

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

suttontools

ISO	VDI	Material Group	Sutton		
P	A	Steel	N		UNI
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.

Page	298	298	299	299	300	300	301	302	303	304	304
											
Catalogue Code	E500	E502	E600 / E304	E603 / E307	E504	E506	E308	E309	E608	E509	E511
Type of Cut: *Slotting*	●	●	●	●	●	●	●	●	●	●	●
Finishing											
Universal										●	●
Roughing										●	●
Profiling											
Material	VHM		VHM		VHM		VHM			VHM	
Surface Finish	*Brt*	*TiAlN*	*Brt*	*TiAlN*	*Brt*	*TiAlN*	*Brt*	*Brt*		*Brt*	*TiAlN*
Sutton Designation	N		N		N		N	N		N	
Standard	DIN 6527K		-		DIN 6527L		-	-		DIN 6527K	
Shank Tolerance	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			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												

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

● Optimal ○ Effective

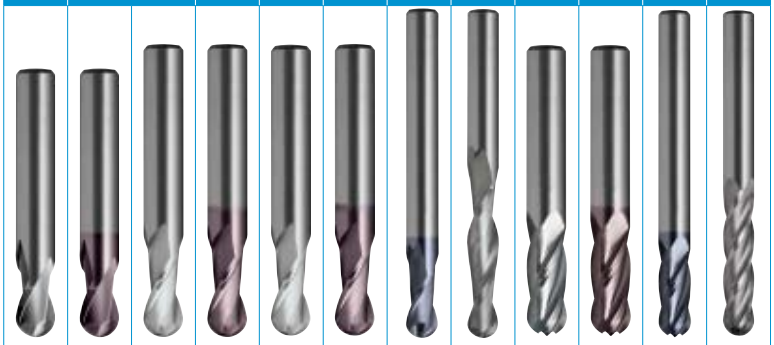
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E513	E515	E517	E519	E521	E523	E525	E527	E601 / E333	E604 / E336	E529	E531	E337	E340	E341	E344	E609	E547	E450
●	●	●	●	●	●										●			●
																●		
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●
●	●	●	●	●	●	●	●	●							●		●	●
VHM		VHM		VHM		VHM		VHM		VHM		VHM		VHM		VHM	VHM	
Brt	TiAlN	Brt	TiAlN	Brt	TiAlN	Brt	TiAlN	Brt	TiAlN	Brt	TiAlN	Brt	TiAlN	Brt	TiAlN	Brt	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	P
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2	
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●	●	○	○	○	○	●	●	●	●	●	●	●	●	○	●	○	○	●	4	
○	●	○	○	○	○	○	●		○	○	●	○	●	○	●	○	○	○	5	
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	6	
●	●	○	○	○	○	●	●	○	●	●	●	●	●	○	●	○	○	●	7	
○	●	○	○	○	○	○	●		○	○	●	○	●	○	●	○	○	○	8	
	○						○		○		○	○	○	○	○	○			9	
○	●					○	●	○	●	○	●	●	●	○	●	○	○	○	10	
	○						○		○		○	○	○	○	○	○			11	
○	●					○	●			○	●	○	●	○	●	○			12	
○	●					○	●			○	●	○	○	○	○	○			13	
○	●					○	●	○	○	○	●	●	●	●	●	●			14.1	M
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○	●					○	●	○	○	○	●	○	●	○	●	○	○	●	16	
●	●					●	●	○	○	●	●	●	●	○	●	○	○	●	17	
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		●	●	●	●							●	●	○	●	○	●		22	
		○	●	○	●							○	○	○	○	○	○		23	
		○	●	○	●							○	○	○	○	○	○		24	
		○	●	○	●							○	○	○	○	○	○		25	
		○	●	○	●							○	○	○	○	○			26	
		○	●	○	●							○	○	○	○	○			27	
		●	●	●	●							○	○	○	○	○			28	
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○	○					○	○			○	○	○	○		○			●	32	
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○	○					○	○			○	○	○	○		○			●	36	
○	○					○	○			○	○	○	○		○			●	37.1	
○	○					○	○			○	○	○	○		○			●	37.2	
○	○					○	○								○			●	37.3	
○	○					○	○			○	○	○	○		○			●	37.4	
	○						○				○		○		○			●	37.5	
	○						○				○		○		○				38.1	H
																			38.2	
																			39.1	
																			39.2	
										○	●	○	●	○	●	○		●	40	
																			41	

suttontools

ISO	VDI	Material Group	Sutton	
P	A	Steel	N	UNI
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.

Page	316	316	317	317	318	318	319	320	321	321	322	323
												
Catalogue Code	E452	E454	E602 / E311	E605 / E314	E551	E553	E555	E315	E606 / E316	E607 / E319	E557	E320
Type of Cut: *Slotting*												
Finishing												
Universal												
Roughing												
Profiling	●	●	●	●	●	●	●	●	●	●	●	●
Material	VHM		VHM		VHM		VHM-ULTRA	VHM	VHM		VHM-ULTRA	VHM
Surface Finish	*Brt*	*TiAlN*	*Brt*	*TiAlN*	*Brt*	*TiAlN*	*AlCrN*	*Brt*	*Brt*	*TiAlN*	*AlCrN*	*Brt*
Sutton Designation	N		N		N		N	N	N		N	N
Standard	DIN 6527K		-		DIN 6527L		-	-	-		-	-
Shank Tolerance	h6		h6		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			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													

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

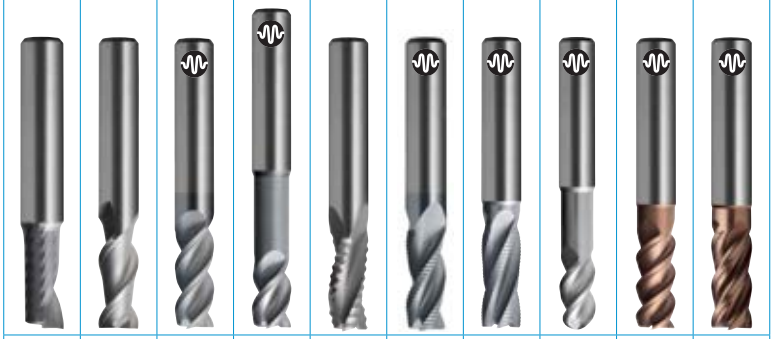
● Optimal ○ Effective

330	331	332	333	334	335	336	338	339	340	341	342	343	324	325	326	327	328	329	VDI^ 3323	ISO
																				
E418	E420	E422	E424	E533	E535 / E572	E559 / E576	E426	E430	E545	E549	E440	E442	E580	E581	E582	E456	E457	E458		
●	●	●	●				●	●	●	●									1	P
				●	●	●							●	●	●	●	●	●	2	
●	●	●	●	●	●	●	●	●	●	●									3	
●	●	●	●				●	●	●	●									4	
											●	●		●	●				5	
VHM-ULTRA		ULTRA	VHM-ULTRA		VHM-ULTRA		ULTRA	ULTRA	VHM-ULTRA		VHM-ULTRA		VHM			VHM				
AlCrN		AlCrN	AlCrN		AlCrN		AlCrN	AlCrN	AlCrN		AlCrN		TiSiN			TiAlN				
UNI		UNI	UNI	UNI	UNI		UNI	UNI	UNI		UNI		NH			N				
-		DIN 6527K	DIN 6527L	DIN 6527K	DIN 6527L		DIN 6527L	-	DIN 6527L		-		-			-				
h5		h5	h5		h5		h5	h5	h6		h5		h6			h6				
●	●	●	●	●	●	●	●	●	●	●						●	●	●	1	
●	●	●	●	●	●	●	●	●	●	●						●	●	●	2	
●	●	●	●	●	●	●	●	●	●	●	○	○				●	●	●	3	
●	●	●	●	●	●	●	●	●	●	●	○	○				●	●	●	4	
●	●	●	●	●	●	●	●	●	●	●	●	●				●	●	●	5	
●	●	●	●	●	●	●	●	●	●	●						●	●	●	6	
●	●	●	●	●	●	●	●	●	●	●	○	○				●	●	●	7	
●	●	●	●	●	●	●	●	●	●	●	●	●				●	●	●	8	
●	●	●	●	○	○	○	●	●	○	○	●	●	●	●	●	○	○	○	9	
●	●	●	●	●	●	●	●	●	●	●	○	○				●	●	●	10	
●	●	●	●	○	○	○	●	●	○	○	●	●	●	●	●	○	○	○	11	
				○	○	○			●	●						●	●	●	12	
				○	○	○			●	○			○	○	○	○	○	○	13	
				○	○	○			●	●						●	●	●	14.1	M
				○	○	○			○	○			○	○	○	●	●	●	14.2	
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●	●	●	●	○	○	○	●	●	○	○	●	●				●	●	●	18	
●	●	●	●	●	●	●	●	●	●	●	●	●				●	●	●	19	
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				○	○	○													22	
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○	○	○	○	○	○	○	○	○	○	○	○	○				●	●	●	33	
○	○	○	○				○	○			●	●	●	●	●	●	●	●	34	
○	○	○	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●	35	
●	●	●	●	○	○	○	●	●	○	○	○	○				●	●	●	36	
●	●	●	●	○	○	○	●	●	○	○	○	○				●	●	●	37.1	
●	●	●	●	○	○	○	●	●	○	○	○	○				●	●	●	37.2	
●	●	●	●	○	○	○	●	●	○	○	●	●	●	●	●	●	●	●	37.3	
●	●	●	●	○	○	○	●	●	○	○	○	○				●	●	●	37.4	
●	●	●	●				●	●			●	●	●	●	●	●	●	●	37.5	
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●	●	●	●				●	●			●	●				○	○	○	38.2	
●	●	●	●				●	●			●	●							39.1	
																			39.2	
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suttontools

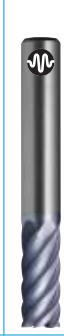
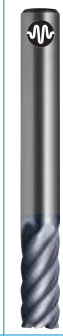
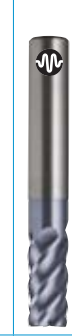
ISO	VDI	Material Group	Sutton	
P	A	Steel	N	UNI
M	R	Stainless Steel	VA	
K	F	Cast Iron	GG	
N	N	Non-Ferrous Metals, Aluminiums & Coppers	Al	W
S	S	Titaniums & Super Alloys	Ti	Ni
H	H	Hard Materials (≥ 45 HRC)	H	

^ 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.

Page	344	345	346	347	348	349	350	351	352	353
										
Catalogue Code	E444	E310	E400	E402	E446	E404	E406	E408	E410	E459
Type of Cut: *Slotting*	●	●	●	●	●	●	●		●	●
Finishing										
Universal	●	●	●	●	●	●	●		●	●
Roughing	●	●	●	●	●	●	●	●	●	
Profiling								●		
Material	VHM	VHM	VHM-ULTRA		VHM	VHM-ULTRA		VHM-ULTRA	VHM-ULTRA	
Surface Finish	*Brt*	*Brt*	*CrN*		*Brt*	*CrN*		*CrN*	*HELICA*	
Sutton Designation	Al	Al	Al		Al	Al		Al	VA	
Standard	-	DIN 6527L	DIN 6527L	-	DIN 6527L	DIN 6527L		-	DIN 6527L	
Shank Tolerance	h6	h6	h5		h5	h5		h5	h5	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			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										

● Optimal ○ Effective

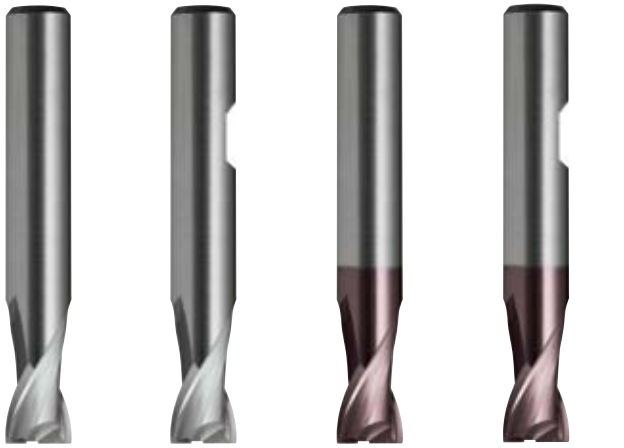
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E462	E412	E414	E416	E428	E348	E448	E432	E434	E436	E543	E562	E564	E566	E568	E464	E466		
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VHM-ULTRA				VHM-ULTRA	VHM	VHM	VHM-ULTRA			VHM-ULTRA	VHM-ULTRA		VHM-ULTRA		VHM-ULTRA			
HELICA				*AlCrN*	*TiAlN*	*TiAlN*	*AlCrN*			*AlCrN*	*AlCrN*		*Aldura*		*AlCrN*			
VA				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			
h6	h5			h5	h6	h6	h5			h6	h6		h6		h6			
																	VDI^ 3323	ISO
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				●	●	●	●	●	●	●	●	●					11	
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○	○	○	○		●	●	●	●	●	●	●	●					13	
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					●	●	●	●	●	●					●	●	37.3	
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○	○	○	○		●		●	●	●						●	●	37.5	
				○	●	○	●	●	●	○	○	○					38.1	H
							●	●	●				●	●			38.2	
							○	○	○				●	●			39.1	
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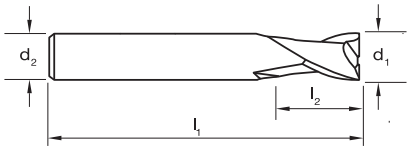
Slot Drills Carbide, 2 Flute, R30 N, DIN6527K

suttontools

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life







Catalogue Code	E500	E501	E502	E503
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_1 (h10)	l_1	l_2	d_2	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

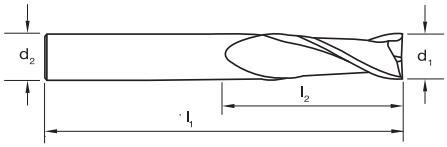
suttontools TECLINE

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm²
- TiAlN longer tool life









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

Size Ref.	d_1	l_1	l_2	d_2	z	Item #	Item #
0100	1.0	38	4	3	2	E600 0100	E603 0100
0150	1.5	38	4.5	3	2	E600 0150	E603 0150
0200	2.0	38	6	3	2	E600 0200	E603 0200
0250	2.5	38	9.5	3	2	E600 0250	E603 0250
0300	3.0	38	12	3	2	E600 0300	E603 0300
0350	3.5	50	12	4	2	E600 0350	E603 0350
0400	4.0	50	14	4	2	E600 0400	E603 0400
0450	4.5	50	16	6	2	E600 0450	E603 0450
0500	5.0	50	16	6	2	E600 0500	E603 0500
0600	6.0	50	19	6	2	E600 0600	E603 0600
0700	7.0	63	19	8	2	E600 0700	E603 0700
0800	8.0	63	20	8	2	E600 0800	E603 0800
0900	9.0	75	22	10	2	E600 0900	E603 0900
1000	10.0	75	22	10	2	E600 1000	E603 1000
1100	11.0	75	25	12	2	E600 1100	E603 1100
1200	12.0	75	25	12	2	E600 1200	E603 1200
1400	14.0	89	32	14	2	E600 1400	E603 1400
1600	16.0	89	32	16	2	E600 1600	E603 1600
1800	18.0	100	38	18	2	E600 1800	E603 1800
2000	20.0	100	38	20	2	E600 2000	E603 2000
2500	25.0	100	38	25	2	E600 2500	E603 2500

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

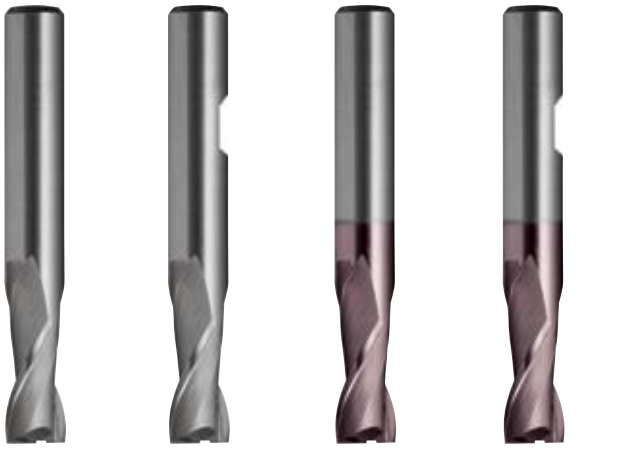
Slot Drills Carbide, 2 Flute, R30 N, DIN6527L

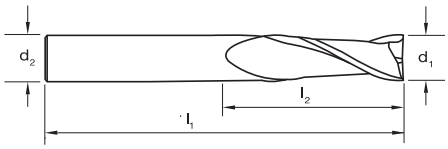
suttontools

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life









	E504	E505	E506	E507
Catalogue Code	E504	E505	E506	E507
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_1 (h10)	l_1	l_2	d_2	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

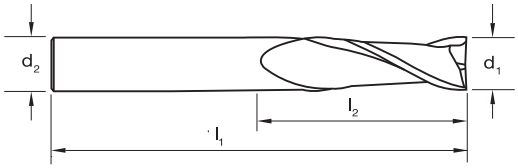
suttontools

- For long reach milling of slots & cavities
- Suitable for materials up to 1300 N/mm²









Catalogue Code	E308
Discount Group	B0208
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	60	19	3	2	E308 0300
0400	4.0	60	19	4	2	E308 0400
0500	5.0	60	25	5	2	E308 0500
0600	6.0	75	31	6	2	E308 0600
0800	8.0	75	31	8	2	E308 0800
1000	10.0	75	31	10	2	E308 1000
1200	12.0	100	50	12	2	E308 1200
1400	14.0	125	57	14	2	E308 1400
1600	16.0	125	57	16	2	E308 1600
1800	18.0	125	57	18	2	E308 1800
2000	20.0	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
E308	●	●	●	●	○	●	●	○	○	●	○	○	○	●	○	○	●	○	●	○	○	○	●	●	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○								

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

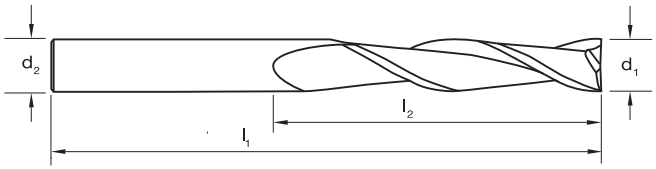
● Optimal ○ Effective

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

suttontools

- For extra long reach milling of slots & cavities
- Suitable for materials up to 1300 N/mm²









Catalogue Code	E309
Discount Group	B0208
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	76	25	3	2	E309 0300
0400	4.0	76	28	4	2	E309 0400
0500	5.0	76	32	5	2	E309 0500
0600	6.0	102	38	6	2	E309 0600
0800	8.0	102	42	8	2	E309 0800
1000	10.0	102	45	10	2	E309 1000
1200	12.0	153	76	12	2	E309 1200
1400	14.0	153	76	14	2	E309 1400
1600	16.0	153	76	16	2	E309 1600
1800	18.0	153	76	18	2	E309 1800
2000	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
E309	●	●	○	○		●	○			○		○		○	○		○		○		○	○	○	○	○	○	○	○	○	○																			

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

● Optimal ○ Effective

Endmills Carbide, 2 Flute, R30 N, Extra Long

suttontools

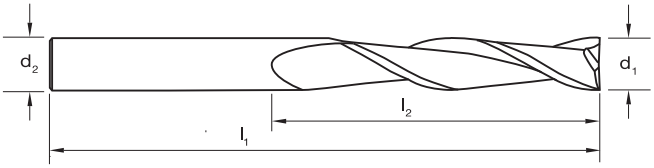
TECLINE

- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm²









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	●	●	○	○		●	○			○		○		○	○		○		○		○	○	○	○	○	○	○	○	○	○																		

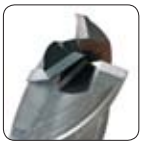
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

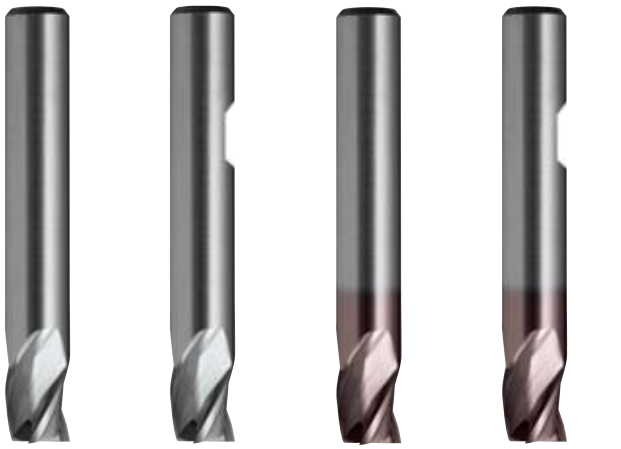
● Optimal ○ Effective

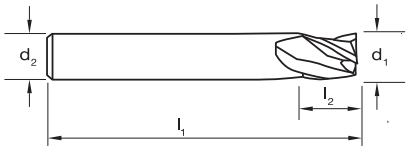
Endmills Carbide, 3 Flute, R30 N, DIN6527K

suttontools

- Universal use for slotting and finishing with the one tool
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life







Catalogue Code	E509	E510	E511	E512
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_1 (h10)	l_1	l_2	d_2	z	Item #	Item #	Item #	Item #
0300	3.0	50	4	6	3	E509 0300	E510 0300	E511 0300	E512 0300
0400	4.0	54	5	6	3	E509 0400	E510 0400	E511 0400	E512 0400
0500	5.0	54	6	6	3	E509 0500	E510 0500	E511 0500	E512 0500
0600	6.0	54	7	6	3	E509 0600	E510 0600	E511 0600	E512 0600
0800	8.0	58	9	8	3	E509 0800	E510 0800	E511 0800	E512 0800
1000	10.0	66	11	10	3	E509 1000	E510 1000	E511 1000	E512 1000
1200	12.0	73	12	12	3	E509 1200	E510 1200	E511 1200	E512 1200
1400	14.0	75	14	14	3	•	•	•	•
1600	16.0	82	16	16	3	E509 1600	E510 1600	E511 1600	E512 1600
1800	18.0	84	18	18	3	•	•	•	•
2000	20.0	92	20	20	3	E509 2000	E510 2000	E511 2000	E512 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
E509	●	●	●	●	○	●	●	○		○		○	○	○	○	○	●	○	●	○	○	○											○	○	○	○	○	○	○	○	○	○						
E511	●	●	●	●	●	●	●	●	○	●	○	●	●	●	○	○	●	●	●	●	●	●											○	○	○	○	○	○	○	○	○	○	○	○						

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

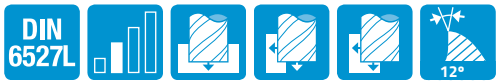
● Optimal ○ Effective

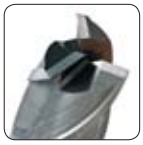
• Available on request as special manufacture. Subject to lead time.

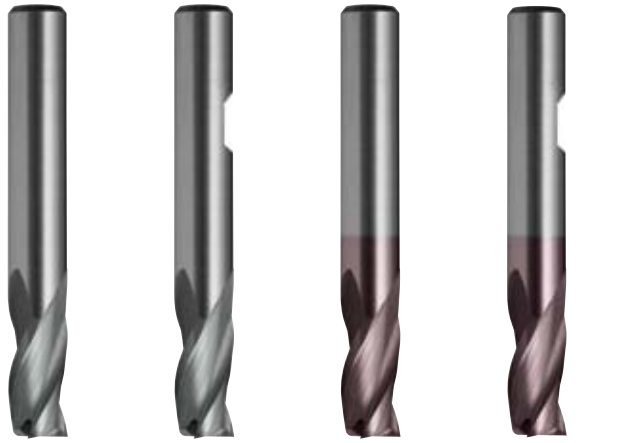
Endmills Carbide, 3 Flute, R30 N, DIN6527L

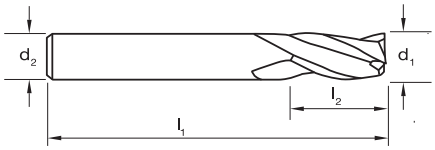
suttontools

- Universal use for slotting and finishing with the one tool
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life









	E513	E514	E515	E516
Catalogue Code	E513	E514	E515	E516
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_1 (h10)	l_1	l_2	d_2	z	Item #	Item #	Item #	Item #
0300	3.0	57	7	6	3	E513 0300	E514 0300	E515 0300	E516 0300
0350	3.5	57	7	6	3	E513 0350	•	•	•
0400	4.0	57	8	6	3	E513 0400	E514 0400	E515 0400	E516 0400
0450	4.5	57	8	6	3	E513 0450	•	•	•
0500	5.0	57	10	6	3	E513 0500	E514 0500	E515 0500	E516 0500
0600	6.0	57	10	6	3	E513 0600	E514 0600	E515 0600	E516 0600
0700	7.0	63	13	8	3	E513 0700	E514 0700	E515 0700	E516 0700
0800	8.0	63	16	8	3	E513 0800	E514 0800	E515 0800	E516 0800
0900	9.0	72	16	10	3	E513 0900	E514 0900	E515 0900	E516 0900
1000	10.0	72	19	10	3	E513 1000	E514 1000	E515 1000	E516 1000
1200	12.0	83	22	12	3	E513 1200	E514 1200	E515 1200	E516 1200
1400	14.0	83	22	14	3	E513 1400	E514 1400	E515 1400	E516 1400
1600	16.0	92	26	16	3	E513 1600	E514 1600	E515 1600	E516 1600
1800	18.0	92	26	18	3	E513 1800	E514 1800	E515 1800	E516 1800
2000	20.0	104	32	20	3	E513 2000	E514 2000	E515 2000	E516 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
E513	●	●	●	●	○	●	●	○		○		○	○	○	○	○	●	○	●	○	○	○											○	○	○	○	○	○	○	○	○	○							
E515	●	●	●	●	●	●	●	●	○	●	○	●	●	●	○	○	●	●	●	●	●	●											○	○	○	○	○	○	○	○	○	○	○	○							

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

● Optimal ○ Effective

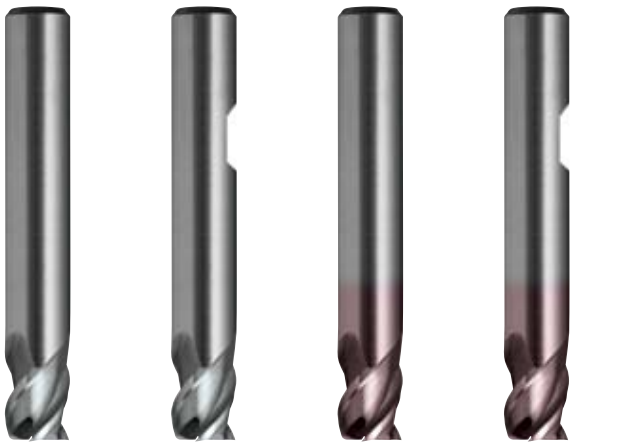
• Available on request as special manufacture. Subject to lead time.

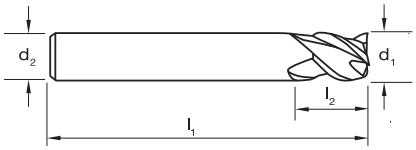
Endmills Carbide, 3 Flute, R45 W, DIN6527K

suttontools

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







	E517	E518	E519	E520
Catalogue Code	E517	E518	E519	E520
Discount Group	B0208	B0208	B0210	B0210
Material	VHM	VHM	VHM	VHM
Surface Finish	*Brt*	*Brt*	*TiAlN*	*TiAlN*
Sutton Designation	W	W	W	W
Geometry	R45	R45	R45	R45
Shank Form (DIN 6535)	HA	HB	HA	HB
Shank Tolerance	h6	h6	h6	h6

Size Ref.	d_1 (e8)	l_1	l_2	d_2	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	●	●	●	○	○	●	○	○															●	●	●	●	●	●	●	●																						

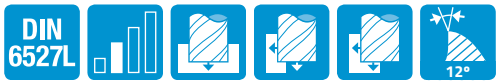
P Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials

● Optimal ○ Effective

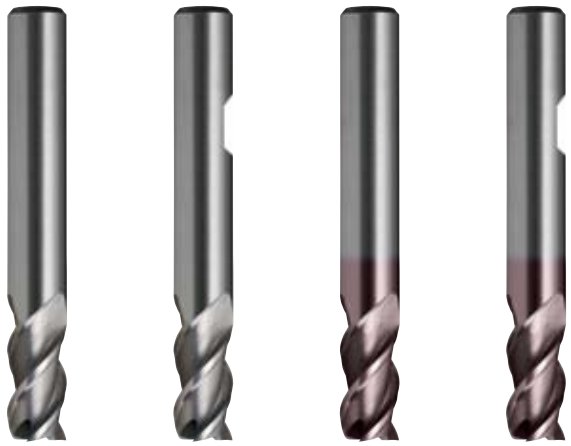
Endmills Carbide, 3 Flute, R45 W, DIN6527L

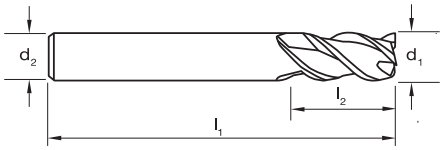
suttontools

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









	E521	E522	E523	E524
Catalogue Code	E521	E522	E523	E524
Discount Group	B0208	B0208	B0210	B0210
Material	VHM	VHM	VHM	VHM
Surface Finish	*Brt*	*Brt*	*TiAlN*	*TiAlN*
Sutton Designation	W	W	W	W
Geometry	R45	R45	R45	R45
Shank Form (DIN 6535)	HA	HB	HA	HB
Shank Tolerance	h6	h6	h6	h6

Size Ref.	d_1 (e8)	l_1	l_2	d_2	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

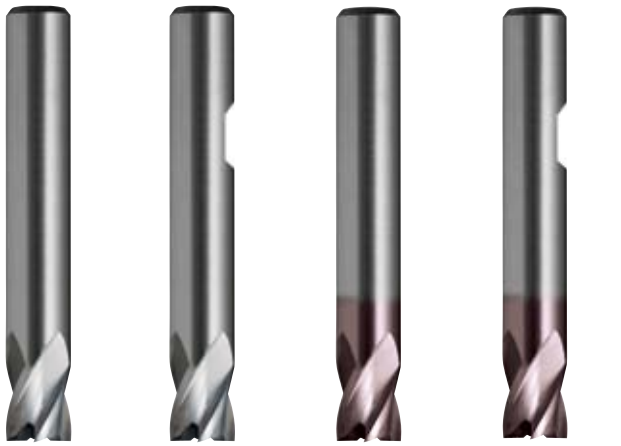
● Optimal ○ Effective

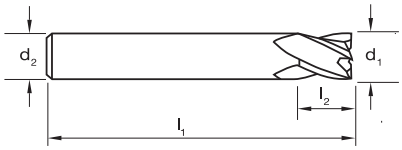
Endmills Carbide, 4 Flute, R30 N, DIN6527K

suttontools

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life







Catalogue Code	E525	E526	E527	E528
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_1 (h10)	l_1	l_2	d_2	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 Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Endmills Carbide, 4 Flute, R30 N, Regular

suttontools

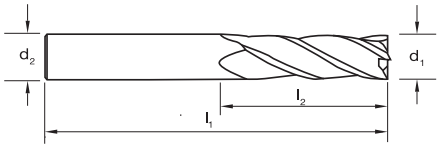
TECLINE

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life









Catalogue Code	E601	E604
Discount Group	B0212	B0214
Material	VHM	VHM
Surface Finish	*Brt*	*TiAlN*
Sutton Designation	N	N
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	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

						E333	E336
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

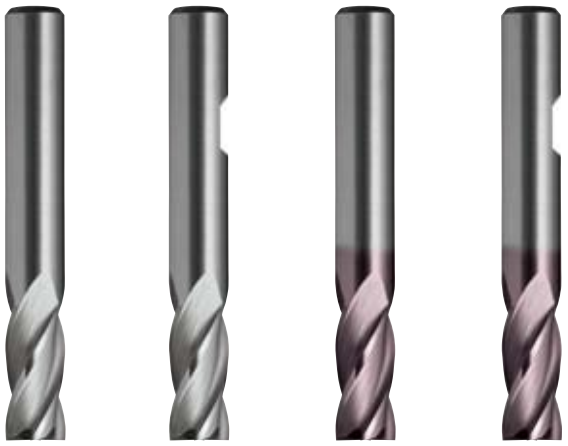
● Optimal ○ Effective

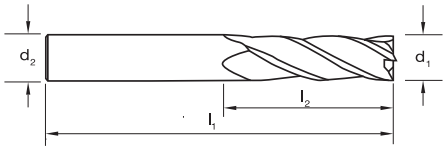
Endmills Carbide, 4 Flute, R30 N, DIN6527L

suttontools

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life







Catalogue Code	E529	E530	E531	E532
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_1 (h10)	l_1	l_2	d_2	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

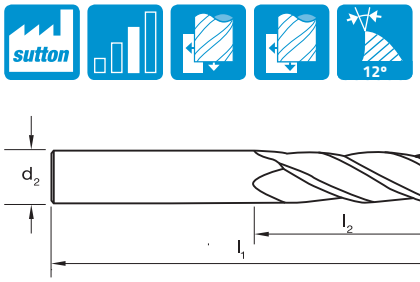
ISO	P													M			K						N										S												H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E529	●	●	●	●	○	●	●	○		○		○	○	○	○	○	●	○	●	○	○	○											○	○	○		○	○	○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

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

● Optimal ○ Effective

suttontools

- For long-reach finish milling applications
- Suitable for materials up to 1300 N/mm²
- TiAlN for longer tool life









	E337	E340
Catalogue Code	E337	E340
Discount Group	B0202	B0204
Material	VHM	VHM
Surface Finish	*Brt*	*TiAlN*
Sutton Designation	N	N
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0300	3.0	60	19	3	4	E337 0300	E340 0300
0400	4.0	60	19	4	4	E337 0400	E340 0400
0500	5.0	60	19	5	4	E337 0500	E340 0500
0600	6.0	75	31	6	4	E337 0600	E340 0600
0800	8.0	75	31	8	4	E337 0800	E340 0800
1000	10.0	75	31	10	4	E337 1000	E340 1000
1200	12.0	100	50	12	4	E337 1200	E340 1200
1400	14.0	125	57	14	4	E337 1400	E340 1400
1600	16.0	125	57	16	4	E337 1600	E340 1600
1800	18.0	125	57	18	4	E337 1800	E340 1800
2000	20.0	125	57	20	4	E337 2000	E340 2000
0318	1/8	2-1/4	3/4	1/8	4	E337 0318	E340 0318
0635	1/4	3	1-1/8	1/4	4	E337 0635	E340 0635
0794	5/16	3	1-1/8	5/16	4	E337 0794	E340 0794
0953	3/8	3	1-1/8	3/8	4	E337 0953	E340 0953
1270	1/2	4	2	1/2	4	E337 1270	E340 1270
1588	5/8	5	2-1/4	5/8	4	E337 1588	E340 1588
1905	3/4	5	2-1/4	3/4	4	E337 1905	E340 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
E337	●	●	●	●	○	●	●	○	○	●	○	○	○	●			●	○	●	○	○	○	●	●	○	○	○	○	○	○			○	○	○		○	○	○	○		○						○	
E340	●	●	●	●	●	●	●	●	○	●	○	●	○	●	○		●	●	●	●	●	●	●	●	○	○	○	○	○	○			○	○	○		○	○	○	○		○	○	○				●	

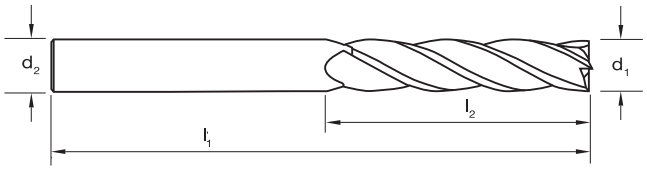
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

suttontools

- For extra long-reach finish milling applications
- Suitable for materials up to 1300 N/mm²











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

Size Ref.	d_1 (h10)	l_1	l_2	d_2	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

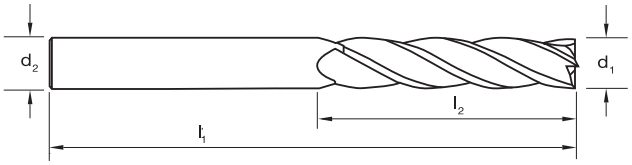
TECLINE

- For precision finish milling applications
- Suitable for materials up to 1600 N/mm²









Catalogue Code	E609
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 (h10)	l_1	l_2	d_2	z	Item #
0300	3.0	100	40	3	4	E609 0300
0400	4.0	100	40	4	4	E609 0400
0500	5.0	100	40	5	4	E609 0500
0600	6.0	100	50	6	4	E609 0600
0800	8.0	100	50	8	4	E609 0800
1000	10.0	150	75	10	4	E609 1000
1200	12.0	150	75	12	4	E609 1200
1600	16.0	150	75	16	4	E609 1600
2000	20.0	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

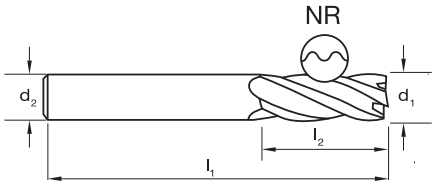
- For roughing applications
- NR geometry allows for heavy cuts
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life











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

Size Ref.	d_1 (js14)	l_1	l_2	d_2	z	Item #	Item #
0400	4.0	57	11	6	3	E547 0400	E548 0400
0500	5.0	57	13	6	3	E547 0500	E548 0500
0600	6.0	57	13	6	3	E547 0600	E548 0600
0800	8.0	63	19	8	3	E547 0800	E548 0800
1000	10.0	72	22	10	4	E547 1000	E548 1000
1200	12.0	83	26	12	4	E547 1200	E548 1200
1600	16.0	92	32	16	4	E547 1600	E548 1600
2000	20.0	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
E547	●	●	○	○	○	○	○	○		○							○	○	○	○	○	○	●	●	○	○	○																							

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

● Optimal ○ Effective

suttontools

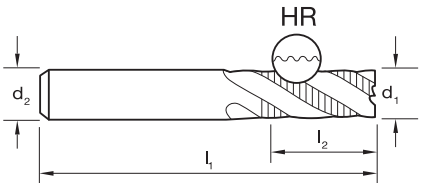
- For roughing applications
- HR geometry allows for heavier cuts in harder materials
- Suitable for materials up to 1200 N/mm²
- TiAlN for longer tool life











	E450	E451
Catalogue Code	E450	E451
Discount Group	B0210	B0210
Material	VHM	VHM
Surface Finish	TiAlN	TiAlN
Sutton Designation	WN	WN
Geometry	R20 HR	R20 HR
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0600	6.0	57	13	6	3	E450 0600	E451 0600
0800	8.0	63	19	8	3	E450 0800	E451 0800
1000	10.0	72	22	10	4	E450 1000	E451 1000
1200	12.0	83	26	12	4	E450 1200	E451 1200
1400	14.0	83	26	14	4	•	•
1600	16.0	92	32	16	4	E450 1600	E451 1600
1800	18.0	92	32	18	4	•	•
2000	20.0	104	38	20	4	E450 2000	E451 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
E450	●	●	●	●	○	●	●	○		○							●	●	●	●	●	●											●	●	●	●	●	●	●	●	●	●					●	

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

● Optimal ○ Effective

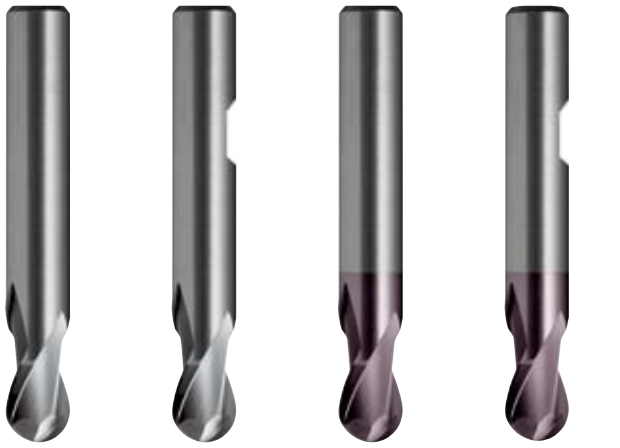
• Available on request as special manufacture. Subject to lead time.

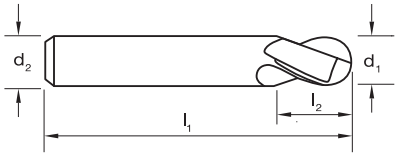
Slot Drills Carbide, Ballnose, 2 Flute, R30 N, DIN6527K

suttontools

- For profiling of contour milling applications
- Suitable for materials up to 1600N/mm²
- TiAlN for longer tool life







	E452	E453	E454	E455
Catalogue Code	E452	E453	E454	E455
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_1 (h10)	l_1	l_2	d_2	z	Item #	Item #	Item #	Item #
0300	3.0	50	4	6	2	E452 0300	E453 0300	E454 0300	E455 0300
0400	4.0	54	5	6	2	E452 0400	E453 0400	E454 0400	E455 0400
0500	5.0	54	6	6	2	E452 0500	E453 0500	E454 0500	E455 0500
0600	6.0	54	7	6	2	E452 0600	E453 0600	E454 0600	E455 0600
0800	8.0	58	9	8	2	E452 0800	E453 0800	E454 0800	E455 0800
1000	10.0	66	11	10	2	E452 1000	E453 1000	E454 1000	E455 1000
1200	12.0	73	12	12	2	E452 1200	E453 1200	E454 1200	E455 1200
1400	14.0	75	14	14	2	•	•	•	•
1600	16.0	82	16	16	2	E452 1600	E453 1600	E454 1600	E455 1600
1800	18.0	84	18	18	2	•	•	•	•
2000	20.0	92	20	20	2	E452 2000	E453 2000	E454 2000	E455 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
E452	●	●	●	●	●	●	●	●	○	●	○	●	○	●	○	●	○	○	○	○	○	○																												
E454	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	●	●	●														●				●	

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, Ballnose, 2 Flute, R30 N, Regular

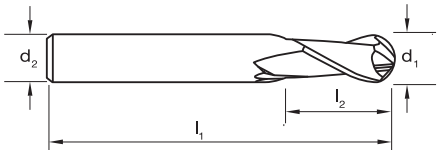
suttontools TECLINE

- For profile & contour milling applications
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life









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

Size Ref.	d_1	l_1	l_2	d_2	z	Item #	Item #
0100	1.0	38	4	3	2	E602 0100	E605 0100
0150	1.5	38	4.5	3	2	E602 0150	E605 0150
0200	2.0	38	6	3	2	E602 0200	E605 0200
0250	2.5	38	9.5	3	2	E602 0250	E605 0250
0300	3.0	38	12	3	2	E602 0300	E605 0300
0350	3.5	50	12	4	2		E605 0350
0400	4.0	50	14	4	2	E602 0400	E605 0400
0500	5.0	50	16	6	2	E602 0500	E605 0500
0600	6.0	50	19	6	2	E602 0600	E605 0600
0700	7.0	63	19	8	2	E602 0700	E605 0700
0800	8.0	63	20	8	2	E602 0800	E605 0800
0900	9.0	75	20	10	2	E602 0900	E605 0900
1000	10.0	75	22	10	2	E602 1000	E605 1000
1100	11.0	75	25	12	2	E602 1100	E605 1100
1200	12.0	75	25	12	2	E602 1200	E605 1200
1400	14.0	89	32	14	2	E602 1400	E605 1400
1600	16.0	89	32	16	2	E602 1600	E605 1600
1800	18.0	100	38	18	2	E602 1800	E605 1800
2000	20.0	100	38	20	2	E602 2000	E605 2000
2500	25.0	100	38	25	2	E602 2500	E605 2500

						E311	E314
0159	1/16	1-1/2	3/16	1/8	2	E311 0159	E314 0159
0238	3/32	1-1/2	5/16	1/8	2	E311 0238	E314 0238
0318	1/8	1-1/2	1/2	1/8	2	E311 0318	E314 0318
0397	5/32	2	9/16	3/16	2	E311 0397	E314 0397
0476	3/16	2	5/8	3/16	2	E311 0476	E314 0476
0635	1/4	2-1/2	3/4	1/4	2	E311 0635	E314 0635
0794	5/16	2-1/2	13/16	5/16	2	E311 0794	E314 0794
0953	3/8	2-1/2	7/8	3/8	2	E311 0953	E314 0953
1111	7/16	2-3/4	1	7/16	2	E311 1111	E314 1111
1270	1/2	3	1	1/2	2	E311 1270	E314 1270
1588	5/8	3-1/2	1-1/4	5/8	2	E311 1588	E314 1588
1905	3/4	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
E602	●	●	●	●		●	○			○				○	○		○	○	○	○	○	○																													
E605	●	●	●	●	○	●	●	○	○	●	○			○	○		○	○	○	○	○	○																													

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

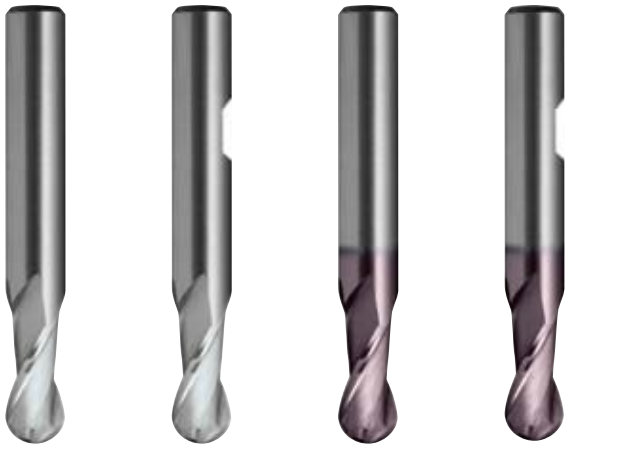
● Optimal ○ Effective

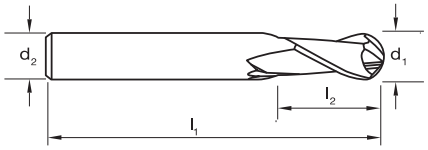
Slot Drills Carbide, Ballnose, 2 Flute, R30 N, DIN6527L

suttontools

- For profile & contour milling applications
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life







	E551	E552	E553	E554
Catalogue Code	E551	E552	E553	E554
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_1 (h10)	l_1	l_2	d_2	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

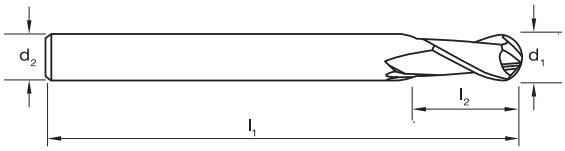
Slot Drills Carbide, Ballnose, 2 Flute, R30 N, Long Reach

suttontools

- VHM-ULTRA grade of carbide for high performance
- For profile & contour milling in long reach applications
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life







Catalogue Code	E555	E556
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	N	N
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0200	2.0	50	5	6	2	E555 0200	E556 0200
0300	3.0	60	8	6	2	E555 0300	E556 0300
0400	4.0	70	8	6	2	E555 0400	E556 0400
0500	5.0	80	10	6	2	E555 0500	E556 0500
0600	6.0	90	12	6	2	E555 0600	E556 0600
0800	8.0	100	14	8	2	E555 0800	E556 0800
1000	10.0	100	18	10	2	E555 1000	E556 1000
1200	12.0	110	22	12	2	E555 1200	E556 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
E555	●	●	●	●	●	●	●	●	○	●	○	○	○	●	○	○	●	●	●	●	●	●	○	○	○	○	○	○	○	○			○		○			○	○	○	○	○	○					●	

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

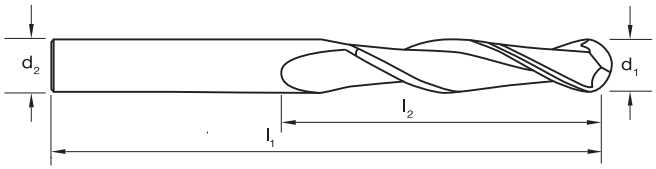
● Optimal ○ Effective

Slot Drills Carbide, Ballnose, 2 Flute, R30 N, Extra Long

suttontools

- For profile & contour milling in extra long reach applications
- Suitable for materials up to 1300 N/mm²









Catalogue Code	E315
Discount Group	B0208
Material	VHM
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	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, R30 N, Regular

suttontools TECLINE

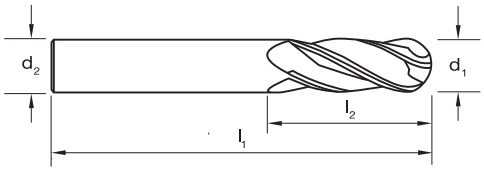
- For profile & contour milling applications
- Suitable for materials up to 1600 N/mm²
- TiAlN for longer tool life











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

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0100	1.0	38	4	3	4	E606 0100	E607 0100
0150	1.5	38	4.5	3	4	E606 0150	E607 0150
0200	2.0	38	6	3	4	E606 0200	E607 0200
0250	2.5	38	9.5	3	4	E606 0250	E607 0250
0300	3.0	38	12	3	4	E606 0300	E607 0300
0350	3.5	50	12	4	4		E607 0350
0400	4.0	50	14	4	4	E606 0400	E607 0400
0450	4.5	50	16	6	4		E607 0450
0500	5.0	50	16	6	4	E606 0500	E607 0500
0600	6.0	50	19	6	4	E606 0600	E607 0600
0700	7.0	63	19	8	4		E607 0700
0800	8.0	63	20	8	4	E606 0800	E607 0800
0900	9.0	75	22	10	4		E607 0900
1000	10.0	75	22	10	4	E606 1000	E607 1000
1100	11.0	75	25	12	4		E607 1100
1200	12.0	75	25	12	4	E606 1200	E607 1200
1400	14.0	89	32	14	4		E607 1400
1600	16.0	89	32	16	4	E606 1600	E607 1600
1800	18.0	100	38	18	4		E607 1800
2000	20.0	100	38	20	4	E606 2000	E607 2000
2500	25.0	100	38	25	4		E607 2500

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	E316	E319
0159	1/16	1-1/2	3/16	1/8	4	E316 0159	E319 0159
0318	1/8	1-1/2	1/2	1/8	4	E316 0318	E319 0318
0476	3/16	2	5/8	3/16	4	E316 0476	E319 0476
0635	1/4	2-1/2	3/4	1/4	4	E316 0635	E319 0635
0794	5/16	2-1/2	13/16	5/16	4	E316 0794	E319 0794
0953	3/8	2-1/2	7/8	3/8	4	E316 0953	E319 0953
1270	1/2	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
E606	●	●	●	●	○	●	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○																													
E607	●	●	●	●	○	●	●	○	○	●	○			●	○		●	●	○	○	○	○	○	○	○	○	○	○	○	○																					

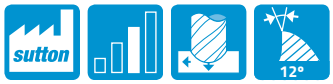
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

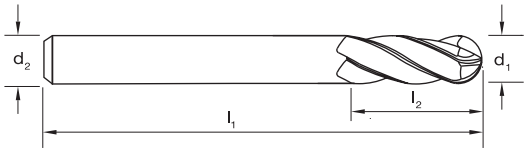
● Optimal ○ Effective

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

suttontools

- VHM-ULTRA grade of carbide for high performance
- For profile & contour milling in long reach applications
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life











	E557	E558
Catalogue Code	E557	E558
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	N	N
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0200	2.0	50	5	6	4	E557 0200	E558 0200
0300	3.0	60	8	6	4	E557 0300	E558 0300
0400	4.0	70	8	6	4	E557 0400	E558 0400
0500	5.0	80	10	6	4	E557 0500	E558 0500
0600	6.0	90	12	6	4	E557 0600	E558 0600
0800	8.0	100	14	8	4	E557 0800	E558 0800
1000	10.0	100	18	10	4	E557 1000	E558 1000
1200	12.0	110	22	12	4	E557 1200	E558 1200
1400	14.0	110	26	14	4	E557 1400	E558 1400
1600	16.0	140	30	16	4	E557 1600	E558 1600
1800	18.0	140	34	16	4	E557 1800	E558 1800
2000	20.0	160	38	20	4	E557 2000	E558 2000
2500	25.0	182	61	25	4	E557 2500	E558 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
E557	●	●	●	●	●	●	●	●	○	●	○	○	○	●	○	○	●	●	●	●	●	●	○	○	○	○	○	○	○	○			○		○			○	○	○	○	○	○					●	

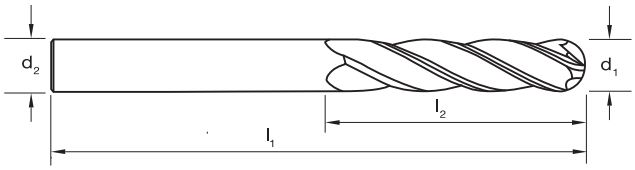
Steel | M Stainless Steel | K Cast Iron | N Non-Ferrous Metals | S Titanium & Super Alloys | H Hard Materials

● Optimal ○ Effective

suttontools

- For profile & contour milling in extra long reach applications
- Suitable for materials up to 1300 N/mm²
- Minimal deflection due to strong/larger core









Catalogue Code	E320
Discount Group	B0208
Material	VHM
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #
0300	3.0	76	25	3	4	E320 0300
0400	4.0	76	28	4	4	E320 0400
0500	5.0	76	32	5	4	E320 0500
0600	6.0	102	38	6	4	E320 0600
0800	8.0	102	42	8	4	E320 0800
1000	10.0	102	45	10	4	E320 1000
1200	12.0	153	76	12	4	E320 1200
1400	14.0	153	76	14	4	E320 1400
1600	16.0	153	76	16	4	E320 1600
1800	18.0	153	76	18	4	E320 1800
2000	20.0	153	76	20	4	E320 2000

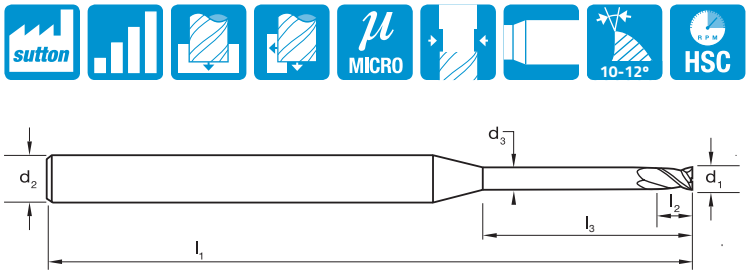
ISO	P													M			K										N												S														H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E320	●	●	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○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

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	E580
Discount Group	B0218
Material	VHM
Surface Finish	TiSiN
Application	NH
Geometry	R40
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d_1*	l_1	l_2	l_3	d_2	d_3	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

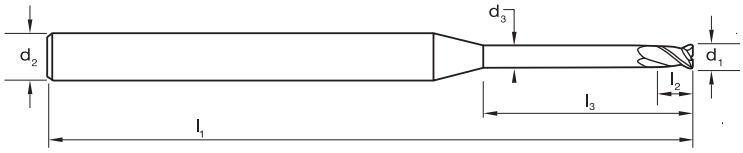
● Optimal ○ Effective

*Cutting Ø tolerance: d_1 < 0.7 = 0 / -0.012 d_1 > 0.7 = 0 / -0.020

suttontools

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









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

Size Ref.	d_1 *	l_1	l_2	l_3	d_2	d_3	z	rad†	Item #
0021	0.2	50	0.3	0.5	4	0.16	2	0.02	E581 0021
0022		50	0.3	1	4	0.16	2	0.02	E581 0022
0023		50	0.3	1.5	4	0.16	2	0.02	E581 0023
0041	0.4	50	0.6	2	4	0.37	2	0.03	E581 0041
0042		50	0.6	4	4	0.37	2	0.03	E581 0042
0051	0.5	50	0.7	2	4	0.45	2	0.05	E581 0051
0052		50	0.7	4	4	0.45	2	0.05	E581 0052
0053		50	0.7	6	4	0.45	2	0.05	E581 0053
0061	0.6	50	0.9	4	4	0.55	2	0.05	E581 0061
0062		50	0.9	8	4	0.55	2	0.05	E581 0062
0081	0.8	50	1.2	4	4	0.75	2	0.08	E581 0081
0082		50	1.2	6	4	0.75	2	0.08	E581 0082
0083		50	1.2	8	4	0.75	2	0.08	E581 0083
0101	1	50	1.5	6	4	0.95	2	0.1	E581 0101
0102		50	1.5	8	4	0.95	2	0.1	E581 0102
0103		50	1.5	10	4	0.95	2	0.1	E581 0103
0104		50	1.5	12	4	0.95	2	0.1	E581 0104
0105		50	1.5	16	4	0.95	2	0.1	E581 0105
0121	1.2	50	1.8	6	4	1.15	2	0.1	E581 0121
0122		50	1.8	10	4	1.15	2	0.1	E581 0122
0123		50	1.8	12	4	1.15	2	0.1	E581 0123
0151	1.5	50	2.3	6	4	1.45	2	0.15	E581 0151
0152		50	2.3	8	4	1.45	2	0.15	E581 0152
0153		50	2.3	12	4	1.45	2	0.15	E581 0153
0154		50	2.3	16	4	1.45	2	0.15	E581 0154
0155		60	2.3	20	4	1.45	2	0.15	E581 0155
0201	2	50	3.0	6	4	1.95	2	0.2	E581 0201
0202		50	3.0	8	4	1.95	2	0.2	E581 0202
0203		50	3.0	10	4	1.95	2	0.2	E581 0203
0204		50	3.0	12	4	1.95	2	0.2	E581 0204
0205		50	3.0	16	4	1.95	2	0.2	E581 0205
0206		60	3.0	20	4	1.95	2	0.2	E581 0206
0207		75	3.0	25	4	1.95	2	0.2	E581 0207
0251	2.5	50	3.7	8	4	2.40	2	0.3	E581 0251
0252		50	3.7	12	4	2.40	2	0.3	E581 0252
0301	3	60	4.5	16	6	2.95	2	0.3	E581 0301
0302		60	4.5	20	6	2.95	2	0.3	E581 0302
0303		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

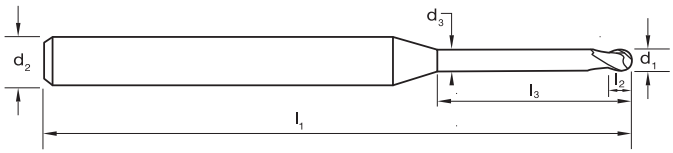
● Optimal ○ Effective

*Cutting Ø tolerance: d_1 < 0.7 = 0 / -0.012 d_1 > 0.7 = 0 / -0.020 †Radius tolerance: Rad = +-0.01

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_1*	l_1	l_2	l_3	d_2	d_3	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 Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

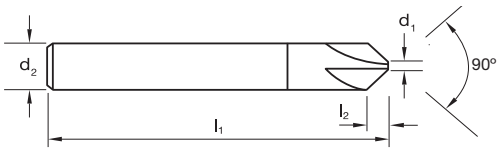
● Optimal ○ Effective

*Cutting Ø tolerance: d_1 < 0.7 = 0 / -0.012 d_1 > 0.7 = 0 / -0.020 †Radius tolerance: Rad = +-0.01

suttontools

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









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

Size Ref.	l_2	l_1	d_1	d_2	z	Item #
0600	2.4	57	1.2	6	4	E456 0600
0800	3.2	63	1.6	8	4	E456 0800
1000	4.0	72	2.0	10	4	E456 1000
1200	4.8	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
E456	●	●	●	●	●	●	●	●	○	●	○	●	○	●	●	●	●	●	●	●	●	●										●	●	●	●	●	●	●	●	●	●	●	●	○			●	

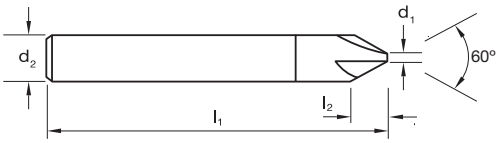
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

suttontools

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









Catalogue Code	E457
Discount Group	B0210
Material	VHM
Surface Finish	TiAlN
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 #
0600	3.8	57	1.2	6	4	E457 0600
0800	5.5	63	1.6	8	4	E457 0800
1000	6.9	72	2.0	10	4	E457 1000
1200	8.3	83	2.4	12	4	E457 1200

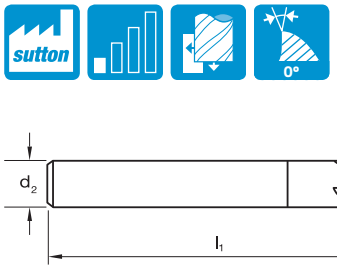
ISO	P													M			K						N								S														H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E457	●	●	●	●	●	●	●	●	○	●	○	●	○	●	●	●	●	●	●	●	●	●										●	●	●	●	●	●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

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

● Optimal ○ Effective

suttontools

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







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

Size Ref.	rad	d_1	l_1	d_2	z	Item #
0605	0.5	5.0	57	6	4	E458 0605
0610	1	4.0	57	6	4	E458 0610
0815	1.5	5.0	63	8	4	E458 0815
0820	2	4.0	63	8	4	E458 0820
1025	2.5	5.0	72	10	4	E458 1025
1030	3	4.0	72	10	4	E458 1030
1235	3.5	5.0	83	12	4	E458 1235
1240	4	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
E458	●	●	●	●	●	●	●	●	○	●	○	●	○	●	●	●	●	●	●	●	●	●										●	●	●	●	●	●	●	●	●	●	●	●	○			●		

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

● Optimal ○ Effective

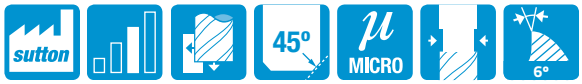
Slot Drills Carbide, 2 Flute, R30 UNI, Long Reach, *Harmony*

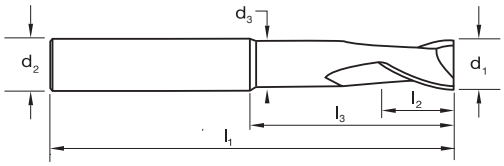
suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- For precision milling of slots & cavities
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life









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

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	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

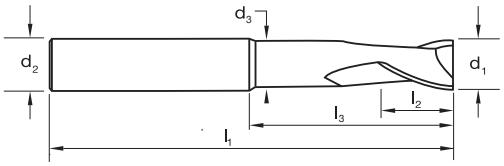
- VHM-ULTRA grade of carbide for high performance
- For precision milling of slots & cavities
- Suitable for materials up to 1300 N/mm²
- AlCrN for longer tool life











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

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	rad	Item #	Item #
0403	4.0	57	5	16	6	3.6	2	0.3	E420 0403	E421 0403
0405		57	5	16	6	3.6	2	0.5	E420 0405	E421 0405
0603	6.0	62	7	24	6	5.4	2	0.3	E420 0603	E421 0603
0605		62	7	24	6	5.4	2	0.5	E420 0605	E421 0605
0610		62	7	24	6	5.4	2	1.0	E420 0610	E421 0610
0615		62	7	24	6	5.4	2	1.5	E420 0615	E421 0615
0803	8.0	68	9	30	8	7.2	2	0.3	E420 0803	E421 0803
0805		68	9	30	8	7.2	2	0.5	E420 0805	E421 0805
0810		68	9	30	8	7.2	2	1.0	E420 0810	E421 0810
0815		68	9	30	8	7.2	2	1.5	E420 0815	E421 0815
1005	10.0	80	11	38	10	9.0	2	0.5	E420 1005	E421 1005
1010		80	11	38	10	9.0	2	1.0	E420 1010	E421 1010
1015		80	11	38	10	9.0	2	1.5	E420 1015	E421 1015
1020		80	11	38	10	9.0	2	2.0	E420 1020	E421 1020
1205	12.0	93	13	46	12	11.0	2	0.5	E420 1205	E421 1205
1210		93	13	46	12	11.0	2	1.0	E420 1210	E421 1210
1215		93	13	46	12	11.0	2	1.5	E420 1215	E421 1215
1220		93	13	46	12	11.0	2	2.0	E420 1220	E421 1220
1610	16.0	108	17	58	16	15.0	2	1.0	E420 1610	E421 1610
1620		108	17	58	16	15.0	2	2.0	E420 1620	E421 1620
1630		108	17	58	16	15.0	2	3.0	E420 1630	E421 1630
1640		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

Endmills Carbide, 3 Flute, R38/37/39 UNI, DIN 6527K, *Harmony*

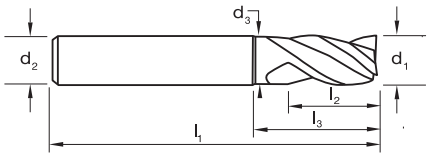
suttontools HARMONY

- 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/mm²
- AlCrN for longer tool life









	E422	E423
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_1 (e8)	l_1	l_2	l_3	d_2	d_3	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	●	●	●	●	●	●	●	●	●	●	●						●	●	●	●	●	●										○	○	○	○	○	●	●	●	●	●	●	●	●	●		●	●

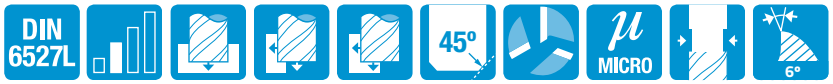
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Endmills Carbide, 3 Flute, R38/37/39 UNI, DIN6527L, *Harmony*

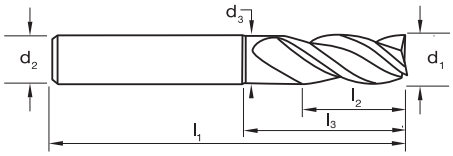
suttontools HARMONY

- 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/mm²
- AlCrN for longer tool life









Catalogue Code	E424	E425
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_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0300	3.0	57	8	14	6	2.8	3	E424 0300	E425 0300
0350	3.5	57	8	14	6	3.3	3	E424 0350	E425 0350
0400	4.0	57	11	16	6	3.8	3	E424 0400	E425 0400
0450	4.5	57	11	16	6	4.3	3	E424 0450	E425 0450
0500	5.0	57	13	18	6	4.8	3	E424 0500	E425 0500
0550	5.5	57	13	18	6	5.3	3	E424 0550	E425 0550
0600	6.0	57	13	19	6	5.7	3	E424 0600	E425 0600
0800	8.0	63	19	25	8	7.6	3	E424 0800	E425 0800
1000	10.0	72	22	30	10	9.5	3	E424 1000	E425 1000
1200	12.0	83	26	36	12	11.5	3	E424 1200	E425 1200
1400	14.0	83	26	36	14	13.5	3	E424 1400	E425 1400
1600	16.0	92	32	42	16	15.5	3	E424 1600	E425 1600
1800	18.0	92	32	42	18	17.5	3	E424 1800	E425 1800
2000	20.0	104	38	52	20	19.5	3	E424 2000	E425 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
E424	●	●	●	●	●	●	●	●	●	●	●						●	●	●	●	●	●										○	○	○	○	○	●	●	●	●	●	●	●	●	●		●	●

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, DIN6527K, *Harmony*

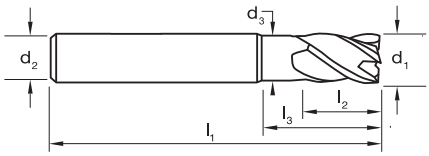
suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- 35/38° variable flute helix for chatter free milling
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life









	E533	E534
Catalogue Code	E533	E534
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_1 (h9)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6.0	54	10	18	6	5.5	4	E533 0600	E534 0600
0800	8.0	58	12	22	8	7.5	4	E533 0800	E534 0800
1000	10.0	66	14	24	10	9.5	4	E533 1000	E534 1000
1200	12.0	73	16	28	12	11.2	4	E533 1200	E534 1200
1600	16.0	82	22	34	16	15.0	4	E533 1600	E534 1600
2000	20.0	92	26	42	20	19.0	4	E533 2000	E534 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
E533	●	●	●	●	●	●	●	●	○	●	○	○	○	○	○		●	○	●	○	●	●	○	○	○	○							○	○	○		○	○	○	○	○	○		○				●	○

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

watch the video

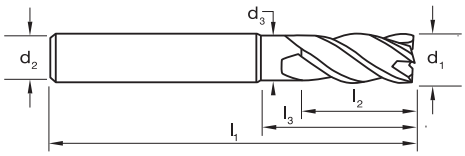
- VHM-ULTRA grade of carbide for high performance
- 35/38° variable flute helix for chatter free milling
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life











	E535	E536
Catalogue Code	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_1 (e8)	l_1	l_2	l_3	d_2	d_3	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

									E572	
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

Endmills Carbide, 4 Flute, R35/38 UNI, Cnr Rad, DIN6527L, *Harmony*

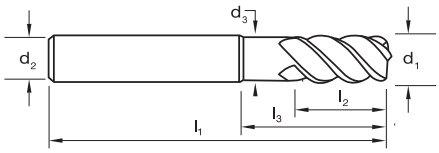
suttontools HARMONY

- For precision finishing applications
- Ideally suited to materials up to 1300 N/mm²
- AlCrN for longer tool life









	E559	E560
Catalogue Code	E559	E560
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_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	rad	Item #	Item #
0303	3.0	57	8	19	6	3.7	4	0.3	E559 0303	E560 0303
0305		57	8	19	6	3.7	4	0.5	E559 0305	E560 0305
0403	4.0	57	11	19	6	3.7	4	0.3	E559 0403	E560 0403
0405		57	11	19	6	3.7	4	0.5	E559 0405	E560 0405
0410		57	11	19	6	3.7	4	1.0	E559 0410	E560 0410
0503	5.0	57	13	20	6	4.6	4	0.3	E559 0503	E560 0503
0505		57	13	20	6	4.6	4	0.5	E559 0505	E560 0505
0510		57	13	20	6	4.6	4	1.0	E559 0510	E560 0510
0603	6.0	57	13	21	6	5.5	4	0.3	E559 0603	E560 0603
0605		57	13	21	6	5.5	4	0.5	E559 0605	E560 0605
0610		57	13	21	6	5.5	4	1.0	E559 0610	E560 0610
0803	8.0	63	19	27	8	7.5	4	0.3	E559 0803	E560 0803
0805		63	19	27	8	7.5	4	0.5	E559 0805	E560 0805
0810		63	19	27	8	7.5	4	1.0	E559 0810	E560 0810
0815		63	19	27	8	7.5	4	1.5	E559 0815	E560 0815
0820		63	19	27	8	7.5	4	2.0	E559 0820	E560 0820
1003	10.0	72	22	32	10	9.5	4	0.3	E559 1003	E560 1003
1005		72	22	32	10	9.5	4	0.5	E559 1005	E560 1005
1010		72	22	32	10	9.5	4	1.0	E559 1010	E560 1010
1015		72	22	32	10	9.5	4	1.5	E559 1015	E560 1015
1020		72	22	32	10	9.5	4	2.0	E559 1020	E560 1020
1203	12.0	83	26	38	12	11.2	4	0.3	E559 1203	E560 1203
1205		83	26	38	12	11.2	4	0.5	E559 1205	E560 1205
1210		83	26	38	12	11.2	4	1.0	E559 1210	E560 1210
1215		83	26	38	12	11.2	4	1.5	E559 1215	E560 1215
1220		83	26	38	12	11.2	4	2.0	E559 1220	E560 1220
1230		83	26	38	12	11.2	4	3.0	E559 1230	E560 1230
1605	16.0	92	32	44	16	15.0	4	0.5	E559 1605	E560 1605
1610		92	32	44	16	15.0	4	1.0	E559 1610	E560 1610
1615		92	32	44	16	15.0	4	1.5	E559 1615	E560 1615
1620		92	32	44	16	15.0	4	2.0	E559 1620	E560 1620
1630		92	32	44	16	15.0	4	3.0	E559 1630	E560 1630
2005	20.0	104	38	54	20	19.0	4	0.5	E559 2005	E560 2005
2010		104	38	54	20	19.0	4	1.0	E559 2010	E560 2010
2015		104	38	54	20	19.0	4	1.5	E559 2015	E560 2015
2020		104	38	54	20	19.0	4	2.0	E559 2020	E560 2020
2030		104	38	54	20	19.0	4	3.0	E559 2030	E560 2030

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
E559	●	●	●	●	●	●	●	●	○	●	○	○	○	○	○		●	○	●	○	●	●	○	○	○	○							○	○	○		○	○	○	○	○	○		○				●	○

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

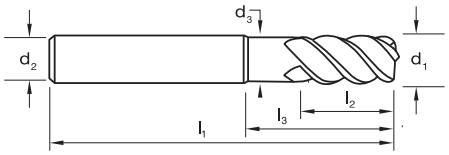
● Optimal ○ Effective

Endmills Carbide, 4 Flute, R35/38 UNI, Cnr Rad, DIN6527L, *Harmony*

suttontools HARMONY

- For precision finishing applications
- Ideally suited to materials up to 1300 N/mm²
- 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_1	l_1	l_2	l_3	d_2	d_3	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	•
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

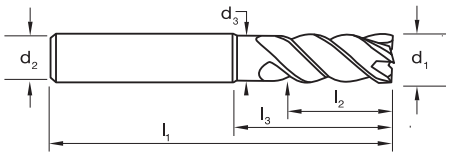
● Optimal ○ Effective

Endmills Carbide, 4 Flute, R45/44 UNI, DIN6527L, *Harmony*

suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- 45/44° variable flute helix for chatter free milling
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life









	E426	E427
Catalogue Code	E426	E427
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_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0300	3.0	57	8	14	6	2.8	4	E426 0300	E427 0300
0350	3.5	57	11	16	6	3.3	4	E426 0350	E427 0350
0400	4.0	57	11	16	6	3.8	4	E426 0400	E427 0400
0450	4.5	57	13	18	6	4.3	4	E426 0450	E427 0450
0500	5.0	57	13	18	6	4.8	4	E426 0500	E427 0500
0550	5.5	57	13	18	6	5.3	4	E426 0550	E427 0550
0600	6.0	57	13	19	6	5.7	4	E426 0600	E427 0600
0800	8.0	63	19	25	8	7.6	4	E426 0800	E427 0800
1000	10.0	72	22	30	10	9.5	4	E426 1000	E427 1000
1200	12.0	83	26	36	12	11.5	4	E426 1200	E427 1200
1400	14.0	83	26	36	14	13.5	4	E426 1400	E427 1400
1600	16.0	92	32	42	16	15.5	4	E426 1600	E427 1600
1800	18.0	92	32	42	18	17.5	4	E426 1800	E427 1800
2000	20.0	104	38	52	20	19.5	4	E426 2000	E427 2000
2500	25.0	120	45	62	25	24.0	4	E426 2500	E427 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
E426	●	●	●	●	●	●	●	●	●	●	●						●	●	●	●	●	●											○	○	○	○	○	●	●	●	●	●	●	●	●		●	●

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, R45/44 UNI, Cnr Rad, Long Reach, *Harmony*

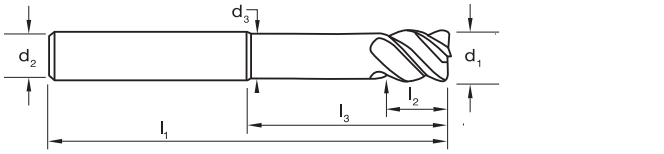
suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- 45/44° variable flute helix for chatter free milling
- Suitable for materials up to 1300 N/mm²
- AlCrN for longer tool life









	E430	E431
Catalogue Code	E430	E431
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_1 (e8)	l_1	l_2	l_3	d_2	d_3	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	●	●	●	●	●	●	●	●	●	●	●						●	●	●	●	●	●										○	○	○	○	○	●	●	●	●	●	●	●	●	●	●		●	●

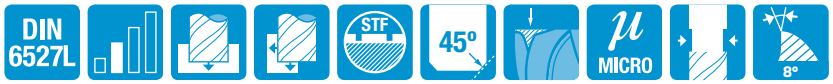
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

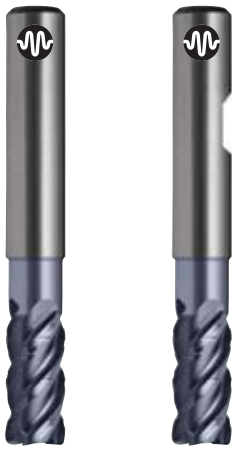
Roughers Carbide, STF, R45 UNI, DIN6527L, *Harmony*

suttontools HARMONY

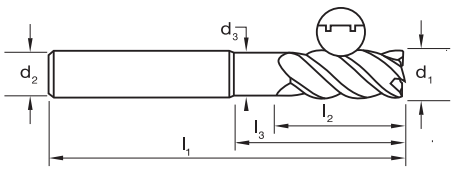
- VHM-ULTRA grade of carbide for high performance
- For finishing & semi-roughing applications
- Suitable for materials up to 1400 N/mm²
- Unequal flute design with Special Tooth Form (STF), produces excellent surface finish
- Eliminates the use of finishing Endmills in many cases
- AlCrN for longer tool life







STF



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

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0400	4.0	57	11	19	6	3.7	4	E545 0400	E546 0400
0500	5.0	57	13	20	6	4.6	4	E545 0500	E546 0500
0600	6.0	57	13	21	6	5.5	4	E545 0600	E546 0600
0800	8.0	63	19	27	8	7.5	4	E545 0800	E546 0800
1000	10.0	72	22	32	10	9.5	4	E545 1000	E546 1000
1200	12.0	83	26	38	12	11.2	4	E545 1200	E546 1200
1600	16.0	92	32	44	16	15.0	4	E545 1600	E546 1600
2000	20.0	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
E545	●	●	●	●	●	●	●	●	○	●	○	●	●	●	○	○	●	○	●	○	●	●											○	○	○		○	○	○	○	○	○							

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

● Optimal ○ Effective

Roughers Carbide, HRS, R45 UNI, DIN6527L *Harmony*

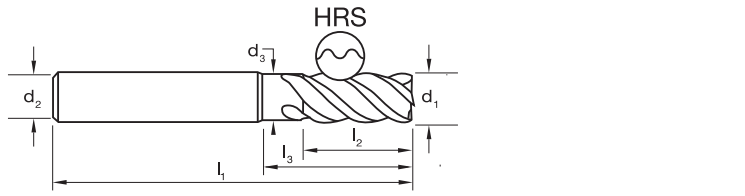
suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- For roughing applications
- HRS geometry allows for heavy cuts in short & long chipping materials
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life









Catalogue Code	E549	E550
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	UNI	UNI
Geometry	R45 HRS	R45 HRS
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0400	4.0	57	11	19	6	3.7	3	E549 0400	E550 0400
0500	5.0	57	13	20	6	4.6	4	E549 0500	E550 0500
0600	6.0	57	16	21	6	5.5	4	E549 0600	E550 0600
0800	8.0	63	19	27	8	7.5	4	E549 0800	E550 0800
1000	10.0	72	22	32	10	9.5	4	E549 1000	E550 1000
1200	12.0	83	26	38	12	11.2	4	E549 1200	E550 1200
1400	14.0	83	26	38	14	13.5	4	E549 1400	E550 1400
1600	16.0	92	32	44	16	15.5	5	E549 1600	E550 1600
1800	18.0	92	32	44	16	17.5	5	E549 1800	E550 1800
2000	20.0	104	38	54	20	19.0	6	E549 2000	E550 2000
2500	25.0	120	45	60	25	24.5	6	E549 2500	E550 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
E549	●	●	●	●	●	●	●	●	○	●	○	●	○	●	○	○	●	○	●	○	●	●											○	○	○		○	○	○	○	○	○									

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

● Optimal ○ Effective

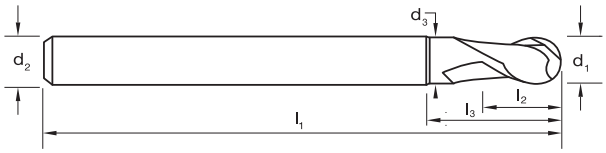
Slot Drills Carbide, Ballnose, 2 Flute, R30 UNI, Long Reach

suttontools

- VHM-ULTRA grade of carbide for high performance
- For profile & contour milling in long reach applications
- Suitable for materials up to 1600 N/mm²
- AlCrN for longer tool life







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

Size Ref.	d_1(e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0200	2.0	62	3	7.0	6	1.9	2	E440 0200	E441 0200
0300	3.0	62	4	9.5	6	2.8	2	E440 0300	E441 0300
0400	4.0	62	5	12.0	6	4.8	2	E440 0400	E441 0400
0500	5.0	80	6	14.5	6	4.8	2	E440 0500	E441 0500
0600	6.0	80	7	17.0	6	5.7	2	E440 0600	E441 0600
0800	8.0	90	9	22.0	8	7.6	2	E440 0800	E441 0800
1000	10.0	100	11	27.0	10	9.5	2	E440 1000	E441 1000
1200	12.0	120	13	32.0	12	11.5	2	E440 1200	E441 1200
1400	14.0	120	15	37.0	14	13.5	2	E440 1400	E441 1400
1600	16.0	140	17	42.0	16	15.5	2	E440 1600	E441 1600
1800	18.0	140	19	47.0	18	17.5	2	E440 1800	E441 1800
2000	20.0	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
E440			○	○	●		○	●	●	○	●						●	●	●	●	●	●											○	●	○	●	●	○	○	○	●	○	●	●	●	●			●

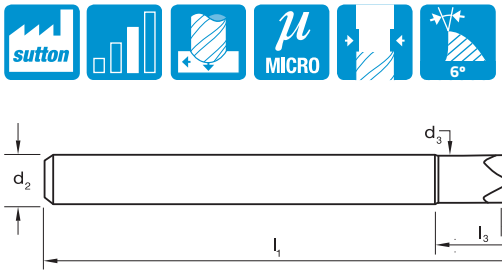
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Endmills Carbide, Ballnose, 4 Flute, 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/mm²
- AlCrN for longer tool life









	E442	E443
Catalogue Code	E442	E443
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	UNI	UNI
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0200	2.0	62	3	7.0	6	1.9	4	E442 0200	E443 0200
0300	3.0	62	4	9.5	6	2.8	4	E442 0300	E443 0300
0400	4.0	62	5	12.0	6	4.8	4	E442 0400	E443 0400
0500	5.0	80	6	14.5	6	4.8	4	E442 0500	E443 0500
0600	6.0	80	7	17.0	6	5.7	4	E442 0600	E443 0600
0800	8.0	90	9	22.0	8	7.6	4	E442 0800	E443 0800
1000	10.0	100	11	27.0	10	9.5	4	E442 1000	E443 1000
1200	12.0	120	13	32.0	12	11.5	4	E442 1200	E443 1200
1400	14.0	120	15	37.0	14	13.5	4	E442 1400	E443 1400
1600	16.0	140	17	42.0	16	15.5	4	E442 1600	E443 1600
1800	18.0	140	19	47.0	18	17.5	4	E442 1800	•
2000	20.0	160	21	52.0	20	19.5	4	E442 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
E442			○	○	●		○	●	●	○	●						●	●	●	●	●	●											○	●	○	●	●	○	○	○	●	○	●	●	●	●			●

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

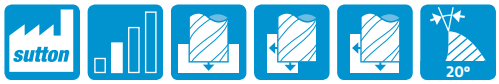
● Optimal ○ Effective

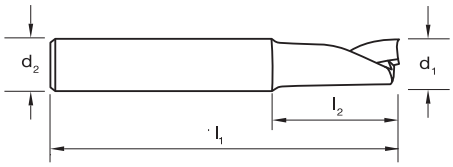
• Available on request as special manufacture. Subject to lead time.

Endmills Carbide, 1 Flute, R30 Al, Short

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









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

Size Ref.	d_1(h10)	l_1	l_2	d_2	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

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																							●	●	●	●	○	○		○																					

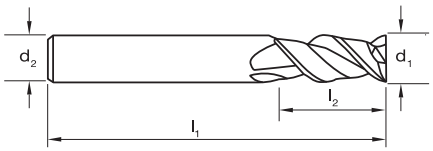
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

suttontools

- For precision milling of slots & cavities
- Optimised geometry for aluminiums & non-ferrous materials
- High speed & high feed rates can be achieved
- Highly efficient chip disposal







Catalogue Code	E310
Discount Group	B0208
Material	VHM
Surface Finish	*Brt*
Sutton Designation	Al
Geometry	R40
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	z	Item #
0200	2.0	57	7	10	6	2	E310 0200
0300	3.0	57	8	10	6	2	E310 0300
0350	3.5	57	10	10	6	2	•
0400	4.0	57	11	10	6	2	E310 0400
0450	4.5	57	11	10	6	2	•
0500	5.0	57	13	8	6	2	E310 0500
0600	6.0	57	13		6	2	E310 0600
0700	7.0	63	16		8	2	•
0800	8.0	63	19		8	2	E310 0800
0900	9.0	72	19		10	2	•
1000	10.0	72	22		10	2	E310 1000
1200	12.0	83	26		12	2	E310 1200
1400	14.0	83	26		14	2	•
1600	16.0	92	32		16	2	E310 1600
1800	18.0	92	32		18	2	•
2000	20.0	104	38		20	2	E310 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
E310																							●	●	●	●	●	●	●	●																						

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, R45/46/44 Al, DIN6527L, *Harmony*

suttontools HARMONY

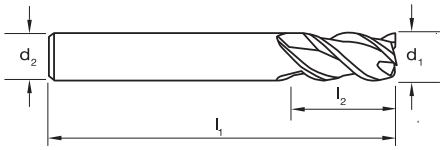
- VHM-ULTRA grade of carbide for high performance
- 45/46/44° variable flute helix for chatter free milling
- Optimised geometry for soft materials
- CrN for copper and non-ferrous materials











	E400	E401
Catalogue Code	E400	E401
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*CrN*	*CrN*
Sutton Designation	Al	Al
Geometry	R45/46/44	R45/46/44
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (e8)	l_1	l_2	d_2	z	rad	Item #	Item #
0600	6.0	57	13	6	3	0.2	E400 0600	E401 0600
0800	8.0	63	19	8	3	0.2	E400 0800	E401 0800
1000	10.0	72	24	10	3	0.3	E400 1000	E401 1000
1200	12.0	83	28	12	3	0.4	E400 1200	E401 1200
1400	14.0	83	30	14	3	0.4	E400 1400	E401 1400
1600	16.0	92	35	16	3	0.5	E400 1600	E401 1600
1800	18.0	92	38	18	3	0.5	E400 1800	E401 1800
2000	20.0	104	42	20	3	0.6	E400 2000	E401 2000
2500	25.0	120	50	25	3	0.6	E400 2500	E401 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
E400																							●	●	●	●	●	●	●	●																						

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*

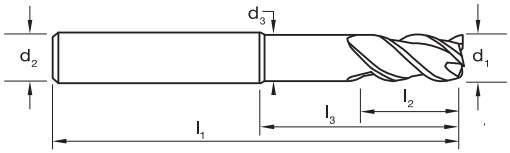
suttontools HARMONY

- 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









	E402	E403
Catalogue Code	E402	E403
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*CrN*	*CrN*
Sutton Designation	Al	Al
Geometry	R45/46/44	R45/46/44
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (k10)	l_1	l_2	l_3	d_2	d_3	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.

Roughers Carbide, NR (normal), R25 Al, DIN 6527L

suttontools

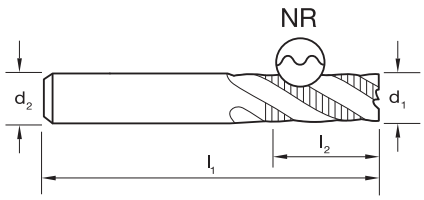
- For roughing applications
- NR geometry allows for heavy cuts
- For soft non ferrous aluminium alloys
- High rake angle for long chipping materials











Catalogue Code	E446	E447
Discount Group	B0208	B0208
Material	VHM	VHM
Surface Finish	Brt	Brt
Sutton Designation	Al	Al
Geometry	R25 NR	R25 NR
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0600	6.0	57	13	6	3	E446 0600	E447 0600
0800	8.0	63	19	8	3	E446 0800	E447 0800
1000	10.0	72	22	10	3	E446 1000	E447 1000
1200	12.0	83	26	12	3	E446 1200	E447 1200
1400	14.0	83	26	14	3	•	•
1600	16.0	92	32	16	3	E446 1600	E447 1600
1800	18.0	92	32	18	3	•	•
2000	20.0	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
E446																							●	●	●	●	○	○		○																			

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 HARMONY

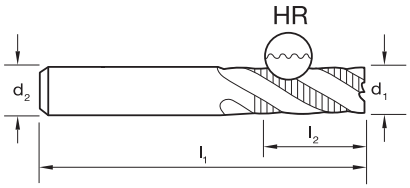
- VHM-ULTRA grade of carbide for high performance
- For roughing applications
- 35/36/36° variable flute helix for chatter free milling
- Optimised geometry for soft materials
- CrN for copper and non-ferrous materials











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

Size Ref.	d_1 (h10)	l_1	l_2	d_2	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.

Roughers Carbide, NRC, R25 Al, DIN6527L, Harmony

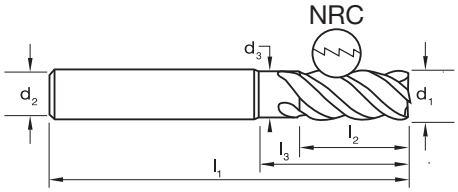
suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- For roughing applications
- Optimised geometry for soft materials
- CrN for copper and non-ferrous materials





DIN 6527L | NRC | 45° | MICRO | 15°



	E406	E407
Catalogue Code	E406	E407
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	CrN	CrN
Sutton Designation	Al	Al
Geometry	R25 NRC	R25 NRC
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	z	Item #	Item #
0400	4.0	57	11	16	6	3	E406 0400	E407 0400
0500	5.0	57	13	18	6	3	E406 0500	E407 0500
0600	6.0	57	13	19	6	3	E406 0600	E407 0600
0800	8.0	63	19	25	8	4	E406 0800	E407 0800
1000	10.0	72	22	30	10	4	E406 1000	E407 1000
1200	12.0	83	26	36	12	4	E406 1200	E407 1200
1600	16.0	92	32	42	16	4	E406 1600	E407 1600
2000	20.0	104	38	52	20	4	E406 2000	E407 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
E406																							●	●	●	●	●	●	●	●																					

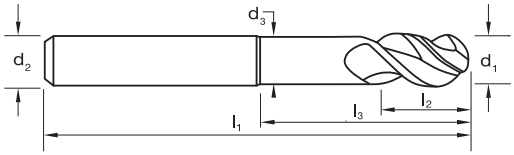
P Steel | M Stainless Steel | K Cast Iron | N Non-Ferrous Metals | S Titanium & Super Alloys | H Hard Materials

● Optimal ○ Effective

suttontools HARMONY

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











	E408	E409
Catalogue Code	E408	E409
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*CrN*	*CrN*
Sutton Designation	**Al**	**Al**
Geometry	R45/46/44	R45/46/44
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	z	Item #	Item #
0600	**6.0**	62	9	24	6	3	E408 0600	E409 0600
0800	**8.0**	68	12	30	8	3	E408 0800	E409 0800
1000	**10.0**	80	15	38	10	3	E408 1000	E409 1000
1200	**12.0**	93	18	46	12	3	E408 1200	E409 1200
1400	**14.0**	93	21	46	14	3	E408 1400	E409 1400
1600	**16.0**	108	24	58	16	3	E408 1600	E409 1600
1800	**18.0**	108	27	58	18	3	E408 1800	E409 1800
2000	**20.0**	126	30	74	20	3	E408 2000	E409 2000
2500	**25.0**	150	38	92	25	3	E408 2500	E409 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
E408																							●	●	●	●	●	●	●	●																								

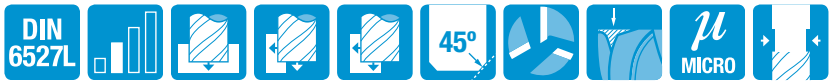
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Endmills Carbide, 3 Flute, R55/54/56 VA, DIN6527L, *Harmony*

suttontools HARMONY

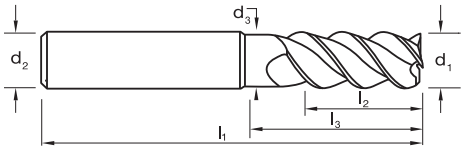
- VHM-ULTRA grade of carbide for high performance
- Optimised geometry for stainless steels
- 55/54/56° variable flute helix for chatter free milling
- Universal use for slotting and finishing with the one tool
- Helica for superior wear resistance in stainless steel











	E410	E411
Catalogue Code	E410	E411
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*HELICA*	*HELICA*
Sutton Designation	VA	VA
Geometry	R55/54/56	R55/54/56
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0300	3.0	57	8	14	6	2.8	3	E410 0300	E411 0300
0400	4.0	57	11	16	6	3.8	3	E410 0400	E411 0400
0500	5.0	57	13	18	6	4.8	3	E410 0500	E411 0500
0600	6.0	57	13	19	6	5.7	3	E410 0600	E411 0600
0800	8.0	63	19	25	8	7.6	3	E410 0800	E411 0800
1000	10.0	72	22	30	10	9.5	3	E410 1000	E411 1000
1200	12.0	83	26	36	12	11.5	3	E410 1200	E411 1200
1400	14.0	83	26	36	14	13.5	3	E410 1400	E411 1400
1600	16.0	92	32	42	16	15.5	3	E410 1600	E411 1600
1800	18.0	92	32	42	18	17.5	3	E410 1800	E411 1800
2000	20.0	104	38	52	20	19.5	3	E410 2000	E411 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
E410												○	○	●	●	●																○	●		●	●	○	●	●		●	○						

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, R40/42 VA, DIN6527L, *Harmony*

suttontools HARMONY

watch the video

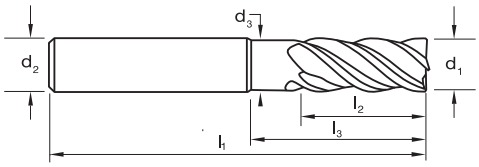
- Excellent solution for stainless steels & difficult super alloy type materials
- Optimised geometry with variable helix design ensures high productivity
- Suitable for slotting, side cutting and finishing applications with the one tool
- HELICA for outstanding oxidation resistance and hot hardness
- VHM-ULTRA grade of carbide for high performance







DIN 6527L | 45° | MICRO | 12°



	E459	E460
Catalogue Code	E459	E460
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*HELICA*	*HELICA*
Sutton Designation	VA	VA
Geometry	R40/42	R40/42
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0300	3.0	57	8	14	6	2.8	4	E459 0300	E460 0300
0400	4.0	57	11	16	6	3.8	4	E459 0400	E460 0400
0500	5.0	57	13	18	6	4.8	4	E459 0500	E460 0500
0600	6.0	57	13	19	6	5.7	4	E459 0600	E460 0600
0800	8.0	63	19	25	8	7.6	4	E459 0800	E460 0800
1000	10.0	72	22	30	10	9.5	4	E459 1000	E460 1000
1200	12.0	83	26	36	12	11.5	4	E459 1200	E460 1200
1400	14.0	83	26	36	14	13.5	4	E459 1400	E460 1400
1600	16.0	92	32	42	16	15.5	4	E459 1600	E460 1600
1800	18.0	92	32	42	18	17.5	4	E459 1800	E460 1800
2000	20.0	104	38	52	20	19.5	4	E459 2000	E460 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
E459												○	○	●	●	●																	○	●	○	●	●	○	●	●		○	○							

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, R40/42 VA, Cnr Rad, DIN6527L, *Harmony*

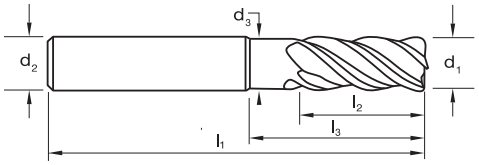
suttontools HARMONY

- Excellent solution for stainless steels & difficult super alloy type materials
- Optimised geometry with variable helix design ensures high productivity
- Suitable for slotting, side cutting and finishing applications with the one tool
- HELICA for outstanding oxidation resistance and hot hardness
- VHM-ULTRA grade of carbide for high performance









	E462	E463
Catalogue Code	E462	E463
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*HELICA*	*HELICA*
Sutton Designation	**VA**	**VA**
Geometry	R40/42	R40/42
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	rad	Item #	Item #
0603	6.0	57	13	21	6	5.5	4	0.3	E462 0603	E463 0603
0605		57	13	21	6	5.5	4	0.5	E462 0605	E463 0605
0610		57	13	21	6	5.5	4	1.0	E462 0610	E463 0610
0803	8.0	63	19	27	8	7.5	4	0.3	E462 0803	E463 0803
0805		63	19	27	8	7.5	4	0.5	E462 0805	E463 0805
0810		63	19	27	8	7.5	4	1.0	E462 0810	E463 0810
0815		63	19	27	8	7.5	4	1.5	E462 0815	E463 0815
0820		63	19	27	8	7.5	4	2.0	E462 0820	E463 0820
1003	10.0	72	22	32	10	9.5	4	0.3	E462 1003	E463 1003
1005		72	22	32	10	9.5	4	0.5	E462 1005	E463 1005
1010		72	22	32	10	9.5	4	1.0	E462 1010	E463 1010
1015		72	22	32	10	9.5	4	1.5	E462 1015	E463 1015
1020		72	22	32	10	9.5	4	2.0	E462 1020	E463 1020
1203	12.0	83	26	38	12	11.2	4	0.3	E462 1203	E463 1203
1205		83	26	38	12	11.2	4	0.5	E462 1205	E463 1205
1210		83	26	38	12	11.2	4	1.0	E462 1210	E463 1210
1215		83	26	38	12	11.2	4	1.5	E462 1215	E463 1215
1220		83	26	38	12	11.2	4	2.0	E462 1220	E463 1220
1230		83	26	38	12	11.2	4	3.0	E462 1230	E463 1230
1605	16.0	92	32	44	16	15.0	4	0.5	E462 1605	E463 1605
1610		92	32	44	16	15.0	4	1.0	E462 1610	E463 1610
1615		92	32	44	16	15.0	4	1.5	E462 1615	E463 1615
1620		92	32	44	16	15.0	4	2.0	E462 1620	E463 1620
1630		92	32	44	16	15.0	4	3.0	E462 1630	E463 1630
2005	20.0	104	38	54	20	19.0	4	0.5	E462 2005	E463 2005
2010		104	38	54	20	19.0	4	1.0	E462 2010	E463 2010
2015		104	38	54	20	19.0	4	1.5	E462 2015	E463 2015
2020		104	38	54	20	19.0	4	2.0	E462 2020	E463 2020
2030		104	38	54	20	19.0	4	3.0	E462 2030	E463 2030

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
E462												○	○	●	●	●																○	●	○	●	●	○	●	●		○	○								

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, R55 VA, DIN6527L, *Harmony*

suttontools HARMONY

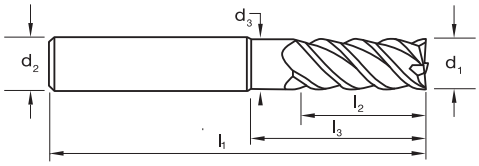
- VHM-ULTRA grade of carbide for high performance
- Optimised geometry for stainless steel
- For superior finishing applications
- Helica for superior wear resistance in stainless steel











Catalogue Code	E412	E413
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*HELICA*	*HELICA*
Sutton Designation	VA	VA
Geometry	R55	R55
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6.0	57	13	19	6	5.7	4	E412 0600	E413 0600
0800	8.0	63	19	25	8	7.6	4	E412 0800	E413 0800
1000	10.0	72	22	30	10	9.5	4	E412 1000	E413 1000
1200	12.0	83	26	36	12	11.5	4	E412 1200	E413 1200
1400	14.0	83	26	36	14	13.5	4	E412 1400	E413 1400
1600	16.0	92	32	42	16	15.5	4	E412 1600	E413 1600
1800	18.0	92	32	42	18	17.5	4	•	•
2000	20.0	104	38	52	20	19.5	5	•	•

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
E412												○	○	●	●	●																○	●	○	●	●	○	●	●		●	○								

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, R55 VA, Long Reach, *Harmony*

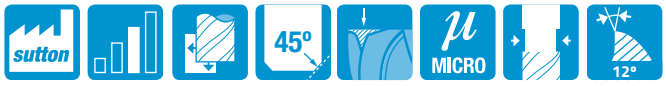
suttontools HARMONY

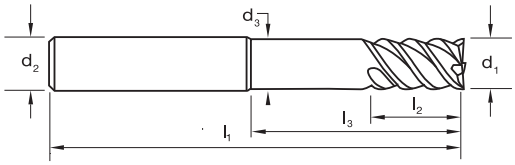
- VHM-ULTRA grade of carbide for high performance
- Optimised geometry for stainless steels
- For roughing and finishing applications
- Helica for superior wear resistance in stainless steel











Catalogue Code	E414	E415
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*HELICA*	*HELICA*
Sutton Designation	VA	VA
Geometry	R55	R55
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6.0	62	7	24	6	5.0	4	E414 0600	E415 0600
0800	8.0	68	9	30	8	7.0	4	E414 0800	E415 0800
1000	10.0	80	11	38	10	9.0	4	E414 1000	E415 1000
1200	12.0	93	13	46	12	11.0	4	E414 1200	E415 1200
1400	14.0	93	13	46	14	13.0	4	E414 1400	E415 1400
1600	16.0	108	17	58	16	15.0	4	E414 1600	E415 1600
2000	20.0	126	21	66	20	19.0	5	•	•

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
E414												○	○	●	●	●																○	●	○	●	●	○	●	●		●	○								

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

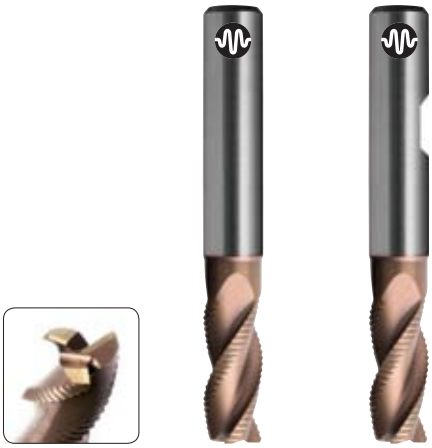
● Optimal ○ Effective

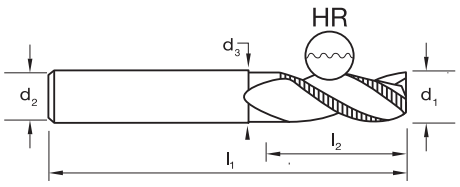
• Available on request as special manufacture. Subject to lead time.

suttontools 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 stainless steels
- Helica for superior wear resistance in stainless steel







Catalogue Code	E416	E417
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*HELICA*	*HELICA*
Sutton Designation	VA	VA
Geometry	R35/36/36 HR	R35/36/36 HR
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h5	h5

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6	57	13	19	6	5.7	3	E416 0600	E417 0600
0800	8	63	19	25	8	7.6	3	E416 0800	E417 0800
1000	10	72	22	30	10	9.5	3	E416 1000	E417 1000
1200	12	83	26	36	12	11.5	3	E416 1200	E417 1200
1600	16	92	32	42	16	15.5	3	E416 1600	E417 1600
2000	20	104	38	52	20	19.5	3	•	•

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
E416												○	○	●	●	●																●	●	●	●	●	○	●	●		●	○								

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

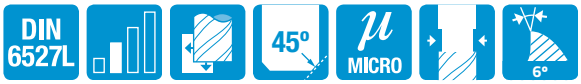
● Optimal ○ Effective

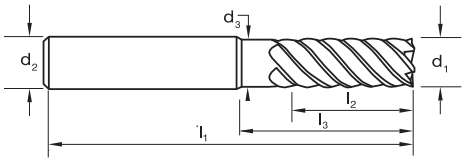
• Available on request as special manufacture. Subject to lead time.

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











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

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0400	4.0	57	11	16	6	3.7	4	E428 0400	E429 0400
0500	5.0	57	13	18	6	4.7	4	E428 0500	E429 0500
0600	6.0	57	13	19	6	5.7	4	E428 0600	E429 0600
0800	8.0	63	19	25	8	7.6	4	E428 0800	E429 0800
1000	10.0	72	22	30	10	9.5	4	E428 1000	E429 1000
1200	12.0	83	26	36	12	11.5	4	E428 1200	E429 1200
1600	16.0	92	32	42	16	15.5	4	E428 1600	E429 1600

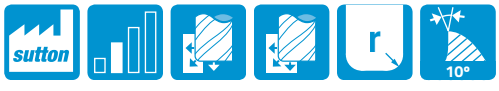
ISO	P												M			K						N										S												H					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41
E428	○	○	●	●	●	○	●	●	●	●	●						○	○	○	○	○	○																○	○	○		○		○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

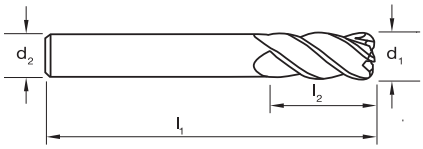
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

suttontools

- For precision finishing applications
- Ideally suited to materials up to 1300 N/mm²
- TiAlN for longer tool life









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

Size Ref.	d_1 (e8)	l_1	l_2	d_2	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

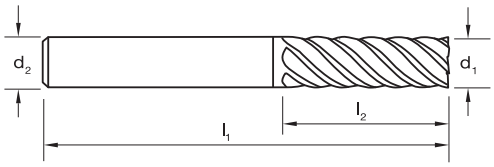
* Not available once current stock is depleted.

Endmills Carbide, 6-8 Flute, R45 NH, DIN6527L

suttontools

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











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

Size Ref.	d_1 (h10)	l_1	l_2	d_2	z	Item #	Item #
0600	6.0	57	13	6	6	E448 0600	E449 0600
0800	8.0	63	19	8	6	E448 0800	E449 0800
1000	10.0	72	22	10	6	E448 1000	E449 1000
1200	12.0	83	26	12	6	E448 1200	E449 1200
1600	16.0	92	32	16	6	E448 1600	E449 1600
2000	20.0	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
E448	○	○	●	●	●	○	●	●	●	●	●	○	●	○	●	●	●	●	●	●	●	●										●	●	●	●			●	●	●	●		○				●	

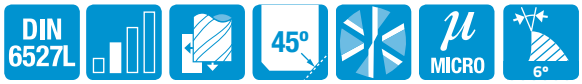
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

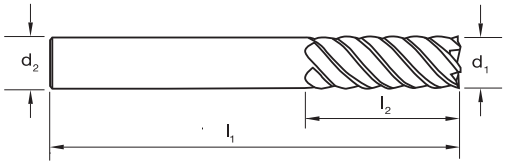
● Optimal ○ Effective

Endmills Carbide, 6-8 Flute, R50/35 NH, DIN6527L, *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











	E432	E433
Catalogue Code	E432	E433
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_1 (e8)	l_1	l_2	d_2	z	Item #	Item #
0600	6.0	57	13	6	6	E432 0600	E433 0600
0800	8.0	63	19	8	6	E432 0800	E433 0800
1000	10.0	72	22	10	6	E432 1000	E433 1000
1200	12.0	83	26	12	6	E432 1200	E433 1200
1400	14.0	83	26	14	6	E432 1400	E433 1400
1600	16.0	92	32	16	6	E432 1600	E433 1600
1800	18.0	92	32	18	8	E432 1800	E433 1800
2000	20.0	104	38	20	8	E432 2000	E433 2000
2500	25.0	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*

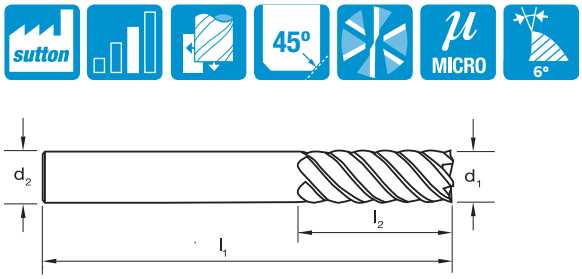
suttontools HARMONY

- 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_1 (e8)	l_1	l_2	d_2	z	Item #	Item #
0600	6.0	62	18	6	6	E434 0600	E435 0600
0800	8.0	68	24	8	6	E434 0800	E435 0800
1000	10.0	80	30	10	6	E434 1000	E435 1000
1200	12.0	93	36	12	6	E434 1200	E435 1200
1600	16.0	108	48	16	6	E434 1600	E435 1600
2000	20.0	126	60	20	8	E434 2000	E435 2000
2500	25.0	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
E434	○	○	●	●	●	○	●	●	●	●	●	○	●				●	●	●	●	●	●											○		●	○			○	●	○	●	●	●	○		●	○

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

● Optimal ○ Effective

suttontools HARMONY

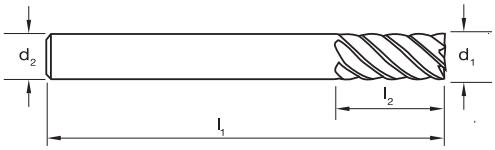
- VHM-ULTRA grade of carbide for high performance
- For super fine finishing applications
- 50/35° variable flute helix for chatter free milling
- Suitable for hard, short chipping materials up to 48 HRC
- AlCrN for longer tool life











	E436	E437
Catalogue Code	E436	E437
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_1 (e8)	l_1	l_2	d_2	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

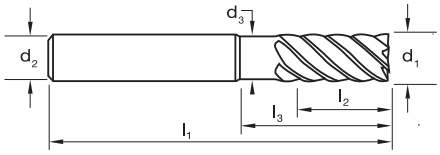
● Optimal ○ Effective

Endmills Carbide, 6-8 Flute, R45 NH, DIN6527L, *Harmony*

suttontools HARMONY

- VHM-ULTRA grade of carbide for high performance
- For SUPER FINE finishing applications
- Suitable for various materials up to 56 HRC
- Multi-flute & heavy core design enable high feed rates
- AlCrN for longer tool life









	E543	E544
Catalogue Code	E543	E544
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	NH	NH
Geometry	R45	R45
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6.0	57	13	21	6	5.5	6	E543 0600	E544 0600
0800	8.0	63	19	27	8	7.5	6	E543 0800	E544 0800
1000	10.0	72	22	32	10	9.5	6	E543 1000	E544 1000
1200	12.0	83	26	38	12	11.2	6	E543 1200	E544 1200
1600	16.0	92	32	44	16	15.0	8	E543 1600	E544 1600
2000	20.0	104	38	54	20	19.0	8	E543 2000	E544 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
E543					●		●	●	●	●	●	○	●	○	●	●	●	●	●	●	●	●										●	●	●	●			●	●	●	●		○				●	

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

watch the video

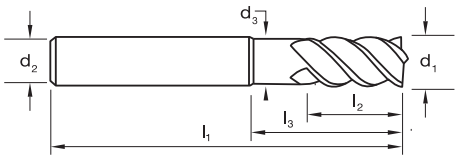
- VHM-ULTRA grade of carbide for high performance
- Dual stepped core for optimal stability
- Ideal design for pocket milling in MQL & HSC
- Suitable for materials up to 48 HRC
- AlCrN for longer tool life











Catalogue Code	E562	E563
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_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6.0	57	13	21	6	5.5	4	E562 0600	E563 0600
0800	8.0	63	19	27	8	7.5	4	E562 0800	E563 0800
1000	10.0	72	22	32	10	9.5	4	E562 1000	E563 1000
1200	12.0	83	26	38	12	11.2	4	E562 1200	E563 1200
1400	14.0	83	26	38	14	13.0	4	E562 1400	E563 1400
1600	16.0	92	32	44	16	15.0	4	E562 1600	E563 1600
2000	20.0	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
E562					●			●	●		●		●		●	●		●		●														●		●	●		●	●		●		○				●	

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, Cnr Rad, DIN6527L, *Harmony DUO*

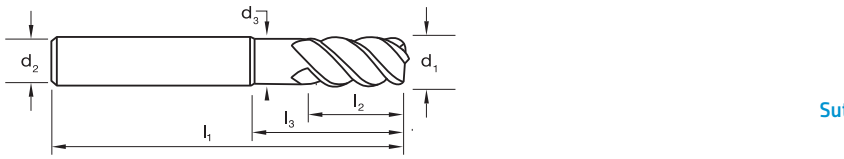
suttontools HARMONY

- 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









Catalogue Code	E564	E565
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_1 (h10)	l_1	l_2	l_3	d_2	d_3	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, 4 Flute, R50 VH, DIN6527L, *Harmony DUO*

suttontools HARMONY

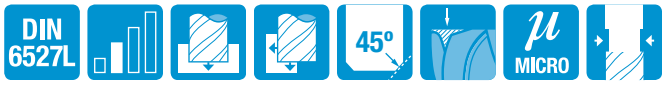
- VHM-ULTRA grade of carbide for high performance
- Dual stepped core for optimal strength
- Ideal design for hard machining
- Suitable for materials up to 63 HRC
- Aldura for longer tool life

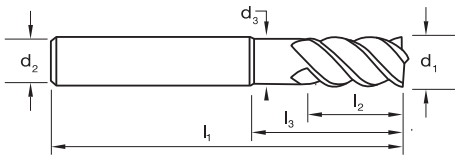
watch the video











Catalogue Code	E566	E567
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*Aldura*	*Aldura*
Sutton Designation	VH	VH
Geometry	R50	R50
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
0600	6.0	57	13	21	6	5.5	4	E566 0600	E567 0600
0800	8.0	63	19	27	8	7.5	4	E566 0800	E567 0800
1000	10.0	72	22	32	10	9.5	4	E566 1000	E567 1000
1200	12.0	83	26	38	12	11.2	4	E566 1200	E567 1200
1400	14.0	83	26	38	14	13.0	4	E566 1400	E567 1400
1600	16.0	92	32	44	16	15.0	4	E566 1600	E567 1600
2000	20.0	104	38	54	20	19.0	4	E566 2000	E567 2000

Endmills Carbide, 4 Flute, R50 VH, Cnr Rad, DIN6527L, *Harmony DUO*

suttontools HARMONY

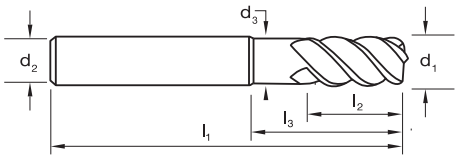
- VHM-ULTRA grade of carbide for high performance
- Dual stepped core for optimal strength
- Ideal design for hard machining
- Suitable for materials up to 63 HRC
- Aldura for longer tool life











Catalogue Code	E568	E569
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	*Aldura*	*Aldura*
Sutton Designation	VH	VH
Geometry	R50	R50
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (h10)	l_1	l_2	l_3	d_2	d_3	z	rad	Item #	Item #
0610	6.0	57	13	21	6	5.5	4	1.0	E568 0610	E569 0610
0820	8.0	63	19	27	8	7.5	4	2.0	E568 0820	E569 0820
1020	10.0	72	22	32	10	9.5	4	2.0	E568 1020	E569 1020
1230	12.0	83	26	38	12	11.2	4	3.0	E568 1230	E569 1230
1430	14.0	83	26	38	14	13.0	4	3.0	E568 1430	E569 1430
1640	16.0	92	32	44	16	15.0	4	4.0	E568 1640	E569 1640
2040	20.0	104	38	54	20	19.0	4	4.0	E568 2040	E569 2040

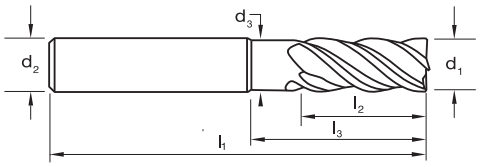
| ISO | P | | | | | | | | | | | | | M | | | K | | | | | | | | | | | | |

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	E464	E465
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	Ti	Ti
Geometry	R40/42	R40/42
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

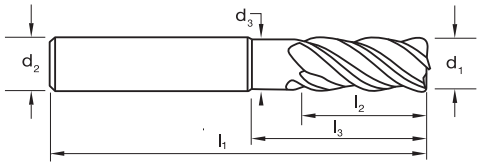
Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	Item #	Item #
1200	12.0	83	26	36	12	11.5	5	E464 1200	E465 1200
1600	16.0	92	32	42	16	15.5	5	E464 1600	E465 1600
2000	20.0	104	38	52	20	19.5	5	E464 2000	E465 2000

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

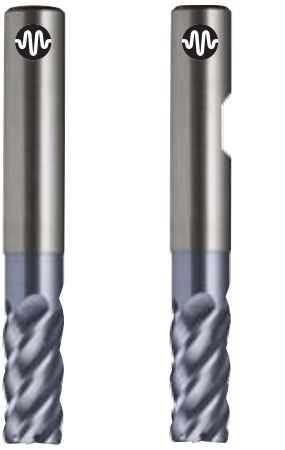
suttontools HARMONY

- 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	E466	E467
Discount Group	B0210	B0210
Material	VHM-ULTRA	VHM-ULTRA
Surface Finish	AlCrN	AlCrN
Sutton Designation	Ti	Ti
Geometry	R40/42	R40/42
Shank Form (DIN 6535)	HA	HB
Shank Tolerance	h6	h6

Size Ref.	d_1 (e8)	l_1	l_2	l_3	d_2	d_3	z	rad	Item #	Item #
1210	12.0	83	26	38	12	11.2	5	1.0	E466 1210	E467 1210
1225		83	26	38	12	11.2	5	2.5	E466 1225	E467 1225
1240		83	26	38	12	11.2	5	4.0	E466 1240	E467 1240
1610	16.0	92	32	44	16	15	5	1.0	E466 1610	E467 1610
1625		92	32	44	16	15	5	2.5	E466 1625	E467 1625
1640		92	32	44	16	15	5	4.0	E466 1640	E467 1640
2010	20.0	104	38	54	20	19	5	1.0	E466 2010	E467 2010
2025		104	38	54	20	19	5	2.5	E466 2025	E467 2025
2040		104	38	54	20	19	5	4.0	E466 2040	E467 2040
2050		104	38	54	20	19	5	5.0	E466 2050	E467 2050
2060		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