FLAT ROOF REPAIR CUT COST WITHOUT CUTTING CORNERS





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CHAPTER 1 FLAT ROOF REPAIR - CUT COST WITHOUT CUTTING CORNERS



FLAT ROOF REPAIR - CUT COST WITHOUT CUTTING CORNERS

Finding the right flat roof repair option for your building to stop leaks and stay in budget will require some thought, some good advice from knowledgeable roofers, and some investigation as to what your best route might be. So the next time you're moving equipment, inventory or personal around roofs leak or hanging tarps inside to redirect the drips, consider these three flat roof repair options:

- 1) PVC Flat Roof Recovery System
- 2) Flat Roof Tear Off
- 3) Targeted Repairs and Maintenance Even on Leaking Flat Roofs



PVC Flat Roof Recovery System

Recovering your existing flat roof with a PVC membrane is one of the highest value flat roof repair options on the market today. Not only does the white membrane stop pesky leaks, it can be installed over top of your current roof saving you the cost, mess, and building disruption of a tear off. To put it into perspective, a roof tear off usually accounts for about 50% of the over all cost of a flat roof repair project. The cost savings added, the fact that your building and its contents are never exposed to the elements, and the 15 or 20 warranty make a PVC recover an outstanding way to cut flat roof repair cost without cutting corners.





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So you can lay over your existing flat roof and save up to 50% on flat roof repair? It sounds too good to be true, so what's the catch you ask? Your existing flat roof must NOT be saturated with moisture. The flat roof recover can only be used to repair flat roof that are dry. That doesn't mean that you can have leaks in the roof it just means that these leaks cannot be so sever that they have thoroughly saturated the existing roofing material; If your flat roof is saturated or already has multiple roofs it should be torn off .

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Flat Roof Tear Off

A tear off will cost more than a flat roof recover, it will take more time to complete the roofing project, and it creates more of a mess but sometimes it's the only way to correctly repair the buildings roof. A flat roof Tear off can have several advantages over a flat roof recover system Like getting the heavy, saturated roofing material off the building and getting a chance to inspect and repair the roof decking as needed. Removing the old roof also gives you the opportunity to properly insulate the building and is a good time to demo out and remove any old mechanical equipment skylights, or plumbing that is no longer needed or used. So where's the cut cost without cutting corner part of this deal you ask?



Don't be tempted to lay over top of or recover a saturated flat roof, it will cause you much trouble in the future. The trapped moisture will quickly rot out wood decking or rust out metal decks, the new roof won't last as long as it should and the next time your up for a tear off you'll be handling even more debris and layers of saturated flat roofing material.



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Targeted Repairs and Maintenance Even on Leaking Flat Roofs

It very well may be the case that your existing flat roof is past its service life and is worn completely out but your budget won't allow you to make a large flat roof repair. I get it, you cant spend what you don't have. However one of the worst mistakes building owners make when handling flat roof repair is to completely abandon the roof. Because the roof is old and leaking and they anticipated a flat roof repair in the future, they stop spending money on the old roof and just let it go. Just letting the building leak will greatly jeopardize the chance that you could choose the cost savings PVC flat roof recover option but even if your planning on a tear down your best to at least control leaks. Removing saturated flat roofing debris is much tougher and will cost more to dispose of.

Instead of letting the roof go, use the leaks as an opportunity to build a relationship with a flat roofing company. You can "try out" a roofing company on smaller, lower dollar amount repairs. You can learn how they operate and what kind of service they provide before you hire them for a larger flat roof repair.







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Recovering your existing flat roof with a PVC membrane may be the best way to stop frustrating roof leaks without spending a fortune on flat roof repair. The PVC flat roof recovery system saves the cost of a full tear off, comes with either a 15 or 20 year warranty, and has a complete line of accessories like HVAC curbs, stack flashings, pitch pans, and even roof vents so the system can breath. The installation process is simple, quick and clean. It does not require any loud equipment, dangerous chemicals, or cause disruption to the building's activities.

Read more about how it works then you decide if its a flat roof repair option worth exploring more.



CHAPTER 2 PVC RECOVER SYSTEM HOW IT WORKS



Step One: Taking Core Samples

The first step in a flat roof recovery is to verify that the existing roof is not wet or saturated with moisture. This is done by taking core samples of the existing roof down to the roof deck. The core sample can tell us more than just if the roof is saturated or not, it also tells how thick the existing roofing is, how much roof insulation is on the building, and how many layers of roofing there are if more than one.



Step Two: Choose a Recovery Board

A recovery board is the material that will separate the old roofing from the new. It can be a ridged 1/2 board great for heavy foot traffic and or solar panels, it can be a more flexible insulation board designed to recovery tar and gravel roofs, or it can be a simple slip sheet that will keep one membrane off of another. The selection of recovery board should be based on the roofs intended use. The most common recovery board used is either 1/2" or 1" roof insulation, not only does it serve to separate the old roof from the new you also get some added continuos R-value to the building.





Step Three: Remove Old Flashings

The old flashings are removed so that new flashing around HVAC units, plumbing pipes, and gas lines fit snugly and are terminated directly to the curb or pipe they are going around. One great piece of the flat roof recovery system is that the flashings are not one size fits all but they are custom sized to get the best fit and function possible.

Step Four: Install The New Membrane

Once the recovery board is laid out and installed and the old flashings have been removed the membrane can begin to be installed. The new PVC membrane can come either in 5' rolls or in larger pre fabricated sheets. The rolls are better for smaller flat roofs with many HVAC curbs, pipes, gas lines, drains, and grease vents like restaurants and certain manufacturing facilities but the larger pre fabricated sheets are better for larger and more open flat roofs.





Step Five: Install New Flashing

After the new white membrane has been installed its time for the new flashings including the wall flashings. Wall flashings are designed to cover the entire wall and go "up and over " sealing even the wall cap. Next HVAC curbs are installed and terminated, plumbing pipe flashings are put on and roof drains are flashed in.







Step Six: Hot Air Welding The Seams

One of the most crucial parts to any flat roofing system is how the pieces and parts are seamed together. The PVC flat roof recovery system is seamed together by means of a hot air weld or hot air seam. Hot air welding is done by two ways, either a hand welder or automated walk behind welder but the concept is the same. Hot air is blown between the two pieces of PVC and compressed with a roller. The heat briefly changes the solid PVC material into a liquid and the pressure of the roller pushes and blends the melted material together. As soon as the heat is removed the blended PVC material cools off and returns into a solid and the two pieces of PVC roofing material are now one piece or monolithic. It takes less than 10 seconds for a hot air weld to cool off and reach full strength. The PVC material welds somewhere between 250 and 300 degrees Fahrenheit.

Step 7: Install Metal Trims

The PVC Flat roof recovery system works great with either a full coping cap or a half coping. The metal trims on the outside of a building not only protect the wall and keep water from entering from the top but the metal looks great and adds curb appeal to any building. Metal trims come in 35 different colors to match just about any type of facade or color scheme.



Step 8: Pull The Welds And Clean Up The Job Site

After the new membrane is down, flashings installed, and metal trims in place it's time to "pull" the welds. All of the hot air welds are probed to ensure a permanent water tight seal was created. Any lifts or openings in the seams that are found are fixed at this time. The goal is for the welder to create an 1 1/2" thick weld along the seams. Loose debris, like the old cardboard tubes and the membrane, were shipped on and the plastic wrappers are cleaned up and the flat roof recovery job is compete.







Flat Roof Repairs are usually not cheap but with a little help to know how it doesn't have to be a budget busting event, and the best part is you won't have to sacrifice quality or cut corners to save.

Follow these 8 Flat Roof repair Strategies to Cut cost without cutting corners:

1. Recover The Old Flat Roof

The number one way to reduce flat roof repair cost is to recover the existing flat roof without doing a tear off. This approach means a faster installation, reduced labor cost, and minimal disruption to your building's activities. Seriously consider a PVC flat roof recover.







20 Year Flat Roof Without The 20 Year Cost

Flat roofing membranes are measured in thickness and the thickness usually determines the life span of the roof. One great way to reduce flat roof repair cost is to upgrade to the thicker membrane without buying the additional warranty coverage. For example if a 40 mil membrane comes with a standard 15 year warranty but the 50 mil and 60 mil are 20 year products, you can upgrade to the thicker membrane but not purchase the additional 5 years of extended warranty coverage.

3. Go Up and Over Walls

Using the membrane to go up and over the parapet walls not only encapsulates your building's entire perimeter, it keeps you from having to tuck point and grout the masonry walls and wall caps in the future. The flat roofing membrane up and over the front edge of the wall can be sealed off with a coping cap. Going up and over the walls will stop leaks and the metal coping will enhance the look of your building.



4. Half Coping Instead Of A Full Coping Cap

Using a half coping cap will give you the look and protection of a full coping cap at about half the price. The half coping is also an easy detail to install.





5. Two Layers Of Roof Insulation Instead Of One

If you would prefer 4 "inches of new roof insulation but only have the budget for 2" inches, at least you can split the layers and stagger the joints. Two layers of 1 "inch roof insulation with staggered seams is much better than the one layer of 2" inch roof insulation both in R value performance and air leakage.



6. Remove Unused HVAC Equipment

Take out any and all plumbing stacks, HVAC equipment, Skylights, or antennas that are not being used. Removing the clutter from the flat roof not only means less things to leak around but it also means you don't have to flash around those old pipes





7. Pick Up The Gutters Now

When flat roofing ends at the edge of a building with gutters the membrane is usually terminated into the back of the gutter using sealant and screws into a termination bar. This seal needs to be water tight so that if the gutters back up the water doesn't run back under the flat roof. If you are planning on replacing the gutters in the future you are better off replacing them during the flat roof repair and not after.





8. Keep The Old Roof Dry

If you find yourself in the planning and budgeting phase of a flat roof repair project do your best to keep the old roof as leak free as possible until you are ready to repair it. It's tough to justify spending money on a flat roof that is soon to be repaired or replaced but going back to point number one of this blog, a recover is the top way to cut cost without cutting corners on flat roof repair. The deal breaker for the flat Roof recovery system is that the existing roof cannot be saturated with moisture. So do your best to keep the roof and building dry so you can use the recovery system as an option. Moving over to a flat roof tear off because the existing roof is saturated will increase your repair cost by as much as 50%.





Tearing of a flat roof is a job now, and anybody that tells you different obviously hasn't done it. But your job here is ensure that the repair project moves along as smooth as possible staying on time and budget. Successful flat roof repair projects don't just happen, they're planned and then the plan is executed correctly.

Here are 5 no nonsense flat roof repair project management tips:

- Just In Time
- 2 Know Your Limits
- 3 Water Tight Tie In
- 4 Give Your Folks Access
- 5 Prep Your People



1. Just In Time

I am very much a fan of "just in time" manufacturing processes and material handling but not when it comes to a flat roof tear off. Make sure all the necessary flat roofing material is on site and ready before the flat roof is removed. You don't want any hang ups once the roof is exposed. This may even include wood or metal decking to be on site especially if you believe you could run into some rot. Allow space for material staging at your facility whether on the ground of up on the roof.

2. Know Your Limits

Each flat roof company is a little different, their staff is a different mix of guys, and will have different production capabilities. Make sure you discuss this with the project manager and find out what size of an area they plan on removing each day. Ensure that they are able to replace that amount of flat roofing material they remove each day so that the building and it contents are not exposed to rain or snow.

4. Give Your Folks Access

Removing the old flat roofing debris from the building will require space. It may mean closing a side walk or entry way to the building for a time. Try to let the roofing company have easy access to the site and dumpsters within close proximity to the building. It will greatly speed up the job and help keep the site cleaner. Work with the roofing company to figure where they need to place dumpster and balance that with your need to keep your operations flowing.

3. Water Tight Tie In

Along the same lines of knowing your limits, try to figure our where the days production will end and make sure that it doesn't end over top of a crucial area of your facility. During a flat roof repair job that involves a tear off, a tie in will be made each day connecting the old roofing with the new. Sometimes these tie ins are tricky and could be a problem during a heavy rain event. Talking with your flat roofers about where not to make a nightly tie in may save you if storm clouds move in.

5. Prep Your People

Let your people know that roof work is coming up and that there may be more noise than usually or certain areas around the building may be blocked off from parking. When folks working inside the building are given a head ups notice about roof work they tend to react better. People like to know what's going on around them and it's very easy to let them know the plan.



CHAPTER 5 HOW MUCH FLAT ROOF REPAIR COST?



At first glance it seems like there are literally hundreds of flat roof repair options and products on the market. It can be a daunting task to sort through page after page of information about the features and benefits of each product and each commercial roofing company has a different solution as to how to best repair your flat roof. But at the end of the day, there are really only three options.

more

- 1 Fix the roof you have
- 2 Recover the roof you have with a new membrane
- 3 Tear off your old roof and start over



Fixing the roof you have with targeted repairs

Going after specific leaks on a flat roof is the least expensive repair option averaging somewhere between \$200-\$600 dollars depending on how hard the leak is to find and the amount of material required to fix it. Budget more for large sized flat roof repairs and maintenance projects which require more flat roofing material and more labor to get building dry. However, the great thing about targeting specific flat roof leaks, especially if you have more leaks than money, is that you can prioritize repairs. For example, you may want to make good use of a limited budget by tackling leaks in your showroom first, then if able to move onto leaks in the shop area where they are important but not as important as leaks in the showroom. Prioritizing roofs leaks can be a great way to maximize a smaller budget.











Recovering your existing flat roof with a PVC membrane

Recovering a roof with a white, PVC membrane is the best value flat roof repair option on the market today. Ranging from \$2.50-\$4.00 per SqFt. installed it's a long term solution, 15 or 20 year, and much less expensive than a flat roof tear off. PVC recovers give you the most bang for your buck. Keep in mind the parapet walls can also be recovered with PVC stopping leaks in and around masonry walls and caps. New metal trims such as metal coping caps or 2 piece snap metal edging can also be used to enhance building appearance and curb appeal. You can even add insulation to the existing roof system during a recover.

Factors that drive the cost of a PVC flat roof recover:

- if adding insulation to the building
- new metal edge trims or coping cap
- size of flat roof to be recovered
- how "wide open" a job is or how many HVAC curbs, stack flashings, and roof drains there are



Flat roof tear off

Tearing off a flat roof and starting from scratch will be your most expensive flat roof repair option averaging somewhere between \$4.00-\$8.99 per SqFt. installed. Tear offs cost more not only because they require more labor and dumper fees, but also the roof insulation must be replaced and insulation is expensive. But choosing to skimp or not insulation at all will cost you in building performance and high heating and cooling cost in the long run.

Factors that affect the cost of a flat roof tear off:

- number of layers and type of roofing to be removed
- how much insulation will be installed
- does any decking need to be replaced









THANK YOU

Contact us for a free consultation estimate today!

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