

Torch Height Controller iTHC-100

FEATURES:

Stand alone THC, works with almost any plasma cutter.
No need software, all functions can be easily operated on THC(as picture showed)



A. Auto Initial Height Sensing(IHS)

Torch Retaining Cap IHS and Proximity Switch IHS (NPN and PNP), Proximity Switch IHS is backup for Torch Retaining Cap IHS for cutting dirty/rusty workpiece, needing the Anti-Collision Fixture designed by Innova CNC (optional).

B. Torch Anti-Collision Function

We designed Touch-Up circuit for Anti-Collision Function. No matter it is on Auto Control Model or Manual Control Model, when torch head touches the workpiece, THC would automatically lift torch up to IHS height. So with iTHC-100, even in Manual Control Model, user doesn't need to worry about torch head crashing.

C. Freeze Auto Height Control on Corner Signal

iTHC-100 can recognize Corner Signal from CNC and freeze Auto Control Model on receiving this signal, and we have a unique design to backup this function. We set 30V (adjustable) as Turning Point according to our years practice. When the Actual Arc Voltage is higher than Set Arc Voltage over 30V, THC Auto Control Mode freezes to avoid torch head diving, until it goes back to 30V range. This Over Voltage protection can avoid torch diving on voltage spikes (Corner Turning, Kerf Crossing) effectively.

D. Set Pierce Time

Set the Button (Set PIERE) to set Pierce Time.

E. Manual Operation

Many functions can be Manually operated on THC Operation Panel such as setting Auto/Manual, Up and Down, testing of IHS and Arc Start....etc

F. Arc Voltage Divide

Isolation Voltage Divide detection, the Voltage Divide ratio is 100:1/50:1. And iTHC-100 supports different HF plasma.

D. Dynamic pierce



Dimensions	L x W x H: 320 x 260 x 90 (mm)
Supply voltage	AC24V $\pm 10\%$ - 50Hz/60Hz
Lifting motor	DC24V DC motor
Drive Method	PWM (pulse width modulation)
Output current	1A ~ 4A, the maximum is 6A
Output power	100W
Working temperature	Torch height controller: -10°C ~ +60°C
Initial height sensing	Torch Retaining Cap IHS and Proximity Switch IHS
Voltage Divide	100:1 / 50:1
Control Accuracy	$\pm 1V \sim \pm 3V$ (adjustable by user)
Cutting Torch Lifting Speed	500mm/min ~ 4000mm/min (adjustable by user, over 4000mm/min available.)