

Single Lane Water Supply Setup Put to the Test

Northwest Ohio Regional Fire School @ Bowling Green State University

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Two rectangular dump tanks in front of the pumper and....



...two rectangular dump tanks behind the pumper –all in a single traffic lane.
The pumper was drafting from both the front and the rear at the same time.



Side dump tankers could top off all four dump tanks in a single pass.



Rear dump tankers could dump coming from either direction.



The low level strainers were attached to the dump tank flange inside the dump tank.



A 90 degree suction elbow guides the 6 inch suction hose down along the running board of the pumper.

The other end of the suction hose is connected to a dump tank flange which allows the truck to draft through the side of the dump tank. All of this allows the tanker to pass by in the other traffic lane.



Only one dump tank flange is needed on each dump tank. Below the dump tank is turned around so the flange is to the outside in case another pumper is needed to draft from the two tanks. This was also done on the other end of the line.



**Dump tank flange
for drafting**

Five (5) vacuum tankers delivered 863 GPM. It appeared that this setup of four 2,000 gal. dump tanks could handle fire flows of 1,000 GPM –the key would be a steady even flow of tankers. With so many tankers with side dumps operated from the driver's seat there was very little need for people to operate dump valves in the dangerous tanker travel lane.



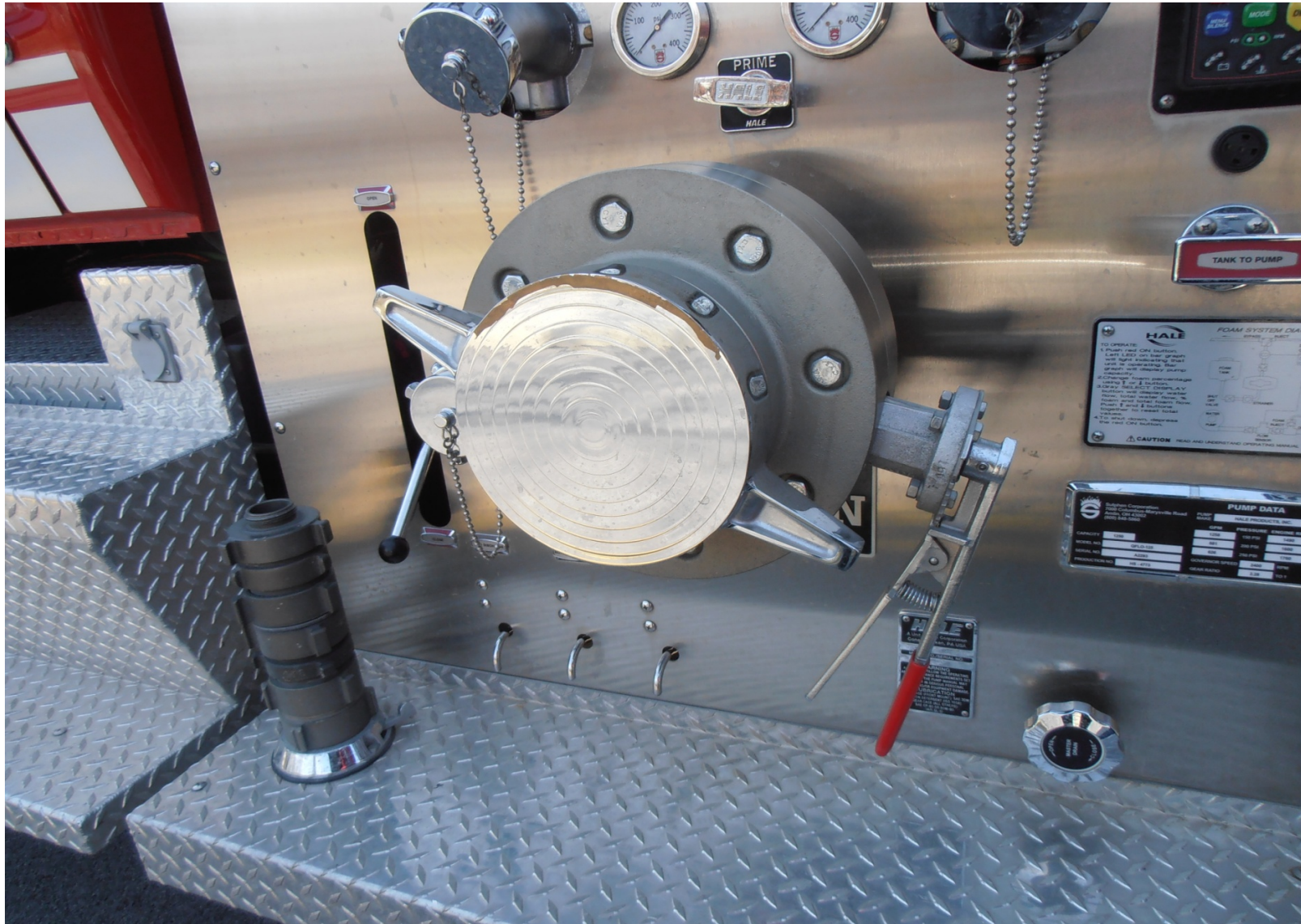
As this side dumping vacuum tanker works its way down the line of dump tanks it could safely dump into the drafting tank. The rectangular dump tanks are 8 ft. wide X 14 ft. long. The suction low level strainer was in the corner of the dump tank. Tankers dump in the other end of the dump tank about 10 ft. from the strainer. The turbulence of the tanker dumping didn't bother the low level strainer. In fact the tankers dumped in the drafting tanks first!



The passenger (officer) side suction drafted from the two dump tanks to the rear of the pumper. The driver side suction drafted from the front two dump tanks.



Butterfly valves are needed on each side suction inlet on your mid ship pumper if you plan to alternate drafting from one side to the other.



Vacuum tankers drafted through 84 ft. of suction hose to refill at over 900 GPM –can be a one person operation –no Class A pumper and extra man power needed to fill vacuum tankers.



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