



## MNP TOWER

### HEATING, VENTILATION, & AIR CONDITIONING FACTSHEET

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**Address:** 10235 – 101 Street, Edmonton, AB

**General Description:** The MNP Tower is a 27 story A-class building with approximately 340,000 square feet of rentable office space, retail space, and 196 underground parking stalls with a parking ratio of 1 stall per 1,500 SF of leased space. It was designed by Wynn Forbes Lord Feldberg Schmidt in association with Skidmore, Owings & Merrill, and construction was completed in 1978.

**Mechanical Engineer:** Stantec Consulting Ltd.

**General:**

- The building automation is a Johnson Controls Metasys System
- Heating and cooling to the tenant spaces is provided by perimeter radiation (16 zones per floor) and Variable Air Volume (“VAV”) interior and exterior (cooling) air boxes. (26 per floor)
- High efficiency boilers were installed in 2011, and chillers were installed in 2007

**Design Criteria:** The upper VAV air system is mixed air cooling only for terminal VAV boxes located on the 22nd to 27<sup>th</sup> floors. The lower VAV air system is mixed air cooling only for terminal VAV boxes located on the 17th-21<sup>st</sup> floors. Central makeup is VAV 100% outside air with preheat and cooling coils located on the 3rd floor serving the 4th to 16<sup>th</sup> floor compartmental fan units. These compartmental units are VAV with cooling coils only and draw a fixed amount of makeup air and return air.

**Filters:** MERV 8 pre-filters and MERV 13 bag filters.

**Heat:** Three Cleaver Brooks hot water boilers located on the 29<sup>th</sup> floor provide the exterior heating to the building. Thermostatically controlled radiation valves on the floors modulate to control space temperature.

**Air Conditioning:** Two Trane chillers located on the 29<sup>th</sup> floor provide the cooling for the cooling coils on all of the various air systems located in the building.

**Air Exchange:** Tower Floor Air Exchanges will be up to 4 times per hour, with a complete Outdoor air replacement every 90 minutes.

**Standard Hours of HVAC Operation:** 7:00am to 6:00pm Monday to Friday.



## **COVID-19 and HVAC**

Ventilation and filtration provided by HVAC systems can reduce the airborne concentration and risk of transmission through the air. However, even the most robust HVAC system cannot control all airflows and completely prevent the spread of the virus. Ventilation and effective airflow pattern is however a primary infectious control strategy. The filtration systems in MNP Tower are first class and at the high end of the MERV (Minimum Efficiency Reporting Value) rating system, which is consistent with recommendations from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) April 2020 position paper on Infectious Aerosols. With the warmer weather, our dampers are open to allow for maximum fresh outdoor air to dilute air contaminants that are generated by the building, its furnishings and its occupants that may potentially carry COVID-19.