

Symptoms: A US manufacturing company using 13 robotic ultrasonic welders was experiencing problems in communication and timing between robots and the welding heads. Repeated re-wiring and software changes did not solve the problem, so electrical disturbances were suspected.

Cause: Linear and non-linear equipment were sharing the same electrical distribution infrastructure and these devices contribute to poor power quality, primarily surges, spikes, harmonics, noise and impedance characteristics to the common power system. Both Linear and non-linear systems were experiencing the affects of this shared poor quality power.

Cost: Process errors resulted in poor quality output, increased scrap, inefficient production rates, extended lead times and inaccurate scheduling. Maintenance, trouble shooting, corrective action/root cause analysis and software engineering costs were reoccurring. Customer dissatisfaction was an intangible cost.

Solution:

A custom configuration using the Bantam technology conditioned the power going to each robotic and electronic system. Both systems were protected from surges, spikes, errant frequencies and harmonics. The Bantam technology also provided a stable ground reference to ensure accurate data interpretation, and power factor correction for capacitive reactance.

Savings:

The poor power problems and symptoms stopped. After over a year of continuous operation, the robots and controllers did not experience any disruptions due to poor quality power. Production efficiency, on time delivery, and quality improved. Quality and engineering costs were diverted to new projects.

Surge Protection
Power Conditioning & Filter
Stable Ground Reference
Harmonic Attenuation
Power Factor Correction
Hacker Protection



Contact: Lodestone/Digilant, 4769 E. Wesley Drive, Anaheim CA 92807 • (714)-970-0900



Patented Technology that Protects Line, Neutral and Ground

Industrial Applications



The ideal Power Conditioner for Power Pollution found in industrial applications. Absorbs surges, spikes transients, EMI & RFI, and reduces harmonic distortion. The Patented Circuit is a Bi-Directional filter of Line, Neutral and Ground, so devices sharing a common power source do not share surges, transients, and harmonics.



Bantam Vanguard PP18004 120V 15 amps

Input Voltage: **Output Voltage:** Outlets: Output Current: **Nominal Frequency:** Circuit Protection: Safety Standard:

110-120 VAC Single Phase 110-120 VAC Single Phase Four (4) filtered NEMA 5-15R outlets 15 amps 50 to 60 Hz 15 amp thermal breaker, push-to-reset MET Listed to UL and cUL Standards





Bantam Citadel RM1440 120V 15 amps

Portable and compact, the 15 amp Vanguard packs incredible Power Conditioning and Surge Protection Technology in a small affordable package.

Input/Output Voltage:	110-120 VAC 60 Hz, Single Phase
Outlets:	Six (6) filtered NEMA 5-15R outlets
	Two (2) IEC 320 C13 outlets, adapters included
VA Rating:	1440VA 50 to 60 Hz

VA Rating

Bantam Citadel RM2880 220V 15 amps

Input/Output Voltage: Outlets: VA Rating:

220-240 VAC 60 Hz, Single Phase Eight (8) filtered IEC 320 C13 outlets 2880VA 50 to 60 Hz

Regulatory Compliance: UL 62368-1 Circuit Protection: Color LCD Display:

Thermal breaker, push-to-reset Real Time Display For: Surge Count, Voltage, Current, Frequency, Wattage, Power Factor

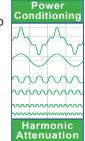
Available in 120 or 220 volts, the versatile and effective, 15 amp Citadel can be rack, floor or wall mounted. Essential protection for computers, servers, test equipment, security, POS, controllers, audio



Bantam Tempest SA3600 100-240V 15 amps

Input/Output Voltage: Max Wattage: Output Current: Regulatory Compliance: UL 62368-1, CE

100-240 VAC Single Phase 3600 50 to 60 Hz 10-15 amps. Input/Output Connections: 3 each 0.25" QC Spade Connectors



This Bantam Patented Circuit is UL Component Listed so OEMs can include superior surge and power conditioning in a wide variety of products.

Surge Protection
Power Conditioning & Filter
Stable Ground Reference Harmonic Attenuation
Power Factor Correction
Ground Infiltration Protection