

# TECNA

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Industrial Resistance Welders and Tool Balancers

## ROCKER ARM WELDERS

20 - 25 kVA · PEDESTAL SPOT WELDERS

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

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**WSI**  **WELD  
SYSTEMS  
INTEGRATORS, INC.**  
RESISTANCE WELDING. SOLVED.

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

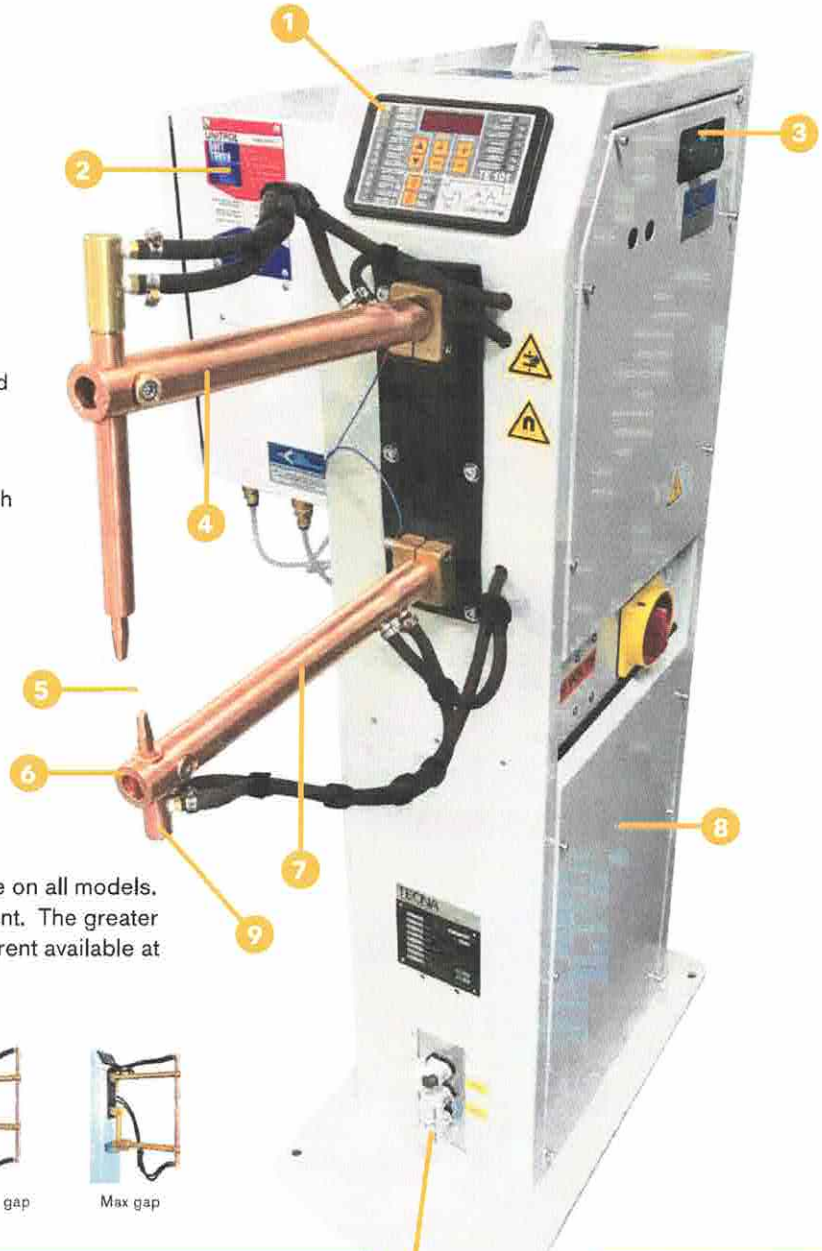
- Air-Operated, lube-free cylinder eliminates oil mist in the shop environment.
- Electrode force is adjustable via integrated filter / regulator combination.
- Reduce shop noise with integrated speed control valves, shock absorber for end of cylinder stroke, and air exhaust mufflers.
- Two-stage electronic 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.



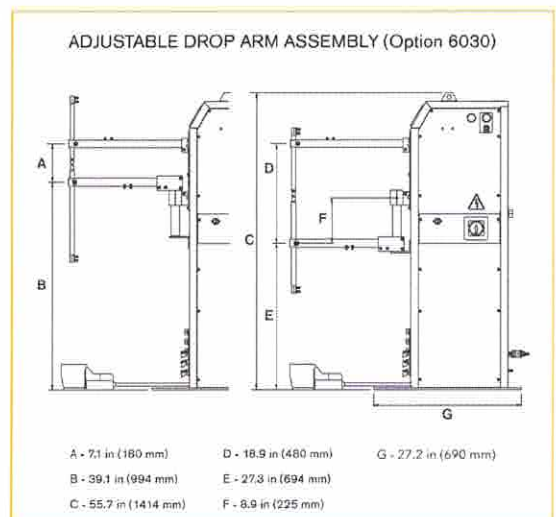
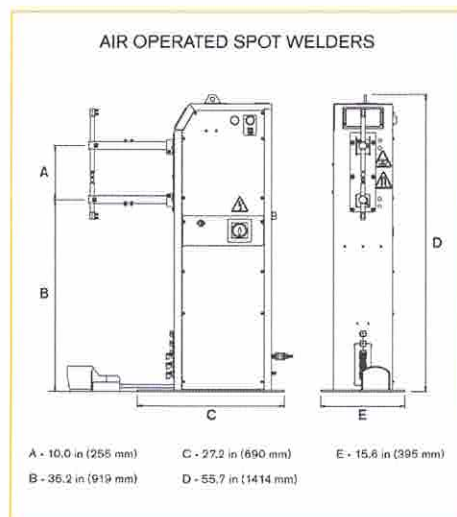
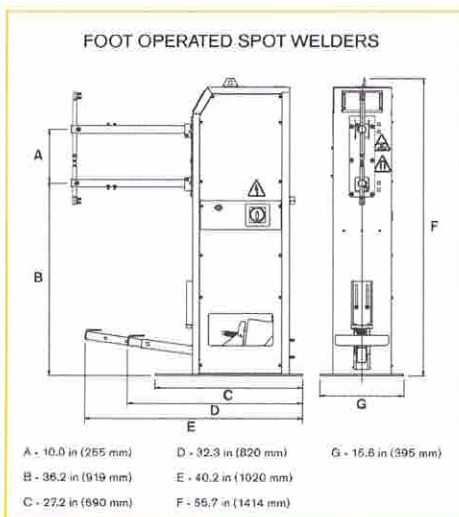
**10** Single Foot Pedal (standard).

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 (N/m)	-		-		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.



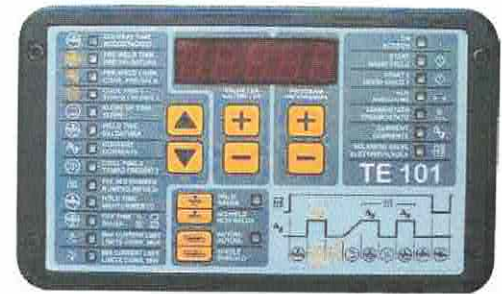
SAMPLE CONFIGURATIONS and PERFORMANCE				
Thickness in. (mm)	Arm Length in. (mm)	Electrode in. (mm)	Welding Time (cycles)	Spots / h
<b>kVA 20</b>				
0.03 + 0.03 (0.8 + 0.8)	9.0 (230)	0.2 (4.5)	5	4000
0.06 + 0.06 (1.5)	9.0 (230)	0.2 (4.5)	12	3400
0.1 + 0.1 (3 + 3)	9.0 (230)	0.3 (8)	55	400
0.04 + 0.04 (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

# TECNA

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