



**Wheel Balancing Machines  
Manufacturing**

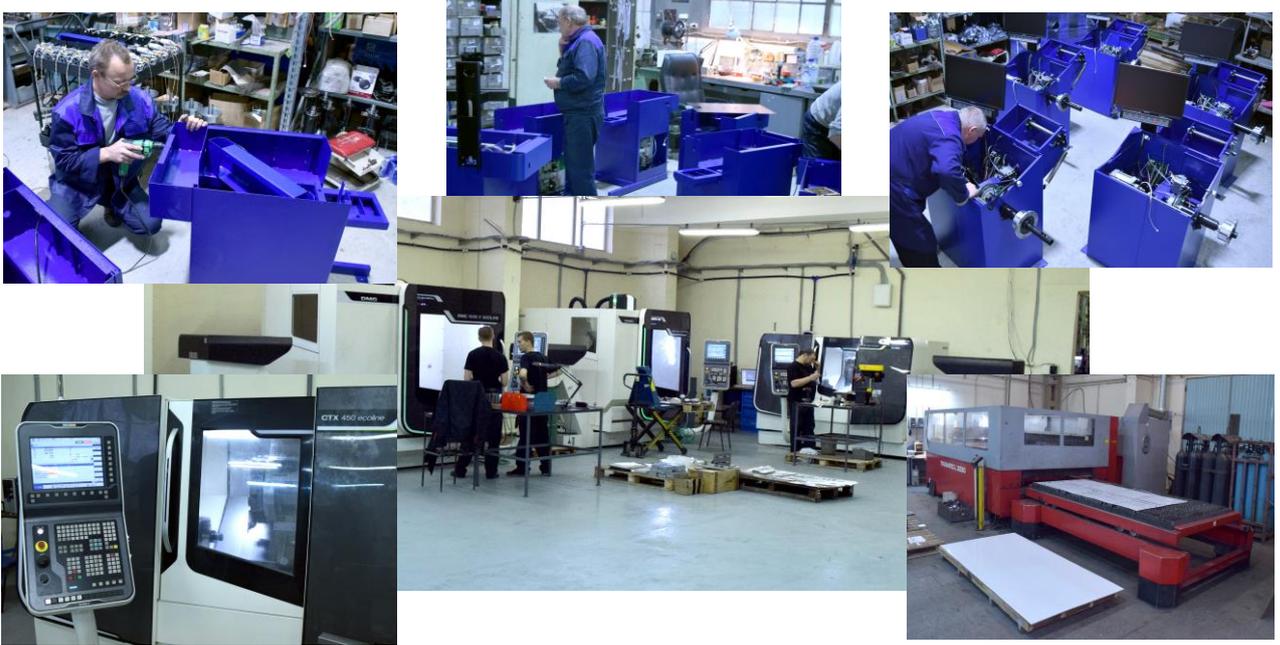




The company "STORM" was established in 1991 in Saint Petersburg at the premises of the former defense plant and since that time has been developing and manufacturing machines for balancing various bodies of revolution such as car and commercial vehicle wheels.

"STORM" is the first company in Russian Federation which is being specialized within Wheel Balancers manufacturing and development. Nowadays "STORM" is a leader within this segment of Automotive Service Equipment.

Over the course of more than two decades of successful operation, "STORM" acquired a great wealth of experience in satisfying various requirements of our clients and today can offer the optimal range of "STORM" Balancing Machines models. All of our machines are being produced using state-of-the-art equipment and high-quality materials.

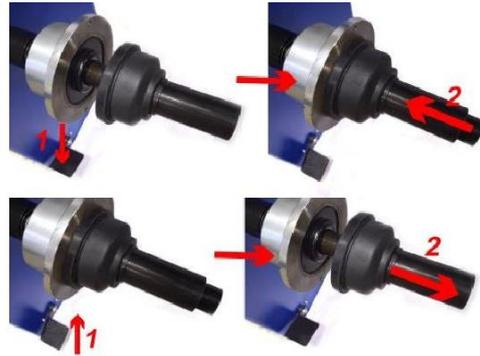


"STORM" has its own research and development facilities as well as experimental service centers offering tire fitting and wheel balancing services. This gives a quick feedback to the Company's development engineers. Every year the consumer properties are being further improved in accordance with end-users requests.



The following represents the most current model range of wheel balancers, manufactured in Saint Petersburg.

## Wheel Balancer PROXY-6PC



### Super-automatic Wheel Balancer.

This balancing stand has a pneumatic wheel hold-down function, ultrasonic measurement of disc parameters, capability of being tucked tight against the wall and many more!

- **Acceleration time for a regular type wheel 1.3 - 1.6 seconds.**

- Online cam-based observation system allows the user to see all that is happening on site from any location on the planet with an Internet access. The camera's rotation angle is controlled by the user, so virtually any area of the premises is in the scope of the camera. The camera transmits color video and audio.

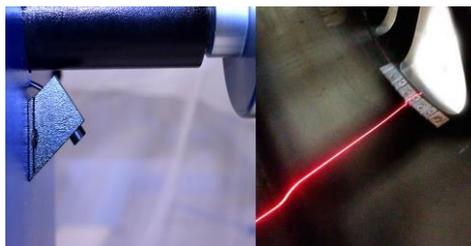
- The laser targeting system with read laser beam clearly shows to the operator the precise position for cleaning, degreasing and adding of self-adhesive weights. This function provides significant time savings via operators work area lightening and what is the most important increases the precision of the large-radius aluminum disc balancing in 6-hour mode.

- PROXY-6PC is equipped with «Electronic Secretary» feature and will never forget to send daily, weekly or monthly activity reports to your email address provided if connected to a power source and the Internet. The report includes the number of balancing operations and attempts for each employee by name and **the number of clip-on or stick-on weights used for each employee individually and in the aggregate.**

- The new option for disc run-out measurement.

The operator just needs to fix the disc on a shaft, switch on the disc run-out measurement function and the stand will start to spin the disc without measurement of unbalance for 30 seconds or until forced stoppage (only for visual diagnostics).

- «AUTO PROGRAM» function allows the user to perform balancing in any automatic or semi-automatic mode without the use of pushbuttons (the machine chooses the necessary mode by itself and intellectually adjusts its performance to the operator's work habits).



Версия ПО	V7.15	Дата сброса грузов 26.08.2014			
	К.колес	К.старт	НАБ.груз	КЛ.груз	
БОНАКОВ	000023	000120	001620	004270	
Оператор2	000000	000000	000000	000000	
Оператор3	000001	000002	000005	000000	
Оператор4	000000	000000	000000	000000	
Оператор5	000000	000000	000000	000000	
Оператор6	000000	000000	000000	000000	
Оператор1	000000	000000	000000	000000	
Всего	000024	000122	001625	004270	



- Option «BRAKES» allows to reduce balancing process time when necessary by connecting a brake cheek in addition to the motor. This saves 6 seconds per cycle in average. This function makes this model one of the «fastest» among the world analogues in the premium segment.



- «3D-DISK» function allows to observe 3D projection of a wheel at the display.
- «AUTO-SONAR» function provides an option of the disc parameters read-out in an automatic mode with the use of an ultrasonic sensor.

- Function «MEMORY» allows keeping a cumulative performance statistics of the machine for a certain period of time or an individual statistics.
- «AUTO-SUPPLY» function automatically turns a wheel further into operating position so there is no need to turn it manually.
- Function «MOTO» allows balancing of motorcycle wheels.



- The new keyboard specifically developed in accordance with the requests of many of our customers is located directly under the display. The keyboard is equipped with tactile keys, new user-friendly menu, option to choose a control panel ground color, new sturdy operation desk with a lot of bins allowing to have necessary weights always near on hand. All these and some other not listed features ensure fast and quality wheel balancing with less effort required from operator.



The machine is completed with the wheel illumination feature. It is realized by the use of two high output light-emitting diodes located on the spindle side of the machine's housing.

Consequently the use of PROXY-6PC will bring the maximum profit to your company and help to earn a solid reputation.

Standard list of equipment also includes such important accessories as:

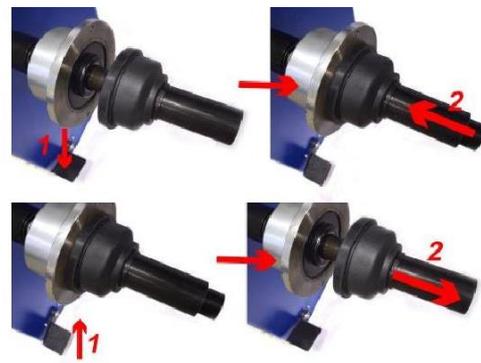
- 40 mm in diameter extension shaft
- Small, medium and large cones
- Hammer-pliers for removing and fitting weights on a rim.

Main technical characteristics:

- Accuracy readability, g	1
- Angular position measurement, angle grad	2,5
- Wheels parameters:	
• Rim diameter, inch (mm)	9(229) – 28(711) For manual input - up to 30(762)
• Rim width inch (mm)	15(381)-20(508)
• Max. wheel weight, kg	70
- Power supply, V	220V±10%, 50 hz
- Max. power consumption, W	no more than 250
- Pneumatic working pressure kg/sm <sup>2</sup>	7-10
- Dimensions (mm)	
• Housing	1100*700*1145(h)
• Protective hood	900*500*450(h)
- Machine weight, kg	not more than 120



**Wheel Balancer PROXY-6P**



Simplified version of **PROXY-6PC** does not have a cam in its standard list of equipment and does not have a feature for sending activity reports via e-mail.

## Wheel Balancer PROXY5



- The new user-friendly menu, option to choose a control panel ground color, new sturdy operation desk with lots of bins allowing to have a necessary weight always at hand. All these and some other not listed features ensure fast and quality wheel balancing with less effort required from operator. Consequently the use of PROXY5 will bring the maximum profit to your company and help to earn a solid reputation.

The new keyboard specifically developed in accordance with the requests of many of our customers is located directly under the display and has tactile keys.

**Acceleration time for a regular type wheel 1.3 - 1.6 seconds.**

**PROXY5 has the following functions:**

- «AUTO-SONAR» function provides an option of the disc

parameters read-out in an automatic mode with the use of an ultrasonic sensor.

- «AUTO PROGRAM» function allows the user to perform balancing in any automatic or semi-automatic mode without the use of pushbuttons (the machine chooses the necessary mode by itself and intellectually adjusts its performance to the operator's work habits).



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«BES» allows to reduce balancing process time when necessary by connecting a brake cheek in addition to the motor. This should save on average 6 seconds per cycle. This function makes this model one of the «fastest» among the world analogues in the premium segment.

- Special function for wheel balancing in any mode without the use of pushbuttons – the machine chooses the mode automatically.



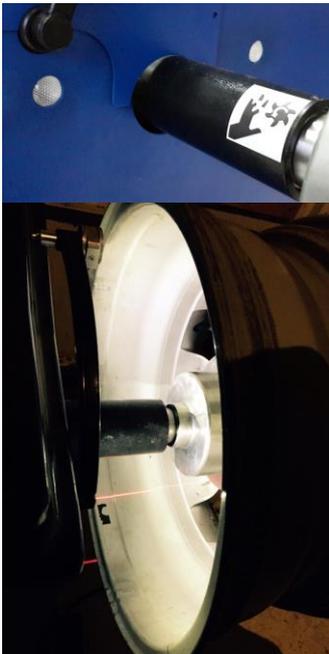
- «3D-DISK» function allows to observe 3D projection of a wheel at the display.

- «Function «MOTO» allows balancing of motorcycle wheels.

- Function «MEMORY» allows keeping a cumulative performance statistics of the machine for a certain period of time or an individual statistics.

- « AUTO-SUPPLY » function automatically turns a wheel further, so there is no need to turn it manually.

The machine is completed with the wheel illumination feature. It is realized by the use of two high output light-emitting diodes, located on the spindle side of the machine's housing.



Standard list of equipment also includes such important accessories as:

- 40 mm in diameter extension shaft
- Quick-lock nut by «Haweka» (Germany) (complete package)
- Small, medium and large cones
- Hammer-pliers for removing and fitting weights on a rim.

**Main technical characteristics:**

- |  |  |
|--|--|
| - Accuracy readability, g                  | 1  |
| - Angular position measurement, angle grad | 2,5  |
| - Wheels parameters:                       |  |
| • Rim diameter, inch (mm)                  | 9(229)-28(711)<br>For manual input up to 30(762) |
| • Rim width inch (mm)                      | 15(381)-20(508)                                  |
| • Max. wheel weight, kg                    | 70   |
| - Power supply, V                          | 220V±10%, 50 hz                                  |
| - Max. power consumption, W                | 250  |
| - Dimensions (mm)                          |  |
| • Housing                                  | 1100*700*1145(h)                                 |
| • Protective hood                          | 900*500*450(h)                                   |
| - Machine weight, kg                       | not more than 110                                |

## Universal Wheel Balancer "Maxi"



This model is a Universal Balancer for car and truck wheels. It is manufactured in three modifications: with digital data display and manual wheel lift, digital data display and pneumatic wheel lift, and with 21-inch color digital data display and pneumatic wheel lift.

For heavy wheel lifting (up to 200 kg) the machine is equipped with a vehicle dolly with built-in pneumatic lift. Mounting and demounting of a wheel is accomplished with the use of pneumatic cylinders and controlled by an operator with a joystick (considerable savings of time and effort) or manually.

**Standard list of equipment includes a universal adapter for most types of truck wheels** and a set of cones for cars.

### Key features and embedded functions:

- New economical electric motor drive built from special «Mitsubishi» templates;
- «Car» and «truck» operating modes;
- Automatic recognition of a wheel type: car or truck;
- Special program brings the wheel



to the correct position for application of corrective weights;

- Two-dimensional measuring scale for automatic input of wheel offset and diameter values;
- «ALU-P» program for selection of a correction plane for balancing wheels with light-alloy rims;
- «SPLIT» program for balancing weights application behind wheel spokes;
- «OPT» program for optimal positioning of a tyre on a rim;
- 8 balancing programs: «STANDARD», «STATIC», «5 ALU», «ALU-P»;
- Automatic brake;
- Brake for wheel locking;
- Independent mode setting for «truck» and «car»;
- 4 operators (memorization of the last settings and disc parameters);
- Automatic counting of balancing operations;
- Static unbalance minimization program;
- Self-diagnosis;
- Self-calibration.





### Main technical characteristics:

- Accuracy readability, g
- Measurement range, g
- Maximum admissible error with unbalance in one correction plane, g. no more than Where «M» is a measuring weight of a load
- Maximum admissible error for angular position measurement of the mass of the unbalance load, angle grad, no more than
- Wheels parameters:
  - Rim diameter, inch (mm) with manual input up to 30(762)
  - Rim width inch (mm)
  - Max. wheel weight, kg
- Max. power consumption, W, no more than
- Power supply, V
- Dimensions (mm):
  - Without the hood
  - With the hood
- Machine weight, kg

Car mode	Truck mode
1	1
0-150	0-450
$\pm(3+0,1 M)$	$\pm(3+0,1 M)$
$\pm 6$	$\pm 6$
9(229)-28(711)	9(229)-28(711)
15(381)-20(508)	15(381)-20(508)
70	200
800	
220v $\pm$ 10%, 50 hz	
1250x620x1050 (h)	
1360x1360x1375	
not more than 130	

## Balancing Stand "Plaza"



This model is a new modification of the low-cost balancer «Plaza».

It is equipped with a 21-inch color monitor and newly designed keyboard with tactile keys, located directly on the machine's top cover.

**Acceleration time for a regular type wheel 1.7 - 2.5 seconds.**

The telescopic arm provides for automatic input of two parameters: wheel diameter and the distance to the inner side of a correction plane.

The 21-inch color monitor with membrane keypad creates a user-friendly interface. It indicates the size of the weight and precise weight adding position, as well as diameter and width of the wheel. Control of the operation mode and activation of necessary functions is achieved by pushing a single button, which significantly simplifies the work process and reduces set-up time.

The software package has been extended. Besides the standard 5 «ALU» programs, it has «ALU-P» program for balancing high-quality wheels with light-alloy rims and «SPLIT» program for application of the invisible balancing weights behind wheel spokes for better appearance.



The machine is completed with the wheel illumination feature. It is realized by the use of two high output light-emitting diodes, located on the spindle side of the machine's housing.



### Main technical characteristics:

- Accuracy readability, g	1
- Wheels parameters:	
• Rim diameter, inch (mm)	9(229)-20(508) For manual input up to 24(610)
• Rim width inch (mm)	15(381)-20(508)
• Max. wheel weight, kg	65
- Power supply, V	380/220V±10%, 50 hz
- Max. power consumption, W	200
- Dimensions (mm):	
• Housing with the hood lowered	1100*910*1150(h)
• Housing with the hood raised	1100*1380*1650(h)

- Machine weight, kg

not more than 80

## Balancing Stand "Patriot 3"

We would like to introduce to you a new model of a balancing machine Patriot 2, that went into production in 2015, - «Patriot 3».

**Acceleration time for a regular type wheel 2.5 seconds.**

Virtually every single module and unit of the machine has been modified. 2015 modification – is a new, more convenient and ergonomic faceplate and 40mm shaft for faster and quality wheel balancing.

The telescopic arm provides for automatic input of two parameters: wheel diameter and the distance to the inner side of a correction plane.

Faceplate with membrane keypad creates a user-friendly interface. It indicates the size of the weight and precise weight adding position, as well as diameter and width of the wheel. Control of the operation mode and activation of necessary functions is achieved by pushing a single button, which significantly simplifies the work process and



reduces set-up time.

The software package has been extended. Besides the standard 5 «ALU» programs, it has «ALU-P » program for balancing high-quality wheels with light-alloy rims and «SPLIT» program for application of the invisible balancing weights behind wheel spokes for better appearance. Double-operation program is introduced; allowing storing the dimensions of two different types of wheels. Thus two operators can work simultaneously with two different cars with different sizes of wheels using the same balancing machine. Switching from one size to another is achieved by pushing a single button.



### Main technical characteristics:

- Accuracy readability, g	1
- Wheels parameters:	
• Rim diameter, inch (mm)	9(229)-20(508) For manual input up to 24(610)
• Rim width inch (mm)	15(381)-20(508)
• Max. wheel weight, kg	65
- Power supply, V	380/220V±10%, 50 hz
- Max. power consumption, W	200
- Dimensions (mm):	
• Housing with the hood lowered	1100*910*1150(h)
• Housing with the hood raised	1100*1380*1650(h)
- Machine weight, kg	not more than 70



## Balancer "Levsha 2"

We would like to introduce to you a new model of a balancing machine Levsha, that went into production in 2015, - «Levsha 2».

**Acceleration time for a regular type wheel 2.5 seconds.**

Virtually every single module and unit of the machine has been modified. 2015 modification – is a new, more convenient and ergonomic faceplate and 40mm shaft for faster and quality wheel balancing.

The telescopic arm provides for automatic input of two parameters: wheel diameter and the distance to the inner side of a correction plane.

Faceplate with membrane keypad creates a user-friendly interface. It indicates the size of the weight and precise weight adding position, as well as diameter and width of the wheel. Control of the operation mode and activation of necessary functions is achieved by pushing a single button, which significantly simplifies the work process and



reduces set-up time.

Double-operation program is introduced; allowing storing the dimensions of two different types of wheels. Thus two operators can work simultaneously with two different cars with different sizes of wheels using the same balancing machine. Switching from one size to another is achieved by pushing a single button.



### Main technical characteristics:

- Accuracy readability, g	1
- Wheels parameters::	
• Rim diameter, inch (mm)	9(229)-20(508)
• Rim width inch (mm)	15(381)-15(381)
• Max. wheel weight, kg	65
- Power supply, V	220V±10%, 50 hz
- Max. power consumption, W	200
- Dimensions (mm):	
• Housing	460*1380*1650(h)
- Machine weight, kg	not more than 65

### Pneumatic lift **STORM EASY LIFT**

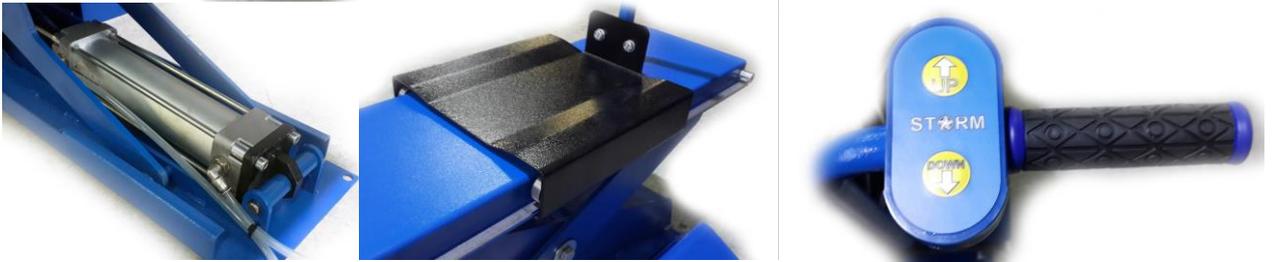
Pneumatic lift **STORM EASY LIFT** is designed for lifting of wheels weights up to 70 kg. This machine will help you to ease the job of lifting and lowering of the wheels when placing them on the shaft of a balancing stand.



Reliable bearings and pneumatic cylinder made by "Camozzi" and stainless steel guides will ensure long-term performance.

Lifting and lowering is controlled by the push-button, located on the machine's handle.

The handle is fitted with a rubber insert for comfort.



### Calibration Device "**Test-Rotor**"

Calibration Device "**Test-Rotor**" is designed for calibration of all "STORM" Balancing Machines. It represents a reference wheel.

"**Test-Rotor**" can be used to check overall conditions of a shaft or a balancing machine.

"STORM" reference wheel imitates a car wheel assembly of a size 7 J x 17 but is easier to work with than a regular car wheel with

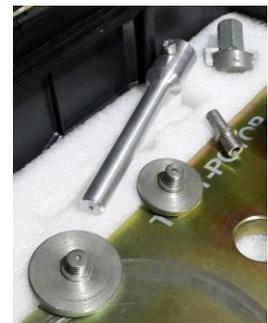


guaranteed more precise measurement, smaller dimensions and weight.

"**Test-Rotor**" is being supplied as standard with:

- weights – 20, 75 and 100 gr.;
- extension piece for distance scale calibration for Balancing Machines "Patriot 3", "Plaza" and "Levsha 2";
- special purpose spanner for unscrewing of a pneumatic stud on Balancing Machines "Proxy 6p" and "Proxy 6pc".

Delivered in a package-case for safe transportation.





All "STORM" balancing machines can be equipped with our own accessories or accessories manufactured by «HAWEKA».

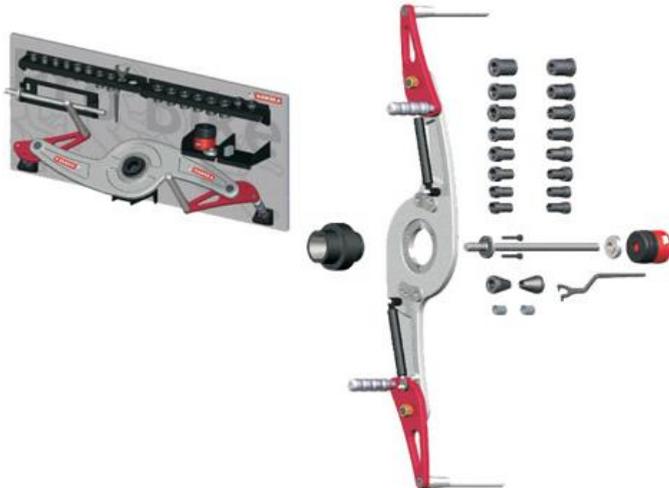
### «World Kit» Flange Adapter



The Flange Adapter aligns the wheel with the fixation holes of the rim, which allows simulating the position of the wheel on the wheel hub of a car. With the tightening of the clamp nut the pressure is equally spread through adapter pins to the fixation holes of the rim. Therefore the wheel is set on the balancer's shaft in the exact upright position which provides ideal accuracy of the wheel mounting.



### «PRO BIKE» System



The motorcycle wheel balancing system, developed and produced by HAWEKA will help motorcycle and other kinds of wheel maintenance shops to dynamically balance the wheels on an existing balancing machine. Pro-Bike system allows to balance both front and rear (with brake pads) wheels of all motorcycle brands. The use of the Pro-Bike system opens an opportunity to expand into a new ever-growing market.

Additional mounted equipment for balancing of special (non-standard) types of wheels manufactured by the "STORM".

### Wheel balancer cone for GAZelle



### Wheel balancer cone for Ford Transit





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