* 1. Q-PAC Fan System
     1. General specifications
        1. Fans shall be high performance direct drive, single inlet, [1] plenum fans with backwards inclined impeller or [2] axial fans with sickle-shaped/fluidic blades, with high efficiency welded-aluminum or high-performance composite material and galvanized, aluminum, or composite support frame.
        2. Fans shall be provided with pre-wired power and control harnesses of a standard length corresponding to the fan dimensions such that all fans are interchangeable within a system.
        3. Preinstalled fan harnessing shall terminate with plug and socket-style connections, requiring no manual wiring of the power and control cables between the fan motor and Quick Connect Box.
        4. Fans shall be equipped with motor overload protection.
        5. Fans shall have a minimum balance quality level of G6.3 per ISO 21940-11.
        6. Each Fan System shall be ETL Listed to conform with the requirements of UL 1995.
        7. The fan bulkhead wall shall be constructed of 14 gauge G90 formed sheet metal.
        8. Fan systems having more than one (1) fan, and which do not include backdraft dampers shall be provided with one blank-off plate, which may be used in the case of failure of a single fan to replace the fan and prevent backflow through that location. Blank-off plate shall be 20 Gauge G90 sheet metal
        9. [OPTIONAL] Backdraft dampers shall be provided only when requested as a system component and shall replace the included blank-off plate.
     2. Control Panel
        1. Control Panel shall include an external disconnect.
        2. Control Panel shall comply with UL 508A.
        3. Control Panel shall include a 0-10 VDC input for fan speed.
        4. Control Panel shall be configurable as NEMA 1 for indoor environments or NEMA 4 for outdoor environments.
        5. Control Panel shall be configured with a kiloampere Interrupting Capacity of 100 kAIC.
        6. Control Panel shall include a Hand-Off-Auto (HOA) Switch and Potentiometer
        7. Included Hand-Off-Auto (HOA) Switch shall have the ability to bypass the controller for manual control of the system fan speed.
        8. Control Panel shall contain a BACnet-compatible controller capable of monitoring the system’s airflow, power consumption, and individual fan status.
        9. Controller shall be configurable for fan speed control via BACnet interface (MS/TP), 0-10 VDC, constant airflow, or constant duct static pressure (sensor to be field provided).
     3. Quick Connect Box
        1. QCB shall be UL 508A Recognized.
        2. QCB shall include overcurrent protection for each fan in the system.
        3. QCB shall include wiring terminations for the power and control wiring from each fan in the system prior to connection to the Control Panel.
        4. QCB wiring terminations shall be of plug and socket-style, requiring no manual wiring of the power and control cables between the fan motor and QCB.