JEM INTERNATIONAL, INC.
Distributor of:
Express Scale Parts, Inc.

# USER'S OPERATION MANUAL

CUSTOMER: **Brodsky & Associates** S/O#: **21864**

MODEL#: **VSP-22** SERIAL #: **040203**

CONTROLLER: **465** SERIAL #: 003351

PROGRAM #: **VSP22 1_02.TXT**

ELECTRICAL (Control): **110** Volts A.C. **1** Phase **60** Hz

ELECTRICAL (Motor): **240** Volts A.C. **3** Phase **60** Hz

AIR: **80** PSI at **4** SCFM, CLEAN & DRY

SPECIAL FEATURES:

Express Scale Parts, Inc. 6873 Martindale Shawnee, Kansas USA 66218-9354
Phone: 913-441-4787 Fax: 913-441-1711 e-mail: info@jemesp.com

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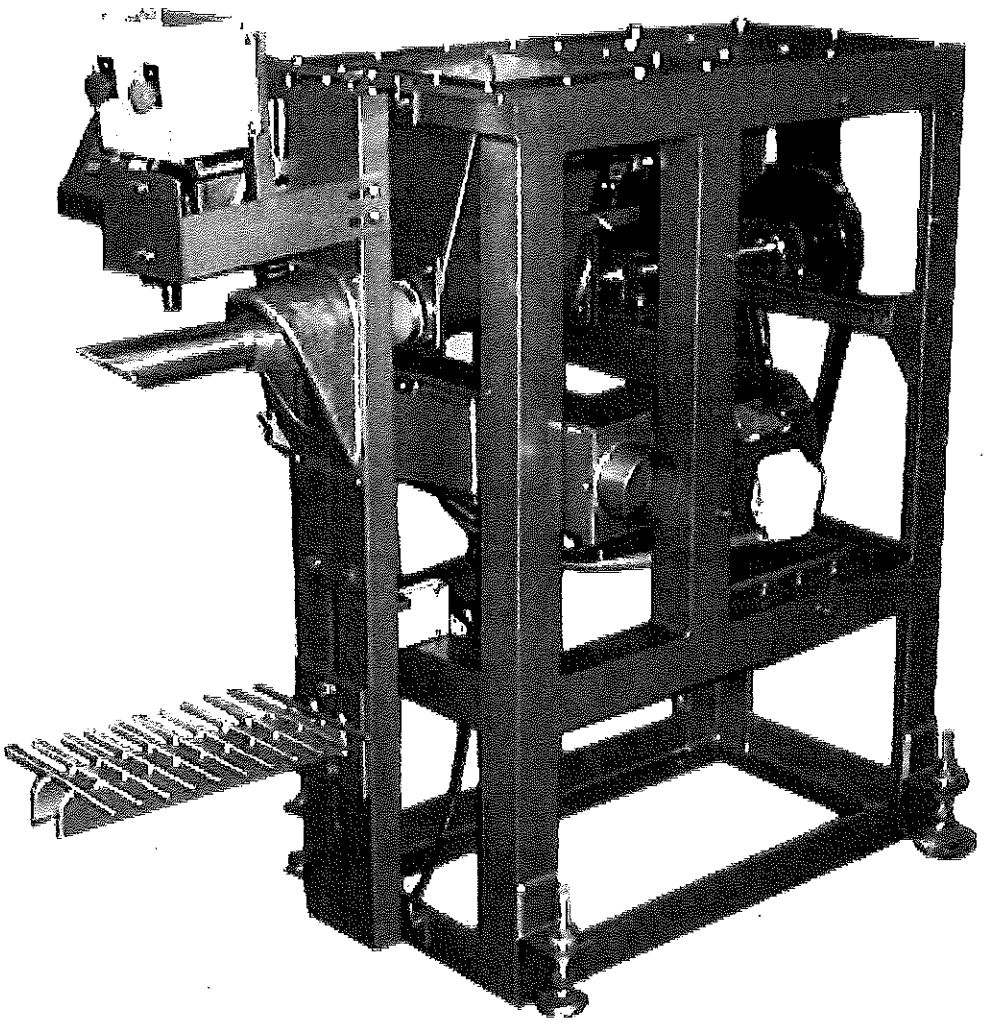
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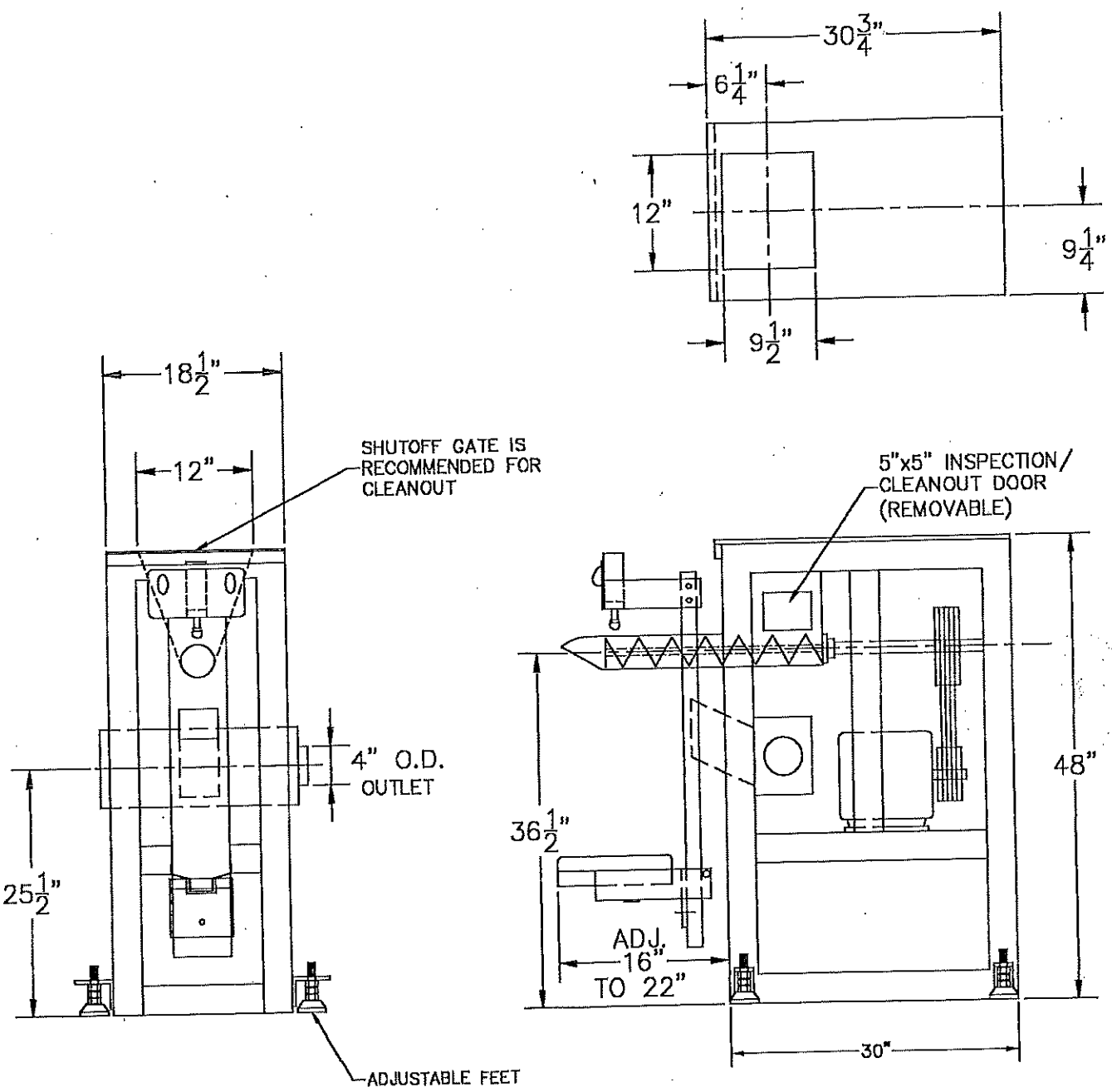
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# I. INTRODUCTION

## A. Description

The VSP-22 screw packer is designed to simultaneously fill and weigh multi-wall or plastic bags with a wide variety of sticky and non free flowing materials. The machine is designed to handle 3 to 5 (50 lb) bags per minute.






*APPROVED BY:* _____

*DATE:* _____

CUSTOMER'S BAG HAS 4–1/2" VALVE,
WHICH REQUIRES 2–1/2" O.D. FILLING TUBE

| REV. A | *EXPRESS SCALE PARTS, INC.* | | | |
|---|---|---|---|---|
| REV. B | 6873 MARTINDALE RD. SHAWNEE, KANSAS 66218 (913) 441-4787 | | | |
| REV. C | NAME: VSP–22 SCREW PACKER (SHORTENED 12") | | | |
| REV. D | FOR: *BULK PROCESS EQUIPMENT* | | | |
| REV. E | TOLERANCE | MATERIAL | D.N.S. | PART NUMBER |
| REV. F | | | | |
| REV. G | DRAWING NUMBER: SVP073A | DRAWN BY: COUGHLIN | DATE: 05–07–02 | PART NUMBER |

# VSP-22 SCREW PACKER SPECIFICATIONS

| | |
|---|---|
| SHIPPING WEIGHT: | 1,100 lbs. |
| BAG WEIGHT: | 25 lbs to 110 lbs (pasted, sewn valve, or plastic) |
| PRODUCTION RATE: | 3 to 5 bags per minute |
| FILLING TUBES: | 2½", 3", 3¼", 3½" OD |
| AIR REQUIREMENTS: | |
| ELECTRICAL: | 240/480 Volt Transformer provided, supplying: |
| | 3 HP, 1750 RPM, AC Motor |
| | 115 Volt, 1 PH, 60 Hz controls |
| OPTIONAL EQUIPMENT: | Stainless steel construction |
| | Gravity of hand filled bag discharge |
| | Power bag discharge |
| | Automatic start switch |
| | Bulk plus dribble speed |

# II. INSTALLATION

## A. Precaution:

For transfer of the packer, the capacity of the transport equipment must be at least 1,200 lbs. The foundation for the VSP-24 screw packer must be solid and vibration free to achieve the best weight accuracy.

## B. Procedures:

The screw packer should be installed on level surface and be centered with the centerline of the hopper.

The machine is supplied with a filter regulator system for receiving air.

A ¼" male quick connect pipe connection is supplied on the scale. The regulator should be set at 40 PSI. Then connect the supply, 3 phase voltage to L1, L2, and L3 and the single phase voltage to LN. Make sure that the machine is grounded properly.

DISCONNECT LOAD CELL

Because of shipping reasons, the load cell is disconnected from the bag chair post. This needs to be reconnected before operating the scale.

1. Turn the load cell 180° from shipping position and hand tighten all the 2 x 4 bolts. (Shown in fig. 2)
2. Remove the red shipping plates by loosening the bolts (2 x 4 bolts) and hand tighten them back with the flex plates and the flex locking plates in place. The red shipping plates with the flex plates and bars are located on the top and bottom of the bag chair post. (Shown in figs. 3 and 4)
3. Tighten the load cell. After tightening the bolts on the load cell make sure that the auger is centered in the filling tube. If not, loosen the top four bolts on the load cell and readjust the filling tube, then tighten the bolts.
4. Tighten the flex plates with 2 x 4 bolts

LOAD CELL CONNECTION TO THE GSE DIGITAL CONTROLLER:

| | | |
|---|---|---|
| EXC + = Red | SIG + = Green | SHIELD |
| EXC - = Black | SIG - = White | |

Load cell in shipping position

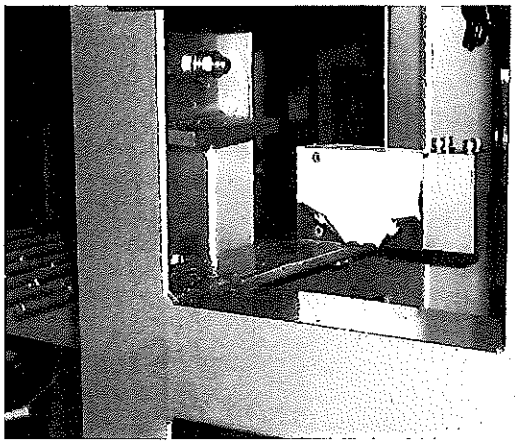


Fig. 1

Load cell turned 180 degrees and connected

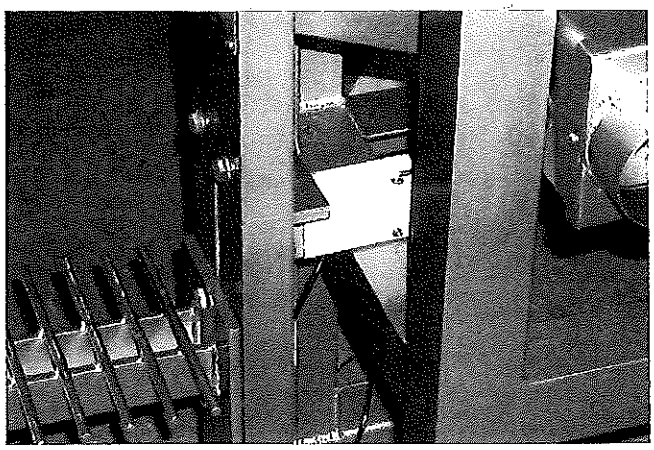


Fig. 2

## Remove red plate (flex mounting bracket) prior to operating equipment

Fig. 3

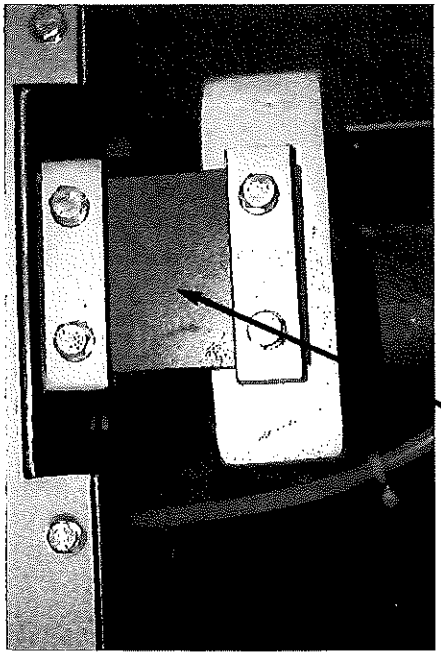
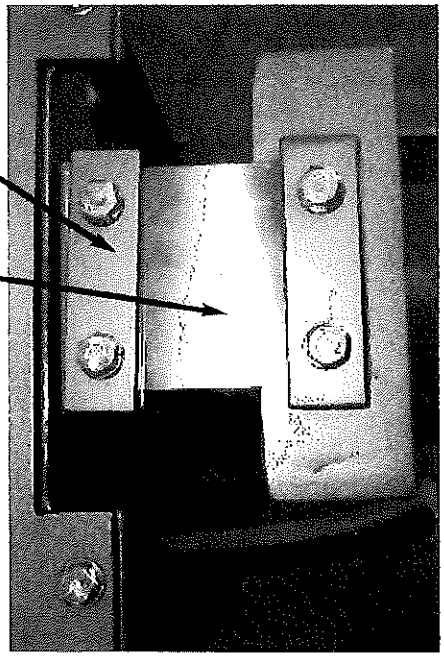
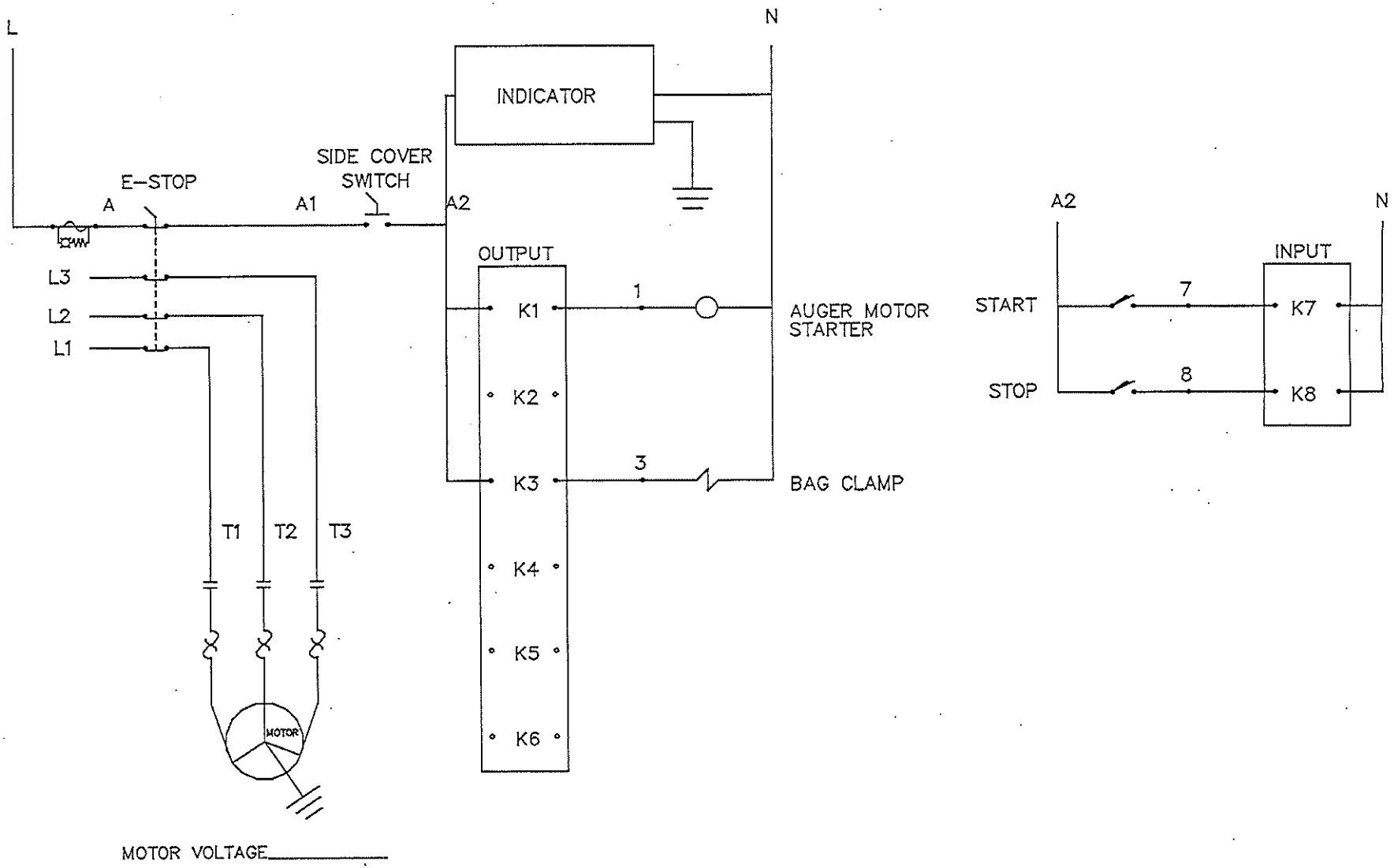



Fig. 4






*NOTE:*
CONNECT _____
SUPPLY VOLTAGE TO _____
CONNECT _____
SUPPLY VOLTAGE TO _____

REV. A
REV. B
REV. C
REV. D
REV. E
REV. F
REV. G

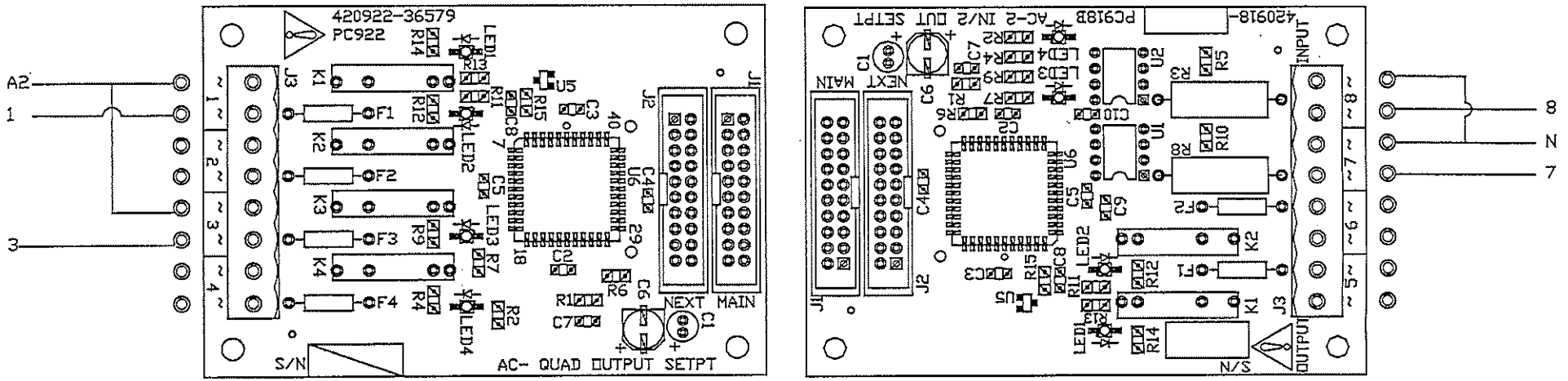
*EXPRESS SCALE PARTS, INC.*
*6873 MARTINDALE RD. SHAWNEE, KANSAS 66218 (913) 441-4787*

NAME: GSE MODEL 600 PROCESSOR
INPUT/OUTPUT CHART PAGE 1 OF 2

FOR: *VSP-22*

| TOLERANCE | MATERIAL | D.N.S. | PART NUMBER |
|---|---|---|---|
| | | D.N.S. | |

| DRAWING NUMBER | BY | DATE | SERIAL NUMBER |
|---|---|---|---|
| VGSE003 | G SELF | 04-19-02 | 040203 |




| | | | | |
|---|---|---|---|---|
| REV. A | EXPRESS SCALE PARTS, INC. | | | |
| REV. B | 6873 MARTINDALE RD. SHAWNEE, KANSAS 66218 (913) 441-4787 | | | |
| REV. C | NAME: GSE MODEL 600 PROCESSOR INPUT/OUTPUT CHART PAGE 2 OF 2 | | | |
| REV. D | FOR: VSP-22 | | | |
| REV. E | | | | |
| REV. F | TOLERANCE | MATERIAL | D.N.S. D.N.S. | PART NUMBER |
| REV. G | DRAWING NUMBER VGSE004 | BY G SELF | DATE 04-19-02 | SERIAL NUMBER 040203 |

# III. SEQUENCE OF OPERATION

Pulling the **E-STOP** out powers up the machine, then pressing the **F1** key puts the packer into run mode.
The operator places the bag on the filling tube, pushing against the cone, which will determine the position of the bag. If an auto start switch is supplied with the scale, then the filling cycle will start automatically as the bag hits the auto start switch. If not, the operator needs to hit the **START** (green) push button.

The bag clamp will clamp the bag on the filling tube to make sure it will not move during the filling cycle.

After pressing the **START** push button the packer will start filling up the bag and will shut off when the weight of the bag reaches Final Weight less the Free Fall value. Free Fall is the amount of product in suspension. After the delay timer times out, the bag clamp releases the bag and the operator can set it on the take away conveyor or pallet.

If there is any problem the machine can be stopped by the **STOP** (red) push button or the **E-STOP** on the control box, which shuts the power off to the packer.

# 465

# *Programmable Controller*

## *Instruction Manual*

VERSION 1-20 VSP-22




**Express Scale Parts**

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# CALIBRATION PROCEDURE

To put the controller in the calibration mode, you must key-in100 **SELECT** 54321 **ID ENTER**
(Follow the prompts on the upper display, remembering ENTER=yes / CLR= no)

New Zero? : Tells the controller what will be established as a ZERO point. **PRESS ENTER**

Units = : Using the **UNITS** key, toggle through the available units until the correct one is selected.

Key in Calibration Weight : hang calibration mass from the filling tube and**key in the exact weight** of the mass including any other objects used to support or suspend mass from the filling tube.**PRESS ENTER**

Calibration OK? : If upper display is equal to the amount keyed in**PRESS ENTER.**

If upper display is not equal to the amount keyed in press CLR and start at ( New Zero ? )

If the display reads Code 39 check A/D Cal press CLR key

If the display reads Setup ENTER = CAL press CLR key

If the display reads Setup ENTER = SAVE press the ENTER key

If the display reads Setup ENTER = EXIT press the ENTER key

# Keypad Operation

## KEY FUNCTIONS

F1: Toggles the scale ON/OFF

TARGET: Displays Target Weight for approximately one second (View only)

SCALE SELECT: When viewing or changing a set up parameter, the **SCALE SELECT** key will return the controller back to the main display.

ZERO: Zeros out the Indicator

UNITS: Toggles through the available weighing units.

SELECT: Toggles through the set up parameters where a number of changes can be made that effects how the scale will operate.

TARE: Tares off the value of the bag weight.

ENTER/yes: When a change is made to a setup parameter, the new value must be entered. (Also doubles as a YES command)

CLR/no: When an unwanted value is keyed in, it can be cleared before pressing the ENTER key. (Also doubles as a NO command)

## SETUP PARAMETERS

FINAL TARGET: Desired bag weight

FREE-FALL: The value deducted from the **FINAL TARGET** weight to allow for product in suspension.

CLAMP TIMER: The time delay after WEIGHT COMPLETE, until the bag clamp releases.

## SETTING THE 465 PROGRAMMABLE CONTROLLER

Set the Final Target as your desired bag weight. Run a couple of weighments. Notice the weighments and set the average of the excessive weight over the Final Weight as Free Fall.

For example, your weighments are the following:
50.7, 51.1, 50.9 then your Free Fall will be 0.9 if your Final Target Weight is 50 lbs.

The clamp timer should be set 0.5 seconds longer than the time it takes the auger to completely stop.

# *Appendix E* Error Codes / Messages

This sections describes all error codes generated by 60 Series Instruments. Most error codes show a two-digit code reference along with a short text message. Possible causes and remedies are described for each error.

## Operational Mode Error Codes

| Message | Description |
|---|---|
| CodE02 Under Load! | Input signal less than negative full scale. If this is due to excessive loading, reduce the load. Otherwise check the load cell connections. If a 4 wire load cell cable is being used, check that the sense jumpers are in place. Verify that the capacity selection **P110** is correct. Use the Information parameters, especially **P61103** and **P61104**, to check the setup and input signal. |
| CodE03 Over- Load! | Input signal is greater than positive full scale. Use same check as for underload. |
| CodE04 #> Dsply | Number to be displayed will not fit within 6 digits. This will not normally occur for the Gross, Net or Tare Weights but may result while displaying the accumulated totals if the amount exceeds 999,999. Either clear the totals or settle for only being able to transmit the totals. |
| CodE05 Zero> Max.! | An attempt was made to zero out more than allowed per **P118** selection. Use the [TARE] key for subtracting off container weights or if large dead-load is always to be present, apply this dead-load during the No Load? prompt during calibration to permanently eliminate the offset. |
| CodE06 Tare> F.S.! | Tare entry was greater than full scale. Most likely the entered tare value was incorrect. |
| CodE07 Tare< 0! | Negative tare attempted, but not allowed per **P162**. For auto-tares, the GROSS Weight must be greater than zero unless **P162** is changed to allow negative tares. |
| CodE08 Check Conn | The signal into the A/D is greater than +/- 2 times the expected full scale signal. For example if the full scale capacity at P110 is 100, then the error message will be displayed at +/- 208 taking into consideration the 4% overload. This error usually indicates a defective or incorrectly wired load cell. |

# SETUP MODE ERROR CODES

| MESSAGE | DESCRIPTION |
|---|---|
| CodE 10 Entry >Max! | An entry was made which had more characters than allowed. The most likely cause is making an entry for an ID that is longer than the programmed size of that ID. |
| CodE 11 WRONG CODE! | The incorrect access code was entered, thus preventing changes. In order to access the Setup Mode, either the proper code must be entered or the **[ENTER]** key must be pressed alone (to view selections without making changes). |
| CodE 12 No Mods! | The Setup Mode is being accessed, but changes are prevented. |
| CodE 13 Outof Range | An entry made for a selection was beyond the range of valid choices. Also, an out of range error will occur during the execution of a macro utilizing the "%m" command. For example, if the command wants to strip out characters 5 through 8 and the string is only set for 2 characters, this error will occur. |
| CodE 14 Must Kevin | The choice for the current parameter must be keyed in. |
| CodE 15 Size >Max! | The size of one of the input interpreter, macro or custom transmit tables has exceeded it's limit. Input interpreter size is limited to 198 for 660 Series, 98 for all other products; macro size is limited to 9996; custom transmit size is limited to 3997. |
| CodE 16 CHECK JUMPR | A programming operation was attempted when the program jumper is installed. Installation of this jumper will prohibit any programming changes. |

# HARDWARE PROBLEM ERROR CODES

| MESSAGE | DESCRIPTION |
|---|---|
| CodE 17 A/D BAD! | The processor has detected a problem with the A/D chip. Several situations could cause this error message to be displayed. The most severe situation would be a damaged or defective A/D. In this case it will have to be replaced. Other possibilities include:<br>1. **Faulty chip solder:** The solder on the surface mount chip (U4) is faulty and should be re-soldered. This task should be performed by a technician qualified for surface mount repair.<br>2. **Wet/damp:** The unit was water damaged or is simply in a damp environment and condensation has built up on the A/D and is shorting the component. A heat gun or common blow dryer used *carefully* will sufficiently dry the area. |
| CodE 18 BufSz Max! | The accumulative *total* buffer size for both the TX and RX buffers of all COMM ports exceeds the reserved storage capacity (8192 bytes for the 660 Series; 4096 bytes for the 460 Series). If entries to the "buffer size" parameters (P207-P208) exceed this total, this error message will be displayed. |
| CodE 19 vData &Stop | Certain combinations of protocol are not available. The protocol combination selections are in P201, P202 and P203. This error occurs if an illegal protocol combination is selected. Refer to *Chapter 8, Communications* for more information. |

| Message | Description |
|---|---|
| CodE20 Defit A/D | The A/D calibration data is corrupt. When the Information modes are accessed (P61100) this message will be displayed for 1 second and P61113 – P61116 are defaulted to a factor of 1. This will also happen on power-up if the check-sum for the A/D data are corrupted. |
| CodE21 Write NVErr | Error reading data from the EEPROM. Possible U27 or U28 problem. |
| CodE22 Read NVErr | Error writing data to the EEPROM. Possible U27 or U28 problem. |
| CodE23 Check NVPar | Supplementary error message for above errors. |
| CodE24 NVPar Full! | The setup being attempted requires more EEPROM than is currently installed. |
| CodE25 Defit Setup | Upon power-up the indicator has not found the proper codes. Therefore, all parameters have been reset to factory default values. |
| CodE26 Bad Setup | The stored data has a checksum error. Check all parameters or re-load setup. |
| CodE27 RE-BOOT! | The indicator cannot use the EEPROM for data storage and is attempting to power-up again to cure the problem. |
| CodE29 PIN error | The $E^2$ is corrupted in the PIN section. Check $E^2$ for problems. The access code is then defaulted to the manufacturer (GSE) access code. Also refer to Error 11. |

# Calibration Error Codes

| Message | Description |
|---|---|
| CodE30 F.S.> MAX! | The entered calibration weight, together with the currently applied signal, indicates that the full scale signal will be greater than the allowed maximum of the controller. Verify that correct entries have been made for the capacity, **P110**, and for the calibration weight. If all appears correct, refer to the use of the Information parameter **P61100**, and determine the output (in mV / volt) of the connected load cell. |
| CodE31 F.S.< .1mVv | The entered calibration weight, together with the currently applied signal, indicates that the full scale signal will be less than the allowed minimum of the controller. Verify the proper entries for the capacity, **P110**, and for the calibration weight. If all appears correct, refer to the use of the Information parameters, **P61100**, and determine the output (in mV / volt) of the connected load cell. |
| CodE32 ADD MORE! | The applied weight during calibration was less than 0.1% of capacity. More weight than this is required. Refer to **P61100** if this is incorrect. |
| CodE33 ReCAL Req'd | The just completed calibration is insufficient to guarantee accurate results due to either the cal weight being less than 5% of capacity or this was the first calibration of this platform to this indicator and, therefore, the coarse gain was adjusted by the indicator. |
| CodE34 RES> 25K! | The current combination of capacity **P110** and increment **P111** result in a resolution greater than 25,000 graduations. This is simply a warning in case this was not intended. |
| CodE35 RES> 100K! | The current combination of capacity **P110** and increment **P111** result in a resolution greater than 100,000 graduations. This is not allowed and as soon as any key is pressed the controller will jump back into the setup mode to parameter **P110** to verify the settings. |

| Message | Description |
|---|---|
| CodE36 RES< 100! | The current combination of capacity P110 and increment P111 result in a resolution less than 100 graduations. This is simply a warning in case this was not intended. |
| CodE37 RES< 1!! | The current combination of capacity P110 and increment P111 result in a resolution less than 1 graduation (for example, the increment is greater than capacity). This is not allowed and as soon as any key is pressed the controller will jump back into the Setup Mode to parameter P110 to verify the settings. |
| CodE38 Range Error | In the multi-range setup, the low range exceeds the full scale capacity, or the middle range is less than the low range. Pressing any key will automatically select the parameter and allow you to correct it. |
| CodE39 ✓A/D Cal | The A/D calibration values for one of the scales (shown as an inverse digit) have not been entered. Refer to *Restoring A/D Calibration Values* in Chapter 4. |

# General Error Codes

| Message | Description |
|---|---|
| CodE40 No PDIO | PDIO channel #8 is enabled on a 660 Series controller with an LCD display and Modbus configured for RTU mode. This combination is not allowed. PDIO channel #8 must be set to "None" at P851 or Modbus set to ASCII at P210. |
| CodE41 Idnot Used! | If a string type variable that has not been setup (for example, had its size set to a non-zero value.) is accessed (by pressing [3] [ID] for example), or if no string type variables have been setup, then this message will occur. |
| CodE42 Check Setup | A sample operation was performed with a sample size of "0" at parameter P34. |
| CodE43 dbNOT SETUP | An attempt to access an undefined database occurred. Make sure the intended database is configured beginning at P699. This error could also indicate that the database option has not yet been initialized at P65010. |
| CodE44 Name Macro | No macros were *named* when attempting to invoke the macro menu. If P806 is configured as "Menu", make sure there is at least one macro named at P9991. |
| CodE45 dbCol error | Cannot change the *type* of a variable after it is associated in a column of a database. For example, changing a variable from a string type to a float type is not acceptable. When this error message is displayed, pressing any key will proceed to the column of the database associated with the variable which has been redefined. This will allow the operator to clear the database or prompt him to redefine the variable back to its original type. This message will occur for each variable that has been redefined and associated with a database. |
| CodE48 E2Typ Error | Both FRAM and standard EERPOM are installed in U27 & U28. Memory types cannot be intermixed. Power down and install one or two FRAM chips ***or*** one or two EEPROM chips and power up. |
| CodE51 Too Small | The sample placed on the platform is too small to accurately compute the piece weight. Increase the sample size. |
| CodE52 Can't Count | There is an insufficient quantity on the platform to perform an accurate count. |
| CodE53 Accy< Req'D | The accuracy is less than required. The accuracy requirements specified at P183 has not been achieved. Increase the sample size. |
| CodE54 Scale Disbl | An attempt to select a *disabled* scale was made. Make sure the intended scale is enabled and properly configured beginning at P108. |

| Message | Description |
|---|---|
| CodE60 New FLASH | A new FLASH file has been uploaded via the ReFlash or BDM flash utilities in order to upgrade the firmware. Press any key to acknowledge. |
| CodE61 Need Code | The setup mode access code has not been entered prior to attempting to change the configuration of a setup parameter. Key in the access code (i.e. **100 [SELECT] 23640 [ID] [ENTER]** ). |
| CodE62 Comm# Error | An entry error occurred at the "EnterCOMM#" prompt. This message appears during a setup download (P64000, P64001), database download, database print, etc. if the COMM port number was omitted or invalid. |
| CodE71 TxNot Exist | The specified custom transmit does not exist. An invalid custom transmit was entered at the "Which Tx#?" prompt or incorrectly specified with a %Q macro command. Make sure the intended custom transmit is configured beginning at P989. |
| CodE72 ConTx >Max! | The maximum number of continuous transmits have been exceeded (16 for the 660 Series controllers; 4 for the 460 Series Indicators). |
| CodE73 TxNot Cont | A request was made to disable a continuous custom transmit using the D%Q command for a transmit that was **not** currently being continuously transmitted. |
| CodE74 TxRat >Max! | A request was made to set the continuous transmit interval larger than the maximum value using the I%Q macro command. |
| CodE75 Tx is Cont. | A request was made to enable a continuous custom transmit using the C%Q command for a transmit that was currently being continuously transmitted. |

# Macro Error Codes

| Message | Description |
|---|---|
| No Macro | An attempt was made to abort a macro when no macros were defined. |
| Macro error | An error occurred during macro execution. Check for proper syntax. Analyze the macro debug buffer to help determine the cause of the error. |
| No Start | A serial or A/D database collection command (%' or %*) was executed prior to the "start collection" command. |
| Must Free | A serial or database start collection command (S%' or S%*) was issued without first freeing memory with the F%' or F%* command. |
| Wrong Parm | The parameter specified for data collection using the %* command was invalid or not of type float. |
| CodE81 Macro Stack | The maximum number of macros pushed onto the stack has been exceeded. This error usually indicates that macros are being invoked faster than they can be executed (for example, macros invoked by continuous, short-interval input setpoints, multiple macro "calls", etc.) The maximum number of macros on the stack is 200. |
| CodE82 Macro Abort | A macro was aborted from within a macro via one of the macro abort operations or from the front keypad by pressing **[CLR] + [SELECT]**. |
| CodE83 Macro UnDef | A call or similar reference to an undefined macro occurred. Make sure the intended macro is configured beginning at P9990. |
| CodE84 Math error | An incorrect math operation has been performed. This could be caused by trying to divide by zero or any other non-acceptable algebraic operation. This message will also occur if trying to take the negative or zero modulus of a number. |
| CodE85 Syntx Error | An error occurred during macro execution as the result of invalid syntax. Re-check the macro or analyze the macro debug table to find out where the error occurred. Refer to *Chapter 9* for proper macro syntax. |

| Message | Description |
|---|---|
| CodE86 Macro Brace | The number of opening and closing braces within a macro are different. When nesting conditional statements or grouping conditional Boolean statements, make sure the proper use the %{ and %} brace commands. |
| CodE87 NoTag Found | An attempt was made to jump to an undefined tag. When using simple jump-tag commands, make sure the intended tag is properly specified and that the tag command is executed **before** the jump. When using macro-independent jump-tag commands, make sure the correct macro number is specified and that the jump text matches that of the tag. |

# Setup Error Codes

| Message | Description |
|---|---|
| CodE92 ✓Strt Setup | A parameter entry is required for a setpoint's Activation Limit, Deactivation Limit, or Compare parameter. Pressing any key will automatically select the offending parameter and allow you to correct it. |
| CodE95 SyErr NvRam | The EEPROM size is too small to allocate the database requested. |
| CodE96 Erase Boot! | An attempt was made to enter an instrument serial number or board serial number with the flash already programmed. |
| CodE99 Can't Set! | An attempt to enter a value for a parameter which is not field changeable, such as the serial numbers or the audit trail counter results in this message. |
| Cksum error | Upon each power-up, the indicator tests the integrity of its firmware. If the result is not correct this message is displayed and the indicator is not usable. ReFlash the indicator. |

# Communications Error Messages

| Message | Description |
|---|---|
| prtyX error | The parity of a received character did not match the parity specified in the setup mode at P202. This could also result if the baud rate (P200) or the number of data bits (P201) are incorrect. The 'X' in the error message represents the COMM port number on which the problem occurred. |
| ovrnX error | An overrun error occurred where additional characters were received while the receive buffer was full. The additional characters will be lost. The 'X' in the error message represents the COMM port number on which the problem occurred. |
| frmgX error | The stop bit of a received character did not occur when it was expected. This could be the result of an incorrect baud rate (P200), incorrect number of data bits (P201), or incorrect parity setting (P202). The 'X' in the error message represents the COMM port number on which the problem occurred. |

| Message | Description |
|---|---|
| portX error | The indicator did not check its receive data register in time, thus missing a character. To prevent the problem, try reducing the baud rate (P200). The 'X' in the error message represents the COMM port number on which the problem occurred. |
| NoTxX Allow | Associated with Modbus. This is selected at P205. This message indicates that a transmission out the specified port was attempted. This is not acceptable if the port is set for Modbus. The 'X' in the error message represents the COMM port number on which the problem occurred. |
| tx on hold | Occurs if a data transmission is held up for two seconds of more due to a deasserted handshake. Refer to the description of parameter P209 for more information. |
| tx abort | Occurs if the [CLR] key is pressed when the tx on hold error message is shown or if P209 is set for abort and the transmit buffer becomes full. |
| tx Con'd | Appear briefly when the handshake is re-asserted after the tx on hold message occurs. |
| BadTx Port | Appears briefly after an attempt was made to put a byte in an invalid comm port receive buffer. |
| Wrong Comm# | An invalid communication port number was specified. |

# Miscellaneous Messages

| Message | Description |
|---|---|
| Entry Error | An invalid entry was made. When entering data, make sure the values are within the acceptable limits and of the proper type as required by the entry mode. |
| Enter Comm# | This prompt appears during a setup download (P64000, P64001), database download, database print, etc. if a COMM port was not specified. |
| Which Tx#? | This prompt will appear when the instrument is setup with more than one custom transmit with parameter P991 set for "Prmpt" (Prompt) and the [PRINT] key is pressed. The "WhichTx#?" message is asking for a custom transmit number to be entered. Key in the custom transmit desired and then press [ENTER]. For example, [2] [ENTER], for custom transmit number 2. |
| Clear All? | This prompt will appear when the [CLR] key is pressed when the cursor is at the end of a custom transmit table or macro table. Press [ENTER] to clear all information or any other key to retain the table information. |
| Enter toCLR | This prompt is used at P65010. When [ENTER] is pressed this message will appear. It is then followed by "Enter=Dflt". |
| Sure? ??? | This prompt is displayed for verification of resetting or clearing information. This message occurs at parameters such as P65001, P65002, P65010, etc. Press [ENTER] to clear or reset all information or any other key to retain the information. |
| No Instn | Indicates an instance was specified when entering an operating parameter that does not have multiple instances. |
| Insuf OpRAM | There is not enough operational RAM available to perform the requested function. |
| NoOpt RAM! | There is no database present or it has not been initialized at P65010. |
| OVER-WRITE | The maximum number of DSD data rows has been exceeded (P594). The oldest row in the DSD database has been overwritten with a new row of data. |
| Rows: < XXX | The number of DSD data rows has exceeded the warning threshold. "XXX" represents the number of warning rows specified at P595. Print and/or download |

| | |
|---|---|
| | the DSD database to prevent loss of data before the maximum number of DSD data rows is exceeded. |
| OutOf Memry | The current setup requires more RAM than is currently installed. |
| >Max Rows | Number of rows received during upload exceeded 2,147,483,648. Contact GSE if this error occurs. |
| Invld Data1 | Occurs during upload new or upload update, followed by the row location (relative to the beginning of the upload) of the error and the column in which it was found. This code means that a float, int or unsigned value could not be interpreted and was therefore regarded as a zero (0) value. It was mostly likely caused by a string entry occurring where a numeric entry was expected. The upload will continue. Check the error codes at P60021 after an upload or use the %_ macro after the upload macros to test for this error. |
| Invld Data2 | Occurs during upload new or upload update, followed by the row location (relative to the beginning of the upload) of the error and the column in which it was found. This code means that a float, int or unsigned value contained extra characters that were ignored. It was mostly likely caused by a string entry containing at least some numbers being where a numeric entry was expected. Some of the numbers will be used for the data in this case. The upload will continue. Check the error codes at P60021 after an upload or use the %_ macro after the upload macros to test for this error. |
| < Col /Row | Occurs during upload new or upload update, followed by the row location (relative to the beginning of the upload) of the error and the # of columns found. Missing columns are filled with zeros (0). This may be intentional if for example you are creating a database where a column will be filled in later. The upload will continue. Check the error codes at P60021 after an upload or use the %_ macro after the upload macros to test for this error. |
| > Col /Row | Occurs during upload new or upload update, followed by the row location (relative to the beginning of the upload) of the error and the # of columns found. Extra columns were encountered and ignored. This may be intentional if for example you are creating a database from an another database which does need all the columns of the existing database. The upload will continue. Check the error codes at P60021 after an upload or use the %_ macro after the upload macros to test for this error. |
| Colmn > Max | Occurs during upload new or upload update when a row of data is contains more than the maximum number of columns in the database. Uploading stops immediately when this occurs. This is most like due to upload data containing no carriage returns. Ensure the presence of carriage returns and not some other character at the end of each row of data. Check the error codes at P60021 after an upload or use the %_ macro after the upload macros to test for this error. |

# V. MAINTENANCE

## A. TIPS ON ELECTRONIC CONTROL SYSTEM

1. Do not turn off electronic control weighing system until the end of the shift or until bagging is complete.
2. Periodically observe TARE reading. If this increases gradually, it probably means product is building up inside the filling tube or on the bag chair assembly. Use air to remove loose material.
3. If weights should become erratic:
   a. Interference with bag chair post motion
   b. Binding due to air hoses, wires, or product build-up
   c. Binding in flex plate
   d. Load cell is securely bolted to valve packer frame
   e. Product flow problems to valve packer
4. Observation of status lights during filling cycle may help pinpoint any malfunction should it occur.

## B. LUBRICATION

1. Bearings – Adequately greased before shipment. Under extremely dusty conditions, grease once each week lightly.
2. Stuffing boxes (2) – Grease monthly
3. Gear Reducer – Adequately oiled before shipment. Maintain oil level with recommended types of oil as prescribed in lubrication section of Optimount Instruction Sheet.

## C. TROUBLE SHOOTING GUIDE

1. Bag fills with air and very little product; or
   Bag fills very slowly, will not come to weight.
   *Possibilities:*
   Supply bin is not being kept full
   Hopper not being kept full
   Lumps or foreign material bridging in hopper
   Material is sticky and not flowing through the hopper
   Too much air for density of material
2. Erratic bag weights
   *Possibilities:*
   Interference with bag chair post motion
   Binding due to air hoses
   Binding in flex plate
   Load cell not securely bolted to packer frame
   Locknuts on load cell not tight
3. Excess dust during filling and discharge of bag
   *Possibilities:*
   Bag placed on tube improperly, not venting bag properly
   Material over-fluidized
   Bag not sized properly for filled bag weight

# VSP-22
# RECOMMENDED SPARE PARTS LIST

10/18/24
Allen

**JEM INTERNATIONAL, INC.**
**PHONE: 913-441-4787 FAX: 913-441-1711**

| VSP -22 SCREW VALVE PACKER | | | | |
|---|---|---|---|---|
| | PART # | DESCRIPTION | CODE | AMT |
| | 1417429 | Load cell 500lb platform | R | 1 |
| | 1425021 | Bag clamp cylinder | R | 1 |
| | 1425119 | Filling tube 2 1/2 OD x 2 3/8 ID | | |
| | 1425172 | Dust manifold end cap outlet | | |
| | 1425276 | Load cell support bracket 500# | | |
| | 1425610 | Controller box mounting bracket | | |
| | 3770330045 | Filter, regulator, lubricator | | |
| | 5000200000 | Enclosure 6x6x4 | | |
| | 7623180002 | Bearing 1 1/4" PB | | |
| | 8953110000 | Valve 1 CM | | |
| | 9500150081 | Pushbutton mushroom head red | | |
| | 9500150083 | Emergency stop push/pull | | |
| | 9500150085 | Pushbutton mushroom head green | | |
| | 14124FS10 | Motor support and hinge weldment | | |
| | 14124FS17AG | Flex locking plate | | |
| | 14124FS18AG | Flex plate ss VSP-24 | R | 2 |
| | 14124FS19AG | Flex mounting bracket | | |
| | 14124FS21 | Rubber connector (fill tube) | | |
| | 14124FS3105 | Spring loaded CR seals | | |
| | 14124FS37 | Cleanout cover | | |
| | 14124FS3AG special | Screw Housing | | |
| | 14124FS43AS | Fill tube adaptor nozzle | | |
| | 14124FS45 | Filling Tube support top | | |
| | 14124FS46 | Filling tube support bottom | | |
| | 14124FS47 | Bag chair weldment | | |
| | 14124FS5AG218 | Auger 2 1/8" for 2 1/2" OD fill | | |
| | 14124FS7 | Sheave 8.6QD (screw) | | |
| | 14124FS77 | Dust chute VSP-24 | | |
| | 14124FS8 | Sheave motor 1 1/8 4.8 QD | | |
| | 14124FS8QD | Bushing QD 1 1/8 SDS | | |
| | 14124FSSK114 | Bushing QD 1 1/4 VSP-24 | | |
| | 1412FS6 special | Bag chair post | | |
| | 1425021TRD | Bag clamp cylinder | | |

# VSP-22
# RECOMMENDED SPARE PARTS LIST

| | | | | |
|---|---|---|---|---|
| | 1425024A | Bag clamp S-2391-3 neoprenecap | R | 4 |
| | 1425104B | Rubber connector (fill tube) | | |
| | 1425152C | Dust Cowl VAP100 | | |
| | 14B42 | V Belt | | |
| | 14PVP169 | Cylinder and box mount | | |
| | 14SLC121325 | Taper cone 2 1/2" ID | | |
| | 14SMP3300 | Flighting 1/4 x 2 1/2 pitch | | |
| | 14SMP58 | Felt washer soft 1 1/4 ID x 2 OD | | |
| | 14SMP59 | Felt washer hard 1 1/4 idx 20 dx | R | 5 |
| | 14SMP60 | Oil Ring | R | 1 |
| | 17GV2M10 | Starter MTR Protect AMP 4-6.3 | | |
| | 17LC1D0910F7 | Contactor 110 volt coil | | |
| | 200465-00000 | Controller model 465 | | |

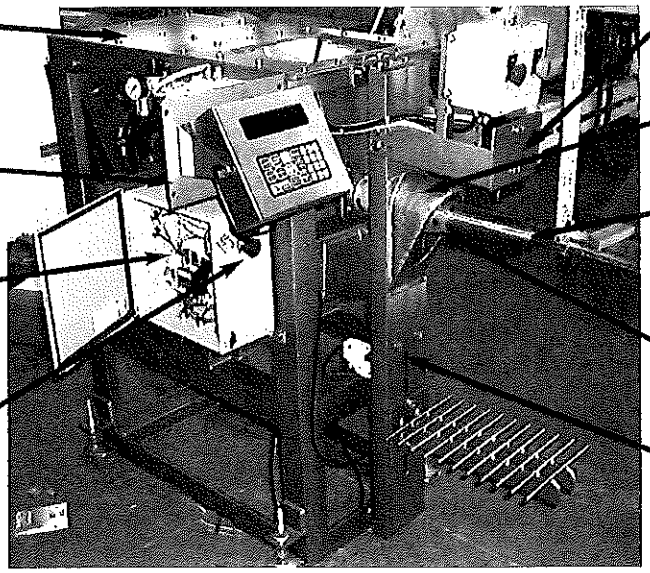
R=RECOMMENDED SPARE PARTS
When ordering parts be sure to advise scale construction (ex. Mild steel, stainless)

14124FS3AG spec
Screw housing

1425610
Control box
mounting brkt

17LC1D0910F7
Contactor 110 volt coil
17GV2M10
Starter, Mtr Protect amp
4-6.3

9500150083
Emergency stop
push/pull



14PVP169
Cylinder & box mount

1425152C
Dust cowl VAP100

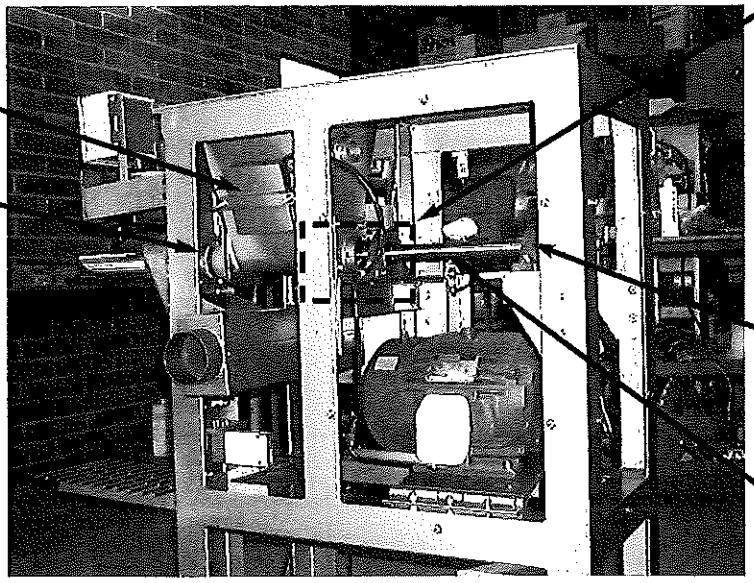
1425119
Filing Tube 2 1/2 OD x
2 3/8 ID

14SLC121325
Taper cone 2 1/2" ID

14124FS6 special
Bag chair post

14124FS37
Clean out cover

14124FS21
Rubber connector
fill tube



14SMP58
Felt washer soft
1 1/4 ID x 2 OD
14SMP59
Felt washer hard
1 1/4 IDx20 DX
14SMP60
Oil ring

7623180002
Bearing 1 1/4" PB

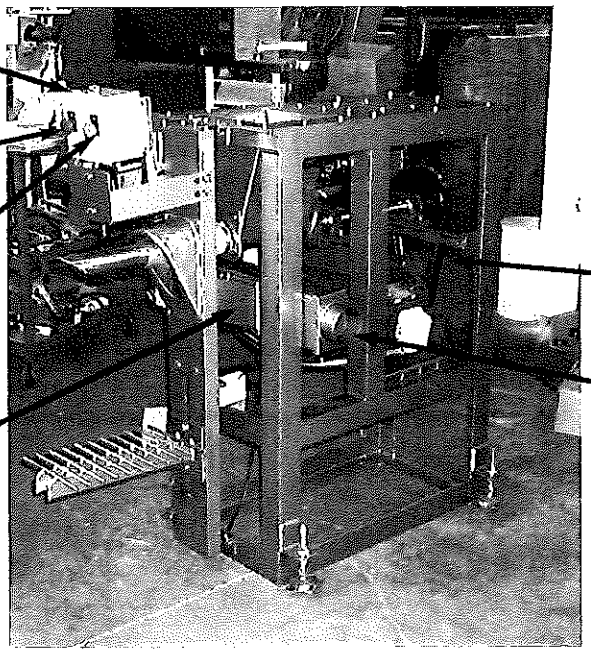
14124FS5AG218
Auger 2 1/8" OD

5000200000
Enclosure 6x6x4

9500150085
Pushbutton nushroom
head green

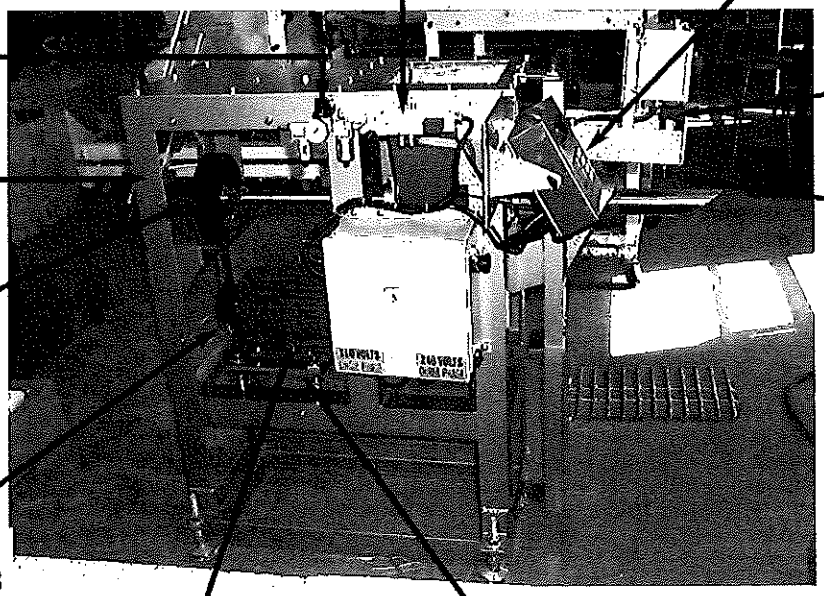
9500150081
Pushbutton nushroom
head red

14124FS77
Dust Chute VSP-24



14B42
V belt

1425172
Dust manifold end
cap outlet V



8953110000
Valve 1 CM

3770330045
FRL

14124FS2AG
Special main
frame weldment

14124FS7
Sheave 8.6QD
14124FSSK114
Bushing QD 1 1/4
VSP-24

14124FS8
Sheave motor 1 1/8
4.8 QD
14124FS8QD
Bushing QD 1 1/8

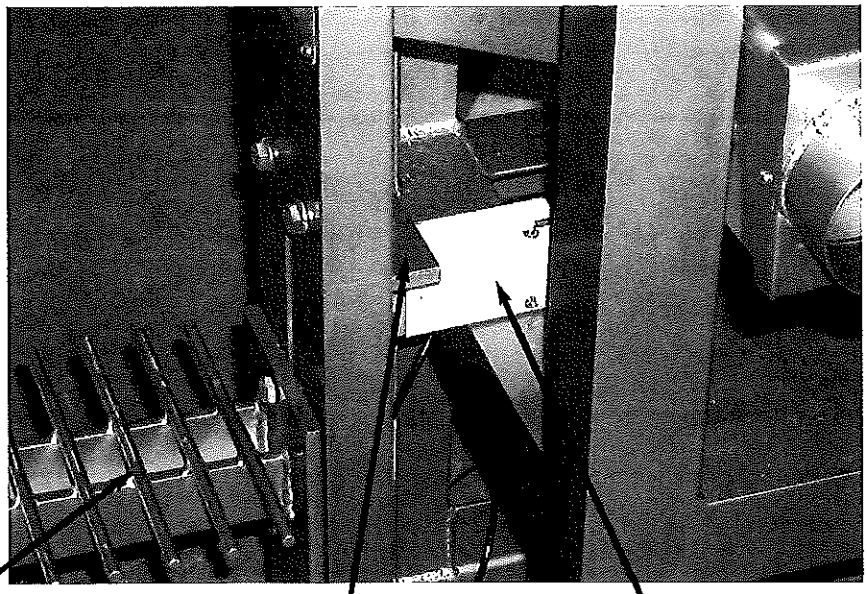
200465-00000
Controller 465

1425021TRD
Bag clamp cylinder

1425024A
Bag clamp S-2391-3
Neoprenecap

5 HP foot mounted
3 phase 182 frame
1750 RPM motor

14124FS10
Motor support and
hinge weldment



14124FS47
Bag chair weldment

1425276
Load cell support
bracket

1417429
Load cell 500 lb
Platform