

## MASS CUSTOMIZATION, ARLINK, AND YOU

The term Mass Customization has migrated from the desks of theorists to the desks of CEO's and their staffs. Beginning in the 1980's, business leaders were introduced to this term, and in the 1990's it became seen as a competitive weapon, and a strategic concern for many businesses. What does this term mean, since it sounds like an oxymoron? How can something that is mass-produced be customized at the same time? How does this change the behavior of purchasers and the economics of providing goods and services at prices that are still competitive?

Mass customization may be defined as a process through which mass-market goods and services are individualized to satisfy a very specific customer need, at an affordable price. It is the ultimate combination of "custom-made" and "mass production."

Regardless of what goods or services your company produces, your business is likely evolving a mass customization capability. Many of Arlink's customers are deeply involved in evolving their businesses from "mass producing" to "mass customizing", whether they think of it in these terms, or not. Production processes are changing in response to demand, and your company's production strategy may be referred to as Demand Flow Manufacturing, Build-to-Order, Agile Manufacturing, Just-in-Time, Kanban, Mass Customization, etc. Whatever you call it, the desired outcomes are similar, driven by similar market inputs.

### Characteristics of businesses that are evolving towards mass customization are:

1. Dramatic increase in the number and variety of product types or models produced.
2. Products are produced in smaller lots, sometimes even in "lot size one".
3. The products themselves have shorter life cycles.
4. Customers expect shorter delivery lead times.
5. Customers provide producers with less forecast detail and shorter-term purchase commitments.
6. Manufacturing or services are increasingly decentralized and localized.

### Sound like your business?

#### *How will mass customization occur?*

When manufacturing, business strategies, and information technology become highly integrated, mass customization becomes possible.

### Consider automobile manufacturing:

- In the 1920's the Ford Model T was available in one style, and one color.
- In the 1950's, every auto company offered several different lines in many colors, with a limited range of optional equipment.
- By 1980, North American consumers had a choice of 172 different vehicles.
- In the 1990's, autos can be almost infinitely customized at no increase in cost, and ordered from your home via computer. Delivery times have shortened.

Mass customization provides tremendous choice allowing us to obtain a unique end product via a standard transaction. In the past fifteen years, the number of automobile models has increased from 140 to 260; the types of soft drinks from 20 to 90. Today, the U.S. market alone offers consumers 3,000 brands of beer, 50 brands of bottled water, 340 kinds of breakfast cereals, 70 styles of Levi's jeans and 31 types of bicycles. (We obviously place a high priority on customizing our beer!)



*Split Bay Mobile Station equipped with task lighting, shelving, CPU, keyboard and monitor mounts, lockable drawers and power beams.*

### How ARLINK supports these trends

The promise of mass customization starts with the design of the product. A product must be designed for mass customization from the start. This relies on the idea of using a common sub-assembly or product family platform. Arlink's product design allows our customers to order highly customized configurations made from standard, interchangeable, "platform" components. *Contd. on page 4*

## ARLINK IN EUROPE



*The Arlink Europe Management Team: Ton van Zanten, Jacky van Dinter and Ad van Dinter in front of the new Arlink Europe building in Deurne, The Netherlands.*

## ENGINEERING

### Arlink Conveyor Workstations help move manufacturing

Conveyor manufacturers and conveyor applications come in almost infinite variety. Conveyors themselves may be powered or unpowered, convey using belts, skate wheels, edge rails, or rollers, and be "smart" or "dumb" in terms of control. Specifying, designing and building the right conveyor for the application is best left to the conveyor experts. But what about when a workstation is needed in conjunction with a conveyor?

Customers and conveyor manufacturers alike are increasingly turning to Arlink when a workstation needs to be integrated with a conveyor. Arlink's unique product design allows easy integration of most conveyors using standard Arlink components while providing for the easy addition of work surfaces, task lighting, shelving, lighting, and other accessories as needed. When Arlink workstations are used throughout a facility in conveyor as well as in non-conveyor applications, customers increase agility by the ability to share components and accessories on a broader scale while also enjoying the fastest set up and changeover capability in the workstation industry.

Arlink conveyor workstations may be used throughout your entire production stream. Use Arlink between automatic machines, in manual assembly operations following machines, in rework, test, repair, and packaging operations. Whether you are considering adding conveyors in your facility, or if you are a conveyor manufacturer looking for a better workstation solution for your products, call Arlink and let us show you why we are the best choice for you.



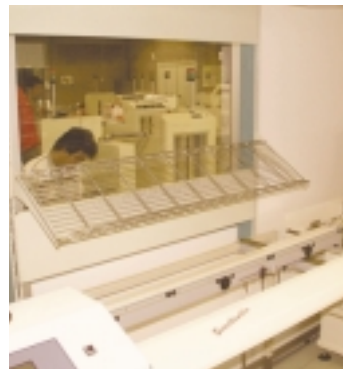
*SmartMove modular, polypropylene flat belt conveyor, used in packaging operation.*



*JOT Automation flat belt conveyor, PLC controlled, circuit board assembly operation.*



*Hytrol skatewheel and powered roller conveyors in progressive mechanical assembly.*



*DIMA edge conveyor used between PCB assembly machines as an inspection station.*

## New Workstation System IDEAS Book

Do you have a copy of our new Workstation System Ideas Book? In it you'll find examples of the unlimited applications served by Arlink's Workstation Systems.

We've included 28 large, detailed photographs that show how Arlink products are perfect for electronic and light assembly stations, line cells, instrumentation and equipment test centers, packaging and shipping areas, and laboratory and training sites.

The response to the full colour, 16 page Ideas Book has been overwhelming with more than 1,500 units requested to date across North America. A similar Workstation System Ideas book is scheduled to be available soon for distribution in Europe.



*For your copy contact: Arlink Sales Office at ++3010-59-86-179.*

### Surf over to our new-look Web site

We are very proud of our recently redesigned Web site which is proving to be a popular source for all company and product information. Easy to navigate and featuring the new corporate look of our latest marketing materials, the site is regularly maintained and updated with new information.

Visit us at [www.arlink.com](http://www.arlink.com)



## Adjustable Flow Rack Workstation



The New Arlink Flow Rack Workstation was designed with adjustable rollers and dividers to accommodate a wide variety of component assembly and manufacturing requirements.

Available in 3', 4', 5' and 6' module sizes the Arlink Flow Rack Workstation may be positioned at various heights and rack angles for efficient product flow in and out. The Arlink Flow Rack Workstations are adaptable, highly functional and can be configured to include worksurface, lighting, utility beams and storage.

## PROJECT FOCUS

### ESD Safety at QCE (Quanta Computer) thanks to Arlink

#### "The slightest shock can be devastating"

QCE recently moved to larger premises at the Anthony Fokker Business Park in Schiphol for the company "to grow into". While QCE's General Manager, Dejan Paucnik, has been busy planning what to do with the floorspace, QCE is busy repairing computer electronics. Formed last November, QCE is the European arm of the Taiwanese company, Quanta Computer. And Arlink has proven to be a vital partner.

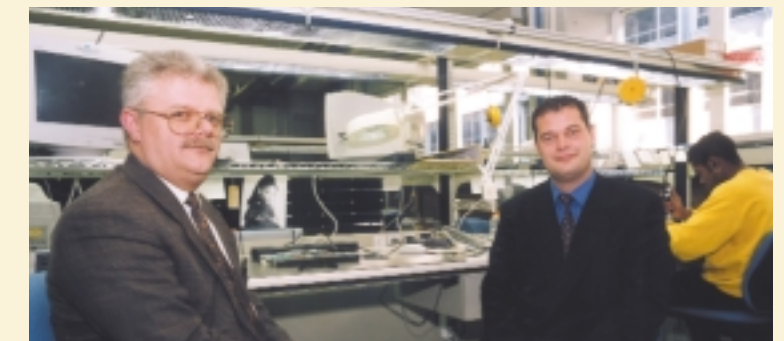
QCE's parent company in Taiwan produces notebooks and motherboards for PCs, selling its products to computer giants the world over. At regional offices, such as those at Schiphol and the one in California, employees concentrate on repairing computer electronics, which involves working with tiny components.

#### ESD-safe (Electrostatic Discharge)

To protect employees, but primarily to protect the electronic components, all work at QCE is carried out on an ESD-safe workbench. Dejan Paucnik explains, "Companies in our sector can no longer avoid the issue of ESD safety. Components in computer equipment are getting smaller and smaller, which means they are particularly vulnerable to electrostatic charges. The slightest shock can be devastating. For example, if you touch a component with your finger, it will receive proportionately the same shock as a building struck by lightning. Our customers demand quality and the only way we can guarantee this is by preventing any destructive energy fields around the electronics. By working in an ESD-safe environment, we not only cut costs but also improve on quality".

#### Modular

In February, the first ESD-safe workbenches were installed at QCE. There were initially six, but barely nine months later, the figure had already climbed to sixty. And that's not all. As Paucnik explained, "One of the reasons for opting for Arlink benches is that they are based on a very modular system; it is possible to expand the solution with extra benches, lamps, drawers, shelving - the list is endless. This is vitally important, as no-one can predict the future - yet with this system, QCE can keep all its options open."



Arlink is represented in the Netherlands by Siemens-Romex. Sales Manager, Janjaap Nijhuis, waxes lyrical about the product - although that should come as no surprise. "If you compare Arlink with its competitors, you will see that the Canadian vendor supplies a top-quality, highly reliable modular system. One look at the wealth of expansion options and aesthetic features and the choice is easy."

## How Arlink Supports these Trends

*Contd. from page 1*

We utilize a modular, building block approach to our product design. Every Arlink product has central to its design our unique structural column and support system, which serve as the key space management common component in all our product families. Arlink products are designed to be "custom configured" nearest to the point of use possible, and easily changed to support new workstation tasks whenever needed.

To keep costs low, we focus on developing, producing, marketing, and delivering affordable products that can support as wide a range of customers and workstation tasks as possible. Also, we emphasize quick responsiveness, variety (customization), and economy of scale (mass efficiency) through our product design and engineering services.

The three major technical challenges we address are reusability of our product, applying a product platform approach, and an integrated product life cycle across the product families. This ensures Arlink products you purchase today will have ongoing usefulness in your business over time, providing a higher than normal return on your workstation investment while providing a strategic advantage by increasing agility of your enterprise.

Arlink's expanding European subsidiary provides localized manufacturing, warehousing, and sales support to the European continent. This enables multi-national companies to rely on Arlink beyond the borders of

North America as their own manufacturing becomes increasingly distributed. It reduces delivery lead times while providing localized customization to meet the varied needs of customers across a multicultural geography.

In our sales and marketing approach, we strive to link customers more closely to our engineering and production capabilities. Our sales force is equipped with computer tools with which customers can design and simulate "virtual" workstations based on our product offering. Our customers take a more proactive role in defining their needs, assuring their expectations are met when the product is received.

We help customers express their needs, define variations from our base products, visualize their options and assess alternatives that will best support their business operations. The goal is to find the best match between what we can offer and what our customers want, in the shortest time possible, and at the least cost combination of product and time. (Yes, time IS still money - that hasn't changed!)

The Arlink Team is striving to better understand industries' needs, and the changing trends affecting manufacturing competitiveness today, and in the future. Tell us what you need today, and what you see in your future, and give us a chance to design a solution that will help build a bridge to your firm's tomorrow.

## Staff Changes

### New To Arlink



**Lisa Marie Allen**  
*Order Processing/  
Customer Service  
Department*



**Greg Easter**  
*Shipping Department*



**Bill Schwenger**  
*Engineering Manager*

### New Position



**Terry Milford**  
*Product Specialist/  
Marketing Department*



Designed for a Changing World