

<b>SPIRE/PACS</b> (CEA-SBT)	<b>Monthly Report – May 2002</b>	<b>Date:</b> June 3 <sup>rd</sup> , 2002
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**Work Package: Cooler**

<b>1. Subsystem Progress Since Project Inception</b>		
Detailed design of the coolers (CQM, STM, PFM & FS) done. Manufacturing of 2 CQM + 2 STM done. Manufacturing of new large test cryostat done (“standard” test cryostat available). Product Assurance plan implemented.		
<b>2. Subsystem Progress This Month</b>		
<ul style="list-style-type: none"> <li>- Vibration tests on 2 STM units done – successfully passed after replacing smaller Kevlar cords (0.29 mm) on evaporator by larger one (0.5 mm - as on sorption pump and previous EM models) – 0.5 mm cord becomes baseline.</li> <li>- Gold plating of two CQM hearts + straps between heat switches and pump/evap. + straps to shunt, done</li> <li>- Mounting of thermometers and heaters to follow</li> <li>- Heat switches : New samples being made for new subcontractor qualification (titanium/copper brasing). Assembly of heat switches to follow</li> <li>- Structures : surface treatment on titanium being investigated (to get rid of titanium oxydation and “poor” visual aspect)</li> <li>- Clean room fully operationnal – Work on CQM cooler hearts to be done in there.</li> <li>- Kevlar characterisation campaign : fatigue test on Kevlar 0.29 mm stopped (18 millions cycles recorded). New tests on Kevlar 0.5 mm to follow (in particular some tests at LN2).</li> </ul>		
<b>3. Problem Areas</b>	<b>Remedial Action</b>	
<b>4. Engineering Activities</b>		
Tensiometer : in contact with subcontractor : couple of solutions will be evaluated To be initiated : following PACS agreement to electrical isolation (consistency with SPIRE) solutions need to be identified and qualified		
<b>5. Design Changes</b>		
<b>6. PA/QA Activities</b>		
Inspection, anomalies, etc...– documentation updated - General QA management.		
<b>7. Subsystem Management Issues</b>		
None		
<b>8. Actions Requiring Immediate Attention</b>		
SBT documents approval by SPIRE and PACS projects		
<b>9. Status of Previous Actions</b>		
None		
<b>10. Activities Yet to be Achieved</b>		
<b>11. Milestones</b>		<b>Status</b>
Winter 00-01	Coolers Detailed Design	Completed
May 17 <sup>th</sup> 2001	Coolers DDR (PACS & SPIRE)	Completed
June 26 <sup>th</sup> 2001	Subcontractor selection for machining	Completed
October 2001	Parts Delivery	Completed
Nov/Dec 2001	CQM Coolers assembling	Pending solution to problem with heat switches
Nov/Dec 2001	STM Coolers Assembling and Vtest	Completed
Dec 2001	STM Coolers delivery	When needed - Available
Winter 01-02	CQM Coolers Qualification	Pending solution to problem with heat switches
Spring 2002	CQM Coolers Delivery	Pending solution to problem with heat switches
<b>12. Schedule Changes</b>		
See above – Pending solution to problem with heat switches		