

# PLUS BEVEL

WORKING AREA UP TO

**59.4 X 10 ft**

18100 X 3050 mm

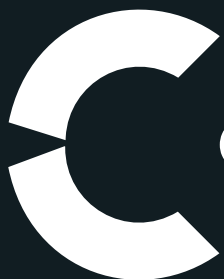
POWER UP TO

**30 kW**

## FEATURES

BEVELING UP TO  $\pm 45^\circ$

TWO LEVEL PALLET EXCHANGE



**CUTLITE PENTA**

**AMERICA**

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# PLUS BEVEL

The PLUS BEVEL is designed for specific applications where an angled cut at varying degrees ranging from 1°-45° are required. The primary benefit of this application is to increase the consistency of the bevel angle cut to create a stronger welding point, especially when utilizing robotic welding machines.

Angled cuts are typically indicated by letters in the Latin alphabet correlated to the silhouette of the bevel cut seen in a cross-section view. THE PLUS BEVEL system can easily accommodate the most requested types of angled cuts for these applications, including V (positive and negative), Y (positive and negative) X, and K up to an angle of 45° without affecting the quality or flatness of the cut. The movement of the axis is fluid and consistent, thus ensuring the continuity of the cutting process which is synchronized in real-time by Cutlite Penta's exclusive numerically controlled software.

## Structure and Movement

The base is an electro-welded, thermally stabilized steel frame, machined to accommodate the high-precision rails and linear motors. The gantry structure is manufactured with cast aluminum alloy elements to which the steel beam is attached, creating a lightweight yet durable structure. Driven by linear motors with absolute inductive encoders to support motors for the B and C axes, bevel cutting up to  $\pm 45^\circ$  is extremely accurate and consistent, allowing for immediate welding in addition to edge surface cleaning.

## Cutting Head

The PLUS Bevel system uses the EVO 3 cutting head, with thousands of installations worldwide, it has been proven reliable when integrated with high-power fiber laser systems. Designed and built in Italy, this autofocusing cutting head offers exceptional cutting speeds on both thinner and thicker materials. The cutting head itself is completely sealed and the focusing lenses can be used with **up to 30KW** of laser power, and a pressure of 25 bar. There are three different focal configurations to choose from: **150-200-250mm**.



## SMART Changer (Option)

The automatic nozzle change is an option that allows the machine to automatically replace the cutting head nozzle without operator intervention. Up to 10 positions are available, and include both cleaning and calibration functions.

## SMART Mix (Option)

Smart Gas Mix is a proprietary system, located on the cutting head, which improves the cutting process thanks to hardware technology controlled in real-time by our Smart Manager software. With just a few clicks, the right amount of oxygen and nitrogen can be supplied instantly for cutting varying metal types and thicknesses, saving gas consumption and delivering a cool part for fast removal from the table.

## Fiber Laser Source

The highly efficient IPG laser source, proven to provide excellent beam quality and low power consumption, is housed in an air-conditioned and sealed NEMA 12 cabinet for uninterrupted operation even in the harshest of environments. The IPG laser source is solid state and requires little to no maintenance.

## Available IPG Laser Source Sizes

6kW	15kW
8kW	20kW
12kW	30kW

## Available Configurations

PLUS BEVEL MODEL	WORKING AREA FLAT	WORKING AREA BEVEL
3015	10' X 5'	8.4' X 3.4'
4020	13.3' X 6.7'	11.6' X 5.1'
4525	14.9' X 8.4'	13.3' X 6.7'
6020	20' X 6.7'	18.2' X 5.1'
6025	20' X 8.4'	18.2' X 6.7'
6030	20' X 10'	18.2' X 8.4'
6525	21.5' X 8.4'	19.9' X 6.7'
6530	21.5' X 10'	19.9' X 8.4'
7035	23.1' X 11.6'	21.3' X 9.8'
7037	23.1' X 12.3'	21.3' X 10.6'
7530	24.8' X 10'	23.1' X 8.4'
8020	26.4' X 6.7'	24.7' X 5.1'
8025	26.7' X 8.4'	24.7' X 6.7'
9030	29.9' X 10.2'	28' X 8.4'
9037	29.9' X 12.3'	28' X 10.6'
12030	40.5' X 10.1'	37.9' X 8.4'
12037	40.5' X 12.3'	37.9' X 10.6'
13030	43.1' X 10'	42.8' X 8.4'
13037	43.1' X 12.3'	42.8' X 10.6'
15030	49.4' X 10'	47.6' X 8.4'
18030	59.4' X 10'	57.4' X 8.4'

