

of BEP

by Joseph Arkin

About the Author . . . Joseph Arkin is a Miami-based certified public accountant who writes frequently for trade magazines on business management topics.

Small business owners must know how their firms are doing profit-wise. Are profits being made? If so, how much? If not, is the lack of profits due to excessive costs of operation? And most importantly, at what sales volume does a business start to make a profit?

To illustrate the process of computing a break-even point, consider the example of a contractor who operates a modern establishment, has three full-time sales employees, and services a clientel built up over a number of years.

Last April 15th, the company paid a modest tax. But shortly afterward when a new supplier insisted on prepayment for an order, the contractor found himself hard-pressed to meet the demand.

Why should a seemingly thriving business be constantly short of liquid working capital? The contractor posed this question to his banker, who suggested the company's accountant set up a *breakeven-point (BEP) chart*.

Actually, such a chart only illustrates past history, yet it provides insight into 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 produced.

To prepare a BEP chart, it is necessary to gather together certain information. The contractor came up with the following figures by referring to past financial statements and using his working knowledge of the business:

Maximum monthly sales: *Each month using existing facilities and staff, the business has a potential sales volume of \$65,000.*

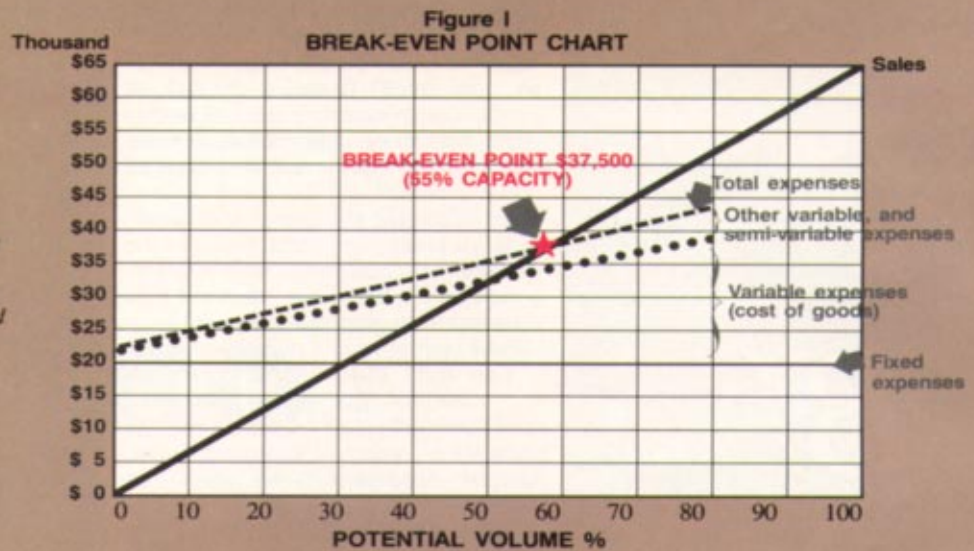
Fixed monthly expenses: *These would include rent, utilities, telephone, insurance, salaries of permanent employees, and other items that amount to \$22,000.*

Average monthly sales: *From past experience, actual sales run a shade over 80 percent of potential maximum, or \$53,000.*

Viable monthly expenses: *Actual cost of merchandise sold, shipping charges and materials, sales commissions, and other such items average (based on \$53,000 sales) about \$23,000.*

**Maintaining an
up-to-date
break-even-point
chart can help
you keep on
course for
profits.**

Break-even-point charts are constructed from the figures for maximum monthly sales, average monthly sales, fixed monthly expenses, and variable monthly expenses.



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 the three salespeople and himself, the contractor knew from experience that given the present size of the establishment, \$65,000 was a target figure of what could be assumed to be the maximum.

There are many specific uses to which BEP charts can be put

The chart (see below) prepared by the company accountant shows the contractor has to do about \$37,500 of business to cover cost of goods sold and other fixed and variable costs.

Some firms refine this BEP chart by splitting expenses into three classes: fixed, semi-variable and variable.

Fixed expenses, of 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 ones like cost-of-goods sold and commissions to salespeople that fluctuate in direct relation to the rate of sales.

Once expense figures are segregated on this basis, the total fixed and semi-variable costs are divided by the margin of sales dollars over variable expense dollars. The answer suggests what sales volume must be reached to balance revenues and expenses.

Contractors are busy people and shouldn't spend time (or pay their accountants) to prepare BEP charts unless some use is made of the information elicited. However, there are many specific uses to which BEP charts can be put:

Budgetary control aid. BEP charts can help indicate what changes, if any, are needed to make expenses stay in line with income.

Sales improvement program. Warning signals seen in a BEP chart can show when there is trouble in the sales program and point up the need to re-evaluate sales techniques or give sales staff additional training.

Investment and credit controls. BEP charts can show the level at which lagging sales will put the firm into the red, or conversely, how profits will increase if there is an increase in sales.

Wage negotiations. Management can use BEP charts to know if wage increases and benefits can be granted.

Price policy determination. Contractors can look to BEP charts to suggest the probable effects on profits if prices are raised or whether prices can be reduced to spur lagging sales without causing insolvency. The chart may also give a clue as to what price changes can be effected in relation to a change in fixed and variable costs.

Assessment of expansion policies. BEP charts offer a visual means to check the wisdom of making capital expenditures to radically change the structure of the business, such as adding to existing space.

A String of monthly BEP charts shows progress or regression.

BEP charts help alert management to find ways of improving its "safety margin," and offer speedy and reliable warning signals to alert management to dangers facing the business. 