

USER MANUAL



Laboratory centrifuge MPW M-UNIVERSAL
Laboratory centrifuge MPW M-DIAGNOSTIC
Laboratory centrifuge MPW M-SCIENCE

Read before use!

Serial number of the centrifuge:

For centrifuges with serial no (SN): MPW M-UNIVERSAL: from 102MU013219
 MPW M-DIAGNOSTIC: from 102MD021519
 MPW M-SCIENCE: from 102MS004119







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

Warning signs:

	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.

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1 Application

MPW M-DIAGNOSTIC/MPW M-SCIENCE/MPW M-UNIVERSAL centrifuges are table top laboratory centrifuges for in vitro diagnostic (IVD). Devices are used for separation samples taken from people's, animal's and plant's components of different densities, under the influence of the centrifugal force, to provide information about their biological state.

Its construction ensures easy operation, safe work and wide range of applications at laboratories engaged in routine medical analyses, biochemical research works etc.

This centrifuge is not bio tight and therefore during centrifugation of preparations requiring bio tightness one has to use closed and sealed containers and rotors. In the centrifuge, it is prohibited to centrifuge caustic, inflammable and explosive preparations.

2 Technical specification

manufacturer	"MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY, Boremłowska 46 Street, 04-347 Warszawa														
type	MPW M-DIAGNOSTIC					MPW M-SCIENCE					MPW M-UNIVERSAL				
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					220W									
current protection [A]	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)									
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														
user programs	100														
acceleration (ACEL)	10 linear curves														
deceleration (DECEL)	10 linear curves														
USB communication	no					no					yes				
Electromagnetic compatibility	according to PN-EN 61326-1:2006														
ambient conditions	EN 61010-1 (pkt.1.4.1)														
set-up site	indoors only														
ambient temperature	2° ÷ 40°C														
humidity (maximum relative humidity)	< 80%														
excess-voltage category	II					EN 61010-1									
pollution degree	2					EN 61010-1									
safety area	300 mm														
dimensions:	299 mm														
height (H)	357 mm														
width (W)	451 mm														
depth (D)	572 mm														
noise level	≤60dB														
weight 230V	22 kg					20 kg					22 kg				
weight 120V	23 kg					21 kg					23 kg				
Menu languages: Polish, English, German, Spanish, Italian, Portuguese, Russian, Swedish, French, Czech															

3 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.

3.1 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 102MD/2-56 102MD/1-56 102MS/2-56 102MS/1-56 (type and supply version dependent)
complete clamp	1	17142
spanner for the rotor	1	17099T
spanner for emergency opening of the cover	1	18640
power cord 230V / 120V	1	17866/17867
fuse WTA T8A 1150V	2	17865
vaseline 20ml	1	17201
USB A-A cable	1	16655*
user manual	1	202MUMDMS.EN rev.8

*- only MPW M-UNIVERSAL

3.2 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 2.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 (17866 for 230V, 17867 for 120V).**

3.3 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.

4 Operating safety

4.1 Operating personnel



- Laboratory centrifuge can be operated by laboratory personnel after getting acquainted with user manual.
- **This User Manual is part of the device.**
- **User manual shall be always held near the centrifuge.**
- The centrifuge can not be misused.
- If the centrifuge is used in a manner not specified by the manufacturer, the protection provided by the device may be impaired.

4.2 Guarantee

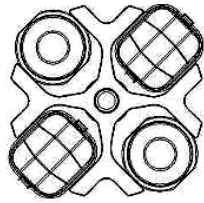


- Guarantee period amounts to 24 months (unless otherwise specified in the purchase documents).
- Guarantee conditions are described in guarantee card..
- The service life of the centrifuge specified by the manufacturer amounts to 10 years.
- After 24 months from the start of the warranty period (date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

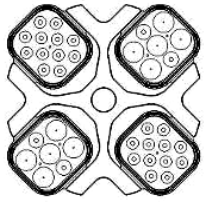
4.3 Placement of test tubes



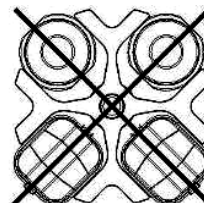
- Fix the rotor on the motor axis firmly.
- Avoid unbalance!
- Load opposite buckets with the same accessories.
- Centrifugation of the test tubes of different sizes:
 - There is a possibility to centrifuge test tubes of different sizes; however, it is absolutely necessary in such cases that opposite buckets and round carriers be the same.
 - Mass of different containers with test tubes spun at the same time has to be comparable. Swing-out rotors must be equipped with all four buckets.
- Lubricate the swing-out rotor journal pins.



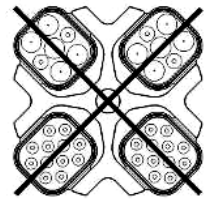
CORRECT



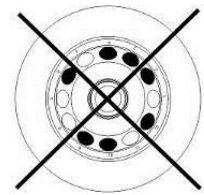
CORRECT



WRONG



WRONG



- It is necessary to insert test tubes symmetrically on the opposite sides.



FILLING TUBES

- Fill test tubes outside the centrifuge.
- Please pay special attention to the quality and proper thickness of the glass test tubes walls. Those shall be test tubes for centrifuges.
- Fill test tubes outside the centrifuge.

4.4 Safety hints



ROTORS MAINTENANCE

- Lubricate the swing-out rotor journal pins.
- Use only accessories in good condition.
- Protect equipment against corrosion using accurate preventive maintenance.



HS ACCESSORIES MAINTENANCE

- Make sure that rubber O-rings are lightly coated with silicone grease. Use high vacuum grease, e.g. type „C” by LUBRINA.



HAZARDOUS MATERIALS

- MPW accessories 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.
- It is not allowed to subject to centrifugation toxic materials with damaged leak proof seals of the rotor or test-tube. Proper disinfection procedures have to be carried out when dangerous substances contaminated the centrifuge or its accessories.



EXPLOSIVE AND COMBUSTIBLE MATERIALS

- It is not allowed to centrifuge explosive and inflammable materials.
- It is not allowed to centrifuge substances prone to reacting in result of supplying high energy during centrifugation. The centrifuge can not be operated in explosion-endangered areas
- It is not allowed to centrifuge materials capable of generating inflammable or explosive mixtures when subjected to air.

4.5 Maintenance conditions



START-UP

- Prior to switching the centrifuge on, one shall read carefully all sections of this instruction in order to ensure smooth operation and avoid damages of this device or its accessories.
- In order to protect the centrifuge against unbalance, fill in the test tubes up to the same weight.



TRANSPORTATION

- Centrifuge must not be transported with the rotor mounted on the shaft..



GENERAL HINTS

- One must use original rotors, test-tubes and spare parts only.
- In case of faulty operation of the centrifuge one shall ask for assistance of service of MPW MED. INSTRUMENTS company or its authorized representatives.
- It is not allowed to switch the centrifuge on if it is not installed properly or rotor is not fitted correctly.



CENTRIFUGES SUBSTANCES

- It isn't allowed to exceed load limit set by the manufacturer. Rotors are intended for fluids of average homogeneous density equal to **1,2 g/cm³** or smaller when centrifugation is carried out at maximum speed. When fluids of higher density shall be used, then it is necessary to change density of centrifuges sample in **PARAM/DENSITY** field.
- Observe the limitation on the permissible mass specified on the rotor/ bucket (eg MAX 15g). If the designation is given on the rotor, it refers to the mass of the sample. If the designation is given on the bucket, it refers to the mass of the entire load, i.e. adapter+ tube + sample.



INSPECTION PROCEDURES CARRIED OUT BY THE OPERATOR

Operator has to pay special attention to the fact that the centrifuge parts of key importance due to safety reasons are not damaged. This remark is specifically important as for:

- Centrifuge accessories and especially structural changes, corrosion, preliminary cracks, abrasion of metal parts.
- Screw connections.
- Inspection of bioseals of the buckets if such are used. Special attention must be paid to all of the rubber (seals) parts. In the case of damage or visible structural changes defective parts must be replaced for new immediately (Set of seals Cat. No. **18591** available from the manufacturer).

Control of execution of the guarantee yearly technical inspection of the centrifuge (after lapse of guarantee).

Only the manufacturer-specified buckets, included in the equipment list, as well as centrifuge tubes, which diameter, length and durability are suitable, should be used for spinning in this centrifuge. The use of equipment made by other manufacturers should be consulted with the manufacturer of the centrifuge.

- It is not allowed to lift or shift the centrifuge during operation, and rest on it.
- It is nor allowed to stay in the safety zone within 30 cm distance around the centrifuge neither leave within this zone some things, e.g. glass vessels.
- It is not allowed to put any objects on the centrifuge



COVER OPENING

- It isn't allowed to open the cover manually in emergency procedure when rotor is still turning.



ROTORS

- It is not allowed to use the rotors and round carriers with signs of corrosion or other mechanical defects.
- It is not allowed to centrifuge highly corrosive substances which may cause material impairment and lower mechanical properties of rotor and round carriers.
- It isn't allowed to use rotors and accessories not admitted by the manufacturer. Let to use commercial glass and plastic test tubes, which are destined to centrifuging in this laboratory centrifuge. One should absolutely not use poor quality elements. Cracking of glass vessels and test tubes could result in dangerous vibration of the centrifuge.
- It is not allowed to carry out centrifugation with the rotor caps taken off or not driven tight.

4.6 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 Operating

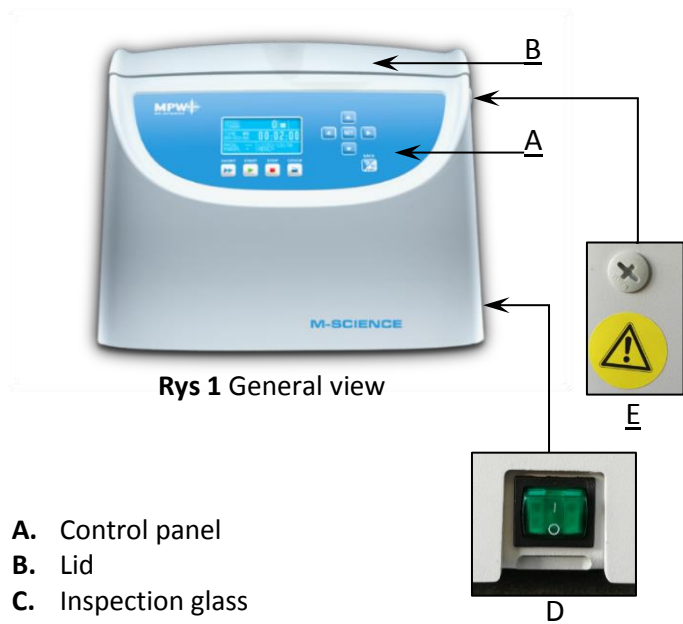
5.1 Centrifuge description

New generation of MPW MED. INSTRUMENTS laboratory centrifuges is provided with state-of-the-art microprocessor control systems, very durable and quiet asynchronous brushless motors and accessories consistent with requirements of the present-day user.

5.2 Centrifuge overview

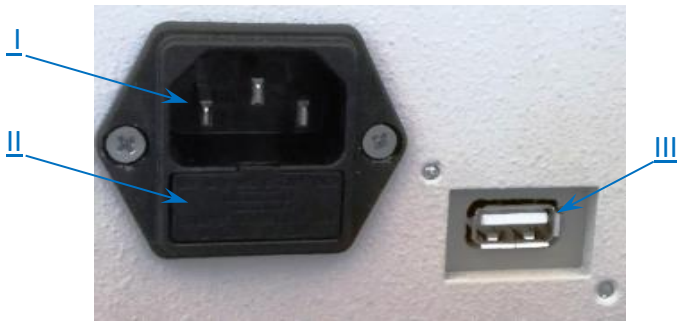


Rys.2. Right side of centrifuge



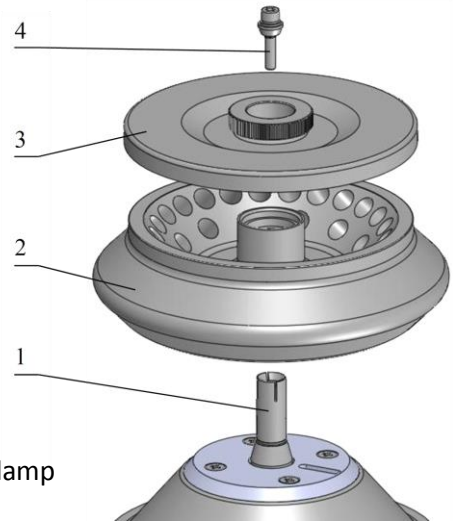
Rys.1 General view

- A. Control panel
- B. Lid
- C. Inspection glass
- D. Power switch (on the left side)
- E. Power switch Point of emergency lid opening (on the left side at the top)



Rys.4. Back of the centrifuge

- I. Main socket
- II. Fuse socket
- III. USB [M-UNIVERSAL only]



Rys.3. Assembly of angle rotor

5.3 Construction

The centrifuge has rigid self-supporting structure. Front and lid was made of ABS type plastic. Lid is fixed on steel axles of hinges and from the front it is locked with two electromagnetic locks blocking possible opening during centrifugation. Rotation chamber casing was made of thick steel sheet. The rotation chamber bowl is made of stainless steel sheet.

5.4 Name plate

MPW MED. INSTRUMENTS	
Centrifuge model	MODEL: MPW M-UNIVERSAL
Catalogue number	REF: 102MU/2-56
Power supply parameters	AC: 230 V ~ 50 Hz-60 Hz
Rating power	P: 220 W
Rating maximum rotational speed	n: 18000 RPM
Serial number	SN: 102MU000118
Information about manufacturer	"MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY ul. Boremłowska 46, 04-347 Warszawa POLAND
CE compliance	CE IVD
	2018
	T 8 A
	Read user manual

Fuse type

Date of manufacturing

Product should not be disposed with other waste. Disposal according to national law.

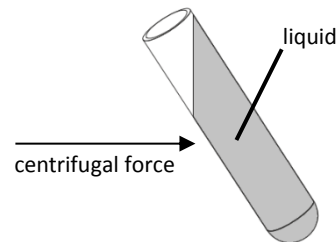
In Vitro Diagnostic device

Pay attention when you are seeing this symbol. Operating of centrifuge may be potentially riskful.

5.5 Rotor and accessories installation

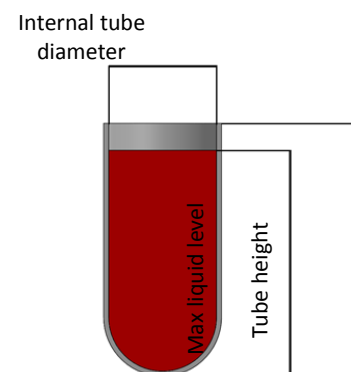
- Connect the centrifuge to the mains (master switch on the back side of the centrifuge).
- Turn on the centrifuge (button on the side of the centrifuge).
- Open the cover of the centrifuge by pressing the COVER key (see section Centrifuging/Control Panel). Prior to putting the rotor in, one has to check if the rotating chamber is free of impurities, e.g. such as dust, glass splinters, residues of fluids that must be taken away.
- One shall fit the rotor on the motor shaft driving it home on the cone.
- Screw-in the bolt for fixing the rotor (clockwise) and screw it tightly home with the supplied spanner for the rotor.
- Swing-out rotors have to be provided with the buckets in all seats. One should remember that every buckets swings individually. Bucket suspension studs should be lubricated periodically with petroleum jelly.
- In case of rotors designed with the cover they must not be used without it. Rotor covers must be closed exactly. Rotor covers ensure smaller drags of the rotors, proper setting of the test-tubes and airtight sealing.
- One should use only buckets intended for selected types of the rotor.
- Fill test tubes outside the centrifuge.
- In case of centrifuging in an angle rotor, test tubes (buckets) have to be filled properly in order to prevent from pouring fluids during centrifuging.

Tubes must be filled so that the material does not escape from the reservoir during centrifugation.



One shall fill tubes according to formula:

$$\text{Max liquid level} < \text{Tube height} - \text{Internal tube diameter}/2$$



Observe the manufacturer's restrictions about the filling of the test tube.



It is recommended to equalize vessels loads as much as possible in order to ensure minimal vibrations during operation.

- **In order to prolong lifetime of the rotor and gaskets rotors shall be lubricated with the maintenance oil, while gaskets and threaded parts shall be lubricated with the petroleum jelly.**
- For replacement of the rotor one shall unscrew clamping and then grab the rotor with both hands at opposite sides, taking it away from drive shaft by pulling it up.

5.6 Control device

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

5.7 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. The centrifuge is provided with the USB (only MPW M-UNIVERSAL) interface that enables connection of the centrifuge to external PC unit with the printer and recording the centrifugation parameters.

5.8 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.

5.9 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.

6 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.

6.1 Control panel

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



Control panel

▶▶	SHORT ¹	short-time centrifuging
▶	START	start centrifugation run
■	STOP ²	end centrifugation run
🚪	COVER	cover opening
	BACK	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	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

6.2 Display


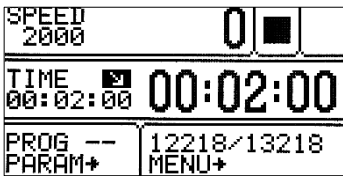
The display is located in the centre of the control panel. The main screen variants are presented below.



After switching on Centrifuge, welcome screen appear. 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.

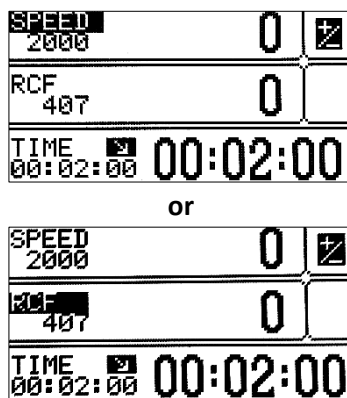
TYPES OF MAIN SCREEN	
SIMPLIFIED DISPLAY (setting default)	NORMAL DISPLAY
	



6.2.1 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

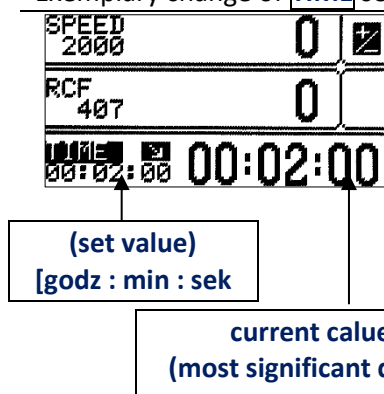
Exemplary change of **SPEED** or **RCF** setting:





- 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**.

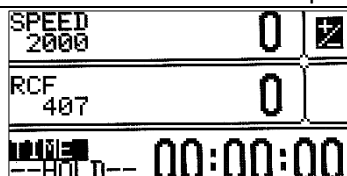
When RPM is changed, RCF is automatically corrected, and vice versa.

Exemplary change of **TIME** setting:



- 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**.

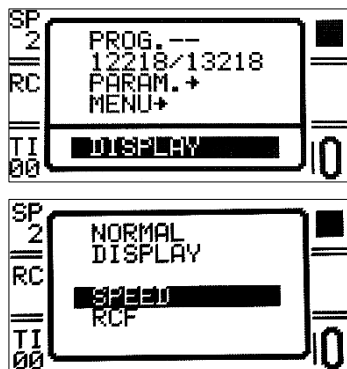


- To run centrifuging in **HOLD** mode set **00:00:00** time.

6.2.2 Switching between the screen

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

Method I.

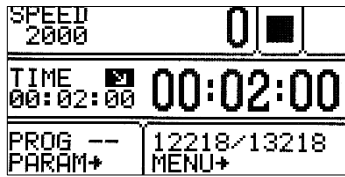



Press the **BACK** button for **1 sec.** to return to the basic display (a short menu is displayed on the screen)

- 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.

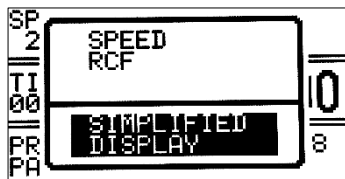


- Press **SET** (to enter edit mode )
- Via **▲▼◀▶** keys select **MENU**.
- Press **SET**.
- Via **◀▶** keys select **CONFIGURATION** tab.
- Press **SET**.



- Via **▲▼** keys select **SIMPLIFIED DISPLAY** tab.
- Press **SET**.
- Leave menu via **BACK** key x2.

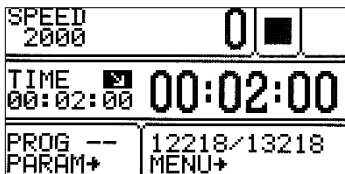
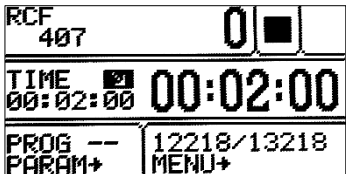
Method II.



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**.

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

NORMAL DISPLAY	
Display mode SPEED	Display mode RCF
	

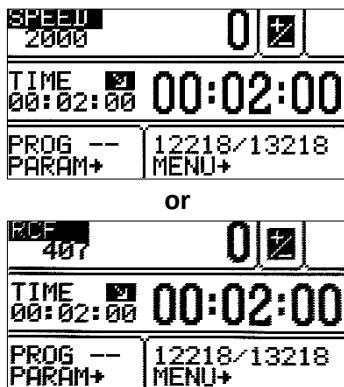
Switching between display **SPEED** and **RCF**:





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



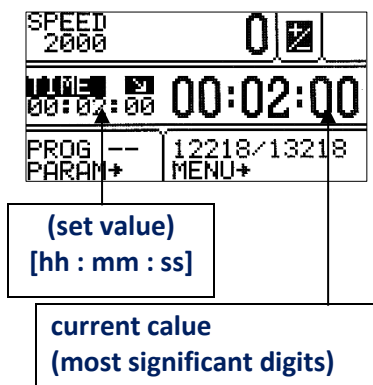
Exemplary change of **SPEED** or **RCF** setting:





- 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**.

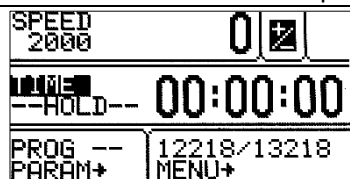
When RPM is changed, RCF is automatically corrected, and vice versa.

Exemplary change of **TIME** setting:



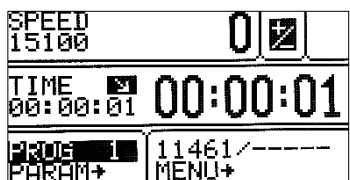
- Press **SET** (to enter edit mode )
- With **▲▼◀▶** keys mark **TIME**.
- Press **SET** ( - blinking).
- Choose “hours”, “minutes” or “seconds” by pressing **◀▶**, e.g.: **00:02:00**.
- Set demanded value by pressing **▲▼**. Repeat above two steps for other orders of magnitude.
- Confirm set value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

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

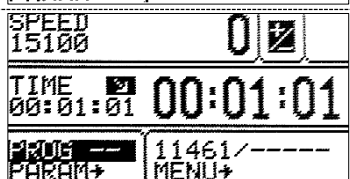


To run centrifuging in **HOLD** mode set **00:00:00** time.

6.3 Users programs



After switching centrifuge on, program that was used in previous session is being loaded.



Modification during run is represented by **PROG --** symbol.

6.3.1 Program selection (Simplified display)

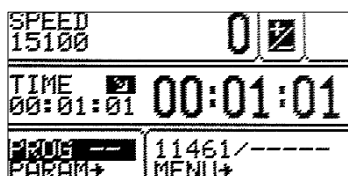



Press the **BACK** button for **1 sec.** to return to the basic display (a short menu is displayed on the screen)

- With **▲▼** keys mark **PROG**.
- Press **SET**.

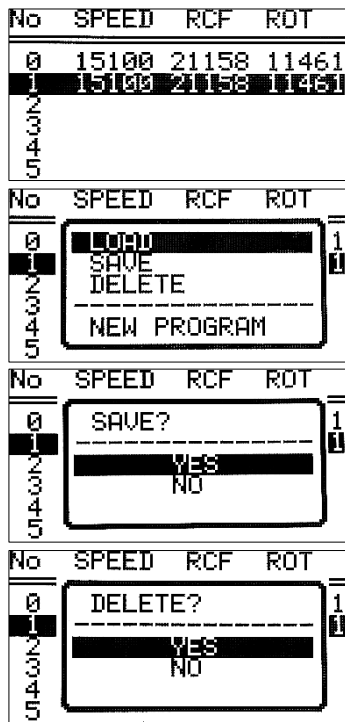
Next, you should proceed in accordance with point. [6.3.2.1 Choosing program.](#)

6.3.2 Program selection (Basic display)



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

6.3.2.1 Choosing program



The program list is displayed

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

With ▲▼ keys choose one of four possibilities

LOAD, SAVE, DELETE:

➤ – currently loaded program.

Use the ▲▼ buttons to select:

LOAD – load program,

SAVE – save settings as a program

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

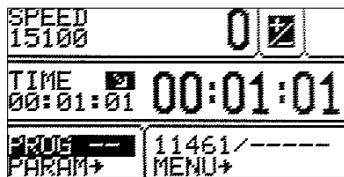
DELETE – delete program


(confirm by selecting **YES**).

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

- Press **SET**.
- Press **BACK**.

6.3.2.2 Creating a new program



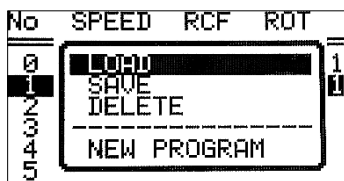
- Press **SET** (to enter edit mode .
- Via ▲▼◀▶ keys mark **PROG.** field.
- Press **SET**.

The program list appears.



- Press **SET**.
- Selection frame appears.
- Via ▲▼ keys mark **NEW PROGRAM** field.
- Press **SET**.
- Set demanded parameters of centrifuging (look 6.2 Screen).
- Via ▲▼◀▶ keys mark **PROG** field.
- Press **SET**.

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**.

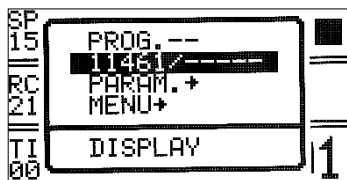
- Press **SET**.
- Via ▲▼ keys mark **LOAD** field.
- Press **SET**.

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).

6.4 Choosing rotors and container

6.4.1 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 [6.4.2.1 Choosing rotors and container](#).

6.4.2 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**.


6.4.2.1 Choosing rotors and container

ROTOR	BUCKET	SPEED
11129	-----	13000
11213	13276+U	5000
11216	-----	14000
11217	13000+U	6000
>11461	-----	15100
11462	-----	14000

- Selection of the rotor with a container marked U:**
 - Use the **▲▼** keys to select the desired rotor or rotor number and the container marked **U**.
 - Confirm the selection by pressing the **SET** key.
 - Press **BACK**.

- Selection of the rotor with a container marked U+U:**

 - 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 [8.4.7 Rotor automatic identification](#) chapter.

6.5 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.

6.6 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.

7 Parameters of centrifugation

7.1 Choosing parameters on the SIMPLIFIED SCREEN

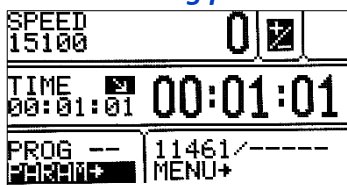



Press the **BACK** button for **1 sec.** to return to the basic display (a short menu is displayed on the screen)

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

After that follow instructions described in 7.3.

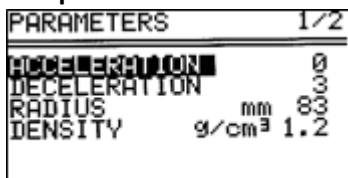
7.2 Choosing parameters on the BASIC DISPLAY



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

7.3 Choosing centrifugation parameters

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

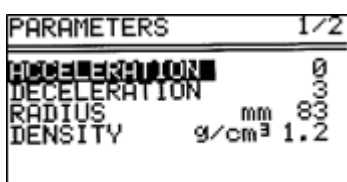


ACCELERATION	chosen acc. characteristic (0-the fastest, 9-the slowest)
DECELERATION	chosen dec. characteristic (0-the fastest, 9-the slowest)
RADIUS [mm]	current rotor radius [mm]
DENSITY (g/cm³)	sample density [g/cm ³]
AUT. LID OPEN	opening cover after centrifuging automatically
START DELAY	starting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

7.3.1 Accelerating/decelerating – changing characteristics


ACCELERATION / DECELERATION

PARAM./ ACCELERATION / DECELERATION



ACCELERATION – 10 linear accelerating characteristics assigned to every rotor. **(0-the fastest, 9-the slowest)**

DECELERATION – 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**.


7.3.2 Radius


RADIUS [mm]

PARAM./ RADIUS

PARAMETERS		1/2
ACCELERATION		0
DECELERATION		3
RADIUS	mm	83
DENSITY	g/cm ³	1.2




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 ▲▼◀▶ keys mark **RADIUS** fold
- Press **SET** (to enter edit mode ).
- Set demanded value by pressing ▲▼.
- 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

RCF	20903 	0	
TIME		00:01:01	
PROG --	11461 / -----		
PARAM+	MENU+		

SIMPLIFIED DISPLAY

SPEED	15100	0	
RCF	20903 	0	
TIME		00:01:01	


7.3.3 Density


DENSITY (g/cm³)

PARAM./ DENSITY

PARAMETERS		1/2
ACCELERATION		3
DECELERATION		3
RADIUS	mm	70
DENSITY	g/cm ³	1.2




Default density is set to **1,2 g/cm³** (possible values 1,2 ÷ 9,9 g/cm³).

- With ▲▼ keys mark **DENSITY**.
- Press **SET** -  appears.
- Via ▲▼ 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

SPEED	14507 	0	
TIME		00:01:01	
PROG --	11461 / -----		
PARAM+	MENU+		

SIMPLIFIED DISPLAY

SPEED	14507 	0	
RCF	19529	0	
TIME		00:01:01	

7.3.4 Automatic lid open

Automatic lid open

PARAM. / AUTOM. LID OPENING


PARAMETERS		2/2
<input type="checkbox"/>	AUTOM. LID OPENING	
<input type="checkbox"/>	START DELAY	

- Via ▲▼◀▶ 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

SPEED 3000	3000	
TIME 00:01:01	00 00 42	
PROG -- PARAM+	12218/13218 MENU+	

SIMPLIFIED DISPLAY


SPEED 3000	3000	
RCF 916	916	
TIME 00:01:01	00 00 55	

7.3.5 STARY DELAY-OF TIME




Start centrifuging since preselected delay is reached. PARAM.2/2/ STARY DELAY/OF TIME

PARAMETERS	2/2
<input type="checkbox"/> AUTOM. LID OPENING	
<input checked="" type="checkbox"/> START DELAY	
<input checked="" type="checkbox"/> OF TIME →	0:00:01


- 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


SPEED 3000	0	
TIME --:--:--	00:00:53	
PROG -- PARAM+	12218/13218 MENU+	

SIMPLIFIED DISPLAY

SPEED 3000	0	
RCF 916	0	
TIME --:--:--	00:00:34	


7.3.6 Screen messages

End of centrifuging – manual mode

SPEED 2000	0	
TIM 00:	CYCLE INTERRUPTED !	00
TEMP +5°C	+15	PRG-- 11716 PARA+ MENU+

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

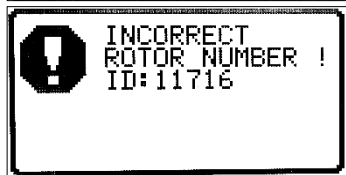
SPEED 2000	0	
TIM 00:	CYCLE FINISHED	15
TEMP +5°C	+15	PRG-- 11716 PARA+ MENU+

Stopping centrifuging in accordance the set time causes generating **multiton audible signals** (after stopping the rotor) and displaying the message **FINISH OF CENTRIFUGING**

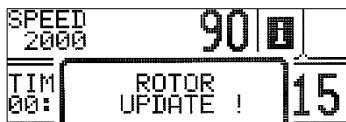
Additional messages



In case of power shortage while centrifuging, after repeated switching it on, the following error screen will be displayed:
SUPPLY DECAY WHILE CENTRIFUGING



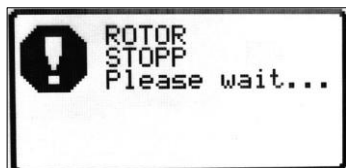
Identified number of the installed rotor is not compatible with the number of rotor remembered in program.



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!"	

7.4 Unbalance

The centrifuge is provided with the rotor unbalance sensor and when it will be activated, centrifugation process will be stopped through fast braking and at the same time an error message will be displayed. Cancellation of this error is possible only through pressing **BACK, STOP, COVER, SET** or **▲▼◀▶**, key after stopping of the rotor.

One must check if rotor was correctly loaded, close the cover and once more start the program. In order to protect the rotor against beating in opposite areas of the rotor, it has to be provided with identically filled buckets, carriers, test-tubes etc. for getting the best balance possible.

During loading rotors of M-SCIENCE centrifuge, special care must be taken, **unbalance must not exceed 3 g.**



Unbalance causes noise and vibrations during operation, and adversely affects power transmission system (motor, shock absorbers). The better balance, the smoother will be the centrifuge operation and therefore longer life of usage of the driveline. Moreover, the ideal separation level is then obtained, as already separated constituents would not be moved up by vibration.

8 Screen menu

8.1 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. [8.3 MENU navigation](#).

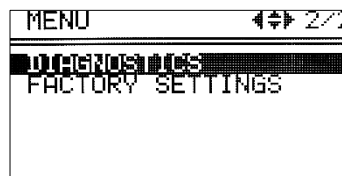
8.2 Starting MENU on the NORMAL DISPLAY



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

8.3 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

8.4 Configuration

MENU/CONFIGURATION




- With ▲▼ keys select **CONFIGURATION**.
- Press **SET**.

8.4.1 Screen saver

Setting time of screen saver

MENU / CONFIGURATION / SCREEN



- With ◀▶ keys select **SCREEN 1/6**.
- 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.

8.4.2 Visual alarm

Visual alarm

MENU / CONFIGURATION / SCREEN



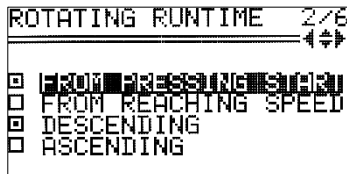
- With ◀▶ keys select **SCREEN 1/6**.
- Via ▲▼ keys choose **VISUAL ALARM**.
- Mark it by pressing **SET**.
- Leave the menu by pressing **BACKx2**.

VISUAL ALARM cause blinking screen after ending of centrifuging or after error occurring.

8.4.3 Counting time

The method of counting time

MENU/CONFIGURATION/ ROTATING RUNTIME



- With ◀▶ keys select **ROTATING RUNTIME 2/6**.
- 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

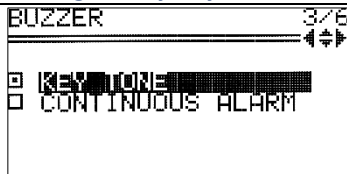
Presenting mode:

DESCENDING	Counting down
ASCENDING	Counting up

8.4.4 Buzzer

Switching ON/OFF short audible signals accompanying every pressing of any key.

MENU/ CONFIGURATION /BUZZER



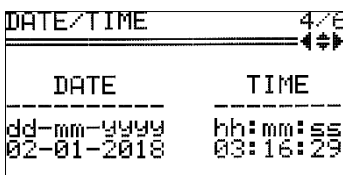
- With ◀▶ keys select **BUZZER 3/6**.
- With ▲▼ keys select demanded option.
- Mark selection by pressing **SET**.
- Leave menu via **BACK key x2**.

Warning signals are always switched on.

8.4.5 Date/time

Setting up time and date

MENU/ CONFIGURATION /DATE/TIME



- With ◀▶ keys select **DATE/TIME 4/6**.
- Press **SET**.
- Via ◀▶ keys choose demanded value.
- Press **SET**.
- Via ▲▼ keys change chosen value.
- Confirm by pressing **SET**. Repeat above steps for other values.
- Press **BACKx2**.

Set date and time are still active even after restart of centrifuge.

8.4.6 Language

Changing menu language

MENU / CONFIGURATION / LANGUAGE

- With ◀▶ keys select **LANGUAGE 5/6**.
- Via ▲▼ keys choose demanded menu language.
- Mark it by pressing **SET**.
- Press **BACKx2**.



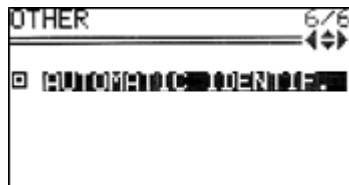
8.4.7 Rotor automatic identification

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 [6.4 Choosing rotors](#).



The AUTOMATIC IDENTIF. is turned on by default.

Aby włączyć funkcję należy:

- With ◀▶ keys select **OTHER 6/6**.
- 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 [6.4 Choosing rotors and container](#).

8.5 Password

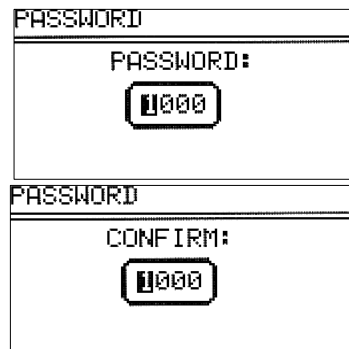
Setting up password

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).

```

SPEED 12000 0 [ ] ?
TIME 00:02:00
TEMP +20°C +21 PRG-- 11944
+20°C +21 PARA+ MENU+

```

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

```

LOCK:
[ ] SAVE PROGRAM
[ ] DELETE PROGRAM
[ ] CHANGE PARAMETERS
[ ] LOAD PROGRAM
[ ] START KEY

```

- 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	<ul style="list-style-type: none"> ▪ no programs can be saved.
DELETE PROGRAM	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> ▪ parameters can not be modified.
LOAD PROGRAM	<ul style="list-style-type: none"> ▪ no programs can be called up.
START KEY	<ul style="list-style-type: none"> ▪ centrifugation can not be started.

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

8.6 10 cycles

Information concerning parameters of last 10 centrifuging cycles.

MENU / LAST 10 CYCLES

```

NO CYCLES: 10 ◀▶
DATE: 2018.01.02
TIME: 03:17
PRG: --
ROTOR: 11716
SPEED: 2000
RCF: 313

```

- 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.

8.7 Work time

Total working time of centrifuge

MENU/ WORK TIME

```
WORK TIME
-----
TOTAL RUN TIME:
0h 13m 14s
CYCLES: 31
```

- 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**.

8.8 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

```
S ROTOR CYCLES NOM.C.
-----
✓ 11199      22 15000
✓ 11213      0 15000
✓ 11216      0 15000
✓ 11217      0 15000
✓ 11461      0 15000
✓ 11462      0 15000
```

- 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.**

8.9 Manufacturer's details

Information about the type of the centrifuge, firmware version, and contact details.

MENU / CONTACT US

```
M-UNIVERSAL v5.4.7
-----
MPW MED. INSTRUMENTS
04-347 WARSAW 46
BOREMLOWSKA Street
-----
www.mpw.pl
mpw@mpw.pl
```

- Press the ▲▼ keys until **CONTACT US**.
- Press **SET**.
- The list can be scrolled using ▼► keys.
- To exit press **BACK** key x2.

8.10 Diagnostics

Information about errors arisen in working of the centrifuge.

MENU / DIAGNOSTICS

```
No DATA TIME ERROR
-----
1 14.03.05 18:36 183
NONI
```

- Press the ▲▼ keys until **DIAGNOSTICS**.
- Press **SET**.

For service staff!

8.11 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
```

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

9 Report printout – USB (M-UNIVERSAL only)

When the centrifuging process is finished there is a possibility to obtain report. Report can be transferred to PC or printed.

PC (USB)

The elements needed to make connecting your computer via USB:

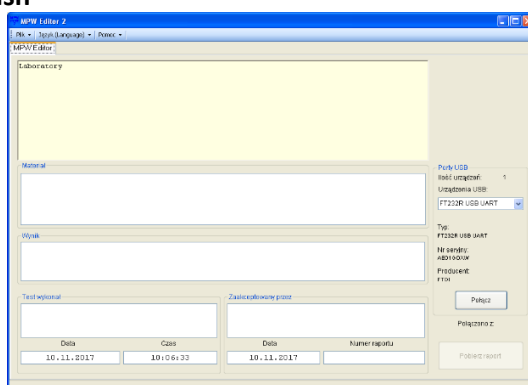
name	quantity (pcs.)	cat. No.
USB A-A cable	1	16655
MPW Editor 2 application	1	to downloaded from the website: www.mpw.pl Tab: DOWNLOAD/OTHER

Preparation

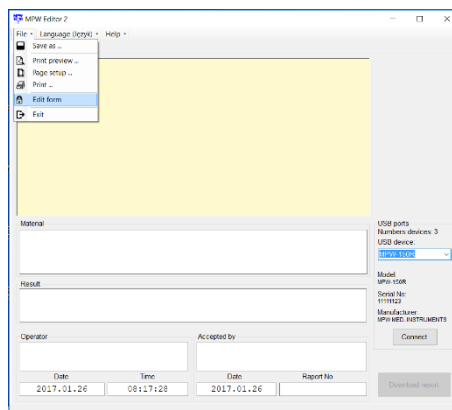
- Install **MPW Editor 2** application on the computer. Program is available for download from our website at www.mpw.pl. Operating System Requirements: **Microsoft Windows 10 (64bit)**. The Manufacturer does not guarantee that the program will work correctly with other operating systems.
- If necessary install **FTDI USB drivers** and **.NET Framework 4.0** library (download with manufacturer's website: www.mpw.pl)

Centrifuging and printing

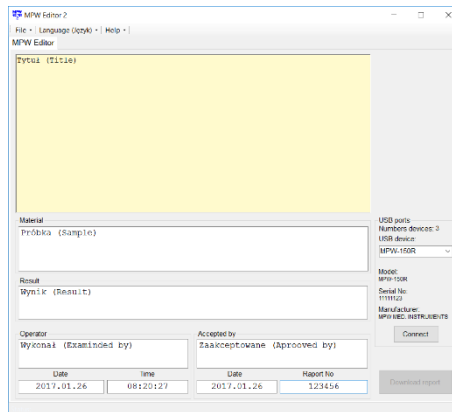
- Run **MPW Editor 2** application.
- Choose **Language\English**



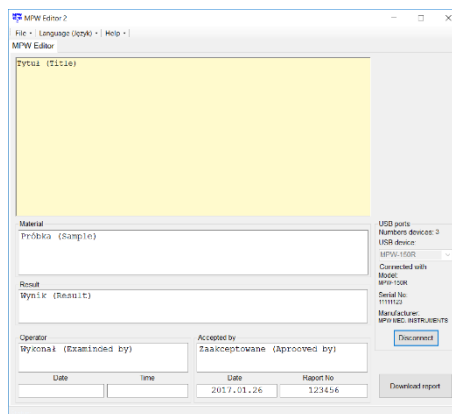
- Connect centrifuge to the PC in accordance with the „**Connection scheme**”
- Choose port assigned to the centrifuge (it will appear after connecting USB cable). Attention: If the interface has not been programmed: name, serial number and manufacturer's name, the device will be identified by Windows and MPW Editor 2 with the data programmed by FTDI (manufacturer USB integrated circuit) for example FT232R USB UART.
- Choose **File\Edit form**



In the „Tytuł (Title)” field, you can place any text, for example name of the laboratory, for later use in the report template.



- Choose **File\Save form**.
- Ensure that USB device is selected from the list of devices.
- Press **Connect**. After successful communication, "PC" appears in the display.



- Fill folds: „Material”, „Result”, „Operator”, „Accepted by”, „Report no” (optionally).
- When the centrifuging process is finished, press **Download the report**.
- When centrifuging process is completed, report will appear.
- Save report (**File/Save as**) or print it (**File/Print**).
- In order to get another report, press New test and press Download the report.
- After finishing the work, press **Disconnect** button (the "PC" disappears from the display of the centrifuge) and then closes MPW Editor 2.

Connection diagram



10 Maintenance

10.1 Cleaning of the centrifuge



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 clamping thread. In case of damage, replaced it.

Check the centrifuging chamber whether it is damaged. In case of damage it can not be longer put into operation. Notify authorized service workshop.

10.2 Maintenance of centrifuge elements



In this way, the uniform deflection of the buckets and quiet centrifuge operation is ensured.

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.

Wipe rotor's pins clean and dry with a paper towel after approx.400 uses, cleaning or/and autoclaving and then lubricate socket with the petroleum jelly (catalogue no. **17201**).

- 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.
- Clamping rotor, containers and reducer inserts must be cleaned regularly 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.

Does 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 aluminium.
- 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/perfluoropropylene
PVC	- polyvinyl chloride	PFA	- tetrafluoroethylene/perfluoroalkylvinylether
POM	- acetal polyoxymethylenel	FKM	- fluorcarbon rubber
PE-LD	- low density polyethylene	EPDM	- ethylene propylene diene
PE-HD	- high density polyethylene	NR	- natural rubber
PP	- polypropylene	SI	- silicon rubber
PMP	- polymethylpentene		

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 round carriers can be sterilized in autoclave with temperature 121°C during 20 min (215 kPa), unless otherwise specified in the OPTIONAL ACCESSORY.
- During sterilization (autoclaved) by means of steam one should to consider temperature resistance of individual materials.
- Deformation of the accessories (carriers or lids made of plastic) may occur during autoclaving.
- Do not autoclave disposable materials (e.g. tubes, cyto-container).
- The life of the accessory depends on the frequency of autoclaving and use.
- Autoclaving reduce lifespan of plastic and mechanical components. PC tubes can become useless.
- Pressure in closed containers can cause plastic deformation or explosion.
- Prior to autoclaving the rotors and accessories, thoroughly wash and rinse with distilled water.
- Never exceed the permissible autoclaving temperature and time.
- If you want to keep the hermetic seals, replace the sealing rings after each autoclave.

Chemical resistance of plastics

	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).

Rubber inserts shall be exactly cleaned or possibly replaced. Centrifuges and accessories are made of different materials.

DANGER!










- MPW accessories 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 master switch ON?</i>	<i>Switch ON power supply.</i>
<i>Motor error is displayed</i>		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 lid release



EMERGENCY LID RELEASE

In case of e.g. mains failure it is possible to open cover manually. On the right side is plug, which should be unscrewed (via key for emergency lid release 18640 basic accessories). Then, one should pull the plug .

It is not allowed to emergency lid releasing when rotor is running!

One must be sure that rotor is not in the motion (use inspection glass

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.

13 Disposal



When you are disposing the device, the respective statutory rules must be observed. Pursuant to guideline 2002/96/EC (WEEE).

The device belongs to 8th group (medical devices) and is categorized in business to business field.

The icon of the crossed-out trash can shows that the device may not be disposed as part of domestic waste. The waste disposal guidelines of the individual EC countries might vary. If necessary, contact your supplier.

14 Manufacturer's info

"MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY

Boremlowska 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

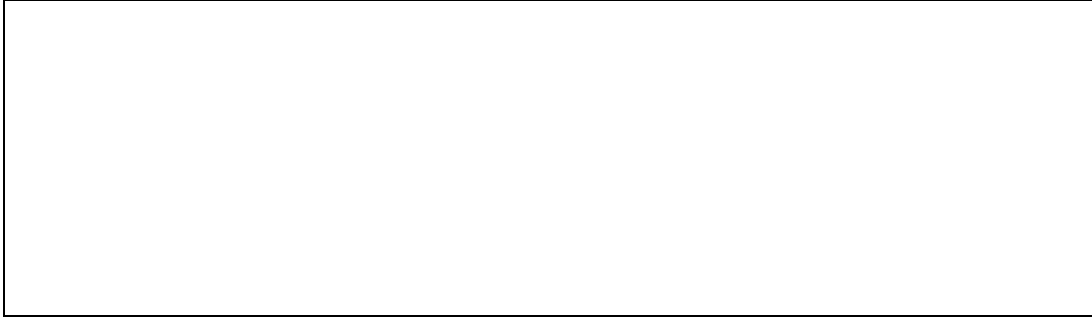
website: www.mpw.pl

E0008530W - registration number given by Chief Inspectorate Of Environmental Protection

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

Distributor's info

DISTRIBUTOR:



A. Wyposażenie dodatkowe/Optional accessories**MPW M-UNIVERSAL****WIRNIK / ROTOR****PARAMETRY WIRNIKA / ROTOR PARAMETERS****POJEMNIK/BUCKET****WKŁADKA / ADAPTER**

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

11199**RPM 18000, RCF 24270, Rmax 67, ϕ 45****bez pojemnika/without bucket****14084**[12] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)**14126**[12] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)**14133**[12] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)**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)
2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)**11213****RPM 5000, RCF 3494, Rmax 125, ϕ 30****13276****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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)[8] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)[8] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)**14036**

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

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

[8] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®[8] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)**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] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)[8] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®**14071**

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

[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] 15056 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)[8] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 mm)[8] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®
30 ml tube with cap (25,5 x 94 mm), Nalgene®

A. Wyposażenie dodatkowe/Optional accessories	
14073	
[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]	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]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 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)
[8]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 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®
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 mm)
[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
13278C	
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]	15048 15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[8]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
14036	
[8]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[8]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
14043	
[8]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[8]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[8]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14071	
[8]	* 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[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]	15056 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm) 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
[8]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
[8]	15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
14073	
[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]	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]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 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)

* 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	
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)
[8]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 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®
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 mm)
[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
11216	
RPM 14000, RCF 19064, Rmax 87, ϕ 45	
bez pojemnika/without bucket	
bez wkładki/without adapter	
[12]	15419 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, ϕ 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]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[10]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter	
[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]	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]	15048 15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[10]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[10]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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 mm)
RPM 6000, RCF 3783, Rmax 94, ϕ 30	
13081	
14082	
[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)
[10]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter	
[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)
[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)

* 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**11461****RPM 15100, RCF 21158, Rmax 83, ω 45****bez pojemnika/without bucket****14084**[24] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)**14126**[24] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)**14133**[24] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)**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)
2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)**11462****RPM 14000, RCF 18188, Rmax 83, ω 45****bez pojemnika/without bucket****14084**[36] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)**14126**[36] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)**14133**[36] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)**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)
2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)**11501****RPM 4500, RCF 3011, Rmax 133, ω 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] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®[30] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)**bez wkładki/without adapter**

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)[30] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)[30] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)[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 mm)

A. Wyposażenie dodatkowe/Optional accessories	
RPM 4500, RCF 2875, Rmax 127, ϕ 30	
13081	
14082	
[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] 15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter	
[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)
[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)
11715	
RPM 14000, RCF 15558, Rmax 71, ϕ 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, ϕ 45	
bez pojemnika/without bucket	
bez wkładki/without adapter	
[4] 15131	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)
[4] 15122	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] 15125	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)
[4] 15130	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)

A. Wyposażenie dodatkowe/Optional accessories**11718****RPM 6300, RCF 5014, Rmax 113, ϕ 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)

14188

[4] 15115 100 ml probówka szklana (44 x 100 mm)
100 ml glass tube (44 x 100 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] 15056 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] 15055 30 ml probówka z pokrywką (25,4 x 103,2 mm)
30 ml tube with cap (25,4 x 103,2 mm)

[4] 15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin®
30 ml tube with cap (25 x 94 mm), Sterilin®

[4] 15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin®
30 ml tube with cap (25 x 94 mm), Sterilin®

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®

14189C

[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 mm)

[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

14190C

[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] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 mm)

14192C

[4] 15116 50 ml probówka szklana (35 x 100 mm)
50 ml glass tube (35 x 100 mm)

A. Wyposażenie dodatkowe/Optional accessories**11740****RPM 5500, RCF 4058, Rmax 120, \pm 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] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®[12] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)**bez wkładki/without adapter**

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)[12] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)[12] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)[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 mm)**RPM 5500, RCF 3686, Rmax 109, \pm 30****13081****14082**

[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)

[12] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)**bez wkładki/without adapter**

[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)

[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)

A. Wyposażenie dodatkowe/Optional accessories**11741****RPM 6000, RCF 4226, Rmax 105, \pm 30****13080****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] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®

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

[8] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

bez wkładki/without adapter

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[8] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[8] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

[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)

RPM 6000, RCF 3783, Rmax 94, \pm 30**13081****14082**

[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] 15120 5 ml probówka szklana (12 x 75 mm)

5 ml glass tube (12 x 75 mm)

bez wkładki/without adapter

[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)

[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)

A. Wyposażenie dodatkowe/Optional accessories**11742****RPM 6000, RCF 4830, Rmax 120, α 45****13329****14255**

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

[4] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

14256

[4] 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®

[4] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[4] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[4] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

bez wkładki/without adapter

[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] 15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin®

30 ml tube with cap (25 x 94 mm), Sterilin®

[4] 15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin®

30 ml tube with cap (25 x 94 mm), Sterilin®

[4] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®

30 ml tube with cap (25,5 x 94 mm), Nalgene®

11743**RPM 5500, RCF 4058, Rmax 120, α 30****13329****14255**

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

[12] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[12] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[12] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

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] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®

30 ml tube with cap (25,5 x 94 mm), Nalgene®

[12] 15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin®

30 ml tube with cap (25 x 94 mm), Sterilin®

[12] 15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin®

30 ml tube with cap (25 x 94 mm), Sterilin®

A. Wyposażenie dodatkowe/Optional accessories**11744****RPM 4500, RCF 2830, Rmax 125, α 30****13276****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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)

[10] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)

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

14036

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

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

[10] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®

[10] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)

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] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)

[10] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14071

[10] * 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)

[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] 15056 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)

[10] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 mm)

[10] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®
30 ml tube with cap (25,5 x 94 mm), Nalgene®

14073

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)

[10] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)

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

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)

[10] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 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®

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 mm)

[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

A. Wyposażenie dodatkowe/Optional accessories**11745****RPM 5000, RCF 3354, Rmax 120, \pm 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] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®[24] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)**bez wkładki/without adapter**

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)[24] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)[24] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)[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 mm)**RPM 5000, RCF 3130, Rmax 112, \pm 30****13081****14082**

[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] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)**bez wkładki/without adapter**

[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)

[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)

A. Wyposażenie dodatkowe/Optional accessories**11746****RPM 6000, RCF 4427, Rmax 110, ϕ 30****13276****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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)
- [6] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)
- [6] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)

14036

- [6] * BD Vacutainer® (13 x 100 mm), (4-7 ml)
- [6] * Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
- [6] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®
- [6] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)

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] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)
- [6] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14071

- [6] * 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
- [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] 15056 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
- [6] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 mm)
- [6] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®
30 ml tube with cap (25,5 x 94 mm), Nalgene®

14073

- [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] 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] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)
- [6] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 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)
- [6] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 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®

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 mm)
- [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

A. Wyposażenie dodatkowe/Optional accessories**11760****RPM 14600, RCF 20257, Rmax 85, ϕ 45****bez pojemnika/without bucket****14084**[24] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)**14126**[24] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)**14133**[24] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)**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)
2-1,5 ml tube (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 (10,8x40,5 mm)**11943****RPM 12000, RCF 13684, Rmax 85, ϕ 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, ϕ 45****bez pojemnika/without bucket****bez wkładki/without adapter**[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®**12183****RPM 4000, RCF 2486, Rmax 139, ϕ 90****13182****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)**14181**

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

[20] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®[20] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)[20] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)[20] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

A. Wyposażenie dodatkowe/Optional accessories	
14186	
[16]	* BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[16]	* BD Vacutainer® (13 x 100 mm), (4-7 ml)
[16]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[16]	* Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[16]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[16]	* Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[16]	* Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[16]	* Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[16]	* Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[16]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[16]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[16]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[16]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14187	
[16]	* BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[16]	* Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[16]	* Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[16]	* Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[16]	15048 15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[16]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[16]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[16]	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®
14188	
[4]	15115 100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)
14194	
[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) 2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 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]	15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
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®
14189C	
[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 mm)
[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
14190C	
[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]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14192C	
[4]	15116 50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)
13266	

A. Wyposażenie dodatkowe/Optional accessories	
14043	
[4]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[4]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[4]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14071	
[4]	15056 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]	15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
14089	
[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)
14248	
[4]	* 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	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	
[4]	* 5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®
[4]	* 5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf® 5 ml tube with screw cap (17 x 66 mm), Eppendorf®
bez wkładki/without adapter	
[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 mm)
[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	
13184C	
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)
14181	
[20]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[20]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[20]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[20]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[20]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14186	
[16]	* BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[16]	* BD Vacutainer® (13 x 100 mm), (4-7 ml)
[16]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[16]	* Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[16]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[16]	* Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[16]	* Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[16]	* Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[16]	* Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[16]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[16]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[16]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[16]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14187	
[16]	* BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[16]	* Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[16]	* Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[16]	* Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[16]	15048 15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[16]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[16]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[16]	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®
14188	
[4]	15115 100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)
14194	
[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) 2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 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]	15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
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®
14189C	
[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 mm)
[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
14190C	
[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]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14192C	
[4]	15116 50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 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**13267C****14043**

- [4] * Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[4] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)
[4] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14071

- [4] 15056 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] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®
30 ml tube with cap (25,5 x 94 mm), Nalgene®

14248

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

- [4] * 5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf®
5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®

bez wkładki/without adapter

- [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 mm)
[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®

RPM 4000, RCF 2451, Rmax 137, α 90**13195****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® (13 x 90 mm), (4,9; 5,6 ml)
[8] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)

bez wkładki/without adapter

- [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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)
[8] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)
[8] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)
[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)

RPM 4000, RCF 2504, Rmax 140, α 90**13265****bez wkładki/without adapter**

- [4] * Arthrex ACP®

A. Wyposażenie dodatkowe/Optional accessories**12193****RPM 4000, RCF 2504, Rmax 140, α 90****13080****14082**

[8]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[8]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[8]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter		
[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]	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]	15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[8]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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)

RPM 4000, RCF 2182, Rmax 122, α 90**13081****14082**

[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 S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[8]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter		
[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)
[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)

A. Wyposażenie dodatkowe/Optional accessories**12200****RPM 4000, RCF 2469, Rmax 138, ϕ 90****13215****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] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®

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

[8] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

bez wkładki/without adapter

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[8] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[8] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

[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)

RPM 4000, RCF 2504, Rmax 140, ϕ 90**13200****14013**

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

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

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

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

[32] * Greiner Vacuette® (13 x 75 mm), (1-4,5 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® (13 x 90 mm), (4,9; 5,6 ml)

[32] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®

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

[32] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

[32] 15120 5 ml probówka szklana (12 x 75 mm)

5 ml glass tube (12 x 75 mm)

[32] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®

5 ml tube with cap (12 x 85 mm), Sarstedt®

14016

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

[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 92 mm), (7,5; 8,2; 8,5 ml)

[28] * 10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)

[28] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[28] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 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®

A. Wyposażenie dodatkowe/Optional accessories		
14020		
[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 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]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[20]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[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)
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) 2-1,5 ml tube (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 (10,8x40,5 mm)
14023		
[4]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	15056	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]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	15222	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15117	25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
[4]	15424	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
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®
14028		
[4]	15116	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]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[48]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[48]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
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 mm)
[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
14100+14188		
[4]	15115	100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 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)

A. Wyposażenie dodatkowe/Optional accessories

13201C	
14013	
[32]	* BD Vacutainer® (13 x 100 mm), (4-7 ml)
[32]	* Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[32]	* Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[32]	* BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[32]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 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® (13 x 90 mm), (4,9; 5,6 ml)
[32]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[32]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[32]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14016	
[28]	* Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	* BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[28]	* Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[28]	* 10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[28]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[28]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 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®
14020	
[20]	* Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	* 10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[20]	* BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[20]	* Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[20]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[20]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	* 13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[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)
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) 2-1,5 ml tube (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 (10,8x40,5 mm)
14023	
[4]	* 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	15056 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]	15055 30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
[4]	15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
14028	
[4]	15116 50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)

A. Wyposażenie dodatkowe/Optional accessories	
14029	
[48]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[48]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[48]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[48]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
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)
14100+14188	
[4]	15115 100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 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)
RPM 4000, RCF 2164, Rmax 121, α 90	
13113	
bez wkładki/without adapter	
[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)
12218	
RPM 3000, RCF 916, Rmax 91, α 90	
13219	
bez wkładki/without adapter	
[2]	15102 płytka titracyjna MTP 28,8ml (86x128x15/17,5 mm) microtiter plate MTP 28,8 ml (86 x 128 x 15/17,5 mm)

A. Wyposażenie dodatkowe/Optional accessories**12232****RPM 4000, RCF 2361, Rmax 132, α 90****13170 NIE AUTOKLAWOWAĆ/DO NOT AUTOCLAVE
bez wkładki/without adapter**

[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)
[48]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

RPM 4000, RCF 2343, Rmax 131, α 90**13233****14169**

[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[32]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 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]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

14235

[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[48]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

14238

[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	15121	10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)

14239

[28]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[28]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[28]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[28]	*	Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[28]	*	Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[28]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[28]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

14240

[20]	*	2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm) 2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
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14242

[48]	15016	Sarstedt S-Monovette® (8 x 66 mm), (1,1; 1,2; 1,4 ml) Sarstedt S-Monovette® (8 x 66 mm), (1,1; 1,2; 1,4 ml)
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14240+14084

[36]	15127	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)
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14240+14126

[36]	15124	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)
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14240+14133

[36]	15125	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)
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12300**RPM 13000, RCF 16816, Rmax 89, α 90****bez pojemnika/without bucket
bez wkładki/without adapter**

[24]	15100	37 μ l kapilara hematokrytowa (1,4 x 75 mm) 37 μ l micro-hematocrit capillary tube (1,4 x 75 mm)
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A. Wyposażenie dodatkowe/Optional accessories**MPW M-DIAGNOSTIC****WIRNIK / ROTOR**

PARAMETRY WIRNIKA / ROTOR PARAMETERS

POJEMNIK/BUCKET

WKŁADKA / ADAPTER

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

11501**RPM 4500, RCF 3011, Rmax 133, 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] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®[30] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)**bez wkładki/without adapter**

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)[30] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)[30] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)[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 mm)**RPM 4500, RCF 2875, Rmax 127, α 30****13081****14082**

[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] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)**bez wkładki/without adapter**

[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)

[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)**11720****RPM 5000, RCF 3634, Rmax 130, α 45****13721****bez wkładki/without adapter**

[4] * Orthokine®vet 60ml

A. Wyposażenie dodatkowe/Optional accessories**11740****RPM 5500, RCF 4058, Rmax 120, α 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]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[12]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter		
[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]	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]	15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[12]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[12]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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 mm)

RPM 5500, RCF 3686, Rmax 109, α 30**13081****14082**

[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)
[12]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter		
[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)
[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)

A. Wyposażenie dodatkowe/Optional accessories**11741****RPM 6000, RCF 4226, Rmax 105, \pm 30****13080****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]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[8]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter		
[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]	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]	15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[8]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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)

RPM 6000, RCF 3783, Rmax 94, \pm 30**13081****14082**

[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]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter		
[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)
[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)

11742**RPM 6000, RCF 4830, Rmax 120, \pm 45****13329****14255**

[4]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[4]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)

14256

[4]	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®
[4]	15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[4]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[4]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
bez wkładki/without adapter		
[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]	15222	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15424	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®

A. Wyposażenie dodatkowe/Optional accessories**11743****RPM 5500, RCF 4058, Rmax 120, α 30****13329****14255**

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

[12] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[12] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[12] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

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] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®

30 ml tube with cap (25,5 x 94 mm), Nalgene®

[12] 15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin®

30 ml tube with cap (25 x 94 mm), Sterilin®

[12] 15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin®

30 ml tube with cap (25 x 94 mm), Sterilin®

11744**RPM 4500, RCF 2830, Rmax 125, α 30****13276****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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[10] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

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

10 ml glass tube (16 x 100 mm)

14036

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

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

[10] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®

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

[10] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

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] 15120 5 ml probówka szklana (12 x 75 mm)

5 ml glass tube (12 x 75 mm)

[10] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®

5 ml tube with cap (12 x 85 mm), Sarstedt®

14071

[10] * 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)

[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] 15056 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)

30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)

[10] 15117 25 ml probówka szklana (25 x 100 mm)

25 ml glass tube (25 x 100 mm)

[10] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®

30 ml tube with cap (25,5 x 94 mm), Nalgene®

A. Wyposażenie dodatkowe/Optional accessories	
14073	
[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] 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] 15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[10] 15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[10] 15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 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 mm)
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)
[10] 15117	25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 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®
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 mm)
[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
11745	
RPM 5000, RCF 3354, Rmax 120, ɳ 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] 15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[24] 15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter	
[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] 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] 15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[24] 15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[24] 15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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 mm)
RPM 5000, RCF 3130, Rmax 112, ɳ 30	
13081	
14082	
[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] 15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter	
[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)
[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)

* 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**11746****RPM 6000, RCF 4427, Rmax 110, α 30****13276****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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)
15 ml Thermo Nalgene® (16 x 113 mm)
- [6] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)
- [6] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 mm)

14036

- [6] * BD Vacutainer® (13 x 100 mm), (4-7 ml)
- [6] * Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
- [6] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®
- [6] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)

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] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)
- [6] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14071

- [6] * 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
- [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] 15056 30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
30 ml Thermo Nalgene® Oak Ridge (25,5 x 94,3 mm)
- [6] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 mm)
- [6] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®
30 ml tube with cap (25,5 x 94 mm), Nalgene®

14073

- [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] 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] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)
- [6] 15118 10 ml probówka szklana (16 x 100 mm)
10 ml glass tube (16 x 100 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)
- [6] 15117 25 ml probówka szklana (25 x 100 mm)
25 ml glass tube (25 x 100 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®

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 mm)
- [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

A. Wyposażenie dodatkowe/Optional accessories**12183****RPM 4000, RCF 2486, Rmax 139, α 90****13182****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)

14181

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

[20] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®

[20] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)

[20] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)

[20] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14186

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

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

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

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

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

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

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

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

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

[16] 15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt®
6 ml tube with cap (11,5 x 92 mm), Sarstedt®

[16] 15119 7 ml probówka szklana (12 x 100 mm)
7 ml glass tube (12 x 100 mm)

[16] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)

[16] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®

14187

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

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

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

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

[16] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[16] 15053 10 ml probówka z pokrywką (16 x 106 mm)
10 ml tube with cap (16 x 106 mm)

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

[16] 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®

14188

[4] 15115 100 ml probówka szklana (44 x 100 mm)
100 ml glass tube (44 x 100 mm)

14194

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

A. Wyposażenie dodatkowe/Optional accessories	
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]	15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
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®
14189C	
[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 mm)
[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
14190C	
[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]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14192C	
[4]	15116 50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)
13266	
14043	
[4]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[4]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[4]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14071	
[4]	15056 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]	15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
14089	
[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)
14248	
[4]	* 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	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	
[4]	* 5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf® 5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®
[4]	* 5 ml probówka z korkiem zakręcany (17 x 66 mm), Eppendorf® 5 ml tube with screw cap (17 x 66 mm), Eppendorf®
bez wkładki/without adapter	
[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 mm)
[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

13184C	
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)
14181	
[20]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[20]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[20]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[20]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[20]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14186	
[16]	* BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[16]	* BD Vacutainer® (13 x 100 mm), (4-7 ml)
[16]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[16]	* Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[16]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[16]	* Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[16]	* Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[16]	* Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[16]	* Sarstedt S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[16]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[16]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[16]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[16]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14187	
[16]	* BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[16]	* Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[16]	* Sarstedt S-Monovette® (15 x 92 mm), (7,5; 8,2; 8,5 ml)
[16]	* Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[16]	15048 15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[16]	15053 10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[16]	15118 10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[16]	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®
14188	
[4]	15115 100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)
14194	
[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) 2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 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]	15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
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®
14189C	
[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 mm)
[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
14190C	
[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]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
14192C	
[4]	15116 50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)

A. Wyposażenie dodatkowe/Optional accessories**13267C****14043**

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

[4] 15120 5 ml probówka szklana (12 x 75 mm)
5 ml glass tube (12 x 75 mm)[4] 15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt®
5 ml tube with cap (12 x 85 mm), Sarstedt®**14071**

[4] 15056 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] 15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene®
30 ml tube with cap (25,5 x 94 mm), Nalgene®**14248**

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

[4] 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

[4] * 5 ml probówka z korkiem wciskany (17 x 54,2 mm), Eppendorf®

5 ml tube with snap cap (17 x 54,2 mm), Eppendorf®

bez wkładki/without adapter

[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 mm)

[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®

RPM 4000, RCF 2451, Rmax 137, α 90**13195****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® (13 x 90 mm), (4,9; 5,6 ml)

[8] 15119 7 ml probówka szklana (12 x 100 mm)

7 ml glass tube (12 x 100 mm)

bez wkładki/without adapter

[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] 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] 15048 15 ml Thermo Nalgene® (16 x 113 mm)

15 ml Thermo Nalgene® (16 x 113 mm)

[8] 15053 10 ml probówka z pokrywką (16 x 106 mm)

10 ml tube with cap (16 x 106 mm)

[8] 15118 10 ml probówka szklana (16 x 100 mm)

10 ml glass tube (16 x 100 mm)

[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)

RPM 4000, RCF 2504, Rmax 140, α 90**13265****bez wkładki/without adapter**

[4] * Arthrex ACP®

A. Wyposażenie dodatkowe/Optional accessories**12193****RPM 4000, RCF 2504, Rmax 140, α 90****13080****14082**

[8]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[8]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[8]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter		
[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]	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]	15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[8]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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)

RPM 4000, RCF 2182, Rmax 122, α 90**13081****14082**

[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 S-Monovette® (13 x 90 mm), (4,9; 5,6 ml)
[8]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
bez wkładki/without adapter		
[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)
[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)

12200**RPM 4000, RCF 2469, Rmax 138, α 90****13215****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]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[8]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
bez wkładki/without adapter		
[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]	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]	15048	15 ml Thermo Nalgene® (16 x 113 mm) 15 ml Thermo Nalgene® (16 x 113 mm)
[8]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[8]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[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)

A. Wyposażenie dodatkowe/Optional accessories**RPM 4000, RCF 2504, Rmax 140, 4 90****13200****14013**

[32]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)
[32]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[32]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 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® (13 x 90 mm), (4,9; 5,6 ml)
[32]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[32]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[32]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

14016

[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[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 92 mm), (7,5; 8,2; 8,5 ml)
[28]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[28]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[28]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 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®

14020

[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 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]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[20]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[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)

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) 2-1,5 ml tube (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 (10,8x40,5 mm)

A. Wyposażenie dodatkowe/Optional accessories	
14023	
[4]	* 28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	15056 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]	15055 30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	15222 30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223 30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15117 25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
[4]	15424 30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®
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®
14028	
[4]	15116 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]	15054 6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[48]	15119 7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[48]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
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 mm)
[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
14100+14188	
[4]	15115 100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 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)

A. Wyposażenie dodatkowe/Optional accessories**13201C****14013**

[32]	*	BD Vacutainer® (13 x 100 mm), (4-7 ml)
[32]	*	Greiner Vacuette® (13 x 100 mm), (3,5-6 ml)
[32]	*	Sarstedt S-Monovette® (11 x 92 mm), (4,5; 5 ml)
[32]	*	BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[32]	*	Greiner Vacuette® (13 x 75 mm), (1-4,5 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® (13 x 90 mm), (4,9; 5,6 ml)
[32]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[32]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[32]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

14016

[28]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[28]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[28]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[28]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[28]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 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®

14020

[20]	*	Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[20]	*	10 ml Thermo Nalgene® Oak Ridge (16 x 81,5 mm)
[20]	*	BD Vacutainer® (16 x 100 mm), (2,5-11 ml)
[20]	*	Greiner Vacuette® (16 x 100 mm), (7-9 ml)
[20]	15053	10 ml probówka z pokrywką (16 x 106 mm) 10 ml tube with cap (16 x 106 mm)
[20]	15118	10 ml probówka szklana (16 x 100 mm) 10 ml glass tube (16 x 100 mm)
[20]	*	13 ml probówka (ø16x100mm), Sarstedt® nr 62.515.006 13 ml tube (ø16 x 100 mm), Sarstedt® no. 62.515.006
[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)

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) 2-1,5 ml tube (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 (10,8x40,5 mm)

14023

[4]	*	28 ml Thermo Nalgene® Oak Ridge (25,4 x 101,8 mm)
[4]	15056	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]	15055	30 ml probówka z pokrywką (25,4 x 103,2 mm) 30 ml tube with cap (25,4 x 103,2 mm)
[4]	15222	30 ml probówka z pokrywką (25 x 94mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15223	30 ml probówka z pokrywką (25 x 94 mm), Sterilin® 30 ml tube with cap (25 x 94 mm), Sterilin®
[4]	15117	25 ml probówka szklana (25 x 100 mm) 25 ml glass tube (25 x 100 mm)
[4]	15424	30 ml probówka z pokrywką (25,5 x 94 mm), Nalgene® 30 ml tube with cap (25,5 x 94 mm), Nalgene®

14028

[4]	15116	50 ml probówka szklana (35 x 100 mm) 50 ml glass tube (35 x 100 mm)
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14029

[48]	*	Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[48]	15054	6 ml probówka z pokrywką (11,5 x 92 mm), Sarstedt® 6 ml tube with cap (11,5 x 92 mm), Sarstedt®
[48]	15119	7 ml probówka szklana (12 x 100 mm) 7 ml glass tube (12 x 100 mm)
[48]	15120	5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419	5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®

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)
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14100+14188

[4]	15115	100 ml probówka szklana (44 x 100 mm) 100 ml glass tube (44 x 100 mm)
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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)
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A. Wyposażenie dodatkowe/Optional accessories	
RPM 4000, RCF 2164, Rmax 121, \pm 90	
13113	
bez wkładki/without adapter	
[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)
12218	
RPM 3000, RCF 916, Rmax 91, \pm 90	
13219	
bez wkładki/without adapter	
[2]	15102 płytka titracyjna MTP 28,8ml (86x128x15/17,5 mm) microtiter plate MTP 28,8 ml (86 x 128 x 15/17,5 mm)
12232	
RPM 4000, RCF 2361, Rmax 132, \pm 90	
13170 NIE AUTOKLAWOWAĆ/DO NOT AUTOCLAVE	
bez wkładki/without adapter	
[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)
[48]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
RPM 4000, RCF 2343, Rmax 131, \pm 90	
13233	
14169	
[32]	* BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[32]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[32]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 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]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[32]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14235	
[48]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[48]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[48]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14238	
[28]	* Sarstedt S-Monovette® (15 x 75 mm), (4; 4,3; 5,5 ml)
[28]	15121 10 ml probówka z dnem okrągłym i pokrywką (17 x 70 mm) 10 ml tube, round bottom, with cap (17 x 70 mm)

A. Wyposażenie dodatkowe/Optional accessories	
14239	
[28]	* BD Vacutainer® (13 x 75 mm), (1,6-5,3 ml)
[28]	* Greiner Vacuette® (13 x 75 mm), (1-4,5 ml)
[28]	* Sarstedt S-Monovette® (11 x 66 mm), (1,6; 2; 2,7; 3; 3,1 ml)
[28]	* Sarstedt S-Monovette® (13 x 65 mm), (2,6; 2,9; 3,4; 3,8 ml)
[28]	* Sarstedt S-Monovette® (13 x 75 mm), (2,7; 3; 4,3 ml)
[28]	15120 5 ml probówka szklana (12 x 75 mm) 5 ml glass tube (12 x 75 mm)
[28]	15419 5 ml probówka z korkiem (12 x 85 mm), Sarstedt® 5 ml tube with cap (12 x 85 mm), Sarstedt®
14240	
[20]	* 2-1,5 ml probówka (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm) 2-1,5 ml tube (10,8x41,8 mm), Eppendorf®; [15011], 2 ml (10,8x41,8 mm); [15128], 1,5ml (10,8x40,5 mm)
14242	
[48]	15016 Sarstedt S-Monovette® (8 x 66 mm), (1,1; 1,2; 1,4 ml) Sarstedt S-Monovette® (8 x 66 mm), (1,1; 1,2; 1,4 ml)
14240+14084	
[36]	15127 0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)
14240+14126	
[36]	15124 0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)
14240+14133	
[36]	15125 0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)
12270 NIE AUTOKLAWOWAĆ/DO NOT AUTOCLAVE	
RPM 1235, RCF 130, Rmax 76, α 90	
bez pojemnika/without bucket bez wkładki/without adapter	
[12]	* karta żelowa (70x9x53 / 75x9x54 / 54x9x65 / 60x9x53 mm) gel card (70x9x53 / 75x9x54 / 54x9x65 / 60x9x53 mm)
12452	
RPM 2500, RCF 769, Rmax 110, α 90	
13606	
bez wkładki/without adapter	
[4]	16610 system cytologiczny MPW® 2,2ml cytological system MPW® 2,2 ml

A. Wyposażenie dodatkowe/Optional accessories

MPW M-SCIENCE

WIRNIK / ROTOR

PARAMETRY WIRNIKA / ROTOR PARAMETERS

POJEMNIK/BUCKET

WŁĄDZKA / ADAPTER

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

11199

RPM 18000, RCF 24270, Rmax 67, ϕ 45

bez pojemnika/without bucket

14084

[12] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)

14126

[12] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)

14133

[12] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)

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

11461

RPM 15100, RCF 21158, Rmax 83, ϕ 45

bez pojemnika/without bucket

14084

[24] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)

14126

[24] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)

14133

[24] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)

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

11462

RPM 14000, RCF 18188, Rmax 83, ϕ 45

bez pojemnika/without bucket

14084

[36] 15127 0,5 ml probówka PCR (7,8 x 31 mm)
0,5 ml PCR tube (7,8 x 31 mm)

14126

[36] 15124 0,4 ml probówka PCR (5,7 x 48,6 mm)
0,4 ml PCR tube (5,7 x 48,6 mm)

14133

[36] 15125 0,2 ml probówka PCR (6 x 21,6 mm)
0,2 ml PCR tube (6 x 21,6 mm)

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

11715

RPM 14000, RCF 15558, Rmax 71, ϕ 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)

* 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**11716****RPM 14000, RCF 15339, Rmax 70, α 45****bez pojemnika/without bucket****bez wkładki/without adapter**

[4]	15131	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)
[4]	15122	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]	15125	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)
[4]	15130	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)

11760**RPM 13500, RCF 17319, Rmax 85, α 45****bez pojemnika/without bucket****14084**

[24]	15127	0,5 ml probówka PCR (7,8 x 31 mm) 0,5 ml PCR tube (7,8 x 31 mm)
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14126

[24]	15124	0,4 ml probówka PCR (5,7 x 48,6 mm) 0,4 ml PCR tube (5,7 x 48,6 mm)
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14133

[24]	15125	0,2 ml probówka PCR (6 x 21,6 mm) 0,2 ml PCR tube (6 x 21,6 mm)
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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) 2-1,5 ml tube (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 (10,8x40,5 mm)

11943**RPM 12000, RCF 13684, Rmax 85, α 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, α 45****bez pojemnika/without bucket****bez wkładki/without adapter**

[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®
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12300**RPM 13000, RCF 16816, Rmax 89, α 90****bez pojemnika/without bucket****bez wkładki/without adapter**

[24]	15100	37 μ l kapilarna hematokrytowa (1,4 x 75 mm) 37 μ l micro-hematocrit capillary tube (1,4 x 75 mm)
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DECLARATION OF CONFORMITY

Product name: **Laboratory centrifuge MPW M-UNIVERSAL**

Product type: **Laboratory centrifuge**

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

Product classification on the basis of the Directive 98/79/EC: Non classified to list A or B and not for self-testing.

Product complies with the requirements:

• **Directive 98/79/EC (IVD), including the requirements of harmonized standards:**

EN 15223-1:2016

EN ISO 18113-3:2011

EN 13612:2002

EN 61326-2-6:2006

EN 13612:2002/AC:2002

EN 61010-2-101:2002

EN 13975:2003

EN 62304:2006

EN ISO 14971:2012

EN 62304:2006/AC:2008

EN ISO 18113-1:2011

EN 62366:2008

• **selected harmonized standards of Directive 2014/35/UE (LVD):**

EN 61010-1:2010

EN 61010-2-020:2006

• **directive 2014/30/UE (EMC).**

"MPW MED. INSTRUMENTS"

SPÓŁDZIELNIA PRACY

Warsaw, 46 Boremlowska Street

applies Quality Management System in line with

PN-EN ISO 9001:2015, PN-EN ISO 13485:2016

Certifying authority:

"MPW MED. INSTRUMENTS"

SPÓŁDZIELNIA PRACY

w Warszawie

Członek Zarządu

Wojciech Anisiewicz

PREZES ZARZADU

mgr Łukasz Salański



Warsaw, 2018. 09.15

no. 10.2MU.02.en

DECLARATION OF CONFORMITY

Product name: **Laboratory centrifuge MPW M-DIAGNOSTIC**

Product type: **Laboratory centrifuge**

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

Product classification on the basis of the Directive 98/79/EC: Non classified to list A or B and not for self-testing.

Product complies with the requirements:

• **Directive 98/79/EC (IVD), including the requirements of harmonized standards:**

EN 15223-1:2016

EN ISO 18113-3:2011

EN 13612:2002

EN 61326-2-6:2006

EN 13612:2002/AC:2002

EN 61010-2-101:2002

EN 13975:2003

EN 62304:2006

EN ISO 14971:2012

EN 62304:2006/AC:2008

EN ISO 18113-1:2011

EN 62366:2008

• **selected harmonized standards of Directive 2014/35/UE (LVD):**

EN 61010-1:2010

EN 61010-2-020:2006

• **directive 2014/30/UE (EMC).**

"MPW MED. INSTRUMENTS"

SPÓŁDZIELNIA PRACY

Warsaw, 46 Boremłowska Street

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Certifying authority:

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SPÓŁDZIELNIA PRACY

w Warszawie

Członek Zarządu

Wojciech Anisiewicz

PREZES ZARZADU

mgr Łukasz Satański



Warsaw, 2018.09.15

no. 10.2MD.02.en

DECLARATION OF CONFORMITY

Product name: **Laboratory centrifuge MPW M-SCIENCE**

Product type: **Laboratory centrifuge**

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

Product classification on the basis of the Directive 98/79/EC: Non classified to list A or B and not for self-testing.

Product complies with the requirements:

• **Directive 98/79/EC (IVD), including the requirements of harmonized standards:**

EN 15223-1:2016

EN ISO 18113-3:2011

EN 13612:2002

EN 61326-2-6:2006

EN 13612:2002/AC:2002

EN 61010-2-101:2002

EN 13975:2003

EN 62304:2006

EN ISO 14971:2012

EN 62304:2006/AC:2008

EN ISO 18113-1:2011

EN 62366:2008

• **selected harmonized standards of Directive 2014/35/UE (LVD):**

EN 61010-1:2010

EN 61010-2-020:2006

• **directive 2014/30/UE (EMC).**

„MPW MED. INSTRUMENTS”
SPÓŁDZIELNIA PRACY
w Warszawie

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PREZES ZARZĄDU

mgr *Lukasz Sałański*

„MPW MED. INSTRUMENTS”

SPÓŁDZIELNIA PRACY

Warsaw, 46 Boremlowska Street

applies Quality Management System in line with

PN-EN ISO 9001:2015, PN-EN ISO 13485:2016

Certifying authority:





DECLARATION OF CONFORMITY

(with RoHS 2 Directive 2011/65/EU)

DEKLARACJA ZGODNOŚCI

(z dyrektywą RoHS 2 2011/65/UE)

PRODUCT DETAILS/DANE PRODUKTU

Product name/Nazwa produktu:

Laboratory centrifuge MPW M-UNIVERSAL /

Wirówka laboratoryjna MPW M-UNIVERSAL

Product type/Typ produktu:

Laboratory centrifuge/Wirówka laboratoryjna

Manufactured by/Wytworzona przez:

"MPW MED. INSTRUMENTS"

SPÓŁDZIELNIA PRACY

ul. Boremlowska 46, 03-347 Warszawa, Polska

We hereby declare under our sole responsibility, that the product above is in compliance with the requirements of RoHS 2 Directive 2011/65/EU. /

Niniejszym deklarujemy z pełną odpowiedzialnością, że produkt, do którego odnosi się niniejsza deklaracja, jest zgodny z Dyrektywą RoHS 2 2011/65/UE.

Warsaw/Warszawa, 2018.09.15

(place and date of issue/miejsce i data
sporządzenia deklaracji)


Wojciech Anisiewicz

Member of Management
Board/Członek Zarządu

(name and signature of authorized person/imię i nazwisko osoby
upoważnionej do sporządzenia deklaracji)

"MPW MED. INSTRUMENTS"
SPÓŁDZIELNIA PRACY
w Warszawie



Łukasz Sałański

President of Management
Board/Prezes Zarządu



DECLARATION OF CONFORMITY

(with RoHS 2 Directive 2011/65/EU)

DEKLARACJA ZGODNOŚCI

(z dyrektywą RoHS 2 2011/65/UE)

PRODUCT DETAILS/DANE PRODUKTU

Product name/Nazwa produktu:

Laboratory centrifuge MPW M-DIAGNOSTIC /

Wirówka laboratoryjna MPW M-DIAGNOSTIC

Product type/Typ produktu:

Laboratory centrifuge/Wirówka laboratoryjna

Manufactured by/Wytworzona przez:

„MPW MED. INSTRUMENTS”

SPÓŁDZIELNIA PRACY

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„MPW MED. INSTRUMENTS”
SPÓŁDZIELNIA PRACY
w Warszawie

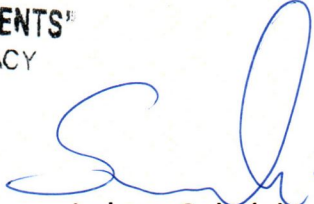
Warsaw/Warszawa, 2018.09.15

(place and date of issue/miejsce i data
sporządzenia deklaracji)


Wojciech Anisiewicz

Member of Management
Board/Członek Zarządu

(name and signature of authorized person/imię i nazwisko osoby
upoważnionej do sporządzenia deklaracji)



Łukasz Sałański

President of Management
Board/Prezes Zarządu



DECLARATION OF CONFORMITY

(with RoHS 2 Directive 2011/65/EU)

DEKLARACJA ZGODNOŚCI

(z dyrektywą RoHS 2 2011/65/UE)

PRODUCT DETAILS/DANE PRODUKTU

Product name/Nazwa produktu:

Laboratory centrifuge MPW M-SCIENCE /

Wirówka laboratoryjna MPW M-SCIENCE

Product type/Typ produktu:

Laboratory centrifuge/Wirówka laboratoryjna

Manufactured by/Wytworzona przez:

"MPW MED. INSTRUMENTS"

SPÓŁDZIELNIA PRACY

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Warsaw/Warszawa, 2018.09.15

(place and date of issue/miejsce i data
sporządzenia deklaracji)

Wojciech Anisiewicz

Member of Management
Board/Członek Zarządu

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"MPW MED. INSTRUMENTS"
SPÓŁDZIELNIA PRACY
w Warszawie

Łukasz Sałański

President of Management
Board/Prezes Zarządu

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).

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).

1. Device:

– type:

– serial No.:

2. Description of decontamination

(see user manual)

.....

.....

.....

.....

3. Decontamination carried out by:

name:

4. Date and signature:

.....

NOMOGRAM

Centrifuging radius [cm]

R.C.F. (x "g")
multiple of
gravitational
acceleration

[r.p.m.]

