

Application Success Story

Food Processing • Sugar Mill • Packing



Application Info

Pump: Stage Pump

Product: sugar, mixed juice

48 Weeks Later: Return of Investment Uncovers "Extremely Cost Effective" Solution

Challenge

A sugar mill in South Africa ran into multiple issues with some of their stage pumps. They were losing product through excessive leakage, and as a side effect product constantly leaked back into the water recirculating system. Their conventional 2L3 setup had to be repacked

Solution

Chesterton Specialist offered a solution with a packing version SpiralTrac™ combined with Chesterton 1830 SSP™ packing, and converted 13 stage pumps with this solution.

Return of Investment

The SpiralTrac and the Packing was installed in the pumps on **June 23rd 2014**. The numbers reflect close monitoring **48 weeks prior, and 48 weeks after installation**.



Amatikulu Sugar Mill

	Stage Pump #4	
	CONVENTIONAL 2L3 SETUP	SPIRALTRAC™ & 1830SSP™
SpiralTrac (one-off)	N/A	USD 1321.24
Shaft Sleeve & Spacer	USD 284.88	USD 0.00
Repacked pumps	1 week	0 week
Packing (3 rings)	USD 41.90	USD 74.59
Downtime per pump	2 hours	0.5 hours
Resources	1 fitters	1 fitters
Test period	48 weeks	48 weeks
Shaft Sleeves	1 year	0 year
Maintenance component cost	USD 683.51 per year	USD 0.00 per year
Total cost a year	USD 2972.49	USD 1391.53

Please note, this calculation excludes loss of juice!

Cost savings a year is **USD 1580.96** and pump is currently running. Note that repacking took only 30 mins.

	Stage Pump #4 to #16 (13 pumps)	
	CONVENTIONAL 2L3 SETUP	SPIRALTRAC™ & 1830SSP™
SpiralTrac (one-off)	N/A	USD 17123.11
Shaft Sleeve & Spacer	USD 3692.07	USD 0.00
Repacked pumps	1 week	0 week
Packing (3 rings)	USD 543.01	USD 966.73
Downtime per pump	2 hours	0.5 hours
Resources	1 fitters	1 fitters
Test period	48 weeks	48 weeks
Shaft Sleeves	1 year	0 year
Maintenance component cost	USD 8913.15 per year	USD 0.00 per year
Total cost a year	USD 11209.21	USD 2283.89

Please note, this old calculation excludes loss of juice!

Cost savings for 13 pumps **USD 20552.48** for 2014 to 2015. Estimated cost savings for 13 pumps between 2014-2016 is **USD 40083.11**.

SpiralTrac™ Version P combined with the Chesterton 1830 SSP™ Packing improved the durability and reliability of the stage pump and this combination has been extremely cost effective as the pump was not repacked from Off crop to Off crop.

"I personally recommend Chesterton packing plus the SpiralTrac™ for all pumps on Sugar Mills." - Plant Manager

If this Success Story has peaked your interest and would like to know more, our technical support team can always be reached at support@enviroseal.ca.



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