

VTC 100

Take your bonnell
production to the
next level.

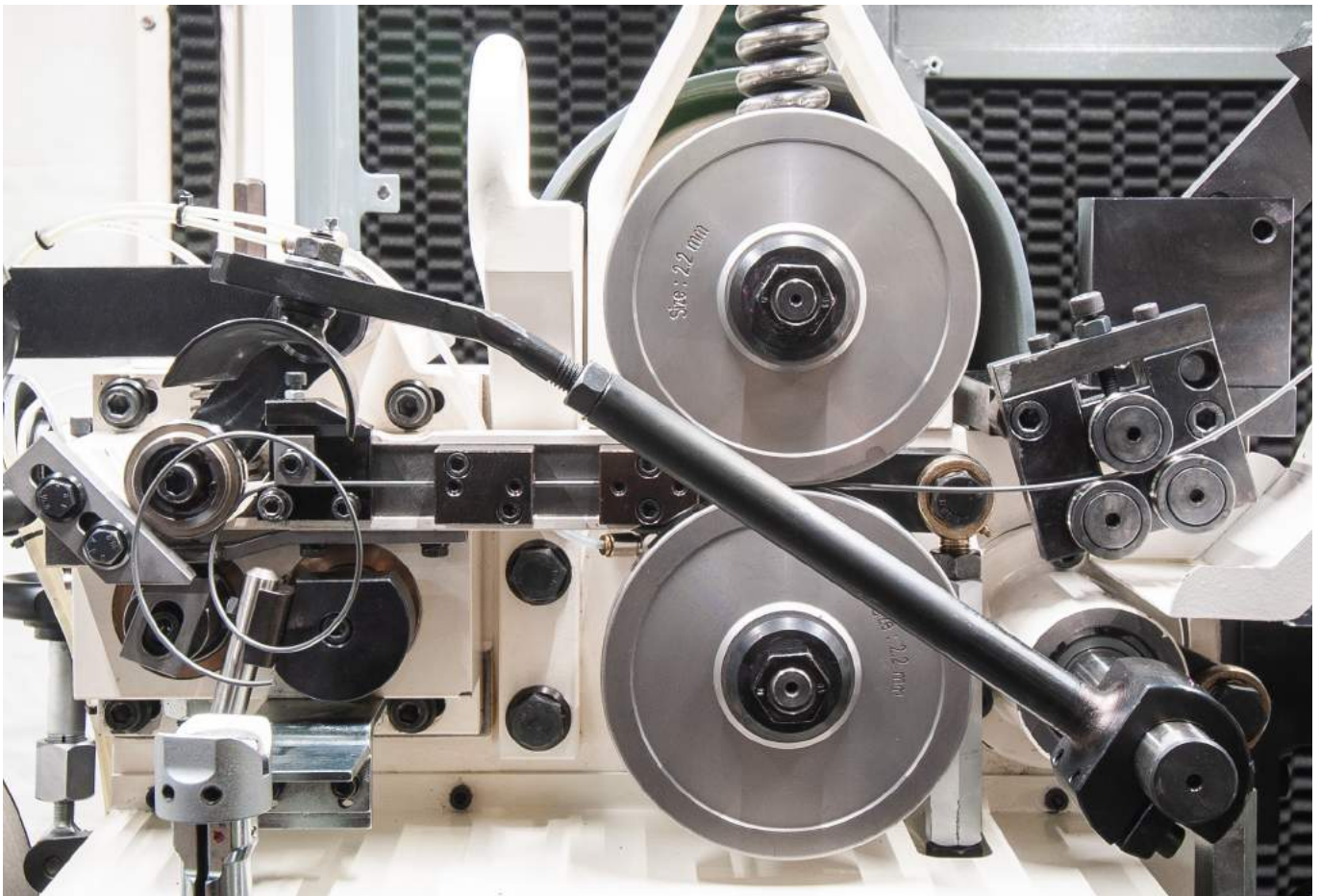


VTC 100 Automatic Bonnell Transfer Machine

The solution for full automated bonnell production.

Veysel Kutuklu Mattress Machinery has developed the VTC 100 Machine, with the aspiration to provide a robust machine that can serve for many years mattress and spring unit producer.

The VTC 100 can handle unlimited range of different bonnell spring units for all kinds of mattresses and furnitures thanks to his great flexibility. This machine is built to achieve highest productivity with the maximum speed in the production of bonnell spring units.



The spring forming process
with highest quality wire cutting and forming parts

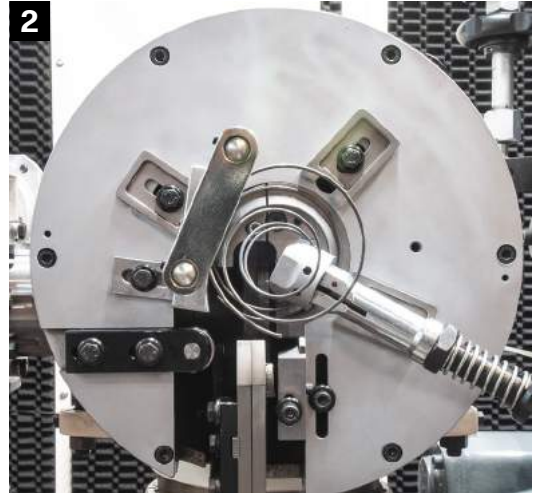
New generation solutions

for faster, low cost and high efficiency production.

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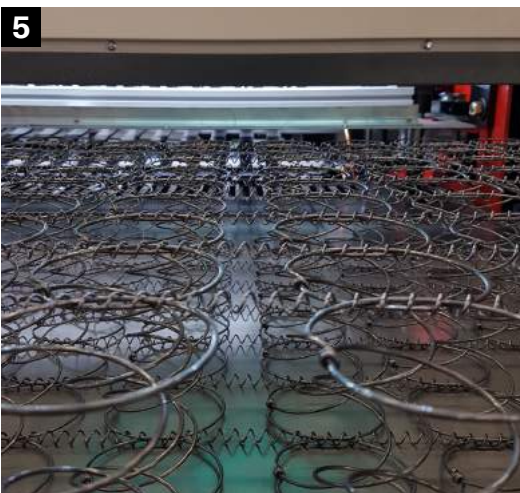
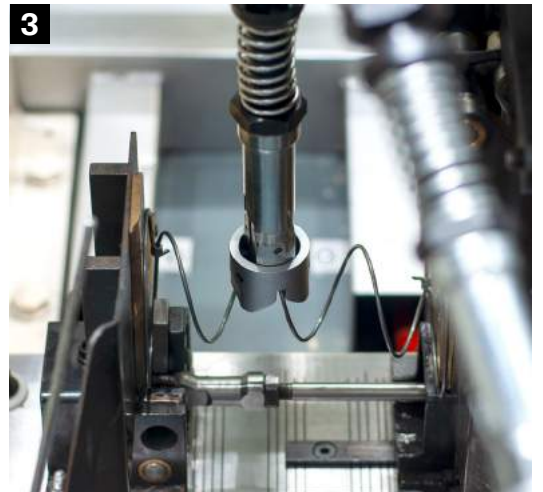
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Bonnell Production in 5 Steps

- 1** The steel wire gets formed to a spring in the coiling machine
- 2** The spring are getting knotted at both ends
- 3** The springs are getting heat treated between two electrodes
- 4** The springs are getting transferred to the assembly machine
- 5** A spiral wire assembles the springs to get a finished spring unit



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Highlights of VTC 100

The VTC 100 is designed to achieve the highest productivity for the production of bonnell spring units. The improved transfer mechanism, the updated software with new automation program, the new options for furniture spring units ensures the best experience for the production of any type of bonnell spring units.

The VTC 100 achieves a lean and robust machine structure because of the usage of highest quality materials in every detail.

Highlights

Consistently High Performance

- + Maximum Speed for any type of bonnell spring unit
- + No slowdown during production of spring units for furniture

	5 rows	8 rows	13 rows
Performance	80 Springs/min	80 Springs/min	80 Springs/min
Spring Unit Type	Furniture	Single Size Bed	Double Size Bed

Improved Transfer Mechanism

- + Patented technology
- + The springs are turned from the horizontal to the vertical position in the fastest way

More Flexible Production

- + Simple production of different spring unit types
- + Changover within few second on the touchscreen display
- + Very flexible and quick setting of the spring unit width

Full Automated Program

- + Automation program ensures the production of different spring unit types without intervention
- + Number of the requested spring units can be easily set on the display
- + This automation program increases especially the productivity for spring unit producer

Optimized Design for Furniture Spring Units

- + System allows the production of L-type spring units
- + With the hinge type option the machine allows space at the corners of the furniture spring units

**Take your
bonnell
production
to the next level.**

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VTC 100 Automatic Bonnell Transfer Machine

Userfriendly design, easy handling and the highest security standards combined in the VTC 100

The VTC 100 machine ensures an user-friendly design that allows a simple entry into assembly part of the machine.

The simple accessibility enables adjustments on the jaw system. The opening system of the assembly part is working completely automatic and there is no need to push or pull on the machine. The safety light curtains protects the operator of the machine. During the adjustments by operator the safety system not allows to close the assembly part of the machine.



safety
light curtains



closed position

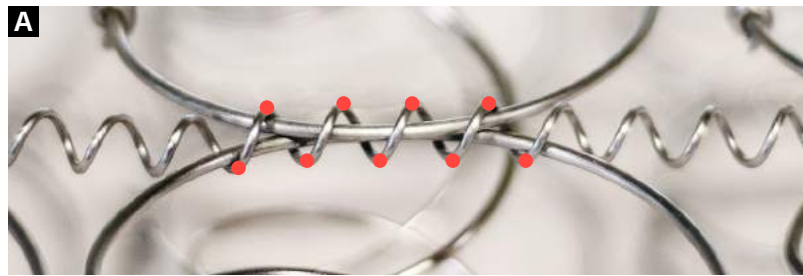


open position

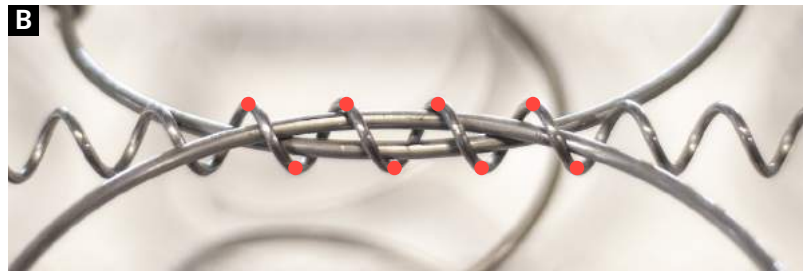
Spiral Knotting Options

With excellent spiral knotting options there is possibility to change the firmness of the springs units.

- A** 4-5 Knotting System
- B** 4-4 Knotting System
- C** 4-3 Knotting System



The 4-5 knotting of the spiral wire allows to produce spring units with maximum firmness. This system reduces the range of motion for the bonnell springs.



The 4-4 knotting of the spiral wire ensures the production of spring units with medium firmness. This system allows a small degree of motion for the bonnell springs. The working range of this knotting system is for springs in the diameter between 80-96mm and wire diameter between 1.9-2.4mm.

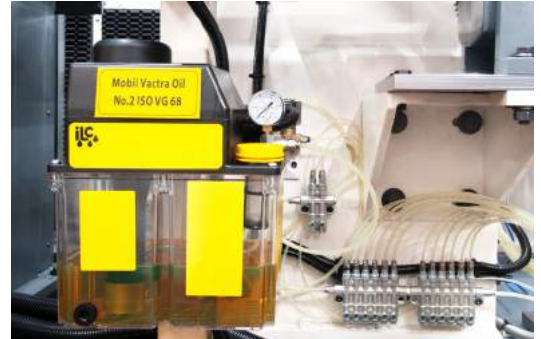


The 4-3 spiral wire knotting provides the production bonnell springs with maximum range of motion. This knotting system is designed for mini bonnell springs in the diameter 70-78mm and the wire diameter 1.9-2.2mm. This system offers the ideal solution to increase the number of springs on bonnell spring units.

VTC 100 Automatic Bonnell Transfer Machine

Automatic Lubrication System

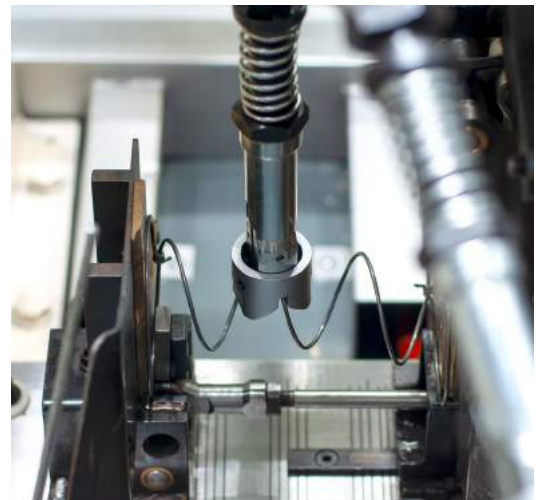
- + The automatic lubrication system ensures a periodic oiling of 22 points on the machine
- + The time frames for the periodic lubrication can easily set up on the display



Digital Heat Treatment

The digital heat treatment provides maximum durability to the bonnell springs

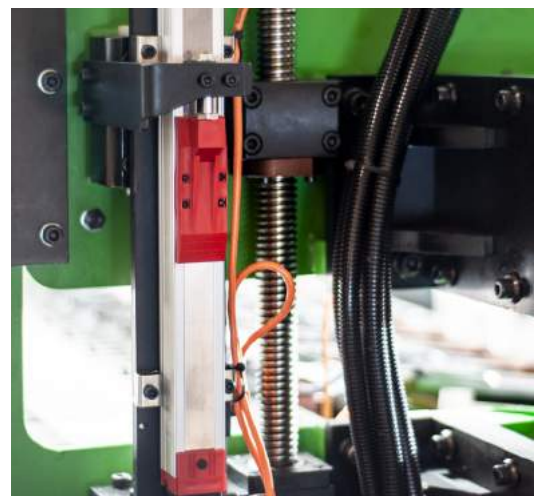
- + The temperature can easily set up on the display
- + The heat treatment ensures that every spring is stress-relieved and strengthened
- + This process is eliminating sag of springs



Easy Height Settings

VTC 100 offers the easiest height setting technology which can adjusted on the touchscreen display

- + This feature enables to adjust the spring height completely automatic
- + Spring height adjustments are made on the precise linear adjustment tool



VTC 100 Automatic Bonnell Transfer Machine

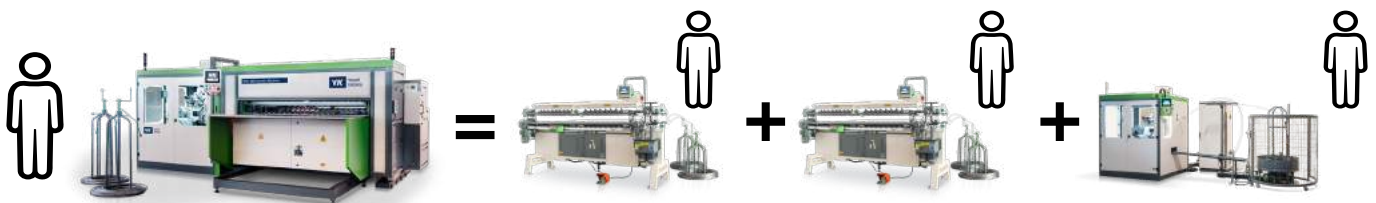
Efficiency in comparison to conventional production methods

- + The performance of automatic transfer machine is extraordinary efficient compared to conventional production methods
- + Only the manpower savings amortize the investment for the machine in 5 years

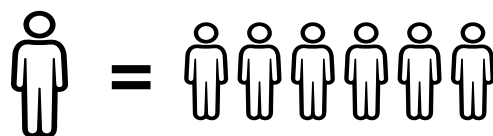
One person will able to operate two transfer machines



The production performance of one transfer machine is like one spring coiling machine and two spring assembling machines



One operator who runs two transfer machines can perform the same production like six operators on the classic machines



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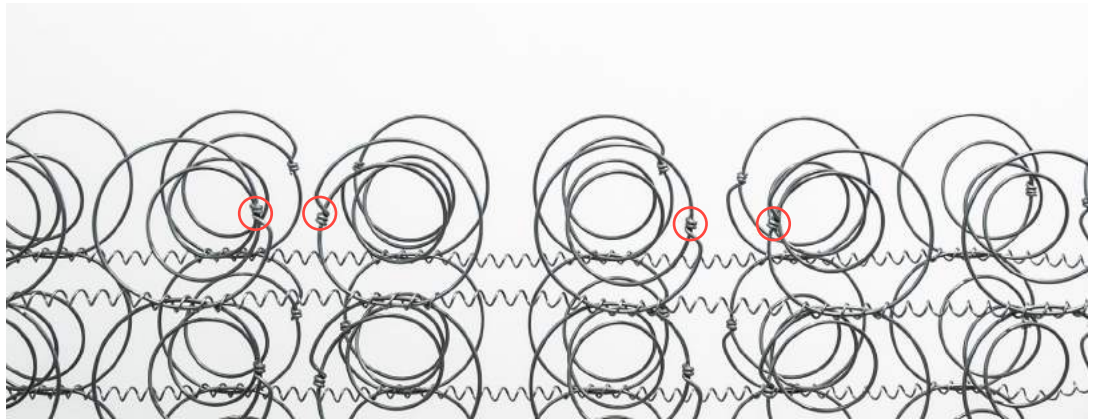
High quality spring units with the new spring turning system

The VTC 100 machines is equipped with a new spring turning system that allows the production of high quality spring units with extreme stability.

During the transfer mechanism to the assembly part, each spring is getting rotated alternately to right and left.

This feature provides an unbeatable stability, strength, and durability to bonnell spring units.

The spring turning system is only available on VTC 100 with a new software to add a higher stability standard for mattress and furniture spring units.



VTC 100 in Numbers

Performance in 8 hours*

Bed Type	Spring Unit Size (cm)	Spring Row	Output (Pcs.)
Single Size	90x190	8x23	208
Double Size	140x190	13x23	128
Twin Size	92x186	9x24	177
Full Size	130x186	12x24	133
Queen Size	148x198	15x26	98
King Size	189x198	19x26	78

* This numbers are calculated based on the maximum capacity of the machine

VTC 100 Automatic Bonnell Transfer Machine

Technical Data

Spring Type	Bonnell
Performance	80 springs/min.
Production Capacity	38.400 springs/8 hours Approx. 210 Spring Units for Single Size Bed/8 hours (90x190cm, 8x23 springs) Approx. 130 Spring Units for Double Size Bed/8 hours (140x190cm, 13x23 springs)
Spring Outside Diameter	70 mm - 96 mm Standard Ø 80-92 mm, Max. 18 Jaws, 1.9-2.4 mm Optional Ø 80-96 mm, Max. 18 Jaws, 1.9-2.4 mm Ø 70-78 mm, Max. 23 Jaws, 1.9-2.2 mm Ø 70-75 mm, Max. 25 Jaws, 1.9-2.2 mm
Spring Center Diameter	40 mm - 55 mm
Spring Height Diameter	75 mm - 160 mm Standard 120 mm - 140 mm (5 turns) Optional 75 mm - 120 mm (4 turns) 140 mm - 160 mm (6 turns)
Spring Wire Diameter	1.9 mm - 2.4 mm
Spiral Wire Diameter	1.3 mm - 1.4 mm
Working Width	2000 mm
Power Consumption	approx. 18 kW
Power Requirements	Three Phase 380V Frequency: 50-60 Hz, Input Fuse: 63 A Cable: 4 x 10mm ²
Working Temperature	0° C - 40° C
Weight	approx. 4.800 kg
Wire Basket Capacity	1.000 kg
Spiral Wire Basket Capacity	2 x 850 kg
Control System	Mitsubishi Motion Control System

Additional Options

Remote Control

- + Remote control system allows the access to error reports by our service agents
- + This feature allows remote controlled software updates on machines with an internet connection by our service team
- + Access to all machines from one server



Cam Unit (4, 6 Turns)

- + The optional cam units allowing the production of bonnell spring with 4 turns or 6 turns
- + The cam unit have to be replaced together with two gears
- + The standard equipment includes 5 turns cam unit



Span Centring Base

- + The span centring bases are placed at both of the knotting positions on the machine
- + The different options of span centring base sets allows the production of bonnell spring with different spring diameter
- + The working range for each set is limited to 3mm



Additional Jaws

- + Additional jaws can be installed on the machine to raise the number of the spring on the spring units
- + The maximum jaw capacity is 25 pieces on the transfer machine
- + The standard equipment of the machine includes 18 jaws

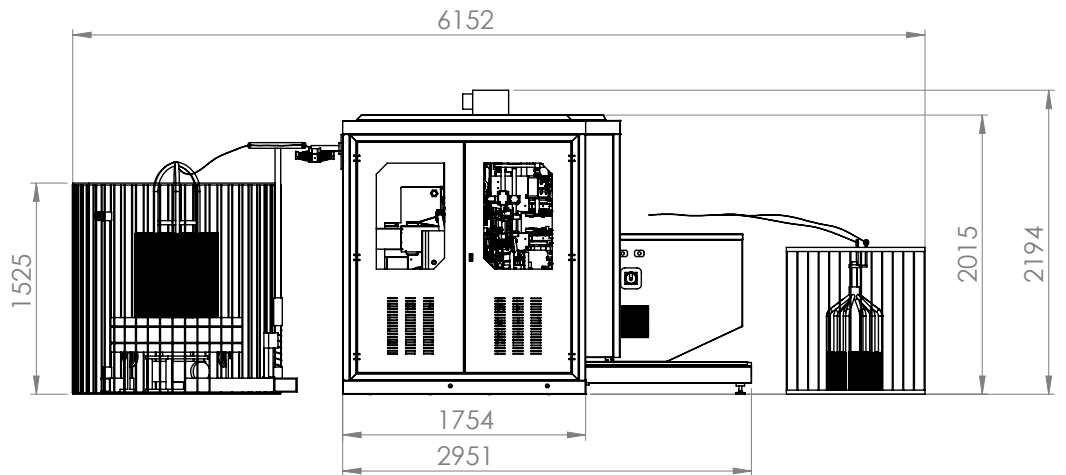
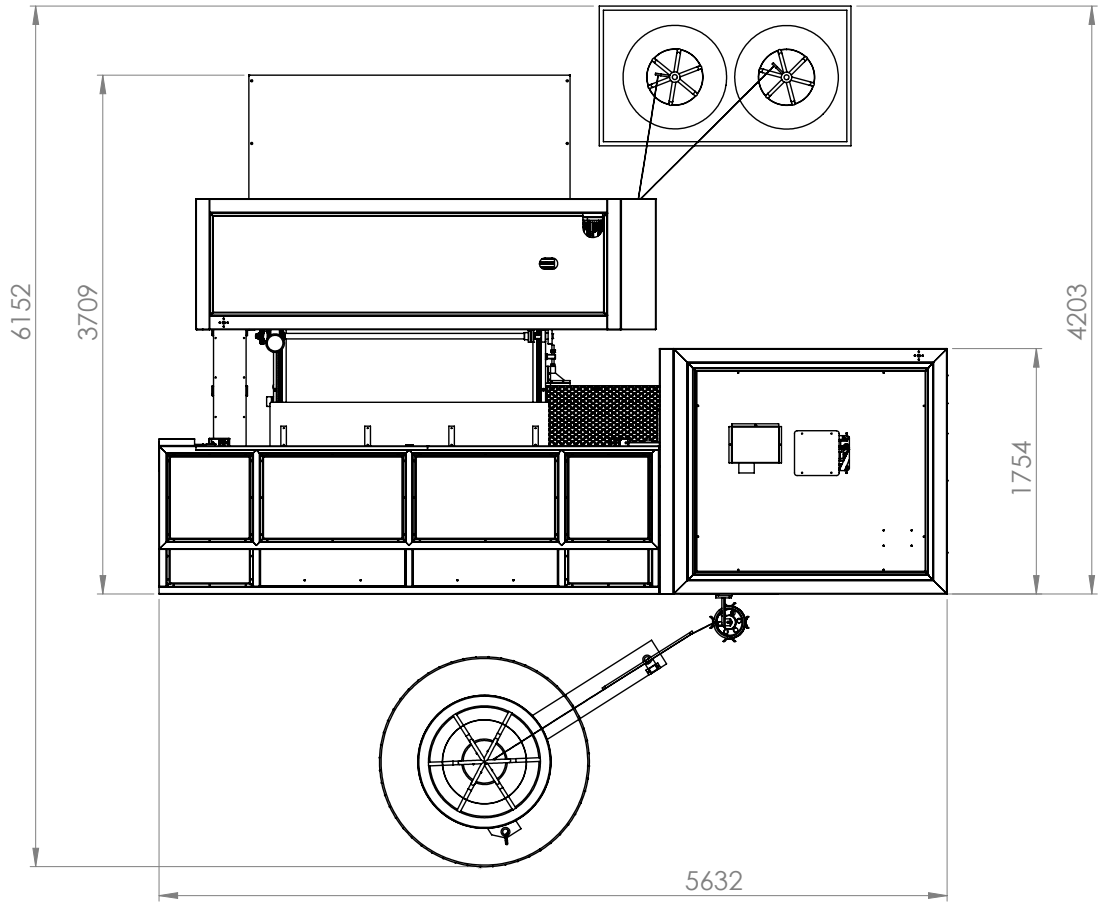


Spare Parts

+ Durable spare parts in highest quality standards



Space Requirements



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The machine complies with CE safety standards.

The information in this brochure contains only general descriptions and performance characteristics that may not always be as described or illustrated in a particular application. In addition, the products may have changed through further development. The desired performance features are only binding if they have been expressly agreed in writing upon conclusion of the contract.