

The Science of Costing and the Art of Pricing

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Agenda

Quoting

• Problem Statement

Customer Landscape

Key Variables and Considerations

Costing and Pricing

Segmenting Buyers

Identifying Levers

What value do you sell?

How Paperless Parts Can Help

- Standardized Costing Breakdown
- Dynamic/Programmatic Markups



Quoting

The goal of quoting is to spend the least amount of time and effort possible to return a quote to a buyer at a price that they are willing to pay, that still generates adequate profit for your business.

There are a lot of ways to achieve this goal, however shops often lose sight of the costs associated with the various methods of estimating.



Quoting Today

From Experience

Only a few people have the expertise, and memory of past jobs.

Shared Responsibility

Causes bottlenecks and inconsistency.

Pen And Paper / Email / Messy Systems

Difficult to review and retrieve.

Over-Engineered

Significant engineering time spent on jobs that are never won.

COSTING

What does it cost me to make?

vs. PRICING

Am I getting the full value for the services I am providing?





Costing

Activity based costing is the science of figuring out every step required in the manufacturing process and the cost associated with each.

These costs are then added to the cost of materials, overhead, and desired profit margin to achieve a what is believed to be a price.



Key Variables: Costing

Overengineering occurs when automation is not applied to quickly estimating these variables.

- Programming
- Material Costs
- Set up time
- Cycle time
- Efficiency
- Attended
- Yield
- Machine Rate
- Labor Rate
- Overhead Rate



Pricing

Pricing is the art of recognizing the true value in the service you are providing outside of the cost alone and being able to capture that value accordingly.

This includes extremely fast turnaround times, high accuracy on increasingly complex parts, and unique or proprietary manufacturing processes.



Key Considerations: Pricing

- **Urgency of the Buyer:** Does the buyer need the parts as soon as possible?
- **Type of Part:** Prototype vs. replacement part
- **Criticality of the Parts:** Are they going in a critical application?
- **Risk:** How hard are these parts to make and what is the risk of rework?
- What Others Charge: Have you benchmarked similar parts from other services?
- **Type of Buyer:** Engineer vs. procurement buyer
- Relationship With Buyer: Is this an existing customer or new work?
- **Economy:** Is the economy booming or in recession? Is it the slowest or busiest time of the year?

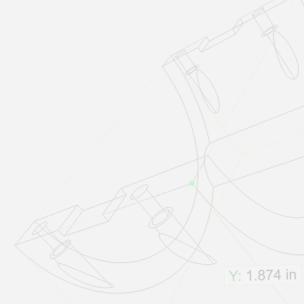


Key Takeaways: Pricing

- Spend time to understand the buyer and the situation (do they pay for speed or are they price sensitive? Do they Pay on time?)
- Know your competitors and what they charge (benchmarking is a valuable exercise)
- Evaluate speed vs price equation first to quote is first to win (can you ballpark a profitable quote and be in the acceptable range to win the job?)
- Know the market for the specific processes required for a job (i.e. how many ITAR/AS9100/5-axis/OEM Qualified options are there that can make this part in 3 days?)
- Know the opportunity cost what burden is this going to place on your shop and what are you giving up to take on this job?

The right price is the price a customer is willing to pay





Segmenting Buyers and Identifying Levers





Segmentation: Understand your Customer Landscape

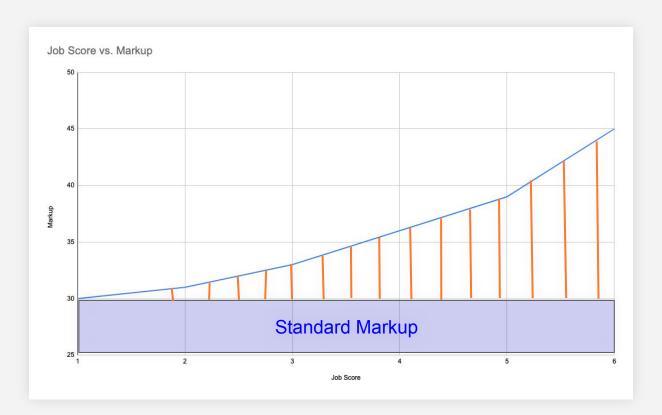
- **Industry:** different industries have different needs and preferences segment buyers by industry, such as aerospace, automotive, or medical, or even the specific application of the custom parts they purchase.
- Company size: identify small businesses, mid-sized companies, and large corporations.
- **Purchasing frequency:** how often they purchase custom parts, such as one-time buyers versus frequent buyers.
- **Price sensitivity:** willingness to pay for custom parts, such as budget-conscious buyers versus those who are willing to pay a premium for high-quality parts.



Identifying Levers: What do you sell?

- Quality: producing high-quality and tight toleranced custom parts for unique applications
- **Speed:** focus on producing custom parts or prototypes quickly to meet tight deadlines or reduce lead times for your customers.
- **Expertise:** Job shops may specialize in producing custom parts or products that require a high level of skill or expertise, often advising your buyers.
- **Flexibility:** being able to adapt to the changing needs and specifications of customers, with a wide range of equipment and resources to accommodate almost anything in house.
- Cost efficiency: focus on minimizing production costs in order to offer competitive pricing.
- **Customer satisfaction:** aiming to consistently meet or exceed the expectations of their customers in order to build long-term relationships and improve customer loyalty.

Identifying Levers: What do you sell?





How can Paperless Parts help?



Paperless Parts: Costing Operations

∨ Materials						10
				1	100	1000
Aluminum 6061-T6 Bar pricing	∠> 亩	\$510.25 \$510.25	\$2,551.25 \$25.51	\$23,471.50 \$23.47		
ADD MATERIAL OPERATION MATER	IAL CALCULATOR					
Material Summary	\$510.25	\$2,551.25	\$23,471.50			
✓ Operations						÷
		Setup Time	Run Time	1	100	1000
Part Level 3 (Critical Info)	∠" 💼			\$0.00	\$0.00	\$0.00
Admin	×× 🟛	0.50 hours		\$32.50 \$32.50	\$32.50 \$0.32	\$32.56 \$0.03
■ Saw Cut	∠ [≯] 💼	15.00 min	30.00 sec	\$12.91 \$12.91	\$54.16 \$0.54	\$429.16 \$0.42
Programming (Mill)	×× 🖮	4.52 hours		\$293.58 \$293.58	\$293.58 \$2.93	\$293.58 \$0.29
■ CNC Milling - DS Outside Se	ervice 💆 🛅	189.00 min	20.65 min	\$227.12 \$227.12	\$2,441.83 \$24.41	\$22,575.58 \$22.57
■ Black Oxide Coat 0	F 🛂 🛅			\$150.00 \$150.00	\$150.00 \$1.50	\$1,250.00
Shipping Prep	×× 🖮	0.25 hours	3.00 min	\$19.50 \$19.50	\$341.25 \$3.41	\$3,266.25 \$3.26
ADD OPERATION						
Operation Summary				\$735.62	\$3,313.33	\$27,847.08



Paperless Parts: Costing Summary

∨ Costing				
		1	100	1000
Total Raw Material	MATERIAL	\$510.25 \$510.25	\$2,551.25 \$25.51	\$23,471.50 \$23.47
Total Inside Processing	INSIDE	\$585.62 \$585.62	\$3,163.33 \$31.63	\$26,597.08 \$26.59
Total Outside Processing	OUTSIDE	\$150.00 \$150.00	\$150.00 \$1.50	\$1,250.00 \$1.25
Total Purchased Components	PURCHASED COMPONENT	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00
Total Component Overrides		\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00
Total Estimated Cost		\$1,245.87 \$1,245.87	\$5,864.58 \$58.64	\$51,318.58 \$51.31



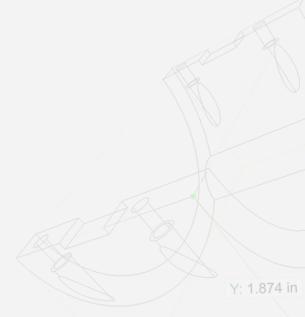
Paperless Parts: Programmatic Markups (Pricing)

→ Pricing				ACTIONS V
		1	100	1000
Raw Material Markup	MATERIAL Z	60.00% \$306.15	40.00% \$1,020.50	40.00% \$9,388.60
■ Inside Operations Markup	INSIDE Z	22.00% \$128.83	22.00% \$695.93	22.00% \$5,851.35
Outside Operations Markup	OUTSIDE	15.00% \$22.50	15.00% \$22.50	15.00% \$187.50
Customer Specific Markup	₹* :	3.00% \$37.37	3.00% \$175.93	3.00% \$1,539.55
■ Volume Factor	2:	3.00% \$37.37	1.00% \$58.64	0.00% \$0.00
Complexity Factor	∠* :	5.00% \$62.29	5.00% \$293.22	5.00% \$2,565.92
ADD PRICING ITEM				
Total Price		\$1,840.40	\$8,131.00	\$70,850.00
Unit Price		\$1,840.40	\$81.31	\$70.85
Total Profit ①		\$594.52 \$594.52	\$2,266.41 \$22.66	\$19,531.41 \$19.53
Total Markup ①		47.72%	38.65%	38.06%
Profit Margin ①		32.30%	27.87%	27.57%



Start Costing Less, and start Charging More







Modernize Your Shop. Grow Your Business.

Streamline the quoting process, amplify your digital presence, and manage customer communication with the secure platform build to help you grow your business.

Learn more at **paperlessparts.com**Contact me directly **jeff.gorman@paperlessparts.com**

