

Circotech

A series of mechanized compact girth welders



Circotech

is a series of self-propelled 3 o'clock welding equipment primarily developed for on-site erection of large storage tanks, silos, blast furnaces and similar cylindrical objects. It is available as a single-side version and a double-side version. Usually it is designed to travel on the top edge of the tank shell. As there are different ways of building tanks, one machine in the series is designed to travel on a rail which is temporarily fixed to the shell or on a stand-alone ring outside the shell.

Operator safety - CE approved

The operator of each machine (if a double-side version) rides in a cabin, where he supervises and controls the welding process with the control panel within easy reach. The cabin, whose floor level under the carriage is

variable to suit the height of the plate, is built as a cage to give the operator(s) maximum safety and comfort. For weather protection the cage can be covered by curtains. The cabin of a double-side machine is equipped with step ladders and a joining bridge at the top to facilitate for the operators to climb onboard. The bridge also has guard rails for the safety of the operators.

Submerged-arc welding

The machine is usually equipped for SAW with single wire. SAW with twin wires is, upon request, available as an alternative. The flux is supplied from a flux hopper and supported in the welding position by an endless rubber belt from where it may be collected/sucked up after welding and re-circulated. A flux recovery unit can be included.

Circotech design

The Circotech is built up of modules to satisfy a variety of customer requirements. The very basic machine can be equipped with a carriage which travels on the top edge of the plates of a tank, or it can be supplied with a carriage made to travel on a separate rail or ring. In this shape the machine can also be controlled by an operator walking along with it on a built-up cat-walk.

However, the machine is usually supplied with a cabin in the form of a safety cage with curtains for protection against rain and wind.

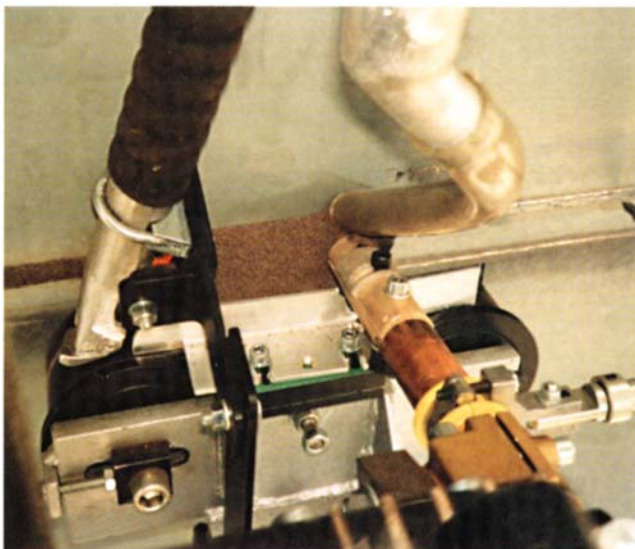
It is easy to adjust the machine for different plate heights, because of the telescopic design of the frame. The design also makes it easy to transport.

For environmental and safety reasons, tanks are nowadays often built with double shells with a space between shells of around 2 m. Circotech is designed to operate also in this space.

A fully functional Circotech package consists of:

- An ESAB subarc welding machine type A6 with manual adjustment slides
- pre-setting control box
- a weather-shielded safety cabin
- an ESAB power source of type LAF 1000 with pre-setting facilities
- flux hopper, 6 l and flux support
- a 50 m control cable
- welding and return cables

A single-side Circotech can be specified for welding either in right-hand or in left-hand direction.



Close-up of the welding head

Options

- Preheating and joint-cleaning oxy-acetylene device, complete with hoses.
- Lighting equipment
- Extension cables
- Twin-arc kit
- Motorized slide

Economic benefits

The investment in a Circotech installation contributes to a consistent weld quality, which means low defect rate. The consumption of welding consumables is low because of efficient joint preparation. All in all this means good return on investment.



Double-side Circotech being lifted onto the job

Choice of equipment

- Single side or double side equipment
- A6 system for SAW with single wire or twin wire
- Top of plate travelling or rail travelling

Technical data

Plates to be welded:	
Height	1000-3000 mm
Thickness	8-35 mm
Shell curvature, radius	minimum 4000 mm



ESAB AB
Welding Equipment
SE-695 81 LAXÅ, Sweden
Phone: +46 584-81000
Telefax: +46 584-411721
E-mail: info@esab.se

www.esab.com

