

Walden Mechatronics

Friction Production Machineries

Service and Partnership. Enjoy the Differences...



WWW.WALDENMEKATRONIK.COM



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Walden

Press Advantages



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-Customer-specific modular manufacturing lines

-Low life-cycle costs with maximum quality

-Short tool-changing times

-Stable and process-safe

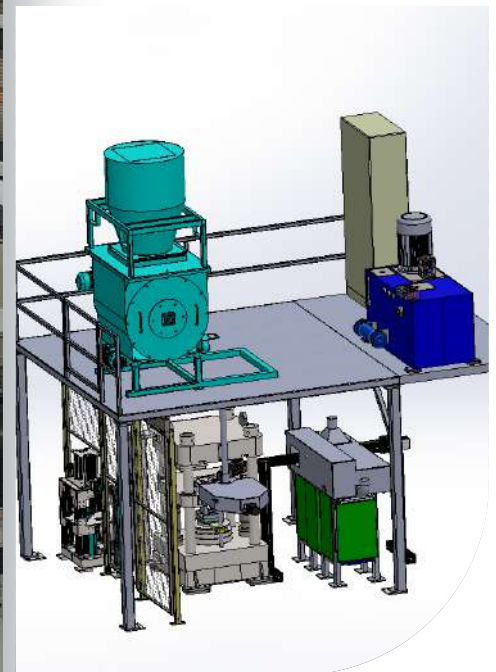
-Long period service life of the systems

-Very high technical support

*-Highly accurate and central temperature control
for low heat losses*

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*-Recipe-based product and production parameters
supported, user-friendly interface*



CV Cold & Warm Form Press Automation Systems

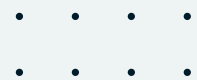
CV Production Cold and Warm Presses are another type of lining production method and they are special systems with different designs. The press itself is done by hydraulic presses in product-specific and heatable moulds. All of our systems provide continuous and reproducible product quality with full automation.





PV Cold & Warm Form Press Automation Systems

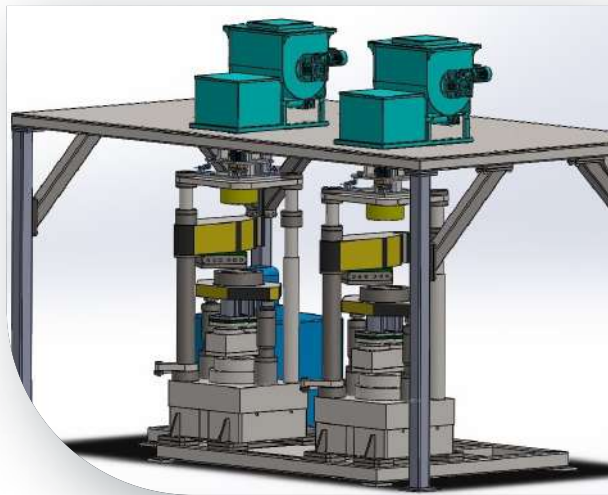
PV Production Cold and Warm Presses are another type of lining production method and they are special systems with different designs. The press itself is done by hydraulic presses in product-specific and heatable moulds. All of our systems provide continuous and reproducible product quality with full automation.





Hot Form Press Automation Systems

Our hot form presses are hydraulic or electric driven special systems. They are used for the moulding and forming and primary curing of powder and also resin-impregnated brake pads under high temperatures with long pressing times. That's, its high degree of automation, all systems provide constant and reproducible, constant quality product. We work to provide our customers with the best solutions for automated system concepts.



Press Capacities

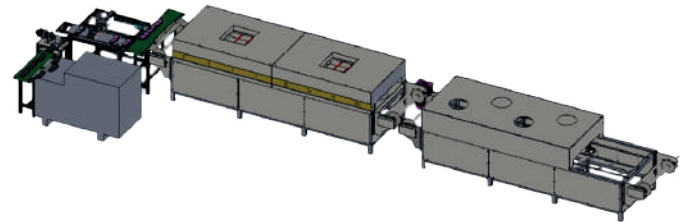
CV PADS WALDEN AUTOMATION PRESS CAPACITY	500 TONS COLD FORM	800 TONS COLD FORM	500 TONS WARM FORM	200 TONS HOT FORM
Cavity mold	SINGLE	DOUBLE	DOUBLE	DOUBLE
Temperature	15-40	15-40	65-85	150-200
Process cycle time:	60 SEC	70 SEC	120 SEC	480 SEC
Press service time: 30sec	30 SEC	30 SEC	40 SEC	120 SEC
Piece to piece time: 60 sec	60 SEC	70 SEC	120 SEC	480 SEC
Working hours	22,5	22,5	22,5	22,5
One shift pcs (450 min)	450	770	450	120
Three shift on a day	1.350	2.310	1.350	360
One Press capacity (per day)	1.350	2.310	1.350	360
One month capacity (per pcs)	35.100	60.060	35.100	9.360
Total one press capacity PER SET	8.775	15.015	8.775	2.340
Utilization %	85%	85%	85%	85%
TOTAL OPTIMUM CAPACITY(SET)	7.458	12.762	7.458	1.989
12 PRESS SET CAPACITY(SET/MONTHLY)	89.496	153.144	89.496	23.868
12 PRESS SET CAPACITY(SET/YEAR)	1.073.952	1.837.728	1.073.952	286.416
12 PRESS SET CAPACITY(PCS/YEAR)	12.887.424	22.052.736	12.887.424	3.436.992
12 PRESS SET CAPACITY(SET/YEAR) APPROXIMATELY	1,10 M SET	1,9 M SET	1,10 M SET	300.000 SET
12 PRESS SET CAPACITY(PCS/YEAR) APPROXIMATELY	4,4 M PCS	7.6 M PCS	4,4 M PCS	1,20 M PCS

PV PADS WALDEN AUTOMATION PRESS CAPACITY	160 TONS COLD& WARM FORM	200 TONS COLD& WARM FORM	90 TONS HOT FORM	90 TONS HOT FORM
Cavity mold	SINGLE	DOUBLE	DOUBLE	DOUBLE
Temperature	15-40	15-40	150-200	150-200
Process cycle time:	24 SEC	30 SEC	330 SEC	240 SEC
Press service time:	12 SEC	15 SEC	90 SEC	90 SEC
Piece to piece time:	24 SEC	30 SEC	330 SEC	240 SEC
Working hours	22,5	22,5	22,5	22,5
One shift pcs (450 min)	1.125	1.800	164	225
Three shift in a day	3.375	5.400	492	675
One press capacity (per day)	3.375	5.400	492	675
One month(26days) capacity (per pcs)	87.750	140.440	12.792	17.550
Total one press capacity PER SET	21.937	35.100	3.198	4.388
Utilization %	85%	85%	85%	85%
TOTAL OPTIMUM CAPACITY(ONE PRESS)	18.646	29.835	2.718	3.729
12 PRESS SET CAPACITY(SET/MONTH)	223.752	358.020	32.616	44.748
12 PRESS SET CAPACITY(SET/YEAR)	2.685.024	4.296.240	391.392	536.976
12 PRESS SET CAPACITY(PCS/YEAR)	10.740.096	17.184.960	1.565.568	2.147.904
12 PRESS SET CAPACITY(SET/YEAR) APPROXIMATELY	2,7 M SET	4,3 M SET	400.000 SET	540.000 SET
12 PRESS SET CAPACITY(PCS/YEAR) APPROXIMATELY	10.8 M PCS	17.2 M PCS	1,6 M PCS	2,16 M PCS

Slurry Line with Drying Unit

Automated line composed by one top side coating units for the application of Slurry into the friction material of brake pads and one in-line oven to dry the slurry product.

- One roll coating machine equipped with a roll operative width and it is referred to removable application head to coat in solid colour while customized application heads can be set up for the partial application of the product in bands.
- One oven able to dry the applied product at a temperature of 120°C for a period of 15 minutes.
- One automatic in-line system to load the slurry brake pads in rows onto the oven's conveyor.
- If the line is going to be enough longer size, finishing and packing line able to added with a full automation.
- The model allows the formation of a coating line with automatic coating and conveying to drying unit with high productivity and user-friendly management.
- Application rollers are interchangeable and the complete application section is removable without the use of any toll for easy cleaning or for quick back purpose.



Backing Plates Surface Washing Machine

Walden Backing plate surface degreasing and washing machine, suitable for cleaning of backing plates before gluing process. using high- pressure spraying water method for cleaning with in a chrome stainless steel water tank. System can connect with automatic line and controlling by plc screen.

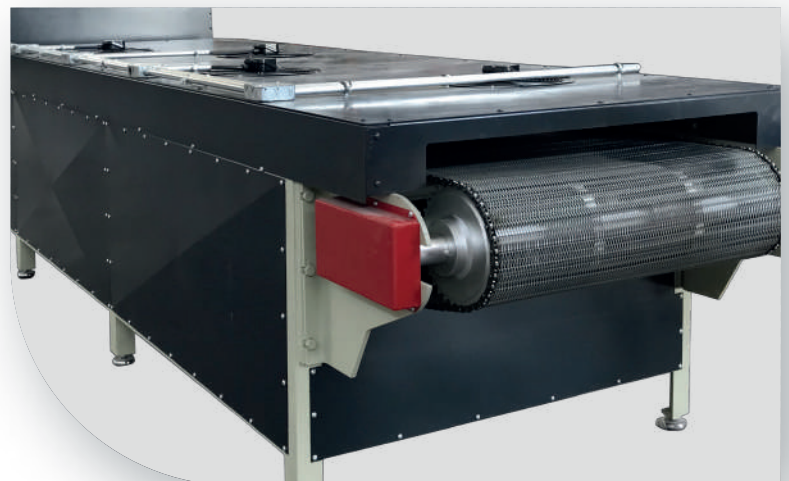




Gluing Machine for Backing Plates with Dry&Cooling line

Walden Gluing machine suitable for single-side glue spreading of backing plates. Using brush-rolling method for single-side gluing. Automatic backing plates turn-over, continuously drying. Easy to clean the glue-roller.

Dry/cooling line ; rectangular built machine frame , two central drums for curved woven belt, the drums are positioned with vertical located center , curved woven belt with forked chains edges, heating system (electric), working in recirculating air operation , exhaust air ventilation, heating area is closed with special thermic isolation walls, cooling system (ventilated ambient air)



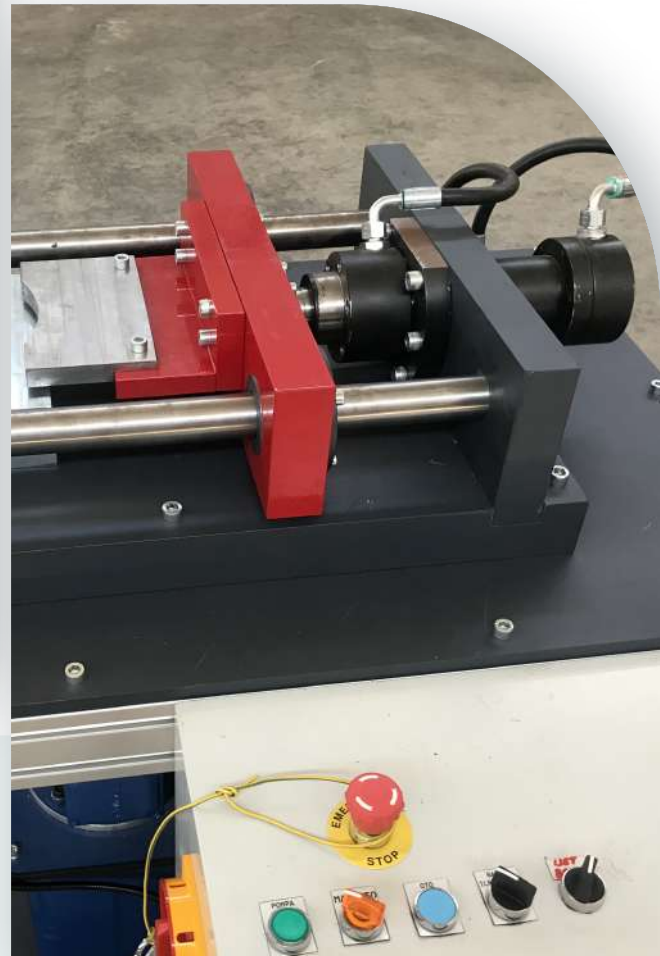
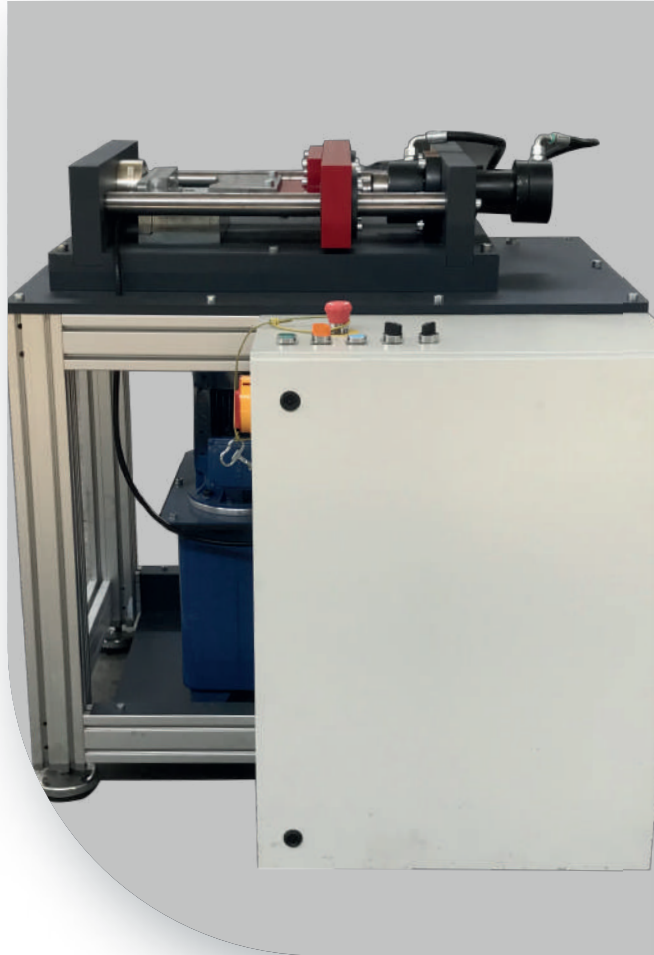


Archimedes Density Meter

Walden Products Industry precision Archimedes Density Meter is an automatic Archimedes Density Meter engineered in accordance with the Archimedes' Principle and the Specific Gravity Measurement Method.

This professional Archimedes Density Meter is a laboratory density test instrument to measure the Volume and the Density of solid samples. This professional Automatic Walden Density Meter is designed and engineered offering the newest microchip technology to ensure a precision performance and high accuracy combined with a large LCD Display with Backlight. • Newest Microchip Technology • Precision Density Measurement at the touch of a button • Large LCD Display with Backlight • Automatic Calibration • Automatic Density Measurement Specific Gravity Measurement User-friendly Programming • Test Method: Volume Displacement Method & Walden Force Density Measurement



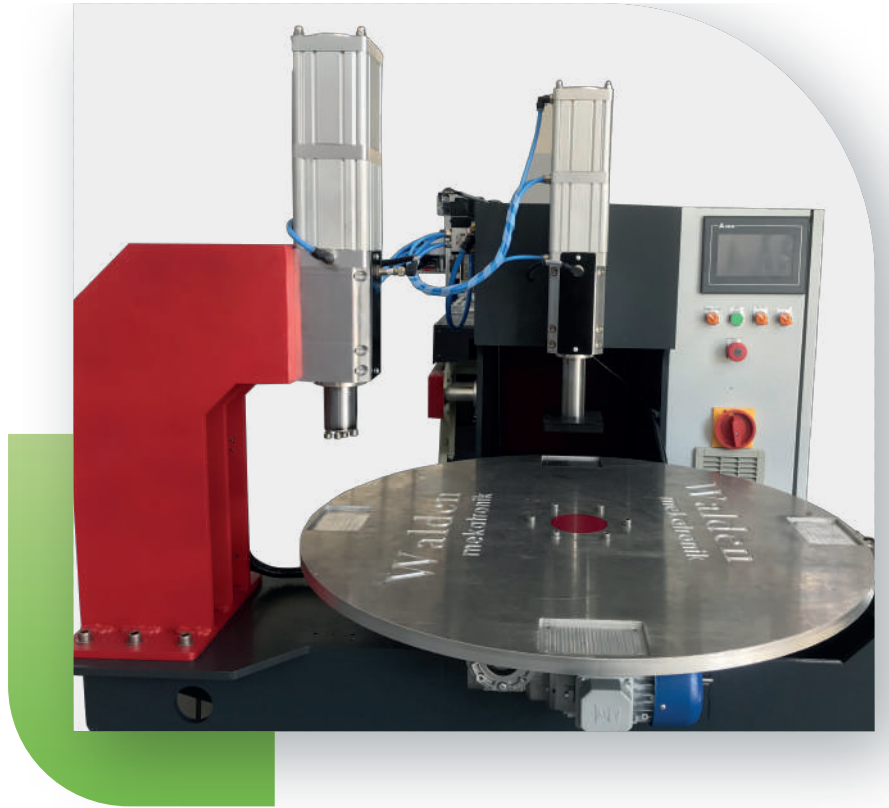


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Shear Test Machine

Walden Shear Test Machine to provide the means to evaluate the bond strength of friction material pad assemblies for passenger car, medium truck, and commercial vehicle disc brake pads. The machine consists of a two-axis loading frame with a high precision system for measuring displacement and load in the shear axis of a brake pad assembly as it is loaded along that axis. A normal load is applied such that friction force is minimized and does not significantly affect shear load. Fixtures are utilized to match radius at lining contact. Delta software provides machine control and provides presentation of results, mean shear strength and range.

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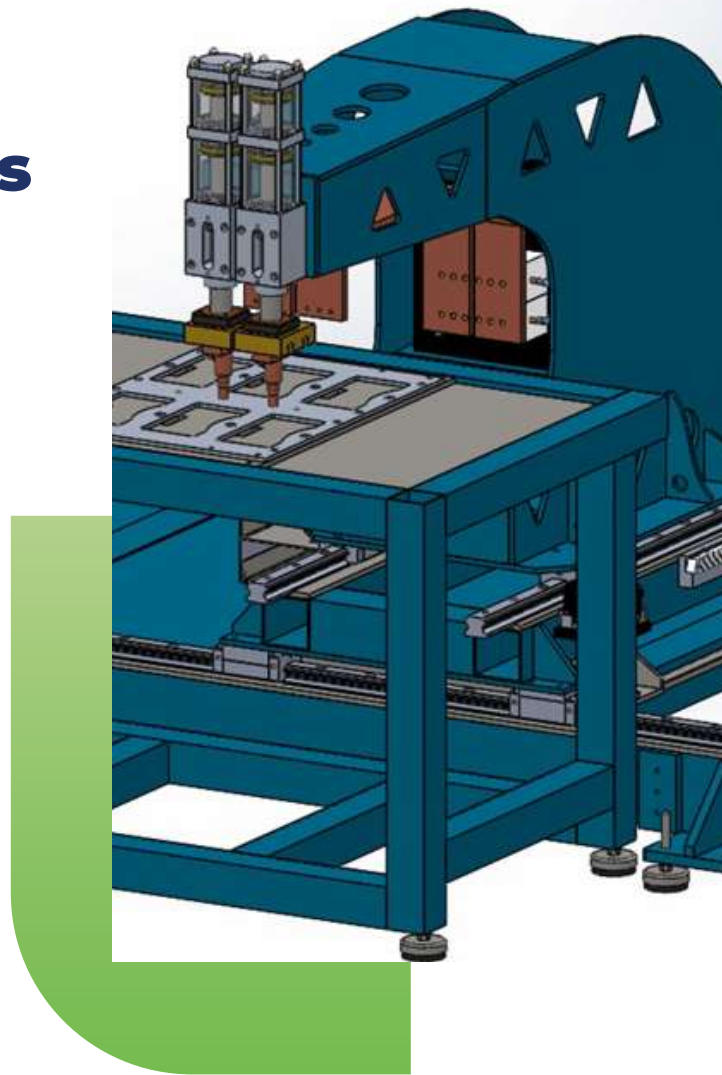


Shim Bonding and Drilling Roundtable Machine

Walden machine on used for bonding the shim of disc brake pads. Multi-heads moving together,hydraulic force pressing, PLC control,Rotating table, 4 work positions, and 2 heads, one station is drilling process and another head is bonding shim process with in full automatic line connection.

Special Proposal Back Plate Welding Machines

We offer complete production solutions in the area of welding Automation and advice on your welding tasks. The increasing degree of Automation of welding systems requires precision at very high speeds. Ever shorter cycle times are aimed at for the manufacture of components. Our systems are able to perform many different welding tasks with different numbers of parts on a single-part system.

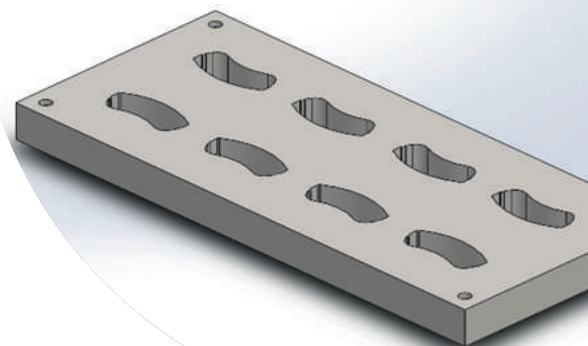
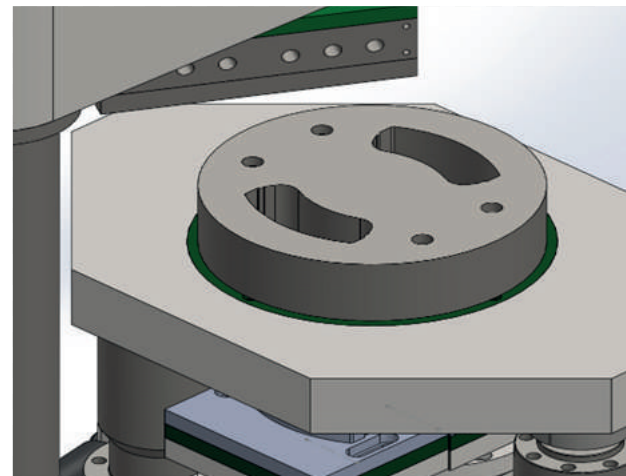


Press Tools and Molds

Walden has advanced positive moulding technology and deep moulds, for our full automation press station. Also, We are able to produce any kind of special customer requirement moulds accordingly customer drawings.



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Products & Delivery

- Delivery on time, production with Iso Standard
- System inspections performed by our experts based on a service contract
- Installation of software updates online, directly into the systems
- Optimisation of the production processes and end-product quality
- Support by experts and technical specialists
- Profound training and know-how transfer
- Operating and maintenance tools
- Original-quality replacement parts, short delivery times
- Relocation service/individual service advantages
- Individual optimisation and renewal of your machinery



 +90 232 700 25 03

 +90 232 999 16 26

 INFO@WALDENMEKATRONIK.COM

 WWW.WALDENMEKATRONIK.COM

 **ITOB INDUSTRIAL AREA 10018 STREET 4 TEKELI MENDERES IZMIR TURKEY**

Walden Mechatronics Skills



We Have a Sensible Strategy For You.

Enjoy Strong Competition With Our High Product Capacity Presses.

Don't Miss This Opportunity.

05 *Delivery* standarts

04 *Engineering* 8 employees

03 1200m² assembly halls

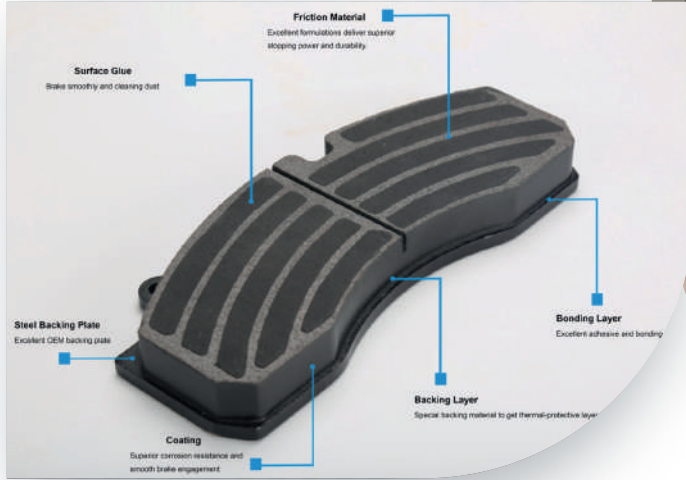
02 World wide 40 system

01 With over 32 years of experience.



Walden
mechatronics

**WE DEAL;
MORE AUTOMATION AND HIGH CAPACITIES
BRAKE PAD PRODUCTION, LESS STAFF
THERE'S NO BETTER WAY.**



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