LAB SCALE 316 STAINLESS STEEL PRESSURE FILTER

Using the simple Trent pressure cylinder is a quick and efficient way to test slurries for their filterability and/or to quickly run filter cloth comparisons before committing to full-scale evaluations.

Trent Filtration has developed a small unit for this purpose. It is easy to operate and can be set up permanently or transported to site in a self-contained shipping case, provided with the filter.

METHOD OF OPERATION

Close off any air pressure to the filter and slowly open the bottom filtrate discharge valve to release any remaining pressure. Remove the bottom cloth support plate by unscrewing the retaining ring and place the filter cloth with the cake side up. Screw back the retaining ring making sure that the cloth is sealed against the ‘O’ ring in the filter housing (look down the tube from the top).

Close the top “open/close” valve then close the bottom filtrate discharge valve. Remove the top ring and pressure plate and pour in the slurry to be tested. Replace the pressure plate and tighten against the ‘O’ ring in the filter housing.

Apply regulated air pressure to the unit (100psi maximum). Open the top valve and, when ready, open the bottom valve. A suitable measuring beaker should be used to collect the filtrate that will discharge from the filtrate outlet bib. A flexible tube may also be attached to direct the flow as required.

Time the flow from start to finish and note any variations between either the different slurry formulations or different filter cloths being tested.

Visually examine the filter cake formation and test the filtrate liquor for clarity. Many comparative tests may be made in a relatively short time, making this unit a convenient way of addressing filtration questions. The unit is supplied with one set of filter cloth styles and free test cloths are provided throughout the life of the filter.