

## Troubleshooting

Table C.7 – Combiner Troubleshooting

Problem	Cause	Solution
Drive motor does not run.	Photo eye tripped.	Check the combiner carrying surface for product located outside the pusher paths. Remove dislocated product.  Check for a jam either at the discharge end of the combiner or on the discharge conveyor, depending on the location of the cross-machine photo eyes. Clear any jam.
	Photo eye dirty or misadjusted.	Check the photo eyes for cleanliness, and clean them as necessary.  Check the alignment of the photo eyes and adjust as necessary.
	Emergency stop activated.	Check the status of emergency stops. If any are activated, determine the cause and correct any faulty condition. Reset the emergency stop.
	Drive motor disconnect switch is "Off."	Make certain that the motor disconnect switch is functioning and turned "On."
	Motor-start push button or main power switch is "Off" or defective.	Check that the main power switch is "On" and that the motor-start push button is functioning properly.
	Drive overcurrent relay or sensor tripped.	Verify that the overcurrent relay or sensor is functioning properly. Check the adjustment of the relay or sensor.  Determine the cause of the overload and correct the fault condition as follows: <ul style="list-style-type: none"> <li>• Check the carrying chains for proper lubrication and tension.</li> <li>• Check the carrying tubes for contamination and check the pushers for binding.</li> <li>• Check for binding in the drive and idler sections.</li> <li>• Check the motor for free rotational movement.</li> </ul>
	Variable-frequency drive (VFD) misadjusted or defective.	Refer to the VFD manufacturer's instructions to verify adjustments, and troubleshoot as necessary.
Defective wiring.	Check all wiring for loose connections or broken wires.	

# VHS Combiner

## Multiple-Conveyor Infeed ■ Single-Conveyor Discharge

**SPECIAL  
PRODUCT**

Problem	Cause	Solution
Drive motor starts but stops immediately or fails to reach specified operating speed.	Overcurrent relay or sensor is tripping.	Verify that the overcurrent relay or sensor is functioning properly. Check the adjustment of the relay or sensor.  Determine the cause of the overload and correct the fault condition as follows: <ul style="list-style-type: none"> <li>• Check the carrying chains for proper lubrication and tension.</li> <li>• Check the carrying tubes for contamination and check the pushers for binding.</li> <li>• Check for binding in the drive and idler sections.</li> <li>• Check the motor for free rotational movement.</li> </ul>
	Variable-frequency drive (VFD) is misadjusted or defective.	Refer to the VFD manufacturer's instructions to verify adjustments, and troubleshoot as necessary.
Combiner takes a long time to reach specified operating speed, or carrying chains jerk when starting.	Variable-frequency drive (VFD) is misadjusted or defective.	Refer to the VFD manufacturer's instructions to verify adjustments, and troubleshoot as necessary.
	Incorrect tension of carrying chains.	Check the tension of the carrying chains as required. Readjust the VFD.
Combiner shuts off automatically during normal operation.	Safety device is activated, or a problem is occurring with an electrical power or circuit or device.	Refer to causes and solutions under "Drive motor does not run."
Pushers "jump" during merging.	Pusher pin or cam is damaged.	Replace the pusher pin or cam as required.
	Chain support out of adjustment.	Adjust the height of the chain supports.
	Cam guide out of alignment.	Check cam-guide alignment, and adjust as necessary.
Infeed conveyor inoperative.	Combiner not operating at proper speed.	Check the encoder for proper operation, and replace if necessary.
	Auxiliary contact on motor starter is defective.	Replace the motor starter.
	Problem with infeed-conveyor drive power.	Determine whether the operation of the infeed conveyor is inhibited by the control unit. If so, correct the condition as necessary.  Troubleshoot the infeed-conveyor power unit.