



Manufacturers Alliance Seminar **Getting to the True Root Cause**

Practical experiences from practitioners on how to prevent the quick fix and get to the real fix.

Andrew Tool & Machining

Don Griwac, Quality & CI Director

Getting to the True Root Cause



Andrew Tool and Machining Company

- ▶ National Leader in High Precision Machining Processes
- ▶ Two Locations Plymouth and Maple Grove
- ▶ Mechanical Design
- ▶ Innovative Solutions
- ▶ Low Volume High Mix
- ▶ AS9100D Registered

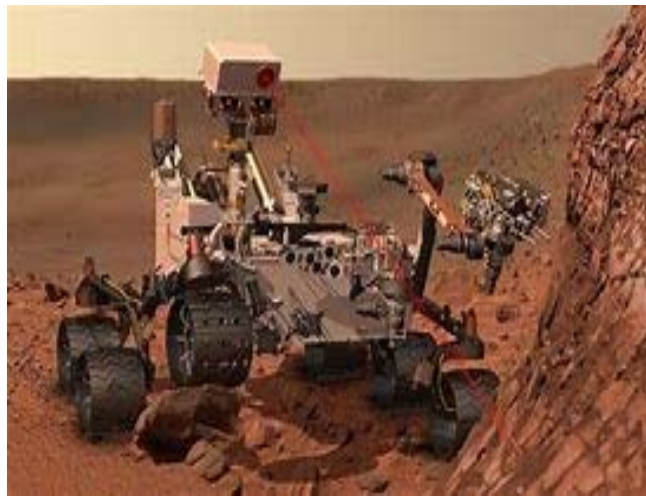


Andrew Tool and Machining Company

- ▶ CNC Turning
- ▶ CNC Milling (including 5 axis)
- ▶ Wire (.001" to .012" diameter)
- ▶ Plunge EDM
- ▶ Surface Grinding
- ▶ Rotary Grinding
- ▶ Jig Grinding



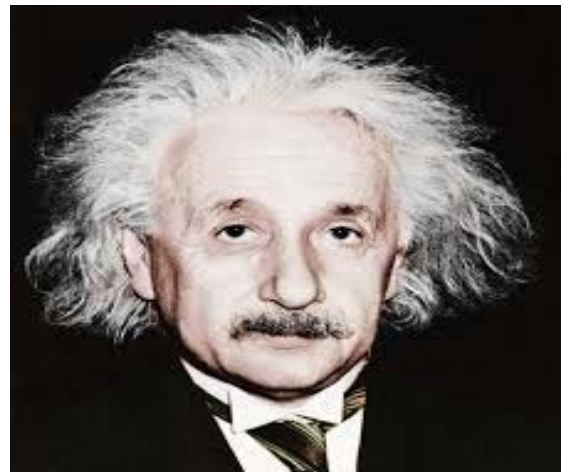
Flight Parts



Getting to the True Root Cause



Einstein—information
is more important
than knowledge



Roadblocks to the Truth



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INTELLIGENT PRECISION

6 Roadblocks to the Truth

- ▶ Hero: Fire – Ready – Aim
- ▶ Name and Blame Culture
- ▶ Perspective
- ▶ Fear
- ▶ Denial
- ▶ Time

Barriers to the Truth – Fire Ready Aim



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Ready-Aim-Fire

- ▶ Gather the facts
- ▶ Set your sights on an attainable target—define the problem
- ▶ Schiphol Airport—Brilliant Solution



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mathiasnikkelson.com

Bad Leaders Focus on Blame



Name and Blame

“94% of problems in business are systems driven and only 6% are people driven.”

~ W. Edwards Deming
1900 - 1993

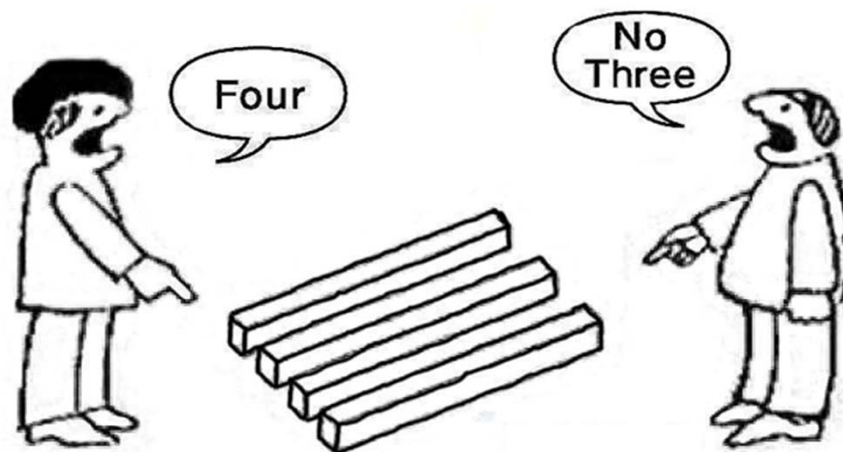


Barriers to the Truth – Name & Blame

▶ Starting Point

- No one ever intends to do a bad job
- No one ever intends a mistake
- People want to do good work

Barriers to the Truth – Perspective



Barriers to the Truth – Perspective



Barriers to Truth–Fear

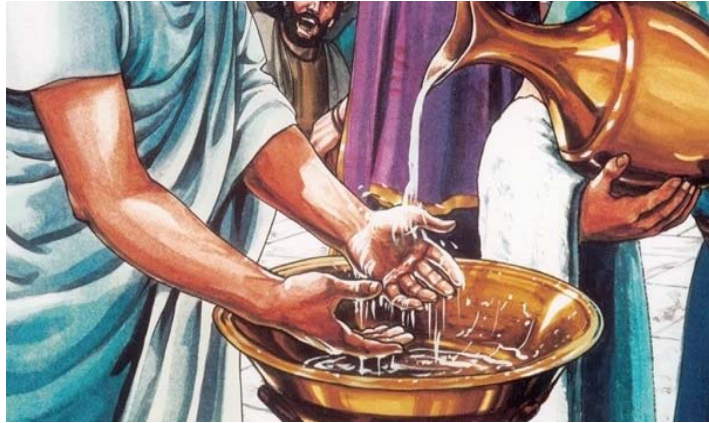


\$1 Million per day
profit–lost if late



Barriers to the Truth – Fear

Pilate–knew
the truth and
washed his
hands



Barriers to the Truth – Fear

- Truth may have consequences



Barriers to the Truth – Fear

- Reputation
- Income loss
- Relationships
- Change



Barriers to the Truth – Denial

Who said cigarette kills ?



I'm 48 and still feeling good.



Barriers to the Truth–Time

- Memories fade
- Evidence is lost
- Conditions change



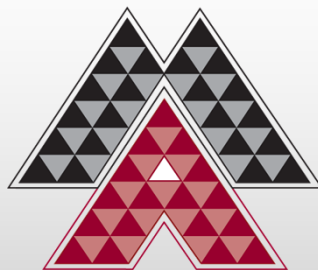
6 Roadblocks to the Truth

- ▶ Hero: Fire – Ready – Aim
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- ▶ Fear
- ▶ Denial
- ▶ Time



Conclusions

Focus on the process
Listen to the people
Don't give up!



Manufacturers Alliance
Thank you for joining us!

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