

ONSRUD

Honeycomb Cutters



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29-000



HSS Hollow Core Cutters

This specialized cutter is designed to vertically cut the honeycomb cells producing a clean, flag free edge. The core material will remain attached at the bottom and can be removed using one of our valve style honeycomb cutters. This product along with our 31-100 or 30-000 series tools is an effective combination to create pockets in honeycomb core and get a perfectly clean edge.

Usage Honeycomb

Part Number	Cutting DIA	Flute LGTH	SHK DIA	OAL
29-003	1/4	1-1/2	1/4	3-3/4
29-006	3/8	1-7/8	3/8	3-3/4
29-009	1/2	2-7/8	1/2	5
29-012	5/8	2-7/8	5/8	5
29-015	3/4	2-7/8	3/4	5

29-050



Diamond Grit Hogger

Diamond grit hoggers are used on abrasive cores (graphite, phenolic, or fiberglass) in order to achieve long tool life. The tools are available in a ball nose version and as a traditional hogger capable of holding existing honeycomb blades. A 35% weight reduction has been designed into the larger diameter tools resulting in better performance on 3 or 5 axis machines.

Usage Honeycomb

BALL NOSE

Part Number	Cutting DIA	Flute LGTH	SHK DIA	OAL
29-053	1/4 (6.35mm)	1 1/4	1/4	4
29-058	3/8 (9.52mm)	2 1/2	1/2	4
29-063	1/2 (12.7mm)	3	1/2	5
29-068	3/4 (19.05mm)	3	1/2	5
29-074	1 (25.4mm)	2	3/4	4

NEW

HONEYCOMB HOGGER					CUTTING BLADE OPTIONS							SPARE PARTS	
Part #	Cutting Diameter	Hogger Depth	Shank DIA	OAL	Blade Diameter	HSS	HSS w/Teeth	Solid Carbide	Solid Carbide w/Teeth	Diamond Plated	HSS Saw	Adapter Ring	Screw
29-052	1/4 (6.35mm)	1 1/4	1/4	4	-	-	-	-	-	-	-	-	-
29-057	.345 (8.76mm)	2 1/2	1/2	4	3/8 (9.52mm)	30-016	30-316	-	-	-	-	-	HRD51646
29-062	.470 (11.94mm)	3	1/2	5	1/2 (12.7mm)	30-017	30-317	-	-	-	-	-	HRD51646
29-067	.720 (18.28mm)	3	1/2	5	3/4 (19.05mm)	-	-	30-015	30-318	-	-	-	30-011-2
29-072	.970 (24.63mm)	1	1/2	3	1 (25.4mm)	-	-	30-012	30-313	30-113	30-213	-	30-011-2
29-073'	.970 (24.63mm)	2	3/4	5	1 (25.4mm)	-	-	30-012	30-313	30-113	30-213	-	30-011-2
29-078	1.470 (37.33mm)	1	1/2	3	1 1/2 (38.10mm)	-	-	30-014	30-314	30-114	30-214	30-020-3	30-020-4
29-079'	1.470 (37.33mm)	2	3/4	5	1 1/2 (38.10mm)	-	-	30-014	30-314	30-114	30-214	30-020-3	30-020-4
29-083	1.742 (44.24mm)	1	1/2	3	1.772 (45mm)	-	-	30-026	30-326	30-126 ²	30-226 ²	30-020-3	30-020-4
29-084'	1.742 (44.24mm)	2	3/4	5	1.772 (45mm)	-	-	30-026	30-326	30-126 ²	30-226 ²	30-020-3	30-020-4
29-088	1.970 (50.03mm)	1	5/8	3	2 (50.8mm)	-	-	30-022	30-322	30-122	30-222	30-020-3	30-020-4
29-089'	1.970 (50.03mm)	2	3/4	5	2 (50.8mm)	-	-	30-022	30-322	30-122	30-222	30-020-3	30-020-4
29-093	2.450 (62.23mm)	1	5/8	3	2.480 (63mm)	-	-	30-036	30-336	30-136	30-236	30-030-3	30-030-4
29-095	2.970 (75.43mm)	1	3/4	3	3 (76.20mm)	-	-	30-032	30-332	30-132	30-232	30-030-3	30-030-4
29-096'	2.970 (75.43mm)	1	3/4	4	3 (76.20mm)	-	-	30-032	30-332	30-132	30-232	30-030-3	30-030-4
29-098	3.970 (100.83mm)	1	3/4	3	4 (101.6mm)	-	-	30-042	30-342	30-142	30-242	30-040-3	30-040-4
29-099'	3.970 (100.83mm)	1	3/4	4	4 (101.6mm)	-	-	30-042	30-342	30-142	30-242	30-040-3	30-040-4

1 = non-stock standard. 4 week lead time

2 = 50mm diameter honecomb blade

29-100

Solid Carbide Honeycomb Hogger



NEW

Designed to be a versatile tool and cut most honeycomb core materials. The solid carbide body offers long tool life while the proven hogger geometry shreds the core and evacuates chips. The long flute length allows for deep pocket applications and can also be used to surface large areas.

Usage Honeycomb

Part Number	Cutting DIA	Flute LGTH	SHK DIA	OAL
29-110	1/4 (6.35mm)	1-1/4	1/4	4
29-115	3/8 (9.52mm)	2	3/8	4
29-125	1/2 (12.7mm)	3	1/2	6
29-130	1/2 (12.7mm)	4-1/2	1/2	6-1/2
29-140	3/4 (19.05mm)	3	3/4	6
29-145	3/4 (19.05mm)	4-1/2	3/4	6-1/2

METRIC

Part Number	Cutting DIA	Flute LGTH	SHK DIA	OAL
29-120	12 (.472")	60	12	150
29-135	16 (.629")	80	16	150

30-000

Replaceable Ring Type Honeycomb Cutter



These tools are for contouring, carving and chamfering cuts of .25" or less. The unique patented holding system prevents the solid carbide blades from coming out of the holder if it is fractured.

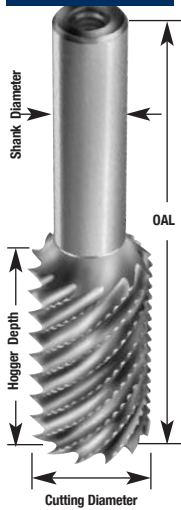
The HSS saw blades and the diamond plated blades dish on the bottom so they clear the cut core finish like the hollow ground solid carbide style rings. The solid carbide rings may be reground several times at the factory making them very economical to use.

The HSS saw and diamond plated blades are disposable, offering the convenience of a constant diameter.

Usage For contouring, carving and chamfering cuts

SHANK ASSEMBLY			CUTTING BLADE OPTIONS				SPARE PARTS	
Part #	Blade Diameter	Shank DIA	Solid Carbide	Solid Carbide with Teeth	Diamond Plated	HSS Saw	Adapter Ring	Screw
30-011	1" (25.4mm)	1/2	30-012	30-313	30-112	30-213	-	30-011-2
30-021	2" (50.8mm)	1/2	30-022	30-322	30-122	30-222	30-020-3	30-020-4
30-031	3" (76.2mm)	1/2	30-032	30-332	30-132	30-232	30-030-3	30-030-4
30-041	4" (101.6mm)	1/2	30-042	30-342	30-142	30-242	30-040-3	30-040-4

30-300



HSS Integral Shank Honeycomb Hogger Cutter

**High Speed Steel Hoggers • High Speed Replaceable Saw Blade
Solid Carbide Replaceable Blade • Diamond Plated Replaceable Blade**

The spiral hogger geometry ground integral to the shank allows for faster feed rates and deeper cuts than any previous cutter. The availability of several different blades makes this cutter suitable for most core types. The new hogger design also imparts less force as it evacuates and shreds scrap.

Usage CNC machining of honeycomb core



HONEYCOMB HOGGER					CUTTING BLADE OPTIONS					SPARE PARTS	
Part #	Cutting Diameter	Hogger Depth	Shank DIA	OAL	Blade Diameter	Solid Carbide	Solid Carbide w/Teeth	Diamond Plated	HSS Saw	Adapter Ring	Screw
30-310	7/8 (22.22mm)	1 1/2	1/2	3 1/2	1 (25.4mm)	30-012	30-313	30-113	30-213	-	30-011-2
30-315	1 1/4 (31.75mm)	1 1/2	1/2	3 1/2	1 1/2 (38.1mm)	30-014	30-314	30-114	30-214	30-020-3	30-020-4
30-321	1 3/4 (44.45mm)	1 1/2	1/2	3 1/2	2 (50.8mm)	30-022	30-322	30-122	30-222	30-020-3	30-020-4
30-331	2 3/4 (69.85mm)	1	1/2	3 1/2	3 (76.2mm)	30-032	30-332	30-132	30-232	30-030-3	30-030-4
30-341	3 3/4 (95.25mm)	1	3/4	3 1/2	4 (101.6mm)	30-042	30-342	30-142	30-242	30-040-3	30-040-4

30-700



Reduced Weight Honeycomb Cutter

35% weight reduction has been designed into the larger diameter tools resulting in better performance on 3 or 5 axis machines. Part lifting and flagging have also been reduced due to the new tooth and flute design. Existing honeycomb blades will mount on these hoggers.

Usage CNC Machining of Honeycomb Core

NEW

HONEYCOMB HOGGER					CUTTING BLADE OPTIONS							SPARE PARTS	
Part #	Cutting Diameter	Hogger Depth	Shank DIA	OAL	Blade Diameter	HSS	HSS w/Teeth	Solid Carbide	Solid Carbide w/Teeth	Diamond Plated	HSS Saw	Adapter Ring	Screw
30-703	.345 (8.76mm)	1	1/2	3	3/8 (9.52mm)	30-016	30-316	-	-	-	-	-	HRD51646
30-705	.470 (11.93mm)	1	1/2	3	1/2 (12.7mm)	30-017	30-317	-	-	-	-	-	HRD51646
30-707	.720 (18.28mm)	1	1/2	3	3/4 (19.05mm)	-	-	30-015	30-318	-	-	-	30-011-2
30-710	.970 (24.63mm)	1	1/2	3	1 (25.4mm)	-	-	30-012	30-313	30-113	30-213	-	30-011-2
30-715	1.470 (37.33mm)	1	1/2	3	1 1/2 (38.10mm)	-	-	30-014	30-314	30-114	30-214	30-020-3	30-020-4
30-720	1.742 (44.24mm)	1	1/2	3	1.772 (45mm)	-	-	30-026	30-326	30-126 ¹	30-226 ¹	30-020-3	30-020-4
30-725	1.970 (50.03mm)	1	5/8	3	2 (50.8mm)	-	-	30-022	30-322	30-122	30-222	30-020-3	30-020-4
30-730	2.450 (62.23mm)	1	5/8	3	2.480 (63mm)	-	-	30-036	30-336	30-136	30-236	30-030-3	30-030-4
30-735	2.970 (75.43mm)	1	3/4	3	3 (76.20mm)	-	-	30-032	30-332	30-132	30-232	30-030-3	30-030-4
30-740	3.970 (100.83mm)	1	3/4	3	4 (101.6mm)	-	-	30-042	30-342	30-142	30-242	30-040-3	30-040-4

1 = 50mm diameter honecomb blade

31-000

High Speed Steel Cutter



Designed primarily for use on aluminum core, offering the versatility of smaller sizes for use on hand-held machines in field or maintenance type repairs. This cutter offers the strength of an integral shank and blade that has an edge sharpness unattainable with any other material. This sharpness and the relieved bottom yield part surfaces that require a minimum of preparation before bonding operation.

Usage Aluminum Core

Part Number	Cutting DIA	SHK DIA	OAL
31-010	1/2	1/4	2-1/16
31-015	3/4	1/4	2-3/32
31-020	1	1/4	2-1/8
31-025	1-1/2	1/2	2-1/4
31-030	2	1/2	2-3/4
31-040	3	1/2	2-15/16

Core Type	Rating
Aluminum, Lo Density (Less than 5#/cuft)	1
Aluminum, Hi Density (More than 5#/cuft)	2
Paper	2
Paper, Reinforced	N
Fiberglass	N
Phenolic	N
Polycarbonate	N
Aramid	N

1 - Excellent, 2 - Good, N - Not Recommended

31-100

High Speed Steel Honeycomb Cutter With Teeth



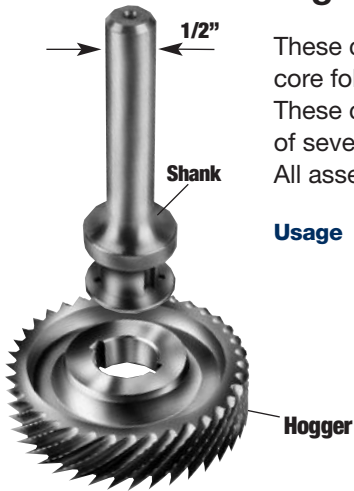
Small diameter honeycomb cutters were designed to offer the flexibility of cutting small slots or pockets in honeycomb core. The tools are versatile and can be used on CNC machines or hand held machines for field or maintenance type repairs.

Usage For contouring, carving, pocketing, and chamfer cuts

Part Number	Cutting DIA	SHK DIA	OAL
31-102TCN	3/8	1/4	3
31-104TCN	1/2	1/4	3
31-106TCN	5/8	1/4	3
31-108TCN	3/4	1/4	3

32-000

High Speed Steel Hogger



These cutters are specifically designed for fast (low force) removal of excess core followed by a final finish pass to obtain excellent finishes with one tool. These cutters enable cuts of up to .60" depths in a single pass. The availability of several different blades makes this cutter suitable for most core types. All assemblies require a shank, hogger and blade.

Usage Fast removal of excess core



HONEYCOMB HOGGER			SHANK		CUTTING BLADE OPTIONS					SPARE PARTS	
Part #	Cutting Diameter	Hogger Depth	Part #	Shank DIA	Blade Diameter	Solid Carbide	Diamond Plated	HSS Wavy Ring	HSS Saw	Adapter Ring	Screw
32-022	1.732 (44mm)	.629 (16mm)	32-021	1/2	1.771 (45mm)	32-026	-	32-023	-	-	-
					1.968 (50mm)	-	32-029*	-	32-027*	32-028	-
32-032	2.421 (61.5mm)	.629 (16mm)	32-031	1/2	2.480 (63mm)	32-036	-	32-033	-	-	-
					2.952 (75mm)	-	32-039*	-	32-037*	32-038	-

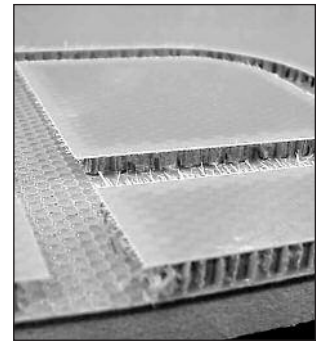
34-000

Aircraft Panel Tools



This modular tool is designed to produce slots in composite panels so potting compound can be applied to strengthen the edge. This tool consists of a PCD arbor which accepts a diamond grit or HSS under cutting tool to be screwed into it.

Usage HCC Panels



Part Number	Cutting DIA	Flute LGTH	SHK DIA	
34-008	1/2	-	1/2	Arbor (non-cutting)
34-010	1/2	1/4	1/2	PCD Arbor
34-022	7/8	0.130	n/a	Diamond Grit Cutter
34-024	7/8	0.250	n/a	Diamond Grit Cutter
34-026	7/8	0.380	n/a	Diamond Grit Cutter
34-028	7/8	0.500	n/a	Diamond Grit Cutter
34-030	7/8	0.630	n/a	Diamond Grit Cutter
34-042	7/8	0.130	n/a	HSS Cutter
34-044	7/8	0.250	n/a	HSS Cutter
34-046	7/8	0.380	n/a	HSS Cutter
34-048	7/8	0.500	n/a	HSS Cutter
34-050	7/8	0.630	n/a	HSS Cutter

Technical Data Sheets

29-000	HONEYCOMB CORE	ALUMINUM		NOMEX		PAPER	
	Part #	RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate
	29-003 (1/4")	500-10,000	100 IPM	500-10,000	120 IPM	500-10,000	120 IPM
	29-006 (3/8")	500-10,000	100 IPM	500-10,000	120 IPM	500-10,000	120 IPM
	29-009 (1/2")	500-10,000	100 IPM	500-10,000	120 IPM	500-10,000	120 IPM
	29-012 (5/8")	500-10,000	100 IPM	500-10,000	120 IPM	500-10,000	120 IPM
	29-015 (3/4")	500-10,000	100 IPM	500-10,000	120 IPM	500-10,000	120 IPM

29-050	SPINDLE SPEED		CORE TYPE	Feed Rate	SPINDLE SPEED		29-100
	DIA	Max RPM			Feed Rate	Max RPM	
	1/4	25,000	NR	Aluminum, less than 5#/cuft	100	25,000	1/4
	3/8	25,000	NR	Aluminum, More than 5#/cuft	100	25,000	3/8
	1/2	25,000	800	Paper based	400	25,000	1/2
	3/4	25,000	800	Paper, based w/Fiber Reinforcement	800	25,000	3/4
	1	25,000	800	Fiberglass	600		
	1-1/2	18,000	800	Phenolic	600		
	1-3/4	18,000	NR	Carbon Fiber	800		
	2	16,500	100	Aramid, less than 5#/cuft	800		
	2-1/2	15,000	100	Aramid, More than 5#/cuft	800		
	3	14,000					
	4	12,000					

30-000/ 30-300 30-700	FEEDS & SPEEDS		FEED RATES				SPINDLE SPEED	
	Core Type		Solid Carbide	Solid Carbide w/Teeth	Diamond Saw	HSS	DIA	MAX RPM
	Aluminum, Less than 5#/cuft		100	100	NR	150	1/4	25,000
	Aluminum, More than 5#/cuft		100	100	NR	100	3/8	25,000
	Paper based		400	400	NR	250	1/2	25,000
	Paper, based with Fiber Reinforcement		800	800	400	150	3/4	25,000
	Fiberglass		600	600	600	NR	1	25,000
	Phenolic		200	200	400	NR	1-1/2	18,000
	Carbon Fiber		NR	NR	800	NR	1-3/4	18,000
	Aramid, Less than 5#/cuft		800	800	400	150	2	16,500
	Aramid, More than 5#/cuft		800	800	400	NR	2-1/2	15,000
							3	14,000
							4	12,000

Note: 30-300 assembly requires one (1) hogger and one (1) blade

31-000/ 32-000	FEEDS & SPEEDS		FEED RATES					SPINDLE SPEED		
	Core Type		Solid Carbide	Diamond Plated	HSS Saw	HSS Wavy	HSS (31-000)	HSS (31-100)	DIA	MAX RPM
	Aluminum, Less than 5#/cuft		100	NR	150	100	100-140	90-140	3/8	25,000
	Aluminum, More than 5#/cuft		100	NR	100	100	70	70	1/2	25,000
	Paper based		300	NR	200	300	50	50	3/4	25,000
	Paper, based w/Fiber Reinforcement		400	300	600	300	100-150	100-150	1	25,000
	Fiberglass		NR	600	NR	NR	NR	NR	1-1/2	25,000
	Phenolic		NR	600	NR	NR	NR	NR	1-3/4	25,000
	Carbon Fiber		NR	800	NR	NR	NR	NR	2	18,000
	Aramid, Less than 5#/cuft		200	NR	150	200	100-150	100-150	2-1/2	18,000
	Aramid, More than 5#/cuft		200	400	NR	NR	NR	NR	3	18,000

34-000	Core Type	Cutter	RPM	Feed Rate	Cut Direction
	Fiberglass panels with paper core (Nomex)	Diamond Grit	18,000	220 lpm	Conventional
	Aluminum panels with aluminum core	HSS Saw	16,000	120 lpm	Conventional



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