

# POWERFUL PRECISION



**PROJECTION WELDING** 

SEAM WELDING

FLEXIBLE PROGRAMMING

# **2400 Amp. MFDC INVERTER**



## PROGRAMMABILITY TOTALLY CUSTOMIZABLE

## Programm weld schedules to tackle all spot, seam, projection and butt welding applications.

Select from 99 functions to create custom weld schedules unique to your application. These functions include weld, impulse, upslope, down slope, post weld, pre-weld etc.

#### 255 WELD SCHEDULES

Allows preprogramming of various application needs such as different parts welded on the same machine.

Insert << Start of Schedule 2 > E=100 46: ADAPTQ MODE=0 RATE=1 SEE) 82: LINEAR STEPPER #1 ASS % ENERG 39' EXP 9% CONTROL 100% 92: C-FACTOR LIMIT: HI=999 1: SQUEEZE 500 MSEC = 16 HEAT 45: SLOPE 0 IMP 00 A TO 00 A 60: IMPULISE= 166 HEAT MS, 16 COOL MS 30: WELD 1 IMP 500 AMPS 3: HOLD 83 MSEC << End of Schedule 2 >>

Choose the function to add: 1: SQUEEZE nnnn MSEC 2: COOL nnnn MSEC 3: HOLD nnnn MSEC 4: OFF nnnn MSEC 5: INITIAL SQUEEZE nnnn MSEC 7: WAIT nnnn MSEC 8: PORTABLE GUN MODE 11: MEASURE HIGH FORCE nnnn TIM 12: MEASURE LOW FORCE nnnn TIM 13: GAP RILLE RDE nn

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## **400** to **2000** Hz

Programmable output frequencies to complement weld transformers with different frequency designs.



## FAULT and ALERT

Programmable conditions to validate weld integrity. Custom programming mode allows the user to select fault or alert conditions to assist in trouble shooting of a suspect events

## FAST CURRENTRISE TIME 0 -50kA in 0.5 msec.

#### **POWER SOURCE**

Voltage	3-Phase AC 220V-480V (± 10%)
Line Power Frequency	50/60Hz (Automatic Selection)
Alternate Configuration	Optional: 575V (± 10%)
Output Frequency	1,000 Hz (Capable Range = 400Hz - 2,000Hz)
Output Current at 10% Duty Cycle	2400 amps
Output Current at 100% Duty Cycle	759 amps
Device Type	IGBT
Power Consumption	70VA (Idling condition)

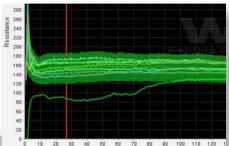
## MULTIPLE I/O CONFIGURATIONS

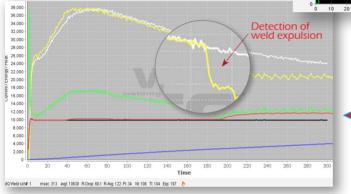
Select from discrete I/O, DeviceNet, EtherNet/IP, ProfiNet, and Profibus. The WT6000 2400amp comes standard with Ethernet/IP connectivity. Additional I/O can be added at time of order.

## FEEDBACK SMART DATA DRIVEN

Graphical representation of welding data such as current, resistance, heat and force - *SoftQ* 

- Tooling Integrity
- Process Integrity
- Nugget Integrity
- Expulsion free reporting





Easily develop comprehensive process resistance envelope and detect any operations that go outside these boundaries. With RAFT Gateway Network software, you can report these excursions by control, by machine, and by part.

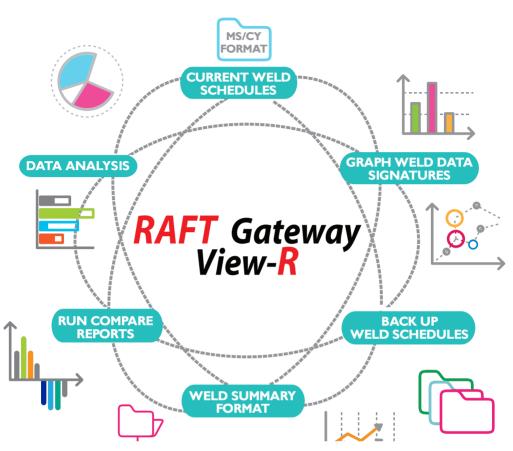
## PRECISION TECHNOLOGY Graphical Data

#### MONITORING AND CONTROL FUNCTIONS

Firing Control:	Fixed Frequency, Pulse Width Modulation
Firing mode:	Primary Constant Current, Secondary Constant Current, Voltage control
Primary Current Range:	20A to Rated Current Level
Primary Current Accuracy:	± 1% Setting, ± .5% Repeatability
DC Bus Voltage Measurement Accuracy:	± 1% Setting, ± .5% Repeatability
Secondary Current Accuracy:	± 2% Setting, ± 1% Repeatability
Secondary Voltage Accuracy:	± 3%
Secondary Resistive Accuracy:	± 3%
MFDC Transformer Flux Protection:	Included
Digital Scope Function:	1 MHz Equivalent Uploads to PC
Duty Cycle Protection:	Monitors Inverter and Weld Transformer Duty Cycle
MFDC Weld Transformer Monitoring:	Diode Monitoring

## CONNECTIVITY SMART NETWORKS

The **WT6000 2400 amp.** control is compatible with *RAFT* Gateway software and View-*R* products.



## **FULLY PROGRAMMABLE** 255 customizable weld schedules

#### **PROCESSOR & FUNCTIONS**

Weld Processor:	WT6000
I/O Protocol:	Ethernet IP 10/100 BaseT
Optional I/O Protocol:	DeviceNet, Profibus, Profinet, ECI
Onboard Inputs:	2 x 24VDC
Onboard Outputs:	3 x 120VAC
Number of weld schedules:	255
Number of steppers:	32
Processor Storage Type:	F-RAM (No Battery Required)
Weld Processor Languages:	English, French, German, Spanish, Portuguese, Chinese, Korean
Discrete I/O (Optional):	16 in / 10 out

### FOR HIGH POWERED APPLICATIONS

## WT6000 - HIGH Current. HIGH Fidelity.



• **FAST** current rise time for high current applications.



• **TOTAL** programmability of weld schedules for spot, projection and seam welding.



• **BUILT-IN** diagnostics for reliable and consistent productivity.



• I/O CONNECTIVITY for Ethernet/IP, Devicenet, Profibus,, Profinet and Discrete I/O.



• MULTI-LANGUAGE programming.



- WEB BASED programming.
- Up to **255** totally programmable weld schedules.
- Weld tool **EFFICIENCY MONITORING** (C Factor).



• Transformer **PROTECTION** (Flux control).



• Duty cycle **MONITORING** of inverter and welding transformer.



Programmable DATA ACQUISITION (microsecond time base)



• Duty cycle monitoring of film capacitor design for **LONGER** inverter life.



Optional force monitoring & FORGE CONTROL.

Dimensions (mm):	805H x 460 W x 424 D
Weight:	68Kg (80lbs)
Distance Between Mounting Centers:	350 mm
Water Fittings:	Firtree 3/8 or 10 mm ID Hose
Color:	Silver

### SUPPORTING PRODUCTS



#### VIEW-R VIEW, MODIFY AND PROGRAM REMOTELY

Functions as a command central for plantwide welding processes. High-speed network computers that collect data and weld signatures to achieve welding integrity. Makes weld controls smarter by removing disturbances, maintaining consistency and minimizing expulsion.



Network your inverter welding controls with smart softwrae that allows you to collect welding signatures and maintain your welding database information.





#### DEP300 HANDHELD MACHINE INTERFACE

Serial communication and EtherNet enabled human machine interface. Offers the convenience to hook-up to a weld control to view status, program schedules, diagnose errors, and inspect weld data.

#### WTC KNOWLEDGE PORTAL STAY INFORMED & CONNECTED.

WTC customers gain special access to our extensive Knowledge Resource with the latest product documentation, drawings, catalogs, how-to-videos and more.

To get started click on: www.weldtechcorp.com/Login-procedure



Scan code to get quick access.

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24775 Crestview Court, Farmington Hills MI USA 48335 T: 248.477.3900 F: 248.477.8897 Email: welding@weldtechcorp.com