



AWS ONE Master Control Welding and system control

AWS Schäfer has been developing and manufacturing high-tech multi-wire submerged arc welding systems for the pipe and container industry for more than 10 years. The heart of our systems is the welding and system control **AWS ONE Master Control**, which consists of a combination of hardware, software and the long-time know-how of our employees.

All components, system assemblies and manipulation devices belonging to the plant are united in our control system and are simultaneously monitored and controlled via a central control panel. This guarantees a reproducible and perfectly coordinated welding and manufacturing process. For communication with the welding power sources and manipulators, we use all common interfaces such as Profibus, Profinet, CanOpen or DeviceNet.

As an additional feature for documenting welding quality, we have developed the **Welding Data Analyzer** welding data monitoring system, which records all welding parameters together with the workpiece and job data in a diagram for later documentation and evaluation.



No matter if it is a new or existing submerged arc welding system, our **AWS ONE Master Control** is customer configurable and will be individually adapted to your needs!

Please contact us!



Here, you can also find the product information on our website.



More benefits and quality for you through:

Digital Process Control

Interactive control behaviour with an auto-tuning function ensures constant wire feed speed and adherence to the set welding parameters. Correction values relating to wire electrode diameter and component material are continuously determined and automatically taken into account in the subsequent layers. This auto-tuning function offers you increased welding process stability and sustainably reduces your welding defect rate.

Automatic Welding

The automatic welding function - the heart of the One Master Control - links, controls and monitors all peripheral devices of the welding system. During the welding process, all welding parameters can be varied for each head or heads can be switched on or off as required, with the welding speed being automatically adjusted. Seam sequence sensing provides automatic weld head correction along the weld seam, and flux management is fully automatic up to the final sequence. The entire process is monitored and recorded. Any error messages are stored in an error log. This enables your welders to produce the perfect seam.

Visualized User Interface

The most important component for welding automation of the One Master Control is the visualized user interface. For this purpose, the control panel of the AWS One Master Control machines is divided in a technically coherent way - all process parameters are entered, controlled and monitored via the visualized user interface using Direct Touch. In addition, manual buttons, switches and joysticks are available for controlling the main functions of the system.

PDA Interface

The PDA interface enables the automated input of production data, such as job/order number, welding parameters and workpiece data via an existing production data acquisition system. By reading in a digital WPS, the welding parameters assigned to the workpiece are transferred to the system control and cannot be changed without authorization. Your assurance that the parameters will reach your welders.

Welding Data Analyzer

The Welding Data Analyzer enables the recording of all process parameters, including welding position and time. Pop-up messages indicate deviations from target, and the automatically generated quality log serves as proof for welders, quality managers and customers. Export via USB storage medium or network connection is available for end customer documentation. This means that you have your quality in black and white at your fingertips.

Parameter Set Management and Job Archive

A simple database structure allows job parameters to be permanently saved. In the event of a job repetition, the existing know-how is immediately available. A win-win situation: known quality for your customers and more success for you.

Personal and Plant Safety - Safeguarded in Accordance with Standards

Integrated monitoring of all safety-relevant functions of the plant - emergency stop circuit incl. peripherals, area monitoring and safe accesses. Safety functions and technical faults are monitored and visualized by the control system. In this way, we guarantee targeted troubleshooting, with support via remote maintenance access.

Operator Authorization and Management System

System access and the scope of operator authorization are controlled via an RFID chip and logged in the Welding Data Analyzer. This ensures transparency, traceability and protects your system from operating errors.