

The Expense of Keeping a Mechanical Engineer on Staff

Below are some simple calculations on the basic costs and overhead associated with keeping a Mechanical Engineer on staff. We provide this as guidance as many people we talk or work with are not accountants and rarely see the cost of overhead.

We also tried to keep our estimates fairly conservative with a fairly standard benefits package. The salaries are based on Southern California rates as of Fall 2008. Also note, most tech companies offer a fair amount beyond the basics, usually with bonuses, stock option plans etc. These are not shown here. We also don't show a lot of soft costs associated with maintaining an engineer on staff, such as payroll and accounting, the HR cost of hiring, the cost of managing, travel expenses etc. However these are all expenses that are picked up in the overhead rate of a contractor, so these rates are still significantly lower than the real overhead borne by a company staffing the engineer.

The other expense not shown is downtime. The difference between a staff engineer and contract engineer is that you only pay a contract engineer for a specific project or the work they do. For companies that have intermittent design projects this is often the main benefit. The yearly cost of a staff engineer is the yearly cost whether or not the engineer is productive.

Mechanical Engineer with 5 years Experience

Base Salary (per year)	80000
Employer Social Security	6000
State Taxes	2000
Health Insurance	10000
Workers Compensation	1600
Other Insurance	2400
Vacation/Holiday Compensation	7200
Sick Time	3200
Computers and Software	2500
Office Space	1200
401K Matching	4000

		Monthly Expense	Weekly Expense	Hourly Rate
Total	120100	10008.33	2309.62	57.74
Alternate calculation by subtracting hours for Vacation And sick time instead of showing as an expense		9903.47	2285.42	57.14

Sr. Mechanical Engineer/Project Manager/Engineering Manager

Base Salary (per year)	135000
Employer Social Security	10125
State Taxes	3375
Health Insurance	10000
Workers Compensation	2700
Other Insurance	4050
Vacation/Holiday Compensation	12150
Sick Time	5400
Computers and Software	2500
Office Space	1200
401K Matching	6750

		Monthly Expense	Weekly Expense	Hourly Rate
Total	193250	16104.17	3716.35	92.91
Alternate calculation by subtracting hours for Vacation instead of showing as an expense		15861.81	3660.42	91.51