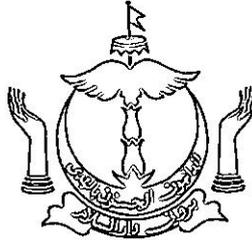


PBD 17 Part 1 : 1995



PIAWAI BRUNEI DARUSSALAM
BRUNEI DARUSSALAM STANDARD

Specification for

Structural Steel Sections

Part 1. Specification for hot-rolled sections

MINISTRY OF DEVELOPMENT
NEGARA BRUNEI DARUSSALAM

Copyright Reserved

**Construction Planning and Research Unit
Ministry of Development
Old Airport, Jalan Berakas
Bandar Seri Begawan 1190
Negara Brunei Darussalam**

Specification for

Structural Steel Sections

Part 1. Specification for hot-rolled sections

PIAWAI BRUNEI DARUSSALAM

PBD 17 Part 1 : 1995

First edition

PBD 17 Part 1 : 1995

Attention is drawn to the fact that compliance with this Brunei Darussalam Standard does not, of itself confer any immunity from legal obligations.

The Brunei Darussalam Standards are subject to periodical review according to the current needs of the local industries to keep abreast of progress in the industries concerned. Suggestions of amendments will be recorded and in due course brought to the notice of the committees concerned.

Amendments issued since publication

Amd No.	Date of issue	Text affected

CONTENTS

	Page
Foreword	4
Committee representation	5
 Specification	
1 Scope	6
2 Normative reference	6
3 Designation	6
4 Tolerances on universal beams, columns and bearing piles	6
5 Mass and length tolerances for joists and channels	6
6 Tolerance on depth of section for joists and channels	6
7 Dimensions of hot-rolled structural steel sections	6
 Tables	
1 Tolerances on nominal depth of joists and channels	6
2 Universal beams	7
3 Universal columns	10
4 Universal bearing piles	12
5 Joists with taper flanges	13
6 Structural tees cut from universal beams	14
7 Structural tees cut from universal columns	17
8 Channels	18
 List of references	 19

FOREWORD

This Brunei Darussalam Standard has been adopted from BS 4 Part 1 : 1993 and was prepared under the direction of the Technical Committee on Iron & Steel. It was endorsed by the Ministry of Development and was first published in 1995.

Acknowledgement is made to the BSI for the use of BS 4 Part 1 : 1993.

COMMITTEE REPRESENTATION

The Technical Committee on Iron and Steel was entrusted by the Ministry of Development for the preparation of this Brunei Darussalam Standard.

The members of the Technical Committee are as follows:

- | | | |
|-----|-----------------------------|--|
| 1. | Dr. Faqir Gul | Institute Technology Brunei (Chairman) |
| 2. | Awg. Hamdani Hj. Mohd Jamil | Ministry of Development |
| 3. | Dr. Naseer Ahmed | University Brunei Darussalam |
| 4. | Awg. Mansor Jaluddin | Maktab Teknik Sultan Saiful Rijal |
| 5. | Dyg. Masni Haji Mohsin | Ministry of Industry & Primary Resources |
| 6. | Mahendra Coomaraswamy | Pertubuhan Ukur Jurutera Akitek (PUJA) |
| 7. | Lawrie Harris | Cooper Macdonald & Partners |
| 8. | Chee Wah Tsang | Jurutera Tempatan |
| 9. | Nicholas Leong Soon Kong | Brunei Shell Petroleum |
| 10. | Lai Foo Juat | Public Works Department |
| 11. | Michael Khoo | Interline Roofing Co. (B) Sdn. Bhd. |
| 12. | Awg. Abd Rahman Hj. Jaafar | Housing Development Department |

1 Scope

This Part of PBD 17 specifies the dimensions and mass of the following hot-rolled structural steel sections:

- universal beams
- universal columns
- universal bearing piles
- joists
- structural tees cut from universal beams
- structural tees cut from universal columns
- channels

Mass, length and depth tolerances for taper flange joists and channels are also given.

NOTE. Dimensional, mass, length and straightness tolerances for universal beams, columns and bearing piles are given in PBD 19.

2. Normative reference

This Brunei Darussalam Standard makes reference to other Standards and publications. These references are cited at appropriate places in the text and are listed at the end of this standard.

3. Designation

A section shall be designated by the serial size in millimetres (mm) and the mass per unit length in kilograms per metre (kg/m).

This form of designation shall be used in any enquiry and order.

Example

a beam of 920.5 mm x 420.5 mm at 388 kg/m is designated 914 x 419 x 388 beam.

4 Tolerances on universal beams, columns and bearing piles

Dimensional, mass, length and straightness tolerances on universal beams, columns and bearing piles shall be as given in PBD 19.

5 Mass and length tolerances for joists and channels

5.1 Mass

Tolerances shall be applied to the actual mass per unit length of the joist or channel.

The rolling tolerances shall be either :

- a) $\pm 2.5\%$ of the actual mass per unit length; or
- b) $+ 5\%$ of the actual mass per unit length

where a minimum mass per unit length is ordered.

5.2 Length

Joists or channels ordered as 'specified' or as 'exact' lengths shall be supplied as follows.

- a) *Specified lengths.* When a joist or channel is to be cut to a specified length, it shall be cut to within ± 25 mm of that length. When a minimum length is specified, it shall be cut to within $+50$ mm of that minimum length.
- b) *Exact lengths.* When a section is to be cut to an exact length, it shall be cold sawn to within ± 3.2 mm of that length.

6 Tolerance on depth of section for joists and channels

The tolerance on the nominal depth of section shall be as given in table 1.

Nominal depth		Maximum permissible variation from specified depth	
Over	Up to and including	mm	mm
mm	mm		
-	305	+ 3.2	- 0.8
305	381	+ 4.0	- 1.6
381	432	+ 4.8	- 1.6

7 Dimensions of hot-rolled structural steel sections

The nominal dimensions of hot-rolled structural steel sections shall be as given in tables 2 to 8.