

Override Procedure for an HTST

Are you aware that override washes can be a good alternative to the standard CIP wash on tough-to-clean high temperature short time (HTST) processing? Acid override washes work well on HTSTs that typically run whey products on them. The rapid pH swing that occurs when “overriding” the acid wash with caustic is what enhances soil removal. Below is one example of an override procedure that has been highly effective in reducing CIP times and chemical use. **Be aware that results may vary from system to system--slight changes in procedures may be necessary.** Contact a member of the [RITE Team](#) if you have any questions.



Whey HTST Acid Override 2100-gallon systems REV 2. (1/20/20)

Steps		Temp	Time	Concentration
1.	Water Rinse	150 °F	3 min	-
2.	Pre-Acid Wash	170 °F	15 min	Add 1 oz/25 gal of solution of Defoamer 553* Add 0.8 to 1.2 oz of MPA 168/gal of hold up solution Target concentration - 0.8 to 1.2 oz/gal
3.	Caustic Wash	170 °F	45 min	Add 1.8 - 2.7 oz of Ultra 1000/gal of hold up solution** Target concentration 1.8 - 2.7 oz/gal Add 1 oz/25 gal of solution of Defoamer 553***
4.	Water Rinse	-	8 min	Until neutral pH
5.	Acid Wash	155 °F	40 min	Add MPA 168 until a target pH of 1.5 to 1.8 is reached and maintained Target 1.5 to 1.8 pH
6.	Water Rinse	-	8 min	Until neutral pH

- *Add 1 oz/25 gal of solution of Defoamer 553 after the rinse before adding acid.
- **After recirculating the acid for 15 minutes, add the caustic to the balance tank without rinsing out the acid and recirculate for 45 minutes.
- ***Add 1 oz/25 gal of solution of Defoamer 553 after caustic has been added if excessive foam occurs during the caustic step.
- If desired results are not achieved, flush and do a 30-minute caustic wash following step 3. Then follow with step 5 acid wash for 15 minutes.
- Notify the supervisor if extra washes were done so an investigation can be performed as to why the system didn't come clean the first time.