

<b>SPIRE/PACS</b> (CEA-SBT)	<b>Monthly Report – September 2002</b>	<b>Date:</b> October 1 <sup>st</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. STM units available (vibration tests performed).		
<b>2. Subsystem Progress This Month</b>		
<p>- CQM units : Mounting of thermometers and heaters done. Wiring in progress. CQM under cleanliness and contamination control.</p> <p>- Copper/Titanium brasing : 2 subcontractors qualified – choice to be made shortly</p> <p>- Heat switches : awaiting for subcontractor selection for new heat switches assembly (two heat switches made by previous subcontractor, with minor difference in the design, available – can be used for initial thermal testing).</p> <p>- Structures : surface treatment tested (Oxydation Anodique Sulfurique) – results are disappointing. Decision is made to leave the structures as is (raw titanium). Anchoring of protecting tubes (guides for PACS screws) : left as is, kapton tape and glue will be used to secure them (as during the STM Vtests).</p> <p>- Kevlar characterisation campaign and Tensiometer : new engineer + post doc have (partly) joined the project team – will work on the development of this tool and Kevlar characterisation.</p> <p>- Solution for the electrical isolation : new parts available; to be implemented during CQM final assembly</p>		
<b>3. Problem Areas</b>		<b>Remedial Action</b>
Peculiar behaviour of Kevlar		Under investigation
<b>4. Engineering Activities</b>		
Tensiometer		
<b>5. Design Changes</b>		
<b>6. PA/QA Activities</b>		
General QA management. STM EIDP in progress		
<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	Awaiting for heat switches final assembly
Nov/Dec 2001	STM Coolers Assembling and Vtest	Completed
Dec 2001	STM Coolers delivery	When needed - Available
Winter 01-02	CQM Coolers Qualification	Awaiting for heat switches final assembly
Spring 2002	CQM Coolers Delivery	Expected before end of 2002
<b>12. Schedule Changes</b>		
See above – related to subcontractor problem with heat switches		