

**PBD 10 : 1994**



**PIAWAI BRUNEI DARUSSALAM**  
**BRUNEI DARUSSALAM STANDARD**

Specification for

**Welding - Factors to be considered to ensure  
quality in welded structures**

MINISTRY OF DEVELOPMENT  
NEGARA BRUNEI DARUSSALAM

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

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**Welding - Factors to be considered to ensure  
quality in welded structures**

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First edition

Attention is drawn to the fact that this Brunei Darussalam Standard does not confer any immunity from legal obligations in any contract for compliance to the Standard.

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

## FOREWORD

This Brunei Darussalam Standard has been adopted from The International Organization Standardisation ISO 6213 : 1989 (E) and prepared under the direction of the Technical Committee on Iron and Steel. Brunei Darussalam Standard "Welding factors to be considered to ensure quality in welding structures" was endorsed by the Ministry of Development and was first published in 1994.

This standard was published with all specifications reviewed in accordance to the current needs of the local building industry and the ISO 6213 : 1989 (E).

In preparing this standard, references were made to the following:

1. ISO 3041 : 1975 Welding requirements - Categories of service for welded joints.
2. ISO 3088 : 1975 Welding requirements - Factors to be considered in specifying requirements for fusion welded joints in steel (technical influencing factors)
3. ISO 3834 : 1978 Welding - factors to be considered when assessing firms using welding as a prime means of fabrication

Acknowledgment is made to the International Organisation for Standardisation, the use of ISO 6213 : 1989 (E) "Welding - factors to be considered to ensure quality in welded structures" on which this standard is based.

## 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.  | Pg Hj Matusin Bin Pg Hj Matasan         | Ministry of Development                  |
| 2.  | Awg. Hamdani Hj. Mohd Jamil             | Ministry of Development                  |
| 3.  | Dr. Faqir Gul                           | Institute Technology Brunei              |
| 4.  | Dr. Abdul Qayyum Malik                  | University Brunei Darussalam             |
| 5.  | Awg. Mansor Jaluddin                    | Maktab Teknik Sultan Saiful Rizal        |
| 6.  | Dyg. Masni Haji Mohsin                  | Ministry of Industry & Primary Resources |
| 7.  | Mahendra Coomaraswamy                   | Pertubuhan Ukur Jurutera Akitek (PUJA)   |
| 8.  | Lawrie Harris                           | Cooper Macdonald & Partners              |
| 9.  | Chee Wah Tsang                          | Jurutera Tempatan                        |
| 10. | Nicholas Leong Soon Kong                | Brunei Shell Petroleum                   |
| 11. | Dyg. Hjh Maihani bte<br>Hj. Abdul Hamid | Public Works Department                  |
| 12. | Lai Foo Juat                            | Public Works Department                  |
| 13. | Michael Khoo                            | Interline Roofing Co.                    |

## **Introduction**

This Brunei Darussalam Standard on items to be considered to ensure quality in welded structures has been drawn up as one of a series of documents for unit and mass produced weldments in order to ensure the unification of conditions of control of fabrication by manufacturers and inspection by the competent authorities to ensure the quality of welded constructions with reference to the service conditions.

The ultimate intention of the work is that where a manufacturer's facilities, capabilities and welded products, etc. have been approved in a given field of application by a recognised authority then that approval may also be accepted by other authorities.

# Specification

## 1 Scope

This Brunei Darussalam Standard specifies minimum requirements to be met by the personnel and the equipment of the workshop if a certain quality level is required for service conditions due to national standards and regulations, specifications or mutual agreement between contracting parties.

This Standard applies to the manufacture and repair of metallic structures using welding and/or allied processes by a firm, any of its subsidiaries or any of their sub-contractors.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Brunei Darussalam Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Brunei Darussalam Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3041 : 1975, *Welding requirements - Categories of service requirements for welded joints*.

ISO 3088 : 1975, *Welding requirements - Factors to be considered in specifying requirements for fusion welded joints in steel (technical influencing factors)*.

ISO 3834 : 1978, *Welding - Factors to be considered when assessing firms using welding as a prime means of fabrication*.

## 3 Factors essential to ensure quality

In order to ensure quality, the firm should have suitable equipment available and competent personnel in the workshop or on site. Adequate design of the welded structure and an adequate choice and handling of the materials shall be ensured. If specified, the required quality level of the welded joint shall be verified by testing.