



AUTOMATICALLY OPERABLE MANUFACTURING PLANT

ABSTRACT

The automatic manufacturing plant comprises a plurality of machining cells, a management system for the work pieces including storage appliances for storing the work pieces, transporting appliances for transporting the work pieces and handling appliances for manipulating the work pieces, and a data handling and exchange system for controlling the operations of the manufacturing plant. The data handling and exchange system comprises a first external data handling and exchange network with a central data processing unit for the exchange of operation control data between the central data processing unit and the machining cells and for the exchange of transporting control data between the central processing unit and the transporting appliances. Further, there is provided a second internal data handling and exchange network for the exchange of data between the storage appliances, the transporting appliances and the handling appliances. The work pieces are mounted on pallets which comprise memory modules containing data for the identification of the work piece, destination data for the transport of the work pieces, and data for fetching machine programs used for the machining of the work piece. The data contained in the memory modules are processed by the second internal data handling and exchange network.

This manufacturing plant is suited for a fully automated flexible manufacturing thanks to the improved information system.

Figure 1