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WIRE CLOTH MYTHS NO ONE TALKS ABOUT

RETHINKING THE WIRE MEDIA YOU THOUGHT YOU KNEW



THE TRUTH ABOUT WIRE CLOTH

HOW WIRE CLOTH MAY BE COSTING YOU MORE THAN YOU THINK

If you've spent time on a deck, you know why wire cloth has been the standard for decades. It's familiar, affordable, and easy to find. Most producers have built their routines around it because, for a long time, it worked. But production goals have changed. Throughput targets are higher, downtime windows are tighter, and screens are expected to do more. Wire cloth, however, hasn't evolved at the same pace. What used to be "good enough" doesn't keep up in today's high-volume operations.

Still, many of the assumptions about wire cloth persist — that it offers the best throughput, the most consistent performance, and the lowest cost. Each of these feels true at first glance, but in practice, the realities tell a different story. The following pages serve up three myths about wire cloth paired with the reality of what believing these myths is costing your company.

MYTH #1: WIRE CLOTH HAS THE BEST OPEN AREA.

Reality: Theoretical open area isn't the same as effective open area.

MYTH #2: WIRE CLOTH MAINTAINS CONSISTENT PERFORMANCE UNTIL IT WEARS OUT.

Reality: Wire performance starts to decline long before breakage occurs.

MYTH #3: WIRE CLOTH IS CHEAPER.

Reality: Lower price doesn't mean overall lower cost.

MYTH #1

WIRE CLOTH HAS THE BEST OPEN AREA

At first glance, wire cloth seems unbeatable for production: thin wires, high open area, and fast material flow. It's the obvious choice if the goal is to move tons per hour, right?

REALITY: THEORETICAL OPEN AREA ISN'T THE SAME AS EFFECTIVE OPEN AREA.

On paper, wire cloth offers the highest open area — but not all of that area contributes to screening. Crowned decks, support bars, and overlaps create dead zones that restrict material flow. The result is less usable open area and lower true throughput than the numbers suggest.

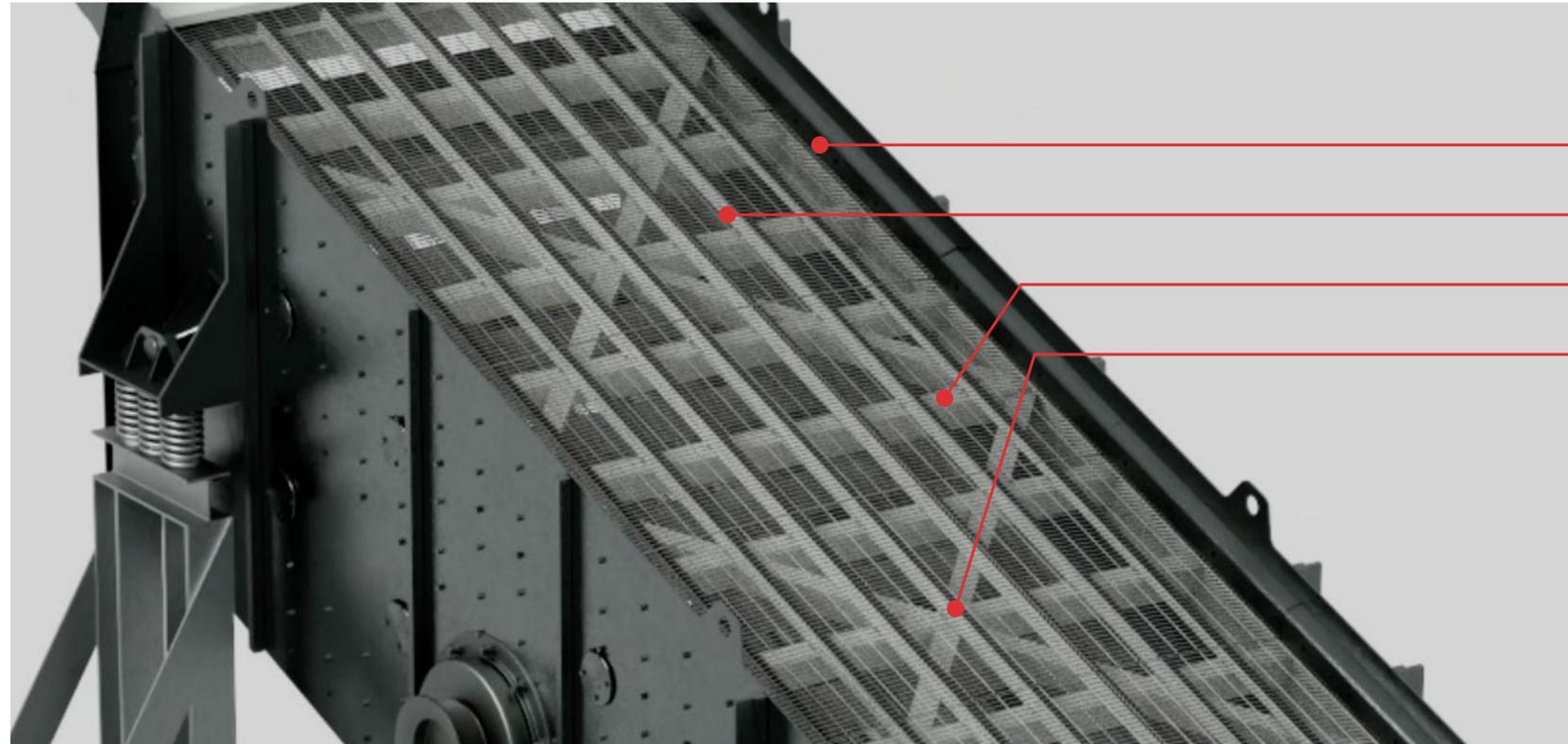
▶ SEE THIS MYTH IN ACTION.

Tap or scan the code to watch a short video demonstrating crown wire vs. flat modular media material segregation.



FACT A: CROWN WIRE HAS HIDDEN DEAD ZONES.

Even before wear or blinding start, wire decks lose usable screening area to hardware. Clamps, crown bars, overlaps, and bucker bars all take up space where no screening happens. Across a full deck, that can mean 10–15% less effective open area before material even reaches the screen.



WIRE CLOTH DEAD SPACE:

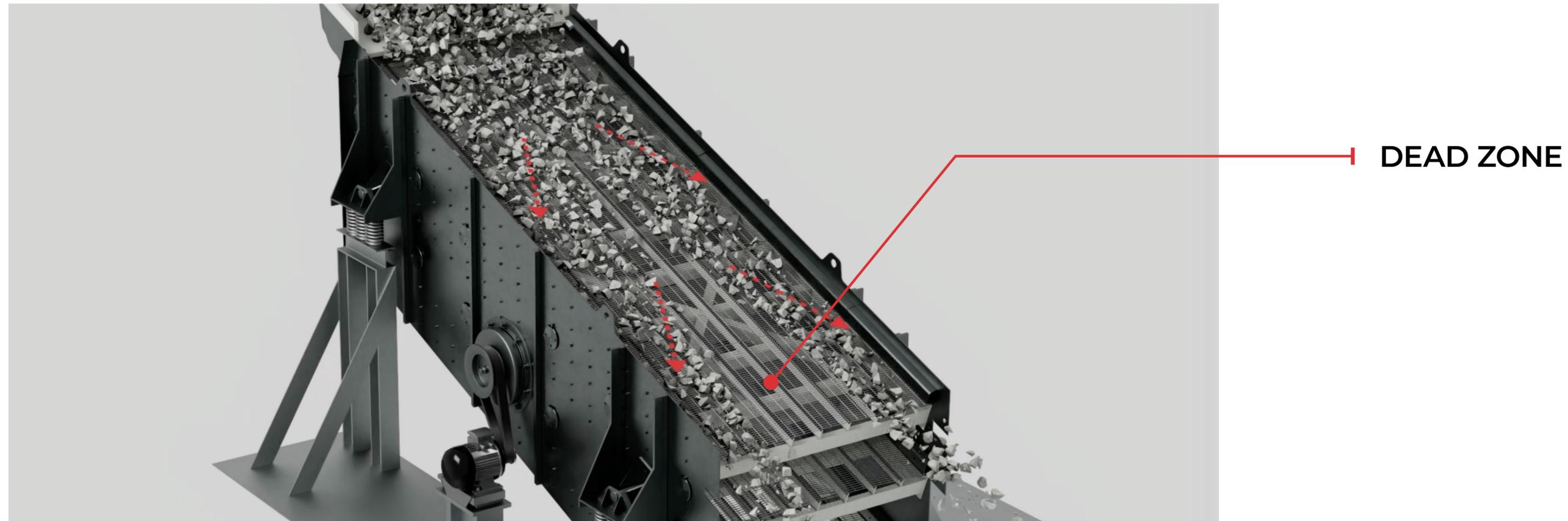
- | Side clamp rails
- | Crown support bars
- | Bucker bars
- | Overlaps

THE RESULT:

The full load hits only 85–90% of the expected open area, overloading the bed, using more energy, and creating bottlenecks downstream.

FACT B: CROWNING SHIFTS MATERIAL TOWARD THE SIDES, LIMITING SCREENING EXPOSURE.

The raised center of a crowned wire deck changes how material moves across the screen. As vibration and gravity act on the load, particles drift down the curved surface and concentrate along the sides. This outward flow reduces bed depth through the center while overloading the edges.



THE RESULT:

Edges of the wire wear faster and material spends less time in contact with open area, leading to low throughput and inefficient sizing.

MYTH #1

IN CLOSING: THEORETICAL OPEN AREA ONLY TELLS PART OF THE STORY.

Real throughput depends on how evenly material spreads, how long it stays in contact with the surface, and how much screening area is actually working. With wire cloth, that gap is bigger than most realize.



MYTH #2

WIRE CLOTH MAINTAINS CONSISTENT PERFORMANCE UNTIL IT WEARS OUT.

It's easy to think that if the wires aren't broken and the screen still looks fine, it's running just as it should. After all, wire cloth either works or it doesn't, right?

REALITY: WIRE PERFORMANCE STARTS TO DECLINE LONG BEFORE BREAKAGE OCCURS.

Wire cloth loses tension and geometric accuracy over time. As openings distort and stiffness declines, screening performance becomes less consistent. Each subtle change affects throughput, accuracy, and efficiency in different ways.

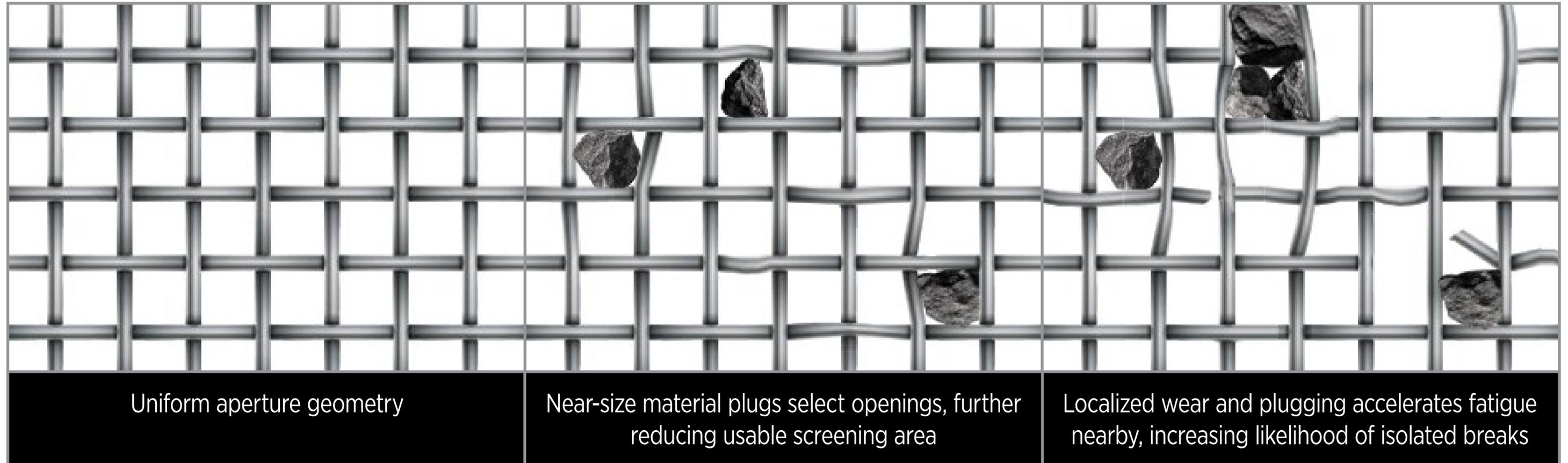
▶ SEE THIS MYTH IN ACTION.

Tap or scan the code to watch a short video demonstrating crown wire wear and performance failure.



FACT A: DISTORTED OPENINGS, DISTORTED RESULTS.

As wire cloth wears, aperture edges round and localized wear develops. Near-size material may lodge in select openings, creating plugged zones that reduce usable screening area. These localized conditions can accelerate wire fatigue nearby, increasing the likelihood of isolated breaks — even while most of the sheet remains intact..

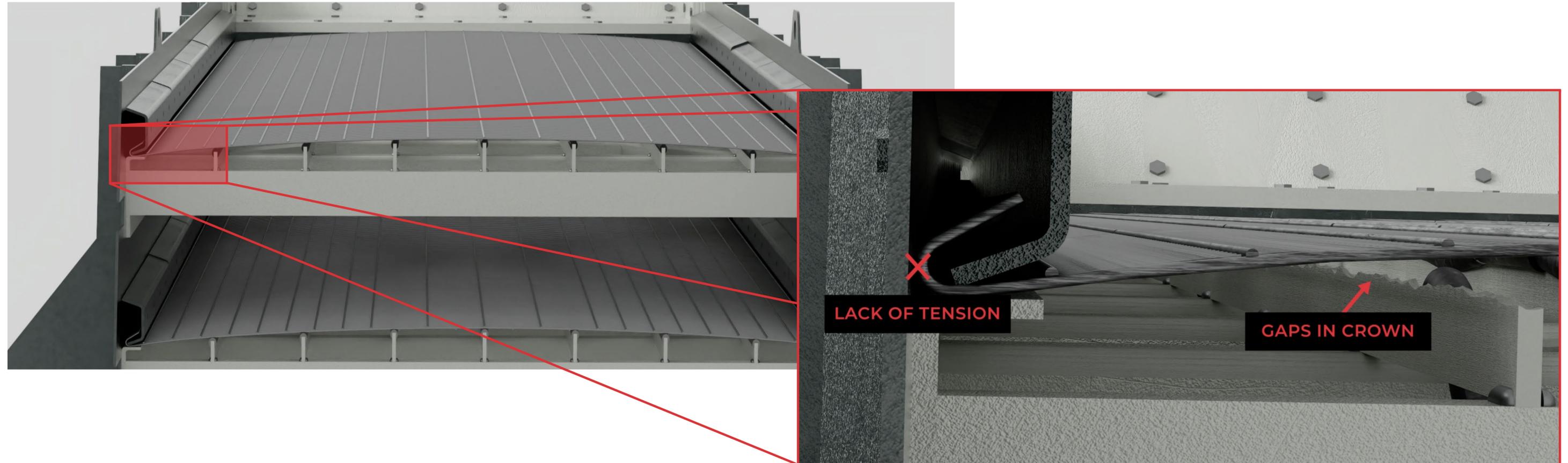


THE RESULT:

Plugging reduces usable screening area, while isolated breaks allow mis-sized material to pass. Together, they lower screening efficiency and product quality, often prompting feed-rate reductions or early intervention long before fully wearing out.

FACT B: WHEN TENSION DROPS, PERFORMANCE FOLLOWS.

As wire fatigue and stringer wear reduce tension, the cloth begins to lift and flex between supports instead of staying tight against them. This uneven motion disrupts vibration, creating dead zones, blinding, and patchy material flow. As stringers degrade, the next failure speeds up and creates a compounding failure effect that rapidly wears down other areas of the screening surface and structural members.



THE RESULT:

Flapping sections slow stratification, destabilize the bed, and cut screening efficiency long before visible wire damage appears. These degradations can also create a “compounding failure effect”, causing accelerated wear to other areas of the screening structure and surface.

FACT C: STRATIFICATION SLOWS. EFFICIENCY FOLLOWS.

As wire cloth loses stiffness and uniform vibration, particle separation slows. Fines remain suspended in the bed instead of reaching open apertures, while coarse material travels forward without fully classifying.



THE RESULT:

More carryover and mis-sized material reach downstream equipment, increasing recirculating loads, lowering circuit efficiency, and reducing production stability.

MYTH #2

**IN CLOSING:
BY THE TIME VISIBLE WEAR APPEARS, SCREENING
EFFICIENCY MAY ALREADY HAVE DROPPED BY 15-30%.**

What looks like a “good” section is often already
past its peak performance.



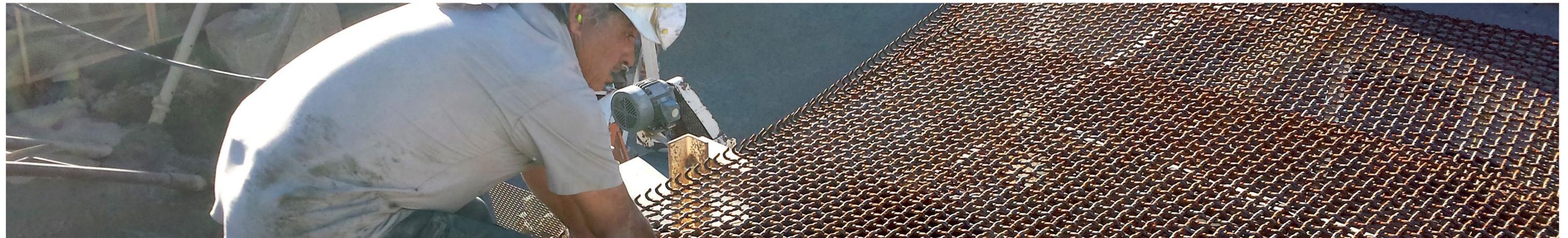
MYTH #3

WIRE CLOTH IS CHEAPER

At first glance, wire cloth seems like the most cost-effective choice. It's inexpensive, familiar, and readily available — an easy way to keep screening costs in check. But a low purchase price doesn't always mean lower total cost. Once wear, downtime, and lost production are factored in, that “cheap” surface often becomes the most expensive one on the deck.

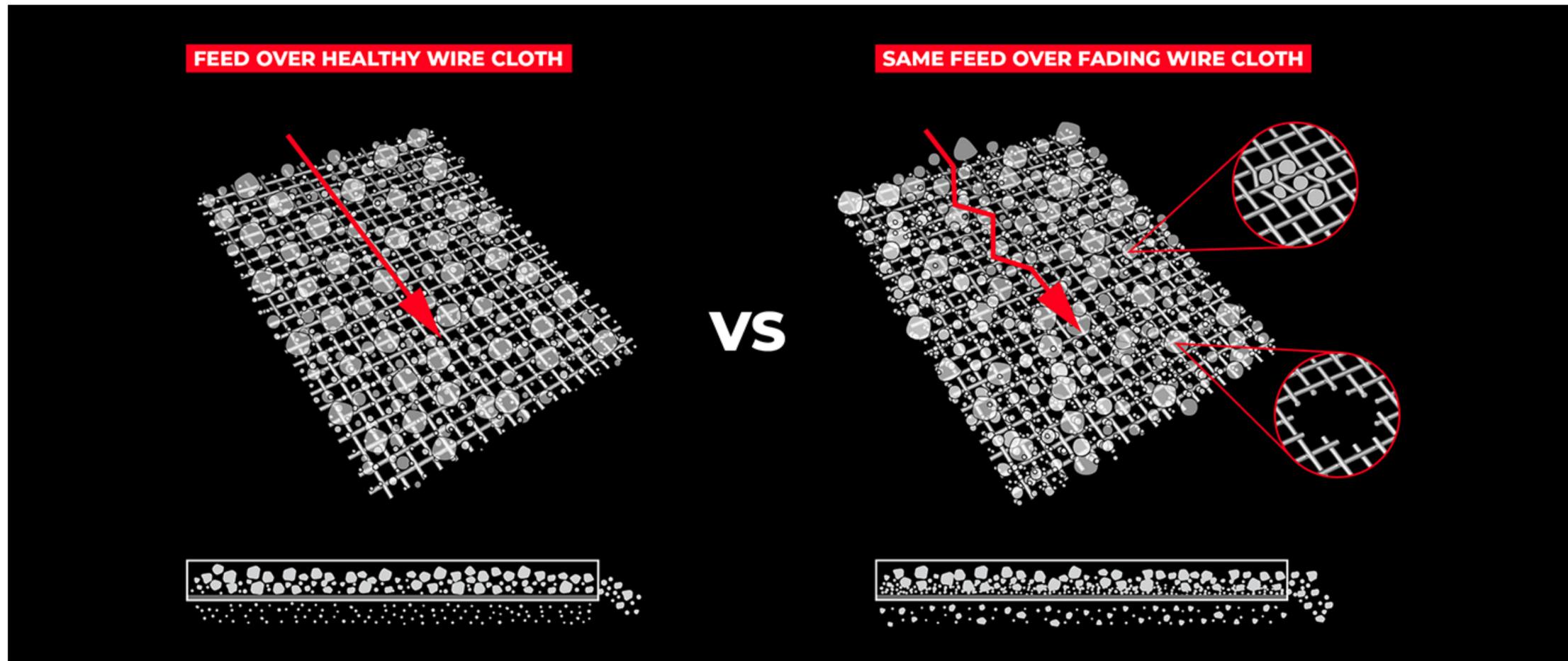
REALITY: LOWER PRICE DOESN'T MEAN LOWER COST.

Wire cloth's low upfront price hides the real costs that come later. What looks inexpensive at purchase often creates added expense through fading performance, frequent changeouts, and the need to keep extra sheets on hand.



FACT A: THE HIDDEN COST OF FADING PERFORMANCE.

Even before wire cloth wears out, reduced tension and shape distortion start to affect throughput. Open area shrinks, blinding increases, and tons per hour begin to drop — often without any visible signs of damage.



THE RESULT:

Every run cycle produces less material while power/labor costs stay the same or increase, quietly driving up cost per ton and reducing return on each deck per hour.

FACT B: SMALL BREAK, FULL REPLACEMENT.

Wire cloth depends on even tension across the whole sheet. When one area breaks, that balance is lost and nearby wires start to wear out faster. Since you can't replace just one part, the whole sheet has to come off, even if most of it still looks fine.

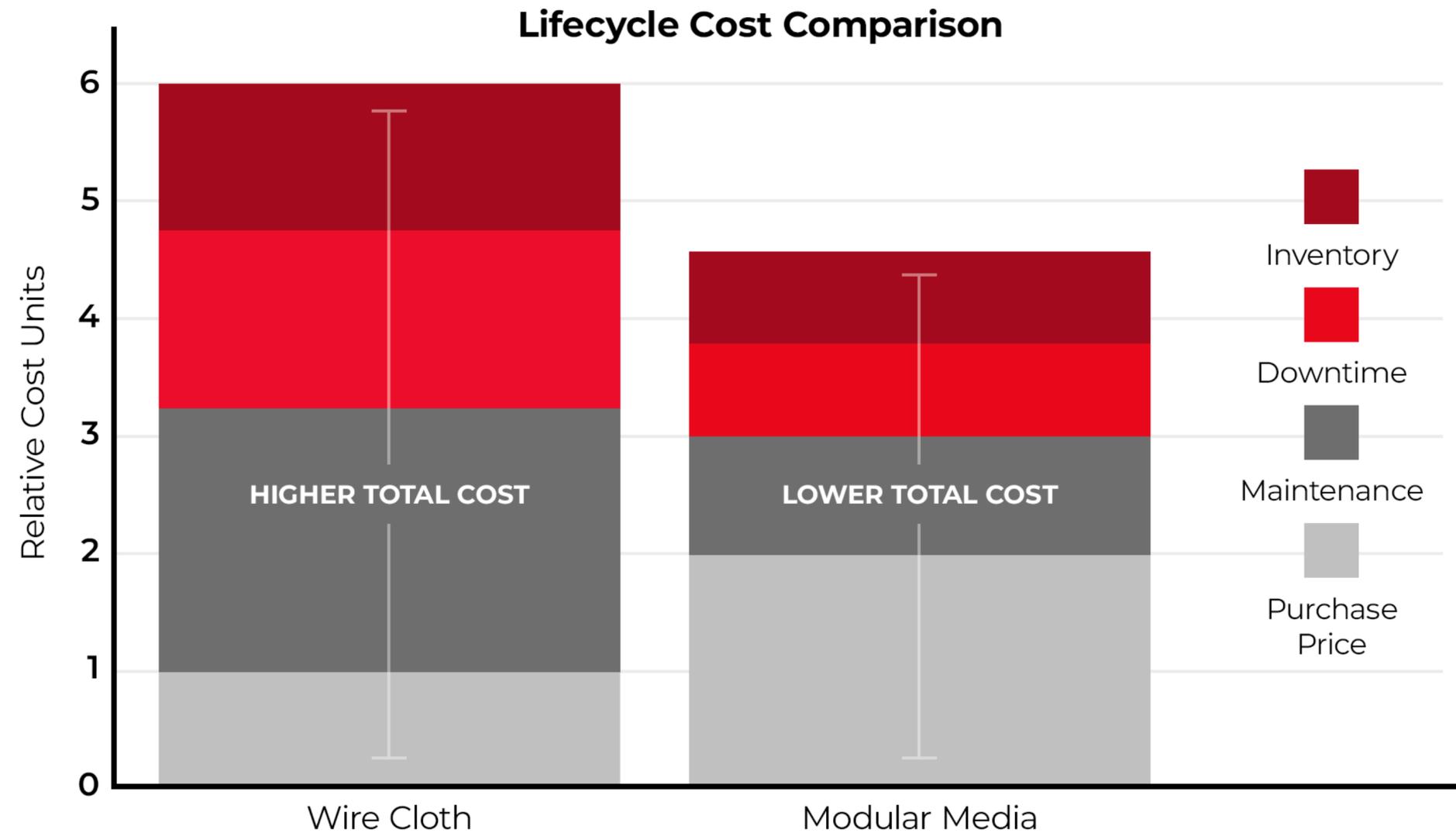


THE RESULT:

Each small breakage means more labor, more downtime, and more frequent changeouts — adding cost and missed revenue.

FACT C: THE HIDDEN COST SITTING ON YOUR SHELF.

Because a small break means replacing the whole sheet, most plants keep extra wire cloth on hand for every deck and opening size. It's the only way to avoid long delays when the next break happens. But all those spare sheets take up space, tie up money, and often go to waste when specs or conditions change.



THE RESULT:

Keeping extra wire cloth may feel safe, but it locks up cash and storage space that could be used for production — a hidden cost that slowly cuts into profit.

MYTH #3

**IN CLOSING:
WHEN YOU ADD UP LABOR, DOWNTIME, PERFORMANCE
LOSS, AND EXTRA INVENTORY, WIRE CLOTH'S LOW PRICE
QUICKLY LOSES ITS APPEAL.**

What seems cheap at first can raise total screening costs by 20–30% over time — in maintenance hours, lost tons, and money that never makes it back to production.



Meet the next evolution in wire **METALDEX® XPT**

THE STRONGER, SMARTER ALTERNATIVE TO WIRE CLOTH

Engineered for the aggregate industry, METALDEX XPT combines the high throughput of wire cloth with the strength, longevity, and efficiency of modular media. It's designed for dry, high-impact screening environments where performance and uptime drive profitability.

- ▶ Wire-cloth-level throughput
- ▶ Lasts 3x longer than wire cloth
- ▶ Changeouts in *minutes* instead of hours



Visit our website for full
METALDEX XPT specs
and details.

OPENING SIZES/WIRE DIAMETERS

OPENING	WIRE DIAMETER	OPEN AREA
1/2"	3/16"	44.7%
9/16"	1/4"	38.2%
5/8"	1/4"	42.9%
3/4"	1/4"	45.9%
7/8"	1/4"	49.0%
1"	5/16"	50.0%
1-1/8"	5/16"	49.2%
1-1/4"	5/16"	48.8%
1-1/2"	3/8"	49.6%
1-3/4"	3/8"	55.9%
2"	3/8"	55.6%
2-1/4"*	3/8"	59.8%
2-1/2"*	3/8"	60.4%
3"	1/2"	64.1%

*Also available in 65mm thick borders.

WHY METALDEX XPT PERFORMS BETTER

- ▶ **Harder steel, longer wear life:** METALDEX XPT's welded wire uses a 500HBW Wear Resistant steel that competitors can't match, providing superior abrasion resistance in tough applications.
- ▶ **Reinforced polyurethane borders:** Protects wire from premature wear, reduces vibration, and extends panel life.
- ▶ **Modular efficiency:** 1' x 2' panels make changeouts fast and simple, minimizing downtime, labor, and maintenance needs.
- ▶ **Wire cloth-level throughput:** Maintains comparable open area and flow performance while lasting 3x longer.

LET'S TALK

Polydeck is the leading provider of dependable synthetic and modular screen media solutions for the aggregate, mining, and industrial markets across the Americas. With more than four decades of innovation and boots on the ground, we've helped producers solve their toughest screening challenges with custom-engineered solutions that improve efficiency and uptime.

EXPERIENCE MATTERS



Tap or scan the code to request a FREE consultation
or give us a call at (864) 579-4594 to learn more.



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