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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21291-2026

Replacing GB/T 21291-2007

**General technical specification for aquatic product primary
processing machinery**

水产品初加工机械通用技术规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document supersedes GB/T 21291-2007 "Safety and Hygiene Technical Conditions for Fish Paste Processing Machinery" and is consistent with GB/T 21291-2007. Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) General requirements have been added (see Chapter 4);
- b) Added technical requirements for key equipment components. relevant clauses for cleaning equipment (see 5.1), relevant clauses for grading equipment (see... 5.2), related clauses for fish-feeding equipment (see 5.3), related clauses for scaler equipment (see 5.4), related clauses for evisceration equipment (see 5.5). 5.5), relevant clauses for cutting equipment (see 5.6), relevant clauses for peeling equipment (see 5.7), relevant clauses for shrimp shell and meat separation equipment. Clauses (see 5.9) concerning shellfish opening equipment (see 5.10);
- c) The relevant clauses regarding fine filters have been deleted (see 4.2 in the 2007 edition);
- d) The clauses related to the smashing machine have been deleted (see 4.3 in the 2007 version);
- e) The relevant clauses regarding disc choppers have been deleted (see 4.4 in the 2007 edition);

f) The relevant clauses regarding bowl choppers have been deleted (see 4.5 in the 2007 edition);

g) The relevant clauses regarding fish roll forming machines have been deleted (see 4.6 of the 2007 edition);

1 Scope

GB/T 21291-2026 is the Chinese national standard covering the machines that gut, scale, fillet and shell seafood - the materials in contact with the product, the cleanability of a machine handling wet protein, the safety of blades and the water and waste it produces. It replaces GB/T 21291-2007 and has been in force since 1 September 2026. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 21291-2007. The document is under the responsibility of the Ministry of Agriculture and Rural Affairs. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the general requirements for primary processing machinery for aquatic products, the equipment technical requirements for key stages, and describes the corresponding inspection methods. This document applies to the design, manufacture, inspection, and use management of primary processing machinery for aquatic products such as fish, shrimp, and shellfish. It also applies to other primary processing machinery for aquatic products. For reference use.

4.1 General Requirements

4.1.1 The machined surfaces of parts should be smooth and free from scratches, dents, or other defects.

4.1.2 After assembly, the machine should be able to operate normally without jamming or abnormal noise.

4.1.3 Welded and riveted parts should have corrosion resistance.

4.1.4 When the equipment is running normally, the no-load noise should not exceed 85 dB(A).

4.1.5 The instruction manual should include precautions for safe operation of the equipment and knowledge on equipment maintenance.

4.2 Hygiene Requirements

4.2.1 The hygiene requirements for the structural design of equipment shall comply with the provisions of GB/T 19891.

4.2.2 Equipment materials should be corrosion-resistant, wear-resistant, and resistant to mechanical action. Materials that come into direct contact with aquatic products should be non-toxic and non-absorbent. Absorbent and non-permeable.

4.2.3 Box and trough type equipment should have continuous surfaces, welds should be designed on a plane, and the four sides should preferably be folded.

4.2.4 Parts that come into contact with aquatic products should avoid using structures with grooves.

4.2.5 The inner corners of parts that come into contact with aquatic products should be rounded to ensure that the material is completely drained without any residue.

4.2.6 For components that require frequent cleaning and maintenance, their structure should be designed so that they can be disassembled and assembled with simple tools and are easy to clean.

4.2.7 In-situ cleaning is recommended for equipment cleaning.

4.2.8 Valves at pipes and drain outlets should be easy to disassemble and clean, and measures should be in place to prevent siphoning and backflow.

4.3 Safety Requirements

4.3.1 The transmission and drive mechanism shall be equipped with safety protection devices to prevent the operator's fingers, other body parts, and clothing from being caught in the transmission. The installation and removal of protective devices should be safe and convenient.

4.3.2 A maintenance window for inspection, adjustment and repair shall be provided, and its size and type shall meet the requirements for safe operation.

4.3.3 Emergency stop devices should be installed in a location that is quickly and safely accessible from the operating position. Multiple locations may be installed if necessary, and they must comply with GB/T The provisions of 16754.

4.3.4 The equipment should have alarm indicator lights, and provide audible and visual alerts in case of malfunction.

4.3.5 The parts accessible to the operator shall comply with the provisions of GB/T 8196 and shall not have sharp edges or corners to avoid scratching the operator.

4.3.6 Safety signs conforming to GB 2894 shall be posted in prominent locations.

4.4 Electrical Requirements

4.4.1 Electrical components, materials and structures, grounding measures, etc. shall comply with the provisions of SB/T 227.

4.4.2 The instruction manual shall include the working principle, usage method, maintenance and repair of the electrical device, and shall be accompanied by an electrical schematic diagram.

5 Equipment Technical Requirements for Key Processes

5.1 Cleaning Equipment According to process requirements, the following technical requirements must be met.

- a) Operating parameters such as time and pressure should be adjusted according to the cleaning requirements of the object being processed;
- b) All pipe fittings in the cleaning pipeline should be securely connected, there should be no leakage, and it should comply with the requirements of GB/T 20801.1;
- c) Protective barriers and covers should be installed outside the cleaning work area to prevent splashing;
- d) The water tank should be equipped with an overflow channel;
- e) Water-saving design should be adopted, and water flow regulating valves should be installed;
- f) When the cleaning water is recycled, it is advisable to configure a circulating water tank and a water filtration system.

5.2 Grading Equipment According to process requirements, the following technical requirements must be met.

- a) A mechanism should be installed to prevent material jamming;
- b) In the event of an error-induced stop, the sensors and other electronic components should be able to quickly and automatically reset after the stop is cleared.

5.3 Fishing Equipment According to process requirements, the following technical requirements must be met.

- a) It should be able to perform functions such as sorting, adjusting, and feeding;
- b) A rejection and recycling conveyor mechanism should be installed for materials that have not been adjusted and positioned;
- c) The adjusting actuator should have an anti-slip function;

6 Test methods

6.1 General Requirements Inspection Equipment noise shall be measured according to the method described in GB/T 3768, and other items shall be determined by visual inspection to determine whether they are qualified.