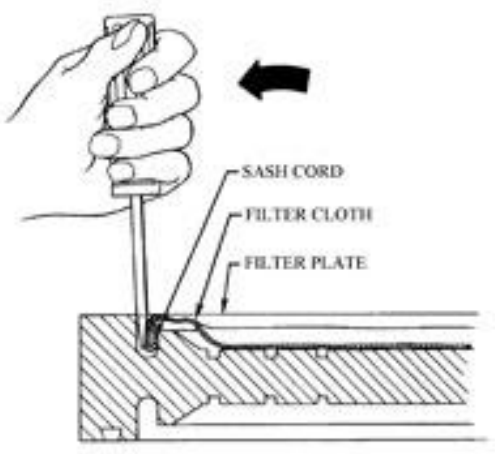
Filter Press Cloth Maintenance

Removal of Cloths from Intermediate Plates

Removing Cloths from A Gasketed (CGR) Plate: https://youtu.be/zkp1xWU34LM

First, remove the used filter cloth. To remove a filter cloth from a gasketed plate, insert a thin bladed screw driver into the groove at the outer edge of the caulking and pry out a small section of the cloth. Grab the sash cord caulking with a vise grip pliers and pull the remaining cloth out of the caulking groove. Do this on both sides of the plate. Pull the cloth through the center feed eye of the plate. After the cloth is removed, inspect and remove any accumulated solids from the groove before inserting the new cloth.



Removing Cloths from A Non-Gasketed (NCGR) Plate:

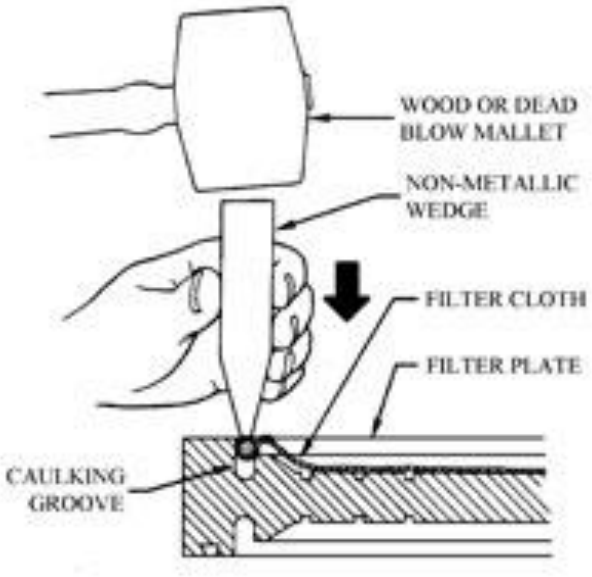
To remove a filter cloth from a non-gasketed plate, use diagonal cutters or snips to cut the ties (if supplied) on the vertical sides and lift each side of the cloth off the cloth-pins on the top edge of the plate. Pull the cloth through the center feed eye of the plate.

Installation of Cloths onto Intermediate Plates:

On both gasketed and non-gasketed plates having a center feed eye with sewn centers, you will need to fold the cloth on one side into a small section so that it can be inserted through the center feed eye. Once you pull the cloth through the eye, unfold it for caulking on the gasketed plate, or hanging on the non-gasketed plate.

Installation of Cloth on a Gasketed (CGR) Plate: https://youtu.be/oAZDNhDkuD4

On gasketed plates, place the cloth against the plate and tap in a small section of the sash cord or O-ring on the top to hold the cloth in position. Line up and caulk the diagonal sections first to ensure proper alignment of the cloth. Distribute the caulking one the sides, top and bottom by caulking in the center of these long sections first. Proceed to insert the balance of the caulking, ensuring that the caulking is distributed evenly. Even though there may appear to be a surplus of material, this can be worked in easily.



The tool for installing the retaining material (o-ring caulking and sash cords) is a simple wedge of polypropylene, a medium hardness air hammer, or some other non-shattering type material. The recommended size for the tool is 25mm thick x 75mm wide x 200mm long with one end tapered down to 5/16” (8mm) thick. Do not use a metal wedge since this may damage the cord or filter cloth.

Installation of Cloths on a Non-Gasketed (NCGR) Plate:

Lift the cloth over the cloth dogs on top of the plate. Then join the two edges on the sides of the filter plate with wire ties or similar clips.

Installation of Head and Tail Cloths

Unlike intermediate filter cloths, the end-plate (head and tail) cloths do not have a sewn-in center feed eye. The end-plate cloths would be installed as described in the previous question; however, the head-plate cloth must have the center feed hold cut before installation.

To do this, remove the old head cloth by first removing the center feed assembly's clip nut. Then, tap the corners of the new end-cloth into the head-plate making sure it is positioned correctly. Cut out the cloth around the center feed pipe using the equivalent of a hot knife, soldering gun or the like. This will seal the edges of the cut to prevent possible fraying of threads in the cloth. After the hole has been cut, finish installing the head cloth, then re-attach the clip nut.

Washing Cloths

Washing cloths may be necessary for several reasons; i.e., blinding of the cloth through the use of lime or dirt. Filter cloths should be washed when the initial filter feed pressure exceeds 40-50 psig, as this indicates the cloths are plugged or blinded.

Power Washing

Cloths can be washed with a high-pressure spray gun while they are still on the plates.

Washing Machine

It may be necessary to first use an HCL treatment beforehand if there is lime or chemicals in the cloth. First wash a tail cloth as a test to make sure detergent is not so strong as to damage the fibers of the cloth. Polypropylene or polyamine cloths should not be washed in a temperature above 120°F, as they may shrink. Do not put cloths in a dryer, the heat may cause shrinkage.

An HCL treatment consists of first washing the cloths with water, then letting cloths remain in a 1-5% HCL solution until the bubbling stops, followed by a second washing with water.

Gasketing Replacement

If the O-ring gasket around the periphery of a filter plate or around the ports is frayed, shredded, worn or damaged, it should be replaced in the following manner: Remove the old gasket material. Thoroughly clean all surfaces. Make certain that the starting end of the new gasket material is cut square, and then insert it in the gasket groove, starting at the bottom center of the filter plate. Use a wood or plastic mallet to drive the gasket into the groove. Do not stretch the material to make it easier to install, as it may shrink over time, opening the end joint.

When the gasket groove has been completely filled, overlap the remaining material about one half inch before cuffing it off. (Make sure that this end is also cut square.) Use a quick setting rubber cement to bond the two ends together and hold them for a minute or two for the cement to set. Then force the excess material into the groove. This will ensure that the ends do not separate later.