

USER MANUAL



**MPW M-UNIVERSAL
MPW M-DIAGNOSTIC
MPW M-SCIENCE**

Read before use!

Serial number of centrifuges:

For centrifuges with serial no (SN):

M-UNIVERSAL 102MU063723 – ...

M-DIAGNOSTIC 102MD142623 – ...

M-SCIENCE 102MS030123 – ...

This manual was prepared with special care. MPW MED. INSTRUMENTS may change the manual at any time and without notice because of improvements, typographical errors, or improvements to facilities

All rights reserved. No part of this User Manual may be modified, distributed, published, or reproduced without the prior permission of MPW MED. INSTRUMENTS.

You can find the current version of the user manual on our website under:

www.mpw.pl DOWNLOAD section (one should choose demanded language version of website).

Content

1	Symbols used in the manual and on the device.....	5
1.1	Markings on the device.....	5
2	Application.....	6
3	Technical specification	7
3.1	Environmental conditions	7
4	Installation.....	8
4.1	Content of the package.....	8
4.2	Location.....	8
4.3	Current protection	9
5	Safety notes	9
5.1	General remarks	9
5.2	Placing the rotor and accessories in the centrifuge	10
5.3	Filling tubes	10
5.4	Filling the rotor	11
5.4.1	Angular rotors.....	11
5.4.2	Horizontal rotors.....	11
5.5	Safety hints	12
5.6	Operating conditions	13
5.7	Equipment life.....	13
5.8	Work safety.....	14
5.9	Unbalance	14
5.10	Emergency stop	15
5.11	Residual risk	15
5.12	Obligation to report a serious device incident.....	15
6	Product description.....	16
6.1	Product Design and Appearance.....	16
6.2	Name plate.....	17
6.3	Control device	17
6.4	Setting parameters	17
6.5	Safety features	17
6.6	Increase in temperature	18
7	Centrifuging	18
7.1	Control panel	18
7.2	Display.....	18
7.2.1	Setting up RPM, RCF, TIME, temperature on the SIMPLIFIED DISPLAY.....	19
7.2.2	Switching between the screens.....	20
7.2.3	Setting up RPM, RCF, TIME, temperature on the NORMAL DISPLAY	20
7.3	Users programs.....	21
7.3.1	Program selection (Simplified display).....	21
7.3.2	Program selection (Basic display)	22
7.4	Creator of acceleration and deceleration curves.....	23
7.4.1	Acceleration characteristic, creation of episode 1	23
7.4.2	Adding and editing sections - acceleration.....	24
7.4.3	Acceleration graph.....	24
7.4.4	Deceleration characteristic, creation of episode 1	25
7.4.5	Adding and editing sections - deceleration.....	25
7.4.6	Deceleration graph	26
7.4.7	Deleting sections.....	26
7.5	Programs with user characteristics.....	26
7.6	Choosing rotors and container	27
7.6.1	Choosing rotors and container on the SIMPLIFIED SCREEN	27
7.6.2	Choosing rotors and container on the BASIC DISPLAY	27
7.7	SHORT mode	27
7.8	Terminating centrifugation	27

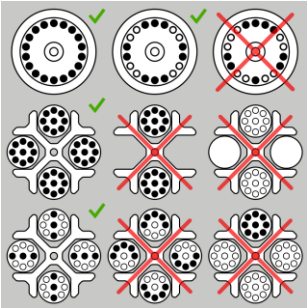
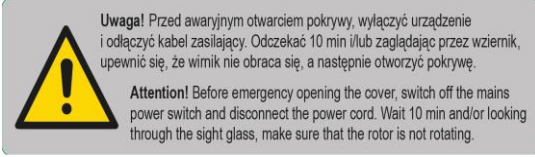
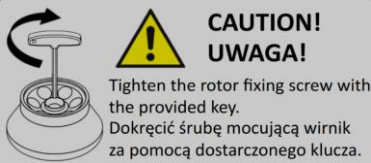
8	Parameters of centrifugation	28
8.1	Choosing parameters on the SIMPLIFIED SCREEN	28
8.2	Choosing parameters on the BASIC DISPLAY	28
8.3	Choosing centrifugation parameters	28
8.3.1	<i>Accelerating/decelerating – changing characteristics</i>	28
8.3.2	<i>Radius</i>	29
8.3.3	<i>Density</i>	29
8.3.4	<i>Automatic lid open</i>	29
8.3.5	<i>Start delay-OF TIME</i>	30
8.3.6	<i>Screen messages</i>	30
9	Menu	31
9.1	Starting MENU on the SIMPLIFIED DISPLAY	31
9.2	Starting MENU on the NORMAL DISPLAY	32
9.3	MENU navigation	32
9.4	Configuration	32
9.4.1	<i>Screen saver</i>	32
9.4.2	<i>Visual alarm</i>	32
9.4.3	<i>Counting time</i>	33
9.4.4	<i>Buzzer</i>	33
9.4.5	<i>Language</i>	33
9.4.6	<i>Rotor automatic identification</i>	33
9.5	Password	34
9.6	10 cycles	35
9.7	Work time	35
9.8	Rotor cycles	35
9.9	Manufacturer's details	35
9.10	Diagnostics	35
9.11	Factory settings	35
10	Maintenance	36
10.1	Cleaning of the centrifuge	36
10.2	Maintenance of centrifuge elements	36
10.3	Sterilization	37
10.4	Autoclaving	38
10.5	Chemical resistance	39
11	Troubleshooting	40
11.1	Emergency cover release	40
12	Guarantee	41
13	Transport and storage	41
14	Disposal	42
15	List of changes in the manual	42
16	Manufacturer's info	43
	Distributor's info	43
17	Annexes	43
A.	Additional accessories	
B.	Declaration of conformity (CE, ROHS 2)	
C.	Declaration of decontamination (repair / return)	
D.	Nomogram RPM / RCF	

1 Symbols used in the manual and on the device

Symbol	Explanation
	WARNING! Warning of potential injury or health risk
	DANGER! Risk of electric shock with potential for severe injury or death as a consequence
	DANGER! Biohazard with potential for risk to health or death as a consequence
	DANGER! Risk of explosion with potential for severe injury or death as a consequence
	Symbol identifying a medical device for in vitro diagnostic use
	CE mark
	Symbol informing about the method of disposal
	Please read the instruction manual before you start working with the device
	Manufacturer's data

1.1 Markings on the device

<i>Symbol</i>	<i>Explanation</i>	<i>Location</i>
	Information about the direction of rotation of the rotor	Under the centrifuge lid
	Information on where and how to use the emergency lid opening mechanism	On the side of the centrifuge next to the emergency opening of the lid

	Reminder for proper rotor maintenance	Under the centrifuge lid
	Information about correct and incorrect filling of rotors	Under the centrifuge lid
	Information about the place of danger	On the side of the centrifuge next to the emergency opening of the lid
	Information reminding about the proper tightening of the rotor	Under the centrifuge lid

2 Application

- MPW **M-UNIVERSAL**, MPW **M-DIAGNOSTIC**, MPW **M-SCIENCE** centrifuges are a family of ventilated, non-automatic table-top laboratory centrifuges.
- The devices are intended for In Vitro Diagnostics (IVD). This means that it is an in vitro diagnostic medical device - in accordance with the Regulation of the European Parliament and of the Council (EU) of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010 /227/EU.
- Centrifuges are used to separate aqueous solutions and suspensions of samples with a density not higher than **1.2g/cm³** taken from human, animal and plant organisms into components of different densities under the influence of centrifugal force, in order to provide information about their biological state and to other analytical work
- The design of the centrifuge ensures ease of use, safe operation and a wide range of applications in medical, biochemical and other laboratories.
- Centrifuges are not biotight, therefore closed and sealed containers and rotors should be used for centrifugation of preparations that require biotightness. Caustic, flammable and explosive preparations must not be centrifuged in centrifuges.

3 Technical specification

manufacturer	"MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY, Boremłowska 46 Street, 04-347 Warszawa														
type	MPW M-DIAGNOSTIC					MPW M-SCIENCE					MPW M-UNIVERSAL				
cat. number (REF)	102MD/2-56	102MD/1-56/100	102MD/1-56/110	102MD/1-56	102MD/1-56/127	102MS/2-56	102MS/1-56/100	102MS/1-56/110	102MS/1-56	102MS/1-56/127	102MU/2-56	102MU/1-56/100	102MU/1-56/110	102MU/1-56	102MU/1-56/127
mains voltage (L1+N+PE)	230V	100V	110V	120V	127V	230V	100V	110V	120V	127V	230V	100V	110V	120V	127V
	±10%	±5%				±10%	±5%				±10%	±5%			
mains frequency	50Hz	60Hz				50Hz	60Hz				50Hz	60Hz			
connected load (max.)	190W					230W									
current protection [A]	T 4A	T 8A				T 4A	T 8A				T 4A	T 8A			
capacity (max.)	500 ml					100ml					500ml				
speed – RPM	90 ÷ 6000 rpm (step 1 rpm)					90 ÷ 18000 rpm (step 1 rpm)									
force – RCF	4830 x g (step 1 x g)					24270 x g (step 1 x g)									
kinetic energy (max.)	5000 J					11000 J									
running time	00:00:01 ÷ 99:59:59 – [h. : min : s] (1s step)														
time counting	since start button is pressed / since preselected speed is reached														
short-time operation mode – SHORT	yes														
continuous operation mode – HOLD	yes														
menu languages	Polish, English, German, Spanish, Italian, Portuguese, Russian, Swedish, French, Czech														
user programs	100														
acceleration (ACCEL)	10 linear curves														
deceleration (DECEL)	10 linear curves														
USB communication	no														
Electromagnetic compatibility	according to EN 61326-1:2006														
degree of protection (according to PN-EN 60034-5:2021-01)	IP20														
dimensions:															
height (H)	299 mm														
width (W)	357 mm														
depth (D)	451 mm														
height with open cover (H _{oc})	572 mm														
noise level	≤60dB														
weight 230V	approx. 22 kg					approx. 20 kg					approx. 22 kg				
weight 120V	approx. 23,7 kg					approx. 21,5 kg					approx. 24,2 kg				

3.1 Environmental conditions

- The device may only be used indoors.
- The permissible ambient temperature is 2°C to 40°C.
- Maximum allowed relative humidity 80% at temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C.
- The mains voltage fluctuations must not exceed ± 10% of the nominal voltage.
- Maximum altitude 2,000 m above sea level.
- Overvoltage category II.
- Pollution degree 2.

4 Installation

Open the package. Remove the box containing the accessories. Take out centrifuge from the container. Keep the box and packing materials in case of service shipping.

4.1 Content of the package

name	pcs.	cat no.
centrifuge MPW M-UNIVERSAL/MPW M-DIAGNOSTIC / MPW M-SCIENCE /	1	102MU/2-56; 102MU/1-56; 102MU/1-56/100; 102MU/1- 56/110; 102MU/1-56/127 102MD/2-56; 102MD/1-56; 102MD/1-56/100; 102MD/1- 56/110; 102MD/1-56/127 102MS/2-56; 102MS/1-56; 102MS/1-56/100; 102MS/1- 56/110; 102MS/1-56/127 (Type and supply version dependent)
rotor fixing screw	1	17142
rotor key	1	17099T
spanner for emergency opening of the cover	1	18640
power cord 230V / 120V	1	17866/17867
fuse WTA T8A / WTA T4A	2	17865 / 17861
vaseline 20ml	1	17201
user manual	1	See page 1

*- only MPW M-UNIVERSAL

4.2 Location

	▪ The device is heavy, so lifting and carrying the centrifuge can lead to back injuries. Risk of injury while lifting and carrying heavy loads. ▪ Lifting and transporting of the centrifuge should be done with a sufficient number of helpers. Use a transport aid for transporting the centrifuge. ▪ The device should be lifted by the underside in the vicinity of the its feet and placed directly on a suitable lab table. ▪ Ensure safe location. ▪ The centrifuge shall not be located near source of heat and shall not be subjected to direct sunlight. ▪ The table for the centrifuge shall be stable and shall have flat-levelled table top. ▪ Centrifuge should be set horizontally on a rigid base. ▪ It is necessary to ensure a safety zone of the minimum 30cm round the centrifuge from every direction (for ventilation needs). Do not veil ventilation holes ! ▪ Passed parameters of the centrifuge are referring to the above named temperatures (see Technical specification). ▪ At the change of the place from cold to warm one, condensation of water will occur inside the centrifuge. It is important then that sufficient time be provided for drying the centrifuge prior to starting the centrifuge again (min. 4 hours).
---	---

	- Do not position the centrifuge so that it is difficult to operate the power switch - Supply voltage given on the rating plate has to be consistent with local supply voltage. MPW MED INSTRUMENTS laboratory centrifuges are 1st safety class devices and they are provided with the three-core cable with the plug resistant to dynamic loadings. Mains socket shall be provided with the safety pin - protective earth (PE). - It is recommended to install emergency cut-out that shall be located far from the centrifuge, near the exit or beyond the room.
--	--

	Before switching on, check whether the centrifuge is connected to power supply correctly. It is obligatory to use only power cord recommended by manufacturer. Before using the device, check that it is properly installed.
---	---

4.3 Current protection

	The centrifuge is equipped with thermal current protection. Fuse is situated in the plug-in socket unit at back wall of the centrifuge.
---	---

5 Safety notes

5.1 General remarks

- The laboratory centrifuge may be operated only by qualified laboratory personnel, after reading the operating manual.
- The operating instructions are part of the product.
- The operating manual should always be kept in the vicinity of the centrifuge.
- The centrifuge cannot be operated contrary to its purpose.
- If the centrifuge is used in a manner inconsistent with the manufacturer's guidelines, the safety of its use may be impaired.
- For centrifugation in the centrifuge, only containers and inserts provided in the list of equipment and centrifuge tubes, the diameter, length and strength of which are appropriate, should be used. The use of test tubes not included in the list should be agreed with MPW MED. INSTRUMENTS or its authorized representatives.
- Pay attention to the quality and appropriate thickness of the glass test tubes walls. Glass tubes should be centrifuge tubes, and their use in the centrifuge should be made dependent on the following guidelines:

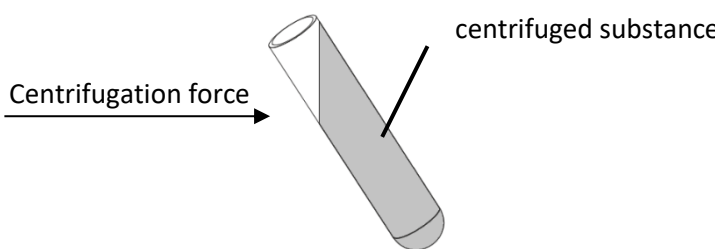
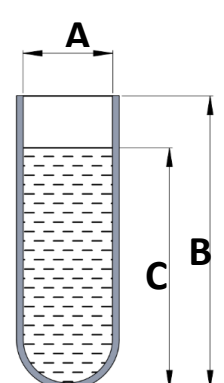
glass tubes	max RCF in angular rotors	max RCF in horizontal rotors
5-10 ml	3000 x g	4000 x g
30-100 ml	spinning not allowed	4000 x g

- Weighing the filled test tubes into the rotor is recommended. When centrifuging in horizontal rotors, it is recommended to weigh the filled containers / hangers. This will allow to minimize the differences in mass between them, and as a result to avoid the negative impact of vibrations on the engine suspension and to reduce noise levels during the operation of the centrifuge.

5.2 Placing the rotor and accessories in the centrifuge

	▪ Connect the centrifuge to the power supply (mains socket at the back of the centrifuge). ▪ Turn on the centrifuge (switch on the side of the centrifuge). ▪ Open the cover of the centrifuge by pressing the COVER key. Before installing the rotor, check that the rotating chamber is free from any contamination. If there is dust, glass splinters, liquid residues, etc., remove them. ▪ The rotor can fall if not handled properly, therefore it should always be handled and placed in the centrifuge using both hands. ▪ Place the rotor on the motor axis by sliding it onto the cone as far as it will go (keeping the coaxiality between the rotor and the motor axis). ▪ Thread the rotor fixing screw into the motor shaft (clockwise), then tighten it securely with the rotor wrench. ▪ Fill the rotor with containers / hangers / test tubes according to recommendations in section Filling the rotor. ▪ In order to replace the rotor, first remove the tubes and containers from it, unscrew the rotor rotor fixing screw with the provided key, counterclockwise, and then use both hands to grasp the rotor on the opposite sides and remove it from the motor shaft. ▪ Install another rotor as described above.
---	---

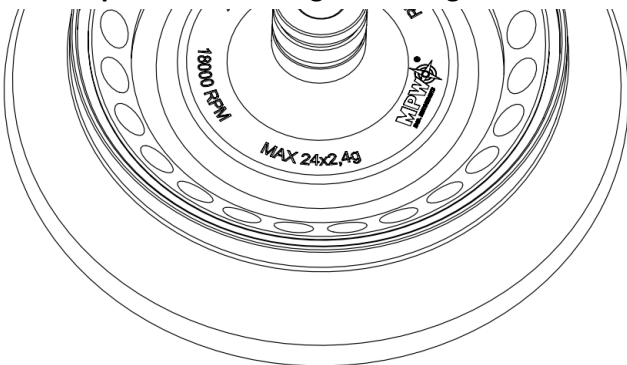
5.3 Filling tubes

	▪ Fill test tubes outside the centrifuge.  ▪ If the manufacturer of the test tube has not specified the maximum level, fill the test tubes so that the centrifuged substance does not run out of the vessel during centrifugation. To do this, use the formula below:  $C < B - \frac{A}{2}$ A – internal tube diameter B – tube height C – max liquid level
---	---

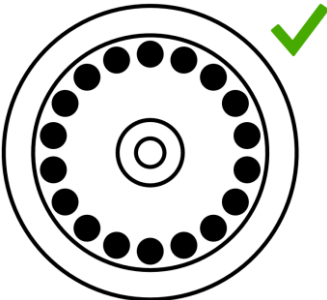
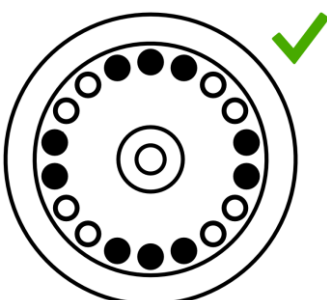
5.4 Filling the rotor

5.4.1 Angular rotors

	CAUTION! Angle rotors must be used with a suitable cover which must be screwed securely onto the rotor. The rotor and the cover are marked with the same catalog number (REF) to eliminate the risk of incorrect selection when you have several types of rotors.
---	---

	- Check that the impeller is seated correctly and firmly bolted to the motor shaft. - Do not exceed the maximum rotor load (information is provided on the rotor). An example of the marking on the angular rotor:  MAX. 24x2,4g - means the possibility of placing 24 test tubes in the rotor, each weighing 2.4 g. - To ensure symmetrical loading, insert test tubes of the same type and weight in pairs into opposite openings of the rotor. If reduction inserts are used, they should also be placed in the holes opposite to each other in pairs of the same type.
---	--

Examples of correct and incorrect arrangement of test tubes in the rotor:

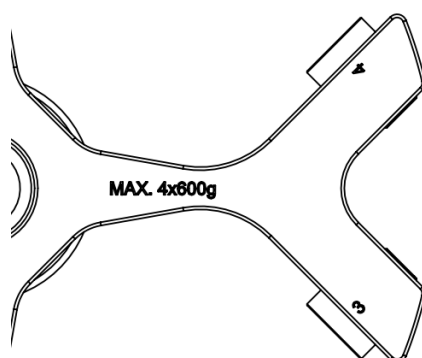
		
---	---	---

5.4.2 Horizontal rotors

- Check that the impeller is seated correctly and firmly bolted to the motor shaft. - Make sure that the rotor pins and grooves of the containers / hangers are clean, and then it is necessary to lubricate them with the technical petroleum jelly supplied with the device (catalog number 17201). - Place the containers / hangers in the rotor. - Horizontal rotors must be filled with a set of containers / hangers. - Observe the limitations for the permissible centrifugal mass stated on the rotor and container. If the marking appears on the rotor, it refers to the mass of the substance to be centrifuged, and if on the container it refers to the mass of the contents of the container, i.e. insert, test tube and the substance contained in it.
--

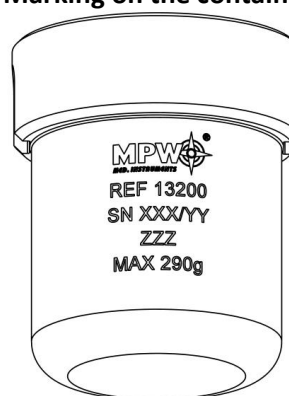
Examples of markings on horizontal rotors and containers:

Marking on the rotor



MAX. 4x600g – permissible weight of the contents of the test tubes placed in each of the 4 containers

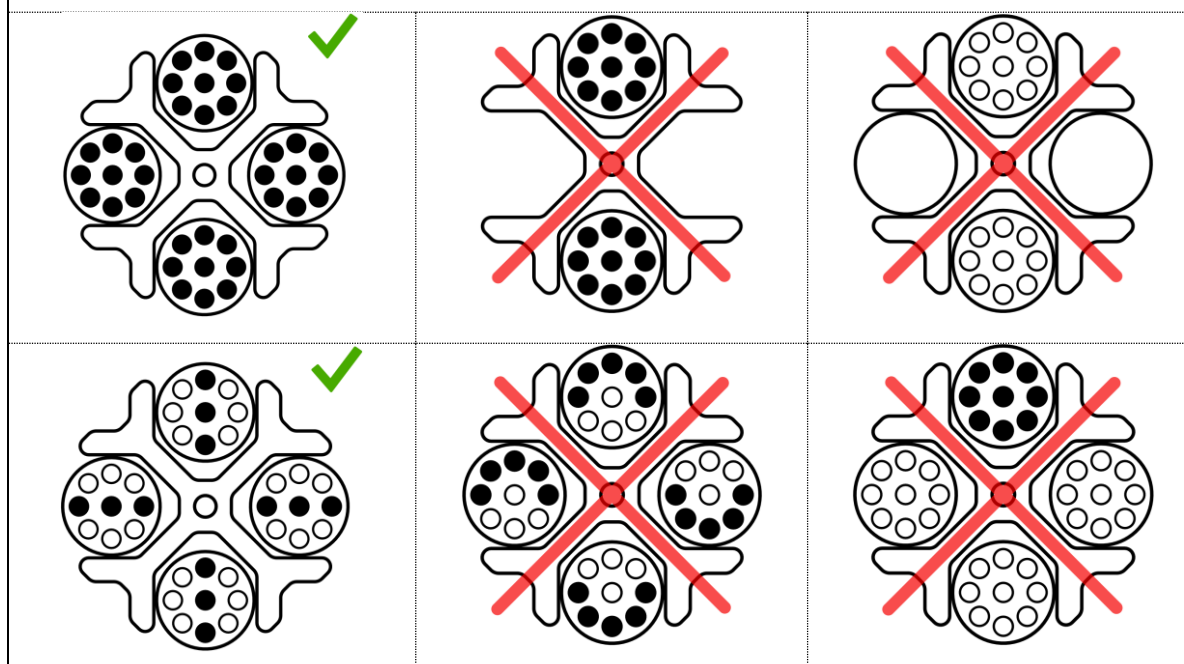
Marking on the container



MAX. 290g – maximum weight of the contents of the container

- In order to ensure symmetrical and even rotor load, try to fill opposite seats with containers / hangers of the same type and weight.
- Tubes should be placed symmetrically facing each other.
- Before starting the centrifugation, check that all containers / hangers are properly placed in the rotor and can swing freely.
- For this purpose, empty test tubes should be placed in containers. Manually tilt the containers to the horizontal position and check that there are no collisions between the tubes, containers / hangers and the rotor.

Examples of correct and incorrect arrangement of test tubes in the rotor:



5.5 Safety hints



ROTOR MAINTENANCE

- In order to increase the durability of gaskets, threaded places, rotor pins, undercuts for pins in containers, they must be cleaned, and then it is necessary to lubricate them with the technical petroleum jelly supplied with the device (catalog number 17201).
- Use only accessories that are in good technical condition.

	HU EQUIPMENT MAINTENANCE Make sure the sealing rings (rubber) are lightly coated with grease to maintain tightness. Use high vacuum silicone grease, eg type "C" by LUBRINA.
	HAZARDOUS MATERIALS - Infectious materials should be centrifuged only in containers / rotors with covers. - It is not allowed to centrifuge toxic or infectious materials if the rotor or test tube seal is damaged. - Appropriate disinfection procedures should always be carried out, if hazardous substances have contaminated the centrifuge or its accessories.
	EXPLOSIVE, FLAMMABLE MATERIALS - It is not allowed to centrifuge explosive and inflammable materials. - Do not centrifuge substances that could create a potentially explosive atmosphere as a result of the high energy supply during centrifugation. - The centrifuge must not be used in an explosive atmosphere. - It is not allowed to centrifuge materials that may generate flammable or explosive mixtures when exposed to air.

5.6 Operating conditions

	GENERAL REMARKS - Only original equipment of centrifuges and spare parts should be used. - In case of a malfunction of the centrifuge, the MPW MED factory service should be used. INSTRUMENTS or its authorized representatives. - It is not allowed to start the centrifuge if it is not installed correctly or the rotor and accessories are not properly mounted. - The centrifuge must not be transported with the rotor installed on the motor shaft. - Fill the rotor equipment to the same weight in order to prevent unbalance of the centrifuge (point Filling the rotor).
---	--

	START-UP Before switching on the device, carefully read all sections of this manual in order to ensure the correct operation of the device and to avoid damage to the device or its accessories.
---	---

	CENTRIFUGAL SUBSTANCES Rotors are designed for centrifuging liquids with an average density of 1.2 g / cm³ or less. This applies to centrifugation at maximum speed. If liquids with a higher density are to be used, be sure to enter the density value in the PARAM / DENSITY tab in order to reduce the available spin speed.
---	---

5.7 Equipment life

	- Each spin cycle in which the rotor has accelerated and decelerated is considered a duty cycle, independent of speed and duration. - Do not use the equipment after the allowable number of cycles or after the
--	---

	maximum service life has passed, whichever comes first. ▪ The number of permissible cycles for a given rotor can be found in Menu / Rotor cycles (see the Rotor cycles section).
--	--

5.8 Work safety

The centrifuge should be inspected by an authorized service at least once a year (after the warranty period). Special circumstances, e.g., corrosive environment, may be the reason for more frequent checks. Tests should end with issuing a validation protocol, which specifies checking the technical condition of a laboratory centrifuge.

It is recommended to create a document that records all repairs and inspections. This document should be kept in the place where the centrifuge is used.

	CONTROLS CONDUCTED BY THE OPERATOR ▪ The operator must pay attention to the fact that the parts of the centrifuge, important from the safety point of view, are not damaged. This remark applies to: ▪ Centrifuge accessories, especially structural changes, corrosion, initial cracks, abrasion of metal parts. ▪ Bolted connections. ▪ Inspection of rotor and container seals, if any. Particular attention should be paid to rubber elements (seals). In the event of any damage or visible structural changes, they should be immediately replaced with new ones. ▪ Control of the performance of annual post-warranty inspections of the technical condition of the centrifuge.
	OPENING THE COVER DURING SPINNING ▪ It is not allowed to use the emergency cover opening during centrifuging, because it may result in loss of health or life.
	HANDLING OF ROTORS ▪ It is not allowed to use accessories (rotors, lids, containers, hangers and round carriers) with signs of corrosion or other mechanical damage. ▪ It is not allowed to centrifuge substances of high corrosive aggressiveness, which may damage the materials and reduce the mechanical properties of rotors, buckets and round carriers. ▪ It is not allowed to centrifuge rotors with removed or loose covers.

5.9 Unbalance

	Unbalance causes noise, vibration during operation and has a negative effect on the driveline (engine and suspension). The more precisely the process of balancing the feed to the rotor is carried out, the smoother the centrifuge will run and the longer the useful life of the drive system will be. Moreover, thanks to the correct balancing, an excellent level of separation of the centrifuged substance is achieved since the separated components will not be picked up again by vibrations.
---	---

The centrifuge is equipped with a rotor imbalance sensor. In the event of its activation, the centrifugation process is stopped by quick braking and an error message is displayed. Erasing the error message is possible by pressing one of the following buttons: **BACK, STOP, COVER, SET** and **▲ ▼ ◀ ▶**.

Make sure that the rotor has been properly loaded - places in the rotor must be equipped with identically filled containers, inserts and test tubes so as to obtain the best possible weight balance (see chapter ***Filling the rotor***). If necessary, correct the load distribution and / or, in the case of horizontal rotors, clean and lubricate the rotor pins, then restart the spin.

5.10 Emergency stop

At any time during centrifugation, it is possible to interrupt the process and stop the centrifugation with the fastest rotor characteristics. This is done by pressing the stop button twice (**2x STOP**).

Pressing the **STOP** key once will stop the spinning with the braking characteristics set in the program. The message about interrupted centrifuging can be canceled with the following buttons: **BACK, STOP, COVER, SET** and **▲ ▼ ◀ ▶**.

5.11 Residual risk

The centrifuge is built according to the state-of-the-art and the recognized safety regulations. Nevertheless, still remain some level of residual risk due to improper operation and malfunctions. It is possible to decrease residual risk by strictly applying user manual conditions and correcting malfunction which could threaten safety, immediately.

5.12 Obligation to report a serious device incident

Any serious incident related to the device should be reported to the manufacturer and the competent authority of the Member State where the user or patient resides.

6 Product description

6.1 Product Design and Appearance

A new generation of MPW MED laboratory centrifuges. INSTRUMENTS is equipped with modern microprocessor controllers, very durable and quiet brushless induction motors and equipment that meets modern user requirements.

The centrifuge has a rigid self-supporting structure. The housing and cover are made of ABS plastic, the base is made of steel sheet, and the centrifugation chamber is made of stainless steel. The cover is mounted on steel hinge axles, and from the front it is secured against opening it during rotation with an electromagnetic lock.

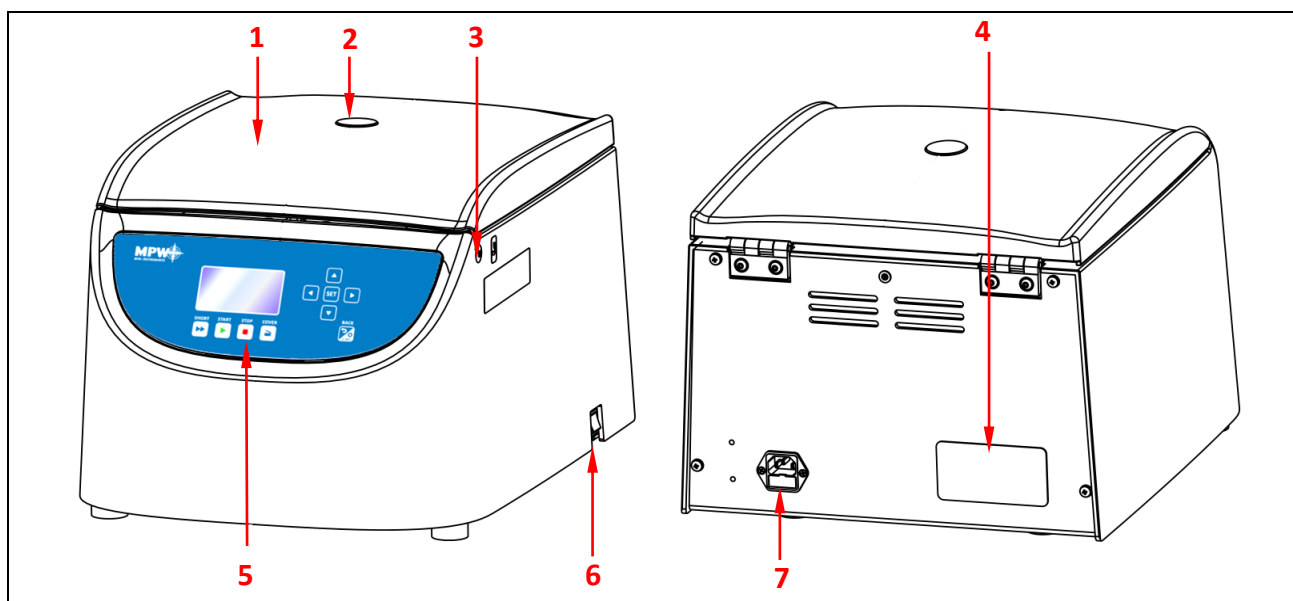


Fig.1. Front and rear view of the MPW M-UNIVERSAL centrifuge.

- | | |
|---|--|
| 1 | Centrifuge lid |
| 2 | Inspection glass (is used to control the rest condition of the rotor) |
| 3 | Emergency cover release |
| 4 | Name plate |
| 5 | Control panel (display and control of the centrifuge operation) |
| 6 | Main's switch |
| 7 | Centrifuge power socket (with fuse's socket) |

6.2 Name plate

The data concerning the device should be read from the rating plate located on the rear wall of the centrifuge (the picture below is an example).

1 Centrifuge model	9 Rated frequency
2 Catalog number	10 Current protection
3 Maximum speed	11 Manufacturer's logo
4 Rated voltage	12 Manufacturer's information
5 Maximum rated power	13 Information about the refrigerant (refrigerated centrifuges only)
6 Kinetic energy	14 Density of centrifuged substance
7 Serial number	15 QR code for serial number
8 Approval marks and symbols (explained in chapter 1)	16 Date of production

6.3 Control device

The microprocessor control unit of the centrifuge ensures broad possibilities of providing, realization and reading of work parameters.

6.4 Setting parameters

Data setting and read-out system forms hermetically closed keyboard with distinctly accessible operation points. Easily readable displays signalling individual performed operations facilitate operator's programming and recording of parameters and condition of the centrifuge.

6.5 Safety features

Cover lock

The centrifuge can be started only with properly closed cover. While the cover can be opened only after stopping the rotor. In case of emergency opening of the cover during operation, the centrifuge will be immediately switched-off and the rotor will brake till complete stopping

Unbalance detecting

When loads of opposite buckets or carriers in rotors are unbalanced, the drive will be switched-off during acceleration or operation of the centrifuge – and the error message will be displayed.

Rotor verification and checking compatibility with loaded program

Directly after starting centrifuging, a unit verifies the type of the rotor applied and in the case of its incompatibility with the type indicated in the application or absence of the rotor, the spinning process shall be stopped with simultaneous displaying the error message. The conformity of the type of the rotor is signalled with a single audible signal. In case auto identification (see 9.8 Other) option is checked, proper rotor will be automatically chosen, without user engagement.

Rest state inspection

Opening of the centrifuge's cover is possible only with the rotor in the state of rest. When the rotor is being stopped, the STOP diode is on and goes off when it is stopped. (Excepting emergency cover opening) – see p. TROUBLESHOOTING.

6.6 Increase in temperature

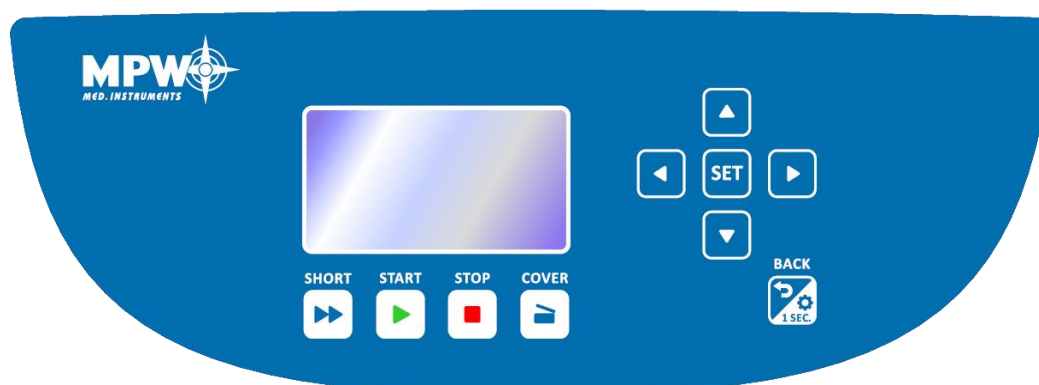
In uncooled centrifuges, the temperature in the rotor chamber, rotor and sample can increase to above 40°C, based on the run time, g-force (RCF)/speed and ambient temperature.

7 Centrifuging

Power switching ON/OFF is carried out with master switch situated on the side wall of the centrifuge. All settings on the centrifuge are done by means of the control panel.

7.1 Control panel

The control panel placed on the front casing serves the purpose of controlling centrifuge operation.



Control panel

	SHORT¹	short-time centrifuging
	START	start centrifugation run
	STOP²	end centrifugation run
	COVER	cover opening
	BACK/OPTIONS	exit the current menu / cancelling switching between rpm display mode and RCF display mode
	UP	navigation in menu / increasing values
	DOWN	navigation in menu / decreasing values
	LEFT	navigation in menu
	RIGHT	navigation in menu
	SET	changing parameters / confirming changes

¹ the centrifuge is working as long as the key is pressed

² first-time pressing press – will make stopping centrifuging with acceleration characteristics set in the current program (confirm message with pressing **STOP** or **BACK** key),
second-time pressing – will make the centrifuging as fast as possible

7.2 Display

The display is located in the centre of the control panel. The main screen variants are presented below.



After switching on Centrifuge, welcome screen appears. When welcome screen disappears, it is possible to setting up parameters.

The user can choose between two types of screen.

The **SIMPLIFIED SCREEN** is set by default.

TYPES OF MAIN SCREEN	
SIMPLIFIED DISPLAY (setting default)	NORMAL DISPLAY

7.2.1 Setting up RPM, RCF, TIME, temperature on the SIMPLIFIED DISPLAY

On the screen, it is possible to set:

ROTATING SPEED - RPM	SPEED
RELATIVE CENTRIFUGAL FORCE	RCF
CENTRIFUGING TIME	TIME

Exemplary change of **SPEED** or **RCF** setting:

or

- Press **SET** (to enter edit mode).
- With **▲▼** keys mark **SPEED** or **RCF** (the selected tab will be highlighted).
- Press **SET** (- blinking).
- Choose demanded order of magnitude by pressing **◀▶**.
- Set demanded value by pressing **▲▼**. Repeat above two steps for other orders of magnitude.
- Confirm set value by pressing **SET**.
- Leave edit mode by pressing **BACK**.

When RPM is changed, RCF is automatically corrected, and vice versa.

Exemplary change of **TIME** setting:

(set value)
[hour : min : sec]

current value
(most significant digits)

- Press **SET** (to enter edit mode).
- With **▲▼◀▶** keys mark **TIME**.
- Press **SET** (- blinking).
- Set demanded value by pressing **▲▼**.
- Choose "hours", "minutes" or "seconds" by pressing **◀▶**, e.g.: 00:02:00. Repeat above two steps for other orders of magnitude.
- Confirm set value by pressing **SET**.
- Leave edit mode by pressing **BACK**.

HOLD mode - Continuous operation mode .To end centrifuging in HOLD mode press **STOP**.

- To run centrifuging in **HOLD** mode set **00:00:00** time.

7.2.2 Switching between the screens

Switching the **SIMPLIFIED** display to **NORMAL** display:

	Press the BACK button for 1 sec. to return to the basic display (a short menu is displayed on the screen) Via ▲▼ keys select DISPLAY.
	- Via ▲▼ keys select SPEED/RCF. Depending on what you want it to appear on the NORMAL display. - Press SET

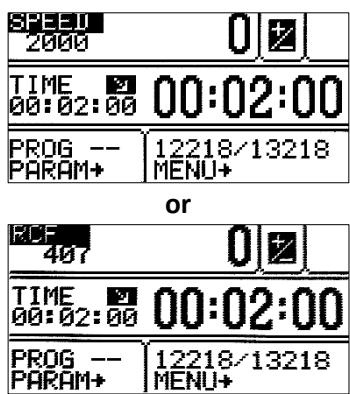
Switching the **NORMAL** display to **SIMPLIFIED** display:

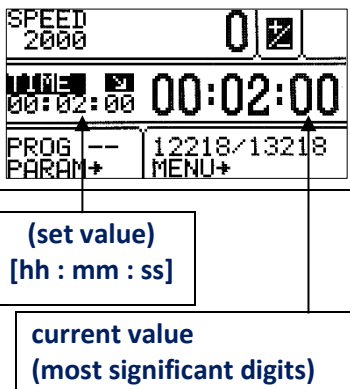
Method I.	
	- Press SET (to enter edit mode). - Via ▲▼◀▶ keys select MENU. - Press SET. - Via ◀▶ keys select CONFIGURATION tab. - Press SET.
	- Via ▲▼ keys select SIMPLIFIED DISPLAY tab. - Press SET. - Leave menu via BACK key x2.
Method II.	
	Press the BACK button for 1 sec. to return to the basic display (a short menu is displayed on the screen) - Via ▲▼ keys select SIMPLIFIED DISPLAY tab. - Press SET.

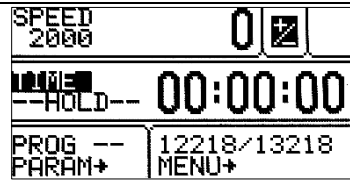
7.2.3 Setting up RPM, RCF, TIME, temperature on the NORMAL DISPLAY

NORMAL DISPLAY	
Display mode SPEED	Display mode RCF

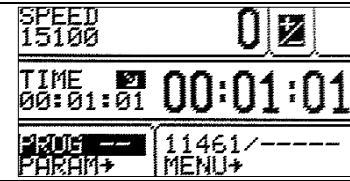
Switching between display SPEED and RCF:	
Switching between RPM and RCF display mode may be obtain by pressing and keeping key by 1s:	

Exemplary change of SPEED or RCF setting:	
	- Press SET (to enter edit mode ). - With ▲▼◀▶ keys mark SPEED or RCF (wybrana zakładka podświetli się). - Press SET ( - blinking). - Choose demanded order of magnitude by pressing ◀▶. - Set demanded value by pressing ▲▼. Repeat above two steps for other orders of magnitude. - Confirm set value by pressing SET. - Leave edit mode by pressing BACK.
When RPM is changed, RCF is automatically corrected, and vice versa.	

Exemplary change of TIME setting:	
	- Press SET (to enter edit mode ). - With ▲▼◀▶ keys mark TIME. - Press SET ( - blinking). - Choose "hours", "minutes" or "seconds" by pressing ◀▶, e.g.: 00:02:00. - Set demanded value by pressing ▲▼. Repeat above two steps for other orders of magnitude. - Confirm set value by pressing SET. - Leave edit mode by pressing BACK.

HOLD mode - Continuous operation mode (To end centrifuging in HOLD mode press STOP).	
	To run centrifuging in HOLD mode set 00:00:00 time.

7.3 Users programs

	After switching centrifuge on, program that was used in previous session is being loaded.
	Modification during run is represented by PROG -- symbol.

7.3.1 Program selection (Simplified display)

	Press the BACK button for 1 sec. to return to the basic display (a short menu is displayed on the screen) - With ▲▼ keys mark PROG. - Press SET.
---	---

Next, you should proceed in accordance with point. Choosing program.

7.3.2 Program selection (Basic display)

SPEED	15100	0	
TIME	00:01:01	00:01:01	
PROG	--	11461/----	
PARAM	→	MENU	→

- Press **SET** (to enter edit mode).
- With **▲▼◀▶** keys mark **PROG**.
- Press **SET**.

7.3.2.1 Choosing program

No	SPEED	RCF	ROT
0	15100	21158	11461
1	15100	21158	11461
2			
3			
4			
5			

The program list is displayed

- With **▲▼** keys choose demanded program number.
- Press **SET** - the selection frame will appear.

No	SPEED	RCF	ROT
99			
0			
1			
2			
3			
4			

With **▲▼** keys choose one of four possibilities

LOAD, SAVE, DELETE:

> – currently loaded program.

No	SPEED	RCF	ROT
0			
1			
2			
3			
4			

Use the **▲▼** buttons to select:

LOAD – load program,

SAVE – save settings as a program

(confirm by selecting **YES** and pressing **SET**).

DELETE – delete program

(confirm by selecting **YES**).

NEW PROGRAM – enter to create new program mode (as below).

- Press **SET**.

Press **BACK**.

No	SPEED	RCF	ROT
0			
1			
2			
3			
4			
5			

7.3.2.2 Creating a new program

SPEED	15100	0	
TIME	00:01:01	00:01:01	
PROG	--	11461/----	
PARAM	→	MENU	→

- Press **SET** (to enter edit mode).
 - Via **▲▼◀▶** keys mark **PROG** field.
 - Press **SET**.
- The program list appears.

No	SPEED	RCF	ROT
0	15100	21158	11461
1	15100	21158	11461
2			
3			
4			
5			

- Press **SET**.
- Selection frame appears.
- Via **▲▼** keys mark **NEW PROGRAM** field.
- Press **SET**.
- Set demanded parameters of centrifuging (look Screen).
- Via **▲▼◀▶** keys mark **PROG** field.
- Press **SET**.

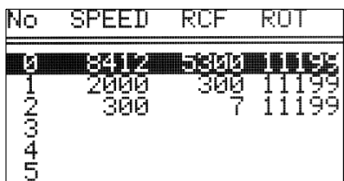
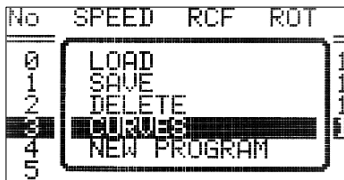
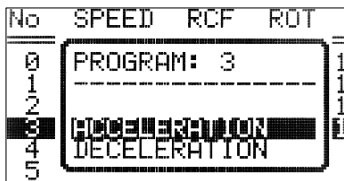
No	SPEED	RCF	ROT
99			
0			
1			
2			
3			
4			

The program list appears.

- Via **▲▼** choose demanded program number (0-99)
- Confirm by **SET** pressing.
- Via **▲▼◀▶** keys mark **SAVE** field.
- Press **SET**.

	Choose SAVE, a confirmation ask will appear, one should choose YES . The new program was created. To set it to work, one should choose LOAD. ▪ Press SET. ▪ Via ▲▼ keys mark LOAD field. ▪ Press SET.
Changing parameters during run	
There is a possibility to change parameters: SPEED, RCF, TIME, and PARAM. during centrifuging. Such modifications give in currently running program. Modification during run is represented by PROG – – symbol (instead of the program number).	

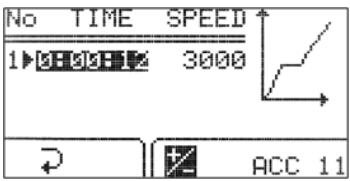
7.4 Creator of acceleration and deceleration curves

	PROG/CURVES
	▪ With ▲▼ keys choose saved program for which you intend to create the acceleration or deceleration characteristics (marked with symbol ▶). ▪ Press SET. ▪ With ▲▼ keys choose CURVES. ▪ Press SET - the selection frame is displayed.
	
	▪ With ▲▼ keys choose ACCELERATION to create acceleration characteristics or DECELERATION to create deceleration characteristics ▪ Confirm selection by pressing SET.

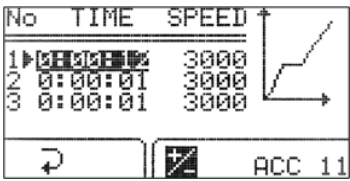
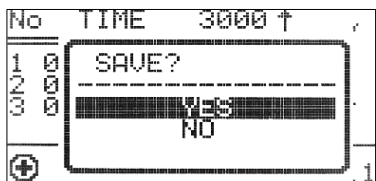
7.4.1 Acceleration characteristic, creation of episode 1

Displayed alternately SPEED and 3000 (example):  	No	section no. (max. 4)
	TIME	total acceleration time
	SPEED	final RPM
	ACC	characteristic's no. (10-19)
	⊕	adding a new section
	⊖	deleting last section
	✎	editing sections
	↶	exiting from characteristics wizard
	↷	switching RPM/RCF
	📈	entering graph view

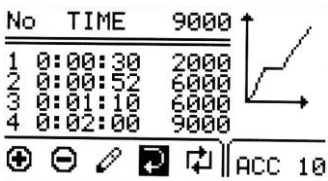
After entering the curve wizard, the symbol ↶ is highlighted. Pressing **SET** and selecting "**NO**" in response to the question "**SAVE?**" will return to the **PROG → CURVES** menu without making changes to the starting characteristics. To start editing the one-segment characteristics, select the icon ✎ with the ◀▶ keys and press the **SET** key.

	editing value (flashing means editing the given value) - Press SET - With ▲▼◀▶ choose time for section - Press SET - It is not possible to edit the maximum speed value. To do this, more sections have to be created, but the last section will always have the maximum set speed and cannot be changed. - Select ◀▶ with ▼◀ buttons and press SET to finish editing characteristics.
---	--

7.4.2 Adding and editing sections - acceleration

To program next sections, select the ⊕ icon with the ◀▶ buttons and press SET. A new section (sections) will appear with a time of 1 second and a speed equal to the maximum speed. To start editing a newly added section (sections), select the ✎ icon with the ◀▶ buttons and press SET, and follow the instructions given below. After entering the profile section editing menu, the time value of the first section will be highlighted (see the picture below).	
	The maximum speed value for the section cannot be higher than the maximum speed value for the characteristic (for the last section). - With ▲▼◀▶ highlight time or speed for desired section - Press SET - With ▲▼◀▶ choose value - Press SET - Repeat until setting all the sections - To finish editing characteristic with ▲▼◀▶ choose ◀▶ and press SET. Finishing edition can be also done by pressing BACK button.
Saving created characteristic	
	- Select the ◀▶ icon with the ◀▶ buttons and press SET - In the "Save?" window, use ▲▼ buttons to select YES to confirm saving the characteristic or NO, to exit without saving - Press SET

7.4.3 Acceleration graph

An example of given parameters and a diagram:	
	After the time value programming is completed, the TIME + SPEED segment of the user's startup characteristic can be displayed graphically. The set section of the characteristic curve is illustrated on the graph, which can be displayed by selecting the icon  with the ◀▶ keys and pressing the SET key.



7.4.4 Deceleration characteristic, creation of episode 1

SPEED or 3000 displayed (example):	No	section no. (max. 4)
	TIME	total acceleration time
	SPEED	final RPM
	DEC	characteristic's no. (10-19)
		adding a new section
		deleting last section
		editing sections
		exiting from characteristics menu
		switching RPM/RCF
		entering graph view

After entering the curve wizard, the symbol is highlighted. Pressing **SET** and selecting "NO" in response to the question "SAVE?" will return to the **PROG → CURVES** menu without making changes to the starting characteristics. To start editing the one-segment characteristics, select the icon with the **◀▶** keys and press the **SET** key.

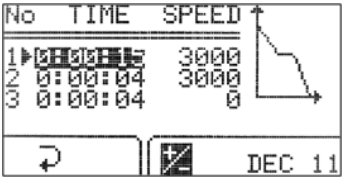
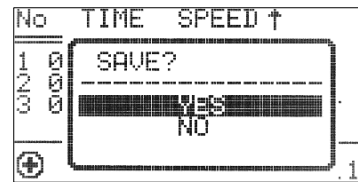
		editing value (flashing means editing the given value)
	- Press SET - With ▲▼◀▶ choose time for section - Press SET - To edit speed - It is not possible to edit the minimum speed value. To do this, more legends must be created, but the last leg will always be "0". - Select with ▼◀ buttons and press SET to finish editing characteristics	

7.4.5 Adding and editing sections - deceleration

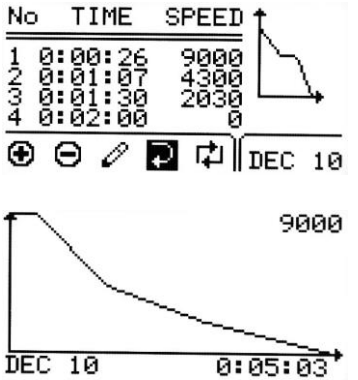
In order to program successive periods, select the icon with the **◀▶** keys and press the **SET** key. A new segment (or segments - after successive presses of SET) will appear with the time and speed equal to the minimum speed - "0".

To start editing the newly added sections, select the icon with the **◀▶** buttons, press **SET** and make the settings as described below.

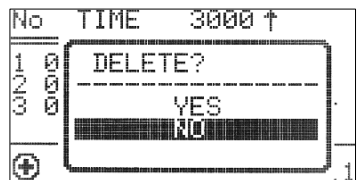
After entering the profile section editing menu, the time value of the first section will be highlighted (see the picture below).

	The speed value of the last segment will always be "0". - With ▲▼◀▶ highlight time or speed for desired section - Press SET - With ▲▼◀▶ choose value - Press SET - Repeat until setting all the sections - To finish editing characteristic with ▲▼◀▶ choose  and press SET. Finishing edition can be also done by pressing BACK button
SAVING CREATED CHARACTERISTIC	
	- Select the  icon with the ◀▶ buttons and press SET - In the "Save?" window, use ▲▼ buttons to select YES to confirm saving the characteristic or NO, to exit without saving - Press SET

7.4.6 Deceleration graph

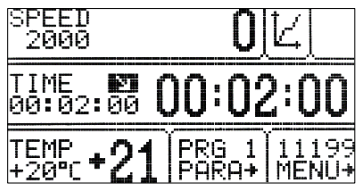
An example of given parameters and a diagram:	
	After programming the time value, you can graphically display the TIME + SPEED segment of the user's braking characteristic. The set section of the characteristic curve is illustrated on the graph, which can be displayed by selecting the icon  with the ◀▶ keys and pressing the SET key.

7.4.7 Deleting sections

In the characteristic's wizard:	
	- Select the  icon with the ◀▶ buttons and press SET - In the "Delete?" window, use ▲▼ buttons to select YES to confirm deleting the characteristic section or NO to cancel - Press SET

7.5 Programs with user characteristics

Loading a modified program in the **CURVES** fold is signaled by the icon on the main screen:

	Icon  signals that program with user acceleration/deceleration characteristics are loaded.
---	--

A change in any parameter entails the deactivation of the multi-section's curves mode.

7.6 Choosing rotors and container

7.6.1 Choosing rotors and container on the SIMPLIFIED SCREEN

	Press the BACK button for 1 sec. to return to the basic display (a short menu is displayed on the screen) - With ▲▼◀▶ keys mark 11213 / 13276 zone (rotor no. / container no.). - Press SET
--	--

Next, you should proceed in accordance with point Choosing rotors and container.

7.6.2 Choosing rotors and container on the BASIC DISPLAY

	- Press SET (to enter edit mode). - With ▲▼◀▶ keys mark 11213/13276 zone (rotor no. / container no.). - Press SET.
--	---

7.6.2.1 Choosing rotors and container

	Selection of the rotor with a container marked : - Use the ▲▼ keys to select the desired rotor or rotor number and the container marked . - Confirm the selection by pressing the SET key. - Press BACK. Selection of the rotor with a container marked : - the ability to change the container. - Use the ▲▼ keys to select the desired rotor or rotor number and the container marked . - Press SET. - Use the ▲▼ to select the desired container. - Confirm the selection by pressing the SET key. - Press BACK. - You can move between screens with rotor parameters using the ◀▶ keys.
	Selection of the rotor without container: - Use the ▲▼ keys to select the desired rotor. - Press SET.

It is possible to set ROTOR AUTOIDENTIFICATION.
The procedure is described in the ***Rotor automatic identification*** chapter.

7.7 SHORT mode

	In SHORT mode the centrifuge is working as long as the ▶▶ (SHORT) key is pressed or when set time is over. Centrifuging ends when the SHORT key is released.
--	--

7.8 Terminating centrifugation

STOPPING CENTRIFUGATION CYCLE	
When preselected time is reached, centrifugation will end automatically.	
x1	Pressing STOP for the first time will stop centrifuging with the characteristic set in loaded program. Confirm message by pressing STOP.



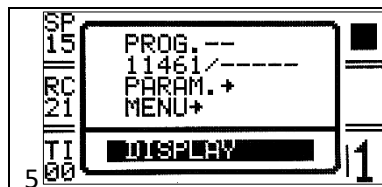
x2

Pressing **STOP** second time will stop centrifuging with the fastest characteristic.

The message may be extinguished with **STOP**, **SET**, **COVER**, **▲▼◀▶** lub **BACK** button.

8 Parameters of centrifugation

8.1 Choosing parameters on the SIMPLIFIED SCREEN

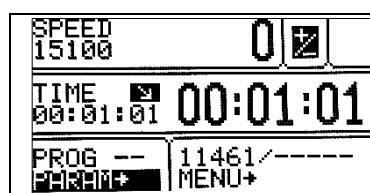


Press the **BACK** button for **1 sec.** to return to the basic display (a short menu is displayed on the screen)

- With **▲▼◀▶** keys mark **PARAM.** field.
- Press **SET**.

After that follow instructions described in *Choosing centrifugation parameters*.

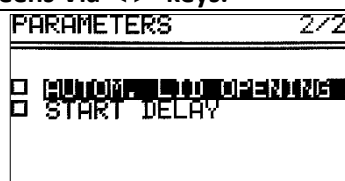
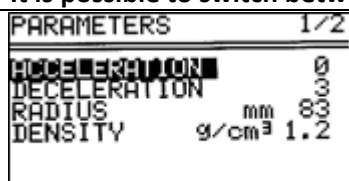
8.2 Choosing parameters on the BASIC DISPLAY



- Press **SET** (to enter edit mode)
- With **▲▼◀▶** keys mark **PARAM.** field.
- Press **SET**.

8.3 Choosing centrifugation parameters

It is possible to switch between two different screens Via **◀▶** keys.

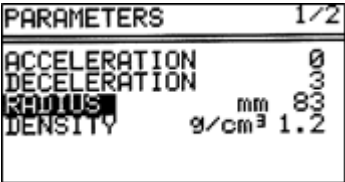
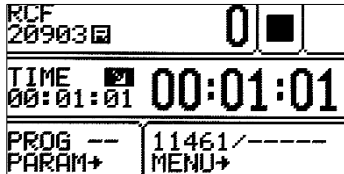


ACCELERATION	chosen acc. characteristic (0-the fastest, 9-the slowest)
DECELERATION	chosen dec. characteristic (0-the fastest, 9-the slowest)
RADIUS [mm]	current rotor radius [mm]
DENSITY (g/cm³)	sample density [g/cm ³]
AUT. LID OPEN	opening cover after centrifuging automatically
START DELAY	starting delayed (after pressing START)

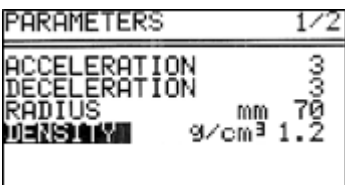
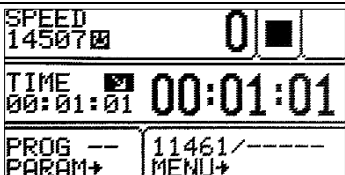
8.3.1 Accelerating/decelerating – changing characteristics

ACCELERATION / DECELERATION	PARAM. / ACCELERATION / DECELERATION
	<u>ACCELERATION</u> – 10 linear accelerating characteristics assigned to every rotor. (0-the fastest, 9-the slowest) <u>DECELERATION</u> – 10 linear decelerating characteristics assigned to every rotor (0 ÷ 9). (0-the fastest, 9-the slowest) ▪ With ▲▼◀▶ keys mark ACCELERATION / DECELERATION fold ▪ Press SET (to enter edit mode) ▪ Set demanded value by pressing ▲▼. ▪ Press SET. ▪ Press BACKx2.

8.3.2 Radius

 RADIUS [mm]	PARAM./ RADIUS
	Control of the radius of the rotor within the range from R_{min} to R_{max}. Available values depends on chosen rotor, see — / — (rotor number / container number) - With $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ keys mark RADIUS fold - Press SET (to enter edit mode +/-). - Set demanded value by pressing $\blacktriangle \blacktriangledown$. - Press SET. - Press BACKx2.
When radius is changed is activated,  symbol is visible on the screen. Displayed RCF will be computed in accordance with changed value of radius.	
BASIC DISPLAY	SIMPLIFIED DISPLAY
	

8.3.3 Density

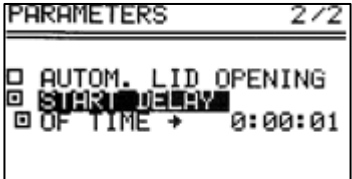
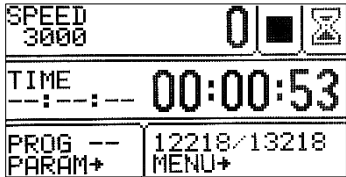
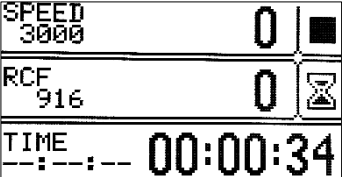
 DENSITY (g/cm ³)	PARAM./ DENSITY
	Default density is set to 1,2 g/cm³ (possible values 1,2 ÷ 9,9 g/cm³). - With $\blacktriangle \blacktriangledown$ keys mark DENSITY. - Press SET +/- appears. - Via $\blacktriangle \blacktriangledown$ keys choose demanded values. - Press SET. - Press BACKx2.
When density is changed, symbol  is visible on the screen. Increasing density of the sample above 1,2 g/cm³ (and limiting of the maximum speed of centrifuging resulting from it) applies until switching off power supply of the centrifuge or setting the device back to 1,2 g/cm³. Increasing the density reduces the maximum speed of the rotor.	
BASIC DISPLAY	SIMPLIFIED DISPLAY
	

8.3.4 Automatic lid open

 Automatic lid open	PARAM. / AUTOM. LID OPENING
	- Via $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$ keys choose AUTOM. LID OPENING. - Press SET (to switch off/on). - Press BACKx2. When centrifuge process is finished, cover will be opened automatically. When centrifuging is terminated by pressing STOP, opening cover is possible by pressing COVER.
 symbol means that OPEN LID AFTER RUN is active.	

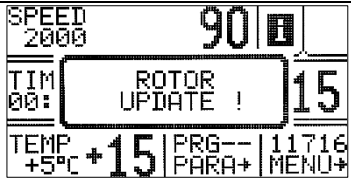
BASIC DISPLAY	SIMPLIFIED DISPLAY

8.3.5 Start delay-OF TIME

	Start centrifuging since preselected delay is reached.	PARAM./ START DELAY/OF TIME
	▪ Via ▲▼ keys mark START DELAY. ▪ Press SET. ▪ Via ▼ keys mark OF TIME. ▪ Via ► keys mark field 0 : 0 0 : 05 (for example). ▪ Press SET -  appears. ▪ Via ▲▼ keys SET demanded values. ▪ Press SET. ▪ Confirm by pressing SET. ▪ Start delay can be set from 0 : 0 0 : 0 1 to 9 : 5 9 : 5 9. Press BACKx2.	
When START DELAY-OF TIME function is activated,  symbol is visible on the screen.		
BASIC DISPLAY		SIMPLIFIED DISPLAY
		

8.3.6 Screen messages

End of centrifuging – manual mode	
	Centrifuging may be stopped at the any moment via the STOP key. The information message: CYCLE CANCELLED will be displayed
End of centrifuging – manual mode	
	Stopping centrifuging in accordance the set time causes generating multiton audible signals (after stopping the rotor) and displaying the message FINISH OF CENTRIFUGING
Additional messages	
	In case of power shortage while centrifuging, after repeated switching it on, the following error screen will be displayed: SUPPLY DECAY WHILE CENTRIFUGING
	Identified number of the installed rotor is not compatible with the number of rotor remembered in program.

	The rotor is automatically updated (when auto-identification is enabled).
	Rotor is braking (only when centrifuge was switched off during rotor running).
After pressing the STOP, SET, COVER, ▲▼◀▶ or BACK key, the device returns to the main screen.	

Screen messages that may occur during operation.

MESSAGE	EXPLANATION
"SPEED OF ROTOR" "IDENTIFICATION <> 90 RPM"	SPEED OF ROTOR IDENTIFICATION <> 90 RPM
"IMBALANCE FAST STOP!" "PLEASE REMOVE CAUSE" "THEN RESTART"	UNBALANCE DETECTED
"NO ROTOR OR IDENTIFICATION" "SENSOR DAMAGED!"	ERROR OF ROTOR IDENTIFICATION {LIMIT OF 6SEC. IS OVER}
"INCORRECT ROTOR NUMBER!"	ROTOR'S ID NOT CORRECT
"WRONG DIRECTION OF ROTATION" "OR UNKNOWN ROTOR!"	WRONG DIRECTION OF ROTATION / UNKNOWN ROTOR
"PLEASE CLOSE THE LID" "HAND!"	CLOSING THE LID MANUALLY
"ROTOR STOPPING!" "Please wait..."	INITIALIZING AFTER MAINS FAILURE WITH ROTATING ROTOR
"CYCLE'S ABORTED!"	CENTRIFUGING ENDED BECAUSE OF PRESSING STOP
"CYCLE'S FINISHED"	CENTRIFUGING ENDED {WITHOUT ERRORS}

Emergency messages.

In case of emergency messages (centrifuge is not working properly) contact the manufacturer's authorized service centre.

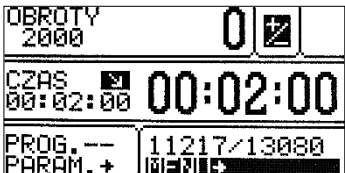
MESSAGE
"OVERHEATING MOTOR!"
"INVERTER ERROR!"
"INVERTER SERIAL BUS ERROR!"
"OPENING COVER in RUN!"
"SPEED METER ERROR"
"I2C BUS ERROR"
"ROTOR OVERSPEED!"
"COVER LOCK MALFUNCTION!"

9 Menu

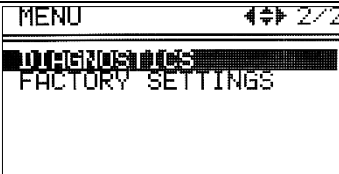
9.1 Starting MENU on the SIMPLIFIED DISPLAY

	Press the BACK button for 1 sec. to return to the basic display (a short menu is displayed on the screen) - Via ▲▼ keys select MENU. - Press SET.
Next, you should proceed in accordance with point. <u>MENU navigation</u> .	

9.2 Starting MENU on the NORMAL DISPLAY

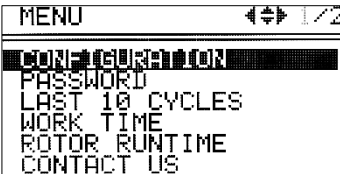
	- Press SET (to enter edit mode ). - Via ▲▼◀▶ keys select MENU. - Press SET.
---	---

9.3 MENU navigation

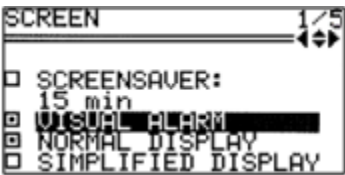
- Moving in the MENU is possible via ▲▼◀▶ keys. - To open demanded field one should mark it and press SET.		
		

CONFIGURATION	centrifuge configuration
PASSWORD	password protection
LAST 10 CYCLES	10 last centrifugation cycles history
WORK TIME	total working time, working cycles counter
ROTOR RUNTIME	counting time mode
CONTACT US	manufacturer's details
DIAGNOSTICS	error codes (service field)
FACTORY SETTINGS	restore factory settings

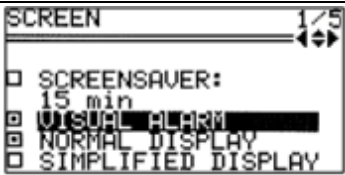
9.4 Configuration

	MENU/CONFIGURATION
	- With ▲▼ keys select CONFIGURATION. - Press SET.

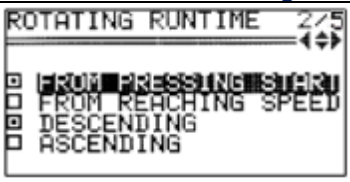
9.4.1 Screen saver

Setting time of screen saver	MENU / CONFIGURATION / SCREEN
	- With ◀▶ keys select SCREEN. - With ▲▼ keys select SCREENSAVER. - Press SET. - With ▲▼ keys choose 15 min. - Press SET ( - activates the editing mode). - With ▲▼ keys select demanded value from 1 to 60 minutes. - Mark selection by pressing SET. - Leave the menu by pressing BACK two times.

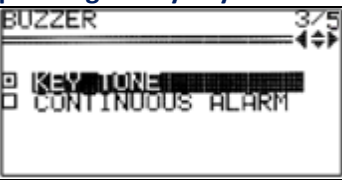
9.4.2 Visual alarm

Visual alarm	MENU / CONFIGURATION / SCREEN
	- With ◀▶ keys select SCREEN. - Via ▲▼ keys choose VISUAL ALARM. - Mark it by pressing SET. - Leave the menu by pressing BACKx2. VISUAL ALARM cause blinking screen after ending of centrifuging or after error occurring.

9.4.3 Counting time

The method of counting time	MENU/CONFIGURATION/ ROTATING RUNTIME
	- With ◀▶ keys select ROTATING RUNTIME. - Via ▲▼ choose demanded option. - Mark it by pressing SET. - Leave menu via BACK keyx2.
Counting since:	
FROM PRESSING START	Counting since rotor is identified
FROM REACHING SPEED	Counting from assigned speed
Presenting mode:	
DESCENDING	Counting down
ASCENDING	Counting up

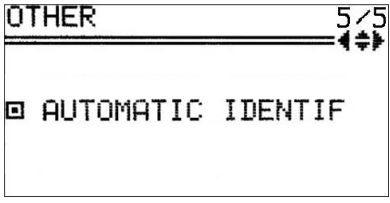
9.4.4 Buzzer

Switching ON/OFF short audible signals accompanying every pressing of any key.	MENU/ CONFIGURATION /BUZZER
	- With ◀▶ keys select BUZZER. - With ▲▼ keys select demanded option. - Mark selection by pressing SET. - Leave menu via BACK key x2.
Warning signals are always switched on.	

9.4.5 Language

Changing menu language	MENU / CONFIGURATION / LANGUAGE
- With ◀▶ keys select LANGUAGE. - Via ▲▼ keys choose demanded menu language. - Mark it by pressing SET. - Press BACKx2.	
	

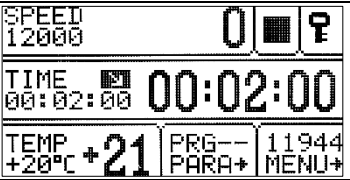
9.4.6 Rotor automatic identification

Rotor automatic identification	MENU / CONFIGURATION / OTHER
Thanks to the AUTOMATIC IDENTIFICATION, the centrifuge automatically identifies the rotor in the chamber. Rotor identification is indicated by the message. When the function is deactivated, it is necessary to manually select the desired rotor as described in Choosing rotors.	
	The AUTOMATIC IDENTIF. is turned on by default. Aby włączyć funkcję należy: - With ◀▶ keys select OTHER. - Via ▲▼ keys choose. ☐ AUTOMATIC IDENTIF. - Press SET (☐ change to ☒). - Press BACKx2.
Warning! After automatic detection of the rotor, check that the container number is correct, for example 11213/13276 (rotor number / container number). In the AUTOIDENTIFICATION process, the rotor is automatically detected.	

It is necessary to set the container manually in accordance with section **Choosing rotors and container**.

9.5 Password

Setting up password	MENU / PASSWORD
To prevent from an unauthorized use, a PASSWORD can be set. Note: No PASSWORD is set by default. The PASSWORD can be set as follows when the rotor is at a standstill.	
	- Press the ▲▼ keys until PASSWORD. - Press SETx2. - With ▲▼ keys set the valid 1000s place of the PASSWORD. e.g.: 1xxx.
	- Press ►. - With ▲▼ keys set correct value. - Repeat above steps for all places. - Press SET. As a confirmation repeat instructions described above.
When the PASSWORD is set, the Key sign is displayed in the CODE zone. It is also displayed in the main menu (in the upper right corner of the screen).	

	From then on, access to the MENU is possible after entering the password. In case of incorrect password, it will show message: ACCESS DENIED
To delete the PASSWORD, "0000" must be set. If the PASSWORD is forgotten, the emergency code "7654" should be used to clear password and remove all locks.	
Setting up locks	
	- With ▲▼ keys choose a lock. - Mark a lock by pressing SET. - Repeat above steps for desired locks. - Leave menu with BACK key x2.

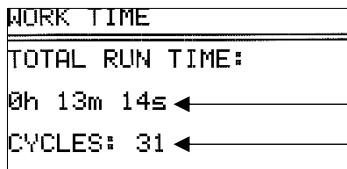
LOCKS*	DESCRIPTION
SAVE PROGRAM	no programs can be saved.
DELETE PROGRAM	- no programs can be deleted. - saving programs on position where one was already stored is disabled.
CHANGE PARMETERS Fields: 1. SPEED 2. RCF 3. TIME 4. PROG 5. — / — 6. PARAM	parameters can not be modified.
LOAD PROGRAM	no programs can be called up.
START KEY	centrifugation can not be started.

* Executing disabled procedures is only possible after entering the correct.

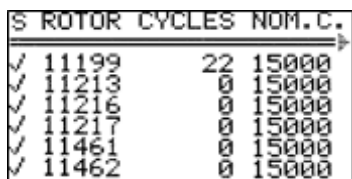
9.6 10 cycles

Information concerning parameters of last 10 centrifuging cycles.	MENU / LAST 10 CYCLES
	- Press the ▲▼ keys until 10 CYCLES. - Press SET. - Number of cycle can be changed by ◀▶ keys. - The list can be scrolled using ▲▼ keys. - To exit press BACK key x3.

9.7 Work time

Total working time of centrifuge	MENU/ WORK TIME
	- Press the ▲▼ keys until WORK TIME. - Press SET. The tab informs about the total working time of the centrifuge and number of cycles. total working (centrifugation) time working cycles counter - Press BACKx3.

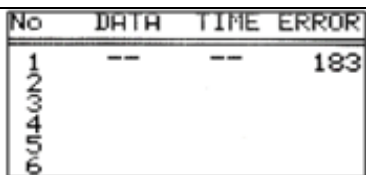
9.8 Rotor cycles

Information about the time of centrifuging and of the quantity of the working cycles of each rotor. The table also contains icons warning of the duty of execution of validation.	MENU / ROTOR RUNTIME
	- Press the ▲▼ keys until ROTOR RUNTIME. - Press SET. - The list can be scrolled using ▲▼ keys. - To exit press BACK key x2. Symbols: ✓ – more than 100 cycles left ! – less than 100 cycles left ■ – worn rotor -> Rotors marked as worn must not be used.

9.9 Manufacturer's details

Information about the type of the centrifuge, firmware version, and contact details.	MENU / CONTACT US
	- Press the ▲▼ keys until CONTACT US. - Press SET. - The list can be scrolled using ▼▶ keys. - To exit press BACK key x2.

9.10 Diagnostics

Information about errors arisen in working of the centrifuge.	MENU / DIAGNOSTICS
	- Press the ▲▼ keys until DIAGNOSTICS. - Press SET. For service staff!

9.11 Factory settings

Restoring factory settings.	MENU / FACTORY SETTINGS
-----------------------------	-------------------------

All settings of user programs will be deleted.

```

FACTORY SETTINGS:
-----
WARNING!
ALL PROGRAMS, SETTINGS
AND CONFIGURATION
WILL BE LOST.
CONTINUE?
YES      NO
  
```

- Press the ▲▼ keys until **FACTORY SETTINGS**.
- Press **SET**.
- Via ◀▶ keys choose **YES** or **NO**.
- Confirm by pressing **SET**.

10 Maintenance

10.1 Cleaning of the centrifuge



- **Pull the mains plug before cleaning.**
- **Before any cleaning or decontamination process other than that is recommended by the manufacturer, the user has to ask the manufacturer if the planned process does not damage the device**
- For cleaning, water with soap or other water-soluble **mild detergent** shall be used.
- One should avoid corrosive and aggressive substances. It is prohibited to use alkaline solutions, inflammable solvents or agents containing abrasive particles.
- Do not lubricate the centrifuge motor shaft.
- The unused centrifuge should have cover opened.
- **Once a week**
- Using wiping cloth, remove condensate or residues of the products from the rotor chamber.
- **Once a month**
- Check the rotor fixing screw thread. In case of damage, replaced it.
- Check the centrifuging chamber whether it is damaged. In case of damage, it cannot be longer put into operation. Notify authorized service workshop.

10.2 Maintenance of centrifuge elements



In order to increase the durability of threaded places in containers, lids and horizontal rotor suspension pins, lubricate with technical petroleum jelly.

Make sure that the sealing rings (rubber) of the containers are thinly coated with silicone grease for vacuum in order to maintain tightness (catalog number 17201 - element of basic equipment).

Cleaning of the accessories



- In order to ensure safe operation, one shall carry out in **regular** way periodical maintenance of the accessories.
- Rotors, buckets and round carriers have to withstand high stresses originating from the centrifugal force. Chemical reactions as well as corrosion (combination of variable pressure and chemical reactions) can cause destruction of metals. Hard to observe surface cracks increase gradually and weaken material without visible symptoms.
- In case of observation of surface damage, crevice or other change, as well as the corrosion, the given part (rotor, bucket, etc.) shall be immediately replaced.
- The rotor, including the fixing screw, buckets and round carriers must be regularly cleaned to prevent corrosion.
- Cleaning of the accessories shall be carried out outside of the centrifuge **once every week** or still better after each use. For cleaning them one should use neutral agent of

	pH value 6÷8. It is forbidden to use alkaline agent of pH > 8. Then, those parts shall be dried using soft fabric or in the chamber drier at ca. 50°C. ▪ Angle rotor should be placed on a fabric with holes facing down, for effective drying. ▪ Do not use bleach on plastic parts of the rotor. ▪ In this way, the useful service life of the device is substantially increased and susceptibility to corrosion is diminished. Accurate maintenance increases the service life as well and protects against premature rotor failures. ▪ Do not use bleach on plastic parts of the rotor. ▪ According to laboratory standards, minimize the immersion time in each solution. ▪ Especially prone to the corrosion are parts made of aluminum. ▪ Corrosion and damages resulting from insufficient maintenance could not be subject of claims lodged against the manufacturer. ▪ The unused rotor should have the lid removed.
--	--

HS accessories maintenance:

	▪ Check the general condition of seals. ▪ Make sure that rubber O-rings are lightly coated with silicone grease. Use high vacuum grease, e.g., type „C” by LUBRINA. ▪ The rotor pins shall be always lubricated with petroleum jelly.
---	--

10.3 Sterilization

Plastics - legend to abbreviations

PS	-	polystyrene	ECTFE	-	ethylene/chlorotrifluoroethylene
SAN	-	styrene-acrylonitrile	ETFE	-	ethylene/tetrafluoroethylene
PMMA	-	polymethyl methacrylate	PTFE	-	polytetrafluoroethylene
PC	-	polycarbonate	FEP	-	tetrafluoroethylene/perfluoro propylene
PVC	-	polyvinyl chloride	PFA	-	tetrafluoroethylene/perfluoroalkylvinylether
POM	-	acetal polyoxymethylene	FKM	-	fluorocarbon rubber
PE-LD	-	low density polyethylene	EPDM	-	ethylene propylene diene
PE-HD	-	high density polyethylene	NR	-	natural rubber
PP	-	polypropylene	SI	-	silicon rubber
PMP	-	polymethyl pentene			

One can use all standard disinfectants. Centrifuges and devices are made of different materials, one should consider their variety.

	radiation β radiation γ 25 kGy	C ₂ H ₄ O (ethylene oxide)	formalin, ethanol
PS	●	○	●
SAN	○	●	●
PMMA	●	○	●
PC	●	●	●
PVC	○	●	●
POM	●	●	●
PE-LD	●	●	●
PE-HD	●	●	●
PP	●	●	●
PMP	●	●	●
ECTFE, ETFE	○	●	●
PTFE	○	●	●
FEP, PFA	○	●	●

FKM	○	●	●
EPDM	○	●	●
NR	○	●	●
SI	○	●	●

- can be used
- do not use

In the centrifuge, disinfectants and cleaning agents generally used in medical care should be used (e.g., Aerodesina-2000, Lysoformin 3000, Melseptol, Melsept SF, Sanepidex, Cutasept F).

10.4 Autoclaving

- Rotors, buckets, and inserts may be autoclaved at 121 ° C for 20 minutes (215kPa), unless otherwise stated in the ADDITIONAL EQUIPMENT.
- When sterilizing with steam (autoclaving), take the temperature resistance of the individual materials into account.
- During autoclaving, deformation of plastic accessories, such as inserts and covers, cannot be ruled out.
- It is not planned to autoclave disposable materials, e.g., test tubes, Cyto inserts.
- The service life of the accessories depends essentially on the frequency of autoclaving and use.
- Frequent, repeated autoclaving reduces the service life of plastic components. They should be replaced when there is any sign of damage, including a change in colour or shape, or if leakage occurs etc.
- Frequent steam sterilization (autoclaving) reduces the mechanical strength! PC tubes may become unusable.
- Pressure in closed containers etc. may deform the plastic parts or cause an explosion.
- Before autoclaving impellers and accessories, wash them thoroughly and rinse with distilled water.
- Never exceed the permissible autoclaving temperature and time.
- In order to maintain hermetic seals, it is recommended to replace the sealing rings after each autoclaving.

The resistance of plastics to autoclaving

	autoclaving 121 °C, 20 min		autoclaving 121 °C, 20 min
PS	○	PMP	●
SAN	○	ECTFE, ETFE	●
PMMA	○	PTFE	●
PC	●	FEP, PFA	●
PVC	○ ¹⁾	FKM	●
POM	●	EPDM	●
PE-LD	○	NR	○
PE-HD	○	SI	●
PP	●		

● may be used

○ cannot be used

¹ Except PVC hoses which are resistant to the steam sterilization in the temperature 121 °C.

10.5 Chemical resistance

Chemical resistance of plastics

	aldehydes	cyclic alcohols	esters	ether	ketones	strong or concentrated acids	weak or diluted acids	oxidizing substances	cyclic hydrocarbons	ahs	haloid hydrocarbons	alkalis
PS	○	●	○	○	○	○/●	○/●	○	○	○	○	●
SAN	○	●	○	○	○	○	○/●	○	○	○	○	●
PMMA	○/●	●	○	○	○	○	○/●	○	○/●	○	○	○
PC	○/●	●	○	○	○	○	○/●	○	○/●	○	○	○
PVC	○	●	○	○	○	●	●	○	●	○	○	●
POM	○/●	●	○	●	●	○	○	○	●	●	●	●
PE-LD		●	●	●	○/●	●	●	○	●	●	●	●
PE-HD	●	●	○/●	○/●	○/●	●	●	○	●	○/●	○/●	●
PP	●	●	○/●	○/●	○/●	●	●	○	●	○/●	○/●	●
PMP	○/●	●	○/●		○/●	●	●	○	○/●	○	○	●
ECTFE, ETFE	●	●	●	●	○	●	●	●	●	●	●	●
PTFE, FEP, PFA	●	●	●	●	●	●	●	●	●	●	●	●
FKM	●	○	○	○	○	○	●	○/●	○/●	○/●	○/●	○/●
EPDM	●	●	○/●	○	○/●	●	●	○/●	○	○	○	●
NR	○/●	●	○/●	○	○	○	○/●	○	○	○	○	●
SI	○/●	●	○/●	○	○	○	○/●	○	○	○	○	○/●

● very good

Permanent action of the substance does not cause damage through 30 days. The material is able to be resistant through years

○/● good to limited

Continuous action of the substance causes insignificant and partly reversible damage through the period of 7-30 days (e.g., puffing up, softening, reduced mechanical durability, discolouring).

○ limited

The material should not have the continuous contact with the substance. The immediate occurrence of damage is possible (e.g., the loss of mechanical durability, deformation, discolouring, bursting, and dissolving).

Standard disinfectants can be used. Centrifuges and accessories are made of a variety of materials, the diversity of which should be considered. Do not use chlorine bleach to clean the aluminium impellers.

	DANGER!
	MPW accessorises are not biotight. For centrifuging infectious materials it is necessary to use hermetically closed tubes meeting demands of biotightness, in order to prevent germs migration into the centrifuge and beyond it.
	User is responsible for proper disinfections of the centrifuge, if some dangerous material was spilled inside or outside of the centrifuge. During the above mentioned works one must wear safety gloves.

11 Troubleshooting

Majority of faults could be removed by restart the centrifuge. After switching the centrifuge ON, there shall be displayed parameters of the recently implemented program and sound signals comprising four successive tones shall be generated. In case of short-duration power failure the centrifuge terminates the cycle and displays PROGRAM ERROR code.

PROBLEM	QUESTION	ANSWER
Centrifuge does not start	<i>Is supply cable plugged into mains?</i>	<i>Plugs supply cable correctly.</i>
	<i>Is main switch ON?</i>	<i>Switch ON power supply.</i>
Motor error is displayed		Call service.
Centrifuge does not start (indications are proof for cycle in progress and motor does not start)	<i>Is  symbol displayed?</i>	Wait till rotor stops and the  symbol goes off.
	<i>Is  symbol displayed?</i>	Close cover  symbol must switch off.
	<i>Is  symbol blinking?</i>	Centrifugation cycle in progress, press STOP key or wait till cycle ends.
Centrifuge does not accelerate (unbalance error)	<i>Unequal rotor load.</i>	Centrifuge load shall be balanced.
	<i>Inclined centrifuge.</i>	Centrifuge shall be levelled.
	<i>Faulty drive (mechanical damage).</i>	Call service.
	<i>Was centrifuge displaced during operation?</i>	Switch ON the centrifuge again after opening and closing the cover.
(rotor error)	<i>After stopping error rotor message is displayed</i>	Check if rotor number in started program is consistent with the number of the rotor installed in the centrifuge. Check rotor status (if there are coding magnets inserted)
	<i>Centrifuge does not recognize the rotor and does not stop.</i>	Switch the centrifuge OFF, then ON and check correctness of loaded program
It is not possible to open the cover	<i> symbol on the display is blinking, after pressing COVER key single tone is audible</i>	Rotor is still rotating. Wait for stopping of the rotor and displaying of the  symbol.
	<i>The sensor is connected correctly, and the error is still applying.</i>	Call service.
Mains failure during run	<i>The message will be displayed on the display about the decay of tension.</i>	Wait for stopping of the rotor, clear the error by pressing the SET key.

11.1 Emergency cover release

	EMERGENCY COVER RELEASE
	Attention! <i>The cover may be opened in emergency only when the rotor is at rest. Before emergency opening the cover, switch off the mains power switch and disconnect the power cord. Wait 10 min and/or looking through the sight glass, make sure that the rotor is not rotating.</i> There is a plug on the right-hand side, which must be unscrewed counterclockwise using the emergency lid release key (catalog no. 18640). Then pull on the cap until the cover is open. The emergency opening of the cover can be used, for example, in the event of a power failure, failure of the control panel, etc.

12 Guarantee

Manufacturer grants to the Buyer the guarantee on conditions specified in the Guarantee Certificate. Buyer forfeits the right to guarantee repair when using the device inconsistently with the User manual provisions, when damage results from the User's fault.

Repairs should be carried out in authorized service workshops, granted with the MPW Certificate.

The centrifuge shall be sent to repair after decontaminating disinfections. Information about authorized service workshops could be obtained from the Manufacturer.

	▪ Guarantee period amounts to 24 months (unless otherwise specified in the purchase documents). ▪ Guarantee conditions are described in guaranteed card. ▪ The service life of the centrifuge specified by the manufacturer amounts to 10 years. ▪ After 24 months from the start of the warranty period (date of purchase), a technical inspection of the centrifuge should be conducted (validation) by an authorized service of the manufacturer. Subsequent inspections should be conducted at annual intervals. ▪ Maximum period of storage of not used centrifuge amounts to 1 year. After this period, a service authorized by manufacturer should conduct technical inspection of the centrifuge. ▪ Manufacturer reserves the right to make technical changes in manufactured products.
---	---

13 Transport and storage

	CAUTION! Due to the heavy weight of the device, lifting and carrying it may cause injury to the spine.
▪ Store the device only in a closed and dry room. ▪ Remove rotor from centrifuge before transport. ▪ Lift and carry with the adequate number of people. ▪ Use transport equipment. ▪ Use the original packaging and transport protection for transport.	

Transport and storage conditions.

	Storage (in the package)	Storage (without the package)	Transport
Temperature	-25 ÷ +55 °C	-5 ÷ +45 °C	-25 ÷ +60 °C (general) -20 ÷ +55 °C (air)
Relative humidity	10 ÷ 75 %	10 ÷ 75 %	10 ÷ 75 %
Pressure	70 ÷ 106 kPa	70 ÷ 106 kPa	30 ÷ 106 kPa

14 Disposal



- Dispose of the device in accordance with the applicable legal regulations in the country of use.
- In the countries of the European Community, the disposal of electrical equipment is regulated under the EU Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).
According to these regulations, centrifuges may not be collected together with municipal or household waste.
- Disposal regulations in individual EU countries may differ. In case of doubt, please contact the supplier of the device.

15 List of changes in the manual

<i>Rev.</i>	<i>Release date</i>	<i>Description of changes</i>
16	03.04.2023	Addition of markings used in the manual and on the device. Update of nameplate, CE declaration and equipment lists. Updating records regarding the intended use and disposal of the product. Removal of the RTC function.
17	16.06.2023	Removal of the USB communication function. Updating of the description in the technical data table. Updating the CE declaration of conformity, equipment list and nameplate.

16 Manufacturer's info

"MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY

Boremłowska 46 Street

04-347 Warsaw

tel. (+48) 22 610 56 67 (sales department - POLAND)
(+48) 22 879 70 46 (sales department - outside POLAND)
(+48) 22 610 81 07 (service)
fax: (+48) 22 610 55 36
e-mail: mpw@mpw.pl
website: www.mpw.pl

000042924 - number of entry in the Waste Database

PL/CA01-01782 - identification number given by Office for Registration of Medicinal Products,
Medical Devices and Biocidal Products.

Distributor's info

DISTRIBUTOR:
--

17 Annexes

A. Wyposażenie dodatkowe/Optional accessories

MPW M-DIAGNOSTIC

WIRNIK / ROTOR

PARAMETRY/PARAMETERS (RCF [x g], Rmax [mm], α [°])

POJEMNIK/BUCKET

WKŁADKA / ADAPTER

[liczba probówek na wirnik/tubes per rotor] PROBÓWKA / TUBE

11217

RPM 6000 RCF 4226 Rmax 105 α 30

13080

14082

[10] * BD Vacutainer® (13 x 100 mm), (4-7 ml)

[10] * Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)

[10] * Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)

[10] * 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

RCF max.=3000 RPM max.=5055

bez wkładki/without adapter

[10] 15046 14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®

14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®

[10] * Greiner Vacuette® (16 x 100 mm), (7-9 ml)

[10] * Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)

[10] * 15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)

15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120

[10] * BD Vacutainer® (16 x 100 mm), (2,5-11 ml)

[10] * Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)

[10] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

RCF max.=3000 RPM max.=5055

[10] * 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[10] * 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

14082+14815

[10] * 5 ml probówka szklana (12 x 75 mm)

5 ml glass tube (12 x 75 mm)

RCF max.=3000 RPM max.=5554

14082+14815 Rmax 87 RCF 3502

[10] * Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)

[10] * Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)

[10] * BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)

[10] * Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)

[10] * Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)

14815 Rmax 87 RCF 3502

[10] 15121 10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm)

10 ml tube, round bottom, with cap (17 x 70 mm)

[10] * Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)

[10] * 10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)

11501

RPM 4500 RCF 2966 Rmax 131 α 30

13080

14082

[30] * BD Vacutainer® (13 x 100 mm), (4-7 ml)

[30] * Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)

[30] * Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)

[30] * 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

[30] * 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®

6 ml tube with cap (11,5 x 92 mm), Sarstedt®

bez wkładki/without adapter

[30] 15046 14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®

14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®

[30] * 15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)

15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120

[30] * BD Vacutainer® (16 x 100 mm), (2,5-11 ml)

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-DIAGNOSTIC				
[30]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[30]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[30]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[30]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)		
[30]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[30]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14082+14815 Rmax 120 RCF 2717				
[30]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[30]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[30]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[30]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[30]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[30]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)		
14815 Rmax 120 RCF 2717				
[30]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)		
[30]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[30]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
11720				
RPM 5000 RCF 3634 Rmax 130 ± 45				
13721				
bez wkładki/without adapter				
[4]	*	Orthokine®vet 60ml		
11740				
RPM 5500 RCF 4058 Rmax 120 ± 30				
13080				
14082				
[12]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[12]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[12]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[12]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm) RCF max.=3000 RPM max.=4729		
[12]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt® bez wkładki/without adapter		
[12]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[12]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120		
[12]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[12]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[12]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[12]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[12]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4729		
[12]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[12]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14082+14815				
[12]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm) RCF max.=3000 RPM max.=5154		
14082+14815 Rmax 101 RCF 3416				
[12]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[12]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[12]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[12]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[12]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
14815 Rmax 101 RCF 3416				
[12]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)		
[12]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-DIAGNOSTIC				
[12]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
11743				
		RPM 5500	RCF 3889	Rmax 115 $\nless 30$
13329				
bez wkładki/without adapter				
[12]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)		
[12]	*	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®		
[12]	*	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®		
[12]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®		
14256				
[12]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[12]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4830		
[12]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[12]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14255				
[12]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[12]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm) RCF max.=3000 RPM max.=4830		
11744				
		RPM 4500	RCF 2830	Rmax 125 $\nless 30$
13276				
bez wkładki/without adapter				
[10]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
[10]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[10]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
[10]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11		
14035				
[10]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[10]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)		
[10]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[10]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14036				
[10]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[10]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[10]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)		
[10]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
14043				
[10]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[10]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[10]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[10]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®		
[10]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)		
14071				
[10]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)		
[10]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)		

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-DIAGNOSTIC				
[10]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®		
		30 ml tube with cap (25,5 x 94 mm), Nalgene®		
[10]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
		30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
14073				
[10]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[10]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[10]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[10]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[10]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[10]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[10]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[10]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14089				
[10]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120		
14248				
[10]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
14089+14868				
[10]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf®		
		5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
[10]	*	5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf®		
		5 ml tube with screw cap (17 x 66 mm), Eppendorf®		
11745				
	RPM 5000	RCF 3354	Rmax 120	± 30
13080				
14082				
[24]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[24]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[24]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[24]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
		RCF max.=3000 RPM max.=4729		
[24]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
bez wkładki/without adapter				
[24]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[24]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120		
[24]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[24]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[24]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[24]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[24]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
		RCF max.=3000 RPM max.=4729		
[24]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[24]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14082+14815 Rmax 105 RCF 2935				
[24]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[24]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[24]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[24]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[24]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[24]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
14815 Rmax 105 RCF 2935				
[24]	15121	10 ml probówka z dnem okrągłym i pokrywka (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
[24]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[24]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-DIAGNOSTIC				
11746				
	RPM 6000	RCF 4427	Rmax 110	± 30
13276				
bez wkładki/without adapter				
[6]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[6]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
[6]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
[6]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11		
14035				
[6]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[6]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4939		
[6]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[6]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14036				
[6]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[6]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[6]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm) RCF max.=3000 RPM max.=4939		
[6]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
14043				
[6]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[6]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[6]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[6]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®		
[6]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm) RCF max.=3000 RPM max.=4939		
14071				
[6]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)		
[6]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)		
[6]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®		
[6]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
14073				
[6]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[6]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[6]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[6]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[6]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[6]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4939		
[6]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14089				
[6]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
14248				
[6]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)		
14089+14868				
[6]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
[6]	*	5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf® 5 ml tube with screw cap (17 x 66 mm), Eppendorf®		

* próbówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-DIAGNOSTIC				
12194				
	RPM 4100	RCF 2594	Rmax 138	± 90
13194				
14082				
[8]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[8]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[8]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
bez wkładki/without adapter				
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[8]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[8]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[8]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[8]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[8]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
[8]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[8]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[8]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14082+14815				
[8]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[8]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[8]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
14815				
[8]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
[8]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[8]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
13196				
14817+14816				
[2]	*	Dr. PRP		
[2]	*	Xerthra 15ml		
[2]	*	Xerthra 20ml		
14817+14818				
[2]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm)		
		50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[2]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
14817				
[2]	*	50 ml probówka z dnem stożkowym z rantem (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®		
14820				
[2]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
14822				
[6]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[6]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[6]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[6]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[6]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[6]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
12200				
	RPM 4000	RCF 2504	Rmax 140	± 90
13200				
14013				
[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[32]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories		
MPW M-DIAGNOSTIC		
[32]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[32]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[32]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[32]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[32]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[32]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[32]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
[32]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
14016		
[28]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[28]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[28]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[28] 15046		14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[28] 15118		10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[28]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14020		
[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[20] 15046		14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[20] 15121		10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)
[20]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[20]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[20]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[20]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)
[20] 15118		10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14021		
[40]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
[40]	*	2 ml probówki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml
14023		
[4] 15055		30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	*	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	*	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
[4]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
[4]	*	25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14026		
[4]	*	50 ml probówka z dnem stożkowym z rantem (30 x 115 mm), Greiner® 50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®
14026+14188		
[4] 15051		50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)
[4]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117
[4]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®

A. Wyposażenie dodatkowe/Optional accessories			
MPW M-DIAGNOSTIC			
[4]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11	
		14028	
[4]	*	50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)	
		14029	
[48]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)	
[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)	
[48]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)	
[48]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)	
[48]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®	
[48]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®	
		14100+14196	
[4] 15040		100 ml probówka z pokrywką (45,2 x 103,7 mm) 100 ml tube with cap (45,2 x 103,7 mm)	
		14027	
[4]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)	
		14100+14188	
[4]	*	100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)	
		13201+17202	
		14013	
[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)	
[32]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)	
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)	
[32]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)	
[32]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)	
[32]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)	
[32]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)	
[32]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)	
[32]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)	
[32]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)	
[32]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®	
[32]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®	
		14016	
[28]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)	
[28]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)	
[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)	
[28]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)	
[28] 15046		14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®	
[28] 15118		10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)	
[28]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)	
		14020	
[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)	
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006	
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)	
[20] 15046		14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®	
[20] 15121		10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)	
[20]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)	
[20]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)	
[20] 15118		10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)	
[20]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)	
		14021	

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories		
MPW M-DIAGNOSTIC		
[40]	*	2-1,5 ml próbówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
[40]	*	2 ml próbówki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml
14023		
[4]	15055	30 ml próbówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	*	30 ml próbówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	*	30 ml próbówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	*	30 ml próbówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
[4]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
[4]	*	25 ml próbówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14026+14188		
[4]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)
14028		
[4]	*	50 ml próbówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)
14029		
[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[48]	*	7 ml próbówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[48]	*	5 ml próbówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	*	5 ml próbówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
[48]	*	6 ml próbówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
14100+14196		
[4]	15040	100 ml próbówka z pokrywką (45,2 x 103,7 mm) 100 ml tube with cap (45,2 x 103,7 mm)
14100+14188		
[4]	*	100 ml próbówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)
13201+17203		
14021		
[40]	*	2-1,5 ml próbówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
[40]	*	2 ml próbówki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml
14026		
[4]	*	50 ml próbówka z dnem stożkowym z rantem (30 x 115 mm), Greiner® 50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®
14026+14188		
[4]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)
[4]	*	50 ml próbówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117
[4]	*	50 ml próbówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®
[4]	*	50 ml próbówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11
14028		
[4]	*	50 ml próbówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)
14100+14196		
[4]	15040	100 ml próbówka z pokrywką (45,2 x 103,7 mm) 100 ml tube with cap (45,2 x 103,7 mm)
14027		
[4]	*	15 ml próbówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)
14100+14188		
[4]	*	100 ml próbówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-DIAGNOSTIC				
13215				
14815 Rmax 138 RCF 2469				
[8]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
[8]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[8]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
14082+14815 Rmax 138 RCF 2469				
[8]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[8]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[8]	*	Sarstedt V-Monovette urine tube (13 x 75 mm)		
[8]	*	BD urine tube (13 x 75 mm)		
[8]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
[8]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt®		
		5 ml tube with cap (12 x 85 mm), Sarstedt®		
[8]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
13113 R max 121 RCF 2164				
bez wkładki/without adapter Rmax 121 RCF 2164				
[48]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[48]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[48]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
13215 R max 138 RCF 2469				
bez wkładki/without adapter Rmax 138 RCF 2469				
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[8]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[8]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[8]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[8]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[8]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
[8]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[8]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[8]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14082 Rmax 138 RCF 2469				
[8]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[8]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[8]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
[8]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
12218				
RPM 3000 RCF 916 Rmax 91 4 90				
13219				
bez wkładki/without adapter				
[2]	*	płytki titracyjna MTP 28,8ml (86x128x15/17,5 mm)		
		microtiter plate MTP 28,8 ml (86 x 128 x 15/17,5 mm)		
12452				
RPM 2500 RCF 769 Rmax 110 4 90				
13606				
bez wkładki/without adapter				
[4]	16610	system cytologiczny MPW® 2,2ml		
		cytological system MPW® 2,2 ml		
Suma końcowa				

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-SCIENCE				
WIRNIK / ROTOR				
PARAMETRY/PARAMETERS (RCF [x g], Rmax [mm], α [°])				
POJEMNIK/BUCKET				
WKŁADKA / ADAPTER				
[liczba probówek na wirnik/tubes per rotor] PROBÓWKA / TUBE				
11199				
RPM	18000	RCF	24270	Rmax 67 α 45
bez pojemnika/without bucket				
bez wkładki/without adapter				
[12]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
14084				
[12]	*	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[12]	*	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[12]	*	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)		
11461				
RPM	15100	RCF	21158	Rmax 83 α 45
bez pojemnika/without bucket				
bez wkładki/without adapter				
[24]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
14084				
[24]	*	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[24]	*	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[24]	*	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)		
11462				
RPM	14000	RCF	18188	Rmax 83 α 45
bez pojemnika/without bucket				
bez wkładki/without adapter				
[36]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
14084				
[36]	*	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[36]	*	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[36]	*	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)		
11715				
RPM	14000	RCF	15558	Rmax 71 α 30
bez pojemnika/without bucket				
bez wkładki/without adapter				
[10]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)		
11716				
RPM	14000	RCF	15339	Rmax 70 α 45
bez pojemnika/without bucket				
bez wkładki/without adapter				

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-SCIENCE				
[4]	*	8 x 0,2 ml probówki szeregowe PCR-strip (10,2 x 72,4 mm)		
		8 x 0,2 ml PCR strip (10,2 x 72,4 mm)		
[32]	*	0,2 ml probówka PCR (6 x 21,6 mm)		
		0,2 ml PCR tube (6 x 21,6 mm)		
[4]	*	8 x 0,2 ml probówki szeregowe PCR strip (7,3 x 77,2 mm)		
		8 x 0,2 ml PCR strip (7,3 x 77,2 mm)		
[4]	*	4 x 0,2 ml probówki szeregowe PCR-strip (10,2 x 37,2 mm)		
		4 x 0,2 ml PCR strip (10,2 x 37,2 mm)		
11760				
		RPM 13500 RCF 17319 Rmax 85 4 45		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[24]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
[24]	*	2 ml probówki z filtrem - spin columns (10,8 x 46 mm)		
		2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml		
14084				
[24]	*	0,5 ml probówka PCR (7,8 x 31 mm)		
		0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[24]	*	0,4 ml probówka PCR (5,7 x 48,6 mm)		
		0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[24]	*	0,2 ml probówka PCR (6 x 21,6 mm)		
		0,2 ml PCR tube (6 x 21,6 mm)		
11943				
		RPM 12000 RCF 13684 Rmax 85 4 45		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[20]	*	1,6 ml probówka Cryo (12,3 x 46,5 mm)		
		1,6 ml Cryo tube (12,3 x 46,5 mm)		
[20]	*	1,8 ml probówka Cryo (12,3 x 46,5 mm)		
		1,8 ml Cryo tube (12,3 x 46,5 mm)		
11944				
		RPM 12000 RCF 13684 Rmax 85 4 45		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[6]	*	5 ml probówka z korkiem zakręcanym (17 x 66 mm), Eppendorf®		
		5 ml tube with screw cap (17 x 66 mm), Eppendorf®		
[12]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf®		
		5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
12300				
		RPM 13000 RCF 16816 Rmax 89 4 90		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[24]	*	37 µl kapilara hematokrytowa (1,4 x 75 mm)		
		37 µl micro-hematocrit capillary tube (1,4 x 75 mm)		
Suma końcowa				

A. Wyposażenie dodatkowe/Optional accessories

MPW M-UNIVERSAL

WIRNIK / ROTOR

PARAMETRY/PARAMETERS (RCF [x g], Rmax [mm], α [°])

POJEMNIK/BUCKET

WKŁADKA / ADAPTER

[liczba probówek na wirnik/tubes per rotor] PROBÓWKA / TUBE

11199

RPM 18000 RCF 24270 Rmax 67 α 45

bez pojemnika/without bucket

bez wkładki/without adapter

[12] * 2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)

14084

[12] * 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)

14126

[12] * 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)

14133

[12] * 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)

11213

RPM 5000 RCF 3494 Rmax 125 α 30

13276

bez wkładki/without adapter

[8] 15051 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)
50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)

[8] * 50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm)
50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117

[8] * 50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner®
50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®

[8] * 50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11
50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11

14035

[8] 15046 14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®
14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®

[8] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)
RCF max.=3000 RPM max.=4633

[8] * 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)

[8] * 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)

14036

[8] * BD Vacutainer® (13 x 100 mm), (4-7 ml)

[8] * Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)

[8] * 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)
RCF max.=3000 RPM max.=4633

[8] * 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®

14043

[8] * Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)

[8] * Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)

[8] * Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)

[8] * 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)
RCF max.=3000 RPM max.=4633

[8] * 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14071

[8] 15055 30 ml probówka z pokrywką (25,4 x 103,2 mm)
30 ml tube with cap (25,4 x 103,2 mm)

[8] * 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np:[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories		
MPW M-UNIVERSAL		
[8]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
[8]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
14073		
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[8]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[8]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[8]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[8]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4633
[8]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14089		
[8]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)
14248		
[8]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
14089+14868		
[8]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®
[8]	*	5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf® 5 ml tube with screw cap (17 x 66 mm), Eppendorf®
13278+17151		
bez wkładki/without adapter		
[8]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)
[8]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117
[8]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®
[8]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11
14035		
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4633
[8]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[8]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14036		
[8]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm) RCF max.=3000 RPM max.=4633
[8]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
14043		
[8]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[8]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm) RCF max.=3000 RPM max.=4633
[8]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14071		
[8]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[8]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[8]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
[8]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
14073		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[8]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[8]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[8]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[8]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4633		
[8]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14089				
[8]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
14248				
[8]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)		
14089+14868				
[8]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
11216				
RPM 14000 RCF 19064 Rmax 87 4 45				
bez pojemnika/without bucket				
bez wkładki/without adapter				
[12]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®		
11217				
RPM 6000 RCF 4226 Rmax 105 4 30				
13080				
14082				
[10]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[10]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[10]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[10]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm) RCF max.=3000 RPM max.=5055		
[10]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
bez wkładki/without adapter				
[10]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[10]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[10]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[10]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120		
[10]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[10]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[10]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=5055		
[10]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[10]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14082+14815				
[10]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm) RCF max.=3000 RPM max.=5554		
14082+14815 Rmax 87 RCF 3502				
[10]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[10]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[10]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[10]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[10]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
14815 Rmax 87 RCF 3502				
[10]	15121	10 ml probówka z dnem okrągłym i pokrywka (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)		
[10]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[10]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
11461				
	RPM 15100	RCF 21158	Rmax 83	± 45
bez pojemnika/without bucket				
bez wkładki/without adapter				
[24]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
14084				
[24]	*	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[24]	*	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[24]	*	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)		
11462				
	RPM 14000	RCF 18188	Rmax 83	± 45
bez pojemnika/without bucket				
bez wkładki/without adapter				
[36]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
14084				
[36]	*	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[36]	*	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[36]	*	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)		
11501				
	RPM 4500	RCF 2966	Rmax 131	± 30
13080				
14082				
[30]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[30]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[30]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[30]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)		
[30]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
bez wkładki/without adapter				
[30]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[30]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120		
[30]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[30]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[30]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[30]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[30]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)		
[30]	*	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)		
[30]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14082+14815 Rmax 120 RCF 2717				
[30]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[30]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[30]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[30]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[30]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[30]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)		
14815 Rmax 120 RCF 2717				
[30]	15121	10 ml probówka z dnem okrągłym i pokrywka (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)		
[30]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[30]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
11715				
		RPM 14000	RCF 15558	Rmax 71 ± 30
bez pojemnika/without bucket				
bez wkładki/without adapter				
[10]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
11716				
		RPM 14000	RCF 15339	Rmax 70 ± 45
bez pojemnika/without bucket				
bez wkładki/without adapter				
[4]	*	8 x 0,2 ml probówki szeregowo PCR-strip (10,2 x 72,4 mm)		
		8 x 0,2 ml PCR strip (10,2 x 72,4 mm)		
[32]	*	0,2 ml probówka PCR (6 x 21,6 mm)		
		0,2 ml PCR tube (6 x 21,6 mm)		
[4]	*	8 x 0,2 ml probówki szeregowo PCR strip (7,3 x 77,2 mm)		
		8 x 0,2 ml PCR strip (7,3 x 77,2 mm)		
[4]	*	4 x 0,2 ml probówki szeregowo PCR-strip (10,2 x 37,2 mm)		
		4 x 0,2 ml PCR strip (10,2 x 37,2 mm)		
11718				
		RPM 6300	RCF 5014	Rmax 113 ± 30
13719				
14024				
[4]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt® (17 x 120 mm)		
14196				
[4]	15040	100 ml probówka z pokrywką (45,2 x 103,7 mm)		
		100 ml tube with cap (45,2 x 103,7 mm)		
14224				
[4]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
[4]	*	30 ml probówka z pokrywką (25 x 94mm), Sterilin®		
		30 ml tube with cap (25 x 94 mm), Sterilin®		
[4]	*	30 ml probówka z pokrywką (25 x 94 mm), Sterilin®		
		30 ml tube with cap (25 x 94 mm), Sterilin®		
[4]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
		30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
14226				
[4]	*	50 ml probówka z dnem stożkowym z rantem (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®		
14189+14188				
[4]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
		50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
[4]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm)		
		50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[4]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
[4]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11		
		50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11		
14190+14188				
[4]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
11740				
		RPM 5500	RCF 4058	Rmax 120 ± 30
13080				
14082				
[12]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[12]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[12]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[12]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
		RCF max.=3000 RPM max.=4729		
[12]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
bez wkładki/without adapter				
[12]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[12]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt® (17 x 120		
[12]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[12]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[12]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[12]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[12]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
		RCF max.=3000 RPM max.=4729		
[12]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[12]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
		14082+14815		
[12]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
		RCF max.=3000 RPM max.=5154		
		14082+14815 Rmax 101 RCF 3416		
[12]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[12]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[12]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[12]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[12]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
		14815 Rmax 101 RCF 3416		
[12]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
[12]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[12]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
11743				
		RPM 5500 RCF 3889 Rmax 115 4 30		
13329				
		bez wkładki/without adapter		
[12]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
[12]	*	30 ml probówka z pokrywką (25 x 94mm), Sterilin®		
		30 ml tube with cap (25 x 94 mm), Sterilin®		
[12]	*	30 ml probówka z pokrywką (25 x 94 mm), Sterilin®		
		30 ml tube with cap (25 x 94 mm), Sterilin®		
[12]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®		
		30 ml tube with cap (25,5 x 94 mm), Nalgene®		
		14256		
[12]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[12]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
		RCF max.=3000 RPM max.=4830		
[12]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[12]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
		14255		
[12]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[12]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
		RCF max.=3000 RPM max.=4830		
11744				
		RPM 4500 RCF 2830 Rmax 125 4 30		
13276				
		bez wkładki/without adapter		
[10]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
		50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
[10]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm)		
		50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[10]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
[10]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11		
		50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11		
		14035		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[10]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[10]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[10]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[10]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14036				
[10]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[10]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[10]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
[10]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
14043				
[10]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[10]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[10]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[10]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt®		
		5 ml tube with cap (12 x 85 mm), Sarstedt®		
[10]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
14071				
[10]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
[10]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)		
[10]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®		
		30 ml tube with cap (25,5 x 94 mm), Nalgene®		
[10]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
		30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
14073				
[10]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[10]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[10]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[10]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[10]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[10]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[10]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[10]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14089				
[10]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120		
14248				
[10]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
14089+14868				
[10]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf®		
		5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
[10]	*	5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf®		
		5 ml tube with screw cap (17 x 66 mm), Eppendorf®		
11745				
	RPM 5000	RCF 3354	Rmax 120	4 30
13080				
14082				
[24]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[24]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[24]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[24]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
		RCF max.=3000 RPM max.=4729		
[24]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
bez wkładki/without adapter				
[24]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
 tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[24]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt® (17 x 120		
[24]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[24]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[24]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[24]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[24]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
		RCF max.=3000 RPM max.=4729		
[24]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[24]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
		14082+14815 Rmax 105 RCF 2935		
[24]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[24]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[24]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[24]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[24]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[24]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
		14815 Rmax 105 RCF 2935		
[24]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
[24]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[24]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
11746				
		RPM 6000 RCF 4427 Rmax 110 4 30		
13276				
bez wkładki/without adapter				
[6]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm)		
		50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[6]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
[6]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
		50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)		
[6]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11		
		50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11		
		14035		
[6]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[6]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
		RCF max.=3000 RPM max.=4939		
[6]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[6]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
		14036		
[6]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[6]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[6]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
		RCF max.=3000 RPM max.=4939		
[6]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
		14043		
[6]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[6]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[6]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[6]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt®		
		5 ml tube with cap (12 x 85 mm), Sarstedt®		
[6]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
		RCF max.=3000 RPM max.=4939		
		14071		
[6]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm)		
		30 ml tube with cap (25,4 x 103,2 mm)		
[6]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)		

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[6]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®		
[6]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)		
14073				
[6]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[6]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[6]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[6]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[6]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[6]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm) RCF max.=3000 RPM max.=4939		
[6]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)		
14089				
[6]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
14248				
[6]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)		
14089+14868				
[6]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
[6]	*	5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf® 5 ml tube with screw cap (17 x 66 mm), Eppendorf®		
11760				
		RPM 14600 RCF 20257 Rmax 85 4 45		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[24]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)		
[24]	*	2 ml probówki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml		
14084				
[24]	*	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)		
14126				
[24]	*	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)		
14133				
[24]	*	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)		
11943				
		RPM 12000 RCF 13684 Rmax 85 4 45		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[20]	*	1,6 ml probówka Cryo (12,3 x 46,5 mm) 1,6 ml Cryo tube (12,3 x 46,5 mm)		
[20]	*	1,8 ml probówka Cryo (12,3 x 46,5 mm) 1,8 ml Cryo tube (12,3 x 46,5 mm)		
11944				
		RPM 12000 RCF 13684 Rmax 85 4 45		
bez pojemnika/without bucket				
bez wkładki/without adapter				
[6]	*	5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf® 5 ml tube with screw cap (17 x 66 mm), Eppendorf®		
[12]	*	5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®		
12194				
		RPM 4100 RCF 2594 Rmax 138 4 90		
13194				
14082				
[8]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[8]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
[8]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[8]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
		bez wkładki/without adapter		
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[8]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[8]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[8]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[8]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[8]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
[8]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[8]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[8]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
		14082+14815		
[8]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[8]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[8]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
		14815		
[8]	15121	10 ml probówka z dnem okrągłym i pokrywka (17 x 70 mm)		
		10 ml tube, round bottom, with cap (17 x 70 mm)		
[8]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)		
[8]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)		
		13196		
		14817+14816		
[2]	*	Dr. PRP		
[2]	*	Xerthra 15ml		
[2]	*	Xerthra 20ml		
		14817+14818		
[2]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm)		
		50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117		
[2]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®		
		14817		
[2]	*	50 ml probówka z dnem stożkowym z rantem (30 x 115 mm), Greiner®		
		50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®		
		14820		
[2]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
		14822		
[6]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[6]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[6]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[6]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[6]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[6]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
12200				
		RPM 4000	RCF 2504	Rmax 140 4 90
		13200		
		14013		
[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[32]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[32]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[32]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[32]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[32]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[32]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)		
[32]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		

A. Wyposażenie dodatkowe/Optional accessories		
MPW M-UNIVERSAL		
[32]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
[32]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
14016		
[28]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[28]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[28]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[28] 15046		14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[28] 15118		10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[28]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14020		
[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[20] 15046		14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[20] 15121		10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)
[20]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[20]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[20]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[20]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)
[20] 15118		10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14021		
[40]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
[40]	*	2 ml probówki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml
14023		
[4] 15055		30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	*	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	*	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
[4]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
[4]	*	25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14026		
[4]	*	50 ml probówka z dnem stożkowym z rantem (30 x 115 mm), Greiner® 50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®
14026+14188		
[4] 15051		50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)
[4]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117
[4]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®
[4]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11
14028		
[4]	*	50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)
14029		
[48]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories		
MPW M-UNIVERSAL		
[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[48]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[48]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
[48]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
14100+14196		
[4]	15040	100 ml probówka z pokrywką (45,2 x 103,7 mm) 100 ml tube with cap (45,2 x 103,7 mm)
14027		
[4]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt® (17 x 120 mm)
14100+14188		
[4]	*	100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)
13201+17202		
14013		
[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[32]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[32]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[32]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[32]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[32]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[32]	*	Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[32]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[32]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
[32]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
14016		
[28]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[28]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[28]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[28]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[28]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14020		
[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[20]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt® 14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®
[20]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)
[20]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[20]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[20]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	*	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
14021		
[40]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
[40]	*	2 ml próbki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml
14023		
[4]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories			
MPW M-UNIVERSAL			
[4]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)	
[4]	*	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®	
[4]	*	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®	
[4]	*	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®	
[4]	*	30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)	
[4]	*	25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)	
14026+14188			
[4]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)	
14028			
[4]	*	50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)	
14029			
[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)	
[48]	*	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)	
[48]	*	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)	
[48]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®	
[48]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®	
14100+14196			
[4]	15040	100 ml probówka z pokrywką (45,2 x 103,7 mm) 100 ml tube with cap (45,2 x 103,7 mm)	
14100+14188			
[4]	*	100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)	
13201+17203			
14021			
[40]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)	
[40]	*	2 ml probówki z filtrem - spin columns (10,8 x 46 mm) 2 ml spin columns (with filter) (10,8 x 46 mm); [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml	
14026			
[4]	*	50 ml probówka z dnem stożkowym z rantem (30 x 115 mm), Greiner® 50 ml tube, conical bottom, skirted (30 x 115 mm), Greiner®	
14026+14188			
[4]	15051	50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm) 50 ml Thermo Nalgene® Oak Ridge (28,8 x 106,7 mm)	
[4]	*	50 ml probówka z dnem stożkowym z zakrętką (30 x 117 mm), Falcon®; [15052] 50ml (30 x 117mm) 50 ml tube, conical bottom, with cap (30 x 117 mm), Falcon®; [15052] 50ml Sarstedt® (30 x 117	
[4]	*	50 ml probówka z dnem stożkowym bez rantu (30 x 115 mm), Greiner® 50 ml tube, conical bottom, without skirt (30 x 115 mm), Greiner®	
[4]	*	50 ml probówka Advanced Oak Ridge (29x102 mm), Herolab® nr 25 32 11 50 ml tube, Advanced Oak Ridge (29 x 102 mm), Herolab® no. 25 32 11	
14028			
[4]	*	50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)	
14100+14196			
[4]	15040	100 ml probówka z pokrywką (45,2 x 103,7 mm) 100 ml tube with cap (45,2 x 103,7 mm)	
14027			
[4]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm) 15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt® (17 x 120 mm)	
14100+14188			
[4]	*	100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)	
13215			
14815 Rmax 138 RCF 2469			
[8]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)	
[8]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)	
[8]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)	

* probówka niedostępna w ofercie MPW lub dostępny odpowiednik (np.[15050]), patrz kolumna z prawej
tube is not offered by MPW or equivalent is available (e.g. [15050]), see column on the right

A. Wyposażenie dodatkowe/Optional accessories				
MPW M-UNIVERSAL				
14082+14815 Rmax 138 RCF 2469				
[8]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[8]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
[8]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)		
[8]	*	Sarstedt V-Monovette urine tube (13 x 75 mm)		
[8]	*	BD urine tube (13 x 75 mm)		
[8]	*	5 ml probówka szklana (12 x 75 mm)		
		5 ml glass tube (12 x 75 mm)		
[8]	*	5 ml probówka z korkiem (12 x 85 mm), Sarstedt®		
		5 ml tube with cap (12 x 85 mm), Sarstedt®		
[8]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
13113 R max 121 RCF 2164				
bez wkładki/without adapter Rmax 121 RCF 2164				
[48]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)		
[48]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)		
[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)		
[48]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)		
13215 R max 138 RCF 2469				
bez wkładki/without adapter Rmax 138 RCF 2469				
[8]	15046	14 ml probówka z pokrywką (16,8 x 113,7 mm), Sarstedt®		
		14 ml tube with cap (16,8 x 113,7 mm), Sarstedt®		
[8]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)		
[8]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)		
[8]	*	Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)		
[8]	*	Sarstedt S-Monovette® (16 x 92 mm), (9; 10 ml)		
[8]	*	15 ml probówka z dnem stożkowym z zakrętką (17 x 120 mm), Falcon®; [15050], 15ml (17 x 120 mm)		
		15 ml tube, conical bottom, with cap (17 x 120 mm), Falcon®; [15050] 15ml Sarstedt®(17 x 120 mm)		
[8]	15118	10 ml probówka szklana (16 x 100 mm)		
		10 ml glass tube (16 x 100 mm)		
[8]	*	15 ml Thermo Nalgene® (16 x 113 mm)		
		15 ml Thermo Nalgene® (16 x 113 mm)		
[8]	*	10 ml probówka z pokrywką (16 x 106 mm)		
		10 ml tube with cap (16 x 106 mm)		
14082 Rmax 138 RCF 2469				
[8]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)		
[8]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)		
[8]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)		
[8]	*	7 ml probówka szklana (12 x 100 mm)		
		7 ml glass tube (12 x 100 mm)		
[8]	*	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®		
		6 ml tube with cap (11,5 x 92 mm), Sarstedt®		
12218				
RPM 3000 RCF 916 Rmax 91 ≠ 90				
13219				
bez wkładki/without adapter				
[2]	*	płytki titracyjna MTP 28,8ml (86x128x15/17,5 mm)		
		microtiter plate MTP 28,8 ml (86 x 128 x 15/17,5 mm)		
12300				
RPM 13000 RCF 16816 Rmax 89 ≠ 90				
bez pojemnika/without bucket				
bez wkładki/without adapter				
[24]	*	37 µl kapilara hematokrytowa (1,4 x 75 mm)		
		37 µl micro-hematocrit capillary tube (1,4 x 75 mm)		
Suma końcowa				

EU DECLARATION OF CONFORMITY

This EU declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: "MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY
46 Boremlowska Street, 04-347 Warsaw, Poland

The Quality Management System complies with the standards: PN-EN ISO 9001:2015, PN-EN ISO 13485:2016

SRN: PL-MF-000032831

Device name: Laboratory centrifuge MPW M-DIAGNOSTIC
(with the accessory indicated in the operating instructions provided with the centrifuge)

BASIC UDI-DI: 590538636-IVD-CEN-001-5V

Catalogue numbers: 102MD/2-56 102MD/1-56 102MD/1-56/100
102MD/1-56/110 102MD/1-56/127

The aforementioned device is in conformity with the following EU regulations and directives:

2017/746 (IVDR) REGULATION (EU) 2017/746 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU, including the changes published prior to the date of this declaration.

2011/65/EU (RoHS 2) DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, including the changes published prior to the date of this declaration.

Intended purpose: The device is intended for the separation of the mixtures of the liquid substances derived from the human body, including blood, urine, and other body fluids, and for the preparation of the samples intended for further in vitro diagnostics procedures.

Risk class: Class A
(in accordance with the rule 5 of Annex VIII of Regulation (EU) 2017/746).

The conformity assessment of the device and accessory has been carried out in accordance with Article 48(10) of Regulation (EU) 2017/746.

Wojciech Anisiewicz
Vice-President of the Management Board

Łukasz Szański
President of the Management Board

Warsaw, 23 January 2023

no. 10.2MD.16o.en

EU DECLARATION OF CONFORMITY

This EU declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: "MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY
46 Boremlowska Street, 04-347 Warsaw, Poland

The Quality Management System complies with the standards: PN-EN ISO 9001:2015, PN-EN ISO 13485:2016

SRN: PL-MF-000032831

Device name: Laboratory centrifuge MPW M-SCIENCE
(with the accessory indicated in the operating instructions provided with the centrifuge)

BASIC UDI-DI: 590538636-IVD-CEN-003-63

Catalogue numbers: 102MS/2-56 102MS/1-56 102MS/1-56/100
102MS/1-56/110 102MS/1-56/127

The aforementioned device is in conformity with the following EU regulations and directives:

2017/746 (IVDR) REGULATION (EU) 2017/746 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU, including the changes published prior to the date of this declaration.

2011/65/EU (RoHS 2) DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, including the changes published prior to the date of this declaration.

Intended purpose: The device is intended for the separation of the mixtures of the liquid substances derived from the human body, including blood, urine, and other body fluids, and for the preparation of the samples intended for further in vitro diagnostics procedures.

Risk class: Class A
(in accordance with the rule 5 of Annex VIII of Regulation (EU) 2017/746).

The conformity assessment of the device and accessory has been carried out in accordance with Article 48(10) of Regulation (EU) 2017/746.

Wojciech Anisiewicz
Vice-President of the Management Board

Łukasz Sałański
President of the Management Board

Warsaw, 23 January 2023

no. 10.2MS.16o.en

EU DECLARATION OF CONFORMITY

This EU declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: "MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY
46 Boremlowska Street, 04-347 Warsaw, Poland

The Quality Management System complies with the standards: PN-EN ISO 9001:2015, PN-EN ISO 13485:2016

SRN: PL-MF-000032831

Device name: Laboratory centrifuge MPW M-UNIVERSAL
(with the accessory indicated in the operating instructions provided with the centrifuge)

BASIC UDI-DI: 590538636-IVD-CEN-004-66

Catalogue numbers: 102MU/2-56 102MU/1-56 102MU/1-56/100
102MU/1-56/110 102MU/1-56/127

The aforementioned device is in conformity with the following EU regulations and directives:

2017/746 (IVDR) REGULATION (EU) 2017/746 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2017 on in vitro diagnostic medical devices and repealing Directive 98/79/EC and Commission Decision 2010/227/EU, including the changes published prior to the date of this declaration.

2011/65/EU (RoHS 2) DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, including the changes published prior to the date of this declaration.

Intended purpose: The device is intended for the separation of the mixtures of the liquid substances derived from the human body, including blood, urine, and other body fluids, and for the preparation of the samples intended for further in vitro diagnostics procedures.

Risk class: Class A
(in accordance with the rule 5 of Annex VIII of Regulation (EU) 2017/746).

The conformity assessment of the device and accessory has been carried out in accordance with Article 48(10) of Regulation (EU) 2017/746.

Wojciech Anisiewicz
Vice-President of the Management Board

Łukasz Szański
President of the Management Board

Warsaw, 23 January 2023

no. 10.2MU.16o.en

DECLARATION OF DECONTAMINATION (repair)

In order to protect our employees please fill out the declaration of decontamination completely before sending centrifuge to the manufacturer (repair).

If it is impossible to completely and effectively decontaminate the device, it should be treated in accordance with the regulations for medical waste.

1. Device:

– type:
– serial No.:

2. Description of decontamination

(see user manual)

.....
.....
.....
.....

3. Decontamination carried out by:

name:

4. Date and signature:

.....

DECLARATION OF DECONTAMINATION

(return)

In order to protect our employees please fill out the declaration of decontamination completely before sending centrifuge to the manufacturer (return).

If it is impossible to completely and effectively decontaminate the device, it should be treated in accordance with the regulations for medical waste.

1. Device:

– type:
– serial No.:

2. Description of decontamination

(see user manual)

.....
.....
.....
.....

3. Decontamination carried out by:

name:

4. Date and signature:

.....

NOMOGRAM

