

# NEW TOWN KOLKATA DEVELOPMENT AUTHORITY (A Statutory Authority under Government of West Bengal) 3333, Major Arterial Road • DG Block, Action Area-ID • Kolkata - 700156 Ph. No. (033) 2324-2138 Email Id: eeme@nkda.in

Memo. No. 7376/EE(E)/NKDA/Elect/2022-23

Date: 02-09-2022

## NOTICE INVITING e-QUOTATION

Notice Inviting e-Quotation No. 17/EE(E)/NKDA/2022-23

Executive Engineer (E), New Town Kolkata Development Authority invites quoted rate equotation from resourceful, reliable, bonafide manufacturer/ dealer or distributor/traders & Industrial under taking organization etc. Who has tender specific authorization for the work detailed below:

(Submission of Bid through online)

S I. N o	Name of the work	Estimated Amount (Rs.)	Earnest Money (Rs.)	Price of Tender documents (Rs.)	Period of Completion
1	Supply & Installation of 24 X 7 Hours AC System for ICCC Room at NKDA Administrative Building, Action Area-ID, Newtown, Kolkata under NKDA	Agency has to Quote	Earnest money Rs. 1,00,000.00/ (Rupees one lakh) only to submit through Online payments/RTGS/ NEFT from ICICI Bank. In favour of "Newtown Kolkata Development Authority" payable at Kolkata	N.A	30 (thirty) days

In the event of e-filling, intending bidder may download the tender documents from the website <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a> directly with the help of Digital Signature Certificate. All the bidder shall have to submit Earnest Money & necessary earnest money will be deposited by the bidder through the following payment mode as finance dept. order no. 3975-F (Y) dated 28th July 2016 (Annexure-A).

Net banking (any of the banks listed to the ICICI bank payment gateway) in case of payment through ICICI payment gateway.

RTGS/NEFT through bank account in any bank. The EMD shall be deposited in favor of "Newtown Kolkata Development Authority" payable at Kolkata.

- 2) Both **Technical Bid** and **Financial Bid** are to be submitted concurrently duly digitally signed in the website <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a>
- 3) Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per Time Schedule stated in Sl. No. 11 of this NIeQ.
- 4) The **FINANCIAL OFFER** of the prospective qualified tenderer(s) will be considered only if the **TECHNICAL BID** of the tenderer(s) is found qualified by competent authority of New Town Kolkata Development Authority. The decision of the competent authority of New Town Kolkata Development Authority will be final and absolute in this respect. The list of Qualified Bidders will be displayed in the website.

## 5) Scope Of Work:

- 1. Augmentation of Air Conditioning System installed at ICCC Room for 24 hours operation in above location at New Town Kolkata under NKDA.
- 2. Supply and Installation of All Inverter VRF air conditioning system having cassette type Indoor units
- 3. Supply of Touch-screen based Central controller for controlling all the units from one position.
- 4. Refrigeration piping work connecting all Indoor and outdoor units
- 5. Communication network between IDU, ODU and central controller.
- 6. Allied drain piping and Outdoor structure

## 6) Eligibility criteria for participation in the tender.

- I. Working Contractors of NKDA, WBHIDCO, PWD, WBSEDCL and other Govt. Departments having satisfactorily completed (as prime contractor) at least one work of similar nature having magnitude of at least Rs.20,00,000.00 during the last 5 years. Authentic documents in original, from the Engineer-in-charge of the work will have to be submitted in support of the above credential as non-statutory documents. Note: In support of credentials bidder must submit work order, BOQ, completion certificate during online tender submission.
- II. Valid GST / PT Certificate with latest Challan, Income Tax Return for last financial year-21-22 (if not available 20-21 maybe submitted) with 'PAN Card' along with audited balance sheet of the firm for last financial year.
- III. Registered Partnership Deed for Partnership Firms only along with Power of Attorney since executed under any Judicial Magistrate/First Class Magistrate is to be submitted. The company shall furnish the Article of Association and Memorandum as non-statutory documents.
- IV. Annual turnover of Rs. 1 crore (Rupees one crore) only, and above in the last three financial year 2019-20, 2020-21 & 2021-22 respectively.
- V. Applicants should be either original equipment manufacturer or its authorized dealer, necessary certificate to this effect to be uploaded. Authorized agent having adequate experience in last five years in Govt. /Semi Govt. /Govt. undertaking/PSU.

#### Joint Ventures/MOU will not be allowed.

- 1) The offer shall remain valid for 6 (Six) Month from the date of opening of the tender.
- 2) No payment shall be made before satisfactory completion of Work.
- No claim for interest or compensation will be entertained in respect to any money or balance of payment which may be due or alleged to be due to the contractor owing to any dispute between the contractor and NKDA or in respect to any delay in making payment of progressive or final bill of the work, to the contractor. Payment for the works done by the contractor will be based on recorded and accepted measurement put for payment to be invariably made by putting signature (with seal) of the contractor (or his/ their authorized representative). The contractor or his/ their authorized representative are advised to take measurements jointly with the officials of NKDA. In case of failure of his/their part either to take measurement jointly and /or acceptance of the recorded measurement, within a reasonable time, measurement taken by the department shall be considered as final for making payment. Similar acceptance is also essential for level records and survey data, field books etc.
- 4) Idle labour, idle rent and hire charges etc.:

No claim of any category and type, on this ground shall be entertained. The contractor and NKDA shall make every effort that such situation does not arise.

- Testing and Testing Equipment: Testing of materials, to be used in work and the quality 5) of finished work on quality control aspect, is to be undertaken by the contractor at own cost, with facilities provided at site and / or through approved (by NKDA) Test Houses / Laboratories. All materials and workmanship shall be in accordance with the specifications laid down in the contract and also as per P.W.D.(Electrical Schedule) and IS Codes . The Engineer-in-Charge reserves the right to test, examine and measure the material / workmanship direct at the place of manufacture, fabrication or at the site of works or any suitable place. The contractor shall provide such assistance, instrument machine, labour and materials as the Engineer-in-Charge may require for examining, measuring and testing the works and quality, weight or quantity of materials used and shall supply samples for testing as may be selected and required by the Engineer-in-Charge without any extra cost. Beside this, he/they will carry out tests from outside Laboratory as per instruction of Engineer-in-Charge. The cost of all such tests would be borne by the agency. Should the Executive Engineer or his representative consider it necessary to satisfy himself / themselves as to quality of work, the contractor shall offer sample of work done as necessary, pull down reasonable part of the work required for inspection and testing. The contractor shall bear the cost of pulling down and shall make good the same at own cost and to the full satisfaction of E-I-C without any claim for payment.
- 6) Security Deposit:

Retention money towards Security deposit @3% on gross payment 1% (*One percent*) of the value of the work shall be deducted from the running account bill and 2% for EMD as per prevailing order. No interest will be paid on Security Deposit.

### 7) Date and Time Schedule:

SI. No.	Particulars	Date & Time
1	Date of uploading of N.I.T. & other Documents (online) (Publishing Date)	02.09.2022
2	Documents download start date (Online)	02.09.2022 from 6:00 P.M.
3	Documents download end date (Online)	16.09.2022 up to 6:55 P.M
4.	Bid submission start date (Online)	02.09.2022 from 6:55 P.M.
5.	Bid submission closing date (Online)	16.09.2022 up to 6:55 P.M
6.	Bid opening date for Technical Proposals (Online)	19.09.2022 at 11:00 P.M.
7.	Last Date of uploading list for Technically Qualified Bidder(online)	Will be intimated in due course.
8.	Date for opening of Financial Proposal (Online).	Will be intimated in due course.

- (a) Earnest Money: Earnest money of Rs. 1,00,000/ (Rupees one lakh) only to submit in the form of ICICI Bank online/ RTGS/NEFT from scheduled Bank, In favor of "Newtown Kolkata Development Authority" payable at Kolkata balance amount covering 2% of the quoted amount to be submitted in bank draft / pay order at the time of making agreement by the successful tenderer.
  - (b) Earnest Money for the successful tenderer will be retained and converted as Initial Security deposit. The Balance security deposit @ 1% will be deducted from on-going bills to cover 3% of the total value of work done.
  - (c) The security deposit of the successful tenderer will be refunded after defect liability period i.e., 03 (three) years from the date of completion as stipulated in relevant clause of the tender document.
- 9) The tenderers are bound by the terms & conditions of WBF 2911(ii) along with specification, notice for calling Tenders, Special terms & condition, Information to Bidders, Schedule of works etc, which forms a part and parcel of this contract.
- 10) Income Tax, GST & PF will be deducted as per Govt. orders issued from time to time and would be applicable on the date of making payment of the bills. Building & other construction workers cess @ 1.0% will be deducted from progressive bills in pursuance with G.O. no. 599A/4M 28 / 06 dated 27/09/2006.
- 11) The Bidder, at his own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction. The cost of visiting the site, shall be at his own expenses.
- The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Department. New Town Kolkata Development Authority reserves the right to accept or reject any offer without assigning any reason whatsoever and is not liable for any reimbursement of any cost that might have been incurred by any Tenderer at any stage of Bidding.

- 13) Prospective applicants are advised to note carefully the eligibility criteria before tendering the bids.
- 14) Conditional / Incomplete tender will not be accepted under any circumstances.
- 15) The intending tenderers are required to quote the rate online.
- 16) Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970 (b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 of the notification thereof or any other laws relating thereto and the rules made and order issued there under from time to time.
- 17) During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.
- 18) If there be any objection regarding prequalification of any Agency the same should be lodged online to Chief Engineer, New Town Kolkata Development Authority within 2 (two) days from the date of publication of list of qualified agencies and beyond the said time schedule no objection will be entertained.
- 19) Before issuance of WORK ORDER, the Tender Inviting Authority may verify the credential and other documents of the lowest tenderer in original, if found necessary. After verification if it is found that the documents submitted by the lowest tenderer is either manufactured or false in that case work order will not be issued in favour of the said Tenderer under any circumstances and his/their offer will be treated as cancelled.
- 20) If any discrepancy arises between two similar clauses on different notification, the clause superseding others will be solely as per the discretion of the Tender inviting authority.
- The successful Tenderer whose tender is accepted shall make formal agreement in WBF 2911 (ii) along with bid documents in triplicate, within 7 (seven) days from the date of issue of work order by Executive Engineer, New Town Kolkata Development Authority on payment of usual charges which is non-refundable under any circumstances and submit the same duly signed by him/them to this office. If the contractor fails to perform the formalities within the specified period the Tender is liable to be cancelled and the Earnest Money will be forfeited as per relevant clauses under memorandum of WBF 2911(ii).

## 22) Qualification criteria:

The tender inviting and Accepting Authority will determine the eligibility of each bidder. The bidders shall have to meet all the minimum criteria as stipulated in relevant clauses of this NIeQ.

The eligibility of a bidder will be ascertained on the basis of the document(s) submitted in support of the minimum criteria. If any document submitted by a bidder is either manufactured or false, in such cases the eligibility of the bidder / tenderer will be rejected at any stage without any prejudice to take any penal action against him/them as may be deemed fit by the Tender Accepting Authority.

- 23) No. price preference and other concession will be allowed as per order no 8648 F(T) dated 12.10.2012.
- 24) Agencies are required to give a work programmed preferably in the form of a bar-chart and to approve it by the EIC (Engineer–in-Charge) before commencement of work and if progress of work abruptly differs from the given work program, the undersigned may terminate the work order at any point of time.
- 25) Unless otherwise stipulated, all the works are to be done as per general conditions and general specifications of the latest edition of 'PWD (Electrical)/(W.B) Schedule
- 26) In case of any inadvertent typographical mistake in the specific price schedule of rates, the same will be treated to be so corrected as to confirm with the prevailing relevant schedule of rates and/or technically sanctioned estimate.
- 27) Intending tenderer should note that he will have to work simultaneously with other contractors already entrusted with other work or with contractors to be entrusted with other work in future in the same site. The contractor will have to work in close cooperation and harmony with all the contractors engaged in the project. Any claim for idle labour, for any reason whatsoever, will not be entertained under any circumstances.
- 28) NKDA will not be held responsible for making payment against any anticipated profit and/or compensation for any losses or price escalation whatsoever for the works as stated in the annexure of this NIeQ. Rates should be quoted accordingly.
- The address as furnished by the contractor shall be deemed as the postal address of this office. Any notice or instruction to be given to the contractor under the terms of contract shall be deemed to have been served if it has been delivered to his authorized agent (on the strength of authorization) or representative or sent by registered letter to his official address as furnished.
- 30) Arbitration clause of WBF 2911(ii) stands deleted.
- 31) Any Corrigendum, notification in connection to this NIeQ will be published in the official website of New Town Kolkata Development Authority (<a href="www.nkdamar.org">www.nkdamar.org</a>) as well as <a href="https://wbtenders.gov.in">https://wbtenders.gov.in</a>. The applicants are requested to please follow the websites for such notifications, corrigendum etc.

Executive Engineer (E)
New Town Kolkata Development Authority

## Memo. No. 7376/1(7)/EE(E)/NKDA/Elect/2022-23

Date: 02-09-2022

## Copy forwarded for information

#### to: -

- 1. The Chief Executive Officer, New Town Kolkata Development Authority.
- 2. The Chief Engineer, New Town Kolkata Development Authority.
- 3. The Finance Officer, New Town Kolkata Development Authority.
- 4. The Assistant Engineer (E), New Town Kolkata Development Authority.
- 5. The Sr. Accountant / Cashier, New Town Kolkata Development Authority.
- 6. P.A to the Chairman, New Town Kolkata Development Authority.
- 7. Official Website of New Town Kolkata Development Authority (www.nkdamar.org)

Sdt

Executive Engineer (E)
New Town Kolkata Development Authority

#### Technical Specification for VRF / VRV System

#### General

### **BASIS OF DESIGN & EQUIPMENT SELECTION**

Ambient Conditions

: 105F DB & 83F WB (Summer),

Inside Design Conditions

: 75 Deg F (23C+- 2) with RH around 60% General

Illumination

: 1.0 Watt/Sq-ft

Floor above

: Non- AC

Floor below

: Ground Floor

Scope of this section comprises of Design, supply, erection, testing and commissioning of ALL Inverter Scroll VRF type system. The VRF product must be manufactured at ISO 9001-2008 certified factory only, supporting document to be provided.

#### **FULL INVERTER VRF SYSTEM- TECHNICAL SPECIFICAION**

- i. The Air-cooled direct expansion & Modular type Full Inverter VRF outdoor unit shall be factory assembled, powder coated GI sheet metal cabinets, all hardware of anti rust quality, conformal coating on PCB to protect from duct & humidity, hydrophilic blue fin material for better corrosion resistance, top discharge type with Brushless DC Motor only. Outdoor Units must be Hot Air Top Discharge Type, as per site requirement.
- ii. The Top Discharge type VRF ODU must have bigger condenser coil face area with higher CFM fan resulting in improved efficiency, less deration due to higher ambient temperatures. Each & individual Outdoor unit must reject hot air of 13800CFM air flow, and not less than that.
- iii. The ODU capacity must be delivering actual capacity at 42 deg C, no unloading upto 55 deg. C. Please note, the mentioned capacity is actual capacity. The Individual VRF Outdoor units COP minimum 3.4 at 100% Load at 42 Deg C & COP minimum 5.91 at 50% Load at 42 Deg C. The mentioned COP must be shown & achieved by bidder, failing of complying the mentioned COP level, bidder will be rejected considering less COP as well as Power consumption is very High.
- iv. The Outdoor unit must be Modular type only & consists of Inverter Scroll Compressor only. Tender BOQ specified VRF ODU must be having multiple Inverter Scroll compressors. There should not be any fixed compressor or Partial inverter.
- v. The VRF system must compatible with R410A green Refrigerant only. System must be pre-charged at Factory. If required additional, based on the site, then it will be charged additional at site.
- vi. The advantage of 100% inverter scroll compressor (in VRF Outdoor) for maximum efficiency, low starting current and thus will help optimize electrical requirements (i.e. Generator, cable etc.)

- vii. Condenser Heat exchanger made of copper tubes, are inner grooved for high heat transfer. The condenser fans are fitted with high efficiency BLDC motor that regulate air flow depending on demand resulting more power saving.
- viii. The VRF system must be designed to operate across a WIDE Voltage range from 320V to 460V resulting in high uptime even in such erratic power conditions. Bidder will be technically rejected if specified wide voltage range not available with VRF outdoor units.
- ix. ALL Inverter VRF must be designed with the new generation Refrigerant Cooled PCB, which helps maintain the drive within allowable temperature range. It enhances the reliability of the system when it is working under very high ambient conditions.
- X. VRF (Full Inverter Type) must be designed & supplied with with minimum twin large accumulator & and an efficient oil recovery management system, hence allow the system to be set up with long & flexible piping. Bidder will be technically rejected if less than twin Accumulator is provided.
- xi. Minimum Piping convertibility: That is
  - a. Max. actual piping length 180 Rmt
  - b. Max. total piping length 1000 Rmt
  - c. Max.Level difference between ODU-IDU 90 rmt
  - d. Max. level difference between IDUs 40 rmt
- xii. Each Indoor units must be connected (with VRF Outdoor unit) by means of individual Copper Refrigerant network or Y distribution joints only. The mentioned "Y" joint or refnet joints must be factory make & tested by OEM. The individual size, of refnets or "Y" joints, connecting to individual indoor units, to be calculated & supplied by OEM / Bidder / OEM approved bidder only. Bidder must upload design drawing, showing IDU ODU location, piping layout, with actual sizes also to be shown as per site requirement. Bidder to visit the site for drawing/design preparation.
- xiii. All Inverter VRF should have emergency back operation. In-case of double compressor ODU, it must operate or function even is there is a failure or maintenance downtime of one compressor.
- xiv. In modular VRF, where multiple units have been combined to run, as one larger unit, the system must operate even in case of failure or maintenance downtime or shutdown of one VRF ODU. It will help to ensure that cooling/heating remains LARGELY un-effected even during servicing.
- xv. As all the Indoor units are interconnected by the communication cable, if there is any break in any communication cable, subsequent IDUs are affected and must not function. By activating the IDU emergency operation on the Next Generation All Inverter VRF, the other IDUs must function despite of such break.

The bidder must submit the following Technical Data sheet during Technical Bid Submission, failing which, bidder will be technically rejected:

## VRF Outdoor Unit Technical Data Sheet:

Details of Technical Requirement	To be filled up by Bidder
Bidder	on the state of th
Model	
Combination of Base Model	
Actual Cooling Capacity at 42 Deg C (KW)- 100% Load	
Total Power Consumption at 42 Deg centigrade	
(KW)100% load (considering Outdoor FAN Power	
consumption + Compressor Motor Power	
Consumption)	
Actual Cooling Capacity at 42 Deg C (KW)- 50% Load	s straight to Heath
Total Power Consumption at 42Deg centigrade (KW)	
-50% load (considering Outdoor FAN Power	
consumption + Compressor Motor Power	
Consumption)	
type of Power Supply	the state of the first state of the
Overall Dimension (w x d x h in mm)	
net weight (kg)	
type of Refrigerant	
Pre charged refrigerant Qty (kg)	
Number of Accumulator	musically realizables
Type of Expansion Valve	
Type of Compressor	with the additional transfer and the
Make & model number of individual compressor	
Compressor quantity	
cooling capacity of each compressor (kw)	
Input Power of Compressor motor (kw)	
Type of Condenser coil	
Type of Condenser Fan	
Type of Condenser Fan- Motor	
Total Number of Fans for specified capacity ODY	
Power input of Condenser Fan - Motor (kw)	

### **VRF Indoor Unit Technical Data sheet**

Details of Technical Requirement	To be filled up by Bidder	
Model		
Type of VRF Indoor		
Nominal Cooling Capacity (KW)		
Input Power (KW)		
Overall Dimension (w x d x h in mm)		
net weight (kg)		
sound pressure level (db)		
Air Flow (CFM) in high / med / Low	mental as the second contract of the second	
Inbuilt Drain pump	sele Arterbyon, mongres, he organism	

## **Rrefrigerant piping:**

- i. The Refrigerant pipe material shall be of hard seamless copper tubes with pipes material being hard drawn copper pipe. Forged copper fittings shall be used for the refrigerant piping. The refrigerant piping arrangements shall be in accordance with good engineering practice as applicable to the air-conditioning industry, and shall include charging connections, suction line insulation and all other items normally forming part of proper refrigerant circuits except y joint/separation tubes.
- ii. Before joining any copper pipe or fittings, its internals shall be thoroughly cleaned by passing a clean cloth via wire or cable through its entire length. The piping shall be continuously kept clean of dirt etc. while constructing the joints. Subsequently it shall be thoroughly blown out using nitrogen gas.
- iii. After completion of installation of the refrigerant piping, the refrigerant piping system shall be pressure tested using nitrogen gas at a suitable pressure as specify by OEM (Original Equipment Manufacturer). Pressure shall be maintained in the system for 48 hours. The system shall then be evacuated to a vacuum of not less than 700 mm Hg and held for 24 hours.
- iv. The supplier of air-conditioning system shall choose sizes as designed and erect proper interconnections of the complete refrigerant circuit the thickness of copper piping shall not be less than 18 SWG for pipes up to 19.1 mm and 16 SWG for larger dia.
- V. The suction line pipe size and the liquid line pipe sizes shall be selected according to the manufacturer's specified diameter. All refrigerant pipes shall be properly supported and anchored to the building/structure using steel hangers, fastener, brackets and supports which shall be fixed to the building/structure by means of
  - inserts or expansion shields or anchor fasteners of adequate size and number to support the load imposed thereon.
- Vi. The refrigerant piping should be laid in such a way that it should not distort the interior of the room, wherever the refrigerant pipe has to be laid across the room, it should be laid in a concealed manner by making appropriate boxing arrangement matching with the interior of the room. All associated minor Civil Engineering works (like chasing on wall, ceiling & replastering and repainting etc.) related with the above items are included in the scope of work. The above scope dose not include false ceiling wherever required.
- vii. Entire liquid and suction refrigerant pipe lines including all fittings, valves and strainer bodies etc. Shall be insulated with 19-mm/ 13 mm thick elastomeric Nitrile rubber as specified in BOQ.

## Technical-Compliance (Technical Bid)

S.No	Description	Confirmation	Remarks	Documents
		Required	Allowed	Uploading
1	1)Outdoor unit should have inverter driven scroll compressor.  'MITSUBISHI/Blue Star/O-GENERAL/Daikin/Hitachi-ONLY.			Allowed (Mandatory
2	2)a) Minimum COP at 100%load at ambient temperature 40-45 degree centigrade should be greater than or equal to 3.2 b) Minimum COP at 50%load at ambient temperature 40-45 degree centigrade should be greater than or equal to 5.5			Allowed (Mandatory
3	Operating voltage range of VRF/VRV unit should be 350 V to 450 V			Allowed (Mandatory
4	Thickness of ducting sheet should be as per IS 655			Allowed (Mandatory
5	Complete Design and Drawing of Centralized AC along with Equipment and Piping layout in PDF Format			Allowed (Mandatory
6	Bidder should visit the site along with our site in charge and be accustomed with the site condition before submitting the offer.			Allowed (Mandatory

## **Approved List of Make**

Air Condition Unit:	(Make:-Daikin/Hitachi/O-General/Blue Star/Mitsubishi/)	
Indoor Unit:	(Make:-Zeco/Edgetech/Waves/Citizen/Daikin/Hitachi/O	
	General/Blue Star/Mitsubishi/)	
Remote Controller:	(Make: As per OEM Specification)	
Distribution Joints:	(Make:-Daikin/Hitachi/O-General/Blue	
	Star/Mitsubishi/Carrier/Toshiba)	
R410 Refrigerant:	(Make: Dewpoint, HoneyWell)	
Hard Drawn Refrigerant Copper	(Make: Rajko/ Mandev/	
Pipes:		

Ducting Sheets:	(Make: Sail/Tata/Jindal)	
Thermal Insulation:	(Make: K-Flex/ Armaflex/ A-Flex/ Armacell)	
Acoustic Insulation:	(Make: UP Twiga/ Owens Corning	
Grills/Diffusers	(Make: System Air, Premier)	
Communication Cable:	(Make: RR/ Unitech)	
Drain Pipe:	Any Reputed make	
GI Tray	Any Reputed make	