

## EEA Manifolds and Splitters

EEA manifolds can function either as manifolds or splitters. It is determined by where they are placed and the direction of gas flow.

When placed on an O<sub>2</sub> supply (oxygen regulator, oxygen generator or ceiling outlet, etc.) in order to supply oxygen to multiple machines it is functioning as a splitter. The female DISS becomes the inlet and the multiple male DISS fittings are the outlets.

When placed on the oxygen inlet of the anesthesia machine to receive multiple sources of O<sub>2</sub> (double e-tanks, e-tank and H-tank supply or oxygen generator and tank) it functions as a manifold. The female DISS becomes the outlet and the multiple male DISS fittings are the inlets.

The shape of the check valve body (round, rectangle, Hexagonal or heptagonal) does not change its function. It provides a better fit in different locations.

**One-way Check valves** – always prevents flow out of the male DISS fittings. Only allows flow in based on pressure. End of valve is recessed inside of male fitting.



**Demand Check valves** – When hose is attached valve is open and flow can go either way unrestricted. When hose is removed, valve is closed. End of valve extends close to the end of the of male fitting.



**Open (no valves)** – No restriction of flow either way. If hose is removed O<sub>2</sub> will flow out. There is not a valve in this unit.



**When used as a splitter** – (attached to O2 supply by female DISS):

**Demand Check valves** – Best to use, especially if hose may be removed.



**Open (no valves)** – Only to be used if O2 hoses will not be removed on a routine basis.



**One-way check valves** – **Never to be used as a splitter.** O2 will not flow out of the male DISS fittings.



**When used as a manifold** – attached to O2 inlet on machine by female DISS:

**One-way Check valves** – Best to use with two oxygen sources, such as double e-tanks (or with e-tank and h-tank). This will prevent high pressure flow back towards regulator from other O2 source. **Never to be used to attach additional hose to a ventilator.**



**Demand Check valves** – Good to use especially if attaching O2 hose to ventilator since hose may be removed if ventilator is not being used.



**Open (no valves)** – OK to use with ventilator if the hoses will always stay attached. Otherwise use one with Demand Check valves.



One way to remember:

**One-way check valves** are for multiple O2 sources to a single anesthesia machine.

**Demand check valves** are for multiple devices running off a single O2 supply.