MUST-SEE HIGHLIGHTS AT OPEN HOUSE 2024

During this Open House event, we will highlight 7 key topics:

1. **Digital printing on plastic products**
2. **Solutions for the thermoforming industry**
3. **Plasma coating for food & agrochemical applications**
4. **Converting blow moulded bottles into tubes**
5. **Automation equipment for in-plant blow moulding**
6. **Anti-Stain & Fast Drying effect on multi-use packaging**
7. **Other Delta equipment: New high-speed airveyor bagger, etc.**

Below, you will find an overview of all equipment and samples which will be demonstrated for each of these topics. Starting on **page 6**, you will find an overview of all **participating partner companies** and their offerings.

1. DIGITAL PRINTING ON PLASTIC PRODUCTS

- **DTP281 (running in-line with ASB-70DPH):**

  Our brand new flexible **digital printing machine DTP281** – with 8 printing stations – will be printing various high-quality prints directly on round, white PET bottles, which will be freshly produced in-line by Nissei ASB's **ASB-70DPH** 1-step stretch moulding machine.

  Our new digital printing machines were developed in collaboration with our partner **Shift-ID**, a renowned technology innovator specializing in digital printing technology, with 20 years of printing experience (more info see p. 10). Shift-ID's patented digital printing technology offers significant **advantages** over conventional decorating methods such as In-Mould Labelling (IML) and Offset Printing:

  - **No need to purchase and store high volumes for varying labels** (many different SKUs) with high minimum order quantities, unlike IML
  - **Unprecedented flexibility** for design changes and small orders: simply print exactly what you need when you need it. This allows you to increase your product range, without the IML or offset label costs.
  - **Nearly zero waste**
  - **Extremely quick changeover** thanks to product-dependent parts
  - **Increased OEE**: no line stoppages between different prints
  - **Easy operation**: any operator can operate the printing machines, without the need for printing experts

  

  The integration of Shift-ID's digital printing technology will allow you to make **food-grade**, **recyclable** products with **unseen IML-like high quality prints** on demand and in-line with the Injection Moulding machine. This technology creates new opportunities to enhance the efficiency and productivity of the **injection moulding**, **blow moulding** and **thermoforming industries** (with a thermoforming printer).

2. SOLUTIONS FOR THE THERMOFORMING INDUSTRY

Spray coating:

- **DSC304:** High-speed thermoforming **sheet spray coater**:
  - To be placed in front of the thermoformer or behind the extruder.

Buffer line:

- **DBL302:** Thermoforming **product lift**: buffer belt & height adjustment system:
  - Buffering the products, so operators have more time for packing.
  - Bringing thermoformed products from the thermoformer down to operator height, eliminating the need for platforms and its safety risks (operators can fall off the platform...).
- **DVB122:** Thermoforming vertical **buffer system**:
  - Additional buffering – Allowing operators to switch between different thermoforming machines for packing. This allows you to save on labour costs.
  - Easy changeover.
- **DBC302:** **Workstation** – buffer conveyor with adjustable height:
  - Operator ergonomics – Quickly adjust the height of the conveyor according to each operator's height.
  - Giving the operator the time to handle different thermoforming machines.

Case packing:

- **Ceflex-41:** **Pattyn's Combined Case Erector – Bag Inserter** (more info see p. 9)

AMRs / AGVs:

- **Mabo AMR:** **Mabo's Autonomous Mobile Robot**
  Flexible transport for workstation-to-workstation (more info see p. 12)

3. PLASMA COATING FOR FOOD & AGROCHEMICAL APPLICATIONS:

- **DPC403:** Automatic plasma coater – with 4 reactors – will be coating round, white PET bottles, which will be freshly produced **in-line** by Nissei ASB's **ASB-70DPH** 1-step stretch moulding machine.
- **DPC123:** Automatic plasma coater – 1 reactor – for plastic containers (5L up to 30L)
- **DPC133:** Automatic plasma coater – 1 reactor – for L-ring drums (50L up to 250L)
- **DPM123:** Manual plasma coater – with 1 reactor – for plastic containers (5L up to 30L)

4. CONVERTING BLOW MOULDED BOTTLES INTO TUBES

We will display **tube samples** (digitally printed and unprinted ones) made with our new, patented Bottle-to-Tube process, which allows you to **transform blow moulded bottles into squeeze tubes made of PET** instead of the traditional PP.

The standout feature of the new tube is that it is made by **injection stretch-blow molding** (ISBM) on **single-step** Nissei ASB machines, rather than extrusion. The usual multistep process involves coextrusion or laminating to make a cylinder, which is cut off and fitted with an injection molded shoulder by molding or bonding. With Delta Engineering's new process, however, oval-shaped blow molded bottles are transformed into tubes by **clipping and welding the base**.

This innovation opens up a **new market for blow moulding companies and their bottle filling customers**, offering significant **advantages** over traditional PP tubes, such as:

- The new tubes can be filled just like regular bottles, which allows filling to a higher level than with standard tubes, resulting in **30% less plastic being used for the same volume** of content compared to conventional tubes.
- The PET tubes **can be recycled 100% in the current recycling flows**, as opposed to laminated tubes.
- The PET tubes **can be plasma coated**, which provides a 100% oxygen barrier. The **entire tube** can be plasma coated instead of only the cylinder. With the conventional method, there is a barrier leak in the front of the tube. Moreover, plasma coating **greatly reduces the residual fraction of the product in the packaging**. New packaging regulations oblige us to keep this residual fraction smaller than 50% of the empty packaging (in g). This makes the new Bottle-to-Tube technology an attractive and sustainable solution for packaging needs.
- The PET tubes **can be easily printed digitally in-line**, offering new decorating possibilities through embossing that are not possible with extruded tubes.
- The PET tubes can be **crystal clear**, so you can clearly see the product on the inside: "What you see is what you get".
- The PET tubes are welded, which allows us to **leak test the tubes as a whole** in advance and deliver a completely tested product to the customer.
- As PET is much stronger than PP, which breaks easily especially at cold temperatures, you **can produce PET tubes with much thinner walls while maintaining strength**. The thinner PET walls are compensated by a higher density compared to PP.
- Whereas tubes are usually round using conventional methods, the bottle-to-tube process **allows you to make other geometries** as well, such as oval tubes.

5. AUTOMATION EQUIPMENT FOR IN-PLANT BLOW MOULDING

Our buffer solution allows for the installation of **smaller blow moulders** at **in-plant operations producing 24/7**, thereby **reducing capital expenditure** and sweating your assets.

We will have a full line running, illustrating this concept:

- **ASB-70DPH:** Nissei ASB-70DPH (more info see p. 6-7) producing round, white PET bottles
- **Takeout system:** Taking out the jars from the ASB-70DPH
- **DP420-VZT253-DEP302:** **Palletizing/depalletizing** line to **buffer the jars between the 1-step stretch moulding machine and the digital printing machine**

The ASB-70DPH will be supplied with compressed air from AF Compressors' **CE 24 S** air compressor (more info see p. 15).

6. ANTI-STAIN & FAST DRYING EFFECT ON MULTI-USE PACKAGING – BY ISYTECH

Increase the wettability of plastic parts – Many possible applications, e.g.:

- **Anti-stain treatment of multi-use packaging & plastic food storage containers**, e.g. prevent tomato sauce stains,…
- **Fast drying effect after washing of reusable cups, bowls, cutlery,…** for quick turnaround times at big events & festivals.
- Treatment of reusable, high-quality **Tritan glasses** to **make the beer foam last longer**. Ideal to serve drinks on festivals, near pools, etc.
- …

We will have treated and untreated samples available so you can see the difference with your own eyes!

These technologies were developed by **ISYTECH** (more info see p. 19), part of the Delta Engineering Group.

7. OTHER DELTA EQUIPMENT:

7A) SPRAY COATING

- **DSC100:** **Bottle spray coater** – Applying an anti-static coating to PET bottles to avoid problems on filling & packaging lines.

7B) CARDBOARD/WOODEN/HYBRID PALLETS

- **DPR050:** **Pallet assembly table to produce your own cardboard/wooden/hybrid pallets in-house!** – Save on transport costs, as you no longer need to transport pallets to your factory anymore. Save on warehouse space, as you no longer need to store externally supplied pallets. Cardboard pallets are recyclable in the current paper or cardboard recycling stream.
- **DFA100** **Automated cardboard pallet feet assembly unit** – Automatically feeding the pallet feet into the DPR050.

7C) BAGGING

- **DB122_V3:** The **latest version** of our **fully automatic bagger** to pack empty plastic bottles into bags – Reduce manual labour and packaging material costs

7D) PALLETIZING

- **DP240:** **Automatic palletizer with integrated tray warehouse** – Packing empty bottles in trays and stacking the filled trays on top of each other, forming full-height pallets of up to 3.1 m (122”) high. Can also handle two half-size trays per layer. The integrated tray dispenser can hold up to 15 trays.
- **DP290**: **Automatic palletizer for stackable containers** of 5 L up to 60 L. – Forming full-height pallets of up to 3.1 m (122”) high.

7E) LEAK TESTING

- **UDK461:** **High voltage leak tester** with 1 test head – Detecting microcracks in the gate area of PET bottles

7F) DROP TEST EQUIPMENT

- **VT050:** **Drop test equipment** for plastic drums, containers, bottles, bags, boxes…

7G) MILLING

- **DC302:** **Twin head neck milling unit** – Ensure a flat, perfect neck, without deflashing traces

PARTICIPATING PARTNERS OPEN HOUSE 2024

NISSEI ASB

Innovative Machinery and Plastic Containers by ASB: Bringing Your Ideas to Life

ASB is a **leading manufacturer of PET bottle production machinery**. Our history mirrors the evolution of PET containers. Over the past four decades, we have developed, produced, and sold PET container molding machines worldwide, offering comprehensive engineering and systems solutions. Our specialty lies in made-to-order container production machines that cater to every aspect of our customers' needs.

Pioneers in 1-Step Molding Machines

There are two main types of stretch blow molding processes: 1-step and 2-step. The 1-step process uses a single compact machine to perform all tasks, from preform molding to final container production. This method is ideal for creating containers with complex shapes and smooth, scratch-free surfaces. The 2-step process, on the other hand, involves two separate machines for preform molding and blow molding, commonly used in mass production.

ASB offers equipment for both processes but is renowned as the premier manufacturer of 1-step machines, dominating the global market. We also innovated the 1.5-step units, combining the best features of both processes and expanding the possibilities for PET container production.

The ASB Series: Freedom of Molding

The ASB Series is celebrated for its "freedom of molding," achieved through our advanced preform temperature-control technologies. This ensures that the preform maintains the optimal temperature throughout the molding process, resulting in durable, lightweight, and intricately shaped containers. The ASB Series is versatile, molding not only PET but also materials like High Density Polyethylene, Polypropylene and Polycarbonate, thus accommodating newly emerging materials.

Commitment to Innovation

ASB continuously meets evolving PET container demands by embracing technological challenges. Our R&D team explores new molding mechanisms, materials, specialized techniques, and resin characteristics. This includes the revolutionary Zero Cooling technology that combines higher productivity with enhanced container quality.

We are ready to serve you at any time in any place around the world.

ASB is a global company with factories in two countries, subsidiaries and branches in 16, and a worldwide network of sales and service representatives. Our international staff from 33 countries ensures we understand and meet global and local customer needs.

When you purchase a Nissei ASB machine or mold system, you join our family. We provide a complete molding package, from design to successful start-up, along with technical assistance and training through our international customer training school, either at our factory or on-site.

Our global after-sales network offers ongoing support with spare parts and skilled local engineers to maintain high efficiency.

Live demonstration of our ASB-70DPH at the Delta Open House:

Compact, Versatile, Efficient. Best-selling model from the ASB series.

The ASB Series 1-step stretch molding machines offer superior flexibility and cost efficiency. The compact and efficient ASB-70DP series, with over 3,500 units sold worldwide, are the top sellers in their class. They are ideal for applications including cosmetics, pharmaceuticals, infusion bottles, detergents, mouthwash, baby bottles, spices, salad dressings, food, liquor, PET cans, mineral water, and industrial containers.

Join us at the Delta Open House for a live demonstration of the latest ASB-70DPH featuring the innovative “Vision 1” controller. This new interface reflects our commitment to enhancing the digital experience, offering improved connectivity and communication. Witness the production of a PET jar using our cutting-edge Zero Cooling technology.

We will also be showcasing new packaging such as PET tubes, extreme lightweight refill containers, lightweight flange type jars for yoghurt, chocolate spreads and drinking cups.



Presentation at the Open House by Karel Keersmaekers-Michiels:

“Enhancing Operations with Vision1™ Control System and Zero Cooling™ Technology + Single stage PET jars for paint”

Website: https://www.nisseiasb.co.jp/en/

KUHNE GROUP

KUHNE Group is **one of the leading European machine builders for film and sheet production**, with 85 years of experience in mechanical engineering of turn key lines.

Whether you want to produce a biaxially stretched high-barrier film for fresh meat, an extremely thin laminating film made of HDPE, an EVA film for medical purposes, a dimpled film, a PET film or a foam sheet for the construction industry, we can provide you with the perfect machine solution - including processing know-how.

With its companies KUHNE Maschinenbau, KUHNE Anlagenbau and K-Tool, the KUHNE Group is ideally positioned to meet all the demands placed on a modern extrusion equipment manufacturer today.

We develop and produce tailormade extrusion equipment for you. Complete turn-key lines or "just" an extruder, a screw, a roll stack or a blow head: All these crucial components are developed and produced in-house by us - and have been for decades.

Presentation at the Open House by Rainer Bobowk:

"State of the Art Extrusion for Packaging"

Website: https://www.kuhne-group.com/

PATTYN

Are you looking for a high-quality solution to safely pack, count or fill industrial products in containers of 5-30 kg or pallet size? Do you want a partner who supports you before, during and after the start-up of your project? Find out how Pattyn makes a difference.

Based on more than 65 years of experience, Pattyn **offers high performance packaging lines**, improving efficiency & packaging quality, minimizing product giveaway, increasing capacity and reducing packaging costs.

Our proven and reliable packaging technology allows us to offer total solutions, from box set-up to palletizing, 100% made by Pattyn. This way, your packaging process is completely worry-free.

Live demonstration of our CEFLEX-41 at the Delta Open House:

The CEFLEX-41 combines **box erection** and **bag insertion** in just one machine. Available in tape or hot melt versions.

This combined machine takes up little space and works with custom or ready-made bags from a 12 kg roll or with custom-made bags from a 60 kg roll.

Discover the advantages:

- Continuous production thanks to automatic changeover of the 12 kg film roll (optional).
- Guaranteed lowest consumption costs through the use of bags on reels.
- Reduced film consumption thanks to perfectly controlled and optimized bag dispensing.
- The Ceflex-41 operates up to 12 c/min (depending on box size).





It's all about U.

Presentations at the Open House by Karel Vanduynslager and Martin Sohier:

- *"Complete packing lines for thermoforming industry"*
- *"Turnkey solutions for the packaging of PET Preforms into different lined containers"*

Website: https://www.pattyn.com

SHIFT-ID

With over 20 years' experience in **offset printing** and **traditional IML**, we understand decoration. As global needs have evolved, so too has Shift-ID. Leaders in print, we are now completely focused on a new generation of print technology, using our vast experience and exceptional standards to drive what we do.

Today's production needs are changing. Up until now, **Digital Printing** has been reserved for short-run, medium-quality printing. Our technology is enabling customers to produce digital products that compete at any desired run length. Our patented machines have the capability to print up to 916 000 different colours directly onto one product producing a decoration quality that parallels to the quality of in-mould labels. The machines operate with extreme efficiency virtually eliminating set-up and production waste.

A unique advantage is that we print the labels multiple times over ensuring a high quality, unique appearance to all products. Our first digital printing machine was built eight years ago to print directly onto injection moulded pails. We can proudly and confidently state that the machine continues to operate today, producing outputs 24/7 that are changing an industry.

Production changeovers are an undesired expense in any production facility. Our machines convert label artwork within seconds. Alternating between different product shapes is also performed with extreme efficiency and can be executed in a few minutes. This change process can even be actioned remotely from your office desk with our unique software.

Colour is at the heart of all our machines and a considerable advantage over any other digital machine on the market. Our software has taken years to develop and refine. Our machines can print more colours than any other CMYK printer. In addition, we have the capability to produce matte or gloss finishes, and even spot highlight areas within the label's design.

Our roots began in injection moulded pails, so we passionately understand the packaging industry. Now we are excited to showcase the first of our new generation machines - Enhanced print quality, improved colour, and all with the unique advantage of being the most flexible print machine in the world that can print blow-moulded bottles, cups, pails and soon oval bottles too. The first in the series is a DTP281 that can print up to a 100 mm diameter product at full production or 200 mm product at half production. Production speeds can reach over 5 000 pieces per hour with the ability to print unique serial numbers, unique barcodes or embedded security features.

Win new business and optimise your existing customers with the unprecedented, flexible, high-quality and cost saving opportunity, all in one exceptional machine.

Live demonstration of Delta Engineering's & Shift-ID's DTP281 at the Delta Open House



Presentation at the Open House by Brian Murray:

"The Advantages of Digital Printing at the Quality of In-Mould Labelling (IML)"

Website: https://www.shift-id.com/

COMI PACKAGING

COMI PACKAGING has been created by merging AMUT Thermoforming Division and COMI division for packaging thermoforming machines, combining both technological know-how in the thermoforming field for the packaging industry.

COMI PACKAGING offers a wide range of **in-line and off-line thermoforming plants**, characterised by high speed, modular configuration and high strength and efficiency to thermoform different articles for several sectors.

Presentation at the Open House by Alfredo Banfi:

"Innovation, Flexibility and Connectivity in Thermoforming with Comi Packaging's ACF Series of Thermoforming Machines"

Website: https://comipackaging.it/en/

MABO E&A

At Mabo E&A, we are dedicated to revolutionizing intralogistics with our advanced **Automated Guided Vehicle (AGV) and Autonomous Mobile Robot (AMR) solutions**. Operating across various sectors, including food & beverage, pharma, wood, steel, plastic, packaging, and distribution centers, we provide comprehensive service and support to ensure seamless integration and operation of our systems.

Our Expertise

We specialize in designing, manufacturing, and implementing AGV/AMR systems tailored to the unique needs of each client. Our innovative solutions help businesses optimize their material handling processes, increase productivity, and achieve a significant return on investment.

Live demonstration of the Mabo AMR at the Delta Open House:

The **Mabo AMR** is a state-of-the-art autonomous mobile robot designed for flexible and efficient material transport. With its advanced navigation technology and robust design, the Mabo AMR ensures reliable performance in various industrial environments.

Key features include:

- High payload capacity: Capable of transporting up to 350 kg.
- Flexibility: The base remains the same, but the top can be loaded with any load-handling device possible.
- Advanced navigation: Equipped with hybrid SLAM and laser reflector navigation for precise movement.
- Scalability: Easily integrates into existing systems and scales with your business needs.

We look forward to showcasing the capabilities of the Mabo AMR and discussing how our solutions can benefit your operations.



Presentation at the Open House by Gert Nelissen:

"The Future of Automation: Exploring AMR Capabilities with Mabo"

Website: https://www.mabo-automation.com/

INTRAVIS

INTRAVIS is **one of the world's leading suppliers of vision inspection solutions** for the quality assurance of plastic packagings.

Turnkey quality inspection for the plastic packaging industry

We develop, manufacture and deliver turnkey inspection systems for manufacturers of closures, preforms, bottles and containers as well as decorated products. More than 200 employees in Germany and the United States as well as in several service offices all around the world ensure worldwide customer satisfaction.

To us, quality inspection means not only eliminating defects but helping you to detect defects before they occur. As a partner of our customers, we help you to achieve the full potential in your production.

Our Products

We offer vision inspection solutions for a huge range of plastic packaging. You cannot find the right vision system for your product? Just contact us for a customized solution.

Solutions for your industry

We offer inspection solutions that are precisely adapted to the special requirements and conditions of your industry. High-quality standards, changing market trends as well as legal regulations are considered in the development of our systems.

- Food & Beverages
- Pharma & Medical
- Household & Industrial Chemicals
- Cosmetics & Personal Care

Presentation at the Open House by Evarice Takam:

“Crucial challenges in today’s production are …”

Website: https://www.intravis.com/

ALPACO & ETT-BENELUX

Alpaco is a specialist in **filling and capping** equipment for all non-carbonated pumpable products.

Existing **since 1953**, as a third generation family business, Alpaco is the perfect partner to advise you to find the **best suitable solution** for your needs.

As an exclusive Benelux agent, we cover only premium brands with these specific added value:

- **Serac rotary weight** fillers, active in bottle filling capacities from 3.000 – 50.000 bottles per hour with a range of 100ml – 25l. This technology is extremely flexible, easy cleanable, able to handle glass, HDPE, PET, **all rigid containers**, some even non-rigid ones in pucks. Serac is therefore main supplier in various different markets:
  - **Dairy** & **Juices** (Glass jars, PET or HDPE bottles, Whipped cream metal,…)
  - **Sauces** (glass and squeeze, hot and cold-fill)
  - Motor & Edible **Oil** (neck handling PET, HDPE, …)
  - **Detergents** and personal care
  - **Chemicals** (ATEX, corrosive, …)
- **Serac cup filling** division for premade cups and lids, with also product **dosing units** adaptable to all kinds of filling devices, such as Form fill seal solutions, pouch fillers, or on a conveyor. Only food, mainly dairy products.
- **Aicrov** for **drum** and **IBC** filling by weight
- **Alwid** Germany for **linear filling -capping** solutions using product adapted filling technology: piston, massflow, constant level (vacuum), … Typical projects for < 5.000 Bottles per hour.

Additionally we also cover the solutions from ETT-Benelux (25% shareholder) to complete the line in terms of bottle unscrambling and **secondary packaging**:

- Posimat **bottle unscrambling** and orientation: Contiuous rotary solution for speeds > 5.000 bottles per hour
- ETT Germany: **American case** / **Tray** forming, Case / tray packer and case closer, lid placer solution, complex box folding
- Prasmatic and Robopac in general: Solutions for tray, Foil, **wrap-around** and combinations.

Presentation at the Open House by Sam Wybo:

“Complete lines from blowing to shipping”

Contact: Sam Wybo +32 477 960 540

Websites:

www.fillingmachine.be

www.ett-Benelux.com

AF COMPRESSORS

Solutions & Products

AF offers a complete range of **oil-free compressors** : ”high & low” pressure.

See the ”AF Range”, 20-40 bar oil-free piston PET compressors for PET bottling or other applications.

Discover also our 8 bar & 10 bar oil-free ”OPC” range of compressors for any industrial applications (possibilities from 6 to 15 bar).

Energy Savings

AF is synonymous with reduced energy consumption. AF simple design naturally leads to savings, with fewer parts and low speed. Bringing up the lowest energy consumption on the PET market.

Various additional solutions are packaged to increase the energy savings.

Cost Savings

Total Cost of Ownership & Life Cycle Management fully under control on the long term. The most simple mechanical design naturally brings the lowest maintenance costs. Energy and maintenance savings are the best on the short AND longer run.

Our CE 24 S air compressor featured at the Delta Open House:

Our CE 24 S will be supplying the ASB-70DPH with compressed air during the live demonstrations at the Open House.



Presentation at the Open House by Laurent Teughels:

“Compressed air: Why OIL-FREE and at which efficiency”

Website: https://www.afcompressors.com/

IBE-BVI GROUP

IBE-BVI is a neutral and independent expert center with the mission to be the meeting point between the packaging industry and all its stakeholders by sharing knowledge, expertise and information.

As we always aim to offer the best solution possible, we also need to set our quality standards high. Our ISO/IEC 17025 accreditation by BELAC and ISO 9001 certification build confidence with the authorities from which we receive recognitions.

IBE-BVI was founded in 1954 as a non-profit organization with a neutral stance. In 1999, we expanded the test laboratory of IBE-BVI, marking the opening of our new facilities in Zellik.

In 2005, IBE-BVI broadened its scope by becoming a subcontractor for TNO Packaging NL. With a long-standing international outlook and commitment to meeting diverse industry needs, we launched T&CPI (Testing & Consulting Packaging International) in 2010, marking our first international expansion.

In 2024, IBE-BVI celebrated 70 years of service to the packaging industry, continuing our mission to be the first point of contact for all packaging-related questions.

We are a trustworthy international partner for information, training, testing and/or certification of packaging, for customers, authorities and normalisation platforms.

Our activities divide in three main areas:

- **Info center:**
  - Technical information
  - Legislation/Standards
  - Sector operator: ISO TC 122/CEN TC 261
- **Training center:**
  - Seminars
  - Courses
  - In-company trainings (customized)
- **Laboratory:**
  - Testing of materials
  - Testing of packaging
  - Testing of palletized loads

Presentations at the Open House:

"Multilayer packaging and its future" by Ann Delmotte
"ESG principles for packaging and users" by Federico Bassotto

Website: https://www.ibebvi.com/

ACC COATINGS

Custom-Tailored Specialty Coatings from ACC Coatings

In the competitive landscape of food and consumer packaging, maintaining product integrity and shelf appeal is crucial. ACC Coatings specializes in a variety of topical coatings designed to enhance packaging performance. Each coating offers unique benefits which are tailored to your specific packaging needs and market demands, ensuring that products not only stand out but also remain protected throughout their shelf life.

ACC Clear Anti-Fog Coatings - Essential in food packaging, particularly for fresh produce, salads, and ready-to-eat meals. These coatings prevent condensation from forming inside the packaging, keeping the contents visible and appealing on store shelves. Not only is clarity vital for maintaining the product's aesthetic and enhancing consumer confidence but moisture control is also known to extend the shelf-life of certain foods.

ACC ProSlip Coatings - Designed to enhance the convenience and usability of packaging with superior slip and denesting properties to meet today's demanding applications. With added functionality, our ACC ProSlip can improve scuff resistance, will not interfere with bonds and is printing-ink receptive to many widely used solvent, water-based and UV-curable ink systems.

ACC Stat-X Anti-Static Coatings - ACC's topical anti-static/static-dissipative/conductive coatings are water-based, non-corrosive, proprietary formulations that provide effective short- and long-term static control, even in low-humidity environments.

ACC Tactile Coatings - Add a sensory dimension to packaging, creating a unique texture that enhances the consumer's interaction with the product. These coatings are often applied to premium pet food packaging or the packaging of specialty food products like chocolates, gourmet foods, and beverages, offering a distinct and memorable feel that differentiates the product on the shelf. In consumer packaging, tactile coatings are widely used in cosmetics and luxury goods, providing a sophisticated touch that resonates with the brand's identity.

Serving many applications such as:

- Packaging
- Sheet Extruders
- Thermoformers
- Injection/Blow Molding
- PPE

ACC Coatings is dedicated to delivering high-quality topical coatings that cater to the specific needs of the food and consumer packaging industries. Whether the goal is to prevent fogging, control static, ensure easy product release, or create a tactile experience, ACC Coatings offers solutions that elevate packaging performance.

Presentation at the Open House by Richard Daley:

"Revolutionizing Packaging with High-Performance Coatings: An introduction to ACC Coatings"

Website: https://www.acc-coatings.com

PULPEX

We are delighted to introduce Pulpex, a trailblazer in sustainable packaging, whose revolutionary paper bottle technology is transforming the industry.

At this exclusive Open House, you'll discover how Pulpex's innovation in eco-friendly packaging is setting a new standard, one that blends functionality, sustainability, and aesthetic appeal.

Pulpex bottles, crafted from sustainably sourced wood pulp, offer a groundbreaking alternative to traditional plastic packaging. Designed to be biodegradable and recyclable, these bottles provide a solution to reduce plastic waste and support a circular economy. Pulpex's paper bottle not only meets the rigorous standards of durability and product integrity but also appeals to modern consumers who seek environmentally conscious products without compromising quality.

This event offers you the unique opportunity to see and feel Pulpex bottles firsthand and understand the meticulous engineering behind their development. Moreover, it is an exciting moment to consider investment opportunities in this cutting-edge technology, as Pulpex has drawn interest from global brands eager to incorporate sustainable practices into their production. Pulpex's collaborative approach with leading consumer brands signifies a robust potential for growth and industry-wide adoption, making it a promising area for investment.

Join us to learn about Pulpex's journey from concept to product, explore the sustainability benefits of their innovation, and envision its potential in your own sustainable initiatives. Today's Open House is more than a showcase—it's a call to action for a sustainable future and an invitation to invest in a technology that is poised to reshape packaging worldwide.

Presentation at the Open House:

"The Future of Sustainable Packaging: Revolutionary Paper Bottle Technology"

Website: https://www.pulpex.com/

ISYTECH – PART OF THE DELTA ENGINEERING GROUP

part of

ISYTECH is a French engineering company based in Lannion in Brittany. The company was founded by Mr. Patrick Chollet in 1989.

Specialising in the **plasma process and technology and drying applications**, ISYTECH consists of a group of PhDs and engineers with extensive experience in the development of plasma processes and machines.

In 2022, ISYTECH became part of the Delta Engineering Group, allowing us to manufacture machines on a larger scale.

ISYTECH is specialised in two distinct plasma technologies:

- **Surface Treatment to increase wettability**:
  The first type focuses on enhancing the wettability of surfaces, which is particularly beneficial in preparation for operations such as gluing, printing, painting, and drying. This treatment results in effects like **Anti-Stain** properties, **Fast Drying**, and **Dropless Drying** for plastic components. It is especially relevant for applications in dishwashers, food storage containers and reusable packaging, cups, bowls, cutlery, etc.

- **Plasma Coating to improve the barrier:**
  The second type involves applying a very thin barrier coating layer on the inner surfaces of **PET or HDPE bottles, containers, or drums**. Depending on the specific process and intended applications, plasma coating can significantly **improve barriers against O2, H2O, solvents, or CO2**. This technology is utilized in a wide range of DPC plasma coating machines, which Delta Engineering and ISYTECH developed together. Numerous machines are already operational worldwide, running in-line with blow moulding machines.

ISYTECH technologies featured at the Open House:

Live demonstrations of various plasma coaters – both automatic (DPC403 and DPC123) and manual ones (DPM123) – with focus on plasma coating for food applications.

Samples of our Anti-Stain & Fast Drying & Dropless Drying effects on multi-use packaging.

Presentation at the Open House by Aziliz Calvez:

“Plasma Applications for the Paint and Plastics Industry”

Website: http://www.isytech-plasma.com/?lang=en

DELTA APPLICATION TECHNICS – PART OF THE DELTA ENGINEERING GROUP

part of

Delta Application Technics, part of the Delta Engineering Group, offers customers solutions for the application and dosing of single and multi-component products. The activities of DAT span a wide range of sectors: construction, transportation, the medical field, automotive, aerospace... The company's roots date back to 1988, allowing for extensive experience in the industry. By taking responsibility for both engineering, manufacturing, and the commissioning of the desired solution, we can guide our customers through the entire process towards a well-functioning end product.

Website: https://delta-at.be

ABOUT US: DELTA ENGINEERING

Delta Engineering, established in 1992 and headquartered in Belgium, specializes in **designing and manufacturing downstream equipment for the blow moulding & thermoforming industries**. We offer an extensive range of solutions, catering to the specific requirements of our customers in a constantly evolving market.

Our product range includes quality control equipment such as leak testers, quality centers, drop test equipment, checkweighers, and metal detectors. We also offer packaging machines such as (de)palletizers, baggers, tray packers and shrinking tunnels. Additionally, Delta Engineering provides buffer systems, plasma coaters, spray coaters, conveyors, unscramblers, lift systems, flexible silos, take-out systems for blow moulding machines, cardboard/wooden pallet assembly machines, finishing solutions like lost dome spin trimmers and milling machines, etc.

Beyond offering machinery, we take pride in providing complete solutions to improve our customers' production line efficiency. By automating production lines, improving products, streamlining processes, and optimizing packaging and transport methods, we help customers reduce costs effectively.

Delta Engineering is part of the Delta Engineering Group, alongside Delta Application Technics and ISYTECH.

Presentations at the Open House by Danny De Bruyn and Henk de Klerk:

- *"Make your own Squeeze Tubes with your Existing ISBM Equipment using our Bottle-to-Tube Technology"*
- *"Solutions for the Thermoforming Industry"*
- *"The Advantages of In-House Assembly of Cardboard/Wooden/Hybrid Pallets"*

Website: https://delta-engineering.be/