### How?

*Use a Different,* Disciplined Process Worthington Steel Delta (a start-up factory)



Worthington Steel Delta ~ 3 Critical Factors

- 1. Dream Team selected to lead Worthington's largest investment (\$100 MM).
- 2. Problem identification, roles change.
- 3. PPAP, Successful Launch, & Performance.

## How Do We Do It?

- 1. Dream Team Selected.
  - a. While leading a 2<sup>nd</sup> year of solid growth and performance of Capital Tool & Die, I was requested to put together a business plan for Worthington's largest investment (\$100 MM) to date.
  - b. Ron Maciejowski, Exec. VP drafted me from the General Manager ranks to become Top Division Financial Executive.
  - c. The role included significant land acquisition, supply agreement negotiation with North Star BHP Steel; team talent acquisition, ERP systems implementation, plant

machine coordination, & controls integration as well as financial management (decision support, control & risk management, transactions processing).

# 2. Role Change. Project Management - Systems Integration

- a. Because significant resources were required to integrate all plant-wide machine coordination & controls, Paul Hido CPA and U of M MBA was recruited to head up the finance position at Delta. Paul Nawrocki would then head-up the plant wide systems integration.
- b. This included: radio-frequency automation of inventory tracking, machine level controls (pickle line, galvanize line & slitters), and plant level controls (scheduling, material movement, material set-up).
- 3. PPAP & Successful Launch
  - a. Being a Tier 1 Automotive Supplier, all material required advanced PPAP approval, metallurgical process documentation, & ISO 9001 approval.
  - b. The plant start-up was a resounding success. Like water seeking the lowest level, the Dream Team filled all gaps. The plant was profitable in its 3<sup>rd</sup> month of operation and is one of Worthington's most profitable plants.
  - c. A 2 year start-up, on-time, on-budget and profitable in 1<sup>st</sup> quarter.

#### How the Process Works.

- 1. Observe
  - a. Clear vision was drawn up.
    - i. We diagramed the production flow.

- b. Clean sheet was given to staff production and its practices.
  - i. No practice was available until the installation was completed.
- c. Clarity. If you have a clear vision and a clean sheet to do whatever, then you can see what works.
  - Because the plant was not built, I suggested we build a computer model to simulate material movement. The key was problem identification, not problem solving. This tool revealed we had a material movement problem, with significant bottlenecks.
- 2. Examine
  - a. Senses use them. They are impactful, and everyone relates to them.
    - i. Input creates participation. Participation creates engagement. Engagement creates ownership.
  - b. Synthesize.
    - i. Analyze. Break apart...
      - 1. ...each work flow & the nuances of scheduling.
        - a. (i.e. type of product runs, thick to thin;
          wide to narrow; hard to soft, demand vs.
          supply)
    - ii. ...and put the pieces together.
      - a. Nawrocki lead Perot Systems and system integration team.
        - i. The critical success factor was problem identification.

ii. Dream Teams are loaded with problem solvers and subject matter experts.

c. See.

- i. The Dream Team input the factors used to simulate operations.
- Everyone could <u>see</u> the simulation model was worth a 1,000 pictures. It identified a serious product & process flow issue.

## 3. Incubate

- a. Connect.
  - i. List expectations of the rigorous PPAP, ISO approvals and be inclusive with team members.
    - 1. Work flow diagram of production process to exceed requirements.
      - a. Imitate developed work flow diagram and practice, practice, practice.
- b. Collaborate
  - i. Daily with customers, regulating agencies, sales, engineers, and machine operators.
- c. Change.
  - The last step. When all other 8 steps are alive & well; high performing teams adapt and change on their own.