

The Ipswich Hospital NHS Trust - Amarith performs painless replacement of fractional motor pumps

case study

The Ipswich Hospital 
NHS Trust

Fractional to Metric

The Ipswich Hospital NHS Trust had a number of Spirax Sarco Condensate Recovery Units (CRU) as part of its steam systems. The condensate was returned from the CRUs using Girdlestone pumps, but after many years of reliable service their pump motors had become uneconomic to repair. A new motor was required, but the old motors were a fractional design and so a direct replacement was difficult and very expensive to source as modern replacement units all use metric motors.

With replacement fractional motors proving too expensive and difficult to obtain, as well as doubts over any future spares and servicing, the Trust approached a number of suppliers for a solution. One option was to replace the whole pump and motor unit with cheap imports, but the Trust was very happy with the performance of the existing pumps and didn't want to introduce other reliability uncertainties.

Some suppliers offered metric motors that were matched for power but these had physical dimensions that extended beyond the existing support frames. Also, because metric motors have a higher centreline than fractional ones, the pump position would have had to be altered, resulting in expensive changes to the pipework, a cost that would far outweigh any savings made in capital equipment.

A fully interchangeable solution

Amarinth had been providing spares for the existing Girdlestone pumps for a number of years and much to the surprise of the Trust's engineers, who

didn't believe they could get a totally interchangeable unit due to the age of the original pumps, proposed a completely dimensionally and hydraulically interchangeable unit.

To achieve this, Amarith engineers designed an innovative new foot for the metric motors that brought the centreline of the motors down to that of the existing pumps. In addition, Amarith provided a higher specification of motor to improve reliability and meet current legislation.

Full power ahead

The new Amarith units proved to be an extremely cost effective replacement and required no costly changes to pipework or the support frames, thereby meeting the strict safety requirements of the Trust.

Since commissioning, the units have operated with great reliability and haven't been touched apart from a weekly duty/standby changeover.

In using standard metric motors, Amarith can now offer the Trust a low cost, standard, fully supported and stocked unit and spares with fast turnaround for any replacements or servicing.

The success of the Amarith solution prompted the Trust to ask Amarith to conduct a survey of all Girdlestone pumps to ensure that they could offer interchangeable pumps, motors and spares for the whole site. Amarith has now produced a Spare Parts Interchangeability list that covers all Girdlestone pumps on site. In addition, the Trust now consult Amarith about any of its pumps that require replacement, regardless of the original manufacturer, to see if Amarith can offer a cost effective replacement route.



The Ipswich Hospital NHS Trust is one of the largest and busiest general hospitals in East Anglia, United Kingdom. The Trust provides health-care services to nearly half a million people who live in and around Ipswich and east Suffolk. There are almost 8,000 people a day on the hospital site, which covers 46 acres, so it is the equivalent size of a small town.



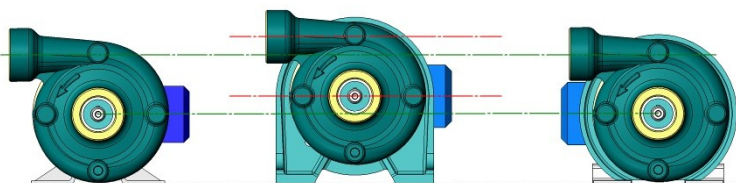
"We are delighted that Amarith were able to come up with such an innovative and cost effective solution to a seemingly impossible task. Replacing the old motors is now a straight forward maintenance procedure and costly pipework changes have been avoided."

Mr Alan Barrell
Mechanical Supervisor - Estates Department



"Amarinth has shown us once again their ingenuity when faced with a challenge. This extremely cost effective solution enables us to keep a reliable product in service for many of our customers, thereby maintaining their investment for at least the next 10 years."

Mr Paul Mayoh
Technical Manager - Spirax Sarco



Existing Fractional

Standard Metric

Amarinth Metric

