

QUALITY CONTROL SPOT WELD MONITORING & TESTING

FFA # 31

USING WELD MONITORS FOR RESISTANCE (SPOT) WELDING

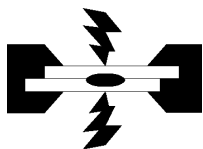
To help produce higher quality Resistance Welds, various steps should be performed. After these steps have been checked the use of "On Line Weld Monitors" can help assure good parts are being produced in addition to your regular Destructive Testing Methods!

- STEP #1: USE GOOD QUALITY EQUIPMENT THAT IS CORRECTLY SIZED AND OPERATING PROPERLY WITH A SOLID STATE, FULL FUNCTION WELD CONTROL AND PREFERABLY AN SCR CONTACTOR.
- STEP #2: USE PROPER WELDER SETUP TO MAKE GOOD WELDS. DEVELOP A METHOD OF PULL TESTING (DESTRUCTIVE TESTING) THE WELDS YOU HAVE MADE.
- STEP #3: MEASURE AND RECORD: WELD CURRENT, TIP PRESSURE AND WELD TIME, WELD TIP SIZE AND SHAPE ETC. (TO EASILY SETUP AGAIN FOR EACH JOB)
- STEP #4: PULL TEST OR DESTRUCTIVE TEST YOUR PARTS EVERY CERTAIN NUMBER OF WELDS, OR EVERY SO MANY HOURS OF PRODUCTION. (SUGGESTED EVERY 2 HOURS DEPENDING UPON PRODUCTION QUANTITIES)
- STEP #5: USE MONITORS TO MEASURE EACH WELD AS THEY ARE MADE. THEN IF THE WELD PASSES YOUR LIMIT SPECIFICATIONS BETWEEN DESTRUCTIVE TESTING TIMES OR THE EVERY 2 HOUR GUIDELINE, IT SHOULD BE A GOOD WELD.
- STEP # 6: FURTHER USE OF THE WELD MONITORS CAN EXTEND THE LENGTH OF TIME FOR TESTING IN STEP #4 (DESTRUCTIVE TESTING) HOWEVER, SOME METHODS OF PULL TESTING SHOULD BE USED AS A FINAL CHECK OF PARTS QUALITY.

SUGGESTED MONITORS INCLUDE: PRESSURE FORCE GAUGE (TIP FORCE GAUGE)
HAND HELD WELD MONITOR
15 PROGRAM WELD MONITOR
WELD MONITOR/DIAGNOSTIC SPC METER
WITH PRINTER TAPE

Connection of Weld Monitors is very simple. Place the unit in a convenient location, usually on top of the weld control. Plug the unit into 115 VAC power. Place the split pick-up coil around the lower weld arm of spot welders or the current carrying member. Plug in a 115 VAC Signal Light to the back of the MM-121 or use the output contacts from the rear I/O port of the monitor for signalling or interlocking a machine to stop on an out of tolerance weld. Remote Plug in type units are available with Signal Light, Reset Button and Interlocking relay.

Studying your welding, using good set-up procedures and proper monitoring will keep everyone involved with welding aware of production problems and result in making good welds all the time.



Resistance Welding Equipment & Supply Co.

2045 East 46th Street, Indianapolis, IN 46205

Phone: (317) 251-9406 Fax: (317) 251-9407 e-mail: rwesco@iquest.net

"Spot Welding Specialists for over 50 years!"