



# SPOT WELD, INC.

2290 Wycliff St., St. Paul, MN 55114  
(Ph.) 651-646-1393, (Fax) 651-646-3616  
[www.spotweldinc.com](http://www.spotweldinc.com)

- Resistance Welding Equipment
- Spot Welding Electrodes
- Special Tooling
- Bar Stock
- HOLDERS
- Special Forgings
- Elconite
- Ignitron Tubes
- Seam Welder Wheels
- C.D. Studs
- ARC Studs
- Concrete Anchors
- Controls
- Stud Welding Equipment
- Repair and Service
- Educational Programs

# TECNA<sup>®</sup>



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## ROCKER ARM SPOT WELDERS, FOOT AND AIR OPERATED 16-25kVA

TECNA spot welders are designed to meet every need of spot welding.

The new stationary ergonomic frame designed by TECNA helps to facilitate the operator's work.

The control unit has been positioned frontally to allow the operator to view the welding data even during the working cycle.

The pneumatic commands and the compressed air pressure gauge have been placed at the top for easier adjustment and reading.

### MAIN TECHNICAL FEATURES

- Arms adjustable in length allowing a better working flexibility.
- Chrome-copper electrode-holders for long life and heavy duty service, designed for straight and angled fitting.
- Adjustable electrode stroke.
- Epoxy resin coated transformer.
- Water-cooled transformer, arms and electrodes.
- Microprocessor control unit TECNA TE90.

### FOOT OPERATED WELDERS

Adjustable electrode force; a microswitch starts the welding cycle when the desired pre-set value is reached.

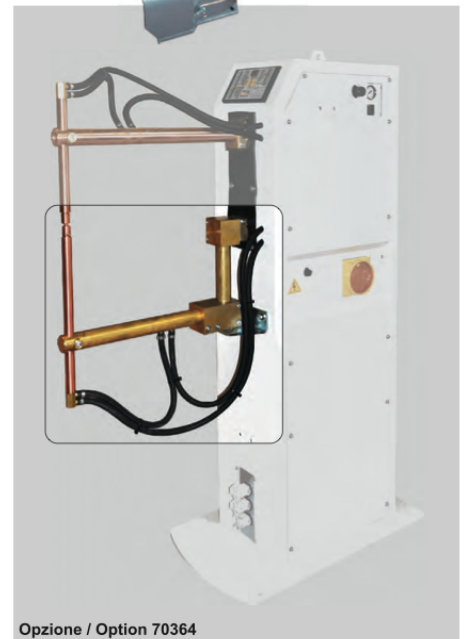
The foot pedal is adjustable in length.

### AIR OPERATED WELDERS

- The air operated lubrication free cylinder eliminates oil mist.
- Electrode force adjustment with air filter reducer with gauge.
- Semi-automatic drainage system.
- Electrode speed control valves, shock absorber for cylinder's end of stroke and air discharge silencers.
- Two-stage electric foot pedal, that besides its normal use in automatic and single spot mode, allows the operator to bring the pieces together and to weld them only when correctly positioned.
- Pre-arrangement for the connection of a second electric two-stage foot pedal item 70284.
- The addition of the second foot pedal allows to recall two different adjustments of time- current. This function is helpful when different kinds of welding are to be performed on the same piece.



Art. / Item 70284



Opzione / Option 70364



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ITEM		4640	4641	4642	4643	4644
Pedal spot welder		•	•	•	•	•
Pneumatic welder						
Adjustable arms depth		•	•	•	•	•
Nominal power 50%	kVA	16	20	20	25	25
Maximum welding power	kVA	35	48	39	68	55
No load secondary voltage	V	3.4	4	4	4.6	4.6
Maximum short circuit current	kA	12.5	14.5	12	18	14.5
Maximum welding current on light alloys	kA	-	-	-	16.3	-
Maximum welding current on steel	kA	10	11.6	9.6	14.4	11.6
Thermal current 100%	kA	3.3	3.5	3.5	3.8	3.8
Supply	*V	400	400	400	400	400
	*Hz	50	50	50	50	50
Delayed fuses 220-230-240 V	A	50	63	63	80	80
380-400-415 V	A	32	40	40	50	50
Mains cables section for L=10 m	mm <sup>2</sup>	6	10	10	16	16
L=30 m	mm <sup>2</sup>	10	10	10	16	16
Insulation class	F	F	F	F	F	F
Compressed air	**bar	-	-	-	-	-
Consumption for 100 spots	N/m <sup>3</sup>	-	-	-	-	-
Min. throat depth	mm	230	230	380	230	380
Max. electrode force	daN	240	240	150	240	150
Electrode stroke	mm	8-44	8-44	10-60	8-44	10-60
Max. Throat depth	mm	550	550	700	550	700
Max electrode force	daN	95	95	80	95	80
Electrode stroke	mm	15-85	15-85	15-105	15-85	15-105
Short circuit current with L max.	kA	8.4	10	8.8	13	10.5
Water cooling	l/min	2.5	3	3	3.7	3.7
Min. water pressure	**bar	2.5	2.5	2.5	2.5	2.5
Aerial noise produced	dB(A)	<70	<70	<70	<70	<70
Measure condition						
working stroke (mm)	(mm)	20	20	20	20	20
welding time (cycles)	(cicli)	21	17	26	14	20
welding current (kA)	(kA)	9.4	11	9	13.5	11
working rating (weld/min.)	N/min	10	10	10	10	10
Net weight	kg	135	143	146	145	148
∅ arms	mm	36	40	40	40	40
∅ electrode-holders	mm	19	22	22	22	22
∅ electrode-cone	mm	12.7	14.8	14.8	14.8	14.8



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ITEM	4645	4646	4647	4648	4649
Pedal spot welder					
Pneumatic welder	•	•	•	•	•
Adjustable arms depth	•	•	•	•	•
Nominal power 50%	16	20	20	25	25
Maximum welding power	35	48	39	68	55
No load secondary voltage	3.4	4	4	4.6	4.6
Maximum short circuit current	12.5	14.5	12	18	14.5
Maximum welding current on light alloys	-	-	-	16.3	-
Maximum welding current on steel	10	11.6	9.6	14.4	11.6
Thermal current 100%	3.3	3.5	3.5	3.8	3.8
Supply	400	400	400	400	400
	50	50	50	50	50
Delayed fuses 220-230-240 V	50	63	63	80	80
380-400-415 V	32	40	40	50	50
Mains cables section for L=10 m	6	10	10	16	16
L=30 m	10	10	10	16	16
Insulation class	F	F	F	F	F
Compressed air	6.5-10	6.5-10	6.5-10	6.5-10	6.5-10
Consumption for 100 spots	4.3	4.3	4.3	4.3	4.3
Min. throat depth	230	230	380	230	380
Max. electrode force	240	240	165	240	165
Electrode stroke	8-44	8-44	10-60	8-44	10-60
Max. Throat depth	550	550	700	550	700
Max electrode force	115	115	90	115	90
Electrode stroke	15-85	15-85	15-105	15-85	15-105
Short circuit current with L max.	8.4	10	8.8	13	10.5
Water cooling	2.5	3	3	3.7	3.7
Min. water pressure	2.5	2.5	2.5	2.5	2.5
Aerial noise produced	<70	<70	<70	<70	<70
Measure condition					
working stroke (mm)	20	20	20	20	20
welding time (cycles)	21	17	26	14	20
welding current (kA)	9.4	11	9	13.5	11
working rating (weld/min.)	10	10	10	10	10
Net weight	133	141	144	143	146
∅ arms	36	40	40	40	40
∅ electrode-holders	19	22	22	22	22
∅ electrode-cone	12.7	14.8	14.8	14.8	14.8

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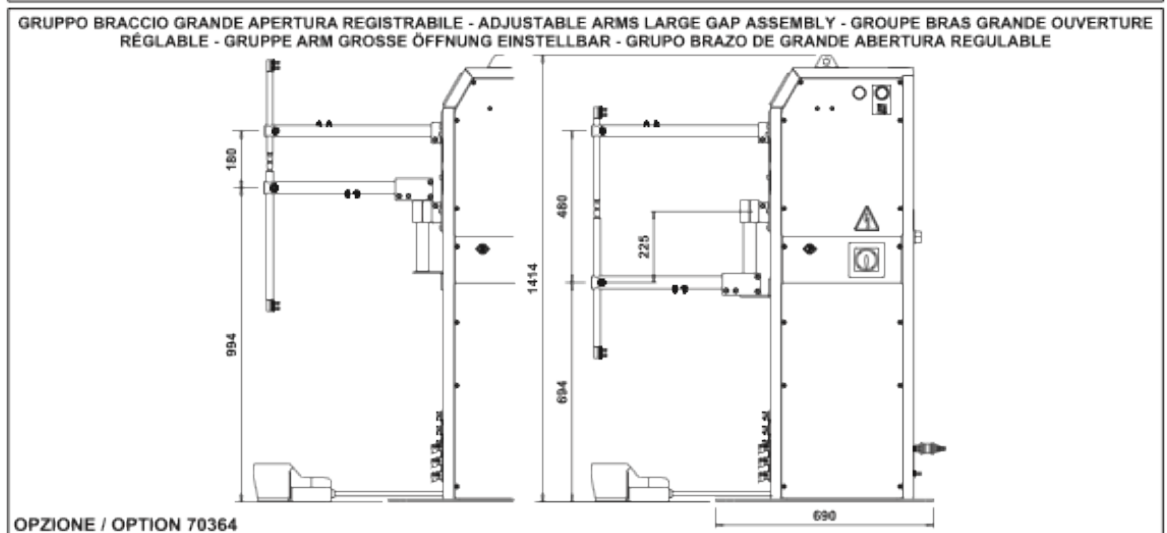
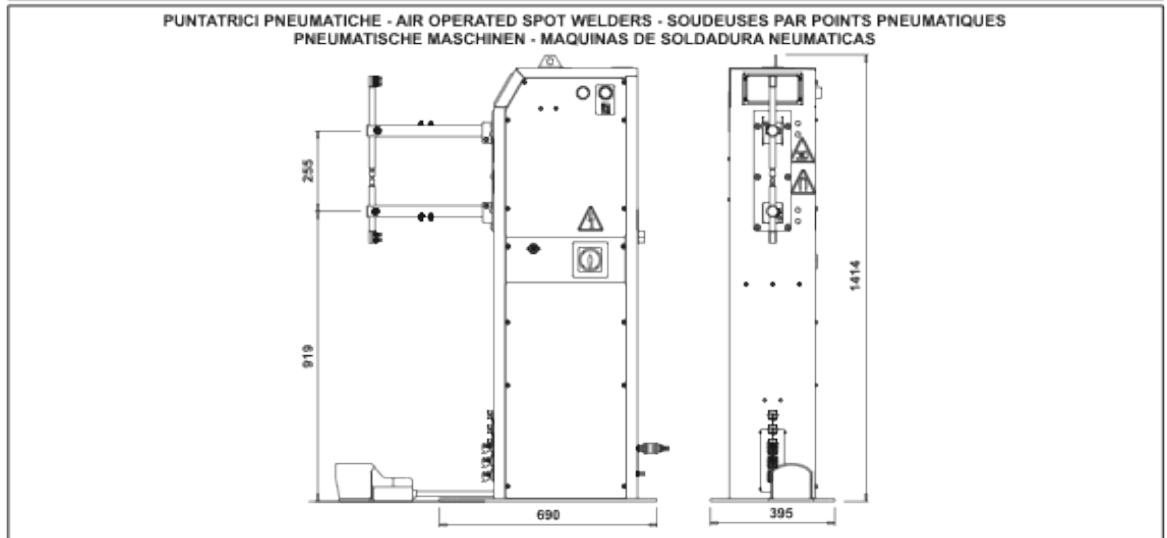
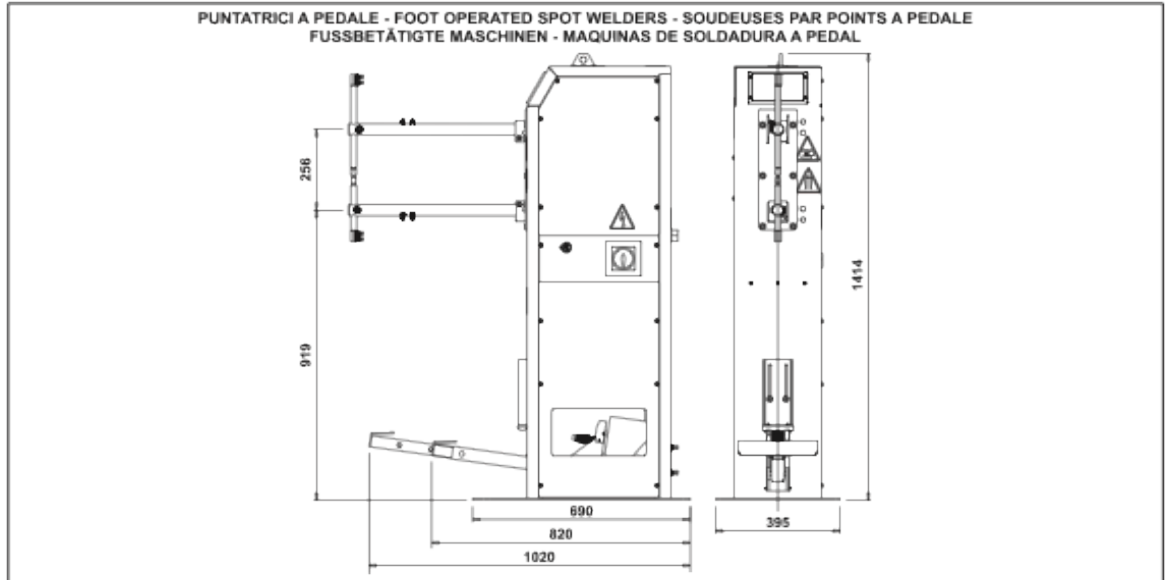
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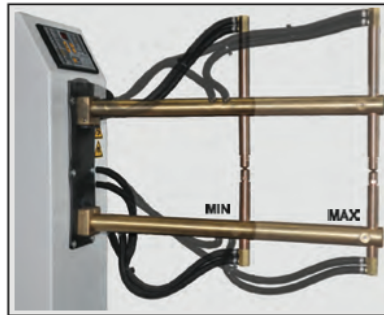
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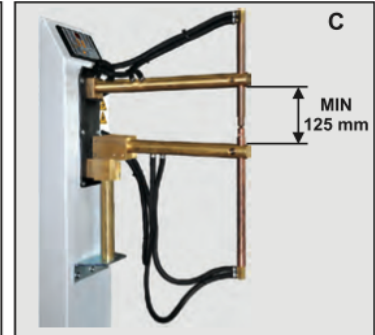
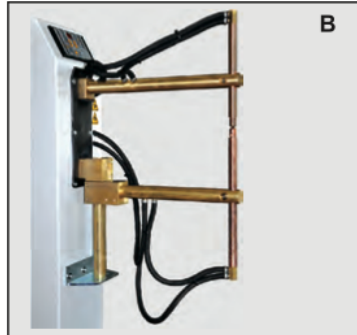
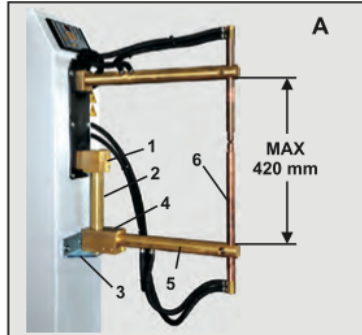
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Adjustable arms depth 320 mm according to the working requirements.

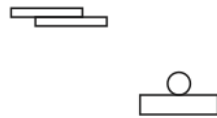


A= Max. gap  
B= Intermediate gap  
C= Min. gap

Item 70364 - Adjustable arms large gap assembly for items 4641, 4642, 4643, 4644, 4646, 4647, 4648, 4649 (parts 1-2-3-4-5-6)  
The more the arms gap, the less the welding current.

### - PERFORMANCE -

Spessore Thickness Epaisseur Materialstärke Espesor	Lunghezza bracci Arms length Longueur bras Armlänge Longitud brazos	∅ Electrodo ∅ Electrode ∅ Electrode ∅ Elektrodenspitze ∅ Electrodo	Tempo di saldatura Welding time Temps de soudage Schweisszeit Tiempo de soldadura	Punti / h Spots / h Points / h Punkte / h Puntos / h
mm	mm	mm	cc/cycles/per	
<b>kVA 16</b>				
0.8 + 0.8	230	5	6	4000
1.5 + 1.5	230	5.5	14	2800
2.5 + 2.5	230	7.5	60	600
2 + 2	550	7	55	1000
1.5 + 1.5	700	6	50	1000
∅ 10 + ∅ 10	230	~ 16	45	700
<b>kVA 20</b>				
0.8 + 0.8	230	4.5	5	4000
1.5 + 1.5	230	5.5	12	3400
3 + 3	230	8	55	400
1 + 1	550	5	5	4000
2 + 2	550	7	40	1200
2 + 2	700	7	50	1100
<b>kVA 25</b>				
0.8 + 0.8	230	4.5	5	4000
1.5 + 1.5	230	5.5	12	3400
3 + 3	230	8	55	400
1 + 1	550	5	5	4000
2 + 2	550	7	40	1200
2 + 2	700	7	50	1100
4 + 4	230	11	80	220
∅ 6 + ∅ 6	550	~ 16	15	4000
∅ 8 + ∅ 8	230	~ 16	20	1600
∅ 12 + ∅ 12	230	~ 16	40	500



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 • Synchronous control with thyristors • Phase shift control for welding current set up • Slope and pulse functions \*Twin presettings for time and current recallable by independent foot pedals • Easy programming • Selector WELD / NO WELD \*Single and repeat mode Secondary current compensation function • First phase shift delay adjustment to obtain the best balance of the machine's mains absorption • Autoretain disabling for foot operated welders.  
**LED function and diagnosis indicators:** ON Displays power on - START Displays the activation of the main foot pedal - START 2 Displays the activation of the additional foot pedal - AUX Displays the activation of the first stage of a foot pedal, initiates the clamping of the workpieces without welding - CURRENT Displays the activation of the SCR - SOLENOID VALVE Displays the activation of the solenoid valve.

Squeeze time
Slope up time
Welding time
Welding current
Cold time
Impulses number
Hold time
Off time
Welding time 2
Welding current 2



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MODEL NO.	DESCRIPTION	UNIT PRICE
<b>FOOT OPERATED ROCKER ARM</b>		
LTR-4642NA	20 KVA Foot Operated. Built in TE-90 Digital Solid State Microprocessor Control. Digital Phase Shift weld current adjustment. Pulsation and Up Slope for welding of galvanized metal. Standard upper/lower arms with 1" dia. Non-ejector holder #1mt. Min./Max. throat dept 300mm/15 inch to 700mm/27-1/2 inch. Dual voltage 220-440V/60Hz/1Phase.	\$3531.00
LTR-4644NA	25 KVA Foot Operated. Built in TE-90 Digital Solid State Microprocessor Control. Digital Phase Shift weld current adjustment. Pulsation and Up Slope for welding of galvanized metal. Standard upper/lower arms with 1" dia. Non-ejector holder #1mt. Min./Max. throat dept 300mm/15 inch to 700mm/27-1/2 inch. Dual voltage 220-440V/60Hz/1Phase.	\$4914.00
CRATING	Crating for Shipment by Common Carrier, TECNA 4642-4644 (up to 3 machines/ crate)	\$150.00 NET
<b>AIR OPERATED ROCKER ARM</b>		
LTR-4647NA	20 KVA Air Operated Rocker Type Welder. Two Stage Electric Foot Switch. Oil free cylinders, air filter/pressure regulator and gauge. Built in TE-90 Digital Microprocessor control. Dual current/dual weld time, pulsation and up slope. Standard upper/lower arms with 1" dia. Non-ejector holder #1mt. Min./Max. throat dept 300mm/15 inch to 700mm/27-1/2 inch. Dual voltage 220-440V/60Hz/1Phase.	\$4836.00
LTR-4649NA	25 KVA Air Operated Rocker Type Welder. Two Stage Electric Foot Switch. Oil free cylinders, air filter/pressure regulator and gauge. Built in TE-90 Digital Microprocessor control. Dual current/dual weld time, pulsation and up slope. Standard upper/lower arms with 1" dia. Non-ejector holder #1mt. Min./Max. throat dept 300mm/15 inch to 700mm/27-1/2 inch. Dual voltage 220-440V/60Hz/1Phase.	\$6449.00
CRATING	Crating for Shipment by Common Carrier, TECNA 4647-4649 (up to 3 machines/ crate)	\$150.00 NET
<b>AIR OPERATED ROCKER ARM</b>		
LTR-4662NA	50 KVA Air Operated Rocker Type Welder. Two Stage Electric Foot Switch. Oil-free cylinders, air filter/pressure regulator and gauge. Built in TE-90 Digital S2H 4-Sequence Control with Digital Phase Shift weld current adjustment. Dual voltage 220-440v/60Hz/1Phase.	\$9291.00
<b>AIR OPERATED VERTICAL PRESS-TYPE</b>		
LTP-4666NA	50 KVA Air Operated Press Type Welder. Two Stage Electric Foot Switch. Oil-free cylinders, air filter/pressure regulator and gauge. Built in TE-90 Digital S2H 4-Sequence Control with Digital Phase Shift weld current adjustment. Dual voltage 220-440v/60Hz/1Phase.	\$10037.00
<b>OPTIONS FOR 50 KVA ROCKER WELDER</b>		
TE4570	Lower Arm With 90Deg. Threaded Adapter. No.2MT/5RW, 800mm/31-1/2 Max. Throat Note: Credit for standard 600mm arm & straight holder \$ 241.00	\$717.00
TE4574	<b>Standard Upper Arm To Accept 1" Dia. Straight Holder</b> No.2MT/5RW, 800mm/31-1/2 Max. Throat Note: Credit for standard 600mm arm \$ 184.00	\$764.00
TE4575	<b>Standard Lower Arm To Accept 1" Dia. Straight Holder</b> No.2MT/5RW, 800mm/31-1/2 Max. Throat Note: Credit for standard 600mm arm \$ 170.00	\$685.00