

# Alan Browne Gauges

Gauge Block Calibration & Manufacture



## Case Study: Custom Lapping of Press tooling

When a world leader press tool manufacturer needed a problem solving on surface finish it approached one of the world leaders in surface finish - “**Alan Browne Gauges**”

The requirement was for a 175mm diameter tool manufactured in tool steel to be given a “flawless” mirror finish. This means NO scratches, marks or any imperfections over the entire surface! This is all with an applied flatness tolerance of three bands. Of course all this also applied to the surface around the periphery of the central tooling hole.

With 44 years of experience in lapping procedures available in Alan Browne, the solution proved to be a combination of machine lapping and “other custom” procedures. This included the design and manufacture of custom tooling to suit.

The inspection procedure is in some respects even more critical, the results have to be reliably inspected, measured and certified.

A triple inspection procedure was employed (independently inspected three times) which was a combination of visual inspection and measurement. The flatness was measured using an optical flat and a monochromatic light source. The surface was inspected with custom lighting and magnification. The final product was completed with the issue of a calibration certificate with an uncertainty of measurement of one tenth of a micron.

All this culminated in the customer now bringing to the market an unrivalled product in his market sector, giving him and Alan Browne more regular business opportunities.

If you have problem in obtaining your required surface finish, or just want to improve your quality, then do please give us the opportunity to research and solve it for you.

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