

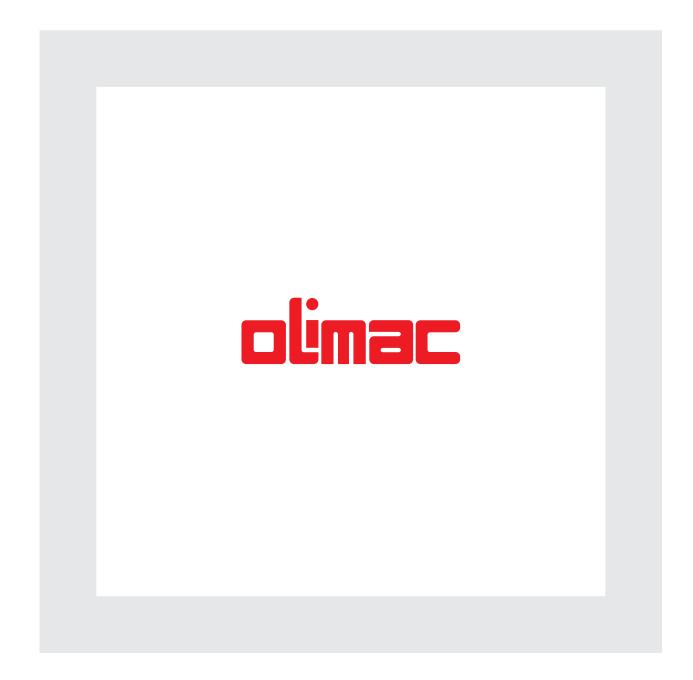
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# A success story started more than sixty years ago.



#### The first corn harvesting machine

More than sixty years ago, at the beginning of the '50, smart Emilio Olivero, from Cuneo, designed and patented a corn harvesting machine called Testata Integrale (Integral Head). The innovative technical solutions and the peculiar amphitheatre shape of the machine, allowed for an optimal supply of the harvester, so to separate the ears from the stalk and shell the corn leaving stalks in windrow on the ground. For the time being that was a sort of revolution: before that moment little corn was cultivated because harvesting it was quite hard.

With the introduction of Olivero's Integral Head corn cultivation became more important and widespread.

#### Farsighted ideas

Maria, Emilio Olivero's daughter, married another man that was able to transform farsighted ideas into tangible realties: Giuseppe Carboni. Together with his wife, Carboni created Olimac and, year after year, introduced increasingly performing corn head machines, firstly on the national market and secondly on the international ones.



#### "Innovate to grow"

Starting from the '80, when Lorenzo and Daniela joined the firm and started running the family company together with their father, the business has seen a further impulse.

In Olimac, the keyword is "innovate to grow". Lorenzo Carboni is the creator of the patented Drago corn head and relevant person for the technological development of the Company.

#### Worldwide leader

Today Olimac is worldwide leader in designing and building corn heads, exporting 98% of its production all over the world. Olimac confirms itself as unique worldwide Company able to completely design and build all the corn head components inside of its own plant. A Company of excellence, in continuous structural and technological expansion, with a production quality which is higher than the average.

The third generation of the Carboni family is already working on new ideas of growth...





#### Looking beyond

In the first part of the 2000s the Carboni family decided to build a new plant, reasoning prospectively and looking beyond: they discarded obvious choices and decided to marry the philosophy of research and big investments, both structural and technological, transforming innovative ideas into concrete reality. The new Olimac plant was unveiled in 2011, resulting from the dedication and passion they have for an entrepreneurial activity that has become a life project. It is a completely robotic industrial and technological complex, unique in the global panorama of the sector.

The plant is in continuous evolution, and new technologies are constantly introduced and applied, fully respecting the Carboni family motto: "innovating to grow".





#### 20,000 m² of hypertechnology

The new Olimac plant is in Piedmont, in the municipality of Margarita, in the province of Cuneo. The plant occupies 20,000 m² of a company-owned area measuring over 90,000 m² and is situated in a strategic position with excellent access to the local motorways.

Communication with the outside world is perfect: there is plenty of space for heavy vehicles, making loading and unloading manoeuvres easy inside and outside the plant.

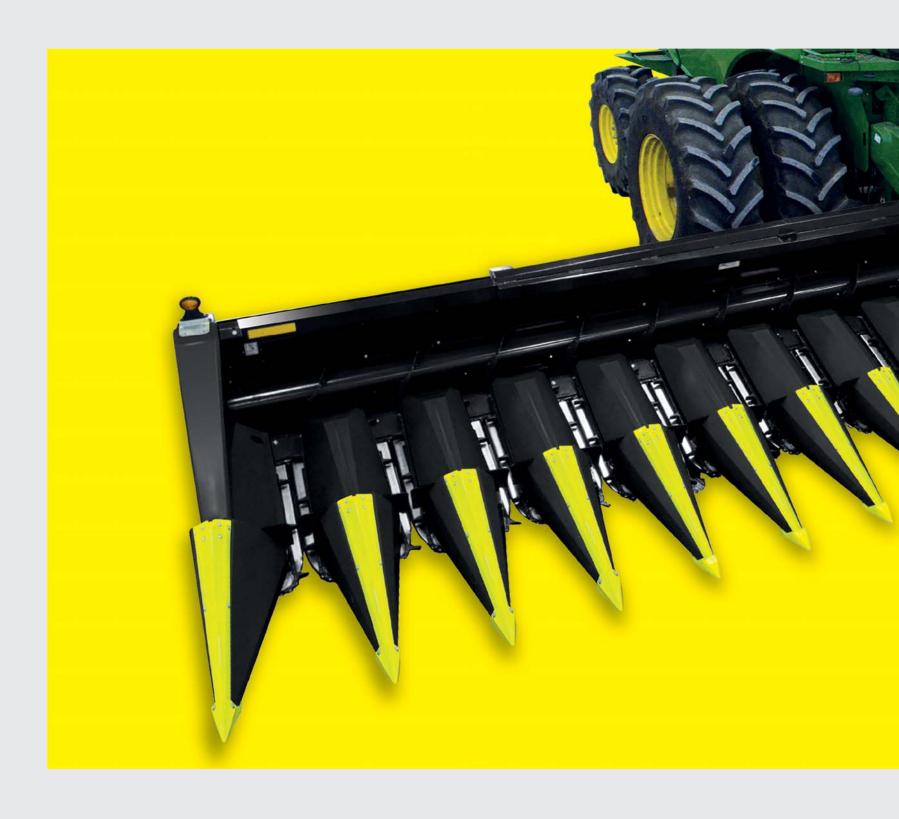














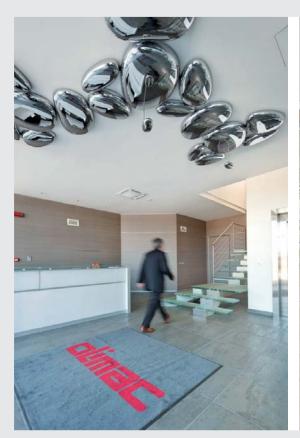
#### All-round designer and builder

Olimac has been designing and building corn and sunflower harvesting machinery for over sixty years. This particularity, which is unique in the world, has enabled the company to concentrate on research and continuous technological innovations: the result is a series of Drago corn and sunflower heads, a concentrate of geniality and high technology, equipped with outstanding performance and quality: perfect husking, complete harvest without waste, exceptional working speed.









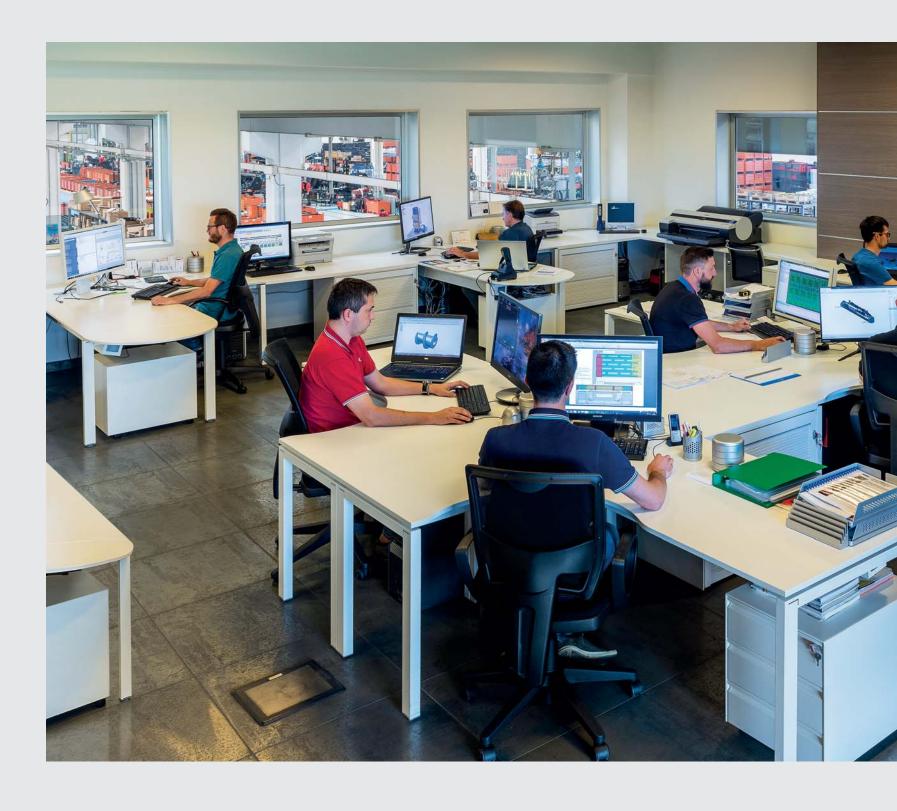


#### Rationality and design in the offices

Olimac's managerial, administrative and commercial headquarters occupy two floors in over 1,000 square metres of office space. Natural light floods into the rationally and perfectly designed premises through big windows.

The most innovative telephone communication and data transmission technologies are used both for internal and external connections.







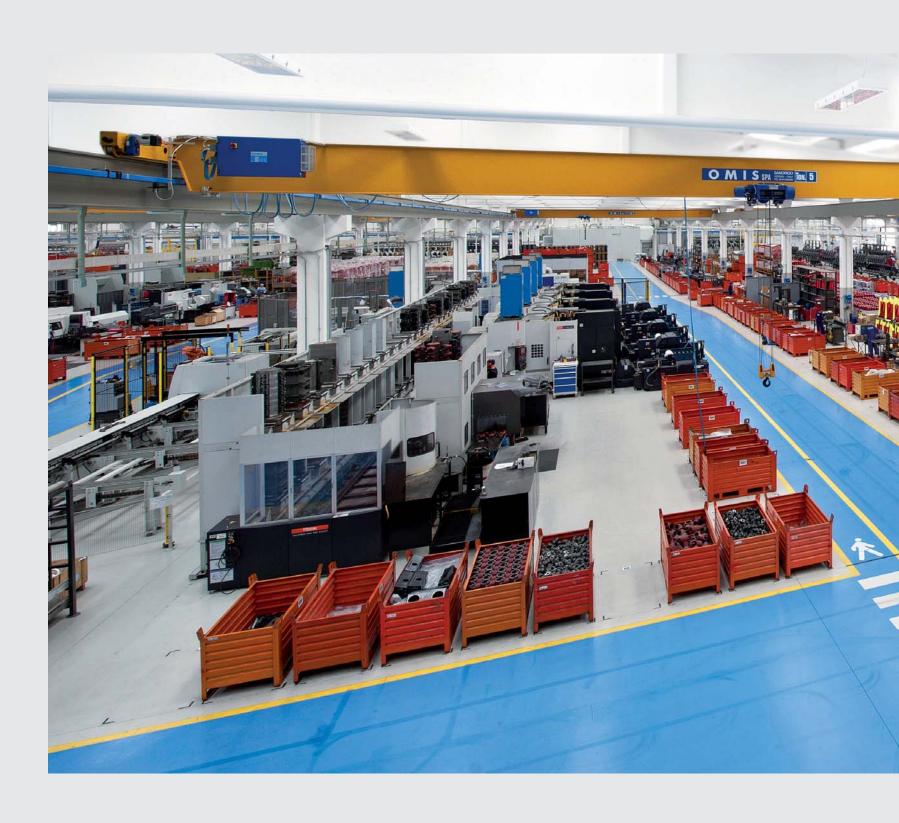


#### Research and Design

The strength of Olimac is the sum of its human and technological resources: the symbiosis between these resources reaches its peak in the Research and Design department, the real propelling nucleus of the whole of Olimac's activity. The department is manned by brilliant researchers and designers and equipped with one of the world's most advanced CAD-CAM systems.

The technology designed and all the production processes are transmitted by the IT network to the machine tools: every working phase is completely controlled.







The original layout of the production area is conceived to guarantee the maximum rationalisation of the spaces. The in-line production activity, with the sequence of processing phases, determines extraordinary operating efficiency and a high level of comfort for employees. Three quarters of the energy needed is generated by photovoltaic panels built into the roof of the plant: this means particular respect for the environment thanks to the use of clean and renewable energy.





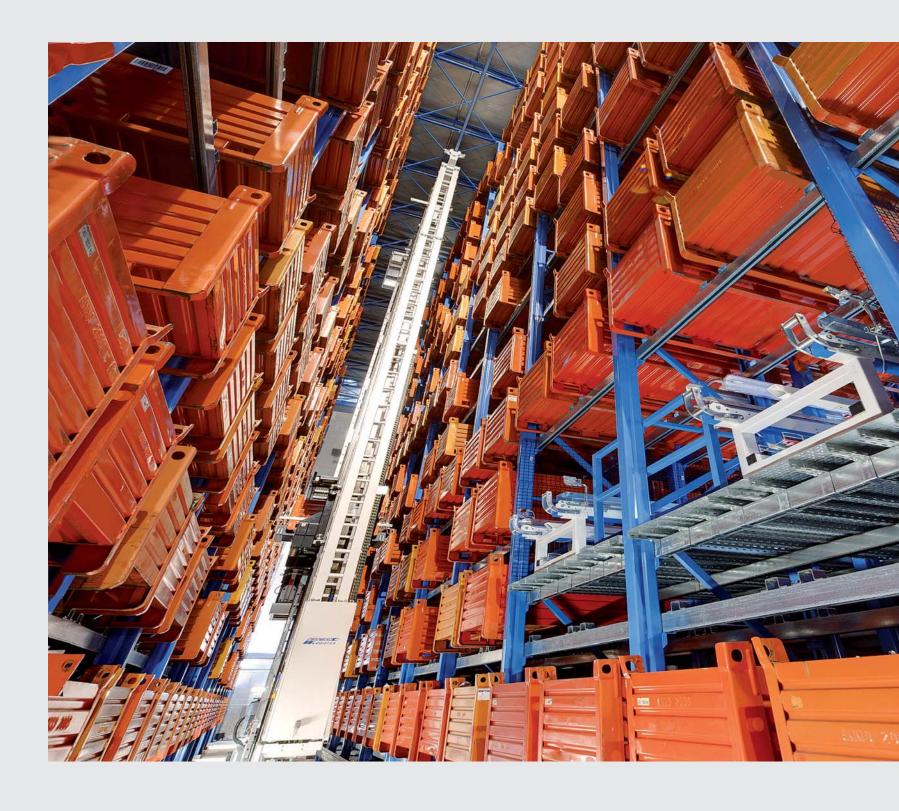
#### **Domotics**

At Olimac, a state-of-the-art domotics system allows the coordinated, integrated and computerised management of technological systems and controls all the plant functions.

The system transforms every switch into an intelligent point of control of the systems: from HVAC to the centralised and automatic control of the lighting, from the centralised and/or automatic control all the doors and the security systems.









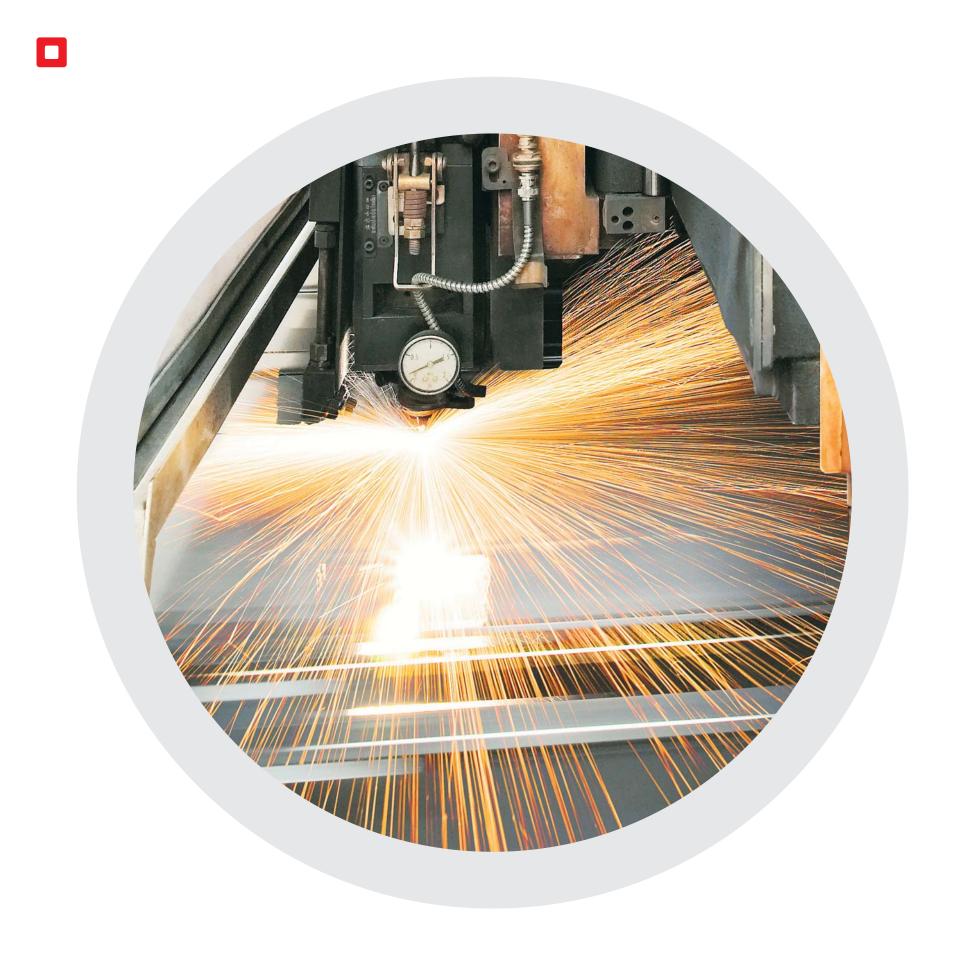
#### Automated warehouses

All materials and components needed for the construction of the corn and sunflower heads are automatically moved by mean of a computerised management system. In the automatic vertical warehouse, the horizontal-vertical lift picks up the material from the shelves and transfers it to the entrance doors: laser guided vehicles pick up the materials and transport them to their destination. The whole operation takes place without human intervention: the operator's only task is to request the materials needed by using a computer.





Automatic horizontal warehouses for small parts.



#### Automated laser cutting

The automated systems for the laser cutting of the metal sheets are completely automatic and operate in a continuous cycle. The metal sheets are never handled by staff during the phases of this process (loading the sheets, cutting, unloading the cut parts). After cutting operations, the parts are automatically selected and stacked on the unloading stations, ready for the next processes. The result: outstanding quality, a strong increase in production, lower product costs.







#### Horizontal working stations

This extraordinary plant, unique in the sector, is composed by eight horizontal working stations along one unique line, with one-hundred servo-pallets. The working stations produce gearboxes and reducers for Drago corn heads. The system consists of loading stations where the rough pieces are positioned. The pieces are automatically inserted into the machines where they are processed.

The system then transports the finished pieces to the unloading station.









#### Cutting department and turning robots

At Olimac, twenty automated turning islands are in operation. The pieces produced are picked up by laser guided vehicles and transferred to the department where they are required.

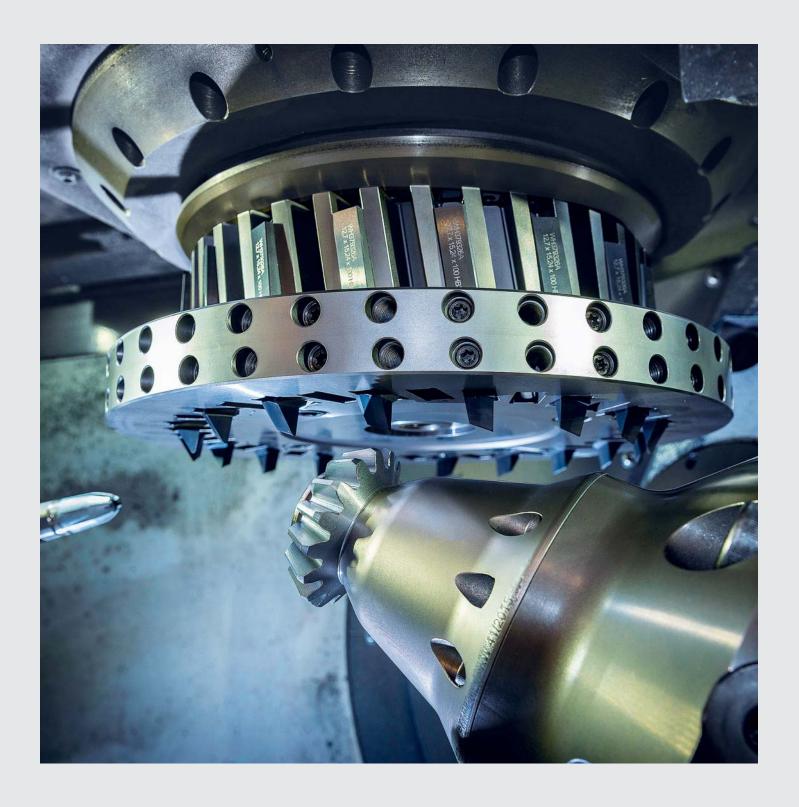










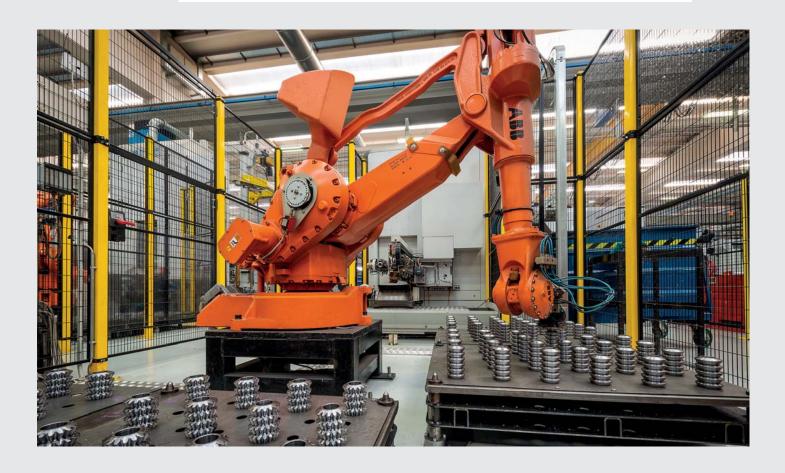






# Total autonomy and automation even in the construction of gears

Gears, like all other parts of the Drago corn heads, are also designed and manufactured in-house using robotic systems. Olimac is the only one in the sector to produce and use spiral bevel gear pairs of automotive origin. This feature allows for superior power transmission compared to the traditional gears used by other brands of corn heads.



## IT IS MAN WHO CREATES, DRIVES



People are our most important resource, we believe in them and we invest in their professional growth and working comfort. More than 150 people work at Olimac every day

### **AND CONTROLS TECHNOLOGY**

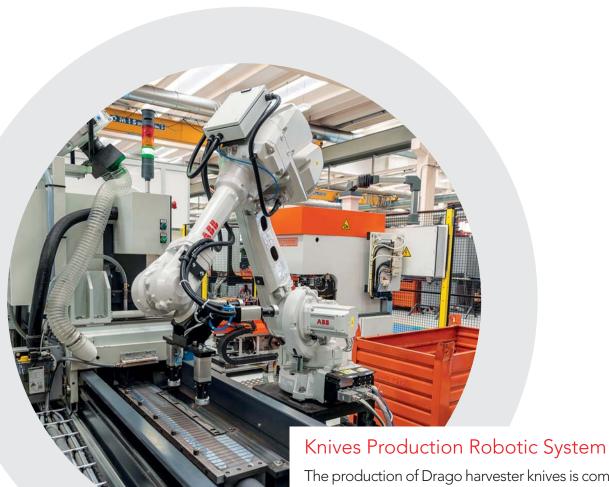


with passion and competence in order to offer Farmers increasingly high-performance machines, and to make the Company grow so to ensure the wellbeing of their families.





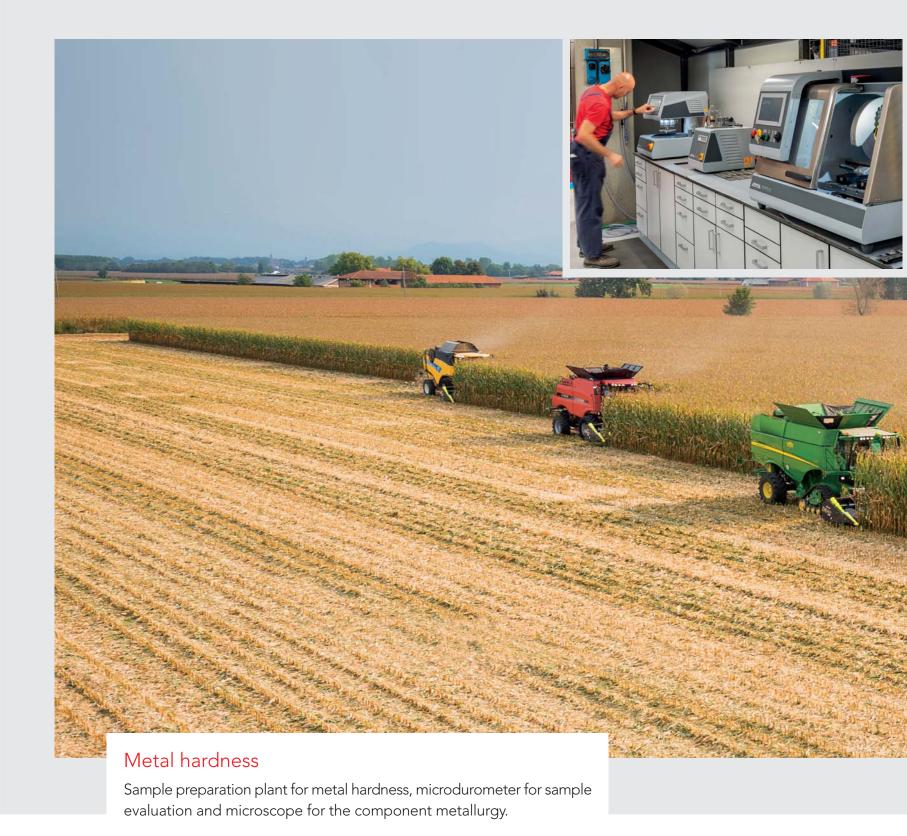




The production of Drago harvester knives is completely robotic and involves the following phases: Metallization, Induction hardening, Straightening, Regrinding.

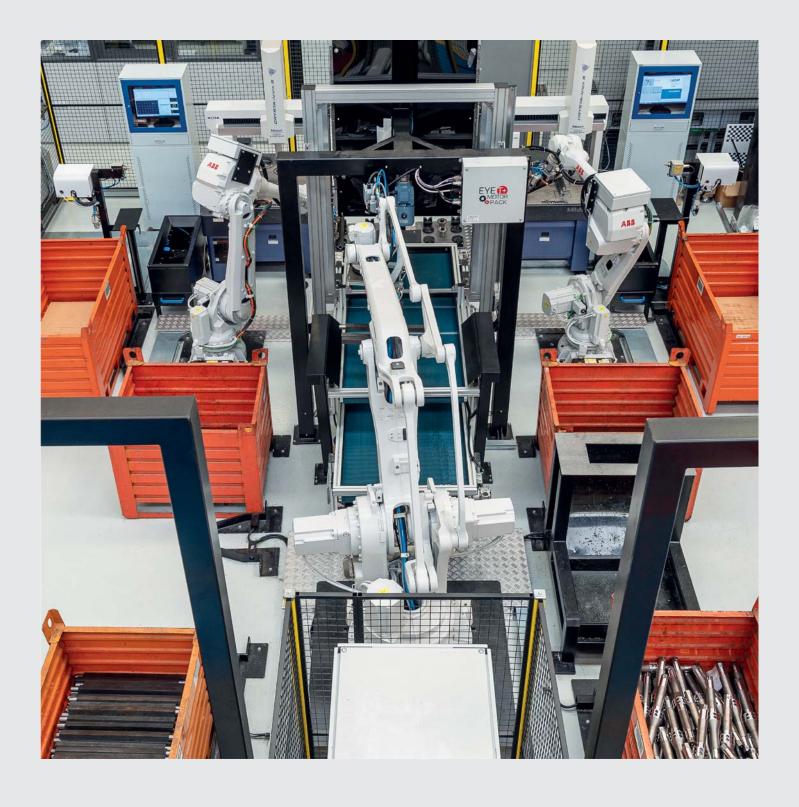












#### Robotic control of components. 100% quality.

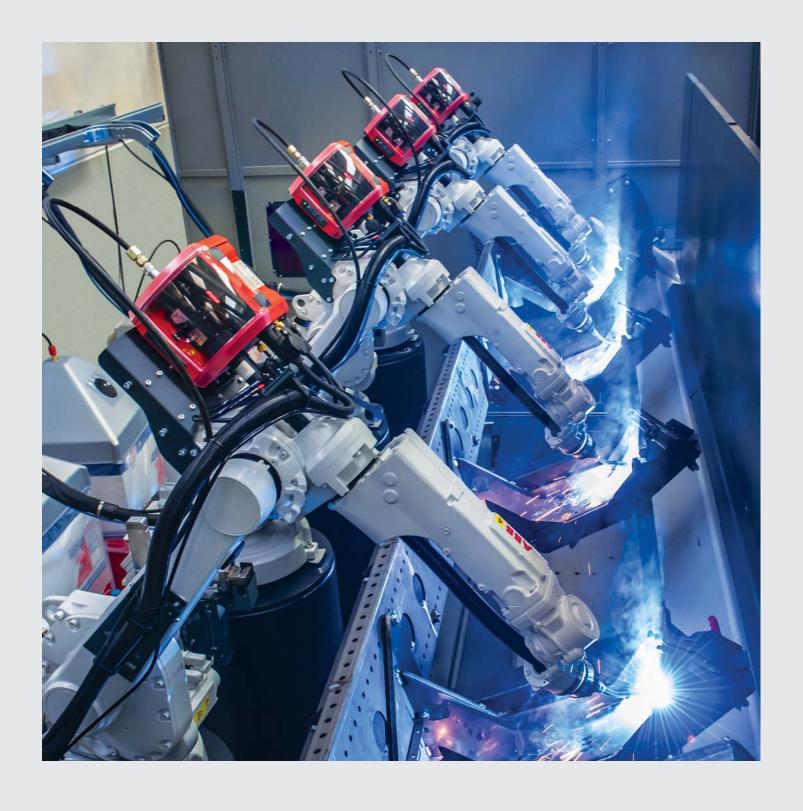
One by one, all the mechanical components that will be mounted on Drago corn heads, are checked by means of sophisticated measuring instruments to verify that the dimensions are the right ones.

The control system, which is unique in the world, is completely robotic and allows obtaining, without any possibility of error, a superior quality and a perfect and long lasting functionality of the corn head.









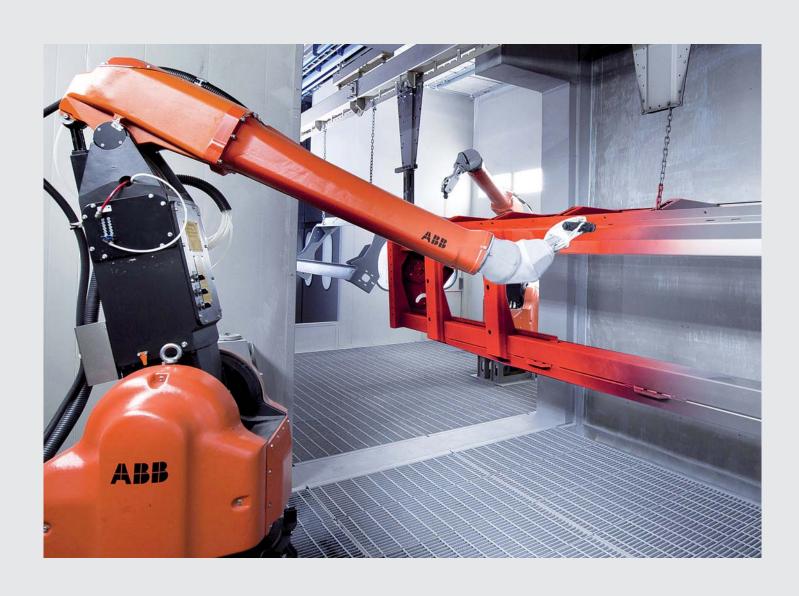
## Robotic welding: absolute quality and precision

Olimac has twelve robotic islands allowing the automatic welding of the chassis and other structures of the corn heads.

Besides, it has introduced an island composed of four twin robots able to weld simultaneously, being the only one in this sector.







The pieces to be painted are hooked to special overhead mobile rails and transported to the various automatic painting stages.

Stage 1 - Shot blasting: eight turbines "fire" iron balls against the piece, cleaning it perfectly and creating a porous surface for complete adhesion of the paint.

Stage 2 - Blowing: to eliminate residues of steel shot. Stage 3 - Primer: the robots spray the piece with ecological water-based primer, to rustproof it.







#### Completely automated painting which last three times longer

Very high quality painting guarantees perfect aesthetics and is fundamental to prevent the formation of rust and guarantee improved duration and efficiency of the corn head. Olimac has made a unique choice in the sector, creating a completely automatic and automated system which guarantees that the paint will last three times longer than average.

The system occupies 2,500 square metres and is longer than a football pitch!





Stage 4 - Primer drying oven.

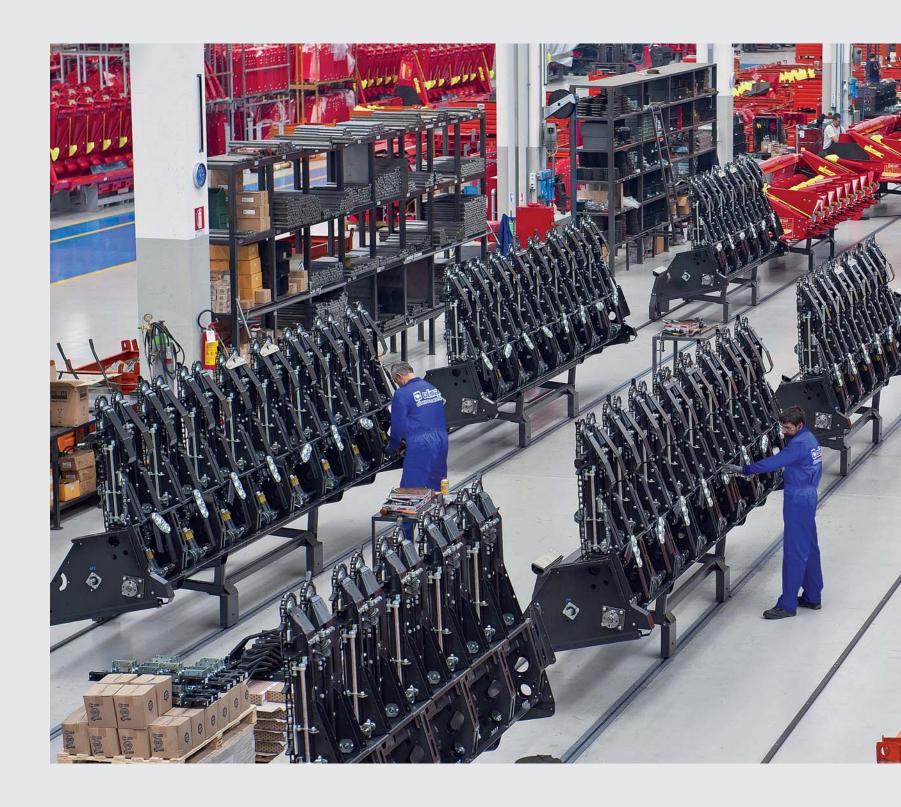
Stage 5 - Enamel: the robots spray the finishing powder onto the piece.

Stage 6 - Baking oven: thanks to a polymerisation process, the finishing powder spreads out and adheres to the piece.

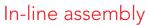
Area for delivery of painted parts.



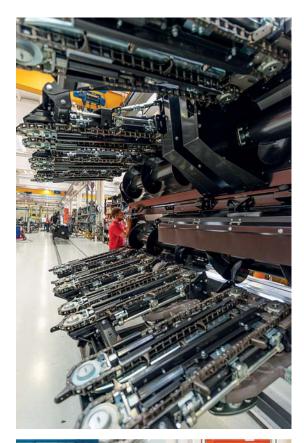








Two assembly lines on rails accelerate and simplify the advancement of the corn heads. The rational sequence of the various assembly phases eliminates wasted time and resources.











## Every Drago corn head is a "unique piece"

Final checks and fine adjustments take place during the final processing phases.

Every Drago, customised to suit Customer requirements, is now ready to be transferred to corn fields all over the world.







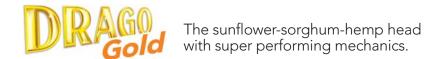
The best of corn heads.







corn head.





### Drago Olimac: high-performance heads.

Drago corn and sunflower heads allow for a more productive and profitable job thanks to this patented technology, which is unique in the world.

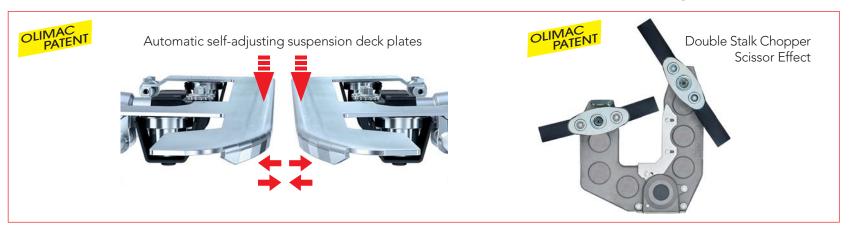








**DragoGT**. The only one in the world equipped with Suspension Deck Plates, which are also Self-adjusting when Opening: total harvesting without losses. Double Stalk Chopper 'Scissor Effect': double stalk shuttering.



The suspension system absorbs the impact of ears on the plates, avoiding product lost and ears bouncing out. The automatic opening of plates continuously and simultaneously adapts according to the different size of the stalks. The automatism works on each row independently. Total harvesting, without losses.

The operator does not need to make any adjustment. Thanks to this double stalk chopper, chopping is much finer and the product decomposes much rapidly.



LONGER STALK ROLLERS FOR A GENTLER SEPARATION OF THE EAR FROM THE PLANT (NO LOSSES)





GEAR BOX IN LIGHT ALLOY: THE WEIGHT OF THE MACHINE IS REDUCED WHILE ITS ROBUST-NESS IS INCREASED WHERE **NEEDED** 



HYPER-DIMENSIONED AUGER: HIGHER FORWARD SPEED, NO OBSTRUCTIONS, NO LOSS OF **KERNELS** 



SPIRAL BEVEL GEAR OF AUTOMOTIVE ORIGIN: TOTAL POWER TRANSMISSION, **LESS NOISE** 



WORKING ANGLE OF ONLY 18°: IT AVOIDS EARS BOUNCING OUT OF THE MACHINE



FOUR CLUTCHES FOR EACH ROW, EACH ONE CALIBRATED FOR A SPECI-FIC MOVEMENT: HIGHER PERFORMAN-**CE AND SAFETY** 



ADJUSTABLE CONNECTIONS: THEY MAINTAIN THE WORKING POSITION ALWAYS AT 18° FOR A COMPLETE HARVESTING WITH-**OUT LOSSES** 



INTERNAL TRANSMISSION WITH CYLINDRICAL GEARS: HIGH-PERFORMANCE ZERO MAINTENANCE









**Drago2**. The only one in the world equipped with automatic self-adjusting deck plates. Complete harvesting without losses.



Longer stalk rollers.



+25%

Deck plates open automatically and simultaneously according to the size of stalks. The automatism works independently on each row. No operator's intervention is needed.

The stalk rollers are longer, they have a lower peripheral rotating speed allowing a gentler separation of the ear from the plant. Advantages: total harvesting without losses, perfect pressure of the stalk, higher productivity.



LOW PROFILE CONSTRUCTION AND LATERAL AUGERS FOR HARVESTING LOW-LYING AND HANGING CORNS



WORKING ANGLE OF ONLY 18° IT AVOIDS EARS FROM BOUNCING OUT OF THE MACHINE



DRAGO 2 PERFECTLY SEPARATES THE EAR FROM THE STALK: THE PRODUCT IS BEAUTIFUL AND CLEAN



THREE TYPES OF TRANS-MISSION FOR EACH WOR-KING CONDITION



EASY AND QUICK MAINTENANCE WITH ASSISTED ACCESS TO THE ELEMENTS OF THE TRANSMISSION



BUILT-IN STALK CHOPPER WITH ROTARY BLADES



FOLDABLE FROM THE OPERATOR'S PLATFORM. REDUCED DIMENSION OF 3-3,2 M. TOTAL VISIBILITY ON THE ROAD



FROM 4 TO 24 FIXED OR FOLDABLE ROWS



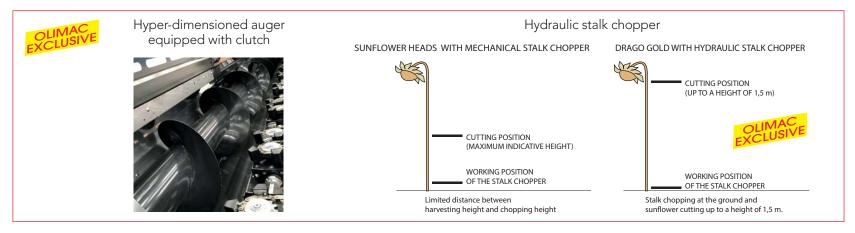








**Drago Gold**. The first sunflower-sorghum-hemp head with super performing mechanics. More power, more robustness, total harvesting without losses.



A special system made of two opposite disks allows a high cutting speed without vibrations, no loss of seeds. An hyperdimensioned auger allows a higher forward speed avoiding loss of product. Drago Gold is equipped with an hydraulic stalk chopper which allows to cut the stalk at the ground while harvesting the sunflower up to a height of 1,5 m: this way only the head of the flower is harvested without stem, the combine harvester works nimbly and the work is done faster.



GATHERING CHAINS WITH A SYSTEM THAT PREVENTS LOOSING PRODUCT



SPECIAL HIGH SPEED AND NO VIBRATION CUTTING SYSTEM (NO SEEDS LOST)



TANK BONNETS: THEY CAN HARVEST FALLING PRODUCT



THE ONLY ONE IN THE WORLD WITH TWO CLUTCHES FOR EACH ROW PREVENTING OVERLOADS



ADJUSTABLE CONNECTIONS ABLE TO MAINTAIN THE MOST PERFORMING WOR-KING POSITION



OIL-BATHED EXTERNAL TRANSMISSION. HIGH PERFORMANCE. ZERO MAINTENANCE



ANTI-FALL PROTECTION REAR GRID



THE MAIN DRIVE SHAFT ASSEMBLED BOTH ON THE UPPER AND LOWER POSITION ALLOWS IT TO ADAPT TO ALL TYPE OF COMBINE-HARVESTER















Premio Ricerca e Innovazione al sig. Giuseppe Carboni, fondatore della Olimac.







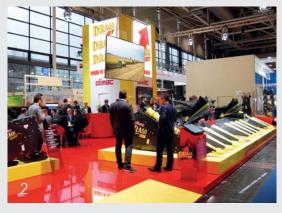
#### **Awards**

1 Fieragricola Verona, Technical Innovation Award for DragoGT 2 Fiera Meccanizzazione Agricola Savigliano, Technical Innovation Award for DragoGT - 3 EIMA Bologna, Technical Innovation Award for DragoGT 4 Confindustria Cuneo, Research and Innovation Award to Mr. Giuseppe Carboni - 5 FIMA Saragozza, Technical Innovation Award for DragoGT 6 Price Digests Atlanta, Drago2 was awarded for maintaining the highest original value. - 7 EIMA Bologna, Technical Innovation Award for Drago Gold.

#### Trade fairs

Olimac takes part to all the most important international trade fairs of the agricultural mechanization sector, like Agritechnica Hannover (1-2) - SIMA Paris (3) - EIMA Bologna (4)









#### Marketing and Communication

Olimac develops a wide activity of Marketing and Communication at international level: advertising campaigns on the most important magazines of the sector, movies and videos, illustrative brochures and leaflets for the products, activities and social media campaigns, sponsorships, promotional events and activities aimed at involving farmers and subcontractors all over the world.

































# Looking beyond



The philosophy is that of doing research and big structural and technological investments to design and build inimitable machines.















#### In all the corn and sunflower fields of the world

Olimac is the Italian industry world leader in designing and building corn and sunflower-sorghum-hemp heads.







### olimac



