

DEK STANDARD ENGINEERING INSTRUCTION

Title

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Mechanical Drawing Standards

DST 1.1.3

IMPORTANT

DST 1.1.3 AND BS8888 MUST NOT BE REFERRED TO IN ANY DOCUMENT OTHER THAN TECHNICAL DRAWINGS.

1. Related standard

DEK technical drawings are to be produced in accordance with BS8888:2020 with exceptions as detailed in section 2.

2. Exceptions from BS8888

- BS EN ISO 2203, 2162, 8826, 9222 and 6413 - Presentation of springs, bearings, seals, splines and gears - these are to be shown in a solid form, without internal detail unless ambiguity could occur with orientation or relative position within an assembly, a section view might be added.
- BS5070: Part 1:1988 Engineering diagrams - shows a scale bar on the drawing format, this is not used because drawing scale is not used.
- BS EN ISO 6433:2012 Item references – itemised components need only be arranged to avoid ambiguity. In cases where the component occurs more than once, it will be identified accordingly only if it could be confused with another component.
- BS EN ISO 5457:1999+A1:2010 Sizes and layout of drawings – centring marks will not be applied because microfilming is not used.
- BS EN ISO 5456-1,2,3:1999 Projection symbol – The graphical representation of the projection symbol will be varied to provide clarity in line with other drawing detail.
- BS EN ISO 129:2019+A1:2021 – page10, 5.3 Figure 9 Where clarity dictates, breaks in lines may be used.
- Notes are sometimes necessary on assembly drawings, to describe thread locking and screw tightening torques etc.

3. Tolerancing system – BS ISO 8015

Dimensions are “Independent” of geometric tolerances unless specifically indicated with the **E** (for envelope) symbol in accordance with BS ISO 8015, or have separate Geometric Tolerances applied, (see BS8888 section 7 for full explanation).

BS8888  (Independent symbol)

4. Welding

BS EN ISO 2553:2019 Welded brazed and soldered joints.

Section 6 Dimension of welds:

Fillet weld size “leg length **z**” to be used.

Welding Tolerances in accordance with EN ISO 13920:1997.

Welding quality in accordance with EN ISO 5817:2014.

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5. Trailing zeros

The number of zeros after the decimal marker has no affect whatsoever on the dimensional tolerance.

6. References information

The following standards referred to in BS8888 are similar in content to **BS308** (which has been withdrawn).

BS EN ISO 129:2019+A1:2021 Dimensioning – general dimensions.

BS EN ISO 1101:2017 Geometric Tolerancing – *form, orientation and location*.

BS EN ISO 1302:2002 Method of indicating surface texture – *showing symbols*.

BS EN ISO 2692:2021 Geometric tolerances – Maximum material principle – (*refers to circled **M** and **L** symbols in a tolerance frame*).

BS EN ISO 5456-2:1999 Projection methods for views.

BS EN ISO 5458:2018 Geometric Tolerancing – Positional Tolerancing.

BS EN ISO 5459:2011 Geometric tolerances – datum systems – (*important explanation of location and description of datums*).

BS EN ISO 1101:2017 Geometric tolerances. – *projected tolerance zone (circled **P** symbol)*.

7. Text appearing on drawings

British Standards discourage words and abbreviated words on drawings. Text notes should be kept to a minimum with internationally recognised symbols used wherever possible. The use of abbreviations on DEK drawings is limited to Table 1 below:

Table 1 – Standard symbols and abbreviations

Term	Symbol or abbreviation
Across flats	AF
Centre of gravity	COG
Diameter:	Ø
Least material condition	Ⓛ
Material	MAT.
Maximum	MAX
Maximum material condition:	Ⓜ
Minimum	MIN
Number	NO or NR. or #
Radius	R
Spherical diameter (only preceding a dimension)	SØ
Spherical radius	SR
Square:	□
Typical or typically	TYP
Surface	SURF.

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