

# SmartLiner for Apron Feeder Discharge Chute

<b>Location</b>	Pilbara, WA, Australia
<b>Platform</b>	Apron Feeder Discharge Chute
<b>Conditions</b>	<100mm Iron Ore with high impact
<b>Solution</b>	Modular Wear Package with Smartliners

## Situation

The wear liners from a competitor's liner package in the Apron Feeder Discharge Chute lasted 8 weeks, which was below the required 24 weeks to meet the planned shutdown cycle for the asset. The liner package comprised of large 200mm thick 500BHN abrasion-resistant steel liners. The liner segments were wearing through and causing damage to the fabricated chute structure. This caused unplanned repairs resulting in significant operational downtime and forced the client to undertake numerous unplanned confined space entries for repairs and ongoing inspections. An upgraded product solution was needed for the asset to meet the required service life of 24 weeks to align with the site shutdown schedule, improve asset availability and eliminate unplanned inspections.

## Solution

Bradken's product solution provided an upgraded liner kit comprising of a modular 80/20 Duablock D70 design. This wear liner product comprises of highly abrasion-resistant material also suitable for high-impact applications, offering maximum service life. The individual liners in the modular package are lighter than the incumbent design which enables safer manual handling. The liners are faster and safer to install with a combination of Bradken One-Sided Fasteners and hook designs, which eliminated the need for scaffolding for future liner changeouts. Bradken Smartliner probes installed in key locations in the liner package allowed the site to monitor the condition of the asset remotely and track the wear rates over time.

## Results

The new liner package exceeded the customer's expectations by extending the asset service life to 52 weeks. This resulted in an extended asset operational life of 225% compared to the previous product. All maintenance was performed during scheduled shutdown periods and the new lighter modular liner package with Bradken's one-sided fasteners allowed for more efficient, faster, safer, and easier liner changeouts. The Bradken Smartliner system eliminated the need for on-site periodic inspections outside of the planned shutdowns, providing a safer and more efficient monitoring solution, as the remaining useful thickness of the liners can easily be tracked remotely through Bradken's Insite website.

## Results

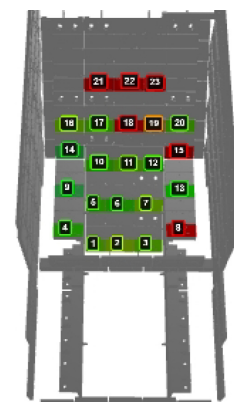
- Safe and efficient remote monitoring with Bradken's Smartliner monitoring solution
- Efficient and easier installation with Bradken's modular liners
- Improved safety as a result of reduced confined space entries and lighter liners
- Productivity increase with less operational downtime for maintenance
- Extended asset wear life of 225% compared with the previous product.



Worn AR Steel Liners with repairs



80/20 Duablock liners with Smartliner Installed



Live SmartLiner monitoring



**Our Innovation. Your Advantage.**

BK-Sales & Marketing-Global-Record-Case Study-FP-SmartLiner for 101M Conveyor Transfer Chute 2022 REV0 7/12/2022  
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