



# QUICK RESPONSE

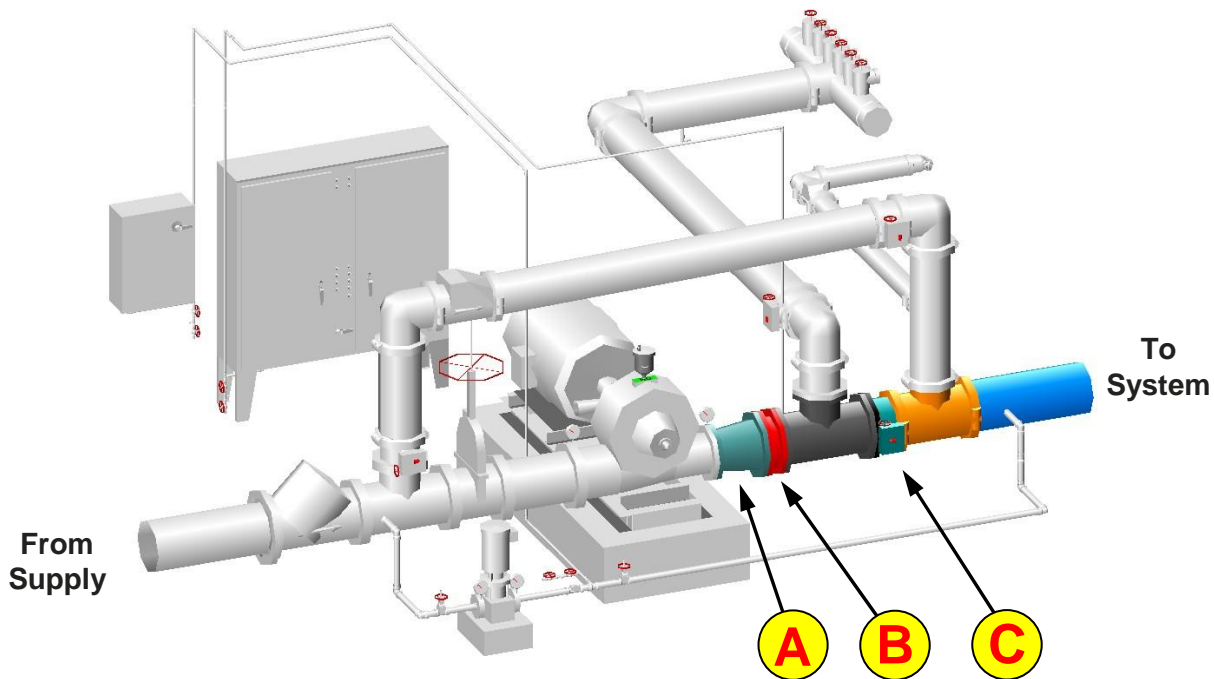
*Saving life and property through effective licensing, plan review,  
and inspection of fire protection systems.*

August 2008

## FIRE PUMPS – DISCHARGE

**NFPA 20 (2003 edition), Section 5.15.1** defines the fire pump discharge pipe and equipment as follows, *“The discharge components shall consist of pipe, valves, and fittings extending from the pump discharge flange to the system side of the discharge valve.”* As such, any valve, pipe, or fitting downstream of the discharge control valve (**C**) is technically considered part of the riser assembly or part of the fire protection system supply piping.

The hydraulic calculation(s) of the fire sprinkler system(s) determine the size of discharge components.



**A = Concentric Reducer (when required)** – When the size of the discharge piping is different than the discharge flange of the fire pump a concentric reducer needs to be installed. A concentric reducer differs from an eccentric reducer in that the centerlines of the openings on each end of the fitting do line up. (See May 2008 *Quick Response* newsletter)

**B = Check Valve (required)** – To prevent water from flowing back into the pump, a check valve is required on the discharge side of the pump.

**C = Control Valve (required)** – This control valve is installed to allow the fire pump to be isolated for maintenance and testing purposes. Since turbulence is not an important issue on the discharge side of the pump, this valve in most instances may be OS&Y or butterfly type.