

# Well designed ink fill can eliminate potential headaches

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Special to Newspapers and Technology

In the design of newspaper production facilities, one of the unique and often overlooked details to consider is the proper placement and construction of the fill point for bulk ink deliveries. As trivial as this may sound, it's just one of many aspects of building design and construction that are unique to our industry — one of things that, if done right will never be noticed, and, if done wrong can be a recurring source of aggravation.

In fact, if a major ink spill occurs, it could cost more than 10 times the value of all your ink to remediate. Consider the relationship of fill valve to storage tank. Keep the entire system length from fill to press to a minimum — this will save dollars in the initial cost, as well as minimize maintenance headaches.

Wherever possible, arrange to have the storage tanks at a lower elevation than the ink fill so that gravity will work in your favor.

Also consider the location and routing of the ink fill lines. Should the ink and fill lines be below grade, exposed or

overhead? Exposed is our recommendation, as long as the piping is out of harm's way. It is readily maintained and inspected, and leaks and spills are usually easier to clean.

Overhead ink lines can create a "large head" or unwanted pressure at the ink fill valve. In fact, one newspaper we visited received a

load of ink which resided completely in the overhead piping.

After noticing no change in the ink tank level, the newspaper ordered another ink shipment. The new load's cold and viscous ink combined with the initial head from the ink in the overhead piping, causing the fill pump to burn out and discharge a major spill. Proper ink fill to tank design would have prevented this. A simple check valve near the ink fill would have at the least prevented the severity of the spill.

This "ink in pipe" situation usually results in over filling an internal ink tank, which is bad enough, but at least there is, or should be, a way to contain an internal ink tank spill.

Another source of unwanted high pressure on ink fill lines is temperature. Keep the lines indoors and away from non-insulated walls or roofs.

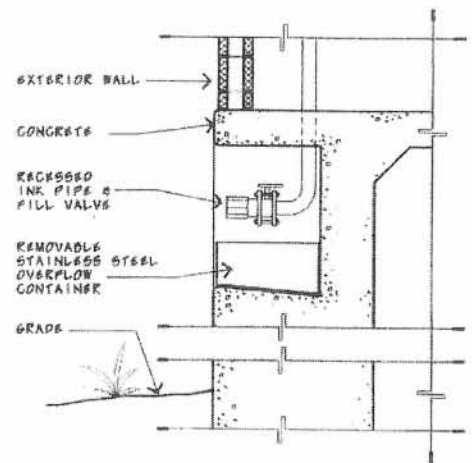
What are the implications of a major ink spill during a fill? Consider the location of the ink fill area and the site grading with respect to wetlands, streams, or openings in storm and sanitary sewer systems.

A spill that reaches any of these places could be environmentally disastrous and prohibitively expensive to clean up.

Consider truck access. The fill valve should be located to allow easy access to a supplier's largest truck, and at a location that will not disrupt your critical activities during a delivery.

Finally, consider the design of the valve itself.

It should be protected from impact



damage by trucks, forklifts and the like. We have included an example from our standard detail file which illustrates this point. Additionally, provisions should be made for containing any minor spills which may routinely occur during filling. Even rain on a soiled ink fill valve can be against

One way to avoid problems with ink receiving is to recess the fill pipe. Environmental Protection Agency regulations.A

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