

Thermo

ELECTRON CORPORATION

☒ Thermo Ramsey ☐ Thermo Goring Kerr

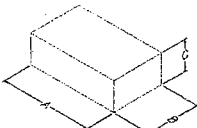
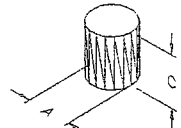
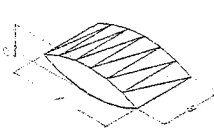
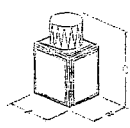
Fax (763) 780-1537

Checkweigher
Equipment SpecificationCustomer DelMonte FoodsAddress 347 N. 43rd Road, RR #3Mendota, IL 61842User Same

Address _____

Customer P.O. No. 112-05851Quote No. 0204-115-05 R1Contact or Buyer Roy Hanson E-Mail roy.hanson@delmonte.comCustomer Phone 815-562-1304 Fax No. 815-562-1317Nomenclature AC9000P-SS-5Z-STATS-COM(E)-VSF-RV-~~DSO(44)~~-CRA-FR8120W-SS-RC(2)-LH(44)-R-SPL-L-WSA-N/A-AGR-EDR2-SPEA(4)-SP2W-MAN2 WSA-SS-EXT-RC(3)-LH(44)-R-EHLX(3)-MAN2 48Drawings Required ☒ I.D. ☐ ApprovalQuantity of Units 1 Item 1A

Internal Use Only		
C No.	<u>296008</u>	
Serial No.	<u>04202857</u>	
Review	_____	
Req'd Ship Date	_____	
Eng. Specs	Date	Initial
App. Engr.	<u>4/21/04</u>	<u>GJB</u>
Revised		
Revised		

☐ Carton *	☒ Can	☐ Pouch or Bag *	☐ Bottle *	☐ Other *
				

Product	Container	Dimensions **			Weight**	Rate	ACC. @ 2 Sigma
		*A(Dia)	B	C			
Soup	Can	300		407		400	2.5 grs
		303		500		400	To
		307		407		400	3.5 grs
		307		512		400	

** Indicate Unit of Measure inches

* NOTE: "A" Dimension is parallel to travel.

Container Condition:

☐ Closed	☒ Open (indicate flaps on sketch)
☐ Frozen	☒ Unfrozen
☒ Supported	☐ Unsupported
☒ Wet	☐ Dry

Cleanup: ☐ Dry Wipedown ☒ Wet Washdown ☐ Hostile Environment

Voltage Requirements:

Input 115 Volts 115 Hertz 60 Phase 1 ☒ By Thermo ☐ By CustomerMotors DC Volts _____ Hertz _____ Phase _____ ☐ External Pots

Motors-Other Equip _____ Volts _____ Hertz _____ Phase _____

Fixed Speed (FPM) up to 300 FPM

Variable Speed (Indicate speed range, FPM) _____

Spare Parts Required: Electrical SPEA(4)Mechanical SP2WPrepared By Greg BredahlDate 3/23/04

Accepted By _____

Date _____

Project Eng Daniel Thilo 5-9-2004

Checkweigher – Equipment Specification

Item 1

Internal Use Only

Work Order

Frame: ☐ 10 ☐ 44HB ☒ 8120 ☐ ACS ☐ Rx ☐ SPL _____
 Finish Required: ☒ Stainless Steel ☐ Steel-It Type _____
 Interlock Type: ☒ Horizontal ☐ Vertical _____
 Adjustable Guide Rails: Yes

C No. 296008
 Loadcell _____

Line Height 44" (indicate as an even amount +/- 2")

Conveying Style (select one)

Chain

- ☒ Flat Top
☒ Nyatron
☐ Stainless
☐ Roller Top
☐ Stainless
☐ Micro Pitch
☐ Stainless

of Chains

2

of Supports

2

Mylar

Belt _____

Thickness (Select)

☐ 3 Mil☐ 5 Mil

☐ Wet Drive
 (if required)

Powered Weightable (Select One)

- ☐ PWT
☐ PWT (HD)
☐ PWTR
☐ PWTR (M)
☐ Belt
 Length _____
 Belt _____
☐ O-Ring (Specify _____)
☐ FR44HB
☐ 30" x 18" (Short) ☐ 36" x 18"
☐ 48" x 24" (Long) ☐ 42" x 24"
☐ _____

Reject Type ☐ Customer Mount☐ C.W. Mount☐ AJ (Air Jet/Dual Nozzle)☐ Air Pusher (Rectangular Plate)☐ Air Bopper (Round, Rubber Plate)☐ SG (Swing Gate)☐ Carrier Reject (See CR Spec)☒ Pece SlimLine

Stroke Length

☐ 1"☐ 8"☐ 4"☐ 12"☐ H.D.☐ 6"☐ 18"☐ H.D.

Infeed / Outfeed Device

Customer Infeed Tabletop Pulley 4.5"Infeed Speed (Customer conveyor speed, FPM) 100 to 116Product Spacing by Customer Jam Fed

(NOTE: If multiple product rates, indicate pitch and speed for each)

Pitch (Leading edge to Leading 9 inches)

Outfeed Speed (Customer conveyor speed, FPM) _____

☒ Infeed Length Width ☐ Transfer Plates ☐ Side Belt ☐ Other

Wormscrew

☐ Outfeed Length Width ☐ Transfer Plates ☐ Side Belt ☐ Other

Customer Outfeed (Describe) Plastic Belt Conveyor, Intralox

Pulley _____

Special Approvals

Electronics

Options

Weight Display

AC4000i

☐ Gross☐ WH☐ Dev.☐ Net

AC8000

☐ Gross☐ Dev.☐ Net

AC9000P

☒ Gross☐ Dev.☐ Net

Tracker (ASC)

Group Select

~~Servo (See Spec)~~

Com (See Spec)

Stats Package

☐

N/A

☐☐☐ Stats

N/A

☐

N/A

☐☐☐ Stats 0☐ Stats I☐ Stats II

N/A

☐☐☒☒☒ Stats 0

N/A

N/A

N/A

Printer (See Spec)

Zones

3 Zone

☐☐☐☐☐☐☐☐☒

Applies To All Electronics

Units of Measure

☒ Grams☐ Ozs.☐ Lbs.☐ Kilos☐ Other _____

Decimal Place

☐ Whole Units☐ Tenths☒ Hundredths

Remote Pedestal

☐ Cable Length 10 FT. Standard☐ Other _____☐ Tower Zone LampsNotes See attached specification notes for additional details.

Item 1

Communication Options

C Number 296008
Customer DelMonte Foods

Prepared By Greg Bredahl
Date 3/27/04

1. Select Electronics and Serial Output

- | | | | |
|---|---------------------------------|--|---|
| ☐ AC4000i | ☐ AC4000 | ☐ Modbus | ☐ Profibus-DP |
| ☐ RS232C | | ☐ DeviceNet | ☐ A/B DF1 |
| ☐ RS422 / 485 | | | |
| | | | |
| ☐ AC8000 | | | |
| ☐ RS432 / 232 | | | |
| ☐ RS422 | | | |
| | | | |
| ☒ AC9000(P) | | ☐ Modbus | ☐ Profibus-DP |
| ☐ RS423 / 232 | | ☐ DeviceNet | ☐ A/B Remote I/O |
| ☐ RS422 | | | |
| | | | |
| ☐ Metal Scout IIe | | ☐ Modbus | ☐ Profibus-DP |
| ☐ RS232C | | ☐ DeviceNet | ☐ A/B Remote I/O |
| ☐ RS422 / 485 | | ☐ MetalNet/Modbus | |

2. Optional Equipment

- ☐ Com Connector only
☐ Com Cable, _____ Ft. Long
☐ Serial Printer
☐ Spooler and Cable

3. Comments Ethernet (TCP)

Item 1
246008

Del Monte Foods
P.O. 112-05851
Specification Notes

1. Reference drawing D16003K-S104B, except change direction of flow from "Left to Right" to "Right to Left". Reject to the left (operators side) looking downstream. Also remove the outfeed reject conveyor.
2. Loadcell, 15kg
3. Wormscrew infeed including extended bed chain conveyor with wormscrew overhang. Three ^{S.S.} ~~nylon~~ chains on extended bed chain conveyor. ~~Three~~ extra helixes. Washdown DC variable speed motors for the extended bed chain conveyor.
4. Standard ^{Two} washdown DC variable speed motor for weighframe.
5. Voltage Speed Follower Circuit, 4-20 milli-amp, customer to provide signal equal to 0 to maximum FPM.
6. Weighframe outfeed deadplates shall be machined with tight radius deadplates.
7. ~~Digital servo control (averaging type)~~
8. Auxiliary signal off motor starter for on/off.
9. Fault relay dry contact signal.
10. Cluster Lube.
11. Modbus TCP Ethernet.
12. Remote emergency stop including start/stop
13. Reject Verification.
14. Consecutive Reject Alarm.
15. Line Height: 44 inches, +/-2 inch adjustment.
16. Reject Device: Peco Model Slimline Flexible Rail Assembly reject device.

100

100

100

ICORE PRODUCTS

AC9000 PLUS SPARE PARTS

Customer: DEL MONTE C# 296008

Prepared By: DFT Date: 04/07/04

	DESCRIPTION	PART NO.	QTY
☒	SP-1 Always Provided Spares		
	- Fuse, Slo-Blo, 6.25 Amp	025414	3
☒	SPEA-4		
	- Boot, Sw, Toggle	026856	1
	- PCBA, Distribution Bd	047276	1
	- PCBA, CPU, Mother Bd, AC9 Plus	068109	1
	- Display, LCD, CL, LM64C350, AC9 Plus	058498	1
☐	SPEA-5		
	- Boot, Sw, Toggle	026856	1
	- PCBA, Distribution Bd	047276	1
	- PCBA, CPU, Mother Bd, AC9 Plus	068109	1
	- PCBA, Micro Controller Bd	047277	1
	- Touch panel Elex, AC9000 Plus	058264	1
	- Display, LCD, CL, LM64C350, AC9 Plus	058498	1
	- Power Supply Quad $\pm$ 5V, 12V	047279	1
☐	SPEA-6		
	- PCBA, CPU, Mother BD, AC9 Plus	068109	1

**ICORE PRODUCTS
FRAME 8120 SPARE PARTS**

CUSTOMER DEL MONTE C# 296008

PREPARED BY: DFT DATE: 04/07/04

	DESCRIPTION	Part No.	Qty
☐	SP-2		
	Belt Timing, 3mm, 171GR 20.2"	019938	1
	Brg., Flange, 2 bolg, .625 Nickel	047087	2
	Photosnsr, RCV, Modled, SCN	045914	1
	Photosnsr, SCE, Modled, SCN	045913	1
	Brush, Mtr, Water-tight	040869	2
☒	SP-2-W		
	Belt Timing, 3mm, 171GR 20.2"	019938	1
	Brg., Flange, 2 bolg, .625 Nickel	047087	2
	Photosnsr, RCV, Modled, SCN	045914	1
	Photosnsr, SCE, Modled, SCN	045913	1
	Sensor, Speed, Pos., Magnetic	050726	1
	Gear Spur, 72T, 3.0 PD .25 FW	019841	1
	Brush, Mtr, Water-tight	040882	2
☐	SP-3		
	Select 1 of 2		
☐	(55-300 FPM)		
	Mtr. DC, PM, .33hp, TENV, 42C	041186	1
	Pulley, Tmg, 3mm, 9mm W, 72T	019846	1
	Pulley Assy, Mtr, AC8120 CKwr	039307	1
☐	(110-550 FPM)		
	Mtr., DC, PM, .33hp, TENV, 42C	041186	1
	Pulley, Tmg, 3mm, 9mm W, 60T	019845	1
	Pulley, Tmg, 3mm, 9mm W, 30T	019843	1

DATE: 6/8/04 C# 296008
CUSTOMER: Delmonte S/N# 04202857

PREPARED BY PTL

MACHINE TYPE MENU

AME TYPE
MACHINE TYPE
ROLLER DIAMETER
INFEED
OUTFEED
EXCIT. FREQUENCY

FR8120 13K3
5 zone usa
1
yes
yes
12.538

MACHINE CONFIGURATION PAGE 1

CHECKWEIGHTER ID
LENGTHS UNITS

WEIGHTABLE LENGTH

TRANSFER DISTANCE

LENGTH TO OUTFEED

WEIGHTABLE BELT LENGTH

OUTFEED BELT LENGTH

INFEED BELT LENGTH

PRINTER REPORTS

PRINTER REPORTS COLUMNS

PRINTER ALARMS

LOW AVERAGE REJECTS ZONE 2

REMOTE SPEED CONTROL

PASSWORD PROTECTION TIMEOUT

AUTOMATICALLY RESET LONG TERM STATS

9
1A
8
8
22
28
28
28
no
no
0
no

MACHINE CONFIGURATION PAGE 2

WARMUP TIME

NSEC. REJECTS

CUSTOMER NAME

PRODUCTION LINE

AUTO RESET GRAYZONE

SPEED CONTROL MODULATION

SPEED UNITS

SPEED CAPACITY WEIGHTABLE

SPEED CAPACITY INFEED

SPEED CAPACITY OUTFEED

-
500
-
-
yes
no
FPM
400
400
400

W_TABL PROP BAND 200
INFEED PROP BAND 200
OUTFEED PROP BAND 200

INTEGRAL TIME 1
INTEGRAL TIME 1
INTEGRAL TIME 1

METROLOGICAL SETUP MENU

WEIGH UNITS

LC CAPACITY

LC SENSITIVITY

SCALE INTERVAL (e)

MAXIMUM SCALE CAPACITY

AUTO ZERO

REZERO INTERVAL FOR ALARM

STABILITY BAND FOR AZT +/-

AZT MAX. DEVIATION

AZT NUMBER OF ACQUISITIONS

NUM OF CALIBRATION PASSES

MINIMUM PER CENT ZONE 2

15000
2
.01
15000
yes
100
.5
2
5
8
2.5

TYPE OF CONTROL
PULSE DURATION
HEADS NUMBER
TRIGGER DELAY

VENT RECORDING MENU

ENTER EVENT MESSAGE 1
ENTER EVENT MESSAGE 2
ENTER EVENT MESSAGE 3
PRINT TIME ?
PRINT DATE ?
PRINTER

EXTERNAL REJECT CONTROL

TRIGGER DELAY
WAITING WINDOW
ASSIGN TO DIVERter

DISPLAY INFORMATION SETUP MENU, PAGE 1

KEY AND ALARM SOUND	NO
GAUSS CURVE RANGE	5
GAUSS CURVE REFRESH TIME	5
GAUSS CURVE HEIGHT FACTOR	5
STATISTICS BY COUNTS	10
SAVE SCREEN TIME	300

DISPLAY INFORMATION SETUP MENU, PAGE 2

WEIGHT MENU LINE 1	Product Name
WEIGHT MENU LINE 2	Product Number
WEIGHT MENU LINE 3	Rate
WEIGHT MENU LINE 4	Standard Dev
WEIGHT MENU LINE 5	Product Code
WEIGHT MENU LINE 6	Batch ID
WEIGHT MENU LINE 7	Product Line
WEIGHT MENU LINE 8	Empty Line
WEIGHT MENU INDICATOR	Actual Weight
WEIGHT MENU BAR GRAPH	Yield

MULTI PRODUCT SETUP MENU
NUMBER OF PRODUCTS

DIVERTERS CHECK MENU

CHECK TIME DIV 1
CHECK TIME DIV 2
CHECK TIME DIV 3
CHECK TIME DIV 4
CHECK TIME DIV 5
CHECK TIME DIV 6
CHECK TIME DIV 7
CHECK TIME DIV 8
CHECK TIME DIV 9
CHECK TIME DIV 10
CHECK TIME DIV 11

REFERENCE NET WEIGHT	900		
UNIT WEIGHT	900		
PRODUCT TARE WEIGHT	0		
PRODUCT LENGTH	7		
MAXIMUM PRODUCT WEIGHT	5000		
MINIMUM PRODUCT WEIGHT	0		
PRODUCT NAME	-		
PRODUCT CODE	-		
WEIGHTABLE SPEED	300		
INFEED TABLE SPEED	300		
OUT FEED TABLE SPEED	300		

SETUP PRODUCT, PAGE 2

SECOND UPPER CUTPOINT	10		
FIRST UPPER CUTPOINT	5		
FIRST OVER CUTPOINT	5		
SECOND OVER CUTPOINT	10		

SETUP PRODUCT, PAGE 3

ZONE 1 ASSIGNED TO DIVERter	1		
ZONE 2 ASSIGNED TO DIVERter	2		
ZONE 3 ASSIGNED TO DIVERter	3		
ZONE 4 ASSIGNED TO DIVERter	4		
ZONE 5 ASSIGNED TO DIVERter	5		
NO GAP ASSIGNED TO DIVERter	11		

SETUP PRODUCT, PAGE 4

DIVERter 1 DELAY	35		
DURATION	.1		
DIVERter 2 DELAY			
DURATION			
DIVERter 3 DELAY			
DURATION			
DIVERter 4 DELAY			
DURATION			
DIVERter 5 DELAY			
DURATION			
DIVERter 6 DELAY			
DURATION			

SETUP PRODUCT, PAGE 5

SERVO PRODUCT DELAY			
SERVO FILL SENSIT. [PLS]			
MAX CORRECTION [PLS]			
SERVO FILL CAPACITY [mA]			
SERVO TARGET WEIGHT			
PACKAGE COUNT FOR AVERAGE			
SERVO H LIMIT EXCLUSION			
SERVO L LIMIT EXCLUSION			
SERVO DEAD BAND			
SERVO PROPORTIONAL FACTOR			
SERVO INTEGRAL FACTOR			
SERVO START UP QUEUE			

SERVO MODULATION
SERVO MODULATION MAXIMUM
SERVO Z FACTOR

并

#2

 $\frac{21}{12}3$

TRACKER STATUS
SAMPLE SIZE
TRACK ZONE
TRACKER REFERENCE WEIGHT
OFFSET HIGH LIMIT
OFFSET LOW LIMIT
UNIT WEIGHT

FORWARD STATUS
FORWARD OFFSET HIGH LIMIT
FORWARD OFFSET LOW LIMIT
FORWARD MAX CORRECTION TIME
FORWARD CORRECTION DISTANCE

INTERROGATE DELAY

L15 - RESET SERVO

NORMALLY

802

DIGITAL INPUTS SETUP MENU, PAGE 2

L16 - EXTERN REJECT

L17 - CHECK DIV 1

L18 - CHECK DIV 2

L19 - CHECK DIV 3

L20 - CHECK DIV 4

L21 - CHECK DIV 5

L22 - CHECK DIV 6

L23 - CHECK DIV 7

L24 - CHECK DIV 8

L25 - CHECK DIV 9

L26 - CHECK DIV 10

L27 - CHECK DIV 11

L28 - MOTORS INTERL.

L29 - SYNCRO HEADS

1-2

1-5

NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY
NORMALLY

close

close

DIGITAL INPUTS SETUP MENU, PAGE 3

L30 - EVENT RECORD.1

L31 - EVENT RECORD.2

L32 - EVENT RECORD.3

NORMALLY
NORMALLY
NORMALLY

DIGITAL OUTPUTS SETUP MENU

L01 - DIVERter 1

L02 - DIVERter 2

L03 - DIVERter 3

L04 - DIVERter 4

L05 - DIVERter 5

L06 - DIVERter 6

L07 - DIVERter 7

L08 - DIVERter 8

L09 - DIVERter 9

L10 - DIVERter 10

L11 - DIVERter 11

L12 - SERVO ACT

L13 - SERVO ACT-

1-1
1-2
1-3
1-4
1-5

L14 - ZONE LAMP 1
L15 - ZONE LAMP 2
L16 - ZONE LAMP 3
L17 - ZONE LAMP 4
L18 - ZONE LAMP 5
L19 - READY
L20 - NEED AZT
L21 - CUM ALARMS
L22 - CUM SHUTD
L23 - HORN
L24 - FORWARD
L25 - DIV. FAILS

ZL1
ZL2
ZL3
ZL4
ZL5
1-6

1-7

1-8

ANALOG OUTPUTS SETUP MENU

D_B_A #1 OUT 1

D_B_A #2 OUT 2

D_B_A #3 OUT 3

Infeed
Weightpile
Outfeed

0-20 mA / 0-10 V
0-20 mA / 0-10 V
0-20 mA / 0-10 V

COM LINE SETUP MENU

CONNECTED WITH

modem

WORD LENGTH

PARITY

CLEAR TO SEND

SEND OF LINE DELAY

LINE TERMINATOR

8
Even
Ignored
NO
CR/LF

STOP BITS
BAUDRATE

1
9600

Alarm

~~Alarm~~

Alarm

Alarm

Alarm

Alarm

ERROR EXT PRODUCT

~~Alarm~~
Alarm
Alarm
Alarm

PACKAGE WEIGHT OVER MAXIMUM

Alarm
Alarm

Alarm
Alarm
~~Alarm~~

INSTALLING DIAGNOSTICS

	#1		#2		#3	
	DYFACT	STFACT	DYFACT	STFACT	DYFACT	STFACT
ZERO	<u>-12.1</u>	<u>7180</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
SPAN	<u>998</u>	<u>116</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
ANALOG FILTER f _c	<u>18</u>	<u>4</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
DIGITAL FILTER f _c	<u>0</u>	<u>4</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
AVERAGE TIME	<u>.22</u>	<u>.1</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
INTERROGATE DELAY	<u>6.8</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
RESTART EMPTY TABLE ACQ.	<u>10</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
SET TARE	<u>36</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
MECHANICAL TARE CONSTANT	<u>128</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
HARDWARE GAIN	<u>3</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
PRESALER WEIGHTABLE	<u>12</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
PRESALER INFEEED	<u>17</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
PRESALER OUTFEED	<u>36</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

VERSION

PC BOARD SOFTWARE VERSION 54.00.01.11
 DRAWING NUMBER 07282K-V010-21 REV. 1.11

MB

A/D BOARD SOFTWARE VERSION 30.00.10.M8
 DRAWING NUMBER 07282K-V004 REV. 10.M8

INSTALLED OPTIONS

- ☐ FILLER CONTROL
- ☐ PRODUCT TRACKING
- ☐ EVENT RECORDING
- ☐ EXTERNAL REJECT CONTROL
- ☐ W & M
- ☐ NETWORK
- ☐ MULTIPRODUCT
- ☒ MODEBUS CONNECTION
- ☐ ALLEN BRADLEY CONNECTION
- ☐ FORWARD
- ☒ DIVERTER'S CHECK
- ☐ EEC STATISTICS
- ☒ HISTOGRAM DISPLAY
- ☒ CONS REJECT ALARM
- ☐ PRINTER
- ☐ SERVO MODULATION
- ☐ MODEM
- ☐ EXTRA PRODUCT MEMORIES
- ☒ BASIC STATISTICS