



Multihead Weighing Solutions

Combining high-speed operation with unparalleled accuracy and reliability



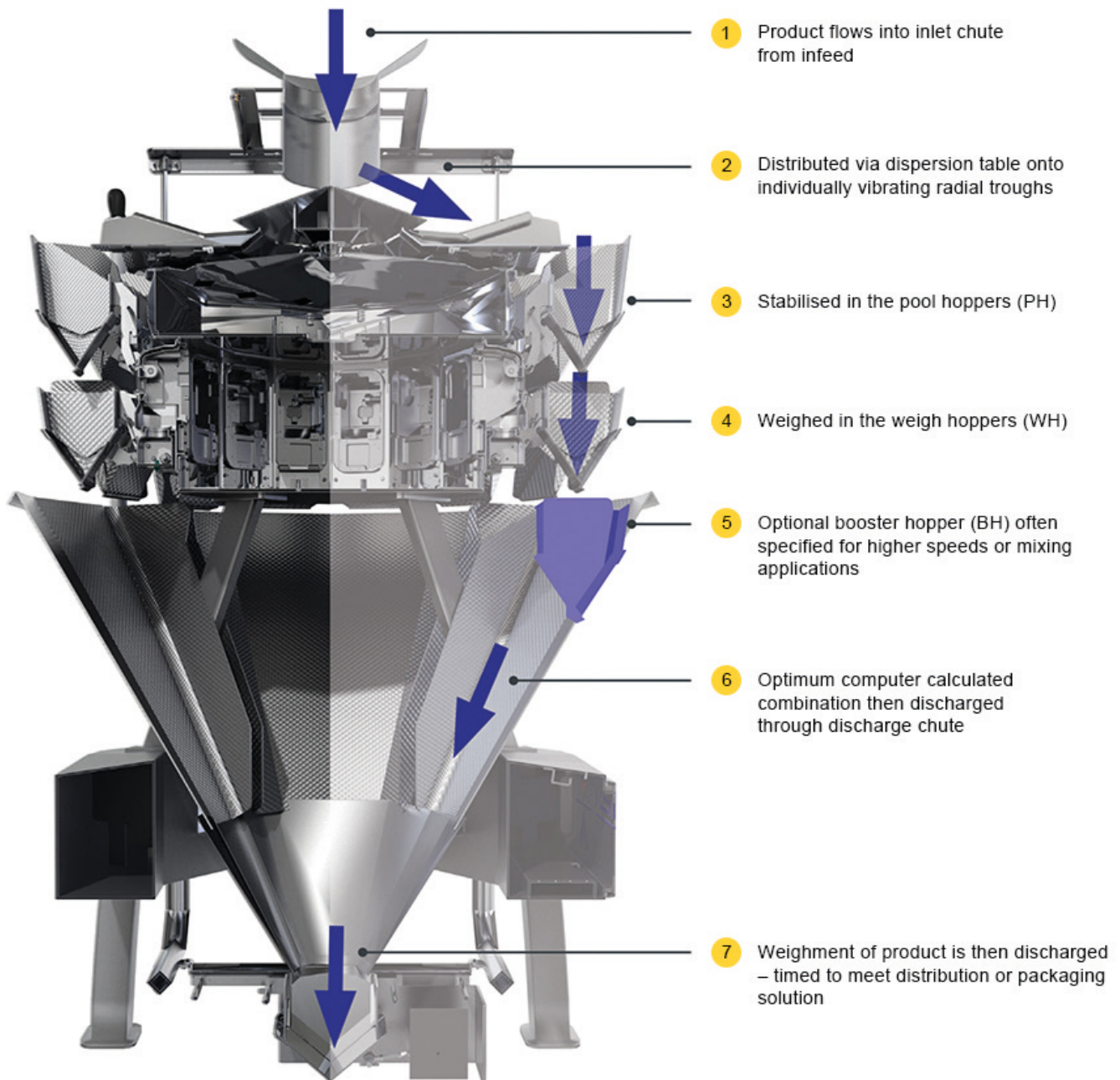
SF Engineering has partnered with Ishida who continue to develop best-in-class multihead weighing machines that deliver on performance every time.



Computer Combination Weigher (CCW) Concept

Product flow in circular weigher format

A multihead weigher or computer combination weigher (CCW) is an industrial weighing machine which delivers highly accurate, reliable and high-speed weighing of food and non-food products.



Wide variation in Multihead Weighing applications

Multihead weigher solutions vary widely based on customers' diverse application needs



Different application challenges we can address:

- Varying target weights
- Acceptable upper and lower weight limits
- Variations in product characteristics within same application
- Product mixes (pre-mixed or mixed on machine)
- Packaging and distribution requirements
- Free flowing to sticky
- Different bulk densities
- Varied product piece size
- Different target speeds
- Available manufacturing space

Multihead (CCW) circular range

SE3 Series – Entry level excellence

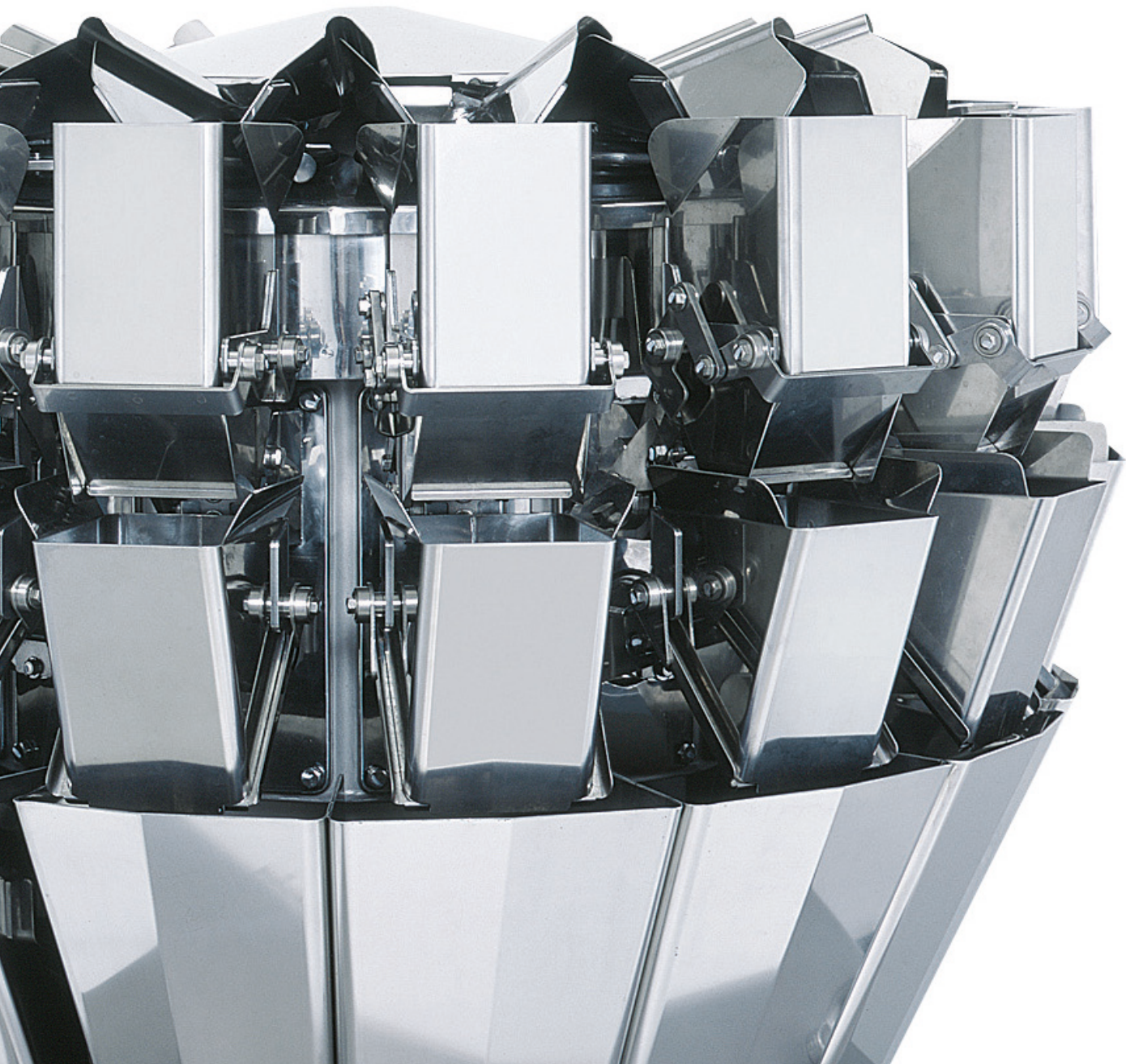
Suitable for free flowing dry products and small target weights. With an entry level price position, the SE3 Series offers excellent design and competitive performance for a narrower range of product application options.

RVE Series – Optimum value

The RVE Series offers features and performance to cover a broad range of applications at mid to high production speeds. It is suitable for free flowing and semi-sticky products – for dry, fresh or frozen product applications at small to large target weights.

RV Series – Ultimate performance

The RV Series offers a bespoke solution to satisfy customers' individual high performance needs with high technology as standard – for very high speeds, precision and accuracy. Offering the broadest range of solutions from 10-32 heads, 0.05 to 7.0l hopper size, single to 8 mix setting and sector-specific fixed solutions are also available on request.



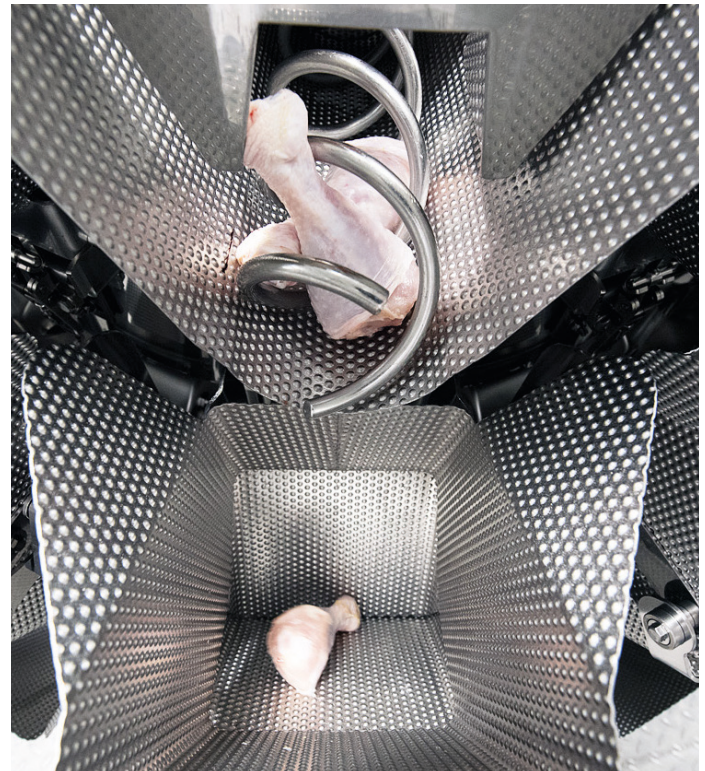
Screw feeder solutions (SF)

Screw feeder solutions

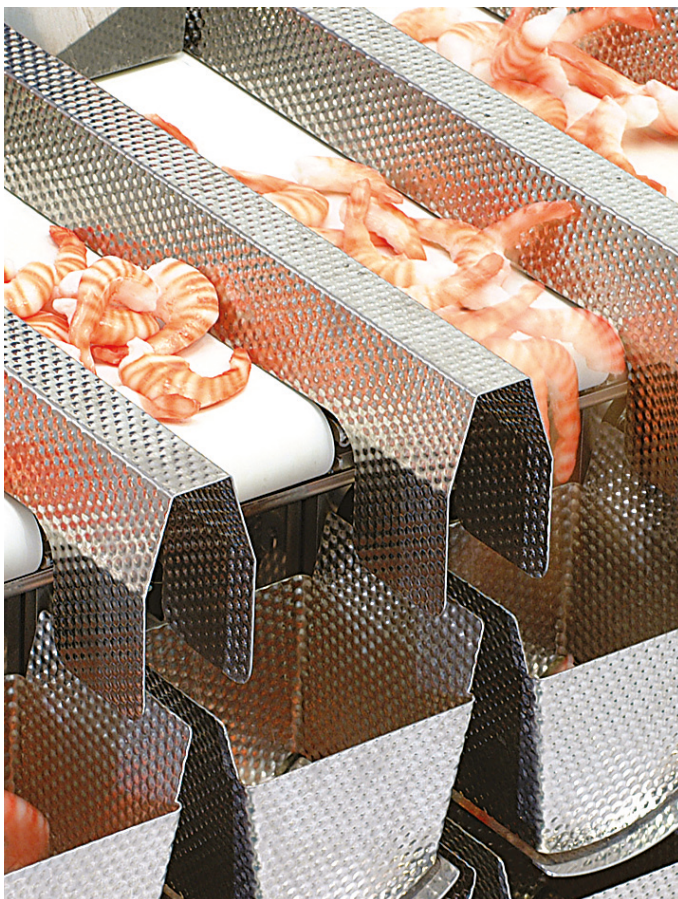
Designed for difficult-to-handle fresh foods that resist movement, the Ishida Screw feeder weigher is ideal for weighing sticky, oily and marinated products. The stainless steel coreless screw moves the product on the multihead weigher gently but firmly towards the robust hopper system, designed to prevent product from sticking and ensure excellent performance.

Key Benefits

- The perfect solution to weighing fresh protein
- Full automation, thanks to powerful but gentle coreless screws
- Minimises giveaway (typically <1%) and maximises yield of packed product
- Corrugated style gates prevent product from sticking during hopper emptying
- Trap points are eliminated with simple to remove and clean contact parts
- Easy wash down design with wash proof IP69K rating



Fresh food weighers (FFW)



Fresh food weighers

A semi-automatic weigher that has the versatility to handle a wide variety of products and customer requirements. Ideal for difficult-to handle, sticky products and short production runs, where fast product changeovers are essential. This is particularly relevant for fresh food, where the short product shelf life often demands high levels of flexibility from the production process.

Key Benefits

- Improved flow of sticky products through the weigher
- Reduction in labour costs and rapid return on investment
- Accurate weighing and reduced giveaway – achieving typically less than 1% giveaway
- Space saving compared to typical manual weighing stations and automatic grading machines
- Easy clean and conformity to hygiene regulations
- Can be used as an entry level weighing solution on almost any product

Sentinel™

Advanced remote customer care services from Ishida provide additional assurance for your food manufacturing operations. Through real-time data capture, live reporting and pro-active support, Sentinel provides the essential information for machine optimisation and reduced downtime. Certified to IEC62443, the standard for Industrial Automation Security, Sentinel ensures the safety of customer data at all times.

Reporting Pack

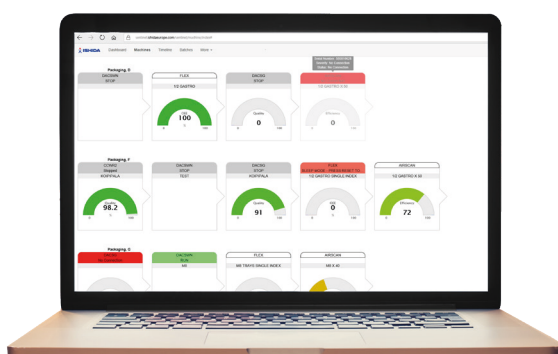
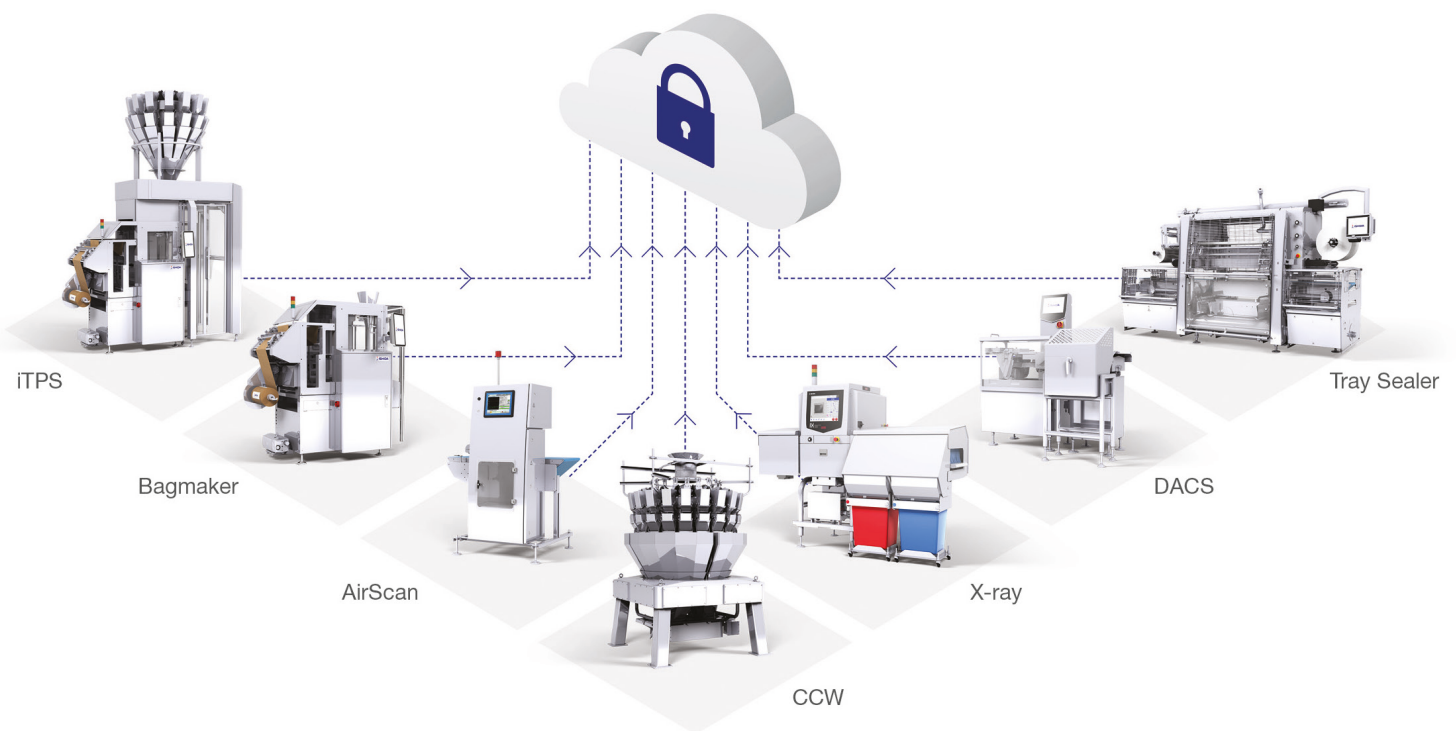
- Live, web-based dashboard providing instant access to performance reports from any mobile or desktop device.
- Pre-configured performance reports emailed direct to the customer.

Intervention Pack

- Pre-paid, remote technical support from expert engineers.
- Rapid response and diagnosis to reduce machine downtime and increase performance.

Service Pack

- Pre-paid, remote technical support from expert engineers.
- Pro-active monitoring of machine performance to identify potential issues that may impact production.
- Rapid response and diagnosis to reduce machine downtime and increase performance.



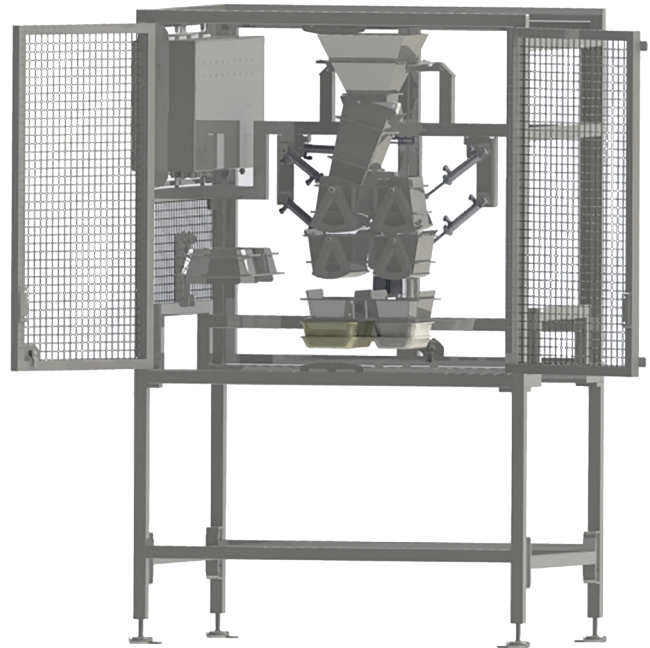
Distribution Systems

Distribution Systems

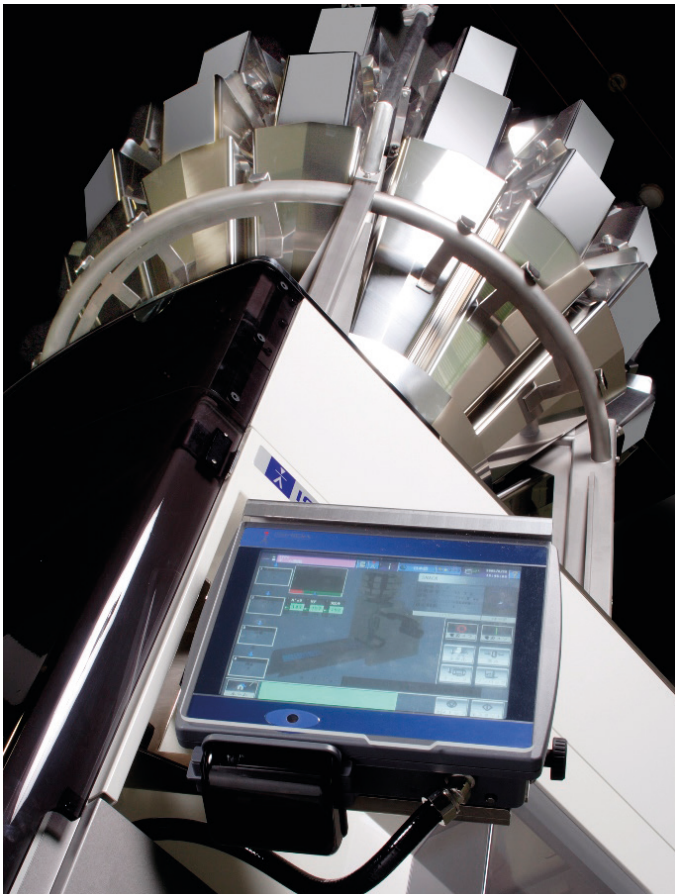
A distribution system (DS) is an array of hoppers and chutes mounted on an integral frame, beneath a linear or circular weigher. They are an essential complement to the multihead weigher and can be a critical element to optimise production throughput. SF Engineering can recommend and manufacture the best solution based on product, speed, drop height and tray format configuration.

Key Benefits

- Maximise throughput of production system
- Ensure accurate product placement without loss, damage or splashing that could compromise the product, pack or seal
- Meet any factory, product and packaging requirements
- Suitable for complex ready meals and colour-banded salads, to single-piece meat or vegetable products
- Simplify cleaning and save time with high IP-rated systems



Snacks and stick product weighers



Snacks and stick product weighers

SF Engineering can supply equipment for weighing and packing a wide range of snacks food products and packaging styles. We can supply an integrated weigher and bagmaker solution (together with specialised complementary equipment), or our multihead weigher as part of a complementary solution with our bagmaker OEM partners.

Key Benefits

- Broad range of weigher solutions for either single or twin tube bag makers
- High-performance RV weigher technology increases weighing speeds up to 300wpm
- Average weight control software achieves a resolution of mean weight of two decimal places (0.01g), reducing product giveaway by up to 80%
- Charge Transfer Control (CTC) increases the production rate of potato chips
- Enhanced radial feeder vibration control improves efficiency and accuracy
- Dedicated bread sticks machine reduces breakages by 30% compared to linear weighers



Customer Partnership Support

SF are here to help you through every stage of your new project. This can often start in the consultancy stage where we offer feasibility studies that can help to increase product throughput or yield, an assessment to reduce product recalls or evaluating a greenfield site for a food processing facility.

Once all our assessments are carried out, our Planning, Design and Project Management experts take over to co-ordinate the project right through manufacture, installation and commissioning. All teams are very familiar with the demanding conditions that arise across the food processing industry and have gained a vast knowledge of solving complex industry challenges on a daily basis.

- **Consultancy**
- **Planning**
- **Design**
- **Project Management**
- **Manufacture**
- **Installation & Commissioning**

Service & Spare Parts Support

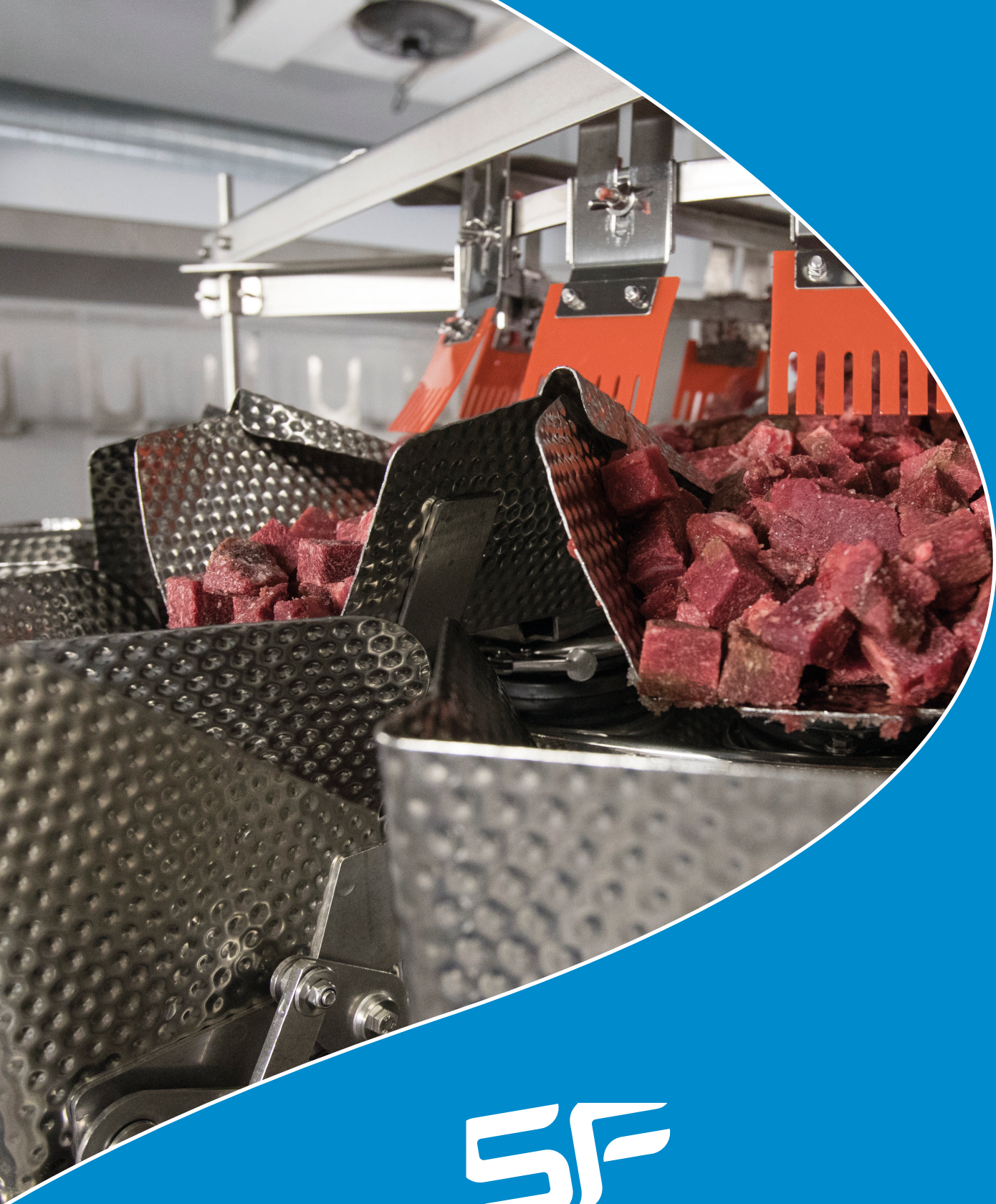
Our Service Team are here to support you through the life-time of your equipment. Yet, we still prefer to prevent problems before they happen. We highly recommend carrying out regular calibration, verification and preventative maintenance checks as well as staff training to ensure you can get the best from your investment. Should any unexpected technical issues occur, we offer a range of Service Level Agreements including, remote assistance and diagnostics as well as on-site support.

Keeping your production lines running smoothly is our main priority. Our Spare Parts Team supply only the highest standards of genuine parts, including, belts, motors, sprockets, bearings, electrical components and pneumatics from industry leading manufacturers. Offering a quick and reliable service when you need it the most.

- **On-site Service Support**
- **Spare Parts**
- **Preventative Maintenance**
- **Remote Support**
- **Training**
- **Calibration & Verification**

SF offer expert support and guidance through the entire planning process and for the life-time of your equipment





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