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## Parameters and alarms

# Triofeed V0100

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# 1) Machineparameters

## 1.1) *Overview machine parameters*

- 01 Centerposition
- 02 Reserved
- 03 Reserved
- 04 Reserved
- 05 Reserved
- 06 Reserved
- 07 Reserved
- 08 Reserved
- 09 Reserved
- 10 Maximum width
- 11 Reserved
- 12 Reserved
- 13 Reserved
- 14 Reserved
- 15 Moment slow speed before centerpos.
- 16 Reserved
- 17 Reserved
- 18 Reserved
- 19 Reserved
- 20 Delay clamp up / start feed-in
- 21 Reserved
- 22 Delay start spreading middle station
- 23 Reserved
- 24 Reserved
- 25 Reserved
- 26 Reserved
- 27 Reserved
- 28 Reserved
- 29 Reserved
- 30 Reserved
- 31 Releasetime release arms
- 32 Reserved
- 33 Reserved
- 34 Reserved
- 35 Reserved
- 36 Reserved
- 37 Reserved
- 38 Reserved
- 39 Reserved
- 40 Standby time
- 41 Ironerspeed when machine in standby
- 42 Waittime startup after ironer stop
- 43 Run without ironer stop contact
- 44 Reserved
- 45 Reserved
- 46 Reserved
- 47 Reserved
- 48 Reserved
- 49 Reserved
- 50 Ironer length
- 51 Maximum speed of feeding machine
- 52 Minimum speed of ironer
- 53 Maximum speed of ironer
- 54 Maximum speed of folding machine

55 Reserved  
56 Reserved  
57 Reserved  
58 Reserved  
59 Reserved  
60 Pulse size maincountwheel  
61 Pulse size ironercountwheel  
62 Reserved  
63 Reserved  
64 Reserved  
65 Reset counters without password  
66 Reserved  
67 Reserved  
68 Reserved  
69 Reserved  
70 CAN-bus stationnumber this PLC  
71 CAN-bus baudrate  
72 Folder with CAN-bus online  
73 Delay return to home screen  
74 Reserved  
75 Reserved  
76 Reserved  
77 Reserved  
78 Reserved  
79 Reserved  
80 Reserved

## **1.2) Machine parameters details**

### **01 Centerposition**

The middleposition for the left and right station in mm from the centerposition sensors.

### **10 Maximum width**

The maximum width a piece can have in millimeters. If the clamp distance during spreading is bigger, the spreading cycle will stop and the clamps will be opened.

### **15 Moment slow speed before centerpos.**

The moment the clamps go to slow speed just before the center position is reached. Value is in mm before the center position is reached.

### **20 Delay clamp up / start feed-in**

The delay between sending the clamps of an outer station up and the moment the first clamps starts feeding in. Time is in milliseconds (0,001s).

### **22 Delay start spreading middle station**

The delay between the moment the rail of the middle station is in spreading position and the moment spreading starts. Time is in milliseconds (0,001s).

### **31 Releasetime release arms**

The time the cylinder of the release arms is activated when opening the clamps. Time is in milliseconds (0,001s).

### **40 Standby time**

When the machine is in automatic feeding mode, it will switch off when no pieces have been fed for the time adjusted in this parameter. Value is in seconds.

### **41 Ironerspeed when machine in standby**

When the feeder has switched into standby mode, the speed of the ironer will be switched to the value of this parameter (m/min). This can be used to save energy.

### **42 Waittime startup after ironer stop**

When the ironer starts up after a stop, this is the time the feeder waits with starting up the main motor. Steps of 0,1s.

### **43 Run without ironer stop contact**

When testing, this parameter can be put to 1. In this case, the machine ignores the ironer stop contact and will run while the ironer is stopped. In normal mode, the value should be 0.

### **50 Ironer length**

The length of the ironer in centimeters. Is used for changing speed and changing the folding program.

### **51 Maximum speed of feeding machine**

The speed of the feeding machine when 10 Volts is sent to the inverter. Is the maximum speed the feeding machine can run.

### **52 Minimum speed of ironer**

The speed of the ironer when 0V is sent to the inverter. This is the minimum speed the ironer can run when it's operating.

### **53 Maximum speed of ironer**

The speed of the ironer when 10Volts is sent to the inverter. Is the maximum speed the ironer can run.

### **54 Maximum speed of folding machine**

The maximum speed of the folding machine in steps of 0,1 meters/minute. Is used to be able to control the speed of the folder in the right way.

**60 Pulse size maincountwheel**

The size of a pulse of the main countwheel in micrometers.

ATTENTION!!! Changing this parameter can cause a complete machine stop.

**61 Pulse size ironercountwheel**

The size of a pulse of the ironer countwheel in micrometers. ATTENTION!!! Changing this parameter can cause a complete machine stop.

**65 Reset counters without password**

When this parameter has a value of 1, counters per program can be reset without the need of a password.

**70 CAN-bus stationnumber this PLC**

Stationnumber of this PLC. Every PLC in a CAN network has to have a unique stationnumber.

**71 CAN-bus baudrate**

Baudrate/communicationspeed of this PLC. Every PLC in a CAN network has to be adjusted to the same baudrate.

**72 Folder with CAN-bus online**

Value of 1 means that a folder with CAN-bus is online. In this case the feeder will start to communicate with the folder regarding programnumber and other data.

**73 Delay return to home screen**

When the main screen is not activated, and the screen isn't used for this time, the main screen will be activated again. Steps of seconds (0=disabled).

## 2) Program parameters

### 2.1) Overview program parameters

01 Head in back position (manual)  
02 Belts in front position (manual)  
03 Reserved  
04 Reserved  
05 Reserved  
06 Reserved  
07 Reserved  
08 Reserved  
09 Reserved  
10 Reserved  
11 Ironer speed  
12 Relative speed feeder (%)  
13 Relative speed folder (%)  
14 Folding program  
15 Reserved  
16 Reserved  
17 Reserved  
18 Reserved  
19 Reserved  
20 Reserved  
21 Reserved  
22 Reserved  
23 Reserved  
24 Reserved  
25 Reserved  
26 Moment start feeding in  
27 Reserved  
28 Distance between clamps after centering  
29 Reserved  
30 Reserved  
31 Delay start spreading after centering  
32 Only slow spreading  
33 Minimum width fast spreading  
34 Lifting device enabled  
35 End spreading photocell debounce time  
36 High spreading speed (%)  
37 Action before releasing piece  
38 Time of action before releasing piece  
39 Reserved  
40 Reserved  
41 Reserved  
42 Reserved  
43 Number of venturi pulses  
44 Time of one venturi pulse  
45 Delay between two venturi pulses  
46 Number of blow-on pulses  
47 Time of one blow-on pulse  
48 Delay between two blow-on pulses  
49 Stoptime belts during release  
50 Reserved  
51 Moment start suction box after release  
52 Delay stop suction after piece in box  
53 Overlap / minimum piece distance

54 Waitfunction belts wait for suction box  
55 Time belts wait for suction box  
56 Maximum sheet length  
57 Reserved  
58 Reserved  
59 Reserved  
60 Reserved  
61 Moment stop conveyor for stretching  
62 Time stop conveyor for stretching  
63 Enable brushes at ironer  
64 Moment brushes at ironer down  
65 Enable flaps at ironer  
66 Moment flaps at ironer down  
67 Reserved  
68 Reserved  
69 Reserved  
70 Reserved  
71 Feeding roll on  
72 Suction in suction box on  
73 Brushes in suction box on  
74 Reserved  
75 Reserved  
76 Reserved  
77 Reserved  
78 Reserved  
79 Reserved  
80 Reserved



## **2.2) Program parameters details**

### **01 Head in back position (manual)**

This parameter indicates if this is a manual feeding program where the head is in the back position (value 1) or an auto-feeding program (0) where the head is in the front position.

### **02 Belts in front position (manual)**

This parameter indicates if this is a manual feeding program where the laydown belts are in front position (value 1) or an auto-feeding program (0) where the belts are in the back position.

### **11 Ironer speed**

When the machine controls the speed of the ironer, this parameter is the speed of the ironer in m/min.

### **12 Relative speed feeder (%)**

The relative speed of the feeding machine in relation to the ironer (%).

### **13 Relative speed folder (%)**

The relative speed of the folding machine in relation to the ironer (%).

### **14 Folding program**

When a folder with CAN-bus is online, the folding program which has to be used can be adjusted with this parameter. When this program is selected, the folder will switch to this folding program.

### **26 Moment start feeding in**

The moment the clamps start feeding in or start spreading with regard to the suction box :

0 = Start when front photocell is free

1 = Start when suction box finished

### **28 Distance between clamps after centering**

This parameter is the distance between the clamps after centering in case of side feeding. Steps of millimetres.

### **31 Delay start spreading after centering**

The delay between the moment the piece is centered and the moment the spreading cycle starts. Steps of 0,001s.

### **32 Only slow spreading**

Value 1 is only slow spreading without checking the photocell for slow spreading. 0 is slow spreading when photocell is covered.

### **33 Minimum width fast spreading**

Fast spreading is always done for the width adjusted in this parameter, regardless of the slow spreading photocell or parameter 32. Value is in mm.

### **34 Lifting device enabled**

Value 1 is using the lifting device. Value 0 disables the lifting device.

### **35 End spreading photocell debounce time**

The end of spreading photocell has to be covered for this time before the release cycle may start. Time is in milliseconds (0,001s).

### **36 High spreading speed (%)**

The speed which is used during fast spreading. Value is in % of the maximum speed.

**37 Action before releasing piece**

Clamp action just before release:

- 0 = No action
- 1 = Disconnect clutches
- 2 = Extra step outside

**38 Time of action before releasing piece**

The time the clamp action adjusted in parameter 37 is done. Value is in milliseconds (0,001s).

**43 Number of venturi pulses**

The number of pulses the venturi blowpipe underneath the belts is activated in case of releasing a piece.

**44 Time of one venturi pulse**

The time of one venturi pulse of the blowpipe below the belts when releasing a piece. Time is in milliseconds (0,001s).

**45 Delay between two venturi pulses**

The delay between two pulses of the venturi blowpipe below the belts when releasing a piece. Time is in milliseconds (0,001s).

**46 Number of blow-on pulses**

The number of pulses the release blowpipe is activated in case of releasing a piece.

**47 Time of one blow-on pulse**

The time of one pulse of the release blowpipe when releasing a piece. Time is in milliseconds (0,001s).

**48 Delay between two blow-on pulses**

The delay between two pulses of the release blowpipe when releasing a piece. Time is in milliseconds (0,001s).

**49 Stoptime belts during release**

The time the belts are stopped when a piece is released and layed down onto the belts. Steps of main countwheel pulses.

**51 Moment start suction box after release**

The distance the front of the piece has gone into the machine before the suction box starts. Value is in main countwheel pulses.

**52 Delay stop suction after piece in box**

The delay between the moment the piece has gone into the suction box and the moment the suction box stops. Steps of 0,01s.

**53 Overlap / minimum piece distance**

The distance the backside of the previous piece has to be out of the suction box before the next piece may be released on the conveyor. Steps of main countwheel pulses.

**54 Waitfunction belts wait for suction box**

Belts wait until piece is in suction box before restarting.

- 0 = Don't wait
- 1 = Delay after box starts
- 2 = Delay after photocell in box covered
- 3 = Delay after front photocell not covered.

**55 Time belts wait for suction box**

The time the belts wait with restarting according to the function adjusted in parameter 54. Value is in 0,01s.

**56 Maximum sheet length**

The maximum length of the pieces in this program. Can be used to decrease waiting time of pieces which don't cover the photocell in the suction box. Steps of mainwheelpulses.

**61 Moment stop conveyor for stretching**

The moment the stop conveyor is stopped to stretch the front of the piece. Steps of main countwheel pulses.

**62 Time stop conveyor for stretching**

The time/distance the stop conveyor is stopped to stretch the front of the piece. Steps of main countwheel pulses.

**63 Enable brushes at ironer**

Value 1 means that the brushes on the nose will be used. A value of 0 disables these flaps.

**64 Moment brushes at ironer down**

The moment the brushes at the ironer go down. Steps of main countwheel pulses.

**65 Enable flaps at ironer**

Value 1 means that the flaps on the nose will be used. A value of 0 disables these flaps.

**66 Moment flaps at ironer down**

The moment the flaps on the nose go down. Steps of main countwheel pulses.

**71 Feeding roll on**

A value of 1 means that the feeding roll is on during manual feeding. A value of 0 means that it is off.

**72 Suction in suction box on**

Suction during manual feeding:

0 = No suction

1 = Suction below belts

2 = Suction in suction box

**73 Brushes in suction box on**

0 means that brushes at suction box are off, 1 means that they are on during manual feeding.

## 3) Alarms

### 001 EMERGENCY STOP

One of the emergency stops on the machine is/has been pushed. When no emergency switch is active anymore, the emergency stop can be reset with the 'reset' button.

### 002 MOTOR THERMICAL OFF

The thermal protection of one of the motors is active. Check if the concerning motor is jammed and release the protection again.

### 003 VARAN-BUS ERROR

The connection with one or more backplanes on the varan IO-bus is lost. As soon as connection is re-established, message will disappear.

### 006 ERROR FREQUENCY INVERTER

One of the frequency inverters is in alarm (motor stuck?). Reset can be done by switching off the inverter with the emergency stop and wait for about 20 seconds.

### 007 24VDC POWER SUPPLY FAILURE

The transformer has detected a failure in the 24VDC circuit and switched this circuit off, because it can be caused by a short circuit.

### 010 ERROR SPREADING ENCODER

While the spreading motor was running, no pulses from the encoder have been seen for too long. Check if motor is jammed and if encoder is ok.

### 011 ERROR CLAMPS MIDDLE

The clamps of the middle station didn't return to home position in time.

### 012 ERROR CLAMP 1

The left clamp of the left station didn't return to the home position in time.

### 013 ERROR CLAMP 2

The right clamp of the left station didn't return to the home position in time.

### 014 ERROR CLAMP 3

The left clamp of the right station didn't return to the home position in time.

### 015 ERROR CLAMP 4

The right clamp of the right station didn't return to the home position in time.

### 021 ERROR RAIL IN SPREADPOS.

The rail of the middle station didn't arrive in the spreading position in time. Rail can be jammed or sensor B210 isn't working.

### 022 ERROR RAIL IN HOMEPOS.

The rail of the middle station didn't arrive in the home position in time. Rail can be jammed or sensor B220 isn't working.

### 026 ERROR CENTERSENSOR LEFT

One of the clamps of the left station didn't see the sensor for the center position (B130) in time. Clamp can be jammed or sensor isn't ok.

### 027 ERROR CENTERSENSOR RIGHT

One of the clamps of the right station didn't see the sensor for the center position (B330) in time. Clamp can be jammed or sensor isn't ok.

**033 Ironer stopped**

The contact that the ironer is stopped isn't made. Because of this contact, the main motor is not allowed to run.

**035 Fans overheated**

One of the fans in the suction box gives an overheated signal. Check if none of the fans are jammed. Error can be reset when signal is gone.

**040 Blocked by folder**

The feeding stations are blocked by the folder, because of a speed change. When the speed is changed, the stations will restart.

**045 Jam conveyor**

A piece arrived at the conveyor photocell too late. This can be caused by a jam or when pieces are on top of each other when laying down.

**047 Handprotection station 1**

The photocell for the handprotection of the left station (B100) is covered. Therefore, all stations are stopped.

**048 Handprotection station 3**

The photocell for the handprotection of the right station (B300) is covered. Therefore, all stations are stopped.

**050 Prespreading too big**

The adjusted pre-spreading (programparameter 28) is too big. Therefore, the pre-spreading is changed to a valid value.

**056 CAN-bus send error**

An error occurred during sending of data by the CAN-bus. This can be caused by a wrong connection to the other machines.

**060 Ironer stop disabled**

The ironer stop contact isn't made, so the ironer isn't running, but this contact is disabled by the machine parameter for ignoring the ironer stop.

**065 Battery almost empty**

The battery in the PLC is almost empty. It has to be replaced every year. Replace the battery as soon as possible to prevent loss of data.

**066 CPU temperature too high**

The temperature of the PLC-processor is too high. Reason can be a broken fan or a too high environment temperature.

**076 New program in ironer**

On the feeding side, a new program has been chosen. This program change is now delayed through the ironer. After the program is switched, this notification will disappear.

**083 Waiting for start**

The machine is waiting for a start signal to be given by the startbutton on this touchscreen.

**085 Operating**

The machine is running, no alarms or other notifications.