



Advance Biotech Solutions India Pvt. Ltd.

(Advance Technologies, Effective Solutions)



(An ISO 9001:2015 Certified Company)



POLE ★ ADVANCE

WALK-IN COLD/FREEZER ROOM

ABSIPL is a market leader in refrigeration technology. ABSIPL representing market with widest range of Cold Room by their OEM manufactured refrigeration system and evaporators. All refrigeration systems are designed according to the need of customers.

ABSIPL cold room division customized and designed modular cold room of all sizes. We are serving customer through our cold room for Medical & Laboratory product and many more perishables products. Our technical department maintains an International standard and world class technology in their refrigeration system, which provides tremendous efficiency, durability, & reliability.

We have a long list of satisfied customer's right across the board. We have installed our cold rooms for different industry such as, Blood Bank, Hospital/Research Institute, pharmaceuticals, Electronic/ Chemical & food processing. If you are looking unmatched solutions for your refrigeration needs, let's move forward together to satisfy your need.

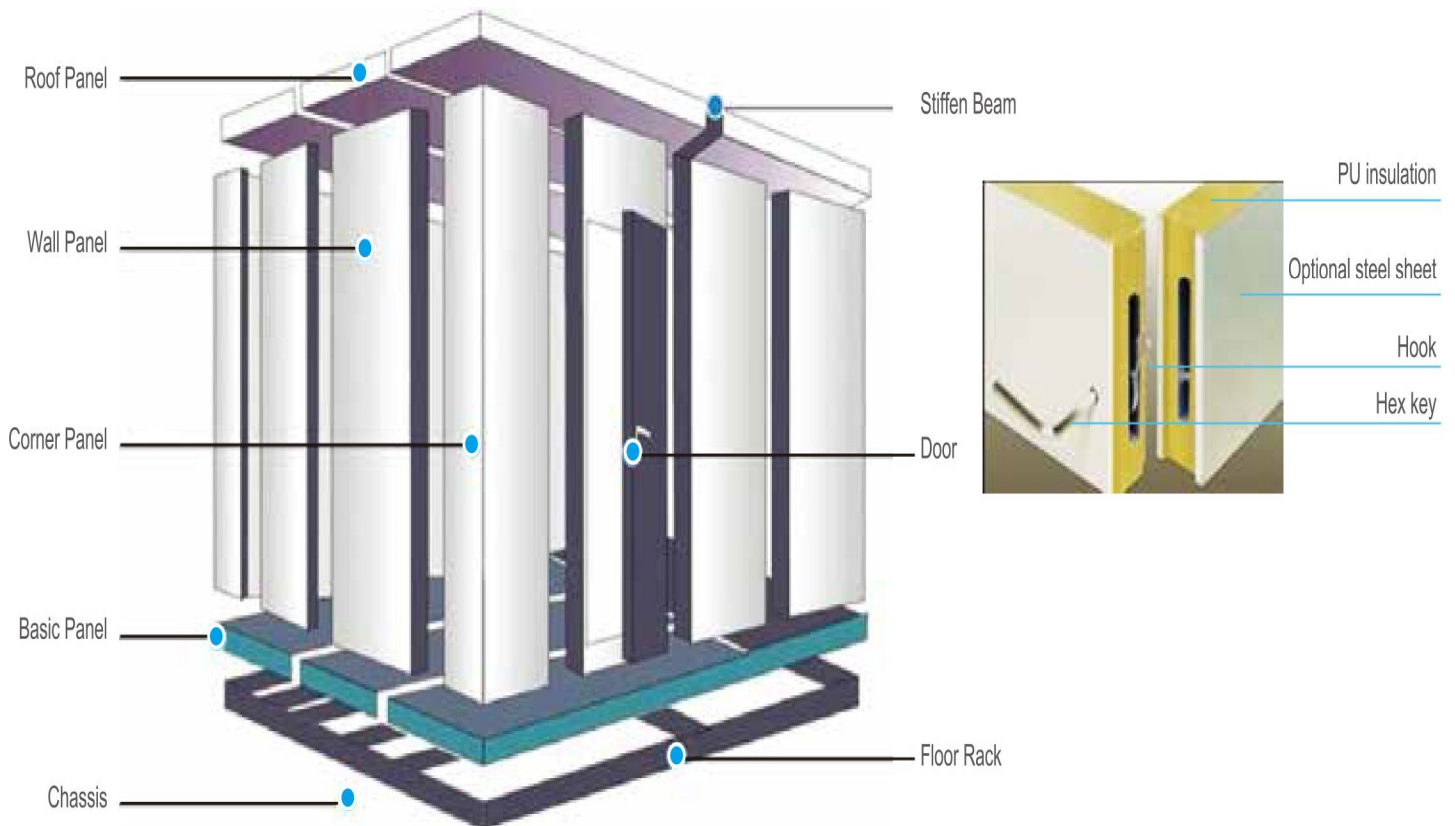
ABSIPL acts as an imaginator, innovator, and implementer, that is why customer can get widest temp. Range in cold rooms from +2°C - +8°C & -10°C to -20°C. In our products humidity is a crucial factor to keep products extremely fresh for a longer period of time. Our experts always ensure humidity level as per products by using dehumidifier and ultrasonic humidifier.



Walk- In Cold Room

Key Features of Walk-in Cold/Freezer Room

- Microprocessor controller with high precision temperature sensors automatic constant temperature at 2°C~8°C or -10°C~-20°C, with resolution at 0.1°C
- Digital LED display ensures storage in high ambient temperature (Optional LCD touch screen)
- Forced air cooling refrigerant system enables uniform temperature
- Dual system design: two refrigerant units automatically work in turns, one refrigerant units is failure, the other refrigerant still guarantees the inner temperature
- Monoblock refrigerant unit is for easy installation (below 40m³)
- Auto-defrost is for easy maintenance
- Alarm system such as high/low temperature ensures safety storage



Ergonomic Design

- World-famous hermetic compressor and refrigerant parts with excellence compatibility ensure a high freeze performance and durable lifetime
- High quality insulation panel is composed of powder coated galvanized steel 100mm thickness PU insulation (density is 42Kg/m³), the insulation foaming layer constructor reduces the cooling bridge, low heat conduction which is better than 17W/m²K The came-lock design is easy for installation.
- Foaming door with excellent seals prevent cooling air leakage. Door frame heater avoids frost, easy to open the door
- Curtains design reduces hot air entering cold/freezer room when door open
- Pressure balance window balances internal and external pressure
- Shelf design optimizes the storage space and maximum storage volume (optional)
- Water-pack design enables the holdover time when power failure
- Safe-protection on power delay, over heat, high/low voltage ensures cold room in good condition
- Low noise level create a comfortable workshop
- Environment friendly, CFC-free and HCFC-free refrigerant and insulation
- LED light is to be controlled outside the room, waterproof, low heat dissipation and low energy consumption
- Anti-skid floor ensures safety walk in cold/freezer room

Safety

- Safety door lock enables open the door inside in occasion of door locked outside
- High/low temperature alarm, optional power failure alarm and remote alarm enable users handle the abnormal condition in time
- Historic temperature data down-load through USB interface and temperature curves displayed from LCD screen
- Temperature recorder or data logger records the temperature data

AIR-COOLED & WATER-COOLED CONDENSING UNITS

- R404A, R717, R134a, R22 and CO₂
- Compressor for three phase and single phase 230 V/1/50Hz with fitted starting device and run capacitor.
- Condenser with grooved copper tubes and Aluminium Fins. Generously sized liquid receiver.
- High & Low pressure cut-out including mounting brackets, wired to terminal strip, Electrical wiring to the connection box IP65. Operating pressure up to 28 bar.
- High cooling capacity with reduced power consumption. Full exploitation of the finned package due to the careful matching of the high capacity external rotors fans.
- Fans with especially efficient low noise external rotor motors single phase & three phase.
- Precharged with ester oil for R134a and R404A/R507A. Designed for extremely high ambient condition upto 65°C/75°C. Copper pipe without any elbow coupler in single pipe with CNC bending machines.
- Special epoxy plus polyurethane metallic paint.
- Big size filters dryer, moisture indicator, solenoid valve, oil separator & accumulator.
- Shell & tube condenser made of copper and cupronickel (seawater resistant design) with newly developed tube geometry and low fouling profile on the coolant side.



Semi Hermetic Condensing Unit Scroll Hermetic Condensing Unit

EVAPORATORS/ INDOOR UNITS

STRUCTURE FEATURES

Coil: use new high efficient aluminum wave fin, high heat conductivity, fast water discharge, use high efficient copper pipe, high heat transfer, use new type liquid distributor & uniform frost

Fan: low cost, high reliability, lower temperature- resistant and low noise external Rotor fans

Defrost: use electric heating stainless steel pipe, high leak-proofness at the end, anti-electric leakage and long life

Casing: use aluminum plate and stainless steel or cold plastic spraying plate, nice appearance and durable

Maintenance: flexible to disassemble and lean

Service & food Industry: special design for hotel & food industry



Evaporator/Inner Unit

CONTROL PANELS

- ABSIPL electrical control panel is operator friendly designed, which provides better safety with following.
- Single Phase Preventer, which protect compressor from single phasing, phase failure and phase reversal.
- Overload Protector current Sensing Device with current relay. This Safeguards compressor motor from the overload. Miniature Circuit Breaker with 4-POLE, which safeguards the Condensing Unit from short circuit.
- Electrical controller to check voltage, ampere, frequency, phase to phase and phase to neutral voltage.
- Phase indicator with 3 nos. for Red, Yellow and Blue. ON/Off Buttons with Light Indicators.
- Auto & Manual Mode switch over button.
- Indicating lamp with 5 nos. of LED to help the operator to make out fault, also from distance. For thermal protection unit, L.P. /H.P. cutout, heater on and oil pressure cut out.
- Contractor of standard makes 3 No.s Separate for Compressors, Indoor Fan & Heaters.
- All electrical cables are of standard make. Control Panel MCB used for protection of Electrical Panel.

Connectors: Finolex make with serial nos. used for connection with Condensing Unit & Evaporator.

Cold Room Controller:- Microprocessor Based Controller with two Sensors used for cold room & evaporator coil to save life of cooling coil & defrosting electricity. Also with Flexibility to control Defrosting Timing & Duration, Option for manual defrosting & internet connectivity * with RS232 port to monitor all the parameters of cold room on computer, remote monitoring facility and communication of all faults alarm.



Cold Room Control Panel

ACCESSORIES

PUF PANNELLS

Cold room panels have a lightweight, self-supporting, aluminum / GI-sandwich construction with special aluminum / GI profile as wall joints. They are extremely robust, corrosion-resistant, and have waterproof sealing.

Key Features:

These Cold rooms are designed & developed customized as per specific requirement of the customer. These are fire retardant as per code, sheeted cabinet using high quality PUF insulation, minimizing the outside ambient temperature.

The panel Thickness can be made from 60 mm to 150 mm. with the maximum size of 1.2mtr X 6.5mtr. Standard density of these PUF filled panels shelter is 40 ± 2 k.g. however the same can be increased or decreased as per specific requirements.

Doors

High quality cold room door of different thickness and sizes like overlap door, flush type door and sliding door using imported lock and hinges. With thermal break parameter to avoid thermal conductivity otherwise lead to ice formation. For viewing the inside without opening the door, to check if the door swing- path is clear, view glass option is available.

Camlock

Posi-loc locking assemblies that provide perfect alignment of walls, ceiling, floor, corners and door frames Hardware & Posi-seal Closure Heavy-duty cast alloy handles and hinges with attractive brushed-chrome finish. Cushions closing of door, making it noiseless and firmly shut

Flooring

Useful to provide the result of an insulated regular floor and also to form a stable base for wall and partitions.

Puf slab with Kota stones are being used in big cold rooms Interior & Exterior Ramps Movement of material become easy due to use of ramp, without causing any damage to floor.

Sweep Gasket

The heavy duty sealing gasket under the door keeps it flexible at any temperature, which makes it completely airtight.

Advantage of Semi-Hermetic Compressor

SEMI-HERMETIC (Semi-Sealed)	VS	HERMETIC (Sealed)
MODEL: PSA-CR-SHS		MODEL: PSA-CR-HS
Capacity: 1000 liters to 100000 liters		Capacity: 1000 liters to 100000 liters
EASY TO ACCESS FOR REPAIRS		NOT POSSIBLE
NOISE LEVEL 75dB (A)		88 dB (A) NOISE LEVEL
VIBRATION ARE VERY LESS		MORE VIBRATIONS DUE TO ONE SHELL ASSEMBLY
WIDE VOLTAGE SELECTION AVAILABILITY		LESS IN COMPARISION OF SEMI HERMETIC
LESS POWER CONSUMPTION FOR THE SAME H.P. COMPRESSOR		HIGHER POWER CONSUMPTION DUE TO MORE MOVING PARTS
SUCTION GAS COOLED MOTORS		FAN COOLED MOTORS
LOW MOTOR TEMPERTAURE		NOT SUITABLE FOR VERY LOW TEMPERATURE APPLICATIONS
AVAILABLE FROM 0.5 TO 50 H.P. (AIR COOLED) AVAILABLE FROM 0.5 TO 50 H.P. (WATER COOLED)		AVAILABLE FROM 0.5 H.P. TO 15 H.P
DESIGNED FOR EXTREMELY HIGH AMBIENT CONDITIONS (UPTO 75° c)		DESIGNED FOR MAXIMUM 46° C / 50° C AMBIENT
SPARES EASILY AVAILABLE LIKE GASKETS, MOTOR WINDING, VALVE PLATE		REPLACEMENT OF COMPRESSORS IS PREFERRED AS REPAIRING IS VERY DIFFICULT

ENERGY CONSUMPTION Vs COOLING PERFORMANCE

COMPARISION

MODEL: PSA-CR-SHS	MODEL: PSA-CR-HS	MODEL: PSA-CR-SHS
Type of Cold Room	European Hermetic	2SB 55.3 (ABSIPL Semi Hermetic)
Capacity	1000 Lt to 100000 Lt	1000 Lt to 100000 Lt
Displacement	16.73m ³ /hr	16.24m ³ /hr.
Gas	404A	404A
Selection	-30°C Evaporating temp. 50°C Condensing temp.	-30°C Evaporating temp. 50°C Condensing temp.
Cooling Capacity (Watt)	1870 Watt	2690 Watt
Cooling Capacity (Btu/ hr.)	6377 Btu/ hr.	9173 Btu/hr.
Power Input	2.64 Kw.	2.39 Kw.
Sub Cooling	0 K	0 K (without liquid sub cooling)
Super Heat	10 K	10 K
COP/EER	0.71	1.12



ADVANCE BIOTECH SOLUTIONS INDIA PRIVATE LIMITED

(ADVANCE TECHNOLOGIES, EFFECTIVE SOLUTIONS)

311, Vardhman Key Point Plaza, Plot No.1, Local Shopping Centre, Sector-6, Dwarka, Near DAV Public School
New Delhi-110 075 Ph: 011-25074703/25050521, Email Id: - skp@absipl.in, Website: - www.absipl.in