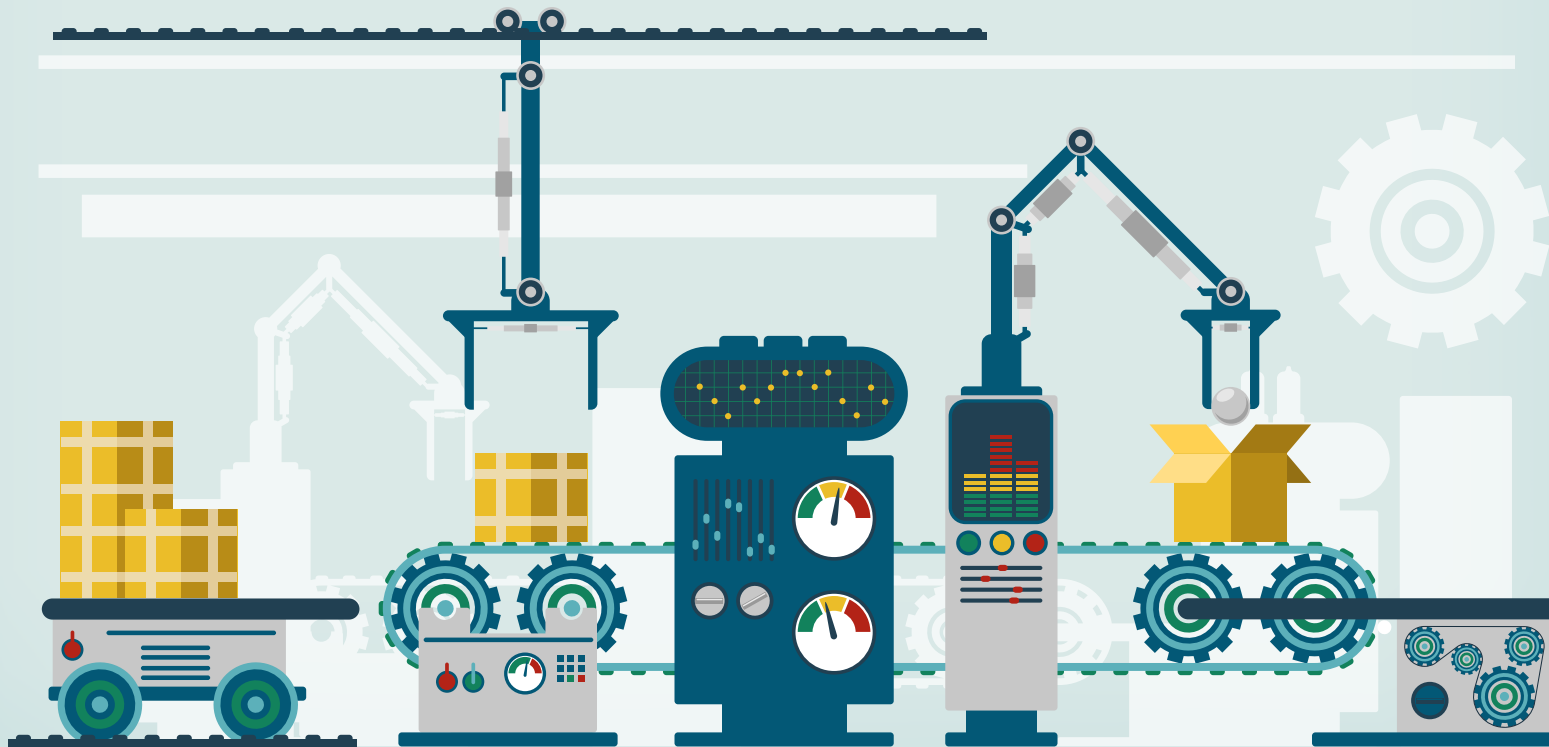


# See How We Have Significantly Improved Product Cost Decisions



# Introduction

Thank you for your interest in aPriori's revolutionary new product cost management technology. Industry leading companies such as AGCO Corporation, Boeing, ThyssenKrupp, Toyota, Wincor Nixdorf, Honeywell Aerospace, Ford Motor Company, and Cummins are using aPriori's Product Cost Management platform to save hundreds of thousands, even millions of dollars each year. aPriori's primary value comes from helping our customers:

- Launch New Products at or Below Target Cost
- Maximize Cost Savings on Re-Design Projects
- Avoid Overpaying for Outsourced Parts, and
- Increase the Accuracy, Consistency and Speed of RFQ Responses

The eBook we have assembled here represents a collection of real-world projects completed by our customers, and illustrates the potential savings they have identified using aPriori. Because many of these companies are "brand sensitive" we have removed their names. But, rest assured, every one of these examples represents an actual use case. Some of the savings you will see are relatively small, some of the savings are moderate, and some of the savings are jaw-dropping. Put together, they can add up to a substantial cost savings for your company over time.

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“ aPriori allows us, as a fast paced aerospace company, to quickly evaluate a plethora of cost beneficial design variations with a high level of confidence. In order to meet the ever increasing demands of design to cost it is imperative to reduce costs up front at the concept phases, and aPriori gives us that ability. ”

Stony Kujala  
Manager Technical Product Design  
Honeywell Aerospace

# Changing Processes (Re-Route & Re-Quote)



## **BRAKE PEDAL:** FOR LIFT TRUCK

Pedal for lift truck, currently a weldment. Re-designed as a sand casting.

*Notes: aPiori automatically recommended die-casting the part because of the high annual volume.*

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**Current Cost:** \$13.00

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**aPiori Cost:** \$7.00

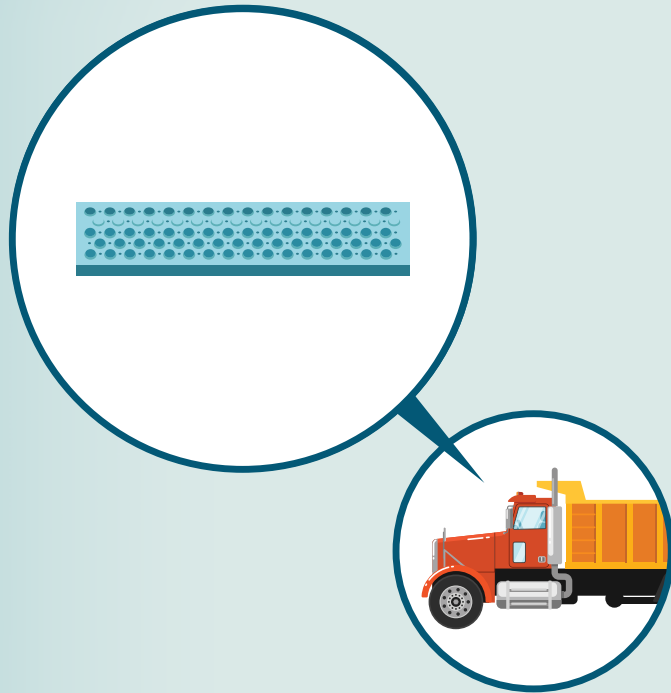
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**Annual Volume:** 20,000

**Annual Savings:**  $\$6 \times 20,000 = \$120,000$

SAVINGS  
**\$120,000**

# Re-Quote Production Parts



## STEP-BATTERY BOX

Used as a step and a cover for battery or tool box. Customer suspected that it was over-priced.

*Notes: Even after including a mark-up of 25%, the part should cost \$27.50*

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**Current Cost:** \$40.00

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**aPriori Cost:** \$22.00

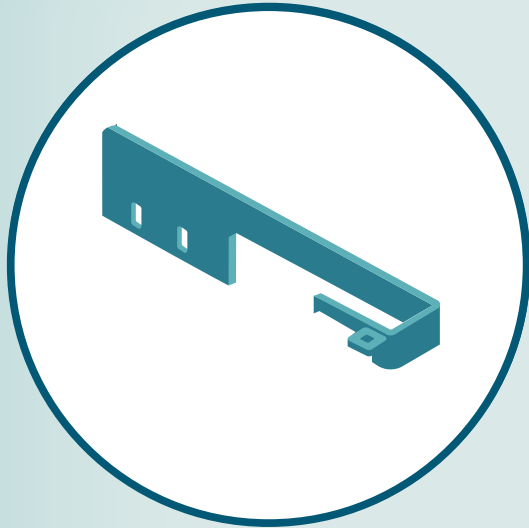
---

**Annual Volume:** 6,400

**Annual Savings:**  $(\$40 - \$27.50) \times 6,400 = \$80,000$

SAVINGS  
**\$80,000**

# Re-Quote Production Parts



---

**Current Cost:** \$17.32

---

**aPriori Cost:** \$6.94

---

**Annual Volume:** 24,000

---

**Annual Volume:** \$7.91

**Annual Savings:** \$225,840

SAVINGS  
**\$225,840**

# Case Study: Cost Blitz

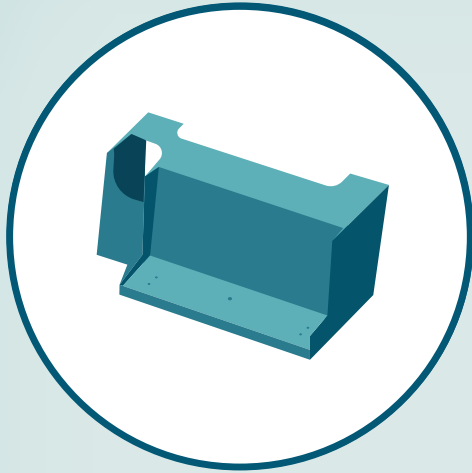
## ALUMINUM DPF STEP & TRACKING ROD REINFORCEMENT

- Fortune 500 Truck Manufacturer holds periodic meetings with its suppliers to collaborate on how product costs can be reduced.
- In advance of the meetings, they engaged with aPriori Professional Services to identify potential cost-saving opportunities.
- Two-day project reviewed 128 parts
- 25 parts were identified for re-quoting
- Total savings realized: \$718,000 (\$29,000 per part)



SAVINGS  
**\$718,000**

# Case Study: Cost Blitz



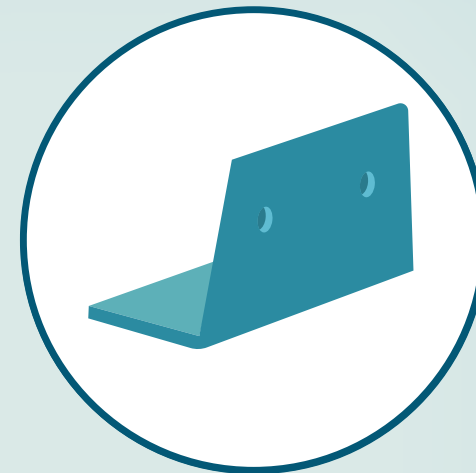
## ALUMINUM DPF STEP

**Current Cost:** \$229.63

**aPriori Cost:** \$194.96

**Annual Volume:** 1,700

**Estimated Annual Savings:** \$59,000



## TRACKING ROD REINFORCEMENT

**Current Cost:** \$6.32

**aPriori Cost:** \$4.21 (with \$26,000 in tooling)

**Annual Volume:** 35,000

**Estimated Annual Savings:** \$75,000

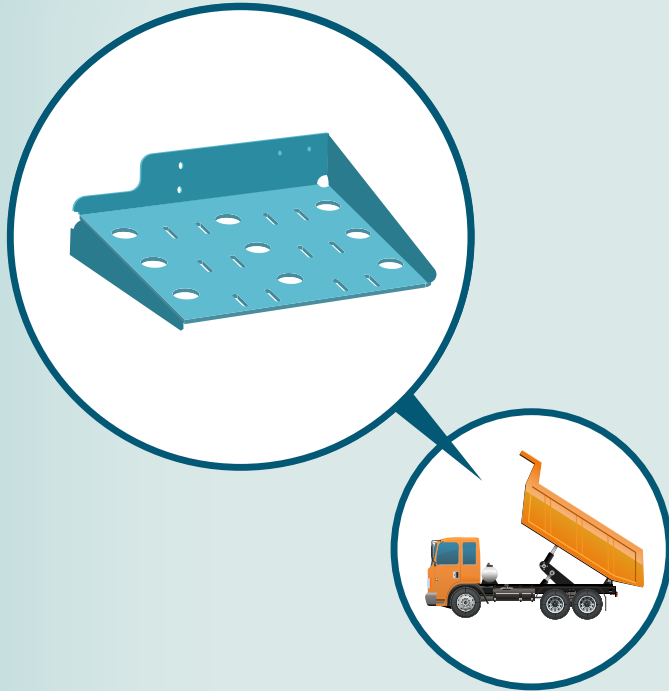
“ aPriori is helping us to achieve our strategic product cost reduction goals while keeping projects on schedule. Access to real-time ‘should cost’ assessments reduces the number of supplier quotes and allows our employees to evaluate more cost-saving alternatives for each product concept. As a result, our employees have used aPriori to re-quote production parts at lower prices and redesign a number of products for more efficient material utilization and manufacturability. ”

**Rick Goldsmith**

Manager of Corporate Manufacturing and Tooling  
NACCO Materials Handling Group, Inc.



# Product Re-Design



## ACCESSORY MULTI-BATTERY TRAY MOUNT

30 Minutes of Design Work with Real-Time Cost

---

Current Cost: \$155.00

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aPriori Option A: \$129.83

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aPriori Option B: \$62.10

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aPriori Option C: **\$59.64**

---

Annual Savings: **\$95,000**

SAVINGS  
**\$95,000**

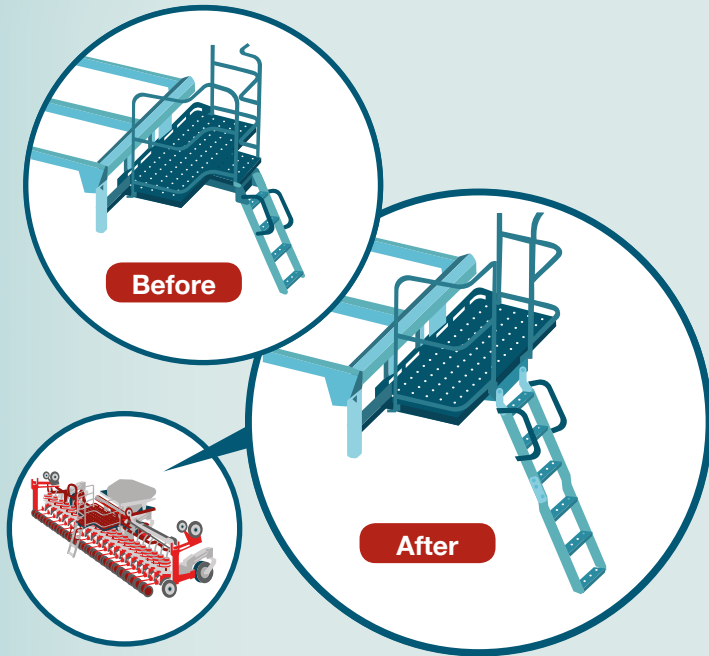
# Re-Design – Better Solution, Less Cost

## PLANTER PLATFORM & ACCESS LADDER

Cost Reduction: \$166.00

Annual Volume: 500

Annual Savings: \$83,000

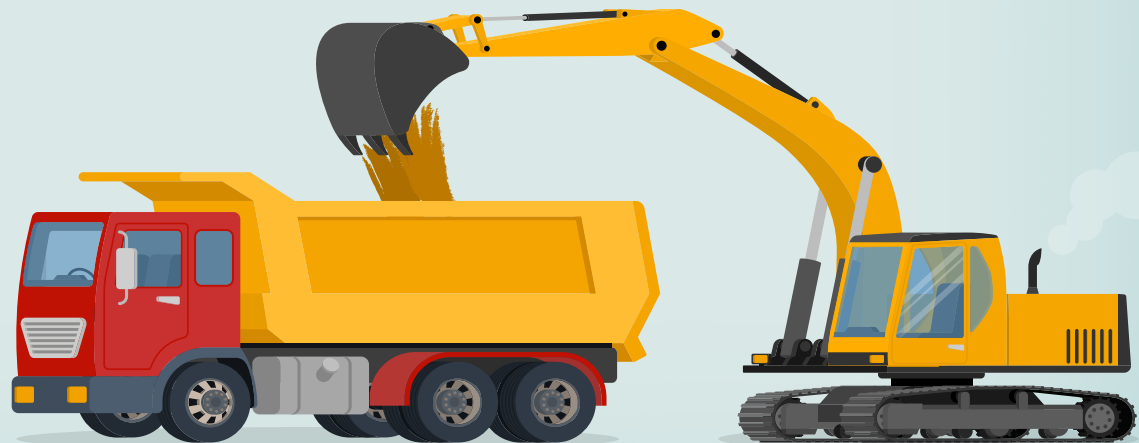


SAVINGS  
**\$83,000**

# CASE STUDY: Re-Design Projects

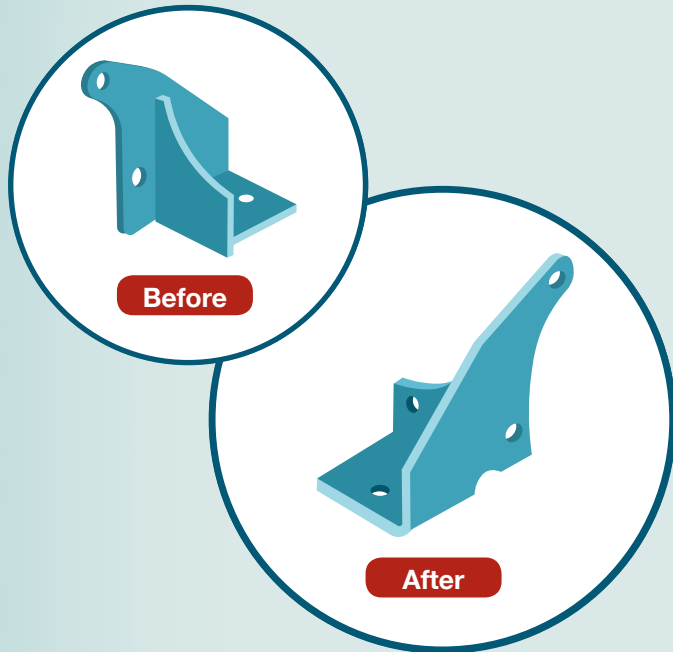
## BRACKET

- Construction Equipment Manufacturer: total product cost reductions achieved and in-process to date – **\$1.5 million**
- Achieved \$253,840 in annualized savings from redesigning six existing part numbers (paid invoices).
- \$339,000 in redesigned existing parts that are in test or waiting for new suppliers to be set up.
- Another \$165,114 in savings for nine other parts that will be implemented in the next release.
- \$750,000 in savings for existing parts in re-quote savings identified by aPriori.



SAVINGS  
**\$1.5 Million**

# Re-Design – Better Solution, Less Cost



## **BRACKET:** FOR CONSTRUCTION EQUIPMENT

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**Current Cost:** \$31.96 (3-Part Weldment)

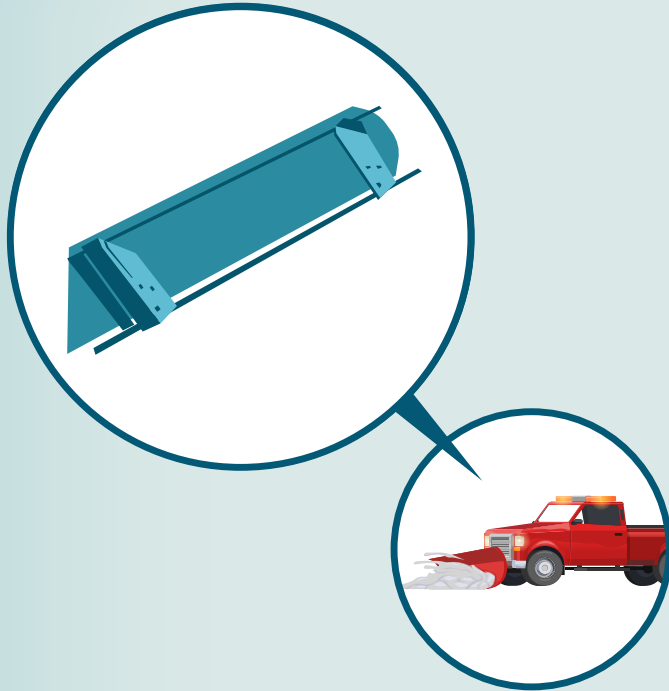
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**New Design Cost in aPriori:** \$9.89 (1-Piece Formed)

**Annual Savings: \$45,199**

SAVINGS  
**\$45,199**

# Quote Validation Exercise



## PLOW BLADE

---

Supplier Cost: \$41.26

---

aPriori Cost: \$30.64

**Total aPriori Cost: \$35.25 (with Supplier Profit)**

*“Highlights that new supplier cost is reasonable.”*

*“Speed and accuracy are GREAT!”*

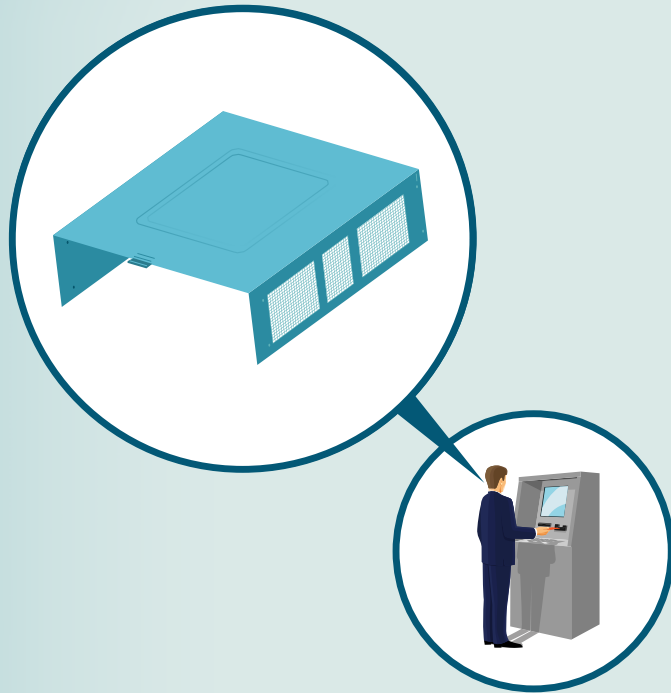
SAVINGS  
**\$120,000**

“ aPriori’s solution gives us an important advantage over our competitors. By increasing our cost visibility, we are equipping more people in our organization to impact product cost before it gets designed and manufactured into our products. This is all part of building a stronger cost culture across our entire organization and continuing to strengthen our market leadership position. ”

**Eric Côté**

President And Chief Operating Officer  
Soucy Holding, Inc.

# Re-Quote Production Parts



## TOP COVER

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**Current Cost:** \$7.58

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**aPriori Cost:** \$5.78

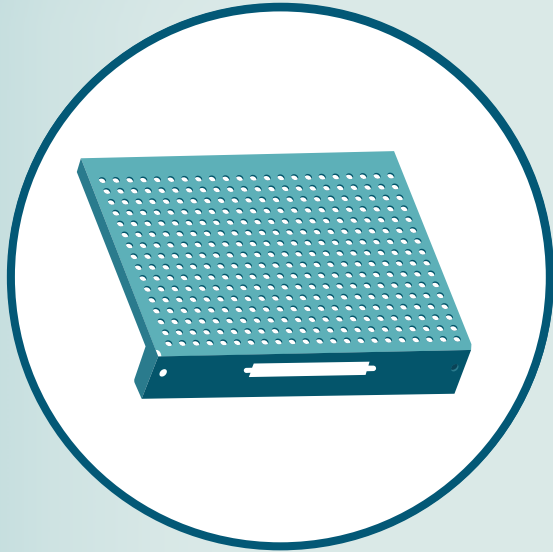
---

**Annual Volume:** 80,000

**Annual Savings:** \$144,000

SAVINGS  
**\$144,000**

# Re-Quote Production Parts



## DISPLAY BOARD TOP COVER

---

**Current Cost:** \$1.18

---

**aPriori Cost:** \$0.34

---

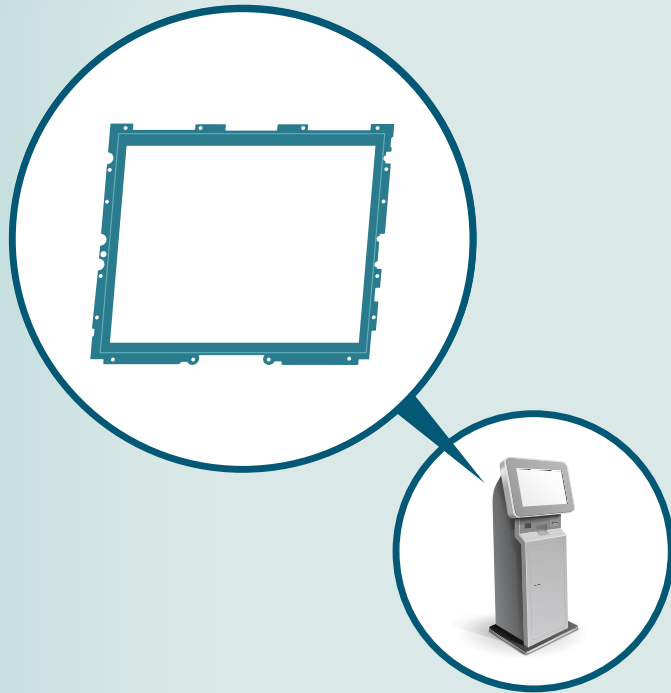
**Annual Volume:** 40,000

**Annual Savings:** \$33,600

SAVINGS  
**\$33,600**



# Re-Quote Production Parts



## 17" TOUCH PANEL

---

**Current Cost:** \$2.89

---

**aPriori Cost:** \$1.46

---

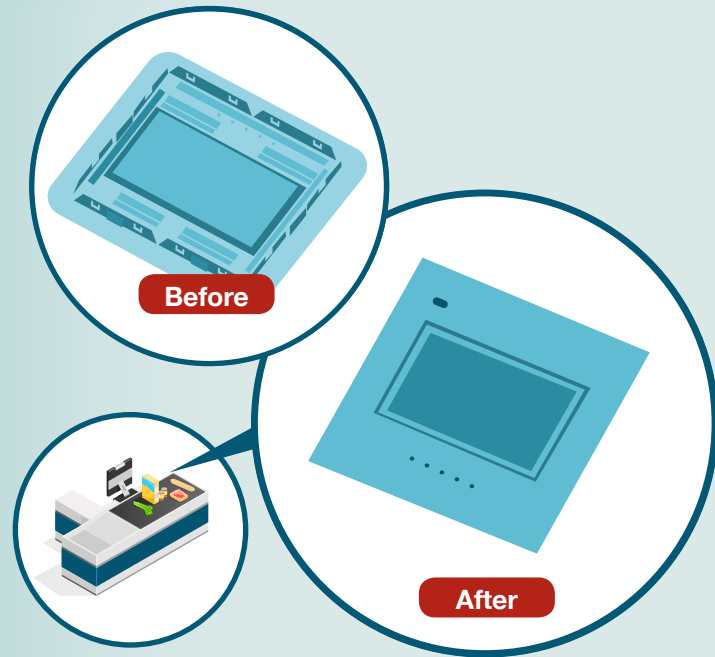
**Annual Volume:** 20,000

**Annual Savings:** \$28,600

SAVINGS  
**\$28,600**

# Requote / Redesign / New Materials

## HORIZONTAL SCANNER TOP COVER WITH REPLACEABLE GLASS



Current Cost: \$21.78

aPriori Option A: \$13.96 (No brackets or tape; no adhesive cost)

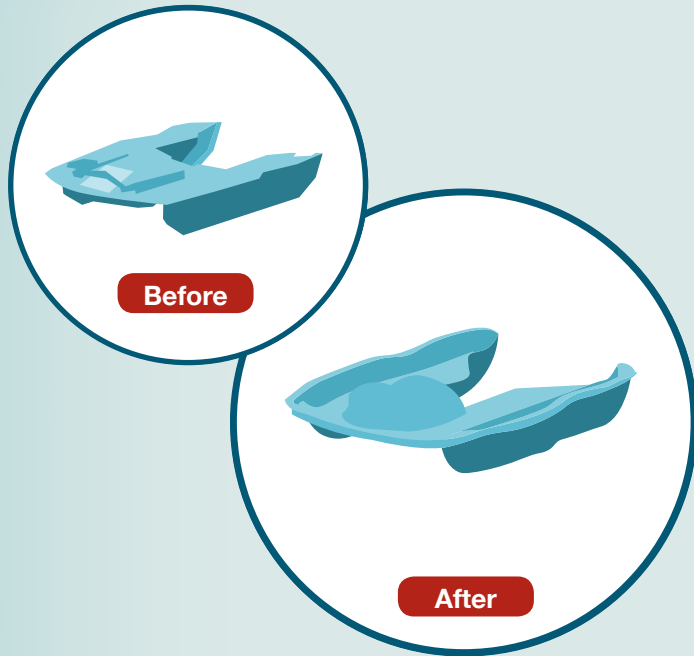
aPriori Option B: **\$10.22** (Plastic top; includes assembly level savings)

Annual Volume: 7,000

Annual Savings: **\$80,920**

SAVINGS  
**\$80,920**

# Examining Design & Manufacturing Alternatives



## BOTTOM PLATE FROM COOLING SYSTEM

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**Current Cost:** 85.00 € (Sheet metal parts, assembled)

---

**New Design:** 20.78 € (One piece plastic)

---

**Tooling:** 49,720 €

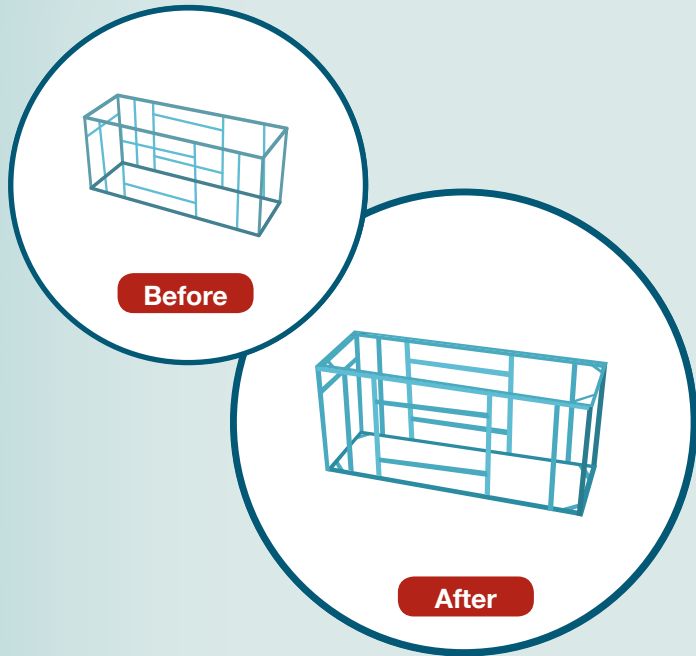
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**Annual Volume:** 3,000

**Annual Savings:** 142,940 €

SAVINGS  
**142,940 €**

# Redesign/Material Trade-off



## FRAME WELDING

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**Current Cost:** \$223.51

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**New Design:** \$190.17 (Thinner tube sections/u-bar gusset tubes)

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**Annual Volume:** 2,000

**Annual Savings:** \$66,680

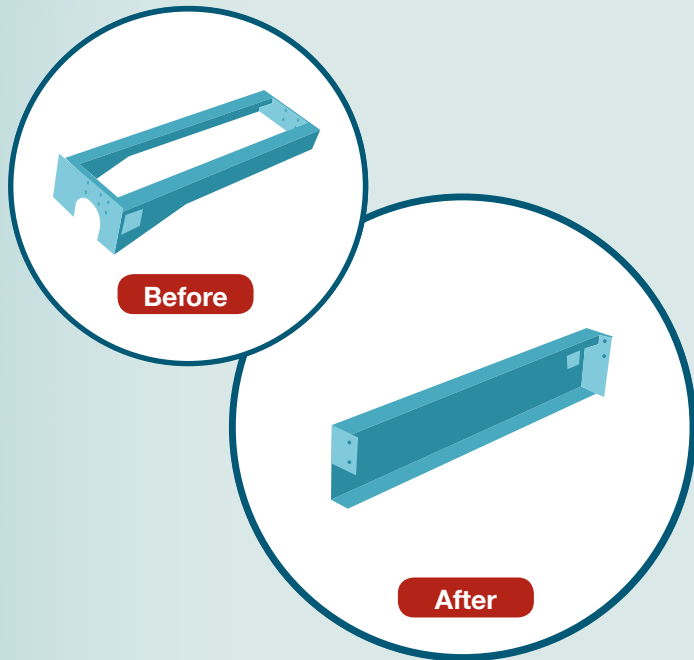
SAVINGS  
**\$66,680**

“ aPriori will enable us to identify costs before they get built into parts and products, eliminating both unnecessary expense and cycle time. The increased visibility enables us to better meet our customers’ needs, especially in engineer to order, where understanding the cost impact of design decisions is so critical to both customer satisfaction and profitability.”

**Nick Williams**

Vice President of Engineering  
Circor

# Redesign/Material Trade-off



## CARRIAGE

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**Current Cost:** \$20.89 (Nickel Plated)

---

**New Design:** \$7.81 (Reduce size of part, change to galvanized)

---

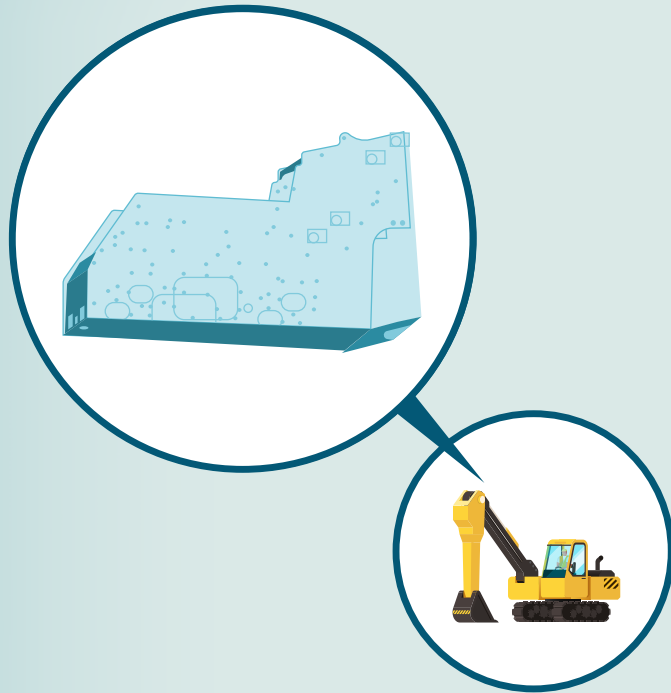
**Annual Volume:** 2,000

**Annual Savings:** \$26,160

*“aPriori allows fast cost comparison of manufacturing methods.”*

SAVINGS  
**\$26,160**

# Changing Processes (Re-Route & Re-Quote)



## MAIN FRAME SIDES AND FLOOR

---

**Current Cost:** \$75.54 (Laser cut)

---

**aPriori Cost:** \$33.29 (Laser perimeter & large holes; punch other cutouts)

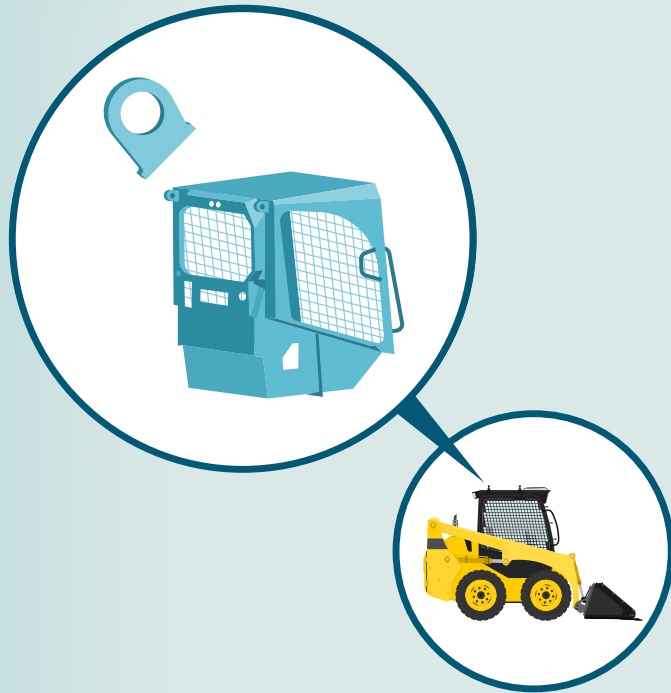
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**Annual Volume:** 14,000

**Annual Savings:** \$591,500 (Laser cycle time savings: 14 min./machine)

SAVINGS  
**\$591,500**

# Examining Manufacturing Alternatives



## CAGE REAR PIVOT

---

**Current Cost:** \$16.56 (Machined casting with x-ray)

---

**aPriori Cost:** \$10.05 (Burn from plate then machine hole)

---

**Annual Volume:** 22,000 (2 per machine)

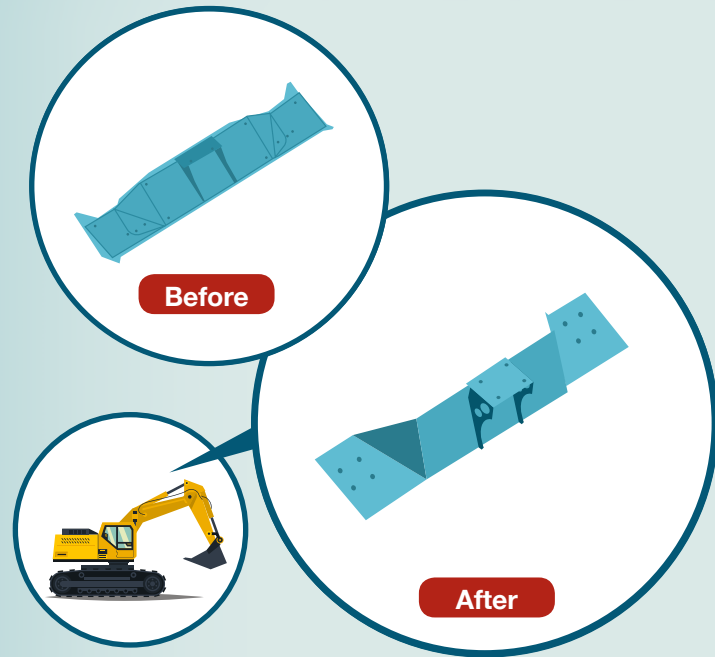
**Annual Savings:** \$143,000 (\$13.00 per machine)

SAVINGS  
**\$143,000**



# Examining Design/Manufacturing Alternatives

## UPPER LINK BOOM CROSS BEAM



**Current Cost:** \$43.97 (6 separate pieces, plus welding)

**aPriori New Cost::** \$35.04 (Combine 6 parts into single part)

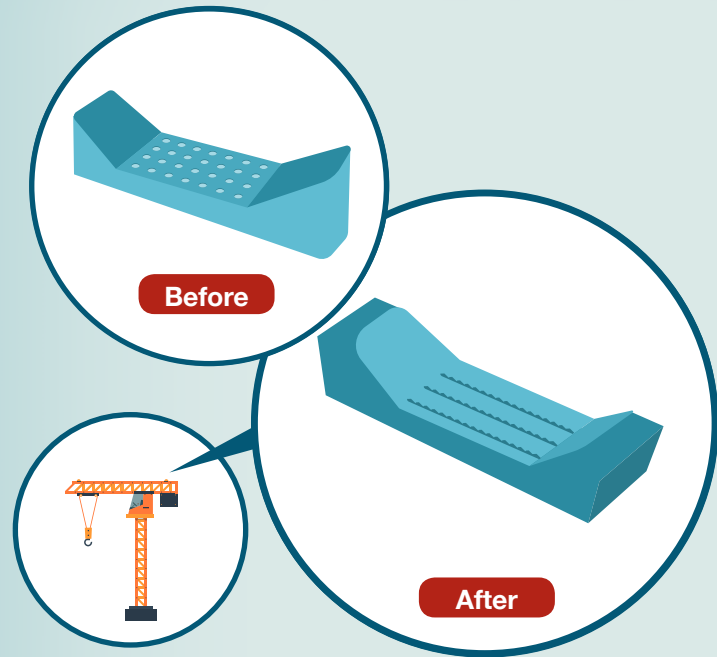
**Annual Volume:** 4,000

**Annual Savings:** \$35,700

SAVINGS  
**\$35,700**

# Examining Design/Manufacturing Alternatives

## BOOM STEP



---

**Current Cost:** \$7.75 (Tread plate: \$7.63; Hardware  
4x\$0.03 = \$0.12)

---

**aPriori New Cost::** \$3.72 (Tread strip 3x\$1.14 = \$3.42; Weld-  
ing: \$0.30)

---

**Annual Volume:** 4,000

**Annual Savings: \$16,000**

SAVINGS  
**\$16,000**

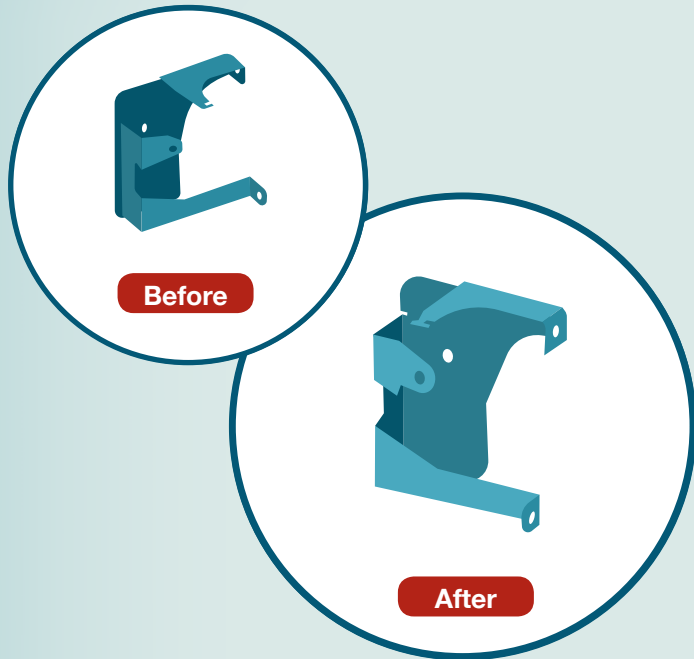
“ aPriori Expert Services has proven to provide quick, creative solutions allowing us to complete critical projects on time. Their flexibility to address complex technical and business considerations is valuable in maintaining a cost effective and efficient build out of our product costing solution. ”

**John Allen**

Scm Program Manager

Celestica

# Examining Design/Manufacturing Alternatives



## BOOM LOCK

---

**Current Cost:** \$10.99 (Part 1 \$4.06; Part 2 \$2.40; Welding \$4.53)

---

**New Design:** \$7.32 (Tooling \$33K)

---

**Annual Volume:** 22,000 (2 Per Machine)

**Annual Savings: \$80,700**

SAVINGS  
**\$80,700**

# Process/Material Trade-offs



## DUAL ALTERNATOR BRACKET

	Method	Cost	Tooling
<b>Current Cost:</b>	Sand Casting	\$17.91	\$40,000
<b>aPriori Cost:</b>	Sand Casting	\$6.30	\$41,360
<b>aPriori Option A:</b>	<b>Die Cast Aluminum</b>	<b>\$2.46</b>	<b>\$51,850</b>
<b>aPriori Option B:</b>	Injection Molding	\$6.71	\$44,500

Annual Volume: 11,000

**Annual Savings: \$158,100**

SAVINGS  
**\$158,100**

## About aPriori

aPriori software and services generate hard-dollar product cost savings for discrete manufacturing and product innovation companies. Using aPriori's realtime product cost assessments, employees in engineering, sourcing, and manufacturing make more informed decisions that drive costs out of products pre- and postproduction. As a result, manufacturers launch products at cost targets, maximize savings in re-work projects, and avoid overpaying for sourced parts. To learn more about aPriori and its product cost management solutions and services, visit [www.apriori.com](http://www.apriori.com) or call 1.978.371.2006.