

90° ALUMINUM ROUTERS FOR HIGH SPEED MACHINING (HSM)

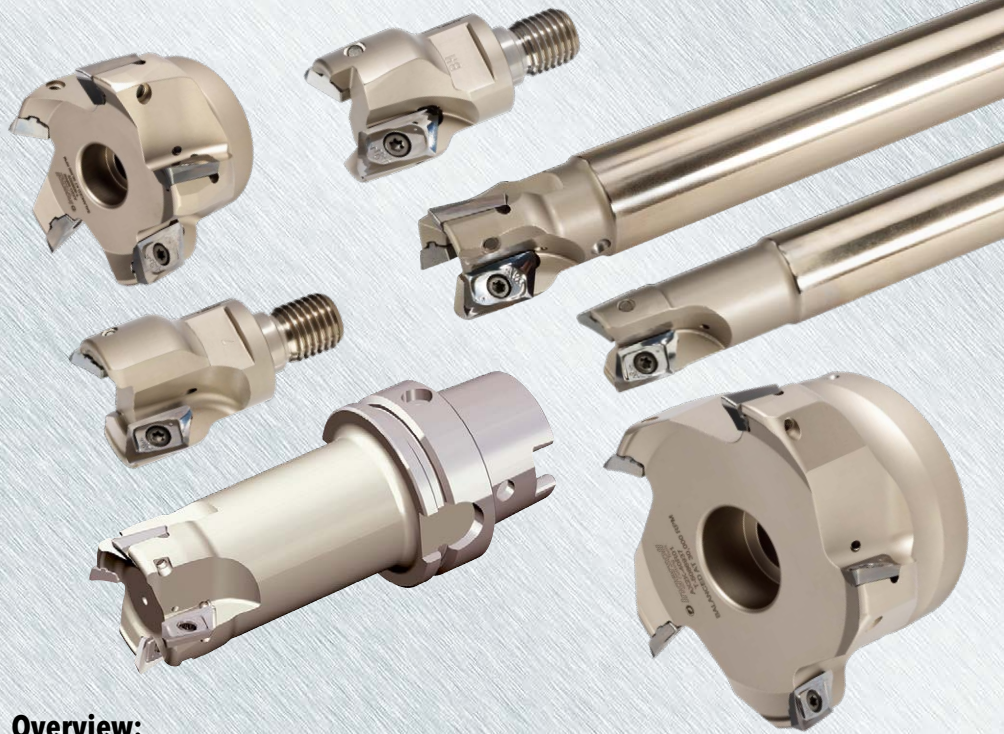
Cutter Series (Depth of Cut):
1AX2K / AX2K (.63")
1AX2Q / AX2Q (.83")

Diameter Range:
1.000" - 6.000"
25.0 - 125.0 mm

Inserts Sizes:
XEVT16
XEET22

Inserts Radii:
.015", .020", .031", .047", .062",
.079", .094", .118", .125", .157",
.197", .250"

Materials:
Non-Ferrous



Overview:

HiPosAlu is designed for shops that cut a LOT of aluminum! The Single-Screw-V-Shape pocket offers efficient indexing and ensures secure insert seating. It is an exceptional choice for HSM (High Speed Machining) on medium and large platform machines.

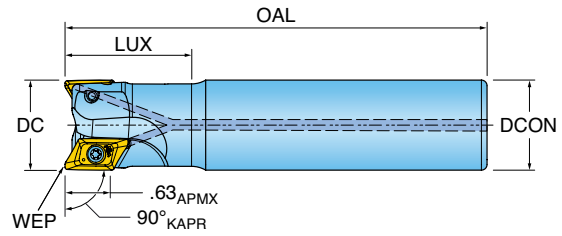
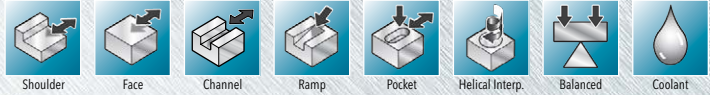
Features and Benefits

- Unique "V" Bottom with integrated Key Insert design ensures strong & durable clamping
- Crowned cutting edge for side-wall finish machining
- Long depth of cut allows blending between passes
- Router insert shape accommodates aggressive ramping and interpolation
- Inserts with positive rake face offer efficiency for medium platform machines
- Cutters balanced for high RPM applications



HIPOS[®]ALU SERIES 1AX2K (CYLINDRICAL SHANK)

90° HIGH-SPEED ROUTER END MILL FOR ALUMINUM (16MM INSERT)



WEPP - See insert drawing for wiper options.

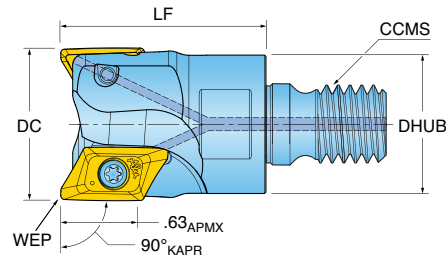
Part Number	DC Cutting Dia.	LUX Usable Length Max.	OAL* Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	RPMX RPM Max.
1AX2K-10022S1R01	1.000	2.05	7.00	2	1.0000	52000
1AX2K-10032S1R01	1.000	3.05	8.00	2	1.0000	52000
1AX2K-12022S9R01	1.250	2.05	6.00	3	1.2500	46000
1AX2K-12032S9R01	1.250	3.05	8.00	3	1.2500	46000
1AX2K-15032S9R01	1.500	3.05	10.00	3	1.2500	41200

Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter & inserts).

*OAL length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOS[®]ALU SERIES 1AX2K (TOP-ON STYLE)

90° HIGH-SPEED ROUTER END MILL FOR ALUMINUM (16MM INSERT)



WEPP - See insert drawing for wiper options.

INCH

Part Number	DC Cutting Dia.	LF* Functional Length	ZEFF Eff. Teeth	CCMS Connection Code	DHUB Hub Dia.
1AX2K-10017X7R01	1.000	1.750	2	TopOn M12	0.810
1AX2K-12017X8R01	1.250	1.750	2	TopOn M16	1.130
1AX2K-12017X8R02	1.250	1.750	3	TopOn M16	1.130
1AX2K-15017X8R01	1.500	1.750	2	TopOn M16	1.130
1AX2K-15017X8R02	1.500	1.750	3	TopOn M16	1.130

METRIC

Part Number	DC Cutting Dia.	LF* Functional Length	ZEFF Eff. Teeth	CCMS Connection Code	DHUB Hub Dia.
1AX2K025043X7R00	25.00 mm	43.0 mm	2	TopOn M12	21.0 mm
1AX2K032043X8R00	32.00 mm	43.0 mm	3	TopOn M16	29.0 mm
1AX2K040043X8R00	40.00 mm	43.0 mm	3	TopOn M16	29.0 mm

*LF length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOSO[®]ALU SERIES 1AX2K (HSK ADAPTION)

90° HIGH-SPEED ROUTER END MILL FOR ALUMINUM (16MM INSERT)



Shoulder

Face

Channel

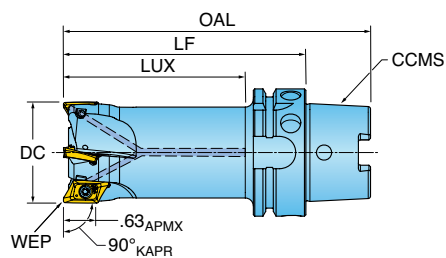
Ramp

Pocket

Helical Interp.

Balanced

Coolant



WEP - See insert drawing for wiper options.

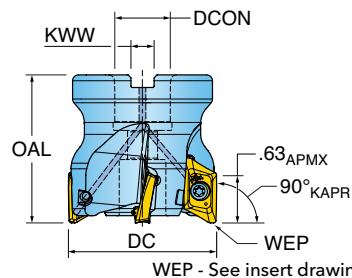
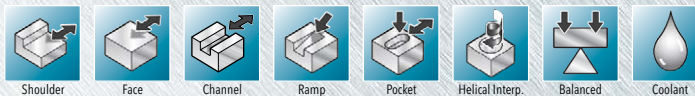
Part Number	DC Cutting Dia.	LUX Usable Length Max.	LF Functional Length	OAL* Overall Length	ZEFF Eff. Teeth	CCMS Connection Code	RPMX RPM Max.
1AX2K-10032H5R01	1.000	2.10	3.25	4.50	2	HSK A63	52000
1AX2K-10032HQR01	1.000	2.10	3.25	4.50	2	HSK F80/FM80	52000
1AX2K-10042H5R01	1.000	3.10	4.25	5.50	2	HSK A63	52000
1AX2K-10042HQR01	1.000	3.10	4.25	5.50	2	HSK F80/FM80	52000
1AX2K-12032H5R01	1.250	2.10	3.25	4.50	3	HSK A63	46000
1AX2K-15042H5R01	1.500	3.10	4.25	5.50	3	HSK A63	41200
1AX2K-20042H5R01	2.000	3.10	4.25	5.50	4	HSK A63	36800
1AX2K-20042HQR01	2.000	3.10	4.25	5.50	3	HSK F80/FM80	36800
1AX2K-20052H5R01	2.000	4.10	5.25	6.50	3	HSK A63	36800
1AX2K-20052HQR01	2.000	4.10	5.25	6.50	3	HSK F80/FM80	36800

Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter & inserts).

*OAL length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOS[®]ALU SERIES AX2K

90° HIGH SPEED ROUTER FACE MILL FOR ALUMINUM (16MM INSERT)



WEP - See insert drawing for wiper options.

INCH

Part Number	DC Cutting Dia.	OAL* Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway	RPMX RPM Max.
AX2K-20R01	2.000	2.000	2	0.750	0.312	36800
AX2K-20R02	2.000	2.000	3	0.750	0.312	36800
AX2K-20R03	2.000	2.250	3	0.750	0.312	36800
AX2K-20R04	2.000	2.000	4	0.750	0.312	36800
AX2K-25R01	2.500	2.000	3	1.000	0.375	32700
AX2K-25R02	2.500	2.250	4	1.000	0.375	32700
AX2K-30R01	3.000	2.000	3	1.000	0.375	29000
AX2K-30R02	3.000	2.000	5	1.000	0.375	29000
AX2K-40R01	4.000	2.375	5	1.500	0.625	26000
AX2K-60R01	6.000	2.375	7	1.500	0.625	20000

METRIC

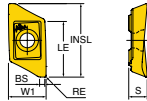
Part Number	DC Cutting Dia.	OAL* Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway	RPMX RPM Max.
AX2K040R00	40.00 mm	50.00 mm	3	16.00 mm	8.40 mm	36800
AX2K050R00	50.00 mm	50.00 mm	4	22.00 mm	10.40 mm	36800
AX2K063R00	63.00 mm	50.00 mm	5	22.00 mm	10.40 mm	36800
AX2K080R00	80.00 mm	50.00 mm	5	27.00 mm	12.40 mm	32700
AX2K100R00	100.00 mm	63.00 mm	6	32.00 mm	14.40 mm	29000
AX2K125R00	125.00 mm	63.00 mm	7	40.00 mm	16.40 mm	26000

Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter & inserts).

*OAL length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOS[®]ALU 16MM INSERTS

XEVT16_P



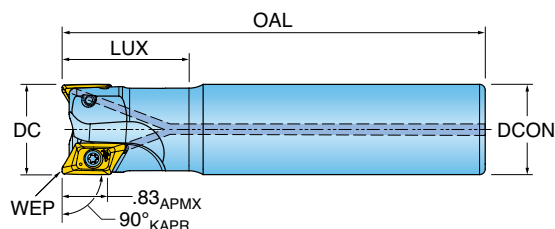
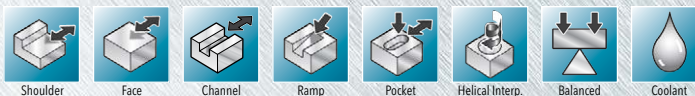
Part Number	Application	RE Corner Radius	BS Wiper Length	LE Cutting Edge Eff. Length	INSL Insert Length	W1 Insert Width	S Thickness	Grade	IN10K	IN3310
XEVT160504FR-P	Grd/Pol for Al	0.015	0.058	0.630	0.874	0.441	0.216		•	•
XEVT160508FR-P	Grd/Pol for Al	0.031	0.043	0.630	0.874	0.441	0.216		•	•
XEVT160512FR-P	Grd/Pol for Al	0.047	0.043	0.630	0.858	0.441	0.216		•	•
XEVT160516FR-P	Grd/Pol for Al	0.062	0.043	0.630	0.835	0.441	0.216		•	•
XEVT160520FR-P	Grd/Pol for Al	2.00 mm	0.043	0.630	0.819	0.441	0.212		•	•
XEVT160524FR-P	Grd/Pol for Al	0.093	0.043	0.630	0.795	0.441	0.209		•	•
XEVT160530FR-P	Grd/Pol for Al	3.00 mm	0.039	0.630	0.772	0.441	0.205		•	•
XEVT160532FR-P	Grd/Pol for Al	0.125	0.043	0.630	0.756	0.441	0.205		•	•
XEVT160540FR-P	Grd/Pol for Al	4.00 mm	0.059	0.630	0.728	0.441	0.205		•	•
XEVT160550FR-P	Grd/Pol for Al	5.00 mm	0.024	0.630	0.720	0.441	0.201		•	•

HIPOS[®]ALU 16MM HARDWARE

								
	Insert Screw	Driver Handle	Torx Driver Blade	Wrench	Retention Bolt	**OPTIONAL**	**OPTIONAL**	**OPTIONAL**
						Torque Driver Handle	Torque Driver Bit	Preset Torque Bit
1AX2K-10022S1R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-10032S1R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-12022S9R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-12032S9R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-15032S9R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-10017X7R01	SM40-079-20	DS-A00T	DS-T156B	617 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-12017X8R01	SM40-079-20	DS-A00T	DS-T156B	622 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-12017X8R02	SM40-079-20	DS-A00T	DS-T156B	622 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-15017X8R01	SM40-079-20	DS-A00T	DS-T156B	622 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-15017X8R02	SM40-079-20	DS-A00T	DS-T156B	622 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K025043X7R00	SM40-079-20	DS-A00T	DS-T156B	617 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K032043X8R00	SM40-079-20	DS-A00T	DS-T156B	622 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K040043X8R00	SM40-079-20	DS-A00T	DS-T156B	622 MM	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-10032H5R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-10032HQR01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-10042H5R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-10042HQR01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-12032H5R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-15042H5R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-20042H5R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-20042HQR01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-20052H5R01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
1AX2K-20052HQR01	SM40-079-20	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-20R01	SM40-079-20	DS-A00T	DS-T156B	-	SD-06-47	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-20R02	SM40-079-20	DS-A00T	DS-T156B	-	SD-06-47	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-20R03	SM40-079-20	DS-A00T	DS-T156B	-	SD-06-48	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-20R04	SM40-079-20	DS-A00T	DS-T156B	-	SD-06-47	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-25R01	SM40-079-20	DS-A00T	DS-T156B	-	SD-08-47	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-25R02	SM40-079-20	DS-A00T	DS-T156B	-	SD-08-48	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-30R01	SM40-079-20	DS-A00T	DS-T156B	-	SD-08-47	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-30R02	SM40-079-20	DS-A00T	DS-T156B	-	SD-08-47	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-40R01	SM40-079-20	DS-A00T	DS-T156B	-	SD-12-82	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K-60R01	SM40-079-20	DS-A00T	DS-T156B	-	SD-12-82	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K040R00	SM40-079-20	DS-A00T	DS-T156B	-	ISO4762M8X25-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K050R00	SM40-079-20	DS-A00T	DS-T156B	-	ISO4762M10X25-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K063R00	SM40-079-20	DS-A00T	DS-T156B	-	ISO4762M10X25-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K080R00	SM40-079-20	DS-A00T	DS-T156B	-	ISO4762M12X35-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K100R00	SM40-079-20	DS-A00T	DS-T156B	-	ISO4762M16X30-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25
AX2K125R00	SM40-079-20	DS-A00T	DS-T156B	-	ISO4762M20X40-12.9	DS-A00-.25-T	DS-T15B1	DT-35-.25

HIPOS[®]ALU SERIES 1AX2Q (CYLINDRICAL SHANK)

90° HIGH-SPEED ROUTER END MILL FOR ALUMINUM (22MM INSERT)



WEPP - See insert drawing for wiper options.

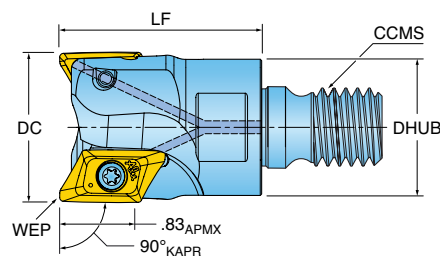
Part Number	DC Cutting Dia.	LUX Usable Length Max.	OAL* Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	RPMX RPM Max.
1AX2Q-12020S9R01	1.250	1.81	8.00	2	1.2500	37500
1AX2Q-15020S9R01	1.500	1.84	10.00	3	1.2500	35100

Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter & inserts).

*OAL length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOS[®]ALU SERIES 1AX2Q (TOP-ON STYLE)

90° HIGH-SPEED ROUTER END MILL FOR ALUMINUM (22MM INSERT)



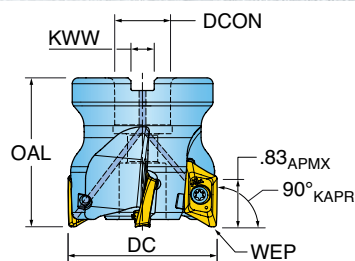
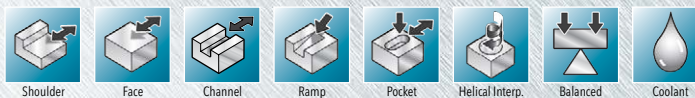
WEPP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LF* Functional Length	ZEFF Eff. Teeth	CCMS Connection Code	DHUB Hub Dia.
1AX2Q-12017X8R01	1.250	1.750	2	TopOn M16	1.130
1AX2Q-15018X8R01	1.500	1.750	2	TopOn M16	1.130

*LF length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOSO[®]ALU SERIES AX2Q

90° HIGH SPEED ROUTER FACE MILL FOR ALUMINUM (22MM INSERT)



WEP - See insert drawing for wiper options.

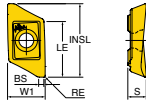
Part Number	DC Cutting Dia.	OAL* Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway	RPMX RPM Max.
AX2Q-20R01	2.000	2.000	2	0.750	0.312	31400
AX2Q-20R02	2.000	2.000	3	0.750	0.312	31400
AX2Q-25R01	2.500	2.000	3	1.000	0.375	28000
AX2Q-25R02	2.500	2.000	4	1.000	0.375	28000
AX2Q-30R01	3.000	2.000	3	1.000	0.375	24800
AX2Q-30R02	3.000	2.000	5	1.000	0.375	24800
AX2Q-40R01	4.000	2.375	3	1.500	0.625	22200
AX2Q-40R02	4.000	2.375	5	1.500	0.625	22200
AX2Q-60R01	6.000	2.375	3	1.500	0.625	17500
AX2Q-60R02	6.000	2.375	7	1.500	0.625	17500

Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter & inserts).

*OAL length measured with R.031 insert; see page 15 for insert radii offsets.

HIPOS[®]ALU 22MM INSERTS

XEVT16_P

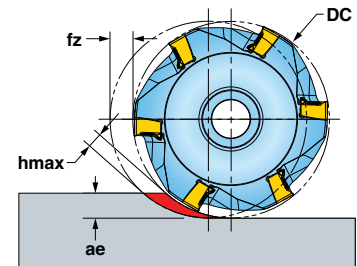


Part Number	Application	RE Corner Radius	BS Wiper Length	LE Cutting Edge Eff. Length	INSL Insert Length	W1 Insert Width	S Thickness	Grade	IN05S	IN10K	IN3310
XEVT220605FR-P	Grd/Pol for Al	0.020	0.067	0.827	1.102	0.535	0.291			•	
XEVT220608FR-P	Grd/Pol for Al	0.031	0.047	0.827	1.102	0.535	0.291			•	•
XEVT220616FR-P	Grd/Pol for Al	0.062	0.047	0.827	1.075	0.535	0.287			•	
XEVT220620FR-P	Grd/Pol for Al	2.00 mm	0.047	0.827	1.059	0.535	0.287			•	
XEVT220630FR-P	Grd/Pol for Al	3.00 mm	0.047	0.787	1.016	0.535	0.283			•	•
XEVT220632FR-P	Grd/Pol for Al	0.125	0.043	0.787	1.016	0.535	0.283		•	•	•
XEVT220640FR-P	Grd/Pol for Al	4.00 mm	0.047	0.787	0.933	0.535	0.279			•	
XEVT220650FR-P	Grd/Pol for Al	5.00 mm	0.051	0.820	0.937	0.535	0.276			•	
XEVT220664FR-P	Grd/Pol for Al	0.250	0.047	0.820	0.882	0.535	0.268		•	•	

HIPOS[®]ALU 22MM HARDWARE

								
	Insert Screw	Driver Handle	Torx Driver Blade	Wrench	Retention Bolt	**OPTIONAL**	**OPTIONAL**	**OPTIONAL**
1AX2Q-12020S9R01	SM50-113-20	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DS-T20B1	DT-44-.25
1AX2Q-15020S9R01	SM50-113-20	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DS-T20B1	DT-44-.25
1AX2Q-12017X8R01	SM50-113-20	DS-A00T	DS-T206B	622 MM	-	DS-A00-.25-T	DS-T20B1	DT-44-.25
1AX2Q-15018X8R01	SM50-113-20	DS-A00T	DS-T206B	622 MM	-	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-20R01	SM50-113-20	DS-A00T	DS-T206B	-	SD-06-47	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-20R02	SM50-113-20	DS-A00T	DS-T206B	-	SD-06-47	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-25R01	SM50-113-20	DS-A00T	DS-T206B	-	SD-08-47	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-25R02	SM50-113-20	DS-A00T	DS-T206B	-	SD-08-47	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-30R01	SM50-113-20	DS-A00T	DS-T206B	-	SD-08-47	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-30R02	SM50-113-20	DS-A00T	DS-T206B	-	SD-08-47	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-40R01	SM50-113-20	DS-A00T	DS-T206B	-	SD-12-82	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-40R02	SM50-113-20	DS-A00T	DS-T206B	-	SD-12-82	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-60R01	SM50-113-20	DS-A00T	DS-T206B	-	SD-12-82	DS-A00-.25-T	DS-T20B1	DT-44-.25
AX2Q-60R02	SM50-113-20	DS-A00T	DS-T206B	-	SD-12-82	DS-A00-.25-T	DS-T20B1	DT-44-.25

Chip Thinning

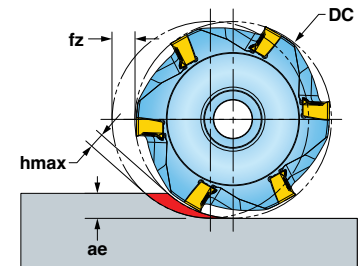


* When ae is less than 25% DC, recommend use of Chip Thinning Calculator to ensure hmax falls within fz range.

Materials				Vc Cutting Speed SFM	fz * Feed/Tooth (inch)	Harder <-----> Tougher		Coolant
						DLC	Uncoated	
ISO	Mat'l Group	Type	Examples			IN3310	IN10K	
N	21-30	Aluminum	7075, 6061	1000 - 10000	.008 - .020		1	Yes
				5000 - 15000	.008 - .020	1		

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 reductions or increases in feeds and speeds. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

Chip Thinning



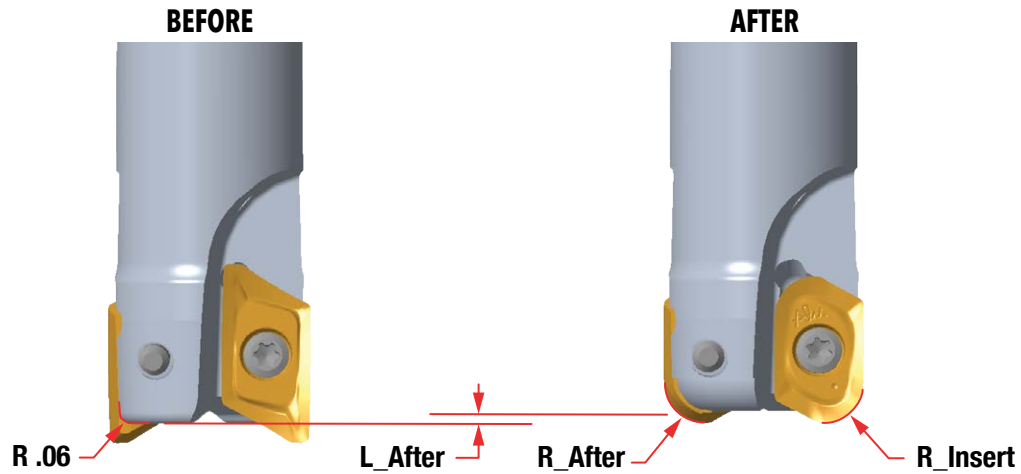
* When ae is less than 25% DC, recommend use of Chip Thinning Calculator to ensure hmax falls within fz range.

Materials				Vc Cutting Speed SFM	fz * Feed/Tooth (inch)	Harder <-----> Tougher			Coolant
ISO	Mat'l Group	Type	Examples			DLC	Uncoated		
						IN310	IN10K	IN05S	
N	21-30	Aluminum	7075, 6061	1000 - 10000	.008 - .020		1	2	Yes
				5000 - 15000	.008 - .020	1			

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 reductions or increases in feeds and speeds. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

HIPOS[®]ALU CUTTER BODY MODIFICATION FOR LARGE RADIUS INSERTS

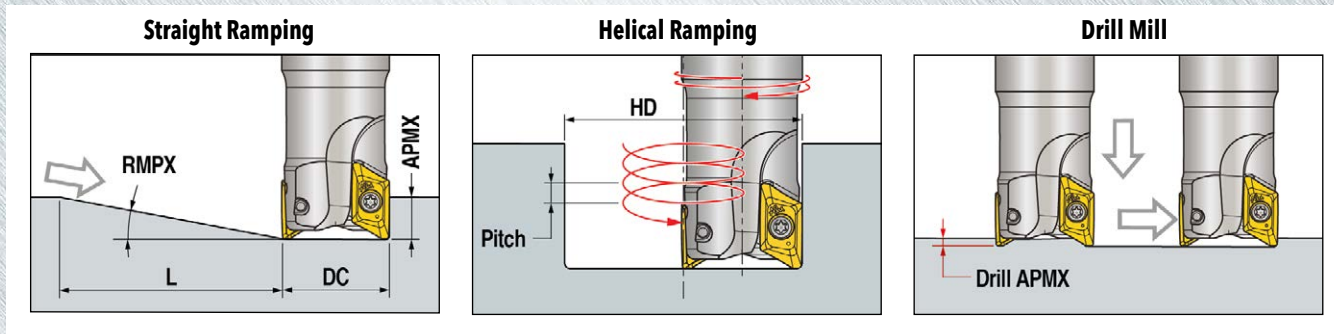
When using an insert radius larger than indicated per Insert IC, be sure the cutter body does not protrude beyond the trailing edge of the insert. If it does, the housing corner can be modified on a lathe or grinder by enlarging the corner radius.



Insert Size		R_Insert	L_After	R_After
16 MM	Insert -30	0.118	0.015	0.095
	Insert -32	0.125	0.020	0.100
	Insert -40	0.157	0.035	0.130
	Insert -50	0.197	0.050	0.165

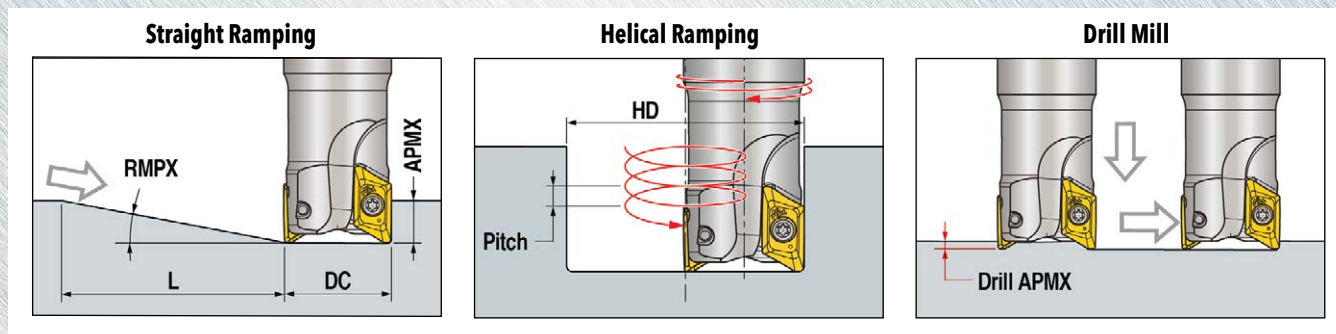
Insert Size		R_Insert	L_After	R_After
22 MM	Insert -30	0.118	0.020	0.145
	Insert -32	0.125	0.025	0.155
	Insert -40	0.157	0.045	0.180
	Insert -50	0.197	0.075	0.215
	Insert -64	0.250	0.110	0.255

HIPOS[®]ALU 16MM RAMPING DATA



DC Cutter Diameter	Straight Ramp			Helical Ramp			Drill Mill
	RMPX Ramp Angle Max.	APMX Depth of Cut Max.	L Ramp Length Min.	HD Hole Dia. Min.	HD Hole Dia. Max.	Pitch Max.	Drill APMX Depth of Cut Max.
1.000	25.7	0.63	1.3	1.236	2.00	0.63	0.213
1.250	16.1	0.63	2.2	1.736	2.50	0.63	0.213
1.500	16.2	0.63	2.2	2.236	3.00	0.63	0.273
2.000	7.8	0.63	4.6	3.236	4.00	0.63	0.211
2.500	6.2	0.63	5.8	4.236	5.00	0.63	0.211
3.000	4.9	0.63	7.3	5.236	6.00	0.63	0.211
4.000	3.5	0.63	10.3	7.236	8.00	0.63	0.211
6.000	2.3	0.63	15.7	11.236	12.00	0.63	0.211

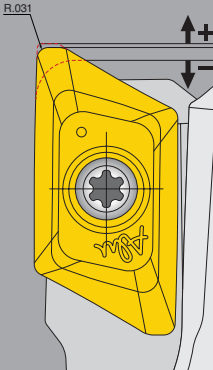
Ramp angles are calculated using XEVT160508FR-P insert



DC Cutter Diameter	Straight Ramp			Helical Ramp			Drill Mill
	RMPX Ramp Angle Max.	APMX Depth of Cut Max.	L Ramp Length Min.	HD Hole Dia. Min.	HD Hole Dia. Max.	Pitch Max.	Drill APMX Depth of Cut Max.
1.250	21.5	0.83	2.1	1.736	2.50	0.83	0.225
1.500	18.6	0.83	2.5	2.236	3.00	0.83	0.300
2.000	9.1	0.83	5.2	3.236	4.00	0.83	0.225
2.500	6.7	0.83	7.1	4.236	5.00	0.83	0.225
3.000	5.4	0.83	8.8	5.236	6.00	0.83	0.225
4.000	3.8	0.83	12.5	7.236	8.00	0.83	0.225
6.000	2.4	0.83	19.8	11.236	12.00	0.83	0.225

Ramp angles are calculated using XEVT220608FR-P insert

HIPOS[®]ALU INSERT RADII OFFSET COMPARISON

	Insert Part Number	Corner Radius	Offset
	XEVT...04	0.015	+0.008
	XEVT...08	0.031	0.000
	XEVT...12	0.047	-0.008
	XEVT...16	0.062	-0.015
	XEVT...20	0.079	-0.023
	XEVT...24	0.093	-0.030
	XEVT...30	0.115	-0.041
	XEVT...32	0.125	-0.045
	XEVT...40	0.157	-0.061
	XEVT...50	0.197	-0.080

OAL and LF cutter dimensions are measured using the R.031" insert.

When interchanging inserts with other corner radii, the OAL and LF dimensions will change and an offset will need to be utilized.

HIPOS[®]ALU

