

INVITATION TO BID

Bid No.13-2021
Date: 31st May 2021

Summary

IASL is the National Airline of the Republic of Maldives and is wholly owned by the Government of Maldives. In addition to Air Transport Services, IASL offers various other aviation related services such as Air Cargo, Airport Management, Aircraft Engineering, and Ground Handling Services.

IASL is looking to develop a new Fuel Plant at N. Maafaru International Airport. IASL hereby invites local and foreign companies with financial capability and experience in manufacturing and supplying of Fuel Storage Tanks as per the requirement stated in Annexure -1.

Island Aviation Services invites sealed bids valid for 90days from the date of opening the bids from Maldivian / International companies, for procuring requirement as per attachment. All bidders are advised to study the Bid Document carefully.

Tentative Project Timeline

Task Name	Start	Finish
	M/D/Y	M/D/Y
RFB Confirmation	5/26/21	5/27/21
Announcement	5/31/21	5/31/21
Queries Clarification	5/31/21	6/17/21
Proposal Submission	6/20/21	6/20/21
Proposal Evaluation	6/21/21	6/24/21
Selection	6/25/21	6/25/21
Agreement Confirmation	6/26/21	7/1/21
Agreement Signage	7/2/21	7/3/21
Payment Settlement	7/4/21	7/6/21
Manufacturing	7/7/21	8/3/21
Shipping	8/3/21	10/4/21
Clearance	10/5/21	10/18/21
Inspection	10/19/21	10/20/21
Acceptance	10/21/21	10/21/21
Transportation to NMF	10/22/21	10/25/21
Tank Installation	10/26/21	11/3/21
Completion of the Project	11/3/21	11/3/21

Note: Above project timeline is subject to change but IASL recommends all bidders to put their best effort to be consistent with above timeline.

Information for Bidders

Services/Goods Required:

Design, Fabrication, Testing and Delivery of New Carbon Steel, Fusion Welded, Above Ground, Single Skin, Horizontal cylindrical tanks with dished and flanged ends for aviation fuel (JET A-1), with the capacity of 50m³ as per the Annexure-A.

No. of JET A-1 Fuel Tanks Required: 8 Tanks

Guideline for BID Registration:

Bidders are required to provide expression of interest by mailing the filled EOI Form to IASL procurement mail as per below mailing format:

To: procurement.admin@iasl.aero

Cc to: mohamed.ziyau@iasl.aero

Subject: EOI for IASL NMF Storage Tanks BID No:13-2021

Last date for EOI (Expression of interest) is 4th June 2021.

BIDs will be accepted only from the bidders who express their interest as per above instructions and participate in the below Proposal submission video conference.

Clarifications for queries will be open till 17th June 2021 on or before 14:00hrs local time in Maldives (GMT + 0500hrs). Queries must be mailed to below email addresses:

To: procurement.admin@iasl.aero

Cc to: mohamed.ziyau@iasl.aero / m.ali@iasl.aero / binarchdesign@gmail.com

Proposal Submission via Video Conference:

All the parties that meets the eligible criteria must submit their proposals not later than 20th June 2021. Proposal submission time window will be open from 17:10 – 17:30hrs local time in Maldives (GMT + 0500hrs).

Proposal submission will be conducted through a video conference meeting held in IASL Head Office at 17:00hrs local time in Maldives (GMT + 0500hrs).

A link for joining the video conference meeting will be sent to each Bidders mail prior to one-hour of video conference commencement.

For uploading proposals, a 20-minute submission time window will be given for all bidders starting from 17:10 – 17:30hrs local time in Maldives (GMT + 0500hrs).

The latest time for joining the BID submission video conference will be till 17:10hrs local time in Maldives (GMT + 0500hrs). late Bidders will not be allowed to join proposal submission video conference.

Eligible bidders

The Bidders must submit relevant documents as per below details.

- a. Bidder must be a Business Entity providing such goods and services as attachment.
- b. If the bidder is a Maldivian Firm, they must have its own operational office at Maldives and registered with Maldives Inland Revenue Authority (MIRA) and submit below documents:
 - a. Company Registration Certificate
 - b. GST Registration Certificate
 - c. Audited Financials (2019 – 2020)
- c. Foreign bidder must submit a valid Tax Compliance Certificate of their origin country.
- d. The Application must be submitted in English language. All required information must be provided, responding clearly and concisely to all the points set out. Any application which does not fully and comprehensively address this Request for Proposal may be rejected.

The Application document should comprise of the following:

1. Cover Letter: The cover letter for the proposal must be signed by an authorized person who has the authority to bind the Proposal to a Contract;
2. Company Profile: If vendor is a firm, Profile of the Firm including the firm's shareholding structure and details;
3. Project Cost and Payment Terms: The Project Cost and Payment Terms and arrangements quoted in Maldivian Rufiyaa (MVR) or in United States Dollar (USD) inclusive of all freight, insurance and taxes. Proposal must remain valid for a period of 90 days after the date of Proposal Submission.
4. Proposed price must be quoted in all-inclusive CIF Sea Freight basis.
5. Implementation Plan: From Order confirmation to Manufacturing and Delivery Plan.
6. Information About Party's Technical and Financial Capacity and Relevant Experience:

- 6.1. Provide last 2 years' financial statements (audited) to indicate financial strength of the company to execute a project of this nature;
- 6.2. List of past experience in similar projects with letters of completion. If past experiences are not accompanied with an official letter of completion by the client, marks will not be awarded to that section; and
7. Related Party Disclosure (Form A):
 - 7.1. The form serves to justify that the bidder has or does not have any relationship in terms of employment or close family relationship. Close family relationship here refers to spouse, including former spouse relatives, which comprise: siblings; cousins; uncles and aunts; nephews and nieces; lineal ancestors (presumably, it means parents, grandparents and other ancestors of direct lineage) lineal descendants (children, grandchildren and other direct descendants).

Island Aviation holds the right to reject a Proposal in the following circumstances:

1. If less than two bids have been submitted, the IASL has the right to continue or reject the evaluation or request for a resubmission.
2. If any of the documents mentioned above in the documents required is missing from the B the IASL has the right to reject the BID or request for a resubmission

Applications shall be evaluated in accordance with the Party's demonstrated capacity and experience and expertise. The awarding criteria's and weightage will be annexed to this document.

Parties shall bear all costs associated with the preparation and submission of the Application and Island Aviation will not in any case be responsible and liable for the costs incurred.

All information given in writing to or verbally shared with the Party's in connection with this Request for Proposal is to be treated as strictly confidential. The Party's shall not share or invoke such information to any third party without the prior written approval of IASL. This obligation shall continue after the procurement process has been completed whether or not the Party is successful.

All materials submitted in Response to the Request for Proposal shall become the property of IASL. Proposals and supporting materials will not be returned to the Party.

- e. All information provided will be subjected to verification by IASL. Submission of incomplete or unsigned forms may result in rejection of the bid as non-responsive.

- f. IASL will only accept one bid document from every bidder.
- g. To assist in the evaluation and comparison of bids, IASL may, at its discretion, request any bidder for clarification of its bid. This will be clarified in writing, but no change in substance or price of the bid will be sought.
- h. IASL will evaluate and compare only those bids determined to be responsive in accordance with requirements specified in the bidding document.
- i. IASL will award the contract in writing to the bidder who scores the highest marks in compliance with the criteria decided by the Bid Evaluation Committee.
- j. Upon furnishing by the successful bidder, IASL will promptly notify the other bidders through telephone or email that their bids have been unsuccessful.

Evaluation Criteria:

- k. IASL intends to apply the following criteria for the selection of bids. The Bid will be evaluated by the Bid Evaluation Committee of IASL. Points will be given to proposals according to the evaluation criteria below.

Price Offered	50 %
Strength/Reliability	10 %
Relevant Past Experience	10 %
Delivery	30 %

NOTE:

- 1. Letters from clients stating the successful execution of similar tasks or evidence of Refuellers supplied by the bidder is required to attain marks for the “Past Experience” category.
- 2. Marks will be awarded under criteria for Strength/Reliability considering the **submitted audited financials** for the latest two years.

COMPANY INFORMATION FORM (EOI)	
Business Name	
Correspondence Address	
Registered Address	
Date of Incorporation	
Name of Representative	
Designation of Representative	
Contact No.	
Email Address	

RELATED PARTY DISCLOSURE (FORM A)

Island Aviation Services Limited
M. Dar Al-Eiman Building,
Majeedhee Magu,
Male' 20345,
Republic of Maldives

[Date]

Dear Sir/ Madam,

Project: RFB to

Subject: Related Party Disclosure

With the exception of the below specified, I hereby declare that, we, the party is in no way, shape or form related to Island Aviation; created either through an employer-employee agency relationship between employees or directors of Island Aviation or by way of ownership of Island Aviation.

Name of the Related Party	Designation of the Related Party	Relationship

Yours sincerely,

[Name of signatory]

[Title]

Annexure -1

AVIATION FUEL STORAGE, HORIZONTAL TANKS

1. Scope

The specification covers the requirements for the design, fabrication, testing and delivery of new carbon steel, fusion welded, above ground, single skin, horizontal cylindrical tanks with dished and flanged ends for aviation fuel (JET A-1), with the capacity of 50m³.

Aviation Fuel Storage it is essential that the specified slope and a high quality of workmanship are achieved so that free water does not gather at locations along the tank bottom and can drain to the sump without obstruction, where it can be removed.

The tank shall have 1:50 slope to the sump of the tank.

The internal lining helps maintain the quality of the fuel and allows easy visual inspection.

Required Quantity: 8 Tanks as per below specifications.

2. Product Data/ Design Data

Unless stated otherwise all equipment is to suitable for use with aviation turbine Fuel (Jet A-1).

Product: Jet A-1

Density: 775-840 kg/m³

Viscosity: 2.1 cSt @ 15°C

Temperature: 0-50°C

Pressure: Ambient

Capacity: 50,000Ltrs (excluding vapor space)

Vapor Space: 5%

Test Pressure: Full Water

Corrosion Allowance: 1.5mm

slope: 1:50

3. Applicable Codes and Standards

All materials and workmanship shall comply with the applicable provisions of the latest issue of the relevant codes and standards which shall include the following:

UL 142 - Aboveground Flammable Liquid Tanks

ANSI B16.5 Fittings

Steel Mild Steel, JIS G3101 SS 400

ISO 9000 – 2015

4. Design and Construction

Shell and End Plate Thickness

The tank shell and end plates shall be designed by the Manufacturer suitable for the duty specified, but in no case shall the shell and end plate be less than 8mm for tank.

5. Tank Construction

The tanks shall be wholly fabricated at the Manufacturer's works.

5.1 - Shell Plating

The cylindrical shell plating arrangement shall comply with shell plated circumferentially.

5.2 - Dished Ends

The shallow dished ends shall be lap welded to the shell with a sealing weld runs.

5.3 - Tank Bottoms

Tank bottoms shall be kept free of obstructions and protrusions in order to provide a free passage of water to the sump. The internal welding of the bottom plating shall be ground flush for a width of 150mm to each side of the tank center-line.

5.4 – Internal Ladder

Mild Steel epicoated Internal Ladder to be Installed.

5.5 – Water Drain Sump

Water drain sump of minimum 300mm at the lowest sloped part of the tank to be fabricated.

Water sump shall have 200mm clearance from Dished end.

Sump Depth 150mm

5.6 - Access Platform

An access platform is to be supplied with the tank to provide access to the tank manholes, top nozzles, floating suction test mechanism, level alarms, gauging equipment.

Platform, walkway and stairway flooring shall be galvanized, rectangular-pattern, open

steel grating. Flooring shall be 'Lionweld Safegrid' or approved equal.

All steel flooring shall be fastened to supporting steel by purpose made clips, designed and supplied by the flooring manufacturer.

Platforms, walkways and floors shall be provided with 6mm thick kick plates extending 100mm above top of flooring.

The minimum width of platforms and walkways shall be 750mm

Where the access platform runs the entire length of the tank between two or more manholes then a second means of escape from the tank top shall be provided by means of either a ladder or bridge to an adjacent tank offering an escape route. If to be dispatched separately from the tank, platforms shall be fitted to the tank at the Manufacturer's works prior to dispatch.

5.7 - Tank Saddles

Tank saddles shall be supplied integral with the tank and designed to give the bottom of the tank the specified slope (1:30 unless stated otherwise) to the sump when the tank is placed on a level foundation. Holes for holding-down bolts shall be provided.

Suitable through holes in the saddle (50mm diameter) should be made to allow the tank base to be secured during transportation.

5.8 - Earthing Points

Two earthing points shall be provided, one welded to each saddle on opposite sides of the tank i.e. diagonally located.

5.9 - Weld Cleaning

Upon completion of welding, all temporary cleats etc. shall be removed, projections and sharp edges ground down and any pits filled with metal weld. Prior to painting, all weld splatter, scale and surface corrosion shall be removed by grinding, grit blasting, scraping or wire brushing as necessary to achieve a surface finish suitable for the specified paint treatments.

5.10 - Tank Fitting and Welded Attachments

The tanks shall be supplied complete with all mountings, supports, fittings etc. (including all necessary bolts, nuts, washers, gaskets and the like) correctly assembled ready for use except for loose and external fittings. These will be assembled on site by others after erection.

All welded attachments shall be complete prior to pressure testing the completed tank.

5.11 - Lifting Lugs

Suitable lifting lugs are to be welded to the tank shell, clear of nozzles and platforms.

6. Tank Nozzles and Pipework Connections Construction

Tank nozzle positions should be as shown on the Drawings.

The following nozzles shall be provided on the tank.

Nozzle Designator	Size	Description
INLET	DN100	Vertically through the roof with Inner drop tube to avoid splash filling End Flanged – ANSI150RF.
OUTLET	DN100	Horizontally through the shell Both ends to be flanged – ANSI150RF
DRAIN	DN50	Horizontally through the shell connected to sump End Flanged – ANSI150RF.
MANHOLE	DN600	2 x Roof manholes on both end on the tank
INSPECTION HATCH	DN200	Quick Inspection nozzle – ANSI150RF
VENT	DN80	Vent Nozzle – ANSI150RF
DIP TUBE	DN50	Nozzle – ANSI150RF
LEVEL TRANSMITTER	DN50	Nozzle – ANSI150RF
LEVEL SENSOR	DN50	Nozzle – ANSI150RF
SPARE	DN50	Nozzle – ANSI150RF
TANK GAUGE	-	Tank Content Gauge (Floater Controlled)

Notes: -

A1 - Roof nozzles and manways: shall be fabricated to ensure they are vertical and all extend to the same elevation with the tank installed its designed slope; and shall archive 100mm from lowest nozzle to shell plate.

A2 - Pipe Flanges ANSI B16.5, Class 150, ASTM A105N RF.

A3 - Pipe Fittings ANDI B16.9 Carbon Steel ASTM A234 WPB, Carbon Steel BS 4360 Grade 43A.

A4 - All pipework flanges bolt-holes: shall be installed with bolt holes “square” to tank center line (i.e. center line should pass centrally between bolt holes not through bolt holes)

7. Venting

Normal Venting

Single free vents shall be provided each to have the capacity to suit the maximum design flowrates during normal filling and emptying of the tank without the pressure or vacuum in the tank exceeding those permitted by the tank design.

Except as noted below, tank vent should be provided with a coarse mesh screen to protect against birds, large insects or airborne debris entering the tank.

Tank vent assay shall be made from Stainless Steel.

8. Quick Inspection hatch

Quick inspection hatch made aluminum or stainless steel shall be fitted on the Inspection Nozzle.

Inspection hatch shall be type of easy lockable.

9. Internal Pipe and Fittings

Manufacturer may offer to fabricate internal pipework with Stainless Steel or Aluminium to avoid requirements for coating these fittings.

10. Floating Suction Unit

The floating suction unit to be installed.

The Floating Suction Unit is to be designed to cope with stresses that can occur during fuel storage and handling operations. In particular

- The Floating Suction Unit shall not collapse, buckle or fail in any way when it is empty of product, floating and exposed to external pressure caused by full tank head.
- The Floating Suction Unit and fragile attachments such as the Float Mechanism should be designed to cope with the additional stresses that may occur due to turbulence and swirl of the product as the tank is filled.
- Unless stated otherwise on the Floating Suction Unit all materials shall Aluminum to be compatible with Jet fuel.
- All Seals shall be compatible with the JET A-1 fuel
- All bolts and fasteners shall be Stainless Steel.
- Check Cables (for floats) and Retaining Cables and fasteners shall be Stainless Steel (plastic-coated Stainless-Steel Cable shall not be used).
-

Floating Suction Operation Inspection

- Floating Suctions shall include a device for checking that it is afloat and operating correctly.
- The purchaser is to specify any preferred device for checking floating suction position e.g. Stainless-Steel lanyard.
- Floating suction shall be fitted with a restraining wire configuration to prevent the unit hitting the tank roof and also restraining the floating suction from rising beyond 70° (typical) measured from the tank floor.
- Tank outlet nozzles shall be flanged to suit the flange supplied on the Floating Suction unit, to avoid mating a flat faced flange to a raised face with a consequent risk of breaking a flange tightening.
- Swivels (and other sliding parts) shall be non-lubricating.

11. Supply of Stud bolts, Nuts Fasteners etc.

The Manufacturer shall supply gaskets, bolts, studs, nuts and washers for all joints between fittings, flanges, covers and tank mountings etc. Stud bolt and bolt lengths shall be sized to have 1 – 2 threads showing beyond each nut.

Alloy Steel Inch Series, stud bolts to BS 4882 (Stud bolts BS 1506-621A/ASTM A 193 Gr B7, Nuts BS

1506-162/ASTM A194 Gr 2H) each supplied complete with two heavy series hexagon nuts. Stud bolts and nuts to be supplied in a protective film of graphite.

12. Gaskets

Self-centering, Compressed Asbestos Fiber (CAF) Gaskets, 1.5 mm thick for all pipework except manholes which shall be 3 mm thick, dimensioned to ASNI B16.21, suitable for use with aviation fuels to BS 1832 and BS F125. Flat faced flanges are to have full face gaskets.

CAF gaskets shall be suitably packaged and labelled both on the packaging and gasket materials 'Contains Asbestos'. Material safety data sheets shall be supplied with all jointing materials. The supplier shall provide details of any necessary protective equipment to be used when handling or disposing of jointing materials.

13. Foundation Bolts / Studs

Foundation bolts shall be supplied with the Tanks.

14. Welding and Radiographic

14.1 – Inspection

All welds shall be visually examined externally and internally where possible, for surface faults or irregularities before any other method of non-destructive testing is used.

14.2 - Standards of Acceptability

The standard of acceptability shall be in strict accordance with the requirements of the Contract Welding Standard and all welding shall be carried out by qualified welders holding current test certificates to the appropriate standard.

15. Testing

15.1 - Hydraulic Testing

Testing shall be carried out before the tanks are internally lined and externally painted.

The tanks shall be individually hydraulically tested using water in accordance with the relevant BS or DIN specification.

15.2 - Tank cleaning

The tank shall be cleaned thoroughly and dried internally after satisfactory hydraulic testing.

15.3 - Test Certificate

An original test certificate for each tank (and for each compartment) recording the results of the pressure test shall be issued to the Purchaser.

15.4 - Inspection

Tank fabrication inspection shall comply with BS 2594 Section 12. All lining/painting operations including blasting shall be inspected by the Engineer or Inspector.

16. Painting

16.1 Tanks and Internal Carbon Steel Fittings

The Manufacturer shall paint the tank and fittings in accordance with the Purchaser's requirements stated below and any additional requirements stated in Specification for Internal Tank Lining and External Tank Painting.

Before commencing blast cleaning, machined sealing surfaces such as raised face of flanges shall be protected from blast damage using protective discs or otherwise.

Blast cleaning shall be to BS EN ISO 8501-1 Sa 2½. The resultant surface profile shall be 50-75 microns with peaks of maximum amplitude of 100 microns.

Before commencing painting all surfaces which are not to be painted shall be masked off, e.g. raised face of flanges, vessel nameplate.

Painting shall take place within 4hrs of blast cleaning otherwise blasting shall be repeated.

MIL-PRF-4556 Coating kit, epoxy, for interior of steel fuel tanks.

16.2 Interior

Internal Lining material shall quality to EI-1541, suitable for Aviation Fuel.

Carbon steel vessels shall be coated internally with a white or light colored surface coating which shall not deteriorate upon exposure to fresh water, salt water or aviation fuels, nor shall the coating affect fuel quality. Epoxy coatings conforming to aviation standards or those listed are suitable. The integrity of the internal coating shall be supported by a ten-year materials and application warranty.

The epoxy paint system shall be applied in accordance with the paint manufacturer's instructions and to their specified thicknesses.

Epoxy lining materials shall not be used to fill cracks.

In addition to checking minimum Dry Film Thickness (DFT), the lining is also to be tested for cure by the Ketone Test described below:

The lining shall be rubbed for one (1) minute with a clean rag soaked in Methyl Ethyl Ketone (MEK) after which time the lining must not be softened as indicated by scratching with a finger nail (a slight indentation is permissible but no material removal shall occur) or show any other signs of deterioration.

A soak test will be carried out by the purchaser prior to commissioning. The supplier shall be liable for all costs associated with re-lining of the vessel if the lining prevents a successful soak test.

16.3 Exterior

The exterior of the vessel shall be painted as requested by the Purchaser on Appendix 1; this will normally be one of the following:

Finish painted. Primer Zinc rich epoxy 50 micron DFT, Midcoat MIO 2 pack epoxy 125 micron DFT, Finish coat Acrylic modified 2 pack polyurethane 50 micron DFT.

Color – White.

16.4 Access Platforms, Stainless Steel and Aluminium Fittings

Galvanise2wsd access platforms, Stainless Steel and Aluminium Fittings are to be left unpainted.

17. Calibration

The Manufacturer shall supply a suitably sized 'T-section' stainless steel dip stick calibrated in millimeters.

18. Tank Identification / Marking

The following information shall be permanently and clearly marked on a stainless-steel nameplate attached to the side of a saddle support:

- Manufacturer's name
- Manufacturer's reference number
- Nominal capacity (cubic meters)
- Net weight of tank excluding fittings and platform (kilograms)
- Test pressure and date of test

19. Preparation for Delivery

19.1 - Tank Openings

All tank openings shall be sealed with temporary steel blinds, all steel blinds shall apply primer coats suitable for sea transfer or other equal suitable means.

19.2 - Tank Fittings

All fittings shall be removed from the tank, packed in a separate box and dispatched with the tank. Fittings for each tank shall be packed separately and boxes clearly marked.

19.3 - Packing

Necessary packing for seaborne cargoes to be applied
Suitable material and anti-corrosion agents to be applied for protection of the Tanks for shipping.

20. Delivery

20.1 – General

The Manufacturer shall arrange CIF delivery to the Maldives.

20.2 - Documentation and Certification

The Manufacturer shall supply two complete sets of documentation. One set shall be delivered with the tank(s), the second set shall be sent direct to the Purchaser – documentation shall at provided in

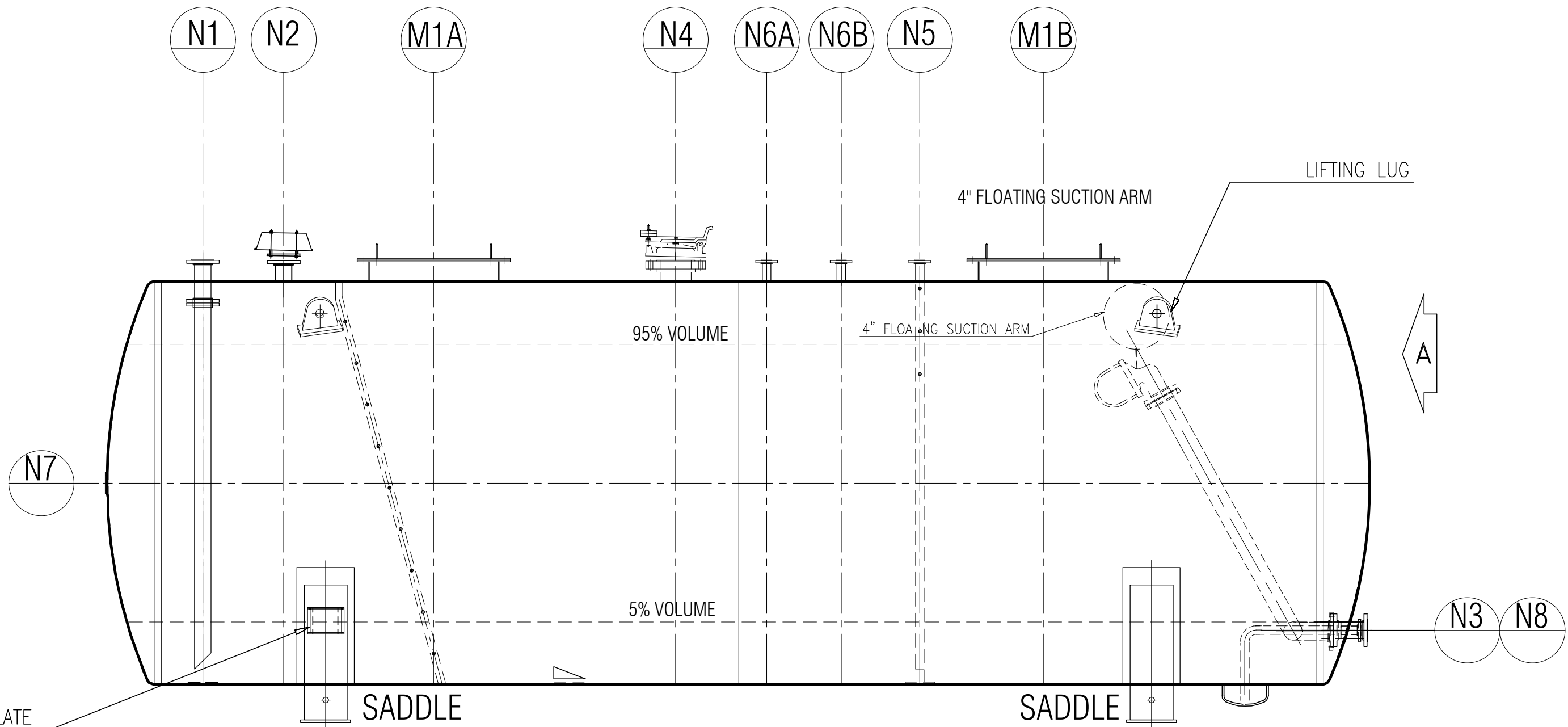
The Manufacturer shall supply two complete sets of printed documentation and 01set of electronic documentation. One set shall be delivered with the tank(s), the second set shall be sent direct to the Purchaser – documentation shall at least include the following:

- i) As built drawings.
- ii) Certificate of conformity to BS 2594
- iii) Painting and lining records
- iv) Pressure test certificate
- v) Vendor manual for tank fittings supplied with the tank

vi) An inventory of all items delivered including a list of all fittings packed separately shall be provided by the manufacturer and shall accompany the tank at the time of delivery.

21. Approvals

All materials used shall be pre-approved by the client / Consultant Engineer before the production.



ELEVATION

SCALE 1:30

NOZZLE SCHEDULE					
NOZZLE	QTY	SIZE	RATING/TYPE	DESCRIPTION	ADDITIONAL INFORMATION
N1	1	DN100	150# SS WNRF	INLET	SS, NOZZLE & C/W INNER TUBE
N2	1	DN80	150# WNRF	VENT	C/W FREE VENT
N3	1	DN100	150# SS WNRF	OUTLET	SS, NOZZLE & C/W FSU
N4	1	DN200	150# WNRF	INSPECTION HATCH	C/W QUICK INSPECTION HATCH
N5	1	DN50	150# WNRF	DIP TUBE	
N6A	1	DN50	150# WNRF	LEVEL SENSOR	
N6B	1	DN50	150# WNRF	LEVEL SENSOR	
N7	1	DN150	-	CONTENTS GAUGE	C/W MANUAL LEVEL INDICATOR
N8	1	DN50	150# SS WNRF	SAMPLING/TANK DRAIN	C/W INNER TUBE TO SUMP
M1A	1	DN600		MANHOLE	
M1B	1	DN600		MANHOLE	

DESIGN DATA		
DESIGN CODE	UL 142	
DESIGN PRESSURE	ATM	kPa
DESIGN TEMPERATURE	50	C
TEST PRESSURE	FULL WATER	kPa
CORROSION ALLOWANCE	1.5	mm
RADIOGRAPHY	10%	
CAPACITY	50	M3
EMPTY WEIGHT	7,500	Kg

MATERIAL LIST		
MARK	ITEMS	MATERIALS
1	SHELL	JIS G3101 SS400
2	HEADS	JIS G3101 SS400
3	FLANGES	A 182 F 304
4	NOZZLE PIPE	A 312 TP F 304
5	GASKETS	VITON
6	BOLTING	SA 193 GRB8/SA 194 GRB
7	SADDLES	JIS G3101 SS400

GENERAL ARRANGEMENT-50KL

SCALE 1:30

REVISION:

PROJECT :
 PROPOSED
 -
 MALDIVES

DRW TITLE : **GENERAL ARRANGEMENT - 50KL**
 CLIENT : -
 OWNER : -
 CONTACT : -

DESIGNED : -
 ARCH. CHECKER : -
 DESIGN ENG : -
 CHECKED ENG : **Niyaz**
 DRAWN : **Samyr**

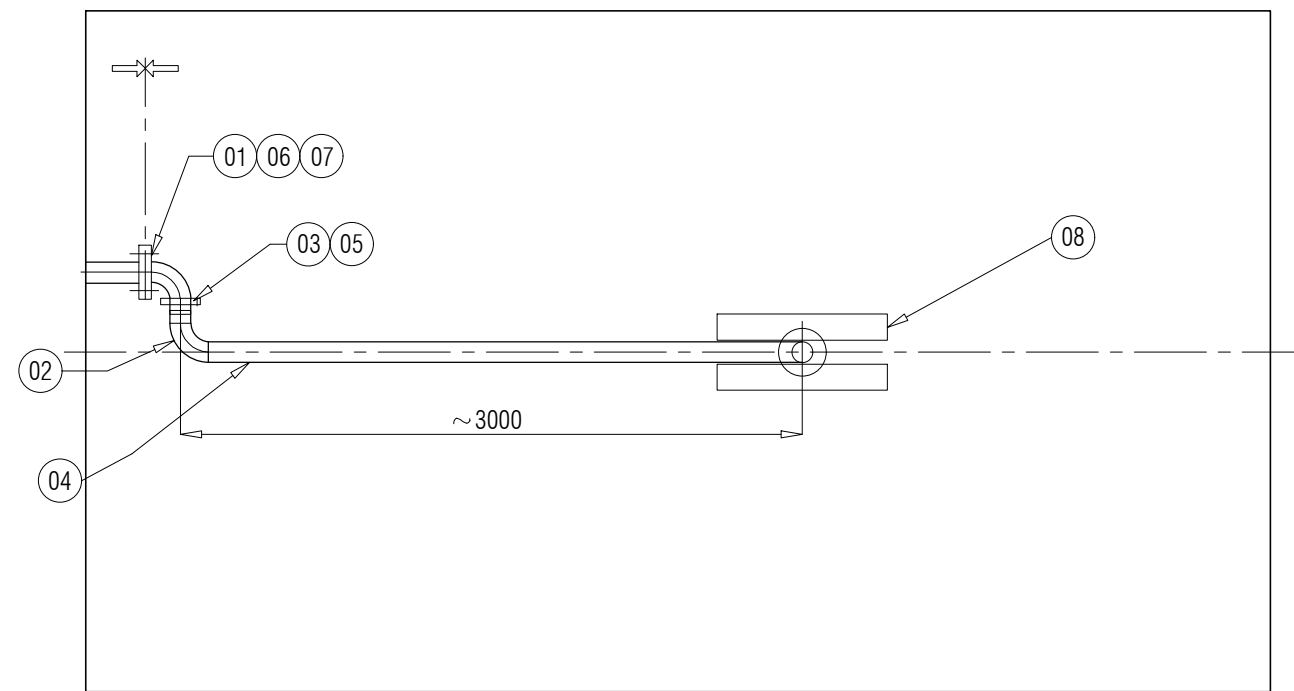
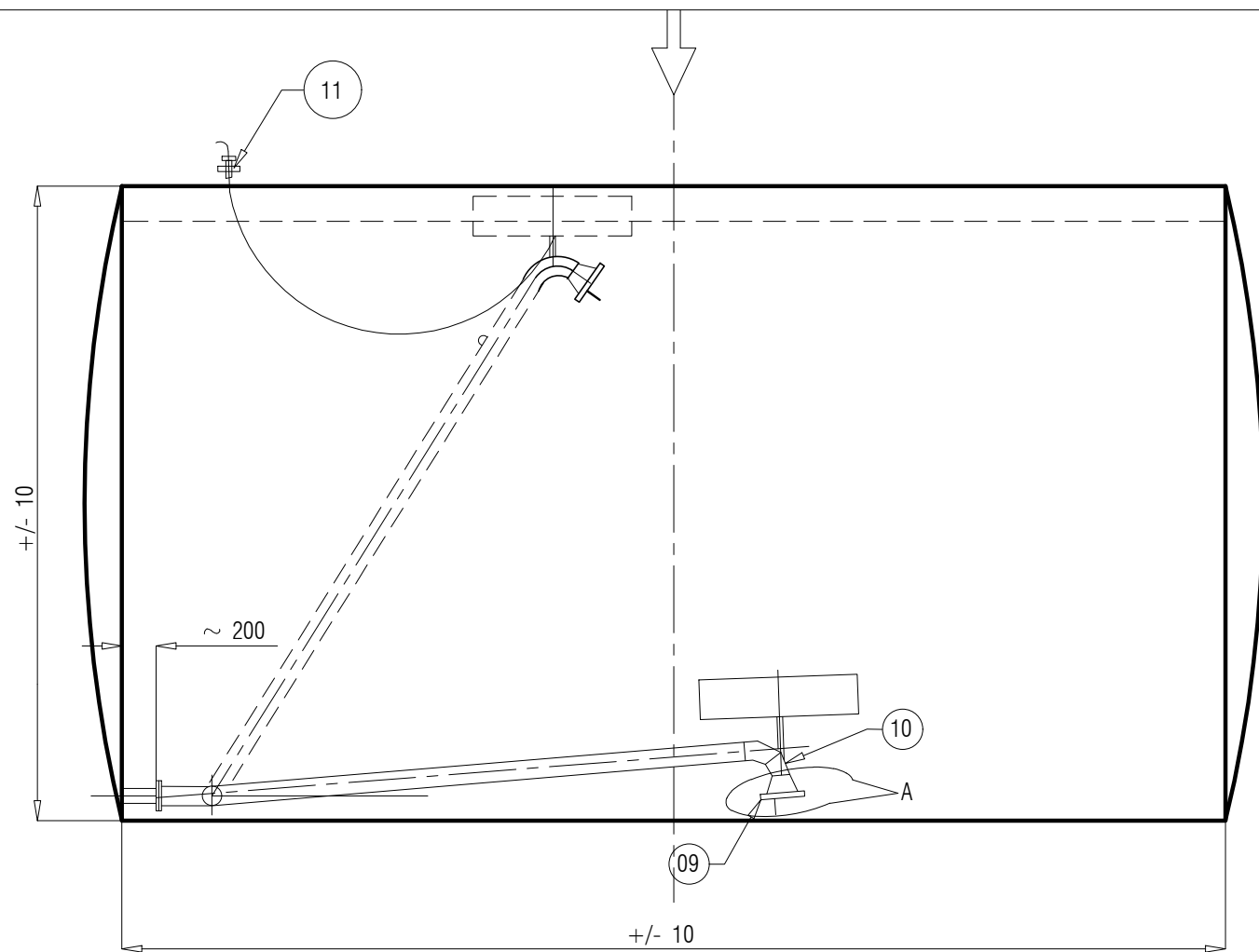
SCALE: AS MENTIONED
 DIMENSION: MM
 CONTRACTORS MUST CHECK ALL
 DIMENSIONS ON SITE BEFORE STARTING
 ANY WORK OR SHOP DRAWINGS,
 FIGURED DIMENSIONS TO TAKE
 PRECEDENCE OVER SCALE READINGS

DATE: APR 2021

PAGE No.

1

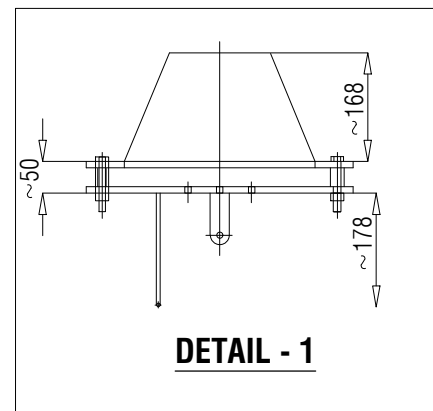
PR NO. : -



VIEW FROM -X

4" NB FLOATING SUCTION ARM.

SCALE 1:30



DETAIL - 1

NOTES:-

- 1) HYDROTEST PRESSURE FOR PIPING & SWIVEL JOINT - 2BAR
- 2) PNEUMATIC PRESSURE ONLY FOR FLOAT - 5PSI.
- 3) FOR MAXIMUM POSITION ANGLE =55 IS CONSIDERED.
- 4) DIMENSIONAL TOLERANCES 1% ALL OVER. EXCEPT IDICATED
- 5) HARDWARE -SS304
- 6) NUMBER OF FLOAT IS 2 Nos.
- 7) DIMENSION OF FLOAT APP. O.D 400MM

SR.NO.	DESCRIPTION	SIZE	MATL.	SPECIFICATION	QTY	REMARKS
1	ELBOW WITH FLANGE	4"NB	ALU	AS PER 150#	1	
2	ELBOW WITH SW	4"NB	ALU	ONE END FLANGE & OTHER SW	1	
3	SWIVEL JOINT	4"NB	ALU	-	1	
4	PIPE	4"NB	ALU	-	-	
5	PLATE PROFILE	4"NB	ALU	SEPL STD	1	
6	STUD	M16	SS304	85LG	-	AS REQ.
7	NUT	M16	SS304	-	-	AS REQ.
8	FLOAT ASSLY.	-	ALU	-	2	
9	BELL MOUTH ASSLY	-	ALU	-	1	
10	ELBOW/MITRE BEND	-	ALU	-	1	
11	WIRE ROPE	6mm Dia	SS304	-	1	

REVISION:

PROJECT : PROPOSED	DRW TITLE : FLOATING SUCTION ARM GENERAL ARRANGEMENT	DESIGNED : -	SCALE: AS MENTIONED
CLIENT : -	OWNER : -	ARCH. CHECKER : -	DIMENSION: MM
CONTACT : MALDIVES	CONTACT : -	DESIGN ENG : -	CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE BEFORE STARTING ANY WORK OR SHOP DRAWINGS, FIGURED DIMENSIONS TO TAKE PRECEDENCE OVER SCALE READINGS
		CHECKED ENG : Niyaz	
		DRAWN : Samyr	

DATE: APR 2021

PAGE No.

1

PR NO. : -

Bid Documentation Check List

- Cover Letter
- Company Profile
- Payment Terms
- Related Party Disclosure
- Audited Financials
- Company Registration Certificate
- MIRA Registration Certificate (For Local Companies Only)
- Tax Compliance Certificate
- List of past experience in similar projects with letters/certificates of completion.
- Implementation Plan, Manufacturing, Shipping and Delivery Schedule.