

# Wood Pellet Boiler

## Garden Townhomes

### System Overview:

In 2008 Northern Properties had a BINDER 740 kW Wood Pellet Boiler installed at their Garden Townhomes location in Yellowknife. With the boiler a Grain MAX containment silo was used to store the wood pellets required to fuel the system. The silo has a capacity of 46 tonnes of storage.

As of Fall 2009 the system was not supplying heat to the entire facility. 24 town homes and 45 Suits were connected with plans to connect the remaining units in the future.

As BINDER boilers are built within conventional shipping containers note that Northern Properties has encased the container in siding that matches the surrounding residential buildings. The performance data below was estimated based on performance data averages for similar systems in the Northwest Territories.



Commercial Pellet Boiler at Garden Townhomes

### Performance Data:

The Binder 740kW wood pellet boiler performance data is as follows;

<b>Boiler Rated Output:</b>	<b>740 kW (2,500 MBH)</b>
<b>Equivalent Annual Oil Amount:</b>	<b>145,000L*</b>
<b>Current Annual Pellet Usage:</b>	<b>282 tonnes*</b>
<b>Potential Annual Savings<sup>1</sup>:</b>	<b>\$98,000*</b>
<b>Annual GHG Reduction:</b>	<b>380 tonnes CO<sub>2</sub><sup>eq*</sup></b>

The reduction in GHG emissions is equivalent to removing 70 midsize passenger vehicles from the roads.

<sup>1</sup> Estimation based on current cost of heating oil and bulk wood pellets.

\* All values are estimations based on average pellet boiler data for the Northwest Territories.