ALUMINATOR™

QUAD-STYLE SHOULDER MILLS ENGINEERED FOR ROUGHING, FINISHING & PLUNGING ALUMINUM

Diameter Range:
1.000-6.000"
25.00-100.00 mm

Depth of Cut:
.41"

Corners:
.008" .020" .031" .062" .093" & .125" R

Cutter Series:
End Mill: 15U1G
Face Mill: 5H6G

Insert Series:
SHET11

Materials:
Aluminum & Other Non-Ferrous Materials

0.008 R | 0.020 R | 0.031 R

0.062 R | 0.093 R | 0.125 R

Features and Benefits

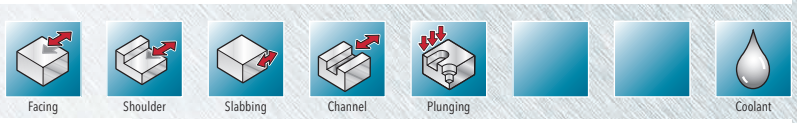
- Mirror Finishes from 15 - 25 Ra
- True 90° Shoulders when Stepping Down
- Corner Radius Diversity
- Aggressive Feed Rate Capability for Utmost Productivity

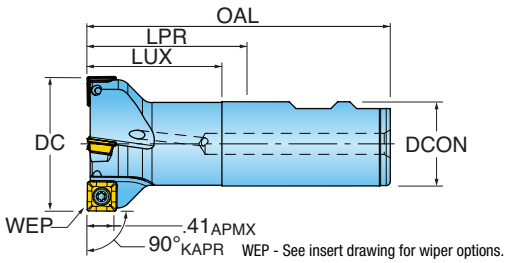
INDUSTRY 4.0 PRODUCT ANNOUNCEMENT •UPDATE• 2024

Member IMC Group Ingersoll Cutting Tools

SERIES 15U1G - WELDON

90° ROUGH & FINISH END MILL FOR ALUMINUM



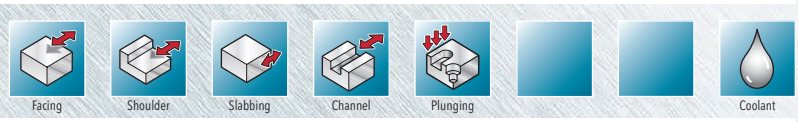


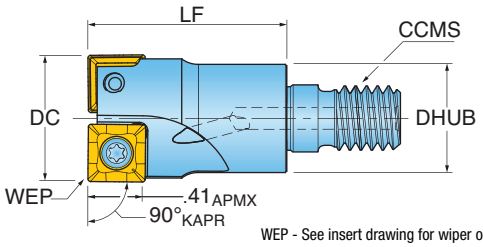
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Diameter	RPMX RPM Max.
15U1G-1001780R01	1.00	1.70	1.75	4.00	2.00	1.00	10000
15U1G-1202281R01	1.25	2.20	2.25	4.50	3.00	1.25	10000
15U1G-1502281R01	1.50	2.25	2.25	4.50	3.00	1.25	10000
15U1G-2002281R01	2.00	2.25	2.25	4.50	4.00	1.25	10000

SERIES 15U1G - TOPON

90° ROUGH & FINISH END MILL FOR ALUMINUM





WEP - See insert drawing for wiper options.

INCH

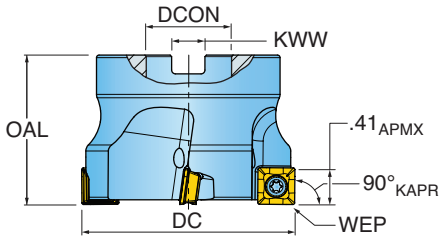
Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code Machine Side	DHUB Hub Diameter	RPMX RPM Max.
15U1G-10015X7R01	1.00	1.50	2	TopOn M12	0.90	10000
15U1G-12017X8R01	1.25	1.75	3	TopOn M16	1.13	10000
15U1G-15017X8R01	1.50	1.75	3	TopOn M16	1.39	10000

METRIC

Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code Machine Side	DHUB Hub Diameter	RPMX RPM Max.
15U1G025035X7R00	25.00 mm	35.0 mm	2	TopOn M12	21.0 mm	10000
15U1G032043X8R00	32.00 mm	43.0 mm	3	TopOn M16	29.0 mm	10000
15U1G040043X8R00	40.00 mm	43.0 mm	3	TopOn M16	29.0 mm	10000

SERIES 5H6G

90° ROUGH & FINISH FACE MILL FOR ALUMINUM



WEP - See insert drawing for wiper options.

INCH

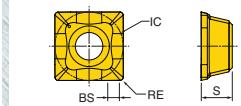
Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Diameter	KWW Keyway	RPMX RPM Max.
5H6G-20R01	2.000	1.570	5.000	0.750	0.312	23100
5H6G-20R02	2.000	1.570	3.000	0.500	0.250	23100
5H6G-25R01	2.500	1.750	4.000	1.000	0.375	20500
5H6G-30R01	3.000	1.750	8.000	1.000	0.375	18200
5H6G-30R02	3.000	1.750	3.000	1.000	0.375	18200
5H6G-40R01	4.000	2.375	9.000	1.500	0.625	16300
5H6G-40R02	4.000	2.375	5.000	1.500	0.625	16300
5H6G-60R02	6.000	2.375	5.000	1.500	0.625	12100

METRIC

Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Diameter	KWW Keyway	RPMX RPM Max.
5H6G050R00	50.00 mm	40.00 mm	4	22.00 mm	10.40 mm	23100
5H6G063R00	63.00 mm	40.00 mm	5	22.00 mm	10.40 mm	20500
5H6G080R00	80.00 mm	50.00 mm	7	27.00 mm	12.40 mm	18200
5H6G100R00	100.00 mm	50.00 mm	9	32.00 mm	14.40 mm	16300

INSERTS

SHET11



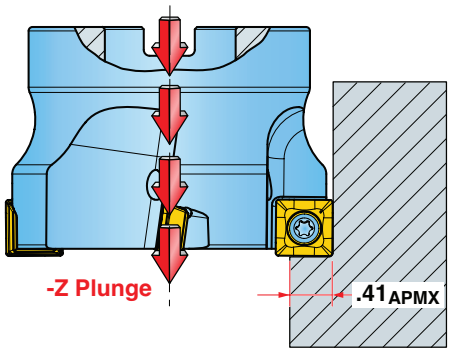
Part Number	Application	RE Corner Radius	BS Wiper Length	IC Inscribed Circle Dia.	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade	IN15K
SHET110502FR-P	Grd/Pol for Al	0.008	0.092	0.433	0.197	4	Neutral		•
SHET110505FR-P	Grd/Pol for Al	0.020	0.080	0.433	0.197	4	Neutral		•
SHET110508FR-P	Grd/Pol for Al	0.031	0.069	0.433	0.197	4	Neutral		•
SHET110516FR-P	Grd/Pol for Al	0.062	0.038	0.433	0.197	4	Neutral		•
SHET110524FN-P	Grd/Pol for Al	0.093	-	0.433	0.197	4	Neutral		•
SHET110532FN-P	Grd/Pol for Al	0.125	-	0.433	0.197	4	Neutral		•

HARDWARE

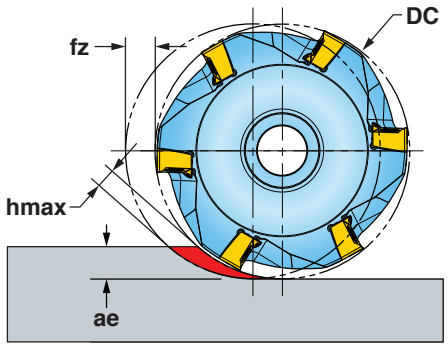
	 Screw	 Driver Handle	 Torx Driver Blade	 T Handle Torx Driver	 Wrench	 Retention Bolt	 **OPTIONAL** Coolant Retention Bolt	 **OPTIONAL** Torque Driver Handle	 **OPTIONAL** Torque Driver Bit	 **OPTIONAL** Preset Torque Bit
15U1G-1001780R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T				DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G-1202281R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T				DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G-1502281R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T				DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G-2002281R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T				DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G-10015X7R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T	617 MM			DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G-12017X8R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T	622 MM			DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G-15017X8R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T	622 MM			DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-20R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-06-46	SD-06-89	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-20R02	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-06-46	SD-06-89	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-25R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-08-46	SD-08-92	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-30R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-08-46	SD-08-92	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-30R02	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-08-46	SD-08-92	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-40R01	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-12-82	SD-12-99	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-40R02	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-12-82	SD-12-99	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G-60R02	SM40-093-20	DS-A00T	DS-T156B	DS-T15T		SD-12-82	SD-12-99	DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G025035X7R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T	617 MM			DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G032043X8R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T	622 MM			DS-A00-.25-T	DS-T15B1	DT-35-.25
15U1G040043X8R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T	622 MM			DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G050R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T			ISO4762M10X25-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G063R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T			ISO4762M10X25-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G080R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T			ISO4762M12X35-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
5H6G100R00	SM40-093-20	DS-A00T	DS-T156B	DS-T15T			ISO4762M16X30-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25

OPERATING GUIDELINES

Plunge Mill Max. Stepover



Chip Thinning



* When ae is less than 25% DC, recommend use of Chip Thinning Calculator to ensure hmax falls within fz range.

Materials				Vc Cutting Speed SFM	fz Feed/Tooth (inch)	Grade	Coolant
ISO	Mat'l Group	Type	Examples			IN15K	
N	21-30	Aluminum	7075, 6061	1000-10000	.008-.020	1	Yes

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may cause for reductions in feeds and speed or dramatic increases. Additionally, DOC and WOC may need to be revised to optimize the tools performance.