

Application Spotlight



Filter Press Cleaning

Operation

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. A filter press is used in separation processes, specifically to separate solids and liquids. The process uses pressure filtration with flow provided by a slurry pump.

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.

Problem

If the filtrate is unable to pass through the filter cloth, then the cake will retain more moisture than is desirable.

Solution

At the end of the cycle, filter cakes are removed from press and the filter cloths are thoroughly cleaned. Effective cleaning is achieved by using an integral, automated spray arm system, with the cleaning water being applied at high pressure. Cat Pumps high pressure pump system provides 45 gpm (170 lpm) at 700 psi (520 bar) to thoroughly clean the filter cloth in a short amount of time.

Benefits

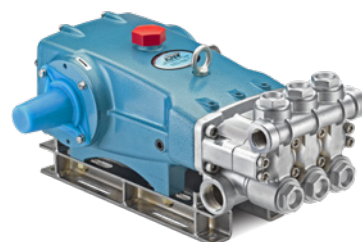
Clean filter cloths result in a better quality filter cake and filtrate, and regular cleaning will extend the operating life of the filter cloth. High-pressure washing increases filter press efficiency by cleaning particulates, fats, oils, proteins and other hard-to-remove residues from the cloth, opening 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.



Application Specifications

Filter Press Cleaning

Cat Pumps Model	3545
Pressure	725 psi / 50 bar
Flow	45 gpm / 180 lpm
Fluid	Water
Temperature	33.8 to 68°F / +1 to 20°C
Drive	25 Hp / 18.5 kW, 4 pole electric motor, belt and pulley



World Leader in Triplex Reciprocating High-Pressure Pumps and Related Products

MARKETS	APPLICATIONS		
Industrial Cleaning	Pressure Cleaning	Water Blasting	Conveyor/Belt Cleaning
	Sewer Jetting	Paint Preparation	Tank Cleaning
	Carpet Cleaning	Screen Cleaning	Concrete/Asphalt Cleaning
	Hood Vent Cleaning	Surface Cleaning	Conveyor Belt Cleaning
Process Industries	SWRO	Biodiesel	Reverse Osmosis
	Live Wire Insulator Washing	Water / Foam Injection	Liquid CO ₂
	Homogenizing	Lumber Conditioning	Lipid Extraction
Power Generation	Gas Turbine Fogging	Condenser Tube Cleaning	Live Wire Insulation Washing
Manufacturing	Machine Tool Coolant	Central Cleaning System	Water Hydraulics
	Humidity Control	DI Water Wash	Water Deburring
	Electrical Discharge Machines	Hydrostatic Testing	Dust Suppression
Government/Military and Fire	Hydro Excavating	Military Vehicle Wash	UHP Firefighting Equip.
	Street Sweeper	Jetting	SWRO
Vehicle Wash	Car Wash	Mass Transit Wash	Auto Detailing
	Truck Wash	Train Wash	Heavy Equipment Wash
Agriculture	Agriculture Cooling	Odor Control	Green House Misting
Food Process	Sanitizing	Extrusion – Butter	Homogenization
	Poultry Evisceration	Frozen Food Cutting	Fish and Seafood Processing
Mining	Heavy Equipment Wash	Dust Suppression	Seal Gland Flushing
Misting	Temperature Control	Humidification	Fire Misting
	Visual Effects	Odor Control	Mist-Scaping
Oil and Gas	Waste Water Re-Injection	Enhanced Oil Recovery	Biodiesel
	BOP Accumulator Charging	Gas Turbine Fogging	Chemical Injection
	Triethylene Dehydration	Oil/Gas Transfer	Water Blasting

PUMPS



- Flow: 0.13 to 240 gpm (0.49 to 908 lpm)
- Pressure: 100 to 10,000 psi (7 to 689 bar)
- Materials: Brass, Nickel Aluminum Bronze, 304 and 316 Stainless Steel, Duplex Stainless Steel
- Drives: Electric, Engine, Hydraulic, Pneumatic

CUSTOM POWER UNITS



By selecting Cat Pumps for your next pumping system, the expense of designing, multiple source buying, fabrication and testing is eliminated.

With thousands of installations running around the world, Cat Pumps is the supplier of choice for custom pumping systems.

ACCESSORIES



Cat Pumps offers a wide range of system accessories that meet the same quality standards as its pumps. Demand genuine Cat Pumps accessories.



CAT PUMPS

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