



# Request for Sealed Quotations for the

**Supply and Delivery of Elevation Tower Booster, submersible boreline pumps  
and Chlorine Booster Pump for the Omitara WSS**

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**Procurement Reference No: G/RFQ/NW-004/2026**

<b>Name of Bidder</b>		
<b>Contact Person</b>		
<b>E-mail Address</b>		
<b>Postal Address</b>		
<b>Total Amount N\$ (Excl. VAT)</b>		
<b>Contact Phone number</b>	<b>Work:</b>	<b>Mobile:</b>

**Documents must be posted / delivered to:**

**The Quotation/Bid Box**

**Att. Procurement Management Unit (+264 61 712015) ([bids@namwater.com.na](mailto:bids@namwater.com.na))**

Namibia Water Corporation Ltd.  
Private Bag 13389  
176 Iscor Street, Aigams Building  
Windhoek

**Closing Date: Thursday, 08 May 2025 at 11h00**

**NO LATE BIDS WILL BE ACCEPTED!**

## **NOTICE TO BIDDERS**

- Please take note of initializing all pages of the standard bidding document and initial all the supporting documents including company profiles, brochures, etc.**
- Take note to sign all relevant pages as stipulated in the bidding standard document.**

**Copies of documents not certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act.1963 (Act No. 16 of 1963) will not be accepted**



Namibia Water Corporation Ltd.  
Private Bag 13389, Windhoek, Namibia  
Tel: +264 61 71 2066  
Fax: +264 61 21 0741

## Letter of Invitation

[Name and Address of Bidder \_\_\_\_\_]

**Procurement Reference Number: G/RFQ/NW-004/2026**

**14 April 2025**

Dear Bidder,

### **Supply and Delivery of Elivated Tower Booster, submersible boreline pumps and Chlorine Booster Pump for the Omitara WSS**

NamWater invites you to submit your best quote for the items described in detail hereunder.

Any resulting contract shall be subject, to the terms and conditions referred to in the document.

Queries, if any, should be addressed to Procurement Management Unit (e-mail: [bids@namwater.com.na](mailto:bids@namwater.com.na)) Private Bag 13389 Windhoek, Namibia.

Please prepare and submit your quotation in accordance with the instructions given or inform the undersigned if you will not be submitting a quotation.

Yours faithfully

Procurement Management Unit

# SECTION I: INSTRUCTIONS TO BIDDERS

## 1. Rights of Public Entity

NamWater Ltd reserves the right:

- (a) to split the contract as per the lowest evaluated cost per item, and
- (b) to accept or reject any quotation; and
- (c) to cancel the quotation process and reject all quotations at any time prior to contract award.

## 2. Preparation of Quotations

You are requested to quote for the items mentioned in Section III by completing, signing and returning:

- (a) the Quotation Letter in Section II;
- (b) the List of Goods and Price Schedule Section III;
- (c) the Specifications and Compliance Sheet in Section V; and
- (d) any other attachment deemed appropriate.

You are advised to carefully read the complete bidding document, including the Special Conditions of Contract in Section VII, before preparing your quotation. The standard forms in this document may be retyped for completion but the Bidder is responsible for their accurate reproduction.

## 3. Validity of Quotations

The Quotation validity period shall be **90** days from the date of submission deadline.

The tenderer shall initial each page after having read and completed this document. Any alterations made to any of the information contained in this document shall also be initialled.

## 4. Eligibility Criteria

To be eligible to participate in this Quotation exercise, you should:

- (a) Have a certified copy (certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act.1963 (Act No. 16 of 1963)), of **A FULL VALID** company Registration Document;
- (b) Have an original or a certified copy (certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act.1963 (Act No. 16 of 1963)), of a valid Good Standing Tax Certificate, as certified by the Commissioner of Oath.
- (c) Have a valid good Standing Social Security Certificate,
- (d) Have a valid certified copy (certified by a Commissioner of Oath appointed in terms of the Justices of the Peace and Commissioners of Oaths Act.1963 (Act No. 16 of 1963)), of Affirmative Action Compliance Certificate, proof from Employment Equity Commissioner that bidder is not a relevant employer, or exemption issued in terms of Section 42 of the Affirmative Action Act, 1998 or a valid certified copy of the original document, as certified by the Commissioner of Oath;
- (e) Submit signed Bid-securing Declaration.

- (f) An undertaking on the part of the Bidder that the salaries and wages payable to its personnel in respect of this proposal are compliant to the relevant laws, Remuneration Order, and Award, where applicable and that it will abide to sub-clause 4.6 of the General conditions of Contract if it is awarded.
- (g) Supporting information/literature for all the items offered to substantiate compliance, where applicable.
- (h) A Bidder that is under a declaration of ineligibility by the Government of Namibia in accordance with applicable laws at the date of the deadline for bid submission or thereafter, shall be disqualified.

Bids from service providers appearing on the ineligibility lists of African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank Group and World Bank Group shall be rejected.

Links for checking the ineligibility lists are available at:

- Republic of Namibia, Procurement Policy Unit  
<https://egp2.gov.na/forms/SearchSuspendedBidders.jsf>
- African Development Bank  
<https://www.afdb.org/en/projects-operations/debarment-and-sanctions-procedures>
- Asian Development Bank  
<http://lnadbg4.adb.org/oga0009p.nsf/sancALLPublic?OpenView&count=999>
- European Bank for Reconstruction and Development  
<http://www.ebrd.com/pages/about/integrity/list.shtml>
- Inter-American Development Bank Group  
<http://www.iadb.org/en/topics/transparency/integrity-at-the-idb-group/sanctioned-firms-and-individuals,1293.html>
- World Bank Group  
<http://www.worldbank.org/en/projects-operations/procurement/debarred-firms>

## 5. Bid Securing Declaration

Bidders are required to subscribe to a Bid Securing Declaration for this procurement process.

## 6. Delivery

The Goods are to be delivered within **6-8 weeks** from the date of Purchase Order or Letter of Acceptance.

Deviation in delivery period **shall not be accepted**.

## 7. Sealing and Marking of Quotations

Quotations should be sealed in a single envelope, clearly marked with the Procurement Reference Number, addressed to NamWater with the Bidder's name and contact information at the back of the envelope.

## 8. Submission of Quotations

Quotations should be deposited in the Quotation/Bid Box located at Namibia Water Corporation Ltd Head office, Private Bag 13389, 176 Iscor Street, Aigams Building,

Windhoek, not later than **Thursday, 08 May 2025 at 11h00**. Offers by post or hand delivered should reach Private Bag 13389 by the same date and time at latest. Late Offers will be rejected.

**Offers received by e-mail will not be considered.**

## **9. Opening of Quotations**

Quotations will be opened internally by NamWater immediately after the closing time referred to in instruction 8 above. A record of the Quotation Opening stating the name of the bidders, the amount quoted, the presence or absence of a Bid Security/Bid Securing Declaration, will be posted on the website of the Public Entity and available to any bidder on request within three working days of the Opening.

## **10. Evaluation of Quotations**

NamWater shall have the right to request for clarifications in writing during evaluation. Offers that are substantially responsive shall be compared based on price or ownership cost, subject to Margin of Preference where applicable, to determine the lowest evaluated quotation.

## **11. Technical Compliance**

Bidders shall submit along with their quotation documents, catalogues and any other literature to substantiate compliance with the required specifications and to qualify deviations if any with respect to NamWater's requirements.

The Specifications, Performance Requirements and Compliance Sheet details the minimum specifications of the goods/items to be supplied. The specifications have to be met but no credit will be given for exceeding the specifications.

## **12. Prices and Currency of Payment**

Prices shall be fixed in Namibian Dollars.

## **13. Margin of Preference**

13.1 The applicable margins of preference and their application methodology are as follows: **Not applicable**

## **14. Award of Contract**

The Bidder having submitted the lowest evaluated responsive quotation and qualified to supply the goods/items and related services shall be selected for award of contract. Award of contract shall be by issue of a Purchase Order/Letter of Acceptance in accordance with terms and conditions contained in Section VI: Contract Agreement and General Conditions of Contract.

**Partial award of complete item will be allowed.**

## **15. Notification of Award and Debriefing**

The Public Entity shall after award of contract promptly inform all unsuccessful bidders in writing of the name and address of the successful bidder and the contract amount and post a notice of award on its website within seven days. Furthermore, the Public Entity shall attend to all requests for debriefing made in writing within 7 days of the unsuccessful bidders being informed of the award.

## SECTION II: QUOTATION LETTER

(to be completed by Bidders)

[Complete this form with all the requested details and submit it as the first page of your quotation with the Price list and documents requested above. A signature and authorisation on this form will confirm that the terms and conditions of the RFQ prevail over any attachments. **If your quotation is not authorised, it will be rejected.**]

Quotation addressed to:	<b>Namibia Water Corporation Ltd</b>
Procurement Reference Number:	<b>G/RFQ/NW-004/2026</b>
Subject matter of Procurement:	<b>Supply and Delivery of Elivated Tower Booster, submersible boreline pumps and Chlorine Booster Pump for the Omitara WSS</b>

We offer to supply the items listed in the attached List of Goods and Price Schedule as per the defined specifications, *except for the qualified deviations [Bidder may delete this phrase in case of no deviation]* and, in accordance with the terms and conditions stated in your Request for Quotations referenced above.

We confirm that we are eligible to participate in this Quotation exercise and meet the eligibility criteria specified in Section 1: Instruction to Bidders.

We undertake to abide ethical conduct during the procurement process and the execution of any resulting contract.

We have read and understood the content of the Bid Securing Declaration (BSD) attached hereto and subscribe fully to the terms and conditions contained therein. We further understand that this subscription could lead to disqualification on the grounds mentioned in the BSD.

The validity period of the Quotation is ..... **days** from the date of the bid submission deadline.

We confirm that the prices quoted in the List of Goods and Price Schedule are fixed and firm and will not be subject to revision or variation, if we are awarded the contract **prior to the expiry** date of the quotation validity.

The delivery period offered from the date of issue of Purchaser Order/ Letter of Acceptance is as shown in the List of Goods items and Price Schedule.

**Quotation Authorised by:**

Name of Bidder		Company's Address and seal	
Contact Person			
Name of Person Authorising the Quotation:	Position:	Signature:	
Date		Phone No./Fax	

**BID SECURING DECLARATION**  
**(Section 45 of Act)**  
**(Regulation 37(1)(b) and 37(5))**

**Date:** .....

**Procurement Ref No.:** .....

**To: Namibia Water Corporation Ltd., 176 Iscor Street, Ai//gams Building, Windhoek**

I/We\* understand that in terms of section 45 of the Act a public entity must include in the bidding document the requirement for a declaration as an alternative form of bid security.

I/We\* accept that under section 45 of the Act, I/we\* may be suspended or disqualified in the event of

- a) a modification or withdrawal of a bid after the deadline for submission of bids during the period of validity;**
- b) refusal by a bidder to accept a correction of an error appearing on the face of a bid;**
- c) failure to sign a procurement contract in accordance with the terms and conditions set forth in the bidding document, should I/We\* be successful bidder; or**
- d) failure to provide security for the performance of the procurement contract if required to do so by the bidding document.**

I/We\* understand this bid securing declaration ceases to be valid if I am/We are\* not the successful Bidder

Signed: .....  
[insert signature of person whose name and capacity are shown]

Capacity of:  
[indicate legal capacity of person(s) signing the Bid Securing Declaration]

Name: .....  
[insert complete name of person signing the Bid Securing Declaration]

Duly authorized to sign the bid for and on behalf of: [insert complete name of Bidder]

Dated on \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
[insert date of signing]

Corporate Seal (where appropriate)

[Note\*: In case of a joint venture, the bid securing declaration must be in the name of all partners to the joint venture that submits the bid.]

**\*delete if not applicable / appropriate**





**Republic of Namibia**

**Ministry of Labour, Industrial Relations and Employment Creation**

**Written undertaking in terms of section 138 of the Labour Act, 2015 and section 50(2)(D) of the Public Procurement Act, 2015**

**1. EMPLOYERS DETAILS**

Company Trade Name:.....

Registration Number :.....

Vat Number: .....

Industry/Sector: .....

Place of business:.....

Physical address:.....

Tel no.:.....

Fax no.:.....

Email address:.....

Postal address:.....

Full name of Owner/Accounting officer:.....

.....

Email address:.....

**2. PROCUREMENT DETAILS**

Procurement Reference No.:.....

Procurement Description: .....

.....

.....

Anticipated Contract Duration: .....

Location where work will be done, good/services will be delivered: .....

.....

### **3. UNDERTAKING**

I ..... [insert full name], owner/representative

of ..... [insert full name of company]

hereby undertake in writing that my company will at all relevant times comply fully with the relevant provisions of the Labour Act and the Terms and Conditions of Collective Agreements as applicable.

I am fully aware that failure to abide to such shall lead to the action as stipulated in section 138 of the labour Act, 2007, which include but not limited to the cancellation of the contract/licence/grant/permit or concession.

**Signature:** .....

**Date:** .....

**Seal:**.....

Please take note:

1. A labour inspector may conduct unannounced inspections to assess the level of compliance
2. This undertaking must be displayed at the workplace where it will be readily accessible and visible by the employees rendering service(s) in relations to the goods and services being procured under this contract.

### SECTION III: LIST OF GOODS AND PRICE SCHEDULE

**QUOATAION for: Supply and Delivery of Elivated Tower Booster, submersible boreline pumps and Chlorine Booster Pump for the Omitara WSS**

**Procurement Ref No. G/RFQ/NW-004/2026**

INSTRUCTIONS TO THE PUBLIC BODY		INSTRUCTIONS TO BIDDERS				
At time of preparation of the RFQ, Columns A to I shall be filled in by the Public Entity. [To be filled by the Public Entity]		Bidders shall fill-in columns F, G & H and fill the total				
		F= Rate per unit G=Total price for one item ( C x F) <ul style="list-style-type: none"> <li>• If an equivalent is quoted, please attach to your quote appropriate technical information &amp; specification</li> <li>• Bidders shall fill in and sign the bottom section of this page</li> </ul>				
A	B	C	D	F	G	H
Item No.	Description of Goods	Quantity	Unit of measure	Price per unit NAD <sup>1</sup>	Total price without VAT NAD	VAT: NAD
<b>1</b>	<b>SUBMERSIBLE PUMP WITH ENCAPSULATED MOTOR SET COMPLETE WITH CABLES (and cooling sleeves if required)</b>					
<b>1.1</b>	Borehole WW 100350 - 14.00m <sup>3</sup> /h at 84.00mWh Pump/Motor Unit c/w 80m long Submersible Cable.	<b>1</b>	<b>SET</b>			
<b>Subtotal for Item 1</b>						
<b>Provision for Transport (if applicable)</b>						
<b>TOTAL (Item1)</b>						
<b>2</b>	<b>VERTICAL MULTISTAGE CLEAR WATER BOOSTER PUMP</b>					

2.1	Vertical Multistage Pump with Non-Derated Motor: Duty of 100m <sup>3</sup> /h at 89.2 mWh.	2	SET			
				<b>Subtotal for Item 2</b>		
				<b>Provision for Transport (if applicable)</b>		
				<b>TOTAL FOR (Item 2)</b>		
<b>3</b>	<b>VERTICAL MULTISTAGE CHLORINE BOOSTER PUMP</b>					
3.1	Vertical Multistage Pump with Non-Derated Motor: Duty of 1000 liters/h at 75mWh.	2	SET			
				<b>Subtotal for Item 3</b>		
				<b>Provision for Transport (if applicable)</b>		
				<b>TOTAL FOR (Item 3)</b>		
				<b>BID TOTAL</b>		
Delivery [Days/Weeks]:						
NAME:		POSITION:	SIGNATURE:		DATE	
NAME OF BIDDER:			ADDRESS:			

1. If Price quoted is subject to change in rate of exchange at the time of delivery of goods provide details hereunder:

Currency: ..... Exchange Rate: .....

If no base rate of exchange is given, the price shall be treated as firm in Namibian Dollars for all intent and purpose.

Key notes: **NA**=NOT APPLICABLE, **NQ**=NO QUOTE



### **3. SECTION IV: SPECIFICATIONS AND PERFORMANCE REQUIREMENTS**

#### **3.1 General**

This RFQ call for the Supply and Delivery of Various Pump Sets for the Omitara Water Supply Scheme.

The whole pump components must be supplied by the same pump Manufacturer including the pump body, pump cover, impeller, shaft, shaft sleeve, and seals. Well drillers, distributors or other fabrication shops will not be allowed to furnish equipment built in their local fabrication shop.

Except as modified or supplemented herein, all the pumps shall conform to the applicable requirements of **ANSI/AWWA E101** and the Hydraulic Institute (H.I) Standards.

Supplier shall be certified to the **ISO 9001 standard** for design and manufacture of end suction pumps.

Equipment shall be manufactured in a facility that recognizes its impact on the environment, and has demonstrated a commitment to minimizing that impact by achieving **ISO 14001 certification**.

#### **3.3 After Sales Services**

An authorised service agent capable of servicing the offered pumps and motors must be located in Namibia. The service agent must be able to supply wear items including pump impellers to NamWater Head office within 30 working days of receipt of an order for such items.

#### **3.4 Warranty**

The offer must provide a warranty of minimum 12 months on performance and mechanical wear from the day of delivery as a commitment on quality of offered items.

#### **3.5 Importance of Efficiency & Guaranteed Value**

Suppliers must guarantee their offered pump efficiency percentage at the specified duty points. Bidders shall accept an in situ pump efficiency test by reservoir drawdown measurement, certified motor efficiency and certified dual electrical kW meters.

**Bidders shall specify the standard factory efficiency of the pump at the required duty points.**

Following technical compliance verification, NamWater will determine the life cycle cost of each offer with regards to power consumption and capital expenditure over a period of 15 years to identify the most financially viable offer.

## **ITEM 1 – SUBMERSIBLE PUMP WITH ENCAPSULATED MOTOR SET COMPLETE WITH CABLES**

- **General Specifications**

Underground water will be abstracted from borehole WW100350 and pumped to the GMS hilltop reservoir. Thus, submersible Pump-Motor Sets Complete with Cables (and Cooling Sleeves if required) are necessary.

The submersible pump-motor units shall be stainless steel, close-coupled as a multistage centrifugal pump element complete with a submersible squirrel-cage motor, preferably water filled. The unit will be installed and connected to a supply pipe network.

The operating speed of the pumps shall be  $2900 \pm 100$  rpm.

Duty point flow rate and head for each pump must be within application range recommended by manufacturer.

The pumps performance testing and acceptance tolerances for flow, total head, efficiency and NPSH<sub>R</sub> shall be as per **ISO 9906 Grade 2B**.

NamWater will carry out a pump performance test during commissioning before full operation.

- **PUMP UNIT**

### **PUMP CURVE REQUIREMENTS**

**The specified duty point shall be at maximum pump efficiency (BEP – Best Efficiency Point).** The selection of equipment must be done taking in consideration efficiency and standardization where possible.

All pumps shall be fitted with a built-in discharge non-return valve and the pump curves shall be for the pump including the non-return valve.

The Head/Flow-rate curve must pass (a) through or be within 10% above the primary point (Duty point) and (b) below the secondary points (Point 1 and Point 2).

**Table 1: Duty Points**

Item No.	Borehole Number	Pump Curve Characteristics					
		Point 1		Duty Point		Point 2	
#	Omitara	m <sup>3</sup> /h	mWh	m <sup>3</sup> /h	mWh	m <sup>3</sup> /h	mWh
1	WW 100350	12	92	<b>14</b>	<b>84</b>	16	76

The flow ratio (**Q/QBEP**) at the duty flow shall be between **70% and 105%**.

**PUMP DIMENSIONS AND CONSTRUCTION**

The pump discharge connection shall be BSP female threaded.

The pump shall be provided with replaceable impellers and casing wear rings. The impeller vanes shall be continuous welded to the web. **Spot welding will not be acceptable.**

The impellers shall be located on the shaft by means of a positive locking device, e.g. key-ways and spacer/taper sleeves and secured with a locknut; **taper-locks will not be acceptable.**

The pumps will be coupled to flexible drop pipes with male couplings of thread connection as indicated below. The female parallel thread connections are of British Standard Pipe (BSP) parallel designation type.

**If the pump discharge connection size is different from the listed size, then an applicable stainless steel reducing bushing (or applicable fittings) should be fitted on the pump discharge!**

Table 2 : Unit Physical Sizes

#	Borehole	Casing Inside Diameter (mm)	Discharge Size Connection: Female BSP Parallel Thread (inch)	Maximum outer diameter of pump and motor (including cable and/or cooling sleeve)
<b>Rooidaghek</b>				
<b>1.1</b>	WW 100350	150	RP 2	130 mm

**MATERIALS OF CONSTRUCTION**

The parts indicated shall be constructed of the following materials:

- Shaft: Stainless Steel
- Bearings: Stainless Steel/Ceramics
- Strainer: Stainless Steel



Cable Protection Shield:	Stainless Steel
Tie-bolts or Tie-bands:	Stainless Steel
Casing/Bowls:	Stainless Steel
Impellers:	Stainless Steel
Diffusers:	Stainless Steel
Bolts, Nuts and Washers:	Stainless Steel

### **INFORMATION PLATES**

Each pump shall be fitted with durable metal plate clearly marked with the following minimum information:

- Pump make & model
- Best efficiency point
- Full impeller diameter
- Installed impeller diameter
- Power required at best efficiency point
- Nominal operating speed

- **SUBMERSIBLE MOTOR**

#### **GENERAL**

All electrical submersible motors shall be suitable for operating from the specified power supply. Motors shall comply in all respects with the relevant parts of BS 4999 and BS 5000, and shall be designed to run at high power factor and efficiency.

The canned submersible motors' (not rewindable), windings will be **enamel wire** (like in standard surface motor), hermetically sealed from surrounding and filled with embedding material in order to withhold the windings and to increase heat transfer.

The motors shall be selected to operate at 50 Hz. The operating speed of the motor shall be  $2900 \pm 100$  rpm.

#### **MOTOR SPECIFICATIONS**

Type:	Squirrel cage
Enclosure Material:	SS 304/SS 316
No of poles:	2-pole or 4-pole
Speed:	2900+-100rpm
IP Rating:	IP 68

Insulation Class: Class F minimum  
 Direction of rotation: Bi-directional  
 NEMA Standards: 4” and 6” and 8” motor needs to conform with NEMA Standards  
 Drive details: Motor will be coupled directly to the centrifugal pump  
 Method of starting: Direct-on-line  
 Minimum Motor Efficiency: As per table below

**Table A:**

Power Rating (kW)	Line Voltage (V)	Minimum Full Load Efficiency
3.7	400	74%
5.5	400	76%
7.5	400	76%

Number of Starts/H: 4 per hour (minimum)  
 Power supply: 380-415V; 3-Phase  
 Voltage tolerance lower limit: 380V -10%  
 Voltage tolerance higher limit: 415 + 6%  
 Frequency: 50 Hz  
 Inrush current during start-up (locked rotor): Maximum 6 times the full load  
 Winding Connection: Delta  
 Installation orientation: Vertical  
 Maximum motor power deration: 5 +/- 0.5 % power deration at 2% voltage unbalance  
 Maximum allowable current imbalance : 5%

Voltage unbalance can reduce the service life of the equipment by huge margins.

**Bidders shall submit the information, that NamWater can derate the equipment accordingly.**

NamWater will include electronic protection units in the MCC’s to protect all motors.

The motor shall have a power reserve of at least **15%** at any point of the Head-Flow rate curve of the pump.

The submersible motors shall be filled with water/glycol filled. **Oil filed motor will not be acceptable.**

For the insulation Class specification, the requirements of BS4999 shall be met. The limit of temperature rise shall be for the appropriate Class of insulation quoted. A minimum of Class F insulation shall be provided.

## **MOTOR COOLING SLEEVES**

Water-cooling flow past the electrical motors shall be as per Manufacturer's specifications. **If not**, Bidders should include for the supply of cooling sleeves to be installed with pump sets in order to meet these specifications.

**NOTE: The cooling sleeves are optional, but if not offered, Bidders should confirm that the flow past the motor is according to the manufacturer's specifications with the installed casing diameter.**

However, if the inside diameter of the casing is too small for the cooling sleeves to fit the borehole casing, Bidders should still confirm whether the flow past the motor is still according to Manufacturer's specifications with the installed borehole casing inside diameter.

See applicable casing inside diameter in the bidding document regarding the pump dimensions, pump discharge sizes and casing diameters.

If offered, the cooling sleeves should be manufactured from the **same material** as the pump sets body and all fastening material should be included.

## **MOTOR DIMENSIONS**

The motor diameter may exceed pump diameter in order to meet the specifications of this tender or to improve overall pump-motor efficiency, but within the limitation that the maximum diameter of the motor, including the power cable shall not exceed a maximum diameter as specified in **6. PUMP UNIT**, paragraph b). **It is preferred that the pump and motor is of the same diameter.**

## **MOTOR SHAFT SEAL AND BEARINGS**

The shaft seals for the motor shall be Silicon Carbide.

The thrust bearings shall be water lubricated Michel-type bearings.

The radial bearings shall be graphite type.

## **INFORMATION PLATES**

The motor shall be fitted with durable metal plate clearly marked with the following minimum information:

- Motor make & model
- Best efficiency point
- Amp ratings
- Voltage
- Cos  $\phi$
- Bearing specifications
- Total weight

- **SUBMERSIBLE CABLE**

Each pump unit shall be fitted and supplied with a factory fitted lead-out cable of at least **0.5 meters** above pump discharge. An additional length of cable as indicated in the table below, shall be supplied as a 4-core, cylindrical type submersible motor cable adequately sized for direct-on-line starting and continuous duties complete with termination kits.

#	Borehole Number	Pump Installation Depth (m)	Cable Length (m)
1.1	WW 100249	75	80

A maximum voltage drop of 2.5% will be allowed at full load current and 15% at start-up.

The following values and formulas will be used to calculate the minimum size of the submersible cable:

$$\Delta V = 1,73 * I * L * t * R / 1000$$

I – Full load current, L – Cable length (meter), R – Conductor resistance at 45°C (Ohm/km) and t – Temperature correction factor, use t=1,12

- **INSPECTIONS**

NamWater will inspect all items upon delivery to ascertain if dimensions, pressure flange rating and coating are correct. So NamWater will not send a technical person to go inspect the items at the factory, the onus thus rest with the supplier to ensure that all items are to specifications before delivery is made to NamWater.

Payment will only be made if all the delivered items are to specifications.

- **LABELLING**

The supplier may use the item numbers already allocated or an appropriate method consistent with the order of the items numbers in this document.

- **SUPPORTING LITERATURE**

A tender will be **disqualified** if the following information/literature is not included with the offer:

- Pump and motor information in SI units
- Pump H-Q curves indicating power requirement
- Pump efficiency curve
- Motor information and curves indicating all relevant information

Delivery will only be deemed complete if NamWater received the following data, certified by the manufacturer:

- A complete operating manual including technical information of all equipment supplied.
- A workshop/maintenance manual containing detailed tolerances required for servicing.
- A sectional view of the pump and motor with parts list.
- Pump and motor performance certificates at the **Motor Rated Speed**.

The above data can be submitted in PDF software format.

## **ITEM 2 – VERTICAL MULTI-STAGE CLEAR WATER BOOSTER PUMP SET**

### **General**

Potable water with a chlorine content of up to 2ppm will be pumped from the Omitara Purification Plant to the Omaheke Regional Council Elevated Reservoir.

The pump-motor units will be installed outside under a roof with ambient temperatures of up to 45°C. The maximum allowable operating altitude of the motors shall be a minimum of 1730m above sea level. The pump-motor units shall be suitable for direct-on-line (DOL) start-up. The two (2) vertical multistage tower pump-sets for the Omitara-Omaheke Regional Tower pump station will operate in 1 duty plus 1 standby.

- **Pump**

The pump-motor unit shall be a close-coupled vertical multistage centrifugal pump element complete with a squirrel-cage motor, similar to the **Grundfos CR 125-3 Pump Set**. The motor units shall be selected to operate at 50 Hz while operating the pump at  $2900 \pm 100$  rpm.

The pumps shall be of the vertical multistage, centrifugal type with in-line suction and discharge flanges located near the base of the pump.

The pump/motor units shall not have a critical vibration speed within the specified operating range.

- **Pump Stages and Shaft Sealing**

All impeller and diffuser vanes shall be continuously weld along the full length of the vane. *No spot-welding of vanes will be acceptable.*

Shaft sealing on pump shall be by means of a high quality mechanical seal suitable for potable water with a maximum of 2 ppm chlorine content.

- **Pump Performance & Efficiency**

The pump/s shall be selected to operate at 50Hz. Detailed pump curves at the rated motor speed shall be included in the offer.

The following information, detailed in SI units, must be included as part of the offer:

- A Pump Head vs. Flow curve,
- NPSH vs. Flow curve.
- Efficiency vs. Flow curve,
- Pump Power consumption vs. Flow curve.

*NamWater reserves the right to fully reject the offer on failure of the tenderer to submit this information.*

Depending on the performance guarantee acceptance grade, the pump H-Q curve shall pass through or within 5% above the following duty points:

<b>Point</b>	<b>Flow (Q-m<sup>3</sup>/h)</b>	<b>Head (mWh)</b>
<b>Point 1</b>	95	94
<b>Duty Point</b>	<b>100</b>	<b>89</b>
<b>Point 3</b>	105	84

The standard factory pump efficiency at the duty point shall be **no less than 65%**. The flow ratio (Q/Q<sub>BEP</sub>) at the duty flow shall be between 80% and 110%.

The NPSH required at the duty point shall be no more than **3.0mWh**.

The pumps shall be tested according to either **ISO 9906 Grade 2B** or **ISO 9906 Grade 3B** and comply with the tolerance limits as stated in ISO 9906 Grade 2B or ISO 9906 Grade 3B respectively. Factory test certificates are required for all pumps supplied. The pump tests will include a set of stable readings as confirmation of the flow versus head, power, efficiency and NPSH characteristics. The Manufacturer shall guarantee all performance and efficiency claims.

Offers for units guaranteed to perform within the tolerances prescribed by ISO 9906 Grade 2B shall receive preference over those for units guaranteed to perform within the tolerances prescribed by ISO 9906 Grade 3B.

- **Materials**

The parts indicated shall be constructed of the following materials:

Pump housing (head & base):	Stainless Steel 304/316
Pump shaft:	Stainless Steel 303/304/316
Bolts & nuts:	Stainless Steel 304/316
Impellers:	Stainless Steel 304/316
Intermediate chambers :	Stainless Steel 304/316
Painting (except stainless parts):	Epoxy Coating
Suction flange drilling :	SABS 1123 PN10
Discharge flange drilling :	SABS 1123 PN 10

Sectional drawings (showing component details), dimension sheets and material specifications shall be included as part of the offer.

- **Electric Motors**

The electric motor required shall be designed, rated and manufactured in accordance with SANS 1804-1/2 / IEC 60034-1 for totally enclosed fan-cooled motors, similar to **Actom and Siemens motors**, with specific reference to the following:

Type:	Squirrel cage, 2-pole or 4-pole
Efficiency Class:	IE3
Duty:	S1
Type of Enclosure:	Minimum IP55
Method of Cooling:	IC 411, totally enclosed fan cooled (TEFC)
Method of Mounting:	IM V1, on motor stool, flanged to pump head
Frame Size:	Motor to fit on pump stool
Power Supply:	400 V AC, 3-phase, 50 Hz $\pm$ 5%
Rated Output Power:	At least <b>115%</b> of maximum pump shaft power required (at any point on the pump H-Q curve) at 50Hz.
Insulation Class:	Class F
Temperature Rise:	Class B under full load (rated motor output)
Starting Method:	Direct-on-line

**The above shall be applicable at 1730m above mean sea level and at 45°C ambient temperature without de-rating.**

- **Coupling & Coupling Guard**

The pump and electric motor shall be direct coupled. All screws, bolts and pins shall be stainless steel 304 (A2).

The pump/motor coupling shall be covered by a standard stainless steel coupling guard complying with the Factories, Machinery and Building Works Regulations.

- **Vibration Testing**

The supplier will perform vibration testing of the pump-sets in accordance with **H.I. standards** at rated design condition. These results shall be supplied to NamWater before shipping the units.

The testing shall be continuous for the duration of the performance test and shall give overall vibration level and full frequency analysis of the set's vibration level at the various performance test points. Tri-axial readings shall be made at each point of the pump set bearings and the following minimum values will be allowed:

<b>Parameter</b>	<b>Value</b>
Overall maximum vibration level	2.4 mm/s
First harmonic frequency	2.2 mm/s
Second harmonic frequency	1.25 mm/s
Third harmonic frequency	1.0 mm/s
First vane pass frequency at duty point	1.5 mm/s
Bearing defect frequencies	none

Failure of the pumps to meet these limits will result in the rejection of the units where after the Suppliers shall correct the faults and arrange for further testing at the Supplier's cost.



- **Information Plates**

Each pump/motor unit shall be fitted with **identification labels as per DIN EN 19** clearly marked with the following minimum information:

- Pump & Motor make & model
- Best Efficiency Point (BEP)
- Operating point
- Power required at operating point
- Operating speed at 50 Hz
- Total weight

- **Delivery**

The manufacturer shall indicate any special requirements with regard to the handling and installation of the pump-sets. The packing of the units shall be of sufficient quality and design as to protect the equipment against any undue damage or stresses during transportation.

Delivery will only be deemed complete if NamWater received the following documentation, certified by the manufacturer:

- A complete operating manual including technical information of all equipment supplied
- A workshop/maintenance manual containing detailed tolerances and clearances required for servicing
- Datasheets indicating the make and type of bearings installed
- A guide to troubleshooting
- A sectional view of the pump with parts list including the predicted life of parts subject to wear
- Pump and motor performance certificates at the Motor Rated Speed

The above data shall be submitted in PDF format and one hard copy for each unit.

No payment will be made unless all documentation has been received.

### **ITEM 3 – VERTICAL MULTI-STAGE CHLORINE BOOSTER PUMP SET**

- **General**

Potable water with a chlorine content of up to 2ppm will be pumped through the chlorine board to disinfect the water to be supplied to the Omaheke Regional Council Elevated Reservoir.

The pump-motor units will be installed outside under a roof with ambient temperatures of up to 45°C. The maximum allowable operating altitude of the motors shall be a minimum of 1650m above sea level. The pump-motor units shall be suitable for direct-on-line (DOL) start-up. The two (2) vertical multistage tower pump-sets for the chlorination board will operate in 1 duty plus 1 standby.

- **Pump**

The pump-motor unit shall be a close-coupled vertical multistage centrifugal pump element complete with a squirrel-cage motor, similar to the **Grundfos CR 1-13 Pump Set**. The motor units shall be selected to operate at 50 Hz while operating the pump at  $2900 \pm 100$  rpm.

The pumps shall be of the vertical multistage, centrifugal type with in-line suction and discharge flanges located near the base of the pump.

The pump/motor units shall not have a critical vibration speed within the specified operating range.

- **Pump Stages and Shaft Sealing**

All impeller and diffuser vanes shall be continuously weld along the full length of the vane. **No spot-welding of vanes will be acceptable.**

Shaft sealing on pump shall be by means of a high quality mechanical seal suitable for potable water with a maximum of 2 ppm chlorine content.

- **Pump Performance & Efficiency**

The pump/s shall be selected to operate at 50Hz. Detailed pump curves at the rated motor speed shall be included in the offer.

The following information, detailed in SI units, must be included as part of the offer:

- A Pump Head vs. Flow curve,
- NPSH vs. Flow curve.
- Efficiency vs. Flow curve,
- Pump Power consumption vs. Flow curve.

*NamWater reserves the right to fully reject the offer on failure of the tenderer to submit this information.*

Depending on the performance guarantee acceptance grade, the pump H-Q curve shall pass through or within 5% above the following duty points:

<b>Point</b>	<b>Flow (Q-liters/hr)</b>	<b>Head (mWh)</b>
<b>Point 1</b>	950	78
<b>Duty Point</b>	<b>1000</b>	<b>75</b>
<b>Point 3</b>	1050	71

The standard factory pump efficiency at the duty point shall be **no less than 65%**. The flow ratio ( $Q/Q_{BEP}$ ) at the duty flow shall be between 80% and 110%.

The NPSH required at the duty point shall be no more than **4.0mWh**.

The pumps shall be tested according to either **ISO 9906 Grade 2B** or **ISO 9906 Grade 3B** and comply with the tolerance limits as stated in ISO 9906 Grade 2B or ISO 9906 Grade 3B respectively. Factory test certificates are required for all pumps supplied. The pump tests will include a set of stable readings as confirmation of the flow versus head, power, efficiency and NPSH characteristics. The Manufacturer shall guarantee all performance and efficiency claims.

Offers for units guaranteed to perform within the tolerances prescribed by ISO 9906 Grade 2B shall receive preference over those for units guaranteed to perform within the tolerances prescribed by ISO 9906 Grade 3B.

- **Materials**

The parts indicated shall be constructed of the following materials:

Pump housing (head & base):	Stainless Steel 304/316
Pump shaft:	Stainless Steel 303/304/316
Bolts & nuts:	Stainless Steel 304/316
Impellers:	Stainless Steel 304/316
Intermediate chambers :	Stainless Steel 304/316
Painting (except stainless parts):	Epoxy Coating
Suction flange drilling :	SABS 1123 PN10
Discharge flange drilling :	SABS 1123 PN 10

Sectional drawings (showing component details), dimension sheets and material specifications shall be included as part of the offer.

- **Electric Motors**

The electric motor required shall be designed, rated and manufactured in accordance with SANS 1804-1/2 / IEC 60034-1 for totally enclosed fan-cooled motors, similar to **Actom and Siemens motors**, with specific reference to the following:

Type:	Squirrel cage, 2-pole or 4-pole
Efficiency Class:	IE3
Duty:	S1
Type of Enclosure:	Minimum IP55
Method of Cooling:	IC 411, totally enclosed fan cooled (TEFC)
Method of Mounting:	IM V1, on motor stool, flanged to pump head
Frame Size:	Motor to fit on pump stool
Power Supply:	400 V AC, 3-phase, 50 Hz $\pm$ 5%
Rated Output Power:	At least <b>115%</b> of maximum pump shaft power required (at any point on the pump H-Q curve) at 50Hz.
Insulation Class:	Class F
Temperature Rise:	Class B under full load (rated motor output)
Starting Method:	Direct-on-line

**The above shall be applicable at 1650m above mean sea level and at 45°C ambient temperature without de-rating.**

- **Coupling & Coupling Guard**

The pump and electric motor shall be direct coupled. All screws, bolts and pins shall be stainless steel 304 (A2).

The pump/motor coupling shall be covered by a standard stainless steel coupling guard complying with the Factories, Machinery and Building Works Regulations.

- **Information Plates**

Each pump/motor unit shall be fitted with **identification labels as per DIN EN 19** clearly marked with the following minimum information:

- Pump & Motor make & model
- Best Efficiency Point (BEP)
- Operating point
- Power required at operating point
- Operating speed at 50 Hz
- Total weight

- **Delivery**

The manufacturer shall indicate any special requirements with regard to the handling and installation of the pump-sets. The packing of the units shall be of sufficient quality and design as to protect the equipment against any undue damage or stresses during transportation.

Delivery will only be deemed complete if NamWater received the following documentation, certified by the manufacturer:

- A complete operating manual including technical information of all equipment supplied
- A workshop/maintenance manual containing detailed tolerances and clearances required for servicing
- Datasheets indicating the make and type of bearings installed
- A guide to troubleshooting
- A sectional view of the pump with parts list including the predicted life of parts subject to wear
- Pump and motor performance certificates at the Motor Rated Speed

The above data shall be submitted in PDF format and one hard copy for each unit.

No payment will be made unless all documentation has been received.

## 4. SECTION V: SPECIFICATIONS AND COMPLIANCE SHEET

Procurement Reference Number: Procurement Ref No. **G/RFQ/NW-004/2026**

Bidders should complete column C with the specification of the goods offered and **attach annexures with detailed technical literature substantiating compliance.**

Offers of equipment failing to comply with one or more of the specifications shall be disqualified. **Failure to complete column C of the Specifications and Compliance Sheet shall result in disqualification.**

Item No	Technical Specification Required	Compliance of Specification or Information Offered	Details of Non-Compliance/ Deviation (if applicable)
<i>A*</i>	<i>B*</i>	<i>C</i>	<i>D</i>
<b>A</b>	<b>General Information</b>		
	Is the assembly mounted on base frame (where applicable) and pre-aligned ?	Yes/No	
	Name of authorised service agent in Namibia.		
	Warranty Period: 12 months	Yes/No	
	Warranty conditions:		

	Provision made for pump & motor alignment	Yes/No	
	Atleast two Lifting points included on the pump-motor assembly?	Yes/No	
	Is the specifications and compliance sheet fully completed?	Yes/No	
	Are technical supporting literature attached and marked for specific item models where applicable?	Yes/No	
	Are compulsory documents (original where applicable) attached as requested in “SECTION I: INSTRUCTIONS TO BIDDERS”?	Yes/No	
<b>B</b>	<b>ITEM 2 SUBMERSIBLE PUMP SET FOR OMITARA WSS</b>		
<b>B1</b>	<b>General</b>		
	<b><u>Pump</u></b>		
	Pump Operating speed is 2900 ± 100 rpm.	Yes / No	
	Pump Discharge Size Female	.....BSP / .....mm	
	Performance testing and Performance tolerance acceptance for flow, total head and efficiency at duty flows according to standard ISO 9906 Gr. 2B	Yes / No	

	The impellers shall be located on the shaft by means of a positive locking device, e.g. key-ways and spacer/taper sleeves and secured with a locknut; <i>taper-locks will not be acceptable.</i>	Yes / No	
	The impeller vanes shall be continuous welded to the web.	Yes / No	
	Non-return valve fitted. Pump curve is specified with non-return valve fitted	Yes / No	
	Shaft, Bearings, Suction grid, Cable protection shield, Tie-bolts or Tie-bands, Casing/Bowls, Diffusers, Wear ring, Bolts, nuts & washers are made of stainless steel or equivalent material.	Yes / No	
	<b><u>Motor</u></b>		
	Canned submersible motors' (not rewindable).	Yes / No	
	At least, Class F insulation or superior and minimum of four (4) starts per hour required.	Yes / No	
	Motor enclosure standard is NEMA (National Electrical Manufacturers Association).	Yes / No	
	Inrush current, input surge current, or switch-on surge (during start-up)	Yes / No	



is at most 6 times the normal load current. Maximum of 6 times the normal load current		
Delta Winding connection type	Yes / No	
Maximum <b>5 ±0.5%</b> power deration at 2% voltage imbalance	Yes / No	
Maximum of <b>5%</b> allowable current imbalance	Yes / No	
Voltage imbalance information included for each unit	Yes / No	
Shaft seal for motor material is <b>Silicon Carbide</b>	Yes / No	
Thrust bearing cooling is by water cooling	Yes / No	
Radial bearing material is of graphite type	Yes / No	
Ingress Protection Code is IP 68 or better Rating.	Yes / No	
Motor Rated speed is 2900rpm and Operating Voltage is 400V	Yes / No	
Method of starting is direct-on-line	Yes / No	
Motor power reserve (%) at any point of the Head-Flow curve of the pump is at least 10%.	Yes / No	
Lower limit of <b>380V -10%</b> voltage tolerance at 50Hz	Yes / No	

	Higher limit of <b>415V +6%</b> voltage tolerance at 50Hz	Yes / No	
	Voltage unbalance de-rating charts submitted	Yes / No	
	Is the motor water/glycol filled?	Yes / No	
	Does the lead-out cable and submersible cable contain the earth?	Yes / No	
	If not, is a stud provided?	Yes or N/A	
<b>B2</b>	<b>Submersible pump-motor set Specification - WW100350</b>		
	<b>Make and Model of Pump</b>		
	Flow rate @ <b>84 mWh</b> is <b>14 m<sup>3</sup>/h.</b>	Yes / No	
	Head @ <b>14 m<sup>3</sup>/h</b> is <b>84 mWh.</b>	Yes / No	
	Pump efficiency at duty point is at least <b>&gt;65%.</b>	Yes / No	
	Duty flow ratio (Q/Q <sub>BEP</sub> ) is <b>70% - 120%.</b>	Yes / No	
	<b>Make and Model of the motor</b>		
	Minimum motor efficiency as <b>specified</b> for motor rated output power [shaft power] (See <b>PART 2 – Supply Requirements</b> )	..... kW & .....%	
	Maximum power on the power curve	..... kW	

	<b>Maximum</b> power on the power curve plus <b>15% power reserve</b> <= <b>Motor power rating</b>	<b>Yes / No</b>  ..... kW	
	Motor rated output power	..... kW	
	Motor recommended is at least 0.75kW Minimum motor rating <b>(based on the 15% power reserve on maximum power on the curve)</b>	<b>Yes / No</b>	
	Rated current at 400 V	..... [Ampere]	
	Motor efficiency @ full load [%]	<b>As per requirement:</b> ..... <b>Specify.</b>	
	Motor efficiency @ 75% load [%]		
	Motor efficiency @ 50% load [%]		
	Full load current [Ampere]		
	Power factor at full load []		
	Minimum cooling flow velocity past the motor [m/s]		
	Actual calculated cooling flow velocity past the motor with installed borehole casing [m/s]		
	Is cooling sleeve required?	<b>Yes/No</b>	
	Cooling sleeve material is <b>Stainless Steel (if required)</b>	Yes / No	

	Maximum diameter of pump/motor unit without cooling sleeve is <b>at most <math>\leq 130\text{mm}</math></b>	Yes/No	
	Weight of pump/motor unit [kg]		N/A
	Total length of submersible cable is <b>at least 80m.</b>	Yes / No	
	Size of submersible cable [mm <sup>2</sup> ]		N/A
	Calculated voltage drop for submersible cable @ full load current of motor		N/A
<b>C</b>	<b>Item 2 Elevated Tower Booster Pumps</b>		
	The pump-motor unit is a close-coupled set with a vertical multistage centrifugal pump element and a squirrel cage,	Yes / No	
	Is the electric motor a <b>2/4-pole</b> @50 hz electric motor.	.....	
	The pump-motor set units shall be suitable for direct-on-line (DOL) start-up an outside environment under a roof with ambient temperatures of up to 45°C and at altitude of 1650m above sea level.	Yes / No	
	The pump/motor units shall not have a critical vibration speed within the specified operating range.	Yes / No	
	Pump Make & Model		

Duty pressure head of at least <b>89mWh</b> at a duty flow of <b>100m<sup>3</sup>/h</b> .	Yes / No	
What is the duty flow at a pressure head of <b>89mWh</b> ?	..... m <sup>3</sup> /h	
Pump efficiency at duty head (above) is at least 60%.	Yes / No	
The flow ratio ( <b>Q/Q<sub>BEP</sub></b> ) at the duty flow shall be between <b>70%</b> and <b>120%</b> .	Yes / No	
The <b>NPSH</b> required at the duty point shall be no more than <b>3mWh</b> .	Yes / No	
Pump <b>suction</b> and <b>discharge</b> shall be no less than <b>DN80</b> .	Yes / No	
The pumps will confirm with testing of <b>ISO 9906 Grade 3B</b> and comply with the tolerance limits as stated in <b>ISO 9906 Grade 3B</b> respectively.	Yes / No	
Pump shaft, impellers, bolts & nuts and Intermediate chambers are made of <b>Stainless Steel 304/316</b> .	Yes / No	
Impeller vanes <b>continuously welded</b> along the vane length	Yes / No	
Mechanical <b>seal</b> suitable for potable water with a maximum of <b>2 ppm</b> chlorine content.	Yes / No	
Coating (except stainless components) - Epoxy	Yes / No	
Motor Make & Model		
Is the motor de-rated at 1650masl ?	<b>Yes / No</b>	

Electric motor designed, rated and manufactured in accordance with SANS 1804-1/2 / IEC 60034-1	Yes / No	
Power supply - 400 V AC, 3-phase, 50 Hz $\pm$ 5%	Yes / No	
Motor shaft power rating – At least 110% pump power requirement at any point on the H-Q curve	Yes / No	
Maximum power on the power curve	..... kW	
Maximum power on the power curve plus 10% power reserve $\leq$ Motor power rating	<b>Yes / No</b> ..... kW	
Motor recommended is at least 11kW Minimum motor rating (based on the 10% power reserve on maximum power on the curve)	<b>Yes / No</b>	
Motor direction of rotation from driver end is bi-direction	Yes / No	
Suitable for <b>continuous duty</b> : <b>S1</b> Type of motor enclosure - minimum <b>IP66</b> Method of motor cooling - <b>IC 411</b> , totally enclosed fan cooled ( <b>TEFC</b> ) Method of motor mounting - <b>IM V1</b> , on motor stool, flanged to pump head	Yes / No	
<b>Class H</b> insulation <b>Class B</b> temperature rise	Yes / No	

	Suitable for continuous full load operation at <b>45°C</b> and <b>1650m a.s.l.</b>	Yes / No	
	Vibration testing of the pump-sets shall be in accordance with <b>H.I. standards</b> at rated design condition.	Yes / No	
<b>D</b>	<b>ITEM 3 Chlorine Board Booster Pump set</b>		
	The pump-motor unit is a <b>close-coupled</b> set with a vertical multistage centrifugal pump element and a squirrel cage.	Yes / No	
	Is the electric motor a 2/4-pole @50 hz electric motor.	.....	
	The pump-motor set units shall be suitable for direct-on-line ( <b>DOL</b> ) start-up and temperatures of up to <b>45°C at altitude of 1650m</b> above sea level.	Yes / No	
	The pump/motor units shall not have a <b>critical vibration speed</b> within the specified operating range.	Yes / No	
	Pump Make & Model		
	Duty pressure head of at least <b>75mWh</b> at a duty flow of <b>1000liters/hr.</b>	Yes / No	
	What is the duty flow at a pressure head of <b>75mWh?</b>	..... m <sup>3</sup> /h	
	<b>Pump efficiency</b> at duty head (above) is at least <b>60%</b> .	Yes / No	

	The flow ratio ( <b>Q/Q<sub>BEP</sub></b> ) at the duty flow shall be between 70% and 120%.	Yes / No	
	The <b>NPSH</b> required at the duty point shall be no more than 1.0mWh.	Yes / No	
	Pump suction and discharge shall be no less than <b>DN25</b> .	Yes / No	
	The pumps will confirm with testing of <b>ISO 9906 Grade 3B</b> and comply with the tolerance limits as stated in <b>ISO 9906 Grade 3B</b> respectively.	Yes / No	
	Pump shaft, impellers, bolts & nuts and Intermediate chambers are made of <b>Stainless Steel 304/316</b> .	Yes / No	
	Impeller vanes continuously welded along the vane length	Yes /No	
	<b>Mechanical seal</b> suitable for potable water with a maximum of <b>2 ppm</b> chlorine content.	Yes / No	
	Coating (except stainless components) - Epoxy	Yes / No	
	<b>Motor Make &amp; Model</b>		
	Is the motor de-rated at <b>1650masl</b> ?	<u>Yes / No</u>	
	Electric motor designed, rated and manufactured in accordance with <b>SANS 1804-1/2 / IEC 60034-1</b>	Yes / No	
	Power supply - <b>400 V AC, 3-phase, 50 Hz ± 5%</b>	Yes / No	



	Motor shaft power rating – At least <b>110%</b> pump power requirement at any point on the H-Q curve	Yes / No	
	<b>Maximum power</b> on the power curve?	..... kW	
	Maximum power on the power curve plus <b>10% power reserve</b> <= Motor power rating	<b>Yes / No</b> ..... kW	
	Motor recommended is at least <b>0.75kW</b> Minimum motor rating ( <b>based on the 10% power reserve on maximum power on the curve</b> )	Yes / No	
	Motor direction of rotation from driver end is <b>bi-direction</b>	Yes / No	
	Suitable for continuous duty - <b>S1</b> <b>Type</b> of motor enclosure - <b>minimum IP66</b> Method of motor cooling - <b>IC 411</b> , totally enclosed fan cooled ( <b>TEFC</b> ) Method of motor mounting - <b>IM V1</b> , on motor stool, flanged to pump head	Yes / No	
	<b>Class H</b> insulation <b>Class B</b> temperature rise	Yes / No	
	Suitable for continuous full load operation at <b>45°C and 1650m a.s.l.</b>	<b>Yes / No</b>	
	Vibration testing of the pump-sets shall be in accordance with H.I. standards at rated design condition.	Yes / No	

**NOTE:Tenders will be disqualified if this information is not included in the tender documents. Only original documentation is acceptable and faxed copies of literature are unacceptable. Information supplied in an electronic format will be accepted if in PDF format on a CD.**

**Specifications and Compliance Sheet Authorised By:**

Name:		Signature:	
Position:		Date:	
Authorised for and on behalf of:		Company	

**\*All Bids shall be accompanied with detailed supporting literature for the pumps, couplings and motors to enable Namwater to evaluate the conformity to specification and include additional features.**

## **SECTION VI: GENERAL CONDITIONS OF CONTRACT AND CONTRACT AGREEMENT**

Any resulting contract shall be placed by means of a Purchase Order/Letter of Acceptance and shall be subject to the General Conditions of Contract (GCC) for the Procurement of Goods (Ref. **G/RFQ-GCC**) [www.namwater.com.na](http://www.namwater.com.na) except where modified by the Special Conditions below.

## **SECTION VI: CONTRACT AGREEMENT**

Any resulting contract shall be placed by means of a Purchase Order/Letter of Acceptance and shall be subject to the General Conditions of Contract (GCC) for the Procurement of Goods except where modified by the Special Conditions.

## SECTION VII: SPECIAL CONDITIONS OF CONTRACT

Procurement Reference Number: **G/RFQ/NW-004/2026**

The clause numbers given in the first column correspond to the relevant clause number of the GCC.

Subject and GCC clause reference	Special Conditions
<b>Site</b> <b>GCC 1.1(m)</b>	The Site/final destination for delivery of the Goods is <b>176 Iscor Street NamWater at the Aigams Building, Northern Industrial Area in Windhoek</b>
<b>Incoterms Edition</b> <b>GCC 4.2(b)</b>	Incoterms shall be governed by the rules prescribed in Incoterms 2010.
<b>Notices</b> <b>GCC 8.1</b>	<p>Any notice shall be sent to the following addresses:</p> <p>For NamWater Ltd the address and the contact name shall be:            Procurement Management Unit            (Tel: +264 61 71 2015),            E-mail: <a href="mailto:bids@namwater.com.na">bids@namwater.com.na</a>            Private Bag 13389 Windhoek, Namibia</p> <p>For the Supplier, the address and contact name shall be:            _____</p>
<b>Delivery and Documents</b> <b>GCC 13.1</b>	<p>The Goods are to be delivered <b>6-8 weeks</b> from the date of Purchase Order or Letter of Acceptance.</p> <p>The documents to be furnished by the Supplier are:</p> <ul style="list-style-type: none"> <li>(a) signed delivery note</li> <li>(b) Invoice</li> </ul>
<b>Price Adjustment</b> <b>GCC 15.1</b>	The price charge for the Goods supplied and the related Services performed shall not be adjustable.

<b>Subject and GCC clause reference</b>	<b>Special Conditions</b>
<b>Terms of Payment GCC 16.1</b>	The structure of payments shall be: full payment following delivery of the Supplies and submission of an invoice and the documents listed in clause 13.1
<b>Terms of Payment GCC 16.3</b>	Payments shall be made not later than thirty days after month of invoicing upon submission of an invoice and its certification by the Purchaser. Payment will only be made if all the delivered items are to specifications
<b>Terms of Payment GCC 16.4</b>	The currency of payment shall be the currency of order specified in the List of Goods, Price Schedule and Product details in the Statement of Requirements.
<b>Packing GCC 23.2</b>	The packing, marking and documentation within and outside the packages shall be: <b>As per Manufacturer Original packaging Marking and Documentations</b>
<b>Insurance GCC 24</b>	The insurance should be covered as described in <b>Delivery Duty Paid (DDP)</b>
<b>Transportation GCC 25</b>	The Goods shall be delivered: <b>Delivered Duty Paid (DDP)</b>
<b>Inspection and Test GCC 26.</b>	NamWater will inspect all items upon delivery to ascertain if goods conform to specifications. Payment will only be made if all the delivered items are to specifications.
<b>Location of Inspection and Tests GCC 26.2</b>	The inspections and tests shall be conducted at: <b>NamWater</b> <b>Aigams Building</b> <b>Northern Industrial Area</b> <b>Windhoek</b>

Subject and GCC clause reference	Special Conditions
<b>Liquidated Damages</b> GCC 27.1	Liquidated damages for the whole contract are 0.5% per day. The maximum amount of liquidated damages for the whole contract is 10% of the final contract price.
<b>Warranty</b> GCC 28.3	The period of validity of the warranty shall be: <b>12 Months</b>
<b>Repair and Replacement</b> GCC 28.5	The period for repair or replacement shall be: <b>3 weeks</b>

Quotation Checklist Schedule

**Procurement Reference No.: G/RFQ/NW-004/2026**

Description	Attached	Not Attached
Quotation Letter		
List of Goods and Price Schedule		
Specification and Compliance Sheet		
Evidences for conformity of Goods <ul style="list-style-type: none"> <li>• Technical Supporting information for Submersible Pumps &amp; Motos</li> <li>• Technical Supporting information for Vertical Multistage Centrifugal Pump &amp; motor sets</li> </ul>		
Valid company Registration Certificate Copy from <b>Ministry of Trade and Industry</b>		

Original valid good standing Tax Certificate from <b>Inland Revenue</b> or a valid certified copy of an original certified by the Namibian Police of good standing Tax Certificate		
Original valid good Standing Certificate from <b>Social Security Commission</b> or a valid certified copy of an original certified by the Namibian Police of good standing Tax Certificate		
Valid Affirmative Action Compliance Certificate, proof from <b>Employment Equity Commissioner</b> that bidder is not a relevant employer, or exemption issued in terms of Section 42 of the Affirmative Action Act, 1998;		