

Bevel Cutting with HPR Cartridge



- 260A cartridge produces bevel cuts equal to cuts made with bevel consumables.
- 80A and 130A cartridges produce cuts with small angle differences from bevel consumables. These angle differences are acceptable for most production environments.
- To achieve bevel cuts equal to cuts made with bevel consumables at 80A and 130A, see setting changes required on following page.

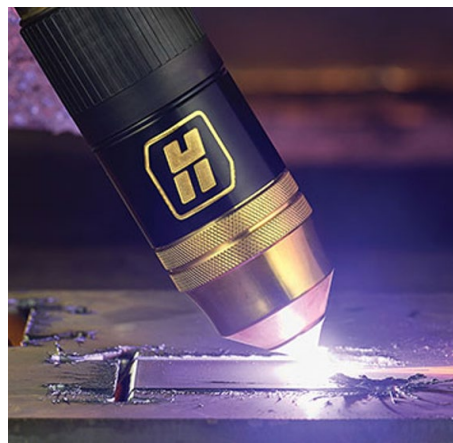
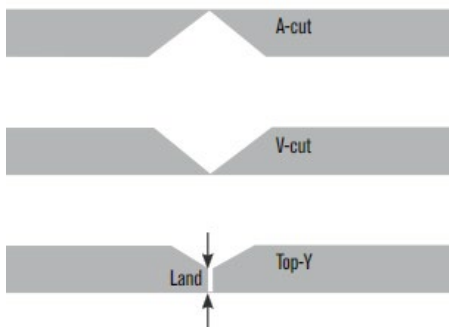
Hypertherm recommends performing test cuts prior to making any setting adjustments.

Amperage	Operator Action	Cut Result
80A 420803	None (use bevel cut chart)	-3° angle from bevel consumables
	Change shield gas from bevel to standard cut chart setting ¹	Same angle as bevel consumables
130A 420705	None (use bevel cut chart)	+2° angle from bevel consumables
	Change shield gas from bevel to standard cut chart setting ¹	Same angle as bevel consumables
260A 420715	None (use bevel cut chart)	Same angle as bevel consumables

¹See following page for specific shield gas setting changes.

Refer to HPR cartridge instruction manual 810992 for additional information on bevel cutting.

Bevel cuts

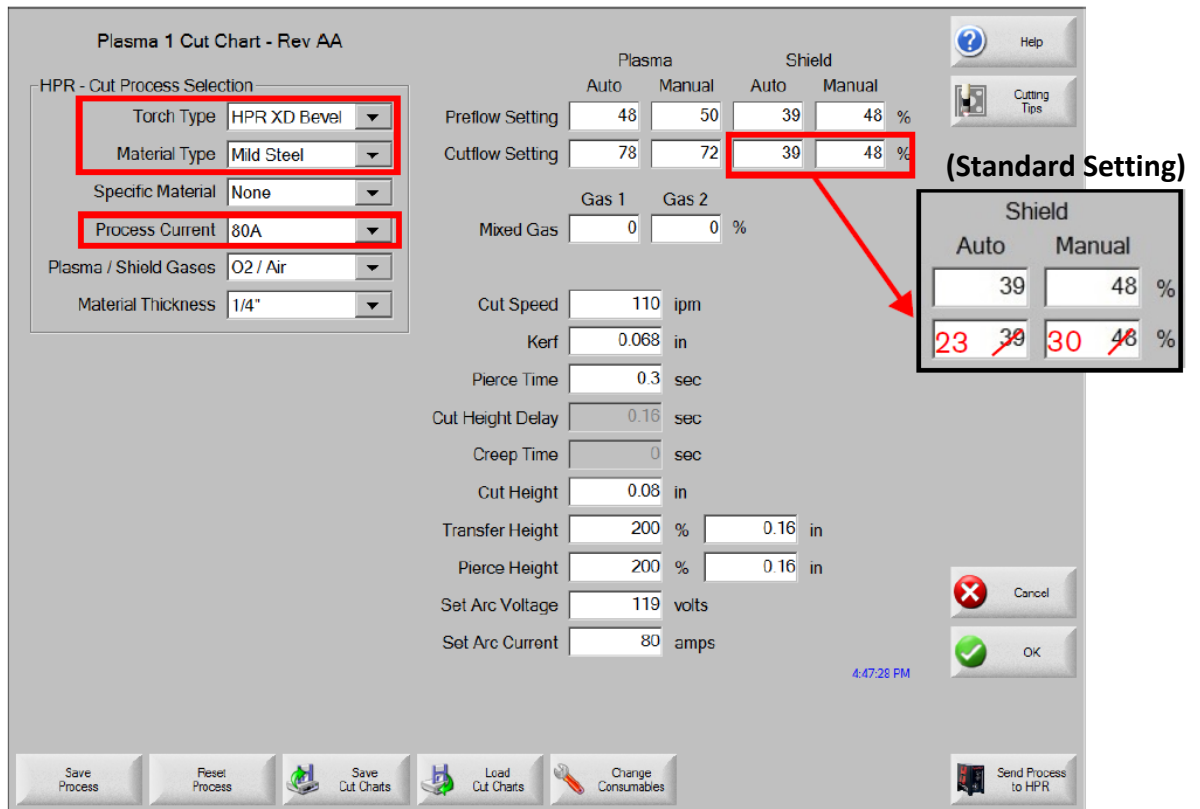


Standard and Bevel cut chart shield gas settings

Amperage	Cut Chart	Shield Cutflow (Auto Gas Console)	Shield Cutflow (Manual Gas Console)
80A 420803	Standard	23	30
	Bevel	39	48
130A 420705	Standard	22	28
	Bevel	15	23
260A 420715	Standard	49	75
	Bevel	49	75

Note: Decreasing shield cutflow will make cut angle more positive; increasing shield cutflow will make cut angle more negative.

Hypertherm CNC example: 80A bevel cut chart modified to standard shield gas setting



The screenshot shows the 'Plasma 1 Cut Chart - Rev AA' interface. On the left, under 'HPR - Cut Process Selection', the following settings are highlighted with red boxes: Torch Type (HPR XD Bevel), Material Type (Mild Steel), and Process Current (80A). The main settings area shows Plasma and Shield parameters. The Shield settings are: Auto (39) and Manual (48) for both Preflow and Cutflow. A red box highlights these values, with a red arrow pointing to a secondary 'Shield' settings window. This secondary window shows the current settings (39 Auto, 48 Manual) and the target 'Standard Setting' (23 Auto, 30 Manual). The current settings are crossed out with red slashes. At the bottom, there are buttons for 'Save Process', 'Reset Process', 'Save Cut Charts', 'Load Cut Charts', 'Change Consumables', and 'Send Process to HPR'. The time 4:47:28 PM is displayed in the bottom right.

Note: Changes to shield gas settings need to be saved for each cut thickness. Settings may revert to default settings following software updates and so should be confirmed before cutting.