

Acme Stamping Steering Bracket Value Stream Improvement Project

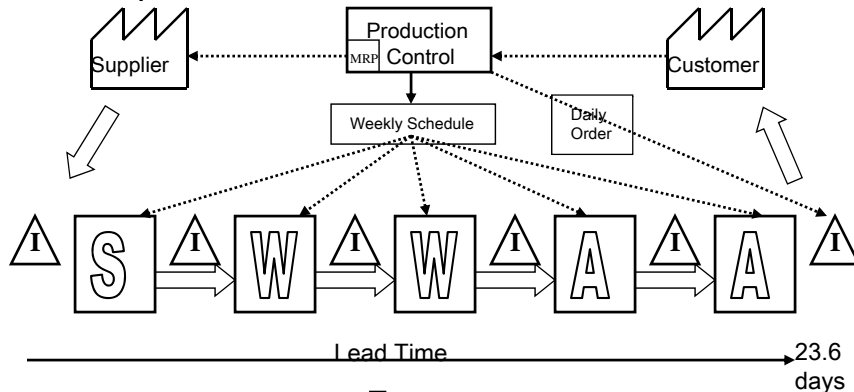
Background

- Product: stamped-steel steering brackets (left- and right-hand drive).
- 18,400 brackets/month; daily shipments in pallets of 10 trays of 20 brackets.
- **Customer State Street Assembly is requesting price cuts and tightening delivery requirements.**

Current State Problems

- Production Lead time: 23.6 days
- Processing time: only 188 seconds.
- Large inventories of material between each process.
- Long changeover times; downtime in welding.

Current State Map



Analysis

- Each process operates as isolated islands, disconnected from customer.
- Push system; material builds up between each process.
- Each process builds according to its own operating constraints (changeover, downtime, etc).
- Plans based on 90 and 30-day forecasts from customer. Weekly schedule for each department. System is frequently in expedite mode to make delivery.

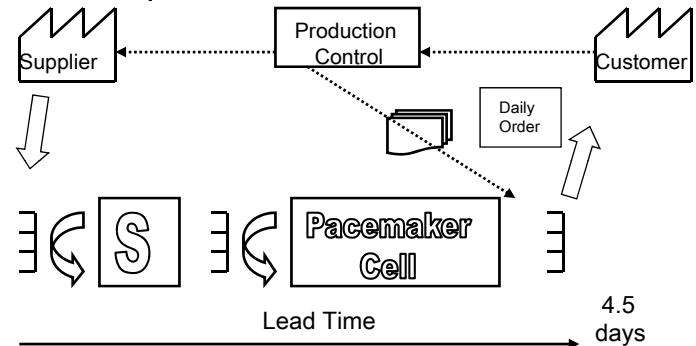
Goals:

- Improve profitability while meeting tougher customer demands:
 - Reduce lead time – 23.6 days to ≤ 5 days
 - Reduce inventories: Stamping – ≤ 2 days
 - Welding – Eliminate / Combine with Assembly
 - Shipping – ≤ 2 days

Countermeasures :

- Create continuous flow in through Weld and Assembly
- Establish Takt Time: Base the pace of work through Weld and Assembly on customer demand
- Set new Weld-assembly cell as pacemaker for entire value stream
- Establish EPEX build schedule for stamping based on actual use of pacemaker cell and pull steel coils from supplier based on actual usage by Stamping.
- Reduce Changeover time in Stamping and Weld
- Improve uptime in Weld
- Establish material handling routes for frequent withdrawal and delivery
- Establish new production instruction system with Leveling Box

Future State Map



DELIVERABLES	1	2	3	4	5	6	7	8	9	10	11	12	RESPONSIBLE	REVIEW
CCF at Pacemaker	●	▲											Smith (IE)	Plt Mgr VSMgr
Kaizen each c/t to <TT	●	▲											Jones (PC)	Plt Mgr, MH Mgr VSMgr
Weld uptime to 100%	●	▲											Jones (PC)	Plt Mgr MH Mgr VSMgr
c/o reduction to <TT	●	▲											Jones (PC)	Plt Mgr MH Mgr VSMgr
Pull at Pacemaker	●	▲											Durham (M'L)	PC Mgr
FG = 2 days	●	▲											Durham (M'L)	Plt Mgr VSMgr
KB	●	▲											Durham (M'L)	Plt Mgr VSMgr
M'L handling	●	▲											Durham (M'L)	Plt Mgr VSMgr
Leveling Box	●	▲											Durham (M'L)	Plt Mgr VSMgr
Pull from Stamping	●	▲											Durham (M'L)	Plt Mgr VSMgr
WIP = 1 day	●	▲											Durham (M'L)	Plt Mgr VSMgr
c/o < 10 min	●	▲											Durham (M'L)	Plt Mgr VSMgr
Pull from Supplier	●	▲											Durham (M'L)	Plt Mgr VSMgr
Info flow	●	▲											Durham (M'L)	Plt Mgr VSMgr
Daily delivery	●	▲											Durham (M'L)	Plt Mgr VSMgr
RM = 1.5 days	●	▲											Durham (M'L)	Plt Mgr VSMgr

Follow-up

Confirm reviews and involvement of related departments: Production Control and Material Handling, Purchasing, Maintenance, Human Resources, Finance.