



AUTOMOBILES

Wfsipl has supplied systems for automobile industry in transmission, engine, body, Axle and vehicle product units. Furnace for hardening the components of transmission P.U. and monitoring the furnace has been successfully commissioned by Wfsipl. Monitoring and data logging for posterity and provision of alarms to designated personnel was an added feature.

A complex poke-yoke was supplied to the Engine and Transmission product unit to ensure SOP in assembly of nuts & bolts at each workstation.

A pick & place system for welding of body components and upgradation of 300TON press was supplied to body product unit.

Upgradation of multi-head drilling system from a relay logic to PLC was also supplied. The final assembly of the vehicle on slat conveyor was automated with provision of redundancy in drive and plc using contactor logic. The innovative cost reduction method using lower series PLC for redundancy was appreciated.

The automotive plant is large in size with number of panels and tripping of any panel will result to breakdown down the line. Our cooling solutions has ensured more than 50% energy saving and reduction of downtime.

SPECIFICATIONS :

LEVELS OF AUTOMATION

Device level:- This is the lowest level in our automation hierarchy. It includes the actuators, sensors, and other hardware components that comprise the machine level. The devices are combined into the individual control loops of the machine; for example, the feedback control loop for one axis of a CNC machine or one joint of an industrial robot.

Machine level:- Hardware at the device level is assembled into individual machines. Examples include CNC machine tools and similar production equipment, industrial robots, powered conveyors, and automated guided vehicles. Control functions at this level include performing the sequence of steps in the program of instructions in the correct order and making sure that each step is properly executed.

Cell or system level:- This is the manufacturing cell or system level, which operates under instructions from the plant level. A manufacturing cell or system is a group of machines or workstations connected and supported by a material handling system, computer, and other equipment appropriate to the manufacturing process. Production lines are included in this level. Functions include part dispatching and machine loading, coordination among machines and material handling system, and collecting and evaluating inspection data.

Plant level:- This is the factory or production systems level. It receives instructions from the corporate information system and translates them into operational plans for production. Likely functions include: order processing, process planning, inventory control, purchasing, material requirements planning, shop floor control, and quality control.

Enterprise level:- This is the highest level, consisting of the corporate information system. It is concerned with all of the functions necessary to manage the company: marketing and sales, accounting, design, research, aggregate planning, and master production scheduling.