

OBJECTIVE: Investigate alternative blast media for paint shop jig cleaning.
Test for cleaning quality, cleaning efficiency, and cleaning cost.

Jig Cleaning Overview

Wheelabrator Spinner Hanger
 Cleans 85% of Jig Inventory
 (4) Cleaning Chambers
 (3) Positions of Cleaning Per Chamber
 Jigs Are Positioned on Trees



| Current Blast Media | Proposed Blast Media |
|---------------------|----------------------|
|---------------------|----------------------|

Zinc Cut Wire Shot

Pellets cut from a continuous strand of zinc.

Hardness **61**
Durability **4,545**
Size **0.057"**
Cost **\$4.00**
Lead Time **15 days**

ZA4 Cast Zinc Shot

Zinc alloy melted, then cast into teardrop beads.

Hardness **91**
Durability **12,000**
Size **0.040"**
Cost **\$3.00**
Lead Time **2 days**

Results on back →

Zinc Cut Wire

ZA4 Cast Zinc

1

Improve Cleaning Quality



| Plant | Jig Type | Zinc Cut Wire | ZA4 Cast Zinc |
|-------|--------------|---------------|---------------|
| 1 | B Pillar | ✓ | ✓ |
| 1 | Fuel Lid | ✓ | ✓ |
| 1 | Hatch Handle | ✓ | ✓ |
| 1 | Hatch Strut | ✓ | ✓ |
| 2 | High Hatch | ✓ | ✓ |
| 2 | High Foot | ✓ | ✓ |
| 2 | High Fuel | ✓ | ✓ |
| 2 | High Hood | ✓ | ✓ |
| 2 | Seq Hatch | ✓ | ✓ |
| 2 | Seq Foot | ✓ | ✓ |
| 2 | Seq Fuel | ✓ | ✓ |
| 2 | Bumper Fill | ✓ | ✓ |

Transmet ZA4 Cast Zinc performs at the same level as Zinc Cut Wire.

100% passed the quality test.

Zinc Cut Wire

ZA4 Cast Zinc

2

Improve Cleaning Efficiency



| Plant | Jig Type | Cleaning Chamber Cycle Time | | | | | | | |
|-------|--------------|-----------------------------|-----|----------|-----|---------|-----|----------|-----|
| | | 90 sec | | *120 sec | | 180 sec | | *240 sec | |
| | | ZCW | ZA4 | ZCW | ZA4 | ZCW | ZA4 | ZCW | ZA4 |
| 1 | B Pillar | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 1 | Fuel Lid | x | x | x | x | x | ✓ | ✓ | ✓ |
| 1 | Hatch Handle | x | x | x | x | x | ✓ | ✓ | ✓ |
| 1 | Hatch Strut | x | x | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | High Hatch | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | High Foot | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | High Fuel | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | High Hood | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | Seq Hatch | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | Seq Foot | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | Seq Fuel | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |
| 2 | Bumper Fill | x | ✓ | x | ✓ | x | ✓ | ✓ | ✓ |

*Proposed Method

*Current Method

Transmet ZA4 Cast Zinc Shot reduced cleaning cycle time by 50% in 10 of 12 jigs.

Zinc Cut Wire

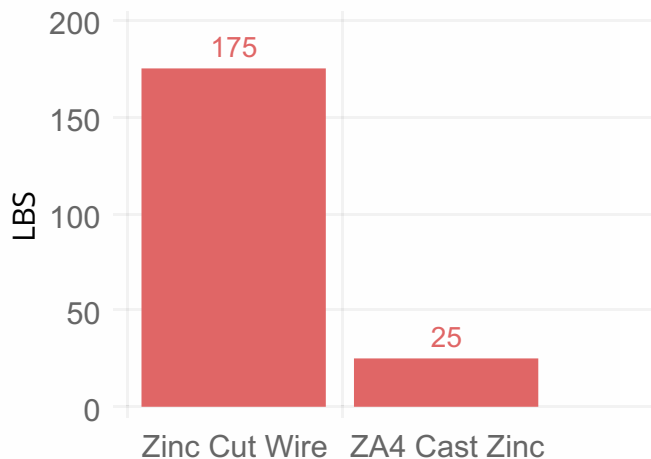
ZA4 Cast Zinc

3

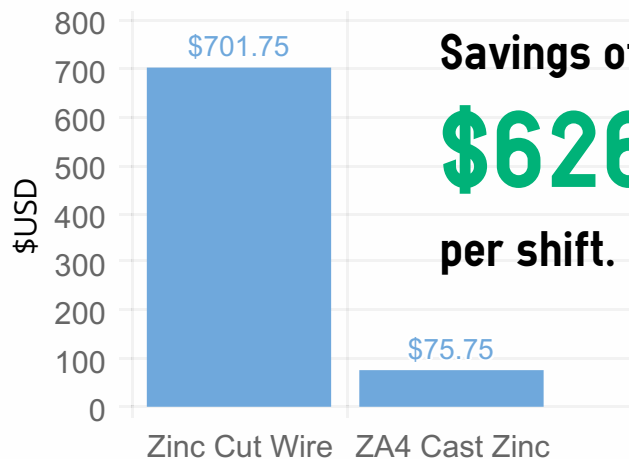
Reduce Cleaning Cost



Shot Usage (8-Hour Shift)



Cleaning Cost (8-Hour Shift)



Savings of \$626 per shift.