



**DEFINING KEY MEASURABLES - EFFECTIVE**

<b>Most Effective</b>	<b>How was it measured?</b>	<b>Why was it effective?</b>
Timely completion of work orders as it relates to completion of work and rework	Measured in hours/days by individual work orders and percent complete	Selected by Management as an objective at the start of ISO
1. Profit loss 2. Customer quality rating 3. Customer delivery rating	1. Company financial statement 2&3. Customer report cards and internal ratings	Reviewed and managed in monthly/quarterly reviews, CAR reviews & effectiveness, improvement action plans.
A reduction of costs associated with rework, scrap and bloated inventory. It was effective because the measurable was clear and in alignment with corporate goals. It was also supported by the top management personnel.	Measured by the monitoring of qualifiable indicators that were tied into distinct activities (cause and effect).	Plant management created a pareto chart, reviewed the data on a weekly basis and discussed it with all employees. A monthly summary was given to upper management A GAP analysis comparing actual results versus goals was developed each month with corrective action.
Time from Request for Quote is received until time Request for Quote is responded to.	The objective was to respond to all quotes in 24 hours. Thus the "Time to Quote" was measured in hours.	It was reviewed in Management Review Meetings. Once the goal was set, it was normally met.
Cost of quality metric	Using formula to calculate all components of cost of quality: rework, scrap, planned inspections, premium freight, internal audits, 3rd party audits.	It was reviewed monthly on a one-page chart that was published. Everyone was familiar with the results and their involvement with the various components.
Cost of quality tied to business performance finances	Money applied to business finances	Budget review - metrics - communicated to organization and charts on bulletin boards - Tied to performance goals and employee bonus
Operational first pass yield "no touch" and "with touch."	Measured by monitoring the process efficiency RFT in line with business expectations/ targets for scrap & rework in order to monitor any effect on the business bottom line for additional re-work.	It was a key metric in the process performance indicator one pager submitted for management review.
Identified their weakest process was something they hadn't thought about - Sales' quote response time. thought of.	Measured their progress towards the goal on a monthly basis. Can use rolling date (i.e.: three, six or twelve months.)	This company rolled the data into the monthly management review process and looked at a year history at a time.
Yield as a measure.	Percent conforming product whether by test or inspection and could be inline or end of line.	Reviewed daily and weekly by the Line Management.
Track increase of recycling by targeting amount of solid waste created instead of targeting a percent increase in recycled material.	Measured by tracking number of roll-offs hauled from the site.	Showed dollar savings, not money received for recycled material. Actual savings as opposed to false gains (i.e.: whatever is recycled has to be replaced at a greater cost than monies received for the recycled material.) Actual savings from reuse instead of recycle and cost avoidance realized due to reuse and decreased landfill fees (including transportation).



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Excellence in production and service based on customer returns; excellence in production and service realization manufacturing defects per million per opportunity	Parts per million	Management reviews, employee meeting called tool box meeting - daily and quarterly meeting
1. Delivery performance vs what customers expect and performance to their quoted delivery time. 2. Multiple linked objectives for quality, delivery, safety and environmental performance tied to a gain sharing program. 3. Color coded scorecard by MBX.	1. Drove through improvements/shorter lead times to distinguish themselves from their competition. 2. Performance to individual objectives linked to overall performance	Managed through a six sigma black belt program where all levels were involved, as well as the monthly President meetings.
First pass testing of aircraft electrical components (rates for first pass of components during testing after rebuild).	Results tracked as components were tested (pass/fail) - root cause conducted as failures.	Results reviewed weekly by department management, reviewed at management review monthly
Measurement of natural gas usage.	Natural gas flow meters.	Continued to run through management review to improve - reduction in energy usage.
First pass yield.	Failed parts going to different steps of process.	Identify training effectiveness.
Right first time batches.	QC lab approval 50-90%	Info available online - quality manager presented to quarterly management reviews.
Sales dollars.	Monthly commitments from each salesperson are tracked and aggregated into the total for the company by salesforce.com (total \$) - risks identified. Monthly orders received (total \$) target. Monthly accounts receivable (total \$) target	These metrics are key to the survival and growth of the company and are tracked very closely by management outside of the management reviews. At the management review they are discussed for information only - actions have already been decided upon or taken.
Customer satisfaction - "How likely is it that you would recommend our company to a friend or colleague?"	Net promoter score - The Ultimate Question by Frederick F. Reichheld. 9 and 10 = Promoters, 7 and 8 = Passives, 0-6 = Detractors. NPS = % of promoters - % of detractors. 75% = high.	1) Access database and phone call. 2) Open-ended comments section generates action item or follow-up list, items addressed at weekly meetings. 3) Also measured: how long it takes to close an open action items
Waste metal, plastic and/or paper sent to reuse instead of recycled or disposed.	Pounds of waste reused per unit of production (hrs worked, pieces produced, etc.)	The company presented charts with the pounds of waste reused per unit of production.



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<p>Effectiveness of a measurable is most dependent upon how the management team drives the objective. Management by objective concept, driven and understood by each employment level within the company can have a large payback. For example:</p> <ul style="list-style-type: none"> <li>- Sales - sales \$ objectives and diversification objectives.</li> <li>- Design - project timing objective (engineering hours quoted versus used)</li> <li>- Production - productivity increase and scrap reduction objectives, etc. (i.e.: machine uptime %/hour)</li> </ul> <p>The key is how the objective is managed, not the individual objective itself.</p>	<p>Measure in long-term trends, then drive down to the appropriate company levels. Example: sales \$ goals, trended long-term for the overall company goal is then measured by each individual salesman goal. Sales \$ and individual actions each salesman daily goal of X sales calls per day.</p>	<p>Use a tool in the management review process called a Stop Light Report - a report based on a pre-control system for all company measures (green, yellow, red) indicators for measureable performance. Yellow and red indications on the report drive automatic action or corrective action item. The report was reviewed on a regular basis (monthly, weekly) and action items were followed up on.</p>
<p>Customer satisfaction of all areas and how it ties back to internal and supplier processes. This also involved everyone leading the areas within the organization and the employees at the day-to-day level.</p>	<p>Spreadsheet updated monthly on department objectives and performance (i.e.: Sales quote turnaround, purchasing order processing, production part quality, quality internal supplier performance, etc.)</p>	<p>Monthly reviews of data from all areas with action items assigned via the CAR program, which defined ownership, due dates, customer feedback and where applicable, supplier feedback. All issues no matter how minor used the internal corrective action as a tool to track progress. Internal, supplier and customer processes are reviewed and action items assigned to ensure everything is considered for improvement.</p>
<p>Forward projection versus historical only data</p>	<p>Trends and objectives and historical with future prejection</p>	<p>Weekly review</p>