**Sequence Title**: Pneumatic VC

**Doc Version:** 1.00.1

**Published By:** Tim Reamsbottom

**Publish Date**: 21/07/2015

# Version History

*The version number corresponds with the program version number set in Automation Studio.*

|  |  |  |  |
| --- | --- | --- | --- |
| Publish Date | Version Number | Comments | Engineer Initials |
| 21/07/2015 | 1.00.1 | First Release | Click here to enter text. |
| 16/09/2016 | 1.00.2 | Fix bug with move commands | TR |
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# Sequence Description

## Basic Sequence Description

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| --- |
| Standard pneumatic VC program that can be used for incline & decline functions as well as full and empty bags. |

## Sequence Steps

|  |  |
| --- | --- |
| Step | Description |
| 0 | Disabled |
| 1 | Move to incoming position |
| 2 | Wait for bag at buffer |
| 3 | Wait for bag to arrive |
| 4 | Bag settles on carriage |
| 5 | Move to outgoing position |
| 6 | Check for buffer space |
| 7 | Wait for bag to be released |
| 8 | Click here to enter text. |
| 9 | Click here to enter text. |
| 10 | Click here to enter text. |
| 11 | Click here to enter text. |
| 12 | Click here to enter text. |
| 13 | Click here to enter text. |
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# IO Description

## Standard IO Descriptions

|  |  |  |  |
| --- | --- | --- | --- |
| Standard Block number | Block Port | Input  Output | Description |
| 191 | 1 | X | SPC1 – Carriage at top |
| 191 | 2 | X | SPC1 – Carriage at bottom |
| 191 | 3 | X | SPC1 – Bag arrives on carriage |
| 191 | 4 | X | SPC1 – Bag on carriage |
| 191 | 5 | X | SPC1 – Bag at buffer |
| 191 | 6 | Y | SPC1 – Open buffer |
| 191 | 7 | Y | SPC1 – Incoming rail end stop |
| 191 | 8 | Y | Spare |
| n/a | - | - | Click here to enter text. |
| n/a | - | - | Click here to enter text. |
| n/a | - | - | Click here to enter text. |
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| n/a | - | - |  |

*Description must contain “–“after sequence identifier (i.e.SPN1 – ).*

# Manual Description

|  |
| --- |
| 1. Disabled   All controls functions are disabled.   1. Move to incoming position   The carriage moves to the incoming position, when the appropriate “carriage in position” switch is made the sequence will then change to step 2.   1. Wait for bag at buffer.   A logical assessment is made of the input buffer condition, by checking the “bag at buffer” proximity switch and data for validity (if applicable), or the request release state of the incoming buffer sequence.  When the assessment is true a switch check takes place, this checks that both the “bag arrive on carriage” and “bag on carriage” switches are not made and the emergency stop circuit is ok. The sequence will then change to step 3.   1. Wait for bag to arrive.   The incoming rail end stop will open. The incoming buffer will open, or the incoming buffer sequence will release a bag. The bag will then gravitate onto the carriage When the first trolley is detected by the “Bag arrive on carriage” proximity switch, the sequence will change to step 4.   1. Bag settles on carriage.   The incoming rail end stop remains open and the bag is allowed to gravitate against the carriage stop.  When the “bag on carriage” switch has been made for 3 seconds the sequence changes to step 5.   1. Move to outgoing position   The carriage moves to the outgoing position, when the appropriate “carriage in position” switch is made the sequence will then change to step 6.   1. Check for buffer space   An assessment is made to determine if releasing of the bag is allowed, once release is allowed the sequence will change to step 7.  If data is being tracked integrity of the data is checked, If there is outgoing buffer, the line full trip is checked. The “bag at buffer” proximity and state of the going buffer stop is also checked if this is a single bag buffer to ensure a bag is not released with the buffer stop being in a closed position.  If there is no outgoing buffer, a request release signal is sent to the outgoing sequence, valid release is when an enable release signal is received.   1. Wait for bag to be released.   The carriage stop is opened and the bag is able to gravitate away into its next position.  If there is an outgoing buffer then arrival in the buffer is detected by the line trip proximity switch. If there is no outgoing buffer arrival is detected by the enable release signal changing to false.  N.B The appropriate “carriage in position” switch must be made to enable the carriage stop to open. |