

# CARBIDE ENDMILLS



## Carbide Endmills

*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



Page	Slot Drill, Stub, 2 Flute, R30								
	Slot Drill, Stub, 2 Flute, R30								
352	352	353	353	354	354	355	356	357	358
	E500	E502	E600	E603	E504	E506	E308	E309	E310
	VHM								
	BrT	AlCrN	BrT	TiAlN	BrT	AlCrN	BrT		
	Up to 1600N/mm <sup>2</sup>						Up to 1300N/mm <sup>2</sup>	Al	
	DIN 6527K	-	-	DIN 6527L			-		
	Slotting								
	h6								
<b>Material</b>	<b>Shank Tolerance</b>								
<b>1.0 Steels</b>	<b>HB</b>	<b>N/mm<sup>2</sup></b>	<b>% Elong.</b>						
1.1 Mild steels, magnetic soft steel	<200	>200 <400	10	●	●	●	●	●	
1.2 Free cutting, structural, unalloyed	<200	>350 <700	30	●	●	●	●	●	
1.3 Plain carbon, low alloyed	<300	>350 <850	20	●	●	●	●	●	
1.4 Alloy steels harden. / tempered	<250	>500 <850	30	○	●	○	●	○	
1.5 Alloy steels harden. / tempered	<350	>850 <1200	30	○	●	○	●	○	
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12	○	○	○	○	○	
1.7 Hardened Steel 45-50 Rc	<550		<12		○		○	○	
1.8 Hardened Steel 50-62 Rc	<700		<12						
<b>2.0 Stainless Steels</b>									
2.1 Free machining	<250	<850	25	●	●	●	●	●	
2.2 Austenitic	<250	<850	20	○	○	○	○	○	
2.3 Ferritic + martensitic	<250	<850	20	○	○	○	○	○	
<b>3.0 Cast Irons</b>									
3.1 Lamellar graphite (Grey soft)	<150	<500	10	●	●	●	●	●	
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	○	●	○	●	●	
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	○	●	○	●	●	
<b>4.0 Titaniums</b>									
4.1 Pure Titanium	<250	<850	20	○	○	○	○	○	
4.2 Titanium alloys	>250	>850	20	○	○	○	○	○	
<b>5.0 Nickels</b>									
5.1 Nickel alloys	<250	<850	25	○	○	○	○	○	
5.2 Nickel alloys	>250	>850	25	○	○	○	○	○	
<b>6.0 Coppers</b>									
6.1 Pure Copper (electrolytic copper)	<120	<400	12	○	○	○	○	○	●
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○	○	○	○	○	
6.3 Long chip Brass, Bronze	<200	<700	12	○	○	○	○	○	●
<b>7.0 Aluminiums</b>									
7.1 Aluminium unalloyed	<100	<350	15	○	○	○	○	○	●
7.2 Magnesium unalloyed	<150	<350	15	○	○	○	○	○	●
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	○	○	○	○	○	●
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	○	○	○	○	○	●
7.5 Al Alloyed > 10 % Si	-	<400	N	○	○	○	○	○	●
7.6 Magnesium alloys	-	<400	N	○	○	○	○	○	●
<b>8.0 Plastics</b>									
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	○	○	○	○	○	○





Page	367	368	369	370	371	372	373	374
	Stub, 4 Flute, R35/38, Harmony	Regular, 4 Flute, R35/38, Harmony	Regular, 6-8 Flute, R45-1H, Harmony	Regular, 4 Flute, R40, Corner Rad.	Regular, 4 Flute, R35/38, Corner Rad., Harmony	Regular, 4 Flute, STF-R45	Regular, 3-4 Flute, NR-R30	Regular, 3-6 Flute, R45-HFS
Catalogue Code	E533	E535	E543	E348	E559	E545	E547	E549
Material	VHM-ULTRA	VHM	VHM-ULTRA	VHM	VHM	VHM	VHM	VHM-ULTRA
Surface Finish	<i>AlCrN</i>							
Colour Ring & Application	UNI	VH	Up to 1300N/mm <sup>2</sup>	UNI	Up to 1600N/mm <sup>2</sup>	UNI		
Standard	DIN 6527K	DIN 6527L	-	DIN 6527L				
Type of Cut	Finishing				Semi Finishing	Roughing		
Material	Shank Tolerance h6							
1.0 Steels	HB	N/mm <sup>2</sup>	% Elong.					
1.1 Mild steels, magnetic soft steel	<200	>200<400	10	●	●	○	●	●
1.2 Free cutting, structural, unalloyed	<200	>350<700	30	●	●	○	●	●
1.3 Plain carbon, low alloyed	<300	>350<850	20	●	●	○	●	○
1.4 Alloy steels harden. / tempered	<250	>500<850	30	●	●	○	●	●
1.5 Alloy steels harden. / tempered	<350	>850<1200	30	●	●	○	●	●
1.6 Hardened, heat treated, high tensile alloy	<420	>1500	12	○	●	○	●	●
1.7 Hardened Steel 45-50 Rc	<550		<12	○	○	●	○	○
1.8 Hardened Steel 50-62 Rc	<700		<12	○	●	○	○	
2.0 Stainless Steels								
2.1 Free machining	<250	<850	25	○	○	○	○	○
2.2 Austenitic	<250	<850	20	○	○	○	○	○
2.3 Ferritic + martensitic	<250	<850	20	○	○	○	○	○
3.0 Cast Irons								
3.1 Lamellar graphite (Grey soft)	<150	<500	10	●	●	○	●	○
3.2 Lamellar graphite (Grey hard)	<300	<1000	10	●	●	●	●	●
3.3 Nodular (spheroidal) graphite & malleable	<200	<700	10	●	●	○	●	●
4.0 Titaniums								
4.1 Pure Titanium	<250	<850	20	○	○	○	○	○
4.2 Titanium alloys	>250	>850	20	○	○	○	○	○
5.0 Nickels								
5.1 Nickel alloys	<250	<850	25	○	○	○	○	○
5.2 Nickel alloys	>250	>850	25	○	○	○	○	○
6.0 Coppers								
6.1 Pure Copper (electrolytic copper)	<120	<400	12	○		○	○	○
6.2 Short chip Brass, Phosphor Bronze, gun metal	<200	<700	12	○	○	●	○	○
6.3 Long chip Brass, Bronze	<200	<700	12	○		○	○	○
7.0 Aluminiums								
7.1 Aluminium unalloyed	<100	<350	15	●	●	○	●	●
7.2 Magnesium unalloyed	<150	<350	15	●	●	○	●	●
7.3 Al Alloyed Si < 1.5 %	<120	<500	15	○	○	○	●	●
7.4 Al Alloyed 1.5 % < Si < 10%	<120	<400	10	○	○	○	○	●
7.5 Al Alloyed > 10% Si	-	<400	N	○	○	○	○	●
7.6 Magnesium alloys	-	<400	N	○	○	○	○	○
8.0 Plastics								
8.1 Plastics, Thermoplastics, Polyethylene	<340	<50	N	○	○	○	○	○

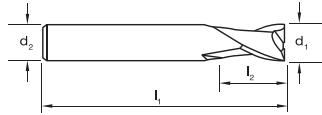
● Optimal ○ Effective



## **Slot Drills** Carbide, Stub, 2 Flute, R30



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



Catalogue Code      Size Ref.

Item #



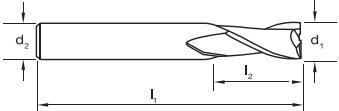
Catalogue Code	<b>E500</b>	<b>E502</b>
Discount Group	B0208	B0210
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>AICrN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

\* Not available once current stock is depleted.

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



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



Catalogue Code      Size Ref.

**E300**   **0300**

Item #



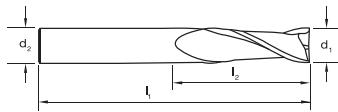
Catalogue Code	<b>E600</b>	<b>E603</b>
Discount Group	B0212	B0214
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAIN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	b6	b6

Size Ref.	d <sub>1</sub>	I <sub>1</sub>	I <sub>2</sub>	d <sub>2</sub>	z	Shaft Tolerance	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

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



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



Catalogue Code      Size Ref.

**E300** **0300**

Item #



<b>Catalogue Code</b>	<b>E504</b>	<b>E506</b>
<b>Discount Group</b>	B0208	B0210
<b>Material</b>	VHM	VHM
<b>Surface Finish</b>	<b>BrT</b>	<b>AlCrN</b>
<b>Colour Ring &amp; Application</b>	Up to 1600N/mm <sup>2</sup>	Up to 1600N/mm <sup>2</sup>
<b>Geometry</b>	R30	R30
<b>Shank Form (DIN 6535)</b>	HA	HA
<b>Shank Tolerance</b>	h6	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>0100</b>	1.0	38	2	3	2	•	
<b>0150</b>	1.5	38	3	3	2	•	
<b>0200</b>	2.0	57	6	6	2	E504 0200	E506 0200
<b>0250</b>	2.5	57	7	6	2	•	
<b>0300</b>	3.0	57	7	6	2	E504 0300	E506 0300
<b>0350</b>	3.5	57	7	6	2	•	
<b>0400</b>	4.0	57	8	6	2	E504 0400	E506 0400
<b>0450</b>	4.5	57	8	6	2	•	
<b>0500</b>	5.0	57	10	6	2	E504 0500	E506 0500
<b>0600</b>	6.0	57	10	6	2	E504 0600	E506 0600
<b>0700</b>	7.0	63	13	8	2	E504 0700	E506 0700
<b>0800</b>	8.0	63	16	8	2	E504 0800	E506 0800
<b>0900</b>	9.0	72	16	10	2	E504 0900	E506 0900
<b>1000</b>	10.0	72	19	10	2	E504 1000	E506 1000
<b>1100</b>	11.0	83	22	12	2	•	
<b>1200</b>	12.0	83	22	12	2	E504 1200	E506 1200
<b>1400</b>	14.0	83	22	14	2	E504 1400	E506 1400
<b>1600</b>	16.0	92	26	16	2	E504 1600	E506 1600
<b>1800</b>	18.0	92	26	18	2	E504 1800	E506 1800
<b>2000</b>	20.0	104	32	20	2	E504 2000	E506 2000

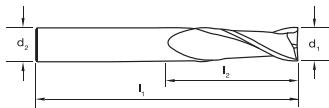
<b>SUTTON STD</b>						<b>E304</b>	<b>E307</b>
<b>0159</b>	1/16	1-1/2	3/16	1/8	2	E304 0159	E307 0159
<b>0238</b>	3/32	1-1/2	5/16	1/8	2	E304 0238	E307 0238
<b>0318</b>	1/8	1-1/2	1/2	1/8	2	E304 0318	E307 0318
<b>0397</b>	5/32	2	9/16	3/16	2	E304 0397	E307 0397
<b>0476</b>	3/16	2	5/8	3/16	2	E304 0476	E307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

\* Available on request as special manufacture. Subject to lead time.

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



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



Catalogue Code      Size Ref.

E300 0300

▼ Item #

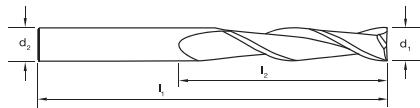


Catalogue Code	<b>E308</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Brt</b>
Colour Ring & Application	<b>Up to 1300N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	b6

## **Slot Drills** Carbide, Extra Long, 2 Flute, R30



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



Catalogue Code      Size Ref.

Item #

**E300** **0300**

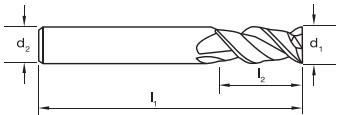


Catalogue Code	<b>E309</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Brt</b>
Colour Ring & Application	<b>Up to 1300N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

## **Slot Drills** Carbide, Regular, 2 Flute, R40, AlCarb



- 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      Size Ref

Size Ref.

E300 | 0300

Item #



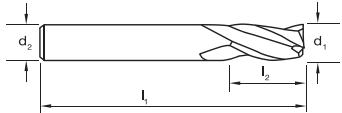
Catalogue Code	<b>E310</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Brt</b>
Colour Ring & Application	<b>AI</b>
Geometry	R40
Shank Form (DIN 6535)	HA
Shank Tolerance	h6



## **Endmills** Carbide, Regular, 3 Flute, R30



- Universal use for slotting and finishing with the one tool
  - Suitable for materials up to  $1600 \text{ N/mm}^2$
  - AlCrN for longer tool life



DIN  
6527L



Catalogue Code      Size Ref.

E300 | 0300

▼ Item #

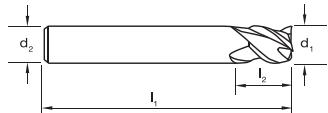


Catalogue Code	<b>E513</b>	<b>E515</b>
Discount Group	B0208	B0210
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>AICrN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	b6	b6

## **Endmills** Carbide, Stub, 3 Flute, R45 W



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



Catalogue Code      Size Ref.

Item #

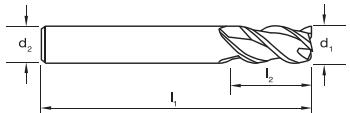


**Catalogue Code**  
**Discount Group**  
**Material**  
**Surface Finish**  
**Colour Ring & Application**  
**Geometry**  
**Shank Form (DIN 6535)**  
**Shank Tolerance**

## **Endmills** Carbide, Regular, 3 Flute, R45 W



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



Catalogue Code      Size Ref.

**E300 Q300**

Item #

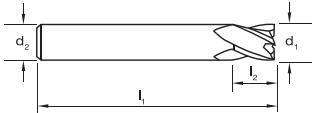


Catalogue Code	<b>E521</b>	<b>E523</b>
Discount Group	B0208	B0210
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>AlCrN</b>
Colour Ring & Application	<b>W</b>	<b>W</b>
Geometry	R45	R45
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	b6	b6

## **Endmills** Carbide, Stub, 4 Flute, R30



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



Catalogue Code      Size Ref.

Item #

E300 0300

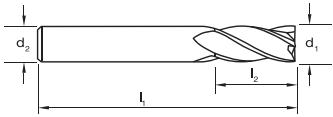


Catalogue Code	<b>E525</b>	<b>E527</b>
Discount Group	B0208	B0210
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<i>Brt</i>	<i>AlCrN</i>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

## **Endmills** Carbide, Regular, 4 Flute, R30



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



Catalogue Code      Size Ref.

**E300**   **O300**

Item #



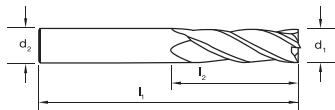
Catalogue Code	<b>E601</b>	<b>E604</b>
Discount Group	B0212	B0214
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAIN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

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

# Endmills Carbide, Regular, 4 Flute, R30



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



Catalogue Code      Size Ref.

**E300** **0300**

Item #



<b>Catalogue Code</b>	<b>E529</b>	<b>E531</b>
<b>Discount Group</b>	B0208	B0210
<b>Material</b>	VHM	VHM
<b>Surface Finish</b>	<b>BrT</b>	<b>AlCrN</b>
<b>Colour Ring &amp; Application</b>	Up to 1600N/mm <sup>2</sup>	Up to 1600N/mm <sup>2</sup>
<b>Geometry</b>	R30	R30
<b>Shank Form (DIN 6535)</b>	HA	HA
<b>Shank Tolerance</b>	h6	h6

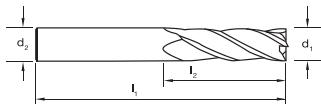
Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Item #	Item #
<b>DIN 6527L</b>							
<b>0100</b>	<b>1.0</b>	38	2	3	4	•	•
<b>0150</b>	<b>1.5</b>	38	3	3	4	•	•
<b>0200</b>	<b>2.0</b>	57	7	6	4	•	•
<b>0250</b>	<b>2.5</b>	57	7	6	4	•	•
<b>0300</b>	<b>3.0</b>	57	8	6	4	E529 0300	E531 0300
<b>0350</b>	<b>3.5</b>	57	10	6	4	•	•
<b>0400</b>	<b>4.0</b>	57	11	6	4	E529 0400	E531 0400
<b>0450</b>	<b>4.5</b>	57	11	6	4	•	•
<b>0500</b>	<b>5.0</b>	57	13	6	4	E529 0500	E531 0500
<b>0600</b>	<b>6.0</b>	57	13	6	4	E529 0600	E531 0600
<b>0700</b>	<b>7.0</b>	63	16	8	4	E529 0700	E531 0700
<b>0800</b>	<b>8.0</b>	63	19	8	4	E529 0800	E531 0800
<b>0900</b>	<b>9.0</b>	72	19	10	4	E529 0900	E531 0900
<b>1000</b>	<b>10.0</b>	72	22	10	4	E529 1000	E531 1000
<b>1100</b>	<b>11.0</b>	83	22	12	4	•	•
<b>1200</b>	<b>12.0</b>	83	26	12	4	E529 1200	E531 1200
<b>1400</b>	<b>14.0</b>	83	26	14	4	E529 1400	E531 1400
<b>1600</b>	<b>16.0</b>	92	32	16	4	E529 1600	E531 1600
<b>1800</b>	<b>18.0</b>	92	32	18	4	E529 1800	E531 1800
<b>2000</b>	<b>20.0</b>	104	38	20	4	E529 2000	E531 2000
<b>SUTTON STD</b>							
<b>0159</b>	<b>1/16</b>	1-1/2	3/16	1/8	4	<b>E333</b>	<b>E336</b>
<b>0238</b>	<b>3/32</b>	1-1/2	5/16	1/8	4	E333 0159	E336 0159
<b>0318</b>	<b>1/8</b>	1-1/2	1/2	1/8	4	E333 0238	E336 0238
<b>0397</b>	<b>5/32</b>	2	9/16	5/32	4	E333 0318	E336 0318
<b>0476</b>	<b>3/16</b>	2	5/8	3/16	4	E333 0397	E336 0397
<b>0556</b>	<b>7/32</b>	2-1/2	5/8	7/32	4	E333 0476	E336 0476
<b>0635</b>	<b>1/4</b>	2-1/2	3/4	1/4	4	E333 0556	E336 0556
<b>0794</b>	<b>5/16</b>	2-1/2	13/16	5/16	4	E333 0635	E336 0635
<b>0953</b>	<b>3/8</b>	2-1/2	7/8	3/8	4	E333 0794	E336 0794
<b>1270</b>	<b>1/2</b>	3	1	1/2	4	E333 0953	E336 0953
<b>1588</b>	<b>5/8</b>	3-1/2	1-1/4	5/8	4	E333 1270	E336 1270
<b>1905</b>	<b>3/4</b>	4	1-1/2	3/4	4	E333 1588	E336 1588
						E333 1905	E336 1905

\* Available on request as special manufacture. Subject to lead time.

## **Endmills** Carbide, Long, 4 Flute, R30



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



Catalogue Code      Size Ref

**E300 | O300**

Item #

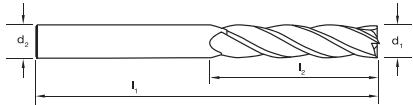


Catalogue Code	<b>E337</b>	<b>E340</b>
Discount Group	B0202	B0204
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>AICrN</b>
Colour Ring & Application	Up to 1300N/mm <sup>2</sup>	Up to 1300N/mm <sup>2</sup>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	h6	h6

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



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



Catalogue Code      Size Ref.

**E300**   **0300**

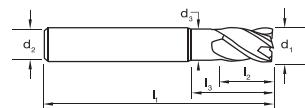


Catalogue Code	<b>E341</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Brt</b>
Colour Ring & Application	<b>Up to 1300N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

## **Endmills** Carbide, Stub, 4 Flute, R35/38, *Harmony*



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



Catalogue Code      Size Ref

Size Ref.

E300 | 0300

▼ Item #

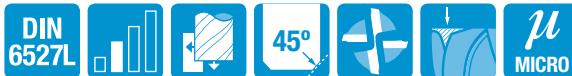
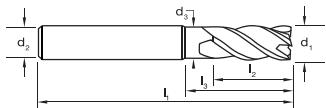


Catalogue Code	<b>E533</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>
Colour Ring & Application	<b>HARMONY</b>
Geometry	R35 / 38
Shank Form (DIN 6535)	HA
Shank Tolerance	b6

## **Endmills** Carbide, Regular, 4 Flute, R35/38, *Harmony*



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



▼ Item #

**E300** | **0300**



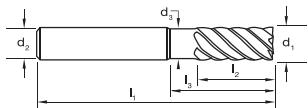
Catalogue Code	<b>E535</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AICRn</b>
Colour Ring & Application	<b>HARMONY</b>
Geometry	R35 / 38
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

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

## **Endmills** Carbide, Regular, 6-8 Flute, R45-VH, *Harmony*



- VHM-ULTRA grade of carbide for high performance
  - For super fine finishing applications
  - Suitable for hard, short chipping materials up to 65 HR<sub>C</sub>
  - Multi-flute & heavy core design enable high feed rates
  - AlCrN for longer tool life



Catalogue Code      Size Ref.

10 of 10

**E300** **0300**

Item #

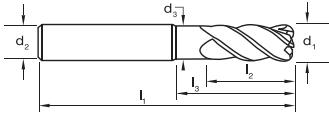


Catalogue Code	<b>E543</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>
Colour Ring & Application	<b>HARMONY</b>
Geometry	R45
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

# Endmills Carbide, Regular, 4 Flute, R40, Corner Radius



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



Catalogue Code    Size Ref.

**E300** **0300**

Item #



Catalogue Code

Discount Group

Material

Surface Finish

Colour Ring & Application

Geometry

Shank Form (DIN 6535)

Shank Tolerance

**E348**

B0210

VHM

**AlCrN**

Up to 1300N/mm<sup>2</sup>

R40

HA

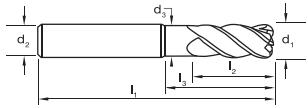
h6

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

# Endmills Carbide, Regular, 4 Flute, R35/38, Corner Radius, Harmony



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



$\mu$   
MICRO

Catalogue Code      Size Ref.

**E300** **0300**

Item #



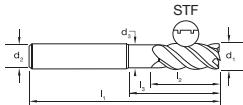
<b>Catalogue Code</b>	<b>E559</b>
<b>Discount Group</b>	B0210
<b>Material</b>	VHM-ULTRA
<b>Surface Finish</b>	AlCrN
<b>Colour Ring &amp; Application</b>	HARMONY
<b>Geometry</b>	R35 / 38
<b>Shank Form (DIN 6535)</b>	HA
<b>Shank Tolerance</b>	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	rad	Item #
<b>0303</b>	<b>3.0</b>	57	8	19	6	3.7	4	0.3	E559 0303
<b>0305</b>		57	8	19	6	3.7	4	0.5	E559 0305
<b>0403</b>	<b>4.0</b>	57	11	19	6	3.7	4	0.3	E559 0403
<b>0405</b>		57	11	19	6	3.7	4	0.5	E559 0405
<b>0410</b>		57	11	19	6	3.7	4	1.0	E559 0410
<b>0503</b>	<b>5.0</b>	57	13	20	6	4.6	4	0.3	E559 0503
<b>0505</b>		57	13	20	6	4.6	4	0.5	E559 0505
<b>0510</b>		57	13	20	6	4.6	4	1.0	E559 0510
<b>0603</b>	<b>6.0</b>	57	13	21	6	5.5	4	0.3	E559 0603
<b>0605</b>		57	13	21	6	5.5	4	0.5	E559 0605
<b>0610</b>		57	13	21	6	5.5	4	1.0	E559 0610
<b>0803</b>	<b>8.0</b>	63	19	27	8	7.5	4	0.3	E559 0803
<b>0805</b>		63	19	27	8	7.5	4	0.5	E559 0805
<b>0810</b>		63	19	27	8	7.5	4	1.0	E559 0810
<b>0815</b>		63	19	27	8	7.5	4	1.5	E559 0815
<b>0820</b>		63	19	27	8	7.5	4	2.0	E559 0820
<b>1003</b>	<b>10.0</b>	72	22	32	10	9.5	4	0.3	E559 1003
<b>1005</b>		72	22	32	10	9.5	4	0.5	E559 1005
<b>1010</b>		72	22	32	10	9.5	4	1.0	E559 1010
<b>1015</b>		72	22	32	10	9.5	4	1.5	E559 1015
<b>1020</b>		72	22	32	10	9.5	4	2.0	E559 1020
<b>1203</b>	<b>12.0</b>	83	26	38	12	11.2	4	0.3	E559 1203
<b>1205</b>		83	26	38	12	11.2	4	0.5	E559 1205
<b>1210</b>		83	26	38	12	11.2	4	1.0	E559 1210
<b>1215</b>		83	26	38	12	11.2	4	1.5	E559 1215
<b>1220</b>		83	26	38	12	11.2	4	2.0	E559 1220
<b>1230</b>		83	26	38	12	11.2	4	3.0	E559 1230
<b>1605</b>	<b>16.0</b>	92	32	44	16	15.0	4	0.5	E559 1605
<b>1610</b>		92	32	44	16	15.0	4	1.0	E559 1610
<b>1615</b>		92	32	44	16	15.0	4	1.5	E559 1615
<b>1620</b>		92	32	44	16	15.0	4	2.0	E559 1620
<b>1630</b>		92	32	44	16	15.0	4	3.0	E559 1630
<b>2005</b>	<b>20.0</b>	104	38	54	20	19.0	4	0.5	E559 2005
<b>2010</b>		104	38	54	20	19.0	4	1.0	E559 2010
<b>2015</b>		104	38	54	20	19.0	4	1.5	E559 2015
<b>2020</b>		104	38	54	20	19.0	4	2.0	E559 2020
<b>2030</b>		104	38	54	20	19.0	4	3.0	E559 2030

## **Endmills** Carbide, Regular, 4 Flute, R45-STF



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



Catalogue Code      Size Ref.

Item #

**E300**   **0300**

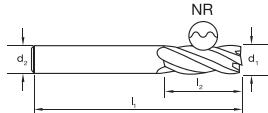
Catalogue Code	<b>E545</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AICN</b>
Colour Ring & Application	<b>HARMONY</b>
Geometry	R45 (Uneq. Flute)
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub>	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Chart Reference	Item #
<b>0400</b>	<b>4.0</b>	57	11	28	6	3.7	4		E545 0400
<b>0500</b>	<b>5.0</b>	57	13	28.5	6	4.6	4		E545 0500
<b>0600</b>	<b>6.0</b>	57	13	21	6	5.5	4		E545 0600
<b>0800</b>	<b>8.0</b>	63	19	27	8	7.5	4		E545 0800
<b>1000</b>	<b>10.0</b>	72	22	32	10	9.5	4		E545 1000
<b>1200</b>	<b>12.0</b>	83	26	38	12	11.2	4		E545 1200
<b>1600</b>	<b>16.0</b>	92	32	44	16	15.0	4		E545 1600
<b>2000</b>	<b>20.0</b>	104	38	54	20	19.0	4		E545 2000

**Endmills** Carbide, Regular, 3-4 Flute, R30-NR



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



Catalogue Code      Size Ref.

**E300**   **0300**

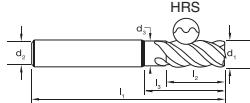


Catalogue Code	<b>E547</b>
Discount Group	B0210
Material	<b>VHM</b>
Surface Finish	<b>AlCrN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30 NR
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

## **Endmills** Carbide, Regular, 3-6 Flute, R45-HRS



- 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/mm<sup>2</sup>
  - AlCrN for longer tool life



Catalogue Code      Size Ref.

**E300**   **0300**

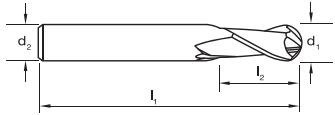
Catalogue Code	<b>E549</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AICN</b>
Colour Ring & Application	<b>HARMONY</b>
Geometry	R45 HRS
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub>	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	d <sub>2</sub>	d <sub>3</sub>	z	Item #
<b>0400</b>	<b>4.0</b>	57	11	28	6	3.7	3	E549 0400
<b>0500</b>	<b>5.0</b>	57	13	28.5	6	4.6	4	E549 0500
<b>0600</b>	<b>6.0</b>	57	16	21	6	5.5	4	E549 0600
<b>0800</b>	<b>8.0</b>	63	19	27	8	7.5	4	E549 0800
<b>1000</b>	<b>10.0</b>	72	22	32	10	9.5	4	E549 1000
<b>1200</b>	<b>12.0</b>	83	26	38	12	11.2	4	E549 1200
<b>1600</b>	<b>16.0</b>	92	32	44	16	15.0	5	E549 1600
<b>2000</b>	<b>20.0</b>	104	38	54	20	19.0	6	E549 2000

**Slot Drills** Carbide, Regular, Ballnose, 2 Flute, R30



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



Catalogue Code      Size Ref.

**E300** | **0300**

Item #

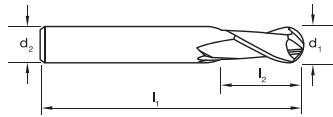


Catalogue Code	<b>E602</b>	<b>E605</b>
Discount Group	B0212	B0214
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAIN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	b6	b6

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



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



Catalogue Code      Size Ref.

Item #



Catalogue Code	<b>E551</b>	<b>E553</b>
Discount Group	B0208	B0210
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>AlCrN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	b6	b6

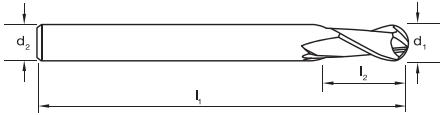
Size Ref.	d <sub>1</sub>	I <sub>1</sub>	I <sub>2</sub>	d <sub>2</sub>	z	Shaft Tolerance	Item #	Item #
<b>DIN 6527L</b>								
<b>0100</b>	1.0	38	2	3	2		•	•
<b>0150</b>	1.5	38	3	3	2		•	•
<b>0200</b>	2.0	57	6	6	2	E551 0200	E553 0200	
<b>0250</b>	2.5	57	7	6	2		•	•
<b>0300</b>	3.0	57	7	6	2	E551 0300	E553 0300	
<b>0350</b>	3.5	57	7	6	2		•	•
<b>0400</b>	4.0	57	8	6	2	E551 0400	E553 0400	
<b>0450</b>	4.5	57	8	6	2		•	•
<b>0500</b>	5.0	57	10	6	2	E551 0500	E553 0500	
<b>0600</b>	6.0	57	10	6	2	E551 0600	E553 0600	
<b>0800</b>	8.0	63	16	8	2	E551 0800	E553 0800	
<b>1000</b>	10.0	72	19	10	2	E551 1000	E553 1000	
<b>1200</b>	12.0	83	22	12	2	E551 1200	E553 1200	
<b>1600</b>	16.0	92	26	16	2		•	•
<b>2000</b>	20.0	104	32	20	2		•	•
<b>SUTTON STD</b>							<b>E311</b>	<b>E314</b>
<b>0159</b>	1/16	1-1/2	3/16	1/8	2		E311 0159	E314 0159
<b>0238</b>	3/32	1-1/2	5/16	1/8	2		E311 0238	E314 0238
<b>0318</b>	1/8	1-1/2	1/2	1/8	2		E311 0318	E314 0318
<b>0397</b>	5/32	2	9/16	3/16	2		E311 0397	E314 0397
<b>0476</b>	3/16	2	5/8	3/16	2		E311 0476	E314 0476
<b>0635</b>	1/4	2-1/2	3/4	1/4	2		E311 0635	E314 0635
<b>0794</b>	5/16	2-1/2	13/16	5/16	2		E311 0794	E314 0794
<b>0953</b>	3/8	2-1/2	7/8	3/8	2		E311 0953	E314 0953
<b>1111</b>	7/16	2-3/4	1	7/16	2		E311 1111	E314 1111
<b>1270</b>	1/2	3	1	1/2	2		E311 1270	E314 1270
<b>1588</b>	5/8	3-1/2	1-1/4	5/8	2		E311 1588	E314 1588
<b>1905</b>	3/4	4	1-1/2	3/4	2		E311 1905	E314 1905

- Available on request as special manufacture. Subject to lead time.
- \* Not available once current stock is depleted.

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



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



Catalogue Code      Size Ref.

E300 | 0300

▼ Item #

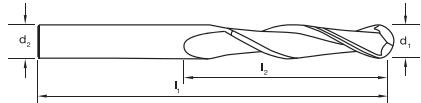


Catalogue Code	<b>E555</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AlCrN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

## **Slot Drills** Carbide, Extra Long, Ballnose, 2 Flute, R30



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



Catalogue Code      Size Ref.

**E300 0300**

Item #

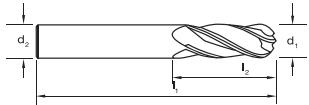


Catalogue Code	<b>E315</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b>Brt</b>
Colour Ring & Application	<b>Up to 1300N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

## **Endmills** Carbide, Regular, Ballnose, 4 Flute, R30



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



Catalogue Code      Size Ref.

**E300**   **O300**

▼ Item #



Catalogue Code	<b>E606</b>	<b>E607</b>
Discount Group	B0212	B0214
Material	<b>VHM</b>	<b>VHM</b>
Surface Finish	<b>Brt</b>	<b>TiAIN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30	R30
Shank Form (DIN 6535)	HA	HA
Shank Tolerance	b6	b6

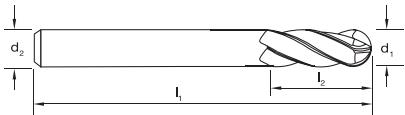
Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Shaft Tolerance	no	no
							Item #	Item #
0100	1.0	38	4	3	4		•	E607 0100
0150	1.5	38	4.5	3	4		•	E607 0150
0200	2.0	38	6	3	4		•	E607 0200
0250	2.5	38	9.5	3	4		•	E607 0250
0300	3.0	38	12	3	4		•	E607 0300
0350	3.5	50	12	4	4		•	E607 0350
0400	4.0	50	14	4	4		•	E607 0400
0450	4.5	50	16	6	4		•	E607 0450
0500	5.0	50	16	6	4		•	E607 0500
0600	6.0	50	19	6	4		•	E607 0600
0700	7.0	63	19	8	4		•	•
0800	8.0	63	20	8	4		•	E607 0800
0900	9.0	75	22	10	4		•	•
1000	10.0	75	22	10	4		•	E607 1000
1100	11.0	75	25	12	4		•	E607 1100
1200	12.0	75	25	12	4		•	E607 1200
1400	14.0	89	32	14	4		•	E607 1400
1600	16.0	89	32	16	4		•	E607 1600
1800	18.0	100	38	18	4		•	E607 1800
2000	20.0	100	38	20	4		•	E607 2000
2500	25.0	100	38	25	4		•	E607 2500

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

## **Endmills** Carbide, Long Reach, Ballnose, 4 Flute, R30



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



Catalogue Code      Size Ref.

**E300**   **0300**



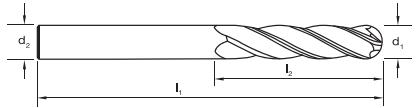
Catalogue Code	<b>E557</b>
Discount Group	B0210
Material	<b>VHM-ULTRA</b>
Surface Finish	<b>AICrN</b>
Colour Ring & Application	<b>Up to 1600N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

Size Ref.	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	d <sub>2</sub>	z	Chart Reference	Item #
<b>0200</b>	<b>2.0</b>	50	5	6	4		E557 0200
<b>0300</b>	<b>3.0</b>	60	8	6	4		E557 0300
<b>0400</b>	<b>4.0</b>	70	8	6	4		E557 0400
<b>0500</b>	<b>5.0</b>	80	10	6	4		E557 0500
<b>0600</b>	<b>6.0</b>	90	12	6	4		E557 0600
<b>0800</b>	<b>8.0</b>	100	14	8	4		E557 0800
<b>1000</b>	<b>10.0</b>	100	18	10	4		E557 1000
<b>1200</b>	<b>12.0</b>	110	22	12	4		E557 1200

## **Endmills** Carbide, Extra Long, Ballnose, 4 Flute, R30



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



Catalogue Code Size Ref.

E300 0300

▼ Item #



Catalogue Code	<b>E320</b>
Discount Group	B0208
Material	<b>VHM</b>
Surface Finish	<b><i>Brt</i></b>
Colour Ring & Application	<b>Up to 1300N/mm<sup>2</sup></b>
Geometry	R30
Shank Form (DIN 6535)	HA
Shank Tolerance	h6

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