

**MBRAUN Technical Note:  
WHEN A HEAT EXCHANGER IS USEFUL**

The gas purification system works by the principle of gas circulation, i.e. the working gas permanently circulates between the glove box and the H<sub>2</sub>O/O<sub>2</sub> gas purification. See Figure 1.

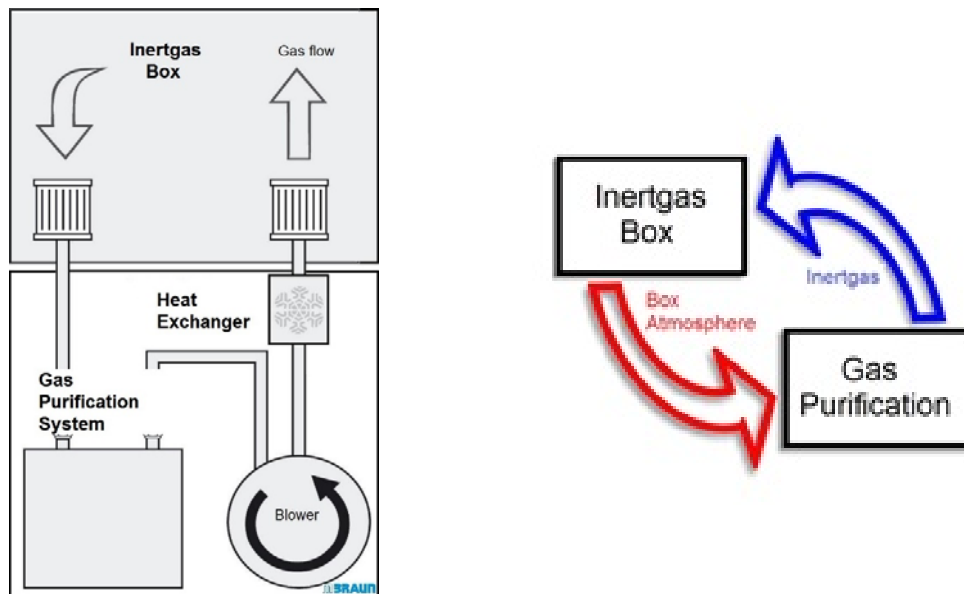


Figure 1: Heat exchanger position in gas purification system and working principle

Power dissipation of the electric motor as well as compression heat generated within the gas purification system increases the gas temperature. The water-cooled heat exchanger re-cools the heated inert gas before entering the glove box.

The built in heat exchanger supplies a comfortable working temperature inside the glove box.

**Why a heat exchanger is useful!**

For many applications, the temperature of the inert gas atmosphere and the handled material must be not too high.

A working temperature of about 20°C - 25°C also decreases perspiration in the gloves and make the use of the gloves more comfortable.