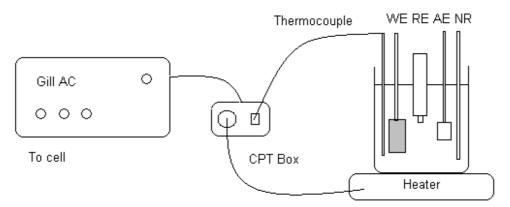


## **Critical Pitting Temperature**

This test involves determining the temperature at which initiation of localised corrosion occurs. It is performed using a Gill AC with the optional CPT box plugged into a small connector on the back. The CPT box accepts a thermocouple input and controls a mains powered heater. The basis of this simple test is to hold the test sample at a required anodic potential using the Gill AC. The temperature is then increased in steps by the Gill AC until the current recorded by the Gill AC reaches a set current this temperature being the critical pitting temperature.



A typical temperature current graph from the equipment above is shown in the diagram below.

Temperature				70 C	
				Exceeds critical current for	
		55 C		longer than the programmed	
		50 C		time. Therefore 70 C is the critical pitting temperature in	
	5	45 C		this case	
	strati	40 C			
	يعاطل	35 C			
	3	30 C			
	1	25 C			
	-	20 C			
			Critical current		Current

This can then be repeated at different chloride levels pHs etc to obtain a graph of critical pitting temperature versus the altered parameter for example:-

