

7 Budget

The costs of the thesis has been divided between direct costs and indirect costs. To divide the costs in variable or fixed cost is useless, in this case, due to the fact that all of them would be variable, depending in the number of working hours. Other kind of costs are also discarded.

Direct Costs

As this project has been done completely with the computer, the only expenses has been relative to the personal and the electricity used by the computer.

Concept	Total [€]
Personal	5250
Energy*	5.818
Total	5256

Table 8: Direct costs.

*The energy cost is calculated with the mean electricity charges in Spain. The main expenses has been the Personal costs.

Indirect Costs

The indirect costs are the expenses related to extra electrical expenses, diets, taxes or any other possible factors that can not be computed. All these, are estimated as a 10% of the direct cost. Therefore, the total indirect costs are:

Concept	Total [€]
10 % Direct cost	525

Table 9: Indirect costs.

Personal

The working hour distribution are presented in the following table:

Concept	Personal	€/hours	Hours	Total cost [€]
References and state of the art	Researcher	15	10	150
Introduction to SimScale	Researcher	15	30	450
P.F.C.* Research	Researcher	15	25	375
P.F.C. Simulation	Researcher	15	28	420
P.F.C. Post-Process	Researcher	15	12	180
F.P.C.** Research	Researcher	15	17	255
F.P.C. Simulation	Researcher	15	30	450
F.P.C. Post-Process	Researcher	15	23	345
C.F.*** Research	Researcher	15	46	690
C.F. Simulation	Researcher	15	19	285
C.F. Post-Process	Researcher	15	25	375
Project Synthesis	Researcher	15	35	525
	Director	25	30	750
Total			330	5250

Table 10: Personal working hours breakdown.

With:

*P.F.C: The Pipe Flow Case Study

**F.P.C: The Flat Plate Flow Case Study

***C.F: The Compressible Flow