



**TATA MEMORIAL CENTRE**  
**ADVANCED CENTRE FOR TREATMENT RESEARCH AND EDUCATION IN CANCER**  
**(ACTREC).**

A GRANT-IN-AID INSTITUTE UNDER DEPARTMENT OF ATOMIC ENERGY, GOVERNMENT OF INDIA

| <b>Tender No:</b>   | TMC/ACTREC/Engg/SP/ET-02/ARC for Mechanical Maintenance Work/2020   |      |          |
|---------------------|---|------|----------|
| <b>Tender Name:</b> | Item rate Contract for Mechanical maintenance work & repair of refrigerator, deep freezer, cold rooms etc. for the year 2020-21 at ACTREC.  |      |          |
|                     | NAME OF THE AGENCY  |      |          |
| ITEM CODE           | DESCRIPTION   | UNIT | NET RATE |
| 1                   | Supplying, fixing, testing and commissioning of condenser water pipes of following sizes of MS 'C' class along with necessary clamps, vibration isolators and fittings such as bends, tees etc. but excluding valves, strainers, gauges etc. adequately supported on rigid supports duly painted/buried in ground excavation and refilling etc. as per specification and as required complete in all respect. | Mtr  | 0.00     |
| 1.01                | 300mm dia.  | Mtr  | 5787.00  |
| 1.02                | 250 mm dia  | Mtr  | 4833.00  |
| 1.03                | 200mm dia.  | Mtr  | 4069.00  |
| 1.04                | 150mm dia.  | Mtr  | 2620.00  |
| 1.05                | 125mm dia.  | Mtr  | 2290.00  |
| 1.06                | 100mm dia.  | Mtr  | 1960.00  |
| 1.07                | 80mm dia.   | Mtr  | 1418.00  |
| 1.08                | 65mm dia.   | Mtr  | 1222.00  |
| 1.09                | 50mm dia  | Mtr  | 979.00   |
| 1.1                 | 40mm dia  | Mtr  | 808.00   |
| 1.11                | 32mm dia  | Mtr  | 661.00   |
| 1.12                | 25mm dia  | Mtr  | 578.00   |
| 2                   | Supplying, fixing, testing and commissioning of following valves, gauges and strainers for condenser water circulation as per specifications and as required complete in all respect.   | Each | 0.00     |
| 2.1                 | BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified.   | Each | 0.00     |
| 2.1.1               | 200mm dia.  | Each | 10295.54 |
| 2.1.2               | 150mm dia.  | Each | 4858.93  |
| 2.1.3               | 125mm dia.  | Each | 4283.04  |
| 2.1.4               | 100mm dia.  | Each | 3678.57  |
| 2.1.5               | 80mm dia.   | Each | 2691.96  |
| 2.1.6               | 65mm dia.   | Each | 2533.04  |
| 2.1.7               | 50mm dia  | Each | 2271.43  |
| 2.1.8               | 40mm dia  | Each | 2129.46  |
| 2.2                 | NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified   | Each | 0.00     |
| 2.2.1               | 200mm dia.  | Each | 10875.89 |
| 2.2.2               | 150mm dia.  | Each | 6402.68  |

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| 2.2.3  | 125mm dia.   | Each | 5488.39   |
| 2.2.4  | 100mm dia.   | Each | 4090.18   |
| 2.2.5  | 80mm dia.  | Each | 2802.68   |
| 2.2.6  | 65mm dia.  | Each | 2569.64   |
| 2.3    | Supply, Installation, Testing and Commissioning of following sizes electronic, self-balancing, pressure independent type dynamic balancing valve with integrated 2 way/3 way modulating control valve in a single body. The actuator shall be capable of accepting upto 10V DC and upto 20mA electric signal and shall provide similar transduced feedback output to control system. Maximum close off pressure shall not be less than 6 Bar for upto 50 mm valves and 7 Bar for 65 mm & above. Valves should have pressure rating of 25 Bar minimum | Each | 0.00      |
| 2.3.1  | 150mm dia.   | Each | 135163.39 |
| 2.3.2  | 125mm dia.   | Each | 123058.93 |
| 2.3.3  | 100mm dia.   | Each | 96833.93  |
| 2.3.4  | 80mm dia.  | Each | 57277.68  |
| 2.3.5  | 65mm dia.  | Each | 45004.46  |
| 2.3.6  | 50mm dia   | Each | 29150.89  |
| 2.3.7  | 40mm dia   | Each | 26593.75  |
| 2.3.8  | 32mm dia   | Each | 14319.64  |
| 2.3.9  | 25mm dia   | Each | 13467.86  |
| 2.3.10 | 20mm dia   | Each | 9818.75   |
| 2.4    | Y - STRAINER of Ductile CI Body flanged ends with stainless steel strainer for chilled / hot water circulation including insulation as specified   | Each | 0.00      |
| 2.4.1  | 200mm dia.   | Each | 25778.57  |
| 2.4.2  | 150mm dia.   | Each | 13176.79  |
| 2.4.3  | 125mm dia.   | Each | 12421.43  |
| 2.4.4  | 100mm dia.   | Each | 8768.75   |
| 2.4.5  | 80mm dia.  | Each | 6359.82   |
| 2.4.6  | 65mm dia.  | Each | 5541.96   |
| 2.4.7  | 50mm dia   | Each | 4493.75   |
| 2.4.8  | 40mm dia   | Each | 3183.04   |
| 2.5    | BALANCING VALVE WITH BUILT IN MEASURING FACILITY with C I body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation & PN 16 pressure rating for chilled / hot water circulation as specified  | Each | 0.00      |
| 2.5.1  | 200mm dia.   | Each | 46995.54  |
| 2.5.2  | 150mm dia.   | Each | 23750.00  |
| 2.5.3  | 125mm dia.   | Each | 17853.57  |
| 2.5.4  | 100mm dia.   | Each | 13591.96  |
| 2.5.5  | 80mm dia.  | Each | 9250.00   |
| 2.5.6  | 65mm dia.  | Each | 8087.50   |
| 2.5.7  | 50mm dia   | Each | 6588.39   |
| 2.5.8  | 40mm dia   | Each | 4037.50   |
| 2.6    | Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required  | Each | 976.79    |
| 2.7    | Providing & fixing in position the mercury in glass industrial type thermometers./Dial type thermometer with thermowell  | Each | 854.46    |
| 2.8    | Foot Valves (Double flap type) (New)Supply, installation, testing & commissioning of following items as per instruction of Engineering In-charge.( installation with all new consumable item i.e. nut, bolts, washers etc require for foot valves.)  | Each | 0.00      |

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| 2.8.1 | 150mm dia.  | Each | 10400.00 |
| 2.8.2 | 125mm dia.  | Each | 7600.00  |
| 2.8.3 | 80mm dia.   | Each | 5200.00  |
| 2.8.4 | 50mm dia  | Each | 3090.00  |
| 3     | Repair of Foot Valves<br>Removing, repairing & Installation of existing Foot valves of following sizes  | Each | 0.00     |
| 3.1   | 150mm dia.  | Each | 1500.00  |
| 3.2   | 125mm dia.  | Each | 1500.00  |
| 3.3   | 80mm dia.   | Each | 900.00   |
| 3.4   | 50mm dia  | Each | 700.00   |
| 4     | Repairing of Valves<br>Removing, repairing, reinstallation, testing & commissioning of existing butterfly / globe / three way / non-return / gate / air vent valves of any sizes. The maintenance includes complete overhauling, replacement of flange gaskets on both flange sides of pipe, new nut bolts washers, greasing of spindle, gland packing replacement & any another damaged components etc up to smooth functioning of valve as per instruction & satisfaction of Engineering In charge. | Each | 600.00   |
| 5     | Painting of Ms Pipe, Supports etc. with one coat Epoxy mastica primer and two coat PU paint after thoroughly scrapping the existing paint as per technical specification & instruction of Engineer in Charger.  | Sqm  | 250.00   |
| 6     | Supply, installation, balancing and commissioning of factory fabricated GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required  | sqm  | 0.00     |
| 6.1   | 24 SWG  | sqm  | 841.07   |
| 6.2   | 22 SWG  | sqm  | 985.71   |
| 6.3   | 20SWG   | sqm  | 1301.79  |
| 6.4   | 18 SWG  | sqm  | 1441.96  |
| 7     | Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc, as per specifications  | sqm  | 5803.57  |
| 8     | Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications  | sqm  | 7571.43  |
| 9     | Supplying & fixing of powder coated extruded aluminium Return Air Grills with louvers but without volume control dampers complete as required   | sqm  | 4916.96  |
| 10    | Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.  | sqm  | 10145.54 |
| 11    | Supplying, fixing testing commissioning of Return air diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core.   | sqm  | 6749.11  |
| 12    | Supply, installation, testing & commissioning of thermal insulated flexible duct of following sizes duly supported at regular interval as per site requirement etc. complete as required as per specifications.   | mtr  | 0.00     |
| 12.1  | 200mm dia.  | mtr  | 480.36   |

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| 13     | Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required  | sqm  | 0.00     |
| 13.1   | 19mm  | sqm  | 622.32   |
| 13.2   | 25mm dia  | sqm  | 800.00   |
| 14     | Canvas :Supply & fixing of Fire retardant synthetic canvass connection with a provision to measure the canvass temperature at the mouth of package units & prenum with all fixing arrangement, nut bolts, hardware's etc. as per instruction of Engineer-in-charge.   | Set  | 2400.00  |
| 15     | Fall Ceiling & ducting dismantling: Removing, stacking and fixing of Aluminium Fall ceiling in good condition and dismantling the existing GSS ducting etc. to install fabricated GSS ducting as per instruction of Engineer-in-charge.   | sqm  | 750.00   |
| 16     | Supply , fabrication, welding and installation of MS structure with one coat primer and one coat final paint as per requirement and as instructed by Engineer Incharge  | kg   | 130.00   |
| 17     | Pump  | Each | 0.00     |
| 17.1   | Replacement of coupling: General servicing, pump overhauling, installation of new couplings, gland packing, bearings, alignment and all other necessary hardware of all types of following pump i.e. centrifugal, split casing, monoblock etc as per instruction and as directed by the OIC-ES.   | Each | 0.00     |
| 17.1.1 | 60 HP   | Each | 19600.00 |
| 17.1.2 | 20HP  | Each | 10000.00 |
| 17.1.3 | 5HP   | Each | 2500.00  |
| 17.2   | Replacement of shaft: General servicing, pump overhauling, installation of new shaft, gland packing, bearings, alignment and all other necessary hardware of all types of following pump i.e. centrifugal, split casing, monoblock etc as per instruction and as directed by the OIC-ES.  | Each | 0.00     |
| 17.2.1 | 60 HP   | Each | 42000.00 |
| 17.2.2 | 20HP  | Each | 13000.00 |
| 17.2.3 | 5HP   | Each | 3000.00  |
| 17.3   | Replacement of Gland packing of pump  | Rmt  | 250.00   |
| 18     | REFRIGERATORS   | Each | 0.00     |
| 18.1   | Supply, installation, testing & commissioning of new original compressor after removing existing defective compressor under buy-back scheme, along with gas charging with prior approval. It also includes servicing, house keeping & any repairing of body as per instruction of Engineer In charge. The contractor shall give one-year guarantee for the compressors. All components shall be of approved make. | Each | 0.00     |
| 18.1.1 | 90 liters (Single Compressor)   | Each | 6000.00  |
| 18.1.2 | 165 liters. (Single Compressor)   | Each | 7000.00  |
| 18.1.3 | 200 liters. (Single Compressor)   | Each | 7500.00  |
| 18.1.4 | 300 liters. (Single Compressor)   | Each | 8000.00  |
| 18.1.5 | 400 liters. (Single Compressor)   | Each | 10200.00 |
| 18.1.6 | 500 liters (Single Compressor)  | Each | 12000.00 |
| 18.1.7 | 65/80 liters (Single Compressor)  | Each | 5500.00  |
| 18.2   | Supply, installation, testing & Commissioning of following components for refrigerators of different capacities as per Indian standard. Approval shall be obtained before using the material.   | Each | 0.00     |

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| 18.2.01 | Thermostat  | Each | 700.00   |
| 18.2.02 | Relay   | Each | 450.00   |
| 18.2.03 | Capacitor   | Each | 180.00   |
| 18.2.04 | Strainer/Drier  | Each | 190.00   |
| 18.2.05 | Painting of body & doors repairs, etc.  | Each | 2000.00  |
| 18.2.06 | Condenser coil  | Each | 2550.00  |
| 18.2.07 | Capillary   | Each | 190.00   |
| 18.2.08 | Freezer coil  | Each | 2550.00  |
| 18.2.09 | Freezer door  | Each | 1000.00  |
| 18.2.10 | PCB   | Each | 3000.00  |
| 18.2.11 | Sensor  | Each | 450.00   |
| 18.2.12 | heater  | Each | 400.00   |
| 18.2.13 | bi-metallic thermostat  | Each | 1200.00  |
| 18.2.14 | fan motor   | Each | 1100.00  |
| 18.2.15 | fan blade   | Each | 350.00   |
| 18.2.16 | bulb  | Each | 100.00   |
| 18.2.17 | Timer   | Each | 650.00   |
| 18.2.18 | Drainage tray   | Each | 450.00   |
| 18.2.19 | Limit switch for bulb/door push button  | Each | 150.00   |
| 18.2.20 | Gas charging  | Each | 2300.00  |
| 19      | Deep Freezers   | Each | 0.00     |
| 19.1    | Supply, installation, testing & commissioning of new original compressor after removing existing defective compressor under buy-back scheme, along with gas charging with prior approval. It also includes servicing, house keeping & any repairing of body as per instruction of Engineer In charge. The contractor shall give one-year guarantee for the compressors. All components shall be of approved make. | Each | 0.00     |
| 19.1.1  | 165 liters.   | Each | 9500.00  |
| 19.1.2  | 200 ltrs. /220 liters.  | Each | 11500.00 |
| 19.1.3  | 360 Ltrs  | Each | 12000.00 |
| 19.1.4  | 400 Ltrs  | Each | 13000.00 |
| 19.2    | Supply, installation, testing & commissioning of following components as per Indian standard for deep freezers (165 / 200 /220 liters capacity).  | Each | 0.00     |
| 19.2.01 | Thermostat of approved make Danfoss   | Each | 1050.00  |
| 19.2.02 | Relay   | Each | 730.00   |
| 19.2.03 | Capacitor   | Each | 200.00   |
| 19.2.04 | Strainer/Drier  | Each | 190.00   |
| 19.2.05 | Bulb  | Each | 80.00    |
| 19.2.06 | Spray Painting of body & doors repairs, etc.  | Each | 2500.00  |
| 19.2.07 | Condenser coil  | Each | 2800.00  |
| 19.2.08 | Capillary   | Each | 190.00   |
| 19.2.09 | Condenser fan with motor  | Each | 1700.00  |
| 19.2.10 | Door gasket of good quality   | Rmt  | 600.00   |
| 19.2.11 | Dial type thermometer   | Each | 1750.00  |
| 19.2.12 | Electronic digital type temperature indicator.  | Each | 2400.00  |
| 19.2.13 | clamp/bush  | Each | 190.00   |
| 19.2.14 | PCB   | Each | 2550.00  |
| 19.2.15 | fan motor   | Each | 1750.00  |
| 19.2.16 | fan blade   | Each | 320.00   |
| 19.2.17 | Gas charging  | Each | 2500.00  |
| 19.2.18 | PT100/ PT 1000 sensor   | Each | 1100.00  |
| 19.2.19 | Electronic digital type temperature controller.   | Each | 3500.00  |
| 20      | COLD ROOM   | Each | 0.00     |

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| 20.1    | Supply, installation, testing & commissioning of new original compressor after removing existing defective compressor under buy-back scheme, along with gas charging with prior approval. It also includes servicing, house keeping & any repairing of body as per instruction of Engineer In charge. The contractor shall give one-year guarantee for the compressors. All components shall be of approved make. | Each | 18000.00 |
| 20.1.01 | Thermostat of approved make Danfoss (differential thermostat )  | Each | 1200.00  |
| 20.1.02 | Relay   | Each | 1100.00  |
| 20.1.03 | Capacitor   | Each | 350.00   |
| 20.1.04 | Strainer/Drier  | Each | 300.00   |
| 20.1.05 | Bulb  | Each | 80.00    |
| 20.1.06 | Spray Painting of body & doors repairs, etc.  | Each | 4000.00  |
| 20.1.07 | Condenser coil  | Each | 6200.00  |
| 20.1.08 | Capillary   | Each | 320.00   |
| 20.1.09 | Condenser fan with motor  | Each | 3300.00  |
| 20.1.10 | Dial type thermometer   | Each | 1750.00  |
| 20.1.11 | Electronic digital type temperature indicator.  | Each | 1500.00  |
| 20.1.12 | clamp/bush  | Each | 220.00   |
| 20.1.13 | PCB   | Each | 3000.00  |
| 20.1.14 | fan motor   | Each | 2200.00  |
| 20.1.15 | fan blade   | Each | 520.00   |
| 20.1.16 | Door gasket of good quality   | Rmt  | 700.00   |
| 20.1.17 | Door lock   | Each | 1200.00  |
| 20.1.18 | Condenser coil  | Each | 2500.00  |
| 20.1.19 | Evaporator coil   | Each | 2800.00  |
| 20.1.20 | Gas charging  | Each | 3800.00  |
| 20.1.21 | PT100/ PT 1000 sensor   | Each | 1100.00  |
| 20.1.22 | Door hinges   | Each | 850.00   |
| 20.1.23 | Door handle   | Each | 1000.00  |
| 21      | Water Coolers   | Each | 0.00     |
| 21.1    | Supply, installation, testing & Commissioning of following components of water cooler of different capacities as per Indian standard. Approval shall be obtained before using the material.   | Each | 0.00     |
| 21.1.01 | Thermostat of approved make Danfoss (differential thermostat )  | Each | 1200.00  |
| 21.1.02 | Relay   | Each | 500.00   |
| 21.1.03 | Capacitor   | Each | 350.00   |
| 21.1.04 | Strainer/Drier  | Each | 300.00   |
| 21.1.05 | Bulb  | Each | 80.00    |
| 21.1.06 | Spray Painting of body & doors repairs, etc.  | Each | 2500.00  |
| 21.1.07 | Condenser coil  | Each | 2500.00  |
| 21.1.08 | Capillary   | Each | 320.00   |
| 21.1.09 | Condenser fan with motor  | Each | 3300.00  |
| 21.1.10 | Dial type thermometer   | Each | 1750.00  |
| 21.1.11 | Electronic digital type temperature indicator.  | Each | 1500.00  |
| 21.1.12 | clamp/bush  | Each | 220.00   |
| 21.1.13 | PCB   | Each | 3000.00  |
| 21.1.14 | fan motor   | Each | 2200.00  |
| 21.1.15 | fan blade   | Each | 520.00   |
| 21.1.16 | Door gasket of good quality   | Rmt  | 600.00   |
| 21.1.17 | Condenser coil  | Each | 2500.00  |
| 21.1.18 | Evaporator coil   | Each | 2800.00  |
| 21.1.19 | Gas charging  | Each | 3800.00  |
| 21.1.20 | PT100/ PT 1000 sensor   | Each | 1100.00  |
| 21.1.21 | Door hinges   | Each | 850.00   |

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| 21.1.22 | Float valve   | Each | 1000.00 |
| 21.2    | Supply, installation, testing & commissioning of new original compressor after removing existing defective compressor under buy-back scheme, along with gas charging with prior approval. It also includes servicing, house keeping & any repairing of body as per instruction of Engineer In charge. The contractor shall give one-year guarantee for the compressors. All components shall be of approved make. | Each | 0.00    |
| 21.2.1  | 80 ltr storage/ 60 ltr /40 ltr hour capacity unit   | Each | 8500.00 |
| 21.2.2  | 30 ltr storage/ 20ltr/15 ltr / hour capacity unit   | Each | 5500.00 |
| 22      | Supply , installtion , fabrication of M.S structure work as per the requirement and coating of 250 micron epoxy paint as per instruction and as directed by OIC-ES.   | Kg   | 130.00  |

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|   | <b>Here by agree with</b>   |  |  |
| 1 | The rate given in shedule of rate will be plus/minus in percentage (%) and same will be valid for period of one year. |  |  |

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| 1  | Material shall be procured according to the specifications as mentioned in the schedule. In case, make of the material is not mentioned in the Item, Prior approval shall be obtained from Engineer-in-Charge before procuring alternate make for any kind of Item/Material. |
| 2  | The rate shall be basic and GST as applicable.   |
| 3  | Deviation may be informed on separate page at the time of tendering only.  |
| 4  | Catalogs, drawings, test reports & other relevant documents shall be submitted time to time before settlement of bill.   |
| 5  | All the material delivered by the contractor shall be at the risk of the contractor  |
| 6  | Rate will be executed for each work as and when required.  |
| 7  | In event of failure to supply and completion of work within the stipulated time period, the Engineering dept reserves the right to levy liquidated damages @ 1.5% per month of delay to be computed on per day basis..   |
| 8  | Material shall be delivered within 1 day of contact through e-mail or telephone.   |
| 9  | New compressor shall have minimum one Year and repaired compressor have 6 months guarantee.  |
| 13 | Payment will be made against the bill along with delivery challan duly endorsed at security gate on  |
| 14 | Agency may visit the site to know actual scope of work.  |