



COMPENDIUM OF INDIAN STANDARDS ON CANALS

Prepared By

Water Resources Department

**Bureau of Indian
Standards**



Table of Content

S. No.	IS No.	Title	Page No.
	Introduction		4
1)	IS 4410 (Part 5): 2023	Glossary of Terms Relating to River Valley Projects Part 5 Canals (Second Revision)	4
2)	IS 5968: 1987	Guide for planning and layout of canal system for irrigation (First Revision)	4
3)	IS 16238: 2017	Planning of parallel canals – Guidelines	4
4)	IS 4701: 1982	Code of practice for earthwork on canals (First Revision)	4
5)	IS 13143: 1991	Joints in concrete lining of canals - Sealing compound - Specification	4
6)	IS 9452 (Part 1): 1993	Measurement of seepage losses from canals - Code of practice: Part 1 Ponding method	4
7)	IS 9452 (Part 2): 1980	Code of practice for measurement of seepage losses from canals: Part 2 Inflow - Outflow method	4
8)	IS 9452 (Part 3): 1988	Code of practice for measurement of seepage losses from canals: Part 3 Seepage meter method	4
9)	IS 7112: 2002	Criteria for design of cross-section for unlined canals in alluvial soil (First Revision)	4
10)	IS 10430: 2000	Criteria for design of lined canals and guidance for selection of type of lining (First Revision)	5
11)	IS 4558: 1995	Under - Drainage of lined canals - Code of practice (Second Revision)	5
12)	IS 5690: 1982	Guide for laying combination lining for existing unlined canals (First Revision)	5

13)	IS 9451: 2022	Guidelines for Lining of Canals in Expansive Soils (Third Revision)	5
14)	IS 3872: 2002	Lining of canals with burnt clay tiles - Code of practice (First Revision)	5
15)	IS 3873: 1993	Laying cement concrete/stone slab lining on canals - Code of practice (Second Revision)	5
16)	IS 4515: 2002	Stone pitched lining for canals - Code of practice (Second Revision)	5
17)	IS 7113: 2003	Soil-Cement lining for canals - Code of practice (First Revision)	5
18)	IS 7873: 1975	Code of practice for limb concrete lining for canals	5
19)	IS 9097: 1979	Guide for laying lining of canals with hot bitumen or bituminous felts	6
20)	IS 11809: 1994	Lining for canals by stone masonry - Code of practice (First Revision)	6
21)	IS 5256: 1992	Sealing expansion joints in concrete lining of canals - Code of practice (First Revision)	6
22)	IS 13143: 1991	Joints in concrete lining of canals - Sealing compound - Specification	6
23)	IS 4839 (Part 1): 1992	Maintenance of canals code of practice: Part 1 unlined canals (Second Revision)	6
24)	IS 4839 (Part 2): 1992	Maintenance of canals - Code of practice: Part 2 lined canals (Second Revision)	6

Introduction

This compendium includes a comprehensive list of Indian Standards published so far applicable to the planning, design, construction, and maintenance of canals.

1. IS 4410 (Part 5): 2023 – Glossary of Terms Relating to River Valley Projects Part 5 Canals (Second Revision)

Provides standardized definitions of terms specific to canals, supporting uniform communication and documentation in canal-related projects.

2. IS 5968: 1987 – Guide for Planning and Layout of Canal System for Irrigation (First Revision)

Outlines principles and guidelines for planning and layout of irrigation canal systems, including alignment, hydraulic design, and optimization of water conveyance.

3. IS 16238: 2017 – Planning of Parallel Canals – Guidelines

Provides planning criteria for designing and locating parallel canals to ensure optimal utilization of available land and hydraulic efficiency.

4. IS 4701: 1982 – Code of Practice for Earthwork on Canals (First Revision)

Describes the methods for execution and quality control of earthwork in canal construction, including compaction and moisture control.

5. IS 13143: 1991 – Joints in concrete lining of canals - Sealing compound – Specification

It specifies sealing compound requirements for joints in canal concrete lining.

6. IS 9452 (Part 1): 1993 – Measurement of seepage losses from canals - Code of practice: Part 1 Ponding method

It covers seepage measurement by ponding method.

7. IS 9452 (Part 2): 1980 – Code of practice for measurement of seepage losses from canals: Part 2 Inflow - Outflow method

It covers seepage measurement using inflow-outflow method.

8. IS 9452 (Part 3): 1988 – Code of practice for measurement of seepage losses from canals: Part 3 Seepage meter method

It details seepage meter method for measuring losses from canals.

9. IS 7112: 2002 – Criteria for design of cross-section for unlined canals in alluvial soil (First Revision)

Covers the design aspects of unlined canal cross-sections in alluvial soil with an emphasis on hydraulic efficiency and stability.

10. IS 10430: 2000 – Criteria for Design of Lined Canals and Guidance for Selection of Type of Lining (First Revision)

Gives comprehensive criteria for choosing suitable lining materials based on canal type, soil characteristics, and operational requirements.

11. IS 4558: 1995 Under - Drainage of lined canals - Code of practice (Second Revision)

12. IS 5690: 1982 – Guide for laying combination lining for existing unlined canals (First Revision)

Guides the process of laying combination lining to enhance performance and reduce seepage in existing unlined canals.

13. IS 9451: 2022 – Guidelines for Lining of Canals in Expansive Soils (Third Revision)

Recommends design and construction strategies to handle challenges posed by expansive soils in canal lining.

14. IS 3872: 2002 – Lining of Canals with Burnt Clay Tiles – Code of Practice (First Revision)

Provides procedures for canal lining using burnt clay tiles including materials, layout, and workmanship.

15. IS 3873: 1993 – Laying Cement Concrete/Stone Slab Lining on Canals – Code of Practice (Second Revision)

Prescribes methods for laying cement concrete or stone slab lining in canals to ensure durability and water tightness.

16. IS 4515: 2002 – Stone Pitched Lining for Canals – Code of Practice (Second Revision)

Details techniques for lining canals with stone pitching, focusing on slope protection and flow stabilization.

17. IS 7113: 2003 – Soil-Cement lining for canals - Code of practice (First Revision)

Details techniques for lining canals with soil-cement lining.

18. IS 7873: 1975 – Code of practice for lime concrete lining for canals

Provides specifications for using lime concrete as a lining material in canals, including preparation and application.

19. IS 9097: 1979 – Guide for laying lining of canals with hot bitumen or bituminous felts

Covers techniques and materials for lining canals using hot bitumen and bituminous felts, suitable for temporary and permanent works.

20. IS 11809: 1994 – Lining for canals by stone masonry – Code of practice (First Revision)

Outlines the methodology for lining canals using stone masonry to improve durability and flow efficiency.

21. IS 5256: 1992 – Sealing expansion joints in concrete lining of canals - Code of practice (First Revision)

Defines methods and materials for effectively sealing expansion joints in canal concrete linings to prevent water leakage.

22. IS 13143: 1991 – Joints in concrete lining of canals - Sealing compound - Specification

Specifies the physical and chemical requirements for sealing compounds used in joints of concrete canal linings.

23. IS 4839 (Part 1): 1992 – Maintenance of Canals – Part 1 Unlined Canals (Second Revision)

Covers maintenance practices specific to unlined canals, including erosion control and desilting.

24. IS 4839 (Part 2): 1992 – Maintenance of Canals – Part 2 Lined Canals (Second Revision)

Focuses on maintenance of lined canals addressing issues such as joint sealing, lining repairs, and vegetation control.