

NECTAR BUSINESS ADVISORS

Your Handholding Partner in Certification

GUIDANCE HANDBOOK

BIS Certification of Household Zig Zag Machine

as per IS 15449 (Part-1):2024

Technical Compliance | Testing | Certification Assistance

A-33, Third Floor, Mayapuri Industrial Area Phase-I
New Delhi – 110064
operations@nbadvisors.in | [+91-9999831520](tel:+91-9999831520) | www.nbadvisors.in
Version: June 202



About Nectar Business Advisors (NBA)

Nectar Business Advisors (NBA) provides professional consultancy services for BIS certification covering regulatory compliance, testing coordination, technical documentation, and inspection support for manufacturers and importers.

NBA offers complete end-to-end consultancy support to simplify the certification process while ensuring compliance with BIS requirements and applicable Indian Standards.

Introduction to BIS Certification

The Bureau of Indian Standards (BIS) is the National Standards Body of India responsible for Standardization, Product Certification, and Quality Assurance. Many Ministries and regulators in India use the BIS Act to notify mandatory compliance to Indian Standards for products under their respective domains.

Typical examples include:

- Electronics Goods under Ministry of Electronics and IT (MeitY)
- Solar Products under Ministry of New and Renewable Energy Sources (MNRE)
- Chemicals by Department of Chemicals and Petrochemicals
- Cotton Bales by Ministry of Textiles
- Electrical Appliances and Various Tools by Department for Promotion of Industry and Internal Trade

Scope of Indian Standard IS 15449 (Part-1):2024

Title: *his standard specifies the requirements, testing methods, safety provisions, performance criteria, and marking requirements for Household Zig-Zag Sewing Machines and Sewing Machine Heads intended for domestic sewing applications.*

Products covered

Products covered under IS 15449 (Part 1):2024 may be classified based on product type, needle configuration, and controlling mechanism.

Classification Basis	Variants
Product Type	Household Zig-Zag Sewing Machine Household Zig-Zag Sewing Machine Head
Needle Configuration	Single Needle Twin Needle Both Needle
Controlling Mechanism	Mechanically Controlled Electronically Controlled

Important Tests as per IS 15449 (Part-1)

S.No.	Test Name	Purpose
1	Sewing Mechanism Test	Verification of proper operation and performance of the sewing mechanism.
2	Lubricant Verification	Assessment of lubrication arrangements for smooth and reliable operation.
3	Workmanship and Finish Inspection	Verification of overall manufacturing quality, finish, and workmanship.
4	Painted / Powder Coated Parts Test	Verification of coating quality, adhesion, and durability.
5	Silk Screening / Marking Verification	Verification of durability and legibility of markings and labels.
6	Plating Test	Assessment of plating quality, adhesion, and corrosion resistance.
7	Accuracy Requirement Test	Verification of stitching accuracy and dimensional performance.
8	Sewing Requirement Test	Assessment of sewing quality and stitch performance under specified operating conditions.
9	Durability Test	Evaluation of machine reliability and performance during prolonged operation.
10	Marking Verification	Verification of mandatory product markings and identification details.
11	Protection Against Access to Live Parts Test	Verification of user protection against accidental contact with hazardous live parts.
12	Power Input and Current Test	Verification of power consumption and current draw against declared ratings.
13	Heating Test	Assessment of temperature rise during operation.
14	Leakage Current and Electric Strength Test	Verification of insulation performance and protection against electric shock.
15	Moisture Resistance Test	Verification of safe operation and insulation integrity under humid conditions.
16	Stability and Mechanical Hazards Test	Assessment of stability and protection against mechanical hazards during use.
17	Mechanical Strength Test	Verification of resistance to mechanical stresses encountered during normal operation.
18	Construction Verification Test	Examination of design and construction features for compliance with safety requirements.
19	Provision for Earthing Test	Verification of effective protective earthing arrangements.
20	Accessories Verification	Verification of accessories supplied with the machine.
21	Packaging Requirements Verification	Assessment of packaging compliance and product protection during transportation and storage.

Process of BIS Certification

Certification (ISI Mark Licensing)

Certification is a process through which BIS verifies that a product complies with the applicable Indian Standard. Depending upon the Certification Scheme, it may involve product testing and factory assessment. Post-certification, surveillance may be required for both factory manufacturing processes and product testing.

Registration (CRS Mark Registration)

Registration is a process through which BIS grants approval based on successful product testing and the manufacturer's declaration of conformity. It is generally simpler than certification and is applicable to products covered under the Compulsory Registration Scheme (CRS).

BIS Certification Schemes

Scheme	Certification Type	Applicable Mark	Options	Key Features
Scheme-I (Licensing) ISI Mark – Domestic	Third-Party Certification (Type 5): Product testing, factory assessment & surveillance	ISI Mark	Option 1	New products; centralised at BIS HQ. Application → Factory Inspection → Sample sealing → Testing at designated labs → ISI Mark
			Option 2	Regular products; decentralised at BIS Branch level. Apply with test report from recognised lab → Licence granted → Factory Inspection
FMCS ISI Mark – Foreign Manufacturers	Third-Party Certification for Foreign Manufacturers (Type 5)	ISI Mark	Option 1 only	Certification of foreign units; only Option 1 of Scheme-I is available
Scheme-II (CRS) Foreign & Domestic	Registration based on Self-Declaration	CRS Mark	No Options	Testing at BIS recognised labs + self-declaration of conformity → Registration

Testing and Certification

Applicable Certification Scheme

Household Zig Zag Machine IS 15449 (Part-1) fall under the Licensing Scheme of BIS. Scheme 1 Option 2 is available to Indian manufacturers, whereas overseas manufacturers must avail Option 1 only of Scheme – I

Sample Selection – Number of Samples and Series Guidelines

Manufacturers applying for BIS certification under IS 15449 (Part 1):2024 are required to submit product samples for testing in accordance the link to access the product manual from the BIS Website is as follows:

https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/ManageProductManuals/ManageManuals

BIS Recognised Test Laboratories

Manufacturers applying for BIS certification under IS 15449 (Part-1) are required to get testing done at BIS recognised labs. The link to access BIS recognised labs is as follows:

https://lms.bis.gov.in/home/search_is_number/

Factory Assessment

Quality System Requirements

Manufacturers are required to maintain proper quality control systems in their premises and carryout routine monitoring to ensure consistent product quality. Manufacturers should maintain:

- Incoming, In-Process, and Finished Goods Quality Control
- In-house testing facilities with calibrated equipment
- Quality Control Records
- Records of Routine Testing
- A Designated Quality Officer

Testing Equipment Required at Manufacturing Facility

S.No.	Test	Test Equipment / Chemicals
1	Sewing Mechanism Test	Sewing Test Setup, Standard Fabric Samples, Measuring Scale
2	Lubricant Verification	Visual Inspection Tools, Lubrication Checking Equipment
3	Workmanship and Finish Inspection	Visual Inspection Aids, Magnifying Glass
4	Painted / Powder Coated Parts Test	Coating Thickness Gauge, Adhesion Test Equipment
5	Silk Screening / Marking Verification	Cotton Cloth, Petroleum Spirit
6	Plating Test	Coating Thickness Gauge, Corrosion Test Equipment
7	Accuracy Requirement Test	Measuring Scale, Stitch Measurement Gauge
8	Sewing Requirement Test	Standard Fabric Samples, Sewing Test Setup
9	Durability Test	Endurance Test Setup, Counter, Timer
10	Marking Verification	Visual Inspection Aids
11	Protection Against Access to Live Parts Test	Test Finger, Test Probe, Voltmeter
12	Power Input and Current Test	Voltmeter, Ammeter, Wattmeter
13	Heating Test	Temperature Recorder, Thermocouples, Variable Power Source
14	Leakage Current and Electric Strength Test	Leakage Current Meter, HV Test Equipment

S.No.	Test	Test Equipment / Chemicals
15	Moisture Resistance Test	Humidity Chamber, Hygrometer
16	Stability and Mechanical Hazards Test	Inclined Plane, Force Gauge, Measuring Tools
17	Mechanical Strength Test	Impact Test Equipment, Force Gauge
18	Construction Verification Test	Vernier Caliper, Measuring Instruments
19	Provision for Earthing Test	Earth Continuity Tester
20	Accessories Verification	Visual Inspection Tools
21	Packaging Requirements Verification	Visual Inspection Tools, Measuring Scale

Application Process

BIS has automated its process for manufacturers to apply for BIS Certification Marks licence. The certification process generally includes the following steps:

- BIS Application filing (through Manakonline for Domestic Manufacturers / Foreign Manufacturers)
- BIS Application filing
- Factory Inspection (including travel, stay, and BIS fee)
- Sample transportation to test labs
- Product testing at designated labs (For domestic, compliance of product against a standard is to be established first before applying for licence)
- Grant of Licence based on payment of Licence Fee, signing of Agreement, and deposit of Bank Guarantee
- Marking fees and Annual Report filing with BIS on production data
- Follow-up activities including Surveillance and Market Surveillance

Major list of documents Required for BIS Certification

S.No.	Document Name
1	Factory Registration / Business Licence
2	Manufacturing Flow Chart
3	List of Manufacturing Machinery
4	List of Testing Equipment
5	Calibration Certification of Testing Equipment
6	Raw Material Details
7	Product Specification Details
8	Quality Control Documents
9	In-house Test Reports
10	Layout Plan of Manufacturing Unit
11	Details of Technical and Quality Control Personnel
12	Product Marking Details
13	Packaging Details
14	BIS Application Form

S.No.	Document Name
15	Test Reports from BIS Recognised Laboratory

Estimated Certification Timeline

Applicant Type	Estimated Timeline
Domestic Applicants	Approximately 30 – 90 working days (subject to successful completion of testing, inspection, and compliance requirements)
Overseas Applicants	Approximately 90 – 180 working days (subject to successful completion of testing, inspection, and compliance requirements)

Marking and Labelling Requirements

BIS Certification Marking (ISI Mark Scheme)

Certified Household Zig-Zag Sewing Machines and Sewing Machine Heads shall bear the Standard Mark (ISI Mark) under a valid BIS licence. The Standard Mark shall be marked legibly and indelibly on each Household Zig-Zag Sewing Machine

- ISI Mark (Standard Mark)
- Applicable Indian Standard Number
- BIS Licence Number (CML Number)

Product Labelling

Manufacturers shall ensure that appropriate labels are provided on the Household Zig Zag Machine, its packaging, and accompanying user documentation. Labels may include the following:

- Manufacturer's name, brand name, or trademark
- Model identification
- Machine type (Household Zig-Zag Sewing Machine / Sewing Machine Head)
- Product description
- Batch number or identification code for traceability
- Year of manufacture
- Country of origin, where applicable
- Handling and storage instructions, where required

Post Licensing

Ongoing Compliance

After the grant of a BIS licence, the license is required to continuously comply with the requirements of IS 15449 (Part-1), the Scheme of Inspection and Testing (SIT), and the conditions of licence. The manufacturer shall maintain production and quality control systems to ensure that all products bearing the Standard Mark continue to conform to the applicable Indian Standard.

Surveillance

Post-certification surveillance includes periodic factory visits and market surveillance by BIS to verify continued compliance with IS 15449 (Part-1) and applicable marking requirements.

Renewal of Licence

BIS licences are granted for a specified validity period and must be renewed before expiry. For renewal, the manufacturer is required to:

- Submit the renewal application within the prescribed timeline
- Demonstrate continued compliance with IS 15449 (Part-1) requirements
- Maintain satisfactory surveillance records and test results
- Pay the applicable renewal fees

Upon successful review of the renewal application and compliance status, BIS renew the licence for the applicable period as per the prevailing certification guidelines.

How NBA Can Assist You

Nectar Business Advisors (NBA) provides end-to-end support throughout the BIS certification journey for IS 15449 (Part-1) Household Zig Zag Machine, helping manufacturers achieve compliance efficiently and minimise certification timelines.

Pre-Application Process

- Arranging for Authorised Indian Representative (AIR) for overseas manufacturers
- Identifying applicable Indian Standard
- Identifying the optimum BIS Certification Scheme
- Organising the list of documents required for certification application

Certification Planning

- Defining the certification scope and product coverage
- Helping with grouping guidelines for preparation of samples
- Organising applicable standards, guidelines, and regulatory requirements

Documentation Support

- Review of application documents
- Verification of technical documentation
- Assistance in listing mandatory records and declarations

Sample Planning and Testing

- Sample handling in India
- Coordination with Customs, Clearing Agencies, and BIS-recognised laboratories
- Submission for testing and coordination of documentation requirements
- Support in interpretation of test requirements and reports

Factory Assessment Preparation

- Gap assessment of manufacturing and testing facilities
- Review of quality control processes and records
- Readiness support for BIS factory inspections

Application Management

- Assistance in application filing
- Follow-up with BIS during the certification process
- Response support for technical queries and observations

Post-Licensing Support

- Guidance on marking and labelling requirements
- Support for surveillance compliance
- Assistance with licence maintenance and renewal activities
- Updates on regulatory changes and BIS requirements

Contact Us

Nectar Business Advisors

Your Handholding Partner in Certification

**A-33, Third Floor, Mayapuri Industrial Area Phase-I
New Delhi – 110064, India**

Email: operations@nbadvisors.in

Website: www.nbadvisors.in

Contact: +91-9999831520