



Technical Bulletin

Subject: Troubleshooting checklist for Galiso Hydrostatic Test Machines

Note: Always check expansion problems at Zero pressure, hold at least 2 minutes and note reading every 15 secs

PROBLEM	POSSIBLE CAUSE	SOLUTION (WHAT TO DO)
<u>Expansion</u> Decreasing in ONE Jacket only(Negative Expansion)	Temperature Problem (Problem will eventually stop as temperatures stabilise.)	Check to see that all temperatures(incoming water, test jackets, filled cylinders, and ambient air temperature) are within 5 degrees of each other. (2 degrees or less on small cylinders.)
Decreasing in BOTH Jackets(Negative Expansion)	Bowl Drain Valve Leaks	Remove 1/2" plastic tubing from the bottom of the Drain Valve, and Check to see if water is dripping from the valve.
<u>Expansion unstable</u>	Air Trapped in Expansion Line.	Flush expansion lines by filling bowl with water, and removing the head seal to each jacket while it is in verify.
	Damaged Load Cell	Remove Expansion Bowl from bolt on Load Cell, and see if expansion stabilises without load. If expansion continues to drift, Load Cell may be damaged.
	Vibration	Weigh Bowl must be stable. If there is vibration coming through the floor, or other sources, this must be isolated.
Does not change from zero, no matter what you do.	Improper Calibration: Factor set to zero.	Recalibrate Expansion following the procedure step by step as detailed in the instructions.
	Cable not connected to the computer.	Check Load Cell Cable connection to the back of the computer.
<u>Expansion Increasing</u>	Bowl Fill Valve Leaks	Remove valve from the expansion manifold and check to see if water is leaking through the valve.
	Head Seal Leak	Switch heads (if another is available). If problem ceases, repair faulty head. If another head is not available, using proper Head Retaining Device, leak check head around diaphragm and boot. If any leaks exist, repair head.

EUROPEAN SALES & SERVICE COORDINATORS FOR  GALISO PRODUCTS

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	Temperature Problem. (Problem will eventually stop as temperatures stabilise.)	Check to see that all temperatures (incoming water, test jackets, filled cylinders, and ambient air temperature) are within 5 degrees of each other. (Less than 2 degrees on small cylinders.)
<u>Expansion Decreasing</u> In ONE Jacket only (Negative Expansion)	Head Boot not sealing against Jacket	Check inside sealing surface of Test Jacket to ensure that the surface is smooth. Check Boot itself for deformations.
	Leak in expansion plumbing	Dry off all tubing with an air hose, and check for drops of water.
	<u>Opposite Jacket Expansion Valve Leaks</u>	Remove 1/2" plastic tubing from the bottom of the Valve, and check to see if water is dripping from the valve.
<u>Pressure and Expansion</u> Both are out of the ordinary - both are unstable / stay on zero.	Possible damaged A/D card	Recalibrate both pressure and expansion, note the "Calibration Factors" of each, and call Galiso. Replace A/D Card in Computer.
<u>Pressure</u> Pressure does not change from zero, no matter what you do.	Improper Calibration. Factor set to zero.	Recalibrate pressure, following the procedure step by step as detailed in the instructions.
	Cable not connected to Computer	Check Transducer Cable connection to back of the computer.
	Broken Transducer	Unplug Transducer Cable from the back of the Computer. If reading then jumps to an enormous number, this could indicate broken Transducer.
<u>Pressure</u> Decreasing in BOTH jackets	Leak in High Pressure Bleed Valve	Remove the SST tubing from the Bleed Valve (the line going out to the pit). If drops begin to form at elbow when the system is pressurised, the valve needs to be rebuilt(stem and/or seat).
Decreasing in ONE jacket only	Leak in High Pressure Tubing	Check all connections from console out to jacket that has the leak.
	OPPOSITE Jacket High Pressure Valve Leaks	Remove the 1/4' SST tubing from OPPOSITE Jacket High Pressure Valve (the line going out to the jacket). If drops begin to form at elbow when the system is pressurised, valve needs to be rebuilt (stem seat and seal).
	Test Head has High Pressure Leak	Switch test heads. If problem goes to the other Jacket, Test Head needs rebuilding.
<u>Pressure Increasing</u>	Pump is continuing to pump even though Computer has tried to turn it off. (See also, "Pressure Unstable")	Pump Control Valve is stuck. Turn the air to the pump off. If this stops the increase, troubleshoot the control circuit from the control valve out to the pump.
<u>Pressure Unstable</u>	Damaged Pressure Transducer	Attach Master Gauge to the system. Pressurise to a readable pressure, and hold. If the pressure is stable on the gauge, but drifts on the Transducer, replace Transducer.
<u>Computer</u> Reset the computer. If this problem, Keyboard locks up	Power Fluctuation	Reset the computer. If this problem becomes chronic, an un-interruptable power supply (UPS) may solve it. If not, check your incoming power. Bad Keyboard 1 Keypad 1 Card
New Floppy disk will not format	Incompatible Floppy Disk	Check to see that the floppy disk that you are using is IBM Compatible, with the specification: MFD-2HD or MF-2HD.

PROBLEM	POSSIBLE CAUSE	SOLUTION (WHAT TO DO)
<p>When Computer is turned on, floppy disk light turns on, and computer seems to boot, but...</p> <p>Monitor remains black</p> <p>Monitor turns a bluish colour.</p>	<p>Monitor is not getting power: Small green power light is on.</p> <p>Small green power light is off</p> <p>Monitor is not getting signal from Computer.</p> <p>Monitor Card 1 Computer is not functioning.</p>	<p>Monitor may have blown fuse. Factory repair is necessary.</p> <p>Check the power connection.</p> <p>Check to see that Monitor Cable from Computer to Monitor is properly connected.</p> <p>If possible, attach Monitor and Monitor Card to another computer to verify each component</p>