Customer: Transco

Job Description: To pre-heat a 36” ‘LIVE’ gas main ready for welding a 6” diameter piece of pipe (as protection) around a ¾” screwed valve on the main and then to pre-heat the gas main again ready for the welding of a ‘Split Tee’ lowered onto the gas main around the ¾” valve.

Pre-heat Target Temp: 150°C
Product: Natural Gas
Flow Rate: (No flow given)
Pressure: 57 Bar
Product Temp: Ambient

Job Location: West Walton, Wisbech, Cambridgeshire

Job Date: 31.08.04 to 04.09.04

Equipment: 2 x 20kw RHS Induction Heating Machines
2 x 50ft Induction Heating Cables
2 x Induction Heating Extension Cables

Value Protection: We arranged a 3-coil configuration, which was then laid over the pipe around the valve. The target temperature under the coils was set to 240°C allowing for gas flow and a safe distance away from the ¾” valve. This gave us the 150°C we required at the weld face. Time to temperature at the weld face from switch on took 20 minutes.

Longitudinal Welds: We arranged a 3-coil configuration, which was then strapped to a wooden frame, which in turn was strapped to each side of the split tee. Target temperature under the coils was set to 240°C and time to temperature at the weld face was approx 20 minutes to reach the 150°C required. (See pictures 1 & 2)

Circumferential Welds: We arranged a 3-coil configuration on the pipe and then a 3-coil configuration on the “tee” piece. Target temperature on the pipe was set to 340°C. This would allow for heat drawn out of the product as the wall thickness of the pipe is only 16mm. Target temperature on the “tee” piece was set to 155°C as the “tee” piece is 70mm thick this will hold the temperature very well. Time to temperature at the weld face, from switch on took 30 minutes to reach the 150°C required. (See pictures 3 & 4)