



Atomflo 500 Final Test Report

Serial Number: 00157Y
Description: 3201-A Atomflow 500
Operator: Kevin OBrien
Configuration Check Date: 03-Aug-2013 10:08:47

Software Version Information

Firmware Version: 201000A
HMI Version: 1.3.0.244
Server Version: 0.13.1

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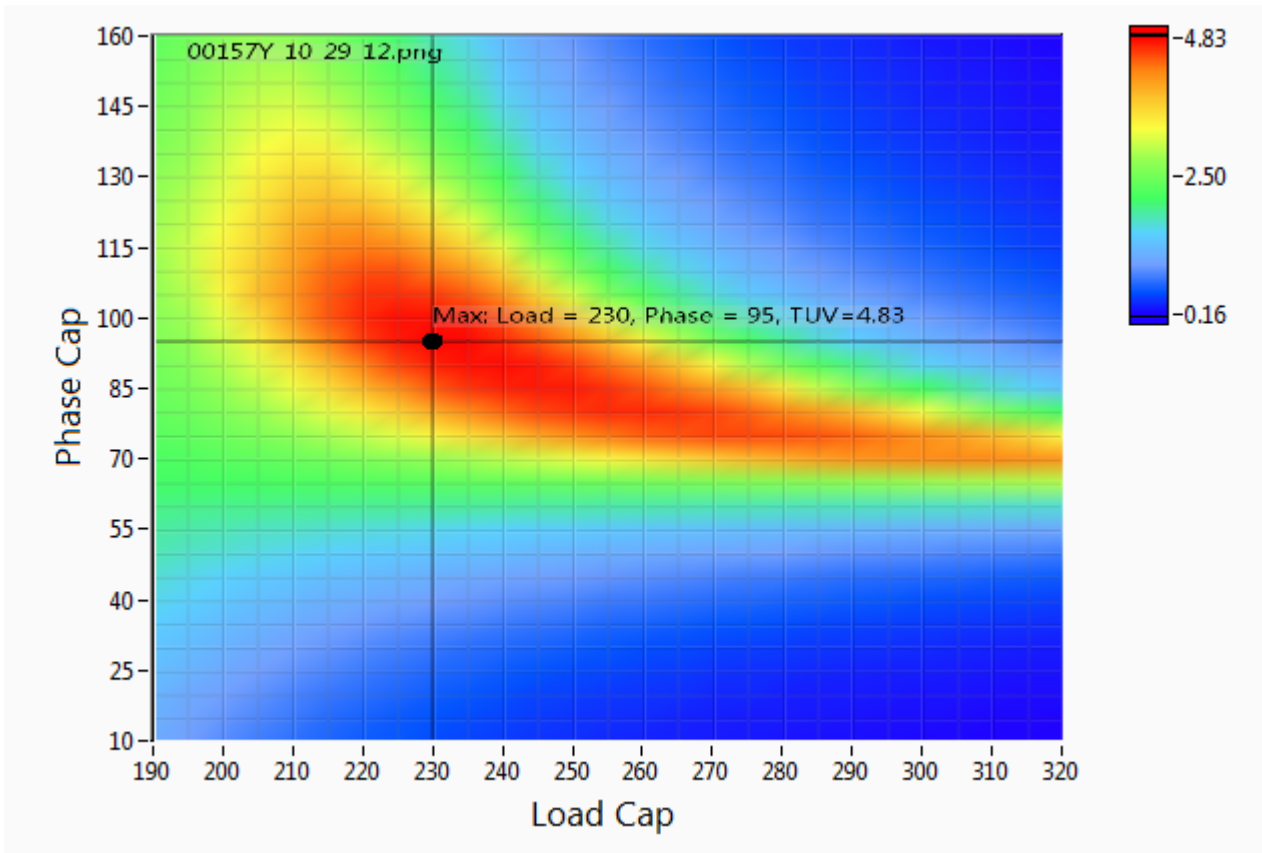
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Strike Map

Test Parameters

Cable Serial Number: 0012yy
CCM Serial Number: old
Atomflo Serial Number: 00157Y (AF500 Aust. Built (pre-PMT))
Test Date and Time: 03-Aug-13 10:29:10
Plasma Head: 0012zu



Strike Calibration Parameters

Parameter	Value from Strike Map	Value from Find Strike
Load Capacitor (deg)	230	246.2
Phase Capacitor (deg)	95	88.55
TUV (Volts)	4.83	



Plasma Test Result

Test Parameters

Cable Serial Number: 0012YY **Test Date and Time:** 02-Aug-13 03:52:44
CCM Serial Number: old **Plasma Head:** 0012ZU
Atomflo Serial Number: 00157Y (AF500 Aust. Built (pre-PMT))

Primary Gas: Argon
Secondary Gas: Nitrogen

Optimum Capacitor Position Results

Forward Power (W)		Reflected Power (W)		Primary Gas flow rate (L/min)		Secondary Gas flow rate (L/min)		Secondary Gas Tested flow rate (L/min)	Load Capacitor Final Tune Position (deg)	Phase Capacitor Final Tune Position (deg)	Time to Tune (s)
Set	Actual	Set	Actual	Set	Actual	Min Tested	Max Tested				
80	80.38	1 - 3	2.35	15	14.92	0.1	0.2	0.15	256.6	74.55	21
100	100.43	1 - 3	2.11	15	14.92	0.4	0.6	0.5	261.5	76.45	12
120	120.34	1 - 3	2.19	15	14.92	0.5	0.7	0.6	256.1	75.95	12
140	140.29	1 - 3	1.86	15	14.92	0.5	1	0.6	250.4	75.25	13
160	160.12	1 - 3	2.28	15	14.92	0.6	1	0.7	246.3	74.75	13

The given load and phase positions are for the tested secondary gas flow rate and will be different when running different flow rates within the range

Test Parameters

Cable Serial Number: 0012yy **Test Date and Time:** 03-Aug-13 09:36:42
CCM Serial Number: old **Plasma Head:** 0012ZU
Atomflo Serial Number: 00157Y (AF500 Aust. Built (pre-PMT))

Primary Gas: Argon
Secondary Gas: Oxygen

Optimum Capacitor Position Results

Forward Power (W)		Reflected Power (W)		Primary Gas flow rate (L/min)		Secondary Gas flow rate (L/min)		Secondary Gas Tested flow rate (L/min)	Load Capacitor Final Tune Position (deg)	Phase Capacitor Final Tune Position (deg)	Time to Tune (s)
Set	Actual	Set	Actual	Set	Actual	Min Tested	Max Tested				
100	100.99	1 - 3	1.99	20	20.01	0.1	0.2	0.15	258.1	76.65	12
120	120.04	1 - 3	2.34	20	19.99	0.1	0.25	0.2	252.8	76.35	14
140	141.13	1 - 3	2.59	20	19.97	0.2	0.3	0.25	248.2	75.95	16
160	160.23	1 - 3	2.96	20	19.99	0.2	0.4	0.25	241.8	74.65	30

The given load and phase positions are for the tested secondary gas flow rate and will be different when running different flow rates within the range



Mass Flow Controller Flow Rate Set Error

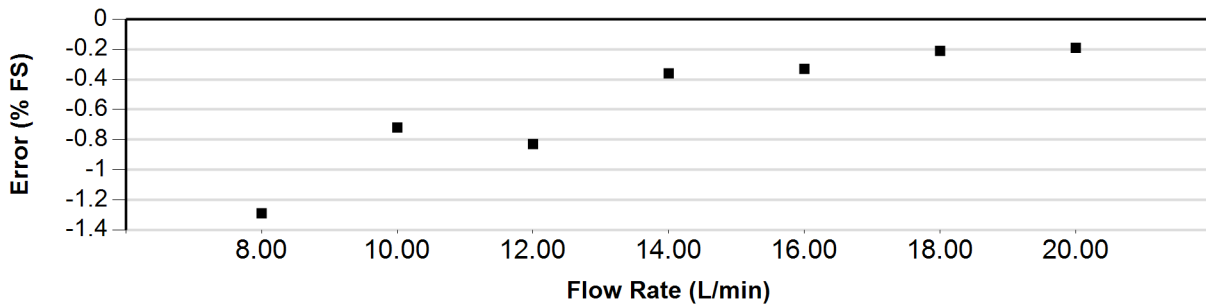
Test Parameters

Cable Serial Number: 0012yy **Test Date and Time:** 03-Aug-13 10:22:47
CCM Serial Number: old **Plasma Head:** 0012zu
Atomflo Serial Number: 00157Y (AF500 Aust. Built (pre-PMT))

Serial Number: 334817-2

Description: CONTROLLER, MASS FLOW, TYPE: THERMAL MFC, FLUID: Argon (Ar), FLOW RANGE: 0-60 STD L/MIN,

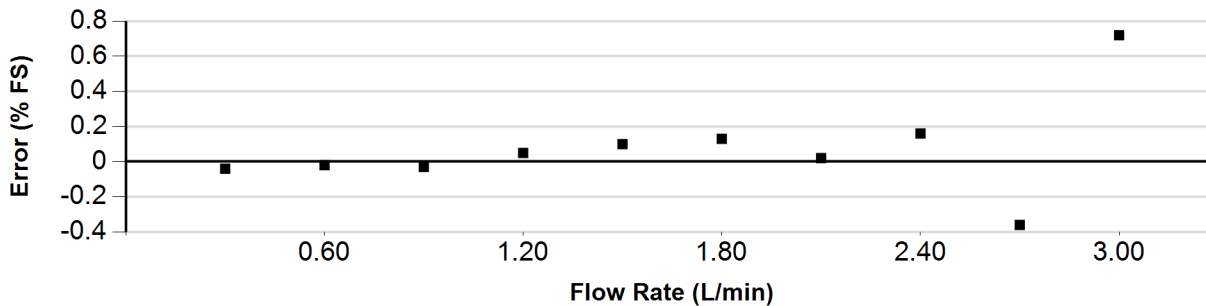
Gas Type: Argon **Test Temperature:** 23.12 **Max Flow Rate:** 20 L/Min



Serial Number: 7375

Description: CONTROLLER, MASS FLOW, TYPE: THERMAL MFC, 3000 sccm (N2, O2, H2), 1000 sccm CO2, INPUT PR

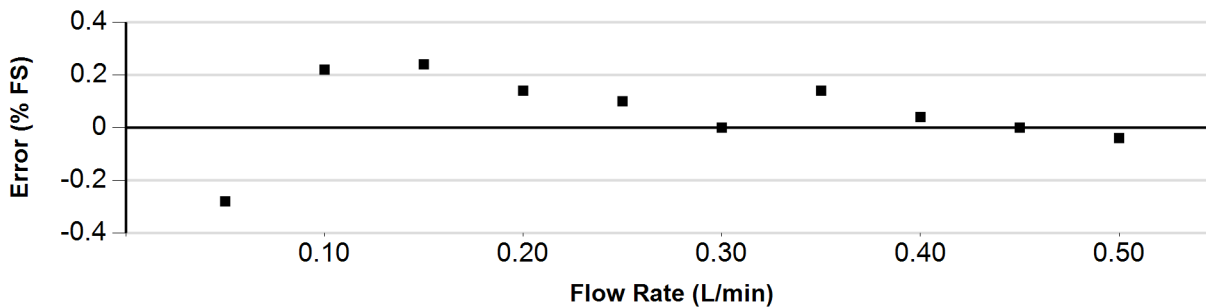
Gas Type: Nitrogen **Test Temperature:** 23.12 **Max Flow Rate:** 3 L/Min



Serial Number: 5951

Description: CONTROLLER, MASS FLOW, TYPE: THERMAL MFC, 500 sccm (N2, O2,H2) , 1000 sccm CO2, INPUT PRE

Gas Type: Oxygen **Test Temperature:** 23.25 **Max Flow Rate:** 0.5 L/Min



$$\text{Error (\% FS)} = ((\text{Actual}-\text{Set})/\text{Max Flow Rate}) * 100$$