

Robotics Expertise Principles



CSi are often asked to analyse bottlenecks in packaging and logistics lines; to automate work which can seemingly only be done by people. There is, nevertheless, an increasing desire to banish unnecessarily heavy labour and endless repetitive operations from the work place. To realize an improvement in the ergonomic situation while maintaining - and often even improving - the reliability of the production process at the same time.

CSi's Robotics Expertise is the combination of top quality technology, creative software development and logistic insight. Our experience grows daily and this makes it possible to solve practically any handling problem, to implement every palletising instruction and to control all intermediate functions and movements. This brochure gives a brief impression of a number of CSi applications in which robots perform their tasks. Each situation and product is different, however, which is why we are pleased to put our Robotics Expertise at your disposal to solve the specific bottlenecks in your production process.

The obvious objective of robotization is to improve ergonomics; to take heavy and tedious work out of the hands of people who can be readily employed elsewhere in the production process. In addition, the really effective deployment of robots requires a keen insight into logistic processes - a clear overall view of production targets in the short and longer terms - because only then can an optimum operational situation be created. The first step, therefore, is the choice of the right logistic process, and only then does the choice of the right hardware and software follow.

CSi has the knowledge and decades of experience to analyse your present process and your future requirements, and then to present well-engineered solutions. Thus we supply a complete programme of spherical and gantry robots which can implement virtually every task which can be programmed in end-of-line, middle-of-line or even begin-of-line applications. For destacking, stacking, transferring, collecting and innumerable other intermittent operations which seemingly can only be done by people. The possibilities are infinite. Our worldwide expertise guarantees you the most innovative and reliable robot application possible, with the attractive additional advantages of high productivity, modest maintenance costs and a fast installation.



IMPROVING PERFORMANCE



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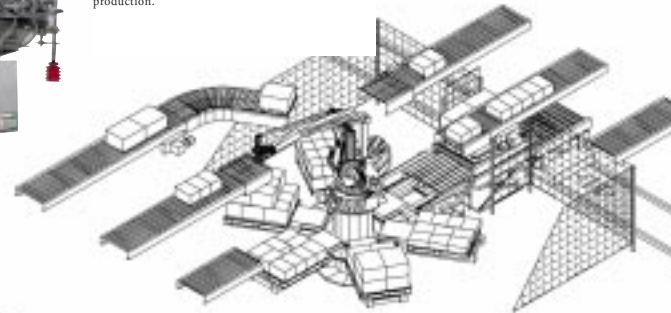
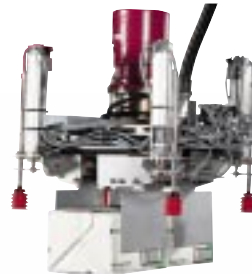
Multiple tasks

CSI Robotics Expertise means that several tasks can be carried out by one and the same robot. This results in faultless palletising for example, while the same gripper device ensures that a new pallet is always ready when required. This makes a separate pallet destacker, pallet conveyors and even an automatic pallet magazine superfluous.



Forward looking technology

By anticipating the stacking pattern to be formed, this technology makes it possible to assemble pre-oriented, single or multiple products in advance on the pickpoint. The time saved by this system is particularly significant in higher capacity production.

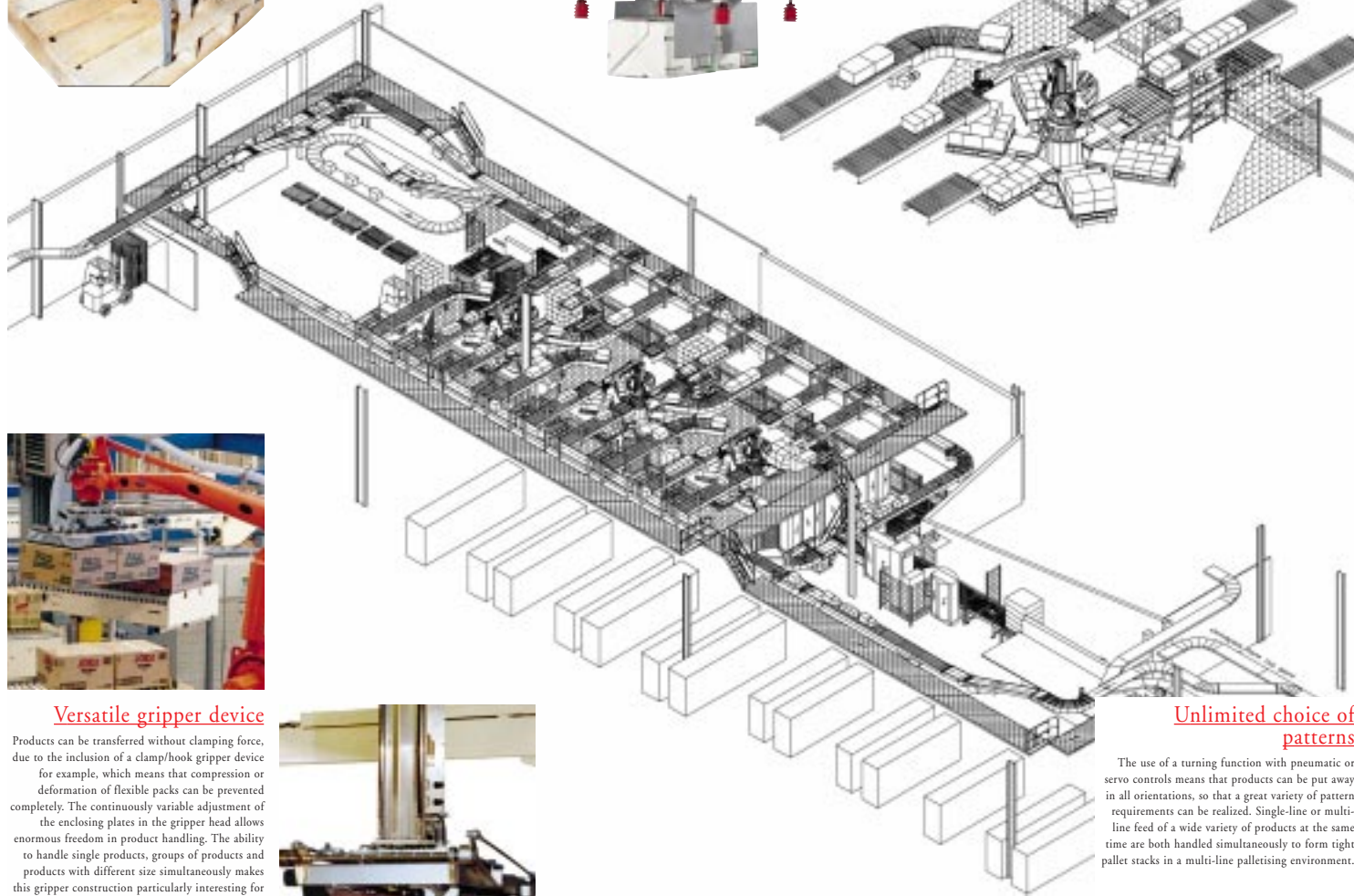


Combined gripper & pickpoint technology

The use of integral engineering and the consequent perfect coordination between pickpoint and gripper means, for example, that pails with handle can be fed oriented to the CSI robot, so that difficult-to-manage products can also be neatly and conveniently palletised.

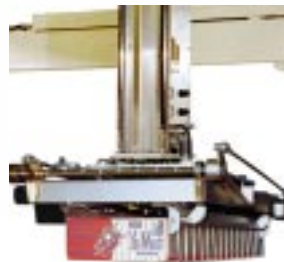
Complex solutions

CSI's customer-focused way of thinking generates custom-made, high-technology gripper techniques, all operations being subject to the fully automatic control of the CSI Robot Controller.



Versatile gripper device

Products can be transferred without clamping force, due to the inclusion of a clamp/hook gripper device for example, which means that compression or deformation of flexible packs can be prevented completely. The continuously variable adjustment of the enclosing plates in the gripper head allows enormous freedom in product handling. The ability to handle single products, groups of products and products with different size simultaneously makes this gripper construction particularly interesting for multi-line applications.



Unlimited choice of patterns

The use of a turning function with pneumatic or servo controls means that products can be put away in all orientations, so that a great variety of pattern requirements can be realized. Single-line or multi-line feed of a wide variety of products at the same time are both handled simultaneously to form tight pallet stacks in a multi-line palletising environment.

