



Cost Reduction Program with a minimum 3:1 ROI

Reducing manufacturing costs has never been more important. Today's economy and the highly competitive environment, has forced companies to send thousands of manufacturing jobs overseas. Some have had great success yet have seen the impact that those decisions have on entire communities and their own internal employees' morale. Other companies have not been so lucky and have had to scrap their outsourcing plans due to the resulting poor quality, lost sales and worse; the loss of valuable longstanding customer account relations.

How can a strong company that offers an excellent quality product increase its material yields, maintain employees focused on first-time quality part production **and** cut its manufacturing costs along the way?

At Macklin Consulting, we have a track record of doing just that for our clients. We have helped our clients reduce their manufacturing costs by increasing their first pass quality. How? By tracking the scrap being produced in the manufacturing process! Sounds easy, doesn't it? Well, for us it is, because we have done it so many times at different manufacturing plants. We know how to analyze your process, identify opportunities and customize a scrap reduction program that will achieve savings that will provide you with a minimum return on your investment on us by three times to one.

We stay with you at your manufacturing facility for the duration of the implementation of our scrap reduction program. We co-design controls that make sense to you rather than force you to conform to a legacy software program that you can't figure out or modify. During our partnership, we install a comprehensive tool that identifies your scrap

producing, cost burning issues, and classify them by their root cause (Machinery, Material, Manpower or Methods).

Everyone in the manufacturing process is held accountable for their first pass quality. Internal customer relations are tested and improve in a short period of time. Corrective actions are identified and implemented to reduce or remove the root causes of the scrap events. During the last weeks of our short stays we will assure that all new procedures and systems are thoroughly documented and that key employees are trained in how to sustain the program and continue to achieve your savings. Our programs live on long after we leave your manufacturing facility because they become **your** program, designed and internalized by you and managed by your employees.

Macklin Consulting associates will provide support after we leave your manufacturing facility to make sure your scrap reduction program is sustained and the achieved results live on with the spirit of continuous process improvement. We are willing to provide references of past clients before you hire us. Our lifeline is the referral from current and past clients. We can't earn your referral unless we provide you with excellent results. We know that, so we deliver our promised results!

Contact us today to discuss how you can reduce your manufacturing costs, increase your material yields and keep ahead of your competitors. You may not need to outsource your manufacturing jobs and may find that you can stay very competitive at the same time. Please visit www.macklinconsulting.com



Sample Executive Summary – White Paper

Client Code: #HBR091209

INDUSTRY: Refrigeration systems

INTRODUCTION:

The client produces refrigeration systems in a variety of sizes for top retail stores and supermarkets worldwide. The 1.6 million square foot facility had 16 assembly and fabrication lines running 2 shifts, 7 days per week. Worldwide manufacturing competition, retention of its 52% domestic market share, and diminishing sales in a shrinking economy dictated the need for substantial cost reductions. Scrap was out of line and inventory shrinkage was significant. Based on our experience with scrap reduction programs and our findings of a 2 week on-site analysis, the client requested the installation of a program that would reduce its scrap by over 30%.

THE SITUATION:

- The corporate mainframe system did not support scrap management and tracking.
- The plant had some defect codes but no formal Root Cause system.
- Plant scrap was averaging over \$120,000 a month the two previous years.
- Scrap events were not being recorded in a discipline manner and led to significant inventory shrinkage and lines having to be shut down due to lack of parts.

PROJECT ACTIVITIES:

- A Scrap Reduction database system was implemented.
- Compliance to shop floor controls completion, in all areas, improved documentation disciplines. Scrap dollar thresholds were established for each area and were used as the basis for system generated email reports to provide the information of where the major scrap events occurred, by area, with costs and given defect codes.
- Resolution mechanisms were put in place to address the causes for the scrap incidents. Awareness and accountability increased and drove process improvements.

- Problems were addressed as they arose to eliminate waste. Follow through became a measured expectation through real time Outstanding Resolutions reporting.
- The Scrap Reduction / Root Cause Resolution programs were positioned for internalization by the client through the allocation of three “Scrap Champions” to carry the improvements forward and assure the capture of the identified annualized savings. Each “champion” assumed daily responsibilities for sustaining the program savings and continuous expectations of improving processes and managing trends.

RESULTS:

- A comprehensive Scrap Program was developed, debugged and implemented outside of the corporate information system, and proven.
- After only 8 weeks since implementing the new tool and processes, scrap was reduced by 19% over previous month and reduced by 60% over previous year.
- Missing parts and line stops decreased as first pass yields increased.
- Scrap reporting increased from 50% to 93%, greatly decreasing potential shrinkage.
- Based on agreed upon measurement of scrap, inventory shrink, and salvage recovery, program savings were projected to be in the annualized range in excess of \$830,000.

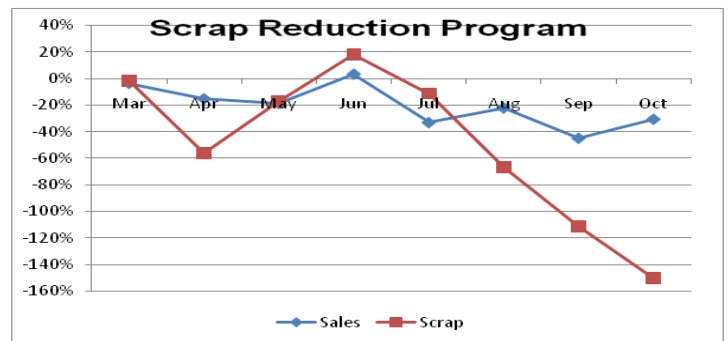


Figure 1: Tough sales year. However, scrap was reduced by over 140%!



SCRAP MANAGEMENT PROCESS SURVEY

PLEASE RETURN YOUR COMPLETED SURVEY TO: RON@MACKLINCONSULTING.COM

1) You currently report scrap events

By Shift Daily Weekly Monthly Annually Never

2) You capture scrap event data via:

Paper logs Non conforming part tags Bar code scans don't capture

3) The scrap data you have goes back:

One quarter Six months One year Two years + don't have any

4) Do you trust the scrap data you have?

Trust it highly somewhat not at all don't have any

Briefly elaborate if you did not answer "Trust it highly" _____

5) Assuming you record scrap, what is the value you claimed last year on your books?

< \$500,000 \$501K - \$1,000,000 +\$1,000,000 don't know

6) How often do you run PARETO studies on your scrap data?

Weekly Monthly Quarterly every six months yearly we don't

7) Which root cause do you believe contributes mostly to your scrap?

Materials Methods Manpower Machinery

8) Check the categories that your scrap reports contain (check all that apply)

Date scrapped Part # Cost #pieces scrapped machine

Operator# raw material# defect code operation cost center charged

Cost center found rework supervisor sign off date input to system other

9) Trigger points for Corrective Actions are:

Center specific Plant specific don't have Corrective Actions don't have triggers

10) What feedback is given to operators when scrap is incurred?

Supervisor investigates Short term solution installed

Long term solution plan is written nothing happens

11) How do you tie cost to a scrap event?

Legacy system (SAP, ORACLE, AS400, OTHER) _____ don't tie cost in



12) Who keys in scrap data onto your system?

It is scanned a clerk in accounting the shift supervisor no system

13) Who manages scrap reduction at your facility?

Accounting Operations Manager Plant Manager Quality no one

14) What software do you use to produce your scrap reports?

Legacy system (SAP, ORACLE, other) MS EXCEL MS ACCESS don't report

15) How long after a scrap event do you receive a corrective action with time-bound plans?

< 24 hours 1 – 2 days later 1 week later never

16) How often do you analyze trends in scrapped parts?

Weekly Monthly Quarterly every six months yearly don't

17) How often do you follow up on short term corrective plans? (Maintenance work orders, design changes, material substitutions, operator training, etc.)

Weekly Monthly Quarterly every six months yearly we don't

18) At what level does upper management (Plant Manager) get involved in scrap?

High dollar scrap event weekly team meeting almost never daily


19) Scrapped parts are sorted by type and placed in material specific salvage dumpsters:

Always Some of the time Almost never never


20) Scrapped parts are weighed and salvage company checks are reconciled


Weekly Monthly Quarterly every six months yearly we don't

PLEASE RETURN YOUR COMPLETED SURVEY TO: RON@MACKLINCONSULTING.COM

 Based on the answers in this survey, we would ascertain the modules that are missing in the client's scrap reduction program. We would then be able to ascertain the number of weeks we would need to implement our scrap reduction program at their facility.

 Some of the modules could be installed by the client themselves (such as scrap logs and defect codes).

 Other modules would need our on-site intervention (such as database creation – including tables, table connections with client's current systems, creation of queries, creation of reports, creation of forms and macros specific to the client's operations and nomenclature).

 Other modules could be provided to the client in form of documented manuals for them to administer on their own after our system is installed (Root Cause Training Manual with client specific scrap data gathered during several months of the system's use).