

## **Power Electronics & Controls Ltd**

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### **Conventional Weld Cladding Systems**



## Key benefits

- Can weld components up to 3000 mm height
- ♦ Can weld bores up to 2300 mm diameter
- Proven equipment technology
- Easily scalable to meet your different job sizes and requirements
- Uses standard mechanical hardware available from various suppliers
- ♦ Low capital costs
- Vertical or horizontal slide assembly
- Wide range of columns and booms and turntables to suit the application
- Multiple turntable systems for higher productivity
- Pipe rotating systems

#### Horizontal/Vertical NC Cladding Systems

Where more complex surfaces (e.g. cross bores, seat pockets) need to be welded, we offer the Precision NC cladding system which is still of the conventional format i.e. has a turntable, but dispenses with the cross slides. The column & boom (which uses high accuracy ball screws and rails) performs all precision torch movements. Also, the column is mechanically very compact as the boom does not intrude into the space behind the column as is the case in a conventional column and boom. This arrangement is ideal where ground space is at a premium.

#### Key benefits of the precision Cladding System

Precision movements (2000 mm) of the torch in the horizontal and vertical axes resulting in excellent weld finish ideal for welding pipes, tubing hangers and spool bodies welds valves with cross bores, racetracks bores etc. Compact mechanical arrangement saves floor space most advanced type of conventional cladding system available.  $CS_{-2}$ 



#### **Turn Tables:**

Turntables : 3-20 ton capacities Tilt/Turn Positioners : 3-20 ton capacities Pipe Rotating Systems : 2-6 ton capacities (higher capacities available on request)

#### **Cross Slide Assemblies:**

CS-1001 - 1000 mm vertical travel - single torch CS-1002 - 1000 mm vertical travel - twin torch CS-1501 - 1500 mm vertical travel - single torch CS-1502 - 1500 mm vertical travel - twin torch

| Dimensions |          | Α       | В       | C MIN   | C MAX   | D       | E                    |
|------------|----------|---------|---------|---------|---------|---------|----------------------|
| Systems    | HD - 3X3 | 4500 mm | 5000 mm | 1000 mm | 3000 mm | 3000 mm | 1800 <sup>2</sup> mm |
|            | HD - 4X4 | 5500 mm | 6000 mm | 1000 mm | 4000 mm | 4000 mm | 1800 <sup>2</sup> mm |
|            | HD - 5X5 | 6500 mm | 7000 mm | 1000 mm | 5000 mm | 5000 mm | 1800² mm             |

#### System dimensions:

- A Column height
- B Boom length
- C Boom travel distance (Y axis)
- D Boom travel distance (X axis)
- E Base dimensions

#### Scope of use

Continuous weld cladding of components

- Reduced machining time due to uniform and precision application of weld overlay material
- Low weld defect rates (less than 1%)
- Weld cladding on a range of base materials and with a variety of weld overlay wires
- Ability to weld surfaces with limited access, small dimensions
- Fully computerised parameter programming
- Weld parameter screen edits permitted during a weld cycle
- Single pass welding with iron dilution under 5% and weld thickness up to 7 mm

CS-1001 - Horizontal Position

Page 2



# Power Electronics & Controls

Automatic Welding Systems





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