



**भारत सरकार**  
**GOVERNMENT OF INDIA**  
**उपभोक्ता मामले, खाद्य एवम् सार्वजनिक वितरण मंत्रालय**  
**Ministry of Consumer Affairs, Food & Public Distribution**  
**उपभोक्ता मामले विभाग**  
**Department of Consumer Affairs**  
**राष्ट्रीय परीक्षण शाला (उ०क्षे०)**  
**NATIONAL TEST HOUSE (NR)**

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**TEST CERTIFICATE**

**Sample No. ME/01868**

**Issued to:**

**Date:** 08-06-2009

**Aman Engineering Works**  
**C-54 & 55, Focal Point Extension,**  
**Jalandhar -144004**

**File No. NTH/NR/ME/2008/88-A**

**Ref. No. Nil**

**Dated: 06-11-2008 and further correspondence**

**Dated 10-11-2008, 03-12-08 & 05-03-09**

**Sample Recd on 01-12-2008**

**One sample consisting of three water meters described as " 15 mm Multi Jet class B of KRANTI MAKE having meter numbers 567356 , 567357 AND 567358 As desired, the above meters were subjected to Type Test as per IS: 779-1994 read with IS: 6784-1996 . The results obtained are noted below:-;**

Tests Rersults		Observed value			Specified value
		Meter Number			
		567356	567357	567358	
<b>A</b>	<b>Performance</b>				
<b>1</b>	<b>Minimum starting flow at which measurement starts</b>	<b>Satisfactory</b>	<b>Satisfactory</b>	<b>Satisfactory</b>	<b>Shall start registering at a flow rate of 30 l/h</b>
<b>2</b>	<b>Pressure tightness test</b>				
<b>2.1</b>	<b>At 1.6 MPa for 15 minutes</b>	<b>Satisfactory</b>	<b>Satisfactory</b>	<b>Satisfactory</b>	<b>No leakage, seepage or deformation</b>
<b>2.2</b>	<b>At 2.0 MPa for 1 minutes</b>	<b>Satisfactory</b>	<b>Satisfactory</b>	<b>Satisfactory</b>	<b>No leakage, seepage or deformation</b>
<b>3</b>	<b>Loss of pressure in MPa</b>				
<b>3.1</b>	<b>For nominal flow rate (Qn: 1500l/h)</b>	<b>0.010</b>	<b>0.010</b>	<b>0.010</b>	<b>0.025 Max</b>
<b>3.2</b>	<b>For maximum flow rate ( Qmax: 3000 l/h )</b>	<b>0.060</b>	<b>0.060</b>	<b>0.060</b>	<b>0.100 Max</b>
<b>4</b>	<b>Metering Accuracy</b>				
<b>4.1</b>	<b>Error in metering accuracy at maximum flow rate (Qmax : 3000l/h)</b>	<b>+ 0.4%</b>	<b>- 1.1%</b>	<b>-0.3%</b>	<b>+/- 2% Max</b>

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**Note : 1. This test certificate or reports may not be published for commercial purpose, except in full unless permission for the publication of an approved abstract has been obtained from the DIRECTOR, NATIONAL TEST HOUSE.**





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Tests Results	Observed value	Specified value
	<b>Meter Number</b>	
	567356	567357
	567356	567358
4.2 Error in metering accuracy at normal flow rate (Qn: 1500l/h)	+1.0%	+1.0%
4.3 Error in metering accuracy at transitional flow rate (Qt: 120 l/h)	-1.0%	+1.0%
4.4 Error in metering accuracy at minimum flow rate (Q min :30 l/h)	+2.0%	+3.0%
5 Performance after Life test (Accelerated endurance test as per clause 12.4.4) conducted on two meters bearing no. 567356 AND 567358		
	<b>Meter No</b>	
	567356	567357
5.1 Minimum starting flow at which measurements starts	Satisfactory	Satisfactory
5.2 Pressure tightness test		
5.2.1 At 1.6 MPa for 15 minutes	Satisfactory	Satisfactory
5.2.2 At 2.0 MPa for 1 minute	Satisfactory	Satisfactory
5.3 Loss of pressure in MPa		
5.3.1 For nominal flow rate (Qn: 1500l/h)	0.015	0.015
5.3.2 For maximum flow rate (Qmax: 3000l/h)	0.080	0.080
5.4 Meeting accuracy		
5.4.1 Error in meeting Accuracy at maximum Flow rate (Qmax :3000l/h)	0.5%	0.4%

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		Meter No.	
		567356	567357
5.4.2	<b>Error in meeting Accuracy at normal Flow rate (Qn : 1500 l/h)</b>	-1.4%	-1.0%
5.4.3	<b>Error in metering Accuracy at transitional flow rate (Qt : 120 l/h)</b>	0.0%	+1.0%
5.4.4	<b>Error in metering Accuracy at minimum Flow rate (Q min.: 30l/h)</b>	-1.0%	-0.0%

**6- Performance after Temperature suitability test (As per clause 10.3)**  
**Two meters, one after initial performance test and other after life test were subjected to temperature suitability test**

		Meter No.		
6.1	<b>Minimum starting flow at which measurements starts</b>	Satisfactory	Satisfactory	Shall start registering at a Flow rate of 30 l/h
6.2	<b>Pressure tightness test</b>	Satisfactory	Satisfactory	No leakage seepage or deformation
6.2.2	<b>At 2.0 MPa for 15 minutes</b>	Satisfactory	Satisfactory	No leakage seepage or deformation
6.3	<b>Loss of pressure in MPa</b>			
6.3.1	<b>For nominal flow rate (Qn 1500l/h)</b>	0.020	0.020	0.025 Max
6.3.2	<b>For maximum flow rate (Qmax 3000 l/h)</b>	0.070	0.070	0.10 Max
6.4	<b>Metering Accuracy</b>			
6.4.1	<b>Error in metering Accuracy at maximum Flow rate (Qmax: 3000 l/h)</b>	+0.5%	+1.0%	+/-2% Max
6.4.2	<b>Error in metering Accuracy at normal flow rate (Qn 1500 l/h)</b>	+1.4%	+0.5%	+/-2% Max
6.4.3	<b>Error in metering accuracy at minimum flow rate (Qt:120 l/h)</b>	-0.0%	-1.0%	+/-2% Max
6.4.4	<b>Error in metering Accuracy at minimum flow rate (Qmin: 30l/h)</b>	-1.0%	+2.0%	+/-5% Max

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7	Meters size, threads, and dimensions (in mm) (Notations as per Table 2 of IS: 779-1994)		
7.1	Meter size	15	15
7.2	Threads	Satisfactory	G3/4B
7.3	Length of threads, on one side other side	15 14	10 Min 10 Min
7.4	Length of meter with nipples	248	250 +/ - 5
7.5	Length of meter without Nipples	163.5	+ 0 165
7.6	Width (W)	85	100 Max
7.7	Height (H1)	34	50 Max
7.8	Height (H2)	70	180 Max
8	Value of verification Scale interval (I)	0.1	0.2 Max

Note:- The samples were tested at factory site on 1.12.2008, 16.03.2009 and 17.03.2009

Remarks:- The sample meets the requirements of IS: 779-1994 in respect of test carried out for water meter ( Domestic type), of size 15 mm, Multi jet and class "B"

Tested By

Checked By

Approved By

*(Signature)*  
(ANIL CHOPRA)  
SCIENTIST SB(Mech)

*(Signature)*  
(R.N. RAM)  
SCIENTIST SC(Mech)

*(Signature)*  
(SHER SINGH)  
SCIENTIST SD