



International Journal on Recent Researches In Science, Engineering & Technology

(Division of Mechanical Engineering)

A Journal Established in early 2000 as National journal and upgraded to International journal in 2013 and is in existence for the last 10 years. It is run by Retired Professors from NIT, Trichy.

It is an absolutely free (No processing charges, No publishing charges etc) Journal Indexed in JIR, DIIF and SJIF.

Research Paper

Available online at: www.jrrset.com

ISSN (Print) : 2347-6729

ISSN (Online) : 2348-3105

Volume 3, Issue 8,
August 2015.

JIR IF : 2.54

DIIF IF : 1.46

SJIF IF : 1.329

Controlling Rejections In Grid Casting Machines Using Six Sigma Methodology

* K. Venkatamuni
PG Scholar
Department of Mechanical Engineering
GVIC
Madanapalli,
A.P, S.India.

* **Corresponding author**

M. Chandra Mouli
Assistant Professor
Dept. of Mech.Engg.
GVIC
Madanapalli,
A.P, S.India.

Abstract : One of the big Battery plant & the pioneer in VRLA battery in Asian Pacific Rim has foray into automotive batteries addressing automobile segment launched across country by opening many franchises & pit stops covering all metros, major cities and urban towns. This project work gives an account of reducing rejections in Grid Casting process by using the grid casting machine that is useful for the manufacturing of grids which are vital in battery manufacturing, resulting in reducing the manufacturing cost along with the increase of the productivity. Historical data collection for six months indicated the high rejections due to flashes and wire meshes and it leads to more rejections and low productivity. The root causes were found out by using six sigma methodologies using Variable search tool and validate the root cause by Better Vs Current Tool and sustain the results by placing the controls for the identified parameters. With the results of DMAIC Approach, Modifications have been carried out in the grid caster Methodology and change for cork application and the process parameters have been optimized. These results in reducing the rejection drastically from 9.5 % to 1.5 % and Average improvement of grid caster's productivity during the months. Further improvement strategy to increase the productivity deployed the same parameters and implemented methodologies in all other machines.