

Pallet Washing for the Pharmaceutical Industry

Effective cleaning of pallets used to transfer material is a regulatory requirement of the FDA for the pharmaceutical (drugs) industry and is covered by GMP (Goods Manufacturing Practice) regulation part 133.4 to prevent contamination or adulteration of drugs.

Cleaning can be defined as the removal of residues and contaminants, basic mechanisms in the removal of residues and contaminants include mechanical action such as brushing, scrubbing and the use of pressurised water, the most effective being the use of clean water being applied at high pressure.



Plastic pallets are used extensively in the pharmaceutical supply chain from transport of raw materials and packaging components in the production process through to the delivery of finished packaged products to distribution centres.

In order to enable pharmaceutical manufacturers to attain the highest levels of cleaning efficiency, Cat Pumps offer a stainless steel “Pallet Wash Module” (PWM) based on its proven high pressure positive displacement pump systems.

The pump/motor wash unit comprises of the following:

- Direct coupled pump and motor
- Pressure regulator
- Pressure relief valve relief
- Pressure Gauge
- Pulsation Dampener

The pump/motor wash unit is enclosed within a stainless steel frame and cover to minimise any escape of cleaning water and reduce noise.

Control of the PWM is via a stainless steel control panel which provides the following:

- Stop/Start and timer controlled Direct on Line (DOL) starting
- Senses flow demand using flow sensor to switch on the motor/pump as necessitated by demand
- Senses no flow to switch off the pump/motor unit after a user- adjustable pre-set period.

Case Study

The flow sensor ensures that power is only required once there is flow through the unit i.e. when there is pallet cleaning taking place. The 'no flow - no go' control system combined with the long- lasting and efficient Cat Pump makes the PWM a highly energy efficient, dependable cleaning system for the pharmaceutical industry.

Typical Application Specifications

Pallet Washing

Cat Pumps Model:	661
Liquid to be pumped:	Water
Ambient Temperature:	+1 to 40°C
Liquid inlet temperature:	+1 to 65°C
Output flow rate:	27 l/min
Liquid outlet (working) pressure:	180 bar g

