

6 ROBUST SAFETY MEASURES FOR UNMATCHED PROTECTION

The THEO MA1 SERIES handheld welder is a high-performance Class IV laser product¹. Because safety is a non-negotiable priority for industrial operations, the system is engineered with multiple layers of hardware and software protection to ensure a secure working environment².



The system includes six safety features:



Gas Pressure Detection & Security Alarm: Monitors gas pressure; triggers alarm if it drops below safe levels to protect the workpiece and laser optics.

Loop Safety Interlock: Prevents laser discharge unless the welding torch is in contact with the workpiece, ensuring safety.

Safety Key Switch: Restricts laser activation to trained personnel only, preventing unauthorized use.

Emergency Stop Button: A visible button that instantly cuts power to the laser and welding torch for immediate safety.

Multi-Stage Control Switches: A tiered activation process ensures the laser is only active when the operator is ready.

Integrated Warning Lamp: Provides a visual indication of the machine's status to maintain situational awareness in the workshop.

To ensure safety, wearing laser-safe eyewear is mandatory during operation, and FACTORY SMART provides protective goggles with every laser. Each THEO MA1 package includes an integrated wire feeder unit, enabling "wobble welding" for stronger and more consistent welds across various joint types.

