Vertical Bore Cladding System (VCS) with HW-GTAW

Red-D-Arc’s Vertical Bore Cladding System (VCS) is designed to perform fully-automated GTAW build up of corrosion-resistant metal components such as subsea christmas tree assemblies. The VCS package is a complete turnkey system that includes a KEY 1250 PLC system controller with touch-screen control weld-data-documentation recording software, a remote control pendant, a 500 or 700 amp pulsed-TIG power source, a 150 amp Hotwire TIG power source, motorized vertical and horizontal cross slides mounted on a heavy duty manipulator, a 15-ton capacity floor-mounted turntable with closed-loop drive and a secondary encoder for position feedback. The system also includes an integrated wire feeder and cladding torch with integrated wire-feed guide.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>RDA VCS 700</th>
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<tbody>
<tr>
<td>Weld Process</td>
<td>Hotwire TIG (HW-GTAW)</td>
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<tr>
<td>Manipulator</td>
<td>RDA HD VCS 10x13 with heavy-duty motorized cross-slides</td>
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<tr>
<td>Turntable</td>
<td>6 foot diameter table, 15 ton capacity with slip ring</td>
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<tr>
<td>Standard Power Source</td>
<td>Miller Maxstar 700 with Coolmate 3.5 cooler, Maxstar 200 DX</td>
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<tr>
<td>Optional Power Source</td>
<td>Other power sources are available</td>
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<tr>
<td>Maximum Height Bore Depth</td>
<td>Up to 78.7 in (2000 mm) depending on torch type and vertical slides used</td>
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<tr>
<td>Minimum Weldable Bore Diameter</td>
<td>1.77 in (45 mm)</td>
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<tr>
<td>Water Cooled TIG Torch</td>
<td>Various fixed and adjustable-angle torch heads available</td>
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<tr>
<td>Welding Speed</td>
<td>7.87 in/min to 17.7 in/min (20 to 45 cm/min)</td>
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<tr>
<td>Control</td>
<td>KEY 1250 PLC Controller</td>
</tr>
<tr>
<td>Control Functions</td>
<td>Controlled by 15 in TFT HMI or remote pendant</td>
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<tr>
<td>Input Power RDA VCS 700</td>
<td>VCS (controller, manipulator, turntable) - 380 to 480 V, 3 phase, 50/60 Hz</td>
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<tr>
<td>Input Power Miller Power Sources</td>
<td>Maxstar 700 and Maxstar 200DX - 380 to 480 V, 3 phase, 50/60 Hz</td>
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<tr>
<td>Input Power Miller Cooler</td>
<td>Coolmate 3.5 - 115 VAC 50/60 Hz (from power source)</td>
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<tr>
<td>Overall Height</td>
<td>216.5 in (5500 mm)</td>
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<tr>
<td>Shipping Weight</td>
<td>21,054 lb (9550 kg) complete system</td>
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Red-D-Arc Welderentals, an Airgas company, rents and sells welding and weld-positioning equipment - around the world.
Vertical Bore Cladding System (VCS) with HW-GTAW

- GTAW Power Source and HW-GTAW Power Source
- Touch Screen KEY 1250 Controller
- 70.87" (1800mm) diameter turntable
- 15 ton capacity, AC drive, anti-backlash
- Options: Slip ring assembly for heating system, integrated heat flip-top sockets in face plate, various capacity and diameter floor turnables are available
- 6 ft (1830mm) diameter turntable
- 1800mm x 1000mm (78" x 39") floor turnables are available

Heavy Duty Manipulator
- 18' vertical travel
- 13' horizontal travel

Wire Reel
Wire Feed Unit
Welding Torch

Heavy Duty Motorized Slides
78" x 39" (2000mm x 1000mm)