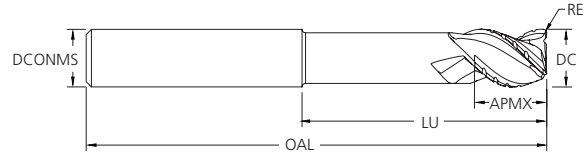
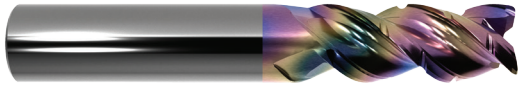


# TuffCut® XR-AL - Series 334



- Enhanced flute design for improved chip control and reduced cutting forces.
- Chipbreaker design provides better part finish than a traditional knuckle rougher and aids in chip management.
- Variable helix strengthens the tool corner reducing the chance of a chipped corner.
- Manufactured from premium grade ultrafine carbide material for extended tool life.

Gem+		DC		DCONMS	OAL	APMX	LU	RE
Tool No.	EDP	Inch	Decimal	Inch	Inch	Inch	Inch	Inch
33425000R.020GP	33400	1/4	.2500	1/4	2	1/2		.020
33425010R.020GP	33404	1/4	.2500	1/4	2-1/2	3/4		.020
33437500R.020GP	33408	3/8	.3750	3/8	2	5/8		.020
33437510R.020GP	33412	3/8	.3750	3/8	2-1/2	1		.020
33450000R.030GP	33416	1/2	.5000	1/2	3	5/8		.030
3345000N4R.030GP	33428	1/2	.5000	1/2	4	5/8	2-1/8	.030
33450010R.030GP	33419	1/2	.5000	1/2	3	1		.030
33450020R.030GP	33423	1/2	.5000	1/2	3	1-1/4		.030
334625010R.030GP	33430	5/8	.6250	5/8	3-1/2	1-1/4		.030
334625020R.030GP	33441	5/8	.6250	5/8	4	2		.030
33475000N4R.030GP	33436	3/4	.7500	3/4	5	1	3	.030
33475000R.030GP	33432	3/4	.7500	3/4	4	1		.030
33475010R.030GP	33434	3/4	.7500	3/4	4	1-5/8		.030
33475020R.030GP	33444	3/4	.7500	3/4	5	2-1/4		.030
33475030R.030GP	33443	3/4	.7500	3/4	6	3-1/4		.030
33410000R.030GP	33445	1	1.0000	1	6	1-1/4		.030
33410010R.030GP	33439	1	1.0000	1	4	1-1/2		.030
33410020R.030GP	33447	1	1.0000	1	5	2		.030
33410030R.030GP	33449	1	1.0000	1	6	2-1/2		.030
33410040R.030GP	33451	1	1.0000	1	6	3-1/4		.030

Inch	
DC	Tolerance
.2500 - 1.0000	+0/- .0005

Inch	
DCONMS	Tolerance (h6)
.2500 - .3937	+0/- .00035
.3938 - .7087	+0/- .00043
.7088 - 1.0000	+0/- .00051

### Gem+ Coating (GP):

Recommended for aluminum and aluminum alloys up to 12% Si, non-ferrous metals and composites. Gem+ provides excellent wear resistance and maintains sharp cutting edges.

Gem+ Coating Properties			
Microhardness (HV)	Max. Service Temp.	Friction Coefficient	M.A.Ford® Tool Designation Number
4710	500° C / 932° F	0.10	GP

