

Cold Storage

Exposed/Duct Type Unit

REFRIGERANT SYSTEM





Cold Storage

Cold Storage is a cold room system with extreme temperature, usually around 2 - 8°C. Generally, used for raw materials and fine goods storage.

How does cold storage unit work?

In a cold storage unit, there are two independent linked system, which are :

Room system. It has an isolated system to avoid extreme temperature gap between room temperature and external temperature. Room system failure will cause condensation to the entire room hence an ideal room temperature will not be achieved, in other word, the room's heat load will increase due to external temperature affecting the room.

Cooling system. A direct expansion system which have capabilities to produce air below 0°C. Usually, the system uses a specific freon type (R404A) but R407C / R410 and other similar freon type can also be suited.

When a cold storage unit is needed?

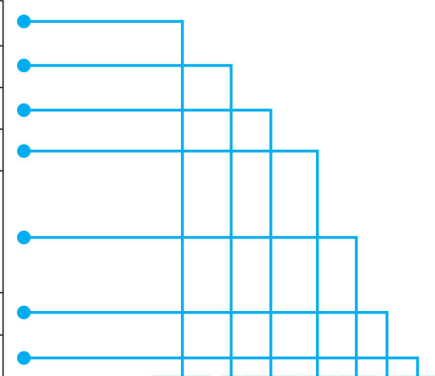
Cold storage unit is needed when there's a specific extreme temperature requirement. It is generally used for raw materials, fine goods, fruit storage, meat storage, etc.

Who can build the customized cold storage unit?

ATS products are the answer to build customized cold storage unit. We support delivery throughout global market and do installation completely.

Model Nomenclature

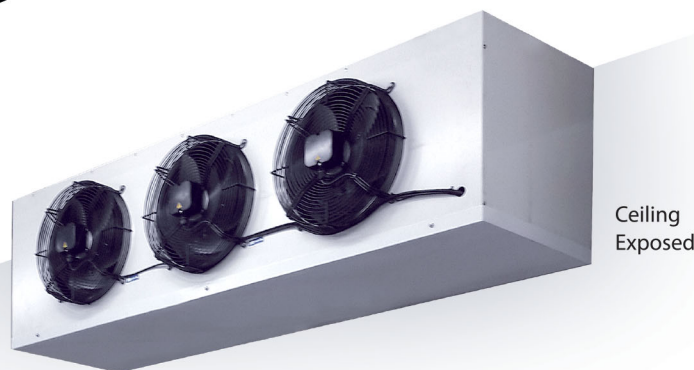
Type of Cold Storage	FRZ / CLD
Material of Body	C (Colorbond) / S (Stainless Steel 304)
Insulation	PUT (Polyuretane) / PST (Polystyrene) / PIR (Polyisocyanurate)
Number of Cooler	01 - 06 Pieces
Total Cooling Capacity	5H (50.000 Btuh) / 6H (60.000 Btuh) / 8H (80.000 Btuh) 10H (100.000 Btuh) / 12H (125.000 Btuh) / 13H (130.000 Btuh) 15H (150.000 Btuh) / 20H (200.000 Btuh) / 25H (250.000 Btuh) 30H (300.000 Btuh) / 35H (350.000 Btuh) / 40H (400.000 Btuh)
Type of Cooler	C (Ceiling Exposed) / D (Duct Type)
Type of Condensor	AC (Air Cooled) / WC (Water Cooled)



Example: CLD-CPUT028HCAC

NOTE:

1. Efficiency air cooled is, efficiency calculated based on a condition where the condensor temperature is 50°C by air.
2. Efficiency water cooled is, efficiency calculated based on a condition where the condensor temperature is 35°C by water.
3. Water cooling condition requires the temperature of water source to be at a maximum of 26°C, whether it comes from



Cooling Unit (FRZ/CLD)

Temperature Range -40 - 15°C

Relative Humidity Unconditioned

TYPE	FRZ	CLD
Temperature Range	-40 - 0°C	0 - 15°C
Capacity	50.000 - 400.000 Btuh	50.000 - 400.000 Btuh
Model	Ceiling Exposed / Duct Type	Ceiling Exposed / Duct Type
Air Cooled Efficiency	Depends on Temperature Needed	1,49 - 1,72 Kw / TR
Water Cooled Efficiency	Depends on Temperature Needed	1,00 - 1,20 Kw / TR
INDOOR UNIT		
Air Flow Rate	500 - 6.000 Cfm	500 - 6.000 Cfm
Static Pressure	2 Inch H ₂ O - 6 Inch H ₂ O	2 Inch H ₂ O - 6 Inch H ₂ O
Model Impeller	Backward Direct Driven (Duct Type) Axial (Exposed Type)	Backward Direct Driven (Duct Type) Axial (Exposed Type)
Material Impeller	Composite	Composite
Power Indoor	1 HP / 0,75 Kw - 10 HP / 7,5 Kw	1 HP / 0,75 Kw - 10 HP / 7,5 Kw
Motor Type	AC / EC	AC / EC
Voltage / Frequency / Phase	380 Volts / 50 Hz / 3 Phase	380 Volts / 50 Hz / 3 Phase
Refrigerant	R22 / R407C / R410	R22 / R407C / R410
Finishing Body	Powder Coating / Stainless Steel 304	Powder Coating / Stainless Steel 304
Dimension	Customized*	Customized*
Body Insulation (for Duct Type)	Polyurethane / Polyethelene / Rockwool	Polyurethane / Polyethelene / Rockwool
Model Body	Double Skinned	Double Skinned
Cooling Coil:	Fin & Tube Heat Exchanger	Fin & Tube Heat Exchanger
- Model	Aluminium	Aluminium
- Fin Material	Copper	Copper
- Tube Material	Washable Filter	Washable Filter
Filter Installation	Pre Filter Medium Filter HEPA Filter	Pre Filter Medium Filter HEPA Filter
REMOTE CONDENSING UNIT (RCU)		
Model	Air / Water Cooled	Air / Water Cooled
Compressor Model	Hermatic / Semi Hermatic	Hermatic / Semi Hermatic
Compressor Type	Reciprocating	Reciprocating
Motor Fan Type	AC / EC	AC / EC
Finishing Body	Powder Coating	Powder Coating
Power	5 HP / 3,5 Kw - 40 HP / 30 Kw	5 HP / 3,5 Kw - 40 HP / 30 Kw
ROOM		
Size	Customized	Customized
Insulation Material	PU / PS / PIR	PU / PS / PIR
Insulation Thickness	50 mm - 150 mm	50 mm - 150 mm
External Layer	Colorbond Steel 0,5mm	Colorbond Steel 0,5mm
Internal Layer	Colorbond Steel 0,5mm / SS 304	Colorbond Steel 0,5mm / SS 304
Accessories	Overlap Swing Heated Door IP 65 lamp Plastic Curtain	Overlap Swing Heated Door IP 65 lamp Plastic Curtain

* ATS can do customized unit if required



PT Alam Teknik Semesta

Jalan Pintu Besi 1 Blok A No. 31

Jakarta 10710 - Indonesia

Tel. (+6221) 3500586 - 3807931 - 3802637

Fax. (+6221) 3519568 - 3803072

Email. office@alamteknik.com