SureCut™

Hypertherm Associates
Software Group

True Bevel enables consistent bevel parts in significantly less time

Delivers embedded expertise for XPR plasma systems



No matter your industry or application, your production floor must cut faster and more efficiently to remain competitive. Hypertherm Associates has collaborated with its global partners for over fifty years to provide our customers with the most significant advances in mechanized plasma cutting technology and automation software to boost production and improve the bottom line.

Key business benefits

Improves the beveling process
Automatically applies improved bevel angle and cut sequence, increasing accuracy and quality consistency

Saves time and money
Setup time and scrap material are greatly reduced due to lessened operator trial and error

True Bevel technology automatically applies improved bevel angle and cut sequence, increasing accuracy and quality consistency.

Optimize your Hypertherm plasma performance with SureCut™ technology

Our exclusive SureCut technology automatically embeds advanced cutting capabilities into our plasma cutting process, delivering improved outcomes, simplifying cutting operations, and reducing operator intervention.

True Bevel™ takes machine operator guesswork out of plasma bevel cutting

Bevel cutting is a complex process that typically requires trial and error, forcing machine operators to make multiple test cuts to determine the correct bevel angles for each new part. This costs precious time and money. True Bevel technology for mild steel provides factory-tested parameters, making it quick and easy to set up new jobs. With True Bevel, you can achieve accurate bevel parts and consistent results in significantly less time.

Field testing with True Bevel

Without True Bevel



Parts took over one hour to complete using existing iterations and required one or more additional iterations to obtain an acceptable part.

With True Bevel



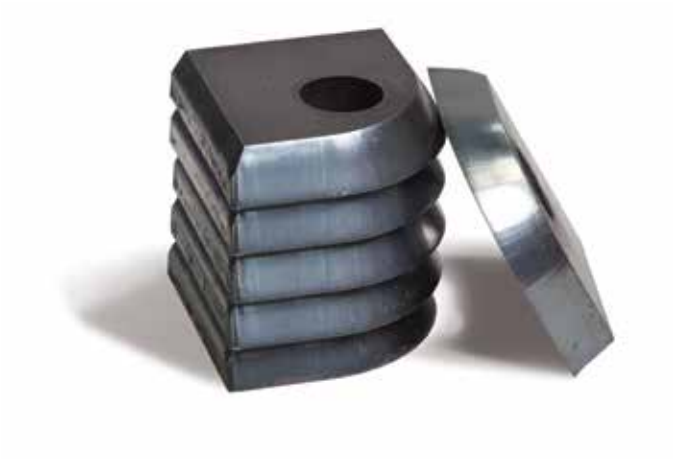
True Bevel achieved a production-ready, acceptable part on the first iteration.

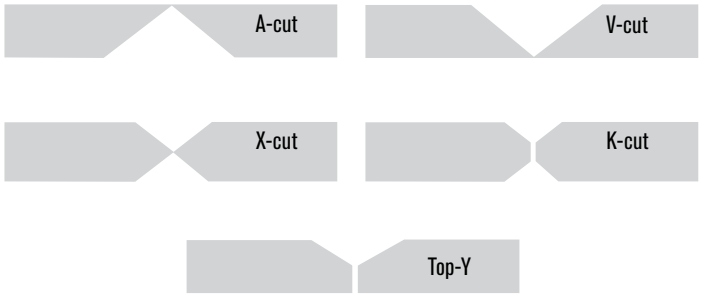
CAM software or CNC automatically applies True Bevel technology

Predetermined bevel angles, equations, and recommended sequences are applied to the job based on amperage and material thickness.

Cut styles include:

- A-cut
- V-cut
- X-cut
- K-cut
- Y-top









Thickness coverage – metric units (mm)

	6 mm	8 mm	10 mm	12 mm	15 mm	19 mm	20 mm	22 mm	25 mm	32 mm	38 mm	45 mm	50 mm
80 A	V, A, Y-top	V, A, Y-top	V, A, Y-top										
130 A		V, A, Y-top	V, A, Y-top	V, A, Y-top	V, A, Y-top								
170 A				V, A, Y-top, X	V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K					
300 A									V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K		
460 A									V, A, Y-top	V, A, Y-top	V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K

Thickness coverage – English units (inches)

	0.25"	0.312"	0.375"	0.5"	0.625"	0.75"	0.875"	1"	1.25"	1.5"	1.75"	2"
80 A	V, A, Y-top	V, A, Y-top	V, A, Y-top									
130 A		V, A, Y-top	V, A, Y-top	V, A, Y-top	V, A, Y-top							
170 A				V, A, Y-top, X	V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K					
300 A								V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K		
460 A								V, A, Y-top	V, A, Y-top	V, A, Y-top, X, K	V, A, Y-top, X, K	V, A, Y-top, X, K

V, A, and X angle coverage

		Angle*											
V-cut		-50°	-45°	-40°	-37.5°	-35°	-30°	-27.5°	-25°	-22.5°	-20°	-17.5°	-15°
A-cut			45°	40°	37.5°	35°	30°	27.5°	25°	22.5°	20°	17.5°	15°
X-cut	Top pass		-45°	-40°	-37.5°	-35°	-30°						
	Bottom pass		45°	40°	37.5°	35°	30°						

*Angle signs based on negative bias head.

Y-top cut angle and land coverage

Angle*	-50			-45			-37.5			-30			-27.5			-22.5		
Land dimension**	20	35	50	20	35	50	20	35	50	20	35	50	20	35	50	20	35	50

*Angle signs based on negative bias head.
**Land dimension denotes % of thickness.

K-cut angle and land coverage

Top pass angle*	-45			-37.5			-30		
Bottom pass angle*	45			37.5			30		
Land dimension**	10	20	35	10	20	35	10	20	35

*Equal top and bottom pass angles. Top angle is negative and bottom angle is positive for negative bias head.
**Land dimension denotes % of thickness.

System requirements

- For use with mild steel
- Hypertherm XPR® X-Definition® plasma system
- ProNest®, EDGE® Connect, or other CAM or CNC software from an authorized partner

Setup time and scrap material are greatly reduced due to lessened operator trial and error.

To stay competitive, manufacturers must improve their total cutting process to boost production and minimize operating costs. SureCut technology optimizes Hypertherm plasma performance by automatically embedding advanced cutting capabilities and delivering improved outcomes for our customers.

SHAPING POSSIBILITY®

PLASMA | LASER | WATERJET | AUTOMATION | SOFTWARE | CONSUMABLES

Learn more about True Bevel and other SureCut technologies at www.hypertherm.com/SureCut

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