Replacement of Damaged Thermal Insulation for Supply & Return Air Ducts at E-Station, Phase-1 H1 Building, Plant-1, Jebel Ali.

1. Introduction

DEWA, represented by the Procurement Division, intends to procure and install damaged thermal insulation at E-Station, Phase-1 H1 Building, Plant-1, Jebel Ali.

Our technical team evaluated furnished documents and provided the below offer.

2. Scope of Work

Replacement of Damaged Thermal Insulation for Supply & Return Air Ducts at E-Station, Phase-1 H1 Building, Plant-1, Jebel Ali.

3. Inclusions:

a) Removal of existing old duct insulation.
b) Cleaning and repairing of existing duct.
c) Supply the insulation material and Re-insulate in supply & return air ducts required with 1" glass wool board insulation sheet with foster and cloth.
d) Thermal insulation for supply and return air duct shall be of 1" thickness fiber-glass board insulation of density 64 Kg/cubic meter having canvas cloth with anti-fungus foster coating of rating 30-60 and 30-90 only.
e) Proper housekeeping must be maintained on a daily basis during the work.
f) Removed ducts, insulation shall be segregated and return to DEWA scrap yard by the contractor as per DEWA existing Quantity, Safety & Environmental Procedure.

4. Exclusions:

a) Electricity- 3 Phase /other Yard Facilities (Air and/or water),
b) Scaffolding / Rigging, all rigging tools (if required),
c) Any Special tools other than the required to finalize the mentioned scope of work,
d) Issuing gate passes required for site entry,
e) Any works other than mentioned.

Technical Specification of Existing Supply Air Ducts for insulation replacement:

Phase-1 SWGR Room-10

Sr.	Duct Size	Duct Length	Qty.	Remarks
1	700 X 400 mm	5000 mm	01	Duct measurements are for illustration purpose only. It is contractor responsibility to take actual measurements and shall cover all duct quantity as mentioned herein.
2	500 X 400 mm	6000 mm	01	
3	350 X 350 mm	7000 mm	01	
4	300 X 200 mm	12000 mm	01	
5	500 X 400 mm	7000 mm	01	
6	700 X 700 mm	40000mm	01	

Room Number-1

Sr.	Duct Size	Duct Length	Qty.	Remarks
1	1000 X 400 mm	15000 mm	01	Duct measurements are for illustration purposes only. It is the contractor's responsibility to take actual. measurements and shall cover all duct quantity as mentioned herein.
2	700 X 400 mm	8000 mm	01	
3	600 X 400 mm	6000 mm	01	
4	400 X 400 mm	3000 mm	01	

Room Number-E2

Sr.	Duct Size	Duct Length	Qty.	Remarks
1	800 X 300 mm	31000 mm	01	Duct measurement are for illustration purpose only. It is contractor responsibility to take actual measurements and shall cover all duct quantity as mentioned herein.
2	1000 X 300 mm	26000 mm	01	
3	600 X 500 mm	6000 mm	01	
4	400 X 400 mm	6000 mm	01	

Room Number-E3

Sr.	Duct Size	Duct Length	Qty.	Remarks
1	500 X 200 mm	28000 mm	01	Duct measurement are for illustration purpose only. It is contractor responsibility to take actual measurements and shall cover all duct quantity as mentioned herein.
2	400 X 400 mm	10000 mm	01	
3	600 X 400 mm	18000 mm	01	
4	500 X 200 mm	10000 mm	01	
5	500 X 400 mm	6000 mm	01	
6	400 X 400 mm	3000mm	01	

H-5 Boiler Operator Control Room, Chiller Room & Battery Room

Sr.	Duct Size	Duct Length	Qty.	Remarks
1	400 X 300 mm	16000 mm	01	Duct measurement are for illustration purpose only. It is contractor responsibility to take actual measurements and shall cover all duct quantity as mentioned herein.
2	400 X 400 mm	12000 mm	01	
3	300 X 200 mm	10000 mm	01	
4	400 X 300 mm	10000 mm	01	

5. **Duration**

Duration required for this project is 15 Working days, after permit to work approval by DEWA and all scaffolding required to complete job are ready.

6. **Technical Approach**

Our approach to this Project is based on dividing this task into eight main phases. The approach, to be used for each phase, will now be presented in some detail hereinafter.

Work Execution

6-1. Mobilization:

a. Mobilize manpower, tools, equipment, and materials to the job site as per the agreed-upon schedule.
b. Set up the necessary site facilities, including site office, storage area, and safety signage.

6-2. Site Preparation:

a. Conduct a site survey to identify the location of ducts, access points, and any potential obstacles.
b. Clear the work area of debris, obstructions, and any potential safety hazards.
c. Set up proper safety measures, personal protective equipment (PPE) for all workers.

6-3. Removal of Existing Insulation:

a. Carefully remove the existing old duct insulation using appropriate tools, following safety regulations and procedures.
b. Dispose of the old insulation.
c. Inspect the ducts for any damage or leaks and repair them as necessary.

6-4. Duct Cleaning and Repair:

a. Thoroughly clean the ducts using approved methods, such as vacuuming or brushing, to remove dust, dirt, and contaminants.
b. Repair any damage or leaks in the ducts, including sealing joints and seams with approved materials.

6-5. Insulation Material Supply:

a. Procure the specified insulation material, which should be 1" glass wool board insulation sheet with foster and cloth, as per the approved materials submittal.
b. Verify the quality and quantity of the insulation material upon delivery and store it in a designated storage area in compliance with manufacturer's recommendations.
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6-6. Insulation Installation:

a. Prepare the duct surfaces by cleaning and priming them as per the manufacturer's instructions.
b. Cut and fit the insulation sheets to the ducts, ensuring proper alignment, fitting, and coverage.
c. Apply suitable adhesives, staples, to secure the insulation sheets to the ducts, following the approved method statement and specifications.
d. Install insulation in accordance with the project specifications, including proper thickness, density, and coverage, and ensure that there are no gaps, overlaps, or air pockets in the insulation.
e. Install insulation in supply and return air ducts, plenums, and any other specified areas, as per the approved drawings and specifications.

6-7. Quality Control:

a. Monitor and inspect the quality of insulation installation at each stage,

including checking for proper alignment, fitting, fastening, and coverage of insulation sheets.
b. Conduct density and thickness tests on a random sampling basis to ensure compliance with specifications.
c. Rectify any deficiencies or issues identified during inspections promptly to ensure the quality of work.

6-8. Housekeeping:

a. Maintain proper housekeeping on a daily basis during the work, including cleaning up debris, waste materials, and tools.
b. Ensure that the work area is kept clean and safe at all times to prevent accidents and hazards.

7. Work Force Deployment

As per MSRA.

8. Price

The cost of the above-mentioned works is as per our online offers.

9. Payment Terms

TBD

10. Force Majeure

Our offer is governed by the Standard force majeure clause prevailing in UAE.
We hope we are in line with your requirements.

11. Validity of offer

Our offer is kept valid till 30th April 2023.

12. Attachments

N/A.

H-5 Boiler Operator Control Room, Chiller Room & Battery Room

Room Number-E3

Room Number-1

Room Number-E2

Room Number-E3

H-5 Boiler Operator Control Room, Chiller Room & Battery Room

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