### **BUREAU OF INDIAN STANDARDS**

### **Program of Work**

### WRD 1: Hydrometry

Scope: Standardization of methods, procedures, instruments and equipment relating to techniques for

hydrometric determination of water level, velocity, discharge and sediment transport in open

channels and fluid flow in closed conduits, hydrological and meterological investigations.

Liaison: **ISO TC-30 (O):** *Measurement of fluid flow in closed conduits* **ISO TC-30 SC-2 (O):** *Pressure differential devices* **ISO TC-30 SC-5 (O):** *Velocity and mass methods* **ISO TC-30** 

SC-7 (O): Volume methods including water meters ISO TC-113 (P): Hydrometry ISO TC-113

SC-1 (P): Velocity area methods ISO TC-113 SC-2 (P): Flow measurement structures ISO

TC-113 SC-5 (P): Instruments, equipment and data management ISO TC-113

SC-6 (P): Sediment transport ISO TC-113 SC-8 (P): Ground water

### **Published Standards**

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 1191 : 2016	Hydrometry - Vocabulary and	March, 2021	-	Identical under dual
		symbols(Third Revision)			numbering
	Reviewed In: 2021				
	ISO 4006:1991				
2	IS 1192 : 2013	Hydrometry - Measurement of	January, 2023	-	Identical under dual
	ISO 748:2007	liquid flow in open channels using			numbering
	Reviewed In: 2023	current - Meters or floats (Second			
	ISO 748 : 2021	Revision)			
3	IS 1192 : 2024	Hydrometry â€" Measurement of		-	Identical under dual
		Liquid Flow in Open Channels â€"			numbering
	ISO 748: 2021	Velocity Area Methods Using			
		Point Velocity Measurements			
		(Third Revision			
4	IS 1194 : 1960	Forms for recording measurement	August, 2020	-	Indigenous
	Reviewed In: 2020	of flow of water in open channels			
5		Hydrometric determinations - Flow	January, 2023	-	Identical under dual
	ISO 8368: 1999	measurements in open channels			numbering
	Reviewed In: 2023	using structures - Guidelines for			
	ISO 8368:1999	selection of structure (First			
		Revision)			
6	IS 13083 : 2017	Liquid flow measurement in open	April, 2022	-	Identical under dual
		channels ? flat - V weirs			numbering
	Reviewed In: 2022				
	ISO 4377:1990				
7	IS 13084 : 1991	Liquid flow measurement in open	September, 2022	-	Identical under dual
		channels - Round - Nose horizontal			numbering
	Reviewed In: 2022	broad - Crested weirs			
	ISO 4374:1990				
8	IS 13371 : 2014	Hydrometry - Calibration of	December, 2023	-	Identical under dual
	ISO 3455 : 2007	current - Meters in straight open			numbering
	Reviewed In: 2023	tanks (First Revision)			

9	IS 14359 : 2014 ISO 4366 : 2007 Reviewed In : 2020 ISO 4366:2007	Hydrometry - Echo sounders for water depth measurements (First Revision)	January, 2020	-	Identical under dual numbering
10	IS 14371 : 2016	Measurement of liquid flow in open channels - Parshall and saniiri flumes (First Revision)	March, 2021	-	Identical under dual numbering
11	IS 14573 : 2014 ISO 1088 Reviewed In : 2020 ISO 1088:2007	Hydrometry - Velocity - Area methods using current - Meters - Collection and processing of data for determination of uncertainties in flow measurement (First Revision)	January, 2020	-	Identical under dual numbering
12	IS 14615 (Part 1): 2018 ISO 5167-1:2003 Reviewed In: 2023 ISO 5167-1:2003	Measurement of fluid flow by means of pressure differential devices inserted in circular crossSection conduits running full: Part 1 : general principles and requirements (First Revision)	March, 2023	-	Identical under dual numbering
13	IS 14615 (Part 2): 2018 ISO 5167-2:2003 Reviewed In: 2023 ISO 5167(Part 1):2003	Measurement of fluid flow by means of pressure differential devices inserted in circular cross -: Sec conduits running full: Part 2 orifice plates	March, 2023	-	Identical under dual numbering
14		Measurement of Fluid Flow by Means of Pressure Differential Devices Inserted In Circular Cross- Section Conduits Running Full Part 3 Nozzles and Venturi Nozzles		-	Identical under dual numbering
15	IS 14615 (Part 4): 2018 ISO 5167-4: 2003 Reviewed In: 2023 ISO 5167(Part 4):2003	Measurement of fluid flow by means of pressure differential devices inserted in circular crossSection conduits running full: Part 4 venturi tubes	March, 2023	-	Identical under dual numbering
16	IS 14615 (Part 5) : 2019 ISO 5167–5 :	Measurement of Fluid Flow by Means of Pressure Differential Devices Inserted in Circular Cross- Section Conduits Running Full Part 5 Cone Meters	March, 2024	-	Identical under dual numbering
17	IS 14673 : 2022 4360 4360	Hydrometry - Open channel flow measurement using triangular profile weirs		-	Identical under dual numbering
18	IS 14869 : 2016 ISO 4359 : 2013 ISO 4359:2013	Flow measurement structures - Rectangular, trapezoidal and u - Shaped flumes (First Revision)	March, 2021	1	Identical under dual numbering
19	IS 14973 : 2019 ISO 3966:2008	Measurement of fluid flow in closed conduits - Velocity area method using pitot static tube (First Revision)	June, 2024	-	Identical under dual numbering
20	IS 14974 : 2018 ISO 3846:2008 Reviewed In : 2023	Hydrometry - Open channel flow measurement using rectangular broad crested weirs (First	September, 2023	-	Identical under dual numbering

ĺ	ISO 3846: 2008	Revision)			
21	IS 14975 : 2001	Measurement of liquid flow in	March, 2022	-	Identical under dual
	ISO 9827:1994	open channels - Streamlined			numbering
	Reviewed In: 2022	triangular profile weirs			
	ISO 9827:1994				
22	IS 15117 : 2018	Hydrometry - Cableway systems	November, 2023	=	Identical under dual
	ISO 4375 : 2014	for stream gauging (First Revision)			numbering
	Reviewed In: 2023				
	ISO 4375:2014				
23	IS 15118 : 2014	Hydrometry - Water level	January, 2020	-	Identical under dual
	ISO 4373 : 2008	measuring devices (First Revision)			numbering
	Reviewed In: 2020				
	ISO 4373:2008				
24	IS 15119 (Part 2):	Hydrometry - Measurement of	December, 2023	-	Identical under dual
		liquid flow in open channels: Part 2			numbering
	ISO 1100-2 : 2010	determination of the stage -			
	Reviewed In: 2023	Discharge relationship (First			
	ISO 1100-2:2010	Revision)			<del>                                     </del>
25	IS 15122 : 2014	Measurement of liquid flow in	December, 2023	-	Identical under dual
	ISO 2425 : 2010	open channels under tidal			numbering
	Reviewed In : 2023	conditions			
26	ISO 2425:2010	Hydromotrio determinations El	Contarel an 2022		Identical
26	IS 15123 : 2002 ISO 4362:1999	Hydrometric determinations - Flow	September, 2022	-	Identical under dual
		measurement in open channels			numbering
	Reviewed In : 2022	using structures - Trapezoidal			
27	ISO 4362:1999 IS 15124 : 2002	broad - Crested weirs	Santambar 2022		Identical under dual
21	ISO 9195:1992	Liquid flow measurement in open channels - Sampling and analysis of	September, 2022	-	
	Reviewed In : 2022	gravel - Bed material			numbering
	ISO 9195:1992	graver - Bed material			
28	IS 15352 : 2018	Hydrometry - Position fixing	September, 2023		Identical under dual
20					
-			September, 2023	-	
	ISO 6420:2016	equipment for hydrometric boats	September, 2023	-	numbering
	ISO 6420:2016 Reviewed In : 2023		September, 2023	-	
	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016	equipment for hydrometric boats (First Revision)		-	numbering
29	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016 IS 15353 : 2003	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open	March, 2023	-	numbering  Identical under dual
	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016 IS 15353 : 2003 ISO 8333:1985	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V -		-	numbering
	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016 IS 15353 : 2003 ISO 8333:1985 Reviewed In : 2023	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open		-	numbering  Identical under dual
29	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016 IS 15353 : 2003 ISO 8333:1985 Reviewed In : 2023 ISO 8333:1985	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs	March, 2023	-	numbering  Identical under dual numbering
	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016 IS 15353 : 2003 ISO 8333:1985 Reviewed In : 2023 ISO 8333:1985 IS 15358 : 2003	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open		-	numbering  Identical under dual numbering  Identical under dual
29	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements	March, 2023	-	numbering  Identical under dual numbering
29	ISO 6420:2016 Reviewed In : 2023 ISO 6420:2016 IS 15353 : 2003 ISO 8333:1985 Reviewed In : 2023 ISO 8333:1985 IS 15358 : 2003	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open	March, 2023	-	numbering  Identical under dual numbering  Identical under dual
29	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements	March, 2023	- -	numbering  Identical under dual numbering  Identical under dual
29	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions	March, 2023  March, 2023	-	numbering  Identical under dual numbering  Identical under dual numbering
29	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations -	March, 2023  March, 2023	- -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering
29	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended	March, 2023  March, 2023	-	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering
29	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended	March, 2023  March, 2023	-	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering
30	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:01	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels	March, 2023  March, 2023  March, 2023	-	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering
30	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in	March, 2023  March, 2023  March, 2023	- -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering
30	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material	March, 2023  March, 2023  March, 2023	- -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering
30 31 32	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling	March, 2023  March, 2023  March, 2023	- - -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent
30 31 32	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow	March, 2023  March, 2023  March, 2023	- -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual
30 31 32	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels	March, 2023  March, 2023  March, 2023	- - -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual
30 31 32	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:992 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00 Reviewed In: 2023	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels using structures - Compound	March, 2023  March, 2023  March, 2023	- -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual
30 31 32 33	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00 Reviewed In: 2023 ISO 14139:00 Reviewed In: 2023 ISO 14139:00	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels using structures - Compound gauging structures	March, 2023  March, 2023  March, 2023  March, 2023	- - - -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual numbering
30 31 32 33	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00 Reviewed In: 2023 ISO 14139:00 Reviewed In: 2023 ISO 14139:2000 IS 15454: 2004	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels using structures - Compound gauging structures  Liquid flow measurement in open	March, 2023  March, 2023  March, 2023  March, 2023	- - - -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual numbering  Modified/Technically
30 31 32 33	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:992 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00 Reviewed In: 2023 ISO 14139:00 Reviewed In: 2023 ISO 14139:2000 IS 15454: 2004 Reviewed In: 2020 ISO/TR 9823:90	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels using structures - Compound gauging structures  Liquid flow measurement in open channels - Velocity - Area method	March, 2023  March, 2023  March, 2023  March, 2023	-	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual numbering  Modified/Technically
30 31 32 33	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:92 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00 Reviewed In: 2023 ISO 14139:00 Reviewed In: 2023 ISO 14139:2000 IS 15454: 2004 Reviewed In: 2020	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels using structures - Compound gauging structures  Liquid flow measurement in open channels - Velocity - Area method using a restricted number of	March, 2023  March, 2023  March, 2023  March, 2023	-	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual numbering  Modified/Technically Equivalent  Identical under dual
30 31 32 34	ISO 6420:2016 Reviewed In: 2023 ISO 6420:2016 IS 15353: 2003 ISO 8333:1985 Reviewed In: 2023 ISO 8333:1985 IS 15358: 2003 ISO 9196:992 Reviewed In: 2023 ISO 9196:1992 IS 15359: 2003 ISO 11329:01 Reviewed In: 2023 ISO 11329:2001 IS 15360: 2003 Reviewed In: 2023 ISO 4364:1997 IS 15362: 2003 ISO 14139:00 Reviewed In: 2023 ISO 14139:00 Reviewed In: 2023 ISO 14139:2000 IS 15454: 2004 Reviewed In: 2020 ISO/TR 9823:90	equipment for hydrometric boats (First Revision)  Liquid flow measurement in open channels by weirs and flumes - V - Shped broad - Crested weirs  Liquid flow measurement in open channels - Flow measurements under ice conditions  Hydrometric determinations - Measurement of suspended sediment transport in tidal channels  Measurement of liquid flow in open channels - Bed material sampling  Hydrometric determinations - Flow measurements in open channels using structures - Compound gauging structures  Liquid flow measurement in open channels - Velocity - Area method using a restricted number of verticals  Hydrometry - Measurement in	March, 2023  March, 2023  March, 2023  March, 2023	- - - - -	Identical under dual numbering  Identical under dual numbering  Identical under dual numbering  Not Equivalent  Identical under dual numbering  Modified/Technically Equivalent

	Reviewed In : 2020 ISO 9210:2017	with Unstable Boundaries ( First Revision )			
36	IS 15646 : 2017 ISO/TR 9824 : 2007 Reviewed In : 2022	Hydrometry - Measurement of free surface flow in closed conduits (First Revision)	December, 2022	-	Identical under dual numbering
37	ISO 9824:2007 IS 15772 : 2014 ISO 9825 : 2005 Reviewed In : 2023	Hydrometry - Field measurement of discharge in large rivers and rivers in flood (First Revision)	December, 2023	-	Not Equivalent
38	ISO 9825 :2005 IS 15822 : 2008 Reviewed In : 2022 ISO/TR 11328 : 1994	Measurement of liquid flow in open channels - Equipment for the measurement of discharge under ice conditions	September, 2022	-	Not Equivalent
39	IS 15823 : 2009	Hydrometry - Computing stream flow using an unsteady flow model	March, 2023	-	Modified/Technically Equivalent
40	IS 15847 : 2020 ISO 9123 : 2017 Reviewed In : 2020 ISO 9123:2017	Hydrometry - Stage-fall-discharge Relationship ( First Revision )	-	-	Identical under dual numbering
41	IS 15873 : 2010 Reviewed In : 2020 ISO/TR 11332:1998	Hydrometric determination - Unstable channels and ephemeral streams	January, 2020	-	Modified/Technically Equivalent
42	IS 15898 (Part 1): 2012 ISO 9555 _1: 1994 Reviewed In: 2022 ISO 9555-1:1994	Measurement of liquid flow in open channels - Tracer dilution methods for the measurement of steady flow: Part 1 general	March, 2022	1	Identical under dual numbering
43	IS 15898 (Part 3): 2011 ISO 9555-3:1992 Reviewed In: 2021 ISO 9555-3:1992	Measurement of liquid flow in open channels - Tracer dilution methods for the measurement of steady flow: Part 3 chemical tracers	March, 2021	-	Identical under dual numbering
44	IS 15898 (Part 4): 2012 ISO 9555_4:1992 Reviewed In: 2022 ISO 9555-4:1992	Measurement of liquid flow in open channels - Tracer dilution methods for the measurement of steady flow: Part 4 fluorescent tracers	March, 2022	-	Identical under dual numbering
45	IS 16091 : 2013 Reviewed In : 2023 ISO 11655:1995	Measurement of liquid flow in open channels - Method of specifying performance of hydrometric equipment	December, 2023	-	Modified/Technically Equivalent
46	IS 16138 : 2013 ISO/TS 15768:2000 Reviewed In : 2023 ISO/TS 15768:2000	Measurement of liquid velocity in open channels - Design, selection and use of electromagnetic current meters	December, 2023	-	Identical under dual numbering
47	IS 16222 : 2018	Hydrometry - Methods of measurement of bedload discharge (First Revision)	June, 2023	-	Identical under dual numbering
48	IS 16223 : 2014 ISO 15769 : 2010 Reviewed In : 2023 ISO 15769:2010	Hydrometry - Guidelines for the application of acoustic velocity meters using the doppler and echo correlation methods	December, 2023	-	Identical under dual numbering
49	IS 16274 : 2018 ISO/TS 24155 : 2016 Reviewed In : 2023	Hydrometry - Hydrometric data transmission systems - Specification of system requirements (First Revision)	September, 2023	-	Identical under dual numbering

	ISO 24155:2016				
50	IS 16364 : 2017	Hydrometric uncertainity -	March, 2022	-	Modified/Technically
		Guidance (Hug)			Equivalent
	Reviewed In: 2022				
	ISO/TS 25377:				
	2007				
51	IS 16571 : 2017	Measurement of liquid flow in	December, 2022	-	Identical under dual
	ISO 4369 : 1979	open channels - Moving - Boat			numbering
	Reviewed In: 2022 method				
	ISO 4369: 1979				
52	IS 16696 : 2018 Hydrometry - Suspended sediment January, 2023		-	Identical under dual	
	ISO 11657: 2014	in streams and canals -			numbering
	Reviewed In: 2023	Determination of concentration by			
	ISO 11657: 2014	surrogate techniques			
53		Hydrometric determinations - Flow	March, 2023	-	Identical under dual
	ISO 13550 : 2002	measurements in open channels			numbering
	Reviewed In: 2023	using structures - Use of vertical			
L	ISO 13550:2002	underflow gates			<del>                                     </del>
54	IS 16698 : 2019	Hydrometry - Selection,	March, 2024	-	Identical under dual
	ISO 18365 : 2013	establishment and operation of a			numbering
	Reviewed In: 2024	gauging station			
	Decision taken to				
	Reaffirm and				
	Archive ISO				
	18365:2013	111	0		
55		Hydrometry â€" Acoustic Doppler	September, 2024	=	
	2014	Profiler â€" Method and			
	Daviernad In . 2024	Application for Measurement of			
56	Reviewed In: 2024 IS 16804: 2018	Flow in Open Channels	November, 2023		Identical under dual
36	ISO 26906 : 2015	Hydrometry - Fish passes at flow measurement structures	November, 2025	-	
	Reviewed In : 2023	measurement structures			numbering
	ISO 26906:2015				
57	IS 16849 : 2018	Estimation of sediment deposition	November, 2023	_	Identical under dual
31	ISO/TR 11651 :	in reservoir deposition using one	November, 2023	_	numbering
	2015	dimensional simulation models			Humbernig
	Reviewed In: 2023	differisional simulation models			
	ISO/TR 11651:2015				
58	IS 17271 : 2020	Hydrometry â€" Measurement of		_	Identical under dual
	ISO 6416 : 2017	Discharge by Ultrasonic Transit			numbering
	Reviewed In: 2020	Time ( Time of Flight ) Method			
	ISO 6416:2017				
59	IS 17272 : 2021	Hydrometry - Low Cost Baffle		-	Identical under dual
	ISO/TR 19234 :	Solution to Aid Fish Passage at			numbering
	2016	Triangular Profile Weirs that			
	ISO 19234:2016	Conform to ISO 4360			
60	IS 17273 : 2021	Measurement of Fluid Flow in		-	
	ISO 4006 : 1991	Closed Conduits - Vocabulary and			
		Symbols			
61	IS 17287 : 2021	Measurement of Fluid Flow in		-	Identical under dual
	ISO 4185 : 1980	Closed Conduits - Weighing			numbering
	ISO 4185:1980	Method			
62	IS 17288 : 2021	Measurement of Fluid Flow -		-	Identical under dual
	ISO 5168 : 2005	Procedures for Evaluation of			numbering
	ISO 5168:2005	Uncertainties			
63	IS 17289 : 2021	Measurement of Liquid Flow in		-	Identical under dual
	ISO 8316 : 1987	Closed Conduits - Method by			numbering
	ISO 8316:1987	Collection of the Liquid in a			
		Volumetric Tank			
	130 8310:198/	-			

64	IS 17290 (Part 1):	Measurement of Liquid Flow in		I	Identical under dual
04	2021	Closed Conduits by Weighing		_	numbering
		Method - Procedures for Checking			nume vinig
	ISO 9368:1990	Installations Part 1 Static Weighing			
		Systems			
65	IS 17484 : 2020	Hydrometry - Liquid Flow		-	Identical under dual
	ISO 18481 : 2017	Measurement Using End Depth			numbering
	ISO 18481:2017	Method in Channels with a Free			
	10 17405 2020	Overfall			T1 2 1 1 1 1
66	IS 17485 : 2020 ISO 2975-1 : 1974	Measurement of Water Flow in Closed Conduits - Tracer Method		-	Identical under dual
	ISO 2975-1: 1974 ISO 2975 Part 1:	Part 1 General			numbering
	197	Tart i General			
67	IS 17485 (Part 2):	Measurement of water flow in		-	Identical under dual
	2021	closed conduits- Tracer Method			numbering
	ISO 2975 Part 2: 197	Part 2 : Constant rate injection			
	ISO 2975 Part 2:	method using non-radioactive			
	197	tracers Adoption of ISO			
(0)	IC 17495 (D + 2)	2975-2:1975		1	Td-mtl11 1 1
68	IS 17485 (Part 3): 2021	Measurement of water flow in closed conduits- Tracer Method		-	Identical under dual
	ISO 2975 -3 :1976	Part 3 : Constant rate injection			numbering
	ISO 2975 -3 :1976 ISO 2975 -3 :1976	method using radioactive tracers			
	133 27,3 3.1770	Adoption of ISO 2971-3:1976			
69	IS 17485 (Part 6):	Measurement of water flow in		-	Identical under dual
	2021	closed conduits- Tracer Method			numbering
	ISO 2975 Part 6: 197	Part 6: Transit time method using			
	ISO 2975 Part 6:	non-radioactive tracers Adoption			
	197	of ISO 2971-6:1977			
70	IS 17485 (Part 7):	Measurement of water flow in		-	Identical under dual
	2021 ISO 2075 Part 7: 107	closed conduits- Tracer Method Part 7: Transit time method using			numbering
	ISO 2975 Part 7: 197	radioactive tracers Adoption of			
	197	ISO 2971-7:1977			
71	IS 2912 : 2022	Liquid flow measurement in open		-	Identical under dual
	1070	channels-slope-area method			numbering
	1070				
72	, ,	Recommendation for estimation of	September, 2022	-	Indigenous
	1965	flow of liquids in closed conduits:			
	Reviewed In: 2022	Part i head loss in straight pipes			
73	IS 2951 (Part 2):	due to frictional resistance  Recommendation for estimation of	September, 2022	1	Indigenous
'3	1965	flow of liquids in closed conduits:	50ptc111001, 2022	1	margenous
	Reviewed In: 2022	Part 2 head loss in valves and			
		fittings			
74	IS 3910 : 2013	Hydrometry - Rotating - Element	January, 2023	-	Identical under dual
	ISO 2537:2007	current - Meters (Second Revision)			numbering
	Reviewed In: 2023				
75	ISO 2537:2007	Surface floats - Functional	Jan 2020	1	Indiana
75	IS 3911 : 1994 Reviewed In : 2020	requirements (First Revision)	January, 2020	-	Indigenous
76	IS 3912 : 2013	Hydrometry - Direct depth	January, 2023		Identical under dual
'	ISO 3454: 2008	sounding and suspension	5unuary, 2023		numbering
	Reviewed In: 2023	equipment (Second Revision)			
	ISO 3454:2008	<u> </u>		<u> </u>	
77	IS 3913 : 2014	Hydrometry - Functional	March, 2020	-	Modified/Technically
		requirements and characteristics of			Equivalent
	ISO/TS 3716:2006	suspended - Sediment samplers			
<u> </u>		(Second Revision)			
		•			· ·

78	IS 3917 : 2003 ISO 4364 Reviewed In : 2023 ISO 4364	Scoop type bed material samplers - Specification (First Revision)	March, 2023	-	Identical under dual numbering	
79	IS 3918 : 1966 Reviewed In : 2020	Code of practice for use of current meter (Cup Type) for water flow measurement	August, 2020	1	Indigenous	
80	IS 4073 : 1967 Reviewed In : 2020	Specification for fish weights	August, 2020	-	Indigenous	
81	IS 4080 : 1994 Reviewed In : 2020	Vertical staff gauges - Functional requirements (First Revision)	January, 2020	-	Indigenous	
82	IS 4477 (Part 2): 1975 Reviewed In: 2020	Method of measurement of fluid flow by means of venturi meters:  Part ii compressible fluids	August, 2020	-	Indigenous	
83	IS 4858 : 1968 Reviewed In : 2020	Specification for velocity rods	August, 2020	-	Indigenous	
84	IS 4890 : 1968 Reviewed In : 2020 ISO 4363:2002	Methods for measurement of suspended sediment in open channels	August, 2020	1	Not Equivalent	
85	IS 4986 : 2002	Installation of raingauge (Non - Recording Type) and measurement of rain - Code of practice (Second Revision)	September, 2022	-	Indigenous	
86	IS 4987 : 1994 Reviewed In : 2020	Recommendations for establishing network of raingauge stations (First Revision)	January, 2020	-	Indigenous	
87	IS 5542 : 2003 Reviewed In : 2020	Guide for storm analysis (First Revision)	January, 2020	-	Indigenous	
88	IS 6062 : 1971 Reviewed In : 2020	Method of measurement of flow of water in open channels using standing wave flume - Fall	January, 2020	-	Indigenous	
89	IS 6063 : 1971 Reviewed In : 2020	Method of measurement of flow of water in open channels using standing wave flume	January, 2020	-	Indigenous	
90	IS 6064 : 1971 Reviewed In : 2020	Specification for sounding and suspension equipment	August, 2020	-	Indigenous	
91	IS 6339 : 2013 Reviewed In : 2023 ISO 4365:2005	Hydrometry - Sediment in streams and canals - Determination of concentration, particle size distribution and relative density (First Revision)	January, 2023	-	Not Equivalent	
92	IS 8389 : 2003 Reviewed In : 2023	Installation and use of raingauges, recording - Code of practice (Second Revision)	March, 2023	-	Indigenous	
93	IS 9108 : 2020 ISO 1438 : 2017 Reviewed In : 2020 ISO 1438:2017	Hydrometry — Open Channel Flow Measurement Using Thin- Plate Weirs ( Second Revision )	-	-	- Identical under dual numbering	
94	IS 9115 : 2002	Method for estimation of incompressible fluid flow in closed conduits by bend meters (first Revision)	September, 2022	-	Indigenous	
95	IS 9116 : 2002 Reviewed In : 2022	Water stage recorder (Float Type) - Specification (First Revision)	September, 2022	-	Indigenous	
96	IS 9118 : 1979 Reviewed In : 2020	Method for measurement of pressure by means of manometers	August, 2020	1	Indigenous	
97	IS 9119 : 1979 Reviewed In : 2021	Method of flow estimation by jet characteristics (Approximate Method)	March, 2021	-	Indigenous	

# **Standards under Development**

		Projects Approved	
SI. No.	Doc No.	Title	
	No Records Found		

		Preliminary Draft Standards	
SI. No.	Doc No.	Title	
	No Records Found		

		Drafts Standards in WC Stage	
SI. No.	Doc No.	Title	
	No Records Found		

		Draft Standards Completed WC Stage	
SI. No.	Doc No.	Title	
	No Records Found		

	Finalized Draft Indian Standard			
SI. No.	Doc No.	Title		
1	WRD 1 (20496) Revision	HYDROMETRY VOCABULARY AND SYMBOLS		
	of: IS 1191:2016			
2	WRD 1 (23843) Revision	Methods for Measurement of Suspended Sediment in Open Channels		
	of: IS 4890:1968			

Finalized Draft Indian Standards under Print				
SI. No.	Doc No.	Title		
1	WRD 1 (19429) Revision	METHOD OF FLOW ESTIMATION BY JET CHARACTERISTICS APPROXIMATE		
	of: IS 9119:1979	METHODS		
2	WRD 1 (20332) Revision	Hydrometry - Calibration of current - Meters in straight open tanks		
	of: IS 13371:2014			
3	WRD 1 (20347) Revision	Measurement of Fluid Flow in Closed Conduits Velocity Area Method Using Pitot Static Tube		
	of: IS 14973:2019			
4	WRD 1 (20512) Revision	HYDROMETRY FUNCTIONAL REQUIREMENTS AND CHARACTERISTICS OF		
	of: IS 3913:2014	SUSPENDED- SEDIMENT SAMPLERS		
5	WRD 1 (21458) Revision	Hydrometric Determinations Flow Measurement in Open Channels Using Structures Guidelines		
	of: IS 12752:2013	for Selection of Structure Second Revision		
6	WRD 1 (22021) Revision	VERTICAL STAFF GAUGES-FUNCTIONAL REQUIREMENTS SECOND REVISION		
	of: IS 4080:1994			
7	WRD 1 (22063) Revision	Measurement of Fluid Flow by Means of Pressure Differential Devices Inserted In Circular Cross		
	of: IS 14615:2018	Section Conduits Running Full Part 1 General Principles And Requirements Second Revision		
8	WRD 1 (22064) Revision	Measurement of Fluid Flow by Means of Pressure Differential Devices Inserted In Circular Cross		
	of: IS 14615:2018	Section Conduits Running Full Part 4 Venturi Tubes		
9	WRD 1 (22080) Revision	Measurement of fluid flow by means of pressure differential devices inserted in circular cross -		
	of: IS 14615:2018	Sec conduits running full Part 2 orifice plates		
10	WRD 1 (23721) Revision	FLOW MEASUREMENT STRUCTURES RECTANGULAR TRAPEZOIDAL AND U-		
	of: IS 14869:2016	SHAPED FLUMES		
11	WRD 1 (23881) Revision	Hydrometry Acoustic Doppler profiler Method and application for measurement of flow in open		
	of: IS 16725:2014	channels from a moving boat		

### **Aspect Wise Report**

Product: 6
Code of Practices: 87
Methods of Test: 0
Terminology: 0
Dimensions: 0
System Standard: 0
Safety Standard: 0
Others: 0

Service Specification: 0 Process Specification: 0 Unclassified: 3

### Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 1193 : 1959	Methods for Measurements of Flow of Water in Open Channels Using Notches Weirs and Flumes
2	IS 14574 : 1998 ISO 4371:1984 Reviewed In : 2020 ISO 4371:1984	Measurement of liquid flow in open channels by weirs and flumes - End depth method for estlMation of flow in non - Rectangular channels with a free overfall Approximate Method
3	IS 15119 (Part 1): 2002 ISO 1100-1:1996 Reviewed In: 2017	Measurement of Liquid Flow in Open Channels - Part 1 Establishment and Operation of a Gauging Station
4	IS 15646 (Part 1): 2006 Reviewed In: 2016	Measurements of free surface flow in closed conduits Part 1 Methods
5	IS 15646 (Part 2) : 2006 Reviewed In : 2016	Measurements of free surface flow in closed conduits Part 2 Equipment
6	IS 2913 : 1964 Reviewed In : 1995	Recommendation for determination of flow in tidal channels
7	IS 2914 : 1964 Reviewed In : 1998	Recommendations for Estimation of Discharges by Establishing Stage-discharge Relation in Open Channels
8	IS 2915 : 1965	Instructions for Collection of Data for the Determination fof Error in Measurement of Flow by Velocity Area Methods
9	IS 2952 (Part 1): 1964	Recommendation for Methods of Measurement of Fluid Flow by Means of Orifice Plates and Nozzles - Part I Incompressible Fluids
10	IS 2952 (Part 2): 1975	Recommendations for methods of measurement of liquid flow by means of orifice plates and nozzles Part 2 Compressible fluids
11	IS/ISO 4362 : 1992	Measurement of Liquid flow in Open Channels - Trapezoidal Profile Weirs
12	IS 4477 (Part 1): 1967 Reviewed In: 2000	Method of Measurement of Fluid Flow by Means of Venturi Meters - Part I Liquids
13	IS 6059 : 1971 Reviewed In : 1998	Recommendations for liquid flow measurement in open channels by weirs and flumes - weirs of finite crest width for free discharge
14	IS 6330 : 2012 ISO 3847 : 1977 Reviewed In : 2022 ISO 3847:1977	Liquid flow measurement in open channels by weirs and flumes - End - Depth method for estimation of flow in rectangular channels with a free overfall First Revision
15	IS 9117 : 1979 Reviewed In : 1990	Reccomendation for Liquid Flow Measurement in Open Channels by Weirs and Flumes - End Depth Method for Eastimation of Flow in non Rectangulars Channels with a Free Overall Approximate Method
16	IS 9163 (Part 1): 1979 ISO 9555-1 Reviewed In: 2011	Dilution Methods for Measurement of Steady Flow - Part I Constant Rate Injection Method
17	IS 9922 : 2010	Measurement of Liquid Flow in Open Channels - General Guidelines for Selection of Method

Reviewed In: 2015

# **Annexure-II : List of Indian Product Standards**

SI. No.	IS No. & Year	Title
1	IS 3917 : 2003	Scoop type bed material samplers - Specification First Revision
	ISO 4364	
	Reviewed In: 2023 ISO	
	4364	
2	IS 4073 : 1967	Specification for fish weights
	Reviewed In: 2020	
3	IS 4477 (Part 2): 1975	Method of measurement of fluid flow by means of venturi meters Part ii compressible fluids
	Reviewed In: 2020	
4	IS 4858 : 1968	Specification for velocity rods
	Reviewed In: 2020	
5	IS 6064 : 1971	Specification for sounding and suspension equipment
	Reviewed In: 2020	
6	IS 9116 : 2002	Water stage recorder Float Type - Specification First Revision
	Reviewed In: 2022	