WAVE NG allows the learning of GMAW (131-135), MMAW (111) and GTAW (141) processes. No helmet nor work station setting, the rule is simple: looking at your hands to understand what you are doing and to focus on the essential, the gesture.

WAVE NG is the ideal tool to learn how to master the welding gestures.

**BENEFITS**

- Increase your training results up to 35%
- Save up to 50% of your consumables costs
- Reduce material breakage and workstations wear
- Reduce accidents risks (cuts, projections, flash hazards …)
- Follow each trainee’s and each class’s results and progresses through VULCAN

**LEARNING STEP BY STEP:**

- Follow a line and respect the advance speed
- Respect the arc adjust and the welding angles
- Reduce the error tolerance
- Work on different assemblies and different passes
- Work on different positions (PA, PC, PF etc.)

WAVE NG offers a progressive training path, from beginner to confirmed level, to teach welding and acquire competencies step by step through practice.

What distinguishes welders is their dexterity. If the hand is reliable, the settings will be rapidly handled depending on the materials and positions.

**RESULTS’ FOLLOW-UP PER CLASS AND PER TRAINEE**

VULCAN provides the instructor with the following information:

- Time and objectives’ completion
- Handling percentage, in the 3 tolerance levels (beginner, confirmed, expert) concerning:
  - Linearity,
  - Advance speed,
  - Longitudinal and transversal angles,
  - Arc adjust.
## TECHNICAL CARD

<table>
<thead>
<tr>
<th>WAVE NG SIMULATOR</th>
<th>DISPLAY</th>
<th>REAL TOOL</th>
<th>PROCESS</th>
<th>ASSEMBLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MMAW (111)</td>
<td>GMAW (131-135)</td>
</tr>
<tr>
<td>EDU with zSpace</td>
<td>3D</td>
<td>No</td>
<td>✓ ✓ ✓ ✓</td>
<td>No ✓ ✓</td>
</tr>
<tr>
<td>Pro with zSpace</td>
<td>3D</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>No ✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Lite</td>
<td>2D</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>No</td>
</tr>
<tr>
<td>Workbench</td>
<td>2D</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>No</td>
</tr>
<tr>
<td>Clutter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Needed area: from 0.4m² to 0.9m² (from 4.3 ft² to 9.7 ft²)

<table>
<thead>
<tr>
<th>Main display</th>
<th>21” or 24” screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available languages</td>
<td>French, English, Spanish ...</td>
</tr>
<tr>
<td>Specific functions</td>
<td>Replay, to re-watch a performed action. User identification. Contextual help. VULCAN compliance (learning paths management, etc.)</td>
</tr>
</tbody>
</table>

## PEDAGOGICAL AIMS

The whole learning is built around one only objective: **mastering the gesture**.

Through a suggested and adjustable pedagogical progression, the trainees will work first on their own, then together, to train the 4 main gesture criteria, depending on the 3 tolerance levels.

By repeating the exercises, the trainee will:

- ✓ Properly manage the speed, the arc adjust, the angles;
- ✓ Adapt the movements according to the assembly type or the kind of pass to perform.