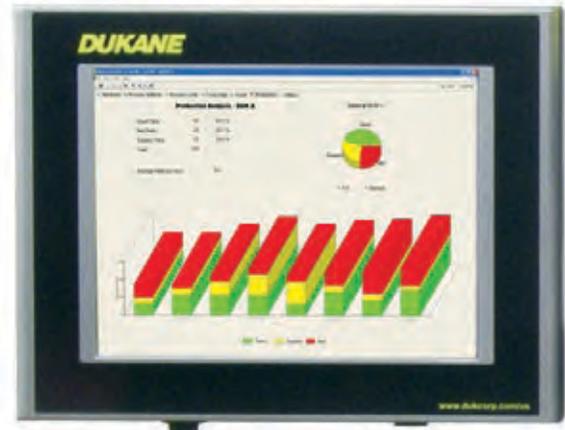


The iQ-HMI include a 15" color industrial PC with touch screen, compact flash solid state drive (no moving parts) two USB ports, and one Ethernet port. Windows embedded operating system. Rugged metal housing with mounting holes for standard VESA 75 Support arms. IEC C14 plug w/internal 110/230 VAC power supply.



FEATURES

iQ Explorer User Interface

- **Windows operating system** uses familiar file folder menu structure, requires no special training to program and operate.
- **Touch screen input** for ease of programming. All welder setup parameters are programmed from one menu page.
- **Ethernet connectivity** for connection to local area network or stand-alone applications.
- **Supervisory password** control features for lock-out of system controls.
- **Remote connectivity** to Dukane's 24 hour hotline for system diagnostics and troubleshooting ensures minimized down time.

iQ Process Control

To optimize the welding process and produce the strongest and most consistent weld results, it is critical to look at all phases of the welding process for each application.

Pre-weld Control

- **Electronic Load Cell** provides closed loop programmable trigger force.
- **Pre-trigger by Distance, Force, Velocity, Power, or Automation** input options are available.

Weld Controls/Modes

- **Electronic pressure regulator** coupled with pressure transducer provides closed loop control and monitor of weld pressure. Programmable by force or pressure.
- **Pressure Profiling** up to 20 segments.
- **Linear Optical Encoder** with a one-micron resolution over seven inches of usable travel for excellent precision and repeatability.
- **Primary and Secondary Control Functions** offer total flexibility in process control, reducing rejects and increasing part consistency.
- **Weld by Time.**
- **Weld by Energy** delivers a specific amount of energy to the work.
- **Weld by Distance** controls the collapse distance to ensure that the same volume of material melts on each part so the finish joint strength is consistent.
- **Weld by Absolute Distance** controls the finish part height to yield uniform assemblies.
- **Weld by Peak Power** terminates the ultrasound when the available joint material is completely melted.

Post-weld Control

- **Secondary Hold Pressure** is available for increased clamping force to pack out molten material while increasing bond strength.
- **Hold by Time, Distance or Auto (Velocity).**

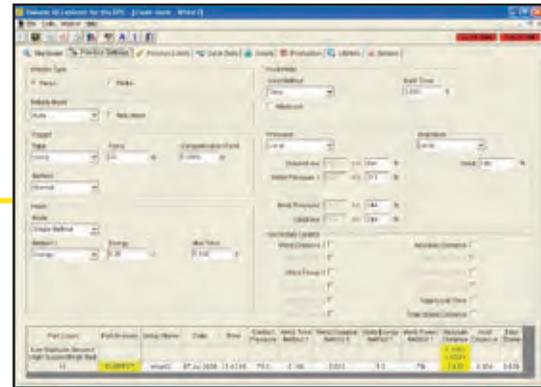


iQ- HMI Features

- **Intuitive menu structure**, uses familiar windows file folder layout and icons.
- **One screen process settings page** last weld data displayed simplifies programming.
- **F1 Help command** instantly displays explanation of function.
- **iQ Explorer GUI operates independently** of generator. Removal or malfunction of HMI does not affect machine functionality. One HMI can be used for multiple machines.
- **User-programmable cycle data screen** displays up to 27 unique weld parameters for monitoring operating parameters.
- **User programmable process limits** are displayed on cycle data screen. Bad Part and Suspect Part limits - up to 22 parameters are available. Eliminate the need for expensive SPC packages.
- **Two user-selectable data storage locations** store data on USB drive, local area network, C drive and generator memory.
- **Data is stored based on user-selectable time intervals.** Shifts can be specified to create unique data file for each programmed period.
- **Save part data from multiple welders to one file option.** Ideal for multi-headed weld applications or multi-welder work cells.
- **Reference footprint** consists of the user-selectable weld graph that gives a tool for finite weld process parameter optimization.
- **Eight user-selectable graph parameters** -Velocity, Energy, Power, Distance, Amplitude, Frequency, Force and Pressure for viewing and storage of each weld. Exportable in comma delimited format for easy integration in SPC programs.
- **Production analysis screen** displays 8-hour shift production statistics: Good, bad, suspect quantities and percentages. Ideal for instant monitoring of production.
- **Advance stack diagnostics** includes power and frequency graphs for stack (horn) documentation and future reference for troubleshooting.

iQ Explorer operates on Windows operating system independently of the ultrasonic system. Usable on most computer platforms, desktop, tablet, notebook or industrial PC, and does not require proprietary hardware from Dukane.

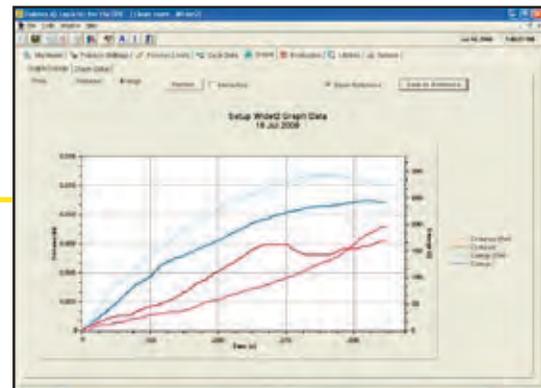
Process Settings



Cycle Data

Part Count	Part Name	Part Number	Class	Base	Quality	Weld Time	Weld Distance	Weld Energy	Weld Power	Weld Frequency	Weld Amplitude	Weld Force	Weld Pressure	Weld Temperature	Weld Status
12	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000

Advanced Graphing



Production Data

