

3 FLUTE 45° HELIX ALU-SPLITTER TVC GEOMETRY - 3.5xD ULTRA N PRO-COATED SOLID CARBIDE WITH CHIP DIVIDERS

The TVC end mills are optimally suited modern milling strategies such as dynamic, trochoidal or high speed profile milling. Cutting edge lengths of 3.5xD, reinforced cores and specially developed chip divider geometries allow high working depths with maximum process reliability, superior chip control and supreme surface finish.

- Roughing or finishing at cutting depths up to 3.5xD
- Superior chip management at large depth of cut due to chip dividers
- ULTRA-N PRO special smooth coating enables the longest tool life whilst maintaining an ultra-sharp cutting edge for non-ferrous machining
- Edge protection chamfer prep
- Designed for machining aluminium, plastic, brass, bronze and copper



Radial chip dividers



Face geometry

ATORN®


Diameter	Shank Diameter	Flute Length	Overall Length	Feed Rate (fz mm/tooth)	Plain Shank		Weldon Shank	
					Order Code	Price	Order Code	Price
6	6	21	62	0.07	16665700	£47.00	16665701	£47.00
8	8	28	68	0.09	16665705	£53.00	16665706	£53.00
10	10	35	80	0.1	16665710	£68.96	16665711	£68.96
12	12	42	93	0.11	16665715	£99.00	16665716	£99.00
16	16	56	108	0.12	-	-	16665720	£146.95
20	20	70	126	0.16	-	-	16665725	£235.26

Material Applications & Cutting Speed (m/min)

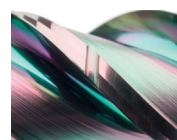
Carbon Steels -HB225	Alloy Steels HB225-325	Pre Hard. Steels HRc30-40	Hardened Steels		High Hard. Steels HRc55-70	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron	Aluminium		Brass		Bronze		Plastic
			HRc40-45	HRc45-55						Short	Long	Short	Long	Short	Long	
										<220	<470	<210	<275	<195	<230	<385

Maximum axial depth of cut 3.5xD. Recommended radial depth of cut: start at 0.15-0.5xD and increase according to machine load and chip management.

3 FLUTE 45° HELIX ALU-SPLITTER TVC GEOMETRY - 3.5xD ULTRA N PRO-COATED SOLID CARBIDE WITH CHIP DIVIDERS & CORNER RADIUS

The TVC end mills are optimally suited modern milling strategies such as dynamic, trochoidal or high speed profile milling. Cutting edge lengths of 3.5xD, reinforced cores and specially developed chip divider geometries allow high working depths with maximum process reliability, superior chip control and supreme surface finish.

- Roughing or finishing at cutting depths up to 3.5xD
- Superior chip management at large depth of cut due to chip dividers
- ULTRA-N PRO special smooth coating enables the longest tool life whilst maintaining an ultra-sharp cutting edge for non-ferrous machining
- Corner radius
- Designed for machining aluminium, plastic, brass, bronze and copper



Radial chip dividers



Face geometry

ATORN®


Diameter	Shank Diameter	Flute Length	Length Below Shank	Neck Diameter	Overall Length	Corner Radius	Feed Rate (fz mm/tooth)	Plain Shank	
								Order Code	Price
6	6	25	31	5.8	71	0.5	0.04	16666200	£49.00
6	6	25	31	5.8	71	1	0.04	16666205	£49.00
8	8	33	41	7.7	80	0.5	0.05	16666210	£55.00
8	8	33	41	7.8	80	1	0.05	16666215	£55.00
8	8	33	41	7.8	80	2	0.05	16666220	£55.00
10	10	41	51	9.7	95	0.5	0.07	16666225	£77.79
10	10	41	51	9.7	95	1	0.07	16666230	£77.79
10	10	41	51	9.7	95	2	0.07	16666235	£77.79
12	12	49	61	11.7	109	0.5	0.08	16666240	£99.00
12	12	49	61	11.7	109	1	0.08	16666245	£99.00
12	12	49	61	11.7	109	2	0.08	16666250	£99.00
16	16	65	81	15.7	132	2	0.1	16666255	£175.00
16	16	65	81	15.7	132	3	0.1	16666260	£175.00

Material Applications & Cutting Speed (m/min)

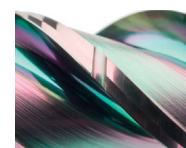
Carbon Steels -HB225	Alloy Steels HB225-325	Pre Hard. Steels HRc30-40	Hardened Steels		High Hard. Steels HRc55-70	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron	Aluminium		Brass		Bronze		Plastic
			HRc40-45	HRc45-55						Short	Long	Short	Long	Short	Long	
										<200	<425	<190	<250	<175	<210	<350

Maximum axial depth of cut 3.5xD. Recommended radial depth of cut: start at 0.15-0.5xD and increase according to machine load and chip management.

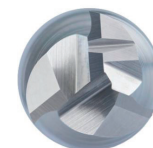
3 FLUTE 40° HELIX ALU-SPLITTER HPC IC GEOMETRY - THROUGH COOLANT HIGH GLOSS POLISHED SOLID CARBIDE WITH CHIP DIVIDERS

The Alu-Splitter IC features chip dividers on the front face and side of the flutes, complimented by internal coolant holes and uneven pitch. The unique geometry gives incredible performance and chip management in plunge milling, pocketing, ramping, slotting and end milling applications for the highest of metal removal rates.

- Roughing or finishing at cutting depths up to 2xD
- Internal coolant
- Superior chip management in all milling applications due to chip dividers on front face and flutes
- High gloss polished flutes
- Edge protection corner radius
- Designed for machining aluminium, plastic, brass, bronze and copper



Radial chip dividers



Axial chip dividers


ATORN®

Diameter	Shank Diameter	Flute Length	Length Below Shank	Neck Diameter	Overall Length	Corner Radius	Feed Rate (fz mm/tooth)	Plain Shank	
								Order Code	Price
4	6	12	20	3.7	50	0.005	0.015	16655010	£20.03
5	6	15	20	4.7	50	0.005	0.022	16655020	£21.01
6	6	16	20	5.5	50	0.005	0.031	16655030	£42.44
8	8	20	30	7.4	64	0.005	0.045	16655040	£49.59
10	10	22	32	9.2	70	0.1	0.062	16655050	£60.66
12	12	25	37	11	75	0.1	0.077	16655060	£93.91
16	16	32	46	15	90	0.1	0.122	16655070	£130.27

Material Applications & Cutting Speed (m/min)

Carbon Steels ~HB225	Alloy Steels HB225~325	Pre Hard. Steels HRc30~40	Hardened Steels		High Hard. Steels HRc55~70	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron	Aluminium		Brass		Bronze		Plastic
			HRc40~45	HRc45~55						Short	Long	Short	Long	Short	Long	
										<385	<605	<200	<250	<200	<250	<385

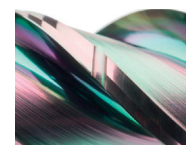
Maximum axial depth of cut 2xD in slotting/profiling applications.

Recommended radial depth of cut for side cutting: start at 0.15-0.5xD and increase according to machine load and chip management.

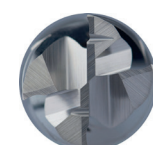
4 FLUTE 45° HELIX ALU-SPLITTER HPC IC GEOMETRY - THROUGH COOLANT HIGH GLOSS POLISHED SOLID CARBIDE WITH CHIP DIVIDERS

The Alu-Splitter IC features chip dividers on the front face and side of the flutes, complimented by internal coolant holes, variable helix and uneven pitch. The unique geometry gives incredible performance and chip management in plunge milling, pocketing, ramping, slotting and end milling applications for the highest of metal removal rates.

- Roughing or finishing at cutting depths up to 2xD
- Internal coolant
- 4 flutes for extreme performance
- Superior chip management in all milling applications due to chip dividers on front face and flutes
- High gloss polished flutes
- Edge protection chamfer prep
- Designed for machining aluminium, plastic, brass, bronze and copper



Radial chip dividers



Axial chip dividers


ATORN®

Diameter	Shank Diameter	Flute Length	Length Below Shank	Neck Diameter	Overall Length	Chamfer Edge Prep	Feed Rate (fz mm/tooth)	Plain Shank	
								Order Code	Price
6	6	13	20	5.5	57	0.1	0.073	16655300	£61.20
8	8	20	26	7.4	64	0.1	0.097	16655310	£76.45
10	10	22	30	9.2	72	0.2	0.121	16655320	£96.82
12	12	26	36	11	83	0.2	0.146	16655330	£118.25
16	16	32	42	15	92	0.2	0.194	16655340	£191.94
20	20	38	52	19	104	0.3	0.243	16655350	£294.08

Material Applications & Cutting Speed (m/min)

Carbon Steels ~HB225	Alloy Steels HB225~325	Pre Hard. Steels HRc30~40	Hardened Steels		High Hard. Steels HRc55~70	Stainless Steel	Titanium	HRSA's e.g. Inconel	Cast Iron	Aluminium		Brass		Bronze		Plastic
			HRc40~45	HRc45~55						Short	Long	Short	Long	Short	Long	
										<680	<850	<220	<270	<220	<270	700

Maximum axial depth of cut 2xD. Recommended radial depth of cut: start at 0.15-0.5xD and increase according to machine load and chip management.

Recommended radial depth of cut for side cutting: start at 0.15-0.5xD and increase according to machine load and chip management.