

ASME Y14.8-2009
[Revision of ASME Y14.8M-1996 (R2008)]

Castings, Forgings, and Molded Parts

**Engineering Drawing and Related
Documentation Practices**

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**



CONTENTS

| | |
|--|-----------|
| Foreword | v |
| Committee Roster | vi |
| Correspondence with the Y14 Committee | vii |
| Section 1 General | 1 |
| 1.1 Scope | 1 |
| 1.2 Units | 1 |
| 1.3 Reference to This Standard | 1 |
| 1.4 Figures | 1 |
| 1.5 Notes | 1 |
| 1.6 Dimensioning and Tolerancing | 1 |
| 1.7 References | 1 |
| 1.8 Definitions | 2 |
| Section 2 Drawing Presentation | 4 |
| 2.1 General | 4 |
| 2.2 Separate View Drawing Method | 4 |
| 2.3 Combined View Drawing Method | 4 |
| 2.4 End Item Drawing Method | 4 |
| Section 3 Drawing Requirements | 7 |
| 3.1 General | 7 |
| 3.2 Dimensions | 7 |
| 3.3 As-Cast/As-Forged/As-Molded Surfaces | 7 |
| 3.4 Corner Radii | 8 |
| 3.5 Die Closure Tolerance | 8 |
| 3.6 Draft Angle | 8 |
| 3.7 Fillet Radii | 13 |
| 3.8 Flash Extension | 13 |
| 3.9 Orientation of Forging Plane | 14 |
| 3.10 Form Tolerances | 14 |
| 3.11 Marking | 14 |
| 3.12 Match Draft | 14 |
| 3.13 Mismatch | 14 |
| 3.14 Parting Lines | 14 |
| 3.15 Sharp Corners | 18 |
| 3.16 Grain Direction | 18 |
| 3.17 Special Requirements | 18 |
| 3.18 Profile Tolerance | 20 |
| 3.19 Digital Data File Requirements | 20 |
| 3.20 Wall Thickness as a Refinement of Profile of a Surface | 20 |
| Section 4 Datum Referencing | 21 |
| 4.1 General | 21 |
| 4.2 Application | 21 |
| 4.3 Datum Targets | 22 |
| 4.4 Datum Reference Frame Established by Machined Datum Features | 22 |
| 4.5 Machine Tooling Centers | 22 |
| 4.6 Equalizing Datums | 22 |
| 4.7 Datum Targets and Profile Tolerancing | 24 |

| | | |
|--------------------------------|--------------------------------------|-----------|
| Section 5 | Drawing Notes and Items | 34 |
| 5.1 | General | 34 |
| 5.2 | Drawing Items | 34 |
| 5.3 | Sample General Notes | 34 |
| 5.4 | Sample Local Notes | 35 |
| Nonmandatory Appendices | | |
| A | Glossary..... | 37 |
| B | Sample Drawings..... | 41 |
| C | Form and Proportion of Symbols | 44 |