



PURCHASE OF FOUR THOUSAND EIGHT HUNDRED TWENTY THREE (4,823) PIECES 15 MM DN MULTI-JET BRASS WATER METER

Project Title: **Purchase of Four Thousand Eight Hundred Twenty Three (4,823) pieces 15 mm DN multi-jet brass water meter.**

ABC: **Php12, 057,500.00**

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.**

| I. GENERAL REQUIREMENTS | | | |
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| A. | NOMINAL DIAMETER | 15 MM | STATEMENT OF COMPLIANCE |
| B. | METER TYPE | Multi-Jet, Magnetic Drive, Dry Type | |
| C. | METROLOGICAL CLASS | ISO 4064: 1993 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 by the winning bidder as pre-delivery requirement to GSCWD. Thus, no delivery shall be made unless the above certification is submitted. | |
| 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 placed preceded by the letter "N" or Qn or as defined by ISO 4064 equivalent edition | |
| F. | WORKING CONDITION | Working Pressure: 10-16 Bars | |
| | | Water Temperature: The meter can work without deterioration on temperature at local climate | |

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| G. | METROLOGICAL CHARACTERISTICS (MINIMUM PERFORMANCE) | Minimum Flowrate (Qmin) = 0.03 m ³ /h; Allowable error in accuracy is ±5 % | |
| | | Transitional Flowrate (Qt) = 0.12 m ³ /r; Allowable error in accuracy is ±2 % | |
| | | Maximum Flowrate (Qmax) = 3.0 m ³ /h; Allowable error in accuracy is ±2 % | |
| | | Nominal Flowrate (Qn) = 1.5 m ³ /h; Allowable error in accuracy is ±2 % | |
| | | <i>Note: Application of flowrates during testing will be based on its Metrological Class</i> | |
| H. | 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. | |
| I. | STRAINER SCREEN | Meter fitted with strainer on inlet to protect against dirt | |
| J. | 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. | |
| K. | BIDDERS QUALIFICATION | Bidder shall be an authorized dealer / reseller of the offered product for after sales and support. | |


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| II. ADDITIONAL REQUIREMENTS | | | |
| A. | METER BODY MARKINGS | Flow Direction Arrow | |
| | | Meter Size: 15mm | |
| | | Marked with "GSCWD" at top plate of register assembly printed in Bold and all written in Capital Letters. | |


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| 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 120041-124863.</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 two (2) 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 two 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 1,206 pcs rubber gaskets and an additional 1,206 pcs tailpieces. Length requirement of each tailpieces is 75mm with ± 5 mm tolerance The tailpieces shall be of the same material composition as the meter body. | |
| | | 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. | |
| F. | REQUIREMENTS | Schedule of Requirements: 4,823 pcs 15mm Complete Sets – 90 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. | |

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| | | 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. | |
| | | A Certified True Copy, signed by the manufacturer, of ISO certificate shall be provided and presented by the bidders during Post-Qualification. | |
| | | The manufacturer shall have the certificate of ISO 9001:2015. | |
| | | Winning bidder must provide two (2) sets of special tools in dismantling and reassembling the meters. | |

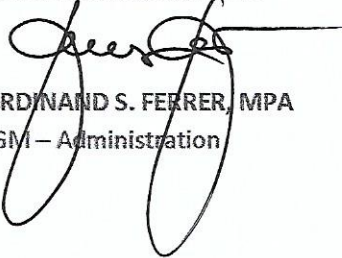
Prepared by:

TECHNICAL WORKING GROUP FOR WATER METER

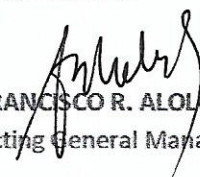

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