



## **GATAMATHI WATER AND SANITATION COMPANY**

**P.O. BOX 93 -10204, KIRIA-INI.**

TEL: 020-2032602

EMAIL: [gatamathisp@gmail.com](mailto:gatamathisp@gmail.com)

**TENDER NO GTM/003/2021-2022—SUPPLY AND DELIVERY OF COLD  
WATER METERS& PRESSURE RELIEF VALVE (PRV)**

**MAY 2021**

**GENERAL MANAGER,  
GATAMATHI WATER AND SANITATION COMPANY  
PO BOX 93-10204  
KIRIA-INI.**

**CONFIDENTIAL BUSINESS QUESTIONARE FORM**

You are requested to give the particulars indicated in part 1 and either part 2 (a), 2(b) or 2(c) whichever applies to your type of business. You are advised that it is a serious criminal offence to give false information on this form.

**Part 1.General Information**

Business Name-----

Plot No-----

Street/Road-----

Postal Address-----Tel.No-----Fax-----

Email -----

Nature of Business-----

Registration Certificate No-----

VAT No-----PIN No-----

Maximum value of business which you can handle at any one time Ksh-----

Name of your bankers-----Branch-----

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**Part 2(a)-Partnership**

Your name in full-----Age-----

Nationality -----Country of origin-----

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**Part 2(a) Proprietor**

Give details of Partners as follows

Name, nationality and shares

Name	Nationality	shares
1. -----	-----	-----
2. -----	-----	-----
3. -----	-----	-----
4. -----	-----	-----

**Part 2(c) Registered Company**

Private or Public-----

State the Nominal and issued Capital of the company:-

Nominal Kshs-----

Issued Kshs-----

Give details of all Directors as follows:-

Name, Nationality and Shares

Name	Nationality	Shares
1. -----	-----	-----
2. -----	-----	-----
3. -----	-----	-----
4. -----	-----	-----

Signature of tenderer-----Date-----

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**REF: GTM/003/2021/2022**

## **SUPPLY AND DELIVERY OF COLD WATER METERS AND ACCESSORIES & PRVS.**

Gatamathi Water and Sanitation Company is the Water Service Provider (WSP) that provides water and sanitation services to Mathioya Sub-county, Rwathia and Kihoya locations, in Kangema Sub-county and parts of Gatari location.

The Company is mandated to run Mathioya and Gatango Water schemes and improve the services of water and sanitation.

The company's main target is to provide quality water for every household.

The mode of purchase will be as and when needed.

Therefore, the company requests able and willing suppliers to tender for supply and delivery of cold water meters and accessories and pressure relief valve that conform to Kenya Bureau of Standard guidelines. The type and origin of the meters will be a requirement.

The tenderers must attach Brochures giving product standard features specifications, performance and dimension. The tenderers can also provide meter sample

# SPECIFICATIONS FOR COLD POTABLE WATER METER

Tenderers are requested to read carefully the conditions required before quoting the prices. These conditions will set AS the base of evaluation.

## Required Certificates

- ISO 9001 certified; ISO 14001; BS OHSAS 18001;
- Type approval certificate (either according to EN ISO 4064 from 2005 or 2014, or OIML R49 from 2003 or 2013); MID also accepted
- Manufacturer's authorization
- KEBS certificate

**List of OIML Issuing Authorities - Suppliers who are not manufacturers will proof the authority used by the manufacturer who sold them the meters**

Code	Acronym	Name	Country
<a href="#">AT1</a>	BEV	Bundesamt für Eich- und Vermessungswesen	AUSTRIA
<a href="#">AU1</a>	NMI	National Measurement Institute	AUSTRALIA
<a href="#">BE1</a>		SPF Economie, PME, Classes Moyennes et Energie	BELGIUM
<a href="#">BG1</a>	SAMTS	State Agency for Metrology and Technical Surveillance	BULGARIA
<a href="#">BR1</a>	INMETRO	Instituto Nacional de Metrologia, Normalização e Qualidade Industrial	BRAZIL
<a href="#">CH1</a>	METAS	Federal Institute of Metrology METAS	SWITZERLAND
<a href="#">CN1</a>	AQSIQ	General Administration of Quality Supervision, Inspection and Quarantine of P. R	P.R. CHINA
<a href="#">CZ1</a>	CMI	Czech Metrology Institute	CZECH REPUBLIC
<a href="#">DE1</a>	PTB	Physikalisch-Technische Bundesanstalt	GERMANY
<a href="#">DK1</a>		Danish Safety Technology Authority	DENMARK
<a href="#">DK2</a>		FORCE Certification A/S	DENMARK
<a href="#">DK3</a>	DELTA	Dansk Elektronik, Lys & Akustik	DENMARK
<a href="#">ES1</a>	CEM	Centro Español de Metrología	SPAIN
<a href="#">FI1</a>		Inspecta Oy	FINLAND
<a href="#">FR1</a>		Ministère de l'Economie, des Finances et de l'Industrie	FRANCE
<a href="#">FR2</a>	LNE	Laboratoire National de Métrologie et d'Essais	FRANCE

Code	Acronym	Name	Country
<a href="#">GB1</a>	NMO	NMO Certification Services	UNITED KINGDOM
<a href="#">GB2</a>	NPL	National Physical Laboratory	UNITED KINGDOM
<a href="#">HU1</a>	MKEH	Hungarian Trade Licensing Office	HUNGARY
<a href="#">IT1</a>		Ministero dello sviluppo economico - Direzione generale mercato, concorrenza, co	ITALY
<a href="#">JP1</a>	NMIJ / AIS	National Metrology Institute of Japan / National Institute of Advanced Industria	JAPAN
<a href="#">KR1</a>	KATS	Korean Agency for Technology and Standards	KOREA (R.)
<a href="#">NL1</a>		NMiCertin B.V.	NETHERLANDS
<a href="#">NL2</a>		KIWA Nederlands B.V.	NETHERLANDS
<a href="#">NO1</a>	Justerveise	Norwegian Metrology Service	NORWAY
<a href="#">NZ1</a>	MAPSS Well	Measurement and Product Safety Service	NEW ZEALAND
<a href="#">PL1</a>		Central Office of Measures (GUM)	POLAND
<a href="#">RO1</a>	B.R.M.L.	Romanian Bureau of Legal Metrology	ROMANIA
<a href="#">RU1</a>	VNIIMS	All-Russian Scientific Research Institute for Metrological Service	RUSSIAN FEDERATION
<a href="#">SE1</a>		SP Technical Research Institute of Sweden	SWEDEN
<a href="#">SI1</a>	MIRS	Metrology Institute of the Republic of Slovenia	SLOVENIA
<a href="#">SK1</a>		Slovak Legal Metrology	SLOVAKIA
<a href="#">US1</a>		NCWM, Inc.	UNITED STATES
<a href="#">VN1</a>	STAMEQ	STAMEQ - Directorate for Standards and Quality	VIET NAM

### **Metrological Requirement**

2. Flow rate characteristic of water meter shall be defined by the values of  $Q_1$ ,  $Q_2$ ,  $Q_3$  and  $Q_4$
3. Meter to be designated by the numerical value of  $Q_3$  in M<sup>3</sup>/h and the ratio  $Q_3/Q_1$
4. The value  $Q_3$  to be 4 and  $Q_3/Q_1$  to be 160 or 200
5. Accuracy class 2
6. Temperature class T50
7. Marks and inscription shall be visible without dismantling the water meter when put into use.

7. The meter shall be clearly and indelibly marked with the following information on the casing the indicative device dial, an identification plate or the meter cover. The markings shall be visible without dismantling the water meter after the instrument has been put into use

## **Technical requirements**

### **Materials and construction of water meters**

1. The water meter shall be manufactured from materials of adequate strength and durability for the purpose for which the it is to be used.

2. A water meter shall be manufactured from materials which shall not be adversely affected by the water temperature variations, within the working temperature range. All parts of the water meter in contact with the water flowing through it shall be manufactured from materials which are conventionally known to be non-toxic, non-contaminating, and biologically inert. Attention is drawn to national regulations.

4. The complete water meter shall be manufactured from materials which are resistant to internal and external corrosion or which are protected by a suitable surface treatment.

5. The water meter indicating device shall be protected by a transparent window. A cover of a suitable type may also be provided as additional protection.

6. Where there is a risk of condensation forming on the underside of the window of a water meter indicating device, the water meter shall incorporate devices for prevention or elimination of condensation.

7. The water meter shall be of such design, composition, and construction that it does not facilitate the perpetration of fraud. The water meter shall be fitted with a metrologically controlled display. The display shall be readily accessible to the customer, without requiring the use of a tool.

8. water meter shall be of such design, composition, and construction that it does not exploit the MPE or favor any party.

### **Adjustment and correction**

1. The water meter may be fitted with an adjustment device and/or a correction device. Any adjustment shall be performed in such a way as to adjust the errors (of indication) of the water meter to values as close as practical to zero so that the meter may not exploit the MPE or systematically favor any party ie the Water Service Provider or the Customer.

2. If these devices are mounted on the outside of the water meter, provision for sealingshall be made.

### **Installation conditions**

1. The water meter shall be able to withstand the influence of disturbed velocity fields as defined in the test procedures in OIML R 49-2:2013. During the application of these flow

disturbances, the error (of indication) shall meet the requirements of 4.2.2 or 4.2.3. Any specific flow conditioning section, including straightener and/or straight lengths, to be used shall be prescribed by the manufacturer.

2. The meter manufacturer shall specify the flow profile sensitivity class in accordance with Tables 2 and 3 below

**Table 1 Sensitivity to irregularity in the upstream velocity field classes (U)**

Class	Required Straight Length xDN	Straighter Needed
U0	0	No
U3	3	No
U5	5	No
U10	10	No
U15	15	No
U05	0	Yes
U3S	3	Yes
U5S	5	Yes
U10S	10	Yes

**Table 2 Sensitivity to irregularity in the downstream velocity fields classes (D)**

Class	Required Straight Length xDN	Straighter Needed
D0	0	No
D3	3	No
D5	5	No
D0S	10	Yes
D3S	15	Yes

**Rated operating conditions**

The rated operating conditions for a water meter shall be as follows.

Flow rate range: Q1 to Q3 inclusive.

Ambient temperature range: +5 °C to +55 °C.

Water temperature range where T shall be 50 for these specifications

Ambient relative humidity range: 0 % to 100 %, except for remote indicating devices where the

**Pressure range:**

0.03 MPa (0.3 bar) to at least 1 MPa (10 bar)

OIML R 49-1:2013 (E)



## **Pressure loss**

The pressure loss through a water meter, including its filter or strainer and/or straightener, where either of these forms an integral part of the water meter, shall not be greater than 0.063 MPa (0.63 bar) between Q1 and Q3. The pressure loss class will be selected by the manufacturer which will follow ISO 3 [4], R 5): for a given pressure loss class, the pressure loss through a water meter, including its filter or strainer and/or straightener, where either of these forms an integral part of the water meter, shall not be greater than the specified maximum pressure loss between Q1 and Q3.

## **Marks and inscriptions**

1. The meter shall have place provided for affixing the verification mark(s) (see OIML V 1:2013 [2], 3.04), which shall be visible without dismantling the water meter after it has been put into use.
2. The water meter shall be clearly and indelibly marked with the following information, either grouped or distributed, on the casing, the indicating device dial, an identification plate or the meter cover, if it is not detachable. These markings shall be visible without dismantling the water meter after the instrument has been put into use.

**GTM/003/2021-2022- SUPPLY AND DELIVERY OF COLD WATER METERS & PRESSURE RELIEF VALVE (PRV)**

**Quotation Page COLD WATER METER**

<b>Meter size( mm)</b>	<b>R 160</b>	<b>Make</b>	<b>Manufacturer</b>	<b>Spares Availability</b>	<b>Price (Ksh) VAT inclusive</b>
<b>15</b>					
<b>20</b>					
<b>25</b>					
<b>40</b>					
<b>50</b>					
<b>100</b>					
<b>150</b>					
<b>200</b>					

<b>Meter size( mm)</b>	<b>R 200</b>	<b>Make</b>	<b>Manufacturer</b>	<b>Spares Availability</b>	<b>Price (Ksh) VAT inclusive</b>
<b>15</b>					
<b>20</b>					
<b>25</b>					
<b>40</b>					
<b>50</b>					
<b>100</b>					
<b>150</b>					
<b>200</b>					

## **PRVs SPECIFICATIONS**

Specifications for PRVs compatible for Gatamathi systems are

- i) Material – Composite Plastic
- ii) Type 2-way
- iii) Minimum and Maximum working pressures 1bar to 16bars
- iv) Maximum working pressures 16bars

### **Quotation Page PRESSURE RELIEF VALVE(PRV)**

<b>PRV size( mm)</b>	<b>Make</b>	<b>Manufacturer</b>	<b>Spares Availability</b>	<b>Price (Ksh) VAT inclusive</b>
<b>15</b>				
<b>20</b>				
<b>25</b>				
<b>40</b>				
<b>50</b>				
<b>75</b>				
<b>100</b>				
<b>150</b>				
<b>200</b>				

**Officer's Name**.....

**Supplier/Manufacturer**.....

**Signature**.....

**Date**.....**Official Stamp**