

safe process flow

# Height control units

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**The voltage-dependent height control units made by Kjellberg guarantee the precise distance between the torch and the work-piece surface. A constant torch height during cutting and the lifting during piercing guarantee the highest cut quality and a safe process flow.**

## Voltage-dependent height control unit **KHC4-PCS**

**Height control unit for all high-precision plasma cutting applications. The KHC4-PCS system provides all the essential functions that are needed for consumable-saving piercing and a constant height control as a condition for good cut quality.**

- For all HiFocus and FineFocus applications
- Installation or retrofit to any guiding system possible for modernisation of existing cutting workstations
- Integrated 3-dimensional collision protection
- Working load up to 12 kg
- Lifting 220 mm

### Features

- Easy adaption to all common guiding systems,
- Tactile finding of initial position on work-piece surface (smooth touching), pressure for initial position finding is adjustable and thus also possible for thin sheets.
- Height adjustment in 0.1 millimeter steps („cutting height mode“) or in 0.5 Volt steps („arc voltage mode“).
- High work-piece utilisation due to precise height measurement also close to kerfs and edges. (On kerfs, edges and corners the arc lengthens and the arc voltage increases. The automatic kerf detection switches the height control off when the arc voltage exceeds the adjustable limit. It is again activated when the voltage value is back to the original level. The guiding system transfers a signal as soon as a corner is cut (corner function). In this case, too, the arc is prevented from being too long and having a negative influence on the cut quality.)



- Additionally adjustable height increase during piercing protects the consumables from spatter (slag),
- Adjustment of short torch lifting between contours possible
- Torch clamp with 3D collision protection with +/-17 ° deflection, optionally with intelligent collision detection,
- Adjustable weight compensation
- High lifting speed of max. 80 mm/s,
- Controls for dynamic at linear drive (control response time and control delay time)
- Standard connection with CUTBUS® for CNC control via guiding system or alternatively with Operator Terminal
- Isolated arc voltage input from 0 to -300 VDC

## Display and Control Unit

- Manual adjustment via Operator Terminal
- KCU 4 is the interface between height control unit, plasma cutting unit and CNC-control of the guiding system

## Technical data

	<b>KHC4-PCS (Linear drive with Kjellberg Connection Unit KCU 4 and operation terminal)</b>
Working load	up to 12 kg
Lifting	220 mm (standard), 350 mm (opcionális)
Max. lifting speed	80 mm/sec
Torch clamp for torch diameter	30-58 mm
Collision protection for torch	- Deflection ca. ± 17 ° in all direction - Collision protection (automatic torch lifting) - Automatic resetting - Deflection force adjustable
Operation voltage	230 V AC/ 110V AC (auto select input)
Isolated input for arc voltage	0-300 V DC or 0-10 V
Piercing time	0,2 – 5 sec
Weight	9 kg (Linear drive) 0.4 kg (operation terminal)
Dimension (H x W x D)	Linear Drive (without guide bar): 400 x 125 x 128 mm Operation terminal: 120 x 160 x 35 mm