

WM-4510HZD Installation Instructions

1. Through-wall installation without ducts (Fig 1, 2 & 3)

It is the standard installation when the cooling unit can exhaust the hot air to an adjacent space.

- 1) The cooling unit shall be mounted near the ceiling with equal distance from each side of the cellar.
- 2) Cut a rectangular opening between two wall studs. The dimensions of the opening shall be 1/4" larger than the width and height of the cooling unit; if top exhaust installation, cut another rectangular opening at the top of the cellar to the length and width of the top exhaust.
- 3) Construct a shelf as shown. The shelf must be capable of supporting the weight of the cooling unit and preventing it from moving.
- 4) Place the cooling unit on the shelf with the back of the unit flush with the outside of the wall.
- 5) Seal the clearance between the cooling unit and opening with a high quality weather stripping, polyurethane spray foam, or foam tape. Cover the seal with molding and attach the molding to the wall not the unit; if top exhaust installation, place another gaskets along the top exhaust at the top of the cooling unit.
- 6) Install the wall grille on the cellar exterior wall.
- 7) Or install a rear exhaust grille and an air filter at the rear of the cooling unit.
- 8) Plug the unit into a properly grounded and dedicated outlet of adequate capacity.
- 9) Turn the evaporator fan control knob clockwise to the lowest speed position.

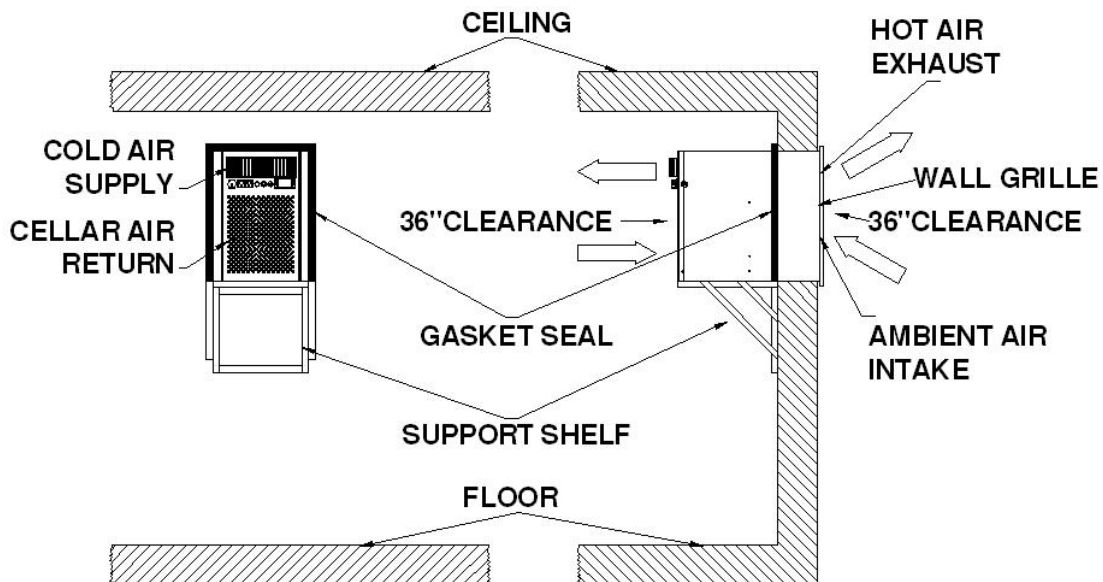


Fig. 1 Flush to the outside of wall with wall grille

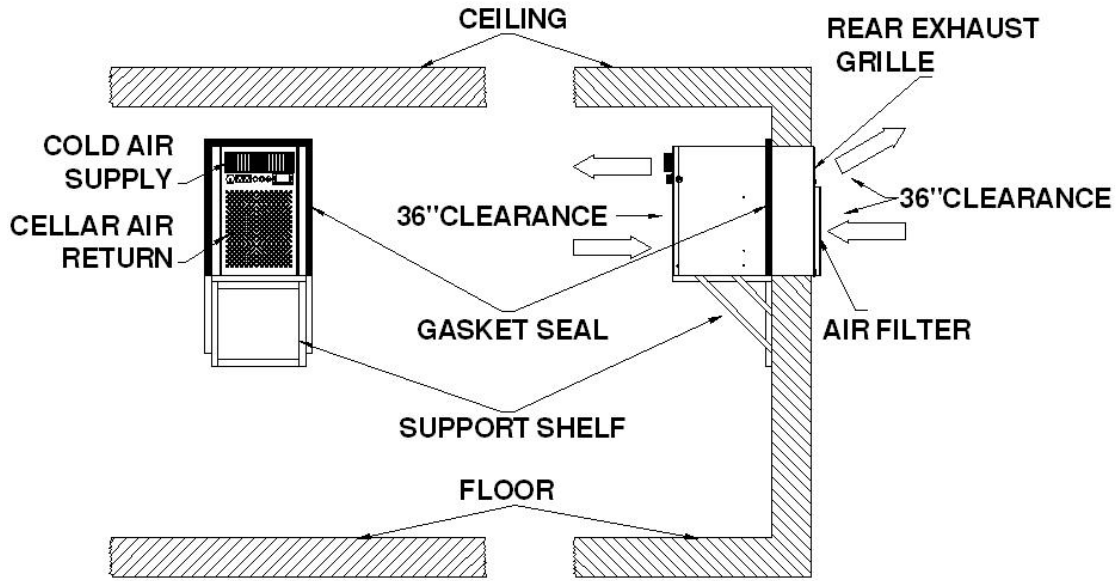


Fig. 2 Flush to the outside of wall with air filter & rear exhaust grille

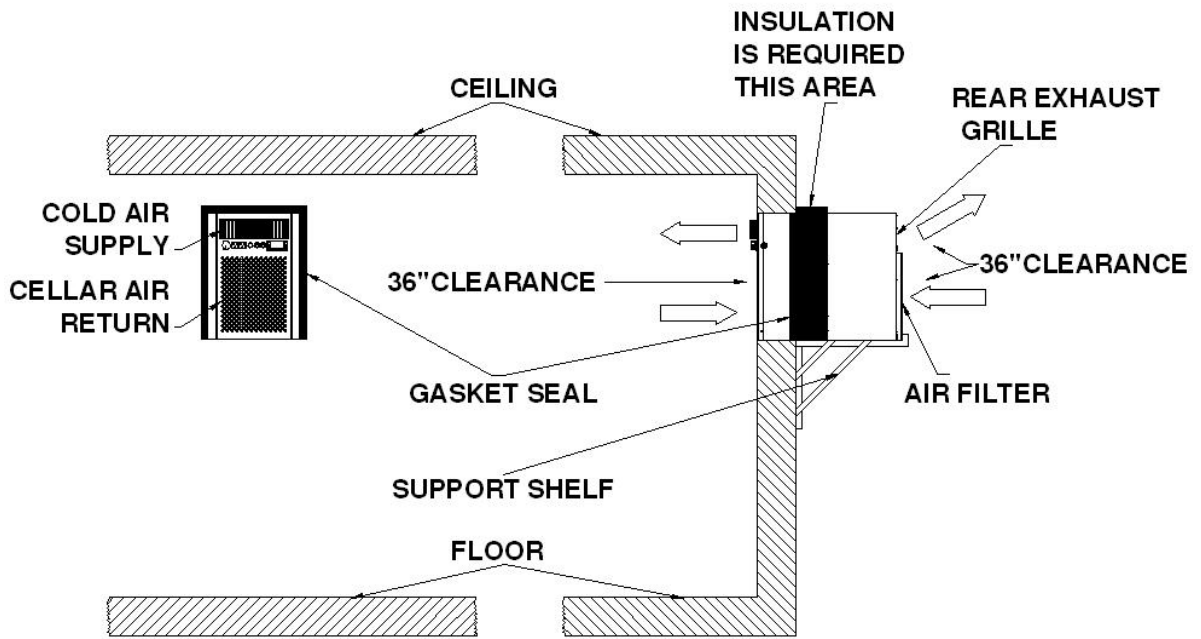


Fig. 3 Flush to the inside of wall with air filter & rear exhaust grille

NOTE: Insulate any cold surfaces of cooling unit for better performance if exposed to the outside.

2. Through-wall installation with hot-air exhaust and ambient-air intake ducts (Fig. 4 & 5)

It is the installation when the cooling unit can not exhaust the hot air to an adjacent space.

- 1) The cooling unit shall be mounted near the ceiling with equal distance from each side of the cellar.
- 2) Cut a rectangular opening between two wall studs. The dimensions of the opening shall be 1/4" larger than the width and height of the cooling unit.
- 3) Construct a shelf as shown. The shelf must be capable of supporting the weight of the cooling unit and preventing it from moving.
- 4) Place the cooling unit on the shelf with the back of the unit flush with the outside of the wall.
- 5) Seal the clearance between the cooling unit and opening with a high quality weather stripping, polyurethane spray foam, or foam tape. Cover the seal with molding and attach the molding to the wall not the unit.
- 6) Attach the duct hoods to the rear of the cooling unit with screws (Use #8 x 1/2" screws only).
- 7) Attach the insulated ducts to the hoods with adhesive tapes.
- 8) Secure the ducts with conduits to the cellar exterior walls and make sure they are not curled, twisted, bent and clogged.
- 9) Install an air filter at the rear of the cooling unit.
- 10) Plug the unit into a properly grounded and dedicated outlet of adequate capacity.
- 11) Turn on the high condenser fan switch.
- 12) Turn the evaporator fan control knob clockwise to the lowest speed position.

NOTE:

- **The exhaust and intake ducts can be combined maximum 50 ft long.**
- **The cooling unit can also be installed with its front flush with the racks or the inside of the wall. Insulate any cold surfaces of cooling unit for better performance if exposed to the outside.**

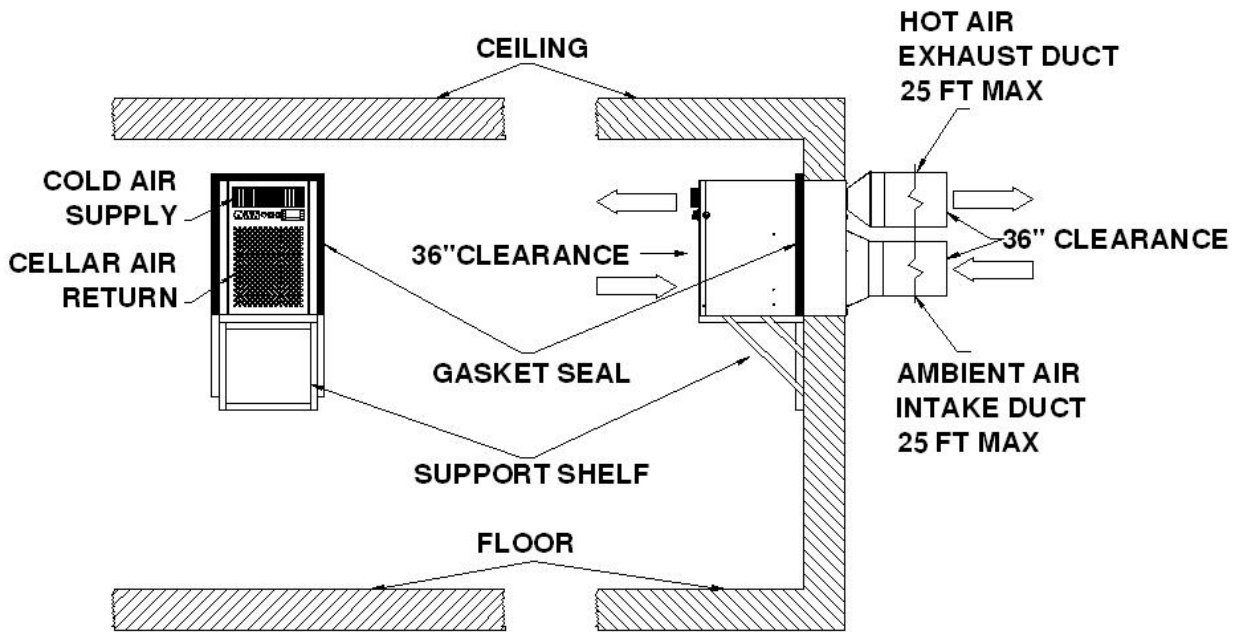


Fig. 4 Flush to the outside of wall with hot-air exhaust & ambient-air intake ducts

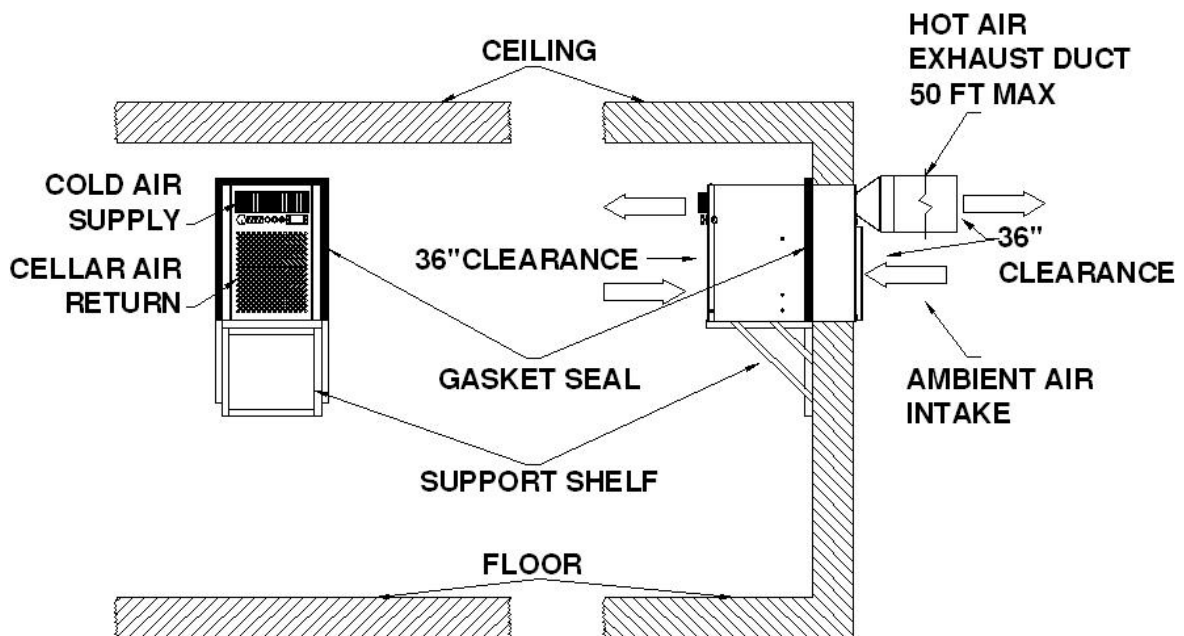


Fig. 5 Flush to the outside of wall with hot-air exhaust duct & air filter

3. Through-wall installation with cold-air supply ducts (Fig 6 & 7)

It is the installation when the cooling unit is located away from the wine rack.

NOTE: The supply duct can be maximum 50 ft long.

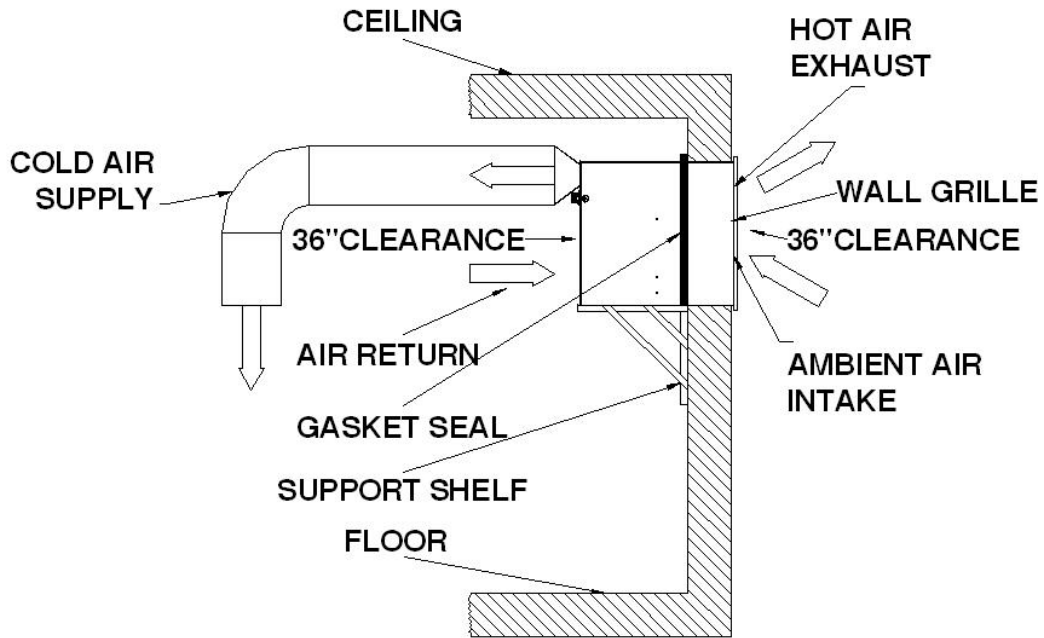


Fig. 6 Flush to the outside of wall with wall grille and cold-air supply duct

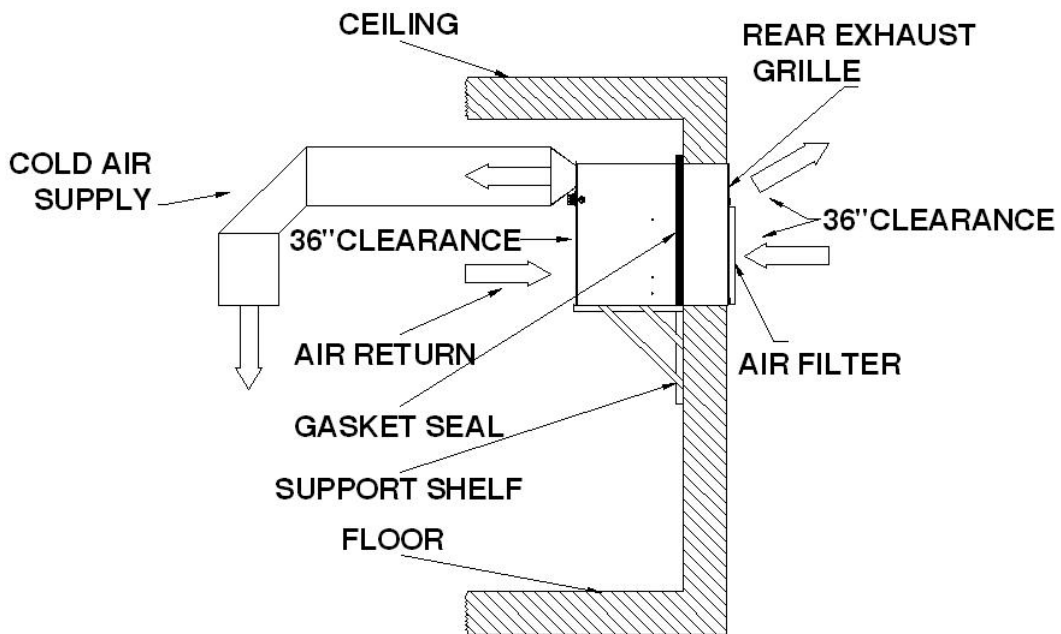


Fig. 7 Flush to the outside of wall with air filter & rear exhaust grille and cold-air supply duct

4. In-cellar installation with hot-air exhaust and ambient-air intake ducts (Fig. 8 & 9)

It is the installation when the cooling unit is installed away from the wall.

NOTE: The exhaust and intake ducts can be combined maximum 50 ft long.

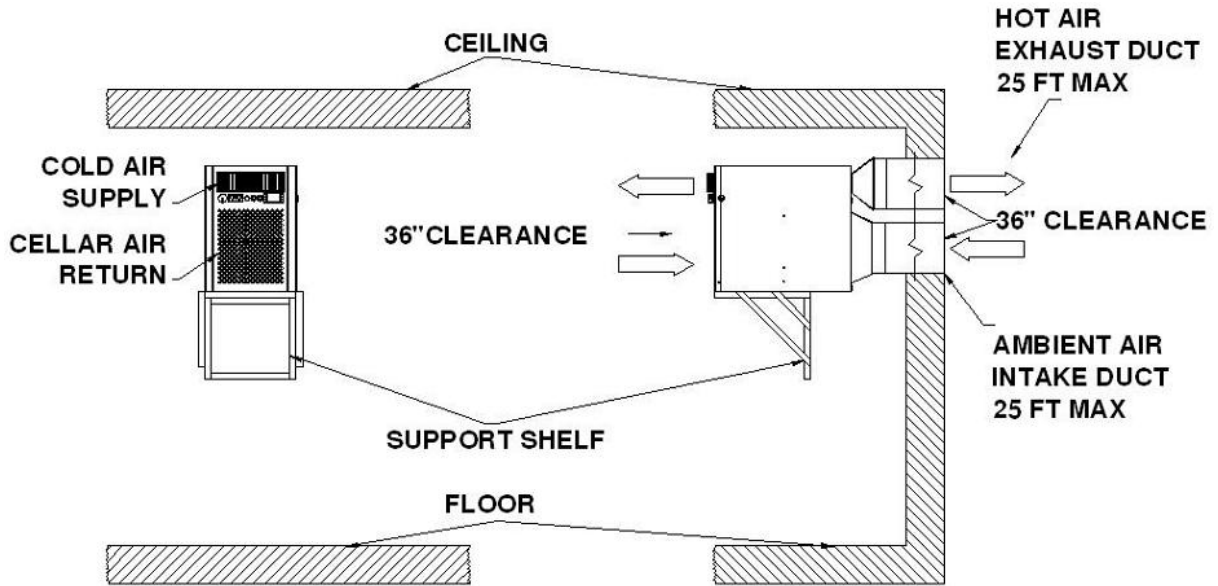


Fig. 8 In-cellar with hot-air exhaust & ambient-air intake ducts

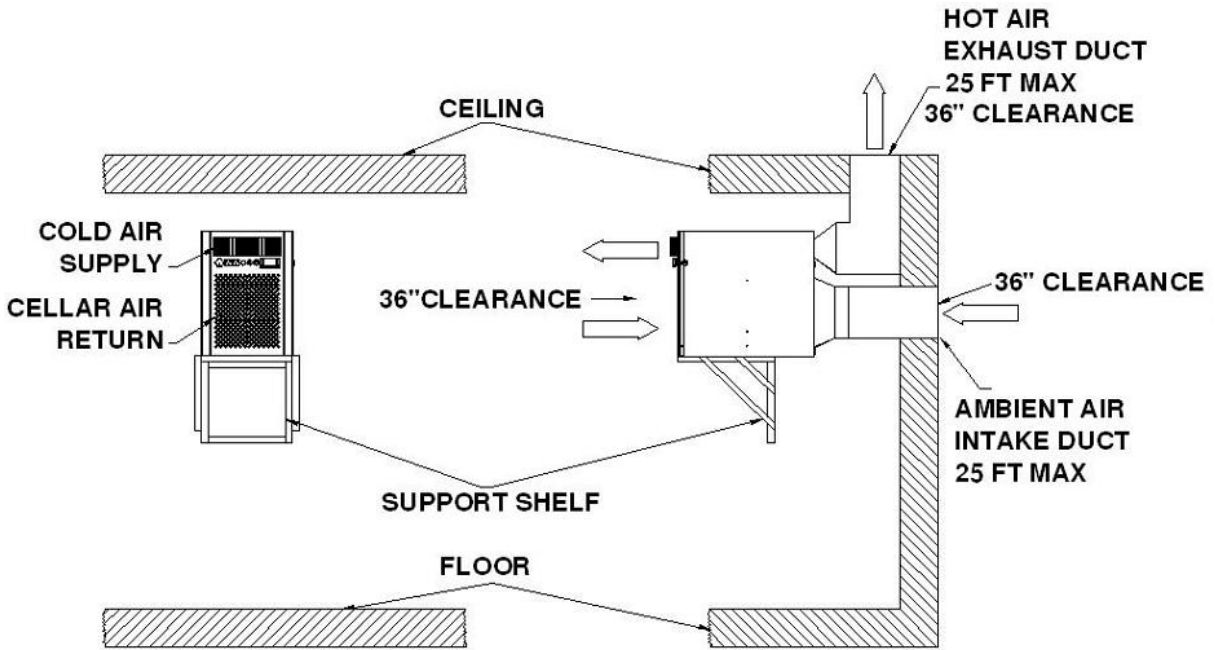


Fig. 9 In-cellar with hot-air exhaust & ambient-air intake ducts

5. Remote installation with cold-air supply and cellar-air return ducts only (Fig. 10)

It is the installation when the cooling unit can not be installed inside the wine room but it can exhaust the hot air to an adjacent space.

NOTES:

- **The supply and return ducts can be combined maximum 50 ft long.**
 - **Insulate the cold side of cooling unit for better performance.**
- 1) Cut two circular openings at the wine cellar ceiling or wall as illustrated.
 - 2) Secure the cooling unit on the top of the wine cellar or other strong flat places
 - 3) Remove the front cover of the cooling unit.
 - 4) Attach the duct hoods to the front the cooling unit with screws (Use #8 x ½L screws only).
 - 5) Attach the insulated ducts to the hoods with adhesive tapes.
 - 6) Secure the ducts with conduits to the wine cellar ceiling and exterior walls and make sure they are not curled, twisted, bent and clogged.
 - 7) Install a rear exhaust grille and an air filter at the rear of the cooling unit.
 - 8) Plug the unit into a properly grounded and dedicated outlet of adequate capacity.
 - 9) Turn the evaporator fan control knob counter-clockwise to achieve the required air flow CFM.

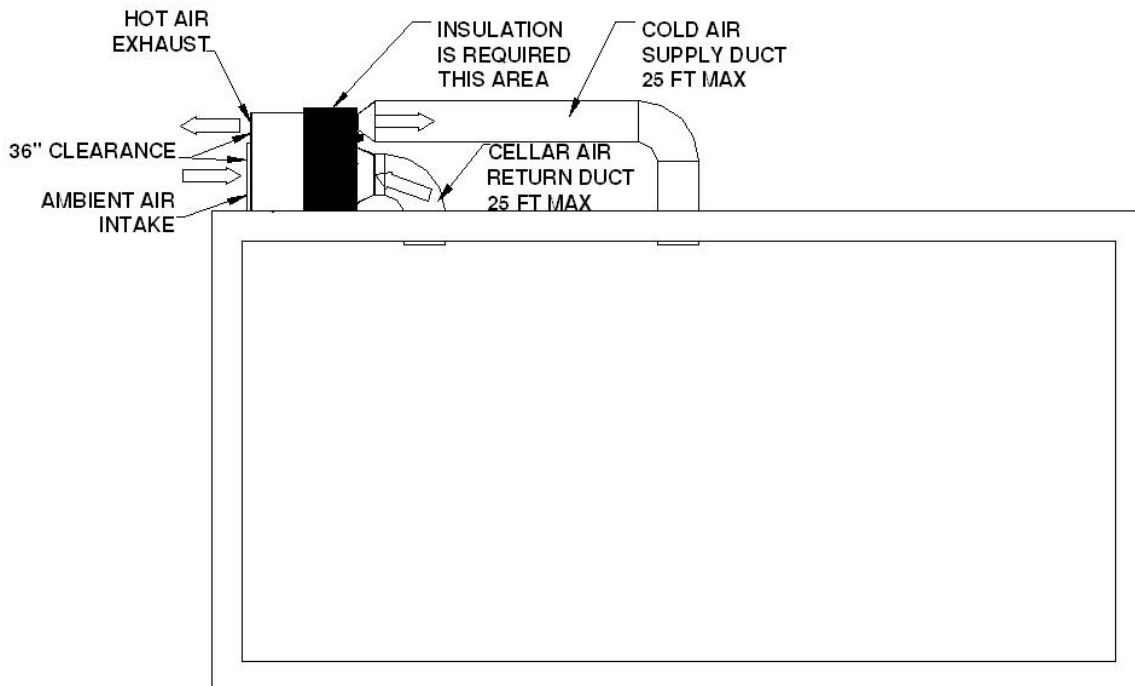


Fig. 10 Cold-air supply and cellar-air return ducts only

6. Remote installation with cold-air supply, cellar-air return, hot-air exhaust and ambient-air intake ducts (Fig. 11 & 12)

It is the installation when the cooling unit can not be installed inside the wine room and it can not exhaust the hot air to an adjacent space.

NOTES:

- **The supply and return ducts can be combined maximum 50 ft long.**
 - **The exhaust and intake ducts can be combined maximum 50 ft long.**
 - **Insulate the cold side of cooling unit for better performance.**
- 1) Cut two circular openings at the wine cellar ceiling or wall as illustrated.
 - 2) Secure the cooling unit on the top of the wine cellar or other strong flat places
 - 3) Remove the front cover of the cooling unit.
 - 4) Attach the duct hoods to the front and rear of the cooling unit with screws (Use #8 x 1/2L screws only).
 - 5) Attach the insulated ducts to the hoods with adhesive tapes.
 - 6) Secure the ducts with conduits to the wine cellar ceiling and exterior walls and make sure they are not curled, twisted, bent and clogged.
 - 7) Install an air filter at the rear of the cooling unit.
 - 8) Plug the unit into a properly grounded and dedicated outlet of adequate capacity.
 - 9) Turn on the high condenser fan switch.
 - 10) Turn the evaporator fan control knob counter-clockwise to achieve the required air flow CFM.

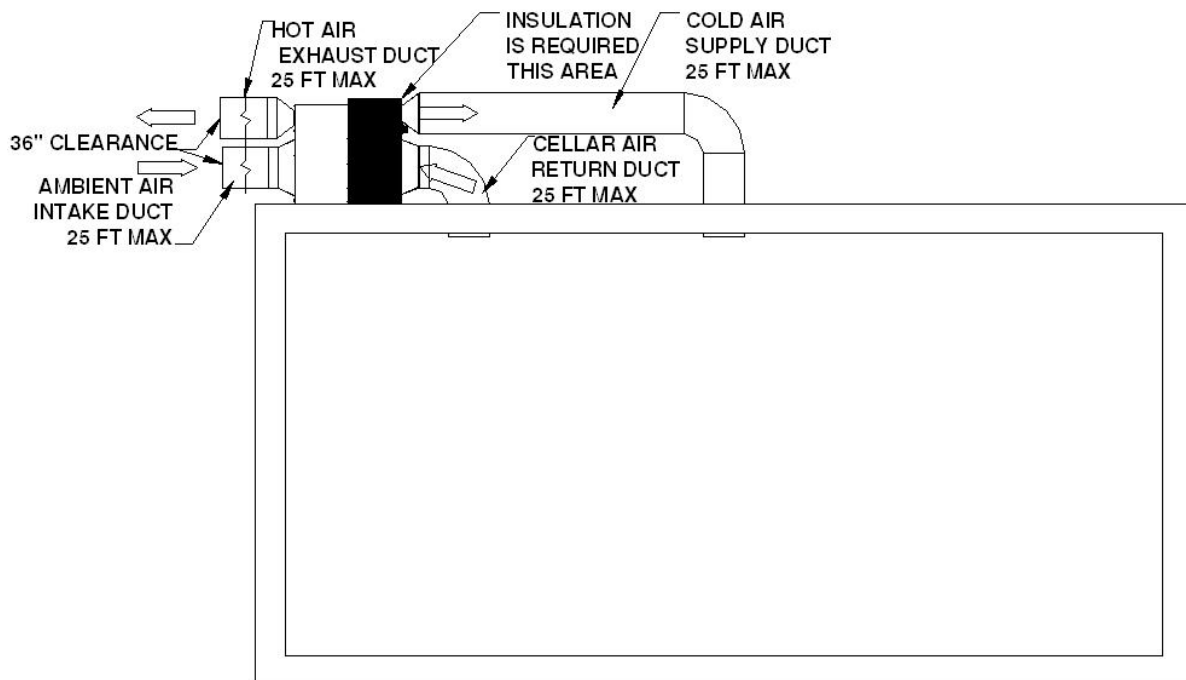


Fig. 11 Cold-air supply, cellar-air return, hot-air exhaust and ambient-air intake ducts

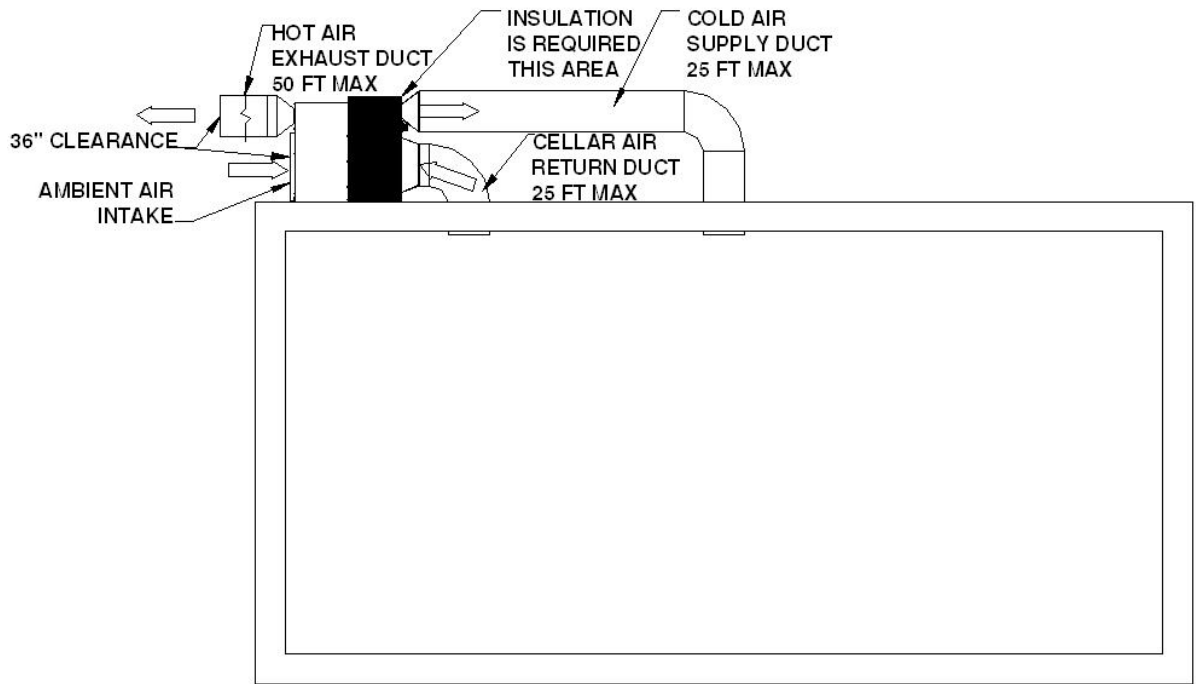


Fig. 12 Cold-air supply, cellar-air return and hot-air exhaust ducts