INTERNATIONAL STANDARD ISO/TS 14253-2:1999
TECHNICAL CORRIGENDUM 1

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring equipment —

Part 2:
Guide to the estimation of uncertainty in GPS measurement, in calibration of measuring equipment and in product verification

TECHNICAL CORRIGENDUM 1

Spécification géométrique des produits (GPS) — Vérification par la mesure des pièces et des équipements de mesure —

Partie 2: Guide pour l'estimation de l'incertitude dans les mesures GPS, dans l'étalonnage des équipements de mesure et dans la vérification des produits

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO/TS 14253-2:1999 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification*.

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Page 2, Clause 2

Replace "ISO 1:1975, *Standard reference temperature for industrial length measurements*" by:

> "ISO 1:2002, *Geometrical Product Specifications (GPS) — Standard reference temperature for geometrical product specification and verification*".

Replace "ISO 9001:1994, *Quality systems — Model for quality assurance in design, development, production, installation and servicing*" by:

> "ISO 9001:2000, *Quality management systems — Requirements*".

Replace "ISO 14253-3:—[1)], *Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring instruments — Part 3: Procedures for evaluating the integrity of uncertainty of measurement values*" by:

> "ISO 14253-3:2002, *Geometrical Product Specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 3: Guidelines for achieving agreements on measurement uncertainty statements*".

Delete Footnote 1).

Replace "ISO 9004-1:1994, *Quality management and quality system elements — Part 1: Guidelines*" by:

> "ISO 9004:2000, *Quality management systems — Guidelines for performance improvements*.

Page 4, 3.10

In Note 2, replace "the requirements of 4.11.1, 4.11.2 of ISO 9001:1994, 13.1 of ISO 9004-1:1994 and ISO 14253-1" by:

> "the requirements of 7.6 and 8.2.4 of ISO 9001:2000, 7.6 and 8.2.3 of ISO 9004:2000 and ISO 14253-1".

Page 18, 8.2.2

In the 6th paragraph, change the end of the sentence to: "… from Table 2."

In the 6th paragraph, change Footnote "2)" to: "1)".

In the 8th paragraph, after Equation (5), replace "s" by: "$s_{\bar{x}}$".

Replace Equation (6) by:

$$u_{xx} = s_{\bar{x}} \times h \qquad \left(s_{\bar{x},n} = \frac{s_{x,n}}{\sqrt{n}} \right)$$

Page 19, 8.2.2

In Table 2, last line in 1st column, replace "$\leqslant$ 10" by: "$\geqslant$ 10".

Page 36, A.6.1

Replace the equation under "u_{RS} — **Reference standard (ring)**" by:

$$u_{RS} = \frac{U}{k} = \frac{0{,}8\ \mu m}{2} = 0{,}8\ \mu m \times 0{,}5 = 0{,}4\ \mu m$$

Page 37, A.6.1

Replace the equation under "u_{RR} — **Repeatability/resolution**" by:

$$u_{RR} = \frac{0{,}7\ \mu m}{6} = 0{,}12\ \mu m$$

Replace the 2nd equation under "u_{TD} — **Temperature difference between the two rings**" by:

$$u_{TD} = 1{,}1\ \mu m \times 0{,}7 = 0{,}77\ \mu m$$

Replace the 1st equation under "u_{TA} — **Difference in temperature expansion coefficients**" by:

$$a_{TA} = \frac{1{,}1\ \mu m}{(100\ mm \times °C)} \times 1\ °C \times 100\ mm \times 10\ \% = 0{,}11\ \mu m$$

Page 38, A.6.3

Replace the 1st equation by:

$$u_c = \sqrt{u_{RS}^2 + u_{EC}^2 + u_{PA}^2 + u_{RR}^2 + u_{TD}^2 + u_{TA}^2 + u_{RO}^2}$$

Page 41, B.1

In the 6th paragraph, replace the word "lover" by: "lower".

Page 49, B.2.5.5

In Table B.3, replace the caption of the 5th column by: "Percentage of u_c^2 [%]".

In Table B.3, 5th column, 1st cell directly under the caption, replace "23" by: "22".

In Table B.3, 1st column, 3rd line, replace "(u_{ML} Micrometer – flatness 2)" by: "(u_{MF} Micrometer – flatness 2)".

In the 3rd line under Table B.3, replace the end of the line by: "… from 7,6 µm to 4,4 µm."

Page 53, B.3.6.3

Replace the 1st equation for u_c by:

$$u_c = \sqrt{u_{SL}^2 + u_{RR}^2 + u_{TD}^2 + u_{TA}^2}$$