



# RELAXO FOOTWEARS LIMITED

January 2013

## TO WHOMSOEVER IT MAY CONCERN

M/s. Vrunda Consultancy Services, a Consultancy firm involved in IE/LEAN/Six Sigma Consultancy, based at Ahmedabad, was engaged by Relaxo Footwears Ltd. for using IE techniques to improve Plant productivity levels.

Given below are some of the areas they worked upon (in one unit) over a period of 1½ years, and results obtained thereof.

**Major Areas:** Work Simplification, Work Measurement, Throughput, Work & Capacity optimization, Lean

**Tools deployed :** Process & Value Stream Mapping, 5S, Daily Work Management, Line Balancing to facilitate Single Piece Flow, Re-Layout, Quick Setup Change, Supermarket Concept

**Results achieved :** 33% reduction in Deployment, 45% increase in throughput, 30% reduction in space utilization, 70% reduction in WIP.

Above is representation for one unit out of many units that they were engaged in. A tabular representation of tangible benefits before and after line balancing in one unit is also given.

### **Comparison of tangible benefits before & after Line Balancing**

S.No.	Parameters	UOM	Target	Current	Before	% Change
1	Hourly Production	Pairs	90	80	60	(+)33%
2	Manpower	Nos	34	34	52	(-)32%
3	Productivity (Pairs/MH)	PpMH	2.65	2.35	1.52	(+)57%
4	Production / Day	Pairs	900	800	600	(+)30%
5	Machines required	Nos	16	16	22	(-)27%
6	WIP	Pairs	25	30	210	(-)70%
7	Rework / Day	Pairs	<4	<25	100	(-)75%
8	Line Length	Feet	60	72	102	(-)29%
9	Line Area	SqFt	480	576	816	(-)29%

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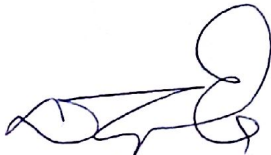
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Other benefits which accrued through this improvement initiative are given below:

Other Benefits as Reported by Shop Floor Management			
S.No.	Parameter	Current	Previous
1	House Keeping	Good	Average
2	Supply to Assembly	Matching & Production in one Go, along with marking required in assembly	Matching for assembly done at assembly
3	Impact on production during breakdown	Total attention on Line, Maint. done on top priority, Spare M/C used if time required is more	Maintenance is done as per availability of Manpower
4	Material Movement on Line	Single Piece	30 Pairs
5	Supervision	Good	Normal
6	Supervisor's effort	Reduced	High
7	Material Handling	Less, easy & smooth	More, done by operator resulting inefficiency in production
8	Traceability of defects	Easier	Difficult

All this is for one unit.

The vendor is recommended for engaging by other manufacturers for such activities, more for line oriented manufacturing processes calling from line balancing etc.



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