



# Well Charged Aluminum Melting Furnace

Furnace converted to TwinBed®II regenerative combustion system



This plant operates a small well charged melting furnace requiring one pair of Fives North American TwinBed®II regenerative burners. Relatively high gas prices provided for a return on investment of less than one year.

Furnace .....	20 metric tonne well charged aluminum melting furnace
Original combustion system type .....	Cold air
Original combustion system power .....	3.8 MW
Conversion combustion system type .....	One pair regenerative
Conversion combustion system power .....	2.5 MW
Before conversion net melting rate .....	3.3 metric tonne per hour
Before conversion specific gas energy consumption .....	1150 kWh per metric tonne
Post conversion net melting rate .....	3.9 metric tonne per hour
Post conversion specific gas energy consumption .....	600 kWh per metric tonne
Estimated annual benefit from fuel savings .....	860,000 USD (gas price = \$13.50/mmBtu)