

## SUPERFREEZE INDIA LTD.

## SAFETY REQUIREMENT OF LPR SYSTEM

SUPERFREEZE STRONGLY ADVICE TO INSTALL <u>SUPERFREEZE OVER FLOW VALVE</u> ON DISCHARGE LINE OF RECIRCULATING PUMP OF LPR.

LPR RECIRCULATION PUMP IS USED TO FEED LIQUID AMMONIA TO MULTIPLE CHAMBERS.

AS THE CHAMBERS ATTAIN TEMPERATURE REQUIRED, THE FLOW OF LIQUID TO THE CHAMBER IS STOPPED BY STOP VALVE OR SOLENOID VALVES. THE PUMP IS RUNNING ALL THE TIME. WHEN ALL OR MOST OF THE LIQUID GOING TO CHAMBERS IS STOPPED, IT INCREASES THE PRESSURE IN LIQUID HEADER.

THE **SUPERFREEZE OVER FLOW VALVE** IS INSTALLED ON THE MAIN HEADER FEEDING TO THE SECONDARY HEADER LEADING TO CHAMBERS. THE **SUPERFREEZE OVER FLOW VALVE** HAS A SETABLE PRESSURE RANGE. WHEN THE PRESSURE IN THE HEADER INCREASES BEYOND THE DESIRED LIMIT, THE OVERFLOW VALVE OPENS AND THE PRESSURE IS RELEIVED BACK TO THE LPR VESSEL VIA LIQUID RETURN LINE. THIS WAY IT PROTECT MOTOR FROM OVERLOADING. IT SAVES PUMP FROM ACCIDENTS AND ALSO SAVES ENERGY.

ALSO IN CASE THE MOTOR IS SWITCHED ON ACCIDENTALLY, WHILE MAIN STOP VALVE LEADING TO SECONDARY HEADER IS CLOSED, <u>SUPERFREEZE OVER FLOW VALVE</u> AUTOMATICALLY RELEIVES PRESSURE VIA RETURN LINE. THIS WILL SAVE PUMP , PIPES AND VALVES FROM OVER PRESSURE WHICH MAY LEAD TO ACCIDENTS.

