

Stuertz Conveyor Motor and Indexing Setup

Correct setting and adjustment of the Stuertz Conveyor and Indexing System

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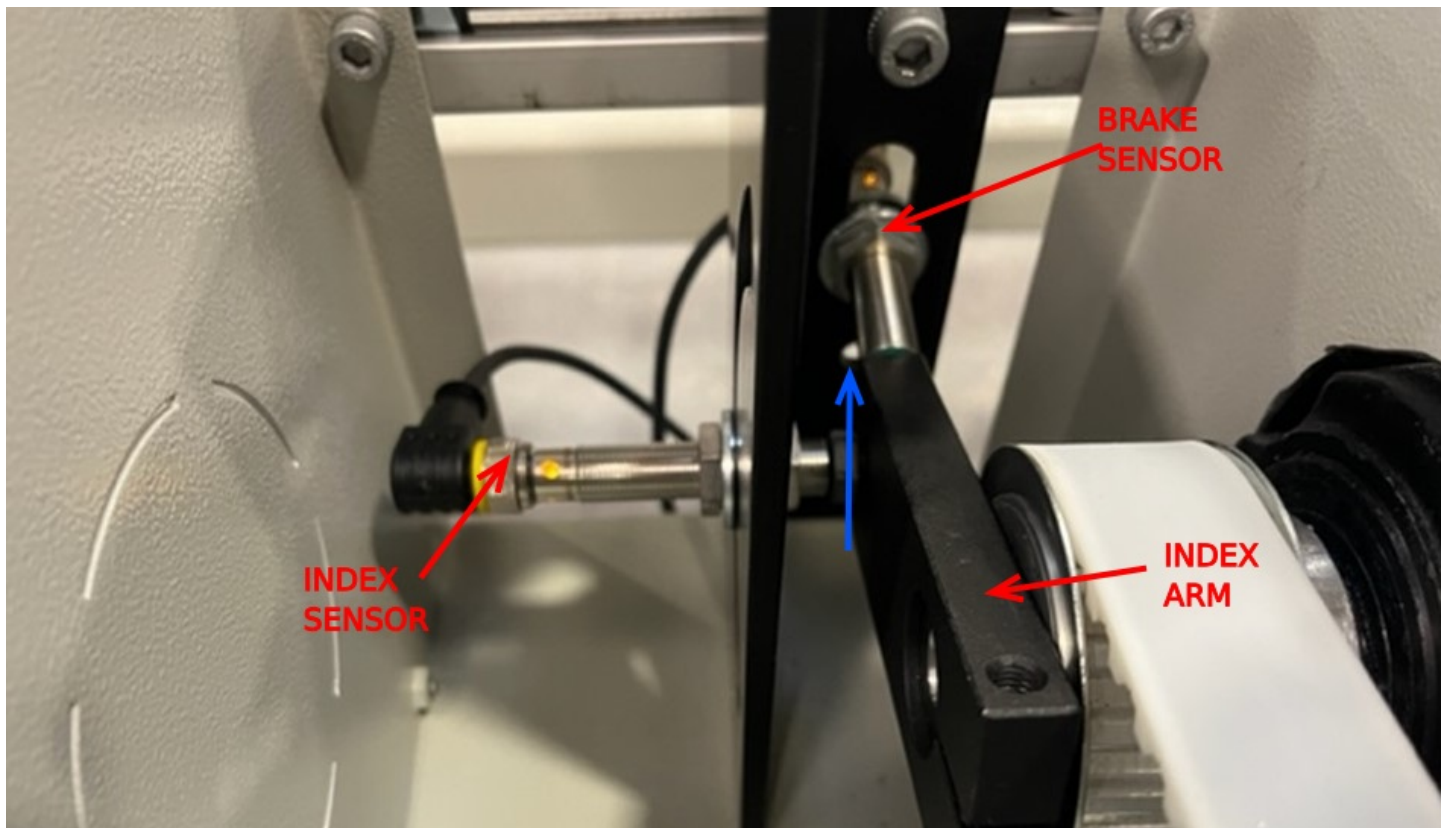
Quick Adjustment Guide

General Sequence of Operation

General Setup Procedure

IO on Autoflow Mk4 Infeed Table

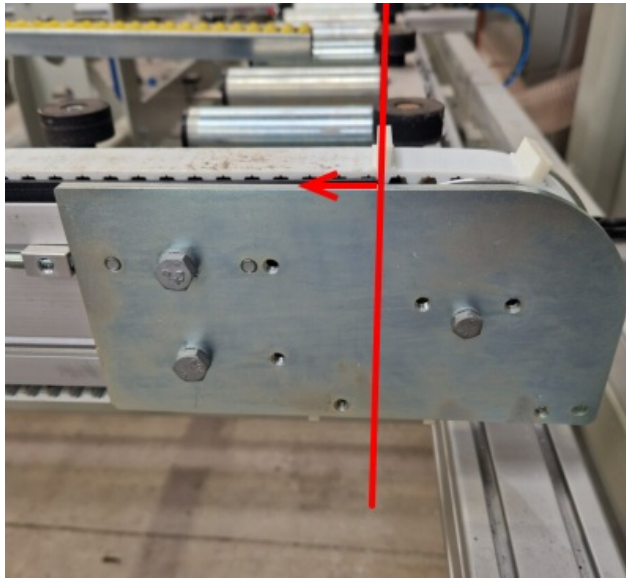
Comments



Quick Adjustment Guide

Goal is to get the second upstand just beyond the rear fence rollers

The photo shows a situation where the index is just behind the rollers, so would need to move forwards



To adjust the second upstand stop position, undo the index arm locking bolt and rotate it around the shaft.

💡 ...The belt indexing length is 200mm, which equates to one revolution of the index arm. Therefore to move 50mm will be 1/4 of a turn

Adjustment Guide

| Direction | Photo | Adjustment |
|--------------------|-------|------------|
| Towards Operator | | |
| Away from Operator | | |

General Sequence of Operation

- On a start signal, release motor mechanical brake, start motor
- Wait until INDEX and BRAKE sensors are inactive

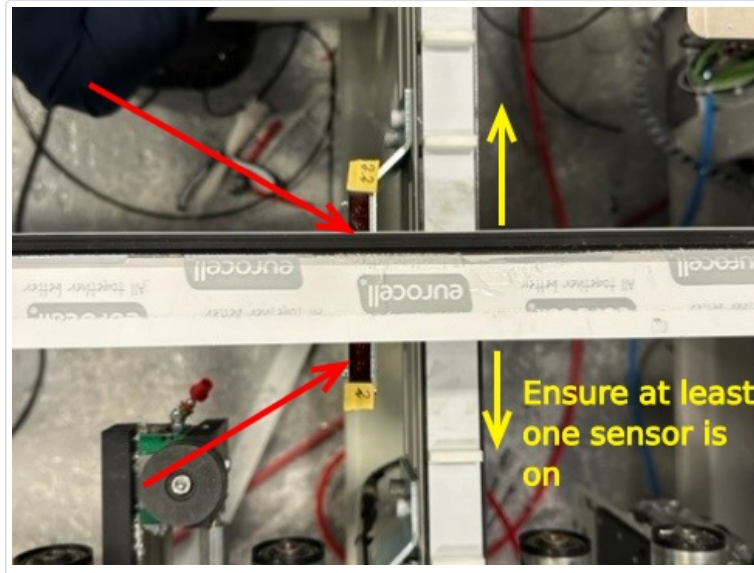
- Wait for BRAKE sensor active
- Decelerate motor
- Ensure INDEX sensor is covered
- Apply Mechanical Brake

i ...Indexer works on one revolution of motor / gearbox is exactly one index on the conveyor belt

📌 ...The loading table should work if the bar is loaded to the front, back or middle of the conveyor "slot". It is recommended that it is pushed to the rear of the slot, but this will only work if the indexing system is set up properly so that it does not over-rotate and take the bar back past the rollers. In this case, the action of lifting the bar will tip it over

General Setup Procedure

1. Program the inverter to run forwards and backwards at 50Hz, 0.5s acceleration and deceleration
2. Use the advance button to move to index one position / index
3. Check that the INDEX sensor is covered on deceleration - adjust the INDEX on the arc so that this is the case
4. Measure the position of the index to the backfence - this should be 130mm.
5. Adjust the position by loosening the Allen key fastening on the INDEX ARM. Rotate up at the rear to move the index closer to the backfence (Arrow shown in blue). Remember, one revolution is one index pulse length (200mm)
6. Check the sensor spacing vs the slimmest outer frame profile - ensure at least one sensor is on across slot range in both position 7 and 8






Position of sensors can be adjusted on hole pitch - For 50mm slim outer, the rearmost sensor needs to move forward one pitch

IO on Autoflow Mk4 Infeed Table

| Infeed Control | | | | |
|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|
| Y251/Z016 OuA_VorBack | X251/Z016 InA_VorBack | Y252/Z016 OuA_VorFwd | X252/Z016 InA_VorFwd | Y013/Z01A OuA_P2BfOn1 |
| Y253/Z02G OuA_VorUp | X253/Z02G InA_VorUp | Y254/Z02G OuA_VorDn | X254/Z02G InA_VorDn | Y014/Z02A OuA_P2BfOn2 |
| Y256/Z03G OuA_GSOFF | X256/Z03G InA_GSOFF | Y255/Z03G OuA_GSGrip | X255/Z03G InA_GSGrip | Y015/Z03A OuA_P2BfOn3 |
| Y257/Z05G OuA_GLOFF | X001/Z05G InA_GLOFF | Y001/Z05G OuA_GLGrip | X257/Z05G InA_GLGrip | Y016/Z04A OuA_P2BfOn4 |
| Y258/Z06G OuA_Turn0 | X258/Z06G InA_Turn0 | Y021/Z06G OuA_Turn90 | X267/Z06G InA_Turn90 | Y017/Z05A OuA_P2BfOn5 |
| Y259/Z08A OuA_LiftUp | X396/Z08A InA_LiftUp | Y260/Z08A OuA_LiftDn | X397/Z08A InA_LiftDn | Y018/Z06A OuA_P2BfOn6 |
| Y262/Z10A OuA_StopDn | X398/Z10A InA_StopDn | Y261/Z10A OuA_StopUp | X165/Z10A InA_StopUp | Y019/Z07A OuA_P2BfOn7 |
| Y264/Z11A OuA_GRTOpen | X264/Z11A InA_GRTOpen | Y263/Z11A OuA_GRTRotat | X263/Z11A InA_GRTRotat | |
| Y266/Z12A OuA_GRVOpen | X266/Z12A InA_GRVOpen | Y265/Z12A OuA_GRVClam | X265/Z12A InA_GRVClamp | |
| Y109 OuA_IMotFwd | Y110 OuA_IMotRev | Y382 OuA_IMotBrak | X38B InA_CnvBrk | X33 InA_Index |

Infeed Setup Functionality

| IORef | Reference Code | Function | Notes |
|-------|----------------|-----------------|--|
| Y109 | OuA_IMotFwd | Rotate Forwards | Forwards means belts should take the profile from the operator towards the backfence |
| Y110 | OuA_IMotRev | Rotate Reverse | Belts rotated in reverse |
| Y382 | OuA_IMotBrake | Motor Brake | Motors have a brake function white needs to be ACTIVE / ON to release the brake |

| | | | |
|------|------------|---|---|
| X388 | InA_CnvBrk | Sensor to trigger deceleration | <p>This sensor tells the motor when to decelerate to stop the profile close to the loading position.</p> <p> ...Generally, a deceleration on the motor will cause this position to overrun</p> |
| X033 | InA_Index | Sensor to identify that conveyor is in position | |