

Longitudinal Seam Welding Machine

LINEARWELD VTCL

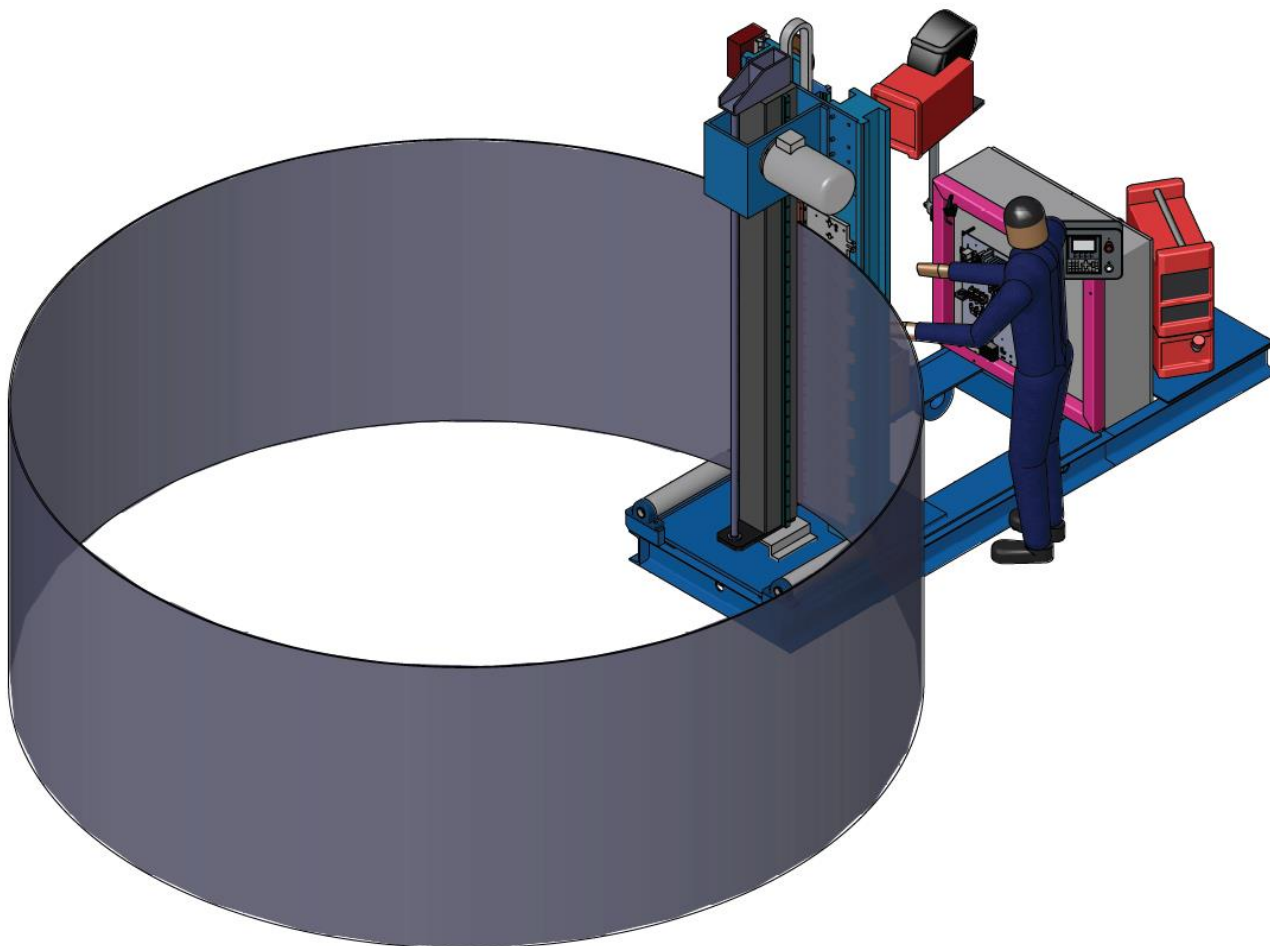


Figure 1: LINEARWELD VTCL 1600 longitudinal seam welder for vertical tank production

The vertical seam welding machine LINEARWELD VTCL is designed for seam welding on standing tank sections. If the surrounding production processes fit, the standing welding position improves tank section handling significant. The maximum diameter that can be welded on this machine is only limited by the available local production space.

Preferred welding methods are TIG or Plasma-Keyhole. The welding process and equipment to be used depends on the material type and thickness as well as the required weld properties.



Figure 2: Vertical seam welder in operation

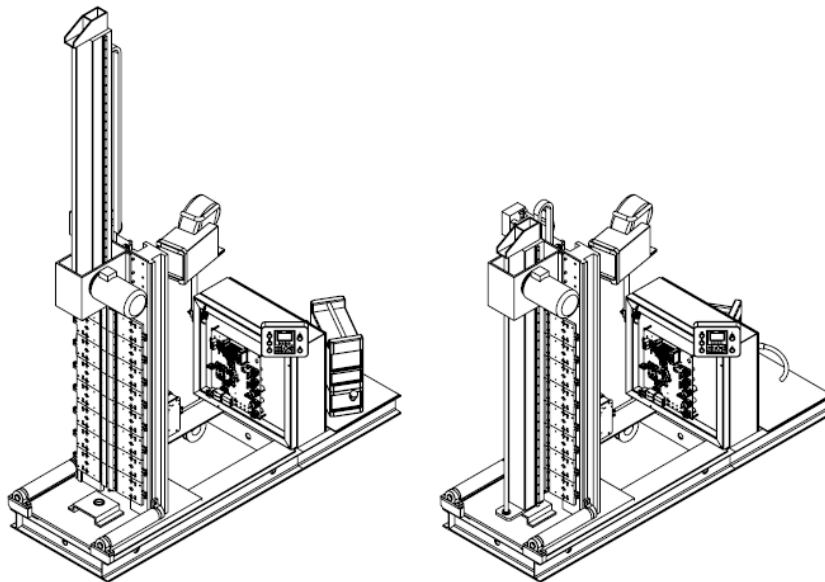


Figure 3: Vertical mandrel lift for easy part loading and unloading.

TECHNICAL DATA

LINEARWELD VTCL	1600	2100
Tube length max.	1600 mm	2100 mm
Tube diameter (inside) min.	450 mm	500 mm
Material thickness	1,0 mm – 10,0 mm	
Material type	Stainless Steel (CrNi) preferred	
Welding Process	Plasma, TIG	
Gas	Torch Gas, Backing Gas, Trailing Gas	
Torch travel speed	10 cm/min – 770 cm/min	
Backing Bar, Clamping Fingers	Hard Wearing Copper (CuCrZr)	
Clamping System	Pneumatic, Pre-clamp feature	
Arc Length	Constant (over whole welding length)	
Cooling Circuit	Backing Bar (Mandrel), Torch	
Control	Siemens S7-ET 200S	
Operator Panel	Siemens Comfort-Panel 7,0" Touch Display	
Motor	Siemens Simodrive Posmo	
Welding Interface	Roboterinterface, Profibus	
Standard	CE-Mark	
Electric Supply	400/230 Volt / 3 / N / PE; 50/60 Hz; TN-Netz	
Air Supply	6 bar, trocken, gefiltert	
Ambient Temperature	+ 10°C bis + 35°C	
Height (mandrel up)	4800 mm	5300 mm

Note: Welding condition and parameter when welding vertical up (PG) or down (PF) are not comparable to horizontal welding position (PA).

For vertical down welding (PG) with plasma-keyhole and wire, the maximum material thickness to be welded in butt joint geometry with on pass only is app. 6 mm. If material thicker than 6 mm is welded elongated pores may form. Therefore seam preparation and multi pass welding might be required.

ARTIKELLISTE

Item	Machine	
1044348	LINEARWELD VTCL 1600, mandrel lift vertical	Longitudinal seam welder
1044462	LINEARWELD VTCL 2100, mandrel lift vertical	Longitudinal seam welder

Item	Options Machine Design	
1044423	Centre Stops (2 piece), automatic	for LINEARWELD VTCL
1017481	Centre Mark with laser pointer, for part alignment (manual)	
1044424	Machine body movable with electric drive, rail guided	for LINEARWELD VTCL

Item	Options Machine Control	
1017089	Welding program memory	
1032670	Router for remote diagnosis	
1017558	Air conditioning unit for electric control cabinet	

Item	Welding and Cooling Equipment	
1017014	FRONIUS TT 3000 Job DC, with chiller	Profibus
1017043	FRONIUS TT 4000 Job DC, with chiller	Profibus
1037126	FRONIUS TT 4000 Job DC with PlasmaModule 10, Plasma-keyhole	Profibus
1031641	FRONIUS KD 4000 D-11 wire feed unit	Profibus
1017086	MIG-O-MAT PlasmaJET 350 SPS K-TP, Plasma Keyhole Welding Unit incl. external Supply Box, with TIG mode (incl. TIG torch)	Profibus
1033997	MIG-O-MAT wire feed unit	0-10 V signal
1036824	Water chiller HYFRA eCHILLY 1	
1036825	Water chiller HYFRA eCHILLY 2	