



CONVEYOR BELTS

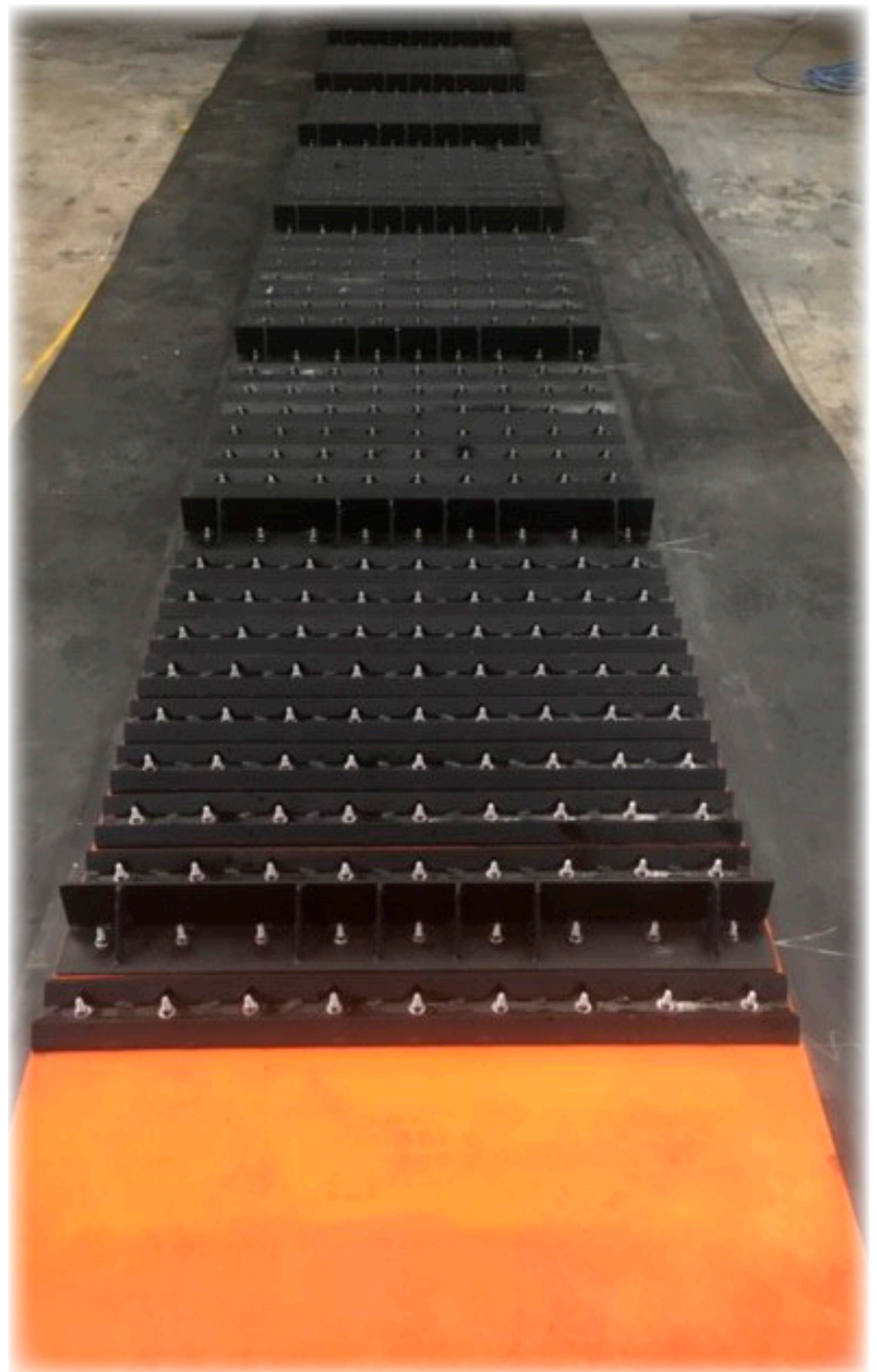
Use of stainless-steel elevator bolts for magnet belts in concrete recycling

Challenge

Application: To supply non-magnetic elevator bolts for magnet conveyors that are removing metal and ferrous tramp materials from crushed recycled concrete.

The customer, Allstate Conveyors who manufacture large “Mag Belts” for a number of magnetic separator OEM’s in Australia. Were initially utilizing conventional conveyor belting that was either spliced endless or joined with belt fasteners complete with an overlay of 12mm thick 40 durometer soft abrasion resistant rubber.

Which is then bolted onto stainless steel pressed wear plates in the centre of the belt (see pictures below). The plates needed to be bolted with non-magnetic fasteners. The recess in the plates protect the heads of the bolts from being worn or broken off during operation.



Solution

The 4B solution that was offered was to utilize 304 grade stainless steel fanged bolts, which have a significantly reduced magnetic resistance.

This in turn almost completely eliminated the issues caused by standard mild steel bolts of being drawn to the fixed magnets. Which would cause excessive wear and reduce effective service life considerably.



Results

The higher-grade bolts have provided a performance benefits, that has significantly exceeded previous components service life. This has in turn also provided operators with costs benefits not only on their equipment but their operational availability.

