

TECHNICAL SUPPORT MATERIAL

ADC-44 - Rack Travel and Counting With a Timer

Engineering Data

Rack-style conveyors move dishracks across the sprays by the reciprocation of directional dogs. These dogs push in one direction and fold down in the return direction. They push against the "ladder" on the underside of the dishracks. The "speed" of NSF listed conveyor dishmachines is determined by the length of time required for a Metro G-88 glassrack to travel across from the soil table to the clean table. The starting and ending point is the table lip. The indicating point is the trailing edge of the rack. If it takes 36 seconds to cross this distance the rated speed will be 6 feet per minute.

The speed is determined by two items: the action of the conveyor dogs and the placement of bars on the rack ladder. If either of these are missing or damaged the speed will drop. If too many ladder bars are missing the rack will not travel through the machine. In actuality, the rack is responsible for 50% of the conveyor's speed mechanism. Racks other than the MetroG-88 glassrack will cause some variations in the speed. The ADC-44 uses ten dogs to reduce this variation and give more consistent output.

If a clock timer is installed to act as a rack counter it can only record the amount of time the machine is operational. Nominal devices cannot sense an actual rack or differentiate between two racks. A timer can, however, accurately record the amount of time the machine uses chemicals and energy. By estimating the number of potential racks the conveyor is capable of processing in a given period, you can arrive at a rack/per approximation. Fortunately, the ADC rack-switch design operates only when a rack is present and shuts down mechanically when the rack exits. This will give closer rack/per figures than other styles of conveyor control devices. If there is an inaccuracy in the overall count, it will be **less actual racks washed** than the multiplied figure. **Note:** while the actual rack count might be less than the calculation, the estimated amount of chemicals, water and energy (over timer) will be correct.

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