

Trade Topics

February 2018

HVAC Package Unit Costs

This is an informational Client Bulletin Prepared by TiCon, a General Contractor, for the Tenants, Owners, Brokers and Managers of Commercial and Industrial Properties in the Bay Area

This bulletin addresses mechanical (HVAC) unit costs common to commercial and industrial interior and site improvements. The costs presented here represent pricing submitted by a local non-union mechanical contractor. These costs are presented in a 'rule of thumb' context; and factors that will affect the actual cost: are: a) project size and conditions of work and b) market forces at the time of bid.

The pricing does NOT include a general contractor's markup - if you have a general contractor running your job, prices will be somewhat higher.

Package Unit System Definition: This system utilizes mechanical heating and cooling provided by a single unit that has both heating and cooling modes but can only condition the air in one mode at a time. There is only one control (thermostat) for each unit. This system is the most common found in 1 & 2 story office buildings, R&D facilities, retail and industrial buildings throughout the bay area.

The following is a pricing table based on a new system being installed in a single story building that has easy access to the roof from the parking area. The costs include ductwork distribution above a future acoustic ceiling for a predominantly 'open landscape' design. It is important to note that in a new rooftop installation of an air-conditioning unit there will be additional costs for:

- Structural engineering and reinforcement of the roof
- Electrical service, gas service, condensate drain line
- Economizer (If the unit is over 5 tons)
- Energy calculations
- Roof patching

These additional costs are usually a minimum of \$7,000.00 and they will substantially exceed this figure for units above 5 tons - do not forget to consider these costs when budgeting. Replacement of existing units, in kind, will be less than the figures quoted below since the structural and energy engineering and distribution system will have been included during its original installation.



Informational client bulletin prepared by TiCon Commercial Inspection - Specializing in commercial property inspections, for the tenants, buyers, brokers and managers of commercial and industrial properties in the San Francisco Bay Area and Central Valley.

| Item | Description | Cost |
|------|---|-------------|
| 1 | (2) ton roof mounted package unit with 2 supplies and 2 returns | \$10,448.00 |
| 2 | (2.5) ton roof mounted package unit with 2 supplies and 2 returns | \$10,900.00 |
| 3 | (3) ton roof mounted package unit with 3 supplies and 2 returns | \$11,812.00 |
| 4 | (4) ton roof mounted package unit with 4 supplies and 2 returns | \$13,861.00 |
| 5 | (5) ton roof mounted package unit with 5 supplies and 2 returns | \$17,958.00 |
| 6 | (7.5) ton roof mounted package unit with 7 supplies and 2 returns | \$22,122.00 |
| 7 | (10) ton roof mounted package unit with 9 supplies and 3 returns | \$25,922.00 |
| 8 | (20) ton roof mounted package unit with 20 supplies and 4 returns | \$50,182.00 |

Rule of thumb for AC unit sizing: The most commonly used method to determine the number of tons of cooling for general office and R&D space is to divide the gross area by 350 -400 (one ton cools 350 -400 square feet) -the product is the number of tons required.

Minor alteration costs when remodeling

| Item | Description | Cost |
|------|--|----------|
| 1 | Relocate a thermostat within the area | \$462.00 |
| 2 | Add a supply or ducted return register to an existing system | \$600.00 |
| 3 | Install return air transfers (in lieu of ducted return) | \$560.00 |
| 4 | Relocate a supply or return with a few feet of original position | \$430.00 |

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Diligence is the Mother of Good Fortune -Ben Franklin

Sample report and other data available at www.ticon.com

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