



www.adeliolattuada.com

VERTICAL WASHING MACHINES

OT SERIES Open top vertical washing machines	16
CT SERIES Vertical washing machines closed on top	22
CTS SERIES Vertical washing machines closed on top for washing large sheets and high thicknesses	28



more passion

GAME CHANGING VALUES

Passion, technology, service: 40 years of made in Italy. Flexible solutions and high-quality.

Each customer can always count on our best resources, and each project stimulates our R&D to find fully customised solutions designed on individual production needs.

more ambition

90% of production exported more than 3000 machines sold since 1978 We always strive to be a step ahead so as to offer our customers solutions capable of tangibly boosting the efficiency and quality of the production process.

more automation

We are in a position to offer flexible and customised **new integration solutions**, with the following advantages: increasing the level of automation, flexibility, productivity, optimising production and cutting costs.

more service

Proper maintenance helps keeping machines in optimal and efficient operating conditions all the time, their performance at maximum level ... and customers satisfied.

Manufacturing machines requiring the least and easiest maintenance has always been one of our strong points.

more quality

We have set up an internal and external supply chain that ensures the highest standards of reliability.

We directly take care of the design, selection of suppliers and components; we monitor each processing step, regarding both electrical and mechanical; we study the programming and automation of the software.

more internationality

2017 marked the incorporation of LATTUADA NORTH AMERICA, INC., in Northwood (OH). The aim of this company is reinforcing our presence in the United States and providing any kind of pre and post sales service.

more organisation

We address each project methodically, following a structured workflow which ensures maximum quality and reliability. A streamlined and coordinated development where all steps are monitored to ensure the required results are achieved and on time.

more technology

Industry 4.0 is the keyword

Thanks to a platform accessible by any device, Lattuada machines are getting smarter and more communicative by the day. This allows the manufacturer and the user to be connected all the time.

more customer satisfaction

At Lattuada, customer satisfaction is our topmost objective. The key factor lies in interpreting needs, striving towards winning solutions. Flexibility, production capacity and skills combine with an ever-guaranteed support aimed at providing supreme quality products and instant response times.





LNA provides all pre- and after-sale services directly from the united states, including a qualified and highly professional technical support service with longstanding experience in the glass-working machine industry.

This new company allows us to offer endless benefits to all our us

- no more problems related to transportation issues;
- machinery are invoiced directly from the united states, eliminating the currency problem;
- specific services for the us market;
- technical support always available with no more time zone issues;
- spare parts are supplied directly from LATTUADA NORTH AMERICA.



90+

countries where we are present

We are an international company: today our machines are working in 90 countries.



agents worldwide

Find our agents worldwide.



MADE IN LATTUADA INTEGRATED SOLUTIONS, TO MEET ALL YOUR NEEDS

THE WORLD OF LATTUADA

INDUSTRY 4.0 SOLUTIONS

Are you ready for the fourth industrial revolution? We can support you in the streamlining of production processes by offering high-tech solutions to digitise, connect, monitor, manage and optimise data in real time.



STONE WORKING SOLUTIONS

We know the specificities of stone processing. This is why we can design with you the perfect machine to process marble, stone and synthetic and composite materials.



•

COMPLEMENTARY GLASS PROCESSING SOLUTIONS

Do you need to drill or process corners? We can provide a complete range of horizontal drilling machines and automatic radius and straight corners grinding machines.

- > corners grinding machines
- > horizontal drilling machines





Do you have any special needs?
Out-of-standard processes?
Do you treat composite materials? That's not a problem.
We can find the most suitable solution for you and customise our machines to ensure you get the flexibility you need.



EDGING SOLUTIONS

Our strength, always. A variety of solutions taking the shape of a wide range of machines: more than 40 models that can be specifically configured to ensure maximum productivity.

- edging machines
- > double-edgers
- > bevelling machines



WASHING SOLUTIONS

For more than 15 years we have been studying and providing solutions for glass washing. We offer a full range of high-tech, vertical washing machines that are easy to use and maintain.



SOLUZIONI PER L'AUTOMAZIONE E LA ROBOTICA (CYBERAL)

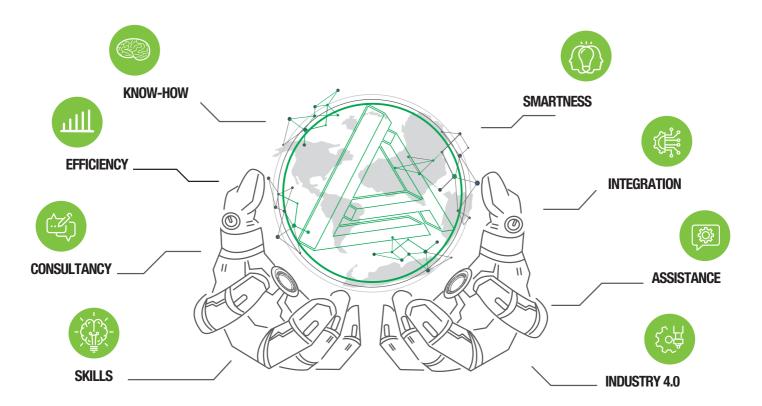
Studiamo soluzioni in grado di poter funzionare secondo i più elevati livelli di automazione, sfruttando al massimo l'integrazione con la robotica per aumentare la produttività e ridurre i costi.



A CHOICE THAT GIVES YOU MORE

CYBERAL, AUTOMATION AND INTERCONNECTION FOR A TRULY INTEGRATED INDUSTRIAL PRODUCTION

Robots, automation, integration, Industry 4.0: glass processing steps into a new era. Those who opt for advanced solutions and technology can count on an effective competitive edge. Right from today, Adelio Lattuada will by your side to help you achieve this new production and flexibility goal through CYBERAL.





KNOW-HOW

We are your partner in automation.

For more than 5 years we have dedicated internal resources and major investments in designing and building solutions that integrate robots and automation to support our glass processing machines.



CONSULTANCY

Beyond the offer, consultancy.

A single global consultant partner for your current and future needs. Thanks to a powerful simulation software, we can key in standard production data and values of your workday and compare them with those obtained from a presumed use of robots.



SMARTNESS

Customised and smart machines.

We are committed towards making machines more automated and smarter by installing state of the art devices and sensors



ASSISTANCE

Training e assistenza, dovunque siate.

Our teams are ready to give you appropriate training and technical support you may need, through our hotlines. Whether regarding the machine or the applications, you have a far-reaching network of agents and dealers at your disposal in every corner of the globe.



SKILLS

One application, one solution.

Thanks to world-class collaborations and supplies, our solutions gain in effectiveness and efficiency year by year.

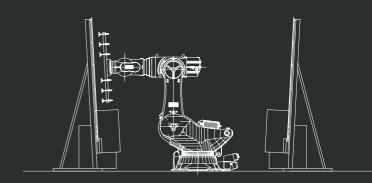


INTEGRATION

More targeted than ever before.

The more machines are integrated with each other through specially studied software, the greater their efficiency and productivity. We are working on getting rid of repetitive manuals and combining control operations.

PERFECT SYNERGY NEW INTEGRATED, FLEXIBLE AND CUSTOMISED SOLUTIONS WITH THE FOLLOWING ADVANTAGES



CYCLE TIME

The robot is ready for the next glass in just 10 seconds.

⊘ INTEGRATION

Full integration with the machines of the line (edging and washing machines).

SIMPLICITY

Simple and one-point programming of thickness, speed, robot program

SPECIAL APPLICATIONS

Special applications for very small/large glasses.

SOLUTIONS FOR AUTOMATING ACTIVITIES AND INCREASING PRODUCTION FLEXIBILITY

Robots and integrations require machines with greater automation and so we added some features to the list of optionals, including:

- integration with machines upstream/downstream (in line thickness and speed adjustment)
- functions for energy saving purposes
- managing work steps through the touch-screen panel
- remote assistance and support
- data-logging and IOT







SOLUTIONS FOR TRANSFORMING PRODUCTION AND BECOMING A SMART FACTORY

An approach that deeply changes the production process by implementing enabling technologies: a leap you can already take into the future through Adelio Lattuada products.

As a matter of fact, thanks to the PLM IOT i-Like Machines software, besides connecting machines to each other so as to monitor them constantly, we also provide clear data through an interface that is intuitive and easy to use.

THIS WILL ALLOW YOU TO:

- monitor production cycle in real time
- receive alerts in case of malfunctions
- optimise plant availability and production
- plan maintenance works
- reduce failures and downtime
- view machine use data and report records



WASHING AND DRYING GLASS SHEETS

WASHING SOLUTIONS



performing

high washing and drying capacity

Lattuada design criteria increasingly focused on each and every need as well as construction and structural robustness offer high washing and drying quality washing machines, even at high speeds and on any type of glass.



productive

smart technology

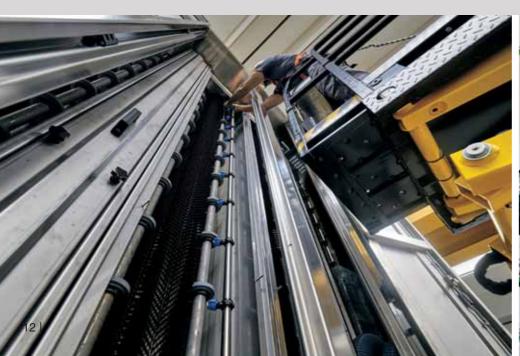
Suitable for high production loads, our washing machines can run 24/7 non-stop.



reliable

little maintenance required

All points requiring maintenance are easily accessible and the maintenance operations to be carried out are simple and quick to perform.





Lattuada washing machines can be integrated with different machines, such as vertical grinding, drilling and milling lines as well as CNC machines.

They differ in terms of the useful washing height, number of brushes and total loadable weights. The machine body and all parts exposed to contact with water are made of stainless steel or stainless material.



flexible

customised configurations

All Lattuada washing machine models are highly customisable and can be integrated with different machines, such as vertical grinding, drilling and milling lines as well as CNC machines.



smart

simplicity of use

Easily accessible sophisticated technology; this is our approach when it comes to building machines.



excellent

top performance

Thanks to our know-how developed and perfected in 40 years, we - at Lattuada - design and manufacture machines that offer utmost washing and drying final quality.





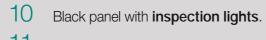
VERTICAL WASHING MACHINES

TECHNICAL DETAILS

Attention to details generates supreme quality products. Highly reliable state-of-the-art machines, in terms of precision, are our company's strong points.



- 1 Rollers for glass sheets transport (special version for heavy loads).
- 2 Conveyors with belts for washing shaped glasses.
- 3 Brushes available for **Low-E glass** too.
- 4 Glass anti-chute sensor and pedal.
- 5 Brush motors positioned at the top part of the washing machine.
- 6 Option to position in line with our edging and bevelling machines.
- 7 Soundproofed high-pressure fan.
- 8 Components certified in compliance with the UL-CSA standards.
- 9 Hot water for pre-washing, first washing or rinsing section.







OPEN TOP VERTICAL WASHING MACHINES

When stored, glasses are usually exposed to the risk of being scratched due to the dirt that deposits on them during processing.

This problem can be solved by using an OT series washing machine, designed for washing and drying sheets, and which can be integrated with different machines, such as vertical grinding, drilling and milling lines as well as CNC machines.









3 - 15 / 20 / 25 mm 1/8 - 0.6 / 3/4 / 1 " 350 mm 13.8 " 200 / 300 / 500 kg 441 / 661 / 1,102 lbs 2/4/6

VERTICAL WASHING MACHINES OT SERIES ALL YOU NEED TO KNOW

How flexible and modular are they?

- Conveyors with belts for washing shaped glasses are available upon request
- Option to integrate in all grinding, drilling and milling lines as well as CNC machines
- Brushes available for Low-E glass too

Which are the production control tools?

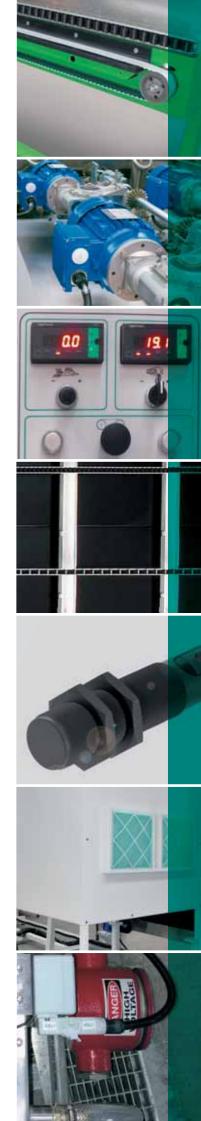
- Black panel with inspection lights
- · Glass anti-chute sensor
- Thickness and speed adjustment digital displays

Which components of the machine allow achieving high performance?

- Soundproofed high-pressure fan
- Varying the conveyor speed by means of an inverter (except for series 200)
- The machine body and all parts exposed to contact with water are made of stainless steel or stainless material (no painted part)

How can I achieve higher quality?

- · Hot water for pre-washing, first washing or rinsing section
- Rubber elements for displacing the glass in a cabin, made of a special rubber compound that does not damage Low-E glasses





OT 1600 SERIES 200/2S/4S|**300**/4S/6S|**500**/4S/6S





200/2S/4S|**300**/4S/6S|**500**/4S/6S

Open top vertical washing machines

		J. 32	min	max		Kw.				-
OT 1600 200/2s	eu	0,5 - 5 m/min	350 mm	1.600 mm	3 - 15 mm	- 7*	5.400x1.430 xH2.520 mm	1.200 Kg	200 Kg	
0T 1	us	19.7 - 197 "/min	13.8 "	63 "	1/8 - 0.6 "		212.5x56.2 xH99.2 "	2,640 lbs	441 lbs	2
0T 1600 200/4s	eu	0,5 - 5 m/min	350 mm	1.600 mm	3 - 15 mm	- 7*	5.400x1.430 xH2.520 mm	1.200 Kg	200 Kg	4
0T 1	us	19.7 - 197 "/min	13.8 "	63 "	1/8 - 0.6 "	,	212.5x56.2 xH99.2 "	2,640 lbs	441 lbs	7
0T 1600 300/4s	eu	0,5 - 5 m/min	350 mm	1.600 mm	3 - 20 mm opt. 3 - 30 mm	9*	6.100x1.700 xH2.520 mm	1.600 Kg	300 Kg	
01 1	us	19.7 - 197 "/min	13.8 "	63 "	1/8 - 3/4 " opt. 1/8 - 1.2 "	9	240.1x66.9 xH99.2 "	3,527 lbs	661 lbs	4
0T 1600 300/6s	eu	0,5 - 5 m/min	350 mm	1.600 mm	3 - 20 mm opt. 3 - 30 mm	- 9*	6.100x1.700 xH2.520 mm	1.800 Kg	300 Kg	6
0T 1	us	19.7 - 197 "/min	13.8 "	63 "	1/8 - 3/4 " opt. 1/8 - 1.2 "	9	240.1x66.9 xH99.2 "	3,968 lbs	661 lbs	
0T 1600 500/4s	eu	0,5 - 5 m/min	350 mm	1.600 mm	3 - 25 mm opt. 3 - 40 mm	- 9*	7.280x1.960 xH2.520 mm	2.000 Kg	500 Kg	4
0T 1	us	19.7 - 197 "/min	13.8 "	63 "	1/8 - 1 " opt. 1/8 - 1.6 "	9"	286.6x77.1 xH99.2 "	4,409 lbs	1,102 lbs	4
										_
0T 1600 500/6s	eu	0,5 - 5 m/min	350 mm	1.600 mm	3 - 25 mm opt. 3 - 40 mm	0.*	7.280x1.960 xH2.520 mm	2.300 Kg	500 Kg	
01 1	us	19.7 - 197 "/min	13.8 "	63 "	1/8 - 1 " opt. 1/8 - 1.6 "	9*	286.6x77.1 xH99.2 "	5,070 lbs	1,102 lbs	6













OT 2000 SERIES

300/4S/6S|**500/**4S/6S

Open top vertical washing machines

		J. Gr	min	max		Kw.			max (I)	1111111111111111	
//300/4s	eu	0,5 - 5 m/min	350 mm	2.000 mm	3 - 20 mm opt. 3 - 30 mm	0.*	6.100x1.400 xH2.920 mm	2.000 Kg	300 Kg		
0T 2000 /300/4s	us	19.7 - 197 "/min	13.8 "	78.7 "	1/8 - 3/4 " opt. 1/8 - 1.2 "	9*	240.1x55.1 xH115 "	4,409 lbs	661 lbs	4	
s9/00E/	eu	0,5 - 5 m/min	350 mm	2.000 mm	3 - 20 mm opt. 3 - 30 mm	0.*	6.600x1.400 xH2.920 mm	2.000 Kg	300 Kg		
0T 2000 /300/6s	us	19.7 - 197 "/min	13.8 "	78.7 "	1/8 - 3/4 " opt. 1/8 - 1.2 "	9*	259.8x55.1 xH115 "	4,409 lbs	661 lbs	6	
/500/4s	eu	0,5 - 5 m/min	350 mm	2.000 mm	3 - 25 mm opt. 3 - 40 mm		7.280x1.960 xH2.920 mm	2.400 Kg	500 Kg		
0T 2000 /500/4s	us	19.7 - 197 "/min	13.8 "	78.7 "	1/8 - 1 " opt. 1/8 - 1.6 "	14*	286.6x77.1 xH115 "	5,291 lbs	1,102 lbs	4	
/200/68	eu	0,5 - 5 m/min	350 mm	2.000 mm	3 - 25 mm opt. 3 - 40 mm		7.780x2.050 xH2.920 mm	2.700 Kg	500 Kg		
0T 2000 /500/6s	us	19.7 - 197 "/min	13.8 "	78.7 "	1/8 - 1 " opt. 1/8 - 1.6 "	14*	306.2x80.7 xH115 "	5,952 lbs	1,102 lbs	6	

 $^{^{\}star}$ standard (may vary depending on options potentially included)



VERTICAL WASHING MACHINES CLOSED ON TOP

When stored, glasses are usually exposed to the risk of being scratched due to the dirt that deposits on them during processing.

This problem can be solved by using a CT series washing machine, designed for washing and drying sheets, and which can be integrated with different machines, such as vertical grinding, drilling and milling lines as well as CNC machines.









3 - 25 mm 1/8 - 1 " 400 mm 15.7 " 500 kg 1,102 lbs 4/6

VERTICAL WASHING MACHINES CT SERIES

ALL YOU NEED TO KNOW

How flexible and modular are they?

- Option to be integrated in all grinding, drilling and milling lines as well as CNC machines
- Brushes available for Low-E glass too
- · High efficiency soundproofing
- · Functions facilitating energy saving included

Which are the production control tools?

- Touch screen operator panel
- · Black panel with inspection lights
- · Glass anti-chute sensor
- Inlet/outlet conveyors independent drive means
- Independent adjustment of the speed of the front brushes

Which components of the machine allow achieving high performance?

- Soundproofed high-pressure fan
- · Varying the conveyor speed by means of an inverter
- Ultrasonic sensor for automatically detecting the incoming glass thickness

How can I achieve higher quality?

- Hot water for pre-washing, first washing or rinsing section (UL/CSA version too)
- The machine body and all parts exposed to contact with water are made of stainless steel or stainless material (no painted part) - AISI 316 stainless steel also available upon request
- · Separate pre-washing section
- Pumps suitable for distilled water





CT 2600 SERIES 500/4S/6S







500/4S/6S



















2600 /500/4s	eu	0,5 - 5 m/min	400 mm	2.600 mm	3 - 25 mm opt. 3 - 40 mm opt. 3 - 60 mm	10*	7.460x2.330 xH3.680 mm	3.500 Kg	500 Kg opt. 800 Kg	4
CT 2600	us	19.7 - 197 "/min	15.7 "	102.3 "	1/8 - 1 " opt. 1/8 - 1.6 " opt. 1/8 - 2.3 "	19*	293.7x91.7 xH144.9 "	7,716 lbs	1,102 lbs opt. 1,764 lbs	4

CT 2600 /500/6s	eu	0,5 - 5 m/min	400 mm	2.600 mm	3 - 25 mm opt. 3 - 40 mm opt. 3 - 60 mm	00*	7.760x2.330 xH3.680 mm	4.000 Kg	500 Kg opt. 800 Kg	
CT 2600	us	19.7 - 197 "/min	15.7 "	102.3 "	1/8 - 1 " opt. 1/8 - 1.6 " opt. 1/8 - 2.3 "	23*	305.5x91.7 xH144.9 "	8,818 lbs	1,102 lbs opt. 1,764 lbs	ь





















500/4S/6S



















CT 3300 /500/4s	eu	0,5 - 5 m/min	400 mm	3.300 mm	3 - 25 mm opt. 3 - 40 mm opt. 3 - 60 mm	00*	8.440x2.330 xH4.290 mm	4.000 Kg	500 Kg opt. 800 Kg	4
CT 3300	us	19.7 - 197 "/min	15.7 "	129.9 "	1/8 - 1 " opt. 1/8 - 1.6 " opt. 1/8 - 2.3 "	23*	332.2x91.7 xH168.8 "	8,818 lbs	1,102 lbs opt. 1,764 lbs	

CT 3300 /500/6s	eu	0,5 - 5 m/min 400 mm		3 - 25 mm opt. 3 - 40 mm opt. 3 - 60 mm		- 23*	8.740x2.330 xH4.290 mm	4.500 Kg	500 Kg opt. 800 Kg	G
CT 3300	us	19.7 - 197 "/min	15.7 "	129.9 "	1/8 - 1 " opt. 1/8 - 1.6 " opt. 1/8 - 2.3 "	23	344x91.7 xH168.8 "	9,920 lbs	1,102 lbs opt. 1,764 lbs	6

^{*} standard (may vary depending on options potentially included)



The Lattuada CTS series models are washing machines designed for glassmakers handling **major** volumes of large sheets and high thicknesses.









3 - 60/80 mm 1/8 - 2.3/3.1 " 400 mm 15.7 " 800/1.000 kg 1,764/2,204 lbs

6

VERTICAL WASHING MACHINES CTS SERIES

ALL YOU NEED TO KNOW

How flexible and modular are they?

- Rollers for glass sheets transport (special version for heavy loads)
- Option to be integrated in all grinding, drilling and milling lines as well as CNC machines
- Brushes available for Low-E glass too
- · High efficiency soundproofing
- · Functions facilitating energy saving included

Which are the production control tools?

- Touch screen operator panel
- Black panel with inspection lights
- · Glass anti-chute sensor
- Inlet/outlet conveyors independent drive means
- Independent adjustment of the speed of the front brushes

Which components of the machine allow achieving high performance?

- Soundproofed high-pressure fan
- · Varying the conveyor speed by means of an inverter
- Ultrasonic sensor for automatically detecting the incoming glass thickness

How can I achieve higher quality?

- Hot water for pre-washing, rinsing à first washing or rinsing section (UL/CSA version too)
- The machine body and all parts exposed to contact with water are made of stainless steel or stainless material (no painted part) - AISI 316 stainless steel also available upon request
- Separate pre-washing section
- Pumps suitable for distilled water





CTS 2600 SERIES 800/6S 1000/6S





CTS 2600 SERIES

800/6S|1000/6S

Vertical washing machines closed on top

		J. F.	min	max		Kw.			max (h) (h)	
2600	eu	0,5 - 5 m/min	400 mm	2.600 mm	3 - 60 mm	- 23*	8.340x2.330 xH3.590 mm	4.000 Kg	800 Kg	- 6
CTS 2600 800/6s	us	19.7 - 197 "/min	15.7 "	102.3 "	1/8 - 2.3 "	23	328.3x91.7 xH141.3 "	8,818 lbs	1,764 lbs	
2600	eu	0,5 - 5 m/min	400 mm	2.600 mm	3 - 80 mm	- 23*	8.590x2.330 xH3.590 mm	4.000 Kg	1.000 Kg opt. 2.000 Kg	6
CTS 2600 1000/6s	us	19.7 - 197 "/min	15.7 "	102.3 "	1/8 - 3.1 "	23"	338.1x91.7 xH141.3 "	8,818 lbs	2,204 lbs opt. 4,409 lbs	6

CTS 3300 SERIES

800/6S|1000/6S

		<u>j</u> üz	min	max		Kw.			max (D)	
3300 //6s	eu	0,5 - 5 m/min	400 mm	3.300 mm	3 - 60 mm	23*	9.320x2.330 xH4.290 mm	4.500 Kg	800 Kg	- 6
CTS 3300 800/6s	us	19.7 - 197 "/min	15.7 "	129.9 "	1/8 - 2.3 "	23	366.9x91.7 xH168.8 "	9,920 lbs	1,764 lbs	
3300 3/6s	eu	0,5 - 5 m/min	400 mm	3.300 mm	3 - 80 mm	00*	9.570x2.330 xH4.290 mm	4.500 Kg	1.000 Kg opt. 2.000 Kg	
CTS 3300 1000/6s	us	19.7 - 197 "/min	15.7 "	129.9 "	1/8 - 3.1 "	23*	376.7x91.7 xH168.8 "	9,920 lbs	2,204 lbs opt. 4,409 lbs	6













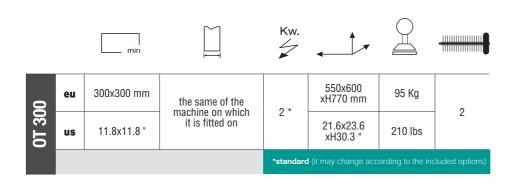








The washing machine applied to the **edging machines and bevelling machines** outlet conveyor allows the complete cleaning and drying of the processed edges of the glass sheets.





PANEL TOUCH SCREEN OPERATOR

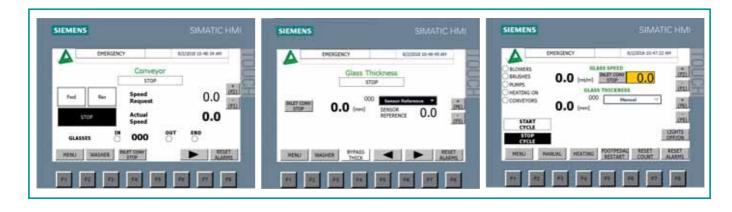
The only ones in the market capable of guaranteeing constant monitoring of the various functions of the machine through different control methods.

Energy saving management panel (optional)
Thickness and speed adjustment digital displays





Panel for the control and management of all work steps



Adelio Lattuada Srl assumes no responsibility for any mistakes in the contents. All data are subjectto change without notice. Images can be only representative of the products' typology.



ADELIO LATTUADA S.R.L. Via Abbondanza, 11/13 - 22070 Carbonate (CO) IT Tel. +39 0331.832713 - info@adeliolattuada.com adeliolattuada.com

LATTUADA NORTH AMERICA, INC. 6967 Wales Road, Suite F - Northwood 43619 (OH) T. 567 249 4486 - info@lattuada-na.com lattuada-na.com