KOIKE KNOWS TANKS FROM TOP TO BOTTOM
Koike Aronson / Ransome’s AGW Automatic Girth Welder is an automatic system that speeds up construction of field-erected storage tanks. It straddles the shell plates riding on adjustable flanged wheels at operator controlled speeds of 4 to 105 IPM (10–2.67 M/min). It can handle plates as thick as 2 inches and tank diameters from 15 feet and up. Available as dual or single sided machines. Each is equipped with welding heads, controls, flux support belts and recovery units so that 3 and 9 o’clock welds can be made simultaneously. Submerged arc flux belt mechanism ensures retention of the flux at the joint, and efficient recycling of flux.

Adjustable for plates from 6’ to 10’ tall

Features

- Effectively cuts welding time up to 40%
- Adjustable frame for plates 6 ft to 10 ft tall (1.8m-3m)
- Unlimited tank diameters down to 20’ in diameter
- High / low rapid travel select controls
- Self propelled at speeds from 4 to 105 IPM
- Plates up to 2” thick
- Single and Double sided operation
Specifications

Automatic Girth Welders

Includes

- Operator’s Platform with seat
- Wire Feeder and Control
- Power Source
- Vertical Adjuster
- Horizontal Adjuster
- Flux Belt Assembly
- Flux Re-circulating System
- Pre-Heat Torch
- Service Skid with Disconnect
- Tropicalized Controls.
- Weather Curtains
- 200 feet of Control Cable Assembly
- Loading Safety Wheels
- Operator Communication System (AGW-II Only)
- Operators Manual
- Tool Kit

Standard Welding Packages Available:

**Miller SAW Package**
- HDC 1500A Controller
- RAD 400 Wire Feeder
- Sub Arc DC 650 Power Source

**Lincoln SAW Package**
- NA-3 Controller
- NA-3 Wire Feeder
- DC-600 Power Source

**Special Options**
- AC Models Available
- Open Arc models Available
- Custom Engineered Models Available
- Stainless Wheels Kits Available

Adjustable tubular frame for plates 6ft to 10ft tall (1.8m - 3.05m)
Min. 20ft (6.1m) to an Unlimited tank diameter range
Travel speeds 4 - 105 ipm (.10 - 2.67 m/min)
Speed, direction and rapid travel select controls (Master side)

Average welding speed is approximately 30 ipm (.762 m/min)
with a deposition rate of 11# per hour. (per side)
Koike Aronson / Ransome’s AGW-LW Light Weight Automatic Girth Welder is an automatic system that speeds up construction of thin walled field-erected storage tanks. It straddles the shell plates riding on adjustable flanged wheels at operator controlled speeds of 4 to 105 IPM (10–2.67 M/min). It can handle plates as thin as 3/16 inches and tank diameters down to 12’. Equipped with welding head, controls, flux support belts and recovery unit for 3 o’clock welding. Standard controls and welding head, straightener and 50 lb. (22.7 Kg) wire reel included. The adjustable submerged arc flux belt mechanism ensures retention of the flux at the joint, and efficient recycling of flux.

**Features**

- 40% lighter than standard AGW-I
- Effectively cuts welding time up to 40%
- Adjustable frame for plates 6ft to 10ft tall (1.8m-3m)
- 12’ Tank diameters and up
- High/low rapid travel select controls
- Self propelled at speeds from 4 to 105 IPM
- Plates down to 3/16” thick

**Thin Walled, Small Diameter**
Specifications

LW-Automatic Girth Welders

Includes

- Operator’s Platform with seat
- Wire Feeder and Control
- Power Source
- Vertical Adjuster
- Horizontal Adjuster
- Adjustable Flux Belt Assembly
- Flux Recirculating System
- Pre-Heat Torch
- Service Skid with Disconnect
- Tropicalized Controls
- Weather Curtains and Roof
- 200 feet of Control Cable Assembly
- Loading Safety Wheels
- Operators Manual
- Tool Kit

Standard Welding Packages Available:

**Miller SAW Package**
- HDC 1500A Controller
- RAD 400 Wire Feeder
- Sub Arc DC 650 Power Source

**Lincoln SAW Package**
- NA-3 Controller
- NA-3 Wire Feeder
- DC-600 Power Source

**Special Options**
- AC Models Available
- Open Arc models Available
- Custom Engineered Models Available
- Stainless Wheels Kits Available

Adjustable tubular frame for plates 6ft to 10ft tall (1.8m - 3.05m)
Min. 12ft (5.6m) to an Unlimited tank diameter range
Travel speeds 4-105 ipm (.10 - 2.67 m/min)
Speed, direction and rapid travel select controls

Average welding speed is approximately 30 ipm (.762 m/min) with a deposition rate of 11# per hour
The Koike Aronson/Ransome single pass Vertical-Up welder (VUP) can complete 10-12 vertical seams on a field erected storage tank with 8’ tall x 1” thick seams in one work shift. X-Ray quality welds with one operator and one machine.

The frame consists of a vertical column mounted on a powered carriage and roller assembly that rides on the top edge of the tank shell.

Lift controls include up/down switch, high/low speed potentiometers and rapid speed selector that control a variable speed motor that is electronically integrated with the welding control, which automatically adjusts speed to maintain the optimum nozzle to weld puddle relationship.

A Lincoln NA-3 head and control is supplied with two K-176 Nozzles for welding with either 3/32” or .120” diameter NR-431 Innershield wire. The NA-3 head is mounted on a free moving slide providing manual lateral adjustment. An air operated bracket supports an articulated copper shoe assembly.

10 to 12 vertical tank seams in one shift with deposition rates of 48 lb/hr
Specifications

Vertical-Up Welders

Single-Pass Process for Mild Steel

Includes

- Lincoln NA-3 Wire Feeder and Control
- Lincoln DC-1000 Power Source
- Vertical Support Column
- Front and Rear Sliding Shoe
- Water Recirculator
- Power Skid
- Lifting Bale
- Input Power Disconnect
- Tropicalized Controls.
- **200 feet** of Control Cable Assembly
- **Powered** Lateral Travel
- Operators Manual
- Tool Kit

**Notes:**
- Multi-Pass MIG Models Available
- Portable Track Guided Models Available
- Custom Engineered Models Available

*Koike Aronson / Ransome’s single pass Vertical-Up welding system for field construction* welds 20 times faster than conventional stick electrodes.

No joint preparation is required, square butt design saves construction time and money.

Adjustable for plates from 6’ to 10’ tall
The VUP-MIG is designed for an open arc welding process with a gas shield. Bi-directional welding travel, with controlled speed, self-supporting, hangs directly on tank shell. All components integrated onto the lift column. The column will support all welding equipment, including power source and gas cylinder.

Adjustable frame for plates 6’ to 10’ Tall

Features

▪ Ideal for nickel or stainless plates
▪ Adjustable frame for plates 6ft to 10ft tall (1.8m-3m)
▪ Unlimited tank diameters
▪ Up/down, high/low rapid travel select controls
▪ Rack and pinion drive for positive vertical motion
▪ Powered lateral travel for moving from joint to joint
Specifications

Vertical-Up Welders

Includes

- Vertical support column.
- Welding head support table with support rollers
- Cross slide to provide in-out, right-left and height adjustment (Manual)
- Torch weaver (Oscillator) (KSK WU-1 Weaver)
- Operators controls
- Power source platform mount
- Gas cylinder mount
- Lifting bale.
- 230/380/460V - 3PH – 50/60HZ.
- Manual or powered lateral travel
- Operators manual
- Tool kit

Optional removable operator platform (Not Shown)

Notes:

- Single Pass Verti-Shield Models Available
- Portable Track Guided Models Available
- Custom Engineered Models Available

Recommended Miller Welding Equipment

Supplied and integrated by Koike, or Customer Supplied

- XMT 350 CC/CV Power Source
- S-74D Wire Feeder w Wire Reel
- Wire straightener for 1/16 - 3/32 Wire
- Work Cable w/ Ground Clamp
- 400 Amp Mechanized Torch,
- Gas Connection Kit w/ gas Regulator
KOIKE ARONSON, INC. / RANSOME

SHELL BUGGY
Manual or Powered Travel, and Power Elevating options available

- Up to 10' plates
- 300 lb (112 kg) weight capacity
- Tank diameters from 15’ and up
- Plate thickness up to 1”
- Manual or powered horizontal travel
- Manual or powered elevation
- 26” x 50” work platform area

Koike Aronson / Ransome’s Shell Buggy is the ideal solution for manual operations during tank construction. Supported off the top shell of the tank, the compact work platform provides the operator access to both horizontal and vertical seams for up to 10’ plates. Used for preparation, cleaning or repair without the need for scaffolding. Fold down steps or power elevation provide the operator with a full reach of the entire vertical seam. Powered and manual traverse options are available, with large lifting eyes for loading and unloading on/off the tank shell. Flanged wheels and safety fingers allow for use on up to 1” thick material.

Operator access to both horizontal & vertical seams without scaffolding
OPTIONS

TOW BEHIND POWER SKIDS
Skids can be attached directly to VUP or AGW, reducing cable length and wind-up problems. Configured for any power source and support equipment required for machine. Rotary grounds attached to wheel axles provide constant ground current conduction.

Used for both wired and engine driven power sources

WEL-HANDY MULTI
MULTI-PURPOSE AUTOMATIC WELDING CARRIAGE

Highly Productive Welding from a Compact Machine
Light, compact, 4WD, magnetic force traction and a low center of gravity allows this series of machines to achieve the highest pulling power and stability in the marketplace today. Utilizing a strong magnet, vertical and horizontal fillet welding is possible with the standard unit. The Stitch Welding and Twin Torch Welding units

▪ Sub-Arc and MIG compatible
▪ Optional WU-1 oscillating weaver option available