ISO 128-3:2020 (E)

Technical product documentation (TPD) — General principles of representation — Part 3: Views, sections and cuts

Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Basic conventions for views

- 4.1 General information on views
- 4.2 Choice of views
- 4.3 Partial views
- 4.4 Simplified view of symmetrical parts
- 4.5 First angle projection method
- 4.6 First angle projection method views
- 4.7 First angle projection graphical symbol
- 4.8 Third angle projection method
- 4.9 Third angle projection method views
- 4.10 Third angle projection graphical symbol
- 4.11 Other projection methods
- 4.12 Enlarged features

5 Reference indication for views and enlarged features

- 5.1 General
- 5.2 Details of the reference indication
- 5.3 Examples of indication

6 General information on cuts and sections

- 6.1 General
- 6.2 Indication of cuts and sections
- 6.2.1 Cutting plane
- 6.2.2 Identification of the cutting plane
- 6.2.3 Identification of the cuts and sections
- 6.2.4 Reference indication for cuts and sections
- 6.2.4.1 General
- 6.2.4.2 Details of the reference indication
- 6.3 Sections revolved in the relevant view
- 6.4 Cuts/sections of symmetrical parts
- 6.5 Local cuts/sections

7 Basic conventions for representing areas on cuts and sections

- 7.1 General information on cuts and sections
- 7.2 Hatching
- 7.3 Shading or toning
- 7.4 Extra-wide continuous outlines
- 7.5 Thin sections
- 7.6 Thin adjacent sections
- 7.7 Specific materials

Annex A (normative) Graphical symbols

- A.1 Graphical symbols for use in views

A.2 Reference arrow symbol
A.3 Symmetry symbol
A.4 Graphical symbols for cuts and sections
A.5 Cut and section arrows

Annex B (informative) Former practices

B.1 Use of arc arrow in special position of views
B.2 Section of parts of revolution with rotated cutting plane
B.3 Arrangement of successive sections

Annex C (normative) Views on mechanical engineering technical drawings

C.1 Field of application
C.2 Types of lines and their application
C.3 Local views
C.4 Adjacent parts and contours
C.5 Intersections
C.6 Square ends on shafts
C.7 Interrupted views
C.8 Repeated features
C.9 Initial outlines
C.10 Bend lines
C.11 Slight inclines or curves
C.12 Transparent objects
C.13 Movable parts
C.14 Finished parts and blanks
C.15 Parts made from separate, equal elements
C.16 Surface pattern
C.17 Fibre and rolled directions
C.18 Parts with two or more identical views
C.19 Mirror-image parts

Annex D (normative) Sections on mechanical engineering technical drawings

D.1 Field of application
D.2 General
D.3 Cutting planes
D.4 Removed sections
D.5 Other sections
D.6 Arrangement of successive sections

Annex E (normative) Projection methods in building technical drawings

E.1 Field of application
E.2 Direct orthographic projection
E.3 Mirrored orthographic projection
E.4 Symbolization

Annex F (normative) Representation of views, sections and cuts on construction drawings

F.1 Field of application
F.2 Types of lines and their application
F.3 Marking of views, sections and cuts
F.4 Designation
F.5 Position and orientation
F.6 Position of text in relation to figures

Page count: 48