

Lesson 14: Cost estimation and Capital Investments

Read: Pages 226-239

Problems: 6-1, 6-2 (Problem Set 7)

Objectives (Cadets will be able to):

1. Relate the I/O analysis from lesson 13 to the different cash flows in a process.
2. Articulate the different types of cash flow in a chemical process (Figure 6-1).
3. Calculate equipment costs using capacity scaling factors.

Definitions:

Working capital, nonmanufacturing and manufacturing fixed costs, direct and indirect costs, total capital investment, gross profit, purchased equipment costs, operating labor costs, utility costs, depreciation, annual total product costs, cumulative cash position, cost capacity scaling factors

Cadet Notes: