John Day Screen Shop

O&M– COST SAVING STRATEGIES



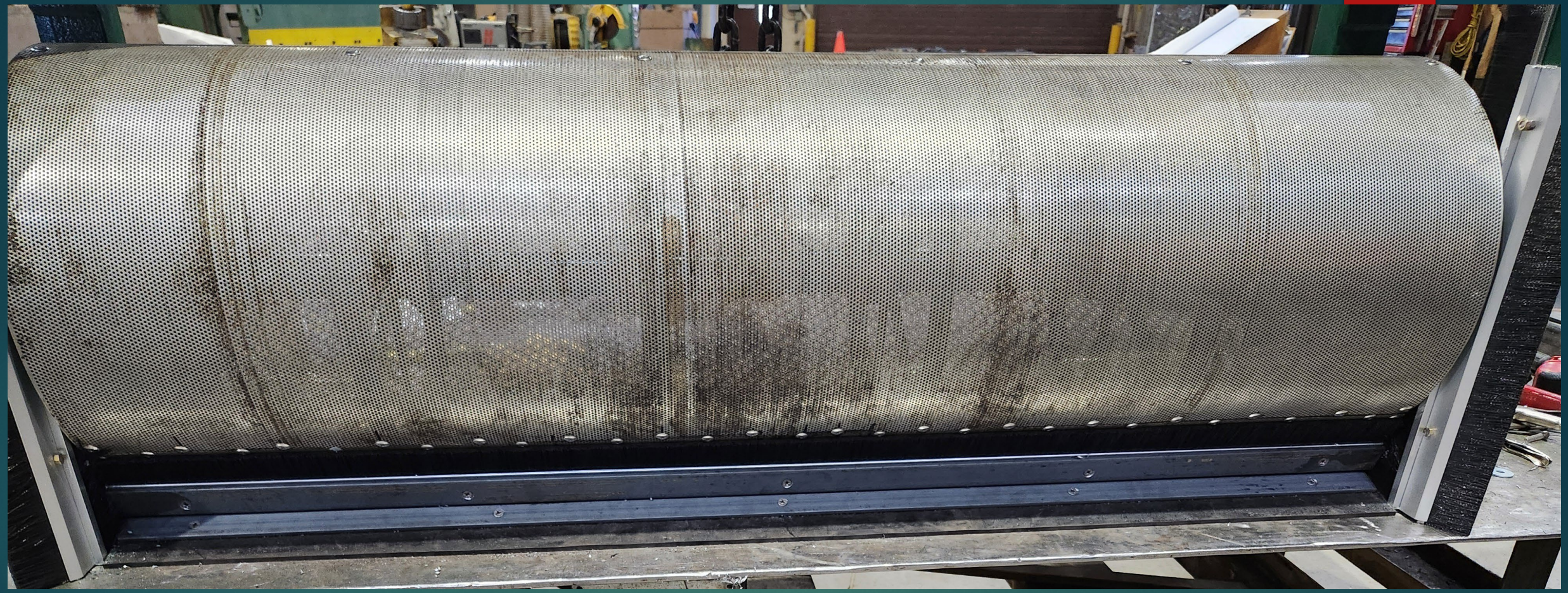
Cost saving Strategies

- Brush Seal
- Lithium Batteries
- Lithium Battery Powered Welders
- OHV's
- Herbicide Use
- Cordless Power Tools

Brush Seal

- Advantages
  - Reduces long term maintenance cost
    - Brush wears more slowly than neoprene or EPDM rubber
    - Neoprene and EPDM less resistant to UV
    - Easier to replace
    - Reduces drag on rotary drum
    - Eliminates need to build side seal components
- Disadvantages
  - Increased initial build costs
    - Need to make end seals/caps for drums (One or both sides removable)
    - End seals need to be near perfect square
    - Need to monitor end seals/caps – screws have backed out that hold them on



















Lithium Batteries

- Power source alternative to Sealed Lead Acid
- Advantages
  - Much lighter – typically weighing 1/3 to ½ compared to same energy capacity of a sealed lead acid battery
  - Longer Lifespan – 5-15 years (2000-5000 cycles) vs 3-10 years (1000 cycles)
- Disadvantages
  - More expensive upfront cost
  - Won't charge below 32 degrees without a heat source
  - Need a Charge Controller that will charge Lithium Batteries

- Stay tuned for Solid state lithium batteries that won't have the cold temperature issues



6 VIDEOS

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Power Queen Upgraded 12.8V 100Ah Auto-Heating Lithium Battery, Built-in 100A BMS, Low Temp Protection, Charging -4°F/-20°C, LiFePO4 Battery Up to 15000+ Cycles for RV, Off-Grid System, Trolling Motor

Visit the power queen Store

4.5 ★★★★½ 651 ratings

Amazon's Choice

$249.99

Get $60 off instantly: Pay $189.99 upon approval for the Amazon Store Card.

Style: **12Volt 100AH Auto-Heat**

12Volt 100AH Aut...	12V 100ah Basic	12Volt 100AH RV	12Volt 100AH...
$249.99	$189.99 ~~$219.99~~ With Prime	$199.99 ~~$227.99~~ With Prime	$199.99 ~~$229.99~~ With Prime

12Volt 100AH G2...	12Volt 100AH G3...	12Volt 125AH G2...
$239.99	$239.99	$289.99

Brand	power queen
Product Dimensions	6.77"D x 13"W x 8.43"H
Terminal	M8
Manufacturer	Power Queen

Lithium Battery Powered Welders

- Use for maintenance activities and some construction (hard to access or remote sites)
- Light Weight compact design (25 to 50 lbs)
- Some brands have a dedicated battery and need a recharge after use
- Others have swappable batteries

ESAB Renegade VOLT ES 200i Stick Welder

- weighs 54 lbs with four batteries installed and 41 lbs without the batteries.
- 20 minutes of run time
- Just swap batteries if need to keep welding (Uses readily available Dewalt batteries); Four Flexvolt (6, 9 or 12 Amp)



Fronius AccuPocket 150 Stick Welder

– weighs 25 lbs (without charger)

- 15 to 20 minutes of run time
- Dedicated battery (recharge to 80% after 30 minutes)



Karnage Flux Core Wire Feed
- 15 minutes of run time
-Dedicated battery
- weighs 45 lbs



OHV's

- Program has purchased 3 OHV's since 2021
- Two 2 ATV's and one UTV
- Reduces time to access site for repairs or just use on routes
- Can allow more equipment for a single person (carry shovels, weedeater, weed spray, etc. in one trip)

Herbicide Use

- Pesticide Applicators License Exemption
  - For Oregon - As a public employee, applying general use pesticides using application equipment that is not power-driven (e.g., hand-pump backpack sprayer), except when applying on a school campus as defined in ORS 634.700.
- Reduces Vegetation maintenance around project sites
- We can buy large containers at greatly reduced costs through our local SWCD (2-1/2 gallon containers for $40.)

Cordless Power tools

- Cordless options usually remain lighter overall and offer better balance than gas operated tools
- The gap on weight narrows when you use the largest available batteries.
- Can often continue to use when fire danger restricts gas operated tools.
- Chain saws, weedeaters, and hedge trimmers





