

TECNA



DIRECT.com

Industrial Resistance Welders and Tool Balancers



67xx SERIES

90-315 kVA MFDC Spot & Projection Welders

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TECNA®

Advanced Resistance Welding Systems and Balancers



Stocking Master Distributor
of TECNA Resistance Welders
and Tool Balancers

POWERED BY

WSI

WELD
SYSTEMS
INTEGRATORS, INC.

Spot and Projection, Linear Action | 90 - 315 kVA

TECNA Medium Frequency Welders may be set up according to a wide range of mechanical and pneumatic configurations thus responding to all customer needs while maintaining a high mechanical stiffness that makes these machines the most suitable ones for jobs requiring an extremely high welding quality.

It is possible to configure these machines according to 4 different mechanical frames which differ for an increasing structural rigidity: they can be realized for spot, spot-projection or projection execution. The choice of the arms gap may vary from a minimum of 300 mm, in case of projection execution, up to a maximum of 1500 mm, in case of spot execution.

The required cylinder may be chosen among a range covering from the smallest one developing a 736daN force at 6bar up to the largest achieving a force 5509daN at 6bar.

As for the most suitable transformer for the required application, the available sizes are 90-160-200-240-315 kVA.

The TE700 control unit allows 6 working modes thus enabling to select the best welding procedure for the type of material to be welded. A high precision and constancy of the working pressure may be ensured by implementing a proportional valve in the pneumatic circuit. This proportional valve is directly programmable by the control unit and allows matching each program to its own pressure value.

These welders are all provided with inverter technology, which allows a remarkable improvement of the welding quality, an extreme precision of the welding time and current as well as a reduction in costs, including those relevant to the connection.



MAIN TECHNICAL FEATURES

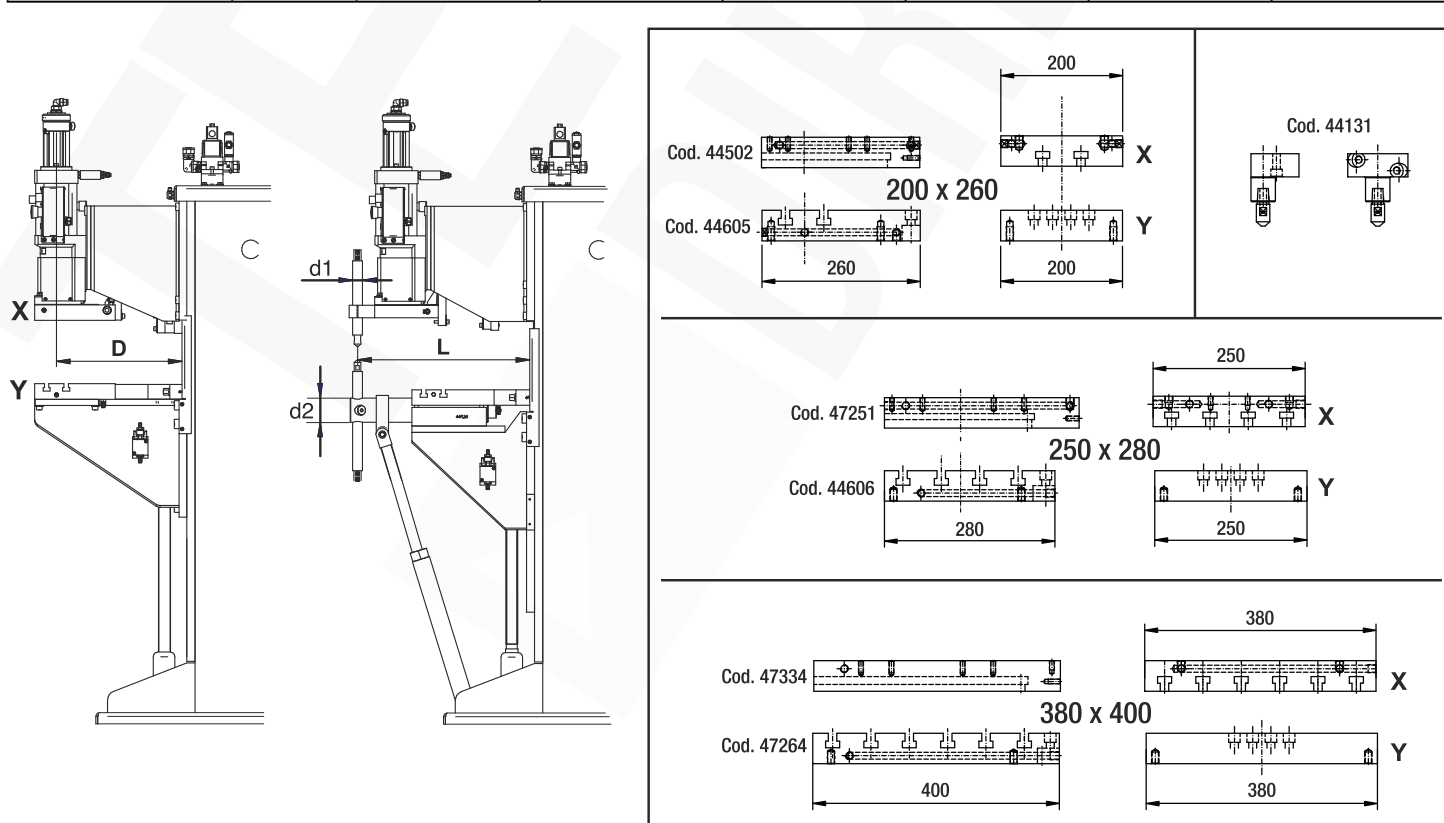
- Modular design of mechanical structure, arms, brackets, cylinders.
- Cylinder with chrome plated stem for heavy duty works and long life; adjustable anti-rotation device.
- Lubrication free pneumatic components to eliminate oil mist and to protect the environment.
- Adjustable double-stroke cylinder with key control.
- Electrodes descent without pressure for both maintenance and set-up.
- Built-in compressed air filter unit and tank. Compressed air disconnection device.
- Water-cooled transformer, plates, electrode-holders and electrodes; transformer with epoxy resin coated windings.
- Two stage electric foot control for clamping and welding pieces only if correctly positioned.
- Pre-setting for additional double stage electric foot switch connection for the direct recalling of a different welding program.
- Arranged for all models: two-hand safety control with timer and removable key selector, assuring the best safety. The two-hand control device is standard on projection models only (it is available upon request on spot welder models).
- Emergency push-button to stop the machine immediately.
- Protection with automatic circuit breaker.
- Flow-switch which stops the machine if the cooling water does not flow.

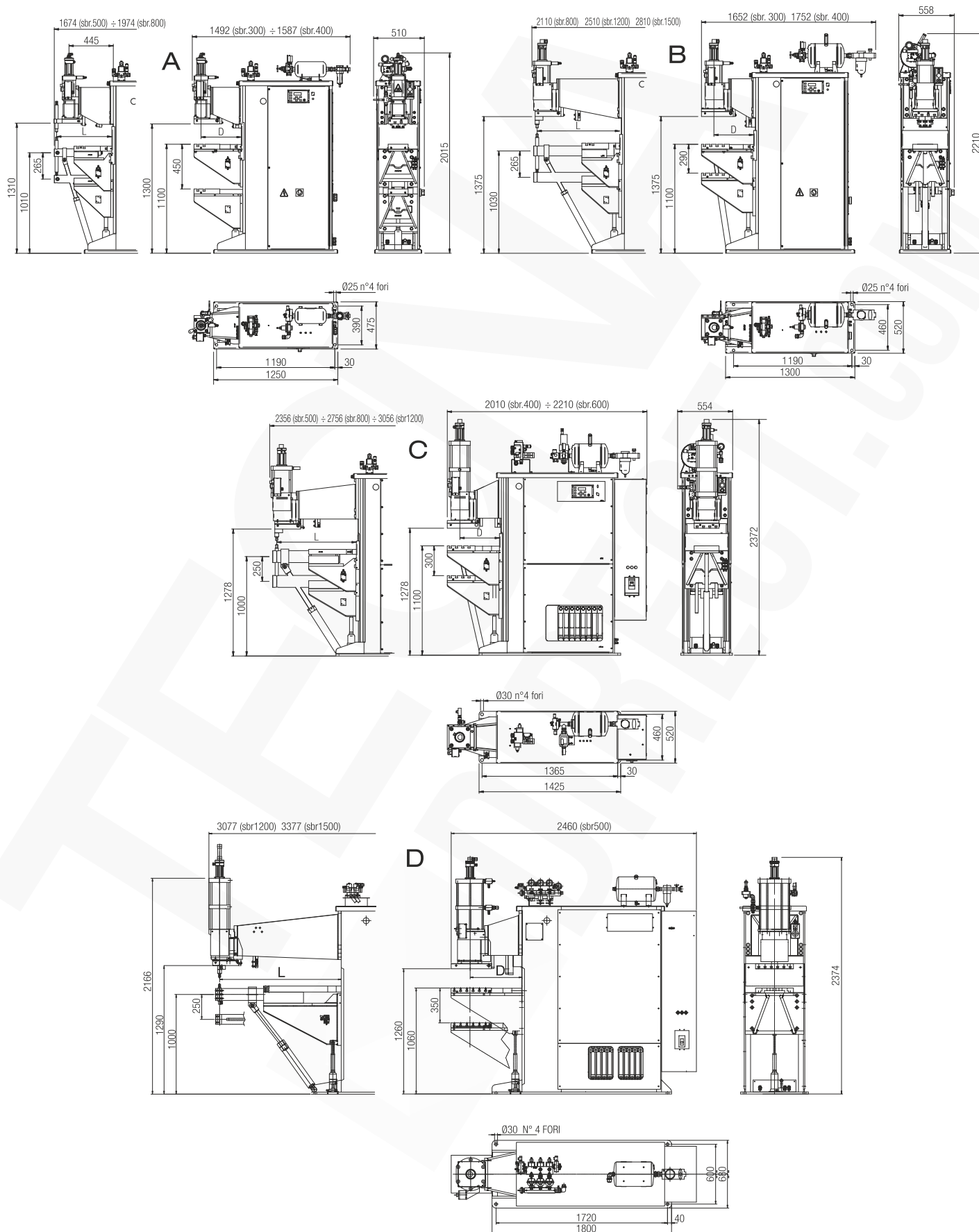
FEATURES		A	B	C	D
Power 20%	kVA	142 - 316	316 - 380	380 - 500	380 - 500
Power 50%	kVA	90 - 200	200 - 240	240 - 315	240 - 315
Spot Welder		√	√	√	√
Projection Welder		√	√	√	√
Short Circuit Current	kA	32 - 64	64 - 88	88 - 100	88 - 100
Thermal Current at 100%	A	6100 - 13000	13000 - 15000	15000	15000
No Load Secondary Voltage	V	9,9 - 10,4	10,4 - 10,9	10,9 - 12,7	10,9 - 12,7
Supply Voltage	**V	400	400	400	400
Cables Section L=30	in	0.05 - 0.15	0.15 - 2 x 0.11	2 x 0.11 - 2 x 0.15	2 x 0.11 - 2 x 0.15
	mm2	35 - 95	95 - 2 x 70	2 x 70 - 2 x 95	2 x 70 - 2 x 95
Delayed Fuses	A	100 - 200	200 - 250	250 - 400	250 - 400
Water Cooling Supply Hose Ø	l / min	10 - 14	14 - 18	18	18
	in2	0.03	0.03	0.03	0.03
	mm2	16	16	16	16
Compressed Air Supply Hose Ø	Bar	6,5	6,5	6,5	6,5
	in	0.04	0.04	0.04	0.04
	mm2	25	25	25	25

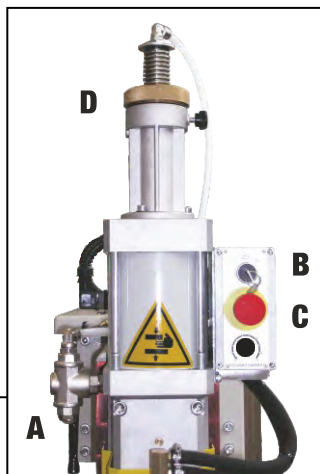
*Values subject to variations according to frame and L and D lengths.

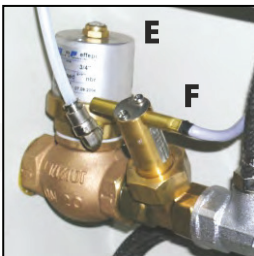
UPRIGHT FRAME DIMENSIONS		A		B			C			D	
D	in	11.81	15.75	11.81	15.75		15.75	23.62		19.69	
	mm	300	400	300	400		400	600		500	
Cylinder	N°	4-6-7		6-7-8-9			8-9-10	8-9		8-9-10	
Plates	in	7.87 x 10.24		9.84 x 11.02			9.84 x 11.02			14.96 x 15.75	
	mm	200 x 260		250 x 280			250 x 280			380 x 400	
	N° / in	2 / 2.48		4 / 2.48			4 / 2.48			6 / 2.48	
	N° / mm	2 / 63		4 / 63			4 / 63			6 / 63	
L	in	19.69	31.50	31.50	47.24	59.06	31.50	47.24	59.06	47.24	59.06
	mm	500	800	800	1200	1500	800	1200	1500	1200	1500
Cylinder	N°	4-6	4	4-6-7	4-6	4	6-7-8		6-7	8-9	8
d1	in	1.26		1.26			1.26			1.26	
	mm	32		32			32			32	
d2	in	3.15		3.94			4.72			4.72	
	mm	80		100			120			120	

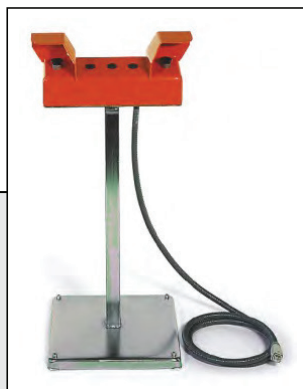
CYLINDERS							
TYPE	N°	4	6	7	8	9	10
Force	in (Ømm)	125	160	200	200 x 2	250	250 x 2
at 6 bar	daN	736	1206	1885	3388	2945	5509
at 1 bar	daN	123	201	314	565	491	918
STROKE							
total	in (mm)	3.94 (100)	3.94 (100)	5.91 (150)	5.91 (150)	5.91 (150)	5.91 (150)
adjustable	in (mm)	0÷3.15 (0÷80)	0÷3.94 (0÷100)	0÷4.72 (0÷120)	0÷4.72 (0÷120)	0÷4.72 (0÷120)	0÷4.72 (0÷120)
CONSUM. FOR STROKE							
80 mm	Nm3	13	21	50	85	83	141
30 mm	Nm3	6	8	14	30	20	50
STEM							
o	in (Ømm)	• 2.76 (• 70)	• 3.54 (• 90)	• 3.94 (• 100)	• 3.94 (• 100)	-	-
◇	in (mm)	-	3.39 x 3.39 (86 x 86)	3.39 x 3.39 (86 x 86)	3.39 x 3.39 (86 x 86)	3.78 x 3.78 (96 x 96)	3.78 x 3.78 (96 x 96)







- A) Head descent without pressure.
 - B) Electric double stroke with key control.
 - C) Emergency push-button to immediately stop the welder.
 - D) Adjustable double stroke 0~80 mm for 736 daN cylinder.
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- E) Valve to stop the water cooling when the machine is off.
 - F) Flow-switch makes the welder stop if the cooling water does not circulate.



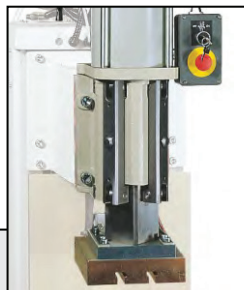
72628: Two-hand safety control on pedestal, adjustable height.



73038: Additional foot control to recall program No. 2.



6033: USB interface board.

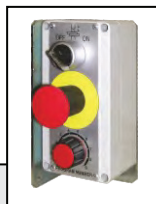


Prismatic stem cylinder in tempered steel and roller guide.

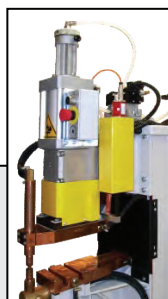


8037: Proportional valve. Allows to adjust the working pressure directly from the control unit and to combine a proper pressure value to each program.

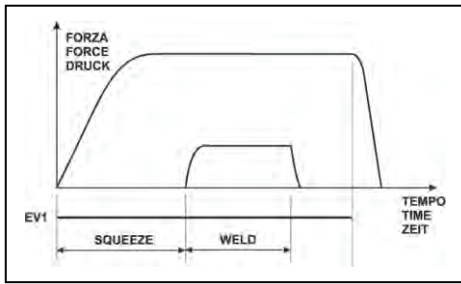
Assures constant and accurate working pressure.



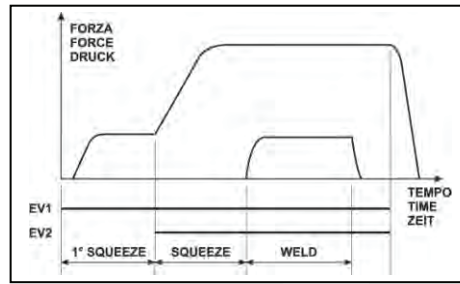
6301: Rotary selector for recalling the welding programs.



Position Sensor

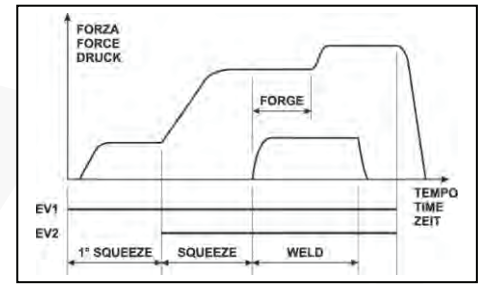


Standard Version



Standard Cylinder 1242 daN

Low-force squeeze, the electrode closes at a reduced force. This is particularly useful when welding weak pieces.



Standard Cylinder 1242 daN + Proportional Valve.

Low-force squeeze and forging.

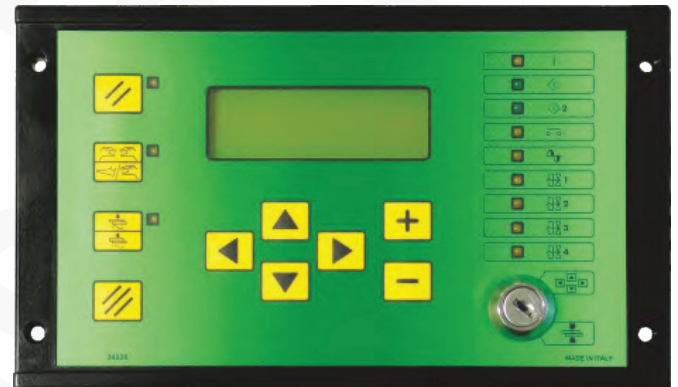
Control Unit TE700

The TE700 is a particularly versatile welding control unit as it may be adjusted to different types of welders; it may be installed not only on spot and projection welders but on seam welders too. Moreover, it may work with constant current, fix, constant power, constant voltage and constant energy adjustment and in dynamic mode.

The number of inlets and outlets may be increased so to better adjust the welding control unit to automatic machines. The control unit may manage up to a maximum of 4 different welding transformers.

It is possible to store up to 300 different welding programs. Each program may be given an alphanumeric identification so to easily track it down. Each program comprises several programmable parameters that describe the work cycle. In addition to the plain 4-stage welding cycle, the control unit allows the running of welding processes with pre-welding current, post-welding current, slope and pulses.

For more information on the TECNA TE700 Control Unit visit www.tecnadirect.com.



Control Unit TE700

TECNA

The logo for TECNA DIRECT.com features the word "TECNA" in a large, bold, black sans-serif font. Below it, the word "DIRECT.com" is displayed in a blue sans-serif font, preceded by a yellow square icon containing a white stylized 'X' or 'D' shape.

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