



*sutton*tools

HSS ENDMILLS

- Slotting, Finishing, Roughing & Profiling
- Short & Long Series
- Various shank styles
- General purpose & application specific geometries

	130	130	132	133	134	134	136	137
Code	E104	E105	E106	E119	E129	E130	E131	E178
Type of Cut:	•	•	•	•	•	•	•	•
Slotting				•				
Finishing				•	•	•	•	
Universal				•	•	•	•	
Roughing								•
Profiling								
Material	HSS Co		HSS Co		HSS Co			HSS
Surface Finish	<i>Br</i>	<i>TiN</i>	<i>Br</i>	<i>Br</i>	<i>Br</i>	<i>TiN</i>	<i>Br</i>	<i>Br</i>
Sutton Designation	N		N		N			N
Standard	Sutton Standard		Sutton Std		Sutton Standard			Sutton Std
Shank Tolerance	-0.025		-0.025		-0.025			h6

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

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

For expert tooling recommendations, go to: www.suttontools.com/expert-tool-selector

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

ISO	VDI ³³²³	Material	Condition	HB	N/mm ²								
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	A			960 MPa									
37.3	Alpha / Beta alloys		AH	1170 MPa									
37.4			A	830 MPa									
37.5	Beta alloys	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)

138	140	141	142	144	145	146	147	148	149	150	151	151
E100	E102 / E225	E184	E125 / E227	E192	E127 / E229	E230	E142 / E144	E143	E146	E113	E168	E169
•	•	•	•	•	•	•	•	•	•	•	•	•
			•	•	•	•						
			•	•	•	•						
							•	•	•		•	•
										•		
HSS Co.8	HSS Co.8	HSS Co.8	HSS Co.8	HSS Co.8	HSS Co.8		HSS Co.8		HSS Co.8	HSS Co.8	HSS Co.8	
<i>Br</i>	<i>Br</i>	<i>TiAlN</i>	<i>Br</i>	<i>TiAlN</i>	<i>Br</i>	<i>TiCN</i>	<i>Br</i>	<i>TiCN</i>	<i>Br</i>	<i>Br</i>	<i>Br</i>	<i>TiCN</i>
N	N	N	N	N	N		WN		WN	N	NH	
JIS	JIS	DIN 844L	JIS	DIN 844K	JIS		JIS		DIN 844L	Sutton Std	JIS	
h6	h6	h6	h6	h6	h6		h6		h6	h6	h6	

Slotting
Finishing
Universal
Roughing
Profiling

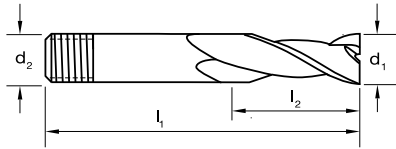
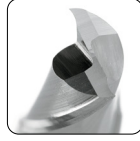
													VDI 3323	ISO
•	•	•	•	•	•	•	•	•	•	•			1	P
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○	○	○	○	○	○	○	○	○	○	○	○	○	7	
○	○	○	○	○	○	○	○	○	○	○	○	○	8	
○	○	○	○	○	○	○	○	○	○	○	○	○	9	
○	○	○	○	○	○	○	○	○	○	○	○	○	10	
○	○	○	○	○	○	○	○	○	○	○	○	○	11	
○	○	○	○	○	○	○	○	○	○	○	○	○	12	
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													14.1	M
													14.2	
													14.3	
○	○	○	○	○	○	○	○	○	○	○	○	○	15	K
○	○	○	○	○	○	○	○	○	○	○	○	○	16	
○	○	○	○	○	○	○	○	○	○	○	○	○	17	
○	○	○	○	○	○	○	○	○	○	○	○	○	18	
○	○	○	○	○	○	○	○	○	○	○	○	○	19	
○	○	○	○	○	○	○	○	○	○	○	○	○	20	
•	•	○	•	○	•	○	•	○	•	•			21	N
•	•	○	•	○	•	○	•	○	•	•			22	
○	○	○	○	○	○	○	○	○	○	○	○	○	23	
○	○	○	○	○	○	○	○	○	○	○	○	○	24	
○	○	○	○	○	○	○	○	○	○	○	○	○	25	
○	○	○	○	○	○	○	○	○	○	○	○	○	26	
○	○	○	○	○	○	○	○	○	○	○	○	○	27	
○	○	○	○	○	○	○	○	○	○	○	○	○	28	
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													38.2	
													39.1	
													39.2	
													40	
													41	

Section
Finder

Slot Drills Threaded, 2 Flute, R30 N, Regular

suttontools

- For general milling of slots & cavities
- Suitable for materials up to 850 N/mm²
- For soft steels & non-ferrous material



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

E104	E105
B0602	B0604
HSS Co	HSS Co
Brt	TiN
N	N
R30	R30
D	D
-0.025	-0.025

Size Ref.	d ₁ (h9)	l ₁	l ₂	d ₂	z	Item #	Item #
0200	2	49	3	6	2	E104 0200	E105 0200
0300	3	51	7.5	6	2	E104 0300	E105 0300
0400	4	52.5	9.5	6	2	E104 0400	E105 0400
0500	5	52.5	9.5	6	2	E104 0500	E105 0500
0600	6	56.5	11	6	2	E104 0600	E105 0600
0700	7	59.5	11	10	2	E104 0700	
0800	8	59.5	12.5	10	2	E104 0800	E105 0800
0900	9	60.5	14	10	2	E104 0900	
1000	10	60.5	14.5	10	2	E104 1000	E105 1000
1100	11	66.5	17.5	12	2	E104 1100	
1200	12	66.5	19	12	2	E104 1200	E105 1200
1300	13	68.5	19	12	2	E104 1300	
1400	14	68.5	22	12	2	E104 1400	E105 1400
1500	15	72	22	16	2	E104 1500	
1600	16	72	22	16	2	E104 1600	E105 1600
1700	17	74	24	16	2	E104 1700	
1800	18	74	24	16	2	E104 1800	E105 1800
2000	20	77	25.5	16	2	E104 2000	E105 2000
2200	22	100	25.5	25	2	E104 2200	
2400	24	103	25.5	25	2	E104 2400	
2500	25	101	27	25	2	E104 2500	
2800	28	95	30	25	2	E104 2800	
3000	30	93.5	30	25	2	E104 3000	
3200	32	117.5	35	32	2	E104 3200	
3600	36	111	39.5	32	2	E104 3600	
4000	40	117	46	32	2	E104 4000	
4500	45	119.5	47.5	32	2	E104 4500	
5000	50	117.5	51	32	2	E104 5000	

SD2M 6 piece set 4, 5, 6, 8, 10, 12mm E104 SD2M



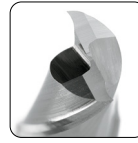
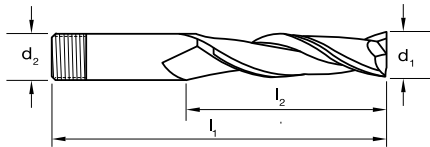
ISO	P												M			K						N						S										H													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41		
E104	●	●	○	○		●								○	○		○		○	○	○	○	○	○	○	○																									
E105	●	●	●			●								○	○		○		○	○	○	○	○	○	○	○																							○		

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

Slot Drills 2 Flute, R30 N, Long, Threaded

suttontools

- For general milling of slots & cavities
- Suitable for materials up to 850 N/mm²
- For soft steels & non-ferrous material



Catalogue Code	E106
Discount Group	B0602
Material	HSS Co
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	D
Shank Tolerance	-0.025

Size Ref.	d ₁ (h9)	l ₁	l ₂	d ₂	z	Item #
0200	2	51	4	6	2	E106 0200
0300	3	60.5	11	6	2	E106 0300
0400	4	66.5	12.5	6	2	E106 0400
0500	5	70	12.5	6	2	E106 0500
0600	6	76	16	6	2	E106 0600
0700	7	76	16	10	2	E106 0700
0800	8	79.5	19	10	2	E106 0800
1000	10	82.5	22	10	2	E106 1000
1100	11	89	22	12	2	E106 1100
1200	12	95	25.5	12	2	E106 1200
1300	13	95	25.5	12	2	E106 1300
1400	14	101.5	28.5	12	2	E106 1400
1500	15	108	31.5	16	2	E106 1500
1600	16	108	31.5	16	2	E106 1600
1700	17	114.5	35	16	2	E106 1700
1800	18	114.5	35	16	2	E106 1800
2000	20	120.5	38	16	2	E106 2000
0159	1/16	2	3/16	1/4	2	E106 0159
0238	3/32	2	1/4	1/4	2	E106 0238
0318	1/8	2-1/2	7/16	1/4	2	E106 0318
0476	3/16	2-3/4	1/2	1/4	2	E106 0476
0635	1/4	3	5/8	1/4	2	E106 0635
0794	5/16	3-1/8	3/4	3/8	2	E106 0794
0953	3/8	3-1/4	7/8	3/8	2	E106 0953
1111	7/16	3-1/2	7/8	1/2	2	E106 1111
1270	1/2	3-3/4	1	1/2	2	E106 1270
1429	9/16	4	1-1/8	1/2	2	E106 1429
1588	5/8	4-1/4	1-1/4	5/8	2	E106 1588
1905	3/4	4-3/4	1-1/2	5/8	2	E106 1905
2223	7/8	5-3/4	1-5/8	1	2	E106 2223
2540	1	6-1/4	1-3/4	1	2	E106 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
E106	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

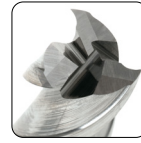
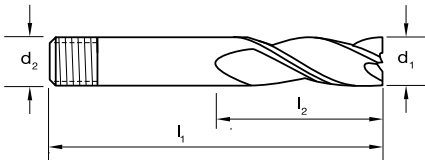
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Endmills 3 Flute, R30 N, Regular, Threaded

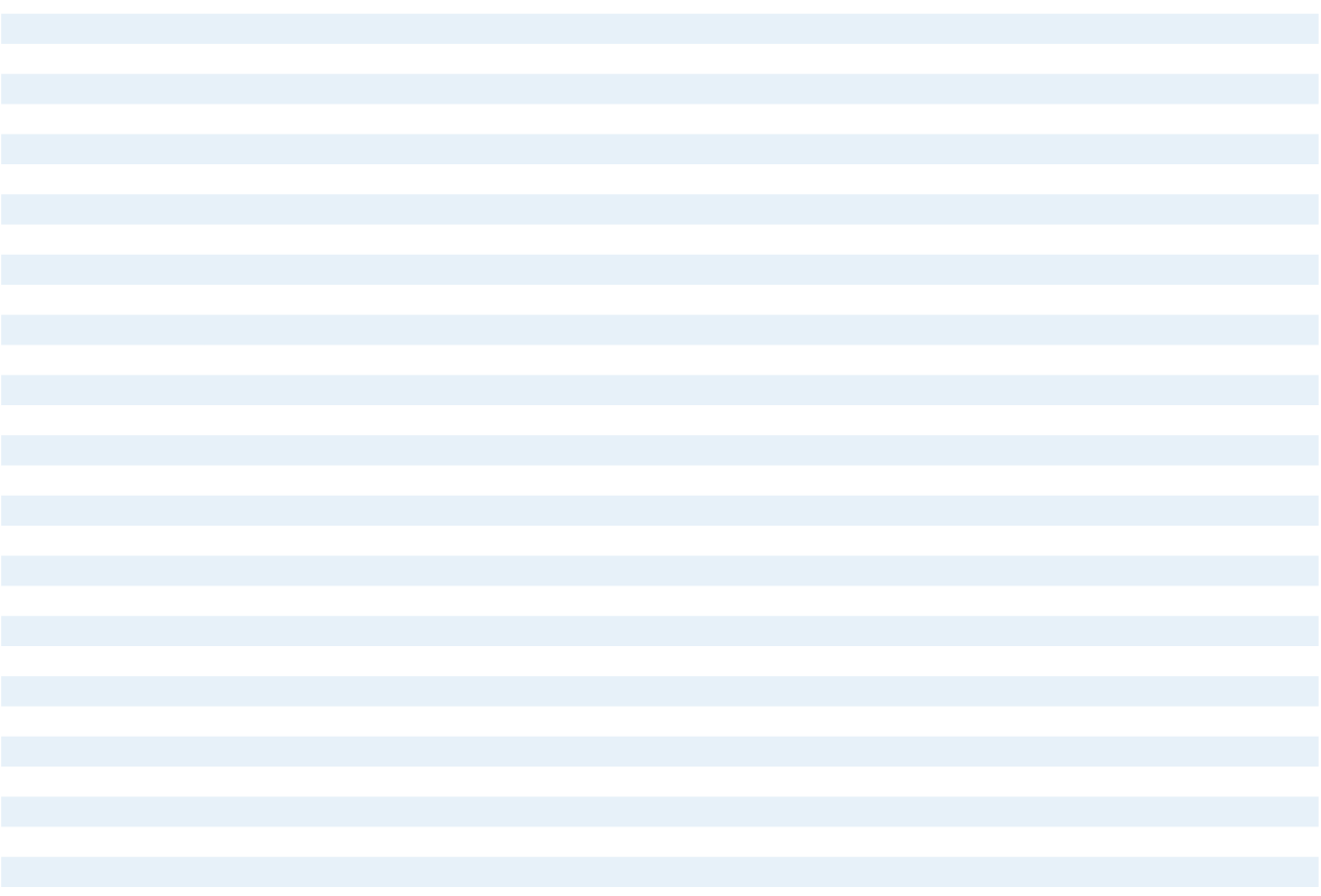
suttontools

- For slotting and finishing with the one tool
- Suitable for materials up to 850 N/mm²
- For soft steels & non-ferrous material



Catalogue Code	E119
Discount Group	B0602
Material	HSS Co
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	D
Shank Tolerance	-0.025

Size Ref.	d ₁ (h9)	l ₁	l ₂	d ₂	z	Item #
0300	3	51	8	6	3	E119 0300
0400	4	53	10	6	3	E119 0400
0500	5	58	13	6	3	E119 0500
0600	6	58	13	6	3	E119 0600
0800	8	60	13	10	3	E119 0800
1000	10	61	15	10	3	E119 1000
1200	12	67	19	12	3	E119 1200
1400	14	69	22	12	3	E119 1400
1600	16	72	22	16	3	E119 1600
2000	20	77	26	16	3	E119 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
E119	●	●	○	○	○	●	○															○	○	○	○	○																							

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

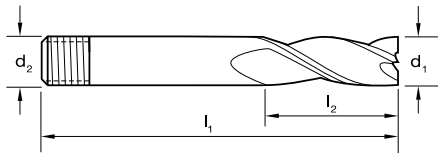
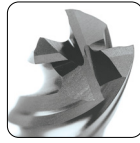
● Optimal ○ Effective

Section Finder

Endmills 4 Flute, R30 N, Regular, Threaded

suttontools

- For finish milling applications
- Suitable for materials up to 850 N/mm²
- For soft steels & non-ferrous material



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

E129	E130
B0602	B0604
HSS Co	HSS Co
BrT	TiN
N	N
R30	R30
D	D
-0.025	-0.025

Size Ref.	d ₁ (k9)	l ₁	l ₂	d ₂	z	Item #	Item #
0300	3	54	10	6	4	E129 0300	E130 0300
0400	4	57	13	6	4	E129 0400	E130 0400
0500	5	60.5	16	6	4	E129 0500	E130 0500
0600	6	60.5	16	6	4	E129 0600	E130 0600
0800	8	63.5	18	10	4	E129 0800	E130 0800
1000	10	66.5	21	10	4	E129 1000	E130 1000
1200	12	70	24	12	4	E129 1200	E130 1200
1400	14	73	28.5	12	4	E129 1400	
1600	16	77	26.5	16	4	E129 1600	E130 1600
1800	18	80	35	16	4	E129 1800	
2000	20	83.5	38	16	4	E129 2000	E130 2000
2200	22	98.5	41.5	25	4	E129 2200	
2500	25	101.5	44.5	25	4	E129 2500	
2800	28	104.5	46	25	6	E129 2800	
3000	30	104.5	46	25	6	E129 3000	
3200	32	112.5	51	32	6	E129 3200	
3600	36	116	54	32	6	E129 3600	
4000	40	117.5	55.5	32	6	E129 4000	
4500	45	119	57	32	6	E129 4500	
5000	50	127	65	32	6	E129 5000	

EM2M 6 piece set 4, 5, 6, 8, 10, 12mm E129 EM2M



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	
E129	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
E130	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

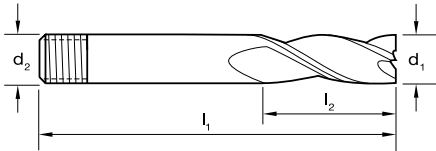
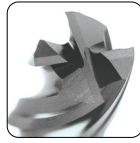
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Endmills 4 Flute, R30 N, Regular, Threaded

suttontools

- For finish milling applications
- Suitable for materials up to 850 N/mm²
- For soft steels & non-ferrous material



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

E129	E130
B0602	B0604
HSS Co	HSS Co
BrT	TiN
N	N
R30	R30
D	D
-0.025	-0.025

Size Ref.	d ₁ (k9)	l ₁	l ₂	d ₂	z	Item #	Item #
0318	1/8	2-1/8	3/8	1/4	4	E129 0318	E130 0318
0476	3/16	2-1/4	1/2	1/4	4	E129 0476	E130 0476
0635	1/4	2-3/8	5/8	1/4	4	E129 0635	E130 0635
0794	5/16	2-1/2	3/4	3/8	4	E129 0794	E130 0794
0873	11/32	2-5/8	7/8	3/8	4	E129 0873	
0953	3/8	2-5/8	7/8	3/8	4	E129 0953	E130 0953
1111	7/16	2-5/8	7/8	1/2	4	E129 1111	
1270	1/2	2-3/4	1	1/2	4	E129 1270	E130 1270
1429	9/16	2-7/8	1-1/8	1/2	4	E129 1429	
1588	5/8	3	1-1/4	5/8	4	E129 1588	E130 1588
1746	11/16	3-1/8	1-3/8	5/8	4	E129 1746	
1905	3/4	3-1/4	1-1/2	5/8	4	E129 1905	E130 1905
2223	7/8	3-7/8	1-5/8	1	4	E129 2223	
2540	1	4	1-11/16	1	4	E129 2540	
2858	1-1/8	4-1/8	1-13/16	1	6	E129 2858	
3175	1-1/4	4-1/4	1-15/16	1	6	E129 3175	
3493	1-3/8	4-3/8	2-1/16	1	6	E129 3493	
3810	1-1/2	4-1/2	2-3/16	1	6	E129 3810	
4445	1-3/4	4-3/4	2-1/2	1	6	E129 4445	
5080	2	5	2-3/4	1	6	E129 5080	

EM2 6 piece set 1/8, 3/16, 1/4, 5/16, 3/8, 1/2"

E129 EM2



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								
E129	●	●	○	○		○	○							○	○	○	○	○	○	○	○	○	○	○	○																																
E130	●	●	●	●		●	●							○	○	○	○	○	○	○	○	○	○	○	○																																

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

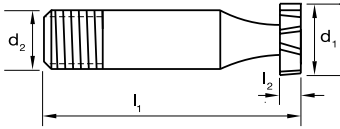
● Optimal ○ Effective

Section Finder

Roughers Woodruff Cutter, Threaded

suttontools

- For cutting key seats to suit standard imperial woodruff keys



Catalogue Code	E178
Discount Group	B0709
Material	HSS
Surface Finish	Brt
Sutton Designation	General Purpose
Geometry	-
Shank Form (DIN 1835)	D
Shank Tolerance	h6

Size Ref.	BS Cutter & Key #	d ₁	l ₂	l ₁	d ₂	Item #
0204	204	1/2	1/16	2	1/2	E178 0204
0304	304	1/2	3/32	2	1/2	E178 0304
0305	305	5/8	3/32	2	1/2	E178 0305
0404	404	1/2	1/8	2	1/2	E178 0404
0405	405	5/8	1/8	2	1/2	E178 0405
0406	406	3/4	1/8	2-1/4	1/2	E178 0406
0505	505	5/8	5/32	2	1/2	E178 0505
0506	506	3/4	5/32	2-1/4	1/2	E178 0506
0507	507	7/8	5/32	2-1/2	1/2	E178 0507
0606	606	3/4	3/16	2-1/4	1/2	E178 0606
0607	607	7/8	3/16	2-1/2	1/2	E178 0607
0608	608	1	3/16	2-3/4	1/2	E178 0608
0609	609	1-1/8	3/16	2-3/4	1/2	E178 0609
0807	807	7/8	1/4	2-1/2	1/2	E178 0807
0808	808	1	1/4	2-3/4	1/2	E178 0808
0809	809	1-1/8	1/4	2-3/4	1/2	E178 0809
0810	810	1-1/4	1/4	2-3/4	1/2	E178 0810
0812	812	1-1/2	1/4	3	1/2	E178 0812
1008	1008	1	5/16	2-3/4	1/2	E178 1008
1009	1009	1-1/8	5/16	2-3/4	1/2	E178 1009
1010	1010	1-1/4	5/16	2-3/4	1/2	E178 1010
1011	1011	1-3/8	5/16	3	1/2	E178 1011
1012	1012	1-1/2	5/16	3	1/2	E178 1012
1210	1210	1-1/4	3/8	2-3/4	1/2	E178 1210
1211	1211	1-3/8	3/8	3	1/2	E178 1211
1212	1212	1-1/2	3/8	3	1/2	E178 1212

Section Finder

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			
E178	●	●	○	○	○	●	○							○					○				○	○	○	○																										

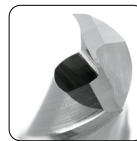
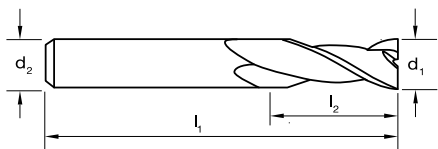
P Steel **M** Stainless Steel **K** Cast Iron **N** Non-Ferrous Metals **S** Titanium & Super Alloys **H** Hard Materials

● Optimal ○ Effective

Slot Drills 2 Flute, R30 N, Regular

suttontools

- For precision milling of slots & cavities
- Suitable for materials up to 1000 N/mm²
- For soft steels & non-ferrous material



Catalogue Code	E100
Discount Group	B0502
Material	HSS Co.8
Surface Finish	Br
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (e8)	l ₁	l ₂	d ₂	z	Item #
0100	1	50	3	6	2	E100 0100
0150	1.5	50	4.5	6	2	E100 0150
0200	2	50	7	6	2	E100 0200
0250	2.5	50	7	6	2	E100 0250
0300	3	50	9	6	2	E100 0300
0350	3.5	60	12	8	2	E100 0350
0400	4	60	12	8	2	E100 0400
0450	4.5	60	15	8	2	E100 0450
0500	5	60	15	8	2	E100 0500
0550	5.5	60	15	8	2	E100 0550
0600	6	60	15	8	2	E100 0600
0650	6.5	65	20	10	2	E100 0650
0700	7	65	20	10	2	E100 0700
0750	7.5	65	20	10	2	E100 0750
0800	8	65	20	10	2	E100 0800
0850	8.5	75	25	10	2	E100 0850
0900	9	75	25	10	2	E100 0900
0950	9.5	75	25	10	2	E100 0950
1000	10	75	25	10	2	E100 1000
1100	11	80	30	12	2	E100 1100
1200	12	80	30	12	2	E100 1200
1300	13	90	35	16	2	E100 1300
1400	14	90	35	16	2	E100 1400
1500	15	95	40	16	2	E100 1500
1600	16	95	40	16	2	E100 1600
1700	17	105	40	20	2	E100 1700
1800	18	105	40	20	2	E100 1800
1900	19	110	45	20	2	E100 1900
2000	20	110	45	20	2	E100 2000
2100	21	110	45	20	2	E100 2100
2200	22	110	45	20	2	E100 2200
2400	24	120	50	25	2	E100 2400
2500	25	120	50	25	2	E100 2500
2800	28	125	55	25	2	E100 2800
3000	30	125	55	25	2	E100 3000
3200	32	145	60	32	2	E100 3200

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		
E100	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

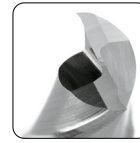
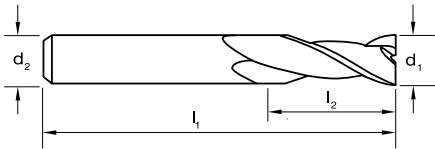
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials ● Optimal ○ Effective

Section Finder

Slot Drills 2 Flute, R30 N, Regular

suttontools

- For precision milling of slots & cavities
- Suitable for materials up to 1000 N/mm²
- For soft steels & non-ferrous material



Catalogue Code	E100
Discount Group	B0502
Material	HSS Co.8
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (e8)	l ₁	l ₂	d ₂	z	Item #
0159	1/16	1-31/32	1/8	1/4	2	E100 0159
0238	3/32	1-31/32	3/16	1/4	2	E100 0238
0318	1/8	1-31/32	7/32	1/4	2	E100 0318
0476	3/16	2-3/8	3/8	1/4	2	E100 0476
0635	1/4	2-9/16	9/16	1/4	2	E100 0635
0794	5/16	2-9/16	9/16	3/8	2	E100 0794
0953	3/8	2-3/4	23/32	3/8	2	E100 0953
1270	1/2	3-17/32	1	1/2	2	E100 1270
1588	5/8	3-3/4	1-3/16	5/8	2	E100 1588
1905	3/4	4-5/16	1-9/16	3/4	2	E100 1905
2540	1	4-23/32	2	3/4	2	E100 2540

Section Finder

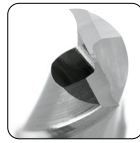
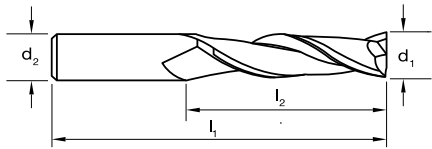
ISO	P												M			K								N								S								H													
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41				
E100	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

Slot Drills 2 Flute, R30 N, Long

suttontools

- For long-reach slotting applications
- Suitable for materials up to 1000 N/mm²
- For soft steels & non-ferrous material



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

	E102	E225
Discount Group	B0502	B0502
Material	HSS Co.8	HSS Co.8
Surface Finish	<i>Br</i> t	<i>Br</i> t
Sutton Designation	N	N
Geometry	R30	R30
Shank Form (DIN 1835)	A	A
Shank Tolerance	h6	h6

Size Ref.	d ₁ (e8)	l ₁	l ₂	d ₂	z	Item #	Item #
0300	3.0	60	15	6	2	E102 0300	
0350	3.5	60	20	6	2	E102 0350	
0400	4.0	60	20	6	2		E225 0400
0400	4.0	60	20	8	2	E102 0400	
0450	4.5	60	25	6	2	E102 0450	
0500	5.0	65	25	6	2		E225 0500
0500	5.0	65	25	8	2	E102 0500	
0550	5.5	65	25	6	2	E102 0550	
0600	6.0	65	25	6	2		E225 0600
0600	6.0	65	25	8	2	E102 0600	
0650	6.5	80	35	10	2	E102 0650	
0700	7.0	80	35	10	2	E102 0700	
0750	7.5	80	35	10	2	E102 0750	
0800	8.0	80	35	10	2	E102 0800	
0850	8.5	95	45	10	2	E102 0850	
0900	9.0	95	45	10	2	E102 0900	
0950	9.5	95	45	10	2	E102 0950	
1000	10.0	95	45	10	2	E102 1000	
1100	11.0	105	55	12	2	E102 1100	
1200	12.0	105	55	12	2	E102 1200	
1400	14.0	110	55	16	2	E102 1400	
1600	16.0	120	65	16	2	E102 1600	
1800	18.0	130	65	20	2	E102 1800	
2000	20.0	140	75	20	2	E102 2000	
2200	22.0	140	75	20	2	E102 2200	
2400	24.0	160	90	25	2	E102 2400	
2500	25.0	160	90	25	2	E102 2500	

Sutton Standard

0635	1/4	2-9/16	1	1/4	2	E102 0635
0953	3/8	3-3/4	1-3/4	3/8	2	E102 0953
1270	1/2	4-5/16	2-5/32	1/2	2	E102 1270
1905	3/4	5-1/2	2-61/64	3/4	2	E102 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		
E102	●	●	○	○	○	○	○	○	○	○												●	●	○	○	○	○																								
E225	●	●	○	○	○	○	○	○	○	○									○				●	●	○	○	○	○																							

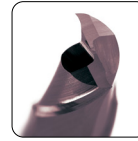
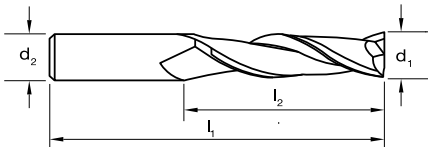
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Slot Drills 2 Flute, R30 N, Long

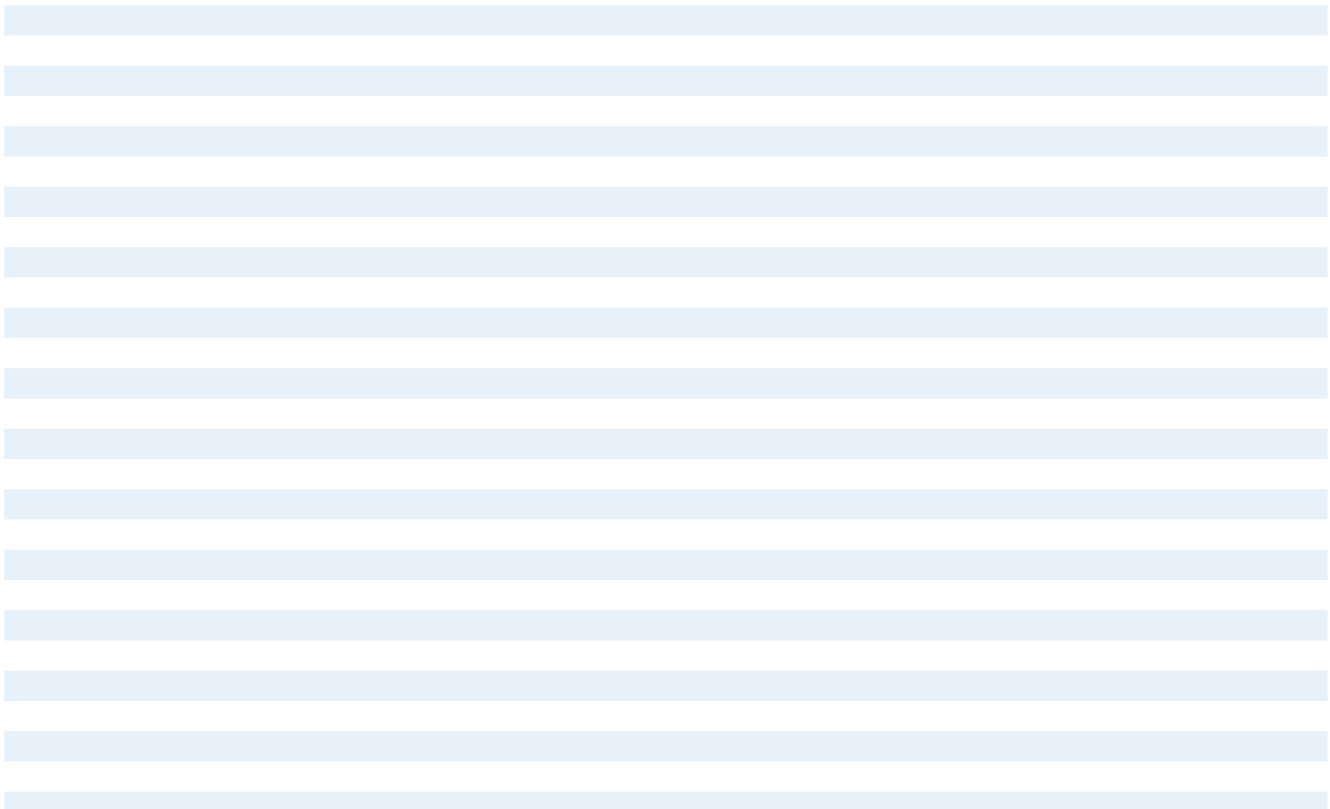
suttontools

- For long-reach slotting applications
- Suitable for materials up to 1000 N/mm²
- For soft steels & non-ferrous material
- TiAIN for longer tool life



Catalogue Code	E184
Discount Group	B0608
Material	HSS Co.8
Surface Finish	TIAIN
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (e8)	l ₁	l ₂	d ₂	z	Item #
0300	3.0	56	12	6	2	E184 0300
0350	3.5	59	15	6	2	E184 0350
0400	4.0	63	19	6	2	E184 0400
0500	5.0	68	24	6	2	E184 0500
0600	6.0	68	24	6	2	E184 0600
0800	8.0	88	38	10	2	E184 0800
1000	10.0	95	45	10	2	E184 1000
1200	12.0	110	53	12	2	E184 1200
1400	14.0	110	53	12	2	E184 1400
1600	16.0	123	63	16	2	E184 1600
1800	18.0	123	63	16	2	E184 1800
2000	20.0	141	75	20	2	E184 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
E184	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

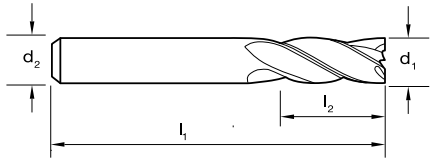
● Optimal ○ Effective

Section Finder

Endmills 4 Flute, R30 N, Regular

suttontools

- For precision finish milling applications
- Suitable for materials up to 1000 N/mm²



Catalogue Code	E125	E227
Discount Group	B0502	B0502
Material	HSS Co.8	HSS Co.8
Surface Finish	Brt	Brt
Sutton Designation	N	N
Geometry	R30	R30
Shank Form (DIN 1835)	A	A
Shank Tolerance	h6	h6

Size Ref.	d ₁ (k9)	l ₁	l ₂	d ₂	z	Item #	Item #
0150	1.5	50	3	6	4	E125 0150	
0200	2.0	50	6	6	4	E125 0200	
0250	2.5	50	7	6	4	E125 0250	
0300	3.0	50	9	6	4	E125 0300	
0350	3.5	60	12	6	4		E227 0350
0350	3.5	60	12	8	4	E125 0350	
0400	4.0	60	12	6	4		E227 0400
0400	4.0	60	12	8	4	E125 0400	
0450	4.5	60	15	6	4		E227 0450
0450	4.5	60	15	8	4	E125 0450	
0500	5.0	60	15	6	4		E227 0500
0500	5.0	60	15	8	4	E125 0500	
0550	5.5	60	15	6	4		E227 0550
0550	5.5	60	15	8	4	E125 0550	
0600	6.0	60	15	6	4		E227 0600
0600	6.0	60	15	8	4	E125 0600	
0650	6.5	65	20	10	4	E125 0650	
0700	7.0	65	20	10	4	E125 0700	
0750	7.5	65	20	10	4	E125 0750	
0800	8.0	65	20	10	4	E125 0800	
0850	8.5	75	25	10	4	E125 0850	
0900	9.0	75	25	10	4	E125 0900	
0950	9.5	75	25	10	4	E125 0950	
1000	10.0	75	25	10	4	E125 1000	
1050	10.5	80	30	12	4	E125 1050	
1100	11.0	80	30	12	4	E125 1100	
1150	11.5	80	30	12	4	E125 1150	
1200	12.0	80	30	12	4	E125 1200	
1300	13.0	90	35	16	4	E125 1300	
1400	14.0	90	35	16	4	E125 1400	
1500	15.0	95	40	16	4	E125 1500	
1600	16.0	95	40	16	4	E125 1600	
1700	17.0	105	40	20	4	E125 1700	
1800	18.0	105	40	20	4	E125 1800	
1900	19.0	110	45	20	4	E125 1900	
2000	20.0	110	45	20	4	E125 2000	
2200	22.0	110	45	20	4	E125 2200	
2400	24.0	120	50	25	4	E125 2400	
2500	25.0	120	50	25	4	E125 2500	
2600	26.0	120	50	25	4	E125 2600	
2800	28.0	125	55	25	6	E125 2800	
3000	30.0	125	55	25	6	E125 3000	
3200	32.0	145	60	32	6	E125 3200	

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	
E125	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
E227	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

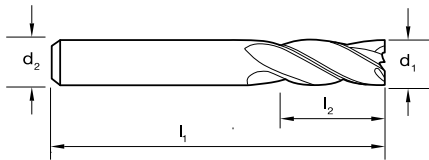
P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous Metals
 S Titanium & Super Alloys
 H Hard Materials
 ● Optimal ○ Effective

Section Finder

Endmills 4 Flute, R30 N, Regular



- For precision finish milling applications
- Suitable for materials up to 1000 N/mm²



Catalogue Code	E125
Discount Group	B0502
Material	HSS Co.8
Surface Finish	Brt
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (k9)	l ₁	l ₂	d ₂	z	Item #
0159	1/16	1-31/32	1/4	1/4	4	E125 0159
0238	3/32	1-31/32	9/32	1/4	4	E125 0238
0318	1/8	1-31/32	11/32	1/4	4	E125 0318
0476	3/16	2-11/32	19/32	1/4	4	E125 0476
0635	1/4	2-11/32	19/32	1/4	4	E125 0635
0794	5/16	2-9/16	25/32	3/8	4	E125 0794
0953	3/8	2-15/16	31/32	3/8	4	E125 0953
1270	1/2	3-7/32	1-3/8	1/2	4	E125 1270
1588	5/8	3-3/4	1-9/16	5/8	4	E125 1588
1905	3/4	4-5/16	1-3/4	3/4	4	E125 1905
2223	7/8	4-5/16	1-3/4	3/4	4	E125 2223
2540	1	4-23/32	1-31/32	3/4	4	E125 2540
2541	1	4-23/32	1-31/32	1	4	E125 2541

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		
E125	●	●	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

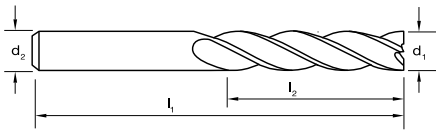
P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous Metals
 S Titanium & Super Alloys
 H Hard Materials
 ● Optimal ○ Effective

Section Finder

Endmills 4 Flute, R30 N, Long

suttontools

- For precision finish milling applications
- Suitable for materials up to 1000 N/mm²



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

E127	E229
B0502	B0502
HSS Co.8	HSS Co.8
<i>Br</i>	<i>Br</i>
N	N
R30	R30
A	A
h6	h6

Size Ref.	d ₁ (k10)	l ₁	l ₂	d ₂	z	Item #	Item #
0200	2.0	60	10	6	4	E127 0200	
0250	2.5	60	15	6	4	E127 0250	
0300	3.0	60	15	6	4	E127 0300	
0350	3.5	60	20	6	4		E229 0350
0400	4.0	60	20	6	4		E229 0400
0400	4.0	60	20	8	4	E127 0400	
0450	4.5	65	25	6	4		E229 0450
0500	5.0	65	25	6	4		E229 0500
0500	5.0	65	25	8	4	E127 0500	
0550	5.5	65	25	6	4		E229 0550
0600	6.0	65	25	6	4		E229 0600
0600	6.0	65	25	8	4	E127 0600	
0650	6.5	80	35	10	4	E127 0650	
0700	7.0	80	35	10	4	E127 0700	
0750	7.5	80	35	10	4	E127 0750	
0800	8.0	80	35	10	4	E127 0800	
0900	9.0	95	45	10	4	E127 0900	
0950	9.5	95	45	10	4	E127 0950	
1000	10.0	95	45	10	4	E127 1000	
1100	11.0	105	55	12	4	E127 1100	
1200	12.0	105	55	12	4	E127 1200	
1400	14.0	110	55	16	4	E127 1400	
1600	16.0	120	65	16	4	E127 1600	
1800	18.0	130	65	20	4	E127 1800	
2000	20.0	140	75	20	4	E127 2000	
2200	22.0	140	75	20	4	E127 2200	
2400	24.0	160	90	25	4	E127 2400	
2500	25.0	160	90	25	4	E127 2500	
3200	32.0	190	105	32	6	E127 3200	
0159	1/16	2-3/8	3/8	1/4	4	E127 0159	
0318	1/8	2-3/8	19/32	1/4	4	E127 0318	
0476	3/16	2-9/16	31/32	1/4	4	E127 0476	
0635	1/4	2-9/16	31/32	1/4	4	E127 0635	
0794	5/16	3-5/32	1-3/8	3/8	4	E127 0794	
0953	3/8	3-3/4	1-25/32	3/8	4	E127 0953	
1270	1/2	4-5/16	2-5/32	1/2	4	E127 1270	
1588	5/8	4-23/32	2-9/16	5/8	4	E127 1588	
1905	3/4	5-1/2	2-15/16	3/4	4	E127 1905	
2540	1	6-5/16	3-17/32	3/4	4	E127 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		
E127	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
E229	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

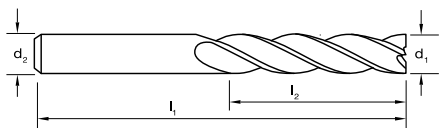
• Available on request as special manufacture. Subject to lead time.

Section Finder

Endmills 4 Flute, R30 N, Long

suttontools

- For precision finish milling applications
- Suitable for materials up to 1000 N/mm²
- TiCN for longer tool life



Catalogue Code	E230
Discount Group	B0516
Material	HSS Co.8
Surface Finish	TiCN
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (k10)	l ₁	l ₂	d ₂	z	Item #
0400	4.0	60	20	6	4	E230 0400
0500	5.0	65	25	6	4	E230 0500
0600	6.0	65	25	6	4	E230 0600

Section Finder

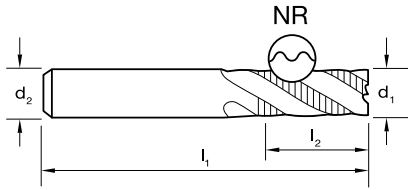
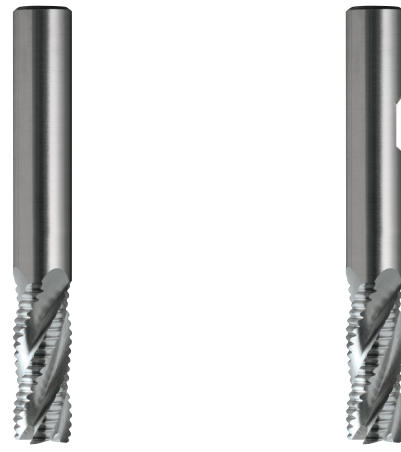
ISO	P																M			K					N										S										H								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41				
E230	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

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

Roughers NR (normal), R30 WN, Regular

suttontools

- For roughing applications
- NR geometry allows for heavy cuts
- Suitable for materials up to 1000 N/mm²



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

E142	E144
B0402	B0402
HSS Co.8	HSS Co.8
<i>Brt</i>	<i>Brt</i>
WN	WN
R30 NR	R30 NR
A	B
h6	h6

Size Ref.	d ₁ (js14)	l ₁	l ₂	d ₂	z	Item #	Item #
0600	6.0	60	15	10	3	E142 0600	
0800	8.0	65	20	10	3	E142 0800	
1000	10.0	75	25	10	4	E142 1000	
1200	12.0	80	30	12	4	E142 1200	
1400	14.0	90	35	16	4	E142 1400	
1500	15.0	95	40	16	4	E142 1500	
1600	16.0	95	40	16	4		E144 1600
2000	20.0	110	45	20	4		E144 2000
2500	25.0	120	50	25	5		E144 2500
3000	30.0	125	55	25	6		E144 3000

Section Finder

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
E142	●	●	○	○	○	●																	●	●	●	○	○	○	○																				
E144	●	●	○	○	○	●																	●	●	●	○	○	○	○																				

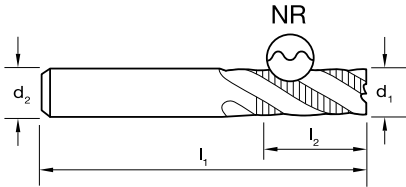
P Steel M Stainless Steel K Cast Iron N Non-Ferrous Metals S Titanium & Super Alloys H Hard Materials

● Optimal ○ Effective

Roughers NR (normal), R30 WN, Regular



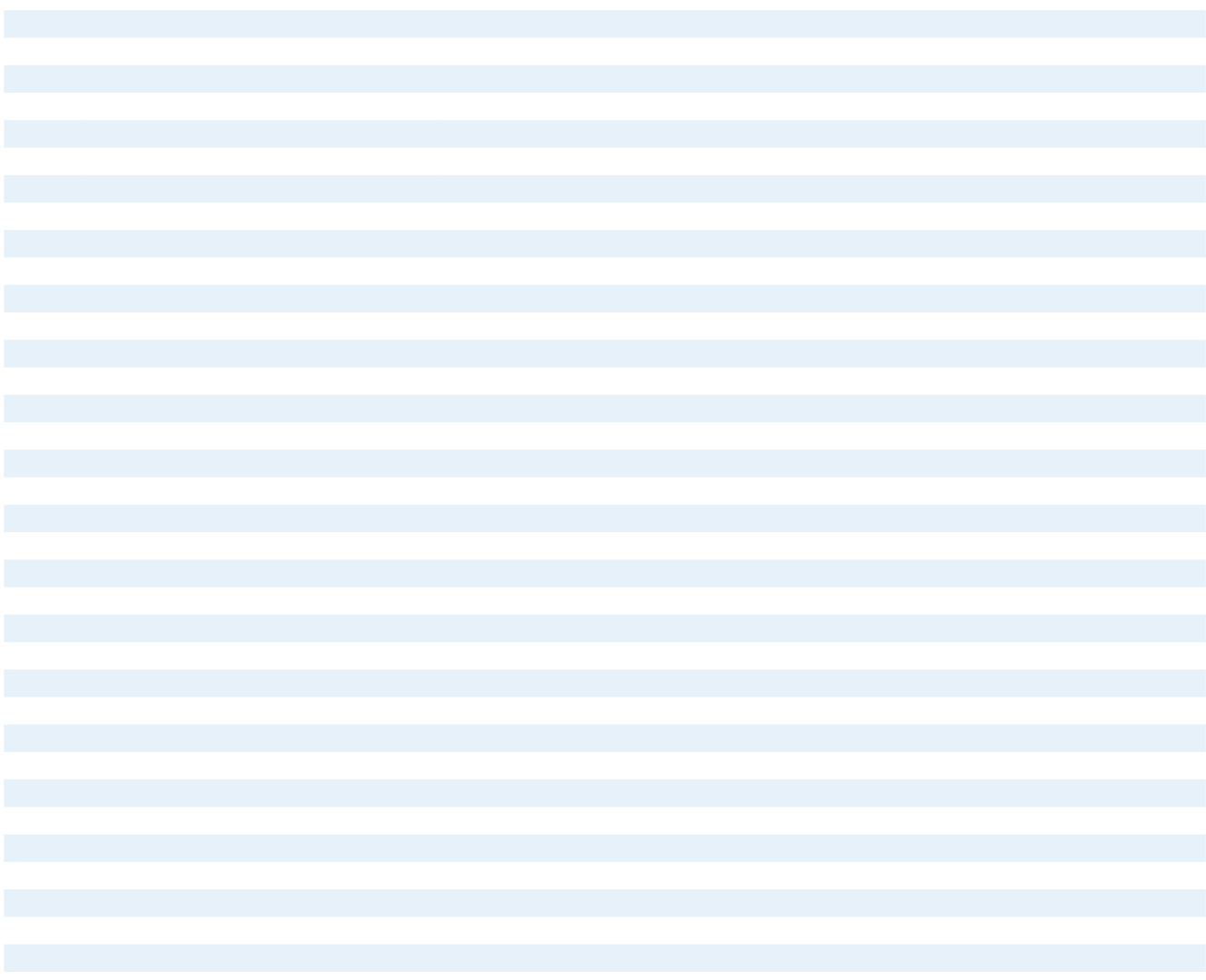
- For roughing applications
- NR geometry allows for heavy cuts
- Suitable for materials up to 1000 N/mm²
- TiCN for longer tool life



Catalogue Code	E143
Discount Group	B0404
Material	HSS Co.8
Surface Finish	TiCN
Sutton Designation	WN
Geometry	R30 NR
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (js14)	l ₁	l ₂	d ₂	z	Item #
0600	6.0	60	15	10	3	E143 0600
0800	8.0	65	20	10	3	E143 0800
1000	10.0	75	25	10	4	E143 1000
1200	12.0	80	30	12	4	E143 1200

Section Finder



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					
E143	●	●	○	○	○	○	○																○	○	○	○	○	○																										

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

● Optimal ○ Effective

Slot Drills Ballnose, 2 Flute, R30 N, Long



- For long-reach profiling & contour milling applications
- Suitable for materials up to 1000 N/mm²



Catalogue Code	E113
Discount Group	B0502
Material	HSS Co.8
Surface Finish	Br
Sutton Designation	N
Geometry	R30
Shank Form (DIN 1835)	A
Shank Tolerance	h6

Size Ref.	d ₁ (e8)	l ₁	l ₂	d ₂	z	Item #
0150	1.5	55	3	6	2	E113 0150
0200	2	55	4	6	2	E113 0200
0250	2.5	55	5	6	2	E113 0250
0300	3	60	6	6	2	E113 0300
0400	4	70	8	6	2	E113 0400
0450	4.5	70	8	6	2	•
0500	5	80	10	6	2	E113 0500
0600	6	90	12	6	2	E113 0600
0700	7	90	14	6	2	E113 0700
0800	8	100	16	8	2	E113 0800
0900	9	100	18	8	2	E113 0900
1000	10	100	20	10	2	E113 1000
1200	12	110	24	12	2	E113 1200
1400	14	110	28	12	2	E113 1400
1600	16	140	32	16	2	E113 1600
2000	20	160	40	20	2	E113 2000
2500	25	180	50	25	2	E113 2500
3000	30	180	55	25	2	E113 3000

Section Finder

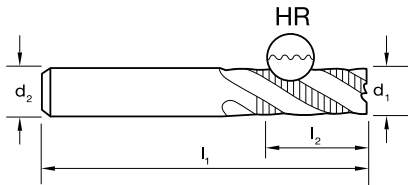
ISO	P								M			K							N							S										H																
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14.1	14.2	14.3	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37.1	37.2	37.3	37.4	37.5	38.1	38.2	39.1	39.2	40	41			
E113	•	•	•	•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																					

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

Roughers HR (fine), R30 NH, Regular



- For roughing applications
- HR geometry allows for heavy cuts, in harder materials
- Suitable for materials up to 1300 N/mm²
- TiCN for longer tool life



Catalogue Code
Discount Group
Material
Surface Finish
Sutton Designation
Geometry
Shank Form (DIN 1835)
Shank Tolerance

E168	E169
B0402	B0404
HSS Co.8	HSS Co.8
<i>BrT</i>	<i>TiCN</i>
NH	NH
R30 HR	R30 HR
A	A
h6	h6

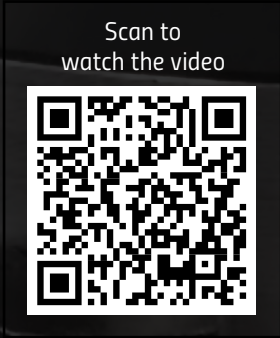
Size Ref.	d ₁ (js14)	l ₁	l ₂	d ₂	z	Item #	Item #
0600	6.0	60	15	10	3	E168 0600	E169 0600
0800	8.0	65	20	10	3	E168 0800	E169 0800
1000	10.0	75	25	10	4	E168 1000	E169 1000
1200	12.0	80	30	12	4	E168 1200	E169 1200

Section Finder

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				
E168			●				●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○																															
E169				●			●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○								●																							○

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

● Optimal ○ Effective



Performance Unequaled... Harmony Endmills

The Harmony range of Endmills represents world's latest technologies to provide increases in both performance and tool life. The key to successful milling is to minimise or eliminate the harmonic vibration produced in the cutting action.

The Harmony Endmill overcomes vibration, through the latest technologies in tool engineering:

- Premium Grade Carbide
- AlCrN Coating
- 35/38° Variable Helix
- 45° Corner Chamfering
- Gash grind of the endteeth
- Post grind treatment of cutting edges

The bottom line for you:

- Longer tool life
- Improved surface finish
- Increased productivity
- Reduced production costs

