

BEVERAGE PROCESSING

4B AUTOMATION | 4B SYSTEMS

Inspired. Passionate.

Food & Beverage Specialists in Process Automation, Equipment & Solutions

012 653 4951
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Beverage Processing Solutions

At 4B Automation & 4B Systems, we provide beverage processing systems that deliver reliability, consistency, and high performance across a wide range of products.

Our expertise in process design, automation and hygiene enables beverage manufacturers to streamline production, reduce waste, and maintain consistent product quality that meets the highest industry standards.

Our tailored solutions include:

- **Tomato Processing:** Pulping, pasteurisation and concentration for juice, purée, and sauce applications.
- **Citrus Fruit Processing:** Juicing, clarification and concentration that preserve natural taste and nutrients.
- **Tropical Fruit Processing:** Pulping and blending for a variety of fruit-based beverages.
- **Fruit & Vegetable Processing:** Juice extraction and pasteurisation for single-ingredient or blended products.

We partner with clients through system design, automation integration, installation, and long-term support, delivering turnkey, scalable, and hygienic beverage processing solutions tailored to every application.



Tomato Processing



Tropical Fruit Processing



Citrus Fruit Processing



Fruit & Vegetable Processing

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Beverage Processing Solutions

4B Systems specialises in the design and manufacture of industrial processing equipment for the food and beverage industry, while also supplying world-class Alfa Laval systems and Hommak homogenisers and high shear mixers. Known for our commitment to quality, we deliver reliable, feature-rich solutions that offer long-term value to our clients.

Related systems/Products:

Decanters:

- **Efficient, continuous decanter separation for beverage processing; improving yield, product clarity, and consistency while reducing waste and processing losses.**



Homogenisers:

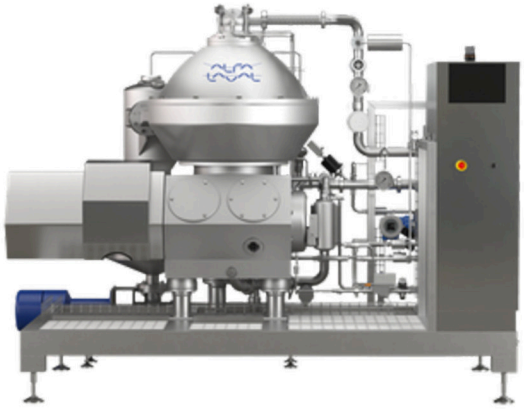
- **Achieve superior homogenisation, durability, and efficiency with Hommak; backed by local expertise from 4B Systems.**





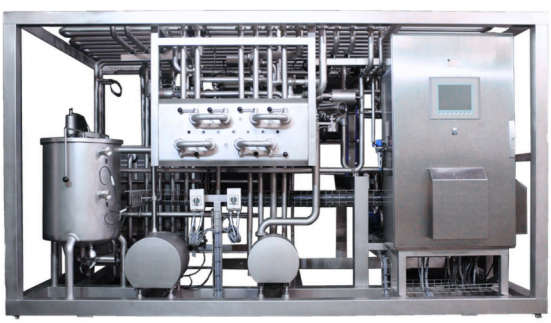
Separators:

- **High-efficiency centrifugal separation for beverage processing; clarifying and depulping juices while maximising yield, preserving flavour, and minimising waste.**



Pasteurisers:

- **Efficient, consistent pasteurisation for beverage processing; preserving flavour, colour, and freshness while ensuring product safety and reliability.**



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Related systems/Products:

In-line Blenders:

- **Formulate and standardise juice and beverage products with continuous in-line control; blending juices, concentrates, water, and functional ingredients for consistent flavour, colour, and quality.**



Clean in Place Systems:

- **Our system incorporates software that continuously analyses system data and adjusts cleaning parameters in real-time, optimising cleaning performance and reducing chemical and water usage.**

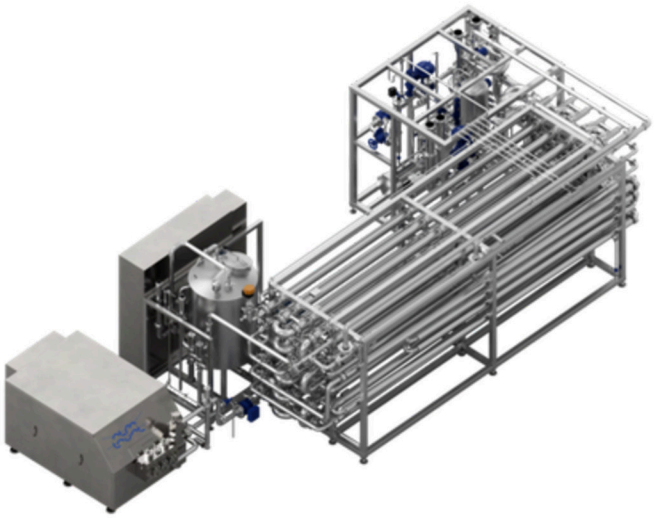


Other systems we specialise in:

- **Mixing Plants**

Sterilisers:

- **Reliable, energy-efficient sterilisation for beverage processing; ensuring product safety, consistent quality, and extended shelf life across juice, purée, and beverage applications.**



High Shear Mixers:

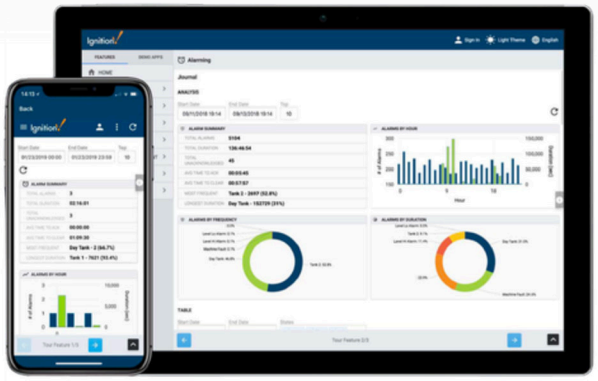
- **High-Shear Mixing Excellence; achieve dispersion, homogenisation, and process efficiency with Hommak's HomMix technology.**



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Our Automation Solutions

For all your plant automation and processing needs



- **Ignition SCADA**
- **Data Collection (Historian)**
- **Siemens System Integrators**
- **Electrical Installation**
- **Remote Support Solutions**
- **Panel Building**

4B Automation specialises in industrial automation solutions, utilising Siemens PLCs, HMIs, Ignition SCADA platform, Canary historian and IFM as our standard suite.

We are experienced in a diverse range of PLCs, HMIs, and SCADA platforms and often deploy systems utilising Wonderware InTouch and Wonderware System Platform.

Our comprehensive inventory includes Siemens PLCs, HMIs, and low voltage switchgear such as isolators, circuit breakers, and direct-on-line motor starters.

- **Siemens**
- **Danfoss**
- **Anderson Negele**
- **IFM**
- **Anton Paar**
- **Endress and Hauser**
- **Krohne**
- **Festo**
- **SMC**
- **Helukabel**

In the development of our solutions, user experience is of paramount consideration. Our systems excel in creating meaningful connections.

Operators, technicians, and management derive value from the comprehensive feedback, guidance, and analytical insights our systems provide.

The scalable design of our control system allows for flexibility.





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Automation Services

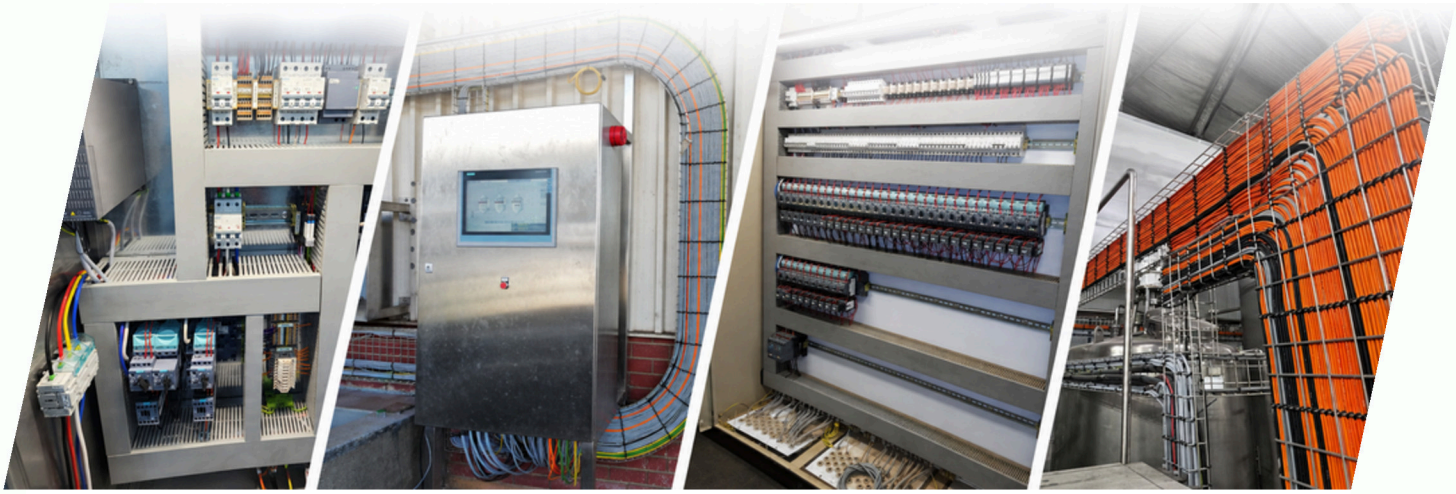
As part of our comprehensive automation solution, we offer the following services:

- **Control system design**
- **Control philosophy**
- **Industrial communication network design**
- **Software standards development**
- **Software development**
- **Implementation**
- **Electrical design**
- **Electrical installation**
- **Instrumentation**
- **Training**
- **Support**

Electrical Installation

An overview of select completed Electrical Installations:

- **Electrical Cable Installation**
- **Instrumentation Cable Installation**
- **Cable Tray Installation**
- **MCC Design and Building**
- **Panel Building**
- **Panel Refurbishment**
- **Panel Design**





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Mechanical Process Installations

4B Systems offers high quality mechanical processing installations, this includes:

- **Process Designs**
- **P&ID's**
- **Solidworks Drawings**



Hommak Homogenisers

4B Systems has its own range of the renowned Hommak homogenisers, high pressure pumps and high shear mixers.

These systems are supported and integrated by 4B and we stock components for our install base. Short lead times are made possible through Hommak, who manufactures parts under one roof. Spare parts are guaranteed to be delivered within two days of request.



- **20l/h up to 20 000l/h**
- **Both aseptic and non-aseptic machines are available.**
- **Delivery time: 6-8 weeks from factory, 1 week delivery option is available.**

Hommak High Shear Mixer

Furthermore 4B Systems offers the Hommak High Shear Mixer:



- **Liquid Capacity (L/H) : 750 - 18000**
- **Powder Capacity (Kg): 150 - 2.500**





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Alfa Laval

4B your Local Alfa Laval Equipment and Integration Specialist

Since 2014, 4B Automation & 4B Systems has been an authorised Alfa Laval distributor, delivering integrated processing solutions using world-class valves, pumps, and heat exchangers; supported by local expertise and ongoing service.Clients benefit from top-tier equipment, full plant integration, and ongoing support.

We also offer an array of Alfa Laval processing equipment and plants, expanding our portfolio to meet diverse industry needs:

ALDOX:

- **Deaerated and carbonated high quality water for breweries and soft drink manufacturers.**



Heat Exchangers:

- **Hygienic, efficient, and energy-optimised heat-exchanger systems.**



Lowal De-alcoholiser:

- **Dealcoholize beer and fermented low-alcohol drink types in the same plant.**
- **From 300 to 1,000 hl/day of dealcoholized beer with <0.5% alcohol by volume.**



Bag-in-box Fillers:

- **Available in aseptic or non-aseptic fillers for 2-20 litre bag in box, 200 litre drum filling or 1000 litre flexitainer filling.**
- **Available in single or dual filling head versions.**



Dealcoholisation Module:

- **Removes alcohol in a single pass.**
- **Up to 100 hl/h for 0.0% and <0.5% beers.**



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One Partner. Every Layer Of Your Plant.