Outotec Turbo Pulp Lifter (TPL™) is a complete discharge system solution for AG/SAG mills to ensure effective grinding conditions by eliminating inherent material transport problems of traditional mill discharge assemblies. The unique patented technology of Turbo Pulp Lifter may enable an increase in capacity of the entire process circuit by improving the efficiency of SAG/AG mills.

**OUTOTEC TURBO PULP LIFTER**

**BENEFITS**
- Increase mill throughput by up to 15%
- Up to 15% reduction in mill energy consumption
- Enables operation of SAG/AG mills at maximum capacity
- Effective grinding action
- Efficient operation at all mill speeds
- Minimizes excessive fines generation
Outotec Turbo Pulp Lifter is a discharge system that can be retrofitted to existing AG/SAG mills where site requires increased throughput, energy efficiency. TPL systems are designed specifically for each application using modelling and simulation tools to ensure the delivery of a product that has been optimised for the process.

TPL achieves improved processing efficiencies by eliminating common material transport problems usually associated with conventional pulp lifters. Many conventional pulp lifters experience insufficient material discharge from the pulp lifter during the discharge cycle resulting in material flow-back and carry-over.

- Flow-back: Slurry in the pulp lifters are in constant contact with the grates during the discharge process resulting in material flowing back through the discharge grate into the grinding chamber of the mill causing slurry pooling.
- Carry-over: Inefficient discharge of pebbles and slurry through the discharge cycle results in material remaining in the pulp lifters causing excessive wear, increased mill load and attenuation of flow through the grate to the pulp lifter.

TPL was specifically developed to minimize the occurrence of flow-back and carry-over to better optimise the processing efficiency of SAG/AG mills. The effectiveness of this design has been tried, tested and proven to improve grinding efficiency, increase throughput and reduce grinding specific energy.

"I can confidently say that Turbo Pulp Lifter has significantly surpassed our expectations in terms of throughput enhancements, general operation and electrical cost savings”.

Julius Stieger,
Process Superintendent,
Cortez Gold Mines

FROM INEFFICIENT GRINDING TO EFFICIENT GRINDING WITH TPL

Inefficient attrition and impact

Improved attrition and impact