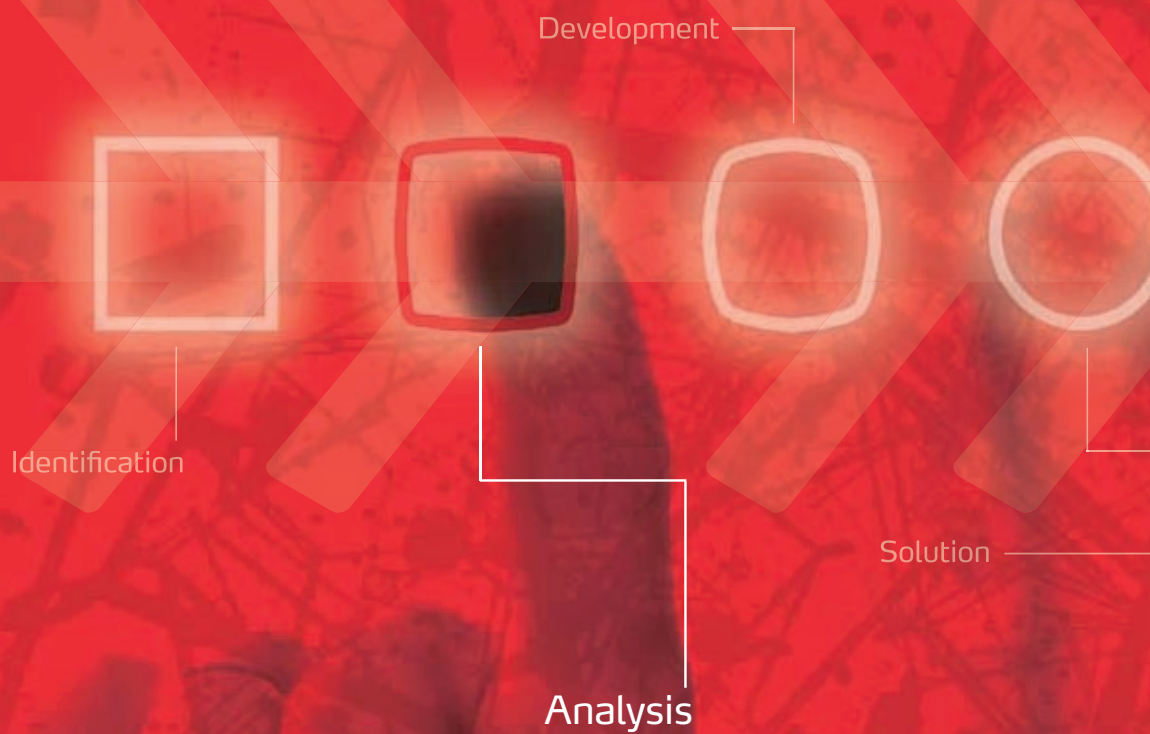
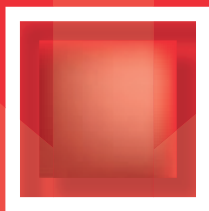


Individual Logistics Solutions

- developed to meet the needs of your business



We have systematized the process of developing logistics solutions to meet your needs



Identification

We begin each development assignment by identifying the customer's requirements. We always hold an initial meeting with the customer, aimed at gathering as much information and as many data materials as possible. The problems we confront are often very complex in nature so, in this phase, we ask many questions designed to uncover exactly what the customer wants and needs.



Analysis

Univeyor supplies intelligent logistics and handling solutions based on in-depth analyses of both the individual business and the specific project in hand. Our development department has more than 25 years' experience of penetrating to the very heart of a problem. No matter how big the project may be, it will be thoroughly analysed and, even at this early stage, we will make the first rough outlines to present our ideas to the customer.



Development

The first outlines of a solution will usually contain some blank spaces, because often there is no existing technology capable of solving the assignment straight away. We have a strong team of committed and experienced experts, who make sure that Univeyor sets the agenda when it comes to using and adapting the most up-to-date technology.



Solution

Univeyor has vast experience of developing customized machinery and solutions, and we develop and manufacture the machinery at our own factory. We have a wide range of standard components that we can combine in various ways so, by developing just certain parts of the machinery, we can customize a solution to suit each individual customer. In other words, we don't have to design a new machine from scratch each time our brainwaves entail significant alterations to existing, tried and tested technology.

We make sure that we understand the customer's business - individual logistics requirements need unique products

Univeyor's Development Centre has access to many years' experience of customer-adapted product development. We are well-organized and take time to identify the customer's needs before we plunge into a solution. This saves time and money for both our customers and for us. The unique quality and durability of our products is down to our strong team - we have construction and project management, guidance and mechanics all under one roof.

The Development Centre's speciality is product development of customized machines for businesses that, internally or externally, need to move items from A to B, or to fill paper or plastic boxes with materials. We concentrate on function and ergonomics, and we have developed machines and equipment for handling items from 20 grams up to around 10 tonnes.

Over the years we have developed a large number of products that are now included in Univeyor's comprehensive range of products. Flexibility is one key concept and, for our customers, this means innovation and product development based on existing technology.

Univeyor's strength lies in our ability to provide solutions that meet our customers' needs, regardless of the size of their businesses. At the Development Centre, we solve many very different assignments and develop products further; the technology content can be high or low, depending on the solution required.

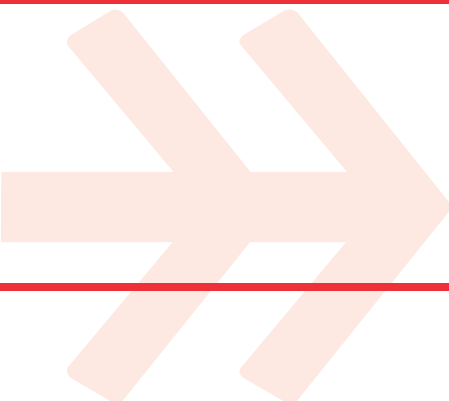
In this brochure you will find selected examples of products developed by Univeyor's Development Centre to inspire you. If your business needs something similar, something completely different, or if you are still undecided in the face of all the alternatives, we are more than happy to take up the challenge.



We place great emphasis on teamwork in our development work, and our experience convinces us that close cooperation with the customer is the key to an innovative solution.

Box stacker

The box stacker can be developed to handle all categories of boxes. The gripper's construction and function can be specially-adapted to the nature of its task – including the size and nature of the boxes.



Solar

Careful sorting of diverse objects



IDENTIFICATION Solar distributes electrical articles from its warehouse in Sweden, and it wanted an alternative way of sorting its products. Instead of a traditional pusher solution, where objects are pushed off a roller conveyor or a conveyor belt, a gentler solution was needed.



ANALYSIS Solar's extensive range of products means it needs a solution that can handle a wide diversity of items. There is a potential risk of small items getting stuck, as the solution must be able to handle everything from small plastic bags containing plugs to big cable drums weighing 35 kg.



DEVELOPMENT In order to eliminate the problem of different-sized items, we developed a conveyor belt with "waterfall transitions." In other words, one belt extends over the next belt in the system. This avoids the risk of items getting stuck in the moving parts.



SOLUTION The result was a conveyor belt with a small nose roller that juts out over the next belt. The roller can also move from side to side to discharge items onto roller conveyors or into chutes or collection boxes. The system is extremely flexible and can be designed to meet any individual needs.



At Solar it was very important that the conveyor belt could handle items of every size – from small, light plastic bags to large, heavy cable drums.



Waterfall transitions ensure problem-free transition between belts.



Box destacker

Univeyor has developed many different models of box destackers – depending on the size of the boxes and especially on the customer's capacity requirements.

TINE Dairies

Ergonomically-correct packing station organization



IDENTIFICATION TINE Dairies in Northern Norway wanted increased capacity at its warehouse from which it distributes dairy products to many small grocery stores located all over Northern Norway. The warehouse is a manual picking warehouse with 450 picking stations, of which 80 have automatic pallet changing.



ANALYSIS The challenge consisted of increasing the speed at which the pallets are changed, so there is as short a time as possible between a pallet being emptied and a new pallet loaded with goods taking its place.



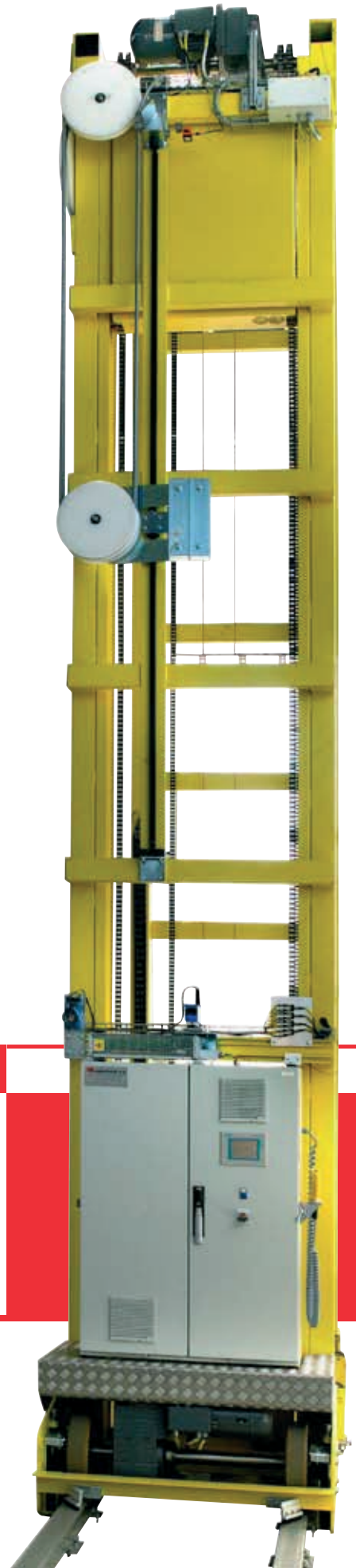
DEVELOPMENT From the very beginning it was clear that the lane shuttle was the key to increasing capacity. By reimagining the lane shuttle, we wanted to be able to perform an extra high lift, giving us space to change the pallets faster.



SOLUTION This project solution is a good illustration of our conviction that further development of an existing product can create a unique solution customized for one particular business. This solution gave us space to place a full pallet right in front of the picking station, which in turn enabled the empty pallet to be exchanged for a full one much more rapidly.



An alteration to the crane's lane shuttle means that in a very short time an empty pallet can be removed and a new, full pallet can be placed in the picking station.



UniSorter

UniSorter is specially developed for both large and small sorting tasks of up to 3,000 items an hour. This makes the patented UniSorter an effective and value-for-money alternative for manual picking warehouses.



Lane shuttle

The lane shuttle on a crane or shuttle car is particularly suitable for fully automated aisle warehouses with many pallets and few article numbers. The lane shuttle can handle up to 1,200 kg per pallet. Here you can see a trial set-up for one of our customers.



Shuttle car

Univeyor's shuttle car is available in a vast number of variations. Over the years, Univeyor has developed a wide range of shuttle cars that are equipped in various ways and that can travel at speeds of up to 240 m/min.

We develop logistics solutions - that meet the requirements of each individual business

Loads of new products:

- Zero pressure accumulating roller conveyor for pallets
- Revolving roller conveyor ▪ Angled transfers ▪ Slat conveyor with reversible drive ▪ Pallet loaders ▪ Paternosters ▪ Escaveyor ▪ Pickcar
- Fully-automated picking cranes ▪ LayerPicker ▪ UniSorter ▪ Various robot solutions with advanced tools ▪ Own portal robot solution
- Box stacker and destacker ▪ Pallet aligner ▪ Pallet stacker
- Complete handling program for Swedish SRS boxes ▪ Empticon
- Ball transfer table

Our customers say:

HILTON FOOD GROUP "We get meat from the slaughter houses in large plastic bags weighing anything up to 30 kg. A fully-automated depalletising solution from Univeyor has made a huge improvement of our working environment. We have enjoyed an excellent working relationship with Univeyor - they really listened to us and kept us informed throughout the entire process."

- Anette Meijer, Project Manager

HALDOR TOPSOE "The assignment consisted of transporting items weighing as much as 12 tonnes from one production hall to another. We needed a solid solution that would work faultlessly on a day-to-day basis. We never doubted for one minute that Univeyor was capable of fulfilling the assignment to our complete satisfaction – on time and at a reasonable price."

- Jan Poulsen, Project Manager

GRUNDFOS "Univeyor has supplied a customized assembly line for our industrial pumps. Everything was supplied at the agreed price and was actually delivered ahead of schedule! Univeyor really understands what we want and need – so well, in fact, that now we have ordered an assembly line extension. Best of all, the employees working on the line are very satisfied as well."

- Lars Hakon Petersen, Maintenance Engineer



Pickcar

Univeyor has designed an effective picking platform with a capacity of up to 1,200 items/hour. Pickcar is connected directly to the business' other transport systems.

EMPTICON WON THE DANISH DESIGN AWARD 2007

The Jury's motivation: "Never seen before, strong functional aspects, thorough design work, innovative, good solution for difficult task, easy to operate, good ergonomics and very efficient."



Winning
the Danish Design Award 2007



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