How To Compute Break-Even

By Setting up a Simple Break-Even Chart, a Contractor Can Keep Track of Finances, Cash

by Joseph Arkin, CPA, MBA

Every wall and ceiling contractor must know how his firm is doing profit-wise. Is a profit being made? If so, how much? If not, is the lack of profit due to excessive costs of operation? And—most important—at what sales volume does he start to make a profit?

To illustrate the questions let us take the case of a small contractor we’ll call John Wrightman.

Wrightman operates a modern drywall firm, has three full time office employees who are busily engaged in servicing a business built up over a number of years.

Every April 15th the income tax man cometh and Wrightman pays his tax. However, he recently got quite a shock when a new supplier insisted on sending an order C.O.D. and he found himself hard-pressed to meet the cash-on-the-barrelhead shipment.

What is wrong with a business seemingly doing a thriving business, yet constantly short of liquid working capital?

John posed this question to his friendly banker who suggested that John’s accountant set up a break-even point chart.

Actually such a chart is a chart of past history, yet it helps to gain an insight into current business affairs. Clearly and unmistakably it could be seen what is happening to costs-both fixed and variable in relation to sales.

By aligning a string of monthly charts a good picture of progress or regression can be evaluated.

To show how to prepare such a chart it is necessary to gather together certain information. Wrightman came up with the following figures together with his accountant by referring to past financial statements and from a working knowledge of the business:

1—Maximum Monthly Sales: Each month using existing facilities and workforce, the business has a potential billing volume of $65,000.

2—Fixed Expenses: These would include rent, utilities, telephone, insurance, wages, salaries of permanent employees, etc. $22,000.

3—Average Monthly Sales: From past experience it is noted that actual billings are a shade over 80% of potential maximum, or $53,000.

4—Variable Expenses: Actual cost of materials, tools, shipping charges, interest about $24,000.

Scanning these figures the reader...
may have several questions. Why pick $65,000 as the maximum sales figure, why not $75,000 or $85,000? From the fact of doing an average of $53,000 per month and seeing the activity of ?? and himself, Wrightman knows from experience that the present size of the establishment, the work done, the inventory at hand, etc., $65,000 is a target figure of what could be assumed to be the maximum.

If you examine the chart (See Figure 1) prepared by his accountant, you'll note that he had to do about $37,500 of business in order to cover cost of goods sold and other fixed and variable costs.

Some small business firms refine this type of chart and use a different arithmetic approach. They split expenses into three classes: fixed, semi-variable and variable.

Fixed expenses, or course, include *rent, insurance, taxes and other items which ordinarily don't change with the amount of business done. Semi-variable expenses are those such as advertising which vary to some extent according to volume but usually are controlled as a matter of management policy. Variable expenses are the ones like cost-of-goods sold and commissions to sales people which fluctuate in direct relation to the rate of sales.

Once you have your expenses figures segregated on this basis, you divide the total fixed and semi-variable costs by the margin of sales dollars over variable expense dollars. The answer tells you what volume you must reach in order to balance revenues and expenses.

John Wrightman is a busy contractor and he shouldn't spend any of his time (or pay his accountant) to prepare charts unless he makes some use of the information elicited.

There are many specific uses to which the chart can be put to use—among these we list some of the more significant ones:

1—Budgetary Control Aid. It helps to indicate what changes, if any, are needed to make expenses stay in line with income.
2—Sales Improvement Program. A warning signal can be flashed to show when there is trouble in the sales program. Lagging sales will be flagged by the chart. What to do? Reevaluate bidding techniques, give sales staff additional training, drop unprofitable sales lines, look to add additional sales lines.

3—Investment and Credit Controls. Examination of the chart will show the level at which lagging sales will put the firm into the red, or conversely, how will profits increase if there is an increase in sales.

4—Wage Negotiations. Management will be able to know if wage increases can be granted and what fringe benefits, if any, can be given to aid morale as long as cost is warranted by favorable chart.

5—Price Policy Determinations. A businessman (subject of course to Federal Price Controls) will know the probable effects on profits if prices can be raised without too much of a change in fixed costs. Also, can prices be reduced to spur lagging sales without causing insolvency? What combination of price changes can be effected in relation to a change in fixed and variable costs?

6—Assessment of Expansion Policies. A visual means is provided to know the wisdom of making capital expenditures to radically change the structure of the business. Adding to existing space, turning cellar into a sales area, etc.

The break-even chart helps to keep management on the alert to find ways and means of improving its “safety margin”—decisions should be made in the light of their effect upon the margin shown and to stabilize during periods of economic uncertainty.

Since the break-even analysis and the preparation of the break-even chart are conditioned upon the availability of adequate accounting records, it is obviously important that such records be correctly set up and maintained. Once charts are in operation they can be utilized to get speedy and reliable warning signals to alert management to dangers facing the business.