



MACHINE CALIBRATION CERTIFICATION

Machine Information :

Customer Name: C.F. Roark

Serial Number: 10251

Machine Type : VX.3-138X108X107

Calibration Date: 8-25-2010

Next Calibration Due: 8-25-2011

Electron Beam Welder Calibration Specifications

Parameter	Program Value	Display Value	Actual Value
Accelerating Voltage (kV.)	10.0 kv	9.9kv	1.000 vdc 9,881 kv
	20.0 kv	20.0	1.970 19,937kv
	30.0 kv	29.9	2.930 29,576kv
	40.0 kv	39.9	3.900 39,364kv
	50.0 kv	49.8	4.875 49,292kv
	54.0 kv	53.8	5.270 53,272kv
	60.0 kv	59.8	5.860 59,331kv
Beam Current(mA.)	10 ma	10ma	10ma .050vdc
	50 ma	50	51 .255vdc
	100 ma	100	101 .505vdc
	200 ma	200	201.8 1.009vdc
	300 ma	300	302 1.50vdc
	400 ma	400	400 2.00vdc
	500 ma	500	500 2.50vdc
Beam Focus(A.)	2.50 amps	2.51 amps	2.503 amps
	3.50 amps	3.51	3.506
	4.50 amps	4.51	4.508
	5.00 amps	5.01	5.006
	6.00 amps	6.01	6.009
	7.50 amps	7.51	7.51
XD/ YD Deflection test	+/-XD1000	-.995 1.000	-9.96 vdc 10.0vdc
	+/-YD1000	-1.000 1.000	-10.0 vdc 10.0vdc
Scanner / Noise and Accuracy			
X-Axis Speed	10.0 ipm	10.0 -10.0	Same as Display
	100.0 ipm	100.0 -100.0	Same as Display
Y-Axis Speed	10.0 ipm	10.0 -100.0	Same as Display
	100.0 ipm	101.0 -100.0	Same as Display
Z-Axis Speed	10.0 ipm	9.9 -10.0	Same as Display
	50.0 ipm	49.9 -50.1	Same as Display
R-Axis Speed	0.1 rpm	.10 -.10	Same as Display
	5.00 rpm	5.00 -5.00 rpm	Same as Display
T-Axis Speed	0.1 rpm	.10 -.10	Same as Display
	2.00 rpm	2.01 -2.00	Same as Display
RH-Axis Speed (IA)	0.1 rpm	.10 -.10	Same as Display
	5.00 rpm	5.00 -5.01	Same as Display



BIAS SUPPLY DATA

Input to Bias Amplifier (Crown DC300)	Output from Bias Amplifier (Crown DC300)	Output from High Voltage Tank
3.22 VAC	82 VAC	1059 VDC

FILAMENT SUPPLY DATA

Program Reference Value	Output from High Voltage Tank	Ripple
10.00Vdc (from D/A/C)	3.45 VDC74 MVAC	2.1%

The calibration was performed using a Fluke 87 DVM S/N 00114
with a calibration date of 7-1-10 which is due for calibration on 7-1-11.

High Voltage probe Sciaky Model DT9903 S/N 2-8364 with a
calibration date of 7-29-2010 and due for calibration on 7-29-2011.

All equipment used to calibrate the system were calibrated using calibration standards that are traceable to the National Institute of Standards and Technology (NIST). The calibrating facility conforms to ANSI Z540-1-1994.

Robbie V. Cherry 8-25-2010
Performed by Date