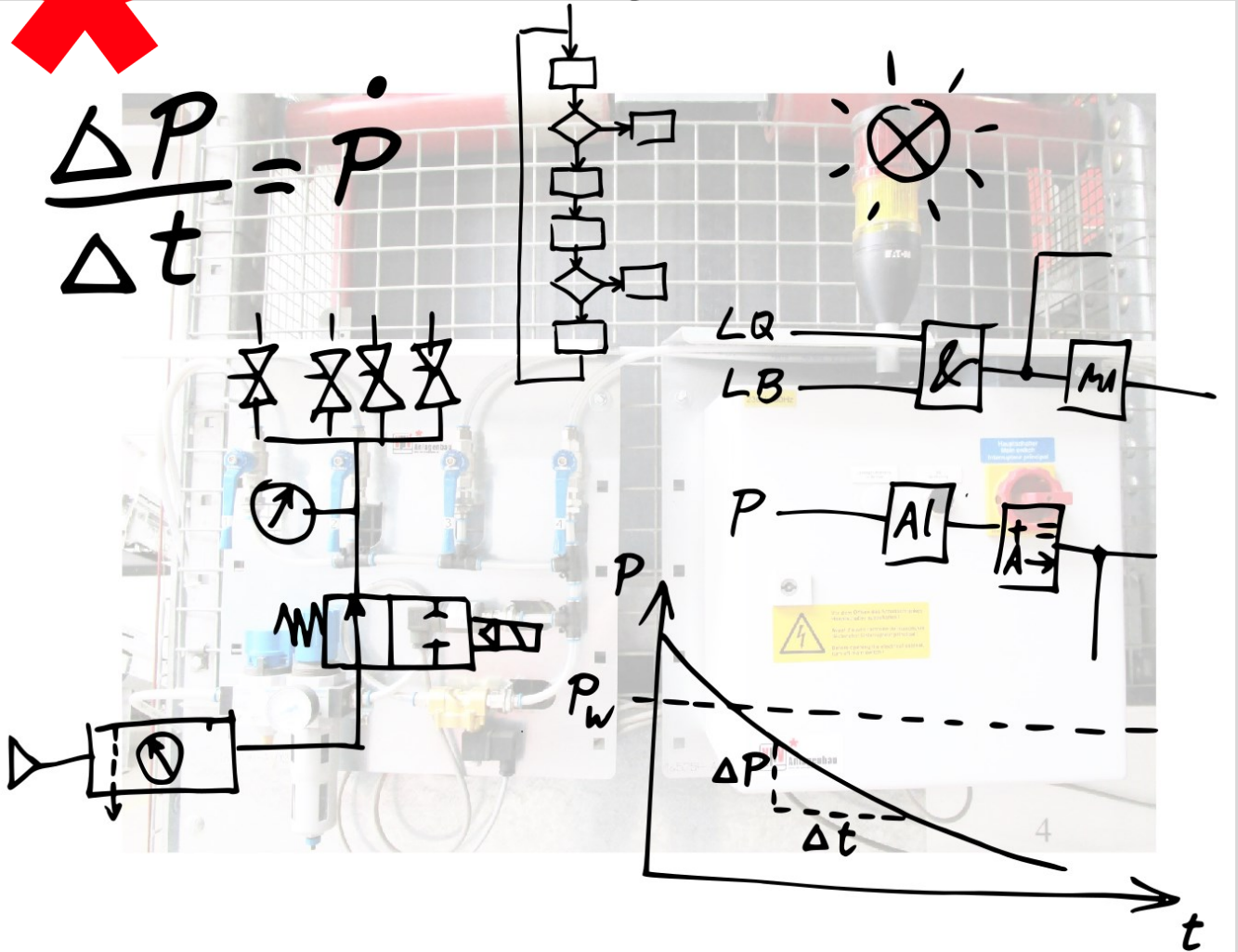




Leakage supervision for VHV's belt conveyors with pneumatic spring suspension

$$\frac{\Delta P}{\Delta t} = \dot{P}$$



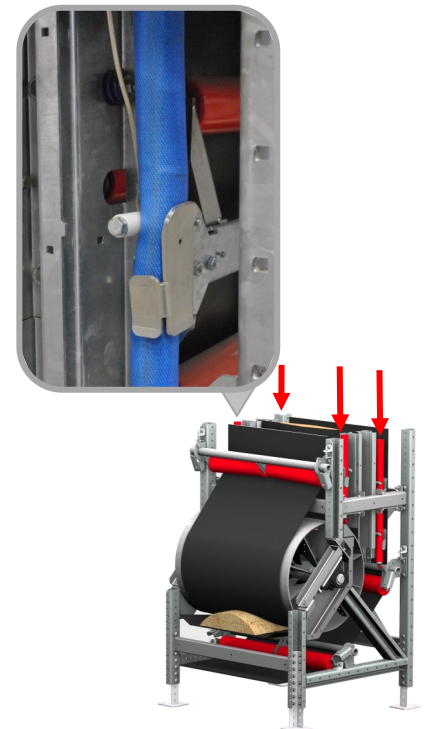


Leakage supervision for VHV's belt conveyors with pneumatic spring suspension

- * VHV's double belt conveyor uses a pneumatic pressing system for steep incline conveyances of bulk materials, consisting of four hoses filled with air. By using the pressing idlers the load is thereby embedded between both belts and is furthermore prevented from dropping.

To avoid a fast reduction of the operating pressure in the hoses and to be able to react quickly if a leakage occurs, VHV offers a corresponding leakage supervision.

- * If a leakage arises in one of the hoses the air can leak into the environment and may cause an uncontrolled pressure drop. The electronic PLC control of the leakage supervision constantly measures the existing current pressure and the evaluation is based on three given pressure values: set pressure, alert threshold and switch-off threshold. As soon as a leakage has been detected a signal occurs - depending on its size it is either a warning or a switch-off note. This goes to the control panel and is visible as an optical signal. Via this system one can furthermore determine which one of the hoses is affected by the leakage to pinch it off manually so that the belt conveyor can – at least – operate in emergency operation mode. This emergency operation mode should be kept to a minimum to avoid the installation's breakdown.



Advantages in comparison with standard pressure switches



- * Detection of little leakages
- * Locating of leakage
- * Saving of energy costs
- * Visual warning light
- * Operating notification
- * Integration of display of measured values and parameters into plant's control panel
- * Sensor error / detection of cable break