

RPBA Field Test Using the Mako MK5 5-Valve, per UF TREEO

Step	Procedure
1.	NOTIFY OWNER , identify, inspect, & observe assembly. If needed, installed appropriate fittings to test cocks
2.	OPEN TEST COCKS a. Open and leave open Test Cock (TC) #4, then TC #3, TC #2, and finally TC #1 b. Fully close TC #1, TC#2, TC #3, and TC #4
3.	ATTACH TEST KIT a. Verify MK5 is turned on and captured values are cleared (Hold Down the Back Button) b. Close all MK5 test kit valves and verify high, low, and bypass hoses are all appropriately connected to MK5 c. Connect high side hose to TC #2 d. Connect low side hose to TC #3
4.	BLEED AIR FROM HOSES a. Slowly open TC #3 fully, then open low bleed valve (leave open) b. Slowly open TC #2 fully, then open high bleed valve (leave open) c. Close the high bleed valve and next the low bleed valve
5.	OBSERVE CHECK VALVE #1 a. Close the outlet shutoff valve b. RECORD Check Valve #1 (CV #1) as either “closed tight” (relief valve closed) or “leaking” (relief valve opens)
6.	TEST RELIEF VALVE a. Open high control valve approximately one turn b. Open low side control valve slightly, <i>no more than ¼ turn</i> c. RECORD reading (Press the Capture Button) at discharge of water from the Relief Valve (Pass if ≥ 2.0 psi) d. Close low side control valve
7.	TIGHTNESS OF CHECK VALVE #2 a. Maintain MK5 high side control valve in open position b. Bleed air from the bypass hose by opening the bypass control valve then close the bypass control valve c. Attach the bypass hose from the MK5 to TC #4 and open TC #4 fully d. Open low side bleed valve so the reading exceeds the apparent differential pressure across CV #1 e. Slowly Close the low side bleed valve f. Observe whether relief valve vent drips (If it drips, reopen the low bleed and close the low bleed) g. If relief valve drips a second time, then Check Valve #2 (CV #2) has failed and must be repaired. Close bypass control valve only if CV #2 leaks h. RECORD the CV #2 as “closed tight” (relief valve closed) or “leaked” (relief valve opens)
8.	TEST CV #1 (Static differential pressure across CV #1 must be greater than the relief valve opening point AND at least 5.0 psid) a. Open low side bleed valve so the reading exceeds the apparent differential pressure across CV #1 b. Slowly Close the low side bleed valve c. RECORD psid reading (Press the Capture Button) across CV #1
9.	OUTLET SHUTOFF VALVE a. Close TC #2 and check for leaks in outlet shutoff valve b. RECORD as “closed tight” or “leaking”
10.	LINE PRESSURE READING a. Close TC #3 and TC#4 b. Open TC #2 and open low bleed valve c. RECORD psid reading (Press the Capture button) for the line pressure
11.	TEST CHECK VALVE #2 a. Close TC #2 and remove all hoses from the assembly b. Attach the high side hose from the MK5 to TC#3 and the low side hose from the MK5 to TC#4 c. Slowly open TC#4 and open the low bleed valve d. Slowly open TC#3 and open the high bleed valve e. Close the high bleed valve and next the low bleed valve f. RECORD psid reading (Press the Capture Button) across CV #2 (Pass if ≥ 1.0 psi)
12.	CONCLUSION a. Close all test cocks, remove all test equipment and fittings b. Slowly open #2 shutoff valve c. Open the MK5's valves and drain water from hoses

Arbiter