

Biesse  
Machinery

# Product Portfolio



# Product Portfolio



Founded in Italy in 1969  
International natives

We simplify your  
manufacturing  
to make the production  
of any material

# Your ing process potential al shine

We are an international company that manufactures lines, machinery and components for making products, enhancing the potential of a wide range of materials.

Thanks to our rooted competence nurtured by an ever-growing worldwide network, we support your business evolution - empowering your imagination.

**Master of materials**

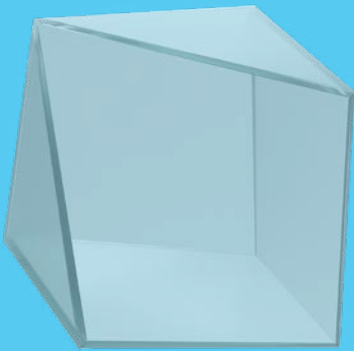
Entra nel  
mondo Biesse.

[biesse.com](http://biesse.com)



# Glass

We manufacture glass processing machines for the furniture, construction and automotive industries.



Discover  
all our machines  
for glass



[biesse.com](https://www.biesse.com)

# Intermac

Machines

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# Forvet

Extended Machines

Identify in a few words  
the most suitable machine  
for your needs from  
our product portfolio.

## Machining type

**Cut**

Cutting

**Edge**

Edging

**Drill**

Drilling

**Multi**

Multi-machining

## Segment

**Pro**

Distinctiveness and performance

**Up**

Agility and expertise

**Go**

Simplicity and compactness

# Intermac

Intermac is a pioneer in the world of glass processing.

It is a comprehensive range of stand-alone machines, designed to work in perfect synergy with the operator, where human skill and experience is combined and enhanced, thanks to the coordinated and efficient management of each machining phase.

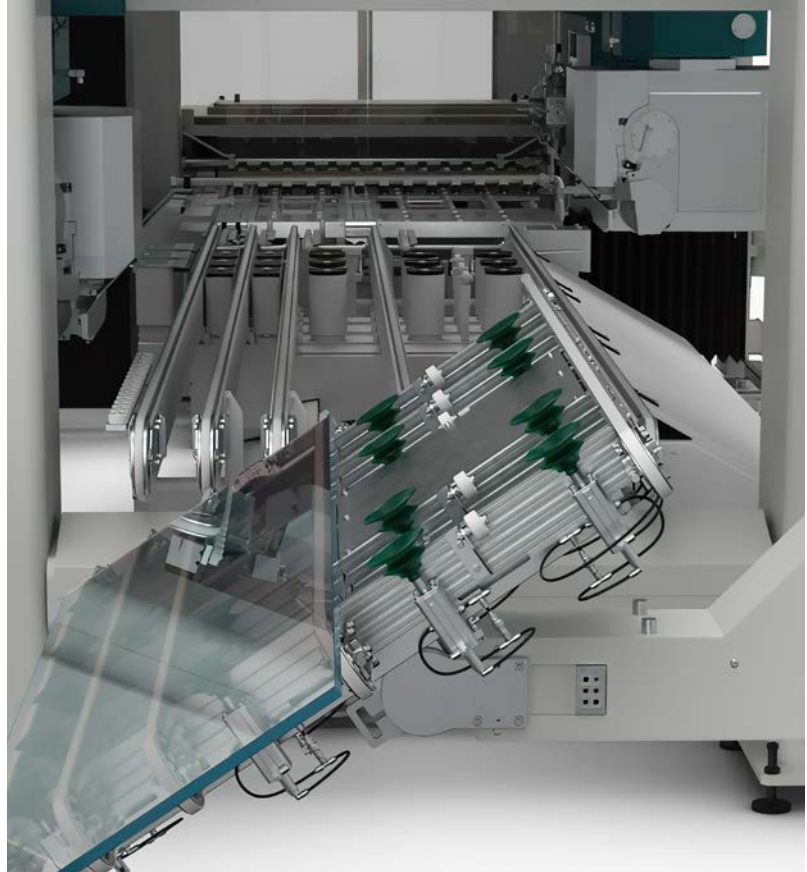
Intuitiveness, simplicity and flexibility are the foundations upon which the entire process is built.



# Forvet

Forvet is a leader  
in the world of automatic  
machines for glass  
processing.

These machines feature  
integrated automation,  
designed to offer a  
high level of autonomy  
during processing whilst  
minimising operator  
intervention.



# Machining Types

A machining operation  
for every requirement



Cut

## Cutting

Range of cutting tables  
and water jet solutions for  
cutting float and laminated  
glass



Edge

## Edging

Range of solutions for  
grinding and polishing  
glass.



Drill

## Drilling

Range of solutions for  
boring, countersinking and  
milling glass.

The machining types represent the different kinds of machining operation, and define the specific end purpose or application of an operation.



## Multi-machining

Range of machining centres for carrying out different types of boring, grinding, polishing, scoring and countersink operations on glass.

# Segment

Your needs,  
our skill

Your daily challenges feed our experience, as they enable us to get to know your requirements, your production dynamics and your spaces.

In order to respond to your needs, we have designed a portfolio of products to guide you in the most appropriate choice.



## Distinctiveness and performance

Pro represents excellence in terms of performance, designed for customers who wish to distinguish themselves with the latest-generation solutions that they choose.



## Agility and competence

The perfect choice for managing custom production requirements. The Up solutions combine advanced flexibility and functionality, guaranteeing efficient responses to constantly-evolving production challenges.



## Simplicity and compactness

The Go solutions are designed for those looking for compact, easy-to-install machines that are simple to use. Ideal for those looking for a practical, immediate approach.

# Drilling

Range of solutions for boring, countersinking and milling glass.



Drill

Discover  
all our drilling  
machines

[biesse.com](https://biesse.com)



## Boring

Product Brand	Model	Segment
Intermac	Intermac Drill Pro B H	Pro
	Intermac Drill Up B H	Up
	Intermac Drill Go B V	Go

## Waterjet

Product Brand	Model	Segment
Intermac	Intermac Drill Pro J H	Pro

Boring

# Intermac

## Intermac Drill Up B H



### Automatic Multi spindle heads

Thanks to opposed multi spindles and a wide range of tools, Intermac Drill Up B H performs all machining operations without manual intervention or reworking.

### True batch-one production

With automated glass handling optimization, productivity is unaffected by variations in glass size, thickness and position of the machining operations.

### No vibration

Intermac Drill Up B H is precisely engineered to ensure durability through extended work shifts and absolute rigidity for a vibration-free processing quality.

### Any kind of hardware

Intermac Drill Up B H can perform various machining operations and thanks to its extensive tool selection, all required machining processes are completed seamlessly, with no need for manual intervention or additional rework.

## Sprinting toward perfection

Intermac Drill Up B H are glass working NC drilling centres capable of performing drilling, countersinking and milling operations on flat glass sheets, including “out of square” pieces.

### Guaranteed response: Remote Assistance you can rely on

Remote assistance packages ensure fast technical response times and seamless. Machine Connectivity services to keep your operations running smoothly.



### Glass handling system

A patented, advanced dynamic vacuum belt system securely holds the glass, ensuring optimal finishing for all machining operations, even on low-E glass.

### Compact and flexible

A compact, safe and flexible machine, with automatic handling capability that can be integrated in line, in example with a washing machine, to avoid additional handling and streamline the production flow.

### User friendly human machine interface

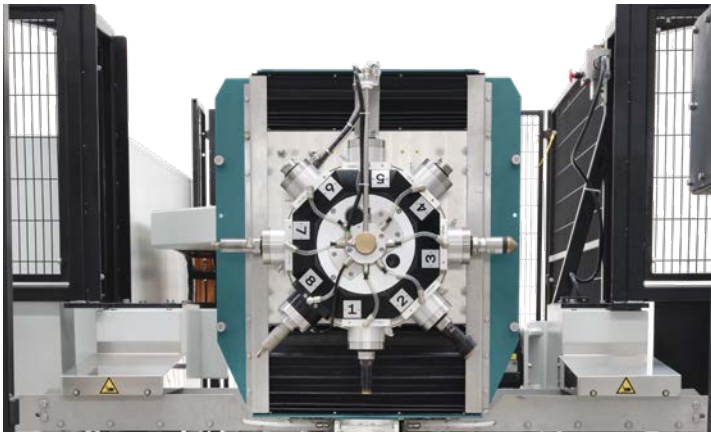
The advanced human machine interface software, specifically developed for flat glass processing, includes an easy-to-use CAD-CAM programming tool with a complete catalogue of common geometries and, thanks to its networking features, the machine can be easily integrated into a line configuration and interfaced with supervisor software.

Up

# No vibration

The horizontal machines feature a structure designed to minimize vibrations, resulting in higher-quality output. Intermac Drill Up B H is no exception, with its precisely engineered build ensuring durability through extended work shifts and absolute rigidity for top-tier processing quality. Additionally, since the glass is evenly supported across its full width and the transport system is integrated into the machine structure, the work surface remains perfectly aligned, delivering consistent quality.





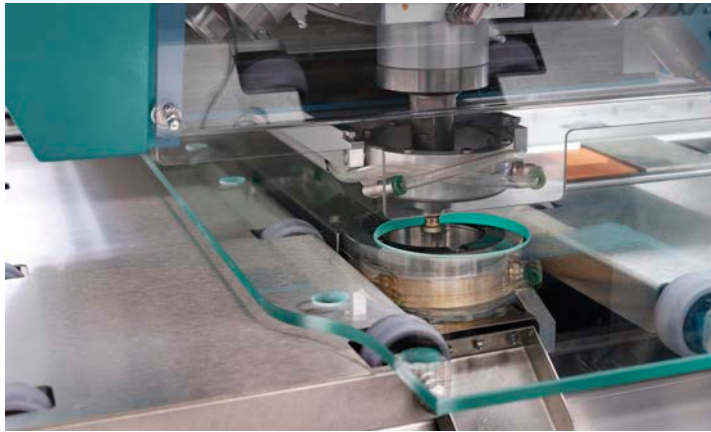
## Automatic Multi spindle heads

Comprising the two opposing multiple-spindle heads, each carrying eight spindles, the machine can perform all machining operations automatically, with no need for manual intervention or reworking. The machine can be equipped with Super Spindles as optional, specifically designed for high-speed milling up to 12.000 RPM, enabling faster cycle times, extended spindle lifespan, and enhanced finishing quality. The water system provides clean cooling water for both spindles and tools, while the machine's rapid tool change ensures fast, consistent, high-quality processing.



## True batch-one production

With automated optimization of glass handling, productivity remains consistent regardless of variations in glass size, thickness, or machining operation positions. The machine is capable of processing any glass shape with at least one straight edge, accommodating both small and large sizes. As a true batch-one system, it offers zero setup time, automatically adjusting to different glass pieces, even when each one is unique thus maintaining a constant production flow.



## Any kind of hardware

Intermac Drill Up B H performs a range of machining operations, including drilling, milling and countersinking, with unique speed and flexibility. Its multi-spindle technology ensures rapid tool changes and the combined cutting cycles enable a quick processing, even on irregular geometric shapes. With a wide array of tools readily available onboard, the machine performs all operations required to process glass without manual intervention or rework.



## Compact and flexible

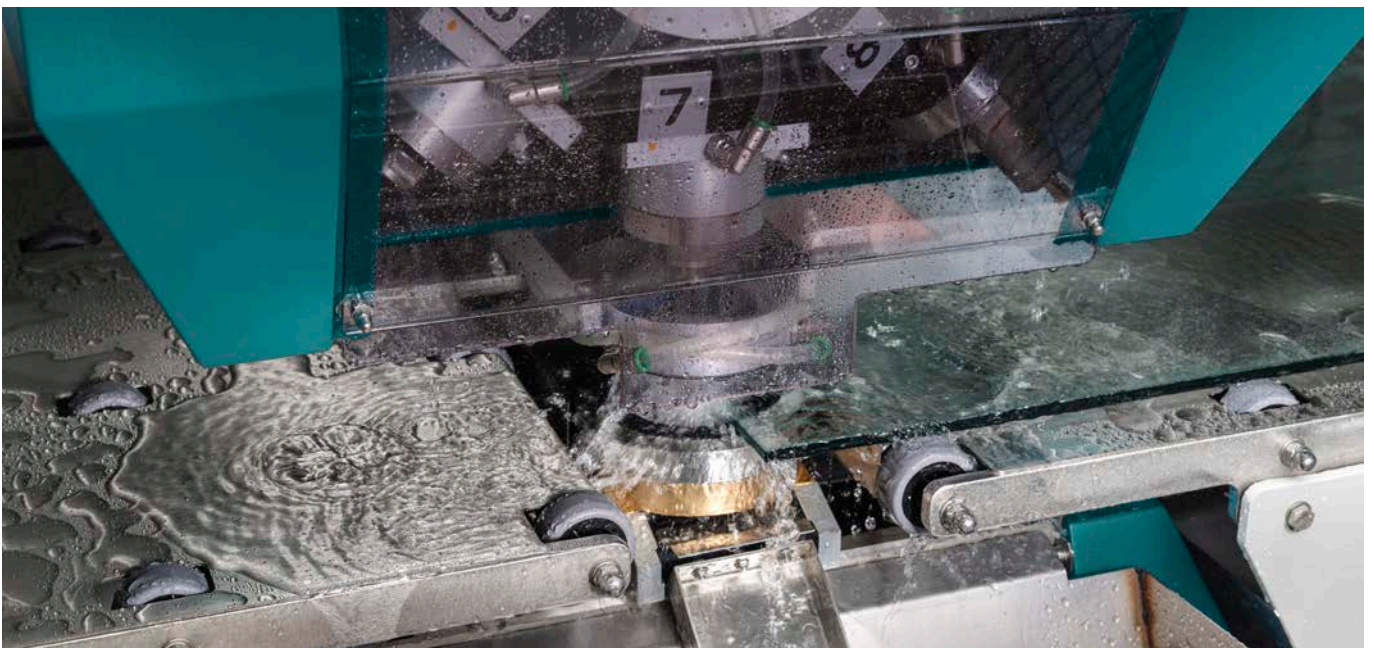
Intermac Drill Up B H requires minimal floor space, making it suitable for installation in compact areas. It can also be linked to a washing machine, making it a complete workflow solution. Safety features, including an enclosure within a microswitch-controlled metal fence, laser scanners and intelligent glass processing control, ensure safe operator interaction by preventing collisions during machining operations, while providing an ergonomic environment for setup and maintenance.



## Drilling and countersinking

Drilling is performed by two opposed, multi-spindle drilling head. The hole is drilled for  $\frac{1}{3}$  of the depth with the lower spindle, and for  $\frac{2}{3}$  of the depth by the upper spindle, granting a cleaner job and a faster execution time.

Countersinking operations, if requested by the program, are executed in fully automatic cycle without manual operation and performed with both machine's heads.

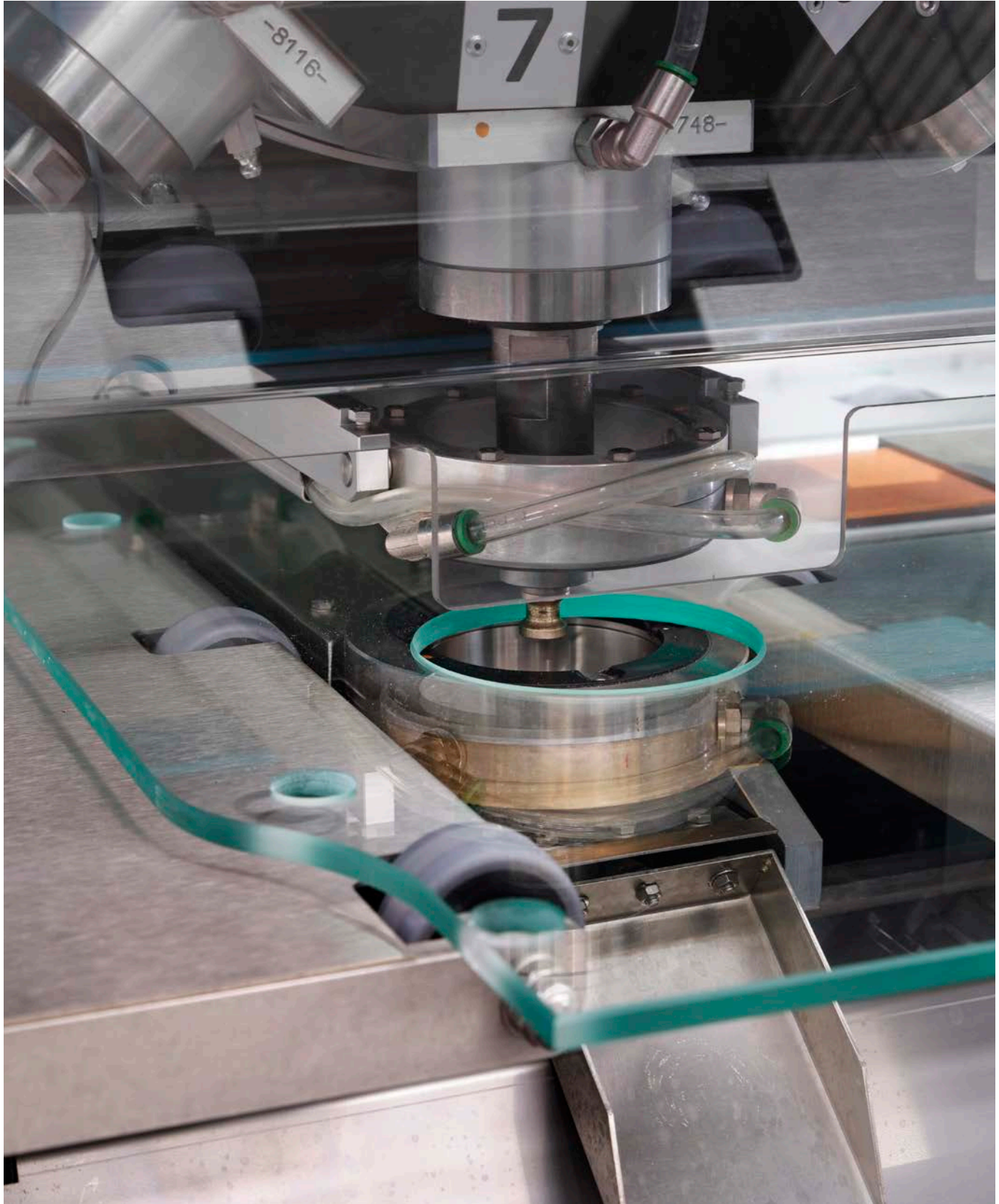


## Milling

The machine can process various shapes of glass in thicknesses from 3 to 25 mm at speeds up to 15.000 rpm thanks to the Super Spindle, while maintaining vibration-free operation to ensure a flawless finish quality.

## Finishing

After rough milling, finishing operation is performed with a trapezoidal tool which removes any sharp cutting edges.



Up

Boring

# Intermac

## Intermac Drill Go BV



### Compact footprint and versatility

A single station for multiple tasks.

### Powerful core elements

2 spindles for drilling on both sides at once for an extremely clean drill.

### Double tool storage

Speed, precision, and productivity in perfect harmony, all made possible by the 8-position rack on each workhead.

### Fast and precise

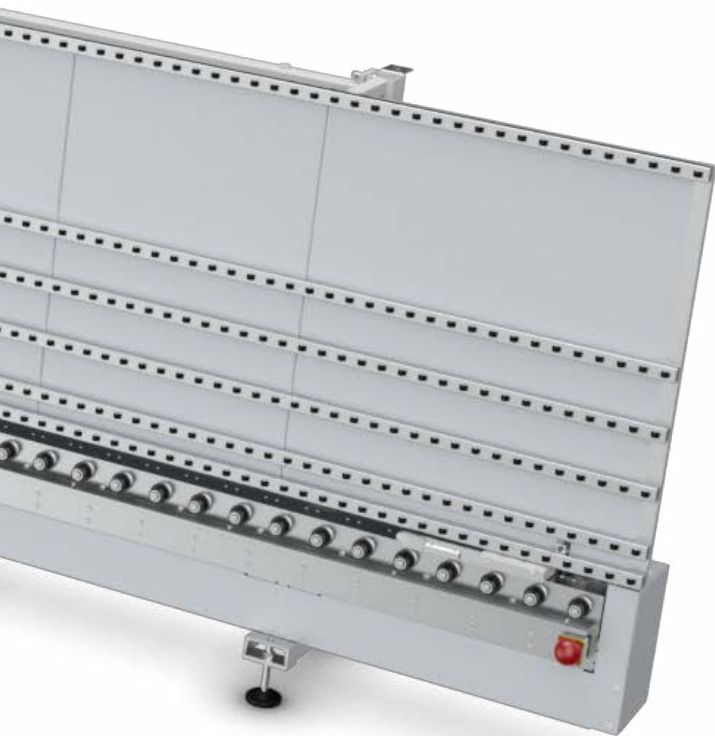
Sliders on guides and motors for unmatched precision, smoothness, and efficiency.

## Fast, accurate and user-friendly

Specifically designed for glass door manufacturers, this machine effortlessly processes all types of notches and holes, making it ideal for producing balustrades, guardrails, and shower enclosures. Starting with perimeter-processed glass, it delivers a flawless, high-quality finished product.

### Guaranteed response: Remote Assistance you can rely on

Remote assistance packages ensure fast technical response times and seamless. Machine Connectivity services to keep your operations running smoothly.



### Glass securely hold in place

Precise, vibration-free glass handling technology.

### Effortless Programming, Seamless Connectivity, Maximum Production Efficiency

The interface is extremely easy and intuitive, making operations simple and fast.

### Make the parallelograms at work

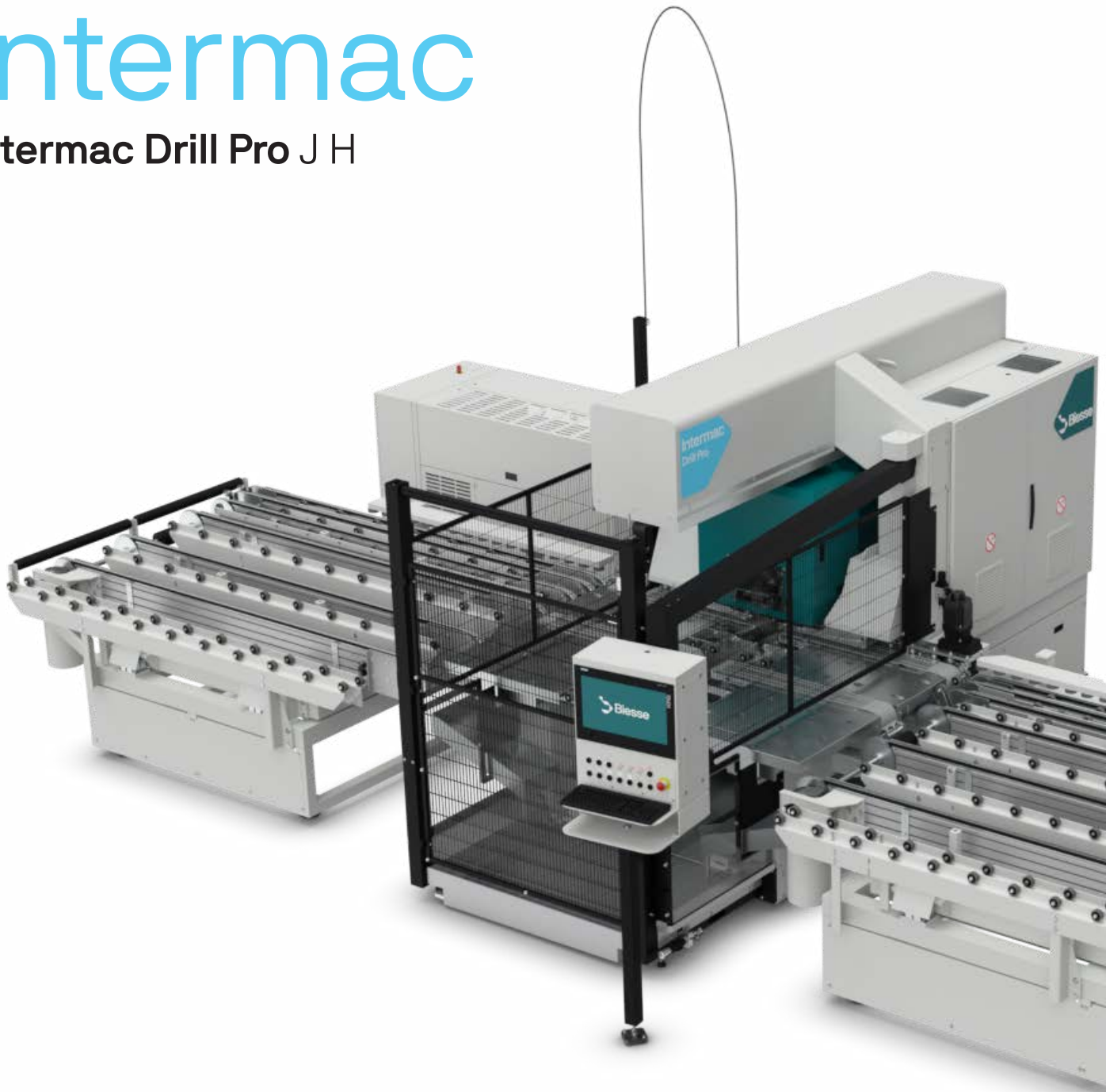
Flawless hole and notch creation with easy programming.

Go

Waterjet

# Intermac

## Intermac Drill Pro J H



### Spin faster, finish better

Its advanced opposed multi-spindle design with waterjet functionality and extensive tool range, enables Intermac Drill Pro J H to automate all machining processes, ensuring flawless results without manual intervention.

### Precision flow

With its hybrid waterjet and tool system, the machine provides a versatile approach to glass processing, optimizing productivity and operational flexibility.

### Zero setup, infinite potential

The automated glass handling system guarantees consistent performance, even when dealing with diverse glass sizes, thicknesses, and machining operation positions.

## Fluid production

**Intermac Drill Pro J H is a high-performance NC drilling center, designed for flat glass sheets, including irregularly shaped pieces.**

It handles drilling, countersinking, milling, and waterjet cutting with precision and flexibility.

With two pairs of heads and a double working station, it can process two glass pieces simultaneously, dramatically increasing production capacity while maintaining exceptional quality.

### Guaranteed response: Remote Assistance you can rely on

Remote assistance packages ensure fast technical response times and seamless. Machine Connectivity services to keep your operations running smoothly.



### A wide range of glass shapes

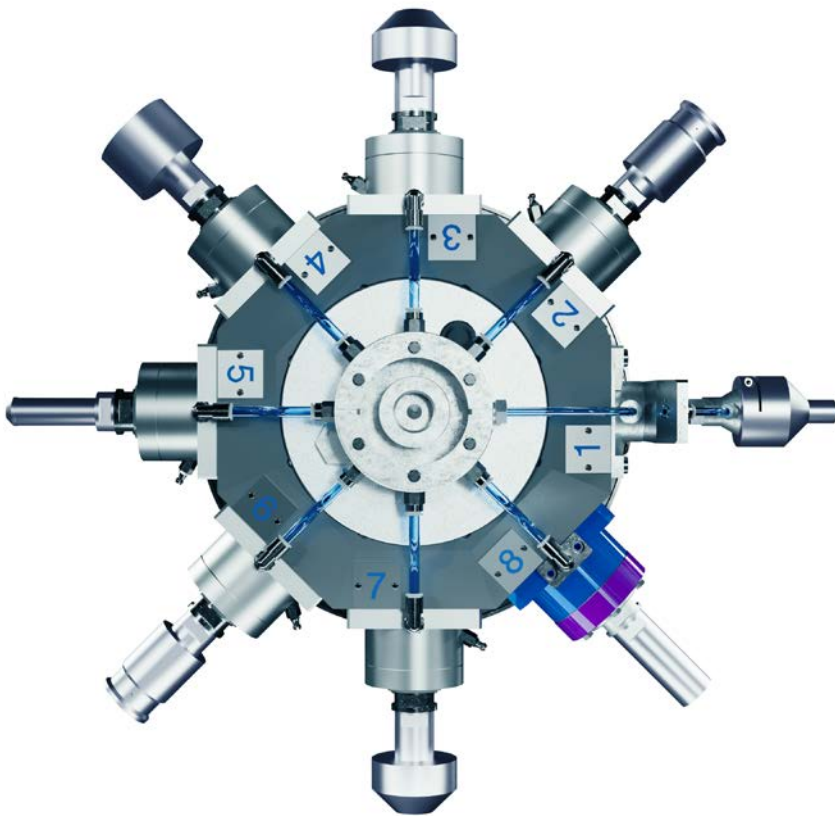
With its versatile tool selection and waterjet system, Intermac Drill Pro J H executes multiple machining operations effortlessly, delivering precise results without requiring manual adjustments or additional rework.

### Hold Tight, move right

With its double processing station and patented dynamic vacuum belt system, the machine holds glass securely, doubling productivity while delivering optimal finishing for all machining tasks, including low-E glass processing.

### Integrated, safe, productive

Offering compactness, safety, and flexibility, this machine with automatic handling capabilities can be integrated directly into a production line to reduce handling time and simplify the production workflow.



## Spin faster, finish better.

Featuring four multi-spindle heads with eight spindles on the bottom and seven spindles plus a waterjet system on the top, the machine ensures fully automated processing, eliminating the need for manual adjustments or rework.

The high-rotation Super Spindles, optimized for speeds of up to 12,000 RPM, deliver faster cycle times, extended spindle life, and high finishing quality. A dedicated water system provides clean cooling to spindles and tools, while the rapid tool-change mechanism guarantees seamless, precise production.



## Precision flow

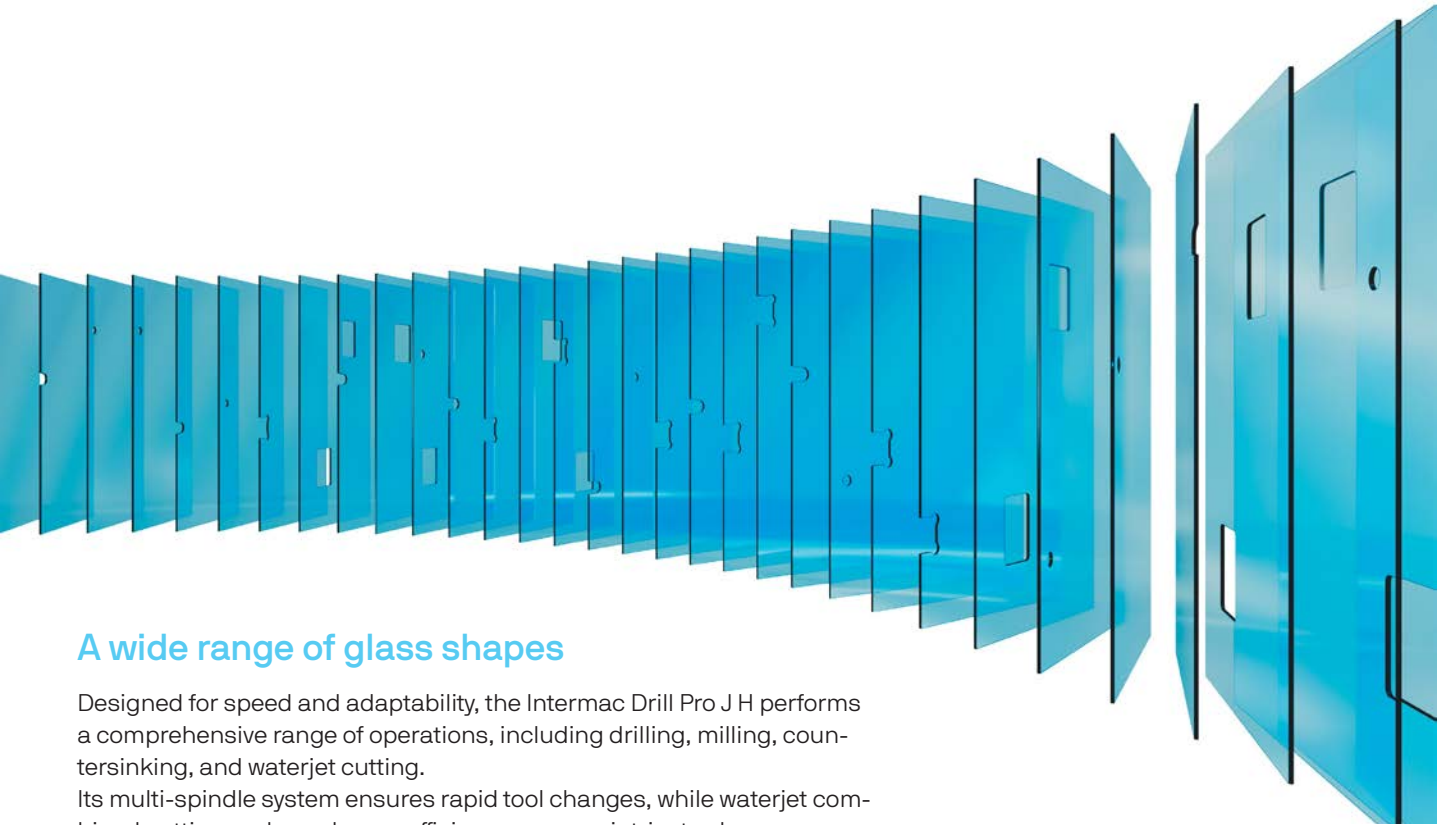
Thanks to the integration of combined waterjet and tool cycles, the machine significantly enhances productivity and flexibility.

For shaped hardware geometries and notches, the cutting phase is executed by a fast and precise waterjet system, seamlessly followed by a classic tool system for finishing operations. In drilling tasks, where tools outperform waterjet systems, the opposed-head system ensures flawless boring and countersinking in a single operation.



## Zero setup, infinite potential

The machine's automated glass handling optimization guarantees steady productivity, regardless of variations in size, thickness, or machining positions. It can handle any glass shape with at least one straight edge, processing both small and large formats. Designed as a batch-one system, it offers zero setup time, seamlessly adapting to unique glass pieces to sustain a continuous production flow.



## A wide range of glass shapes

Designed for speed and adaptability, the Intermac Drill Pro J H performs a comprehensive range of operations, including drilling, milling, countersinking, and waterjet cutting.

Its multi-spindle system ensures rapid tool changes, while waterjet combined cutting cycles enhance efficiency, even on intricate shapes.

With its extensive onboard tool selection, the machine delivers seamless glass processing without manual intervention or reworking.



## Hold Tight, move right

The patented advanced dynamic vacuum belt system securely holds and moves glass with precise, repeatable positioning during transport and processing. By holding the glass from one side, the system enables seamless processing of low-E and coated glass. The belts are divided into sectors to enhance vacuum efficiency and are automatically activated based on the glass shape and machining position, maximizing holding power and ensuring superior finishing. The double processing station, paired with two sets of opposed heads, allows for simultaneous machining of two parts or effectively distributes the workload when processing oversized components.

# Milling and finishing

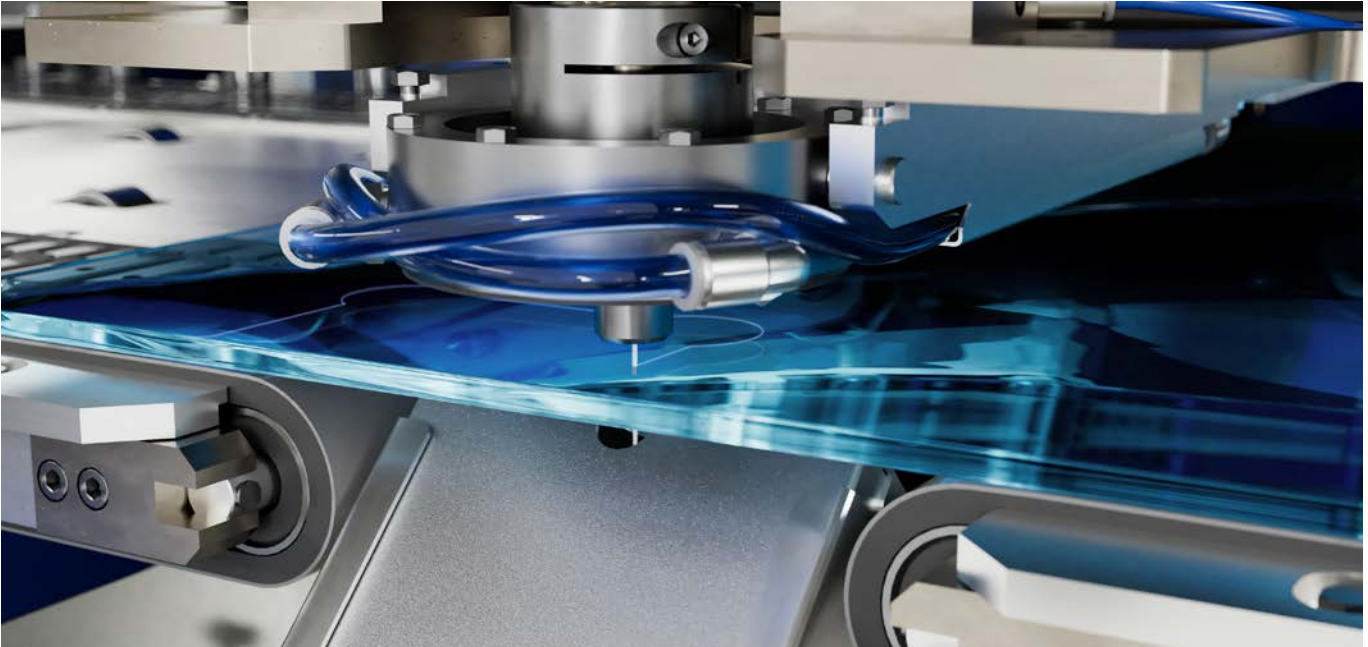
The machine can process various shapes of glass in thicknesses from 3 to 25 mm at speeds up to 15,000 rpm thanks to the Super Spindle, while maintaining vibration-free operation to ensure a flawless finish quality.

After rough milling, finishing operation is performed with a trapezoidal tool which removes any sharp cutting edges.

## Waterjet cut

Using a high-pressure stream, waterjet efficiently cuts through glass, enabling the processing of intricate geometries with ease. Its speed and precision enhance productivity, making it

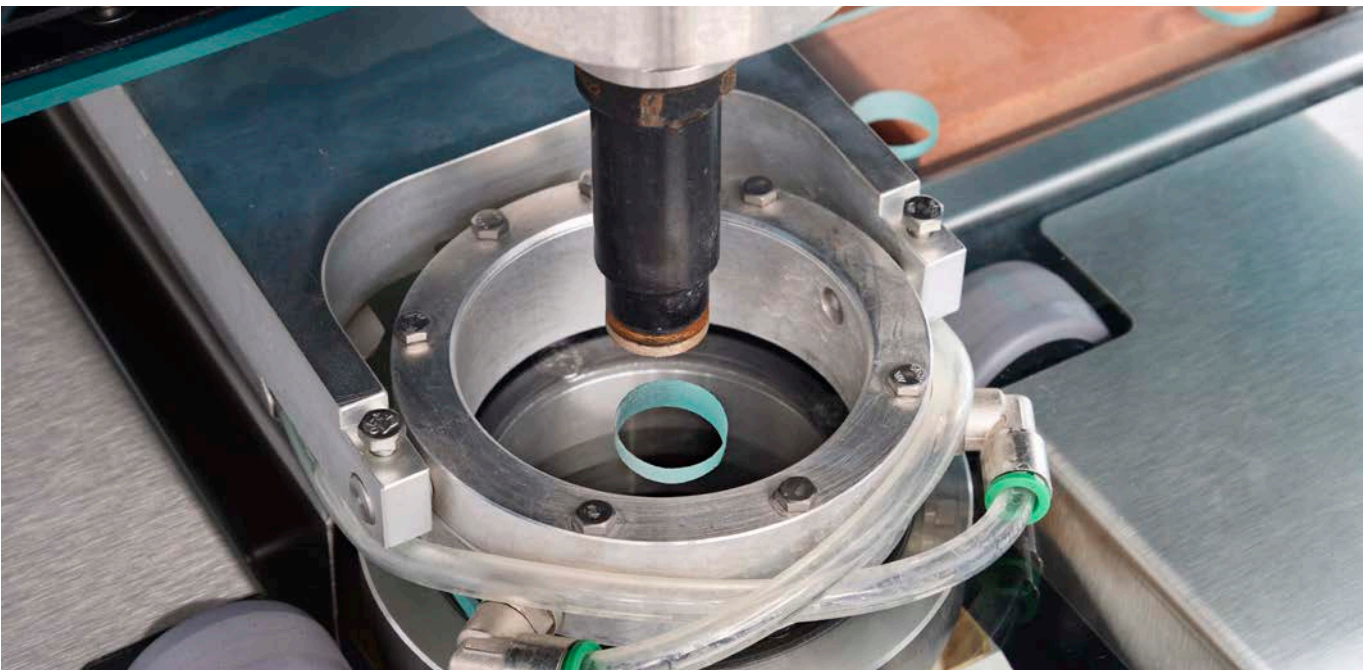
a valuable asset for demanding production needs. The finishing operations are performed with standard milling tools mounted on the spindle.



## Drilling and countersinking

Drilling is performed by two pairs of opposed, multi-spindle drilling head. The hole is drilled for  $\frac{1}{3}$  of the depth with the lower spindle, and for  $\frac{2}{3}$  of the depth by the upper spindle, granting a cleaner job and a faster execution time.

Countersinking operations, if requested by the program, are executed in fully automatic cycle without manual operation and performed with both machine's heads.



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