AHB Tooling & Machinery, Inc.
Complete Metalworking Solutions
Roseville Saginaw & Jackson, MI
ISO Certified
(800) 991-4225
www.ahbinc.com
customerservice@ahbinc.com

GOLD•QUAD

Diameters:
2.00" - 4.00"

Depth of Cut:
.45"

Cutter Series:
5J5P

Insert Style:
SDES13, SDMS13,
ZDES13, ZDMS13

Insert Grades:
IN2530, IN2535,
IN4005, IN4015,
IN4030, IN4035

Materials:
Iron, Steel, Stainless Steel,
Hi-Temp Alloys

90° Shoulder Face Mill, Multiple Quad Insert Geometry Options

Features

- 90° shoulder milling geometry with 4 indexes
- .45" depth of cut availability
- Corner radius options R.031", .047", .062", .093", .125", & .250"
- Rake face insert geometries for hi-shear and hi-efficiency
- Flat-top insert geometries for edge strength
- Chip splitter geometry available
- Utilizes same insert pocket as GOLD•QUAD long edge, plunge and hi-feed lines
- Coolant through the tool

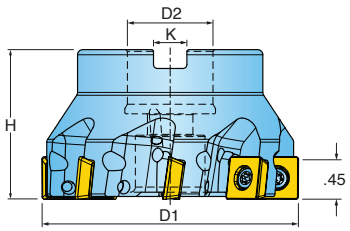
NEW PRODUCT ANNOUNCEMENT 2016
UPDATE

Member IMC Group
Ingersoll Cutting Tools

GOLD QUAD

SERIES 5J5P FACE MILLS

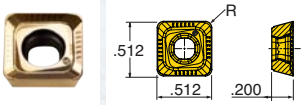
90° FACE MILL



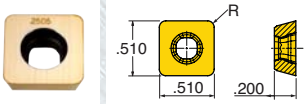
Cutter Number	D1 Effective Diameter	Number of Inserts	H Height	D2 Bore Diameter	K Keyway	Ramp Angle
5J5P-20R01	2.000	5	1.570	0.750	0.312	3.0
5J5P-25R01	2.500	6	1.570	0.750	0.312	2.0
5J5P-30R01	3.000	8	1.750	1.000	0.375	1.5
5J5P-40R01	4.000	10	2.375	1.500	0.625	1.0

INSERTS

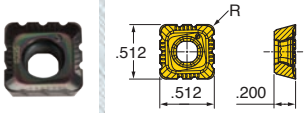
SDMS



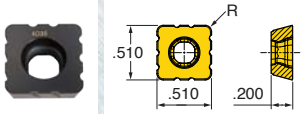
SDES



ZDMS



ZDES



INSERTS GRADES

Part Number	Application	R Corner	Indexes	Grades					
				IN2530	IN2535	IN4005	IN4015	IN4030	IN4035
SDMS130512R-PP	Positive Geometry	R.047	4						
SDMS130516R-PP	Positive Geometry	R.062	4	•	•	•		•	•
ZDMS130515R-PH	Positive w/ Splitters	R.060	4					•	•
SDES130508N-PF1	Flat Top - Keen Edge	R.031	4					•	•
SDES130516N-PF1	Flat Top - Keen Edge	R.062	4					•	•
SDES130524N-PF1	Flat Top - Keen Edge	R.093	4					•	•
SDES130532N-PF1	Flat Top - Keen Edge	R.125	4					•	•
ZDES130515R-001	Flat Top w/ Splitters - Keen Edge	R.060	4						•
ZDES130515R	Flat Top w/ Splitters - Landed Edge	R.060	4			•	•	•	
SDES130508N-PF	Flat Top - Landed Edge	R.031	4			•	•	•	•
SDES130516N-PF	Flat Top - Landed Edge	R.062	4			•	•	•	•
SDES130524N-PF	Flat Top - Landed Edge	R.093	4			•		•	
SDES130532N-PF	Flat Top - Landed Edge	R.125	4			•		•	

GOLD QUAD

SERIES 5J5P-R FACE MILLS

90° FACE MILL FOR LARGE CORNER RADIUS


Facing

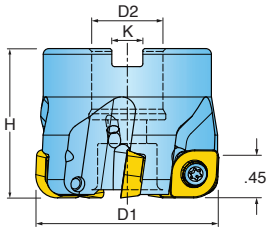

Shoulder Milling


Channeling


Ramping


Corkscrew


Coolant

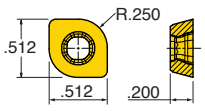


Cutter Number	D1 Effective Diameter	Number of Inserts	H Height	D2 Bore Diameter	K Keyway	Ramp Angle
5J5P-20R01-R	2.000	5	1.570	0.750	0.312	3.0
5J5P-25R01-R	2.500	6	1.570	0.750	0.312	2.0
5J5P-30R01-R	3.000	8	1.750	1.000	0.375	1.5
5J5P-40R01-R	4.000	10	2.375	1.500	0.625	1.0

* Recommend .125" or less depth of cut increments.

INSERTS

SDES63**



INSERTS GRADES

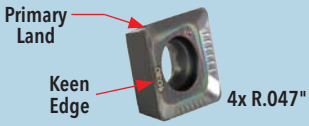
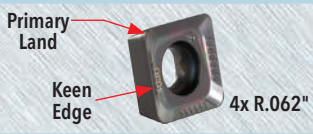
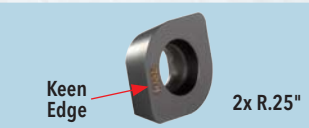
Part Number	Corner	No. of Indexes	Application	Grades		
				IN4005	IN4030	IN4035
SDES130563R	0.250 R	2	Flat Top - Landed Edge	•	•	
SDES130563R-001	0.250 R	2	Flat Top - Keen Edge		•	•

HARDWARE

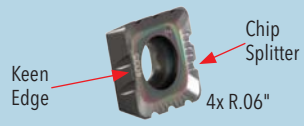
Cutter Number	Insert Screw	Driver Handle	Driver Blade	Retention Bolt	Optional Torque Driver Handle	Optional Torque Driver Bit	Optional Coolant Bolt
5J5P-20	SM40-100-R0	DS-A00T	DS-T156B	SD-06-46	DT-35-02	DS-T15B1	SD-06-89
5J5P-25	SM40-100-R0	DS-A00T	DS-T156B	SD-06-46	DT-35-02	DS-T15B1	SD-06-89
5J5P-30	SM40-100-R0	DS-A00T	DS-T156B	SD-08-46	DT-35-02	DS-T15B1	SD-08-92
5J5P-40	SM40-100-R0	DS-A00T	DS-T156B	SD-12-82	DT-35-02	DS-T15B1	SD-12-99

GOLD QUAD

INSERT STYLES

Insert	Part Number	Corner	Indexes	Description
	SDMS130512R-PP	R.047	4	**RAKE FACE – KEEN EDGE** Positive rake insert with keen edge. Equipped with primary land for reinforced edge strength in roughing cuts. Excellent insert chioice for light-duty machines milling Stainless Steel and Nickel Alloy materials in stable conditions.
	SDMS130516R-PP	R.062	4	
	SDES130508N-PF1	R.031	4	**FLAT FACE – KEEN EDGE** The flat face combined with primary land brings durability to the keen edge, making it a solid choice forr less rigid conditions. Best geometry choice for steels and irons.
	SDES130516N-PF1	R.062	4	
	SDES130524N-PF1	R.093	4	
	SDES130532N-PF1	R.125	4	
	SDES130563R-001	R.25	2	
	SDES130508N-PF	R.031	4	**FLAT FACE - LANDED EDGE** The flat faced combined with primary land and landed edge offers ultimate edge strength. This is the best choice to battle interrupted cuts and diffuse depth of cut notching.
	SDES130516N-PF	R.062	4	
	SDES130524N-PF	R.093	4	
	SDES130532N-PF	R.125	4	
	SDES130563R	R.25	2	

INSERT STYLES (CONT.)

Insert	Part Number	Corner	Indexes	Description
	ZDMS130515R-PH	R.06	4	RAKE FACE - KEEN EDGE - CHIP SPLITTERS Chip slitters are highly recommended for channel milling. They produce small chips that are more easily evacuted. Chip splitter geometry promotes more efficient cutting because it draws less horse power. Target with stainless steels and hi-temp alloys.
	ZDES130515R-001	R.06	4	FLAT FACE - KEEN EDGE - CHIP SPLITTERS Good choice when needing chip control and strength to battle vibration. Chip slitters are highly recommended for channel milling. They produce small chips that are more easily evacuted. Chip splitter geometry promotes more efficient cutting because it draws less horse power. Target with steels and irons.
	ZDES130515R	R.06	4	FLAT FACE - LANDED EDGE - CHIP SPLITTERS Good choice when needing chip control and strength to battle vibration.

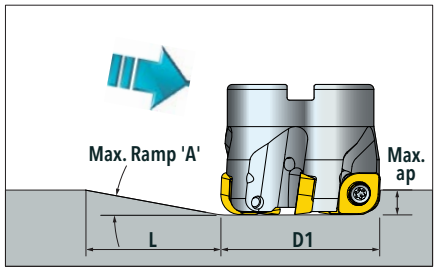
OPERATING GUIDELINES

SERIES 5J5P

Material		Brinnell Hardness	SFM	Feed per Insert	Grades				Coolant
					IN4005	IN4030 IN2530	IN4035 IN2535	IN4015	
Cast Iron	Gray	150 – 250	250 – 800	.005 – .009	2			1	No
	Nodular		200 – 700						
Steel	Low Carbon 1018, 8620	100 – 250	250 – 800	.004 – .009	2	1			No
	High Carbon F-6180	250 – 400	350 – 500	.005 – .009					
	Alloyed Steel 4140, 4340	150 – 300	250 – 700						
	Tool Steel A-6, D-1, D-2	Up to 300							
Stainless Steel	300 Series, 304, 316	–	250 – 550	.004 – .007	3	2	1		May not be required at high speeds
	400 Series 15-5 PH	Up to 320	300 – 600	.005 – .009					
	13-8 PH	–	200 – 400	.004 – .007					Yes
Nickel Alloys	Inconel, Hastelloy, Waspalloy	–	75 – 120	.004 – .007	2	3	1		Yes
Titanium	6AL-4V	–	100 – 150	.004 – .007	3	2	1		Yes

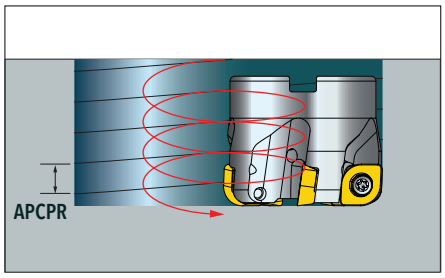
GOLD QUAD

STRAIGHT LINE RAMPING



D1 Cutter Diameter	A Ramping Angle	L	Max. ap
2.00	3.0	8.50	0.45
2.50	2.0	12.80	0.45
3.00	1.5	17.20	0.45
4.00	1.0	25.80	0.45

HELICAL RAMPING



Cutter Diameter Using R.031 Insert	Minimum Diameter Milled Hole	Min. Advance Per Cutter Path Rev. (APCPR)	Maximum Diameter Milled Hole	Max. Advance Per Cutter Path Rev. (APCPR)
2.00	3.10	0.180	4.00	0.330
2.50	4.10	0.175	5.00	0.275
3.00	5.10	0.172	6.00	0.246
4.00	7.10	0.170	8.00	0.220

CHIP SPLITTER INFORMATION

- Draws less horsepower
- Reduces cutting force and vibration/chatter
- Improves chip evacuation (Chips split into small pieces)
- Reduces heat generation
- Suitable for long overhang machining (Weak machining and fixture applications)
- Mountable on all standard cutter lines without any modification

Side A

Side B