INTERNATIONAL STANDARD

ISO 630-2

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Structural steels —

Part 2: Technical delivery requirements for hot-finished hollow sections

Aciers de construction —

Partie 2: Conditions techniques de livraison pour profils creux de construction finis à chaud

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 630 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 630-2 was prepared jointly by Technical Committees ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 1, *Steel tubes*, and ISO/TC 17, *Steel*.

ISO 630 consists of the following parts, under the general title *Structural steels*:

— *Part 1: Plates, wide flats, bars, sections and profiles* [currently ISO 630:1995]

— *Part 2: Technical delivery requirements for hot-finished hollow sections*

Structural steels —

Part 2:
Technical delivery requirements for hot-finished hollow sections

1 Scope

This part of ISO 630 specifies the technical delivery requirements for hot-finished hollow sections of circular, square or rectangular form. It is applicable to hollow sections formed hot with or without subsequent heat treatment or formed cold with subsequent heat treatment to obtain equivalent metallurgical conditions to those obtained in the hot-formed product. Fine grain steels are generally delivered in the normalised condition.

The grades, chemical composition and mechanical properties for non-alloy steels and fine grain steels are given in annexes A and B, respectively.

NOTE 1 Requirements for tolerances, dimensions and sectional properties are given in ISO 657-14.

NOTE 2 For the technical delivery requirements of hot rolled structural steels in other product forms, e.g. plates, wide strip, flats, bars and other structural sections, see ISO 630:1995.

NOTE 3 For cold-formed structural hollow sections, see ISO 10799.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 630. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 630 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 148:1983, *Steel — Charpy impact test (V-notch).*

ISO 377:1997, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing.*

ISO 404:1992, *Steel and steel products — General technical delivery requirements.*

ISO 643:1983, *Steels — Micrographic determination of the ferritic or austenitic grain size.*

ISO 657-14:—[1)], *Hot-rolled steel sections — Part 14: Hot-finished structural hollow sections — Dimensions and sectional properties.*

ISO 2566-1:1984, *Steel — Conversion of elongation values — Part 1: Carbon and low alloy steels.*

ISO 6929:1987, *Steel products — Definitions and classification.*

1) To be published. (Revision of ISO 657-14)

ISO 6892:1998, *Metallic materials — Tensile testing at ambient temperature.*

ISO 9001:1994*, Quality systems — Model for quality assurance in design, development, production, installation and servicing.*

ISO 9002:1994, *Quality systems — Model for quality assurance in production, installation and servicing.*

ISO 9304:1989, *Seamless and welded (except submerged arc-welded) steel tubes for pressure purposes — Eddy current testing for the detection of imperfections.*

ISO 9402:1989, *Seamless and welded (except submerged arc-welded) steel tubes for pressure purposes — Full peripheral magnetic transducer/flux leakage testing of ferromagnetic steel tubes for the detection of longitudinal imperfections.*

ISO 9606-1:1994, *Approval testing of welders — Fusion welding — Part 1: Steels.*

ISO 9764:1989, *Electric resistance and induction welded steel tubes for pressure purposes — Ultrasonic testing of the weld seam for the detection of longitudinal imperfections*

ISO 9765:1990, *Submerged arc-welded steel tubes for pressure purposes — Ultrasonic testing of the weld seam for the detection of longitudinal and/or transverse imperfections.*

ISO 9956-1:1995, *Specification and approval of welding procedures for metallic materials — Part 1: General rules for fusion welding.*

ISO 9956-2:1995, *Specification and approval of welding procedures for metallic materials — Part 2: Welding procedure specification for arc welding.*

ISO 9956-3:1995, *Specification and approval of welding procedures for metallic materials — Part 3: Welding procedure tests for arc welding of steels.*

ISO 10474:1991, *Steel and steel products — Inspection documents.*

ISO 12096:1996, *Submerged arc-welded steel tubes for pressure purposes — Radiographic testing of the weld seam for the detection of imperfections.*

ISO 14284:1996, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition.*

3 Terms and definitions

For the purposes of this part of ISO 630, the following terms and definitions apply.

3.1
tube
hollow long product open at both ends of any cross sectional shape

3.2
structural hollow section
tube intended to be used for structural purposes

3.3
normalizing rolling
rolling process in which the final deformation is carried out in a certain temperature range leading to a material condition equivalent to that obtained after normalizing so that the specified values of the mechanical properties are retained even after normalizing