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BSI Standards Publication

Fences

Part 10: Specification for anti-intruder fences in chain link and welded mesh

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This is a tracked changes copy and uses the following colour coding:

Test example 1 — indicates added text (in green)

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 — indicates added graphic figure or table

 — indicates removed graphic figure or table

About tracked changes

This document is a combined PDF containing a “tracked changes” version of BS 1722-10, which compares BS 1722-10:2019 with BS 1722-10:2006.

The original version of BS 1722-10:2019, appended at the end of this document, should be considered the version of record for this publication.

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Fences

Part 10: Specification for anti-intruder fences in chain link and welded mesh

Version comparison

This version comparison compares where new and revised clauses are located between BS 1722-10:2019 and BS 1722-10:2006.

BS 1722-10:2019 to BS 1722-10:2006

BS 1722-10:2019		BS 1722-10:2006	
Foreword		Foreword	
Introduction		NEW	
1	Scope	1	Scope
2	Normative references	2	Normative references
3	Terms and definitions	NEW	
4	Wire for chain link fences	3	Wire for chain link fences
4.1	General	3.1	General
4.2	Chain link mesh	3.2	Chain link mesh
4.3	Line wire	3.3	Line wire
4.4	Stirrup wire	3.4	Stirrup wire
4.5	Tying wire	3.5	Tying wire
4.6	Barbed wire	3.6	Barbed wire
DELETED		4	Concrete components for chain link fences
DELETED		4.1	General
DELETED		4.2	Tolerances on size
DELETED		4.3	General construction

DELETED	4.5	Straining posts	
DELETED	4.6	Gate posts	
DELETED	4.7	Struts	
5	Materials and construction	NEW	
5.1	Wire	NEW	
5.2	Posts, gate posts and struts	NEW	
5.3	Gates	NEW	
5.4	Fittings, fixings and straining devices	6.1	Fixing and straining devices
6	Design	NEW	
7	Steel posts	5	Steel posts for chain link fences
7.1	Materials and protective treatments	5.1	Materials and protective treatments
7.2	Tolerances on size	5.2	Tolerances on size
7.3	General construction	5.3	General constructional
7.4	Steel fence posts and struts	5.4	Fence posts and struts
7.5	Steel gate posts	5.5	Gate posts
7.6	Steel baseplates and dowels	5.6	Base plates and dowels
DELETED		6	Fittings for chain link fences
DELETED		6.2	Eye bolt strainers and cleats
DELETED		6.3	Winding brackets
DELETED		6.4	Stretcher bars
DELETED		6.5	Staples

DELETED	6.7	Plastic coated hair pin staples
DELETED	6.8	Long droppers for barbed wire
DELETED	6.9	Short droppers for barbed wire
DELETED	6.10	Bolts, nuts and washers
DELETED	6.11	Extension arms (for attachment of barbed wire)
8 Installation	NEW	
8.1 General	NEW	
8.2 Concrete surrounding bases of posts and struts, and sills for chain link and welded mesh fences	7	Concrete surrounding bases of posts and struts for chain link fences
8.3 Installation of chain link fences	8	Installation of chain link fences
DELETED	8.1	Line and level
DELETED	8.2	Posts and struts
DELETED	8.3	Infill
DELETED	8.4	Cranked tops and extension arms
DELETED	8.5	Bolts
DELETED	9	Materials for welded mesh fences
DELETED	9.1	Wire
DELETED	9.2	Concrete components
DELETED	9.3	Steel components
DELETED	9.4	Fittings
DELETED	9.5	Concrete surrounding bases of posts and struts

DELETED	10.1	General
DELETED	10.2	Line and level
DELETED	10.3	Posts and struts
DELETED	10.4	Infill
DELETED	10.5	Cranked tops and extension arms
DELETED	10.6	Bolts
9 Construction of gates	11	Construction of gates
9.1 General	11.1	General
9.2 Dimensions	11.2	Dimensions
9.3 Construction	11.3	Construction
9.4 Infilling	11.4	Infilling
DELETED	11.5	Extension arms and barbed wire
DELETED	11.6	Hinges
DELETED	11.7	Drop bolts and slam plates
DELETED	11.8	Locking devices
10 Installation of gates	12	Installation of gates
10.1 General	12.1	General
10.2 Gate posts	12.2	Gate posts
10.3 Gates and fittings	12.3	Gates and fittings
10.4 Sills for gates	12.4	Sills for gates
11 Statement of conformity	13	Statement of conformity

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11.2 Fence installer	13.2 Fence installer
11.3 Certificate	13.3 Certificate
11.4 Statement	13.4 Statement
Annex A (informative) Specifying a wire mesh fence	Annex C (informative) Specifying a wire mesh fence
DELETED	Annex A (normative) Concrete components
Annex B (normative) Steel components	Annex B (normative) Steel components
Annex C (normative) Solidity calculation	ADD
Bibliography	Bibliography

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Supersession

This part of BS 1722 supersedes BS 1722-10:1999 2006, which is withdrawn.

Relationship with other publications

BS 1722 is published in parts as follows:

- Part 1: Specification for chain link fences;
- Part 2: Specification for strained wire and wire mesh netting fences;
- Part 4: Specification for cleft chestnut pale fences;
- Part 5: Specification for close-boarded fences and wooden palisade fences;
- Part 7: Specification for wooden post and rail fences;
- Part 8: Specification for mild steel (low carbon steel) continuous bar fences and hurdles;
- Part 9: Specification for mild steel (low carbon steel) fences with round or square verticals and flat horizontals;
- Part 10: Specification for anti-intruder fences in chain link and welded mesh;
- Part 11: Specification for prefabricated wood panel fences;
- Part 12: Specification for steel palisade fences;
- ~~Part 13: Chain link fences for tennis court surrounds¹⁾;~~
- Part 14: Specification for open mesh steel panel fences;
- Part 16: Specification for organic powder coatings to be used as a plastics finish to components and mesh;
- Part 17: Specification for electric security fences – Design, installation and maintenance;
- Part 18: Specification for free-standing temporary steel mesh site perimeter temporary fencing systems panels.²⁾

Information about this document

This is a full revision of this part of BS 1722, and introduces the following principal changes:

- Performance-based requirements have been specified rather than descriptive where possible
- Heights up to 3.60 m are now covered.

¹⁾ ~~Obsolescent.~~

²⁾ ~~Part 18 is in development and will be published as a Draft for Development (DD).~~

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proprietary fencing systems. ~~It is recommended, however, that~~ however, the structure of such fences or gates ~~should~~ can still be designed in accordance with the relevant clauses of this part of BS 1722.

Throughout this part of BS 1722 fence post spacings are given in terms of centre-to-centre distances.

~~This standard aims to establish minimum requirements for material and workmanship of the more common types of fence in order to ensure satisfactory service for the purchaser, and to assist manufacturers and installing contractors by eliminating unnecessary minor variations in the demands of purchasers. It specifies requirements for the components that make up a fence and the way in which the fence should be constructed.~~

~~This standard specifies the requirements for anti-intruder wire mesh fences. It may be used as a specification for work to be carried out by a specialist fencing contractor or, if such a contractor is not available, by local labour under strict supervision, with component parts supplied by firms approved by the purchaser.~~

~~The specification given in this standard is suitable for use in industrial estates, airfields, oil and gas installations, etc. where an enhanced level of security over fences conforming to BS 1722-1 is required. Other types of enhanced security fences are specified in BS 1722-12 [security palisade (SP) fences] and in the relevant clauses of BS 1722-14.~~

~~It should be noted that throughout this part of BS 1722 fence post spacings are given in terms of centre-to-centre distances.~~

Use of this document

It has been assumed in the drafting of this part of BS 1722 that the execution of its provision is entrusted to appropriately qualified and experienced people. Before installation commences, the Lead Installer ~~should hold a current FISS/CSCS registration card skilled level (blue card) or equivalent and all other operatives should hold the basic fence operative card (green card) or equivalent~~ and all other operatives are expected to have a suitable qualification.

~~At the time of publication of this British Standard the registration cards are validated by the Joint Fencing Industry Skills Scheme (FISS) and Construction Scheme Skills Certification Scheme (CSCS). FISS/CSCS maintains a national register of fence installers and operatives. There might be other schemes available.~~

NOTE An example of a suitable qualification for a Lead Installer is the attainment of a Joint Fencing Industry Skills Scheme (FISS) or Construction Scheme Skills Certification Scheme (CSCS) registration card skilled level (blue card). An example of a suitable qualification for all other operatives is the attainment of the basic fence operative card (green card). At the time of publication of this British Standard the registration cards are validated by the FISS and CSCS. FISS/CSCS maintains a national register of fence installers and operatives. Other schemes might be available.

This part of BS 1722 specifies the requirements for anti-intruder wire mesh fences. It may be used as a specification for work to be carried out by a specialist fencing contractor or, if such a contractor is not available, by local labour under strict supervision, with component parts supplied by firms approved by the client.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

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and drafting of UK standards, subclause G.1.1, which states, "Requirements should be expressed using wording such as: 'When tested as described in Annex A, the product shall ...'". This means that only those products that are capable of passing the specified test will be deemed to conform to this standard.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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Choosing a fence is affected by factors such as intended purpose, desired service life, aesthetic considerations and availability of components. The specifier can match a suitable choice of fence to its intended purpose by reference to Table 1 and Table 2, and ~~also~~ inform those installing the fence of the basic characteristics required.

Premature failure of the fence can be avoided by taking care not to damage protective treatments during installation.

1 Scope

This part of BS 1722 specifies requirements for anti-intruder chain link or welded mesh fences and gates of at least 2.4 m in height for situations that require a higher level of protection than that offered by fences conforming to BS 1722-1. It also includes requirements for the installation of the fencing at the specified location. **Where enhanced levels of security are required, other types of fences are specified in BS 1722-12 and in the relevant clauses of BS 1722-14.**

Provision is made for either single or double extension arms.

This ~~standard~~ **British Standard** includes requirements for component dimensions, together with the permissible tolerances on size. These are minimum requirements and it ~~should normally be~~ acceptable to use larger sizes, except ~~if where~~ this could ~~otherwise~~ adversely affect the fitting of components or if replacement parts are required to match with those already present.

This ~~standard~~ **British Standard** includes requirements for protective treatments. However, maintenance requirements for the fence after installation are outside the scope of this standard.

~~This British Standard~~ specifies ~~concrete or steel~~ **the requirements for** posts ~~and struts~~, steel gates and gate posts and zinc coated or plastic coated zinc coated wire or mesh infill.

This ~~standard~~ **British Standard also** specifies requirements for fence materials and their combination and installation. Because a fence is made up of a number of separate components of which the particular features vary, e.g. zinc coated or plastic coated wire, a number of combinations are available to the user. Annex **CA** provides details of the fence requirements and installation site ~~that should~~ be agreed between the fence supplier and ~~purchaser~~ **client** at the time of ordering a fence. However, as conditions vary from site to site, ~~the information in Annex CA should be~~ **is not** ~~be assumed to be~~ exhaustive.

Ground conditions ~~may~~ **might** indicate that a variation in the length of a post or strut, or the depth to which it ~~should~~ **can** be set, is desirable. The post and strut setting depths specified in this ~~standard~~ **part of BS 1722** are intended for use in normal ground conditions but if special conditions exist that warrant a change in the specification, e.g. the ground is softer or firmer than usual, such a change should be agreed with the specifier. This also applies to other similar changes.

2 Normative references

The following ~~normative~~ documents ~~contain provisions which, through reference in this~~ **are referred to in the text, constitute** in such a way that some or all of their content constitutes provisions of this ~~part of this British Standard document~~. For dated references, ~~subsequent amendments to, or revisions of, any of these publications do not apply, only the edition cited applies~~. For undated references, the latest edition of the ~~publication referred to~~ **referenced document (including any amendments)** applies.

BS ~~4-1722-1~~, ~~Structural steel sections—Fences—~~ **Part 1: Specification for** ~~hot-rolled sections~~ **chain link fences**

BS 1722-16, *Fences — Part 16: Specification for* ~~organic~~ powder coatings ~~to be~~ used as a plastics finish to components and mesh

~~BS 3892 (all parts), Pulverized fuel ash~~