

Use of Mesh Bulkheads

The Problem

- When building and installing bulkheads, wood is used - usually scrap material from the site.
- Constructing bulk heads involves a number of awkward postures, including stooping or kneeling.
- These tasks are often highly repetitive as the bulkhead can be quite large depending on the building size.
- There is also high demand associated with the removal of the wooden bulkheads.
- These factors may contribute to an increased risk of injury to the worker.



Traditional wooden bulkhead can be seen in the background

One Solution

- Use steel mesh bulkhead instead of plywood and other wood products.
- The amount of physical demand associated with the construction process is reduced.



Mesh bulk head

How it Works

- The individual metal sheets are used similarly to the traditional method using plywood. The sheets are installed using 2x4s or other lumber.
- The thin sheets of metal can be easily pierced with rebar and conduit so that holes do not have to be drilled when these have to be passed through the bulk head.
- The steel bulk heads remain in place once the concrete has set and assist in the adherence of the adjacent slab.

Benefits

- The steel sheets are significantly lighter than plywood sheets and decrease the physical demand associated with this type of work.

- Metal bulk head sheets can be constructed and installed faster than using plywood and do not have to be removed after the slab has set. This reduces the amount of time spent doing this demanding work.
- Tasks such as cutting holes into the plywood for rebar and conduit are eliminated entirely. This task traditionally requires the use of hand tools in awkward postures.
- A decrease in awkward postures, forces and repetitions reduces the risk of injury from this type of work.
- The amount of waste associated with bulk heads is reduced since they are 'stay-in-place'.

For More Information

- Products may also be found on the internet using the following search terms: "stay-in-place concrete forms."
- Manufacturers, suppliers or rental companies of other stay-in-place forms may be another source of information on products.
- Visit the IHSA website at: https://www.ihsa.ca/topics_hazards/msds.aspx

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