### Flex means Flexibility

The Ishida Flex Grader provides many real advances that make grading and batching tasks simpler, safer and more accurate.



#### Flexible for today, future-proof for tomorrow

The modular construction of the Flex Separator means you can increase the number of work stations, depending on market requirements. A single-sided set-up can be converted to double-sided, or a slap-arm diversion system into a catch-arm one with no major effort. If a divert arm suffers impact damage, for example, it can be swapped out with a spare unit without halting production. To a world of rapidly changing demands and challenges, an Ishida Flex Grader brings a strong element of calm and predictability.



#### In open, hygienic structure that minimises ground contact

The Flex separator has legs that contain all of the electronic parts in an ultra-open structure that can be rapidly and thoroughly cleaned. This removes all unnecessary panelling while providing great structural strength. As a result, the Flex Separator frame can also support the integrated worktable and take-away conveyor, greatly reducing the number of contact points with the floor. This significant reduction in potential contamination routes helps to make nygiene measures more effective.



#### Advanced dynamic weighing combined with unique intelligence

Ishida is a recognised world leader in weighing technology, setting the standard for beltweighing accuracy. It is one of the few companies to design and manufacture its own loadcells and this is reflected in the reliable accuracy of Ishida Flex Grader systems. Each weigher can handle two separate weight ranges, further increasing system flexibility. The Flex Weigher combines with a new level of artificial intelligence to extend the limits of what grading and batching can achieve.



#### Downtime-resistant

The Ishida Flex Weigher features Dislocating Force Limiter (DFL) technology, which instantly disconnects the loadcell from the weigh-conveyor in the event of an overload. In busy, real-world factories and packing plants this is an important factor in reducing downtime due to accidents: the Flex Weigher is undamaged and carries on working as soon as the overload is removed.

Cleaning and maintenance downtime are reduced by the open, easy-clean design and the speed with which contact parts and belts can be removed and replaced. The weighing conveyor, for example, is of a smart, quick-release design.

#### Supporting better hygiene: the Flex separator belt

Plastic wear strips (bars of hygienic, wear-resistant, ultra-high-molecular-weight plastic) are used, in conjunction with the metal frame, to support the belt without generating friction. The strips also avoid any vacuum/suction effect after cleaning.

he cantilevered design supports all belt types, whether modular, PVC or thermodrive, enabling each to run at maximum speed. It also enables them to be removed for cleaning and replaced without any tools, while its ultra-open structure is itself remarkably easy and quick to clean.

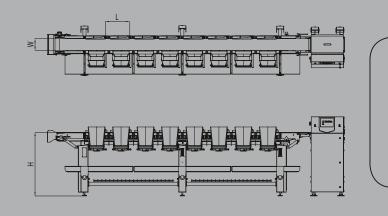
#### Working with you every step of the way

Our extensive R&D investment is directed at meeting the challenges of the fast-changing food industry around the globe.

We aim to support our partners fully, from the very start of the buying process, and you will find many equipment brochures, visual animations and case studies available on our website. When you are ready to make contact, a well-resourced network of In addition, spares facilities are strategically placed throughout Ishida companies, distributors and agents, extending worldwide can provide advice and organise demonstrations and trials.

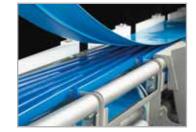
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Technical Specification	Small Pieces		Large Pieces		
Weighing Machine	FW 015-23-WP		FW \$060-35-WP		
Minimum Product Pitch (mm)	350		550		
Max Product Length (mm)	300		450		
Weigh Belt Length x Width (mm)	345 x 240		545 x 320		
Accuracy Per Piece	0.4g	0.8g	0.8g	2g	
Operating Format	Sizing, Batch to count, Batch to minimum weight, Target batching with tolerances and priorities				
Weight Range	6g to 600g / 15g to 1500g		20g to 3000g / 60g to 6000g		
Maximum Stations	Up to 24 arms				
Belt Width (W)(mm)	250		350		
Arm Length (L)(mm)	500		650		
Line Height (L)(mm)	1200 - 1800				



## **HIDA**

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Installation is rapid and efficient. For integrated packing lines, we use proven project management techniques and methodologies, tuned to your key objectives and specifications.

A dedicated service engineering team helps to maximise the performance, functionality and reliability of our installed base. the territory, offering 24-hour delivery in most cases

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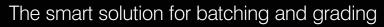
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# Flex Grader









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# Flex Grader

### One smart, easy solution for a wide range of batching and grading applications

The Ishida Flex Grader takes technology to a new level in the grading and batching of product pieces by weight.

#### New flexibility in meeting packing challenges

The packing of discrete product pieces presents a wide range of challenges, some caused by the demands of the market, others by changes in supply chain or workforce.

With the Ishida Flex Grader, you can take sudden demand and rapid change, as well as routine daily tasks, in your stride. That's because one compact system can grade and batch to a whole range of specifications, from the simplest to the highly sophisticated.

This flexibility enables you to get the most out of workspace and workforce. The Ishida Flex grader is the most truly modular solution available, enabling you to add capacity as needed without having to change systems, and protecting your investment into the future.

#### Grading and batching have never been so clever

The Flex Grader incorporates Ishida's AI (Artificial Intelligence) technology. This is the very latest in batching software, from the company that invented combination weighing. While other systems are forced to make rapid decisions at the point of separating a piece from the inflow, AI has already made an accurate prediction of pieces in advance. This leaves plenty of 'brainpower' for those last-microsecond decisions that transform an adequate selection into a near-perfect selection, keeping giveaway to the minimum.

The Flex Grader complements other well-known Ishida strengths such as tray sealing, inspection and casepacking to make your packing activities less manpower-intensive, more hygiene-friendly, faster, more compact and more accurate. And that means more profitable.

#### Bring this brochure to life with a Free App





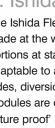


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# Flex Grader

An Ishida Flex Grader system is compact, fast and accurate. There is tremendous flexibility in terms of working practice, particularly in the wide choice of bin and outfeed arrangements. The high degree of modularity means that systems can be rapidly reconfigured, added to or downsized to meet the work requirements of the moment.

Three notable features of the Flex Grader are the ease of dismantling, the openness of the structures and the minimisation of floor contact points, all powerful aids to maintaining a high level of hygiene.



#### . Ishida Flex Infeed Systems

The infeed system is crucial to grader performance. It must leliver the constant 'pitch' (distance between pieces) which is essential for accurate dynamic weighing. Ishida offers integrated nfeeds to match your overall line-speed targets, from manual systems to automatic infeeds guaranteeing up to 230ppm.\* All Ishida Flex-style infeed systems, whatever their degree of sophistication, offer a high level of hygiene and easy cleaning.



#### 2. Ishida Flex Weigher

The Ishida Flex Weigher, with its newly-patented Midship sensor layout, determines the weight of each piece with great accuracy. This weight is analysed and allocated according to the current demands of the Flexed separator for optimal performance.

As alternatives to dynamic weighing, Ishida can also offer solutions making use of a weigh-price-labeller, or weight estimation by X-ray. All the units concerned can participate in grading and batching via the Ishida Artificial Intelligence.



#### 3. Ishida Flex Separator

The Ishida Flex Separator collects each piece in accordance with the decision made at the weighing stage by the Ishida Artificial Intelligence, assembling portions at stations along its length. Its modular construction makes it adaptable to all possible configurations: work stations to either side or both sides, diversion by catch arm or slap arm. To expand the Separator, extra modules are easily fitted onto the frame. This modularity works to make it 'future proof' in the ever-changing world of packing requirements.



#### 4. Ishida Flex Bins

The Ishida Flex Bins gently and efficiently collect the selected pieces to form portions. A wide variety is available, from gently sloped chutes to gated bins which greatly increase the capacity of the line. Special bag-holders can be mounted on the chutes, enabling direct filling into bags. The system can light up a push button when a portion has been achieved, prompting the operator to empty into a tray or box at the outfeed level.

The bins seat firmly onto the Separator frame and can easily be lifted off or tipped in situ for cleaning.



#### 5. Ishida Flex Outfeed Systems

The Ishida Flex Outfeed System removes the finished portions for packing. Options range from packing tables to conveyors that synchronise with the Flex Bin product release. All options benefit from being mounted on the unique Flex frame, which eliminates contamination traps and minimises contact points with the floor, making cleaning simpler and more effective.



#### 6. Multiple Configurations

The Ishida Flex grader is the most truly modular solution available, enabling you to add capacity as needed without having to change systems.

Many multiple configurations are available due to the modular construction, making it adaptable to all possible packing world requirements.





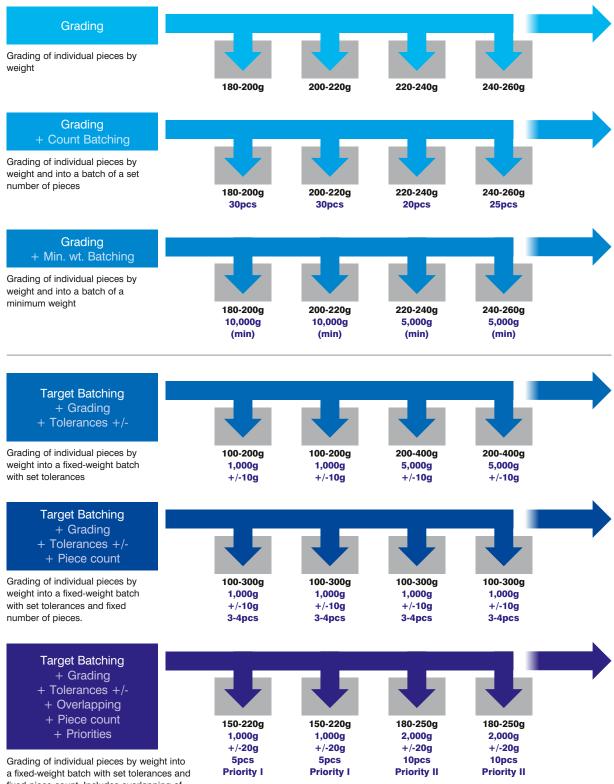


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#### Simple to sophisticated: what the Flex Grader can do for you



fixed piece count. Includes overlapping of grades and priorities.