



# Quality Is Our Business

QPE Quality Porcelain Enamelling Ltd entrusted their considerable investment in Excel Heat Ltd for the turn key project which did not only include the design, manufacture install and commission a new fully automatic enamelling furnace and two manually operated charging machines but also for the removal of the existing furnace, spray booth and associated equipment.

The task given to Excel Heat Ltd was to remove the existing enamelling furnace that had served QPE since the 1940's and install a new state of the art enamelling facility which included furnace mechanical handling equipment and a sophisticated control system. This required not only the removal of the existing furnace, spray booth and old mechanical handling equipment but also the installation of new charging machine rails. To maximise the production capacity of the system the space available was used this meant the removal of a wall to allow access to install the equipment..



Excel Heat Ltd rose to the challenge and during the summer shut down period of two weeks completed the task. The installation was successfully completed ready for start up on the Monday after the shutdown as scheduled.

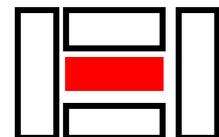
The facility is designed for the vitreous enamelling of case iron component which require a very exacting standard to ensure that not only the fusion of the glass to the cast iron but a very tight tolerance on the uniformity to ensure that the colour of the enamel is consistent. To achieve this Excel used the Honeywell DPC100 controller as a master controller with a UNC 1500 as the slave controller, a UNC 1000 as an over temperature safety protection policeman and a paperless recorder for data acquisition.

QPE's is a member of the Airdri group for whom they enamel all their cast iron components. Martin Aryling QPE's General Manager said that although we are part of the Airdri group we are not given any special treatment their standards are very high and we have to deliver. This is one of the main reasons for such a significant investment, which shows Airdri's continued commitment to QPE.

The initial trials showed a massive improvements in first time pass rates, time savings, quality of the finished product and also through put. This is largely due to the straight forward design. The operator simply chooses one of six pre programmed cycle by pressing the corresponding push buttons and then starting the cycle. The control system then automatically controls the sequence ensuring consistency and possibly more importantly repeatability.

**For more information on this product or our range of ovens, furnaces and spares contact Mike Kealy**

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