



Republic of the Philippines
 GENERAL SANTOS CITY WATER DISTRICT
 E. Fernandez St., Brgy. Lagao, General Santos City

PURCHASE OF (LOT 1) 3,000 PIECES 15 MM DN Ø MULTI-JET BRASS WATER METER AND (LOT 2) 3,000 PIECES 15 MM DN Ø VOLUMETRIC BRASS WATER METER

Lot 1: Purchase of Three Thousand (3,000) pieces 15 mm DN Ø multi-jet brass water meter.
 ABC: Php7, 500,000.00
 Lot 2: Purchase of Three Thousand (3,000) pieces 15 mm DN Ø volumetric brass water meter.
 ABC: Php7, 500,000.00
 Owner: General Santos City Water District
 Scope of Work: The scope of work shall be the supply, delivery, and testing of water meters to General Santos City Water District.

LOT 1

I. GENERAL REQUIREMENTS			
A.	NOMINAL DIAMETER	15 MM	STATEMENT OF COMPLIANCE
B.	METER TYPE	Multi-Jet, Magnetic Drive, Dry Type	
C.	METROLOGICAL CLASS	"B" or equivalent to its latest edition	
D.	Meter Body	Copper alloy containing not less than 75% copper or a copper alloy containing not less than 57% copper but with anti-corrosion treatment. Certification from any Philippine government authorized material testing laboratory like DOST, MIRDC or any authorized government agency shall be submitted to GSCWD.	
		Flow is bi-directional (<i>no non-return valve at outlet portion</i>)	
		Meter registry is irreversible	
		Hermetically sealed register (encapsulated to prevent moisture from entering)	
		Only impeller is in contact with the water to prevent wear and tear of the inner mechanism	
		Clear tempered high impact lens and abrasion resistant.	
		Anti-magnetic type	
		Meter capacity should be placed preceded by the letter "N" or Qn or as defined by ISO 4064 equivalent edition	
		Meter Register in Cubic Meters, minimum of four (4) digit registration.	
F.	DIMENSION	Length without tailpieces = 165mm to 190mm with ±5mm tolerance	

		Tailpiece length = 75 mm with ± 5 mm tolerance, 2 pcs	
		Width of 85mm to 105mm	
		Height of 90mm to 120mm (including cap in closed position)	
G.	WORKING CONDITION	Working Pressure: 10-16 Bars	
		Water Temperature: The meter can work without deterioration on temperature at local climate	
H.	METROLOGICAL CHARACTERISTICS (MINIMUM PERFORMANCE)	Minimum Flowrate (Q_{min}) = 0.03 m ³ /h; Allowable error in accuracy is ± 5 %	
		Transitional Flowrate (Q_t) = 0.12 m ³ /r; Allowable error in accuracy is ± 2 %	
		Maximum Flowrate (Q_{max}) = 3.0 m ³ /h; Allowable error in accuracy is ± 2 %	
		Nominal Flowrate (Q_n) = 1.5 m ³ /h; Allowable error in accuracy is ± 2 %	
		Note: Application of flowrates during testing will be based on its Metrological Class	
I.	EFFICIENCY TEST	a.) The bidders are required to submit ten (10) water meters all with tailpiece per model/brand. Eight (8) water meters will be tested for Efficiency Test using GSCWD Test Bench at Transitional and Minimum Flow. The ninth water meter shall be a cut-out model and expected to reveal the inner mechanism. The tenth water meter will be dismantled for examination.	
		The GSCWD test bench shall be the official measuring equipment to be used for Efficiency Test at Transitional and Minimum Flow. The said testing shall undergo once only, thus results are final.	
		The ten (10) water meter is part of the pass/fail criterion. All water meters presented must have tailpieces. If ever the bidder is not able to present the water meters on the Deadline for Submission of bids, they shall be declared failed in the said criteria and the other requisite requirements.	
		b.) At least six (6) out of eight (8) water meters submitted for Efficiency Test using GSCWD Test Bench shall pass all testing at Transitional and Minimum flows.	
		c.) The GSCWD test bench shall be the official measuring equipment to be used for Efficiency Test hence, the results are final.	
J.	STRAINER SCREEN	Meter fitted with strainer on inlet to protect against dirt	
K.	METER SEAL	Steel cable or stainless steel wire (plastic coated) or any kind of tamper proof meter seal with GSCWD marking. Lead meter seal is not acceptable.	
L.	BIDDERS QUALIFICATION	Bidder shall be an authorized dealer / reseller of the offered product for after sales and support.	

II. ADDITIONAL REQUIREMENTS			
A.	METER BODY MARKINGS	Flow Direction Arrow	
		Meter Size: 15mm	

		Marked with "GSCWD" at top plate of register assembly and top brass printed in Bold and all written in Capital Letters.	
B.	SERIAL NUMBERING	Shall be provided by GSCWD which shall be unique or no duplication in every meter. Minimum of six (6) digits and shall be engraved in block type by the supplier. Shall be permanent and only one serial number will appear on the external top surface of the register box ring. <i>Note: Serial numbering begins with 120041-123040.</i>	
C.	PAINTING	Automotive finished; Blue	
D.	WARRANTY	All water meters shall be guaranteed against defects in workmanship and material contents. The winning bidder shall guarantee to replace defective water meters within three (3) year from the date of delivery. For verification purposes, GSCWD technician shall also be allowed to open a reported malfunctioning water meter, without effect on the three year warranty.	
E.	OTHER PACKAGE	With plastic end cap installed to both meter body thread ends.	
		Each meter individually packed in a small box containing 2 threaded tailpieces and 2 rubber gasket that fitted to its outlet design of the manufacturer.	
		Also, the winning bidder shall provide additional 1,200 pcs rubber gaskets and an additional 600 pcs tailpieces.	
		It shall be packed by 10's per batch with the meter serial numbers indicated in four sides of the external portion of carton/box.	
		The tailpieces shall be of the same material composition as the meter body.	
F.	REQUIREMENTS	Schedule of Requirements: 3,000 pcs 15mm Complete Sets – 45 Calendar Days upon receipt of Purchase Order. (One time delivery)	
		One percent (1%) of the total quantity required in each delivery of water meter shall undergo random water meter test in Meter Testing Laboratory. The winning bidder shall pay the corresponding cost of testing.	
		If twenty percent (20%) of the total number of water meters tested Failed the efficiency test, the procuring Entity (GSCWD) shall have the option to rescind or cancel the contract.	
		Also, one (1) water meter shall undergo a random testing in compliance with Section D in the General Requirements is require to the winning bidder.	
		Random water meter testing shall be witnessed by five (5) GSCWD representatives. All costs such as transportation, hotel accommodation, meals, allowances and other related expenses shall be borne by the winning supplier. Testing shall be completed in three (3) days for each testing of water meters excluding travel period.	

	There shall be a representative from the winning bidder during random testing.	
	The water meters shall be randomly tested for accuracy in a Water Meter Laboratory for Transitional and Minimum flow rates. These flow rates shall be the basis for the meter to PASS or FAIL in the Accuracy Test.	
	After Delivery: All water meters delivered shall be subjected to accuracy test at GSCWD water meter laboratory. All cost related to the return of failed water meters and its replacement shall be borne by the supplier.	
	The meters shall possess third-party certification to the ISO 4064 standard from a National Certification Body.	
	The manufacturer shall have the certificate of ISO 9001:2015.	
	Original copy of ISO certificates shall be provided and presented by the bidders during opening of bids.	
	Winning bidder must provide two (2) sets of special tools in dismantling and reassembling the meters.	

LOT 2

I. GENERAL REQUIREMENTS			
A.	NOMINAL DIAMETER	15 MM	STATEMENT OF COMPLIANCE
B.	METER TYPE	Volumetric, Dry Dial	
C.	METROLOGICAL CLASS	ISO 4064-1:2014, Class II	
D.	Meter Body	Copper alloy containing not less than 75% copper or a copper alloy containing not less than 57% copper but with anti-corrosion treatment. Certification from any Philippine government authorized material testing laboratory like DOST, MIRDC or any authorized government agency shall be submitted to GSCWD.	
E.	METER DESIGN	Flow is bi-directional (<i>no non-return valve at outlet portion</i>)	
		Meter registry is irreversible	
		Hermetically sealed register (encapsulated to prevent moisture from entering)	
		Only impeller is in contact with the water to prevent wear and tear of the inner mechanism	
		Clear tempered high impact lens and abrasion resistant.	
		Anti-magnetic type	
		Meter capacity should be indicated in the top surface	
		Meter Register in Cubic Meters, minimum of four (4) digit registration.	
F.	DIMENSION	Length without tailpieces = 115mm with ± 5 mm tolerance	

		Connectors = G 3/4 A, 2 pcs	
		Width of 98mm with ±5mm tolerance	
		Height of 134mm with ±5mm tolerance	
		Weight = 0.60 - 0.90 kg	
G.	WORKING CONDITION	Working Pressure: 10-16 Bars	
		The maximum working temperature shall be 50°C. Copy of ISO 4064-1:2014 certificate submitted by the supplier shall indicate that meters offered are T50 rated.	
H.	METROLOGICAL CHARACTERISTICS (MINIMUM PERFORMANCE)	Minimum Flowrate (Q ₁) = 6.25 l/h; Allowable error in accuracy is ±5 %	
		Transitional Flowrate (Q ₂) = 10 l/h; Allowable error in accuracy is ±2 %	
		Nominal Flowrate (Q ₃) = 2.5 m ³ /h; Allowable error in accuracy is ±2 %	
		Maximum Flowrate (Q ₄) = 3.125 m ³ /h; Allowable error in accuracy is ±2 %	
		Q ₃ /Q ₁ = 400	
I.	EFFICIENCY TEST	a.) The bidders are required to submit ten (10) water meters all with tailpiece per model/brand. Eight (8) water meters will be tested for Efficiency Test using GSCWD Test Bench at Transitional and Minimum Flow. The ninth water meter shall be a cut-out model and expected to reveal the inner mechanism. The tenth water meter will be dismantled for examination.	
		The GSCWD test bench shall be the official measuring equipment to be used for Efficiency Test at Transitional and Minimum Flow. The said testing shall undergo once only, thus results are final.	
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K.	METER SEAL	Steel cable or stainless steel wire (plastic coated) or any kind of tamper proof meter seal with GSCWD marking. Lead meter seal is not acceptable.	
L.	BIDDERS QUALIFICATION	Bidder shall be an authorized dealer / reseller of the offered product for after sales and support.	

II. ADDITIONAL REQUIREMENTS			
A.		Flow Direction Arrow	

	METER BODY MARKINGS	Meter Size: 15mm Marked with "GSCWD" at top plate of register assembly and top brass printed in Bold and all written in Capital Letters.	
B.	SERIAL NUMBERING	Shall be provided by GSCWD which shall be unique or no duplication in every meter. Minimum of six (6) digits and shall be engraved in block type by the supplier. Shall be permanent and only one serial number will appear on the external top surface of the register box ring. Note: Serial numbering begins with V123041-V126040.	
C.	PAINTING	Automotive finished; Blue	
D.	WARRANTY	All water meters shall be guaranteed against defects in workmanship and material contents. The winning bidder shall guarantee to replace defective water meters within three (3) year from the date of delivery. For verification purposes, GSCWD technician shall also be allowed to open a reported malfunctioning water meter, without effect on the three year warranty.	
E.	OTHER PACKAGE	With plastic end cap installed to both meter body thread ends.	
		Each meter individually packed in a small box containing 2 threaded tailpieces and 2 rubber gasket that fitted to its outlet design of the manufacturer.	
		Also, the winning bidder shall provide additional 1,200 pcs rubber gaskets and an additional 600 pcs connectors.	
		It shall be packed by 10's per batch with the meter serial numbers indicated in four sides of the external portion of carton/box.	
		The connectors shall be of the same material composition as the meter body.	
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	<p>The manufacturer shall have the certificate of ISO 9001:2015.</p>	
	<p>The meters shall possess third-party certification to the ISO 4064 standard from a National Certificate Body. The supplier is responsible for providing the necessary approval certificates.</p>	
	<p>Winning bidder must provide two (2) sets of special tools in dismantling and reassembling the meters.</p>	

Prepared by:

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