OUTLET INSTALLATION

Once your liner is in place, the next step is to re-fit the outlets you removed prior to installation of the new liner. Before cutting a hole through the liner, ensure you are satisfied with the fit. Check that there is enough slack around the hole site to prevent the liner from over-stressing around the fitting. There should be no tension on the liner at the fitting. You can release any tension by adjusting the overhang above the fitting.

If your fitting is removable it can be reused, provided it will clamp the liner against the tank wall to make a watertight seal. If the fitting is fixed, it should have been removed prior to liner installation and provision made for a new flanged fitting, prior to liner installation. In most cases, it's simpler to install a new fitting.

FOR CORRUGATED & CONCRETE TANKS WITH REMOVEABLE OUTLETS

STEP 1 – CUT HOLE IN LINER

Cut a neat hole though the liner, slightly smaller than the diameter of your fitting. If the fitting is 50mm (2") in diameter, cut a hole around 45mm (1¾") in size (9)

STEP 2 – APPLY SILICONE

a) Squeeze a good bead of silicone between the liner and the tank wall (10)

b) Between the flange and the liner, use a rubber gasket if supplied with the fitting (11)

c) Insert the fitting from the inside, through the liner and the wall of the tank and tighten it from the outside. As it tightens (12), some silicone will squeeze out between the liner and the tank, to provide a watertight seal.

FOR CONCRETE TANKS WITH FIXED OUTLETS

STEP 1 – MAKE FACEPLATE

a) To create a watertight seal around a fixed outlet, make a faceplate to fix to the wall around the outlet and seal the liner. The best material to use for this is stainless steel but you can use a rigid PVC sheet 6–10mm thick. Cut it out about 100mm (4") larger than the outlet all around. (eg; if the outlet hole is 50mm (2"), make the faceplate 250mm (10") in overall size).

b) Pre-fasten the template to the inside wall of the tank so any drilling is done before the liner is installed. (13) The faceplate will squeeze the liner and the silicone tight to the surface of the wall. You will need to add some silicone between the plate and the liner to prevent leakage through the fastening holes. Make sure you use a non-corrosive fastener like stainless steel dynabolts, nylon rawl plugs and stainless steel PK screws, or other expanding nylon anchors.

STEP 2 – CUT HOLE IN LINER

Cut a neat hole through the liner, slightly smaller than the diameter of your fitting (14). If the fitting is 50mm (2") in diameter, cut a hole around 45mm (1¾") in size.

STEP 3 – APPLY SILICONE AND FIX FACEPLATE

a) Squeeze plenty of silicone between the liner and the tank wall around the hole you have just cut. (15) Push the liner against the silicone sealant and against the wall around the outlet.

b) Put a small ring of silicone around the fastener holes on the back of the faceplate and position over the outlet hole and against the liner. (16) Locate the pre-drilled fastening holes with a nail or small screwdriver. Secure the plate firm against the wall of the tank so the silicone forms a waterproof gasket.

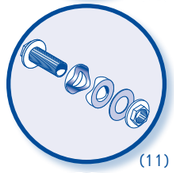
c) Re-trim the liner inside the flange and remove any excess silicone.

STEP 4 – APPLY MORE SILICONE

After the plate is completely fixed to the wall, run a bead of silicone around the edge of the plate and over the fasteners to ensure a watertight seal. (17)


(9)


(10)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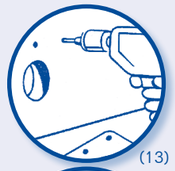
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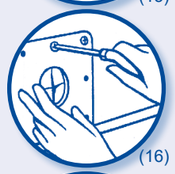
(16)


(17)

FINAL STEP – CHECK LINER

Fill the tank with a small amount of water. Climb inside and check the liner for any high stress points around the base. Release tension if needed by repositioning the liner slightly. Once satisfied, its a good idea to use a small amount of mild soap (ie liquid softly) with a soft, clean mop to wash down the inside surface of the liner. Rinse well with clean water. Drain the tank, then fill with fresh water to the required level. Doing this avoids a 'plastic' taste that can be associated with a new liner if initially only filling to a shallow level.

INSTRUCT8-06-22

Instructions for installing your new ABGAL

TANK LINER

YOU WILL NEED:

- Fixing extrusion (or other fastening method)
- Ladder
- Stanley knife
- Rubber mallet
- Hacksaw
- File (for removing sharp edges)
- Sand / newspaper or geotextile
- Drill (preferably cordless) with 5mm bit
- 1 cartridge of silicone natural cure sealant per 6m of tank perimeter when using extrusion
- Wet/dry vacuum or dust pan and brush
- Heavy-duty PVC tape
- Chalk Stick (optional)
- 5mm pop rivets & rivet gun (or other suitable fasteners)
- Screwdriver/stillson for removing outlet fittings
- Old garden hose and wire (optional)
- Outlet fitting (optional)
- Faceplate to seal around existing outlets (optional)

IMPORTANT: The type of tank you have determines the installation method. Please determine which style of tank you have, and use the appropriate method (CLOSED TOP or OPEN TOP TANK).

A CLOSED TOP TANK has a lid or roof which cannot be removed. These will usually have a manhole for access - as long as you can get inside your tank, you can fit the liner.

An OPEN TOP TANK has a roof or lid that can be removed, or has no top at all.

PREPARATION FOR LINER INSTALLATION

STEP 1 – WATCH THE VIDEO OVERVIEW

You'll find it at www.abgal.com.au/videoGallery or you can scan the QR code to go straight there.

STEP 2 - EMPTY TANK & PATCH

Empty your tank and remove all debris from inside. Look inside at the condition of the walls and floor, to identify any sharp objects or protrusions which may damage your liner if left unpatched. Cover any rough or sharp areas with something that will smooth the tank surface (eg; heavy-duty tape) and therefore protect your liner. Holes larger than 5mm dia. need to be covered with something strong like duct tape, which will prevent the liner from poking through the hole.

A rough tank floor requires a geotextile pad (or other protective layer) laid over it, to protect your liner during installation and beyond.

STEP 3 – REMOVE OUTLETS

Outlets are removed to achieve a smooth surface. If the outlets wont unscrew, you can saw them off.

If your fittings are not removable, prepare the holes now for new flanged fittings or faceplates, before installing your new liner. The outlet installation process is explained in detail on the back page. Please read it before starting the installation process.

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ESTABLISHED IN 1976
Quality Assured Company AS/NZS ISO 9001:2015

REGN NO. 440

ABGAL Liners & Covers

CLOSED TOP TANKS

Using Water Line Fixing Extrusion (Suits Corrugated Iron and Concrete tanks)

NOTE: For closed-top tanks, we recommend that you install a vent (eg; 'whirlybird' type) into the roof, to allow the build-up of heat in the tank to escape. This will increase the life of your liner.

STEP 1 – LINER FIXING SYSTEM

For a closed top tank, you need a liner fixing method which enables you to 'hang' the liner from the internal tank wall. We recommend 'Waterline extrusion' (1). It is a 2 part fixing system used to hold the liner in place around the perimeter of the tank, near the top. Simple to use, it is supplied in 3m lengths and may be cut shorter for ease of handling inside the tank.
Alternatively you can use a baton strip or special reinforced edge to fasten the liner. The baton strip can be a semi rigid plastic or non corrosive metal flat bar, a minimum of 25mm wide x 3mm thick.
Some liners are supplied with a specially welded reinforced edge to secure the liner. These are fastened using TEK screws or other mechanical fasteners so they clamp the liner fabric against the tank wall. On reinforced edge liners, use a large diameter washer with the fastener to increase the clamping surface area against the liner.


(1)

STEP 2 – ATTACH FIXING EXTRUSION

a) The tank liner is usually hung just below any overflow outlets, at the top of the tank. Mark a chalk line around the perimeter of the tank where your fixing extrusion is to be fastened. (2)

b) Position the first piece of extrusion strip just under this line then drill a hole 150mm in from the end, through the extrusion and into the tank. (3)

c) Remove the strip and squeeze a bead of silicone sealant 20mm under the line, long enough for the first piece of extrusion. (4)

d) Now, place the extrusion strip on top of the silicone, using a rivet in the drill hole to locate the exact position. Pop the rivet to secure the strip and continue to drill along the rest of the length of strip, at 150mm intervals.

e) Repeat the above procedure for each length of strip around the perimeter of your tank, ensuring the butt joins are neatly aligned, making a good fit for the insert strip. To fit the last piece of strip, drill the first hole as before in d) then use a rivet to hold one end in place. Mark the exact length you need then remove the strip and trim down with a hacksaw. Remove any burrs from the saw cut then attach the strip to the wall of the tank to finish.


(2)


(3)


(4)

OPEN TOP TANKS

Using the 'overhang' method (Suits Corrugated Iron and Concrete tanks)

An open-top tank is one with no lid or roof, or with a removable lid or roof.
Liner installation is simpler for this type of tank, as the liner overhang can be secured around the outside perimeter of your tank. For a more professional finish, you may prefer to follow the closed-top tank liner installation procedure (above).

STEP 1 – CHECK FOR SHARP EDGES

In addition to the initial tank preparation, check the rim of the top of your tank for rough or sharp edges that could damage your liner. For added protection, you may cover the edge with a few layers of heavy duty PVC tape. If you have a corrugated iron tank, we recommend using an old garden hose slit down the centre, opened up and pushed onto the top edge of the tank.

STEP 2 – INSERT ABGAL LINER INTO TANK

Place the liner inside the tank. Open it up, unroll it, and position the base of the liner centrally on the floor of the tank. Locate the seam perimeter where the floor of the liner meets the wall, to assist with alignment.

STEP 3 – REMOVE ALL DEBRIS FROM INSIDE TANK

With a vacuum or dustpan & brush, remove all debris from the installation of the fixing extrusion. Prepare the floor with a layer of fine sand, newspaper or an ABGAL "TankPad" geotextile, to protect your liner during installation and beyond.

STEP 4 – REMOVE LINER FROM BOX

On the lawn, put down a protective sheet, then remove your ABGAL Tank Liner from the box. Unfold it then roll it into a long roll which you will pass through the manhole and into the tank. (Use an old towel draped around the manhole to protect the liner from sharp metal edges if necessary). Pass the liner through the manhole into the tank.

STEP 5 – UNFOLD THE LINER

Once inside the tank, unfold the liner across the floor. You'll need to find the seam perimeter where the floor of the liner meets the wall. This will enable you to centre the liner in the tank before you attach the wall of the liner to the top of the wall of the tank.

STEP 6 – HANG THE LINER

Take the top of the wall of the ABGAL liner and lift it up to meet the extrusion strip which is fastened against the tank wall (5). Make sure there are no diagonal wrinkles, as these mean that the top of the liner is not square with the base. If diagonal wrinkles appear, move the top of the liner in the opposite direction to correct the wrinkle. Ensure there is sufficient slack in the wall of the liner so there will be no stress on the liner around the tank fittings or where it meets the floor.


(5)

STEP 7a – CLIP INTO PLACE USING EXTRUSION

a) Using the male insert part of the Waterline extrusion, clip the liner into place (6). Do not hammer the insert into the extrusion as it may cut the liner. If it is aligned properly it will 'slip' into position by pushing on it with your two thumbs. Once you have inserted the start with your thumbs, you can use the rubber mallet to gently 'tap' the male insert into place.

b) Start the next length with your thumbs then use the mallet. It is important to align the male insert with the female extrusion before pushing it into place. If it is not aligned and you force it, you can damage the liner.

c) Continue around the perimeter of the tank until the liner is completely fastened. You may have to gather the vinyl a little as you go. If there is too much to stretch or gather in any one area, you'll need to unclip part or all of the liner and refasten it.

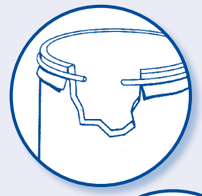

(6)

STEP 7b – FASTENING LINER WITH BATON STRIP OR SPECIAL REINFORCED EDGE

Using fasteners like TEK screws or rivets, drill through the baton/liner and secure the fastener at four evenly spaced points around the perimeter of the tank. (Eg. 3 o'clock, 6 o'clock, 9 o'clock & 12 o'clock) This will ensure the liner wall is even in perimeter. Work between the points to secure the liner with even looseness until the liner is fastened at approximately 200mm intervals. You may have to gather the liner a little as you go. If there is too much to stretch or gather in any one area, you'll need to un-fasten part of the liner, adjust and re-fasten it. That is why it is important to use the 3, 6, 9 & 12 o'clock method to evenly position the wall. This spacing of 200mm between fasteners will provide adequate support for the liner around the perimeter of the tank if done correctly. The objective is to provide enough support on the top edge of the liner for when the tank is filled - if you have any doubt, use more fasteners.

STEP 3 – HANG THE LINER

Pick up the edge of the liner and fold it over the top of your tank, with an overhang of at least 100mm (4"). As you fold it over, make sure there are no diagonal wrinkles, as these mean that the top of the liner is not square with the base. If diagonal wrinkles appear, move the top of the liner in the opposite direction of the wrinkle to correct it. Adjust the overhang so the liner is loose in height, to allow for any take up when the tank fills with water.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STEP 4 – FASTEN LINER TO TANK TOP

Fencing wire is very good for securing the liner to the tank (7). The wire should be threaded through a garden hose, then tightened around the outside of the tank on top of the liner overhang. (8) (Threading the wire through a flexible garden hose prevents the wire from cutting into the liner, plus it has the added benefit of being weatherproof. You can also use rope, but this will not be as durable as the wire/hose method.


(8)