

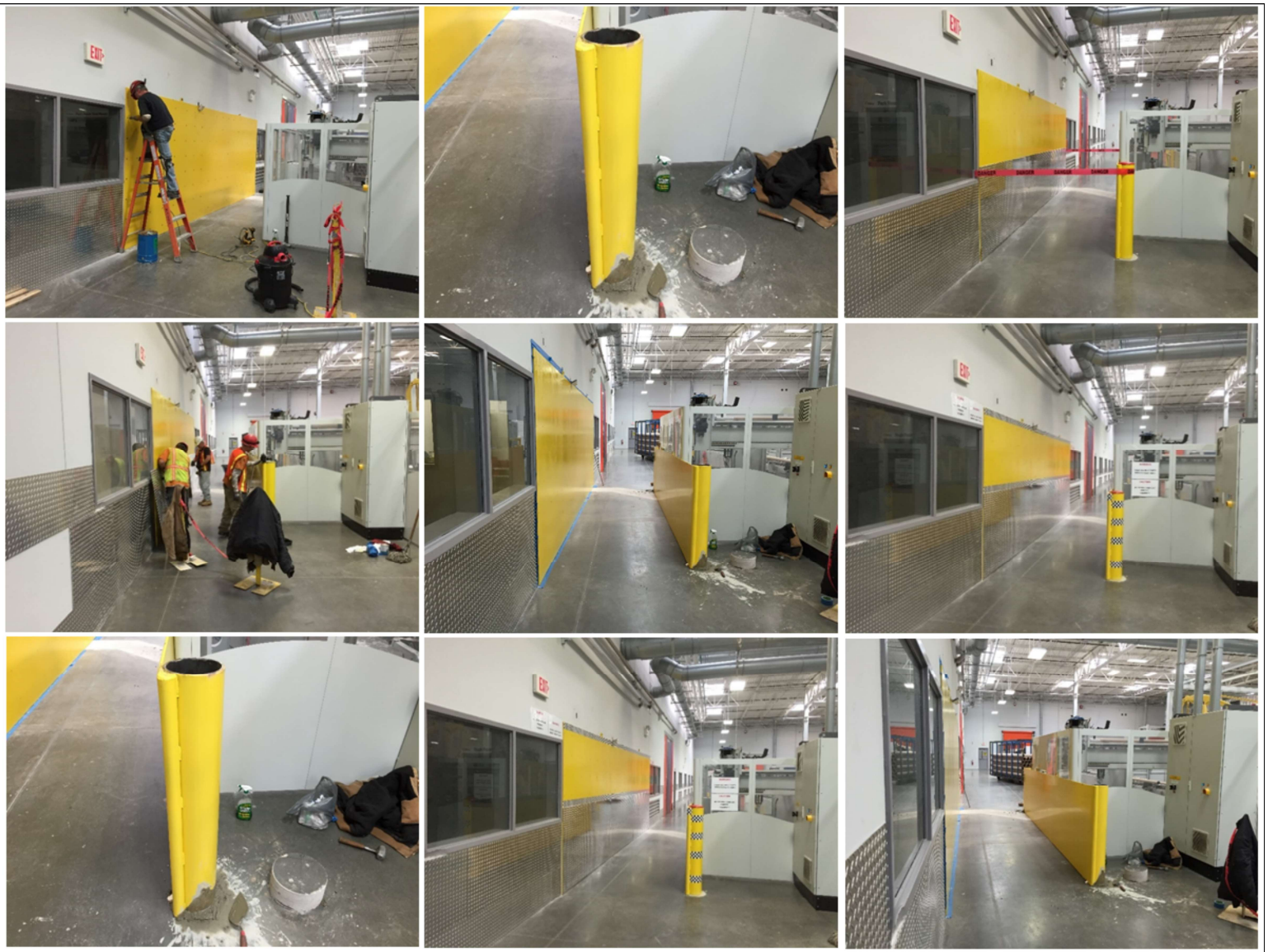
At one of my previous employers we were undergoing an 85 million dollars expansion. A new production line, same as the first production line, but with bigger and better upgrades.

With some materials flows such as re-work roll end cuts and slab off cuts the new plans painted itself in a corner with just this very narrow 16 feet long X 8 feet wide corridor to transport these materials to the re-work area adjacent to the first production line. The only other routing was a very long detour of several hundreds of feet. This small corridor was looked as the Panama Canal or the Suez Canal.

We wanted so much to use this 'strait' corridor as it was such a convenient path straight into the re-work room. I knew that if we used this section the adjoining partition wall and machine guarding panels that the forklift trucks travelling between would in short time just demolish both.

To make this a solution to the trafficking of raw and waste materials I had to beef it up a bit; to protect the wall I used a 8 feet high X 24 feet long 1/2" thick mild plate (special order from the steel foundry) and a 16 feet long X 4 feet high steel plate to protect the machine guarding. To mount that to X 2 120 schedule 8 inch diameter steel pipe 4 feet in the ground 4 feet above ground concrete filled.

The above picture show my concepts and next page show the work being done to completion with bright yellow safety paint and visual safety marking and warning signs to finish.



I've done several warehousing projects before and it is a simple lesson of experience when designing protection guards and bollards and rails that you must design so that a 6 thousand pounds forklift truck travelling at 10 mph bounces off the protection and not yield... You can't over-engineer it...

I made all the load calculations myself as the steel plate weighed 1400 lbs and fastened to the studs in the wall with these specialized hollow wall fastener bolts @ \$7.00 each...

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Hollo-Bolt by Lindapter

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The only expansion bolt with full ICC-ES seismic approval

ICC-ES ESR-3332

Please click here for more information...

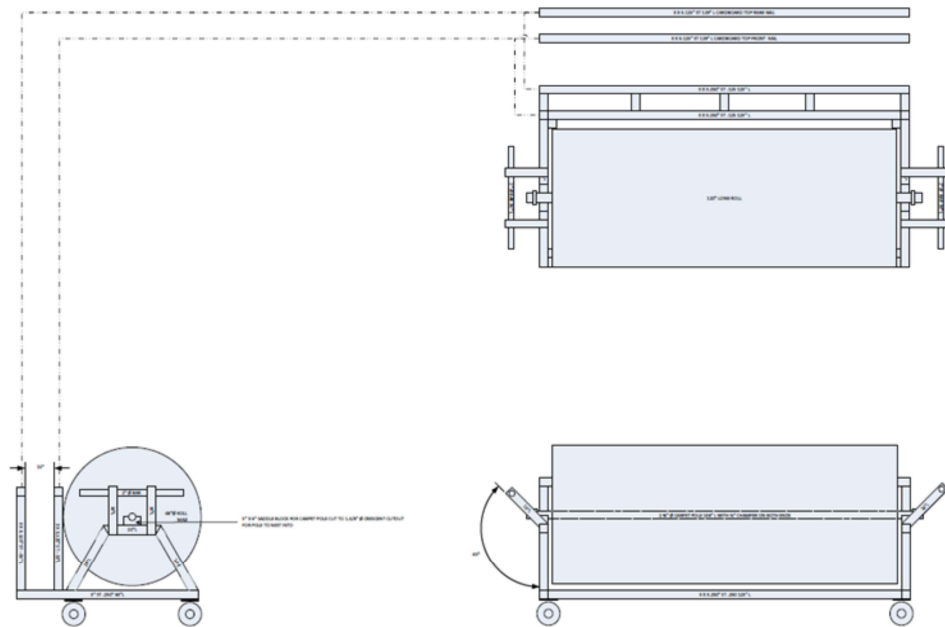
High Clamping Force Hollo-Bolt for Structural Connections

Hollo-Bolt, the original expansion bolt for structural steel offers a faster alternative to conventional SHS/HSS connection methods such as welding or through-bolting, enabling contractors to reduce construction time and labour costs.

The larger sizes M16 & M20 (5/8" & 3/4"), are optimised for structural connections and feature a patented High Clamping Force (HCF) mechanism to produce three times more clamping force than the same sized product without the mechanism. The significance of increased clamping force is illustrated in the video below:

0:31 / 1:14

For product specification data, please download the Brochure from the menu to the left.

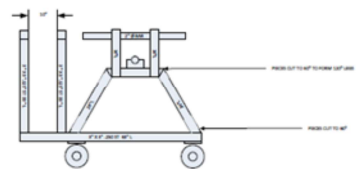
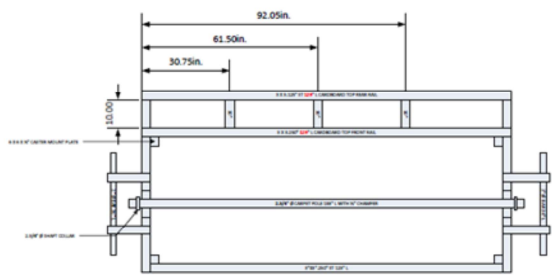


SPECIFICATIONS OF ROLL	NOTE
LENGTH = 10 FT	THE CASTERS WHEELS (2 SWIVEL 2 FIXED) MUST BE 8" IN DIAMETER AND THE TREAD MUST BE OF A HARD DURABLE RUBBER/PLASTIC OR EVEN ALL STEEL OR BONDED HARD RUBBER/PLASTIC ON STEEL OR ALUMINUM (36-38A DUROMETER) TO REDUCE FRICTION SO THE CART IS EASY TO PUSH AROUND AND CARRY UP TO 3,500 LBS.
WIDTH = 48"	
WEIGHT = 1000 LBS	
ROLL SPECIFICATIONS	
ROLL DENSITY = 3.5"	
ROLL DENSITY = 3.5"	
CARRY ROLL SPECIFICATIONS	
CARRY ROLL DIAMETER = 2.75"	
CARRY ROLL LENGTH = 10 FT	

FRED WEBBERKING		WAREHOUSE TRUCK TRAILER LINER ROLL STORAGE CART (ROLL IN PLACE)			
MATERIAL 3" X 3" - 250" 1018 SQUARE TUBING					
SIZE	FORM NO.	DATE REV.	REV.		
3" ANGLE PROJECTION	SCALE	1/32 : 1	DATE	2.0	
			DRW	1 OF 4	

This is my own design of a 4 thousand pounds truck liner roll storage and transportation cart. The current method was to transport the truck liner roll (4 feet in diameter and 10 feet long) on the end of carpet pole attachment which was a pain to attached / un-attach to fork lift truck and line up to the dock and then unroll a length to line the bed of a 53 feet trailer.

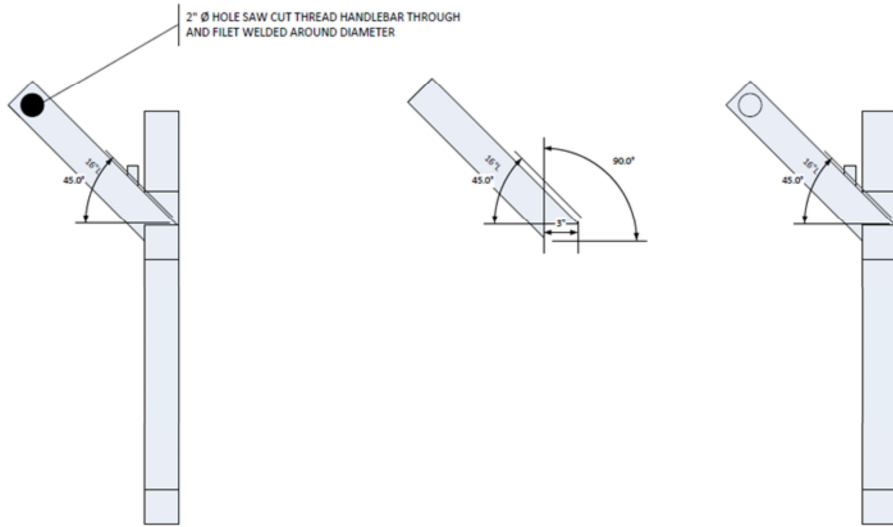
This was my solution that I designed. The following drawings and pictures show the design and final finished cart on the day it was delivered.



SPECIFICATIONS OF BOWL	NOTE
LENGTH = 10 FT	THE CASTERS WHEELS (2 SWIVEL 2 FIXED) MUST BE 8" IN DIAMETER AND THE TREAD MUST BE OF A HARD DURABLE RUBBER/PLASTIC OR EVEN ALL STEEL OR BONDED HARD RUBBER/PLASTIC ON STEEL OR ALUMINUM (55-50KA DUROMETER) TO REDUCE FRICTION SO THE CART IS EASY TO PUSH AROUND AND CARRY UP TO 1,500 LBS
WIDTH = 4 FT	
WEIGHT = 100 LBS TO 150 LBS	
WHEEL SPECIFICATIONS	
WHEEL DIAMETER = 8 IN	
WHEEL TREAD THICKNESS = 1/2 IN	
CARRIER POLE SPECIFICATIONS	
CARRIER POLE DIAMETER = 2 IN	
CARRIER POLE LENGTH = 10 FT	

FRED WEBBERKING		WAREHOUSE TRUCK TRAILER LINER ROLL STORAGE CART (ROLL REMOVED)			
		MATERIAL: 3" X 3" - 250° 3010 SQUARE TUBING			
DATE	PROJECT NO.	DESIGNED BY	ISS.		
5° ANGLE PROJECTION	SCALE: 1/32" = 1"	DRAWN BY	DATE		
		SHEET		2 OF 4	

Truck trailer liner storage cart cont.



FRED WEBBERKING	WAREHOUSE TRUCK TRAILER LINER ROLL STORAGE CART (AUXILIARY VIEW OF HANDLEBAR)		
	MATERIAL: 3" X 3" - .250" 1018 SQUARE TUBING 2" Ø 1018 COLD DRAWN ROUND ROD		
SIZE	FIG. NO.	DWG. NO.	REV.
		N/A	0
3 RD ANGLE PROJECTION	SCALE	1/8" = 1"	SHEET 3 OF 4

Truck trailer liner storage cart cont. Auxiliary view of push bar handle.



Truck trailer liner storage cart. The finished constructed product.