FILTER CONTROLS

SIMPLEX FILTERS

Simplex or single filters generally operate on time clocks backwashing every 24 to 72 hours.

DIFFERENTIAL PRESSURE SWITCH

They can also operate from a differential pressure switch. When the head loss reaches a preset limit (usually about 10 psi), the differential pressure switch engages and sends a signal to an ARC cycle timer to initiate regeneration.

SEQUENTIAL BACKWASH

Multiple filters operating in parallel load up or clog simultaneously. Since the inlet and outlets are maifolded the pressure loss through each filter is the same. All of the filters in a set of two or more are usually backwashed one after another (sequentially).

MASTER SLAVE TIMERS

Water King uses a master slave type set up where the timer on one unit sends a signal to the ARC on other filters. The ARC is set to wait for the backwash of the first unit then it initiates backwash on the second filter. Master slave timer set ups will provide sequential backwash for up to four filters.

MULTIPLE TIMERS

Multiple filters can also be set up with multiple time clocks that are set to initiate backwash at staggered times, say one filter every 45 minutes, until all units are backwashed. I is essential that all units have the correct time.



CAT 503.2

MULTIPLE FILTER SYSTEMS

The Task Master $^{\mathbb{I}}$ and the Task Master $\mathbb{I}^{\mathbb{I}}$ control valves have been designed to allow conventional filter operation. Because of the unique control valves, the Water King multiple filter systems eliminate the two most common problems with filter operation.

- AVAILABILITY OF BACKWASH WATER: Because filter backwash rates are higher than the service
 rates, often a sufficient flow rate is not available to properly clean the bed. By using three or
 four smaller units, the individual backwash rate is much lower than that of one or two larger
 units.
- Backwashing with Raw Water: When dirty water is used for backwashing, the dirt is filtered out in the bottom portion of the bed. Every time the unit backwashes, more dirt collects and soon that dirt washes out in slugs during a service run.

With the Water King Multiple Filter System, when one unit backwashes, it does so with clean, filtered water from the other units.

