Concealed Duct Plenum Kits

Instruction Manual

KIT-BPK12
KIT-BPK18
KIT-BPK24
KIT-BPK36

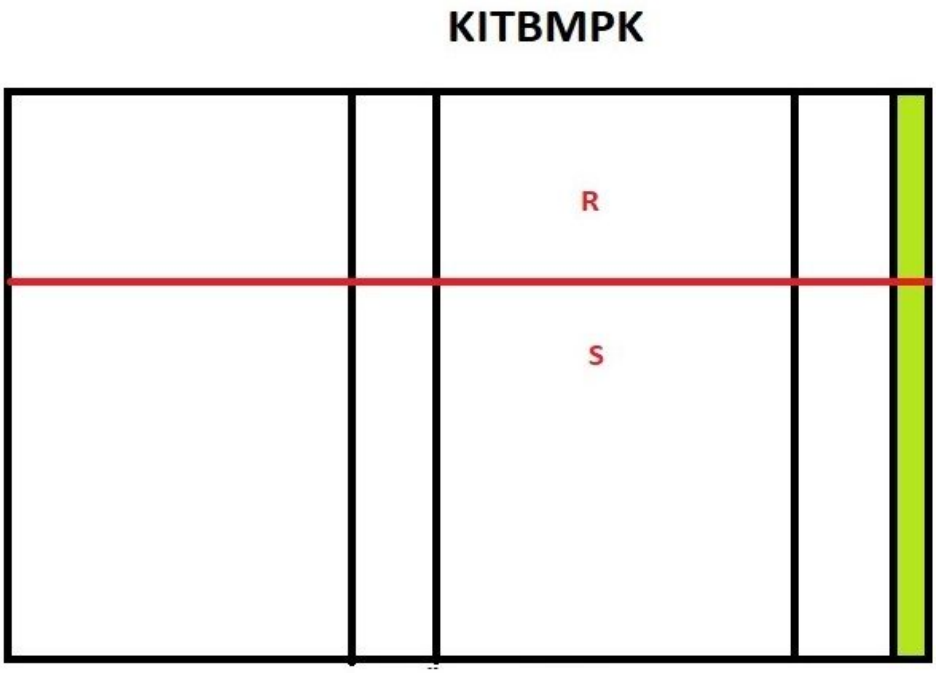
Thank you for purchasing a ductboard plenum kit from Alpine Home Air Products. These kits consist of two pre-cut pieces of ductboard material and two 28 Gauge S-Cleats, from which you can make a Supply and Return plenum for your Blueridge Concealed Duct unit. These kits are correctly sized to fit the unit you purchased.

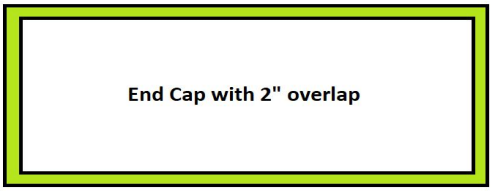
What you will need:

- Blueridge concealed duct kit
- Ductboard knife (serrated edge)
- Foil tape
- Duct Sealant

Box contents:

1. Supply/Return ductboard with V-trench cuts. Ductboard end cap piece.
2. x2 28 Gauge S-Cleat

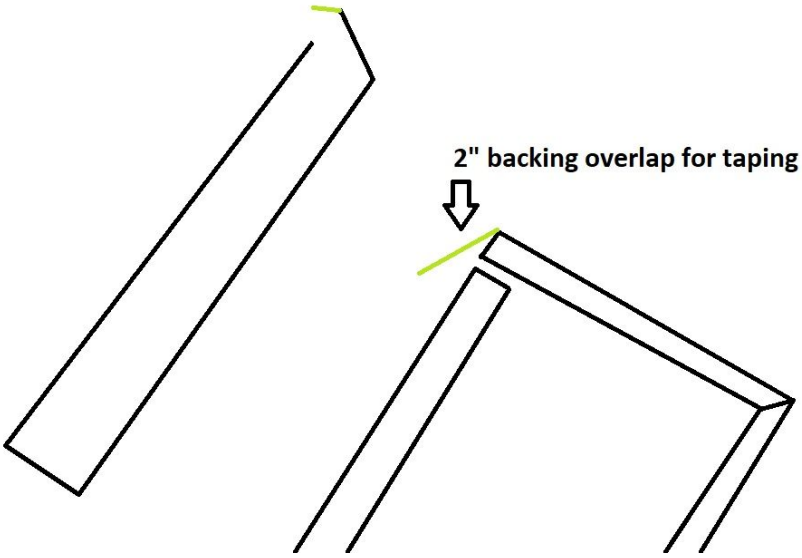




Color legend:
Red - Guide line for separating Supply and Return
Green - Insulation removed to leave a 2” overlap of backing only

Step 1. Using a serrated knife, cut to separate the Supply and Return plenums. Using the pre-marked line will give you a 30” Supply and an 18” Return. You can make your own marks and change the length to suit your particular installation.

Step 2. Lay out the Supply plenum with foil backing side down. Fold along the V trench cuts to create a box shape. Align the backing-only lap joint as shown to create a box with rectangular shape.



Step 3: Use foil tape to close up the plenum. Be sure the joint is as depicted above, and the resulting plenum shape has 4 right angles.

Step 4: Attach the end cap by inserting the insulation side into either end of the supply plenum. If the fit is too tight, use your serrated knife to bevel the insulation until you get a nice snug fit all the way around. Use the backing overlap to make a good taping surface and secure with foil tape. You now have a 5 sided supply plenum, ready to attach to the supply opening of your concealed duct unit.

Step 5: Repeat Steps 2 and 3 to create a Return Plenum.

Step 6: Use the serrated knife or ductboard hole cutting tool to cut holes for attaching duct takeoffs.

Step 7: Attach duct takeoffs according to the table below. Insert the tabbed end of the takeoff into the plenum and bend the tabs to make a secure fit. Finish with tape and mastic for an airtight seal.

Air handler model	**Recommendation for # of takeoffs and diameter takeoffs**
BM12MCD	3 six inch ducts, or 2 seven inch ducts for the supply and a minimum return of a 10 inch duct and a preferred return of a 12 inch duct
BM18MCD	4 or 5 six inch ducts, 3 seven inch ducts, or 2 eight inch ducts for the supply and a minimum return of a 12 inch duct and a preferred return of a 14 inch duct
BM24MCD	7 six inch ducts, 4 seven inch ducts, or 3 eight inch ducts and a minimum return of a 14 inch duct and a preferred return of a 16 in duct
BM36MCD	5 eight inch ducts, or 6 seven inch ducts and a minimum return of a 16 inch duct and a preferred return of an 18 inch duct.

Step 8: Attach the Supply plenum to the concealed duct, fitting around the flange. Attach with S Cleats and seal with mastic. Put one S-Cleat on top of the plenum, above the flange, and you'll screw 3 screws into that flange through it. 1 at each end, 1 in the middle. Just tight enough to provide some tension by that cleat on top of the plenum down to the flange and you can repeat on the bottom side. Option - use sheetmetal screws into the flange for a more secure attachment. Still use mastic for air sealing.

Step 9: Attach the Return plenum by butting it up to the return opening. There are no flanges on the return side, but the Return plenum is the same size as the unit chassis, and can be taped on directly. We recommend that you remove the filter screen and reattach further upstream in a location you can access for maintenance, such as the return register.

Note: Ductboard is subject to minor tears and dents in shipping, or while being worked. These can easily be patched with foil tape. A good, airtight plenum is the most important consideration.