

# Wood Pellet Boiler

## Bison Apartments

### System Overview:

In 2008 Northern Properties had a BINDER 740 kW Wood Pellet Boiler installed to provide heat at their Bison Apartments location in Yellowknife.

BINDER wood pellet boilers are constructed within traditional shipping containers which allow easy transport and operational set up. The boiler at the Bison Apartments has a second container module on top of the boiler container which is used to store the wood pellets. This is shown in the image to the right. The addition allows storage of up to 18 tonnes of wood pellets.

The BINDER boiler provides approximately 80-85% of heat to the 124 apartments at the location. The performance data below was estimated based on performance data averages for similar systems in the Northwest Territories.



Commercial Pellet Boiler at Bison Apartments

### 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.