



We are. People for packaging

At Premier Tech Chronos we are recognised worldwide for our innovative and customised weighing, bagging, palletising and load securing solutions. We offer manual, semi-automatic, fully automatic and turnkey solutions for bagging diverse bulk materials across a broad spectrum of industries. We provide solutions based on standard modules together with specially engineered systems for both new installations and plant upgrades.

We are the single point of contact for all our customers' packaging and material handling needs. Each piece of equipment is designed, manufactured and integrated by our own team.

The brands of Chronos BTH, Chronos Richardson, BTH, Richard Simon, Howe Richardson and Forberg are synonymous with high performance weighing, bagging, palletising and load securing solutions around the world. Our dynamic corporate strategy has combined these companies into today's **Premier Tech Chronos**, bringing together more than a century of technical innovation, application experience and expertise.

A local presence worldwide

We have modern, leading edge production facilities in The Netherlands and Italy, supported by skilled engineering teams focusing on innovative research and development programs. These facilities, together with our experienced sales and service offices in Germany, United Kingdom and France, allow us to provide high-tech, valued added products and comprehensive customer services for the benefit of our clients. Our strategic approach is supported by ongoing worldwide market development efforts to provide you - our customers - with top level solutions.

Together with our sister companies **Premier Tech Chronos** in the Americas and Asia (with production facilities in Canada, USA, Thailand, India and China), we are one is one of the world's leading manufacturers of packaging solutions in the field of Industrial Flexible Packaging. We serve customers in more than 50 countries, supported by a long established network of direct Sales Agents and Customer Services Specialists.



We are. People for packaging

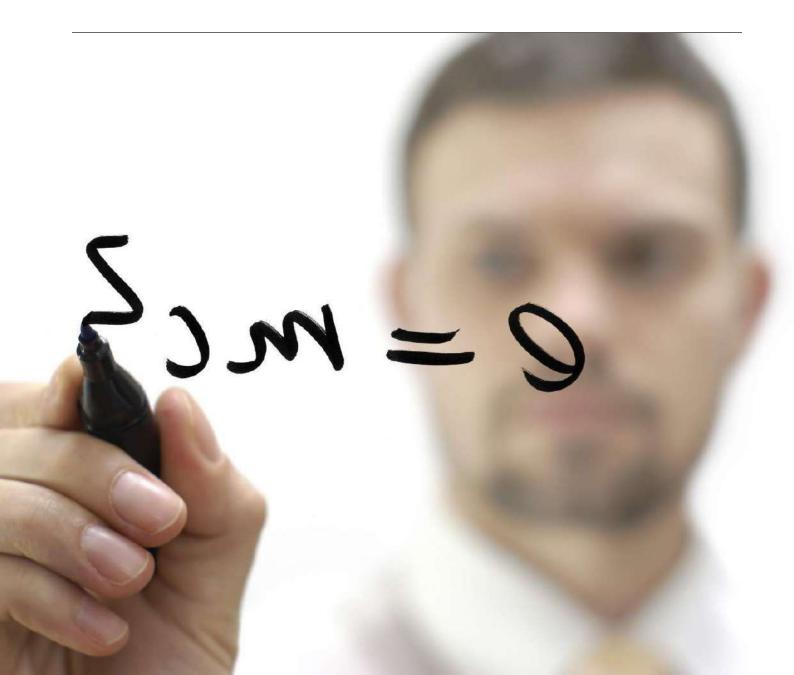
At **Premier Tech Chronos**, passion spreads throughout our team of dedicated and dynamic people, putting their hearts and minds into the realisation of your projects. We think that doing things passionately means doing better and doing more. To work with us is to choose a special personal partnership, where skills come together to meet any challenge. Fostering innovation at all levels, **Premier Tech Chronos** pushes technological boundaries in order to develop appropriate solutions tailored to your specific needs: not just for today but for tomorrow. Firmly tuned towards the future, we find efficient and profitable solutions that contribute to the development of both business and society. Whatever your business size and whatever the scope of your markets, we are ready to listen and become an integral part of your achievements. Each challenge you give us makes us better. Dedicated to bringing you peace of mind, **Premier Tech Chronos** is committed to providing you with personalised support.



Vision. Innovation. Team Work. Agility. Execution

Our mission is to become the technological and commercial leader in the field of Industrial Flexible Packaging. To maintain our market leadership, we rely on the professionalism of our team members and the superior quality and consistency of our products and services around the world.

Supported by a multidisciplinary team based in Europe, Americas and Asia; our Company Group continues to build on the development of its personnel, innovation and research & development. In parallel, our strategic approach is supported by ongoing worldwide market development to ensure we continue to deliver the highest level of innovation for our customers. Our culture is the operating system of the business. It is based upon five values and principles, which are core to the way the business is managed on a day-to-day basis and therefore to the decision making process. **Vision, Innovation, Team Work, Agility** and **Execution**: these are the values that create the DNA of our business culture, **VITAE**.



We understand the meaning of packaging: correct packaging not only provides product protection, but also projects your image and presents a strong brand or trademark to your customers.

Furthermore, packaging costs need to be monitored closely and the packaging systems need to operate efficiently, reliably, accurately and dependably - day-in and day-out, to maintain or even improve your competitive status in the market. The packaging business is a dynamic market and we at **Premier Tech Chronos** keep pace with it.

Innovation backed by tradition

The invention of the world's first automatic weigher in 1881 by company founders Carl Reuther and Eduard Reisert, marked the end of thousands of years of manual weighing and heralded the start of a new era of automatic weighers. This important industrial invention has brought significant improvements to the process of weighing bulk materials; resulting in time saving, improved accuracy and tamper-resistant operation. To embrace this, the Greek word 'Chronos' meaning 'time' was chosen for both the name of the weigher and the company. The CHRONOSweigher has evolved continually over the past century and today modern industrial and computerised weighing techniques rely on such high precision automatic weighers.

Innovation, research & development

At **Premier Tech Chronos**, Innovation, research & development (IR&D) programs provide us with the opportunity to "think outside the box". They contribute to developing new technologies and new product options / features, whilst also allowing continuous improvements to be made to existing product lines.

Today, the experienced and dynamic team of engineers at **Premier Tech Chronos** follows the ideals of its founders, using the *art of listening-* one of the most powerful tools to ensure the optimum development of innovative technologies. IR&D projects are implemented through partnership with customers, thus allowing the installation of the new technologies inside a real production environment. This approach allows the efficient and rapid move to market for each product. At **Premier Tech Chronos**, we thrive on innovation. and this ensures we continue to launch leading edge products into the marketplace year on year.

As part of our company vision, more innovations are currently under development and we know they will change the way you look at packaging.



Your single source supplier

Over the years, Premier Tech Chronos has built an enviable reputation for providing fully integrated, complete bagging lines – from the product feeding station through to the stretch-hooded pallets ready for dispatch.

Turnkey solutions

We will work with you through every step of your project: from the design to the installation, and right through to ongoing after-sales service and support.

Today, we can provide equipment and know-how which offer fully integrated solutions from one source.

By offering the largest product selection in the industry, we can efficiently answer your needs and face the most stringent requirements of your market.

Find your solution with us

Our specialists at **Premier Tech Chronos** understand how to handle your specific bulk material and packaging material, allowing us to design and manufacture the best

packaging solution for you. Backed up by our extensive application know-how, we are skilled in bulk material handling methods. We have the right solution for your application.



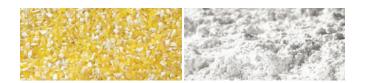
Your bulk materials set the challenge

Bulk materials behave in a different manner and change their characteristics, and thus their flow behavior, throughout the production process and right through to the moment of packaging.

Filling and packaging machines must be specifically tailored to the bulk material that is to be handled. Therefore the design and development of machinery should concentrate on the specific properties of the bulk materials. We critically examine key material parameters including grain size, bulk and tamped density, repose angle, flow behavior, moisture content and the temperature of the bulk material at the time of filling and packaging. Bulk materials are produced in widely differing forms, ranging from small particles to pressed pellets, from flakes to granules and also in extremely fine powders. Products that barely flow must be endowed with flowing properties whilst conversely, materials that "gush" like water must be handled under carefully controlled conditions. Some bulk materials are hygroscopic – they tend to absorb moisture and lump together, whilst other materials tend to become interlocked due to their edge structure, thereby disrupting material flow and giving rise to blockages. Other bulk materials, such as flakes, require exceptionally gentle packaging in order not to destroy their specific structure.

Food

Grain, flour, rice, sugar, bakery mixes, milk powder, spices, etc.



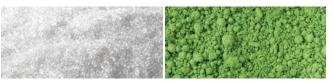
Pet food

Dog food, cat food, pet food ingredients, etc.



Chemicals

Fertilisers, plastic pellets, pigments, polymers and resins, fumed silica, etc.



Horticulture

Peat moss, compost, soils, organic mulch, rubber mulch, decorative stones, etc.





Feed

Bird seed, animal feed, fish feed, sweet feed, feed ingredients, etc.



Seed and agriculture

Alfalfa, corn seeds, crop seeds, grass seeds, lawn seeds, silage, soybean seeds, sunflower seeds, etc.



Minerals

Cat litter, coal, concrete mixes, crushed stones, sand, lime, de-icing salt, talc, titanium dioxide, etc.



Wood products

Bark, cork, sawdust, wood chips, wood fibre, wood pellets, wood shavings, etc.



Your packaging material defines the requirements

Clearly, machine design must also take into account ambient conditions as well as the different materials and container types used for packaging. Years' of experience gained in working with different bag and container types,

materials and sizes, ensures **Premier Tech Chronos** can assist you in finding the most suitable solution for your application. We handle bags with filled weights from 5 to 50 kg and bulk bags (FIBC) up to 1500 kg.

Bags made from continuous film

Tubular foil

Flat foil

Pillow bags, gusset

forming, perforation and handles

Pillow bags, gusseted bags, corner sealing, perforation and handle

Valve bags

PP bags

Inner or outer valve

Pre-made bags

Open-mouth bags

woven PP bags, laminated

Pillow bags, gusseted bags, pinch-top

paper bags, paper with PE, PE bags,

bags, cross-bottom bags, block-bottom,



Laminated PP bags, PP bags with single or four loops









Net, gross and in-process weighing

Backed by tradition, **Premier Tech Chronos** continues to maintain its reputation as the leading specialist for weighing and feeding systems. Designed for diverse weighing and control applications, these products meet the highest demands for accuracy, reliability and performance. All our equipment is PLC controlled with user friendly human machine interfaces (HMI) and compliant with CE regulations.

Net weighing scale

E-SERIES



- State-of-the-art loadcell technology
- Weighing range from 5 to 50 kg
- Meets highest international accuracy requirements
- High-speed and hygienic versions available
- Various feeding devices including high precision SpeedAC weighing controller
- Well-proven stand-alone weigher or fully integrated into a bagging line





In-process weigher

APW-SERIES



Features and benefits

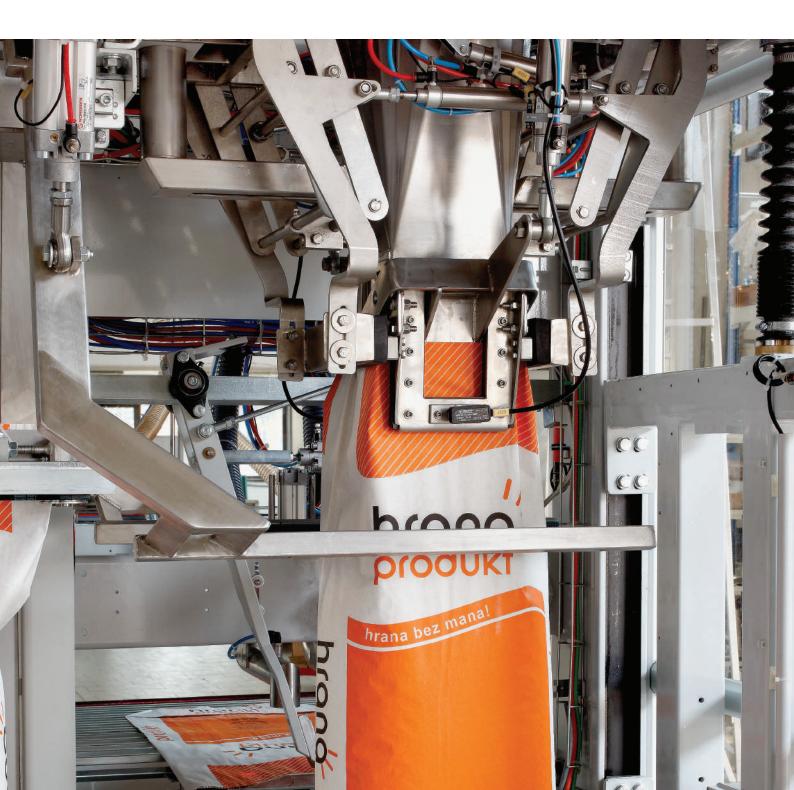
- Compact throughput weigher for the modern flour mill
- High weighing accuracy and precise production data collection
- Simple integration into new or existing mills
- Can be interfaced with any mill control system
- Single or twin position feedgate and fully integrated weighing controller
- Three hopper sizes to cover the full range of milling throughputs

Bulk weighers for receiving and shipping bulk material w-series



- High accuracy, electronically controlled bulk weigher
- Ideal for applications in grain silos, feed and food industries, mills, warehouses etc.
- Throughput rate up to 1500 tonnes/hour (max density 750 kg/m³)
- Various models available, weighing range from 50 kg up to 10 000 kg
- Full loadcell design for reliable long-lasting operation

Premier Tech Chronos offers manual, semi-automatic, automatic and fully integrated bagging solutions for diverse bulk materials including powders, granules, pellets and flakes across a broad range of process industries. The portfolio includes bagging systems for pre-made bags (open-mouth/valve bags), bags made from continuous film (tubular/flat film) or filling systems for bulk bags (FIBC). **Premier Tech Chronos** equipment can handle a wide range of bag types, materials (PE, PP and paper) and capacities from 5 to 50 kg. Automatic adjustments are available for fast product and bag type changeovers. We also manufacture and integrate a full range of standard bag closing methods. All our equipment is PLC controlled with user-friendly human machine interfaces (HMI) and compliant with CE regulations.





Compact open-mouth bagging system

OML-1080 SERIES



High-speed open-mouth bagging system

OML-1140 SERIES



Features and benefits

- Designed to handle free-flowing bulk materials
- Compatible with all common types of pre-made bags (paper, paper with PE, PE, woven PP)
- Controlled bag handling
- Compact, sturdy design
- Easy access for cleaning
- Net and gross weight filling available
- Production rates up to 800 bags/hour

Features and benefits

- Designed to handle free-flowing bulk materials (granules and pellets)
- Compatible with all common types of pre-made bags (paper, paper with PE, PE, woven PP)
- Controlled bag handling
- Easy access for cleaning
- High-speed production rates up to 1500 bags/hour

High-speed open-mouth bagging system

PTR-1030 SERIES



- Two FANUC robots for precision and reliability
- Bag-on-spout detection system to avoid product loss due to spillage
- Very fast bag size changeover
- Low head-room
- Small footprint for floor space optimization
- Compact design and smart wiring allowing for a quick installation

Hygienic open-mouth bottom-up filling line

OML^{H1} BF SERIES



Features and benefits

- Hygienic design (EHEDG*)
- Proprietary Bottom-up fill technology with vertical screw
- Dust-controlled filling of powdery products
- Open bag transport throughout the bagging line
- Easy access for cleaning
- High accuracy
- Production rates up to 400 bags/hour

Options

- Available with closed bag transport
- Inspection door in dosing hopper
- Gas flushing
- Operational zone (white) is separated from the technical zone (grey)
- * European Hygienic Engineering & Design Group



Open-mouth carousel bagging system

OMC SERIES



Features and benefits

- Designed to handle flour and other powdery products that need to be densified or compacted
- Can be used with all common types of pre-made bags (paper, paper with PE, PE, woven PP)
- Manual, semi-automatic or fully automatic
- Bagging carousels from 550 up to 1100 bags/hour
- E-SERIES net weigher and SpeedAC PLC controlled system with user-friendly operator interface

Manual and semi-automatic open-mouth bagging system

E 55-MB SERIES



- Designed to handle free-flowing bulk materials
- Well-proven, easy to operate bagging system
- Nett and gross weight filling available
- Diverse feeding devices available
- Includes bag clamp, closing system and conveyor
- Stand-alone SpeedAC weighing controller
- Production rates up to 1200 bags/hour

Valve bagging systems screw, air and impeller packers VB SERIES



Features and benefits

- Designed to handle various bulk materials
- Can be used with pre-made valve bags
- Manual, conventional or robotic bag placer
- Ultrasonic sealer available
- Production rates up to 400 bags/hour

FIBC / bulk bag filling system

BBF SERIES



- Designed to handle a wide range of bulk materials
- Weighing range from 500 kg up to 1500 kg
- 3 basic configurations available
- Advanced weighing controller included
- Dust-free filling with an inflatable spout
- Maintenance-friendly construction
- User-friendly operation with clamping hooks pneumatically operated



Vertical form, fill and seal system (flat film)

VFFS SERIES



Features and benefits

- Designed to handle a wide range of bulk materials
- Bags made from flat film
- Net weight (5-50 kg) or volumetric filling (5-110 litres)
- Minimised film overlap to save on film
- Minimum moving parts
- Gusseted and non-gusseted bags
- Production rates up to 1800 bags/hour

Bag features available

- -growbag (plant/drain holes)
- -bag handle
- -4 corner side seal

Tubular form, fill and seal system (tubular film)

TFFS SERIES



Features and benefits

- Designed to bag a wide range of bulk materials
- Bags made from tubular film
- Net weight, gross weight or volumetric filling
- Compact and sturdy design
- Full stainless steel version for high hygienic/aggressive environment
- Production rates up to 2200 bags/hour

Bag features available

-bag handle -corner seal Premier Tech Chronos offers leading edge palletising systems which can be implemented as stand-alone equipment or fully integrated into the packaging line. Capable of handling many different products, the product range includes robot palletisers for bags and other containers such as boxes, cans, buckets, pouches or bundles; as well as high level (high-level turner head), compact palletisers (high-level gripper head) and gantry palletisers (low level gripper head) for bags. Premier Tech Chronos palletisers can be used with all standard design industrial pallets. All our equipment is PLC controlled with user-friendly human machine interfaces (HMI). Our palletisers provide guick changeover of palletising patterns via stored recipes, versatility on different layer patterns, low maintenance requirements and compliance with CE regulations.

Tech's Industrial Equipment Group (IEG) has spent 15 years developing a strategic partnership with component supplier FANUC, an international leader in the manufacture of intelligent robotic solutions. In 2009, IEG earned the prestigious integrator status of **Market Specialist** and in early 2014, earned its second stripe (red) as **Certified Service Integrator (CSI)**. In fact, IEG has exceeded FANUC's many rigorous requirements for installation and commissioning, service, training and troubleshooting intelligent robotic solutions. IEG innovation continues to expand robotics to new packaging applications.

FANUC Robotics

In order to offer the most reliable line of packaging and palletizing equipment on the market, **Premier**







Robot palletiser

RPL SERIES



Features and benefits

- Designed to handle a wide range of products
- Selection of grippers (tools):
 - Finger gripper or multiple pick-up gripper for bags
 - Vacuum gripper
 - Boxes/bundles gripper
 - Bucket gripper
- Drum gripper
- Secure robotic cell (fencing and light curtains)
- Versatility in layout configuration:
 - Multiple pick-up positions
 - Multiple stack positions
 - Pick-up pallet position
 - Pick-up sheet (paper, PE)
 - Reject bags (metal, weight)Depalletising
- Automatic pattern configurator (boxes/bundles)
- Gripper (tool) to handle bags and boxes at the same time
- Minimised footprint
- Production rates up to 1800 units/hour

High-level turner head palletiser

HPL SERIES



Features and benefits

- Designed specifically for bags
- Single bag turner
- Layer is pushed from 4 sides
- Pallet elevator to firmly compress top pallet layer
- Possibility to create a gap between the row of bags by the sliding doors
- Production rates up to 2800 bags/hour
- Higher production rates for cement bags, up to 4500 bags/hour.

Option

4 sides enclosed chamber to ensure perfectly straight and square pallet shape to avoid exceeds of load size versus pallet size





High-level gripper head palletiser (compact palletiser)

CPL SERIES



Features and benefits

- Designed to handle bags
- Single or multiple-pick up bag gripper for fast operation
- Palletising with or without bag overlap
- Layer is pushed from 4 sides
- Pallet elevator to firmly compress top pallet layer
- Production rates for multi bag pick-up, max. 2400 bags/hour. Production rates for single bag pick-up, max. 1200 bags/hour
- Minimised footprint

Low level gripper head (gantry palletiser)

GPL SERIES



- Designed for bags and boxes
- Palletising with or without bag overlap
- Press plate integrated into gripper head
- Manual or fully automatic pallet handling
- Designed for lower production rates
- Production rates up to 450 bags/hour
- Minimised footprint

Load securing systems

As a full line supplier **Premier Tech Chronos** develops and offers reliable and cost-effective pallet load securing systems. Guarantee constant packaging costs and optimum protection against humidity, UV, contamination and danger of cargo shift during transport. In parallel the transparent film offers good quality product presentation. **Premier Tech Chronos** stretch hooders and stretch wrappers are compatible with all common standard industrial pallets. All our equipment is PLC controlled with user-friendly human machine interfaces (HMI), low maintenance requirements and compliance with CE regulations.





Stretch hood system

STRETCH-ALL SERIES



- Designed for bags, boxes, bottles, cans, trays, big bags, octabins, drums and crates
- Robust design
- Water proof packaging
- Load stability to prevent cargo shift
- Low energy consumption
- Up to 3 different type of film rolls
- Production rates up to 100 loads/hour

Stretch wrapper

SW SERIES



- Capacity up to 70 loads/hour
- Fully automatic system designed to apply a stretched film with tension to a pallet load
- Handles all load sizes and weights produced by our palletising systems
- Precise control of the film pre-stretch for reduced film consumption with optimum load stability

Factory acceptance test

At **Premier Tech Chronos** we assemble and configure your entire system at one of our European production sites and then carry out pre-shipment testing. This rigorous system testing validates compliance with the agreed technical parameters and contractual requirements. This also provides the ideal opportunity to train your operators and minimises installation and commissioning time at your plant. Our experienced I&C teams will then install your new system and carry out the final system acceptance testing at your factory.



Customer care

We offer a wide variety of competitively priced genuine spare parts together with maintenance and service programs for our branded products to ensure optimum aftermarket support.

Use our experience to get the most from your production facility – and transform your plant's profitability.

We partner with you from the day you define a need for your weighing and packaging equipment all the way throughout the lifetime of your machinery. Not only are we the manufacturer of your equipment, but we also serve and support hundreds of customers each year.

Up-time and equipment availability are the key words in the modern process plant. In today's marketplace, reliable, quality production ensures companies remain competitive and by reducing downtime, profitability can be improved. Regular maintenance programs and appropriate spare parts holdings allow you to plan servicing work at times that are most convenient for your plant schedules. Having an appropriate **Premier Tech Chronos Customer Care program** in place:

- Helps reduce possible downtime due to unforeseen emergency repairs or having to wait for a key spare part
- Helps avoid extra expenses for emergency breakdowns rushing in specialised technicians can be costly
- Reduces unforeseen costs while you wait to become operational
- Eliminates production bottlenecks and the need to reschedule deliveries

Our main goal is to ensure that you have all the support you need and we strive to ensure you achieve the highest possible Overall Equipment Effectiveness (OEE). As such, we are committed to providing you with the most valuable services in the industry:

- Technical support
- Genuine spare parts
- Preventative maintenance
- Retrofits & upgrades
- Optimisation
- Calibration
- Training
- Extended warranty



Client Services

CUSTOMER CARE SERVICES

Premier Tech Chronos is proud to offer all customers the **WECARE Guarantee**. It is a privilege to serve our clients and we believe it is essential to meet their highest expectations. We have a passionate team that puts the interests of our customers at the heart of daily decisions.

This philosophy reflects what we are and what we want to offer our customers. Our code of conduct reflects our belief that our clients are the reason we exist, and that we must ensure our commitment to the success of their business.

In applying the **WECARE Guarantee**, we aim to meet the highest quality standards, both in our actions and in our attitude toward our clients. With the word "**DRIVER**" as their sum, the following six principles represent the foundation of the **WECARE Guarantee**, which is our entire team's customer culture as well as our commitment to you.

Deliver on your promises Respond and never leave a customer in limbo Impress by delighting our customers Value customers and partners Ease customer experience Respect be courteous and smile











8 Client Services Centers to quickly deliver the right parts anywhere in the world, faster and better.



FREE technical support 24/7, 365 days a year, for LIFE with our multilingual team.



Over **140 field services technicians worldwide** offering services customized to clients' needs.



Training, equipment **modernization and retrofit** to achieve optimal machine efficiencies.



A team of experts helps you fix any problem with our **troubleshooting ticket system** and quick response.



Our courteous and dynamic team always stays at its best for you.

90% satisfaction rate in the 2014 customer satisfaction survey.

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