

# ROCKER ARM WELDERS

20 - 25 kVA · PEDESTAL SPOT WELDERS

Pneumatic Operated and Foot Operated · 464X Series Dual-Voltage



Main: 844-44-TECNA  
International: +1-216-475-5629  
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TECNA Pedestal Welders, Portable Spot Welding Guns, Bench Welders,

Tool Balancers, Accessories, Spare Parts, Service and Support!

# TECNA ROCKER ARM WELDERS

Air Operated and Foot Operated | 20 - 25 kVA

## AIR OPERATED WELDERS

- Air-Operated, lube-free cylinder eliminates oil mist in the shop environment.
- Electrode force is adjustable via integrated filter / regulator combination.
- Reduce shop noise with integrated speed control valves, shock absorber for end of cylinder stroke, and air exhaust mufflers.
- Two-stage electronic footswitch initiation (1st stage closes tips without welding, 2nd stage initiates weld schedule.)
- Pre-wired to accept a second footswitch (Option 72977). A second footswitch allows for immediate recall of a second weld time / current setting. This is helpful when different settings are required on the same workpiece.
- PINCH POINT SAFETY OPTION: WSI-supplied TECNA Rocker Arm Welders are available with UNITROL Soft Touch Safety for pinch point protection.

## FOOT OPERATED WELDERS

- Adjustable electrode force: set via spring tension, a microswitch starts the welding cycle when the desired pre-set force is reached.
- Adjustable-length foot pedal.

## ALL 464X ROCKER ARM WELDERS

- Arm depth is adjustable by up to 12.6" (320mm) depending on your working requirements.
- Adjustable Drop Arm Assembly, Option 6030, is available on all models. Note that larger arm gap reduces available welding current. The greater the spacing between the arms, the lower the welding current available at the electrodes.



- 1** TE101 Control, mounted on the front of the machine, allows operator to view data while welding.
- 2** UNITROL® SOFT TOUCH Pinch Point Safety System option (as shown)
- 3** Air Pressure Gauge, Regulator Knob, and Speed Controls are mounted at the top of the machine for easy monitoring and adjustment.
- 4** Water-cooled transformer, arms and electrodes. Epoxy resin coated transformer for maximum protection.
- 5** Adjustable electrode stroke enables access to a greater range of parts.

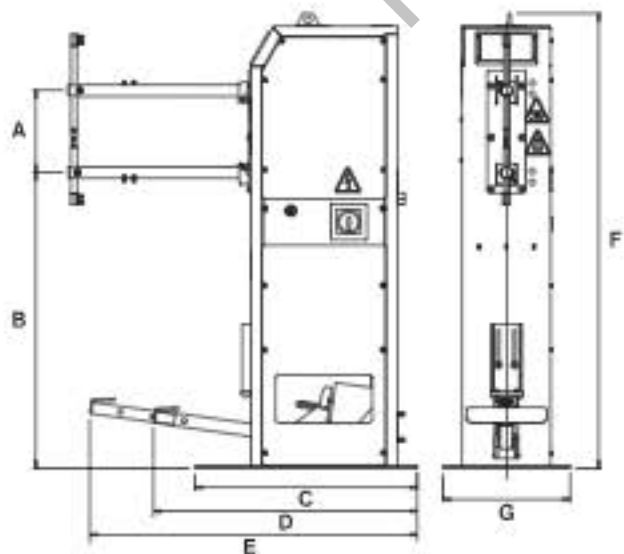
- 6** Chromium-copper electrode holders are designed for long life and heavy-duty service. May be mounted at 12° and 90° positions in the arm. Optional Universal-Style arms are available exclusively from WSI for 1" diameter electrode holders, and for mounting the electrode holders at 30° and 90°.
- 7** Adjustable throat depth enables maximum flexibility.
- 8** Ergonomic frame for long term operation in production environments.
- 9** WSI Exclusive Standard Low-Profile Lower Holder enables accessing parts as small as 3" diameter.



- 10** Single Foot Pedal (standard). Additional foot pedal (optional part #73070) on base allows mounting both foot pedals on a common base.

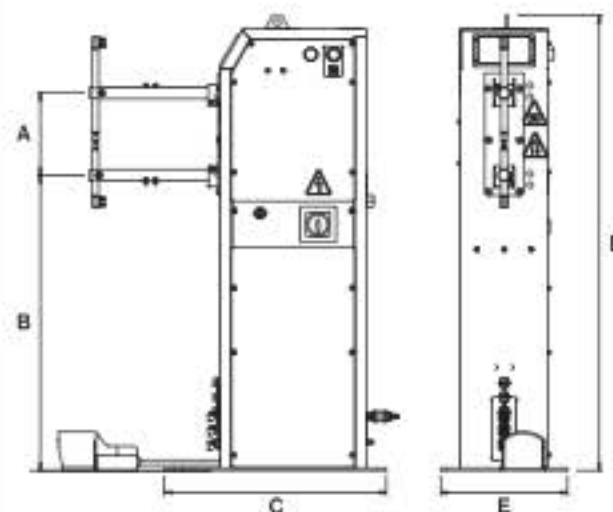
SPECIFICATION	UNITS	MODELS							
		WTR-4642	EURO-4642	WTR-4644	EURO-4644	WTR-4647	EURO-4647	WTR-4649	EURO-4649
Foot or Air Operated		FOOT		FOOT		AIR		AIR	
Power @ 50% Duty Cycle	kVA	20		25		20		25	
Max Power	kVA	39		55		39		55	
Secondary Voltage	V	4		4.6		4		4.6	
Maximum Short Circuit Current	A	12,000		14,500		12,000		14,500	
Maximum Welding Current on Steel	A	9,600		11,600		9,600		11,600	
Thermal Current @ 100%	kA	3.5		3.8		3.5		3.8	
Supply Voltage (@60Hz)*	V	Dual Voltage 230/440							
Delayed Fuses @ 230VAC	A	80		100		80		100	
Delayed Fuses @ 440VAC	A	40		50		40		50	
Primary Cables Ø (up to 30m)	mm	10		16		10		16	
Includes OSHA-Preferred LOTO-Compliant Air Lockout		-	-	-	-	Yes	No	Yes	No
Compressed Air Supply	psi (bar)	-		-		94-145 (6.5-10)		94-145 (6.5-10)	
Air Consumption per 1000 Spots @ 94 psi (650kP / 6.5 bar)	SCF (Nm)	-		-		152 (4.3)		152 (4.3)	
Arm Minimum Length	in (mm)	15.0 (380)		15.0 (380)		15.0 (380)		15.0 (380)	
Max Electrode Force @ 94 psi (6.5 bar)	lbs. (daN)	330 (150)		330 (150)		363 (165)		363 (165)	
Working Stroke	in (mm)	0.4-2.4 (10-60)		0.4-2.4 (10-60)		0.4-2.4 (10-60)		0.4-2.4 (10-60)	
Arm Maximum Length	in (mm)	27.6 (700)		27.6 (700)		27.6 (700)		27.6 (700)	
Max Electrode Force @ 94 psi (6.5 bar)	lbs. (daN)	176 (80)		176 (80)		198 (90)		198 (90)	
Working Stroke	in (mm)	0.6-4.1 (15-105)		0.6-4.1 (15-105)		0.6-4.1 (15-105)		0.6-4.1 (15-105)	
Short Circuit Current with Arms @ Max Length	kA	8.8		10.5		8.8		10.5	
Water Cooling @ 36 psi (250 kP / 2.5 bar)	gpm (lpm)	1 (3.8)		1 (3.8)		1 (3.8)		1 (3.8)	
Minimum Water Pressure	psi (bar)	36 (2.5)		36 (2.5)		36 (2.5)		36 (2.5)	
Aerial Noise Produced	dB(A)	<70		<70		<70		<70	
<b>Measured Conditions</b>									
Working Stroke	in (mm)	0.79 (20)		0.79 (20)		0.79 (20)		0.79 (20)	
Welding Time	Cycles	26		20		26		20	
Welding Current	kA	9		11		9		11	
Working Rating (Welds per Minute)	#/min	10		10		10		10	
Net Weight	lbs (kg)	321 (146)		326 (148)		317 (144)		321 (146)	
Ø Arms	in (mm)	1.57 (40)		1.57 (40)		1.57 (40)		1.57 (40)	
Ø Electrode Holders		7/8"	22mm	7/8"	22mm	7/8"	22mm	7/8"	22mm
Electrode Taper Size		4RW/1MT	14.8mm	4RW/1MT	14.8mm	4RW/1MT	14.8mm	4RW/1MT	14.8mm
Compatible with North American Holders/Electrodes?		Yes	No	Yes	No	Yes	No	Yes	No
*May be supplied capable of operating on other voltages/frequencies. Please ask for details.									

### FOOT OPERATED SPOT WELDERS



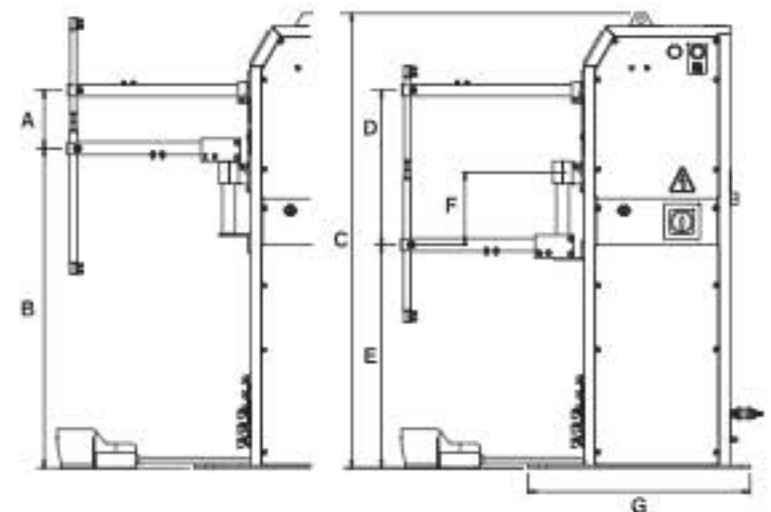
A - 10.0 in (255 mm)	D - 32.3 in (820 mm)	G - 15.6 in (395 mm)
B - 36.2 in (919 mm)	E - 40.2 in (1020 mm)	
C - 27.2 in (690 mm)	F - 55.7 in (1414 mm)	

### AIR OPERATED SPOT WELDERS



A - 10.0 in (255 mm)	C - 27.2 in (690 mm)	E - 15.6 in (395 mm)
B - 36.2 in (919 mm)	D - 55.7 in (1414 mm)	

### ADJUSTABLE DROP ARM ASSEMBLY (Option 6030)



A - 7.1 in (180 mm)	D - 18.9 in (480 mm)	G - 27.2 in (690 mm)
B - 39.1 in (994 mm)	E - 27.3 in (694 mm)	
C - 55.7 in (1414 mm)	F - 8.9 in (225 mm)	

SAMPLE CONFIGURATIONS and PERFORMANCE				
Thickness in. (mm)	Arm Length in. (mm)	Electrode in. (mm)	Welding Time (cycles)	Spots / h
<b>kVA 20</b>				
0.03 + 0.03 (0.8 + 0.8)	9.0 (230)	0.2 (4.5)	5	4000
0.06 + 0.06 (1.5)	9.0 (230)	0.2 (4.5)	12	3400
0.1 + 0.1 (3 + 3)	9.0 (230)	0.3 (8)	55	400
0.04 + 0.04 (1 + 1)	21.7 (550)	0.2 (5)	5	4000
0.08 + 0.08 (2 + 2)	21.7 (550)	0.3 (7)	40	1200
0.08 + 0.08 (2 + 2)	27.6 (700)	0.3 (7)	50	1200
<b>kVA 25</b>				
0.03 + 0.03 (0.8 + 0.8)	9.0 (230)	0.2 (4.5)	5	4000
0.06 + 0.06 (1.5 + 1.5)	9.0 (230)	0.2 (4.5)	12	3400
0.1 + 0.1 (3 + 3)	9.0 (230)	0.3 (8)	55	400
0.04 + 0.04 (1 + 1)	21.7 (550)	0.2 (5)	5	4000
0.08 + 0.08 (2 + 2)	21.7 (550)	0.3 (7)	40	1200
0.08 + 0.08 (2 + 2)	27.6 (700)	0.3 (7)	50	1200
0.2 + 0.2 (4 + 4)	9.0 (230)	0.4 (11)	80	220
Ø 0.2 + 0.2 (6 + 6)	21.7 (550)	0.6 (~16)	15	4000
Ø 0.3 + 0.3 (8 + 8)	9.0 (230)	0.6 (~16)	20	1600
Ø 0.5 + 0.5 (12 + 12)	9.0 (230)	0.6 (~16)	40	500

Actual results will vary, and may be higher depending on part/electrode configuration and cosmetic requirements.

Model	Arm Length in. (mm)	Thickness in. (mm)	Thickness Ø in. (mm)
4642	15.0-27.6 (380-700)	0.1 + 0.1 (3 + 3)	0.4 + 0.4 (10 + 10)
4644	15.0-27.6 (380-700)	0.2 + 0.2 (4 + 4)	0.5 + 0.5 (12 + 12)
4647	15.0-27.6 (380-700)	0.1 + 0.1 (3 + 3)	0.4 + 0.4 (10 + 10)
4649	15.0-27.6 (380-700)	0.2 + 0.2 (4 + 4)	0.5 + 0.5 (12 + 12)

Actual results will vary, and may be higher depending on part/electrode configuration and cosmetic requirements.



### CONTROL UNIT TE 101

TE 101 is a microprocessor-based welding control for single-phase AC resistance welders. The weld control is used to control the movement of the welder and the thyristor / silicon-controlled rectifier (SCR) that regulates the welding current. The working program followed by the TE 101 is created through the 13 programming parameters available in the control. The TE 101 may be used for both manual and pneumatic-operated welders.

TE-101 Programmable Parameters	
Squeeze Time	00 - 99 cycles
Pre-Weld Time	00 - 99 cycles
Pre-Weld Current	01 - 99 %
Cool Time 1	00 - 50 cycles
Slope Up Time	00 - 25 cycles
Weld Time	00.5 - 99.5 cycles
Current	01 - 99 %
Cool Time 2	01 - 50 cycles
Pulses No.	00 - 09
Hold Time	00 - 99 cycles
Off Time	00 - 99 cycles
Max Current Limit	00 - 56.0 kA
Min Current Limit	00 - 56.0 kA



**50 kVa**

**PRESS AND ROCKER ARM SPOT WELDERS**

Pneumatic Operated Dual Voltage

Model #: 4662 • 4666



# TECNA PRESS AND ROCKER ARM WELDERS

Pneumatic Operated and Dual Voltage | 50 kVA

## AIR OPERATED WELDERS

- Air-Operated, lube-free cylinder eliminates oil mist in the shop environment.
- Electrode force is adjustable via integrated filter / regulator combination.
- Reduce shop noise with integrated speed control valves, shock absorber for end of cylinder stroke, and air exhaust mufflers.
- Two-stage electronic footswitch initiation (1st stage closes tips without welding, 2nd stage initiates weld schedule.)
- Pre-wired to accept a second footswitch, Option 72977. A second footswitch allows for immediate recall of a second weld time / current setting. This is helpful when different settings are required on the same workpiece.
- SAFETY OPTION: WSI-supplied TECNA Welders are available with UNITROL SOFT TOUCH Safety for pinch point protection.
- Fixed retraction stroke. Manual (standard) or foot pedal actuation (optional).



## 4662 ADJUSTABLE ARMS

- Arm depth is adjustable by up to 12.6" (320mm) depending on your working requirements.
- Adjustable Drop Arm Assembly, Option 4638, is available on all models. Note that larger arm gap reduces available welding current. The greater the spacing between the arms, the lower the welding current available at the electrodes.



## OPTIONAL ACCESSORIES



Insulated serial interface RS232, enabling the direct connection to a printer or PC. Only with optional TE550 control. **Option 50214.**



USB interface board. **Option 4639.**



Two-hand safety control on pedestal, adjustable height. Recommended for operator safety depending upon working requirements. Only with optional TE550 control. **Option 72628.**



Additional foot-pedal for program no. 2. **Option 73070.**

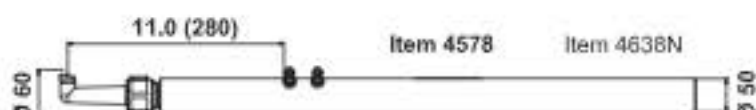
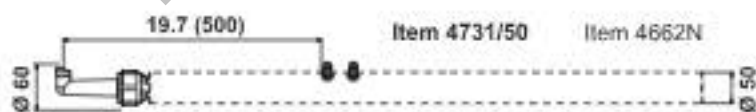


Optional foot-pedal for retraction stroke. Only with optional TE550 control. **Option 4635 / 4636.**

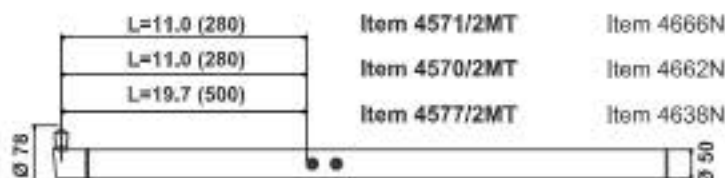
Single Footswitch (standard) as on 20kVA.

SPECIFICATION	UNITS	WTR		WTP	
		4662	4662	4666	4666
Power @ 50% Duty Cycle	kVA	50		50	
Max Power	kVA	104		84	
Secondary Voltage	V	6.1		6.1	
Maximum Short Circuit Current	A	21,000		17,000	
Thermal Current @ 100%	kA	5.7		5.7	
Supply Voltage (@60Hz)*	Dual Voltage	230/440		230/440	
Delayed Fuses @ 230VAC	A	175		125	
Delayed Fuses @ 440VAC	A	100		70	
Primary Cables Ø (up to 30m)	mm	35		35	
Includes OSHA-Preferred LOTO-Compliant Air Lockout		Yes	No	Yes	No
Compressed Air Supply	psi (bar)	94 (6.5)		94 (6.5)	
Air Consumption per 1000 Spots @ 650kP (6.5 bar)	SCF (N/m)	219-159 (6.2-4.8)		191-60 (5.4-1.7)	
Arm Minimum Length	in (mm)	11 (280)		15.7 (400)	
Max Electrode Force (6.5 bar)	lbs. (daN)	935 (425)		1034 (470)	
Working Stroke	in (mm)	0.2-2 (5-50)		0.2-3.2 (5-80)	
Arm Maximum Length	in (mm)	23.6 (600)		-	
Max Electrode Force (6.5 bar)	lbs. (daN)	462 (210)		-	
Working Stroke	in (mm)	0.2-3.7 (95)		-	
Short Circuit Current with Arms @ Max Length	kA	14.3		-	
<b>Adjustable Arm Gap Assembly (OPTION 4638)</b>					
Short Circuit Current with Arms @ Max Gap	A	12,600		-	
Minimum Gap	in (mm)	7.7 (195)		-	
Maximum Gap	in (mm)	19.7 (500)		-	
Water Cooling @ 250 kP (2.5 bar)	gpm (lpm)	1.1 (4)		1.1 (4)	
Minimum Water Pressure	psi (bar)	36 (2.5)		36 (2.5)	
Aerial Noise Produced	dB(A)	<70		<70	
<b>Measured Conditions</b>					
Working Stroke	in (mm)	20		20	
Welding Time	Cycles	15		23	
Welding Current	kA	16		12.7	
Working Rating (Welds per Minute)	#/min	15		15	
Net Weight	lbs (kg)	502 (228)		495 (225)	
Ø Arms	in (mm)	1.97 (50)		1.97 (50)	
Ø Electrode Holders		1"		1"	
Electrode Taper Size		5RW/2MT		5RW/2MT	
Compatible with North American Holders/Electrodes?		Yes	No	Yes	No

\*May be supplied capable of operating on other voltages/frequencies. Please ask for details.

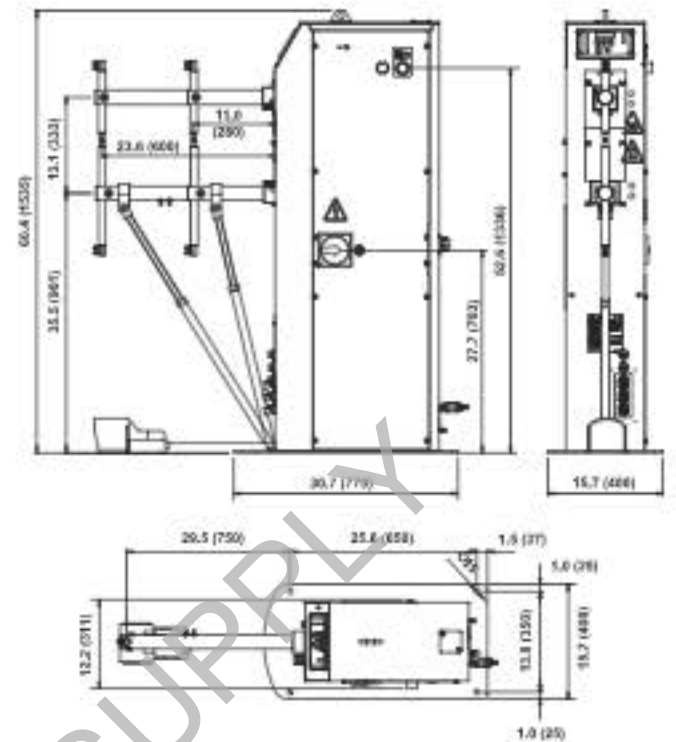


Fits drop arm assembly ONLY.

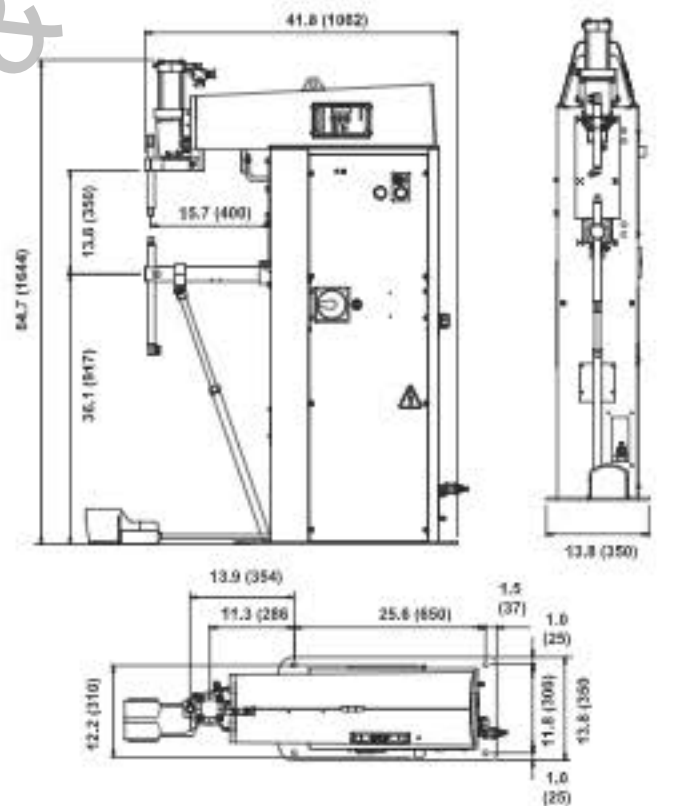


Fits drop arm assembly ONLY.

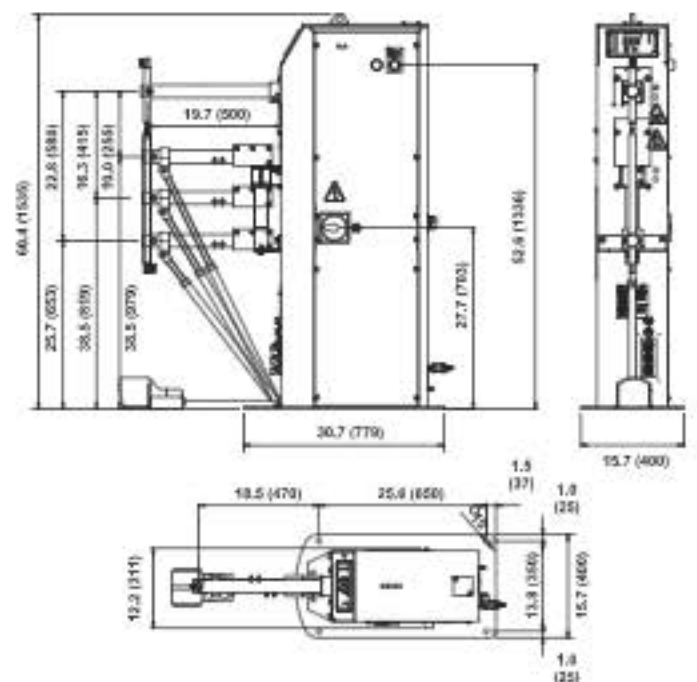
ROCKER ARM SPOT WELDERS

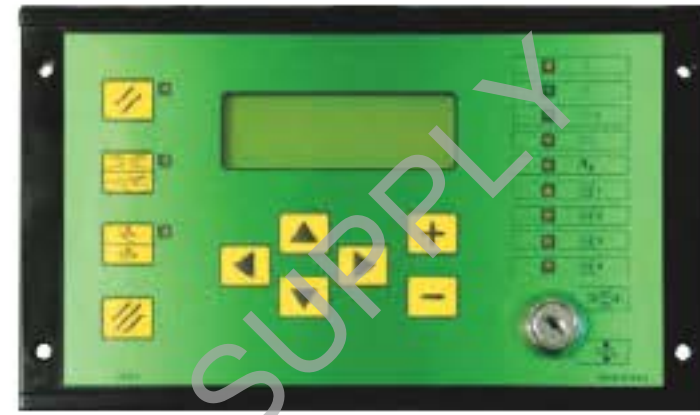


PRESS TYPE SPOT WELDERS



ADJUSTABLE ARMS - DROP ARM ASSEMBLY (Option 4638)





Programmable Parameters	TE101 (standard)	TE550 (option 4637N)	TE550 (option 4637N + option 4634)
Type of Control	Pulse Width (Standard)	Constant Current	Constant Energy
Constant Current	No	Yes	
Constant Energy	No		Yes
Secondary Current Monitoring (Rogowski Coil)	Yes		
Basic Secondary Current Compensation	Yes		
Number of Parameters in Weld Program	13	26	26
Number of Programs Available	99	250	250
Number of Welding Programs Selectable by Foot Pedal	2		
RS232 or USB Interface Available (Optional)	RS232 Only	RS232 or USB	
Allows Programming in Half-Cycles	Yes		
Heat Stepper Function	No	Yes	
Weld Counter	No	Yes	
Maximum Weld Count	No	Yes	
Dual-Palm Button Initiation	No	Yes	
End Of Cycle/Interlock Output	End of Cycle Only	End of Cycle and Interlock Outputs	
High/Low Weld Current Limits	Yes		
Output signal for Out of Limits Welds	Yes		

# UNITROL

## SOFT TOUCH

### PINCH POINT SAFETY SYSTEM



Available from WSI as a retrofit to existing machinery by our experienced service team, as well as on new machines.

**Easier Setup:** No User Calibration, EVER. Just install and turn power ON.

**Universal:** Works with Non-Unitrol MFDC inverter and 1 Phase AC controls. Change two plug-in relays for use with 115VAC or 24VDC solenoid valve voltage.

**Always Ready to Protect:** Does not have to be calibrated even when you power-up, change material or change tooling.

**Instantly Tunes to YOUR Welder:** Does not stop production to recalibrate. Automatically compensates for changes in transformer tap switch position or line voltage shifts.

**Easy to Read Operation Display:** Shows exactly what is happening. Can be mounted on either side of enclosure.

**Supports SOFT TOUCH RETRACT:** Just add optional RETRACT pneumatic system with HEAD DOWN limit switch for full protection.

**Full electrical redundancy:** All inputs and outputs require closure of both electro-mechanical and solid-state redundant components for full safe operation. Self-monitors output relay to prevent any operation if a fault is detected.

**As Always, The UNITROL SOFT TOUCH:**

**Cannot Be Bypassed**

**Sensor Wires Always Clear of Production Area:** Sensor wires are connected at output of welder secondary. Never needs sensor wire location to be moved closer to the electrodes for any type of welder.

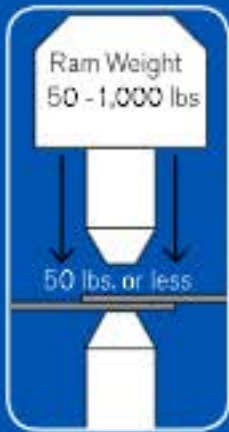
**Fast Release:** Electrodes close under low force and release in less than half of a second if metal is not detected between electrodes.

**Electrodes Close Without Initial Delay:** Electrodes start to move at the same time the welding control is initiated. Closing speed is independent of welding pressure.

**Works with Ram Depth Limit Switch:** For redundant system requiring both Electrode Continuity and Ram Depth Limit Switch closure.

# HOW SOFT TOUCH WORKS

SEQUENCE: When the foot or hand switch is closed to start a weld:



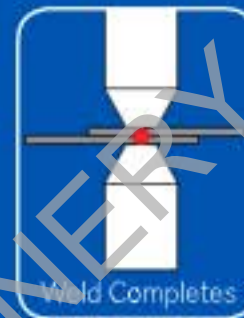
**1.** The welding electrodes close under low force. The unique pneumatic systems designed by UNITROL for this process can counter-balance the weight of the ram on large press welders. Even where the dead-weight of the welder ram is hundreds of pounds, the electrode force produced will be 50 pounds or less.



**3.** If metal is not detected, the electrodes open automatically and do not go to welding force. A display tells the operator the problem.



**2.** The welding control checks to see if metal has been detected between the electrodes within a customer set maximum time limit.



**4.** If metal is detected, full welding force is applied and the weld proceeds normally

## SOFT TOUCH is a Fully Passive Fail-Safe System

**TYPES OF WELDERS:** SOFT TOUCH can be used with all types of metals on press welders, rocker-arm welders, portable gun welders, and hanging gun welders doing spot, projection and seam welding.

**FULLY PASSIVE:** There are no operator adjustments. Even if electrode height or travel is changed, the SOFT TOUCH system continues to function without any operator changes. In fact, there is nothing for the operator to adjust.

**FAIL SAFE OPERATION:** If any of the system sensor wires become disconnected, the SOFT TOUCH system will lock out and not let the electrodes close or the welding sequence to proceed.

If the SOFT TOUCH sensor board detects electrode continuity before the foot switch or hand switches are closed, the system will lock out and not allow any electrode movement.

**UNITROL** | SYSTEM READY ●

**SOFT TOUCH**  
PINCH POINT SAFETY SYSTEM  
Patent Pending

- ▶ Start
- ▶ Low Force On
- ▶ Continuity Detected
- ▶ Limit Switch Closed
- ▶ High Force On
- ▶ OK to Weld

Detect Time Exceeded Dress Electrodes ●	○ Retract Low Force On
Continuity Detected with No Start Signal ●	○ Head Down Closed
Output Closed Fault ●	○ Retract High Force On

Tip Dress ON

# OSHA AND ANSI RESEARCH FOR SOFT TOUCH CONCEPT



Soft Touch remains safe even during electrode installation and dressing.  
A Tip Dress switch is included for use during these procedures.

## ANSI 12.3.2.2 Single-Ram and Single-Point Equipment.

On stationary single-ram welding machines, unless the workpiece size, configuration, or tooling (e.g., jig or fixture) occupies both of the operator's hands remotely from the point of operation during the machine cycle, operations shall be in a manner preventing injury to the operator by one or a combination of the following:

(1) Machine guards or fixtures preventing the operator's hands from passing under the point of operation; (2) Two-handed controls; (3) Latches; (4) Presence sensing devices; or (5) Any similar device or mechanism preventing operation of the ram while the operator's hands are under the point of operation.

**NOTE:** SOFT TOUCH matches (5) by preventing dangerous operation of the welder ram (closing of electrodes) while the operator's hands are between the electrodes.

## OSHA 1910.212(a)(1)

Types of guarding. One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding methods are barrier guards, two-hand tripping devices, electronic safety devices, etc.

**NOTE:** The SOFT TOUCH sensor board is an "electronic safety device" in that it closes an electromechanical relay when it electronically senses that the electrodes are closed on the metal part in the work area prior to application of high force.

## OSHA 1910.255(b)(4) (resistance welding machines)

Guarding. All press welding machine operations, where there is a possibility of the operator's fingers being under the point of operation, shall be effectively guarded by the use of a device such as an electronic eye safety circuit, two hand controls or protection similar to that prescribed for punch press operation, 1910.217.

[www.hweiss.com](http://www.hweiss.com)

## OSHA 1910.217(c)(3)(iii)

A presence sensing point of operation device shall protect the operator as provided in paragraph (c)(3)(i)(a) of this section, and shall be interlocked into the control circuit to prevent or stop slide motion if the operator's hand or other part of his body is within the sensing field of the device during the downstroke of the press slide.

**NOTE:** The electrode on the low-force ram becomes the "sensor" in this system. The "downstroke" of the welder, with the SOFT TOUCH system installed, starts when high pressure is applied to the welder ram.

## OSHA 1910.217(c)(3)(iii)(b)

The device may not be used as a tripping means to initiate slide motion.

**NOTE:** This SOFT TOUCH circuitry does not initiate any valves. It is only an input into the weld control to indicate part (finger) sensed in between the electrodes.

## OSHA 1910.217(c)(3)(iii)(c)

The device shall be constructed so that a failure within the system does not prevent the normal stopping action from being applied to the press when required, but does prevent the initiation of a successive stroke until the failure is corrected. The failure shall be indicated by the system.

**NOTE:** At the start of each stroke, SOFT TOUCH checks to see if the sensing system is closed. If it is, the sensor stroke is never started, and the control's display shows the fault. The sensor must be opened before any other action is possible on the welder.

**TYPES OF WELDERS:** SOFT TOUCH can be used with all types of metals on press welders, rocker arm welders, portable gun welders, and hanging gun welders doing spot, projection and seam welding.

### SELECT A MODEL TO MATCH YOUR WELDER:

**Heavy Weight Ram:** Press Welders with force between electrodes over 50 pounds when all air is removed from the welder (dead weight measurement).

**Light Weight Ram:** Press Welders with force between electrodes 50 pounds or less when all air is removed from the welder, Rocker Arm Welders, Portable Gun Welders\*, Intensifier Cylinder Welders, and Hanging Gun Welders.

**AVAILABLE MODELS:** Supplied with 3/4" solenoid valves for use with 2" – 8" diameter welder cylinders.

Model	Electrical Welder Type	Mechanical Welder Type	Solenoid Voltage
9181-34WB/115	1Ø AC	Heavy Weight Ram	115VAC
9181-34YB/115		Light Weight Ram	
9181-34WB/24DC		Heavy Weight Ram	24VDC
9181-34YB/24DC		Light Weight Ram	
9181-34WM/115	MFDC (inverter)	Heavy Weight Ram	115VAC
9181-34YM/115		Light Weight Ram	
9181-34WM/24DC		Heavy Weight Ram	24VDC
9181-34YM/24DC		Light Weight Ram	

\*Consult the sales department at WSI for additional requirements for PORTABLE GUN (Transgun) Welders.

**For welders with air cylinders over 8" diameter, add the number 1** just before the / in any model number.

For example, 9181-34WB**1**/115. The SOFT TOUCH systems will be supplied with 1" solenoid valves.

**For welders with air cylinders less than 2" diameter, add the letter S** just before the / in any model number.

For example, 9181-34WB**S**/115. The SOFT TOUCH systems will be supplied with 3/8" solenoid valves.

**OPTIONS:** All options shown (right) can be ordered with the SOFT TOUCH system or can be easily added later in the field without modification of the control.

### BYPASS SWITCH

**Model 9181-34BPA:** Used for welding materials that have high resistance coatings such as titanium oxide.

Includes a two-position keylock switch with two indicator lights and faceplate. When in BYPASS position, electrodes close under low force and then switch to high force after a selectable time delay.

### RETRACT KIT

**Model 9181-34JA:** Protects against pinch point injury when RETRACT brings the electrodes down to the "work" position. Will not allow closing of the electrodes for a weld until the HEAD-DOWN limit switch is closed. Does not go to full RETRACT force until after continuity is detected in the first weld, and then stays at full RETRACT force until the RETRACT switch is opened. Includes solidstate HEAD-DOWN proximity switch, mounting bracket and cam bracket.

### LIMIT SWITCH

**Model 9181-34LSA:** Used when redundant system is required. Electrodes will not go to full welding force until both continuity between electrodes and closing of the ram limit switch. Includes a solid-state RAM POSITION proximity switch, mounting bracket and cam bracket.

### PRESSURE REGULATOR KITS

**Model 9181-34FRL-1/2:** 1/2" NPT

**Model 9181-34FRL-3/4:** 3/4" NPT

**Model 9181-34FRL-1:** 1" NPT

Replaces existing pressure regulator, airline filter, airline lubricator and pressure gauge. This option is not required if the existing pressure regulator system is good condition.