

Shelters & Construction

BASICS

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We have outlined the basic step by step process for the corrugated steel shelter construction with pictures . Following this presentation, we have shown in greater detail, how the process should unfold with either steel tanks or corrugated steel. If you wish to attempt this construction on your own, we would highly recommend that you read our entire manual, [NUCLEAR DEFENSE ISSUES](#).

UTAH SHELTER SYSTEMS is now commercially building and selling any size corrugated steel shelter providing complete protection from earthquake, home invasion, winter storm, nuclear blast & radiation, fire storms, tornado and chemical/biological terrorism. These shelters are built to the specifications in our book [NUCLEAR DEFENSE ISSUES](#). They include two entrances, two hardened blast doors, wood floor, floor coverings, chemical toilet, hardware to hang hammocks, AC & DC electrical system and a large 40 occupant complete ANDAIR chemical biological filter with air filtration system. For ordering or questions, call Sharon Packer at (435) 657-2641 or Paul Seyfried at (801) 280-8303, or e-mail to spacker@netoriginals.com.

Prices for our most popular sizes (not including installation or shipping)	
1-20 occupants 8 ft. by 30 ft.	\$28,690
21-40 occupants 8 ft. by 50 ft.	\$33,900
40-60 occupants 9 ft. by 50 ft.	\$36,900

Step 1. Buy a corrugated steel culvert and weld on end plates:



Step 2. Make two entrances. (They must come down vertically, turn 90 degrees and enter the shelter horizontally):



Step 3. Dig a deep hole:



Step 4. Hire a crane and trackhoe to lift the shelter into the hole:



Step 5. Attach entrances:



Step 6. Fill to at least half way with washed crushed rock (1/2 or 3/4 inch minus):



Step 7. Add 6 inch diameter air vents:



Step 8. Add 180 degree turn to air vent & fill excavation:



Step 9. Install blast door:



Step 10. Install floor:



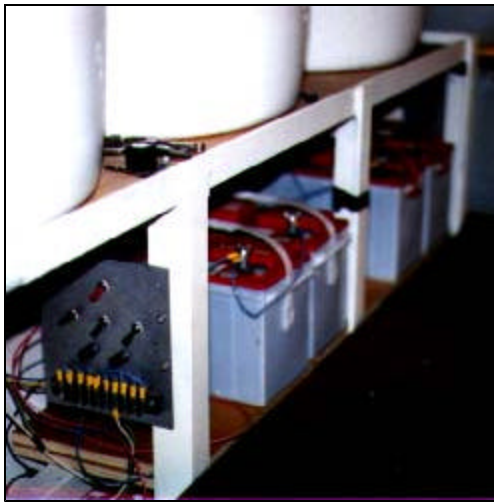
Step 11. Install blast valves:



Step 12. Install Ventilation system with nuclear, chemical biological filter:



Step 13. Install electrical system:



People with rudimentary metal working skills can construct an 8 ft. by 40 ft. steel shelter with two entrances and blast doors for approximately \$8,000. If we construct this shelter for you it will slightly more than double that price. We have found excavation and installation costs to run an additional \$3,500. The air filtration system varies in cost from a few hundred dollars to an additional \$5200 dollars for the Swiss made LUWA Nuclear, Chemical, Biological Filter.

If you wish for us to build the shelter for you, please contact us by phone. Look on this web site under [Contact & Ordering](#).

The basic design, using corrugated steel culvert, was successfully tested up to 200 psi during nuclear weapons tests at the Nevada test site during the 1950s. Properly installed, either type of shelter should withstand a 200 psi overpressure as well as the thermal, blast, and radiation effects accompanying that overpressure range. Weapons effects from a one megaton (one million tons of TNT equivalent) ground burst would then be survivable within 1/4 mile of the crater edge, or at ground zero from a one megaton air burst detonated at a height maximizing blast damage. This design concept was highly recommended by government engineers. The design information, however, reached only a few people and no construction details were made available to the general public.

We researched this design while Sharon was doing her master's degree in Nuclear Engineering at the University of Utah. The [blast doors](#) and [blast valves](#) were designed by local engineers for the volunteer citizens group, *The Civil Defense Volunteers of Utah*, of which we are the founders. We know of no other shelter designs, commercially built or otherwise which have been tested under blast conditions.

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