GOING FOR GPK

Grenzplankostenrechnung (GPK), which roughly translates to "flexible standard costing," is one of the most widely used costing systems in Germany and other European countries and is best described as a direct or variable costing system. Companies that use GPK make a significant effort to identify cost behavior, traceability, relevance to decision making, and cost period measurement.

In 2003, at the request of the Institute of Management Accountants, Paul Sharman (now IMA president and CEO) visited a number of companies in Europe to explore the manner in which they used GPK and to pinpoint future GPK research opportunities. His conclusions were published in *Strategic Finance* in October and December 2003. Based on these findings, IMA commissioned additional studies through its Foundation for Applied Research (FAR) to get a more in-depth view of the use of GPK and the feasibility of implementing it in the U.S.

STIHL'S COST ACCOUNTING AND REPORTING SYSTEMS

In 2004, Kip Krumwiede, recipient of an IMA research grant, visited 11 companies in Germany, Austria, and Switzerland to ascertain their use of GPK (see Kip's article on p. 26). Andreas STIHL AG & Co., KG, was one of these companies. Headquartered in Waiblingen, Germany, this manufacturer of chain saws and other landscaping products has operations in 30 countries.

In its European subsidiaries, Andreas STIHL employs GPK along with traditional GAAP-type reporting using a full

STIHL MOVES TOWARD THIS COSTING SYSTEM IN THE UNITED STATES.

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absorption costing system. The subsidiaries are required to report both GPK- and GAAP-based information to facilitate decision making on various issues such as pricing and make-or-buy decisions and to meet the needs of traditional financial reporting. It's interesting that Andreas STIHL does this because it is a privately held company, which makes implementation of a non-GAAP system easier as there are no significant regulatory requirements for a privately held corporation. As Krumwiede reports, Andreas STIHL uses the cost information for many management decisions including make-or-buy analyses.

In early 2004, Andreas STIHL decided that STIHL Inc., its U.S. manufacturing and distribution subsidiary based in Virginia Beach, Va., would have to begin reporting on a GPK basis no later than December 31, 2004. For STIHL Inc. CFO Karl Angler, that meant he and his staff had to begin a process of adjusting their absorption-based accounting system to enable GPK margin reporting.

STIHL Inc. manufactures leaf blowers, chain saws, trimmers, edgers, and many other assorted landscaping products for both commercial and residential use. It had been using a full absorption accounting system that conformed to U.S. GAAP and had been reporting using the full absorption cost information and additional data that included key variable cost information along with production information. Table 1 shows the template of the traditional, absorption-based financial statements it submitted.

It uses a standard cost system in which costs are allocated to products according to specific allocation guidelines. Like most U.S. manufacturers, STIHL Inc. assigns variable costs of manufacturing directly to product lines and products. In addition, for financial reporting purposes, it assigns fixed and variable indirect costs to products based on reasonable allocation bases. Some

PHOTOGRAPH: COURTESY OF STIHL INC.

examples of the allocations are:

Cost	Allocation Base
Indirect Labor	Direct Labor Hours
Machining Costs	Machine Hours
Tooling Costs	Machine Hours
Material Overhead	Material Costs
Logistics	Material Costs

All manufacturing costs are broken out into fixed and variable components. This would make the conversion to GPK relatively easy because one of the primary steps in the process to convert to GPK is to separate cost structures into fixed and variable components. Management was particularly concerned about the general perception of higher fixed-cost contribution margins compared to gross profit margins. Many of their long-time staff had been fully trained in a full-cost environment, and the management team didn't want their employees to draw the wrong conclusions—that profitability had increased—because of a change in costing systems.

STIHL Inc. employs SAP for its accounting and manufacturing systems. SAP is one of the few software packages available that allows for the simultaneous operation of a full absorption system along with a variable- and fixed-cost accumulation system. Most companies are required to continue to use full absorption costing under GAAP, which means keeping inventories in a fixed-cost accumulation system, but because STIHL uses SAP, this wasn't an issue. Nonetheless, the management team was somewhat concerned about the impact of converting to GPK from their traditional full absorption system for a very simple reason. STIHL Inc. had never reported contribution margins using the variable costing side of the system. They had reported some of the variable cost information as part of their regular information used for making many of the decisions mentioned above.

PLANNING THE GPK ROLLOUT

The company established a rollout plan for the GPK implementation to meet the corporate mandate. It included these steps:

1. Review the current assignment of variable and fixed costs for possible changes in the new reporting system.
2. Identify and classify step costs. (These are costs that vary in proportion to volume but not specifically with each unit of product, i.e., batch costs, material handling, etc.)
3. Determine the scope of changes necessary to be addressed:
   a. Group costing only.
   b. Local profitability analysis.
   c. Standard cost generation that will lead to inventory valuation.
4. Determine the required changes in SAP.
5. Determine and maintain Excel and Access databases.
6. Train affected personnel, particularly those that will see and use different costs for different purposes.

The above changes were matters for the cost accounting group at STIHL Inc. to deal with. Although many of the work steps were similar to what the company does during the budget preparation cycle every fall, there isn't a general level of awareness outside the Cost Accounting Department in terms of contribution margin reporting compared to gross profit margin reporting. During the process of converting to GPK, the company needed to pay particular attention to the assignment of fixed and variable cost pools as the underlying relationships to various cost drivers might be called into question. STIHL, like many other companies, has cost pools that include both fixed and variable costs. Under GAAP, full absorption costing, this doesn't matter as costs are spread utilizing a cost driver. Under GPK, it is crucial that cost pools are homogenous in regard to behavior as well as cost driver. For example, electricity costs may be allocated to a department based on direct labor hours for GAAP. Under GPK, there needs to be identification of the electricity costs to a better cost driver, such as machine hours. The electricity would also have to be captured so it can be identified and assigned to the products properly. Also, as in any new cost accounting system implementation, the steps involved with either tracing or assigning the costs to the various cost objects and ultimate products would need to be fully reviewed prior to implementation.

Once again, the greatest hurdle the management team had to overcome was educating the employees who would be affected by the change brought on by the GPK implementation. Employees at STIHL Inc. were well versed in full-absorption-based numbers. The company had a steady pricing policy and pricing schedule under the full-absorption-based system and had achieved a good profitability record. At the beginning of the implementation process, STIHL Inc. planned to expose only a few of its employees to the new reporting philosophy in order to keep staff focused on the regular business of the company and not the numbers. Management's obvious concern was that the GPK-based unit costs would be less than the full-absorption-cost-based unit costs since they would not have fixed overhead absorbed. The lower GPK numbers, particularly if used for pricing, could actually

Table 1: GROSS MARGIN BREAKDOWN

Net Sales	**100**	
Costs		
Material Costs	-50	
Variable Prod. Cost	-10	
Tooling Costs	-5	
Margin 1	**35**	**35%**
Fixed Prod. Cost	-5	
Out-of-House Cost	-1	
Logistics Costs	-4	
Margin 2: Gross Margin	**25**	**25%**
Admin. Costs	-5	
Sales & Marketing	-10	
License Fees	-2	
Margin 3	**8**	**8%**
Unabsorbed Cost	-2	
Net Result Before Tax	**6**	**6%**

Table 2: CONTRIBUTION MARGIN BREAKDOWN

Net Sales	**100**	
Material Costs	-50	
Variable Prod. Cost	-10	
License Fees	-2	
Out-of-House Prod.	-1	
Contribution Margin	**37**	**37%**
Tooling Costs	-5	
Fixed Prod. Costs	-5	
Logistic Costs	-4	
Administration Costs	-5	
Sales & Marketing	-10	
Unabsorbed Costs	-2	
Total Fixed Costs	**-31**	**-31%**
Net Result Before Tax	**6**	**6%**

result in a lowering of profitability and poor decision making. For example, a fully costed product under a traditional GAAP system would include all fixed and variable costs assigned to the product. In a GPK system, only the variable cost would be assigned to the product if a pricing decision were being made on the product. Therefore, traditional pricing models, which are generally based on full cost, would lead to a lower-priced product to the customer and, in the long run, diminished profitability to the company. So a very careful rollout to staff was planned.

A further danger of GPK is that the separation of sunk fixed costs from incremental fixed costs may give distorted information for strategic planning purposes. Strategic decisions are made for the long-term plans of the company. While sunk costs remain constant in the short term, they can vary in the long run. GPK would relegate the sunk costs to being expensed as period costs, and they wouldn't be included in product cost. This could cause the sunk costs to not be a part of the strategic planning process, so an important cost consideration in long-term decision making would be missing.

MAKING PROGRESS

The company's accounting staff worked tirelessly throughout the summer of 2004 to implement the new GPK system. In June, Karl Angler made a trip to Germany to discuss the GPK implementation with the financial staff at Andreas STIHL. He wanted to assure himself that he and his staff were going about the project in a manner that was consistent with the company's overall intent. He received some valuable information from the staff in Germany, and, when he returned, STIHL Inc. made some changes in their process to accommodate items that the corporate office wanted to see in their system.

As summer drew to an end, STIHL Inc. was in good shape for the September 30 third-quarter report, which would be their first under GPK. Table 2 shows a pro forma view of what the GPK-based financial reports looked like. The response from Andreas STIHL to this first financial report was that the information looked good. More detail will be available in future reports as the system configuration progresses.

The new reports add value to the existing gross margin reports for comparing profitability of various product and customer mixes. With gross margin reports, changes in volume/mix can obscure the perception of profitability, so direct costing is crucial for capacity-related decisions.

CFO Karl Angler summed up the process as follows: "The implementation of GPK margin reporting supplemented well the existing tool kit for cost and margin reporting. This has been accomplished by focusing on existing system features and information within the systems." ■

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GPK/German cost accounting is a topic at IMA's Annual Conference June 18-22. For details, visit www.imanet.org/boston.