

Filter Press Cleaning

With environmental legislation imposing even tighter restrictions on the treatment of industrial wastewater, effective filtration is increasingly being seen as an essential part of the overall treatment process. In order for filter presses to satisfy the purpose for which they are designed, that being to separate solids from liquid and form a filter cake, each filter cloth has to be capable of allowing the optimum level of filtrate to pass through during each operating cycle.

The creation of a high quality filter cake, in other words one that has a high solids and extremely low liquid content, is largely dependent on the effectiveness of the filter cloth. If the filtrate is unable to pass through the filter cloth, then the cake will retain more moisture than is desirable. This means that periodically the filter cloths within the press have to be thoroughly cleaned, for clean cloths result in a better quality filter cake and filtrate. In addition, regular cleaning will help to extend the operating life of the filter cloth.

The process of creating a filter cake involves pumping wastewater slurries into the chamber of the filter press, where the filtrate is forced through the filter cloth. The solids are collected on the filter cloth forming a cake, which is allowed to build up until the chamber is full of dewatered solids. At the end of the cycle, the cake and filtrate are removed and cleaning takes place.

Effective washing is best achieved by using an integral, automated spray arm system, with the cleaning water being applied at high pressure. In order to enable manufacturers of filter presses to attain the highest levels of cleaning efficiency, Cat Pumps offer a “Wash Module” based on its proven high pressure positive displacement pump systems.

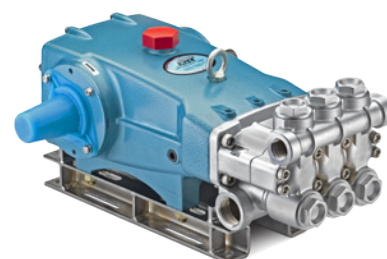
High-pressure washing increases filter press efficiency by cleaning particulates, fats, oils, proteins and other hard-to-remove residues from the cloth, opening the weave to increase water throughput. Automatic cloth-wash systems are faster than manual washing, reducing out-of-commission down-time and improving consistency of cleaning. The durability and reliability of Cat Pumps’ triplex positive displacement plunger pumps gained over 40 years, ensures that high volumes of pressurised wash-water are available on demand whenever required.



Application Specifications

Filter Press Cleaning

Cat Pumps Model	3545
Pressure	50 bar
Flow	180 lpm
Fluid	Water
Temperature	+1 to 20° C
Drive	18.5 Kw, 4 pole electric motor, belt and pulley



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