

BHUTAN STANDARD**Rice Mill – Basic Requirements (Part 1)****1 Scope**

This standard specifies the general requirements for Rice Mill and shall apply to De husker, Polisher and Combined types. It excludes the test methods of Rice Mill.

2 Normative References

The following document is indispensable for application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BTS 36: 2017, Walk Behind Power Reaper- Basic Requirements (Part 1)

3 Definitions

For the purposes of this standard, the definitions given in BTS 36:2017 and the following apply.

3.1 Rice Mill

A machine or equipment used for converting rough rice to milled rice.

3.2 De-Husker

A machine which is used to removes the husk from the rough rice.

3.3 Polisher

A machine used for polishing kernels of rice to change their appearance, taste and texture.

3.4 Combined Types

A machine which can perform both the operations of de-husking and polishing

3.5. Milled Rice

The white grain or kernel comprising the endosperm and the seed left after removal of husk.

3.6 Food grade material

Any material which when it comes in contact with food does not contaminate the food.

3.7. Milling recovery index

It is the total milling recovery from the test rice mill over the laboratory rice mill.

3.8 Head Rice recovery index

It is the ratio of head rice recovery rate of tested machine and the laboratory test reference value.

3.9 Rough Rice or Paddy

It is un-hulled or un-husked rice (*Oryza sativa*)

4 The general standard for Rice Mill shall cover;

4.1 Safety Requirements

4.2 Structure Requirements

4.3 Requirement of Operational Performance

4.4 Test Sample

4.1 Safety requirements

4.1.1 There shall be safety guard for moving parts which are prone to injury and guard shall be placed in between the moving parts and operator at appropriate safe distance.

4.1.2 The guard shall have enough strength and durability under the normal operational condition and the guard which does not require to be removed, should be firmly fixed on the machine.

4.1.3 Parts that come in contact with the rough rice should be made of food grade material.

4.1.4 The machine shall be equipped with Instruction and operation manuals.

4.2 Structure requirements

4.2.1 The main components shall not be abnormal or broken.

4.2.2 The operator should not have difficulty in operating and controlling the components.

4.2.3 There should not be any defects that may affect the operator.

4.3 Requirement of Operational performance

4.3.1 Milling recovery index should not be lower than 0.9

4.3.2 Head rice recovery index should not be lower than 0.75

4.3.3 The noise level for rice mill should not exceed 100dBA for 2 hours of continuous operation

4.4 Test Sample

The test sample shall be new machine and it shall be adjusted as per the manufacturer's specification.

Bibliography

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3. Agricultural Mechanization Institute: 1989 Diagrams of Large-Scale and Small-Scale Rice Milling Systems in the Republic of Korea.
4. ISO: 3971-1977 (E/F) Rice Milling – Symbols and Equivalent Terms
5. ISO Recommendation R712: 1968 Determinations of Moisture Content Routine Method, International Organization for Standardization.
6. Regional Network for Agricultural Machinery (RNAM): 1995 Test Codes and Procedures for Farm Machinery, Technical Series No. 12

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