

**BRAZILIAN NAVY
NAVY INDUSTRIAL DIRECTORATE
REVERSE E-AUCTION**

TERMS OF REFERENCE

1 - GENERAL CONTRACTING CONDITIONS

1.1 - Supply of spare parts for the maintenance of the Submarine Tikuna during the ship docking routine, according to the conditions, quantities and requirements contained in these Terms of Reference:

OUR REFERENCE	NSN	DESCRIPTION	UNIT OF SUPPLY	QUANTITY	ESTIMATED TOTAL PRICE
PG71200-2025-00002	5905-12-154-2502	RESISTOR, FIXED, WIREWOUND ADDITIONAL INFORMATION: technical drawing (attachment A)	UN	3	\$737,54
PG71200-2025-00020	4330-12-373-2842	FILTER ELEMENT, FLUID NAME - ITEM NAME FILTER ELEMENT, FLUID ABPM - BODY DIAMETER 142.5 MILLIMETERS NOMINAL ADAS - BODY INSIDE DIAMETER 95.0 MILLIMETERS NOMINAL APGF - DESIGN TYPE REUSABLE AZKQ - TEMP RATING 100.0 CELSIUS NOMINAL AZTL - BODY OVERALL LENGTH 333.0 MILLIMETERS NOMINAL CLQL - COLLOQUIAL NAME FILTERELEMENT CRXW - FILTERING MEDIA DESIGN WOVEN FEAT - SPECIAL FEATURES SONDERMODELL 20.660; ABSCHLUSZDECKEL, OBEN; STUETZRING, UNTEN MATT - MATERIAL FILTERING MEDIUM STEEL STYL - STYLE DESIGNATOR CYLINDRICAL W/OUT CONTAINER TEXT - GENERAL CHARACTERISTICS ITEM DESCRIPTION MESH DIMENSION: 25.0 MICROMETER /// MASCHENWEITE: 25.0 MIKROMETER	UN	1	\$1.105,29

		ADDITIONAL INFORMATION: technical drawing (attachment B)			
PG71200-2025-00024	5360-12-319-9618	SPRING,FLAT NAME - ITEM NAME SPRING,FLAT ABHP - OVERALL LENGTH 38.0 MILLIMETERS NOMINAL ABKW - OVERALL HEIGHT 20.0 MILLIMETERS NOMINAL ABMK - OVERALL WIDTH 18.0 MILLIMETERS NOMINAL FEAT - SPECIAL FEATURES MIT AUFGENIETETER ROLLBANDFEDER AUSZENDURCHMESSER 11.0 MILLIMETER MATT - MATERIAL OVERALL KUPFERLEGIERUNG 2.0730 MDCL - MATERIAL DOCUMENT DIN17663 ASSN STD SINGLE MATERIAL RESPONSE AND CLASSIFICATION OVERALL TEXT - GENERAL CHARACTERISTICS ITEM DESCRIPTION 2 LOECHER, ABMESSUNG DES HALBZEUGS: BR 18.0 MM; DICKE 1.0 MM ADDITIONAL INFORMATION: technical drawing (attachment C)	UN	4	\$731,67
PG71200-2025-00032	6685-12-351-2977	GAGE,PRESSURE,DIALINDICATING NAME - ITEM NAME GAGE,PRESSURE,DIAL INDICATING ABKW - OVERALL HEIGHT 150.0 MILLIMETERS NOMINAL ABMK - OVERALL WIDTH 100.0 MILLIMETERS NOMINAL ABTJ - MOUNTING HOLE QUANTITY 4 APSK - SCALE RANGE 0.0 TO 6.0 BAR ARCH - DIAL SIZE 100,0 MILLIMETER DURCHMESSER ASSS - POINTER COLOR BLACK ASST - POINTER TYPE INDICATING ASTW - SCALE MARKING ROTE MARKE BEI 2,5 BAR BGKZ - SCALE INSCRIPTION/BACKGROUND COLOR SKALENGRUND WEISZ	UN	1	\$6.277,00

		NACH RAL 9010, BESCHRIFTUNG SCHWARZ NACH RAL 9005 BGRY - CONNECTION LOCATION LOWER BHMG - CONNECTION SIZE M16X1,5 FEAT - SPECIAL FEATURES GEHAEUSE UND RING SCHWARZ, BESCHRIFTUNG TUERKISCH ADDITIONAL INFORMATION: technical drawing (attachment D)			
PG71200-2025-00036	5920-14-566-9495	FUSE,CARTRIDGE NAME - ITEM NAME FUSE,CARTRIDGE AAQL - BODY STYLE TUBE TYPE ABHP - OVERALL LENGTH 25,0 MILLIMETERS NOMINAL ADAV - OVERALL DIAMETER 5,0 MILLIMETERS NOMINAL ADTV - CASE MATERIAL CERAMIC AEBJ - CONTINUOUS CURRENT RATING IN AMPS 6,3 AFXE - MAXIMUM VOLTAGE RATING IN VOLTS 500,0 AC ADDITIONAL INFORMATION: technical drawing (attachment E)	UN	10	\$1.146,62
PG71200-2025-00041	5905-12-354-4634	RESISTOR,FIXED,WIREWOUND NAME - ITEM NAME RESISTOR,FIXED,WIRE WOUND AAPP - ELECTRICAL RESISTANCE 2.0 KILOHMS AAPQ - RESISTANCE TOLERANCE IN PERCENT -5.0 TO 5.0 FEAT - SPECIAL FEATURES DRAHT- WIDERSTANDELEMENT 3PY6002-0M MIT WIDERSTANDSDRAHT NICR 6015 ADDITIONAL INFORMATION: technical drawing (attachment F)	UN	2	\$938,37
PG71200-2025-00050	5977-BR-317-0860	CARBON BRUSH ADDITIONAL INFORMATION: technical drawing (attachment G)	UN	4	\$644,89
PG71200-2025-00051	4140-BR-317-1044	BRUSH SHIFTING ADDITIONAL INFORMATION: technical drawing (attachment H)	UN	8	\$10.954,73
PG71200-2025-00075	6240-12-163-3689	LAMP,INCANDESCENTNAME - ITEM NAME LAMP,INCANDESCENT	UN	100	\$639,19

		<p> ABHP - OVERALL LENGTH 46.5 MILLIMETERS NOMINAL AEVV - BULB DIAMETER 6.6 MILLIMETERS NOMINAL AFSV - AVERAGE LIFE RATING 2000.0 IN HOURS AFSX - FILAMENT HEAVY DUTY NOT RATED SERVICE RATING AGDV - EMITTED LIGHT CHARACTERISTIC WHITE, WARM AMSE - VOLTAGE RATING 28.0 VOLTS NOMINAL CLQL - COLLOQUIAL NAME FERNMELDELAMPE CRPS - BASE STYLE T6.8 CRSK - BULB STYLE T (TUBULAR) CSMC - BULB LIGHT TRANSMISSION CHARACTERISTIC TRANSPARENT CTQM - CURRENT RATING FOR WHICH DESIGNED 45.0 MILLIAMPERES NOMINAL CWBF - RATED AVERAGE LIFE HOURS ADDITIONAL INFORMATION: technical drawing (attachment I) </p>			
PG71200-2025-00087	4330-BR-316-6271	<p> FILTER ELEMENT,FLUID,PRESSURE ADDITIONAL INFORMATION: technical drawing (attachment J) </p>	UN	2	\$255,29
PG71200-2025-00098	5961-12-186-0560	<p> SEMICONDUCTOR DEVICE,DIODE NAME - ITEM NAME SEMICONDUCTOR DEVICE,DIODE ABHP - OVERALL LENGTH 4.6 MILLIMETERS NOMINAL ABJT - TERMINAL LENGTH 26.0 MILLIMETERS NOMINAL ADAV - OVERALL DIAMETER 4.5 MILLIMETERS NOMINAL AFZC - FUNCTION FOR WHICH RECTIFIER DESIGNED AXGY - MOUNTING METHOD TERMINAL AYQS - TERMINAL CIRCLE DIAMETER 1.35 MILLIMETERS NOMINAL CBBL - FEATURES PROVIDED HERMETICALLY SEALED CASE CLQL - COLLOQUIAL NAME MESA- </p>	UN	27	\$107,73

		<p style="text-align: center;">DIODE</p> <p style="text-align: center;">CTQN - VOLTAGE RATING IN 1000.0 MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE VOLTS PER CHARACTERISTIC CTQX - CURRENT RATING PER 80.0 AMPERES MAXIMUM PEAK FORWARD SURGE CURRENT AND 18.0 CHARACTERISTIC AMPERES MAXIMUM FORWARD CURRENT, MAXIMUM PEAK TOTAL VALUE AND 3.0 AMPERES MAXIMUM FORWARD CURRENT, AVERAGE CTSG - MAXIMUM OPERATING 150.0 CELSIUS AMBIENT AIR TEMP PER MEASUREMENT POINT FEAT - SPECIAL FEATURES KATHODE ERSTER FARBRING GRAU UND ZWEITER BLAU MATT - MATERIAL SEMICONDUCTOR SILICON TEXT - GENERAL CHARACTERISTICS ITEM DESCRIPTION TYPE OF ZONE TRANSITION: PN /// ART DES ZONENUEBERGANGS: PN TTQY - TERMINAL TYPE AND QUANTITY 2 UNINSULATED WIRE LEAD ADDITIONAL INFORMATION: technical drawing (attachment K)</p>			
PG71200-2025-00108	5905-12-354-4635	<p style="text-align: center;">RESISTOR, FIXED, WIREWOUND NAME - ITEM NAME RESISTOR, FIXED, WIRE WOUND AAPP - ELECTRICAL RESISTANCE 1.25 KILOHMS AAPQ - RESISTANCE TOLERANCE IN PERCENT -5.0 TO 5.0 FEAT - SPECIAL FEATURES DRAHT- WIDERSTANDSELEMENT 3PY6002-0K MIT WIDERSTANDSDRAHT NICR 6015 ADDITIONAL INFORMATION: technical drawing (attachment L)</p>	UN	2	\$1.138,49
Total					\$24.676,81

1.2 - The object of the tender is not a luxury item.

1.3 - Considering that the spare parts, required for the maintenance of Submarine Tikuna, have standard codes in the cataloging system adopted by NATO with recognised and usual specifications in the market, it is understood that the items object of the tender are of a common nature for the purpose of using the tender modality reverse e-auction.

1.4 - The Purchase Order will remain in force until receipt of the order and payment.

2 - DESCRIPTION AND JUSTIFICATION FOR PROCUREMENT

2.1 - This document is regarding requests for the supply of items for the Navy Supply System for use during the maintenance periods foreseen in the General Maintenance Program (PROGEM).

2.2 - The PROGEM is a planning document prepared by the Operations Sector, according to the cycle of activities of each Ship, for a period of four years, and with the purpose of providing the naval, air-naval and Marine forces with full operational capacity.

2.3 - The maintenance periods are scheduled in the PROGEM, as a way to enable maintenance activities to be carried out.

2.4 - Maintenance is defined as the set of technical and administrative activities carried out in order to keep something in proper condition for use with reliability, safety and at appropriate cost and, in case of malfunctions, to bring it back to proper condition.

2.5 - Properly performed maintenance increases the useful life of equipment, reduces the need for supplies and allows saving resources to serve other purposes.

2.6 - Planned maintenance is carried out in a systematic and scheduled manner and takes into consideration all the necessary elements for performance: labour, material and time.

2.7 - The maintenance periods have their duration defined, in principle, by the Ship class or type. However, planning of the service, schedule and monitoring will only be efficient if the necessary spare parts are available at the Service Provider Military Organization at the right time.

2.8 - The absence of, or delay in obtaining the spare parts will cause increased costs, inefficient use of labour and delays in completing maintenance among other inconveniences, in addition to the Ship's unavailability to fulfill the Brazilian Navy's constitutional duties of public interest.

2.9 - All Military Organizations within the Brazilian Navy are responsible for maintenance since the scope includes all the infrastructure of the Navy.

2.10 - The object of the tender is in the Resource Application Program (PAR), as detailed below:

a) PAR code: 01/2025

b) Date of approval of addition to the PAR: 14/01/2025

c) Economic activity: 339030

3 - DESCRIPTION OF THE SOLUTION AS A WHOLE CONSIDERING THE OBJECT LIFE CYCLE AND THE PRODUCT SPECIFICATION

3.1 - The supply of spare parts is for use on the Selective Restricted Availability for maintenance of the Submarine Tikuna, ensuring the ability of the Brazilian Navy to perform its missions.

3.2 - The object of the tender is divided into items with the aim of increasing competitiveness, the basic principle of the tender process, and to allow tenderers to present individualized proposals for each one of them, and the decision is to be made in relation to each item, which usually results in more beneficial prices.

3.3 - Proposals must meet all quality requirements in order to enable the selection of the most advantageous one through competitive tendering.

3.4 - Every spare part has a lifespan, which is an estimate of the useful life of a product based on technical conditions.

3.5 - The specifications, characteristics and models contained in the list of items indicate in detail the quality of the items able to meet the requests and, therefore, decrease or eliminate the possibility of acquisition of less durable items, which are likely to create a need for new replacement.

4 - REQUIREMENTS

Sustainability

4.1 - The Supplier must conduct business in accordance with the principle of sustainable development and adhere to internationally recognised fundamental standards for occupational health and safety, environmental protection, labour and human rights as well as responsible corporate governance.

Indication of brands or models

4.2 - In this tender, the indication of brands, characteristics and models are permitted due to the need to maintain standardisation and compatibility with technical and performance specifications required by the Brazilian Navy.

Subcontracting

4.3 - Subcontracting will not be allowed.

Performance guarantee

4.4 - The need of a performance guarantee is specifically associated with the complexity of the object and the potential risks of execution of the Purchase Order. Given the low complexity of the object, there is no need for a performance guarantee, as its adoption would only increase the price.

5 - TYPE OF DELIVERY

Delivery terms

5.1 - According to INCOTERMS 2020:

Country of origin	FCA	FOB
AUSTRIA	-	HAMBURG
BELGIUM	-	HAMBURG
DENMARK	-	HAMBURG
FINLAND	-	HAMBURG
FRANCE	PARIS (LE BOURGET)	LE HAVRE
GERMANY	-	HAMBURG
GREAT BRITAIN	LONDON DEPOT	LONDON DEPOT
ITALY	-	GENOVA (LA SPEZIA)
LIECHTENSTEIN	-	HAMBURG
NETHERLANDS	-	HAMBURG
NORWAY	-	HAMBURG
PORTUGAL	-	LISBON
SPAIN	-	BARCELONA
SWEDEN	-	HAMBURG
SWITZERLAND	-	HAMBURG

5.2 - Alternatively, and for countries of origin not listed above, delivery shall be CIP/CIF Rio de Janeiro, Brazil.

5.3 - The Purchase Order provides further details of the rules that apply in relation to delivery.

Goods warranty

5.4 - A certificate of warranty of at least 12 months from the date of delivery will be required from the Supplier.

5.5 - The Supplier undertakes to substitute, at no expenses to the Navy, any goods found to be defective due to incorrect design, faulty material or workmanship. This warranty is valid if the goods have been properly handled and used in accordance with instructions from the Supplier. Notification of any defect must be made promptly upon any defect arising and before the warranty period expires.

5.6 - The faulty goods, where applicable, will be returned by the Navy to the Supplier at the Supplier's expenses.

5.7 - At the Supplier's expense, the faulty goods will be returned to the Navy repaired, or identical working items will be supplied to replace them.

6 - MONITORING AND SUPERVISION OF PERFORMANCE

6.1 - A representative will be appointed to monitor and supervise the delivery of the goods, making notes in a proper register of all occurrences related to performance and determining what is necessary to correct the flaws or defects found.

6.2 - The inspection referred to in this item does not exclude or reduce the Supplier's liability, including in relation to third parties, for any irregularity, even if resulting from technical imperfections or latent defects.

6.3 - The representative of the Navy will record in the appropriate register all occurrences related to the supply, indicating the day, month and year, as well as the name of the employees eventually involved, determining what is necessary to correct the observed flaws or defects and forwarding the notes to the competent authority for the appropriate measures.

7 - RECEIPT AND PAYMENT

Receipt of the order

7.1 - The goods must be delivered according to INCOTERMS 2020 and instructions contained in the Purchase Order.

7.2 - The goods will be provisionally received for the purpose of subsequent verification of conformity with the specifications.

7.3 - The goods may be rejected, in whole or in part, when not in accordance with the specifications and must be replaced at the Supplier's expense.

7.4 - Final receipt of the goods will be after quality and quantity check and consequent acceptance.

Validation of expenditure

7.5 - A duly signed original commercial invoice with full bank details is required for validation of the expenditure.

Payment terms

7.6 - As specified in the Purchase Order, payment will be made against the original commercial invoice within 30 days after delivery through bank transfer to the account indicated by the Supplier.

8 - SUPPLIER SELECTION METHOD AND CRITERIA

Proposal selection method and evaluation criteria

8.1 - The Supplier will be selected through a tender process, in the reverse e-auction format, based on the lowest price per item.

Qualification requirements

8.2 - For purposes of qualification, the tenderer must submit the following documents:

Legal qualification

8.3 - Certificate of incorporation of equivalent document. If the document has already been presented at the time of registration with the BNCE, submission may be waived.

Technical, economic and financial qualification

8.4 - The submission of documents related to the company's technical, economic, and financial records is waived because the acquisition is to be made through a Purchase Order.

9 - ESTIMATED PRICES

9.1 - The estimated total price is USD 24.676,81, according to the prices shown in table in item 1.1.

10 - BUDGET ADEQUACY

10.1 - The expenses arising from any eventual Purchase Order will be supported by specific financial resources included in this year's General Budget of the Brazilian Government, as detailed below:

- a) Operation/Unit: 0001 / UGR: 91534 e UGE: 40015;
- b) Funding source: 3050000144;
- c) Work program: 236871;
- d) Item of expenditure: 339030;
- e) Internal plan: P.3DR.TK.

11 - GENERAL INFORMATION

11.1 - The information contained in this Terms of Reference is not classified as confidential.

Rio de janeiro, RJ, 13th November 2025.

SAINT-CLAIR DANTAS OLIVEIRA SANTOS
Captain
Submarine Project Management Chief of Department

LEANDRO BRILHANTE REGLY
Lieutenant-Commander
Supply Advisor

LEANDRO JUSTINO DE ABREU
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Approved by:

MARCELO ANTONIO ROCHA AFONSO
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