.5	10	4	3440850
9	21	66.5	10	4	3440900
9.5	21	66.5	10	4	3440950
10	21	66.5	10	4	3441000
10.5	19	66.5	12	4	3441050
11	19	66.5	12	4	3441100
12	24	70	12	4	3441200

d	l ₂	l ₁	d ₁	Z Teeth	Code
13	24.5	70	12	4	3441300
14	28.5	73	12	4	3441400
*15	26.5	71	12	4	3441500
16	26.5	77	16	4	3441600
18	35	80	16	4	3441800
19	38	83.5	16	4	3441900
20	38	83.5	16	4	3442000
22	41.5	98.5	25	6	3442200
24	41.5	98.5	25	6	3442400
25	44.5	101.5	25	6	3442500
28	46	104.5	25	6	3442800
30	46	104.5	25	6	3443000
32	51	112.5	32	6	3443200
35	54	116	32	6	3443500
38	54	116	32	6	3443800
40	55.5	117.5	32	8	3444000
45	57	119	32	8	3444500
50	65	127	32	8	3445000

For TiAlN coated - specify product code with an "A" at the end.

* Not to BS 122

Code

344

Properties

M	BS 122	HSS Co8e
	TYPE N	
	30°	Z 4 - 8
	UNCOATED OR TiAlN	

Suited Materials

GENERAL



SHANK CUTTERS



Multi-Flute End Mills - Regular Length

Code
345

Properties

INCH **BS 122** **HSS Co8e**

TYPE N

UNCOATED OR TiAlN

h8

Z 4

30°

k10

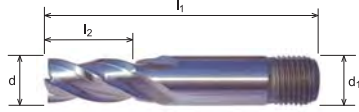
Suited Materials
GENERAL



CENTRE CUT
3/4" and below



CENTRE HOLE
sizes above 3/4"



d	l ₂	l ₁	d ₁	Z Teeth	Code	d	l ₂	l ₁	d ₁	Z Teeth	Code
1/8	10	54	1/4	4	3450318	7/16	22	67	1/2	4	3451111
1/4	16	60	1/4	4	3450635	1/2	24	70	1/2	4	3451270
5/16	18	64	3/8	4	3450794	5/8	32	77	5/8	4	3451588
3/8	22	67	3/8	4	3450953	3/4	38	83	5/8	4	3451905

For TiAlN coated - specify product code with an "A" at the end.

Code
346

Properties

M **BS 122** **HSS Co8e**

TYPE N

UNCOATED OR TiAlN

h8

Z 4-8

30°

k10

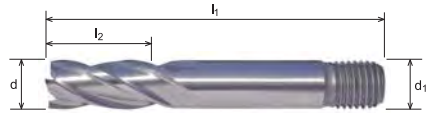
Suited Materials
GENERAL



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code	d	l ₂	l ₁	d ₁	Z Teeth	Code
3	19	63.5	6	4	3460300	18	70	115	16	4	3461800
4	25.5	70	6	4	3460400	19	76	121.5	16	4	3461900
5	31.5	76	6	4	3460500	20	76	121.5	16	4	3462000
6	31.5	76	6	4	3460600	22	85.5	143	25	6	3462200
7	34	79.5	10	4	3460700	24	92	149	25	6	3462400
8	34	79.5	10	4	3460800	25	100	157	25	6	3462500
9	37	82.5	10	4	3460900	28	98.5	157	25	6	3462800
10	37	82.5	10	4	3461000	30	98.5	157	25	6	3463000
11	41.5	89	12	4	3461100	32	101.5	163.5	32	6	3463200
12	49.5	95	12	4	3461200	35	101.5	163.5	32	6	3463500
13	50	95	12	4	3461300	38	101.5	163.5	32	6	3463800
14	57	101.5	12	4	3461400	40	101.5	163.5	32	8	3464000
*15	58.5	103	12	4	3461500	45	101.5	163.5	32	8	3464500
16	58.5	108.5	16	4	3461600	50	101.5	163.5	32	8	3465000

For TiAlN coated - specify product code with an "A" at the end.

* Not to BS 122



**SHANK
CUTTERS**

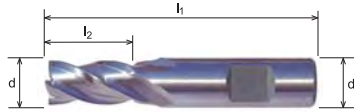
Multi-Flute End Mills - Regular Length



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
3	8	52	6	4	3590300
4	11	55	6	4	3590400
5	13	57	6	4	3590500
6	13	57	6	4	3590600
7	16	66	10	4	3590700
8	19	69	10	4	3590800
9	19	69	10	4	3590900
10	22	72	10	4	3591000
11	22	79	12	4	3591100

d	l ₂	l ₁	d ₁	Z Teeth	Code
12	26	83	12	4	3591200
13	26	83	12	4	3591300
14	26	83	12	4	3591400
15	26	83	12	4	3591500
16	32	92	16	4	3591600
18	32	92	16	4	3591800
20	38	104	20	4	3592000
22	38	104	20	6	3592200
25	45	121	25	6	3592500

For TiAlN coated - specify product code with an "A" at the end.

Code

359

Properties

M	DIN 844	HSS Co8e
	TYPE N	
	30°	Z 4 - 6
	UNCOATED OR TiAlN	
Ø h6		

Suited Materials

GENERAL

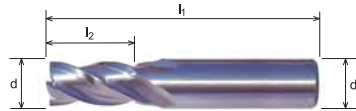
Multi-Flute End Mills - Regular Length



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
3	8	52	6	4	3140300
4	11	55	6	4	3140400
5	13	57	6	4	3140500
6	13	57	6	4	3140600
7	16	66	10	4	3140700
8	19	69	10	4	3140800
9	19	69	10	4	3140900
10	22	72	10	4	3141000
11	22	79	12	4	3141100
12	26	83	12	4	3141200

d	l ₂	l ₁	d ₁	Z Teeth	Code
13	26	83	12	4	3141300
14	26	83	12	4	3141400
15	26	83	12	4	3141500
16	32	92	16	4	3141600
18	32	92	16	4	3141800
19	32	92	16	4	3141900
20	38	104	20	4	3142000
22	38	104	20	6	3142200
25	45	121	25	6	3142500

For TiAlN coated - specify product code with an "A" at the end.

Code

314

Properties

M	DIN 844	HSS Co8e
	TYPE N	
	30°	Z 4 - 6
	UNCOATED OR TiAlN	
Ø h7		

Suited Materials

GENERAL



**SHANK
CUTTERS**



Roughing End Mills - TiAlN Coated

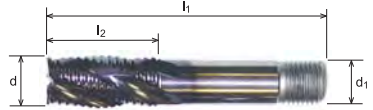
Code
316



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
6	16	60.5	6	4	3160600
8	18	63.5	10	4	3160800
10	21	66.5	10	4	3161000
12	24	70	12	4	3161200

d	l ₂	l ₁	d ₁	Z Teeth	Code
14	28.5	73	12	4	3161400
16	26.5	77	16	4	3161600
20	38	83.5	16	4	3162000

Properties

M **BS 122** **HSS Co8**

NR **TIAlN**

Suited Materials
GENERAL

Roughing End Mills - TiAlN Coated

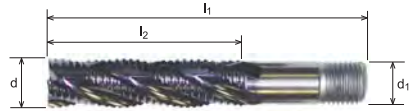
Code
318



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
10	37	82.5	10	4	3181000
12	49.5	95	12	4	3181200
14	57	101.5	12	4	3181400

d	l ₂	l ₁	d ₁	Z Teeth	Code
16	58.5	108.5	16	4	3181600
20	76	121.5	16	4	3182000

Properties

M **BS 122** **HSS Co8**

NR **TIAlN**

Suited Materials
GENERAL



**SHANK
CUTTERS**

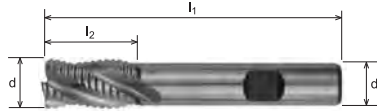
Roughing End Mills



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
6	13	57	6	4	3300600
8	19	69	10	4	3300800
10	22	72	10	4	3301000
12	26	83	12	4	3301200
14	26	83	12	4	3301400
16	32	92	16	4	3301600
18	32	92	16	4	3301800
20	38	104	20	4	3302000

d	l ₂	l ₁	d ₁	Z Teeth	Code
22	38	104	20	5	3302200
25	45	121	25	5	3302500
28	45	121	25	5	3302800
30	45	121	25	5	3303000
32	53	133	32	6	3303200
35	53	133	32	6	3303500
*38	63	155	32	6	3303800
*40	63	155	32	6	3304000

* Not to DIN 844

Code

330

Properties

M	DIN 844	HSS Co8
	Z 4 - 6	$\varnothing h6$

Suited Materials

GENERAL

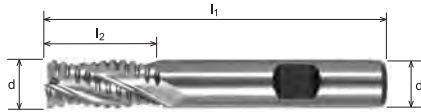
Roughing End Mills



CENTRE CUT
20.0 mm and below



CENTRE HOLE
sizes above 20.0 mm



d	l ₂	l ₁	d ₁	Z Teeth	Code
6	13	57	6	4	3680600
8	19	69	10	4	3680800
10	22	72	10	4	3681000
12	26	83	12	4	3681200
14	26	83	12	4	3681400
16	32	92	16	4	3681600
18	32	92	16	4	3681800
20	38	104	20	4	3682000

d	l ₂	l ₁	d ₁	Z Teeth	Code
22	38	104	20	5	3682200
25	45	121	25	5	3682500
30	45	121	25	5	3683000
32	53	133	32	6	3683200
35	53	133	32	6	3683500
38	63	155	32	6	3683800
40	63	155	32	6	3684000

Code

368

Properties

M	DIN 844	HSS Co8
	Z 4 - 6	$\varnothing h6$

Suited Materials

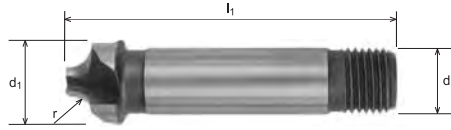
GENERAL



**SHANK
CUTTERS**



Corner Rounding Cutters



Code
363

Properties	
M	DIN 6518 FORM D HSS Co8
Z	
4	

Suited Materials
GENERAL

r	d ₁	d ₂	l ₁	Code
2	10	10	60	3630200
3	12	12	60	3630300
4	14	12	60	3630400
5	16	12	60	3630500
6	20	16	67	3630600
8	24	16	71	3630800

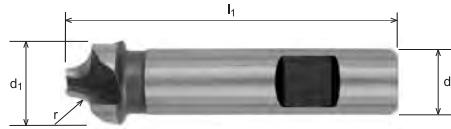
r	d ₁	d ₂	l ₁	Code
10	28	25	85	3631000
12	34	25	90	3631200
14	44	25	100	3631400
16	48	25	100	3631600
20	52	32	112	3632000

Code
363

Properties	
M	DIN 6518 FORM B HSS Co8
Z	
4	

Suited Materials
GENERAL

Corner Rounding Cutters



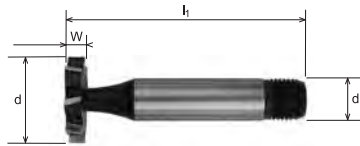
r	d ₁	d ₂	l ₁	Code
2	10	10	60	3630201
3	12	12	60	3630301
4	14	12	60	3630401
5	16	12	60	3630501
6	20	16	67	3630601
8	24	16	71	3630801

r	d ₁	d ₂	l ₁	Code
10	28	25	85	3631001
12	34	25	90	3631201
14	44	25	100	3631401
16	48	25	100	3631601
18	54	32	112	3631801
20	56	32	112	3632001



SHANK CUTTERS

Woodruff Cutters



d	W	l ₁	d ₁	Z Teeth	Code
10.5	2	56	12	8	3660010
10.5	2.5	56	12	8	3660020
10.5	3	56	12	8	3660030
13.5	3	56	12	8	3660060
13.5	4	56	12	8	3660070
16.5	3	56	12	8	3660090
16.5	4	56	12	8	3660100
16.5	5	56	12	8	3660110
19.5	4	57	12	8	3660130
19.5	5	57	12	8	3660140
19.5	6	57	12	8	3660145

d	W	l ₁	d ₁	Z Teeth	Code
22.5	5	64	12	8	3660160
22.5	6	64	12	8	3660170
22.5	8	64	12	8	3660175
25.5	6	70	12	8	3660190
28.5	6	70	12	8	3660230
28.5	8	70	12	8	3660250
28.5	10	70	12	8	3660255
32.5	7	70	12	8	3660280
32.5	8	70	12	8	3660290
32.5	10	70	12	8	3660295
45.5	10	76	12	12	3660380

Code

366

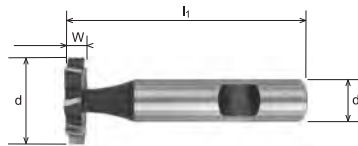
Properties

M	BASED ON DIN 850 TO SUIT DIN 6888 KEY	HSS Co5
	Z 8-12	

Suited Materials

GENERAL

Woodruff Cutters



d	W	l ₁	d ₁	Z Teeth	Code
10.5	2	50	6	8	3741050
10.5	2.5	50	6	8	3741051
10.5	3	50	6	8	3741052
13.5	3	56	10	8	3741350
13.5	4	56	10	8	3741351
16.5	3	56	10	8	3741650
16.5	4	56	10	8	3741651
16.5	5	56	10	8	3741652
19.5	4	63	10	8	3741950
19.5	5	63	10	8	3741951
19.5	6	63	10	8	3741952

d	W	l ₁	d ₁	Z Teeth	Code
22.5	5	63	10	8	3742250
22.5	6	63	10	8	3742251
22.5	8	63	10	8	3742252
25.5	6	63	12	8	3742550
28.5	6	63	12	8	3742850
28.5	8	63	12	8	3742851
28.5	10	71	12	8	3742852
32.5	8	71	12	8	3743250
32.5	10	71	12	8	3743251
45.5	10	71	12	12	3744550

Code

374

Properties

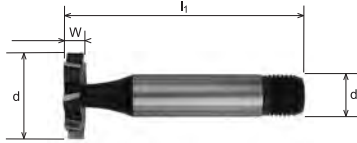
M	DIN 850	HSS Co5
	Z 8-12	

Suited Materials

GENERALSHANK
CUTTERS



Woodruff Cutters



Code
367

Properties	
INCH	BASED ON BS 122 HSS Co5
	Z 8-10

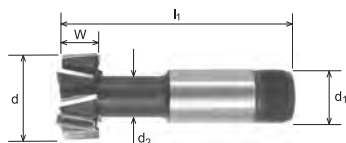
Suited Materials
GENERAL

Size	d	W	l ₁	d ₁	Z Teeth	Code
204	1/2	1/16	56	1/2	8	3670010
304	1/2	3/32	56	1/2	8	3670020
404	1/2	1/8	56	1/2	8	3670030
305	5/8	3/32	56	1/2	8	3670040
405	5/8	1/8	56	1/2	8	3670050
505	5/8	5/32	56	1/2	8	3670060
406	3/4	1/8	56	1/2	8	3670070
506	3/4	5/32	56	1/2	8	3670080
606	3/4	3/16	56	1/2	8	3670090
507	7/8	5/32	64	1/2	8	3670100
607	7/8	3/16	64	1/2	8	3670110
807	7/8	1/4	64	1/2	8	3670130
608	1"	3/16	70	1/2	8	3670140
808	1"	1/4	70	1/2	8	3670160
1008	1"	5/16	70	1/2	8	3670170
609	1.1/8	3/16	70	1/2	8	3670180
809	1.1/8	1/4	70	1/2	8	3670200
1009	1.1/8	5/16	70	1/2	8	3670210
810	1.1/4	1/4	70	1/2	8	3670240
1010	1.1/4	5/16	70	1/2	8	3670250
1210	1.1/4	3/8	70	1/2	8	3670260
811	1.3/8	1/4	76	1/2	10	3670270
1011	1.3/8	5/16	76	1/2	10	3670280
1211	1.3/8	3/8	76	1/2	10	3670290
812	1.1/2	1/4	76	1/2	10	3670300
1012	1.1/2	5/16	76	1/2	10	3670340
1212	1.1/2	3/8	76	1/2	10	3670350



SHANK
CUTTERS

T-Slot Cutters



Bolt Size	d	W	d ₁	d ₂	l ₁	Z Teeth	Code
6	12.5	6	10	5	55	6	3710600
8	16	8	10	7	60	6	3710800
10	18	8	12	8	62	6	3711000
12	21	9	12	10	68	6	3711200
14	25	11	16	12	70	8	3711400
*16	28	12	16	13	75	8	3711600
18	32	14	25	15	90	8	3711800
*20	36	16	25	17	95	10	3712000
22	40	18	25	19	100	10	3712200

* Sizes not to DIN or ISO

Code

371

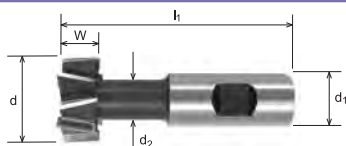
Properties

M	BASED ON ISO 3337 DIN 851	HSS Co5
	Z 6-10	

Suited Materials

GENERAL

T-Slot Cutters



Bolt Size	d	W	d ₁	d ₂	l ₁	Z Teeth	Code
6	12.5	6	10	5	57	6	3850600
8	16	8	10	7	62	6	3850800
10	18	8	12	8	70	6	3851000
12	21	9	12	10	74	6	3851200
14	25	11	16	12	82	8	3851400
16	28	12	16	13	85	8	3851600
18	32	14	16	15	90	8	3851800
20	36	16	25	17	103	10	3852000
22	40	18	25	19	108	10	3852200

Code

385

Properties

M	DIN 851	HSS Co5
	Z 6-10	

Suited Materials

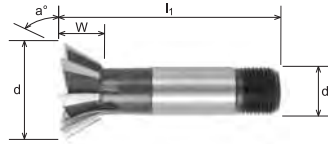
GENERAL



SHANK CUTTERS



Dovetail Cutters



Code
376

Properties		
M	BASED ON DIN 1833 ISO 3859	HSS Co5
		Z
	∅ h8	6-14

d	d ₁	Z Teeth	a° = 45°			a° = 60°		
			W	l ₁	Code	W	l ₁	Code
16	12	6	4	60	3760020	6.3	60	3760120
20	12	8	5	63	3760030	8	63	3760130
25	12	10	6.3	67	3760040	10	67	3760140
32	16	12	8	71	3760050	12.5	71	3760150
*40	16	14	10	71	3760060	16	80	3760160

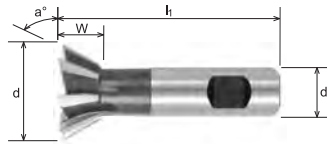
* Sizes not to DIN or ISO

Suited Materials
GENERAL

Code
386

Properties		
M	DIN 1833 FORM C	HSS Co5
		Z
	∅ h6	6-14

Dovetail Cutters



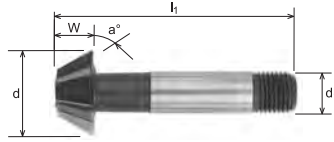
d	d ₁	Z Teeth	a° = 45°			a° = 60°		
			W	l ₁	Code	W	l ₁	Code
16	12	6	4	60	3861600	6.3	60	3861601
20	12	8	5	63	3862000	8	63	3862001
25	12	10	6.3	67	3862500	10	67	3862501
32	16	12	8	71	3863200	12.5	71	3863201
40	16	14	10	71	3864000	16	80	3864001

Suited Materials
GENERAL



SHANK
CUTTERS

Inverted Dovetail Cutters




d	d ₁	Z Teeth	a° = 45°			a° = 60°		
			W	l ₁	Code	W	l ₁	Code
16	12	6	4	60	3780010	6.3	60	3780110
20	12	8	5	63	3780020	8	63	3780120
25	12	10	6.3	67	3780030	10	67	3780130
32	16	12	8	71	3780040	12.5	71	3780140
*40	16	14	10	71	3780050	16	80	3780150

* Sizes not to DIN or ISO

Code

378

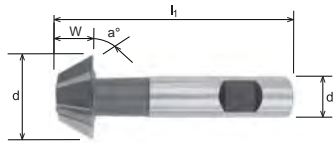
Properties

M	BASED ON DIN 1833 ISO 3859	HSS Co5
	 h8	

Suited Materials

GENERAL

Inverted Dovetail Cutters




d	d ₁	Z Teeth	a° = 45°			a° = 60°		
			W	l ₁	Code	W	l ₁	Code
16	12	6	4	60	3891600	6.3	60	3891601
20	12	8	5	63	3892000	8	63	3892001
25	12	10	6.3	67	3892500	10	67	3892501
32	16	12	8	71	3893200	12.5	71	3893201
40	16	14	10	71	3894000	16	80	3894001

Code

389

Properties

M	DIN 1833 FORM D	HSS Co5
	 h6	

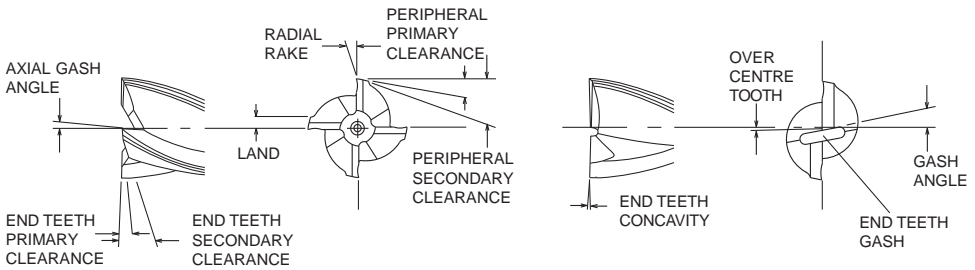
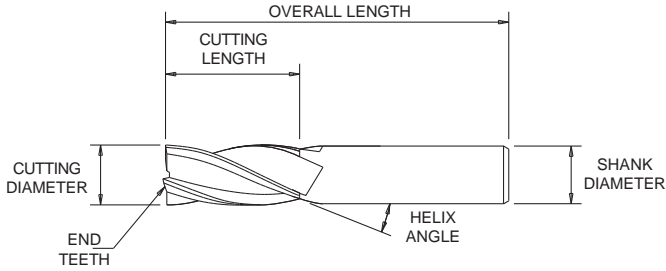
Suited Materials

GENERAL

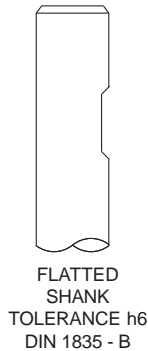
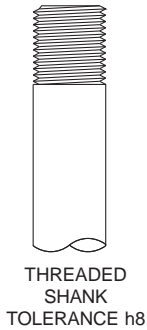


**SHANK
CUTTERS**

Shank Cutter Terminology



THREADED
SHANK:
ALL DIAMETERS
20 TPI
WHITWORTH
FORM



SHANK
CUTTERS

General Terms and Conditions of Sale



All deliveries of goods will be made in terms of our General Terms and Conditions of Sale, which are available in detail, on request.

No modifications or allowances will be accepted unless agreed to in writing by the Company.

Delivery Terms

All deliveries inside the Republic of South Africa will be free of charge. The Company however reserves the right to charge a fee for special deliveries of small quantities.

For all deliveries outside the Republic of South Africa, the cost of delivery will be for the customer's account unless otherwise agreed to in writing by the Company.

Terms of Payment

All payments will be made in accordance with our General Terms and Conditions of Sale, and other terms agreed to in writing by the Company.

Special Tooling

Our delivery programme is based mainly on the standard tooling in this catalogue.

Special tooling can be provided on request, based on other international standards or customer's specifications and drawings.

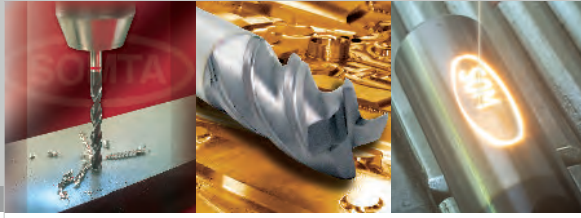
Deliveries of such tooling will be subject to a quantity variation of +/- 10% of the order quantity, with a minimum quantity variation of one piece.

Request for tooling to customer specification will only be put into production against a signed copy of the customer's drawings and specifications, or a copy of our customer approval drawing.

No special tooling orders can be cancelled or returned.

Note : All terms and conditions may be changed at the discretion of the Company.

CONDITIONS
OF SALE



Manufacturers & Suppliers
of Drills, Reamers, End Mills,
Bore Cutters, Taps & Dies,
Toolbits, Solid Carbide Tooling,
Carbide Insert Tooling,
Custom Tools and
Surface Coatings

Head Office and Surface Coating Division

Somta House, 290-294 Moses Mabhidia (Edendale) Road,
Pietermaritzburg, 3201
Private Bag X401, Pietermaritzburg, 3200
South Africa

Tel: Factory: +27 33 355 6600
Fax: Factory: +27 33 394 0564
Tel: Sales: +27 11 390 8700 (Local)
Fax: Sales: +27 11 397 6720/1 (Local)
Email: jhbsales@somta.co.za (Local)
Tel: Sales: +27 33 355 6600 (Exports)
Fax: Sales: +27 33 394 7509 (Exports)
Email: exports@somta.co.za (Exports)

Technical Information:

Email: tech@somta.co.za
Toll Free Number: 0800 331 399

Gauteng Sales Office

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