



Putzmeister

This application describes the successful customization and integration of an RV16 hydraulic rotary distributor with an EQV squeeze valve at a waste management facility in Toronto, Canada.

The upgrade was designed to improve operational efficiency, reduce manual labor and address space constraints while ensuring a seamless transition from the previous waste processing method.

The initial situation

Organic household waste is loaded from trucks into a hopper and passed through a sorting conveyor where foreign objects (plastic, garbage, etc.) are manually removed. The waste is pulverized and then separated into liquid, slurry and paste. The slurry and paste hoppers are emptied by individual augers feeding the same S-tube pump. The paste is pumped into an "end dump" truck and the slurry is pumped into a tanker truck for transport to an anaerobic digester to produce methane gas for power generation.

Why was a process overhaul required?

The traditional method involved manually loading the organics into trucks using a front-end loader. This method was not only slow and messy, but also occupied a lot of floor space for containers and trucks. Since trucks have a fixed height and the existing building had to be used with limited overhead height, a conventional placing boom wasn't an option.

Innovative waste management system upgrade for improved efficiency of handling organic household waste



After installing RV 16 and EQV on loading arm with paste and slurry hoppers in the background, liquid storage tank on the right



The truck loading station at the beginning of the project

The Solution

Dealer Cancrete customized an EQV squeeze valve, which is normally used for concrete. The EQV is installed on the last horizontal boom pipe to ensure adequate overhead clearance above trucks/equipment and prevent spillage.

Compact base and tower lengths were considered to achieve the correct clearance height under the boom.

The advantages

- Reduces the risk of unwanted contaminants entering the ground.
- Very clean solution for truck loading.
- Space saving. Optimal use of space resources.
- Simple one person operation – the truck driver operates the pump and the placer, eliminating the need for a dedicated plant employee during loading.
- Reduces the number and spread of unwanted pests such as rats and the resulting damage to hoses and wiring.
- Work more efficiently. Reduces operating costs.
- Improved health and safety.
- A more pleasant working environment.



Truck loading with the modified system

Technical Equipment

Hydraulic Rotary Distributor RV16 placer w/RS 850 Series 1 pedestal

Squeeze valve EQV

3 m RS 850 tower, compact base with foundation anchor

7.1 mm pipeline

Using existing S-tube pump and conveyor screw

Loading arm and storage tank in background



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