

**CUTTING, POSITIONING & WELDING EQUIPMENT**

# **TANK FABRICATION**

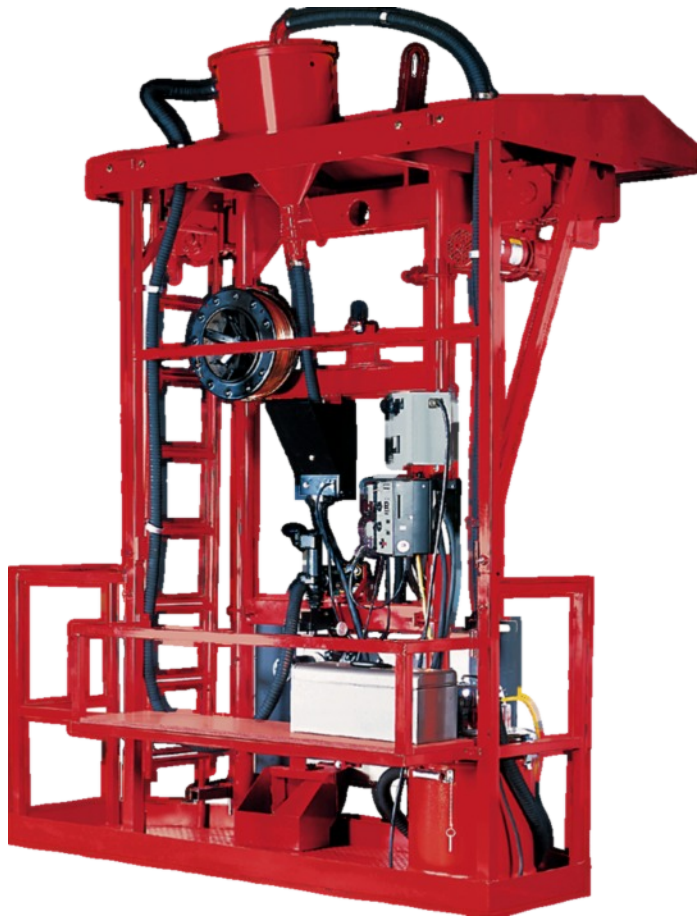
**KOIKE KNOWS TANKS FROM TOP TO BOTTOM**



**Koike Aronson, Inc./Ransome**

# AGW Series

## AGW-I / AGW-II Automatic Girth Welders



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.

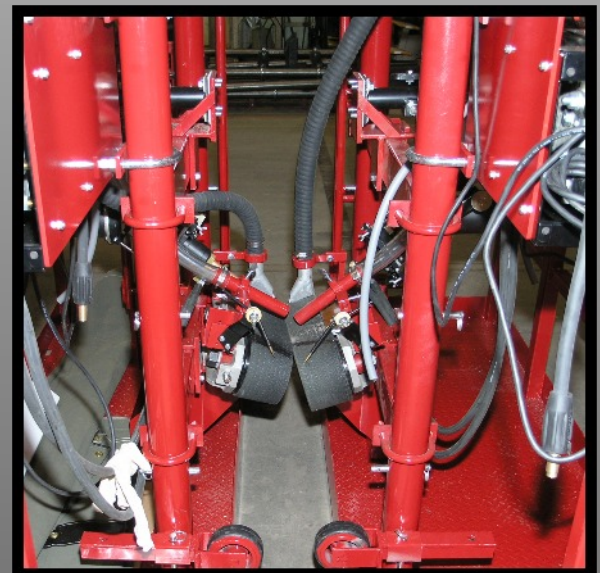
**Adjustable for plates from 6' to 10' tall**



**KOIKE ARONSON, INC. / RANSOME**

### 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 Inc.

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# AGW Series

## AGW-LW Light Weight Automatic Girth Welders

**Weighs less than  
1,000 lb. (450 kg)  
w/o canvas**



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 bs. (22.7Kg) wire reel included. The adjustable submerged arc flux belt mechanism ensures retention of the flux at the joint, and efficient recycling of flux.

**Thin Walled, Small Diameter**



**KOIKE ARONSON, INC. / RANSOME**

### 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



# 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

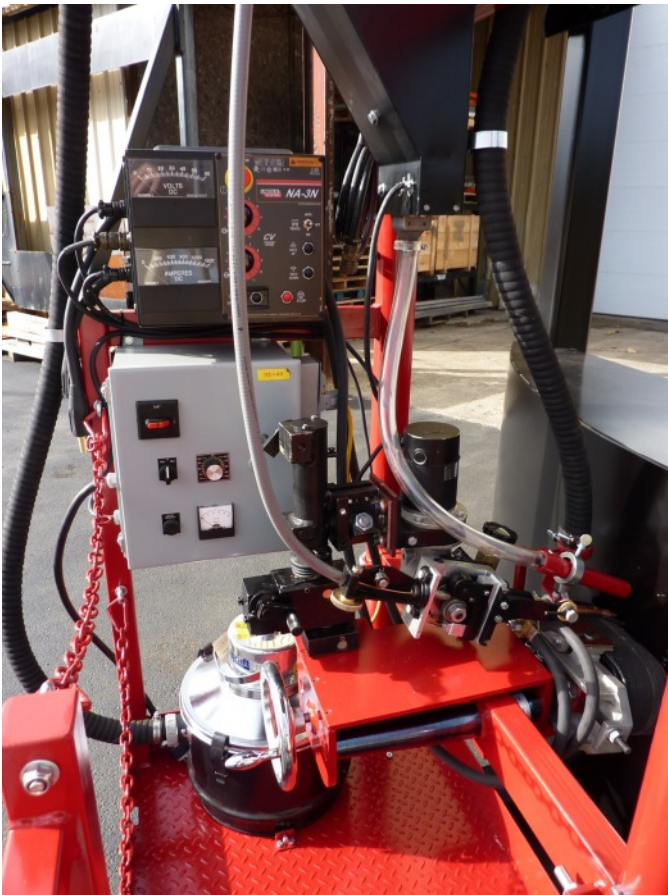
- ◆ HDC 1500A Controller
- ◆ RAD 400 Wire Feeder
- ◆ Sub Arc DC 650 Power Source

#### 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



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# VUP Series

## VERTICAL-UP WELDER (VUP)



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**

## Features

- X-Ray Quality Welds
- Single Pass Operation
- Adjustable frame for plates 6ft to 10ft tall (1.8m-3m)
- Unlimited tank diameters
- Optional Powered Oscillator
- for 1-1/4" to 3" plate
- Standard Powered Lateral Travel



# 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**

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# VUP Series

## VERTICAL-UP MIG WELDER (VUP-MIG)



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



**KOIKE ARONSON, INC. / RANSOME**



# 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

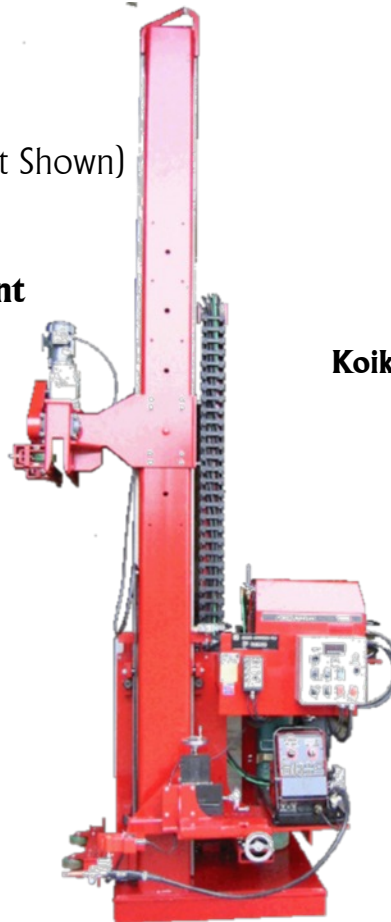
Optional removable operator platform (Not Shown)

### 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

### Notes:

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



**Koike WU-1 Weaver Control**

 **Koike Aronson Inc.**

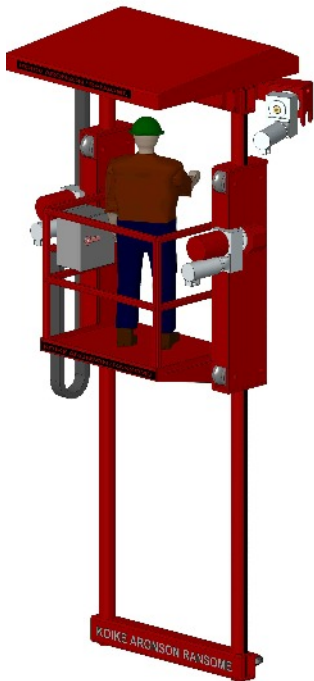
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# OPTIONS

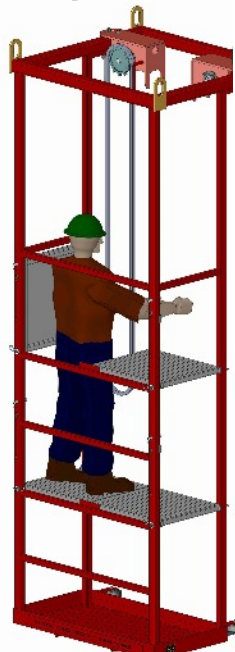
## SHELL BUGGY

Manual or Powered Travel, and  
Power Elevating options available



Powered drive  
traversing and  
powered deck for  
elevation

Manual pulley drive for  
traversing and fold down  
steps for elevation



Powered drive for  
traversing and fold down  
steps for elevation

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**



**KOIKE ARONSON, INC. / RANSOME**

- 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



**Optional powered traverse drive**



# 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



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

### 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



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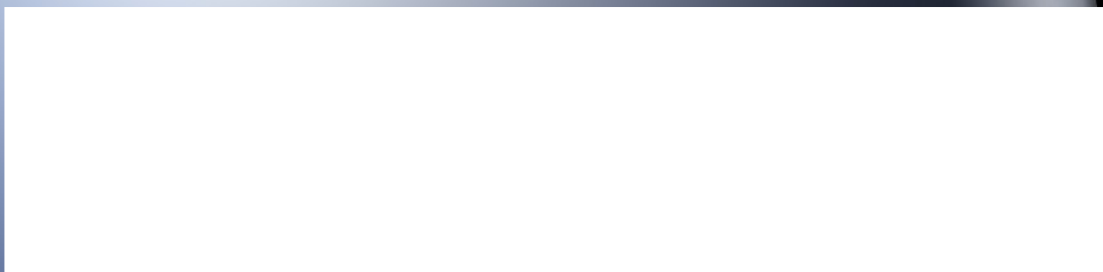
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