



# SONOTUBE® Frequently Asked Questions

## How do I know what size tube or tube base and rebar I need for my project and how much weight the column will hold?

Selection of the proper materials and design of the support system for any structure is dependent upon the full design of the structure, the soil characteristics of the job site, local building codes and other job-specific details. A licensed engineer or architect familiar with your project must provide these answers.

## What is the maximum rate of pour?

Our listed standard wall Sonotube (12' length) and heavy wall Commercial (20' length) are designed to be filled in a single lift with no pour rate restriction; however shorter, multiple lifts are recommended to enable adequate vibration for best overall results. For column heights in excess of 20', call for technical assistance.

## Is steel banding or other supplementary support essential for Sonotube forms?

No.

## Can Sonotube fiber forms be used in water?

No. Sonotube forms should not be used in standing water. However, Sonoco's patented RainGuard® technology allows Sonotube concrete forms to withstand wet weather conditions for up to 24 hours. For maximum strength, Sonotube Commercial concrete forms can withstand wet weather for up to 72 hours. When setting forms in wet weather, be sure to cover the top opening to prevent them from filling with water.

## What precautions should be taken when pouring concrete from the top of a very long Sonotube form?

Bracing here is very important to hold the tube in position. Concrete should be placed with an elephant truck or similar means to minimize the free fall of concrete.

## What is the minimum stripping time allowed by most engineers or architects?

Usually 24 hours, but concrete masonry specifications will dictate. Maximum recommended time before stripping is five days.

## Does the Sonotube form have to be stripped from the column after the concrete has cured?

Removal of the form is general practice for exposed column surfaces. In applications below grade, there is no specific need to strip the form unless it is required by local building code. The Sonotube Round form contains no hazardous chemicals and is biodegradable except for the 1-2 mil thick plastic liner on the inside of the form.

## Can a contractor splice together two pieces of Sonotube forms?

Yes. You can slit a piece of same diameter tube 12" long vertically and fit over two sections to be joined. Be sure to strap the tube above or below the joint or run sheet metal screws through the wall.



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## What are the basic requirements for bracing Sonotube forms?

The tube must be securely braced at the top and bottom to hold it in position as well as making sure it will not bend or break in the middle. Generally, lengths up to 12' are usually only braced at the top and bottom. Lengths over 12' usually require additional bracing in the middle of the form.

## How long does it take for concrete to take an initial set?

A rule-of-thumb is one hour, but it can vary widely with temperature and concrete mix. Cold temperatures could delay the initial set by several hours. Retarders and accelerators can be added to the concrete formulation to increase or decrease the set times.

## Does the concrete need to be vibrated?

Yes, proper and adequate vibration is essential to consolidate the concrete, remove entrapped air, eliminate honeycombing and bug holes.

## Where can I buy Sonotubes?

At your local Sonotube distributor. Call Customer Service: 888-766-8823 to find the nearest distributor.

## What is the fire rating for Sonotubes?

Sonotubes are not fire rated as their intended purpose is temporary, single-use concrete forms to be removed from the job site before project completion.

## What is the Crush Value for a Sonotube?

Sonotubes are not designed to carry structural loads. Use of Sonotubes for any reason or application other than their intended purpose is done solely at your own risk.

## How far in the dirt do you have to put the Sonotube? How far does it need to be put into the ground before I start pouring concrete?

The depth of a structural pier is dictated by local building codes. Generally, the base of the pier should be deeper than the frost line and in contact with firm, undisturbed soil. Always check with your building codes inspector and/or a licensed structural engineer.

## How long can the tube sit in water and still work? Can Sonotubes be used in water?

While Sonotubes are manufactured with patented, water-resistant technology, they are not designed to be exposed to standing water for extended periods. We cannot guarantee their performance under these conditions, but realize sometimes this is unavoidable. If ground water seeps into the hole where you intend to install a Sonotube, or if the soil is saturated, we recommend the use of our Sonotube Commercial form, completely sealing the bottom edge of the tube with duct tape, and completing the concrete pour no more than 4 hours after exposure to water.

## Will the tube be an exact 24" in diameter?

Sonotube diameters are "nominal," meaning the inside diameter will be at least the stated diameter, but could be as much as 1" larger than the stated diameter.



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## Where can I obtain LEED documents or recycled content information?

Call Customer Service: 888-766-8823

## What are ACI Specs and how do you find them?

ACI (American Concrete Institute) Specifications must be obtained (purchased) from ACI.

## Where can I get the CSI Product Guide Specifications for your products?

They can be found and downloaded from our website.

## What type of saw do I use to cut a Sonotube?

A handheld circular or reciprocating saw is typically used. You can use a wide, flat band wrapped around the circumference to mark a straight guideline to cut.

## What is full liquid head? What is the burst strength rating of Sonotubes?

Full liquid head refers to the pressure that the freshly placed concrete can exert against the form face while it is in its liquid state before setting. This pressure at the bottom of a Sonotube is approximately equal to 150 lbs/square foot (psf) for every foot of concrete height. Sonotube Round forms are designed for 12' of full liquid head, i.e.: 12 ft x 150 psf/ft = 1,800 psf. Sonotube Commercial and Finish Free products are designed for 20' of full liquid head, i.e.: 20 ft x 150 psf/ft = 3,000 psf.

## Are release agents required?

Although release agents are not absolutely necessary, they can facilitate form removal. We do recommend the use of a reactive release agent. Talk to your distributor for more information on release agents.

## Can Sonovoid Round forms be used vertically? How deep?

Yes, Sonovoid Round Forms can be used in vertical applications. It is recommended that you contact Customer Service 888-766-8823 to discuss your particular application.

## What size Sonotube do I need for a 30' tall light pole?

Sonoco is not authorized or licensed to give design guidance on specific projects or applications. You must consult with a qualified engineer.

## What size Builder's Tube do I need for a 4x4" fence post?

The rule-of-thumb is to use a tube diameter 3 times the post width; therefore, use a 12" diameter Sonotube for a 4x4" post.

## How do I eliminate bug-holes/blow holes?

[Read about eliminating bug holes here.](#)



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## How should I backfill around a Sonotube inserted into the ground?

Backfill soil carefully by hand in layers of no more than 12" at a time, using a hand tamper to pack the soil. Use of backhoes or mechanical tampers could lead to collapse of the Sonotube.

## How much concrete do I need?

[Use our helpful concrete volume calculator here.](#)

## How do I tie down Sonovoids to prevent floating during pour?

Sonovoids must be tied down securely to a solid foundation or to the form bottom. Sonovoids should not be tied down to rebar as this may result in floating of the rebar.

## Where do I get an MSDS or SDS for Sonotubes?

Material Safety Data Sheets do not apply to Sonotubes, but an Article Information sheet can be provided on request. Contact Customer Service 888-766-8823

## How do I install a Sonotube around an existing steel column that is tied into overhead steelwork?

We recommend using two tubes. Cut each tube once along their length. Wrap the first tube around the column, then wrap the second tube around the first tube with the slit on the opposite side of the slit on the inside tube (180 degrees apart). Make sure the slit on the inside tube is closed tight, then screw the two tubes together. We recommend steel banding or cargo straps around the outer tube every 12" or so to hold the tubes together against the internal pressure of the concrete.

## Do you have special instructions for placing concrete in a joined Finish Free Sonotube?

When using "Joined" Sonotube Finish Free column forms, you MUST adhere to the following instructions when pouring concrete. Any other published pour rates DO NOT apply.

- Erect carefully to prevent rebar from damaging interior coating. Brace securely at top, middle and bottom of tube.
- There is no pour rate restriction below the joint, but you CANNOT pour a full liquid head up to 20' when using a "Joined" Finish Free Tube if the joint is below the 20' level.
- When pouring a "Joined" Finish Free tube, you MUST place concrete to 3-4' above the joint, vibrate, then let concrete take its initial set. There is no pour rate restriction below the joint. You may then re-vibrate the top 1-2' of concrete to avoid a cold joint before continuing to pour.
- Once you begin your pour again, DO NOT run the vibrator past the joint, and preferably not closer than 2' from the joint.
- You should not pour more than 6 to 8' per hour above the joint once you resume pouring.
- As with all Sonotube Finish Free column forms, keep each lift to a minimum height and vibrate each lift sufficiently for the best bug-free surface.



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## Can Sonotubes be used as shoring for an excavated hole?

Absolutely NOT! Sonotubes are not designed to withstand the pressure and weight of collapsing soil and should never be used in this manner. Serious injury or death could result.

## What is the wall thickness of your Sonotubes, I couldn't find it on your website? What is the actual outside diameter?

The wall thickness varies by product type and diameter, and is designed according to their intended purpose. The outside diameter will generally be ½" – 1" larger than the tube size, but can be as much as 2" greater as oversize tubes are produced in most sizes to reduce shipping costs.

## If a Sonotube form has a fairly large dent because of handling damage, will the dent straighten out when filled with concrete?

No, the dent should be removed before concrete is poured.

## Why are round columns preferred over other shapes if they are exposed?

- Less view obstruction.
- No sharp corners to chip and break.
- Easily finished.

## What are some of the advantages of Sonotube forms over other types of concrete masonry forms?

- Minimum bracing required.
- Lightweight – easy to handle.
- Good quality finish.
- Can be cut on the job with a hand saw or circular saw.
- With a form for each column, job progress can move as fast as desired.
- Costly concrete trucking charges are eliminated due to the ability to schedule multiple pours in one day, as opposed to fiberglass or steel forms, which require multiple days to pour, depending on the number of columns.

## When are Sonotube forms more economical than steel and fiberglass forms?

- When speed of job is critical for concrete masonry.
- When different diameters are required on the same job.
- When different lengths are required on the same job.
- When the exterior finish is of prime concern.



Still Have Questions? Call 888-766-8823