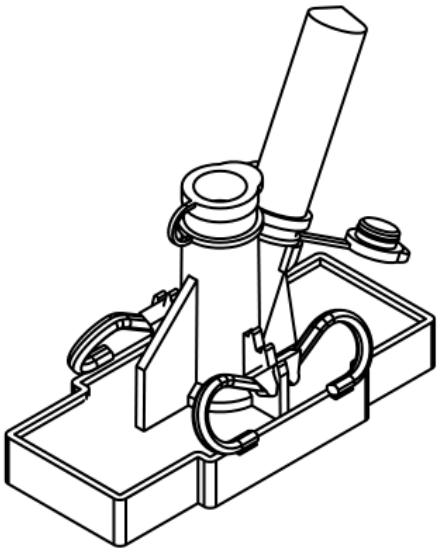
20610.EN rev.4

USER MANUAL



CYTO INSERT

(CYTO INSERT type 610 for cytological rotor)

Read before use!

CE IVD

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

You can find the current version of the user manual on our website under:
www.mpw.pl DOWNLOAD section (one should choose demanded language version of website).

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1. Safety

Before starting work, familiarize yourself with this manual. Do not proceed to work before carefully reading all procedures described in this document and always follow the recommendations and markings contained in it. In case of doubt, please contact the manufacturer.

The product is intended for single use.

The shelf life of the insert is 24 months from the date of purchase.

2. Technical specification

Product name	CYTO INSERT type 610 for cytological rotor
Cat. No (ref)	16610
Capacity	4x2ml
Max. Speed (rpm)	2500
G-force (RCF)	769 x g
Compatible rotor	12452C the rotor can be used in centrifuges : ▪ MPW M-DIAGNOSTIC, ▪ MPW-352, ▪ MPW-352R, ▪ MPW-352RH
Manufacturer	"MPW MED. INSTRUMENTS" SPÓŁDZIELNIA PRACY, Boremlowska 46 Street, 04-347 Warsaw

3. Purpose and principle of operation

CYTO insert is designed to obtain an even cell preparation. Under the influence of centrifugal force, the morphotic elements (cell sediment) separate from the suspension and are deposited on the microscope slide. This solution is used in medicine and veterinary medicine, as well as widely in biology, biochemistry, cytology and histopathology. During one centrifugation cycle it is possible to obtain 4 preparations (using 4 inserts).

There are two variants of obtaining the preparation:

a) **with obtaining the supernatant** - the supernatant is drained to a collection tube and can be used in subsequent diagnostic procedures,

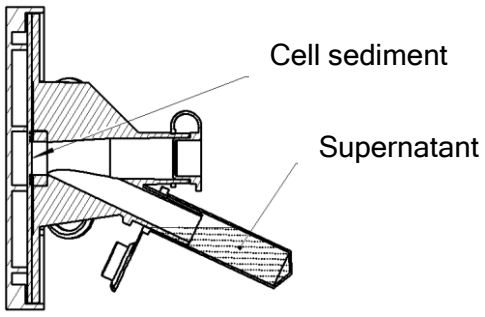

Figure 1 Cross-section of the insert in the case of obtaining the preparation with obtaining the supernatant

b) **without obtaining the supernatant** - the supernatant is absorbed by the filter paper.

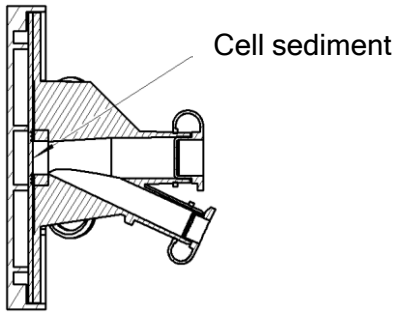

Figure 2 Cross-section of the insert in the case of obtaining the preparation without obtaining supernatant

4. Components

Cat. no (REF)	No	Component name	pieces
16611	1	support	100
	2	overlay	100
	2a	central plug	100
	2b	side plug	100
16614	3	microscope slide	100
16116	4	filter paper with ø9,5mm hole	100
16617	5	filter paper with ø12,5mm hole	100
15123	6	tube 2,2ml with cup (pp)	100
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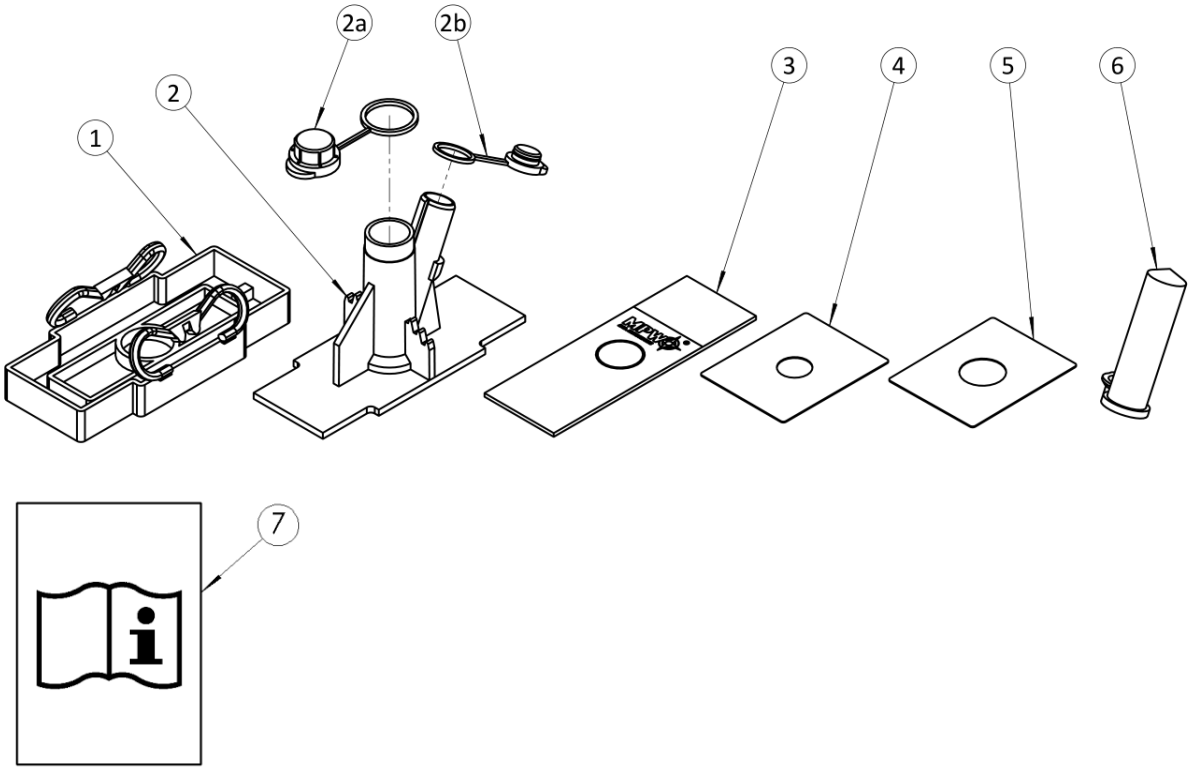

Figure 3 Ingredients provided

5. Obtaining the preparation with obtaining the supernatant

5.1. Rotor preparation

- Prepare the centrifuge for operation in accordance with recommendations contained in the centrifuge manual, and the rotor according to the following guidelines.
- Place hangers in the rotor so that the hook **A** is on the side of the **B** slider.

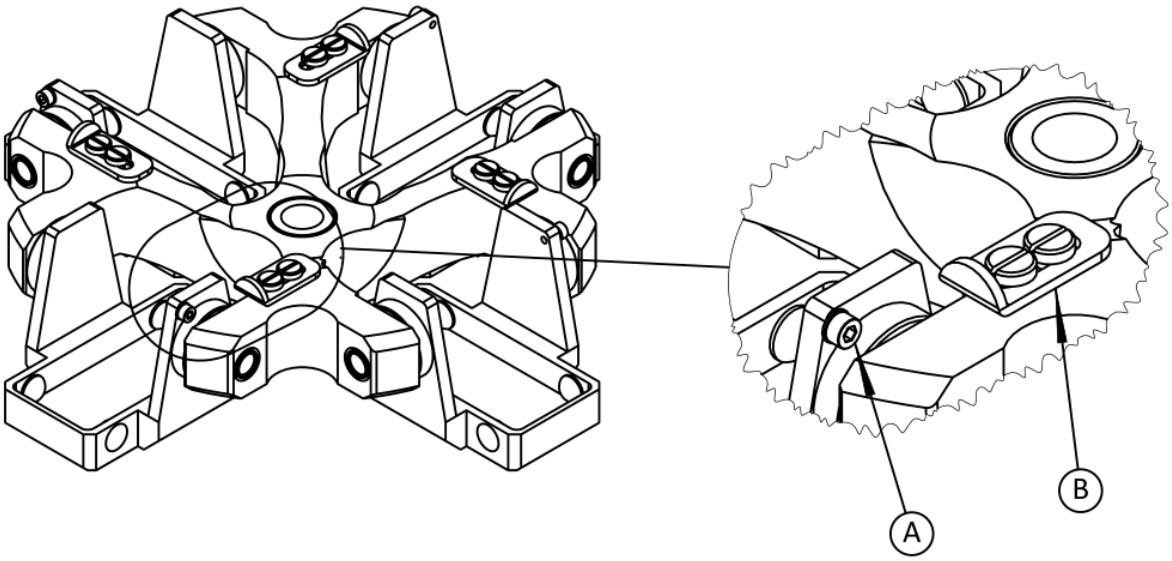

Figure 4. Placing hangers in the rotor

5.2. Initial centrifuging

- In order to improve the adhesion of cells to the microscope slide, it is recommended to lay them with phytolysin. The prepared and described microscope slide should be placed in the support (manufacturer's mark pointing upwards).
- Place a filter paper with a **Ø12,5mm** hole on the slide.
- Place the cover in the stand and fasten the buckles evenly.
- Pour the prepared liquid sample (max. 2 ml) into the central cylindrical hole of the insert (marked with a dash) and then plug the hole with the cup.
- Place the collecting tube on the second cylindrical hole of the insert.

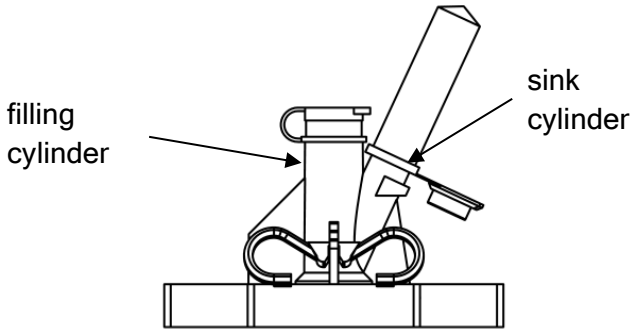

Figure 5. Insert prepared for pre-centrifugation to obtain the supernatant

- Insert the inserts (**4** or **2** in opposite sockets) into the hangers in the direction of the sink cylinders towards the rotor axis.

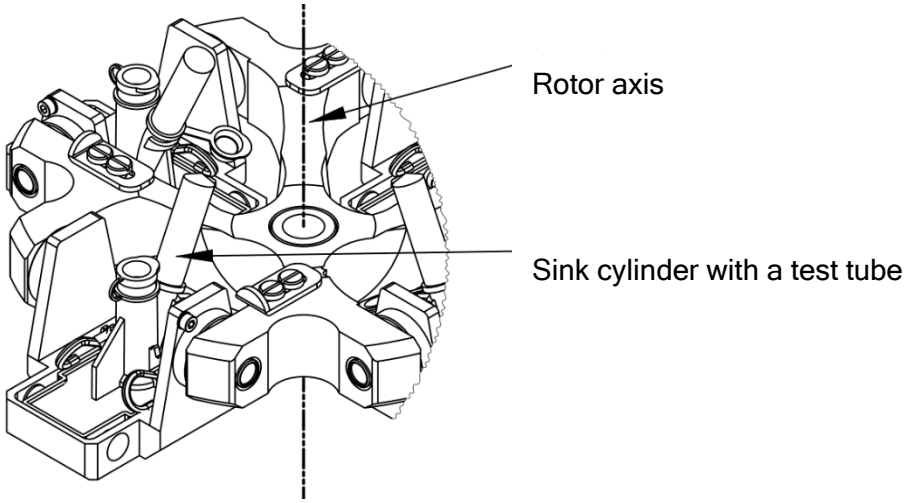

Figure 6 Placing the hangers in the rotor

- Close the centrifuge lid.
- Set the spin speed and time.

Suggested spin parameters:

Spin speed	Time
1100 ÷ 1500 rpm	5 min

ATTENTION:
For **MPW-352, MPW-352R, MPW-352RH** centrifuges manufactured **up to 2018** (with serial numbers SN[1] up to 10352067918; 10352R050718; 10352RH009018) and **M-DIAGNOSTIC** produced **up to 2019** (serial no. SN up to 102MD011519) select the **acceleration characteristics with no. 3** (ACC) **and braking no. 6** (DEC).

- Start centrifuging.
- After centrifuging, open the centrifuge lid.

5.3. Drying centrifugation

- Remove the insert from the rotor hanger, keeping its **vertical position**, so that the supernatant was always in the drain tube.
- With a gentle twisting motion, remove the test tube (containing the supernatant) and close it with the stopper. Close the drain hole of the insert with the plug.

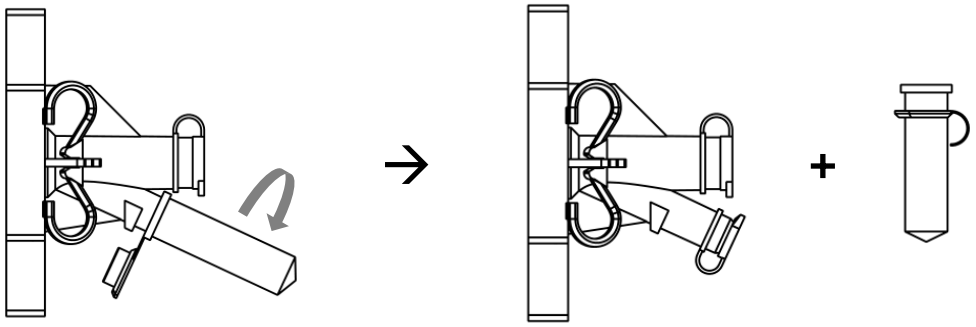

Figure 7 Insert after preliminary centrifugation in the variant with obtaining the supernatant

[1] e.g., 10352067918, where 10352 stands for the symbol of the centrifuge, 0679 for the copy number, and 18 for the year of manufacture.

- After removing the test tube, put the insert on one-side foil paper and remove the clips from the holders. Then, in the place indicated by the arrow, gently press to lift the cap together with the microscope slide.

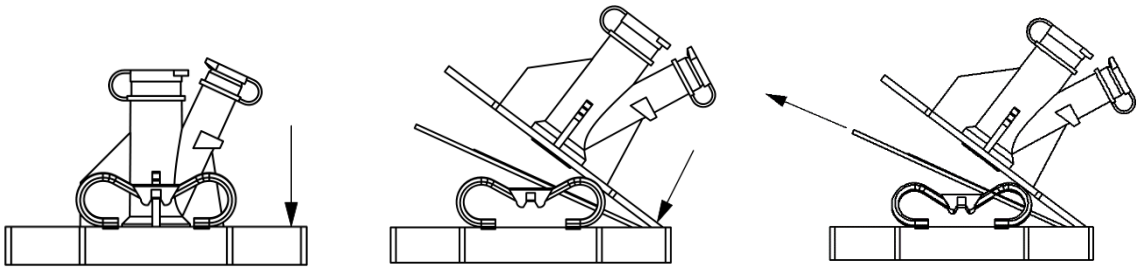

Figure 8 How to remove a microscope slide

- Carefully remove the slide, and then remove the tissue paper from the slide with the tweezers or tweezers.
- Place a **Ø9.5 mm** blotting paper on the slide, trying not to disturb the specimen drop remaining on it. Then, place the slide with the applied filter paper together with the overlay in the holder and fasten the clasps evenly.
- Carry out a **drying centrifugation** at the same speed as in the previous process. The preparation will be partially dried.
- After centrifuging, remove the microscope slide again and use tweezers or tweezers to remove the filter paper. Fix the preparation and color it with selected techniques

6. Preparation without obtaining supernatant

6.1. Rotor preparation

- Prepare the centrifuge for operation in accordance with recommendations contained in the centrifuge manual, and the rotor according to the following guidelines.
- Place the hangers in the rotor in such a way that the hook **A** is next to the arm without the slider **C** (unlike the supernatant method).

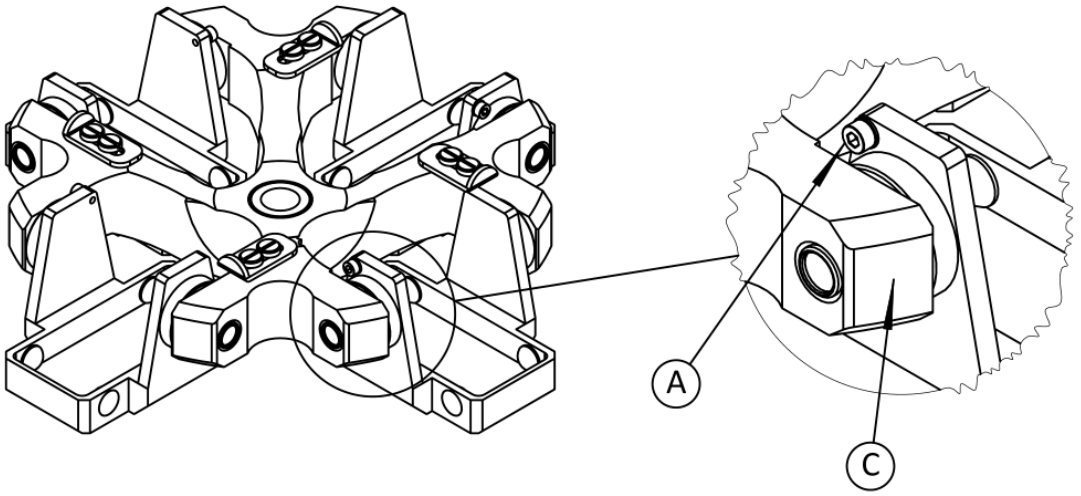

Figure 9 Placing hangers in the rotor

6.2. Centrifuging

- In order to improve the adhesion of cells to the microscope slide, it is recommended to cover them with phytolysin. Place the prepared and labeled microscope slide into the holder (with the manufacturer's marking facing up).
- Place a filter paper with a **Ø9.5 mm** hole on the slide.
- Place the overlay in the support and evenly fasten its clasps.
- Pour the prepared fluid sample into the filling cylinder (max. 2 ml, marked with a line) and then plug the opening with a stopper.
- Close the sink cylinder with the plug.

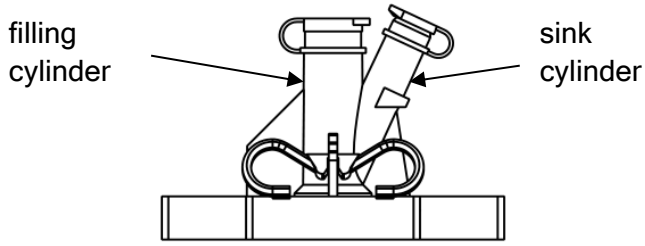

Figure 10 The insert was prepared for centrifugation in the variant without obtaining supernatant

- Insert the inserts (**4** or **2** in opposite sockets) into the hangers in the direction of the sink cylinders towards the rotor axis.

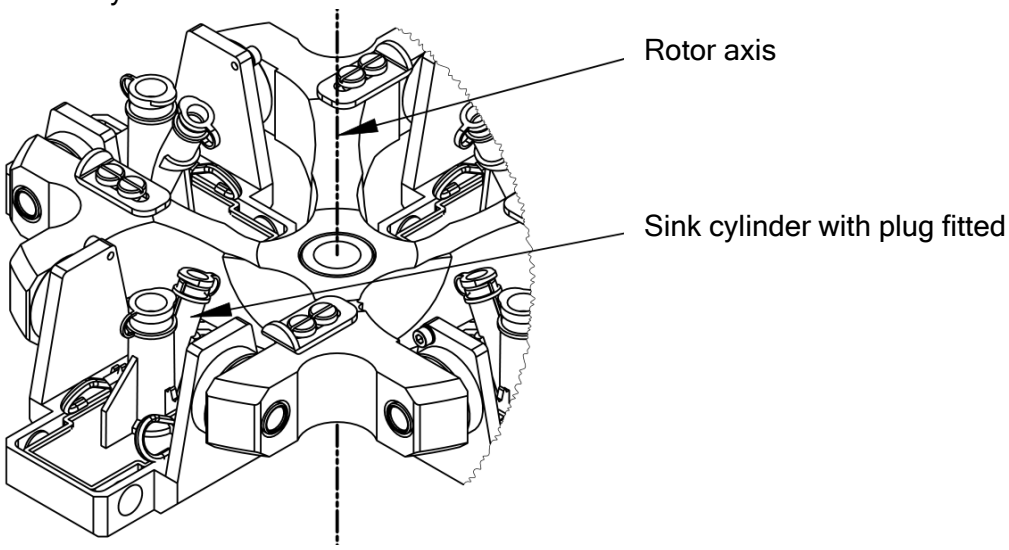

Figure 11 The method of placing inserts in the rotor in the variant without obtaining supernatant

- Close the centrifuge lid.
- Set the spin speed and time.

Suggested spin parameters:

Spin speed	Time
1100 ÷ 1500 rpm	5 min

ATTENTION:
For **MPW-352, MPW-352R, MPW-352RH** centrifuges manufactured **up to 2018** (with serial numbers SN[2] up to 10352067918; 10352R050718; 10352RH009018) and **M-DIAGNOSTIC** produced **up to 2019** (serial no. SN up to 102MD011519) select the **acceleration characteristics with no. 3** (ACC) **and braking no. 6** (DEC)

[2] e.g., 10352067918, where 10352 stands for the symbol of the centrifuge, 0679 for the copy number, and 18 for the year of manufacture.

- Start spinning.
- After centrifuging, open the centrifuge lid.
- Take the insert out of the rotor pendant keeping its **horizontal position**. Do not tilt the insert, due to the possibility of spilling out the liquid from the base (supernatant) that has not been absorbed by the filter paper.
- Place the insert on one-side foil paper and remove the clips from the catches. Then, in the place indicated by the arrow, gently press to lift the cap together with the microscope slide

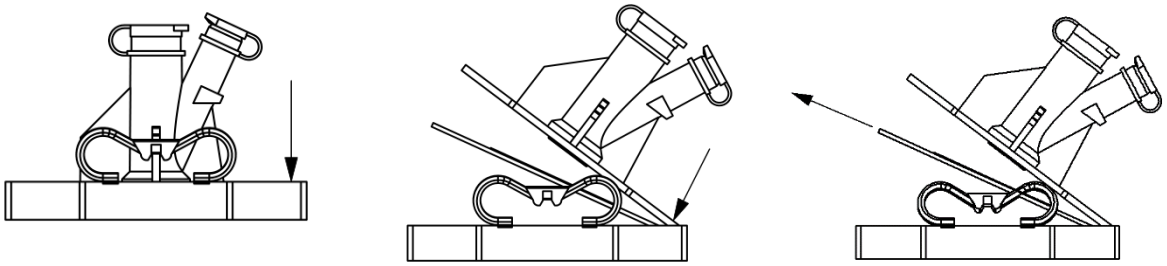

Figure 12 How to remove a microscope slide

- Carefully remove the slide, and then use the tweezers or tweezers to remove the filter paper. If necessary, repeat the centrifugation in order to dry the preparation, using a new filter paper **Ø9.5 mm** and keeping the previously set centrifugation parameters. Fix the preparation formed on the slide and stain with selected techniques.

7. Disposal

The insert 16610 is a single use product. After use, the insert should be disposed of in accordance with the procedures in force in the laboratory.

8. Manufacturer

"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

000042924 - number of entries in the Waste Database

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

9. Distributor's info

DISTRIBUTOR:

10. Declaration of conformity

MPW®
MED. INSTRUMENTS

DECLARATION OF CONFORMITY

Product	**CYTO insert cytology rotor**
Type	**Type 610**
Catalogue number	**16610**

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 harmonised standards:

EN 15223-1:2016	EN ISO 14971:2012
EN 13612:2002	EN ISO 18113-1:2011
EN 13612:2002/AC:2002	EN ISO 18113-3:2011
EN 13975:2003	EN 62366:2008

· Directive 2011/65/UE (RoHS 2)

"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

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ISO 9001 ISO 13485

Warsaw, 2022.01.27

no. 16.610.05.en

Suggestions regarding this manual should be directed to
https://mpw.pl/en/contact/contact-details

To find a local distributor, please visit
www.mpw.pl (CONTACT section, DISTRIBUTORS tab)

MPW MED. INSTRUMENTS
Boremlowska 46 Street
04-347 Warsaw
mpw@mpw.pl, www.mpw.pl