

# MTA Standards Update Booklet

The Manufacturing Technologies Association



## Introduction

Standards are an agreed way of doing something. They are documents which contain technical specifications or other precise criteria, which are designed to be used consistently as a rule, guideline or definition. Consequently, standards ensure the quality and consistency of products and services and allow consumers to have confidence that their products are safe, reliable and of a good quality.

This booklet looks to provide the following information in relation to standards and the MTA's engagement with them:

- An overview of the standards update process.
- A summary of the BSI standard committees that the MTA is engaged with,
- A list of the standards that are being updated under each committee.

Please be aware this is the September 2024 updated booklet and the next update would be sent in December 2024.

If you are interested in participating in any of the committees listed in the booklet, would like to find out any information about any of the standards being updated, or have a suggestion on a technical area we should look to cover in a committee coverage please get in touch the MTA Technical team (contact details on final page).

Furthermore, all full members of the MTA are entitled to have access to the MTA BSI standards collection. This access allows MTA members to view a number of standards, as chosen by industry, at no cost. To access this collection please register on the BSI website ([bsol.bsigroup.com](https://bsol.bsigroup.com)) and get in touch for your access code (contact details on final page).



## Standards Update Process

A new standard or one being updated goes through the same process which is represented in Figure 1:



Figure 1 – Standards Update Process

These update steps are as follows:

- New Work Proposal or Revision – at this stage a BSI committee will vote on whether to approve a project and submit comments. If appropriate experts will be nominated.
- Preparation (Drafting) – The standard will be drafted with the appointed expert providing specialist knowledge to the working group.
- Committee stage – The BSI committee have an opportunity to comment on the draft.
- Public Consultation – If the draft is approved by the committee the draft is sent out for 2 to 3 months for public comment (stage 40.20 on figure 2).
- Comment resolution – At the end of the consultation period all comments collated with the BSI committee deciding which to put forward in response.
- Approval stage – Once the consultation comments have been resolved the draft moves to approval stage where only editorial comments can be made.
- Publication – Following formal approval a standard will be implemented as a British Standard, with any conflicting standards being withdrawn.
- Review – To ensure a standard is required, it is periodically reviewed. The review considers if the standard should be retained, amended, withdrawn or revised.

Figure 2, on the next page, shows the in-depth stages of the standards update process. This can be used to understand which stage a standard is at the update process.

## International harmonized stage codes

| STAGE                   | SUBSTAGE  |  |   |  |  |   |  |
|-------------------------|---|--|---|--|--|---|--|
|                         |   |  |   | 90<br>Decision   |  |   |  |
|                         | 00<br>Registration  | 20<br>Start of main action   | 60<br>Completion of main action                         | 92<br>Repeat an earlier phase                                  | 93<br>Repeat current phase                                   | 98<br>Abandon                               | 99<br>Proceed  |
| 00<br>Preliminary stage | 00.00<br>Proposal for new project received                          | 00.20<br>Proposal for new project under review                       | 00.60<br>Close of review                                |  |  | 00.98<br>Proposal for new project abandoned | 00.99<br>Approval to ballot proposal for new project                   |
| 10<br>Proposal stage    | 10.00<br>Proposal for new project registered                        | 10.20<br>New project ballot initiated                                | 10.60<br>Close of voting                                | 10.92<br>Proposal returned to submitter for further definition |  | 10.98<br>New project rejected               | 10.99<br>Approval to New project approved                              |
| 20<br>Preparatory stage | 20.00<br>New project registered in TC/SC work programme             | 20.20<br>Working draft (WD) study initiated                          | 20.60<br>Close of comment period                        |  |  | 20.98<br>Project deleted                    | 20.99<br>WD approved for registration as CD                            |
| 30<br>Committee stage   | 30.00<br>Committee draft (CD) registered                            | 30.20<br>CD study/ballot initiated                                   | 30.60<br>Close of voting/ comment period                | 30.92<br>CD referred back to Working Group                     |  | 30.98<br>Project deleted                    | 30.99<br>CD approved for registration as DIS                           |
| 40<br>Enquiry stage     | 40.00<br>DIS registered   | 40.20<br>DIS ballot initiated: 12 weeks                              | 40.60<br>Close of voting                                | 40.92<br>Full report circulated: DIS referred back to TC or SC | 40.93<br>Full report circulated: decision for new DIS ballot | 40.98<br>Project deleted                    | 40.99<br>Full report circulated: DIS approved for registration as FDIS |
| 50<br>Approval stage    | 50.00<br>Final text received or FDIS registered for formal approval | 50.20<br>Proof sent to secretariat or FDIS ballot initiated: 8 weeks | 50.60<br>Close of voting. Proof returned by secretariat | 50.92<br>FDIS or proof referred back to TC or SC               |  | 50.98<br>Project deleted                    | 50.99<br>FDIS or proof approved for publication                        |
| 60<br>Publication stage | 60.00<br>International Standard under publication                   |  | 60.60<br>International Standard published               |  |  |   |  |
| 90<br>Review stage      |   | 90.20<br>International Standard under periodical review              | 90.60<br>Close of review                                | 90.92<br>International Standard to be revised                  | 90.93<br>International Standard confirmed                    |   | 90.99<br>Withdrawal of International Standard proposed by TC or SC     |
| 95<br>Withdrawal stage  |   | 95.20<br>Withdrawal ballot initiated                                 | 95.60<br>Close of voting                                | 95.92<br>Decision not to withdraw International Standard       |  |   | 95.99<br>Withdrawal of International Standard                          |

Figure 2 – In-depth overview of standards update process

## Committees and Standards Under Review

The following tables provide a list of the standards committees the MTA participates in, as well as the standards being updated under each of those committees.

| AMT/4 - INDUSTRIAL DATA AND MANUFACTURING INTERFACES |   |       |
|--|---|-------|
| STANDARDS UNDERDEVELOPMENT                           |   | STAGE |
| ISO/AWI 14649-10                                     | Industrial automation systems and integration — Physical device control — Data model for computerized numerical controllers — Part 10: General process data   | 10.99 |
| ISO/AWI 14649-11                                     | Industrial automation systems and integration — Physical device control — Data model for computerized numerical controllers — Part 11: Process data for milling   | 10.99 |
| ISO/AWI 14649-12                                     | Industrial automation systems and integration — Physical device control — Data model for computerized numerical controllers — Part 12: Process data for turning   | 10.99 |
| ISO/AWI 14649-111                                    | Industrial automation systems and integration — Physical device control — Data model for computerized numerical controllers — Part 111: Tools for milling machines  | 10.99 |
| ISO/CD 23704-4                                       | Reference Model for Cyber-Physically Controlled Smart Machine Tool Systems (CPSMT) — Part 4: Part 4: Requirements and guidelines for implementing reference architecture of CPSMT for subtractive manufacturing | 30.60 |
| ISO/DIS 3151-2                                       | Visualization elements of PLM-MES interface — Part 2: 3D error feedback in heavy industry   | 40.99 |
| ISO/FDIS 8000-210                                    | Data quality — Part 210: Sensor data: Data quality characteristics  | 50.00 |
| ISO/CD 8000-220                                      | Data quality — Part 220: Sensor data: Quality measurement   | 30.60 |
| ISO/AWI TS 8000-230                                  | Data quality — Part 230: Sensor data: Guidelines for data cleansing   | 20.00 |
| ISO/AWI TR 8000-320                                  | Data quality — Part 320: AI training data quality for smart manufacturing   | 10.99 |
| ISO/CD 10303-62                                      | Industrial automation systems and integration — Product data representation and exchange — Part 62: Integrated generic resource: Equivalence validation of product data   | 30.60 |
| ISO/CD 10303-238                                     | Industrial automation systems and integration — Product data representation and exchange — Part 238: Application protocol: Model based integrated manufacturing   | 30.60 |
| ISO 10303-239  | Industrial automation systems and integration — Product data representation and exchange — Part 239: Application protocol: Product life cycle support   | 60.00 |
| ISO/DIS 10303-242                                    | Industrial automation systems and integration — Product data representation and exchange — Part 242: Application protocol: Managed model-based 3D engineering   | 40.60 |

| AMT/4 - INDUSTRIAL DATA AND MANUFACTURING INTERFACES |  |       |
|--|--|-------|
| STANDARDS UNDERDEVELOPMENT                           |  | STAGE |
| ISO/AWI TS 10303-1028                                | Industrial automation systems and integration — Product data representation and exchange — Part 1028: Application module: Universally unique identification assignment   | 10.99 |
| ISO/AWI TS 10303-1855                                | Industrial automation systems and integration — Product data representation and exchange — Part 1855: Threads for mechanical products  | 10.99 |
| ISO/AWI TS 10303-1856                                | Industrial automation systems and integration — Product data representation and exchange — Part 1856: Annotated 3d model equivalence triangulated shape module   | 10.99 |
| ISO/AWI TS 10303-1857                                | Industrial automation systems and integration — Product data representation and exchange — Part 1857: Annotated 3d model equivalence display attribute module  | 10.99 |
| ISO/DIS 14306-3                                      | Industrial automation systems and integration — JT file format specification for 3D visualization — Part 3: Version 2  | 40.00 |
| ISO/CD 14306-4                                       | Industrial automation systems and integration — JT file format specification for 3D visualization — Part 4: Version 3  | 30.60 |
| ISO/PRF 15926-6                                      | Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities — Part 6: Rules for the development and validation of reference data of ISO/TS 15926-4 | 50.00 |
| ISO/AWI 15926-100                                    | Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities — Part 100: Vocabulary   | 20.00 |
| ISO 17506:2022/DAMd 1                                | Industrial automation systems and integration — COLLADATM digital asset schema specification for 3D visualization of industrial data — Amendment 1: Elements name and explanations   | 40.20 |
| ISO/CD TR 17999                                      | Reference model for industrial data  | 30.92 |
| ISO/DTS 23164  | Automation systems and integration — Core vocabulary for industrial data   | 50.20 |
| ISO/CD 23247-5                                       | Automation systems and integration — Digital twin framework for manufacturing — Part 5: Digital thread for digital twin  | 30.20 |
| ISO/CD 23247-6                                       | Automation systems and integration — Digital twin framework for manufacturing — Part 6: Digital twin composition   | 30.20 |
| ISO/DTR 24464  | Visualization elements of digital twin — Visualization fidelity  | 50.00 |
| ISO/AWI TS 25270                                     | Automation systems and integration — Core terminology for simulation data management   | 20.00 |
| ISO/CD 29002   | Industrial automation systems and integration — Exchange of characteristic data  | 30.99 |

| AMT/4 - INDUSTRIAL DATA AND MANUFACTURING INTERFACES |   |       |
|--|---|-------|
| STANDARDS UNDERDEVELOPMENT                           |   | STAGE |
| ISO/AWI 16400-4                                      | Automation systems and integration — Equipment behaviour catalogues for virtual production system — Part 4: Application method  | 20.00 |
| ISO 20140-5  | Automation systems and integration — Evaluating energy efficiency and other factors of manufacturing systems that influence the environment — Part 5: Environmental performance evaluation data | 60.00 |
| ISO/AWI 20849  | Supply chain interoperability and integration — Part 110: Verification of authoritative legal entity identifiers (ALEI)   | 20.00 |
| ISO/AWI 20850  | Supply chain interoperability and integration — Part 210: Strategic sourcing concepts, principles, and data requirements  | 20.00 |
| ISO/CD 21175-1                                       | Automation systems and integration --Collaboration Environment Requirements of Simulation on Different Manufacturing Platforms — Part 1: Part 1: Reference Model and Process                    | 30.60 |
| ISO/AWI 22400-1                                      | Automation systems and integration — Key performance indicators (KPIs) for manufacturing operations management — Part 1: Overview, concepts and terminology                                     | 10.99 |
| ISO/DIS 22400-2                                      | Automation systems and integration — Key performance indicators (KPIs) for manufacturing operations management — Part 2: Definitions and descriptions   | 40.60 |
| ISO/CD 25500-1                                       | Supply chain interoperability and integration — Part 1: Overview  | 30.60 |
| ISO/CD 25500-2                                       | Supply chain interoperability and integration — Part 2: Vocabulary  | 30.60 |
| ISO/CD 25500-3                                       | Supply chain interoperability and integration — Part 3: Verification of Authoritative Legal Entity Identifiers (ALEI)   | 30.60 |
| ISO/CD 25500-100                                     | Supply chain interoperability and integration — Part 100: Verification of Supply Chain Data   | 30.60 |
| ISO/CD 25500-110                                     | Supply chain interoperability and integration — Part 110: Verification of certificates in the supply chain  | 30.60 |
| ISO/CD 25500-120                                     | Supply chain interoperability and integration — Part 120: Verification of localization data   | 30.60 |
| ISO/CD 25500-240                                     | Supply chain interoperability and integration — Part 240: Strategic sourcing concepts, principles, and data requirements  | 30.60 |
| IEC/CD 62264-2                                       | Enterprise-control system integration — Part 2: Objects and attributes for enterprise-control system integration  | 30.00 |
| IEC/CD 62264-4                                       | Enterprise-control system integration — Part 4: Objects and attributes for manufacturing operations management integration  | 30.00 |

| <b>AMT/008 ADDITIVE MANUFACTURING</b> |  |              |
|---------------------------------------|--|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b>     |  | <b>STAGE</b> |
| ISO/ASTM DTR 52913-1                  | Additive manufacturing — Feedstock materials — Part 1: Parameters for characterization of powder flow properties   | 30.92        |
| ISO/ASTM CD TR 52918                  | Additive manufacturing — Data formats — File format support, ecosystem and evolutions  | 30.00        |
| ISO/ASTM DIS 52919                    | Additive manufacturing — Qualification principles — Test methods for metal casting sand moulds   | 40.99        |
| ISO/ASTM CD 52922                     | Additive manufacturing — Design — Directed energy deposition of metals   | 30.99        |
| ISO/ASTM DIS 52929                    | Additive manufacturing of metals — Powder bed fusion — Presentation of material properties in material data sheets   | 40.99        |
| ISO/ASTM DIS 52937                    | Additive manufacturing of metals — Qualification principles — Tasks and related skills for AM  | 40.60        |
| ISO/ASTM DIS 52938-1                  | Additive manufacturing of metals — Environment, health and safety — Part 1: Safety requirements for PBF-LB machines  | 40.99        |
| ISO/ASTM DIS 52940                    | Additive manufacturing of ceramics — Feedstock materials — Characterization of ceramic slurry in vat photopolymerization   | 40.60        |
| ISO/ASTM DIS 52941                    | Additive manufacturing — System performance and reliability — Acceptance tests for laser metal powder-bed fusion machines for metallic materials for aerospace application | 40.99        |
| ISO/ASTM CD 52946                     | Additive manufacturing of metals — Finished part properties — Stainless Steel Alloys made by powder bed fusion   | 30.99        |
| ISO/ASTM DIS 52948                    | Additive manufacturing for metals — Non-destructive testing and evaluation — Imperfections classification in PBF parts   | 40.60        |
| ISO/ASTM TS 52949                     | Additive manufacturing of metals — Qualification principles — Installation, operation and performance (IQ/OQ/PQ) of PBF-EB equipment                                       | 60.00        |
| ISO/ASTM CD 52951                     | Additive Manufacturing — Data — Data packages for AM parts   | 30.99        |
| ISO/ASTM DIS 52953                    | Additive manufacturing for metals — General principles — Registration of geometric data acquired from process-monitoring and for quality control                           | 40.99        |
| ISO/ASTM CD 52954-1                   | Additive manufacturing — Qualification principles — Part 1: Common failure modes used for risk mapping   | 30.99        |
| ISO/ASTM CD 52957                     | Additive Manufacturing — Design — Parts using ceramic materials  | 30.99        |
| ISO/ASTM CD TR 52958                  | Additive manufacturing of metals — Powder bed fusion — In-situ coaxial photodiode monitoring for lack of fusion flaw detection in PBF-LB                                   | 30.99        |

| <b>AMT/008 ADDITIVE MANUFACTURING</b> |  |              |
|---------------------------------------|--|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b>     |  | <b>STAGE</b> |
| ISO/ASTM DIS 52959                    | Additive Manufacturing of metals — Test artefacts — Compression validation coupons for lattice designs                                   | 40.99        |
| ISO/ASTM CD 52965                     | Additive manufacturing for metals — Qualification principles — Test method for indentation plastometry                                   | 30.99        |
| ISO/ASTM AWI 52966                    | Additive manufacturing — General Principles — Framework for the Implementation of a Level System for temporarily self-sufficient systems | 20.00        |
| ISO/ASTM FDIS 52967                   | Additive manufacturing for aerospace — General principles — Part classifications for additive manufactured parts used in aviation        | 50.20        |

| <b>AMT/10 ROBOTICS</b>            |  |              |
|-----------------------------------|--|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b> |  | <b>STAGE</b> |
| ISO/FDIS 10218-1.2                | Robotics — Safety requirements — Part 1: Industrial robots   | 50.00        |
| ISO/FDIS 10218-2.2                | Robotics — Safety requirements — Part 2: Industrial robot applications and robot cells                                 | 50.00        |
| ISO/DIS 13482                     | Robotics — Safety requirements for service robots  | 40.20        |
| ISO/CD 18646-5                    | Robotics — Performance criteria and related test methods for service robots — Part 5: Locomotion for legged robots     | 30.60        |
| ISO/AWI 18646-6                   | Robotics — Performance criteria and related test methods for service robots — Part 6: Lower-limb wearable robots       | 20.00        |
| ISO/AWI 18646-8                   | Robotics — Performance criteria and related test methods for service robots — Part 8: Electric vehicle charging robots | 20.00        |
| ISO/CD 21423                      | Robotics — Autonomous mobile robots for industrial environments — Communications and interoperability                  | 30.60        |
| ISO/FDIS 22166-202                | Robotics — Modularity for service robots — Part 202: Information model for software modules                            | 50.00        |
| ISO/AWI TS 25213                  | Robotics — Test methods for measuring the energy consumption of robots — 6-Axis articulated industrial robots          | 20.00        |



| IST/33 - INFORMATION SECURITY, CYBERSECURITY AND PRIVACY PROTECTION |   |       |
|---|---|-------|
| STANDARDS UNDERDEVELOPMENT  |   | STAGE |
| ISO/IEC AWI 4922-3  | Information security — Secure multiparty computation — Part 3: Part 3: Mechanisms based on garbled circuits   | 20.00 |
| ISO/IEC CD 5181   | Information technology — Security and privacy — Data provenance   | 30.60 |
| ISO/IEC AWI TS 5689   | Cybersecurity – Security frameworks and use cases for cyber physical systems  | 20.00 |
| ISO/IEC 9797-2:2021/CD Cor 1.2                                      | Information security — Message authentication codes (MACs) — Part 2: Mechanisms using a dedicated hash-function — Technical Corrigendum 1   | 30.00 |
| ISO/IEC AWI 9798-5  | Information technology — Security techniques — Entity authentication — Part 5: Mechanisms using zero-knowledge techniques   | 20.00 |
| ISO/IEC 11770-3:2021/DAmD 1   | Information security — Key management — Part 3: Mechanisms using asymmetric techniques — Amendment 1: TFNS identity-based key agreement   | 40.60 |
| ISO/IEC WD 11770-4  | Information technology — Security techniques — Key management — Part 4: Mechanisms based on weak secrets  | 20.60 |
| ISO/IEC AWI 11770-8   | Information technology — Security techniques — Part 8: Password-based key derivation  | 20.00 |
| ISO/IEC 14888-3:2018/AWI Amd 1                                      | IT Security techniques — Digital signatures with appendix — Part 3: Discrete logarithm based mechanisms — Amendment 1   | 20.00 |
| ISO/IEC DIS 15408-1   | Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 1: Introduction and general model   | 40.20 |
| ISO/IEC DIS 15408-2   | Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 2: Security functional components   | 40.20 |
| ISO/IEC DIS 15408-3   | Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 3: Security assurance components  | 40.20 |
| ISO/IEC DIS 15408-4   | Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 4: Framework for the specification of evaluation methods and activities   | 40.20 |
| ISO/IEC DIS 15408-5   | Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 5: Pre-defined packages of security requirements                          | 40.20 |
| ISO/IEC DIS 18045   | Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Methodology for IT security evaluation   | 40.20 |
| ISO/IEC DIS 19896-1   | Information security, cybersecurity and privacy protection — Requirements for the competence of IT security conformance assessment body personnel — Part 1: Overview and concepts | 40.00 |

| IST/33 - INFORMATION SECURITY, CYBERSECURITY AND PRIVACY PROTECTION |   |       |
|---|---|-------|
| STANDARDS UNDERDEVELOPMENT  |   | STAGE |
| ISO/IEC PRF 20008-3   | Information technology — Security techniques — Anonymous digital signatures — Part 3: Mechanisms using multiple public keys   | 50.00 |
| ISO/IEC DIS 24760-1   | IT Security and Privacy — A framework for identity management — Part 1: Terminology and concepts  | 40.99 |
| ISO/IEC DIS 24760-3   | IT Security and Privacy — A framework for identity management — Part 3: Practice  | 40.99 |
| ISO/IEC WD 24760-4.4  | IT Security and Privacy — A framework for identity management — Part 4: Authenticators, Credentials and Authentication  | 20.60 |
| ISO/IEC AWI 25093-1   | Cybersecurity — Confidential computing — Part 1: Overview and concepts  | 20.00 |
| ISO/IEC CD 27000  | Information technology — Security techniques — Information security management systems — Overview and vocabulary  | 30.60 |
| ISO/IEC AWI 27003   | Information technology — Security techniques — Information security management systems — Guidance   | 20.00 |
| ISO/IEC CD TS 27008   | Information technology — Security techniques — Guidelines for the assessment of information security controls   | 30.60 |
| ISO/IEC CD 27017.2  | Information technology — Security techniques — Code of practice for information security controls based on ISO/IEC 27002 for cloud services                                 | 30.60 |
| ISO/IEC AWI 27045   | Information technology — Big data security and privacy — Guidelines for managing big data risks   | 20.00 |
| ISO/IEC CD 27090  | Cybersecurity — Artificial Intelligence — Guidance for addressing security threats and failures in artificial intelligence systems  | 30.60 |
| ISO/IEC WD 27091.2  | Cybersecurity and Privacy — Artificial Intelligence — Privacy protection  | 30.60 |
| ISO/IEC CD 27404.2  | Cybersecurity — IoT security and privacy — Cybersecurity labelling framework for consumer IoT   | 30.60 |
| ISO/IEC DIS 27553-2   | Information security, cybersecurity and privacy protection — Security and privacy requirements for authentication using biometrics on mobile devices — Part 2: Remote modes | 40.20 |
| ISO/IEC AWI TS 27564  | Privacy protection - Guidance on the use of models for privacy engineering  | 20.00 |
| ISO/IEC DIS 27701.2   | Information security, cybersecurity and privacy protection — Privacy information management systems — Requirements and guidance   | 40.60 |
| ISO/IEC DIS 27706.2   | Requirements for bodies providing audit and certification of privacy information management systems   | 40.20 |

| <b>MTE/1 - MACHINE TOOLS</b>      |   |              |
|-----------------------------------|---|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b> |   | <b>STAGE</b> |
| ISO/AWI TS 230-13                 | Test code for machine tools — Part 13: Guidelines on acceptance tests for machine tools used as coordinate measuring machines   | 20.00        |
| ISO/CD 4703                       | Test conditions for surface grinding machines with two columns — Machines for grinding slideways — Testing of the accuracy  | 30.00        |
| ISO/CD 8636-1                     | Machine tools — Test conditions for bridge-type milling machines — Testing of the accuracy — Part 1: Fixed bridge (portal-type) machines  | 30.99        |
| ISO/DIS 6909                      | Machine tools Safety — Press brakes   | 40.99        |
| ISO/FDIS 16089                    | Machine tools — Safety — Stationary grinding machines   | 50.20        |
| ISO/AWI TR 23125-2                | Machine tools — Safety — Turning machines — Part 2: Examples for the application of an optional special mode for manual intervention under restricted operating conditions (MO 3) | 10.99        |

| <b>PH/9 - APPLIED ERGONOMICS</b>  |  |              |
|-----------------------------------|--|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b> |  | <b>STAGE</b> |
| ISO/TS 16710-1                    | Ergonomics methods — Part 1: Feedback method — A method to understand how end users perform their work with machines | 60.00        |
| ISO/CD 16710-2                    | Ergonomics methods — Part 2: A methodology for work analysis to support design                                       | 30.99        |
| ISO/WD 25153                      | Ergonomics — Human-centred design of products and services — Principles and activities                               | 20.20        |
| ISO/DIS 9241-112                  | Ergonomics of human-system interaction — Part 112: Principles for the presentation of information                    | 40.60        |
| ISO/CD 9241-130                   | Ergonomics of human-system interaction — Part 130: User assistance within interactive systems                        | 30.60        |
| ISO/DIS 9241-161                  | Ergonomics of human-system interaction — Part 161: Guidance on visual user-interface elements                        | 40.60        |
| ISO/CD 9241-171.2                 | Ergonomics of human-system interaction — Part 171: Guidance on software accessibility                                | 30.20        |
| ISO/AWI 9241-222                  | Ergonomics of human-system interaction — Part 222: Self-assessment of human-centred design approach                  | 20.00        |
| ISO/CD TR 9241-313                | Ergonomics of human-system interaction — Part 313: Optical measurement methods for reflective displays               | 30.99        |

| <b>PH/9 - APPLIED ERGONOMICS</b>  |  |              |
|-----------------------------------|--|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b> |  | <b>STAGE</b> |
| ISO/CD TR 9241-520                | Ergonomics of human-system interaction — Part 520: Ergonomics aspect of Activity Based Working   | 30.20        |
| ISO/AWI 9241-812                  | Ergonomics of human-system interaction — Part 812: Guidance on "the ergonomics of" intelligent systems   | 20.00        |
| ISO/FDIS 9241-920                 | Ergonomics of human-system interaction — Part 920: Tactile and haptic interactions   | 50.20        |
| ISO/FDIS 25062                    | Systems and software engineering — Systems and software Quality Requirements and Evaluation (SQuaRE) — Common Industry Format (CIF) for usability: Reporting usability evaluations     | 50.00        |
| ISO/CD 25063.2                    | Systems and software engineering — Systems and software product Quality Requirements and Evaluation (SQuaRE) — Common Industry Format (CIF) for usability: Context of use description  | 30.00        |
| ISO/DIS 7726                      | Ergonomics of the thermal environment — Instruments for measuring and monitoring physical quantities   | 40.99        |
| ISO/DIS 7730                      | Ergonomics of the thermal environment — Analytical determination and interpretation of thermal comfort using calculation of the PMV and PPD indices and local thermal comfort criteria | 40.99        |
| ISO/CD 14505-1                    | Ergonomics of the thermal environment — Evaluation of thermal environments in vehicles — Part 1: Principles and methods for assessment of thermal stress                               | 30.99        |
| ISO/CD 14505-2                    | Ergonomics of the thermal environment — Evaluation of thermal environments in vehicles — Part 2: Determination of equivalent temperature   | 30.99        |
| ISO/CD 14505-3                    | Ergonomics of the thermal environment — Evaluation of thermal environments in vehicles — Part 3: Evaluation of thermal comfort using human subjects                                    | 30.99        |
| ISO/CD TR 23454-1                 | Human performance in physical environments — Part 1: A performance framework   | 30.99        |

| <b>QS/1/2 - QUALITY MANAGEMENT SYSTEM STANDARDS</b> |              |
|---|--------------|
| <b>STANDARDS UNDERDEVELOPMENT</b>                   | <b>STAGE</b> |
| <b>NON UNDERDEVELOPMENT</b>                         |              |

For further information on any of the standards listed in this document, please do not hesitate to get in contact (contact details on final page).



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