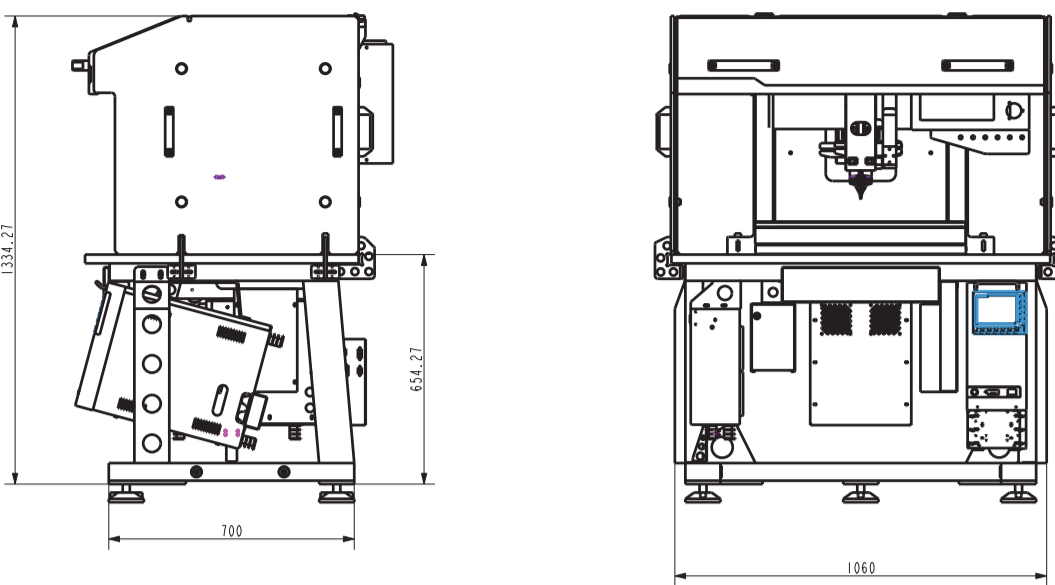


OVERALL AND SPECIFICATION

OVERALL SIZE.



SPECIFICATIONS.

FS 1000-4020, FS 100-4020 Plus, FS1200-4020, FS1000-4020 Plus models.

POWER Input Voltages Standard, 200-240V AC 50 or 60 Hz Input Current, 13-15 A Line Voltage Range, -10% + 15% Peak Power, 60 KW Weld Energy, 1-200 Joules (thin tab models) 1-400 Joules (thick tab models) TN1000 peak Weld Current 10000A / TN 1200 peak Current 12000A Welding Voltage, 0.1v to 9.5v Welding Speed, 0.75 sec/weld [including XY travel time]

WELD POWER AND CONTROLLER FS1000-5/FC1000-7 Weld power unit and controller

XY TABLE AND DRIVER Driving motors, 100W AC servo motor X 2, Driving lead screw, synchronous belts + 12mm D, 4mm pitch ball lead screw X 2 XY table size, 600mm x 375mm x 80 H mm XY table travels 400 x 200 mm Servo motor driver, FEXTO S-3 Standard future size, 400mm x 275mm x 83mm [20S10P 18650 cells]

WELD HEAD ELE BS-7 / ELE BS-8 Spring loaded DC servo motor drive weld head Driving motor, 100W DC servo motor Driving lead screw, 12mm D, 4mm pitch ball lead screws Throat depth, 240mm Working height, max 180mm, Min 80mm Stroke, 30mm

WELD HEAD WATER COOLER Model No. WS01 recycling weld head water cooler.

ENHANCE POWER BANK [only available for FS1200-4020 models] Model No. MF 132 power bank Capacitance, 2200Ah x 58

POWER MODULE AND CONNECTION Switching Device High Power IGBT Weld Head Cable 9 pins RS232 port cable Communication Cable 15 pins game port cable

OVERALL AND WEIGHT Overall Dimension, 1280mm x 780mm x 1420 H mm

TRARON FC1000-5 WELD CONTROLLER.

SETTING Setting Weld Time 0- 5.9ms Output Accuracy +/- 1% Current (A) ± 2 % [Short Circuit Testing] Power (Joules) ±1% Weld Power Release Mono direction / Bi-direction/Weld Memory Energy Measure Accuracy ±0.2 Joules Weld Data Storing Size 60,000 Control Tolerance Accuracy, ±0.5% Control Tolerance Range ±10% Weld Data Display, Distribution chart plus numericData Transfer Thought front data port

DISPLAY ADN CONTROL Display Screen 5.6" TFT fully color LCD module Panel Control Keys 11 Function Keys + Enter Key Security Data electrical key lock

TRARON FC1000-7 WELD CONTROLLER.

SETTING Setting Weld Time, 0- 5.9ms Output Accuracy, +/- 1% Current, (A) ± 2 % [Short Circuit Testing] Power (Joules) ±1% Weld Power Release, Mono direction / Bi-Directional

WELD MONITOR Energy Measure Accuracy, ±0.2 Joules Weld Data Storing Size, ~2,500,000 Control Tolerance Accuracy, ±0.5% Control Tolerance Range, ±10% Weld Data Display, Distribution chart plus numerical reading Data Transfer, Thought WIFI connection or from front data port

DISPLAY ADN CONTROL Display Screen, 14" fully color LCD module + touch screen with Jog wheel Panel Control Keys, 11 Function Keys + Enter Key Security, Data electrical key lock

INTERGRADING COMPUTER Computer, Industrial grade PC computer SoftWare, EasyPro V1

Note, TRARON 7 is not a stand alone power unit, it must linking up with PC computer and touch screen monitor, installed with EasyPro V1 soft ware to form a completed power unit and controller, Commonly apply to automatic tab weld stations.



MODELS AND COMBINATION

THIN TAB MODELS..

WELDING PURE NICKEL OR NICKEL PLATED TABS THICKNESS UP TO 0.2MM.

STANDARD MODEL- 10000A output weld current, Portal frame motor drive weld head, X-Y travels 400X200 mm.

Table listing combinations of components like FC 1000-5, TN-1000, ELE BS-7, FEXTO XY-4020, etc. with quantities.

COMPUTER INTERGRADED MODEL- 1000A output weld current, Portal frame motor drive pressure sensing weld head, X-Y travels 400X200 mm. Equipped with intelligent weld path self programming soft ware, SPC monitor built in.

Table listing combinations for the computer intergraded model, including FC 1000-7, TN-1000, ELE BS-8, FEXTO XY-4020, etc.

EXTRA FEATURES OF 4020 Plus MODELS.

- 1. Industrial grade PC computer built in, pre-installed with Window 7, internet configuration, with 10.4" Colour touch screen monitor. All parameters can be set and adjust by screen panel or handle job wheel right by...

OPTIONAL ACCESSORIES.

- 1. AWS01 UNIVERSAL WELD HEAD WATER COOLER. [Add on weld head water cooler only suitable for model FS 1000-3012.]
- 2. WELD DATA CARRIER, [only necessary for FS1000-3012 and FS1000-4020 models without PC computer intergrading] Up and down loading weld set parameters from the machine to machine, or to PC, for extending storage and transfer control program.



EX-600 RANGE EXTENDER

INTRODUCTION AND FEATURES

Modern industry places growing emphasis on agility, the need for systems with flexibility at scales not previously possible is becoming critical. As flexible automation can handle a wide array of manufacturing tasks with few configuration changes and little downtime, these benefits especially important for manufacturing plan which frequent changovers of parts or firms handling small production lot sizes.

The power system of our tab weld station was designed according one of company patent, technology "TRANSFORMER OUT PUT MANIPULATION [TOM]". It is a brand-new welding control theory which invented by our R&D team at 2005, latest and reliable high energy control method adapted to resistance welding.

Another advance controller is FC1000-7 intergraded with computer, as the system is intergrading with industrial grade computer. Except consists all powerful functions of PC computer and transfer data to the internet, it also built in with SPC [Statistical Processes Control] weld monitor, where weld data can be instantly in process monitoring, recording and alerting once with false weld.

Factory set of welding speed is 0.75 sec/weld, including move limiting of XY travels, referring to the standard, machine efficiency or daily production rate of 8000-10000 cells shift of 8 hours can be easy been obtained!

COMBINATION 1. FC 1000-5 "Transformer Output Manipulation" 10000 amperes weld power and control [input 220VAC, 13-15 Amperes] 1 Unit

Table listing combinations for the computer intergraded model, including FC 1000-7, TN-1000, ELE BS-8, FEXTO XY-4020, etc.



TRANSFORMER OUTPUT MANIPULATION LOWER RESISTANCE ONLY UNDER NORMAL VOLTAGE PATENTED TECHNOLOGY FROM PORON

FEATURES.

- 1. Patented "TOM" advance technology.
- 2. Ergonomically design both for performance and appearance.
- 3. Full color graphical display.
- 4. Simple on screen setting up.
- 5. Weld energy monitor built-in.
- 6. Weld patterns library for uploading.
- 7. Weld perimeters store and recall.
- 8. Bi-directional welding pulses.
- 9. Pre-check function.
- 10. Weld Monitoring.
- 11. Fine forces weld head with rapid allowing up.
- 12. Spring loaded motor /ball screw pressure adjusting system.
- 13. Computer intergraded models are internet interfacing. Real time data easy In/Out put through in line or WIFI connection.
- 14. Weld energies set various according battery polarities and joint location.
- 15. Large working platform.
- 16. Tuning screw throat alignment with clearance fine tune.
- 17. Production flexibility.
- 18. Single phase power source.

Professional Models

traron™ SERIES FS 4020 FAMILY AUTOMATIC BATTERY TAB WELD STATION



SINCE 1975 PORON

INTRODUCTION.

There are two types of controller in FS 4020 family. Know as FC1000-5 and FC 1000-7 resistance weld power and coordinates controllers.

FC1000-5 is a stand along standard controller, it equipped with a 6" color LCD screen surround by key pads on the angle edges, where weld energies and running program can be set from the front panel. However, FC1000-7 is a computer intergraded controller, since it was linked up with PC computer, with compatible all computer relate functions, internet interference. Resultsants direct reflect as quick access in programming, straight forward for setting and convenient in operation!

FC1000-7 built in with SPC [Statistical Process Control] Monitor, where welded readings are real time recorded and showing in both in numerical data and graphical charts simultaneously on the monitor screen. Besides, weld data can be transfer to other computers, through internet or internal WIFI for recording and further analyzing.

FC1000-5 TRANSFORMER OUTPUT MANIPULATIVE [TOM] STANDARD RESISTANCE WELD POWER AND COORDINATES CONTROLLER

1. Patented "TOM" Technology.. Built according company patented "TRANSFORMER OUTPUT MANIPULATION [TOM]" weld energy control theory, adapting with unique software and latest solid state power switching devices.

2. Full Color Graphical Display.. 5.6" TFT full color LCD display with wide viewing angle and back lighting. Easy understanding in screen graphics and instructions, similar to MS window interface, plus close surrounding key sets, data inputting is a very simple and straight forward way.

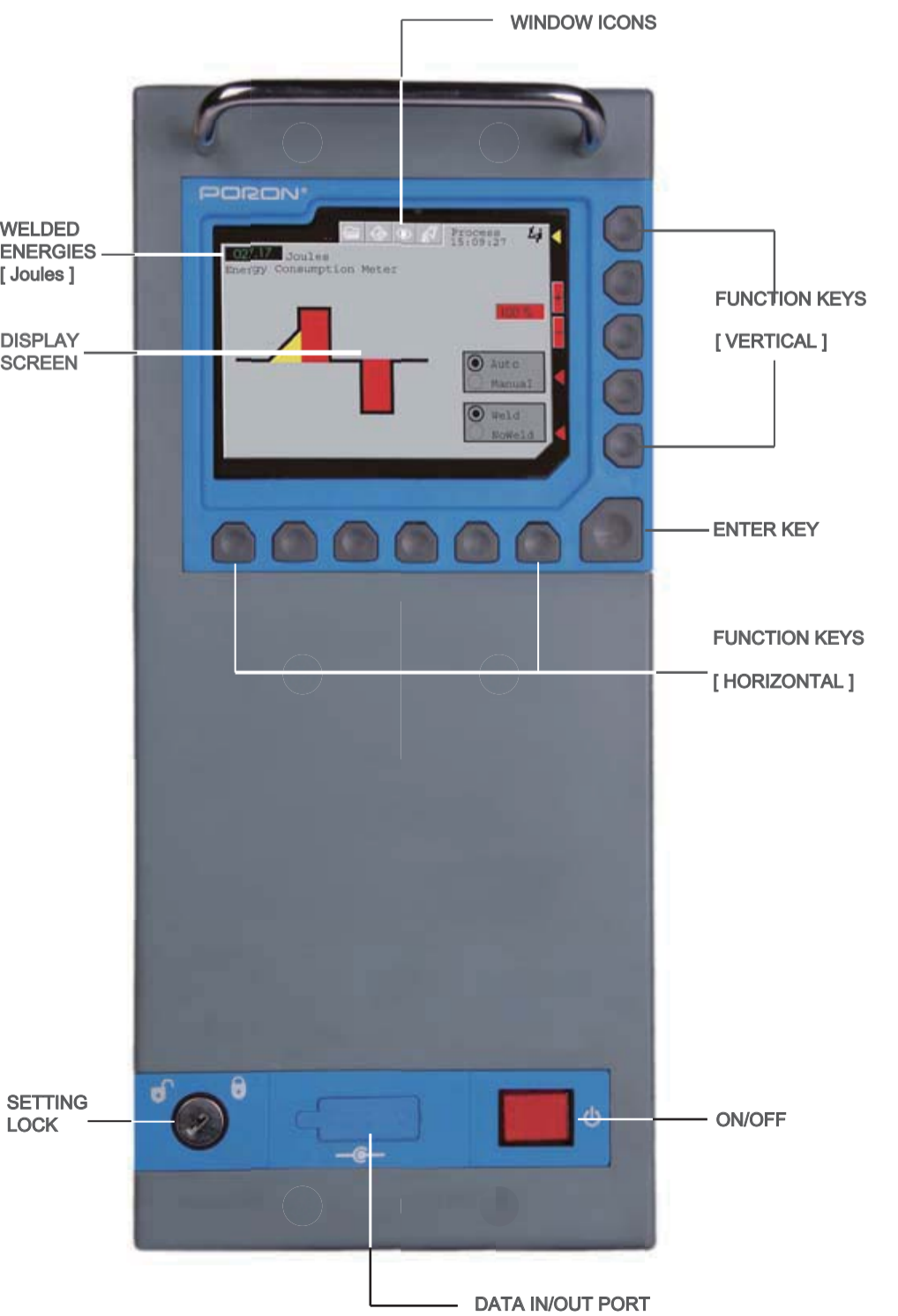
3. Simple On Screen Set Up.. User friendly on screen set up, each function folders are open thought sign icons located on the left top corner on the screen, comments selection can just simply chosen/press and opening. In pattern or set up folders, every weld pattern was separated and divided into several segments, only two weld parameters needed to be consent. Traveling between portions is just popgling amount two assigned keys besides the panel. These simplicity in design makes all alignments done in a very clear and straight forward way, even unskilled worker after short training can fully handle the job!

4. Weld Energy Monitor Built-in.. Calculate the energy for each weld in Joules, this feature indicating changes of energy. Joules for every weld was calculated and converted as graphically posting point and shows on the color screen, it was also governed within the set upper and lower limits, once exceeded or out off the range, warning alarm will generate at the same time temporarily terminate the following processes until solution been obtained. Under weld energy monitor mode, management staff are allow to read number of fault welds and defective percentage direct from the machine color screen.

5. Self Identification Of Welding Face.. Adopting with FEXTO XY Platform and sensor on weld surface, once face identification signal was input into the computer, system can verify the welding process is taking place on the top or bottom face of the battery pack, relate weld programmed according each face will instantly call out to do the weld. Benefit of this function is welding both sides tabs in one operation.

6. Bi-Directional Welding Pulses.. System was equipped with bi-directional twin pulses patterns, also weld parameters and direction of weld pulses can be set individually, the forward pulse current only taking care to weld the first point, another point will handling by the following reverse pulse, as weld energies can be set separately and pulling higher in the reverse pulse, gained the advantage of bi-directional weld, quality and clean can be easily obtained at the same time.

7. Periodical Electrode Cleaning Counter.. Function can be set through the "Output User Setting page", set value is between 50-8000 times. After data entrance, counting down number will activate automatically. Once figure reaches the set limit, the machine will stop and generate alarm, alerting the operator for electrode cleaning.



- 5. Weld Parameters Store And Recall.. By clicking the memory store or recall sign icons, entered into machine memory folder which shows also on screen, this two folders are assigned for recording new weld data into memory for long term storing or down load old weld parameter from storage for further processing. During data storing, a small English standard key pop will appear on the bottom of the screen for entering file numbers or name. However for file down loading, just simple select and click your decided file name for opening.
- 6. Hooking up with FEXTO automation.. FC SERIES Power Units can hooking up with Fexto XY Working Platform and weld head to form automatic tab weld station, where tabs weld can be done by manually, semi or full automatically. Details please refer to relate catalogues. Note, only model FS1000-5 Fexto are available.
- 7. Weld Pattern Library For Uploading.. FC SERIES consists a range of weld patterns storing inside the library, they were well prepared to be chosen for adapting in different weld applications, including simple single pulse, pre-weld pulses, up/down slope, bidirectional pulses etc. Any weld initial set up, technician are allow direct down load a selectable weld pattern from the machine memory, after simple alignment of energy/limiting and do test welding, quality joints can be easy been obtained.
- 8. Weld Energy Pre-set According Battery Polarities And Weld Location.. After hooking up with FEXTO XY platform, as the whole operation is controlling by the computer, so weld energy can be set differently according +ve or -ve polarities of battery, also an increment of energy is allow added to the following weld points, as welding current is already by pass by weld nuggets after the success welded of the first point. Note, only model FS1000-5 Fexto are available.
- 9. Self Identification Of Welding Face.. Adopting with FEXTO XY Platform and sensor on weld surface, once face identification signal was input into the computer, system can verify the welding process is taking place on the top or bottom face of the battery pack, relate weld programmed according each face will instantly call out to do the weld. Benefit of this function is welding both sides tabs in one operation.
- 10. On Screen Set Up Of Weld Point Coordinates.. Once if FC SERIES connected with FEXTO XY Platform, weld point coordinates can be input directly through the control panel, by pressing keys moving the XY table to various weld locations, step by step inputting weld positions of every weld, as the coordinate input was designed as "see thru set", so data inputting was done in a very straight forward way without any arithmetical calculation.
- 11. Bi-Directional Welding Pulses.. System was equipped with bi-directional twin pulses patterns, also weld parameters and direction of weld pulses can be set individually, the forward pulse current only taking care to weld the first point, another point will handling by the following reverse pulse, as weld energies can be set separately and pulling higher in the reverse pulse, gained the advantage of bi-directional weld, quality and clean can be easily obtained at the same time.
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Diagram of the FC1000-7 controller interface with labels for various windows and features: Copy Window, Face Set Window, Array Window, Auto Routing Window, Group Set Window, SPC Monitor Window, Move and Flip Window, Finalization Window, Weld Pattern Window, Camera Window. Includes detailed descriptions for each window and a central diagram of the control panel with labels like WELDED ENERGIES, FUNCTION SYMBOLS, ON/OFF, DISPLAY AREA, JOG WHEEL, CONTROL OPTIONS, VARIABLES, WELD SETTING, ALARM REGION.