

## Endmills Carbide

*High performance solutions*

- Solutions for slotting, finishing, roughing & profiling
- Micro & Ultra fine grain type carbides
- Various shank styles to suit your needs
- General purpose & application specific geometries



# ENDMILLS CARBIDE

ISO VDI Material Group

P	A	Steel	N	UN
M	R	Stainless Steel	VA	
K	F	Cast Iron	GG	
N	N	Non-Ferrous Metals, Aluminiums & Coppers	Al W	
S	S	Titaniums & Super Alloys	Ti Ni	
H	H	Hard Materials (≥ 45 HRC)	H	

^ VDI 3323 material groups can also be determined by referring to the material cross reference listing in the application guide at the back of this catalogue.

Catalogue Code  
Type of Cut: **Slotting**  
Finishing  
Universal  
Roughing  
Profiling  
Material  
Surface Finish  
Sutton Designation  
Standard  
Shank Tolerance

Page	298	298	299	299	300	300	301	302	303	304	304
	E500	E502	E600 / E304	E603 / E307	E504	E506	E308	E309	E608	E509	E511
	●	●	●	●	●	●	●	●	●	●	●
										●	●
										●	●
	VHM		VHM		VHM		VHM		VHM		
	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	Br	Br	Br	TiAlN
	N		N		N		N		N		N
	DIN 6527K		-		DIN 6527L		-		-		DIN 6527K
	h6		h6		h6		h6		h6		h6

ISO	VDI 3323	Material	Condition	HB	N/mm²													
P	1	Steel - Non-alloy, cast & free cutting	~ 0.15 %C	A	125	440	●	●	●	●	●	●	●	●	●	●		
	2		~ 0.45 %C	A	190	640	●	●	●	●	●	●	●	●	●	●	●	
	3		~ 0.75 %C	QT	250	840	●	●	●	●	●	○	○	●	●	●	●	
	4			A	270	910	●	●	●	●	●	○	○	●	●	●	●	
	5		QT	300	1010	○	●	○	○	●	○		○	●	○	●		
	6	Steel - Low alloy & cast < 5% of alloying elements	A	180	610	●	●	●	●	●	●	●	●	●	●	●	●	
	7		QT	275	930	●	●	○	●	●	○	○	●	●	●	●	●	
	8		QT	300	1010	○	●	○	○	●	○		○	●	○	●	●	
	9		QT	350	1180		○	○	○	○	○			○	○	○	○	
	10	Steel - High alloy, cast & tool	A	200	680	○	●	○	●	○	●	○	○	○	○	●	○	
	11		HT	325	1100		○	○	○	○	○			○	○	○	○	
12	Steel - Corrosion resistant & cast	Ferritic / Martensitic	A	200	680		●			○	○	○	○	○	●	○		
13		Martensitic	QT	240	810		●			●	○	○	○	○	○	●		
M	14.1	Stainless Steel	Austenitic	AH	180	610	○	●	○	○	○	○	○	○	○	●		
	14.2		Duplex		250	840	○	●	○	○	○	○	○	○	○	○	○	
	14.3		Precipitation Hardening		250	840	○	●		○	○			○	○	○	○	
K	15	Cast Iron - Grey (GG)	Ferritic / Pearlitic		180	610	●	●	○	○	○	○	○	○	●	●		
	16		Pearlitic		260	880	○	●	○	○	○	○	○	○	○	○	●	
	17	Cast Iron - Nodular (GGG)	Ferritic		160	570	●	●	○	○	○	○	○	○	○	○	●	
	18		Pearlitic		250	840	○	●	○	○	○	○	○	○	○	○	●	
	19	Cast Iron - Malleable	Ferritic		130	460	○	●	○	○	○	○	○	○	○	○	●	
20	Pearlitic			230	780	○	●	○	○	○	○	○	○	○	○	●		
N	21	Aluminum & Magnesium - wrought alloy	Non Heat Treatable		60	210							●	○	○			
	22		Heat Treatable	AH	100	360							●	○	○			
	23	Aluminum & Magnesium - cast alloy ≤12% Si	Non Heat Treatable		75	270							○	○	○			
	24		Heat Treatable	AH	90	320							○	○	○			
	25	Al & Mg - cast alloy >12% Si	Non Heat Treatable		130	460							○	○	○			
	26	Copper & Cu alloys (Brass/Bronze)	Free cutting, Pb > 1%		110	390							○	○	○			
	27		Brass (CuZn, CuSnZn)		90	320							○	○	○			
	28		Bronze (CuSn)		100	360							○	○	○			
	29	Non-metallic - Thermosetting & fiber-reinforced plastics																
30	Non-metallic - Hard rubber, wood etc.																	
S	31	High temp. alloys	Fe based	A	200	680	○	○							○	○		
	32			AH	280	950	○	○							○	○		
	33		Ni / Co based	A	250	840	○	○							○	○		
	34			AH	350	1180	○	○							○	○		
	35			C	320	1080	○	○							○	○		
	36	Titanium & Ti alloys	CP Titanium		400 MPa		○	○							○	○		
	37.1		Alpha alloys		860 MPa		○	○							○	○		
	37.2		Alpha / Beta alloys	A	960 MPa		○	○							○	○		
37.3	AH			1170 MPa		○	○							○	○			
37.4	Beta alloys		A	830 MPa		○	○							○	○			
37.5		AH	1400 MPa		○	○							○	○				
H	38.1	Hardened steel		HT	45 HRC											○		
	38.2			HT	55 HRC													
	39.1			HT	58 HRC													
	39.2			HT	62 HRC													
	40			Cast Iron	Chilled	C	400	1350										
	41	HT	55 HRC															

Condition: A (Annealed), AH (Age Hardened), C (Cast), HT (Hardened & Tempered), QT (Quenched & Tempered)

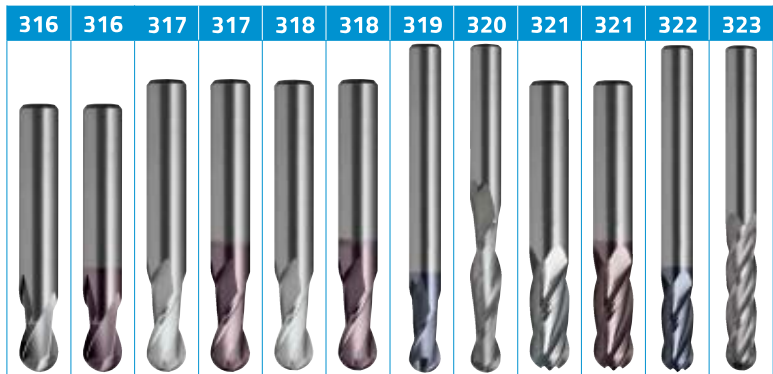
● Optimal ○ Effective

305	305	306	306	307	307	308	308	309	309	310	310	311	311	312	312	313	314	315	
E513	E515	E517	E519	E521	E523	E525	E527	E601 / E333	E604 / E336	E529	E531	E337	E340	E341	E344	E609	E547	E450	
•	•	•	•	•	•										•			•	
																•			
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•	•						•		•	•	
VHM		VHM		VHM		VHM		VHM		VHM		VHM		VHM		VHM		VHM	
Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN	Br	TiAlN
N		W		W		N		N		N		N		N		N		N	WN
DIN 6527L		DIN 6527K		DIN 6527L		DIN 6527K		-		DIN 6527L		-		-		-		DIN 6527L	
h6		h6		h6		h6		h6		h6		h6		h6		h6		h6	

																			VDI 3323	ISO
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	3
•	•	○	○	○	○	•	•	•	•	•	•	•	•	○	•	○	○	○	•	4
○	•	○	○	○	○	○	•		○	○	•	○	•	○	•	○	○	○	○	5
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○	•	6
•	•	○	○	○	○	•	•	○	•	•	•	•	•	•	•	•	○	○	•	7
○	•	○	○	○	○	○	•		○	•	•	•	•	○	•	○	○	○	○	8
	○						○		○		○	○	○	○	○	○				9
○	•					○	•		○	•	•	•	•	○	•	○	○	○	○	10
○	•					○	•		○	•	•	•	•	○	•	○	○	○	○	11
○	•					○	•		○	•	•	•	•	○	•	○	○	○	○	12
○	•					○	•		○	•	•	•	•	○	•	○	○	○	○	13
○	•					○	•	○	○	○	•	•	•	•	•	•				14.1
○	○					○	○	○	○	○	○		○	○	○	○				14.2
○	○					○	○		○	○			○	○	○	○				14.3
•	•					•	•	○	○	•	•	•	•	○	•	○	○	○	•	15
○	•					○	•	○	○	○	•	•	•	○	•	○	○	○	•	16
•	•					•	•	○	○	•	•	•	•	○	•	○	○	○	•	17
○	•					○	•	○	○	○	•	•	•	○	•	○	○	○	•	18
○	•					○	•	○	○	○	•	•	•	○	•	○	○	○	•	19
○	•					○	•	○	○	○	•	•	•	○	•	○	○	○	•	20
		•	•	•	•							•	•	○	•	○	○	•		21
		•	•	•	•							•	•	○	•	○	○	•		22
		○	•	○	•							○	○	○	○	○	○	○		23
		○	•	○	•							○	○	○	○	○	○	○		24
		○	•	○	•							○	○	○	○	○	○	○		25
		○	•	○	•							○	○	○	○	○	○	○		26
		○	•	○	•							○	○	○	○	○	○	○		27
		•	•	•	•							○	○	○	○	○	○	○		28
																				29
																				30
○	○					○	○			○	○	○	○		○				•	31
○	○					○	○			○	○	○	○		○				•	32
○	○					○	○			○	○	○	○		○				•	33
○	○					○	○			○	○	○	○		○				•	34
○	○					○	○			○	○	○	○		○				•	35
○	○					○	○			○	○	○	○		○				•	36
○	○					○	○			○	○	○	○		○				•	37.1
○	○					○	○			○	○	○	○		○				•	37.2
○	○					○	○			○	○	○	○		○				•	37.3
○	○					○	○			○	○	○	○		○				•	37.4
	○						○				○		○		○				•	37.5
	○						○				○		○		○					38.1
																				38.2
																				39.1
										○	•	○	•	○	•	○			•	39.2
																				40
																				41



Page



ISO	VDI	Material Group	Sutton
P	A	Steel	N
M	R	Stainless Steel	VA
K	F	Cast Iron	GG
N	N	Non-Ferrous Metals, Aluminiums & Coppers	Al W
S	S	Titaniums & Super Alloys	Ti Ni
H	H	Hard Materials (≥ 45 HRC)	H

^ VDI 3323 material groups can also be determined by referring to the material cross reference listing in the application guide at the back of this catalogue.

**Catalogue Code**  
**Type of Cut: Slotting**  
**Finishing**  
**Universal**  
**Roughing**  
**Profiling**  
**Material**  
**Surface Finish**  
**Sutton Designation**  
**Standard**  
**Shank Tolerance**

E452	E454	E602 / E311	E605 / E314	E551	E553	E555	E315	E606 / E316	E607 / E319	E557	E320
•	•	•	•	•	•	•	•	•	•	•	•
VHM		VHM		VHM		VHM-ULTRA	VHM	VHM	VHM	VHM-ULTRA	VHM
Br	TiAlN	Br	TiAlN	Br	TiAlN	AlCrN	Br	Br	TiAlN	AlCrN	Br
N		N		N		N	N	N	N	N	N
DIN 6527K		-		DIN 6527L		-	-	-	-	-	-
h6		h6		h6		h6	h6	h6	h6	h6	h6

ISO	VDI 3323	Material	Condition	HB	N/mm <sup>2</sup>	E452	E454	E602 / E311	E605 / E314	E551	E553	E555	E315	E606 / E316	E607 / E319	E557	E320		
P	1	Steel - Non-alloy, cast & free cutting	~ 0.15 %C	A	125	440	•	•	•	•	•	•	•	•	•	•	•	•	
	2		~ 0.45 %C	A	190	640	•	•	•	•	•	•	•	•	•	•	•	•	•
	3		~ 0.75 %C	QT	250	840	•	•	•	•	•	•	•	○	•	•	•	•	○
	4			A	270	910	•	•	•	•	•	•	•	○	•	•	•	•	○
	5	QT	300	1010	•	•	•	○	○	•	•	•	○	○	○	○	•	○	
	6	Steel - Low alloy & cast < 5% of alloying elements	A	180	610	•	•	•	•	•	•	•	•	○	•	•	•	•	•
	7		QT	275	930	•	•	○	•	○	•	•	•	○	○	•	•	•	○
	8		QT	300	1010	•	•	•	○	○	•	•	•	○	○	○	○	•	○
	9		QT	350	1180	○	•	•	○	○	○	○	○	○	○	○	○	○	○
	10	Steel - High alloy, cast & tool	A	200	680	•	•	○	•	○	•	•	•	○	○	○	•	•	○
	11		HT	325	1100	○	•	•	○	○	○	○	○	○	○	○	○	○	○
12	Steel - Corrosion resistant & cast	Ferritic / Martensitic	A	200	680	•	•	•	•	○	○	○	○	○	○	○	○	○	
13		Martensitic	QT	240	810	○	○	○	○	○	○	○	○	○	○	○	○	○	
M	14.1	Stainless Steel	Austenitic	AH	180	610	•	•	○	○	•	•	•	○	•	•	•	○	
	14.2		Duplex	250	840	○	•	○	○	○	•	•	•	○	○	○	○	○	
	14.3		Precipitation Hardening	250	840	•	•	•	•	○	○	○	○	○	○	○	○	○	
K	15	Cast Iron - Grey (GG)	Ferritic / Pearlitic	180	610	○	•	○	○	○	•	•	○	○	○	○	•	○	
	16		Pearlitic	260	880	○	•	○	○	○	•	•	○	○	○	○	•	○	
	17	Cast Iron - Nodular (GGG)	Ferritic	160	570	○	•	○	○	○	•	•	○	○	○	○	•	○	
	18		Pearlitic	250	840	○	•	○	○	○	•	•	○	○	○	○	•	○	
	19	Cast Iron - Malleable	Ferritic	130	460	○	•	○	○	○	•	•	○	○	○	○	•	○	
20	Pearlitic		230	780	○	•	○	○	○	•	•	○	○	○	○	•	○		
N	21	Aluminum & Magnesium - wrought alloy	Non Heat Treatable	60	210	•	•	•	•	•	•	•	•	•	•	•	•	•	
	22		Heat Treatable	AH	100	360	•	•	•	•	•	•	•	•	•	•	•	•	
	23	Aluminum & Magnesium - cast alloy ≤12% Si	Non Heat Treatable	75	270	•	•	•	•	•	•	•	•	•	•	•	•	•	
	24		Heat Treatable	AH	90	320	•	•	•	•	•	•	•	•	•	•	•	•	
	25	Al & Mg - cast alloy >12% Si	Non Heat Treatable	130	460	○	•	○	○	○	•	•	○	○	○	○	•	○	
	26	Copper & Cu alloys (Brass/Bronze)	Free cutting, Pb > 1%	110	390	•	•	•	•	•	•	•	•	•	•	•	•	•	
	27		Brass (CuZn, CuSnZn)	90	320	•	•	•	•	•	•	•	•	•	•	•	•	•	
	28		Bronze (CuSn)	100	360	•	•	•	•	•	•	•	•	•	•	•	•	•	
	29	Non-metallic - Thermosetting & fiber-reinforced plastics																	
30	Non-metallic - Hard rubber, wood etc.																		
S	31	High temp. alloys	Fe based	A	200	680							○	○			○	○	
	32			AH	280	950													
	33		Ni / Co based	A	250	840								○	○			○	○
	34			AH	350	1180													
	35			C	320	1080													
	36	Titanium & Ti alloys	CP Titanium	400 MPa										○	○			○	○
	37.1		Alpha alloys	860 MPa										○	○			○	○
	37.2		Alpha / Beta alloys	A	960 MPa									○	○			○	○
37.3	AH			1170 MPa									○	○			○	○	
37.4	Beta alloys		A	830 MPa									○	○			○	○	
37.5	AH	1400 MPa										○	○			○	○		
H	38.1	Hardened steel	HT	45 HRC			•				•								
	38.2		HT	55 HRC															
	39.1		HT	58 HRC															
	39.2		HT	62 HRC															
	40	Cast Iron	Chilled	C	400	1350	•				•	•	○				•	○	
41	HT		55 HRC																

Condition: A (Annealed), AH (Age Hardened), C (Cast), HT (Hardened & Tempered), QT (Quenched & Tempered)

• Optimal ○ Effective



Page



ISO	VDI	Material Group	Sutton
P	A	Steel	N
M	R	Stainless Steel	VA
K	F	Cast Iron	GG
N	N	Non-Ferrous Metals, Aluminiums & Coppers	Al W
S	S	Titaniums & Super Alloys	Ti Ni
H	H	Hard Materials (≥ 45 HRC)	H

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**Type of Cut: Slotting**  
**Finishing**  
**Universal**  
**Roughing**  
**Profiling**  
**Material**  
**Surface Finish**  
**Sutton Designation**  
**Standard**  
**Shank Tolerance**

E444	E310	E400	E402	E446	E404	E406	E408	E410	E459
●	●	●	●	●	●	●		●	●
●	●	●	●	●	●	●		●	●
●	●	●	●	●	●	●	●	●	●
							●		
<b>VHM</b>	<b>VHM</b>	<b>VHM-ULTRA</b>	<b>VHM</b>	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
<i>Br</i>	<i>Br</i>	<i>CrN</i>	<i>Br</i>	<i>CrN</i>	<i>CrN</i>	<i>CrN</i>	<i>CrN</i>	<i>CrN</i>	<i>HELICA</i>
Al	Al	Al	Al	Al	Al	Al	Al	Al	VA
-	DIN 6527L	DIN 6527L	-	DIN 6527L	DIN 6527L	-	-	-	DIN 6527L
h6	h6	h5	h5	h5	h5	h5	h5	h5	h6

ISO	VDI 3323	Material	Condition	HB	N/mm <sup>2</sup>	344	345	346	347	348	349	350	351	352	353		
P	1	Steel - Non-alloy, cast & free cutting	~ 0.15 %C	A	125	440											
	2		~ 0.45 %C	A	190	640											
	3			QT	250	840											
	4		~ 0.75 %C	A	270	910											
	5			QT	300	1010											
	6	Steel - Low alloy & cast < 5% of alloying elements		A	180	610											
	7			QT	275	930											
	8			QT	300	1010											
	9			QT	350	1180											
	10	Steel - High alloy, cast & tool		A	200	680											
	11			HT	325	1100											
12	Steel - Corrosion resistant & cast	Ferritic / Martensitic	A	200	680									○	○		
13		Martensitic	QT	240	810									○	○		
M	14.1	Stainless Steel	Austenitic	AH	180	610								●	●		
	14.2		Duplex		250	840								●	●		
	14.3		Precipitation Hardening		250	840								●	●		
K	15	Cast Iron - Grey (GG)	Ferritic / Pearlitic		180	610											
	16		Pearlitic		260	880											
	17	Cast Iron - Nodular (GGG)	Ferritic		160	570											
	18		Pearlitic		250	840											
	19	Cast Iron - Malleable	Ferritic		130	460											
20	Pearlitic			230	780												
N	21	Aluminum & Magnesium - wrought alloy	Non Heat Treatable		60	210	●	●	●	●	●	●	●	●	●	●	
	22		Heat Treatable	AH	100	360	●	●	●	●	●	●	●	●	●	●	
	23	Aluminum & Magnesium - cast alloy ≤12% Si	Non Heat Treatable		75	270	●	●	●	●	●	●	●	●	●	●	
	24		Heat Treatable	AH	90	320	●	●	●	●	●	●	●	●	●	●	
	25	Al & Mg - cast alloy >12% Si	Non Heat Treatable		130	460	○	●	●	●	○	●	●	●	●	●	
	26	Copper & Cu alloys (Brass/Bronze)	Free cutting, Pb > 1%		110	390	○	●	●	●	○	●	●	●	●	●	
	27		Brass (CuZn, CuSnZn)		90	320		●	●	●		●	●	●	●	●	
	28		Bronze (CuSn)		100	360	○	●	●	●	○	●	●	●	●	●	
	29	Non-metallic - Thermosetting & fiber-reinforced plastics															
30	Non-metallic - Hard rubber, wood etc.																
S	31	High temp. alloys	Fe based	A	200	680								○	○		
	32			AH	280	950								●	●		
	33		Ni / Co based	A	250	840									○	○	
	34			AH	350	1180									●	●	
	35		C	320	1080									●	●		
	36	Titanium & Ti alloys	CP Titanium		400 MPa										○	○	
	37.1		Alpha alloys		860 MPa										●	●	
	37.2		Alpha / Beta alloys	A	960 MPa										●	●	
37.3	AH			1170 MPa													
37.4	Beta alloys		A	830 MPa										●	○		
37.5		AH	1400 MPa										○	○			
H	38.1	Hardened steel	HT	45 HRC													
	38.2		HT	55 HRC													
	39.1		HT	58 HRC													
	39.2		HT	62 HRC													
	40	Cast Iron	Chilled	C	400	1350											
41	HT		55 HRC														

354	355	356	357	358	359	360	361	362	363	364	365	366	367	367	368	368
E462	E412	E414	E416	E428	E348	E448	E432	E434	E436	E543	E562	E564	E566	E568	E464	E466
•	•	•	•	•												
					•	•	•	•	•	•	•	•				
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	•	•	•	•												
					•											
VHM-ULTRA				VHM-ULTRA	VHM	VHM	VHM-ULTRA			VHM-ULTRA	VHM-ULTRA	VHM-ULTRA	VHM-ULTRA	VHM-ULTRA		
HELICA				AICrN	TiAlN	TiAlN	AICrN			AICrN	AICrN	Aldura	AICrN	AICrN		
VA				NH	NH	NH	NH			NH	NH	NH	VH	Ti		
DIN 6527L	-	DIN 6527L	DIN 6527L	-	DIN 6527L	DIN 6527L	-	DIN 6527L	-	DIN 6527L	DIN 6527L	DIN 6527L	DIN 6527L	DIN 6527L	DIN 6527L	DIN 6527L
h6	h5			h5	h6	h6	h5			h6	h6		h6	h6	h6	

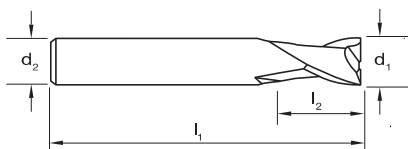
																VDI 3323	ISO
				○		○	○	○	○								1
				○		○	○	○	○								2
				●		●	●	●	●								3
				●		●	●	●	●								4
				●	●	●	●	●	●	●	●	●					5
				○		○	○	○	○								6
				●		●	●	●	●	●	●	●					7
				●	●	●	●	●	●	●	●	●	●	●			8
				●	●	●	●	●	●	●	●	●	●	●			9
				●	●	●	●	●	●	●	●	●	●	●			10
				●	●	●	●	●	●	●	●	●	●	●			11
○	○	○	○			○	○	○	○	○							12
○	○	○	○		●	●	●	●	●	●	●	●	●	●			13
●	●	●	●			○				○							14.1
●	●	●	●			○											14.2
●	●	●	●		●	●	●	●	●	●	●	●	●	●			14.3
				○		●	●	●	●	●	●	●	●	●			15
				○	●	●	●	●	●	●	●	●	●	●			16
				○	●	●	●	●	●	●	●	●	●	●			17
				○	●	●	●	●	●	●	●	●	●	●			18
				○		●	●	●	●	●	●	●	●	●			19
				○		●	●	●	●	●	●	●	●	●			20
																	21
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																	28
																	29
																	30
○	○	○	●			●				●							31
●	●	●	●			●	○	○	○	●	●	●					32
○	○	○	●			●				●							33
●	●	●	●		●	●	●	●	●	●	●	●					34
●	●	●	●		○		○	○	○								35
○	○	○	○	○											●	●	36
●	●	●	●	○		●				●	●	●			●	●	37.1
●	●	●	●	○		●	○	○	○	●	●	●			●	●	37.2
				●	●	●	●	●	●	●	●	●			●	●	37.3
○	●	●	●	○		●	○	○	○	●	●	●			●	●	37.4
○	○	○	○		●	●	●	●	●						●	●	37.5
				○	●	○	●	●	●	○	○	○					38.1
							●	●	●				●	●			38.2
							○	○	○				●	●			39.1
													●	●			39.2
													●	●			39.3
																	40
							○	○	○				●	●			41



# Slot Drills Carbide, 2 Flute, R30 N, DIN6527K

## suttontools

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance

E500	E501	E502	E503
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
Br <sub>t</sub>	Br <sub>t</sub>	TiAlN	TiAlN
N	N	N	N
R30	R30	R30	R30
HA	HB	HA	HB
h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0200	2.0	50	3	6	2	E500 0200	E501 0200	E502 0200	E503 0200
0300	3.0	50	4	6	2	E500 0300	E501 0300	E502 0300	E503 0300
0400	4.0	54	5	6	2	E500 0400	E501 0400	E502 0400	E503 0400
0500	5.0	54	6	6	2	E500 0500	E501 0500	E502 0500	E503 0500
0600	6.0	54	7	6	2	E500 0600	E501 0600	E502 0600	E503 0600
0800	8.0	58	9	8	2	E500 0800	E501 0800	E502 0800	E503 0800
1000	10.0	66	11	10	2	E500 1000	E501 1000	E502 1000	E503 1000
1200	12.0	72	12	12	2	E500 1200	E501 1200	E502 1200	E503 1200
1600	16.0	82	16	16	2	E500 1600	E501 1600	E502 1600	E503 1600
2000	20.0	92	20	20	2	E500 2000	E501 2000	E502 2000	E503 2000

ISO	P													M			K					N										S										H												
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41					
E500	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○											○	○	○	○	○	○	○	○	○	○	○											
E502	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○											○	○	○	○	○	○	○	○	○	○	○											

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

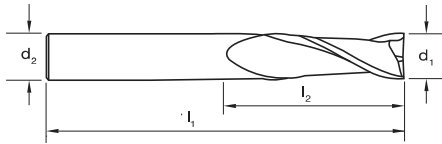


# Slot Drills Carbide, 2 Flute, R30 N, Regular

**suttontools**



- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN longer tool life



Catalogue Code	<b>E600</b>	<b>E603</b>
Discount Group	<b>B0212</b>	<b>B0214</b>
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAlN</b>
Sutton Designation	<b>N</b>	<b>N</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0100</b>	<b>1.0</b>	38	4	3	2	E600 0100	E603 0100
<b>0150</b>	<b>1.5</b>	38	4.5	3	2	E600 0150	E603 0150
<b>0200</b>	<b>2.0</b>	38	6	3	2	E600 0200	E603 0200
<b>0250</b>	<b>2.5</b>	38	9.5	3	2	E600 0250	E603 0250
<b>0300</b>	<b>3.0</b>	38	12	3	2	E600 0300	E603 0300
<b>0350</b>	<b>3.5</b>	50	12	4	2	E600 0350	E603 0350
<b>0400</b>	<b>4.0</b>	50	14	4	2	E600 0400	E603 0400
<b>0450</b>	<b>4.5</b>	50	16	6	2	E600 0450	E603 0450
<b>0500</b>	<b>5.0</b>	50	16	6	2	E600 0500	E603 0500
<b>0600</b>	<b>6.0</b>	50	19	6	2	E600 0600	E603 0600
<b>0700</b>	<b>7.0</b>	63	19	8	2	E600 0700	E603 0700
<b>0800</b>	<b>8.0</b>	63	20	8	2	E600 0800	E603 0800
<b>0900</b>	<b>9.0</b>	75	22	10	2	E600 0900	E603 0900
<b>1000</b>	<b>10.0</b>	75	22	10	2	E600 1000	E603 1000
<b>1100</b>	<b>11.0</b>	75	25	12	2	E600 1100	E603 1100
<b>1200</b>	<b>12.0</b>	75	25	12	2	E600 1200	E603 1200
<b>1400</b>	<b>14.0</b>	89	32	14	2	E600 1400	E603 1400
<b>1600</b>	<b>16.0</b>	89	32	16	2	E600 1600	E603 1600
<b>1800</b>	<b>18.0</b>	100	38	18	2	E600 1800	E603 1800
<b>2000</b>	<b>20.0</b>	100	38	20	2	E600 2000	E603 2000
<b>2500</b>	<b>25.0</b>	100	38	25	2	E600 2500	E603 2500

						<b>E304</b>	<b>E307</b>
<b>0159</b>	<b>1/16</b>	1-1/2	3/16	1/8	2	E304 0159	E307 0159
<b>0238</b>	<b>3/32</b>	1-1/2	5/16	1/8	2	E304 0238	E307 0238
<b>0318</b>	<b>1/8</b>	1-1/2	1/2	1/8	2	E304 0318	E307 0318
<b>0397</b>	<b>5/32</b>	2	9/16	3/16	2	E304 0397	E307 0397
<b>0476</b>	<b>3/16</b>	2	5/8	3/16	2	E304 0476	E307 0476
<b>0556</b>	<b>7/32</b>	2-1/2	5/8	1/4	2	E304 0556	E307 0556
<b>0635</b>	<b>1/4</b>	2-1/2	3/4	1/4	2	E304 0635	E307 0635
<b>0794</b>	<b>5/16</b>	2-1/2	13/16	5/16	2	E304 0794	E307 0794
<b>0953</b>	<b>3/8</b>	2-1/2	7/8	3/8	2	E304 0953	E307 0953
<b>1111</b>	<b>7/16</b>	2-3/4	1	7/16	2	E304 1111	E307 1111
<b>1270</b>	<b>1/2</b>	3	1	1/2	2	E304 1270	E307 1270
<b>1588</b>	<b>5/8</b>	3-1/2	1-1/4	5/8	2	E304 1588	E307 1588
<b>1905</b>	<b>3/4</b>	4	1-1/2	3/4	2	E304 1905	E307 1905
<b>2223</b>	<b>7/8</b>	4	1-1/2	7/8	2	E304 2223	E307 2223
<b>2540</b>	<b>1</b>	4	1-1/2	1	2	E304 2540	E307 2540

ISO	P										M			K					N										S										H													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
E600	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
E603	●	●	●	●	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

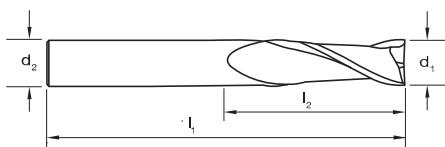
● Optimal ○ Effective

# Slot Drills Carbide, 2 Flute, R30 N, DIN6527L

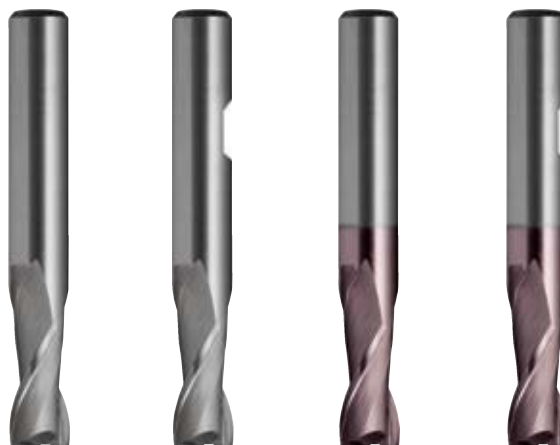
## suttontools

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life

DIN 6527L



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance



E504	E505	E506	E507
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
BrT	BrT	TiAlN	TiAlN
N	N	N	N
R30	R30	R30	R30
HA	HB	HA	HB
h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0200	2.0	57	6	6	2	E504 0200	E505 0200	E506 0200	E507 0200
0300	3.0	57	7	6	2	E504 0300	E505 0300	E506 0300	E507 0300
0350	3.5	57	7	6	2	•	•	•	•
0400	4.0	57	8	6	2	E504 0400	E505 0400	E506 0400	E507 0400
0450	4.5	57	8	6	2	•	•	•	•
0500	5.0	57	10	6	2	E504 0500	E505 0500	E506 0500	E507 0500
0600	6.0	57	10	6	2	E504 0600	E505 0600	E506 0600	E507 0600
0700	7.0	63	16	8	2	E504 0700	E505 0700	E506 0700	E507 0700
0800	8.0	63	16	8	2	E504 0800	E505 0800	E506 0800	E507 0800
0900	9.0	72	19	10	2	E504 0900	E505 0900	E506 0900	E507 0900
1000	10.0	72	22	10	2	E504 1000	E505 1000	E506 1000	E507 1000
1200	12.0	83	22	12	2	E504 1200	E505 1200	E506 1200	E507 1200
1400	14.0	83	22	14	2	E504 1400	E505 1400	E506 1400	E507 1400
1600	16.0	92	26	16	2	E504 1600	E505 1600	E506 1600	E507 1600
1800	18.0	92	26	18	2	E504 1800	E505 1800	E506 1800	E507 1800
2000	20.0	104	32	20	2	E504 2000	E505 2000	E506 2000	E507 2000


ISO	P											M			K				N							S							H																	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14,1	14,2	14,3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37,1	37,2	37,3	37,4	37,5	38,1	38,2	39,1	39,2	40	41	
E504	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
E506	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

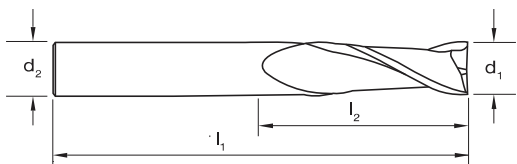
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

• Available on request as special manufacture. Subject to lead time.

# Slot Drills Carbide, 2 Flute, R30 N, Long

**suttontools**

- For long reach milling of slots & cavities
- Suitable for materials up to 1300 N/mm<sup>2</sup>



Catalogue Code	<b>E308</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Br</b>
Sutton Designation	<b>N</b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #
<b>0300</b>	<b>3.0</b>	60	19	3	2	E308 0300
<b>0400</b>	<b>4.0</b>	60	19	4	2	E308 0400
<b>0500</b>	<b>5.0</b>	60	25	5	2	E308 0500
<b>0600</b>	<b>6.0</b>	75	31	6	2	E308 0600
<b>0800</b>	<b>8.0</b>	75	31	8	2	E308 0800
<b>1000</b>	<b>10.0</b>	75	31	10	2	E308 1000
<b>1200</b>	<b>12.0</b>	100	50	12	2	E308 1200
<b>1400</b>	<b>14.0</b>	125	57	14	2	E308 1400
<b>1600</b>	<b>16.0</b>	125	57	16	2	E308 1600
<b>1800</b>	<b>18.0</b>	125	57	18	2	E308 1800
<b>2000</b>	<b>20.0</b>	125	57	20	2	E308 2000

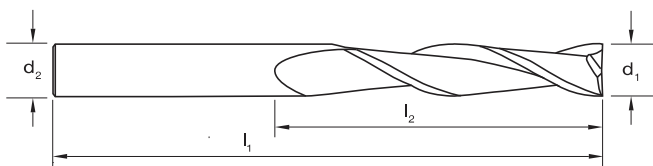
ISO	P										M					K					N										S										H										
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
<b>E308</b>	●	●	●	●	●	●	○	○	○	○	○	○	○	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials
 ● Optimal ○ Effective

# Slot Drills Carbide, 2 Flute, R30N, Extra Long

## suttontools

- For extra long reach milling of slots & cavities
- Suitable for materials up to 1300 N/mm<sup>2</sup>



Catalogue Code	<b>E309</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	Brf
Sutton Designation	<b>N</b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #
<b>0300</b>	3.0	76	25	3	2	E309 0300
<b>0400</b>	4.0	76	28	4	2	E309 0400
<b>0500</b>	5.0	76	32	5	2	E309 0500
<b>0600</b>	6.0	102	38	6	2	E309 0600
<b>0800</b>	8.0	102	42	8	2	E309 0800
<b>1000</b>	10.0	102	45	10	2	E309 1000
<b>1200</b>	12.0	153	76	12	2	E309 1200
<b>1400</b>	14.0	153	76	14	2	E309 1400
<b>1600</b>	16.0	153	76	16	2	E309 1600
<b>1800</b>	18.0	153	76	18	2	E309 1800
<b>2000</b>	20.0	153	76	20	2	E309 2000

ISO	P											M			K						N										S										H								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
<b>E309</b>	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

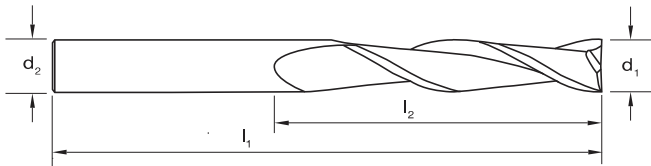
P Steel 
 M Stainless Steel 
 K Cast Iron 
 N Non-Ferrous Metals 
 S Titanium & Super Alloys 
 H Hard Materials 
 ● Optimal ○ Effective

# Endmills Carbide, 2 Flute, R30 N, Extra Long

suttontools

TECLINE

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm<sup>2</sup>



Catalogue Code	E608
Discount Group	B0212
Material	VHM
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	$d_1$	$l_1$	$l_2$	$d_2$	$z$	Item #
0300	3.0	100	40	3	2	E608 0300
0400	4.0	100	40	4	2	E608 0400
0500	5.0	100	40	5	2	E608 0500
0600	6.0	100	50	6	2	E608 0600
0800	8.0	100	50	8	2	E608 0800
1000	10.0	150	75	10	2	E608 1000
1200	12.0	150	75	12	2	E608 1200
1600	16.0	150	75	16	2	E608 1600
2000	20.0	150	75	20	2	E608 2000

ISO	P										M					K					N										S										H									
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
E608	●	●	○	○	○	●	○							○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective



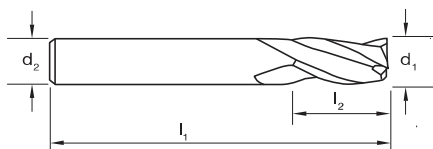


# Endmills Carbide, 3 Flute, R30 N, DIN6527L

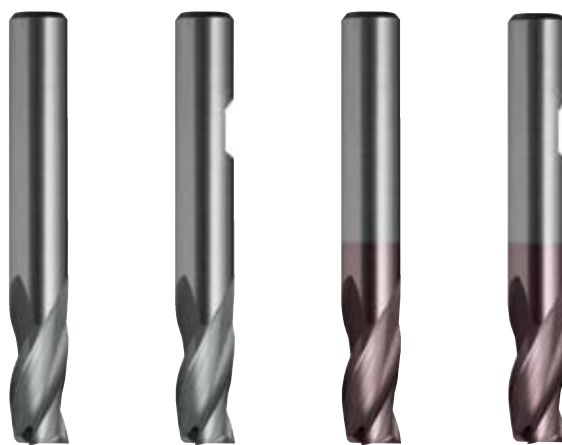
**suttontools**

- Universal use for slotting and finishing with the one tool
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAIN for longer tool life

DIN 6527L



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance



Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
<b>0300</b>	<b>3.0</b>	57	7	6	3	E513 0300	E514 0300	E515 0300	E516 0300
<b>0350</b>	<b>3.5</b>	57	7	6	3	E513 0350	•	•	•
<b>0400</b>	<b>4.0</b>	57	8	6	3	E513 0400	E514 0400	E515 0400	E516 0400
<b>0450</b>	<b>4.5</b>	57	8	6	3	E513 0450	•	•	•
<b>0500</b>	<b>5.0</b>	57	10	6	3	E513 0500	E514 0500	E515 0500	E516 0500
<b>0600</b>	<b>6.0</b>	57	10	6	3	E513 0600	E514 0600	E515 0600	E516 0600
<b>0700</b>	<b>7.0</b>	63	13	8	3	E513 0700	E514 0700	E515 0700	E516 0700
<b>0800</b>	<b>8.0</b>	63	16	8	3	E513 0800	E514 0800	E515 0800	E516 0800
<b>0900</b>	<b>9.0</b>	72	16	10	3	E513 0900	E514 0900	E515 0900	E516 0900
<b>1000</b>	<b>10.0</b>	72	19	10	3	E513 1000	E514 1000	E515 1000	E516 1000
<b>1200</b>	<b>12.0</b>	83	22	12	3	E513 1200	E514 1200	E515 1200	E516 1200
<b>1400</b>	<b>14.0</b>	83	22	14	3	E513 1400	E514 1400	E515 1400	E516 1400
<b>1600</b>	<b>16.0</b>	92	26	16	3	E513 1600	E514 1600	E515 1600	E516 1600
<b>1800</b>	<b>18.0</b>	92	26	18	3	E513 1800	E514 1800	E515 1800	E516 1800
<b>2000</b>	<b>20.0</b>	104	32	20	3	E513 2000	E514 2000	E515 2000	E516 2000

E513	E514	E515	E516
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
Brt	Brt	TIAIN	TIAIN
N	N	N	N
R30	R30	R30	R30
HA	HB	HA	HB
h6	h6	h6	h6

ISO	P										M					K					N										S										H																
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41								
E513	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
E515	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

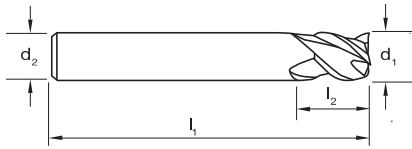
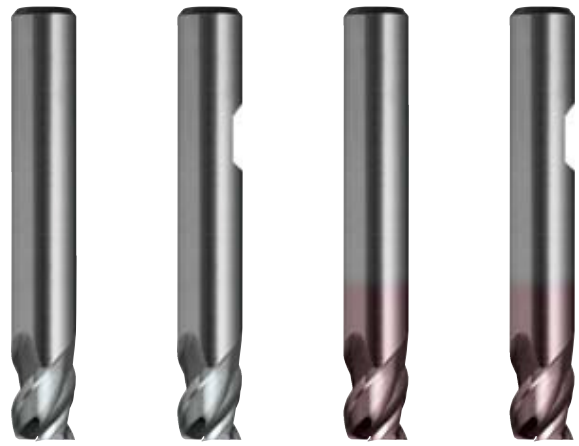
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials • Optimal ○ Effective

• Available on request as special manufacture. Subject to lead time.

# Endmills Carbide, 3 Flute, R45 W, DIN6527K

## suttontools

- Universal use for slotting & finishing applications, with one tool
- Suitable for materials up to 45 HRC
- TiAlN for longer tool life



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance

E517	E518	E519	E520
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
Br <sub>t</sub>	Br <sub>t</sub>	TiAlN	TiAlN
W	W	W	W
R45	R45	R45	R45
HA	HB	HA	HB
h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0300	3.0	50	4	6	3	E517 0300	E518 0300	E519 0300	E520 0300
0400	4.0	54	5	6	3	E517 0400	E518 0400	E519 0400	E520 0400
0500	5.0	54	6	6	3	E517 0500	E518 0500	E519 0500	E520 0500
0600	6.0	54	7	6	3	E517 0600	E518 0600	E519 0600	E520 0600
0800	8.0	58	9	8	3	E517 0800	E518 0800	E519 0800	E520 0800
1000	10.0	66	11	10	3	E517 1000	E518 1000	E519 1000	E520 1000
1200	12.0	73	12	12	3	E517 1200	E518 1200	E519 1200	E520 1200
1600	16.0	82	16	16	3	E517 1600	E518 1600	E519 1600	E520 1600
2000	20.0	92	20	20	3	E517 2000	E518 2000	E519 2000	E520 2000

ISO	P								M			K						N						S						H																																	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41														
E517	●	●	●	○	○	○	○	○															●	●	○	○	○	○	○	○																																	
E519	●	●	○	○	○	○	○																●	●	○	○	○	○	○	○																																	

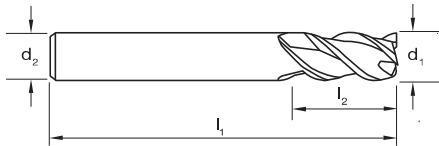
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials
 ● Optimal ○ Effective



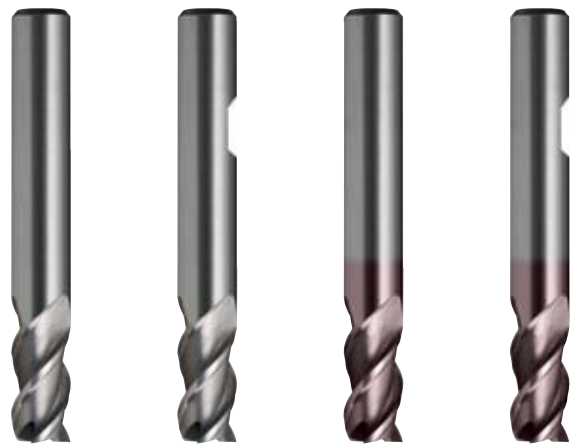
# Endmills Carbide, 3 Flute, R45 W, DIN6527L

## suttontools

- Universal use for slotting & finishing applications, with one tool
- Optimised geometry for soft materials
- Brt for non-ferrous materials
- TiAlN for longer tool life



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance



E521	E522	E523	E524
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
Brt	Brt	TiAlN	TiAlN
W	W	W	W
R45	R45	R45	R45
HA	HB	HA	HB
h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0300	3.0	57	7	6	3	E521 0300	E522 0300	E523 0300	E524 0300
0400	4.0	57	8	6	3	E521 0400	E522 0400	E523 0400	E524 0400
0500	5.0	57	10	6	3	E521 0500	E522 0500	E523 0500	E524 0500
0600	6.0	57	10	6	3	E521 0600	E522 0600	E523 0600	E524 0600
0800	8.0	63	16	8	3	E521 0800	E522 0800	E523 0800	E524 0800
1000	10.0	72	19	10	3	E521 1000	E522 1000	E523 1000	E524 1000
1200	12.0	83	22	12	3	E521 1200	E522 1200	E523 1200	E524 1200
1600	16.0	92	26	16	3	E521 1600	E522 1600	E523 1600	E524 1600
2000	20.0	104	32	20	3	E521 2000	E522 2000	E523 2000	E524 2000

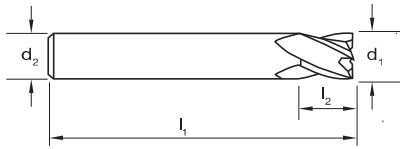
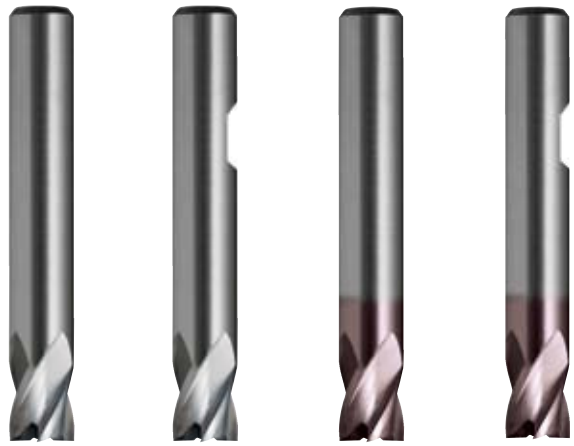
ISO	P													M			K					N							S							H																					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41								
E521	●	●	●	○	○	○	○	○															●	●	●	○	○	○	○	○																											
E523	●	●	●	○	○	○	○																●	●	●	●	●	●	●	●																											

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

# suttontools

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code	<b>E525</b>	<b>E526</b>	<b>E527</b>	<b>E528</b>
Discount Group	B0208	B0208	B0210	B0210
Material	VHM	VHM	VHM	VHM
Surface Finish	Brt	Brt	TiAlN	TiAlN
Sutton Designation	N	N	N	N
Geometry	R30	R30	R30	R30
Shank Form (DIN 6535)	HA	HB	HA	HB
Shank Tolerance	h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0300	3.0	50	5	6	4	E525 0300	E526 0300	E527 0300	E528 0300
0400	4.0	54	8	6	4	E525 0400	E526 0400	E527 0400	E528 0400
0500	5.0	54	9	6	4	E525 0500	E526 0500	E527 0500	E528 0500
0600	6.0	54	10	6	4	E525 0600	E526 0600	E527 0600	E528 0600
0800	8.0	58	12	8	4	E525 0800	E526 0800	E527 0800	E528 0800
1000	10.0	66	14	10	4	E525 1000	E526 1000	E527 1000	E528 1000
1200	12.0	73	16	12	4	E525 1200	E526 1200	E527 1200	E528 1200
1600	16.0	82	22	16	4	E525 1600	E526 1600	E527 1600	E528 1600
2000	20.0	92	26	20	4	E525 2000	E526 2000	E527 2000	E528 2000

ISO	P												M			K				N											S											H									
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
E525	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
E527	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

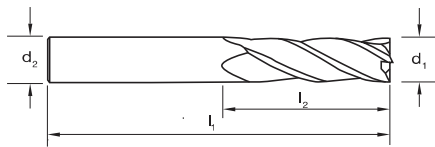
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

# Endmills Carbide, 4 Flute, R30 N, Regular

**suttontools**



- For precision finish milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code	<b>E601</b>	<b>E604</b>
Discount Group	B0212	B0214
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brf</b>	<b>TiAlN</b>
Sutton Designation	<b>N</b>	<b>N</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
0100	1.0	38	4	3	4	E601 0100	E604 0100
0150	1.5	38	4.5	3	4	E601 0150	E604 0150
0200	2.0	38	6	3	4	E601 0200	E604 0200
0250	2.5	38	9.5	3	4	E601 0250	E604 0250
0300	3.0	38	12	3	4	E601 0300	E604 0300
0350	3.5	50	12	4	4	E601 0350	E604 0350
0400	4.0	50	14	4	4	E601 0400	E604 0400
0450	4.5	50	16	6	4	E601 0450	E604 0450
0500	5.0	50	16	6	4	E601 0500	E604 0500
0600	6.0	50	19	6	4	E601 0600	E604 0600
0700	7.0	63	19	8	4	E601 0700	E604 0700
0800	8.0	63	20	8	4	E601 0800	E604 0800
0900	9.0	75	22	10	4	E601 0900	E604 0900
1000	10.0	75	22	10	4	E601 1000	E604 1000
1100	11.0	75	25	12	4	E601 1100	E604 1100
1200	12.0	75	25	12	4	E601 1200	E604 1200
1400	14.0	89	32	14	4	E601 1400	E604 1400
1600	16.0	89	32	16	4	E601 1600	E604 1600
1800	18.0	100	38	18	4	E601 1800	E604 1800
2000	20.0	100	38	20	4	E601 2000	E604 2000
2500	25.0	100	38	25	4	E601 2500	E604 2500

								<b>E333</b>	<b>E336</b>
0159	1/16	1-1/2	3/16	1/8	4			E333 0159	E336 0159
0238	3/32	1-1/2	5/16	1/8	4			E333 0238	E336 0238
0318	1/8	1-1/2	1/2	1/8	4			E333 0318	E336 0318
0397	5/32	2	9/16	5/32	4			E333 0397	E336 0397
0476	3/16	2	5/8	3/16	4			E333 0476	E336 0476
0556	7/32	2-1/2	5/8	7/32	4			E333 0556	E336 0556
0635	1/4	2-1/2	3/4	1/4	4			E333 0635	E336 0635
0794	5/16	2-1/2	13/16	5/16	4			E333 0794	E336 0794
0953	3/8	2-1/2	7/8	3/8	4			E333 0953	E336 0953
1111*	7/16	2-3/4	1	7/16	4			E333 1111	
1270	1/2	3	1	1/2	4			E333 1270	E336 1270
1588	5/8	3-1/2	1-1/4	5/8	4			E333 1588	E336 1588
1905	3/4	4	1-1/2	3/4	4			E333 1905	E336 1905

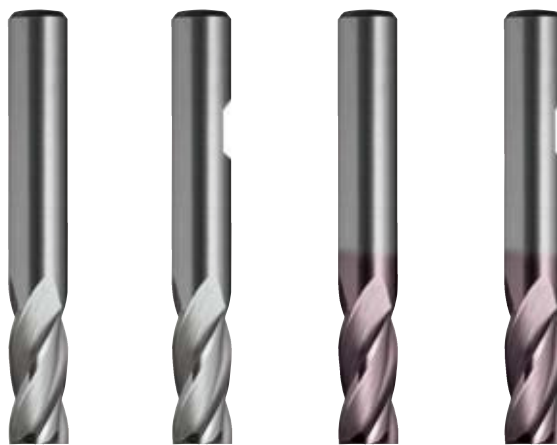
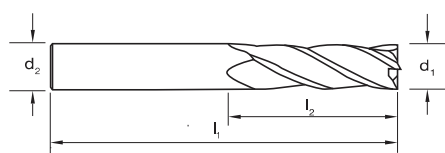
ISO	P										M					K					N						S					H																		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14,1	14,2	14,3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37,1	37,2	37,3	37,4	37,5	38,1	38,2	39,1	39,2	40	41	
E601	●	●	●	●	○	○	○							○	○	○	○	○	○	○	○	○	○	○	○	○																								
E604	●	●	●	○	○	○	○	○	○					○	○	○	○	○	○	○	○	○	○	○	○	○	○																							

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective



## suttontools

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



**Catalogue Code**  
**Discount Group**  
**Material**  
**Surface Finish**  
**Sutton Designation**  
**Geometry**  
**Shank Form (DIN 6535)**  
**Shank Tolerance**

E529	E530	E531	E532
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
<i>Brf</i>	<i>Brf</i>	TiAlN	TiAlN
N	N	N	N
R30	R30	R30	R30
HA	HB	HA	HB
h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0300	3.0	57	8	6	4	E529 0300	E530 0300	E531 0300	E532 0300
0400	4.0	57	11	6	4	E529 0400	E530 0400	E531 0400	E532 0400
0500	5.0	57	13	6	4	E529 0500	E530 0500	E531 0500	E532 0500
0600	6.0	57	13	6	4	E529 0600	E530 0600	E531 0600	E532 0600
0700	7.0	63	16	8	4	E529 0700	E530 0700	E531 0700	E532 0700
0800	8.0	63	19	8	4	E529 0800	E530 0800	E531 0800	E532 0800
0900	9.0	72	19	10	4	E529 0900	E530 0900	E531 0900	E532 0900
1000	10.0	72	22	10	4	E529 1000	E530 1000	E531 1000	E532 1000
1200	12.0	83	26	12	4	E529 1200	E530 1200	E531 1200	E532 1200
1400	14.0	83	26	14	4	E529 1400	E530 1400	E531 1400	E532 1400
1600	16.0	92	32	16	4	E529 1600	E530 1600	E531 1600	E532 1600
1800	18.0	92	32	18	4	E529 1800	E530 1800	E531 1800	E532 1800
2000	20.0	104	38	20	4	E529 2000	E530 2000	E531 2000	E532 2000

ISO	P											M			K					N										S							H															
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
E529	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
E531	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

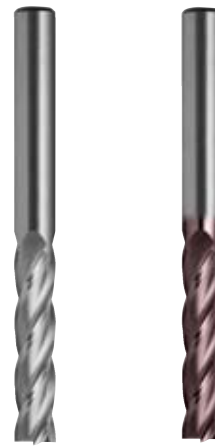
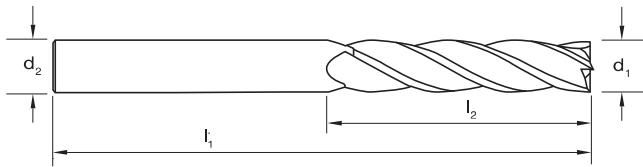
P Steel   M Stainless Steel   K Cast Iron   N Non-Ferrous Metals   S Titanium & Super Alloys   H Hard Materials

● Optimal ○ Effective



# suttontools

- For extra long-reach finish milling applications
- Suitable for materials up to 1300 N/mm<sup>2</sup>



Catalogue Code	<b>E341</b>	<b>E344</b>
Discount Group	<b>B0208</b>	<b>B0210</b>
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAlN</b>
Sutton Designation	<b>N</b>	<b>N</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
0300	3.0	75	25	3	4	E341 0300	E344 0300
0400	4.0	75	28	4	4	E341 0400	E344 0400
0500	5.0	75	32	5	4	E341 0500	E344 0500
0600	6.0	100	38	6	4	E341 0600	E344 0600
0800	8.0	100	41	8	4	E341 0800	E344 0800
1000	10.0	100	44	10	4	E341 1000	E344 1000
1200	12.0	150	75	12	4	E341 1200	E344 1200
1400	14.0	150	75	14	4	E341 1400	E344 1400
1600	16.0	150	75	16	4	E341 1600	E344 1600
1800	18.0	150	75	18	4	E341 1800	E344 1800
2000	20.0	150	75	20	4	E341 2000	E344 2000

ISO	P										M			K					N										S										H																					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41											
E341	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○							
E344	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

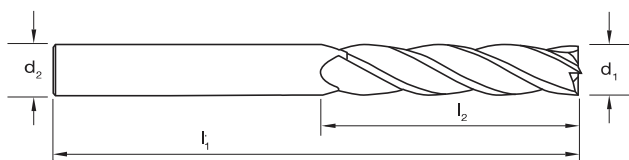
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

# Endmills Carbide, 4 Flute, R30 N, Extra Long

**suttontools**

**TECLINE**

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>



Catalogue Code	<b>E609</b>
Discount Group	<b>B0212</b>
Material	<b>VHM</b>
Surface Finish	<b>Br</b>
Sutton Designation	<b>N</b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #
<b>0300</b>	<b>3.0</b>	100	40	3	4	E609 0300
<b>0400</b>	<b>4.0</b>	100	40	4	4	E609 0400
<b>0500</b>	<b>5.0</b>	100	40	5	4	E609 0500
<b>0600</b>	<b>6.0</b>	100	50	6	4	E609 0600
<b>0800</b>	<b>8.0</b>	100	50	8	4	E609 0800
<b>1000</b>	<b>10.0</b>	150	75	10	4	E609 1000
<b>1200</b>	<b>12.0</b>	150	75	12	4	E609 1200
<b>1600</b>	<b>16.0</b>	150	75	16	4	E609 1600
<b>2000</b>	<b>20.0</b>	150	75	20	4	E609 2000

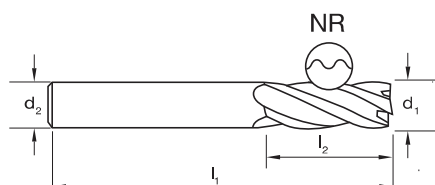
ISO	P										M					K					N										S										H														
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41						
E609	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

# suttontools

- For roughing applications
- NR geometry allows for heavy cuts
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code	<b>E547</b>	<b>E548</b>
Discount Group	B0210	B0210
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>TiAlN</b>	<b>TiAlN</b>
Sutton Designation	<b>N</b>	<b>N</b>
Geometry	R30 NR	R30 NR
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (js14)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0400</b>	<b>4.0</b>	57	11	6	3	E547 0400	E548 0400
<b>0500</b>	<b>5.0</b>	57	13	6	3	E547 0500	E548 0500
<b>0600</b>	<b>6.0</b>	57	13	6	3	E547 0600	E548 0600
<b>0800</b>	<b>8.0</b>	63	19	8	3	E547 0800	E548 0800
<b>1000</b>	<b>10.0</b>	72	22	10	4	E547 1000	E548 1000
<b>1200</b>	<b>12.0</b>	83	26	12	4	E547 1200	E548 1200
<b>1600</b>	<b>16.0</b>	92	32	16	4	E547 1600	E548 1600
<b>2000</b>	<b>20.0</b>	104	38	20	4	E547 2000	E548 2000

ISO	P													M			K					N										S										H							
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
<b>E547</b>	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective





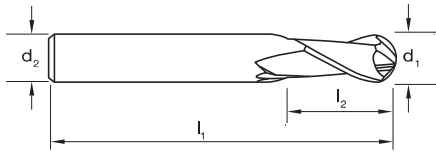


# Slot Drills Carbide, Ballnose, 2 Flute, R30 N, Regular

## suttontools

## TECLINE

- For profile & contour milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code	<b>E602</b>	<b>E605</b>
Discount Group	<b>B0212</b>	<b>B0214</b>
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brf</b>	<b>TiAlN</b>
Sutton Designation	<b>N</b>	<b>N</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0100</b>	<b>1.0</b>	38	4	3	2	E602 0100	E605 0100
<b>0150</b>	<b>1.5</b>	38	4.5	3	2	E602 0150	E605 0150
<b>0200</b>	<b>2.0</b>	38	6	3	2	E602 0200	E605 0200
<b>0250</b>	<b>2.5</b>	38	9.5	3	2	E602 0250	E605 0250
<b>0300</b>	<b>3.0</b>	38	12	3	2	E602 0300	E605 0300
<b>0350</b>	<b>3.5</b>	50	12	4	2		E605 0350
<b>0400</b>	<b>4.0</b>	50	14	4	2	E602 0400	E605 0400
<b>0500</b>	<b>5.0</b>	50	16	6	2	E602 0500	E605 0500
<b>0600</b>	<b>6.0</b>	50	19	6	2	E602 0600	E605 0600
<b>0700</b>	<b>7.0</b>	63	19	8	2	E602 0700	E605 0700
<b>0800</b>	<b>8.0</b>	63	20	8	2	E602 0800	E605 0800
<b>0900</b>	<b>9.0</b>	75	20	10	2	E602 0900	E605 0900
<b>1000</b>	<b>10.0</b>	75	22	10	2	E602 1000	E605 1000
<b>1100</b>	<b>11.0</b>	75	25	12	2	E602 1100	E605 1100
<b>1200</b>	<b>12.0</b>	75	25	12	2	E602 1200	E605 1200
<b>1400</b>	<b>14.0</b>	89	32	14	2	E602 1400	E605 1400
<b>1600</b>	<b>16.0</b>	89	32	16	2	E602 1600	E605 1600
<b>1800</b>	<b>18.0</b>	100	38	18	2	E602 1800	E605 1800
<b>2000</b>	<b>20.0</b>	100	38	20	2	E602 2000	E605 2000
<b>2500</b>	<b>25.0</b>	100	38	25	2	E602 2500	E605 2500

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0159</b>	<b>1/16</b>	1-1/2	3/16	1/8	2	E311 0159	E314 0159
<b>0238</b>	<b>3/32</b>	1-1/2	5/16	1/8	2	E311 0238	E314 0238
<b>0318</b>	<b>1/8</b>	1-1/2	1/2	1/8	2	E311 0318	E314 0318
<b>0397</b>	<b>5/32</b>	2	9/16	3/16	2	E311 0397	E314 0397
<b>0476</b>	<b>3/16</b>	2	5/8	3/16	2	E311 0476	E314 0476
<b>0635</b>	<b>1/4</b>	2-1/2	3/4	1/4	2	E311 0635	E314 0635
<b>0794</b>	<b>5/16</b>	2-1/2	13/16	5/16	2	E311 0794	E314 0794
<b>0953</b>	<b>3/8</b>	2-1/2	7/8	3/8	2	E311 0953	E314 0953
<b>1111</b>	<b>7/16</b>	2-3/4	1	7/16	2	E311 1111	E314 1111
<b>1270</b>	<b>1/2</b>	3	1	1/2	2	E311 1270	E314 1270
<b>1588</b>	<b>5/8</b>	3-1/2	1-1/4	5/8	2	E311 1588	E314 1588
<b>1905</b>	<b>3/4</b>	4	1-1/2	3/4	2	E311 1905	E314 1905

ISO	P										M			K					N										S							H														
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E602</b>	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
<b>E605</b>	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

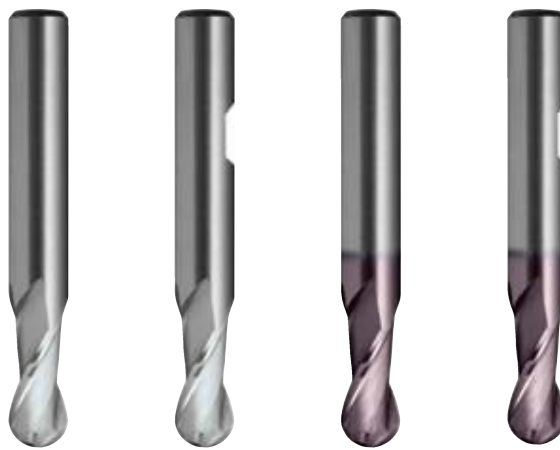
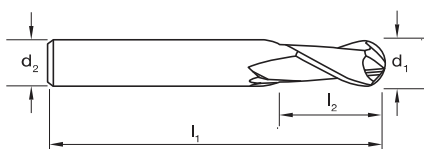
**P** Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials

● Optimal ○ Effective

# Slot Drills Carbide, Ballnose, 2 Flute, R30 N, DIN6527L

## suttontools

- For profile & contour milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance

E551	E552	E553	E554
B0208	B0208	B0210	B0210
VHM	VHM	VHM	VHM
Br <sub>t</sub>	Br <sub>t</sub>	TiAlN	TiAlN
N	N	N	N
R30	R30	R30	R30
HA	HB	HA	HB
h6	h6	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #	Item #	Item #
0200	2.0	57	6	6	2	E551 0200	E552 0200	E553 0200	E554 0200
0300	3.0	57	7	6	2	E551 0300	E552 0300	E553 0300	E554 0300
0400	4.0	57	8	6	2	E551 0400	E552 0400	E553 0400	E554 0400
0500	5.0	57	10	6	2	E551 0500	E552 0500	E553 0500	E554 0500
0600	6.0	57	10	6	2	E551 0600	E552 0600	E553 0600	E554 0600
0800	8.0	63	16	8	2	E551 0800	E552 0800	E553 0800	E554 0800
1000	10.0	72	19	10	2	E551 1000	E552 1000	E553 1000	E554 1000
1200	12.0	83	22	12	2	E551 1200	E552 1200	E553 1200	E554 1200

ISO	P													M			K						N						S						H																	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
E551	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
E553	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys □ Hard Materials

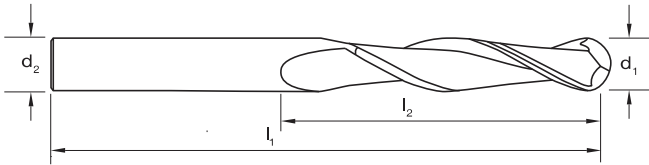
● Optimal ○ Effective



# Slot Drills Carbide, Ballnose, 2 Flute, R30N, Extra Long

## suttontools

- For profile & contour milling in extra long reach applications
- Suitable for materials up to 1300 N/mm<sup>2</sup>



**Catalogue Code**  
**Discount Group**  
**Material**  
**Surface Finish**  
**Sutton Designation**  
**Geometry**  
**Shank Form (DIN 6535)**  
**Shank Tolerance**

**E315**  
**B0208**  
**VHM**  
**Brt**  
**N**  
**R30**  
**HA**  
**h6**

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #
0300	3.0	76	25	3	2	E315 0300
0400	4.0	76	28	4	2	E315 0400
0500	5.0	76	32	5	2	E315 0500
0600	6.0	102	38	6	2	E315 0600
0800	8.0	102	42	8	2	E315 0800
1000	10.0	102	45	10	2	E315 1000
1200	12.0	153	76	12	2	E315 1200
1400	14.0	153	76	14	2	E315 1400
1600	16.0	153	76	16	2	E315 1600
1800	18.0	153	76	18	2	E315 1800
2000	20.0	153	76	20	2	E315 2000

ISO	P										M			K						N										S							H												
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E315	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
P Steel	M Stainless Steel	K Cast Iron	N Non-Ferrous Metals	S Titanium & Super Alloys	H Hard Materials																																												

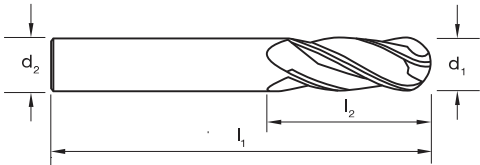
● Optimal ○ Effective

# Endmills Carbide, Ballnose, 4 Flute, R30N, Regular

## suttontools



- For profile & contour milling applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code	<b>E606</b>	<b>E607</b>
Discount Group	<b>B0208</b>	<b>B0214</b>
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAlN</b>
Sutton Designation	<b>N</b>	<b>N</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0100</b>	<b>1.0</b>	38	4	3	4	E606 0100	E607 0100
<b>0150</b>	<b>1.5</b>	38	4.5	3	4	E606 0150	E607 0150
<b>0200</b>	<b>2.0</b>	38	6	3	4	E606 0200	E607 0200
<b>0250</b>	<b>2.5</b>	38	9.5	3	4	E606 0250	E607 0250
<b>0300</b>	<b>3.0</b>	38	12	3	4	E606 0300	E607 0300
<b>0350</b>	<b>3.5</b>	50	12	4	4		E607 0350
<b>0400</b>	<b>4.0</b>	50	14	4	4	E606 0400	E607 0400
<b>0450</b>	<b>4.5</b>	50	16	6	4		E607 0450
<b>0500</b>	<b>5.0</b>	50	16	6	4	E606 0500	E607 0500
<b>0600</b>	<b>6.0</b>	50	19	6	4	E606 0600	E607 0600
<b>0700</b>	<b>7.0</b>	63	19	8	4		E607 0700
<b>0800</b>	<b>8.0</b>	63	20	8	4	E606 0800	E607 0800
<b>0900</b>	<b>9.0</b>	75	22	10	4		E607 0900
<b>1000</b>	<b>10.0</b>	75	22	10	4	E606 1000	E607 1000
<b>1100</b>	<b>11.0</b>	75	25	12	4		E607 1100
<b>1200</b>	<b>12.0</b>	75	25	12	4	E606 1200	E607 1200
<b>1400</b>	<b>14.0</b>	89	32	14	4		E607 1400
<b>1600</b>	<b>16.0</b>	89	32	16	4	E606 1600	E607 1600
<b>1800</b>	<b>18.0</b>	100	38	18	4		E607 1800
<b>2000</b>	<b>20.0</b>	100	38	20	4	E606 2000	E607 2000
<b>2500</b>	<b>25.0</b>	100	38	25	4		E607 2500

						<b>E316</b>	<b>E319</b>
<b>0159</b>	<b>1/16</b>	1-1/2	3/16	1/8	4	E316 0159	E319 0159
<b>0318</b>	<b>1/8</b>	1-1/2	1/2	1/8	4	E316 0318	E319 0318
<b>0476</b>	<b>3/16</b>	2	5/8	3/16	4	E316 0476	E319 0476
<b>0635</b>	<b>1/4</b>	2-1/2	3/4	1/4	4	E316 0635	E319 0635
<b>0794</b>	<b>5/16</b>	2-1/2	13/16	5/16	4	E316 0794	E319 0794
<b>0953</b>	<b>3/8</b>	2-1/2	7/8	3/8	4	E316 0953	E319 0953
<b>1270</b>	<b>1/2</b>	3	1	1/2	4	E316 1270	E319 1270

ISO	P											M			K						N						S						H																					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41					
<b>E606</b>	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
<b>E607</b>	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

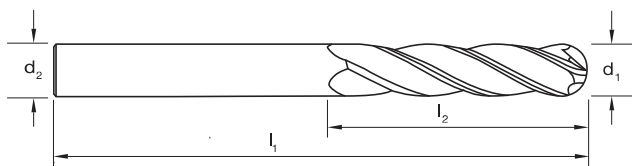
• Available on request as special manufacture. Subject to lead time.





## suttontools

- For profile & contour milling in extra long reach applications
- Suitable for materials up to 1300 N/mm<sup>2</sup>
- Minimal deflection due to strong/larger core



Catalogue Code	<b>E320</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<i>Br</i>
Sutton Designation	<b>N</b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #
<b>0300</b>	<b>3.0</b>	76	25	3	4	E320 0300
<b>0400</b>	<b>4.0</b>	76	28	4	4	E320 0400
<b>0500</b>	<b>5.0</b>	76	32	5	4	E320 0500
<b>0600</b>	<b>6.0</b>	102	38	6	4	E320 0600
<b>0800</b>	<b>8.0</b>	102	42	8	4	E320 0800
<b>1000</b>	<b>10.0</b>	102	45	10	4	E320 1000
<b>1200</b>	<b>12.0</b>	153	76	12	4	E320 1200
<b>1400</b>	<b>14.0</b>	153	76	14	4	E320 1400
<b>1600</b>	<b>16.0</b>	153	76	16	4	E320 1600
<b>1800</b>	<b>18.0</b>	153	76	18	4	E320 1800
<b>2000</b>	<b>20.0</b>	153	76	20	4	E320 2000

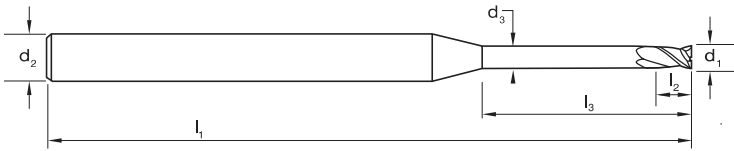
ISO	P										M					K					N										S										H									
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E320</b>	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel 
 M Stainless Steel 
 K Cast Iron 
 N Non-Ferrous Metals 
 S Titanium & Super Alloys 
 H Hard Materials

● Optimal ○ Effective

## suttontools

- For precision milling of cavities
- Suitable for materials up to 35-52 HRC
- TiSiN for high speed machining



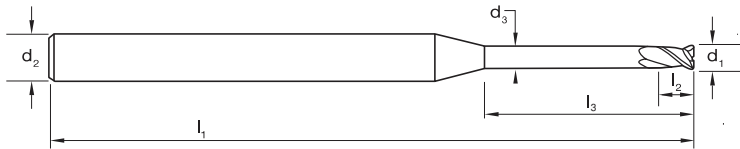
Catalogue Code	<b>E580</b>
Discount Group	<b>B0218</b>
Material	<b>VHM</b>
Surface Finish	<b>TiSiN</b>
Application	<b>NH</b>
Geometry	R40
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub> *	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #
0021	0.2	50	0.2	0.5	4	0.16	2	E580 0021
0022		50	0.2	1	4	0.16	2	E580 0022
0023		50	0.2	1.5	4	0.16	2	E580 0023
0041	0.4	50	0.4	2	4	0.37	2	E580 0041
0042		50	0.4	4	4	0.37	2	E580 0042
0051	0.5	50	0.7	2	4	0.45	2	E580 0051
0052		50	0.7	4	4	0.45	2	E580 0052
0053		50	0.7	6	4	0.45	2	E580 0053
0061	0.6	50	0.9	4	4	0.55	2	E580 0061
0062		50	0.9	8	4	0.55	2	E580 0062
0081	0.8	50	1.2	4	4	0.75	2	E580 0081
0082		50	1.2	6	4	0.75	2	E580 0082
0083		50	1.2	8	4	0.75	2	E580 0083
0101	1	50	1.5	6	4	0.95	2	E580 0101
0102		50	1.5	8	4	0.95	2	E580 0102
0103		50	1.5	10	4	0.95	2	E580 0103
0104		50	1.5	12	4	0.95	2	E580 0104
0105		50	1.5	16	4	0.95	2	E580 0105
0121	1.2	50	1.8	6	4	1.15	2	E580 0121
0122		50	1.8	10	4	1.15	2	E580 0122
0123		50	1.8	12	4	1.15	2	E580 0123
0151	1.5	50	2.3	6	4	1.45	2	E580 0151
0152		50	2.3	8	4	1.45	2	E580 0152
0153		50	2.3	12	4	1.45	2	E580 0153
0154		50	2.3	16	4	1.45	2	E580 0154
0155		60	2.3	20	4	1.45	2	E580 0155
0201	2	50	3.0	6	4	1.95	2	E580 0201
0202		50	3.0	8	4	1.95	2	E580 0202
0203		50	3.0	10	4	1.95	2	E580 0203
0204		50	3.0	12	4	1.95	2	E580 0204
0205		50	3.0	16	4	1.95	2	E580 0205
0206		60	3.0	20	4	1.95	2	E580 0206
0207		75	3.0	25	4	1.95	2	E580 0207
0251	2.5	50	3.7	8	4	2.40	2	E580 0251
0252		50	3.7	12	4	2.40	2	E580 0252
0301	3	60	4.5	16	6	2.85	2	E580 0301
0302		60	4.5	20	6	2.85	2	E580 0302
0303		75	4.5	25	6	2.85	2	E580 0303

ISO	P								M					K					N					S					H																										
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41						
E580									●	●	○			○	●																					●	●				●		●	●	●										
P	Steel	M	Stainless Steel	K	Cast Iron	N	Non-Ferrous Metals	S	Titanium & Super Alloys	H	Hard Materials																				●	Optimal	○	Effective																					

\*Cutting Ø tolerance: d<sub>1</sub> < 0.7 = 0 / -0.012 d<sub>1</sub> > 0.7 = 0 / -0.020

- For precision milling of cavities
- Suitable for materials up to 35-52 HRC
- TiSiN for high speed machining



Catalogue Code	<b>E581</b>
Discount Group	<b>B0218</b>
Material	<b>VHM</b>
Surface Finish	<b>TiSiN</b>
Application	<b>NH</b>
Geometry	R40
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub> *	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad†	Item #
<b>0021</b>	<b>0.2</b>	50	0.3	0.5	4	0.16	2	0.02	E581 0021
<b>0022</b>		50	0.3	1	4	0.16	2	0.02	E581 0022
<b>0023</b>		50	0.3	1.5	4	0.16	2	0.02	E581 0023
<b>0041</b>	<b>0.4</b>	50	0.6	2	4	0.37	2	0.03	E581 0041
<b>0042</b>		50	0.6	4	4	0.37	2	0.03	E581 0042
<b>0051</b>	<b>0.5</b>	50	0.7	2	4	0.45	2	0.05	E581 0051
<b>0052</b>		50	0.7	4	4	0.45	2	0.05	E581 0052
<b>0053</b>		50	0.7	6	4	0.45	2	0.05	E581 0053
<b>0061</b>	<b>0.6</b>	50	0.9	4	4	0.55	2	0.05	E581 0061
<b>0062</b>		50	0.9	8	4	0.55	2	0.05	E581 0062
<b>0081</b>	<b>0.8</b>	50	1.2	4	4	0.75	2	0.08	E581 0081
<b>0082</b>		50	1.2	6	4	0.75	2	0.08	E581 0082
<b>0083</b>		50	1.2	8	4	0.75	2	0.08	E581 0083
<b>0101</b>	<b>1</b>	50	1.5	6	4	0.95	2	0.1	E581 0101
<b>0102</b>		50	1.5	8	4	0.95	2	0.1	E581 0102
<b>0103</b>		50	1.5	10	4	0.95	2	0.1	E581 0103
<b>0104</b>		50	1.5	12	4	0.95	2	0.1	E581 0104
<b>0105</b>		50	1.5	16	4	0.95	2	0.1	E581 0105
<b>0121</b>	<b>1.2</b>	50	1.8	6	4	1.15	2	0.1	E581 0121
<b>0122</b>		50	1.8	10	4	1.15	2	0.1	E581 0122
<b>0123</b>		50	1.8	12	4	1.15	2	0.1	E581 0123
<b>0151</b>	<b>1.5</b>	50	2.3	6	4	1.45	2	0.15	E581 0151
<b>0152</b>		50	2.3	8	4	1.45	2	0.15	E581 0152
<b>0153</b>		50	2.3	12	4	1.45	2	0.15	E581 0153
<b>0154</b>		50	2.3	16	4	1.45	2	0.15	E581 0154
<b>0155</b>		60	2.3	20	4	1.45	2	0.15	E581 0155
<b>0201</b>	<b>2</b>	50	3.0	6	4	1.95	2	0.2	E581 0201
<b>0202</b>		50	3.0	8	4	1.95	2	0.2	E581 0202
<b>0203</b>		50	3.0	10	4	1.95	2	0.2	E581 0203
<b>0204</b>		50	3.0	12	4	1.95	2	0.2	E581 0204
<b>0205</b>		50	3.0	16	4	1.95	2	0.2	E581 0205
<b>0206</b>		60	3.0	20	4	1.95	2	0.2	E581 0206
<b>0207</b>		75	3.0	25	4	1.95	2	0.2	E581 0207
<b>0251</b>	<b>2.5</b>	50	3.7	8	4	2.40	2	0.3	E581 0251
<b>0252</b>		50	3.7	12	4	2.40	2	0.3	E581 0252
<b>0301</b>	<b>3</b>	60	4.5	16	6	2.95	2	0.3	E581 0301
<b>0302</b>		60	4.5	20	6	2.95	2	0.3	E581 0302
<b>0303</b>		75	4.5	25	6	2.95	2	0.3	E581 0303

ISO	P								M				K				N								S				H																						
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
E581																																																			

**P** Steel   **M** Stainless Steel   **K** Cast Iron   **N** Non-Ferrous Metals   **S** Titanium & Super Alloys   **H** Hard Materials   ● Optimal   ○ Effective

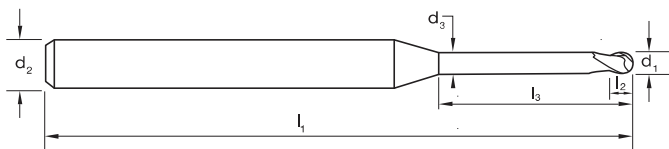
\*Cutting Ø tolerance: d<sub>1</sub> < 0.7 = 0 / -0.012   d<sub>1</sub> > 0.7 = 0 / -0.020   †Radius tolerance: Rad = +-0.01



# Endmills Carbide, Micro, Ballnose, 2 Flute, Long Reach

## suttontools

- For profile & contour milling in long reach applications
- Suitable for materials up to 35-52 HRC
- TiSiN for high speed machining



Catalogue Code **E582**  
 Discount Group **B0218**  
 Material **VHM**  
 Surface Finish **TiSiN**  
 Application **NH**  
 Geometry **R30**  
 Shank Form (DIN 6535) **HA**  
 Shank Tolerance **h6**

Size Ref.	d <sub>1</sub> *	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad†	Item #
0021	0.2	50	0.2	0.5	4	0.15	2	0.1	E582 0021
0022		50	0.2	1	4	0.15	2	0.1	E582 0022
0023		50	0.2	1.5	4	0.15	2	0.1	E582 0023
0041	0.4	50	0.4	2	4	0.35	2	0.2	E582 0041
0042		50	0.4	4	4	0.35	2	0.2	E582 0042
0051	0.5	50	0.4	2	4	0.45	2	0.25	E582 0051
0052		50	0.4	6	4	0.45	2	0.25	E582 0052
0061	0.6	50	0.5	2	4	0.55	2	0.3	E582 0061
0062		50	0.5	4	4	0.55	2	0.3	E582 0062
0063		50	0.5	6	4	0.55	2	0.3	E582 0063
0064	0.6	50	0.5	8	4	0.55	2	0.3	E582 0064
0081	0.8	50	0.6	4	4	0.75	2	0.4	E582 0081
0082		50	0.6	8	4	0.75	2	0.4	E582 0082
0083		50	0.6	10	4	0.75	2	0.4	E582 0083
0101	1	50	0.8	4	4	0.95	2	0.5	E582 0101
0102		50	0.8	6	4	0.95	2	0.5	E582 0102
0103		50	0.8	8	4	0.95	2	0.5	E582 0103
0104		50	0.8	10	4	0.95	2	0.5	E582 0104
0105		50	0.8	12	4	0.95	2	0.5	E582 0105
0106		50	0.8	14	4	0.95	2	0.5	E582 0106
0107		60	0.8	20	4	0.95	2	0.5	E582 0107
0121	1.2	50	1.0	8	4	1.15	2	0.6	E582 0121
0123		50	1.0	10	4	1.15	2	0.6	E582 0123
0122		50	1.0	12	4	1.15	2	0.6	E582 0122
0151	1.5	50	1.2	8	4	1.45	2	0.75	E582 0151
0152		50	1.2	12	4	1.45	2	0.75	E582 0152
0153		50	1.2	16	4	1.45	2	0.75	E582 0153
0154		50	1.2	18	4	1.45	2	0.75	E582 0154
0201	2	50	1.6	6	4	1.95	2	1.0	E582 0201
0202		50	1.6	8	4	1.95	2	1.0	E582 0202
0203		50	1.6	12	4	1.95	2	1.0	E582 0203
0204		50	1.6	16	4	1.95	2	1.0	E582 0204
0205		60	1.6	20	4	1.95	2	1.0	E582 0205
0206		75	1.6	30	4	1.95	2	1.0	E582 0206
0301	3	50	2.4	10	6	2.85	2	1.5	E582 0301
0302		60	2.4	16	6	2.85	2	1.5	E582 0302
0303		75	2.4	25	6	2.85	2	1.5	E582 0303
0304		75	2.4	30	6	2.85	2	1.5	E582 0304

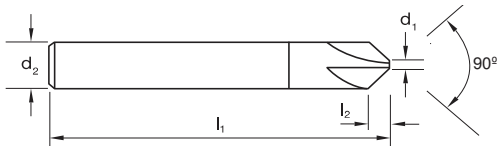
ISO	P								M						K						N						S						H																					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41					
E582																																																						
	P	M	K	N	S	H																																																

\*Cutting Ø tolerance: d<sub>1</sub> < 0.7 = 0 / -0.012 d<sub>1</sub> > 0.7 = 0 / -0.020 †Radius tolerance: Rad = +-0.01

# Endmills Carbide, Chamfer, 4 Flute 90°

## suttontools

- For chamfering & deburring component edges
- Straight flute for smooth cutting
- 90° form
- TiAlN for longer tool life



Catalogue Code	<b>E456</b>
Discount Group	<b>B0210</b>
Material	<b>VHM</b>
Surface Finish	<b>TiAlN</b>
Sutton Designation	<b>N</b>
Geometry	90°
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	$l_2$	$l_1$	$d_1$	$d_2$	$z$	Item #
<b>0600</b>	<b>2.4</b>	57	1.2	6	4	E456 0600
<b>0800</b>	<b>3.2</b>	63	1.6	8	4	E456 0800
<b>1000</b>	<b>4.0</b>	72	2.0	10	4	E456 1000
<b>1200</b>	<b>4.8</b>	83	2.4	12	4	E456 1200

ISO	P											M				K						N						S						H																
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E456</b>	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

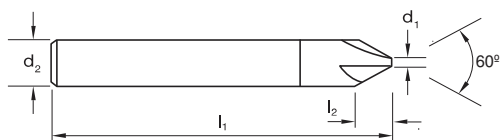
P Steel 
 M Stainless Steel 
 K Cast Iron 
 N Non-Ferrous Metals 
 S Titanium & Super Alloys 
 H Hard Materials

● Optimal ○ Effective

# Endmills Carbide, Chamfer, 4 Flute 60°

## suttontools

- For chamfering & deburring component edges
- Straight flute for smooth cutting
- 60° form
- TiAlN for longer tool life



Catalogue Code	<b>E457</b>
Discount Group	B0210
Material	<b>VHM</b>
Surface Finish	<b>TiAlN</b>
Sutton Designation	N
Geometry	60°
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	$l_2$	$l_1$	$d_1$	$d_2$	$z$	Item #
<b>0600</b>	<b>3.8</b>	57	1.2	6	4	E457 0600
<b>0800</b>	<b>5.5</b>	63	1.6	8	4	E457 0800
<b>1000</b>	<b>6.9</b>	72	2.0	10	4	E457 1000
<b>1200</b>	<b>8.3</b>	83	2.4	12	4	E457 1200

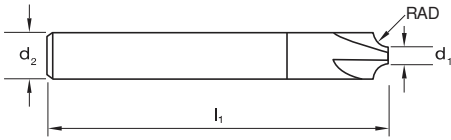
ISO	P										M			K						N						S						H																				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
E457	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
P	Steel	M	Stainless Steel	K	Cast Iron	N	Non-Ferrous Metals	S	Titanium & Super Alloys	H	Hard Materials																																									

● Optimal ○ Effective

# Endmills Carbide, Chamfer, 4 Flute, Corner Rad

## suttontools

- For chamfering & deburring component edges
- Straight flute for smooth cutting
- Radius for corner rounding
- TiAlN for longer tool life



Catalogue Code	<b>E458</b>
Discount Group	B0210
Material	<b>VHM</b>
Surface Finish	<b>TiAlN</b>
Sutton Designation	<b>N</b>
Geometry	Rad
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	rad	d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	z	Item #
<b>0605</b>	<b>0.5</b>	5.0	57	6	4	E458 0605
<b>0610</b>	<b>1</b>	4.0	57	6	4	E458 0610
<b>0815</b>	<b>1.5</b>	5.0	63	8	4	E458 0815
<b>0820</b>	<b>2</b>	4.0	63	8	4	E458 0820
<b>1025</b>	<b>2.5</b>	5.0	72	10	4	E458 1025
<b>1030</b>	<b>3</b>	4.0	72	10	4	E458 1030
<b>1235</b>	<b>3.5</b>	5.0	83	12	4	E458 1235
<b>1240</b>	<b>4</b>	4.0	83	12	4	E458 1240

ISO	P												M			K						N						S						H																
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E458</b>	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel 
 M Stainless Steel 
 K Cast Iron 
 N Non-Ferrous Metals 
 S Titanium & Super Alloys 
 H Hard Materials

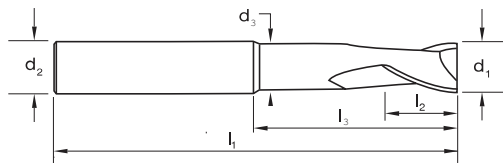
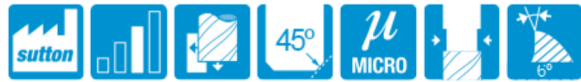
● Optimal ○ Effective

# Slot Drills Carbide, 2 Flute, R30 UNI, Long Reach, *Harmony*

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- AlCrN for longer tool life



Catalogue Code	<b>E418</b>	<b>E419</b>
Discount Group	<b>B0210</b>	<b>B0210</b>
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>	<b>AlCrN</b>
Sutton Designation	<b>UNI</b>	<b>UNI</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
0200	2.0	54	3	9	6	1.8	2	E418 0200	E419 0200
0250	2.5	54	3.5	9	6	2.2	2	E418 0250	E419 0250
0300	3.0	54	4	11	6	2.7	2	E418 0300	E419 0300
0350	3.5	57	4.5	11	6	3.1	2	E418 0350	E419 0350
0400	4.0	57	5	15	6	3.6	2	E418 0400	E419 0400
0450	4.5	57	5.5	15	6	4.1	2	E418 0450	E419 0450
0500	5.0	62	6	23	6	4.5	2	E418 0500	E419 0500
0550	5.5	62	6.5	23	6	5.0	2	E418 0550	E419 0550
0600	6.0	62	7	24	6	5.4	2	E418 0600	E419 0600
0700	7.0	68	8	28	8	6.3	2	E418 0700	E419 0700
0800	8.0	68	9	30	8	7.2	2	E418 0800	E419 0800
0900	9.0	80	10	36	10	8.2	2	E418 0900	E419 0900
1000	10.0	80	11	38	10	9.0	2	E418 1000	E419 1000
1100	11.0	93	12	44	12	10.0	2	E418 1100	E419 1100
1200	12.0	93	13	46	12	11.0	2	E418 1200	E419 1200
1300	13.0	93	14	44	14	12.0	2	E418 1300	E419 1300
1400	14.0	93	15	46	14	13.0	2	E418 1400	E419 1400
1500	15.0	108	16	56	16	14.0	2	E418 1500	E419 1500
1600	16.0	108	17	58	16	15.0	2	E418 1600	E419 1600
1800	18.0	108	19	58	18	17.0	2	E418 1800	E419 1800
2000	20.0	126	21	74	20	19.0	2	E418 2000	E419 2000

ISO	P													M			K					N										S										H							
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E418	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	●	●	●	●	●	●	●	●	●	●	●	●

**P** Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials ● Optimal ○ Effective

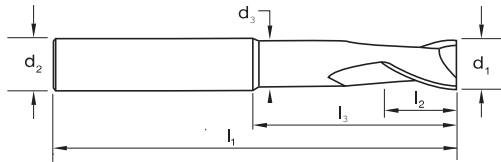


# Slot Drills Carbide, 2 Flute, R30 UNI Cnr Rad, Long Reach, Harmony

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- For precision milling of slots & cavities
- Suitable for materials up to 1300 N/mm<sup>2</sup>
- AlCrN for longer tool life



Catalogue Code	<b>E420</b>	<b>E421</b>
Discount Group	<b>B0210</b>	<b>B0210</b>
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>	<b>AlCrN</b>
Sutton Designation	<b>UNI</b>	<b>UNI</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #	Item #
<b>0403</b>	<b>4.0</b>	57	5	16	6	3.6	2	0.3	E420 0403	E421 0403
<b>0405</b>		57	5	16	6	3.6	2	0.5	E420 0405	E421 0405
<b>0603</b>	<b>6.0</b>	62	7	24	6	5.4	2	0.3	E420 0603	E421 0603
<b>0605</b>		62	7	24	6	5.4	2	0.5	E420 0605	E421 0605
<b>0610</b>		62	7	24	6	5.4	2	1.0	E420 0610	E421 0610
<b>0615</b>		62	7	24	6	5.4	2	1.5	E420 0615	E421 0615
<b>0803</b>	<b>8.0</b>	68	9	30	8	7.2	2	0.3	E420 0803	E421 0803
<b>0805</b>		68	9	30	8	7.2	2	0.5	E420 0805	E421 0805
<b>0810</b>		68	9	30	8	7.2	2	1.0	E420 0810	E421 0810
<b>0815</b>		68	9	30	8	7.2	2	1.5	E420 0815	E421 0815
<b>1005</b>	<b>10.0</b>	80	11	38	10	9.0	2	0.5	E420 1005	E421 1005
<b>1010</b>		80	11	38	10	9.0	2	1.0	E420 1010	E421 1010
<b>1015</b>		80	11	38	10	9.0	2	1.5	E420 1015	E421 1015
<b>1020</b>		80	11	38	10	9.0	2	2.0	E420 1020	E421 1020
<b>1205</b>	<b>12.0</b>	93	13	46	12	11.0	2	0.5	E420 1205	E421 1205
<b>1210</b>		93	13	46	12	11.0	2	1.0	E420 1210	E421 1210
<b>1215</b>		93	13	46	12	11.0	2	1.5	E420 1215	E421 1215
<b>1220</b>		93	13	46	12	11.0	2	2.0	E420 1220	E421 1220
<b>1610</b>	<b>16.0</b>	108	17	58	16	15.0	2	1.0	E420 1610	E421 1610
<b>1620</b>		108	17	58	16	15.0	2	2.0	E420 1620	E421 1620
<b>1630</b>		108	17	58	16	15.0	2	3.0	E420 1630	E421 1630
<b>1640</b>		108	17	58	16	15.0	2	4.0	E420 1640	E421 1640



ISO	P											M				K				N								S								H															
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
E420	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

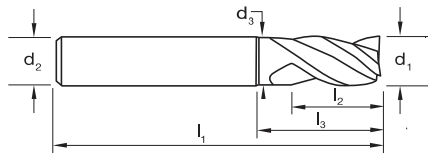
● Optimal ○ Effective



suttontools

HARMONY

- VHM-ULTRA grade of carbide for high performance
- Universal use for slotting & finishing with the one tool
- 38/37/39° variable flute helix for chatter free milling
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- AlCrN for longer tool life



Catalogue Code

**E422**

**E423**

Discount Group

B0210

B0210

Material

VHM-ULTRA

VHM-ULTRA

Surface Finish

AlCrN

AlCrN

Sutton Designation

UNI

UNI

Geometry

R38/37/39

R38/37/39

Shank Form (DIN 6535)

HA

HB

Shank Tolerance

h5

h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
0300	3.0	50	5	-	6	-	3	E422 0300	E423 0300
0350	3.5	50	6	-	6	-	3	E422 0350	E423 0350
0400	4.0	54	8	13	6	3.8	3	E422 0400	E423 0400
0450	4.5	54	8	13	6	4.3	3	E422 0450	E423 0450
0500	5.0	54	9	15	6	4.8	3	E422 0500	E423 0500
0550	5.5	54	9	15	6	5.3	3	E422 0550	E423 0550
0600	6.0	54	10	16	6	5.7	3	E422 0600	E423 0600
0800	8.0	58	12	20	8	7.6	3	E422 0800	E423 0800
1000	10.0	66	14	24	10	9.5	3	E422 1000	E423 1000
1200	12.0	73	16	26	12	11.5	3	E422 1200	E423 1200
1400	14.0	73	16	26	14	13.5	3	E422 1400	E423 1400
1600	16.0	82	22	32	16	15.5	3	E422 1600	E423 1600
1800	18.0	82	22	32	18	17.5	3	E422 1800	E423 1800
2000	20.0	92	26	40	20	19.5	3	E422 2000	E423 2000

ISO	P													M			K					N										S										H								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
E422	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective





# Endmills Carbide, 4 Flute, R35/38 UNI, DIN6527L, Harmony

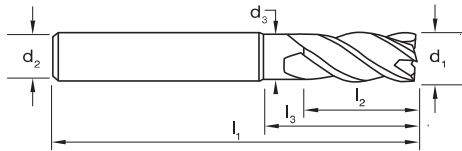
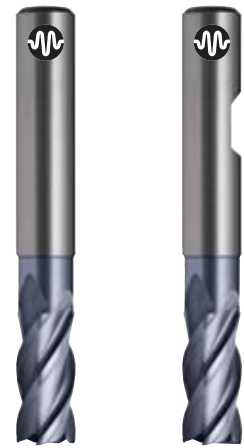
## suttontools

## HARMONY

- VHM-ULTRA grade of carbide for high performance
- 35/38° variable flute helix for chatter free milling
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- AlCrN for longer tool life



watch the video



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance

	E535	E536
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	UNI	UNI
Geometry	R35/38	R35/38
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Cnr Chamf	Item #	Item #
0300	3.0	57	8	19	6	2.8	4		E535 0300	E536 0300
0400	4.0	57	11	19	6	3.7	4		E535 0400	E536 0400
0500	5.0	57	13	20	6	4.6	4		E535 0500	E536 0500
0600	6.0	57	13	21	6	5.5	4		E535 0600	E536 0600
0800	8.0	63	19	27	8	7.5	4		E535 0800	E536 0800
1000	10.0	72	22	32	10	9.5	4		E535 1000	E536 1000
1200	12.0	83	26	38	12	11.2	4		E535 1200	E536 1200
1400	14.0	83	26	38	14	13.0	4		E535 1400	E536 1400
1600	16.0	92	32	44	16	15.0	4		E535 1600	E536 1600
1800	18.0	92	32	44	18	17.0	4		E535 1800	E536 1800
2000	20.0	104	38	54	20	19.0	4		E535 2000	E536 2000
2500	25.0	120	45	64	25	24.0	4		E535 2500	E536 2500

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Cnr Chamf	Item #
0318	1/8	1-1/2	3/8		1/8		4	0.002"	E572 0318
0476	3/16	2	7/16		3/16		4	0.002"	E572 0476
0635	1/4	2-1/2	1/2		1/4		4	0.004"	E572 0635
0794	5/16	2-1/2	13/16		5/16		4	0.008"	E572 0794
0953	3/8	2-1/2	7/8		3/8		4	0.008"	E572 0953
1111	7/16	3	1		7/16		4	0.008"	E572 1111
1270	1/2	3	1		1/2		4	0.008"	E572 1270
1429	9/16	3	1		9/16		4	0.011"	•
1588	5/8	3-1/2	1-1/4		5/8		4	0.011"	E572 1588
1905	3/4	4	1-1/2		3/4		4	0.011"	E572 1905
2540	1"	4	1-1/2		1		4	0.011"	E572 2540

ISO	P										M			K			N						S						H																													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41									
E535	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
E572	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

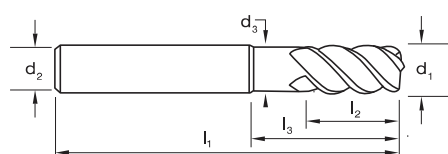
● Optimal ○ Effective



suttontools

HARMONY

- For precision finishing applications
- Ideally suited to materials up to 1300 N/mm<sup>2</sup>
- AlCrN for longer tool life



Catalogue Code	E576
Discount Group	B0210
Material	VHM-ULTRA
Surface Finish	AlCrN
Sutton Designation	UNI
Geometry	R35 / 38
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #
0318	1/8	1-1/2	3/8		1/8		4	0.015	E576 0318
0476	3/16	2	7/16		3/16		4	0.015	E576 0476
0635	1/4	2-1/2	1/2		1/4		4	0.015	E576 0635
0636		2-1/2	1/2		1/4		4	0.020	E576 0636
0637		2-1/2	1/2		1/4		4	0.030	E576 0637
0638		2-1/2	1/2		1/4		4	0.045	E576 0638
0794	5/16	2-1/2	13/16		5/16		4	0.015	E576 0794
0795		2-1/2	13/16		5/16		4	0.020	E576 0795
0796		2-1/2	13/16		5/16		4	0.030	E576 0796
0797		2-1/2	13/16		5/16		4	0.045	E576 0797
0953	3/8	2-1/2	7/8		3/8		4	0.015	E576 0953
0956		2-1/2	7/8		3/8		4	0.020	E576 0956
0957		2-1/2	7/8		3/8		4	0.030	E576 0957
0958		2-1/2	7/8		3/8		4	0.045	E576 0958
1111	7/16	3	1		7/16		4	0.015	E576 1111
1112		3	1		7/16		4	0.020	E576 1112
1113		3	1		7/16		4	0.030	E576 1113
1114		3	1		7/16		4	0.045	E576 1114
1270	1/2	3	1		1/2		4	0.015	E576 1270
1271		3	1		1/2		4	0.020	E576 1271
1272		3	1		1/2		4	0.030	E576 1272
1273		3	1		1/2		4	0.045	E576 1273
1274		3	1		1/2		4	0.060	E576 1274
1429	9/16	3-1/2	1		9/16		4	0.030	E576 1429
1588	5/8	3-1/2	1-1/4		5/8		4	0.015	E576 1588
1589		3-1/2	1-1/4		5/8		4	0.020	E576 1589
1590		3-1/2	1-1/4		5/8		4	0.030	E576 1590
1591		3-1/2	1-1/4		5/8		4	0.045	E576 1591
1592		3-1/2	1-1/4		5/8		4	0.060	E576 1592
1593		3-1/2	1-1/4		5/8		4	0.090	E576 1593
1905	3/4	4	1-1/2		3/4		4	0.015	E576 1905
1906		4	1-1/2		3/4		4	0.020	E576 1906
1907		4	1-1/2		3/4		4	0.030	E576 1907
1908		4	1-1/2		3/4		4	0.045	E576 1908
1909		4	1-1/2		3/4		4	0.060	E576 1909
1910		4	1-1/2		3/4		4	0.090	E576 1910
1911		4	1-1/2		3/4		4	0.125	E576 1911
2540	1	4	1-1/2		1		4	0.015	E576 2540
2541		4	1-1/2		1		4	0.020	E576 2541
2542		4	1-1/2		1		4	0.030	E576 2542
2543		4	1-1/2		1		4	0.045	E576 2543
2544		4	1-1/2		1		4	0.060	E576 2544
2545		4	1-1/2		1		4	0.090	E576 2545
2546		4	1-1/2		1		4	0.125	E576 2546

ISO	P													M				K				N							S							H																
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
E576	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

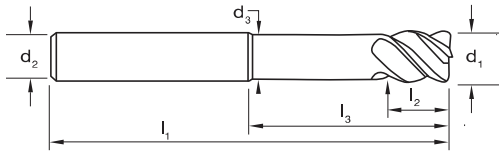




**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- 45/44° variable flute helix for chatter free milling
- Suitable for materials up to 1300 N/mm<sup>2</sup>
- AlCrN for longer tool life



Catalogue Code	<b>E430</b>	<b>E431</b>
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	UNI	UNI
Geometry	R45/44	R45/44
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #	Item #
0403	4.0	57	5	16	6	3.6	4	0.3	E430 0403	E431 0403
0405		57	5	16	6	3.6	4	0.5	E430 0405	E431 0405
0603	6.0	62	7	24	6	5.4	4	0.3	E430 0603	E431 0603
0605		62	7	24	6	5.4	4	0.5	E430 0605	E431 0605
0610		62	7	24	6	5.4	4	1.0	E430 0610	E431 0610
0615		62	7	24	6	5.4	4	1.5	E430 0615	E431 0615
0803	8.0	68	9	30	8	7.2	4	0.3	E430 0803	E431 0803
0805		68	9	30	8	7.2	4	0.5	E430 0805	E431 0805
0810		68	9	30	8	7.2	4	1.0	E430 0810	E431 0810
0815		68	9	30	8	7.2	4	1.5	E430 0815	E431 0815
1005	10.0	80	11	38	10	9.0	4	0.5	E430 1005	E431 1005
1010		80	11	38	10	9.0	4	1.0	E430 1010	E431 1010
1015		80	11	38	10	9.0	4	1.5	E430 1015	E431 1015
1020		80	11	38	10	9.0	4	2.0	E430 1020	E431 1020
1205	12.0	93	13	46	12	11.0	4	0.5	E430 1205	E431 1205
1210		93	13	46	12	11.0	4	1.0	E430 1210	E431 1210
1215		93	13	46	12	11.0	4	1.5	E430 1215	E431 1215
1220		93	13	46	12	11.0	4	2.0	E430 1220	E431 1220
1610	16.0	108	17	58	16	15.0	4	1.0	E430 1610	E431 1610
1620		108	17	58	16	15.0	4	2.0	E430 1620	E431 1620
1630		108	17	58	16	15.0	4	3.0	E430 1630	E431 1630
1640		108	17	58	16	15.0	4	4.0	E430 1640	E431 1640

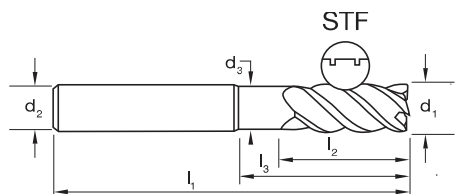
ISO	P													M			K					N										S										H								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
E430	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective



- VHM-ULTRA grade of carbide for high performance
- For finishing & semi-roughing applications
- Suitable for materials up to 1400 N/mm<sup>2</sup>
- Unequal flute design with Special Tooth Form (STF), produces excellent surface finish
- Eliminates the use of finishing Endmills in many cases
- AlCrN for longer tool life



Catalogue Code	<b>E545</b>	<b>E546</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>	<b>AlCrN</b>
Sutton Designation	<b>UNI</b>	<b>UNI</b>
Geometry	R45	R45
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
<b>0400</b>	<b>4.0</b>	57	11	19	6	3.7	4	E545 0400	E546 0400
<b>0500</b>	<b>5.0</b>	57	13	20	6	4.6	4	E545 0500	E546 0500
<b>0600</b>	<b>6.0</b>	57	13	21	6	5.5	4	E545 0600	E546 0600
<b>0800</b>	<b>8.0</b>	63	19	27	8	7.5	4	E545 0800	E546 0800
<b>1000</b>	<b>10.0</b>	72	22	32	10	9.5	4	E545 1000	E546 1000
<b>1200</b>	<b>12.0</b>	83	26	38	12	11.2	4	E545 1200	E546 1200
<b>1600</b>	<b>16.0</b>	92	32	44	16	15.0	4	E545 1600	E546 1600
<b>2000</b>	<b>20.0</b>	104	38	54	20	19.0	4	E545 2000	E546 2000

ISO	P													M			K					N							S							H														
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E545</b>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

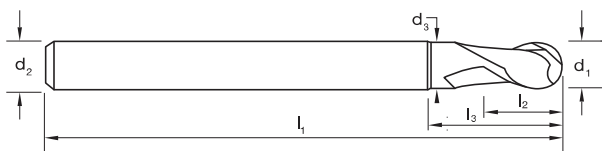
● Optimal ○ Effective



# Slot Drills Carbide, Ballnose, 2 Flute, R30 UNI, Long Reach

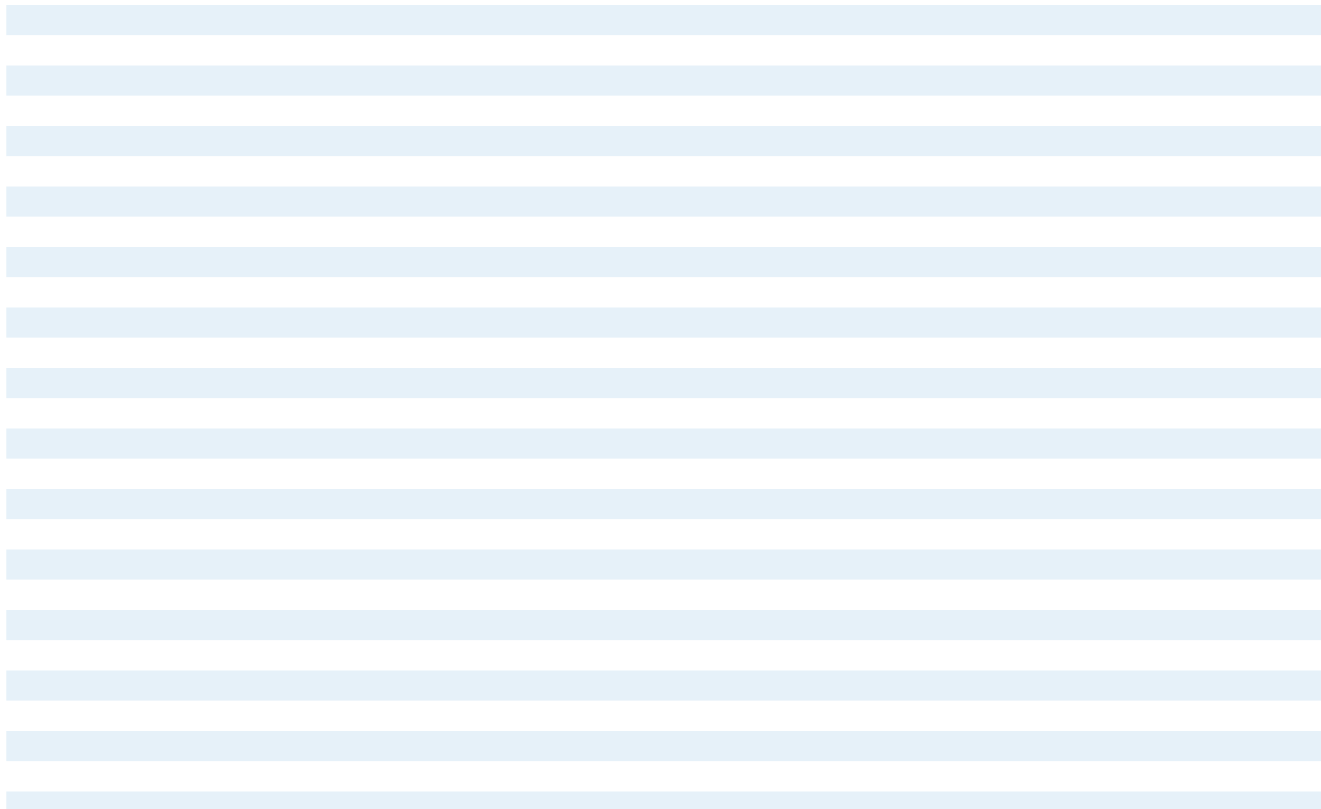
## suttontools

- VHM-ULTRA grade of carbide for high performance
- For profile & contour milling in long reach applications
- Suitable for materials up to 1600 N/mm<sup>2</sup>
- AlCrN for longer tool life



Catalogue Code	<b>E440</b>	<b>E441</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>	<b>AlCrN</b>
Sutton Designation	<b>UNI</b>	<b>UNI</b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
<b>0200</b>	<b>2.0</b>	62	3	7.0	6	1.9	2	E440 0200	E441 0200
<b>0300</b>	<b>3.0</b>	62	4	9.5	6	2.8	2	E440 0300	E441 0300
<b>0400</b>	<b>4.0</b>	62	5	12.0	6	4.8	2	E440 0400	E441 0400
<b>0500</b>	<b>5.0</b>	80	6	14.5	6	4.8	2	E440 0500	E441 0500
<b>0600</b>	<b>6.0</b>	80	7	17.0	6	5.7	2	E440 0600	E441 0600
<b>0800</b>	<b>8.0</b>	90	9	22.0	8	7.6	2	E440 0800	E441 0800
<b>1000</b>	<b>10.0</b>	100	11	27.0	10	9.5	2	E440 1000	E441 1000
<b>1200</b>	<b>12.0</b>	120	13	32.0	12	11.5	2	E440 1200	E441 1200
<b>1400</b>	<b>14.0</b>	120	15	37.0	14	13.5	2	E440 1400	E441 1400
<b>1600</b>	<b>16.0</b>	140	17	42.0	16	15.5	2	E440 1600	E441 1600
<b>1800</b>	<b>18.0</b>	140	19	47.0	18	17.5	2	E440 1800	E441 1800
<b>2000</b>	<b>20.0</b>	160	21	52.0	20	19.5	2	E440 2000	E441 2000



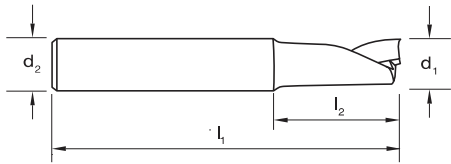
ISO	P													M			K					N										S										H								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E440</b>					●			●	●	●	●						●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective



# suttontools

- For non ferrous aluminium alloys such as aluminium sheet & extrusions, brass & bronze
- Large single flute provides maximum chip evacuation when ran at high RPM & feed rates
- Centre cutting for straight plunging or ramping
- Suitable for use in hi speed routers & air tools for trimming plastics and similar materials



Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #
0300	3.0	50	8	6	1	E444 0300
0400	4.0	54	11	6	1	E444 0400
0500	5.0	54	13	6	1	E444 0500
0600	6.0	54	13	6	1	E444 0600
0800	8.0	58	19	8	1	E444 0800
1000	10.0	66	22	10	1	E444 1000
1200	12.0	73	26	12	1	E444 1200



Catalogue Code	<b>E444</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Brt</b>
Sutton Designation	<b>Al</b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

ISO	P													M			K							N							S							H																	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41						
E444																							●	●	●	●	○	○	○																										

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective





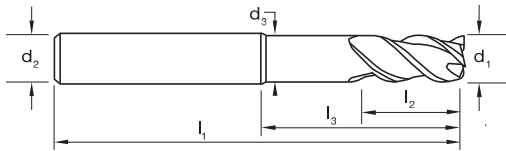


# Endmills Carbide, 3 Flute, R45/46/44 Al, Long Reach, Harmony

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- 45/46/44° variable flute helix for chatter free milling
- Optimised geometry for soft materials
- CrN for copper and non-ferrous materials



Catalogue Code  
Discount Group  
Material  
Surface Finish  
Sutton Designation  
Geometry  
Shank Form (DIN 6535)  
Shank Tolerance

E402	E403
B0210	B0210
VHM-ULTRA	VHM-ULTRA
CrN	CrN
Al	Al
R45/46/44	R45/46/44
HA	HB
h5	h5

Size Ref.	d <sub>1</sub> (k10)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #	Item #
0600	6.0	62	7	24	6	5.0	3	0.2	E402 0600	
0800	8.0	68	9	30	8	7.0	3	0.2	E402 0800	
1000	10.0	80	12	38	10	9.0	3	0.3	E402 1000	E403 1000
1200	12.0	93	14	46	12	11.0	3	0.4	E402 1200	E403 1200
1400	14.0	93	16	46	14	13.0	3	0.4	E402 1400	E403 1400
1600	16.0	108	18	58	16	15.0	3	0.5	E402 1600	E403 1600
1800	18.0	108	20	58	18	17.0	3	0.5	E402 1800	E403 1800
2000	20.0	126	22	74	20	19.0	3	0.6	E402 2000	E403 2000
2500	25.0	150	27	92	25	24.0	3	0.6	E402 2500	E403 2500

ISO	P													M			K							N							S							H												
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
E402																							●	●	●	●	●	●	●	●																				

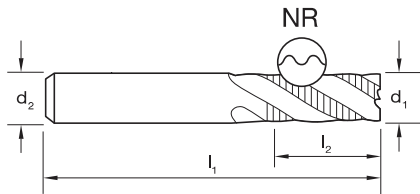
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

• Available on request as special manufacture. Subject to lead time.

## suttontools

- For roughing applications
- NR geometry allows for heavy cuts
- For soft non ferrous aluminium alloys
- High rake angle for long chipping materials



Catalogue Code	<b>E446</b>	<b>E447</b>
Discount Group	B0208	B0208
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<i>Br</i>	<i>Br</i>
Sutton Designation	<b>AI</b>	<b>AI</b>
Geometry	R25 NR	R25 NR
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0600</b>	<b>6.0</b>	57	13	6	3	E446 0600	E447 0600
<b>0800</b>	<b>8.0</b>	63	19	8	3	E446 0800	E447 0800
<b>1000</b>	<b>10.0</b>	72	22	10	3	E446 1000	E447 1000
<b>1200</b>	<b>12.0</b>	83	26	12	3	E446 1200	E447 1200
<b>1400</b>	<b>14.0</b>	83	26	14	3	•	•
<b>1600</b>	<b>16.0</b>	92	32	16	3	E446 1600	E447 1600
<b>1800</b>	<b>18.0</b>	92	32	18	3	•	•
<b>2000</b>	<b>20.0</b>	104	38	20	3	E446 2000	E447 2000

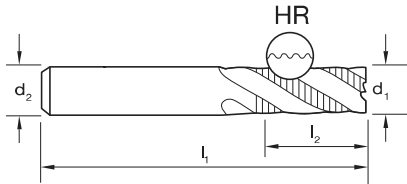
ISO	P													M			K					N					S							H																					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41						
<b>E446</b>																							●	●	●	●	○	○																											
<b>P</b> Steel	<b>M</b> Stainless Steel	<b>K</b> Cast Iron	<b>N</b> Non-Ferrous Metals	<b>S</b> Titanium & Super Alloys	<b>H</b> Hard Materials																						● Optimal	○ Effective																											

• Available on request as special manufacture. Subject to lead time.

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- For roughing applications
- 35/36/36° variable flute helix for chatter free milling
- Optimised geometry for soft materials
- CrN for copper and non-ferrous materials



Catalogue Code	<b>E404</b>	<b>E405</b>
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	CrN	CrN
Sutton Designation	AI	AI
Geometry	R35/36/36 HR	R35/36/36 HR
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
1000	10.0	72	23	10	3	E404 1000	E405 1000
1200	12.0	83	28	12	3	E404 1200	E405 1200
1400	14.0	83	28	14	3	E404 1400	E405 1400
1600	16.0	92	34	16	3	E404 1600	E405 1600
1800	18.0	92	34	18	3	E404 1800	E405 1800
2000	20.0	104	42	20	3	E404 2000	E405 2000
2500	25.0	120	52	25	3	E404 2500	E405 2500

ISO	P													M			K						N						S						H																									
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41											
E404																							●	●	●	●	●	●	●	●																														

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

• Available on request as special manufacture. Subject to lead time.

















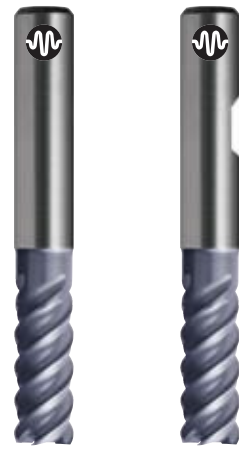
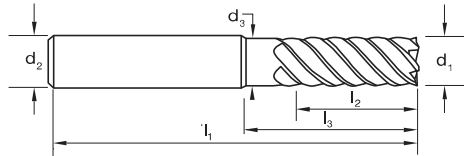
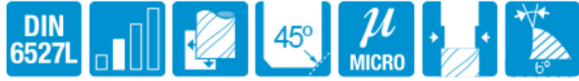


# Endmills Carbide, 4 Flute, R55 NH, DIN6527L, Harmony

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- For super fine finishing applications
- Suitable for hard, short chipping materials up to 48 HRC
- AlCrN for longer tool life



Catalogue Code	<b>E428</b>	<b>E429</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<i>AlCrN</i>	<i>AlCrN</i>
Sutton Designation	NH	NH
Geometry	R55	R55
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
<b>0400</b>	<b>4.0</b>	57	11	16	6	3.7	4	E428 0400	E429 0400
<b>0500</b>	<b>5.0</b>	57	13	18	6	4.7	4	E428 0500	E429 0500
<b>0600</b>	<b>6.0</b>	57	13	19	6	5.7	4	E428 0600	E429 0600
<b>0800</b>	<b>8.0</b>	63	19	25	8	7.6	4	E428 0800	E429 0800
<b>1000</b>	<b>10.0</b>	72	22	30	10	9.5	4	E428 1000	E429 1000
<b>1200</b>	<b>12.0</b>	83	26	36	12	11.5	4	E428 1200	E429 1200
<b>1600</b>	<b>16.0</b>	92	32	42	16	15.5	4	E428 1600	E429 1600

ISO	P													M			K					N										S										H								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E428</b>	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

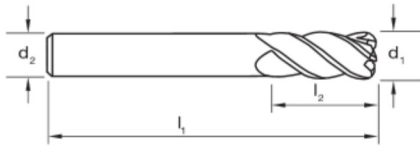
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

# Endmills Carbide, 4 Flute, R40 NH, Cnr Rad, Regular

## suttontools

- For precision finishing applications
- Ideally suited to materials up to 1300 N/mm<sup>2</sup>
- TiAlN for longer tool life



Catalogue Code	<b>E348*</b>
Discount Group	<b>B0210</b>
Material	<b>VHM</b>
Surface Finish	<b>TiAlN</b>
Sutton Designation	
Geometry	R40
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	rad	Item #
0303	3.0	40	9	3	4	0.3	E348 0303
0305		40	9	3	4	0.5	E348 0305
0403	4.0	50	12	4	4	0.3	E348 0403
0405		50	12	4	4	0.5	E348 0405
0410		50	12	4	4	1.0	E348 0410
0503	5.0	50	15	5	4	0.3	E348 0503
0505		50	15	5	4	0.5	E348 0505
0510		50	15	5	4	1.0	E348 0510
0603	6.0	60	20	6	4	0.3	E348 0603
0605		60	20	6	4	0.5	E348 0605
0610		60	20	6	4	1.0	E348 0610
0803	8.0	64	20	8	4	0.3	E348 0803
0805		64	20	8	4	0.5	E348 0805
0810		64	20	8	4	1.0	E348 0810
0815		64	20	8	4	1.5	E348 0815
0820		64	20	8	4	2.0	E348 0820
1003	10.0	70	22	10	4	0.3	E348 1003
1005		70	22	10	4	0.5	E348 1005
1010		70	22	10	4	1.0	E348 1010
1015		70	22	10	4	1.5	E348 1015
1020		70	22	10	4	2.0	E348 1020
1203	12.0	75	25	12	4	0.3	E348 1203
1205		75	25	12	4	0.5	E348 1205
1210		75	25	12	4	1.0	E348 1210
1215		75	25	12	4	1.5	E348 1215
1220		75	25	12	4	2.0	E348 1220
1230		75	25	12	4	3.0	E348 1230
1605	16.0	90	32	16	4	0.5	E348 1605
1610		90	32	16	4	1.0	E348 1610
1615		90	32	16	4	1.5	E348 1615
1620		90	32	16	4	2.0	E348 1620
1630		90	32	16	4	3.0	E348 1630
2005	20.0	100	38	20	4	0.5	E348 2005
2010		100	38	20	4	1.0	E348 2010
2015		100	38	20	4	1.5	E348 2015
2020		100	38	20	4	2.0	E348 2020
2030		100	38	20	4	3.0	E348 2030

*\*ONLY WHILST STOCKS LAST*

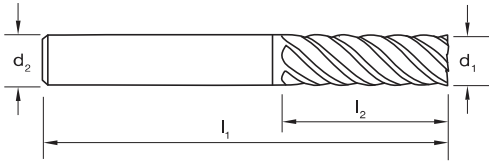
ISO	P													M		K					N										S					H													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E348					●				●		●			●						●																	●	○			●								

P Steel 
 M Stainless Steel 
 K Cast Iron 
 N Non-Ferrous Metals 
 S Titanium & Super Alloys 
 H Hard Materials 
 ● Optimal ○ Effective

\* Not available once current stock is depleted.

## suttontools

- For superior finish applications
- Suitable for materials up to 55 HRC
- Multi flute with large core for strength
- TiAlN for longer tool life



Catalogue Code	<b>E448</b>	<b>E449</b>
Discount Group	<b>B0210</b>	<b>B0210</b>
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>TiAlN</b>	<b>TiAlN</b>
Sutton Designation	<b>NH</b>	<b>NH</b>
Geometry	R45	R45
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0600</b>	<b>6.0</b>	57	13	6	6	E448 0600	E449 0600
<b>0800</b>	<b>8.0</b>	63	19	8	6	E448 0800	E449 0800
<b>1000</b>	<b>10.0</b>	72	22	10	6	E448 1000	E449 1000
<b>1200</b>	<b>12.0</b>	83	26	12	6	E448 1200	E449 1200
<b>1600</b>	<b>16.0</b>	92	32	16	6	E448 1600	E449 1600
<b>2000</b>	<b>20.0</b>	104	38	20	8	E448 2000	E449 2000

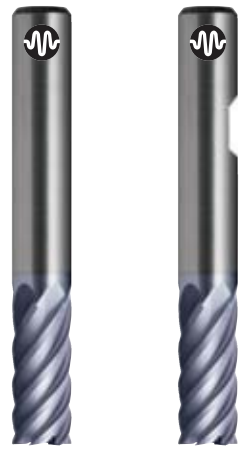
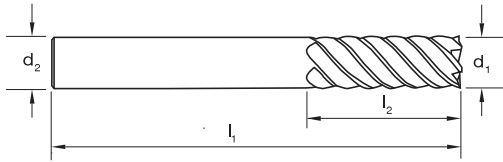
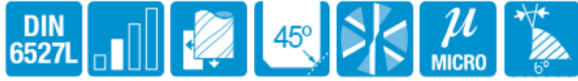
ISO	P												M			K						N						S						H																		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
<b>E448</b>	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
<b>P</b>	Steel	<b>M</b>	Stainless Steel		<b>K</b>	Cast Iron		<b>N</b>	Non-Ferrous Metals			<b>S</b>	Titanium & Super Alloys						<b>H</b>	Hard Materials																																

● Optimal ○ Effective

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- For SUPER FINE finishing applications
- 50/35° variable flute helix for chatter free milling
- Suitable for hard, short chipping materials up to 48 HRC
- AlCrN for longer tool life



Catalogue Code	<b>E432</b>	<b>E433</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	AlCrN	AlCrN
Sutton Designation	NH	NH
Geometry	R50/35	R50/35
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0600</b>	<b>6.0</b>	57	13	6	6	E432 0600	E433 0600
<b>0800</b>	<b>8.0</b>	63	19	8	6	E432 0800	E433 0800
<b>1000</b>	<b>10.0</b>	72	22	10	6	E432 1000	E433 1000
<b>1200</b>	<b>12.0</b>	83	26	12	6	E432 1200	E433 1200
<b>1400</b>	<b>14.0</b>	83	26	14	6	E432 1400	E433 1400
<b>1600</b>	<b>16.0</b>	92	32	16	6	E432 1600	E433 1600
<b>1800</b>	<b>18.0</b>	92	32	18	8	E432 1800	E433 1800
<b>2000</b>	<b>20.0</b>	104	38	20	8	E432 2000	E433 2000
<b>2500</b>	<b>25.0</b>	120	45	25	8	E432 2500	E433 2500

ISO	P							M							K							N							S							H														
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
E432	○	○	●	●	●	○	○	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

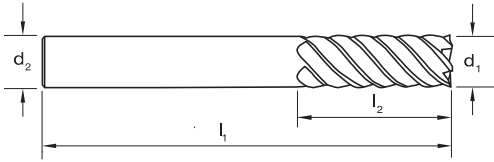
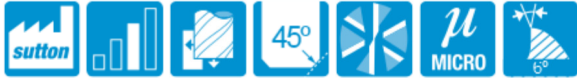
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

# Endmills Carbide, 6-8 Flute, R50/35 NH, Extra Long, Harmony

**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- For super fine finishing applications
- 50/35° variable flute helix for chatter free milling
- Suitable for hard, short chipping materials up to 48 HRC
- AlCrN for longer tool life



Catalogue Code

**E434**

**E435**

Discount Group

**B0210**

**B0210**

Material

**VHM-ULTRA**

**VHM-ULTRA**

Surface Finish

**AlCrN**

**AlCrN**

Sutton Designation

**NH**

**NH**

Geometry

R50/35

R50/35

Shank Form (DIN 6535)

HA

HB

Shank Tolerance

h5

h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0600</b>	<b>6.0</b>	62	18	6	6	E434 0600	E435 0600
<b>0800</b>	<b>8.0</b>	68	24	8	6	E434 0800	E435 0800
<b>1000</b>	<b>10.0</b>	80	30	10	6	E434 1000	E435 1000
<b>1200</b>	<b>12.0</b>	93	36	12	6	E434 1200	E435 1200
<b>1600</b>	<b>16.0</b>	108	48	16	6	E434 1600	E435 1600
<b>2000</b>	<b>20.0</b>	126	60	20	8	E434 2000	E435 2000
<b>2500</b>	<b>25.0</b>	150	85	25	8	E434 2500	E435 2500

ISO	P													M			K						N						S						H															
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E434</b>	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

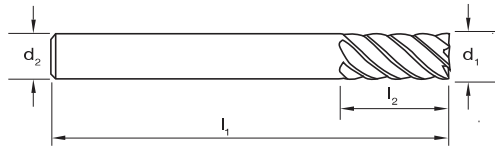
● Optimal ○ Effective



suttontools

HARMONY

- VHM-ULTRA grade of carbide for high performance
- For super fine finishing applications
- 50/35° variable flute helix for chatter free milling
- Suitable for hard, short chipping materials up to 48 HRC
- AlCrN for longer tool life



Catalogue Code	<b>E436</b>	<b>E437</b>
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	NH	NH
Geometry	R50/35	R50/35
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	rad	Item #	Item #
0605	6.0	62	13	6	6	0.5	E436 0605	E437 0605
0610		62	13	6	6	1.0	E436 0610	E437 0610
0805	8.0	68	19	8	6	0.5	E436 0805	E437 0805
0810		68	19	8	6	1.0	E436 0810	E437 0810
1005	10.0	80	22	10	6	0.5	E436 1005	E437 1005
1010		80	22	10	6	1.0	E436 1010	E437 1010
1015		80	22	10	6	1.5	E436 1015	E437 1015
1020		80	22	10	6	2.0	E436 1020	E437 1020
1205	12.0	93	26	12	6	0.5	E436 1205	E437 1205
1210		93	26	12	6	1.0	E436 1210	E437 1210
1215		93	26	12	6	1.5	E436 1215	E437 1215
1220		93	26	12	6	2.0	E436 1220	E437 1220
1605	16.0	108	32	16	6	0.5	E436 1605	E437 1605
1610		108	32	16	6	1.0	E436 1610	E437 1610
1615		108	32	16	6	1.5	E436 1615	E437 1615
1620		108	32	16	6	2.0	E436 1620	E437 1620
2005	20.0	126	38	20	8	0.5	E436 2005	E437 2005
2010		126	38	20	8	1.0	E436 2010	E437 2010
2015		126	38	20	8	1.5	E436 2015	E437 2015
2020		126	38	20	8	2.0	E436 2020	E437 2020

ISO	P													M			K						N										S										H													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41							
E436	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective



# Endmills Carbide, 4 Flute, R50 NH, DIN6527L, Harmony DUO

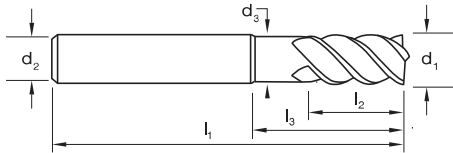
**suttontools**

**HARMONY**

- VHM-ULTRA grade of carbide for high performance
- Dual stepped core for optimal stability
- Ideal design for pocket milling in MQL & HSC
- Suitable for materials up to 48 HRC
- AlCrN for longer tool life



watch the video



Catalogue Code	<b>E562</b>	<b>E563</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>	<b>AlCrN</b>
Sutton Designation	NH	NH
Geometry	R50	R50
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
<b>0600</b>	<b>6.0</b>	57	13	21	6	5.5	4	E562 0600	E563 0600
<b>0800</b>	<b>8.0</b>	63	19	27	8	7.5	4	E562 0800	E563 0800
<b>1000</b>	<b>10.0</b>	72	22	32	10	9.5	4	E562 1000	E563 1000
<b>1200</b>	<b>12.0</b>	83	26	38	12	11.2	4	E562 1200	E563 1200
<b>1400</b>	<b>14.0</b>	83	26	38	14	13.0	4	E562 1400	E563 1400
<b>1600</b>	<b>16.0</b>	92	32	44	16	15.0	4	E562 1600	E563 1600
<b>2000</b>	<b>20.0</b>	104	38	54	20	19.0	4	E562 2000	E563 2000

ISO	P							M			K			N							S					H																								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
<b>E562</b>								●	●	●	●	●	●	●	●	●	●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

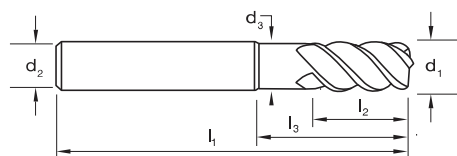
● Optimal ○ Effective



suttontools

HARMONY

- VHM-ULTRA grade of carbide for high performance
- Dual stepped core for optimal stability
- Ideal design for pocket milling in MQL & HSC
- Suitable for materials up to 48 HRC
- AlCrN for longer tool life



Catalogue Code	<b>E564</b>	<b>E565</b>
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	NH	NH
Geometry	R50	R50
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (h10)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #	Item #
0603	6.0	57	13	21	6	5.5	4	0.3	E564 0603	E565 0603
0605		57	13	21	6	5.5	4	0.5	E564 0605	E565 0605
0610		57	13	21	6	5.5	4	1.0	E564 0610	E565 0610
0803	8.0	63	19	27	8	7.5	4	0.3	E564 0803	E565 0803
0805		63	19	27	8	7.5	4	0.5	E564 0805	E565 0805
0810		63	19	27	8	7.5	4	1.0	E564 0810	E565 0810
0815		63	19	27	8	7.5	4	1.5	E564 0815	E565 0815
0820		63	19	27	8	7.5	4	2.0	E564 0820	E565 0820
1003	10.0	72	22	32	10	9.5	4	0.3	E564 1003	E565 1003
1005		72	22	32	10	9.5	4	0.5	E564 1005	E565 1005
1010		72	22	32	10	9.5	4	1.0	E564 1010	E565 1010
1015		72	22	32	10	9.5	4	1.5	E564 1015	E565 1015
1020		72	22	32	10	9.5	4	2.0	E564 1020	E565 1020
1203	12.0	83	26	38	12	11.2	4	0.3	E564 1203	E565 1203
1205		83	26	38	12	11.2	4	0.5	E564 1205	E565 1205
1210		83	26	38	12	11.2	4	1.0	E564 1210	E565 1210
1215		83	26	38	12	11.2	4	1.5	E564 1215	E565 1215
1220		83	26	38	12	11.2	4	2.0	E564 1220	E565 1220
1230		83	26	38	12	11.2	4	3.0	E564 1230	E565 1230
1403	14.0	83	26	38	14	13.0	4	0.3	E564 1403	E565 1403
1405		83	26	38	14	13.0	4	0.5	E564 1405	E565 1405
1410		83	26	38	14	13.0	4	1.0	E564 1410	E565 1410
1415		83	26	38	14	13.0	4	1.5	E564 1415	E565 1415
1420		83	26	38	14	13.0	4	2.0	E564 1420	E565 1420
1430		83	26	38	14	13.0	4	3.0	E564 1430	E565 1430
1605	16.0	92	32	44	16	15.0	4	0.5	E564 1605	E565 1605
1610		92	32	44	16	15.0	4	1.0	E564 1610	E565 1610
1615		92	32	44	16	15.0	4	1.5	E564 1615	E565 1615
1620		92	32	44	16	15.0	4	2.0	E564 1620	E565 1620
1630		92	32	44	16	15.0	4	3.0	E564 1630	E565 1630
1640		92	32	44	16	15.0	4	4.0	E564 1640	E565 1640
2005	20.0	104	38	54	20	19.0	4	0.5	E564 2005	E565 2005
2010		104	38	54	20	19.0	4	1.0	E564 2010	E565 2010
2015		104	38	54	20	19.0	4	1.5	E564 2015	E565 2015
2020		104	38	54	20	19.0	4	2.0	E564 2020	E565 2020
2030		104	38	54	20	19.0	4	3.0	E564 2030	E565 2030
2040		104	38	54	20	19.0	4	4.0	E564 2040	E565 2040

ISO	P										M					K					N					S					H																				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
E564					●			●	●					●	●	●	●	●	●	●	●														●	●	●	●	●	●	●	●	●	●	○					●	

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

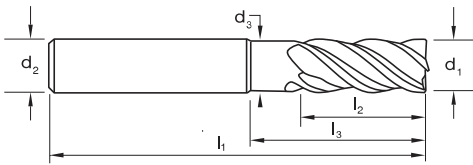


## Endmills Carbide, 5 Flute, R40/42Ti, DIN6527L, Harmony

**suttontools**

**HARMONY**

- Square end for finishing applications
- Optimised for longer tool life in Titanium Alloys
- Variable helix design to suppress vibration
- Web taper to increase rigidity
- HELICA for outstanding oxidation resistance and hot hardness
- VHM-ULTRA grade of carbide for high performance



Catalogue Code	<b>E464</b>	<b>E465</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<i>AiCrN</i>	<i>AiCrN</i>
Sutton Designation	<b>Ti</b>	<b>Ti</b>
Geometry	R40/42	R40/42
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

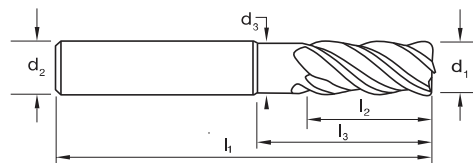
Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #	Item #
<b>1200</b>	<b>12.0</b>	83	26	36	12	11.5	5	E464 1200	E465 1200
<b>1600</b>	<b>16.0</b>	92	32	42	16	15.5	5	E464 1600	E465 1600
<b>2000</b>	<b>20.0</b>	104	38	52	20	19.5	5	E464 2000	E465 2000

## Endmills Carbide, 5 Flute, R40/42Ti, Cnr Rad, DIN6527L, Harmony

**suttontools**

**HARMONY**

- Unique corner radius grind for added strength
- Optimised for longer tool life in Titanium Alloys
- Variable helix design to suppress vibration
- Web taper to increase rigidity
- HELICA for outstanding oxidation resistance and hot hardness
- VHM-ULTRA grade of carbide for high performance



Catalogue Code	<b>E466</b>	<b>E467</b>
Discount Group	B0210	B0210
Material	<b>VHM-ULTRA</b>	<b>VHM-ULTRA</b>
Surface Finish	<i>AiCrN</i>	<i>AiCrN</i>
Sutton Designation	<b>Ti</b>	<b>Ti</b>
Geometry	R40/42	R40/42
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d <sub>1</sub> (e8)	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #	Item #
<b>1210</b>	<b>12.0</b>	83	26	38	12	11.2	5	1.0	E466 1210	E467 1210
<b>1225</b>		83	26	38	12	11.2	5	2.5	E466 1225	E467 1225
<b>1240</b>		83	26	38	12	11.2	5	4.0	E466 1240	E467 1240
<b>1610</b>	<b>16.0</b>	92	32	44	16	15	5	1.0	E466 1610	E467 1610
<b>1625</b>		92	32	44	16	15	5	2.5	E466 1625	E467 1625
<b>1640</b>		92	32	44	16	15	5	4.0	E466 1640	E467 1640
<b>2010</b>	<b>20.0</b>	104	38	54	20	19	5	1.0	E466 2010	E467 2010
<b>2025</b>		104	38	54	20	19	5	2.5	E466 2025	E467 2025
<b>2040</b>		104	38	54	20	19	5	4.0	E466 2040	E467 2040
<b>2050</b>		104	38	54	20	19	5	5.0	E466 2050	E467 2050
<b>2060</b>		104	38	54	20	19	5	6.0	E466 2060	E467 2060

ISO	P													M			K							N										S							H									
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41	
E464																																																		
E466																																																		

P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective