

## स्चना नं १४:- कोल्ड रुम निर्माण ।

I Insulation materials	Supply and complete installation of outer wall puff panel 80 mm thickness 0.5 mm PPGI sheet insulated by 40±2 kg/m3 Polyurethane Foam with tongue and groove joint with camlock system including heat resistance, insulation using silicon scalant	Sq.mtr.		For wall and ceiling
	etc complete Supply and Complete installation of 80mm thick PUF Slab for Floor PUF density 40±2 Kg/m3 including 2mm Tarfelt	Sq.mtr		Only for floor
	Supply and complete installation of door 80MM thickess thermally sealed flush type swing door with heavy duty hinges and handles with door closer for push type gasket. Aluminum Checker Kick plate on both Side of of door and saftey release knob placed at inner side for safety precaution with door opening side as per requriement.	Number		
2 Refrigeration works	Supply and installation of recipiocating scroll type compressor of make emerson/danfoss eq. make working refrigerant R410a, R134a or equivalent having cooling capacity (18000 to 24000) Btu/hr (at 4 degree celsius evaporation and condensation at 45 degree celsius) forced air cooled condenser with fan, copper tubings embeded with aluminium fins GI body powder coated painted, oil separator, liquid receiver, solenoid valve, filter dryer sight glass, e.t.c. all complete necessary accessories as per			
	Supply and installation of indoor evaporator unit (blue cold/carier/euro air) pure copper tubings thermostatic expansion valve of make danfoss/ emerson aluminium powder coated body with stainless steel SS 304 tray, energy efficient multiple propellor type axial fan 3 no per unit all necessary accessories as per site incharge			
	necessary hardwares and accessories  Refrigeration control pannel microprocessor-based temperature indicator and automatic temperature controller, temperature setting up/down limit control, user parameter and administration menu setting up/down limit control, user parameter and administration menu setting automatic and manual control function, intelligent compressor protection  Supply and wiring or installation of vapour			
	Refrigeration works	Polyurethane Foam with tongue and general joint with camlock system including heat resistance insulation using silicon sealant etc complete  Supply and Complete installation of 80mm thick PUF Slab for Floor PUF density 40±2 Kg/m3 including 2mm Tarfelt Waterproofing Carpet  Supply and complete installation of door 80MM thickess thermally sealed flush type swing door with heavy duty hinges and handles with door closer for push type gasket. Aluminum Checker Kick plate on both Side of of door and saftey release knob placed at inner side for safety precaution with door opening side as per requriement Door Opening at least 3 ft *7 ft  Supply and installation of reciprocating/scroll type compressor of make emerson/danfoss eq. make working refrigerant R410a, R134a or equivalent having cooling capacity (18000 to 24000) Btu/n (at 4 degree celsius evaporation and condensation at 45 degree celsius) forced air cooled condenser with fan, copper tubings embedded with aluminium fins GI body powder coated painted, oil separator, liquid receiver, solenoid valve, filter dryer sight glass, e.t.c. all complete necessary accessories as per site incharge.  Supply and installation of indoor evaporator unit (blue cold/carier/euro air) pure copper tubings thermostatic expansion valve of make danfoss/ emerson aluminium powder coated body with stainless steel SS 304 tray, energy efficient multiple propellor type axial fan 3 no per unit all necessary accessories as per site incharge.  Installation of refrigeration system with necessary hardwares and accessories Refrigeration on control pannel microprocessor-based temperature indicator and automatic temperature controller, temperature setting up/down limit control, user parameter and administration menu setting up/down limit control, user parameter and administration menu setting up/down limit control, user parameter and administration menu setting up/down limit control, user parameter and administration menu setting automatic and manual control function, intelligent compressor protection	Polyurethane Foam with tongue and gestore joint with cambock system including heat resistance insulation using silicon scalant ete complete  Supply and Complete installation of 80mm thick PUF Slab for Floor PUF density 40±2 Kg/m3 including 2mm Tarfelt Waterproofing Carpet  Supply and complete installation of door 80MM thickess thermally sealed flush type swing door with heavy duty hinges and handles with door closer for push type gasket. Aluminum Checker Kick plate on both Side of of door and saftey release knob placed at inner side for safety precaution with door opening side as per requirement Door Opening at least 3 ft *7 ft  Supply and installation of reciprocating/ scroll type compressor of make emerson/ danfoss eq. make working refrigerant R410a, R134a or equivalent having cooling capacity (1800 to 24000) Btu/hr (at 4 degree celsius evaporation and condensation at 45 degree celsius) forced air cooled condenser with fan, copper tubings embeded with aluminium fins GI body powder coated painted, oil separator, liquid receiver, solenoid valve, filter dryer sight glass, e.t.c. all complete necessary accessories as per site incharge.  Supply and installation of indoor evaporator unit (blue cold/carier/euro air) pure copper tubings thermostatic expansion valve of make danfoss/ emerson aluminium powder coated body with stainless steel SS 304 tray, energy efficient multiple propellor type axial fan 3 no per unit all necessary accessories as per site incharge  Installation of refrigeration system with necessary hardwares and accessories  Refrigeration control pannel microprocessor-bused temperature indicator and automatic temperature controller, temperature setting up/down limit control, user parameter and administration menu setting automatic and manual control function, intelligent compressor protection  Supply and wiring or installation of vapour proof lights (1965 rating) 2 no in each	Polyurchane Foam with tongue and goest joint with camlock system including heat resistance insulation using silicon sealant etc complete  Supply and Complete installation of 80mm thick PUF Slab for Floor PUF density 40±2 Kg/m3 including 2mm Tarfelt Waterproofing Carpet  Supply and complete installation of door 80MM thickess thermally sealed flush type swing door with heavy duty hinges and handles with door closer for push type gasket. Aluminum Checker Kick plate on both Side of of door and saftey release knob placed at inner side for safety precaution with door opening side as per requriement Door Opening at least 3 ft *7 ft



4	Electricals	Supply and installation of humidifier (ultrasonic type), centrifugal, mist size 5-10 micron, single phase 70-90 watt capacity 5-6 ltr/hr dimensions 350*350*360 mm weight 8 kg air flow 165 m3/hr, water level auto control, controller display unit of machine shall be separate to machine and able to fix the outside in room.  Carbondioxide and fresh air damper 2 inline blower 150 CB  Electrical control panel on off switch with indicators, contactor, phase indicator with preventor, MCB, protective overload relay fuse etc complete, 3 no 15 amp MCB (single phase) for external equipments, lights, motors, fan etc in cleaning grading area	
5	Installation Charges		
6	Transportation Charges to the		