Keywords: software requirement specification (SRS), autoclave, pressure vessels, composites, moulds, curing, controlled environment actuators, pressurisation valve, thermocouples, heaters, blower vacuum bag.

Abstract: This document describes the complete software requirement specifications (SRS) for a 4Mt x 8Mt autoclave for HAL which will be used for curing of composites. The autoclave is under development in NAL. The design, development and installation of control and instrumentation for the autoclave is the responsibility of Aerospace Electronics And Systems Division (ALD). The major requirement in autoclave control is to effect the desired average temperature profile on the part in the mould in a controlled environment of pressure. The three parameters required to be controlled in the pressure vessel are temperature, pressure and vacuum.

The autoclave software envisaged for the control and instrumentation is designed in such a way is to have flexibility to incorporate any future advances in control and instrumentation. the software designed is completely menu driven and is built on modular approach. It fully meets the specification of HAL.