WELDING SIMULATOR
Virtual Reality Welding Trainer

MODEL
SPARK 360

Welding Process
• SMAW
• GMAW
• GTAW

MIG Welding Torch (GMAW)
TIG Welding Torch (GTAW)
Arc Welding Electrode (SMAW)
TIG Welding Filler Wire (GTAW)

SPARKLINE
WELDERS
ISO 9001: 2015 Company
Technical Specification For Welding Simulator

Product: Welding Simulator

Vision Technology: Virtual Reality
Input Supply: Single Phase 230v, 50 - 60 Hz, (5 amp)
Learning Concepts: Didactic and Simulation
Process Simulated: SMAW, GMAW, GTAW
Joint Configuration: Butt, Fillet, Lap, Pipe To Plate And Pipe To Pipe
Welding Position - Basic: 1G To 6G and 1F to 4F (Flat, Horizontal, Vertical, Overhead)
System Sensors: Welding Guns has sensors. Detection by sensors placed on Torch Head
Skills Learned & Measured: Arc Length, Weld Speed, Work Angle, Travel Angle
& Straightness, Position, Stick out, Tacking Training
Type Of Work pieces: Haptic Work Pieces/ Virtual Work pieces.
Work Stand: Initial positioning and Setting of Torch / Virtual
Analysis Modes: Video Replay And Graphical Report
Evaluation Methodology: Objective (score) / Graphical (trends) evaluation
Viewing Points: HD Vision Helmet, Simulator System
Thickness Of Materials: 3.0, 5.0 & 10.0, 15 mm
Simulator Parameters: CC / CV Function
Welding Parameter Adjustments: Current, Voltage, Wire feed speed & Gas pressure
Ghost Mode: To guide the welder while welding

Features of The Welding Simulator
- The simulator is with Real environment simulation with smooth, jerk free welding simulation.
- **Machine is not producing any real arc and real fume.**
- Viewing from helmet - HD Vision (3D)
- Simulator Provides 360° Environment with simulation of virtual Smoke, Spark and Welding Sound during Welding training
- Three process simulation Training module: SMAW/MMAW(ARC), GTAW (TIG), GMAW (MIG/MAG/CO2)
- Smart Real Welding Torches can Simulate SMAW/GTAW/GMAW welding, with Virtual Electrode for SMAW, GTAW with filler rod.
- VR Resolution - High Resolution • Colour -32 Bit True colour
- Touch Screen Display Monitor 21" 3D with the Facility to connect External Projector.
- Guidance for Skill parameters during welding (Continuously) like Welding Position, speed, angle, stickout etc.
- Guidance for Ideal vision of welder during welding (Continuously). Live Insta Correct Feedback system
- Weld analysis on Gaps, Shape and Size of Weld Bead, Spatters.
- Every weld bead is evaluated by the simulator, Facility to monitor Performance of each student
- Free Teacher software with Create, Edit and Delete options for Courses, Modules and Student details.
- Networking of simulators can be possible. Possibility to include PDF uploads.
- Remote Maintenance and updates through online support.
- Machine includes pre-defined courses, E learning Videos, Various Audio visual s related to welding and safety.
- Administrator and Trainer Login is available to monitor and evaluate students activity.
- Multi Level Graded Learning is provided. Motion Error Captured through smart torch sensor
- Height Adjustment stand with Tilt option.
- Multi Pass Welding technique, Vertical and Over Head Welding Position.
- Operating System is Licenced Windows 7.

Scope of Supply
- WELDING SIMULATOR UNIT: 1 No.
- ONE Torch each for SMAW/GTAW/GMAW with Tracker: Total 4 nos. virtual 3D tracker (3 Torch & 1 GTAW filler rod)
- Virtual Reality HD Helmet (3D View): 1 No.
- Display Monitor (Touch Screen) - 21": 1 No.
- Virtual Reality Sensor Camera with Telescopic Stand: 1 Set
- UPS 1 kva with Tubular battery: 1 No.
- Components and accessories to meet the Operative need of the above specification & Manuals (Hard & Soft copy)

In view of continuous Development, We reserve the rights to modify the design, specifications and or dimensions without notice.

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