



Pro-Heat 35 Case Study

How one customer increased profits in the pre-heating business and saved \$312,000 on post-weld heat treatment with the Pro-Heat 35™.





OVERVIEW

One of our customers previously used flame heating for pre-heating and outsourced post weld heat treatment work to a contractor. Costing them a significant amount of money they became interested in the Pro-Heat 35™ Induction Heating system. With the goal to reduce costs and increase productivity associated with pre-heating tasks, Welding Industries of Australia's Market Development Manager, Mathew Hefferan worked closely with them to implement and train their staff. As a result, the customer now does all their post weld heat treatment work inhouse, have boosted pre-heating productivity and saved approximately \$312,000 per year in outsourcing costs.

Flame Heating vs Pre-Heating with Miller's Pro-Heat 35



APPLICATION

- Bring 4140 shafts and eye to a target temperature of 250°C.

TRADITIONAL FLAME HEATING PROCESS

- Target temperature took 3.5 hours to reach and maintain.
- This took start times, breaks and shift changes into consideration.
- Each shaft took 19 hours to complete.

PRE-HEATING WITH THE PRO-HEAT 35™

- Target temperature was reached in 35 minutes and maintained.
- Each shaft now takes 16 hours to complete.
- With the time saved the customer now completes one extra shaft per week.

THE RESULTS

3 HOURS SAVED PER SHAFT 

BUSINESS GAINED



1	52	\$46,800
shaft per week.	shafts per year.	worth of business gained.

* Based on pre-heating 1x additional shaft per week at \$150 per hour rate.

Outsourcing vs Inhouse using Miller's Pro-Heat 35



OUTSOURCING POST WELD HEAT TREATMENT

- Cost the customer 3.5k per job.

INHOUSE POST WELD HEAT TREATMENT USING MILLER'S THE PRO-HEAT 35™

- Cost saving 3.5K per job.
- Ability to stress relieve two shafts at the same time.
- Using the program feature, the customer tailored their job settings to meet custom heat treatment procedures.

PROGRAM SETTINGS USED

- Segment 1: Ramp to 400°C @ 150°C/Hr.
- Segment 2: Ramp to 540°C @ 50°C/Hr.
- Segment 3: Soak for 9hrs.
- Segment 4: Ramp to 400°C @ 50°C/Hr
- Segment 5: Ramp to 50°C @ 150°C/Hr

THE RESULTS

SAVINGS OF

\$312K

per annum*

\$26K

per month



*Based on stress relieving two jobs per week.



OUTCOME

Outsourcing post weld heat treatment was costing the customer serious money. Investing in the Pro-Heat 35 allowed them to bring all post weld heat treatment work in house and as a result saving them big on time and money. With minimal training needed staff were quick to implement the Pro-Heat 35 in house and maximise savings to their business. The customer has had their Pro-Heat 35 now for over a year and are now in the process of implementing a second Pro-Heat one to meet growing pre and post weld heating demands.

MILLER EQUIPMENT USED:

Pro-Heat 35

Heavy Duty Induction Cooler

Pro-heat 35 Running Gear

7.6m (25ft) Output Extension Cable

24.4m (80ft) Liquid Cooled Heating Cable

150mm x 12mm Preheat Insulation



Pro-Heat 35 – The Future of Pre-Heating.
