

# 2 TOOLS TO PRIORITIZE YOUR PROBLEM SOLVING



## **SEMINAR SPEAKER**



Kara McPipe, Director of Operations Artistic Finishes

- Experience with Pareto Charts
- Collect the right data
- Target improvements

#### Pareto Charts – A Tool to Help You Problem Solve

Kara McPipe, Director of Operations



## Who is Artistic Finishes, Inc.?

- We finish hardwood and vinyl moldings, vents, treads, and accessories that complement over 18,000 manufacturer's hardwood, laminate, LVT/LVP and engineered floors.
- Average \$12 million in sales annually
- Employs 90 skilled team members
- Operations run from
  6 am 10 pm daily



#### **The Dramatic Shift**

- From 1995 2008 Primarily focused on Distribution and building stocking orders for our customer to hold in their warehouse.
  - Average line item size was well over 500 pieces.
  - We built finished goods to be able to pick and pull off our shelves.
  - There were only about 50 different colors that were stained and truckloads of material were sent out of our plant every day!
  - No one seemed to care about WASTE!



#### Fast Forward...

- 18,000 + different floors that we blend to
- 100 + profiles (stairnose, t-molding, tread, vent, etc.)
- 50 + wood species (white oak, maple, acacia, etc.)
- 58% of our orders are 1 5 pieces total

Lots of opportunity for error and waste!



#### You Must Build a Solid Foundation

Bad Data = Bad Focus = Bad/No Results

Manually written reject information to be deciphered later on (hard to read, missing data, unclear information)



#### You Must Build a Solid Foundation

Good Data In = Good Opportunities to Problem Solve

- Reject codes were clearly defined by the team
- Reject data is entered into the system by the person rejecting
- Easy to run excel file to use to determine where the problems are at

Shop Floor Shop Production Entry Location: 01 Work Date: 2/05/2021		Reject Reason Code:			
1. Employee #: MIUL	141	Bring to UV3 reject/repull rack			
2. Shop Order #1 1264 3. Operation #1 20	1307-000 Item #1 5439610662 Ordi 2 Onpi 2 Topcost	Special Finishes Area	Stain Area	Repair	
3. Operation #: 20	Prv Op Cwp: 8 Cmp: 2 Scr: 0	Grain Color	Over-Spray on Test Area	Crack	
4. Qty Complete:	0 Rework Complete?:	Other SF Problem	Color Blending	Grain Tear	
		Sanding	Missing Color Test Area	Grain Split	
5, Rejected:	2 Reason Code:	Scrape	Dark Application	Wood Other:	
6. Scrapped:		Wirebrush	Light Application		
	Code Description		Missing Stain	Other	
7. Oper Complete:	201 Grain Color 02 Other SF Problem	UV Area	Other Stain Problem	Broken	
	02 Other SP Problem 03 Sanding	Adhesion	Stain Adhesion	Cork	
	04 Scrape	Other UV problem	Stain Marks / Drips	Missing / Extra Pieces	
	05 Wirebrush 06 Missing/Extra Pieces	Stain Rubbed Off	Uneven Application	Missed / Wrong Process	
	10 Over-Soray on Test Area	UV Discoloring	Wet Stick(s)	Stuck/Burned	
	21 Color Blending	UV Drips / Puddles	Wrong Book Used	Warp	
Arrow-Up/Down, U-Up page.	22 Hissing Color Test Area	OV Drips / Foudies	Glue Marks	Wrong Profile Used	
Enter Antions	23 Dark Application		Glue Marks		
				Wrong Species Used	

#### Where to Go First?

A Pareto Chart would tell you to go to where your biggest problem is at.



#### **Be Careful!**

# We implemented an INCENTIVE to reduce color blending rejects in one area and improve First Pass Yield

...and the results were short lived!





#### **New Perspective**

## Color Blending was too subjective! So... we shifted our focus on what we could <u>CONTROL</u> and made MORE, SMALLER improvements for greater impact.



### What Could We Control?

#### STANDARDIZATION!

- We created Standard Work for our Color Check process in the Staining area.
  - Removed variables in the color check process that could result in the stick appearing different
    - Added all UV coating options for testing
    - Standardized the spray direction and time under the UV light
    - Standardized light booths at each area
    - Created an Edges to Stain Reference Guide
    - Created a visual Quality check sheet
  - We added these processes to our new employee training and monitored it through Leader Standard Work



#### **Go Back to Your Pareto**

Check your results and look for new opportunities!



#### **Be Careful!**

- Check your categories!
  - Do they still make sense?
  - Can you expand them?
    - Avoid using "Other" like we did!





#### **Dive Deeper**

To get to the root problem, you have to dive even deeper into the data.



#### What Could We Control?

#### **EQUIPMENT / PROCESS IMPROVEMENTS**

- We converted the UV3 line to spray coating instead of rollcoat (all other lines were already spray)
- We added in hold down wheels to help guide material through the sander
- We added side guides and revamped the light booth to reduce sticks getting stuck
- We standardized our lights on all of the UV lines to reduce overall temperatures and light exposure to the product.







#### **The Dramatic Shift**

In 2 short years, we have shifted our First Pass Yield number from 90% to 96.4% currently.





#### **Lessons Learned**

- Make sure you are collecting the right data!
- You don't have to go after the biggest problem on your pareto chart!
- Pareto charts are a starting block. It is what you do with the data that makes the impact.
- Review your pareto chart frequently to determine the impact you have had and if you need to shift your focus.
- Dive deep into your pareto charts.



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