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## EQUIVALENCE OF TEST METHODS

### GRAVIMETRIC METHOD OF FILTER MASS MEASUREMENT according to EU 2017/1151

As part of the research project described in test report number BOS/0779/BH/21, particulate mass emission tests were carried out using automatic and manual methods. In the automatic method, the measurement of filter mass was carried out without operator intervention, according to a schedule enforced by a computer application. In the manual method, operator intervention was required to determine the mass of the filters.

Based on the particulate mass emission tests carried out in accordance with the requirements of European Commission Regulation No. 2017/1151 on the Worldwide Harmonized Light-Duty Vehicles Test Procedure, it was concluded that the automatic filter mass measurement method used in the UMA 2.4Y.F system manufactured by Radwag Wagi Elektroniczne, Poland is equivalent to the manual method. The UMA 2.4Y.F automatic weighing system is presented in Appendix 1.

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Declaration issue date 24 February 2021

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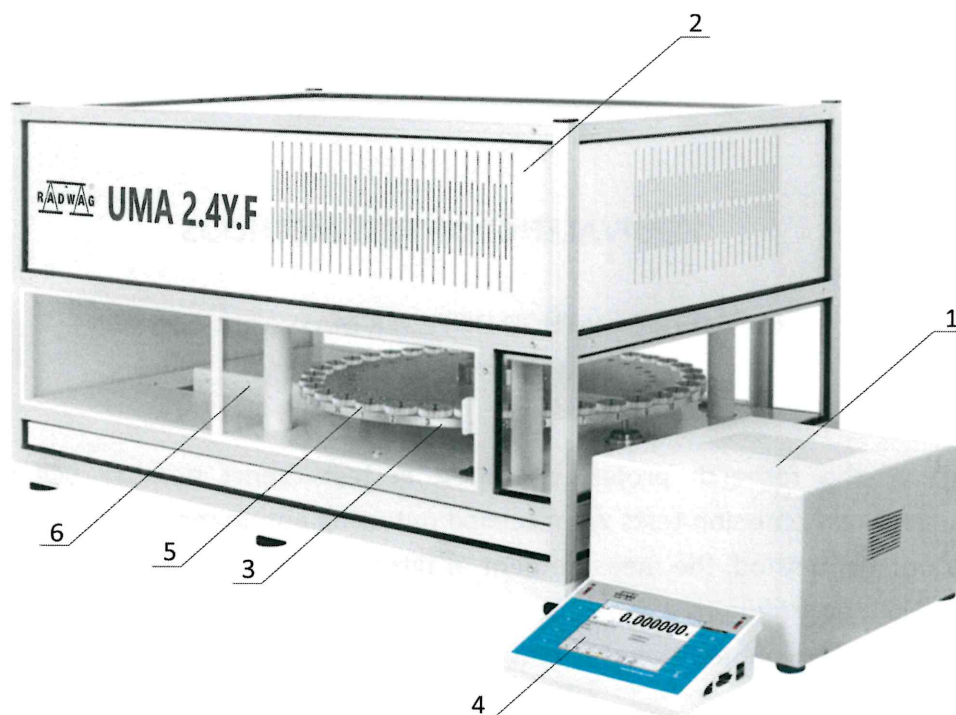
The statement of equivalence applies to the measuring device, which design is presented in Appendix 1. Changes to the design of the instrument shall require re-testing to demonstrate equivalence, provided the changes are significant for the accuracy of the analysis (in terms of the mass measurement system).

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## APPENDIX 1

### Mechanical design of the automatic UMA 2.4Y.F robotic system



Legend:

- 1 control unit
- 2 automation system
- 3 filter magazine
- 4 indicator
- 5 filter container
- 6 weighing system

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