



TECHNICAL BULLETIN

Brickworks Auger Segments

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Specialists in surface engineering technology

'We achieve our production targets by maximising the efficiency of our brick press. To do this, any hardfacing that is applied has to offer two things a) it has to be very smooth so that clay slides off the auger rather than sticking to it and b) the diameter of the segments has to hold as long as possible so that clay is forced through the brick mould rather than rolling back over the auger segments'.

An initial meeting with the engineers at this brickworks revealed that previous hardfacing on their auger segments had been 'less than satisfactory'. A single, low cost hardfacing wire was being used to coat all the surfaces of each segment. After inspecting the wear patterns of worn segments we recommended a combination of alloys to extend the In-Service Life.



Point Auger overlaid with a combination of alloys

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Subsequent to overlaying the segments with a combination of alloys, it is important that all the hardfacing is then ground to a smooth finish. If clay sticks to the segments, the torque of the auger has to be increased to extrude the same amount of clay. This results in a dramatic increase in running costs.

The picture below shows the Point Auger ready to return to the customer. An alloy designed to resist extreme fine particle abrasion has been applied to approximately 50mm of the leading face, the edges and 20mm of the back face. The balance of the auger has been overlaid with a complex carbide, open arc wire, offering a **Total Solution**.



Al 1543

Complex Carbide – HRc 62

Al 1779

Tungsten rich deposit for extreme wear environments