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|--------------------|--|------------------------------|---|-------------|
| Rev. 2.1           | <b>EC100<br/>Standard for 2D Documentation</b> |                              |  |             |
|                    | Replaces AA700i                                |                              |   |             |
| <u>Doc. number</u> | <u>Status</u>                                  | <u>Responsibility</u>        | <u>Date</u>   | <u>Page</u> |
| EC100              | Released                                       | Ecotec standardization group | 18-01-2024  | 1/(3)       |

### Document releases

| Version | Date       | Created by  | Checked by                   | Approved by                  | Remarks   |
|---------|------------|---|------------------------------|------------------------------|---|
| 1.0     | 22.02.2022 | Jerzy Stachów   | Ecotec standardization group | Ecotec standardization group | Initial release   |
| 2.0     | 24.02.2023 | Michał Grzegorzycy<br>Thorben Niemeier<br>Cezary Bureta | Ecotec standardization group | Ecotec standardization group | Change of ISO 2768-1 and ISO 2768-2 to ISO 2768:1989 – mK; Old unsorted table deleted ; some titles changed to the original designation ; changed wrong ISO 1090 to EN 1090 ; changed column “remarks” to “Valid tolerance class” ; changed document header so that is the same on every page |
| 2.1     | 18.01.2024 | Cezary Bureta   | Ecotec standardization group | Ecotec standardization group | Removing EN 1090 norm from list.  |

### Subject & Purpose

This instruction contains a list of norms being valid for all drawings and which are to be considered if no other requirements are indicated in the drawing.

The purpose of this instruction is, that all drawings are created under the same conditions, and that the drawn parts are manufactured according to the requirements.


### Scope & Responsibilities

- Employees engineering: for new drawings
- Employees purchase department: regarding the purchase of drawing parts which are additionally intended as a documentation basis for suppliers
- Suppliers: for parts production


### Description

Standard contains the Norms which are generally taken into account as Norms common to Design Departments in Ecotec Group when preparing the documentation and construction. The version of the norm in the latest release at the date of the last drawing revision is valid.

Norms not listed below should be raised as required in separate, local documents or standards adequate to this document.

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| Norm   | Title   | Valid tolerance class |
|--|---|-----------------------|
| <b>Geometrical product specifications (GPS) / Technical drawings</b> |   |                       |
| ISO 8015   | Geometrical product specifications (GPS) - Fundamentals - Concepts, principles and rules  |                       |
| ISO 286  | GPS - ISO code system for tolerances on linear sizes  |                       |
| EN ISO 1101  | GPS - Geometrical tolerancing - Tolerances of form, orientation, location and run-out   |                       |
| ISO 1302   | GPS - Indication of surface texture in technical product documentation  |                       |
| DIN 30630  | Technical drawings - General tolerances in mechanical engineering - Tolerance rule and general plan   |                       |
| EN ISO 5455  | Technical drawings; scales  |                       |
| EN ISO 5457  | Technical product documentation - Sizes and layout of drawing sheets  |                       |
| ISO 16016  | Technical product documentation - Protection notices for restricting the use of documents and products  |                       |
| ISO 13715  | Technical product documentation - Edges of undefined shape - Indication and dimensioning  |                       |
| ISO 2553   | Welding and allied processes - Symbolic representation on drawings - Welded joints  |                       |
| <b>General tolerances / Manufacturing</b>                            |   |                       |
| ISO 2768:1989  | General tolerances; tolerances for linear and angular dimensions without individual tolerance indications   | Tolerance class mK    |
| EN ISO 13920   | Welding - General tolerances for welded constructions - Dimensions for lengths and angles; shape and position   | Tolerance class AE    |
| EN 5817  | Welding - Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) - Quality levels for imperfections   | Level D               |
| ISO 10042  | Welding - Arc-welded joints in aluminium and its alloys - Quality levels for imperfections  | Level D               |
| ISO 9692-1   | Welding and allied processes - Types of joint preparation - Part 1: Manual metal arc welding, gas-shielded metal arc welding, gas welding, TIG welding and beam welding of steels |                       |
| ISO 17635  | Non-destructive testing of welds - General rules for metallic materials   |                       |

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| Norm       | Title  | Valid tolerance class   |
|------------|--|---|
| EN 10051   | Continuously hot-rolled strip and plate/sheet cut from wide strip of non-alloy and alloy steels - Tolerances on dimensions and shape |   |
| EN 10204   | Metallic products - Types of inspection documents  |   |
| ISO 9013   | Thermal cutting - Classification of thermal cuts - Geometrical product specification and quality tolerances                          | Cutting quality and tolerance class<br><br>Flame cutting 9013-332<br>Laser cutting 9013-221 |
| DIN 6930-2 | Stamped steel parts - Part 2: General tolerances   |   |
| DIN 6935   | Cold bending of flat-rolled steel  |   |