DELUX
Continuous Flow GRAIN DRYERS

# INSTALLATION & OPERATION MANUAL


- DP & DPSL SERIES
- DPX & DPXSL SERIES
- DPX4T SERIES
- DPX8T SERIES
- DPX12T SERIES
- DPX16GT SERIES

MADE IN USA


DELUX MANUFACTURING COMPANY
4650 AIRPORT ROAD
KEARNEY, NEBRASKA 68848
TOLL FREE (800) 658-3240
WWW.DELUXMFG.COM

# TABLE OF CONTENTS

# GENERAL

## A. Introduction

Delux Mfg Company of Kearney, Nebraska has many years of experience in producing energy saving, high capacity continuous flow grain dryers for both farm and commercial applications.

Delux grain dryers are designed and manufactured to produce quality grain at a profit. An ideal balance of holding capacity, air flow, heat and exposure time are provided. All dryers are designed for continuous flow operation. Grain enters the roof section of the dryer where it is preheated as it flows down into the columns where the drying process is started. Twelve (12) inch grain columns on each side of the dryer provide for maximum fuel efficiency and minimum grain moisture differential across the columns. As the grain enters the cooling chamber, outside ambient air is drawn through the warm grain reducing the dryer fuel consumption over competitive conventional dryers, thus completing the drying process and conditioning the grain for a long safe storage life.

## B. Use of manual

This manual provides operation and service recommendations along with a replacement parts list for your Delux grain dryer. **It is highly recommended that this manual be read thoroughly by those who are responsible for the operation and maintenance of this machine.** Refer to the table of contents for the location of specific information.

## C. Safety code --------- Use caution in operating this equipment.

**!!The design and manufacture of this dryer is directed toward operator safety!!**

**Use extreme caution** in working around high speed fans, gas fired burners, discharge augers and conveyors, and auxiliary augers and conveyors, which may start without warning when the dryer is operating on automatic controls.

Continued safe, dependable operation of automatic equipment depends to a great degree upon the owner/operator. For a safe dependable drying system, follow the recommendations within the manual and make it a practice to regularly inspect the operation of the unit for any developing problems or unsafe conditions. **Keep a clean dryer. Do not allow fine material to accumulate on the plenum or cooling floor or a trash fire can result. Checking the dryer at least every 24 hours and cleaning will help prevent problems.**

**Dryer should not be left unattended for extended periods of time!!**

## D. Service Information

Our service department will provide consultation on the installation, operation, and maintenance to you. Also, information from you regarding encountered operation or service problems that are not covered in this manual will be greatly appreciated.

Delux Mfg Company has trained service technicians available to assist you in the event you or your dealer cannot correct a problem. A phone call to Delux Mfg Company will provide an answer to your service problems.

Delux Mfg Company keeps a complete record of each customer order. However, valuable time can be saved if the information below is provided with your inquiry. It is suggested that you obtain the model number and serial number located in the electrical control box enclosure and enter it below for your own records:

DEALER:_____

DATE OF PURCHASE:_____

MODEL:_____

SERIAL NUMBER:_____

CALL OR WRITE: DELUX MFG COMPANY
4650 AIRPORT ROAD
P.O. BOX 1027
KEARNEY, NE 68848-1027

PHONE: 308-237-2274 TOLL FREE: 800-658-3240
FAX: 308-234-3765 WEB: http://www.deluxmfg.com

## E. Warranty procedures:

All warranty issues, parts and service requests should be handled through your local dealer. In the case no dealer or representative exists in your area, or a conflict of interest exists with your dealer and/or representative, please contact the department of engineering and service at Delux Mfg Company for procedures to follow.

Warranty on all defective parts manufactured by Delux Mfg Company will be limited to the specifications set forth by the information provided by Delux Mfg Company in it's standard limited warranty policy. Warranty on all defective parts not manufactured by Delux Mfg Company is limited to the warranties provided by that part's manufacturer. This includes, but is not limited to, electric motors, gear heads, valves, regulators and other parts.

**Delux Mfg Company is not responsible for defective parts not of its manufacture.**

Authorization for credit or replacement under warranty for defective parts or material manufactured by Delux Mfg Company will not be issued unless strict compliance is given to the warranty parts return procedures listed below. When contacting Delux Mfg Company in regard to the policies and procedures set forth in this manual, direct all correspondence and calls to the department of engineering and service at Delux Mfg Company.
Except as specified previously, refer all warranty claims to your dealer.

**Warranty parts return and credit procedure:**

1. Delux Mfg Company must be notified by writing or phone within fifteen (15) days after an alleged failure of a part manufactured by Delux Mfg Company is discovered. Failure to give such notice within the time specified shall be deemed an admission by the purchaser that the product is as represented and warranted by Delux Mfg Company and free from all defects and Delux Mfg

Company shall be released from any and all claims arising out of or in connection with the sale of the part or product.

2. Upon notification from purchaser that a part manufactured by Delux Mfg Company has allegedly failed, the failure is covered by the standard limited warranty and the **original warranty registration card** is on file with Delux Mfg Company at its Kearney, Nebraska headquarters, arrangements will be made by Delux Mfg Company to ship the replacement part to purchaser with freight charged at the standard ground shipping rate.
3. Once the replacement part has been shipped, purchaser will receive an invoice for the value of the equipment shipped plus the shipping charges. Purchaser must then fully complete a **return parts tag** identifying the alleged part failure and return said tag along with the allegedly failed part to Delux Mfg Company with freight prepaid by purchaser. No warranty credit shall be given to purchaser on allegedly failed parts that are not returned to Delux Mfg Company within thirty (30) days from date of the discovery of the alleged failure or within fifteen (15) days from the shipping date indicated upon the invoice sent with the replacement part, whichever date is later. Purchaser must use proper packing material to ensure against damage during shipping. Any shipping damage caused by improper packing is not covered under the standard limited warranty.
4. The invoice for the replacement part plus the freight charge remains payable by purchaser until such time as the allegedly failed part has been returned with a completed return parts tag attached and the part has been inspected by Delux Mfg Company to determine if the warranty claim is valid. Purchaser will then receive notification from Delux Mfg Company as to the receipt of the defective part and Delux Mfg Company's findings on the warranty claim within a reasonable time thereafter.
5. If the part is found to be defective by Delux Mfg Company, Delux Mfg Company shall credit the amount owed under the invoice sent with the replacement part except for the freight incurred in shipping the replacement part to purchaser.
6. If the part returned by purchaser is found by Delux Mfg Company to be functional and operational and in compliance with the manufactured specifications, it will be returned upon request to purchaser at purchaser's cost. If no request is received by purchaser, the part shall be destroyed after a period of ten (10) days. Delux Mfg Company's charges for inspection of a non-defective Delux Mfg Co part will be subject to the standard hourly rate and zone charges.
7. No non-Delux Mfg Company labor or non-Delux Mfg Company replacement part will be authorized without first an estimate of the cost of part and labor provided to Delux Mfg Company. Deviations from this estimate will be solely at the purchaser or dealer's cost.

## F. DELUX MFG COMPANY STANDARD LIMITED WARRANTY:

### DELUX MFG COMPANY'S WARRANTY OBLIGATIONS ARE LIMITED TO THE TERMS SET FORTH BELOW:

**DELUX MFG COMPANY WARRANTS TO THE ORIGINAL PURCHASER THAT IF ANY PART MANUFACTURED BY DELUX MFG COMPANY IS PROVEN TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP WITHIN ONE (1) YEAR FROM DATE OF ORIGINAL INVOICE FROM DELUX MFG COMPANY AND PURCHASER FOLLOWS THE ABOVE WARRANTY PARTS AND CREDIT PROCEDURE, DELUX MFG COMPANY WILL, AT ITS OPTION, EITHER REPLACE OR REPAIR SAID PART AT ITS COST. THIS STANDARD LIMITED WARRANTY DOES NOT APPLY TO ANY DAMAGE RESULTING FROM NEGLIGENT USE, MISUSE, ACCIDENTAL DAMAGE, ABNORMAL OR UNUSUALLY HEAVY USE, NORMAL WEAR AND TEAR, NEGLECT, ABUSE, ALTERATION, IMPROPER INSTALLATION, UNAUTHORIZED REPAIR OR MODIFICATION, POOR OR IMPROPER MAINTENANCE OR USE BEYOND RATED CAPACITY.**

**THIS WARRANTY AND THE REMEDY SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESSED, IMPLIED OR STATUTORY. DELUX MFG COMPANY SPECIFICALLY DISCLAIMS TO THE MAXIMUM EXTENT PERMITTED BY LAW ANY AND ALL IMPLIED WARRANTIES OR CONDITIONS AS TO THE PRODUCTS OR ANY OTHER MATTER WHATSOEVER. IN PARTICULAR, BUT WITHOUT LIMITATION, DELUX MFG COMPANY SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OR CONDITIONS OF SATISFACTORY QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, DESCRIPTION, NON-INFRINGEMENT OF THIRD PARTY RIGHTS, ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF DELUX MFG COMPANY REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCT OR PRODUCTS, OR ANY OTHER WARRANTY ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE. DELUX MFG COMPANY RESERVES THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME. THIS STANDARD LIMITED WARRANTY DOES NOT APPLY TO, AND DELUX MFG COMPANY MAKES NO WARRANTY TO THE PURCHASER WITH REGARD TO, PARTS AND PRODUCTS NOT MANUFACTURED BY DELUX MFG COMPANY. IN THE EVENT AND TO THE EXTENT THAT APPLICABLE LAW DOES NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, THE ABOVE EXCLUSION WITH REGARD TO IMPLIED WARRANTIES MAY NOT APPLY.**

**DELUX MFG COMPANY SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY LOST PROFITS, DIRECT, INDIRECT, UNFORESEEABLE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES HOWEVER CAUSED AND WHETHER OR NOT DELUX MFG COMPANY WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER BASED ON CONTRACT, IN TORT OR ANY OTHER LEGAL THEORY. THE REMEDY STATED HEREIN SHALL BE THE SOLE AND EXCLUSIVE REMEDY AVAILABLE UNDER THIS WARRANTY.**

**DELUX MFG COMPANY ASSUMES NO RESPONSIBILITY FOR FIELD MODIFICATIONS OR ERECTION DEFECTS WHICH CREATE STRUCTURAL OR STORAGE QUALITY PROBLEMS, MODIFICATIONS TO THE PRODUCT NOT SPECIFICALLY COVERED BY THE CONTENTS OF THE DELUX MFG COMPANY SERVICE MANUAL WILL NULLIFY ANY PRODUCT WARRANTY THAT MIGHT HAVE BEEN AVAILABLE OTHERWISE.**

**NO DELUX MFG COMPANY DISTRIBUTOR, RESELLER, DEALER, AGENT OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATIONS, EXTENSION OR ADDITION TO THIS WARRANTY. DELUX MFG COMPANY SHALL NOT BE RESPONSIBLE FOR ANY CHARGES INCURRED IN THE REPAIRING OR SERVICING OF ANY DELUX MFG COMPANY PRODUCT OR PART EXCEPT AS SUCH REPAIRS ARE MADE BY AUTHORIZED DELUX MFG COMPANY FIELD SERVICE PERSONNEL OR AS APPROVED IN WRITING FROM DELUX MFG COMPANY.**

**PRIOR TO INSTALLATION, PURCHASER IS RESPONSIBLE FOR RESEARCHING AND COMPLYING WITH ALL FEDERAL, STATE AND LOCAL STATUTES, REGULATIONS AND/OR CODES WHICH MIGHT APPLY TO THE LOCATION AND INSTALLATION OF THE DELUX MFG COMPANY PRODUCT.**

## Additional disclaimer of warranty:

All manufacturer label products not manufactured by Delux Mfg Company are excluded from coverage under the Delux Mfg Company standard limited warranty.

## No electric motor warranty:

Delux Mfg Company's standard limited warranty does not cover any and all electric motors used by Delux Mfg Company in its products. Purchaser's sole claim for warranty on these electric motors lies with the motor's manufactures. In such event, purchaser's dryer service manual contains a list of the motor manufacture's service centers where all further inquiries regarding the motor and its warranty should be placed. Under no circumstances whatsoever will Delux Mfg Company be liable for an unauthorized electric motor repair by a local motor shop or electrician.

## Return merchandise procedures:

1. CALL OR WRITE: DELUX MFG COMPANY
   4650 AIRPORT ROAD
   P.O. BOX 1027
   KEARNEY, NE 68848-1027

   PHONE: 308-237-2274 TOLL FREE: 800-658-3240
   FAX: 308-234-3765 WEB: http://www.deluxmfg.com

   Ask for a **return parts tag**. In that request identify the merchandise you wish to return, its condition and the invoice on which it was originally billed.

2. After receipt of the return parts tag, ship the item(s) with prepaid freight along with the return parts tag to Delux Mfg Company. A 15% restocking fee will be charged on all merchandise returned thirty (30) days after the original date of purchase.

3. Once the merchandise has been received and inspected by Delux Mfg Company, if appropriate a credit will be issued to your account.

4. Any merchandise returned that has been used or abused will not receive a credit to your account. Shipments of incorrect merchandise due to miss-ordering by the purchaser are also subject to a 15% restocking fee.

## Out of warranty service:

Dryers requiring Delux Mfg Company repair work will be repaired at the standard service charges (hourly labor charge, trip charge (includes cost of lodging, meals, and mileage costs), plus parts). The repaired parts will carry a thirty (30) day limited warranty. The same exclusions and limitations of the Delux Mfg Company standard limited warranty policy referenced above also apply to this thirty (30) day limited warranty.

## Terms:

Delux dryers requiring service for customers who have an established line of credit will be invoiced for services rendered. Customers not having an established line of credit will be on cash in advance or cash on completion of service basis. All service or repair work rendered by authorized Delux service personnel must be invoiced through an existing authorized Delux Mfg Company dealer.

# INSTALLATION

The dryer is designed for minimal field erection time, depending on dryer model and associated sections. This may include assembly and installation of the garner bin.

## A. Before delivery

1. **Site selection**: **The dryer *is not to be* operated inside a building or enclosure. Sufficient area around the dryer** must be maintained to allow adequate air flow to supply the dryer and to allow exhausted air to escape freely to atmosphere. **Do not operate dryer in an area where combustible materials can be drawn into the fans.** Also consider the grain handling systems and the locations of storage bins and existing conveyors in selecting the dryer site. Refer to back page of brochure for general dimensions and specifications.

2. **Supply and take away systems** such as fill auger and unload augers should be of sufficient capacity to handle maximum load and unload requirements of each dryer. (Approximately two (2) times each dryer's rated capacity, based on five(5) point moisture removal is recommended.)

3. **Dryer is to be set permanently**. Delux maintains recommended foundation drawings for each dryer model that should be followed for new installations. If any doubt, consult local certified engineer for your specific application.

4. **IMPORTANT: Dryer must be level both lengthwise and crosswise at all times during the drying process or damage to the dryer will result.**

5. **Consult your local electrical power company for proper transformer sizing. Consult with your local electrician for installation of electrical service.**

6. **Consult your propane or natural gas service supplier for locating and sizing tank, meters and regulators.**

## B. Set-up

1. **Position dryer in selected location, level and secure.**

2. Make sure all bolts and screws are in place and tight. Make sure metering rolls and augers are free of any foreign material.

3. **Assemble garner bin.** Refer to drawing for proper assembly. Garner bin can be assembled on the ground and hoisted to the top of the dryer, or it can be assembled piece by piece on top of the dryer. A hole is provided in the roof section of the garner bin for fill spouting attachment. The hinged door in the top of the garner bin allows access to auger bearings and hangers for assembly and repair.

4. **Install catwalk railings** as shown on drawings.

5. **Install motor and conduit assemblies** plus hook-up high grain shutdown assembly located on the top roof section. Attach electrical wiring per drawing. (Note: Fill switch adjustment for proper operation must be done at the time of initial filling).

## C. Electrical

1. **Power supply** - an adequate power supply and proper wiring are important factors for maximum performance and long dryer life. Electrical service must be of adequate size to prevent low voltage damage to motors and control circuits. See table 2.1 for full load amps per dryer model.

2. Dryers are wired for one of the following voltage options: 230V single (1) phase, 208V, 240V, 380V, 415V, 480V or 575V three (3) phase operation. When only 230V single (1) phase power is available, a phase converter may be installed ahead of dryer to obtain three (3) phase power to operate 240V or 480V three (3) phase dryers.

3. **Power supply disconnect - all dryers should be equipped with a power disconnect switch ahead of dryer control box to permit total power shut down before opening control box, as required for inspection and service. The power disconnect switch should also be located close to the dryer for quick shut down.**

4. **Electrical phasing** - all motors that are wired at the factory are phased. **If one motor runs backwards, they all will.** Simply change the two main wire leads around at main terminal connection block for proper rotation. **(Note: Control design requires wild leg to be connected to terminal "L2" on 240V three (3) phase dryers).**

5. **Connecting auxiliary conveyors** - auxiliary starting equipment is supplied as standard equipment. Refer to drawing for properly connecting and interlocking wet loading and dry unloading auxiliary starting equipment located in the electrical control panel. Make certain that the motor overload protection matches the motor being used.

6. **Important:**

    a. **Make sure dryer is properly grounded.** Ground lug is provided.

    b. **Have the power company or your local electrician check line voltage and amperage.** Make sure voltage drop is minimal.

## D. LP fuel systems

1. **Consult your local propane supplier for proper line sizing requirements and local gas codes.** Proper line and pressure requirements should be based off of maximum btu/hr consumption per dryer model. See table 2.2.

2. **Dryer must be started on vapor until internal vaporizer is warm, then switched to liquid. Tank must have both vapor and liquid draw available to dryer.**

   The dryer is designed to operate on liquid propane drawn from the supply tank. However initial start-up **requires vapor** to be drawn from the tank to allow the dryer to start and warm up. Once the temperature inside the dryer has risen, you may switch over to liquid. Typically a "Y" is installed at the supply tank to feed either liquid or vapor to the LP inlet manifold of the dryer. In other instances running separate lines for both liquid and vapor may be appropriate.

3. Normal operating vapor pressure (on regulator) is 10-12 psi. **Do not exceed 20 psi.**

4. Before starting the dryer for the first time, make certain that all pipe unions and fittings are properly tightened both inside and outside of the dryer.

5. In some cases burner orifices may need to be resized to accommodate varying drying conditions.

## E. NG fuel systems

1. **Consult your local gas supplier for proper line sizing requirements and local gas codes.** Proper line size and pressure requirements should be based on maximum btu/hr consumption per dryer model. See table 2.2.

2. All natural gas dryers require a pressure regulator near the base of the dryer to minimize pressure fluctuations.

3. **Supply pressure to dryer fuel system must not exceed 20 psi.** Normal supply pressure to operate properly is 8-12 psi

4. Before starting the dryer for the first time, make certain that all pipe unions and fittings both inside and outside the dryer are properly tightened.

5. In some cases burner orifices may need to be resized to accommodate varying drying conditions.

**TABLE 2.1**

| MODEL | FT | FULL LOAD AMPS (DRYER ONLY) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 230V 1P | 208V 3P | 240V 3P | 380V 3P | 480V 3P | 575V 3P |
| MSF-31010 | 10 | 55.9 | N/A | N/A | N/A | N/A | N/A |
| MSF-41515 | 10 | 77.9 | 50.3 | 48.3 | 29.6 | 24.3 | 19.8 |
| MSF-62520 | 15 | N/A | 66.2 | 62.9 | 37.2 | 31.6 | 25.4 |
| MSF-72525 | 15 | N/A | 78.5 | 74.9 | 44.2 | 37.6 | 30.1 |
| DP 2510 | 10 | 50.0 | N/A | N/A | N/A | N/A | N/A |
| DP 3015 | 10 | 72.0 | N/A | N/A | N/A | N/A | N/A |
| DP 4020 | 15 | 99.5 | N/A | N/A | N/A | N/A | N/A |
| DP 5020 | 20 | 99.5 | N/A | N/A | N/A | N/A | N/A |
| DP 7530 | 30 | 145.6 | N/A | N/A | N/A | N/A | N/A |
| DP 10040 | 40 | 191.2 | N/A | N/A | N/A | N/A | N/A |
| DP 3015 | 10 | N/A | 47.2 | 45.3 | 27.8 | 22.8 | 18.6 |
| DP 4025 | 15 | N/A | 78.5 | 74.9 | 44.2 | 37.6 | 30.1 |
| DP 6030 | 20 | N/A | 91.2 | 87.3 | 53.2 | 43.8 | 35.8 |
| DP 7550 | 25 | N/A | 147.7 | 140.3 | 81.8 | 70.3 | 56.1 |
| DP 9045 | 30 | N/A | 135.1 | 128.9 | 77.8 | 64.6 | 52.7 |
| DP 12060 | 40 | N/A | 181.0 | 172.2 | 105.0 | 86.5 | 70.4 |
| DPSL 3520 | 10 | N/A | 60.2 | 57.1 | 33.8 | 28.7 | 23.0 |
| DPSL 4530 | 15 | N/A | 93.2 | 90.9 | 51.2 | 45.6 | 35.2 |
| DPSL 7040 | 20 | N/A | 117.2 | 110.9 | 65.2 | 55.6 | 44.6 |
| DPSL 8560 | 25 | N/A | 177.1 | 172.3 | 95.8 | 86.3 | 66.3 |
| DPSL 10560 | 30 | N/A | 174.1 | 164.3 | 95.8 | 82.3 | 65.9 |
| DPSL 14080 | 40 | N/A | 233.0 | 219.4 | 129.0 | 110.1 | 88.0 |
| DPX 4525 | 10 | N/A | 75.6 | 72.1 | 42.6 | 36.2 | 28.9 |
| DPX 7040 | 15 | N/A | 117.2 | 110.9 | 65.2 | 55.6 | 44.6 |
| DPX 9050 | 20 | N/A | 141.8 | 134.9 | 79.2 | 67.6 | 54.0 |
| DPX 13575 | 30 | N/A | 214.0 | 202.9 | 117.8 | 101.6 | 80.9 |
| DPX 180100 | 40 | N/A | 293.7 | 278.5 | 163.1 | 139.4 | 111.1 |
| DPXSL 5030 | 10 | N/A | 90.3 | 88.1 | 49.6 | 44.2 | 34.0 |
| DPXSL 8050 | 15 | N/A | 141.8 | 134.9 | 79.2 | 67.6 | 54.0 |
| DPXSL 10060 | 20 | N/A | 171.2 | 169.7 | 93.2 | 83.6 | 64.2 |
| DPXSL 12560 | 25 | N/A | 180.1 | 174.9 | 96.8 | 87.6 | 67.2 |
| DPXSL 15090 | 30 | N/A | 258.1 | 250.9 | 138.8 | 125.6 | 96.2 |
| DPXSL 200120 | 40 | N/A | 352.5 | 342.5 | 191.1 | 171.4 | 131.5 |

**** FULL LOAD AMPS BASED ON MOTOR TAG DATA AVAILABLE AT DATE PUBLISHED.**
**** FULL LOAD AMPS DOES NOT INCLUDE ANY AUX. HANDLING EQUIPMENT.**

**TABLE 2.1 – CONT'D**

| MODEL | FT | FULL LOAD AMPS (DRYER ONLY) | | | | | |
|---|---|---|---|---|---|---|---|
| | | 230V 1P | 208V 3P | 240V 3P | 380V 3P | 480V 3P | 575V 3P |
| DPX4T 5630 | 10 | N/A | 93.2 | 90.9 | 51.2 | 45.6 | 35.2 |
| DPX4T 8460 | 15 | N/A | 167.1 | 152.7 | 91.3 | 76.8 | 61.8 |
| DPX4T 11260 | 20 | N/A | 177.1 | 172.3 | 95.8 | 86.3 | 66.3 |
| DPX4T 140100 | 25 | N/A | 280.1 | 254.9 | 146.8 | 127.6 | 101.2 |
| DPX4T 16890 | 30 | N/A | 263.0 | 255.4 | 143.0 | 128.1 | 98.2 |
| DPX4T 224120 | 40 | N/A | 352.5 | 342.5 | 191.1 | 171.4 | 131.5 |
| DPX8T 6440 | 10 | N/A | 117.2 | 110.9 | 65.2 | 55.6 | 45.2 |
| DPX8T 12880 | 20 | N/A | 225.1 | 212.3 | 123.8 | 106.3 | 86.3 |
| DPX8T 160120 | 25 | N/A | 327.0 | 297.4 | 178.0 | 149.7 | 120.0 |
| DPX8T 192120 | 30 | N/A | 335.0 | 315.4 | 185.0 | 158.1 | 128.2 |
| DPX8T 256160 | 40 | N/A | 448.5 | 422.5 | 247.1 | 211.4 | 171.5 |
| DPX12T 7250 | 10 | N/A | 143.2 | 130.9 | 76.2 | 65.6 | 52.2 |
| DPX12T 10860 | 15 | N/A | 174.1 | 169.7 | 94.8 | 85.0 | 65.4 |
| DPX12T 144100 | 20 | N/A | 277.1 | 252.3 | 145.8 | 126.3 | 100.3 |
| DPX12T 175120 | 25 | N/A | 327.0 | 297.4 | 178.0 | 149.7 | 120.0 |
| DPX12T 216150 | 30 | N/A | 413.0 | 375.4 | 218.0 | 188.1 | 149.2 |
| DPX12T 288200 | 40 | N/A | 557.4 | 507.0 | 295.3 | 253.9 | 201.5 |
| DPX16GT 8250 | 10 | N/A | 143.2 | 130.9 | 76.2 | 65.6 | 52.2 |
| DPX16GT 12360 | 15 | N/A | 174.1 | 169.7 | 94.8 | 85.0 | 65.4 |
| DPX16GT 164100 | 20 | N/A | 277.1 | 252.3 | 145.8 | 126.3 | 100.3 |
| DPX16GT 210120 | 25 | N/A | 327.0 | 297.4 | 178.0 | 149.7 | 120.0 |
| DPX16GT 246150 | 30 | N/A | 413.0 | 375.4 | 218.0 | 188.1 | 149.2 |
| DPX16GT 328200 | 40 | N/A | 557.4 | 507.0 | 295.3 | 253.9 | 201.5 |

**** FULL LOAD AMPS BASED ON MOTOR TAG DATA AVAILABLE AT DATE PUBLISHED.**
**** FULL LOAD AMPS DOES NOT INCLUDE ANY AUX. HANDLING EQUIPMENT.**

**TABLE 2.2**

| MODEL | (FT) | TOTAL CFM | MINIMUM TEMP. RISE (F) | MINIMUM BTU/HR (MILLION) | MAXIMUM TEMP. RISE (F) | MAXIMUM BTU/HR (MILLION) | *MAX. w/ OPT. RECLAIM* TEMP. RISE (F) | *MAX. w/ OPT. RECLAIM* BTU/HR (MILLION) |
|---|---|---|---|---|---|---|---|---|
| MSF-31010 | (10) | 13,435 | 50 | 0.7 | 200 | 2.9 | | na |
| MSF-41515 | (10) | 19,150 | 50 | 1.0 | 200 | 4.1 | | na |
| MSF-62520 | (15) | 21,863 | 50 | 1.2 | 200 | 4.7 | | na |
| MSF-72525 | (15) | 24,804 | 50 | 1.3 | 200 | 5.4 | | na |
| | | | | | | | | |
| DP 2510 | (10) | 10,077 | 50 | 0.5 | 170 | 1.9 | 140 | 1.5 |
| DP 3015 | (10) | 14,985 | 50 | 0.8 | 170 | 2.8 | 140 | 2.3 |
| DP 4020 | (15) | 20,154 | 50 | 1.1 | 170 | 3.7 | 140 | 3.0 |
| DP 5020 | (20) | 20,154 | 50 | 1.1 | 170 | 3.7 | 140 | 3.0 |
| DP 7530 | (30) | 30,231 | 50 | 1.6 | 170 | 5.6 | 140 | 4.6 |
| DP 10040 | (40) | 40,308 | 50 | 2.2 | 170 | 7.4 | 140 | 6.1 |
| | | | | | | | | |
| DP 3015 | (10) | 14,985 | 50 | 0.8 | 170 | 2.8 | 140 | 2.3 |
| DP 4025 | (15) | 20,511 | 50 | 1.1 | 170 | 3.8 | 140 | 3.1 |
| DP 6030 | (20) | 29,970 | 50 | 1.6 | 170 | 5.5 | 140 | 4.5 |
| DP 7550 | (25) | 41,022 | 50 | 2.2 | 170 | 7.5 | 140 | 6.2 |
| DP 9045 | (30) | 44,955 | 50 | 2.4 | 170 | 8.3 | 140 | 6.8 |
| DP 12060 | (40) | 59,940 | 50 | 3.2 | 170 | 11.0 | 140 | 9.1 |
| | | | | | | | | |
| DPSL 3520 | (10) | 17,808 | 50 | 1.0 | 170 | 3.3 | 140 | 2.7 |
| DPSL 4530 | (15) | 22,896 | 50 | 1.2 | 170 | 4.2 | 140 | 3.5 |
| DPSL 7040 | (20) | 35,616 | 50 | 1.9 | 170 | 6.5 | 140 | 5.4 |
| DPSL 8560 | (25) | 45,792 | 50 | 2.5 | 170 | 8.4 | 140 | 6.9 |
| DPSL 10560 | (30) | 53,424 | 50 | 2.9 | 170 | 9.8 | 140 | 8.1 |
| DPSL 14080 | (40) | 71,232 | 50 | 3.8 | 170 | 13.1 | 140 | 10.8 |
| | | | | | | | | |
| DPX 4525 | (10) | 20,511 | 50 | 1.1 | 170 | 3.8 | 140 | 3.1 |
| DPX 7040 | (15) | 35,616 | 50 | 1.9 | 170 | 6.5 | 140 | 5.4 |
| DPX 9050 | (20) | 41,022 | 50 | 2.2 | 170 | 7.5 | 140 | 6.2 |
| DPX 13575 | (30) | 61,533 | 50 | 3.3 | 170 | 11.3 | 140 | 9.3 |
| DPX 180100 | (40) | 82,044 | 50 | 4.4 | 170 | 15.1 | 140 | 12.4 |
| | | | | | | | | |
| DPXSL 5030 | (10) | 22,896 | 50 | 1.2 | 170 | 4.2 | 140 | 3.5 |
| DPXSL 8050 | (15) | 41,022 | 50 | 2.2 | 170 | 7.5 | 140 | 6.2 |
| DPXSL 10060 | (20) | 45,792 | 50 | 2.5 | 170 | 8.4 | 140 | 6.9 |
| DPXSL 12560 | (25) | 57,876 | 50 | 3.1 | 170 | 10.6 | 140 | 8.7 |
| DPXSL 15090 | (30) | 68,688 | 50 | 3.7 | 170 | 12.6 | 140 | 10.4 |
| DPXSL 200120 | (40) | 91,584 | 50 | 4.9 | 170 | 16.8 | 140 | 13.8 |

**** OPERATING FUEL CONSUMPTION WILL FALL BETWEEN THE MINIMUM AND MAXIMUM VALUES, AND IS DEPENDENT UPON AMBIENT CONDITIONS AND HEAT RECAPTURE FROM COOLING GRAIN.**

**TABLE 2.2 – CONT'D**

| MODEL | (FT) | TOTAL CFM | MINIMUM TEMP. RISE (F) | MINIMUM BTU/HR (MILLION) | MAXIMUM TEMP. RISE (F) | MAXIMUM BTU/HR (MILLION) | *MAX. w/ OPT. RECLAIM* TEMP. RISE (F) | *MAX. w/ OPT. RECLAIM* BTU/HR (MILLION) |
|---|---|---|---|---|---|---|---|---|
| DPX4T 5630 | (10) | 28,938 | 50 | 1.6 | 170 | 5.3 | 140 | 4.4 |
| DPX4T 8460 | (15) | 44,043 | 50 | 2.4 | 170 | 8.1 | 140 | 6.7 |
| DPX4T 11260 | (20) | 57,876 | 50 | 3.1 | 170 | 10.6 | 140 | 8.7 |
| DPX4T 140100 | (25) | 79,500 | 50 | 4.3 | 170 | 14.6 | 140 | 12.0 |
| DPX4T 16890 | (30) | 86,814 | 50 | 4.7 | 170 | 15.9 | 140 | 13.1 |
| DPX4T 224120 | (40) | 115,752 | 50 | 6.3 | 170 | 21.3 | 140 | 17.5 |
| | | | | | | | | |
| DPX8T 6440 | (10) | 34,201 | 50 | 1.8 | 170 | 6.3 | 140 | 5.2 |
| DPX8T 12880 | (20) | 68,402 | 50 | 3.7 | 170 | 12.6 | 140 | 10.3 |
| DPX8T 160120 | (25) | 88,086 | 50 | 4.8 | 170 | 16.2 | 140 | 13.3 |
| DPX8T 192120 | (30) | 102,603 | 50 | 5.5 | 170 | 18.8 | 140 | 15.5 |
| DPX8T 256160 | (40) | 136,804 | 50 | 7.4 | 170 | 25.1 | 140 | 20.7 |
| | | | | | | | | |
| DPX12T 7250 | (10) | 39,750 | 50 | 2.1 | 170 | 7.3 | 140 | 6.0 |
| DPX12T 10860 | (15) | 57,876 | 50 | 3.1 | 170 | 10.6 | 140 | 8.7 |
| DPX12T 144100 | (20) | 79,500 | 50 | 4.3 | 170 | 14.6 | 140 | 12.0 |
| DPX12T 175120 | (25) | 88,086 | 50 | 4.8 | 170 | 16.2 | 140 | 13.3 |
| DPX12T 216150 | (30) | 119,250 | 50 | 6.4 | 170 | 21.9 | 140 | 18.0 |
| DPX12T 288200 | (40) | 159,000 | 50 | 8.6 | 170 | 29.2 | 140 | 24.0 |
| | | | | | | | | |
| DPX16GT 8250 | (10) | 39,750 | 50 | 2.1 | 170 | 7.3 | 140 | 6.0 |
| DPX16GT 12360 | (15) | 57,876 | 50 | 3.1 | 170 | 10.6 | 140 | 8.7 |
| DPX16GT 164100 | (20) | 79,500 | 50 | 4.3 | 170 | 14.6 | 140 | 12.0 |
| DPX16GT 210120 | (25) | 88,086 | 50 | 4.8 | 170 | 16.2 | 140 | 13.3 |
| DPX16GT 246150 | (30) | 119,250 | 50 | 6.4 | 170 | 21.9 | 140 | 18.0 |
| DPX16GT 328200 | (40) | 159,000 | 50 | 8.6 | 170 | 29.2 | 140 | 24.0 |

**** OPERATING FUEL CONSUMPTION WILL FALL BETWEEN THE MINIMUM AND MAXIMUM VALUES, AND IS DEPENDENT UPON AMBIENT CONDITIONS AND HEAT RECAPTURE FROM COOLING GRAIN.**

# ELECTRICAL - FUEL HOOK-UP AND CHECKOUT

## 1. Power supply

An adequate power supply and proper wiring are important for maximum performance and long dryer life. **Electrical service must be adequate in size to prevent low voltage damage to motors and control circuits.** Proper line phasing must also be observed.

## 2. Power supply circuit breaker

**All Delux grain dryers should be equipped with a master circuit disconnect to permit total shut-down of the drying system.** It is suggested that all wet and dry handling equipment be interlocked through master circuit disconnect. Calculate total amp load of system to make sure load does not exceed disconnect rating.

## 3. Transformers - Wire - Voltage drop

**Contact the service representative of your local power company to advise of additional load to be placed on the line.** Check on kva rating of transformers, considering total horsepower load. The power supply wiring and transformers must be capable of providing adequate motor starting and operating voltage.

4. **Considering total HP load** and distance from transformer, size and install wire and conduit between transformer and dryer electrical service center.

***Note: Make sure dryer is adequately grounded.**

## 5. Conduit installation

Garner bin high grain shutdown, low grain shutdown controls and the leveling auger motor are supplied with conduit and wiring, refer to drawing of garner.

## 6. Internal fuel line hook-up

**The dryer is equipped with a plumbing train containing safety controls.** Refer to drawings of fuel line hook-up for all models.

## 7. Fuel supply

Contact your local fuel supplier for proper sizing of regulators and plumbing. (Refer to section 2 of service manual for information needed to size fuel supply).

8. **Flame rod(s) and spark igniter adjustment**

Check burner flame rod(s) and spark igniter adjustment.

A. The flame rod(s) should be checked to see that the ceramic base has not been cracked. Check spark igniter: (should have 1/8" to 3/16" gap).

9. **Inspect inside of dryer**

Check inside of dryer section for foreign material and remove. Check metering rolls for foreign objects such as bolts, etc.
**Check backside of fan hubs for foreign objects that will throw fan out of balance.**

10. **Motor rotation**

A. **Fan rotation**: Looking into fan outlet, rotation should be clockwise. When electrical service is installed, attention must be paid to proper phasing. All motors that are wired at the factory are phased. **If one motor runs backwards, they all will.** Simply change two main wire leads around at main terminal connection block for proper rotation. **(Note: Control design requires wild leg to be connected to terminal "L2" on 240V three (3) phase dryers).**

B. **Discharge conveyor**:

1. **Screw conveyor** - check rotation by observing auger flight while in operation. If rotation is incorrect, reverse T1 and T2 motor leads at conveyor starter.

2. **Metering roll direction** - this should be correct from the factory. Rotation should allow grain to flow over metering roll. If direction is incorrect, reverse leads A1 and A2 on SCR control unit.

11. **Check fan current**

The highest amp draw usually occurs when the dryer is full of grain. Be sure to check under maximum load to be sure amperage is within limits on nameplate under all conditions. If load is too high, fans may need to be re-pitched.

# SYSTEM OPERATION

## Basic dryer functions and important safety and operational considerations

1. **A clean dryer is an efficient dryer. Thorough inspection of the plenum heat chamber and vacuum cooling chamber and cleaning if necessary is recommended at least every 24 hours of operation.** Install **burner covers** provided with dryer before cleaning to reduce amount of dust and foreign material falling into fan hubs and burners. Clean screens on inside of plenum heat chamber, then remove dust and foreign material from plenum floor. Inspect cooling chamber and clean if necessary. Check the outside screens and clean if necessary. The area around dryer should also be kept clean.

   **Stay-Kleen operation and maintenance:**
   The Stay-Kleen design provides a path for the fines, dust and foreign material that enters into the heat and cool chambers of the dryer to escape back into the grain flow and discharge. Certain drying conditions and poor grain quality will affect the efficiency of the Stay-Kleen system.
   Do not leave the **burner covers** in the plenum while drying. They can interfere with the flow of air and foreign material through the Stay-Kleen system.
   The Stay-Kleen system operates best with the fresh air intakes open as far as possible (See item 2 below). If it is necessary to close the intakes some to better cool the grain, be extra attentive to the cleanliness of the inner chambers.

   **! ATTENTION !**
   **Accumulation of material on the heat deck, inner screens or cooling floor can lead to dryer fires! Do not assume that the dryer is staying clean on the inside. Check the dryer regularly and clean as needed.**

2. **Fresh-air intake ports**
   A. Fresh-air intake ports are provided to allow fresh air to flow directly to the fan(s). The fan(s) cannot receive enough air directly through the grain being cooled so fresh-air intake ports are provided. These ports allow the operator to have more control over the outgoing temperature of the product being dried.

   B. **Settings:** Open the doors that are labeled 'Full Open', located directly on the fan(s), full open. Open other doors labeled 'As Needed' as far as possible while still cooling the grain as needed. When the grain is not cool enough close the doors down that are not located directly on the fan(s) - when grain is too cool open these doors. Keep all doors that are being adjusted the same as each other. When drying low moisture products, it may be necessary to adjust the plenum temperature down to get the product as cool as desired.

   **C. Caution: having the fresh air intake doors closed too far can decrease capacity and cause excessive heat which could result in uneven moisture content of discharge grain and in extreme conditions, fires on the heat deck or cooling floor.**

   **All fresh-air doors should be closed at the end of each drying season.**

3. **Fuel supply** to dryer should be **shut off** after each drying season.

4. **The master circuit breaker which supplies power for all dryer operations should be "OFF" when servicing and cleaning dryer.**

5. When a dryer having more than one (1) fan motor is started, there is a 5 second delay between each motor. This delay is to minimize starting load. After all fans are started, power is applied to the purge timer.

6. The 60 second purge cycle assures that a flame cannot be ignited before the air in the plenum chamber has been thoroughly purged of gas. At the end of the 60 second purge cycle, a burner ready light will appear and the burner(s) can be started.

7. If flame is not detected within fifteen (15) seconds of burner switch on, the flame bypass relay will time out and shutdown all systems, including the panel power interlock. It will then be necessary to restart complete system.

8. The burner(s) now brings the plenum temperature to desired thermostat setting. The temperature controller will modulate the fuel supply to the burner(s) to maintain temperature at set point. This prevents overheating of the plenum chamber **(check high limit setting before each drying season).**

9. The moisture system becomes fully automatic after initial calibration. As percent of moisture in the grain varies, so does the speed of discharge. Higher moisture results in lower exhaust temperature and decreases discharge speed. Lower moisture results in higher exhaust temperature and increases discharge speed.

# STARTUP PROCEDURE

**Review Section 4, SYSTEM OPERATION - to help you become familiar with basic dryer functions and important safety and operational considerations before the start-up.**

1. **Check dryer thoroughly before starting**

   **A. Check and clean screens and plenum and cooling chambers. (See Section 4, item 1)**
   B. Check metering system for foreign material and clean.
   C. Check augers and auxiliary equipment for correct rotation.

2. **Fresh-air intake ports**

   A. Be sure fresh air intakes are set properly before starting the dryer. (See Section 4, item 2)

3. **All switches in "OFF" position**

4. **Turn on main power**

   A. Main power light will come "ON".

5. **Turn on panel power**

   A. Move power switch to "RUN" position. After 10 seconds, move and hold switch to "START" position. This will energize panel power relay and provide 120VAC to control system. Safety circuit monitor lights will come on and safety circuit light will come on. Release switch back to "RUN".

6. **To fill with wet grain**

   A. Move load switch to "ON" position. Loading system will be activated and will fill dryer. When dryer is full of grain, high grain shutdown will shut off all loading equipment automatically. (Leave load switch in "ON" position.) Grain loading light will come on during filling - low grain light will come on until dryer is full of grain then go out.

7. **To start fan(s)**

   A. Move and hold fan switch to "START" position until all fan(s) start, then release to "RUN" position. Fan proven light(s) will come on as fan(s) prove. Purging light will come on after fan(s) prove.

   B. Dryers with two (2) or more fans are equipped with delay timers, which allow only one (1) fan to start at a time.

8. **To start burner(s)**

A. Turn on fuel supply to dryer.

1. **Natural Gas** - Open manual valve.

2. **Lp Gas** - Open at supply tank. Open quick acting valve and ball valve on dryer.

**Dryer must be started on vapor until internal vaporizer is warm, then switched to liquid. Tank must have both vapor and liquid draw available to dryer.**
(See Section 2, item D-2)

B. When burner ready light comes on, a 60 second purge cycle has been completed.

C. Move burner switch to "ON" position.

D. After a short delay, the ignition firing light(s) will come on and the gas safety valves are energized. (If equipped with a manual Maxon valve, the handle should always be back towards the dryer to start. When energized, pull the handle forward until 'Open' is indicated.)

E. Within a few seconds the burner proven light(s) will come on showing burner(s) have proven flame. As burner proven light(s) come on the ignition firing light(s) will go off.

F. Adjust fuel pressure

1. **Natural Gas** - 8 to 12 psi Normal - **Do not exceed 20 psi.**

2. **Lp Gas** - 10 to 12 psi Normal - **Do not exceed 20 psi.**

G. Adjust plenum set point for desired operating temperature.

**(See figure 4-A for plenum temperatures for various crops.)**

1. **To increase heat**, use the "up" arrow key of the temperature controller to increase the set point to the desired operating temperature.

2. **To decrease heat**, use the "down" arrow key of the temperature controller to decrease the set point to the desired operating temperature.

H. When temperature has reached desired set point or can no longer rise with only vapor supply, open liquid valve and shut off vapor supply.

**SUGGESTED PLENUM TEMPERATURES**

| | |
|---|---|
| BARLEY | 120–140 F |
| CORN | 190–210 F |
| FLAX | 120–130 F |
| MILO | 160–180 F |
| MUSTARD SEED | 110–130 F |
| OATS | 120–140 F |
| RICE | 115–125 F |
| RYE | 120–140 F |
| SOYBEANS | 140–160 F |
| SUNFLOWER | 120–130 F |
| WHEAT | 160–180 F |

FIGURE 4–A

**Note: Recommended plenum high limit setting: 30°F to 50°F above plenum temperature.**
**Maximum setting allowed: 260°F**

More detail in the operation of the temperature control system and the moisture control system are given in the following inserts for each:

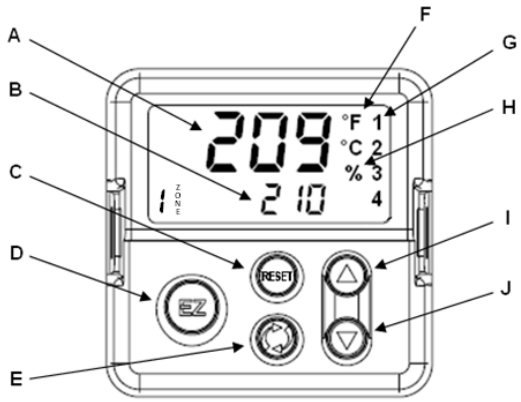
**WATLOW TEMPERATURE CONTROL SYSTEM**
**and**
**WATLOW MOISTURE CONTROL SYSTEM**
**or**
**MOISTURELINK MOISTURE CONTROL SYSTEM (OPTION)**

# Watlow EZ-ZONE Automatic Temperature Controller

## With Honeywell Modulating Motor and Maxon Butterfly Valve

## Introduction

Your Delux grain dryer is equipped with an automatic temperature control system that is simple and takes the hassle out of continually watching the dryer for temperature fluctuations. Simply set your target plenum temperature and the controller will maintain that temperature. To better understand the controller and how to use it, please spend a little time to familiarize yourself with common keys and the display.




A) **Upper Display (Process Value)** – In the home page this is the current plenum temperature. Otherwise it is the upper display parameter in other menus.
B) **Lower Display (Set Point)** – In the home page this is the user-defined value that sets the desired operating temperature (plemum temperature). Use the "UP" & "DOWN" buttons (I & J) to increase or decrease the setpoint. Otherwise it is the lower display parameter in other menus.
C) **Reset Key** – This key is essentially a "BACKSPACE" key to any of the programming menus. Press and hold for two seconds to return to the Home Page. From the Home Page it can clear alarms and errors if clearable.
D) **EZ Key** – This key can be programmed to do a variety of functions. Shipped from factory (DELUX) this key has no programmed functions.
E) **Advance Key** – This key advances through parameter prompts.
F) **Temperature Units** – Indicates whether the temperature is displayed in Fahrenheit or Celsius.
G) **Output Activity** – Numbered LEDs indicate activity of outputs. *A flashing light indicates output activity and systems are normal*.
H) **Percent Units** – Lights when the controller is displaying values as a percentage or when the open-loop set point is displayed (manual mode).
I, J) **Up & Down Key** – In the Home Page, adjusts the set point in the lower display (B). In other menus, changes the upper display (A) to a higher or lower value, or changes a parameter selection.

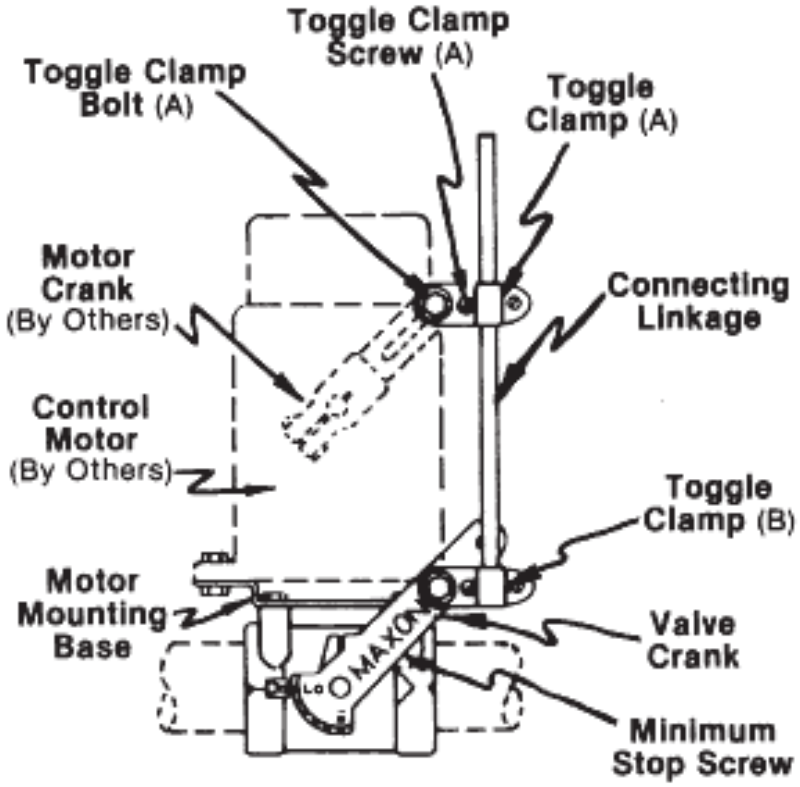
*Note: ZONE 1 does not refer to anything relevant to dryer operation.

## Linkage Connection

***** The motor is preset to 90° rotation. DO NOT ADJUST. If something has happened that has changed this setting, call Delux Mfg. Co. for instructions. *****

To connect the modulating motor and butterfly valve connecting linkage, follow the steps below closely: ***Errors in the linkage setup will cause temperature stability problems.***

1) The dryer ***should not*** be running during this procedure, but main panel power must be present and Panel Power Switch to 'ON' (center) position. This sends power to the motor.
2) The motor should now be in its furthest counter-clockwise position (closed). The motor crank should be at 45° upper right (1:30).
3) Hold the butterfly crank to the counterclockwise (closed) position. (The cranks should be parallel with each other.) Attach the connecting linkage into the toggle clamps on each crank as indicated in the illustration.



## Initial Start-Up From Factory (Auto-Tuning)

***THIS PROCEDURE **MUST** BE DONE DURING INITIAL START-UP FROM FACTORY***

The temperature controller must be auto-tuned after shipping from the factory to the customer. Not performing the auto-tune may result in the plenum temperature becoming unstable during operation. To perform the auto-tune, follow the steps below:

1) Must have power & fuel to the dryer.
2) The dryer must be full of grain.
3) Adjust the target plenum temperature on the controller to 180 °F (60 °C).
4) Turn main panel power "ON".
5) Hold momentary fan switch "ON" until all fans have started.
6) Turn burner switch to "ON"
7) To start the auto-tuning process, press the advance (green) key 4 (four) times to reach the following screen:


8) Use the UP or DOWN key to change the upper display to "yes". Press the RESET key to return to the main screen. The controller will begin to flash "attn" in the lower display and "tun1" in the upper display, indicating that the auto-tuning is in progress.
9) The temperature will cycle both above and below the temperature setpoint (180 °F) to check the responsiveness of the system. This process may last several minutes. Once the controller has stopped flashing "attn" in the lower display and "tun1" in the upper display the auto-tuning process is complete *(Note: It is important that the controller is not disturbed until the process is complete)*. The temperature should increase slowly up to the setpoint (180 °F) and become stable (as long as the temperature seems stable, you may now adjust the set point to the desired drying temperature).
10) At this time the modulating motor (located on the valve train to the left of the panel box) should be moving in small increments, advancing slowly to the target plenum temperature.
11) Give the system ample time to zero in on the desired plenum temperature (minimum of 20 minutes).
12) It may be necessary to repeat the process with changing variables outside the system, but not needed every time starting the dryer.

## Micro-Tuning

From the factory, this mode is enabled. By enabling this, it allows the controller to constantly change its parameters that control the stability of the temperature system.

For example: A change in gas pressure can reduce the stability of the system, but by having this enabled it can change its calculations accordingly to compensate for the difference.

To change this parameter:
With main panel power “ON”, press the ADVANCE (green) key 5 times to reach the following screen:


This Is Factory Default

Use the UP or DOWN key to change the upper display to “No”. Press the RESET key to return to exit and return to the main screen.

“No” - feature disabled
“yes” - feature enabled

## Minimum Flame Adjustment

The minimum flame adjustment is programmed from the factory, and under normal circumstances should not have to be adjusted.

1) Hold the UP or DOWN arrow keys together for 6 seconds. "a1" should be in upper display and "set" in lower display.
2) Press the DOWN arrow key 3 times. "otpt" should be in upper display and "set" in lower display.
3) Press the ADVANCE (green) key 5 times. "4.75" should be in upper display and "s.lo" in lower display.
4) Use the UP or DOWN arrow keys to adjust the upper display parameter from "4.75" (factory default) Scale: 4.00-MIN - 8.00-MAX. ***Do not go above or below this scale, even if it allows you to do so.***

## High Limit

The controller is equipped with an integrated high limit control. Should the operating temperature rise above the high limit set point, the dryer will shut down automatically.
To change the high limit temperature set point:

1) From the Home Page press the ADVANCE (green) key 6 times. "250" (factory default) should appear in the upper display and "sp.5i" in the lower display.
2) Use the UP or DOWN key to adjust the high limit set point.
3) Hold the RESET key until you return to the Home Page.

If under normal operation, the high limit set point is reached the dryer will shut down, and prevent the dryer from being restarted until the dryer has had sufficient time to cool down. Reset the panel power after the dryer has had time to cool to clear high limit error. Error message: "li.h1" in the upper display and "attn" in the lower display.

The integrated system has its own sensor that monitors the temperature inside the plenum, separate from the sensor that controls the actual temperature. However these sensors are located in the same junction box. Should the high limit sensor fail, it will automatically shut control circuit power to the dryer and prevent it from being started until the problem with the high limit sensor is fixed. Error messages: "li.e1" ; "er.i 2" in the upper display and "attn" in the lower display.

If the temperature control sensor fails, the system is designed to flash a warning message that indicates that there is a sensor error. The dryer will still operate under this condition, but it is advised the temperature control sensor be fixed. Error message: "er.i1" in the upper display and "attn" in the lower display

## Alarm, Limit, Indication & Error Messages

| Indication | Description | Possible Cause(s) | Corrective Action |
|---|---|---|---|
| Alarm won't clear or reset | Alarm will not clear or reset with keypad or digital input | • Alarm latching is active<br>• Alarm set to incorrect output<br>• Alarm is set to incorrect source<br>• Sensor input is out of alarm set point range<br>• Alarm set point is incorrect<br>• Alarm is set to incorrect type<br>• Digital input function is incorrect | • Reset alarm when process is within range or disable latching<br>• Set output to correct alarm source instance<br>• Set alarm source to correct input instance<br>• Correct cause of sensor input out of alarm range<br>• Set alarm set point to correct trip point<br>• Set alarm to correct type: process, deviation or power<br>• Set digital input function and source instance |
| Alarm won't occur | Alarm will not activate output | • Alarm silencing is active<br>• Alarm blocking is active<br>• Alarm is set to incorrect output<br>• Alarm is set to incorrect source<br>• Alarm set point is incorrect<br>• Alarm is set to incorrect type | • Disable alarm silencing, if required<br>• Disable alarm blocking, if required<br>• Set output to correct alarm source instance<br>• Set alarm source to correct input instance<br>• Set alarm set point to correct trip point<br>• Set alarm to correct type: process, deviation or power |
| AlE1 Alarm Error<br>AlE2<br>AlE3<br>AlE4 | Alarm state cannot be determined due to lack of sensor input | • Sensor improperly wired or open<br>• Incorrect setting of sensor type<br>• Calibration corrupt | • Correct wiring or replace sensor<br>• Match setting to sensor used<br>• Check calibration of controller |
| AlL1 Alarm Low<br>AlL2<br>AlL3<br>AlL4 | Sensor input below low alarm set point | • Temperature is less than alarm set point<br>• Alarm is set to latching and an alarm occurred in the past<br>• Incorrect alarm set point<br>• Incorrect alarm source | • Check cause of under temperature<br>• Clear latched alarm<br>• Establish correct alarm set point<br>• Set alarm source to proper setting |
| AlH1 Alarm High<br>AlH2<br>AlH3<br>AlH4 | Sensor input above high alarm set point | • Temperature is greater than alarm set point<br>• Alarm is set to latching and an alarm occurred in the past<br>• Incorrect alarm set point<br>• Incorrect alarm source | • Check cause of over temperature<br>• Clear latched alarm<br>• Establish correct alarm set point<br>• Set alarm source to proper setting |
| Er.i1 Error Input<br>Er.i2 | Sensor does not provide a valid signal to controller | • Sensor improperly wired or open<br>• Incorrect setting of sensor type<br>• Calibration corrupt | • Correct wiring or replace sensor<br>• Match setting to sensor used<br>• Check calibration of controller |
| Limit won't clear or reset | Limit will not clear or reset with keypad or digital input | • Sensor input is out of limit set point range<br>• Limit set point is incorrect<br>• Digital input function is incorrect | • Correct cause of sensor input out of limit range<br>• Set limit set point to correct trip point<br>• Set digital input function and source instance |
| LiE1 Limit Error | Limit state cannot be determined due to lack of sensor input, limit will trip | • Sensor improperly wired or open<br>• Incorrect setting of sensor type<br>• Calibration corrupt | • Correct wiring or replace sensor<br>• Match setting to sensor used<br>• Check calibration of controller |
| LiL1 Limit Low | Sensor input below low limit set point | • Temperature is less than limit set point<br>• Limit outputs latch and require reset<br>• Incorrect alarm set point | • Check cause of under temperature<br>• Clear limit<br>• Establish correct limit set point |

| Indication | Description | Possible Cause(s) | Corrective Action |
|---|---|---|---|
| LiH1 Limit High | Sensor input above high limit set point | • Temperature is greater than limit set point<br>• Limit outputs latch and require reset<br>• Incorrect alarm set point | • Check cause of over temperature<br>• Clear limit<br>• Establish correct limit set point |
| LPo1<br>LPo2<br>Loop Open Error | Open Loop Detect is active and the process value did not deviate by a user-selected value in a user specified period with PID power at 100%. | • Setting of Open Loop Detect Time incorrect<br>• Setting of Open Loop Detect Deviation incorrect<br>• Thermal loop is open<br>• Open Loop Detect function not required but activated | • Set correct Open Loop Detect Time for application<br>• Set correct Open Loop Deviation value for application<br>• Determine cause of open thermal loop: misplaced sensors, load failure, loss of power to load, etc.<br>• Deactivate Open Loop Detect feature |
| LPr1<br>LPr2<br>Loop Reversed Error | Open Loop Detect is active and the process value is headed in the wrong direction when the output is activated based on deviation value and user-selected value. | • Setting of Open Loop Detect Time incorrect<br>• Setting of Open Loop Detect Deviation incorrect<br>• Output programmed for incorrect function<br>• Thermocouple sensor wired in reverse polarity | • Set correct Open Loop Detect Time for application<br>• Set correct Open Loop Deviation value for application<br>• Set output function correctly<br>• Wire thermocouple correctly, (red wire is negative) |
| rP1 Ramping 1<br>rP2 Ramping 2 | Controller is ramping to new set point | • Ramping feature is activated | • Disable ramping feature if not required |
| tUn1 Autotuning 1<br>tUn2 Autotuning 2 | Controller is autotuning the control loop | • User started the autotune function<br>• Digital input is set to start autotune | • Wait until autotune completes or disable autotune feature<br>• Set digital input to function other than autotune, if desired |
| No heat/cool action | Output does not activate load | • Output function is incorrectly set<br>• Control mode is incorrectly set<br>• Output is incorrectly wired<br>• Load, power or fuse is open<br>• Control set point is incorrect<br>• Incorrect controller model for application | • Set output function correctly<br>• Set control mode appropriately (Open vs Closed Loop)<br>• Correct output wiring<br>• Correct fault in system<br>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop<br>• Obtain correct controller model for application |
| No Display | No display indication or LED illumination | • Power to controller is off<br>• Fuse open<br>• Breaker tripped<br>• Safety interlock switch open<br>• Separate system limit control activated<br>• Wiring error<br>• Incorrect voltage to controller | • Turn on power<br>• Replace fuse<br>• Reset breaker<br>• Close interlock switch<br>• Reset limit<br>• Correct wiring issue<br>• Apply correct voltage, check part number |
| No Serial Communication | Cannot establish serial communications with the controller | • Address parameter incorrect<br>• Incorrect protocol selected<br>• Baud rate incorrect<br>• Parity incorrect<br>• Wiring error<br>• EIA-485 converter issue<br>• Incorrect computer or PLC communications port<br>• Incorrect software setup<br>• Wires routed with power cables<br>• Termination resistor may be required | • Set unique addresses on network<br>• Match protocol between devices<br>• Match baud rate between devices<br>• Match parity between devices<br>• Correct wiring issue<br>• Check settings or replace converter<br>• Set correct communication port<br>• Correct software setup to match controller<br>• Route communications wires away from power wires<br>• Place 120 Ω resistor across EIA-485 on last controller |

| Indication | Description | Possible Cause(s) | Corrective Action |
|---|---|---|---|
| Process doesn't control to set point | Process is unstable or never reaches set point | • Controller not tuned correctly | • Perform autotune or manually tune system |
| | | • Control mode is incorrectly set | • Set control mode appropriately (Open vs Closed Loop) |
| | | • Control set point is incorrect | • Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop |
| Temperature runway | Process value continues to increase or decrease past set point. | • Controller output incorrectly programmed | • Verify output function is correct (heat or cool) |
| | | • Thermocouple reverse wired | • Correct sensor wiring (red wire negative) |
| | | • Controller output wired incorrectly | • Verify and correct wiring |
| | | • Short in heater | • Replace heater |
| | | • Power controller connection to controller defective | • Replace or repair power controller |
| | | • Controller output defective | • Replace or repair controller |
| 100 Device Error rEtn | Controller displays internal malfunction message at power up. | • Controller defective<br>• Sensor input over driven | • Replace or repair controller |
| hEr Heater Error | Heater Error | • Current through load is above current trip set point | • Check that the load current is proper. Correct cause of overcurrent and/or ensure current trip set point is correct. |
| | | • Current through load is below current trip set point | • Check that the load current is proper. Correct cause of undercurrent and/or ensure current trip set point is correct. |
| CEr Current Error | Load current incorrect. | • Shorted solid-state or mechanical relay | • Replace relay |
| | | • Open solid-state or mechanical relay | • Replace relay |
| | | • Current transformer load wire associated to wrong output | • Route load wire through current transformer from correct output, and go to the CS1 Source Output Instance parameter (Setup Page, Current Menu) to select the output that is driving the load. |
| | | • Defective current transformer or controller | • Replace or repair sensor or controller |
| | | • Noisy electrical lines | • Route wires appropriately, check for loose connections, add line filters |
| Menus inaccessible | Unable to access SEt, OPEr, FCty or ProF menus or particular prompts in Home Page | • Security set to incorrect level | • Check LoC settings in Factory Page<br>• Enter appropriate password in ULoC setting in Factory Page |
| | | • Digital input set to lockout keypad | • Change state of digital input |
| | | • Custom parameters incorrect | • Change custom parameters in Factory Page |
| EZ-Key/s don't work | EZ-Key/s does not activate required function | • EZ-Key function incorrect | • Verify EZ-Key function in Setup Menu |
| | | • EZ-Key function instance not incorrect | • Check that the function instance is correct |
| | | • Keypad malfunction | • Replace or repair controller |

## Clearing Errors & Limit Messages

To clear error or limit messages press the RESET key. You may also turn main panel power “OFF” and back “ON” again. Error or Limit messages will not clear until the cause or reason for the error has been addressed.

# Watlow EZ-ZONE Temperature Controller / High Limit - Config. Record

## Setup Page

To reach the Setup page hold the "up" and "down" arrow keys together for **6 seconds**.

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| AI | 1 | | | | **Analog Input 1 (PID)** |
| | | SEn | tC | rO.1H | Selects the type of sensor used |
| | | rtL | 2 | 3 | Selects the leads in sensor |
| | | FiL | 0.5 | 3 | Filters erratic signal, for smoother PID calculations |
| | | iEr | oFF | on | Forces manual clear of input errrors |
| | | dEC | 0 | 0 | Selects precision of displayed units |
| | | SbA | oFF | on | Enables or disables sensor backup |
| AI | 2 | | | | **Analog Input 2 (High Limit)** |
| | | SEn | tC | rO.1H | Selects the type of sensor used |
| | | rtL | 2 | 3 | Selects the leads in sensor |
| | | FiL | 0.5 | 3 | Filters erratic signal, for smoother PID calculations |
| | | iEr | oFF | on | Forces manual clear of input errrors |
| | | dEC | 0 | 0 | Selects precision of displayed units |
| LIM | | | | | **Limit Function** |
| | | LSd | both | h 19h | Selects which instance limit function will trip |
| | | LHy | 3 | 20 | Defines the high limit hystersis band |
| | | SPLh | 9999 | 260 | Defines the upper range of the high limit set point |
| | | SPLL | -1999 | 0 | Defines the lower range of the high limit set point |
| | | L.it | no | YES | Selects whether output and autotune are terminated when in limit state |
| LooP | 1 | | | | **PID Loop 1** |
| | | hAG | PId | PId | Selects the heat control method |
| | | CAG | oFF | oFF | Selects the cool control method |
| | | tUn | no | YES | Enables or disable TRU-TUNE+ adaptive tune automatically |
| | | tAGr | Crit | Crit | Selects the aggressiveness of the autotune funtion |
| | | UFA | USEr | USEr | Selects what output will do when user switches to manual mode |
| | | FAiL | USEr | oFF | Selects what ouput will do when an input error switches control to manual mode |
| | | LdE | no | no | Enables or disables open-loop detction feature to monitor closed-loop operations |
| | | rP | oFF | oFF | Selects when controller will ramp to setpoint |
| | | LSP | -1999 | 50 | Defines the lower range of the PID setpoint (temperature in automatic mode) |
| | | hSP | 9999 | 250 | Defines the upper range of the PID setpoint (temperature in automatic mode) |
| | | SPLo | -100 | 0 | Defines the lower range of the PID setpoint (% output in manual mode) |
| | | SPhi | 100 | 100 | Defines the upper range of the PID setpoint (% output in manual mode) |
| oUPt | 1 | | | | **Output 1** |
| | | oty | volt | mA | Selects the type of output |
| | | Fn | hEAt | hEAt | Selects which function will drive output |
| | | Fi | 1 | 1 | Selects the instance of the function selected above |
| | | SLo | 0.00 | 4.75 | Defines the lower range of the scale for the universal process output |
| | | Shi | 10.00 | 20.00 | Defines the upper range of the scale for the universal process output |
| | | oLo | 0 | 0 | Defines the low power scale, output will never be less than the value specified |
| | | ohi | 100 | 100 | Defines the high power scale, output will never be less than the value specified |
| | | oCA | 0.0 | 0.0 | Defines an offset value to the process output |
| | 3 | | | | **Output 3** |
| | | Fn | oFF | oFF | Selects which function will drive output |
| | 4 | | | | **Output 4** |
| | | Fn | LIM | LIM | Selects which function will drive output |
| ALM | 1 | | | | **Alarm 1** |
| | | Aty | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| | 2 | | | | **Alarm 2** |
| | | Aty | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| | 3 | | | | **Alarm 3** |
| | | AtY | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| | 4 | | | | **Alarm 4** |
| | | AtY | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| FUn | | | | | **Function** |
| | | LEu | high | high | Selects the state in which the EZ key is in when powered up |
| | | Fn | nonE | nonE | Selects the funtion of the EZ key |
| | | F1 | 0 | 0 | Selects which instance the EZ key will affect |
| GLbL | | | | | **Global** |
| | | C_F | F | F | Selects the unit of measurement |
| | | ACLF | 60 | 60 | Selects the AC line frequency |
| CoM1 | | | | | **Communications** |
| | | Ad.S | 1 | 1 | Sets the network address of this controller |
| | | C_F | F | F | Selects UOM in which this communications channel will display |
| | | nU.S | YES | YES | Determines whether all values written to control will be saved in EEPROM |

# Watlow EZ-ZONE Temperature Controller / High Limit - Config. Record

## Operations Page

To reach the Operations page hold the "up" and "down" arrow keys together for **3 seconds**.

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| A1 | 1 | | | | **Analog Input 1 (PID)** |
| | | Ain | ** | ** | View the process value |
| | | iEr | ** | ** | View the cause of the most recent error |
| | | iCA | 0 | 0 | Defines calibration offset |
| | 2 | | | | **Analog Input 2 (High Limit)** |
| | | Ain | ** | ** | View the process value |
| | | iEr | ** | ** | View the cause of the most recent error |
| | | iCA | 0 | 0 | Defines calibration offset |
| LIM | | | | | **Limit** |
| | | LhS | 100 | 260 | Defines the high process value that will trigger the limit |
| Mon | | | | | **Monitor** |
| | | CMA | ** | ** | View the active control mode |
| | | hPr | ** | ** | View the current heat output level |
| | | CSP | ** | ** | View the set point currently in effect |
| | | PuA | ** | ** | View the current filtered process value using the control input |
| Loop | | | | | **Loop** |
| | | CM | AUto | AUto | Selects the method that this loop will use to control |
| | | AtSP | 90 | 90 | Defines the the setpoint autotune will use as % of current setpoint |
| | | AUt | no | no | Initiates the autotune process |
| | | CSP | 75 | 100 | Defines the setpoint the controller will use in PID funtion |
| | | idS | 75 | 100 | Defines a new PID setpoint if high limit is reached |
| | | hPb | 25 | *35 | Defines the proportianl band for the heat output |
| | | ti | 180 | *56 | Defines the PID intergral for the output |
| | | td | 0 | *9 | Defines the PID derivative time for the output |
| | | db | 0 | 0 | Defines the offset to the proportional band |
| | | oSP | 0 | 0 | Defines a fixed level of output power when in manual mode |
| ALM | 1 | | | | **Alarm 1** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | Ahi | 300.0 | 300.0 | Defines the high range of the alarm instance |
| | 2 | | | | **Alarm 2** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | Ahi | 300.0 | 300.0 | Defines the high range of the alarm instance |
| | 3 | | | | **Alarm 3** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | Ahi | 300.0 | 300.0 | Defines the high range of the alarm instance |
| | 4 | | | | **Alarm 4** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | Ahi | 300.0 | 300.0 | Defines the high range of the alarm instance |

# Watlow EZ-ZONE Temperature Controller / High Limit - Config. Record

## Factory Page

To reach the Factory page hold the "RESET" and "Advance" arrow keys together for **6 seconds**.

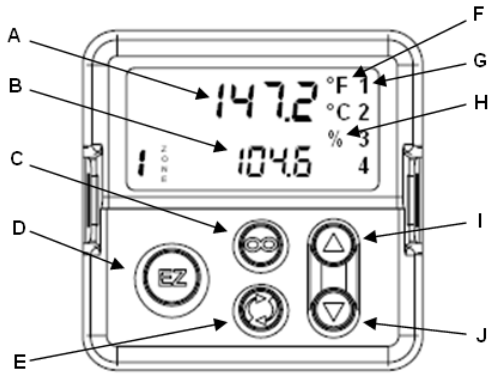
| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| CUSt | 1 | | | | **Custom 1** |
| | | PAr | AC.Pu | AC.Pu | Defines custom parameter to home page |
| | 2 | | | | **Custom 2** |
| | | PAr | AC.SP | AC.SP | Defines custom parameter to home page |
| | 3 | | | | **Custom 3** |
| | | PAr | Pro | Pro | Defines custom parameter to home page |
| | 4 | | | | **Custom 4** |
| | | PAr | L.St | L.St | Defines custom parameter to home page |
| | 5 | | | | **Custom 5** |
| | | PAr | CM7 | CM7 | Defines custom parameter to home page |
| | 6 | | | | **Custom 6** |
| | | PAr | hPr | hPr | Defines custom parameter to home page |
| | 7 | | | | **Custom 7** |
| | | PAr | CPr | AUt | Defines custom parameter to home page |
| | 8 | | | | **Custom 8** |
| | | PAr | AUt | Lh.S | Defines custom parameter to home page |
| | 9 | | | | **Custom 9** |
| | | PAr | idLE | nonE | Defines custom parameter to home page |
| | 10 | | | | **Custom 10** |
| | | PAr | CM7 | nonE | Defines custom parameter to home page |
| | 11 | | | | **Custom 11** |
| | | PAr | hPr | nonE | Defines custom parameter to home page |
| | 12 | | | | **Custom 12** |
| | | PAr | CPr | nonE | Defines custom parameter to home page |
| | 13 | | | | **Custom 13** |
| | | PAr | AUt | nonE | Defines custom parameter to home page |
| | 14 | | | | **Custom 14** |
| | | PAr | idLE | nonE | Defines custom parameter to home page |
| | 15 | | | | **Custom 15** |
| | | PAr | LL.S | nonE | Defines custom parameter to home page |
| | 16 | | | | **Custom 16** |
| | | PAr | Lh.S | nonE | Defines custom parameter to home page |
| | 17 | | | | **Custom 17** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 18 | | | | **Custom 18** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 19 | | | | **Custom 19** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 20 | | | | **Custom 20** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| LoC | | | | | **Lock** |
| | | LoC.o | 2 | 2 | Changes the security level of the operations page |
| | | PASS.E | oFF | oFF | Enables or disables security features |
| | | rLoC | 5 | 5 | Sets the read security clearance level |
| | | SLoc | 5 | 5 | Sets the write security clearance level |
| d IAG | | | | | |
| | | Pn | ** | ** | Part number of device |
| | | rEv | ** | ** | Software revision number |
| | | S.bLd | ** | ** | Software build number |

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| | | Sn | ** | ** | Serial number of device |
| | | dAtE | ** | ** | Date of manufacture |
| | | USr.r | nonE | nonE | Restore user/default settings |
| | | USr.S | nonE | nonE | Save current user settings |
| | | C.LEd | both | both | Turns communications LED on or off for selected ports |
| | | ZonE | on | on | Turns zone LED on or off based on selection |
| | | chAn | on | on | Turns channel LED on or off based on selection |
| | | d.Pr5 | 2 | 2 | Defines the number of display pairs |
| CAL | 1 | | | | **Calibration** |
| | | rAw | ** | ** | View the raw electrical value for this input in units of sensor |
| | | EL.Lo | 1.000 | 1.000 | Defines the value to calibrate the low end of the input range |
| | | EL.o.o | 0.00 | 0.00 | Defines the value to calibrate the low end of the output range |
| | | EL.o.S | 1.000 | 1.000 | Defines the value to calibrate the slope of the output value |
| | 2 | | | | |
| | | rAw | ** | ** | View the raw electrical value for this input in units of sensor |
| | | EL.Lo | 1.000 | 1.000 | Defines the value to calibrate the low end of the input range |
| | | EL.o.o | 0.00 | 0.00 | Defines the value to calibrate the low end of the output range |
| | | EL.o.S | 1.000 | 1.000 | Defines the value to calibrate the slope of the output value |

# Watlow EZ-ZONE Automatic Moisture Controller

## Introduction

Your Delux grain dryer is equipped with an automatic moisture control system that is simple and takes the hassle out of continually monitoring incoming grain for changes in moisture. To better understand the controller and how to use it, please spend a little time to familiarize yourself with common keys and the display.




A) **Upper Display (Process Value)** – In the home page this is the current air temperature passing through the grain column (changes with fluctuations in grain moisture). Otherwise it is the upper display parameter in other menus.
B) **Lower Display (Set Point)** – This number will change when the user is adjusting the voltage on the voltmeter (using the UP or DOWN arrow keys) to match the output (DC voltage) that was present in the calibration (manual) mode.
C) **Infinity Key** – This key is essentially a "BACKSPACE" key to any of the programming menus. Press and hold for two seconds to return to the Home Page. From the Home Page it can clear alarms and errors if clearable.
D) **EZ Key** – This key can be programmed to do a variety of functions. Shipped from factory (DELUX) this key has no programmed functions.
E) **Advance Key** – This key advances through parameter prompts.
F) **Temperature Units** – Indicates whether the temperature is displayed in Fahrenheit or Celsius.
G) **Output Activity** – Numbered LEDs indicate activity of outputs. *A flashing light indicates output activity and systems are normal*.
H) **Percent Units** – Lights when the controller is displaying values as a percentage or when the open-loop set point is displayed (manual mode).
I,J) **Up & Down Key** – In the Home Page, adjusts the set point in the lower display (B). In other menus, changes the upper display (A) to a higher or lower value, or changes a parameter selection.

*Note: ZONE 1 does not refer to anything relevant to dryer operation.

## Automatic Moisture Set-Up Guide

1) On initial start-up with wet grain, it is advisable to let the dryter run at operating temperature for 10-20 minutes before starting the discharge process.
2) Move unload switch to "ON" position (grain unloading light will come on) to start discharge auger system. *Note: Metering rolls will not operate unless all auger systems are on.*
3) Move metering selector switch to "MANUAL" position and adjust the manual metering control potentiometer for desired discharge rate (see formula & charts below for determining initial unloading rate)

    a. **Metering Roll Adjustment**
    The dry grain discharge rate is adjusted by rotating the manual metering control potentiometer. This is located on the control panel.
    Clockwise – Will increase the grain discharge rate & DC volts
    Counter-Clockwise – Will decrease the grain discharge rate & DC volts

4) **Wait at least one (1) hour** – until a complete cycle of grain through the dryer has been completed. One cycle consists from the time the grain enters the top of the dryer to the time it is discharge from the metering rolls, and the dryer has stabilized. Then check grain moisture. *Note: With wetter grain it may be necessary to wait longer to check samples.*
5) **If grain is too wet, decrease** manual metering control potentiometer (decrease DC voltage) and repeat step 4, allowing grain to stabilize.
6) **If grain is too dry, increase** manual metering control potentiometer (increase DC voltage) and repeat step 4, allowing grain to stabilize.
7) Repeat the steps above until final moisture content has been established and dryer has completely stabilize
8) With the moisture now stabilized in manual mode, **note the voltage present on the DC voltmeter.**
9) Switch the metering selector switch from MANUAL to AUTOMATIC. This gives control of the system to the automatic metering controller.

    a. There is an automatic/manual mode within the controller itself. This is always left in the automatic mode. All automatic /manual switching that is referred to in these instructions is the metering selector switch and **not** the controller.

10) **Set the voltage on the DC voltmeter to match what it was in manual mode.** Using the UP or DOWN arrow keys on the controller; change the set point on the controller to a number lower than the current temperature reading to bring it into operating range. Then ignore the temperature readings on the controller and watch the voltage readings on the DC voltmeter only.

a. UP arrow key – Decreases DC voltage
b. DOWN arrow key – Increases DC voltage

11) Adjust slowly so that the drive has time to react. DC voltage will not change until the UP or DOWN key is released.
12) If final moisture content is within 1 or 2 points of target moisture, minor adjustments can be made while in automatic mode. Be cautious not to make too much change too often. Let the system have ample time to process and adjust. If the variance is too great or not consistent, it may be necessary to return to manual mode and establish a new set point.
13) Proportional Band (h.pb) – The proportional band is factory set for each model of dryer. It can be changed by pressing the ADVANCE key until reaching "h.pb" in the lower display. It can be adjusted up or down depending on what the moisture of the discharged grain is doing.

    a. **Decrease** PB if it seems the dryer isn't reacting quickly enough to changes in incoming grain moisture.
    b. **Increase** PB if it seems the dryer is reacting too quickly to changes in incoming grain moisture.
    *Note: it is the moisture of your discharging grain over a period of time that is important. Do not make changes too soon because the system appears to be changing speeds too quickly. Sometimes it takes aggressive action to maintain the desired results.*

14) Moisture samples should be taken at regular intervals. At this time, a visual inspection of the dryer should be made, checking the temperature and feedroll operation. Make sure all columns are flowing by observing grain flow on each side.
15) For further information regarding the automatic metering system refer to Section 9, Sequence 7B.

**GRAIN DRYER PERFORMANCE CHART**
**CHART # 1**

DRYING CAPACITY WET
BPH PER 1000 BPH–RATED
CAPACITY ON YELLOW CORN

| | MOISTURE OF DRIED GRAIN % | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **IN** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** |
| 13 | 870 | 1200 | 1900 | – | – | – | – | – | – |
| 14 | 740 | 930 | 1250 | – | – | – | – | – | – |
| 15 | 640 | 780 | 1000 | 1550 | – | – | – | – | – |
| 16 | 550 | 690 | 850 | 1200 | 1900 | – | – | – | – |
| 17 | 500 | 600 | 730 | 960 | 1400 | – | – | – | – |
| 18 | 450 | 530 | 650 | 800 | 1100 | 1600 | – | – | – |
| 19 | 410 | 480 | 570 | 710 | 910 | 1250 | 1800 | – | – |
| 20 | 380 | 440 | 510 | 630 | 770 | 1000 | 1350 | 1900 | – |
| 21 | 360 | 410 | 480 | 560 | 690 | 880 | 1100 | 1450 | 1900 |
| 22 | 340 | 380 | 440 | 510 | 620 | 760 | 920 | 1150 | 1450 |
| 23 | 320 | 360 | 410 | 470 | 560 | 680 | 800 | 1000 | 1200 |
| 24 | 300 | 340 | 390 | 440 | 510 | 610 | 720 | 850 | 1000 |
| 25 | – | 320 | 370 | 410 | 480 | 560 | 640 | 740 | 870 |
| 26 | – | – | 350 | 390 | 440 | 510 | 590 | 670 | 770 |
| 27 | – | – | 340 | 370 | 420 | 480 | 540 | 610 | 700 |
| 28 | – | – | 320 | 360 | 400 | 450 | 500 | 570 | 630 |
| 29 | – | – | – | 350 | 390 | 430 | 480 | 530 | 590 |
| 30 | – | – | – | 340 | 380 | 420 | 460 | 510 | 560 |

| **PLENUM TEMP** | **F2** | **WET GRAIN TEMP** | **F3** | **GRAIN** | **F4** |
|---|---|---|---|---|---|
| 140 F | .46 | 20 F | .74 | CORN | 1.0 |
| 150 F | .50 | 30 F | .78 | SOYBEANS | 1.0 |
| 160 F | .55 | 40 F | .82 | MILO | .9 |
| 170 F | .61 | 50 F | .86 | WHEAT | .8 |
| 180 F | .69 | 60 F | .91 | | |
| 190 F | .77 | 70 F | 1.00 | | |
| 200 F | .88 | | | | |
| 210 F | 1.00 | | | | |

**HOW TO USE CHARTS TO FIGURE YOUR CAPACITY**

$$\frac{\text{(DRYER RATED CAPACITY @ 20–15\%)}}{1000} \times \text{(BPH IN CHART 1)} \times F2 \times F3 \times F4$$

## DRY GRAIN UNLOADING RATE – DP AND DPSL SERIES DRYERS

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR |
| 10.0 | 1.22 | 64.15 | 96.23 | 128.30 | 160.38 | 192.46 | 256.61 |
| 11.0 | 1.34 | 70.57 | 105.85 | 141.13 | 176.42 | 211.71 | 282.27 |
| 12.0 | 1.46 | 76.98 | 115.47 | 153.96 | 192.46 | 230.95 | 307.93 |
| 13.0 | 1.58 | 83.40 | 125.10 | 166.80 | 208.49 | 250.20 | 333.59 |
| 14.0 | 1.70 | 89.81 | 134.72 | 179.63 | 224.53 | 269.44 | 359.25 |
| 15.0 | 1.82 | 96.23 | 144.34 | 192.46 | 240.57 | 288.69 | 384.91 |
| 16.0 | 1.94 | 102.64 | 153.96 | 205.29 | 256.61 | 307.93 | 410.57 |
| 17.0 | 2.07 | 109.06 | 163.59 | 218.12 | 272.65 | 327.18 | 436.23 |
| 18.0 | 2.19 | 115.47 | 173.21 | 230.95 | 288.68 | 346.42 | 461.89 |
| 19.0 | 2.31 | 121.89 | 182.83 | 243.78 | 304.72 | 365.67 | 487.56 |
| 20.0 | 2.43 | 128.30 | 192.46 | 256.61 | 320.76 | 384.92 | 513.22 |
| 21.0 | 2.55 | 134.72 | 202.08 | 269.44 | 336.80 | 404.16 | 538.88 |
| 22.0 | 2.67 | 141.13 | 211.70 | 282.27 | 352.84 | 423.41 | 564.54 |
| 23.0 | 2.79 | 147.55 | 221.32 | 295.10 | 368.87 | 442.65 | 590.20 |
| 24.0 | 2.92 | 153.96 | 230.95 | 307.93 | 384.91 | 461.90 | 615.86 |
| 25.0 | 3.04 | 160.38 | 240.57 | 320.76 | 400.95 | 481.14 | 641.52 |
| 26.0 | 3.16 | 166.80 | 250.19 | 333.59 | 416.99 | 500.39 | 667.18 |
| 27.0 | 3.28 | 173.21 | 259.82 | 346.42 | 433.03 | 519.64 | 692.84 |
| 28.0 | 3.40 | 179.63 | 269.44 | 359.25 | 449.06 | 538.88 | 718.55 |
| 29.0 | 3.52 | 186.04 | 279.06 | 372.08 | 465.10 | 558.13 | 744.16 |
| 30.0 | 3.65 | 192.46 | 288.68 | 384.91 | 481.14 | 577.37 | 769.82 |
| 31.0 | 3.77 | 198.87 | 298.31 | 397.74 | 497.18 | 596.62 | 795.48 |
| 32.0 | 3.89 | 205.29 | 307.93 | 410.57 | 513.22 | 615.86 | 821.15 |
| 33.0 | 4.01 | 211.70 | 317.55 | 423.40 | 529.25 | 635.11 | 846.81 |
| 34.0 | 4.13 | 218.12 | 324.18 | 436.23 | 545.29 | 654.35 | 872.47 |
| 35.0 | 4.25 | 224.53 | 336.80 | 449.06 | 561.33 | 673.60 | 898.13 |
| 36.0 | 4.37 | 230.95 | 346.42 | 461.89 | 577.37 | 692.85 | 923.79 |
| 37.0 | 4.50 | 237.36 | 356.04 | 474.72 | 593.41 | 712.09 | 949.45 |
| 38.0 | 4.62 | 243.78 | 365.67 | 487.56 | 609.44 | 731.34 | 975.11 |
| 39.0 | 4.74 | 250.19 | 375.29 | 500.39 | 625.48 | 750.58 | 1000.77 |
| 40.0 | 4.86 | 256.61 | 384.91 | 513.22 | 641.52 | 769.83 | 1026.43 |

**DRY GRAIN UNLOADING RATE – DP AND DPSL SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR |
| 41.0 | 4.98 | 263.02 | 394.53 | 526.05 | 657.56 | 789.07 | 1052.09 |
| 42.0 | 5.10 | 269.44 | 404.16 | 538.88 | 673.60 | 808.32 | 1077.75 |
| 43.0 | 5.22 | 275.85 | 413.78 | 551.71 | 689.63 | 827.56 | 1103.41 |
| 44.0 | 5.35 | 282.27 | 423.40 | 564.54 | 705.67 | 846.81 | 1129.08 |
| 45.0 | 5.47 | 288.68 | 433.03 | 577.37 | 721.71 | 866.06 | 1154.74 |
| 46.0 | 5.59 | 295.10 | 442.65 | 590.20 | 737.75 | 885.30 | 1180.40 |
| 47.0 | 5.71 | 301.51 | 452.27 | 603.03 | 753.79 | 904.55 | 1206.06 |
| 48.0 | 5.83 | 307.93 | 461.89 | 615.86 | 769.82 | 923.79 | 1231.72 |
| 49.0 | 5.95 | 314.34 | 471.52 | 628.69 | 785.86 | 943.04 | 1257.38 |
| 50.0 | 6.08 | 320.76 | 481.14 | 641.52 | 801.90 | 962.28 | 1283.04 |
| 51.0 | 6.20 | 327.18 | 490.76 | 654.35 | 817.94 | 981.53 | 1308.70 |
| 52.0 | 6.32 | 333.59 | 500.39 | 667.18 | 833.98 | 1000.78 | 1334.36 |
| 53.0 | 6.44 | 340.01 | 510.01 | 680.01 | 850.01 | 1020.02 | 1360.02 |
| 54.0 | 6.56 | 346.42 | 519.63 | 692.84 | 866.05 | 1039.27 | 1385.68 |
| 55.0 | 6.68 | 352.84 | 529.25 | 705.67 | 882.09 | 1058.51 | 1411.34 |
| 56.0 | 6.80 | 359.25 | 538.88 | 718.50 | 898.13 | 1077.76 | 1437.00 |
| 57.0 | 6.93 | 365.67 | 548.50 | 731.33 | 914.17 | 1097.00 | 1462.67 |
| 58.0 | 7.05 | 372.08 | 558.12 | 744.16 | 930.20 | 1116.25 | 1488.83 |
| 59.0 | 7.17 | 378.50 | 567.75 | 756.99 | 946.24 | 1135.49 | 1513.99 |
| 60.0 | 7.29 | 384.91 | 577.37 | 769.82 | 962.28 | 1154.74 | 1539.65 |
| 61.0 | 7.41 | 391.33 | 586.99 | 782.65 | 978.32 | 1173.99 | 1565.31 |
| 62.0 | 7.53 | 397.74 | 596.61 | 795.48 | 994.36 | 1193.23 | 1590.97 |
| 63.0 | 7.65 | 404.16 | 606.24 | 808.32 | 1010.39 | 1212.48 | 1616.63 |
| 64.0 | 7.78 | 410.57 | 615.86 | 821.15 | 1026.43 | 1231.72 | 1642.29 |
| 65.0 | 7.90 | 416.99 | 625.48 | 833.98 | 1042.47 | 1250.97 | 1667.95 |
| 66.0 | 8.02 | 423.40 | 635.10 | 846.81 | 1058.51 | 1270.21 | 1693.61 |
| 67.0 | 8.14 | 429.82 | 644.73 | 859.64 | 1074.55 | 1289.46 | 1719.27 |
| 68.0 | 8.26 | 436.23 | 654.35 | 872.47 | 1090.58 | 1308.75 | 1744.93 |
| 69.0 | 8.38 | 442.65 | 663.97 | 885.30 | 1106.62 | 1327.95 | 1770.60 |
| 70.0 | 8.51 | 449.06 | 673.60 | 898.13 | 1122.66 | 1347.20 | 1796.26 |

**DRY GRAIN UNLOADING RATE – DP AND DPSL SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR |
| 71.0 | 8.63 | 455.48 | 683.22 | 910.96 | 1138.70 | 1366.44 | 1821.92 |
| 72.0 | 8.75 | 461.89 | 692.84 | 923.79 | 1154.74 | 1385.69 | 1847.58 |
| 73.0 | 8.87 | 468.31 | 702.46 | 936.62 | 1170.77 | 1404.93 | 1873.24 |
| 74.0 | 8.99 | 474.72 | 712.09 | 949.45 | 1186.81 | 1424.18 | 1898.90 |
| 75.0 | 9.11 | 481.14 | 721.71 | 962.28 | 1202.85 | 1443.42 | 1924.56 |
| 76.0 | 9.23 | 487.56 | 731.33 | 975.11 | 1218.89 | 1462.67 | 1950.22 |
| 77.0 | 9.36 | 493.97 | 740.96 | 987.94 | 1234.93 | 1481.92 | 1975.88 |
| 78.0 | 9.48 | 500.39 | 750.58 | 1000.77 | 1250.96 | 1501.16 | 2001.54 |
| 79.0 | 9.60 | 506.80 | 760.20 | 1013.60 | 1267.00 | 1520.41 | 2027.20 |
| 80.0 | 9.72 | 513.22 | 769.82 | 1026.43 | 1283.04 | 1539.65 | 2052.86 |
| 81.0 | 9.84 | 519.63 | 779.45 | 1039.26 | 1299.08 | 1558.90 | 2078.52 |
| 82.0 | 9.96 | 526.05 | 789.07 | 1052.09 | 1315.12 | 1578.14 | 2104.19 |
| 83.0 | 10.08 | 532.46 | 798.69 | 1064.92 | 1331.15 | 1597.39 | 2129.85 |
| 84.0 | 10.21 | 538.88 | 808.32 | 1077.75 | 1347.19 | 1616.63 | 2155.51 |
| 85.0 | 10.33 | 545.29 | 817.97 | 1090.58 | 1363.23 | 1635.88 | 2181.17 |
| 86.0 | 10.45 | 551.71 | 827.56 | 1103.41 | 1379.27 | 1655.13 | 2206.83 |
| 87.0 | 10.57 | 558.12 | 837.18 | 1116.24 | 1395.31 | 1674.37 | 2232.49 |
| 88.0 | 10.69 | 564.54 | 846.81 | 1129.08 | 1411.34 | 1693.62 | 2258.15 |
| 89.0 | 10.81 | 570.95 | 856.43 | 1141.91 | 1427.38 | 1712.86 | 2283.81 |
| 90.0 | 10.94 | 577.37 | 866.05 | 1154.74 | 1443.42 | 1732.11 | 2309.47 |

SPECIAL CHART: DRIVE SPROCKET: 4012 DRIVEN SPROCKET: 4032

| MODEL | VOLT | (=) | RPM | DRY BU. / MIN. | DRY BU. / HR |
|---|---|---|---|---|---|
| 10 FT. | 1 | (=) | .1215 | .1069 | 6.4150 |
| 15 FT. | 1 | (=) | .1215 | .1604 | 9.6230 |
| 20 FT. | 1 | (=) | .1215 | .2138 | 12.8300 |
| 25 FT. | 1 | (=) | .1215 | .2673 | 16.0380 |
| 30 FT. | 1 | (=) | .1215 | .3208 | 19.2460 |
| 40 FT. | 1 | (=) | .1215 | .4277 | 25.6610 |

**DRY GRAIN UNLOADING RATE – DPX AND DPXSL SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRU BU/HR | DRY BU/HR | DRY BU/HR |
| 10.0 | 1.62 | 85.50 | 128.30 | 171.60 | 223.20 | 256.80 | 357.00 |
| 11.0 | 1.78 | 94.10 | 141.10 | 188.20 | 235.20 | 282.30 | 376.40 |
| 12.0 | 1.94 | 102.60 | 154.00 | 205.30 | 256.20 | 307.90 | 410.60 |
| 13.0 | 2.11 | 111.20 | 166.80 | 222.40 | 279.00 | 333.60 | 444.80 |
| 14.0 | 2.27 | 119.70 | 179.60 | 239.50 | 300.00 | 359.30 | 479.00 |
| 15.0 | 2.43 | 128.30 | 192.50 | 256.60 | 321.00 | 384.90 | 513.20 |
| 16.0 | 2.54 | 136.80 | 205.30 | 273.70 | 335.00 | 410.60 | 547.40 |
| 17.0 | 2.75 | 145.40 | 218.10 | 290.80 | 363.00 | 436.20 | 581.60 |
| 18.0 | 2.92 | 153.90 | 230.90 | 307.90 | 385.80 | 461.90 | 615.90 |
| 19.0 | 3.08 | 162.59 | 243.80 | 325.00 | 406.80 | 487.60 | 650.00 |
| 20.0 | 3.24 | 171.00 | 256.60 | 342.10 | 427.80 | 513.20 | 684.30 |
| 21.0 | 3.40 | 179.60 | 269.40 | 359.30 | 448.80 | 538.90 | 718.50 |
| 22.0 | 3.56 | 188.10 | 282.30 | 376.40 | 470.40 | 564.50 | 752.70 |
| 23.0 | 3.73 | 196.70 | 295.10 | 393.50 | 492.60 | 590.20 | 786.90 |
| 24.0 | 3.89 | 205.30 | 307.90 | 410.60 | 513.60 | 615.90 | 821.10 |
| 25.0 | 4.05 | 213.80 | 320.80 | 427.70 | 534.60 | 641.50 | 855.40 |
| 26.0 | 4.21 | 222.40 | 333.60 | 444.80 | 556.20 | 667.20 | 889.60 |
| 27.0 | 4.37 | 230.90 | 346.40 | 461.90 | 577.20 | 692.80 | 923.80 |
| 28.0 | 4.54 | 239.50 | 359.30 | 479.00 | 599.40 | 718.50 | 958.00 |
| 29.0 | 4.70 | 248.00 | 372.10 | 496.10 | 620.40 | 744.20 | 992.20 |
| 30.0 | 4.86 | 256.60 | 384.90 | 513.20 | 642.00 | 769.80 | 1026.40 |
| 31.0 | 5.02 | 265.10 | 397.70 | 530.30 | 663.00 | 795.50 | 1060.60 |
| 32.0 | 5.18 | 273.70 | 410.60 | 547.40 | 684.00 | 821.10 | 1094.90 |
| 33.0 | 5.35 | 282.20 | 423.40 | 564.50 | 706.20 | 846.80 | 1129.10 |
| 34.0 | 5.51 | 290.80 | 436.20 | 581.60 | 727.80 | 872.50 | 1163.30 |
| 35.0 | 5.67 | 299.30 | 449.10 | 598.80 | 748.80 | 898.10 | 1197.50 |
| 36.0 | 5.83 | 307.90 | 461.90 | 615.90 | 769.80 | 923.80 | 1231.70 |
| 37.0 | 5.99 | 316.40 | 474.70 | 633.00 | 790.80 | 949.40 | 1265.90 |
| 38.0 | 6.16 | 325.00 | 487.60 | 650.10 | 813.60 | 975.10 | 1300.10 |
| 39.0 | 6.32 | 333.60 | 500.40 | 667.20 | 834.60 | 1000.80 | 1334.40 |
| 40.0 | 6.48 | 342.10 | 513.20 | 684.30 | 855.60 | 1026.40 | 1368.60 |

**DRY GRAIN UNLOADING RATE – DPX AND DPXSL SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRU BU/HR | DRY BU/HR | DRY BU/HR |
| 41.0 | 6.64 | 350.70 | 526.00 | 701.40 | 876.48 | 1052.10 | 1402.80 |
| 42.0 | 6.80 | 359.20 | 538.90 | 718.50 | 897.60 | 1077.80 | 1437.00 |
| 43.0 | 6.97 | 367.80 | 551.70 | 735.60 | 920.40 | 1103.40 | 1471.20 |
| 44.0 | 7.13 | 376.30 | 564.50 | 752.70 | 941.40 | 1129.10 | 1505.40 |
| 45.0 | 7.29 | 384.90 | 577.40 | 769.80 | 962.40 | 1154.70 | 1539.60 |
| 46.0 | 7.45 | 393.40 | 590.20 | 786.90 | 983.40 | 1180.40 | 1573.90 |
| 47.0 | 7.61 | 402.00 | 603.00 | 804.00 | 1005.00 | 1206.10 | 1608.10 |
| 48.0 | 7.78 | 410.50 | 615.90 | 821.10 | 1027.20 | 1231.70 | 1642.30 |
| 49.0 | 7.94 | 419.10 | 628.70 | 838.30 | 1048.20 | 1257.40 | 1676.50 |
| 50.0 | 8.10 | 427.60 | 641.50 | 855.40 | 1069.20 | 1283.00 | 1710.70 |
| 51.0 | 8.26 | 436.20 | 654.40 | 872.50 | 1090.80 | 1308.70 | 1744.90 |
| 52.0 | 8.42 | 444.80 | 667.20 | 889.60 | 1111.80 | 1334.40 | 1779.10 |
| 53.0 | 8.59 | 453.30 | 680.00 | 906.70 | 1134.00 | 1360.00 | 1813.40 |
| 54.0 | 8.75 | 461.90 | 692.80 | 923.80 | 1155.00 | 1385.70 | 1847.60 |
| 55.0 | 8.91 | 470.40 | 705.70 | 940.90 | 1176.60 | 1411.30 | 1881.80 |
| 56.0 | 9.07 | 479.00 | 718.50 | 958.00 | 1197.60 | 1437.00 | 1916.00 |
| 57.0 | 9.23 | 487.50 | 731.30 | 975.10 | 1218.60 | 1462.70 | 1950.20 |
| 58.0 | 9.40 | 496.10 | 744.20 | 992.20 | 1240.80 | 1488.30 | 1984.40 |
| 59.0 | 9.56 | 504.60 | 757.00 | 1009.30 | 1262.40 | 1514.00 | 2018.60 |
| 60.0 | 9.72 | 513.20 | 769.80 | 1026.40 | 1283.40 | 1539.60 | 2052.90 |
| 61.0 | 9.88 | 521.70 | 782.70 | 1043.50 | 1304.40 | 1565.30 | 2087.10 |
| 62.0 | 10.04 | 530.30 | 795.50 | 1060.60 | 1325.40 | 1591.00 | 2121.30 |
| 63.0 | 10.21 | 538.80 | 808.30 | 1077.80 | 1348.20 | 1616.60 | 2155.50 |
| 64.0 | 10.37 | 547.40 | 821.10 | 1094.90 | 1369.20 | 1642.30 | 2189.70 |
| 65.0 | 10.53 | 555.90 | 834.00 | 1112.00 | 1390.20 | 1668.00 | 2223.90 |
| 66.0 | 10.69 | 564.50 | 846.80 | 1129.10 | 1411.20 | 1693.60 | 2258.20 |
| 67.0 | 10.85 | 573.10 | 859.60 | 1146.20 | 1432.20 | 1719.30 | 2292.40 |
| 68.0 | 11.02 | 581.60 | 872.50 | 1163.30 | 1455.00 | 1744.90 | 2326.60 |
| 69.0 | 11.18 | 590.20 | 885.30 | 1180.40 | 1476.00 | 1770.60 | 2360.80 |
| 70.0 | 11.34 | 598.70 | 898.10 | 1197.50 | 1497.00 | 1796.30 | 2395.00 |

**DRY GRAIN UNLOADING RATE – DPX AND DPXSL SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRU BU/HR | DRY BU/HR | DRY BU/HR |
| 71.0 | 11.50 | 607.30 | 911.00 | 1214.60 | 1518.00 | 1821.90 | 2429.20 |
| 72.0 | 11.66 | 615.80 | 923.80 | 1231.70 | 1539.60 | 1847.60 | 2463.40 |
| 73.0 | 11.83 | 624.40 | 936.60 | 1248.80 | 1561.80 | 1873.20 | 2497.70 |
| 74.0 | 11.99 | 632.90 | 949.40 | 1265.90 | 1582.80 | 1898.90 | 2531.90 |
| 75.0 | 12.15 | 641.50 | 962.30 | 1283.00 | 1603.08 | 1924.60 | 2566.10 |
| 76.0 | 12.31 | 650.00 | 975.10 | 1300.10 | 1625.40 | 1950.20 | 2600.30 |
| 77.0 | 12.47 | 658.60 | 987.90 | 1317.30 | 1646.40 | 1975.90 | 2634.50 |
| 78.0 | 12.64 | 667.10 | 1000.80 | 1334.40 | 1668.60 | 2001.50 | 2668.70 |
| 79.0 | 12.80 | 675.70 | 1013.60 | 1351.50 | 1689.60 | 2027.20 | 2702.90 |
| 80.0 | 12.96 | 684.30 | 1026.40 | 1368.60 | 1711.20 | 2052.90 | 2737.20 |
| 81.0 | 13.12 | 692.80 | 1039.30 | 1385.70 | 1732.20 | 2078.50 | 2771.40 |
| 82.0 | 13.28 | 701.40 | 1052.10 | 1402.80 | 1753.20 | 2104.20 | 2805.60 |
| 83.0 | 13.45 | 709.90 | 1064.90 | 1419.90 | 1775.00 | 2129.80 | 2839.80 |
| 84.0 | 13.61 | 718.50 | 1077.80 | 1437.00 | 1797.00 | 2155.50 | 2874.00 |
| 85.0 | 13.77 | 727.00 | 1090.60 | 1454.10 | 1818.00 | 2181.20 | 2908.20 |
| 86.0 | 13.93 | 735.60 | 1103.40 | 1471.20 | 1839.00 | 2206.80 | 2942.40 |
| 87.0 | 14.09 | 744.10 | 1116.20 | 1488.30 | 1860.00 | 2232.50 | 2976.70 |
| 88.0 | 14.26 | 752.70 | 1129.10 | 1505.40 | 1882.80 | 2258.20 | 3010.90 |
| 89.0 | 14.42 | 761.20 | 1141.90 | 1522.50 | 1903.80 | 2283.80 | 3045.10 |
| 90.0 | 14.58 | 769.80 | 1154.70 | 1539.60 | 1924.80 | 2309.50 | 3079.30 |

SPECIAL CHART: DRIVE SPROCKET: 4016 DRIVEN SPROCKET: 4032

| MODEL | VOLT | (=) | RPM | DRY BU. / MIN. | DRY BU. / HR |
|---|---|---|---|---|---|
| 10 FT. | 1 | (=) | .1620 | .1426 | 8.5536 |
| 15 FT. | 1 | (=) | .1620 | .2138 | 12.8304 |
| 20 FT. | 1 | (=) | .1620 | .2851 | 17.1072 |
| 30 FT. | 1 | (=) | .1620 | .4277 | 25.6608 |
| 40 FT. | 1 | (=) | .1620 | .5702 | 34.2144 |

**DRY GRAIN UNLOADING RATE – DPX4T AND DPX8T SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. | |
|---|---|---|---|---|---|---|---|---|
| D.C. RPM | BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRU BU/HR | DRY BU/HR | DRY | VOLTS |
| 10.0 | 2.43 | 128.30 | 192.50 | 256.60 | 320.80 | 385.00 | 513.40 | |
| 11.0 | 2.67 | 141.13 | 211.75 | 282.26 | 352.88 | 423.50 | 564.74 | |
| 12.0 | 2.92 | 153.96 | 231.00 | 307.92 | 384.96 | 462.00 | 616.08 | |
| 13.0 | 3.16 | 166.79 | 250.25 | 333.58 | 417.04 | 500.50 | 667.42 | |
| 14.0 | 3.40 | 179.62 | 269.50 | 359.24 | 449.12 | 539.00 | 718.76 | |
| 15.0 | 3.65 | 192.45 | 288.75 | 384.90 | 481.20 | 577.50 | 770.10 | |
| 16.0 | 3.89 | 205.28 | 308.00 | 410.56 | 513.28 | 616.00 | 821.44 | |
| 17.0 | 4.13 | 218.11 | 327.25 | 436.22 | 545.36 | 654.50 | 872.78 | |
| 18.0 | 4.38 | 230.94 | 346.50 | 461.88 | 577.44 | 693.00 | 924.12 | |
| 19.0 | 4.62 | 243.77 | 365.75 | 487.54 | 609.52 | 731.50 | 975.46 | |
| 20.0 | 4.68 | 256.60 | 385.00 | 513.20 | 641.60 | 770.00 | 1026.80 | |
| 21.0 | 5.11 | 269.43 | 404.25 | 538.86 | 673.68 | 808.50 | 1078.14 | |
| 22.0 | 5.35 | 282.26 | 423.50 | 564.52 | 705.76 | 847.00 | 1129.48 | |
| 23.0 | 5.59 | 295.09 | 442.75 | 590.18 | 737.84 | 885.50 | 1180.82 | |
| 24.0 | 5.83 | 307.92 | 462.00 | 615.84 | 769.92 | 924.00 | 1232.16 | |
| 25.0 | 6.08 | 320.75 | 481.25 | 641.50 | 802.00 | 962.50 | 1283.50 | |
| 26.0 | 6.32 | 333.58 | 500.50 | 667.16 | 834.08 | 1001.00 | 1334.84 | |
| 27.0 | 6.56 | 346.41 | 519.75 | 692.82 | 866.16 | 1039.50 | 1386.18 | |
| 28.0 | 6.81 | 359.24 | 539.00 | 718.48 | 898.24 | 1078.00 | 1437.52 | |
| 29.0 | 7.05 | 372.07 | 558.25 | 744.14 | 930.32 | 1116.50 | 1488.86 | |
| 30.0 | 7.29 | 384.90 | 577.50 | 769.80 | 962.40 | 1155.00 | 1540.20 | |
| 31.0 | 7.51 | 397.73 | 596.75 | 795.46 | 994.48 | 1193.50 | 1591.54 | |
| 32.0 | 7.78 | 410.56 | 616.00 | 821.12 | 1026.56 | 1232.00 | 1642.88 | |
| 33.0 | 8.02 | 423.39 | 635.25 | 846.78 | 1058.64 | 1270.50 | 1694.22 | |
| 34.0 | 8.27 | 436.22 | 654.00 | 872.44 | 1090.72 | 1309.00 | 1745.56 | |
| 35.0 | 8.51 | 449.05 | 673.75 | 898.10 | 1122.80 | 1347.50 | 1796.90 | |
| 36.0 | 8.75 | 461.88 | 693.00 | 923.76 | 1154.88 | 1386.00 | 1848.24 | |
| 37.0 | 8.99 | 474.71 | 712.25 | 949.42 | 1186.96 | 1424.50 | 1899.58 | |
| 38.0 | 9.24 | 487.54 | 731.50 | 975.08 | 1219.04 | 1463.00 | 1950.92 | |
| 39.0 | 9.48 | 500.37 | 750.75 | 1000.74 | 1251.12 | 1501.50 | 2002.26 | |
| 40.0 | 9.72 | 513.20 | 770.00 | 1026.40 | 1283.20 | 1540.00 | 2053.60 | |

**DRY GRAIN UNLOADING RATE – DPX4T AND DPX8T SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. | |
|---|---|---|---|---|---|---|---|---|
| D.C. RPM | BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRU BU/HR | DRY BU/HR | DRY | VOLTS |
| 41.0 | 9.97 | 526.03 | 789.25 | 1052.06 | 1315.28 | 1578.50 | 2104.94 | |
| 42.0 | 10.21 | 538.86 | 808.50 | 1077.72 | 1347.36 | 1617.00 | 2156.28 | |
| 43.0 | 10.45 | 551.69 | 827.75 | 1033.38 | 1379.44 | 1655.50 | 2207.62 | |
| 44.0 | 10.70 | 564.52 | 847.00 | 1129.04 | 1411.52 | 1694.00 | 2258.96 | |
| 45.0 | 10.94 | 577.35 | 866.25 | 1154.70 | 1443.60 | 1732.50 | 2310.30 | |
| 46.0 | 11.18 | 590.18 | 885.50 | 1180.36 | 1475.68 | 1771.00 | 2361.64 | |
| 47.0 | 11.43 | 603.01 | 904.75 | 1206.02 | 1507.76 | 1809.50 | 2412.98 | |
| 48.0 | 11.67 | 615.84 | 924.00 | 1231.68 | 1539.84 | 1848.00 | 2464.32 | |
| 49.0 | 11.91 | 628.67 | 943.25 | 1257.34 | 1571.92 | 1886.50 | 2515.66 | |
| 50.0 | 12.16 | 641.50 | 962.50 | 1283.00 | 1604.00 | 1925.00 | 2567.00 | |
| 51.0 | 12.40 | 654.33 | 981.75 | 1308.66 | 1636.08 | 1963.50 | 2618.34 | |
| 52.0 | 12.64 | 667.16 | 1001.00 | 1334.32 | 1668.16 | 2002.00 | 2669.68 | |
| 53.0 | 12.88 | 679.99 | 1020.25 | 1359.98 | 1700.24 | 2040.50 | 2721.02 | |
| 54.0 | 13.13 | 692.82 | 1039.50 | 1385.64 | 1732.32 | 2079.00 | 2772.36 | |
| 55.0 | 13.37 | 705.65 | 1058.75 | 1411.30 | 1764.40 | 2117.50 | 2823.70 | |
| 56.0 | 13.61 | 718.48 | 1078.00 | 1436.96 | 1796.48 | 2156.00 | 2875.04 | |
| 57.0 | 13.86 | 731.31 | 1097.25 | 1462.62 | 1828.56 | 2194.50 | 2926.38 | |
| 58.0 | 14.10 | 744.14 | 1116.50 | 1488.28 | 1860.64 | 2233.00 | 2977.72 | |
| 59.0 | 14.34 | 756.97 | 1135.75 | 1513.94 | 1892.72 | 2271.50 | 3029.06 | |
| 60.0 | 14.59 | 769.80 | 1155.00 | 1539.60 | 1924.80 | 2310.00 | 3080.40 | |
| 61.0 | 14.83 | 782.63 | 1174.25 | 1565.26 | 1956.88 | 2348.50 | 3131.74 | |
| 62.0 | 15.07 | 795.46 | 1193.50 | 1590.92 | 1988.96 | 2387.00 | 3183.08 | |
| 63.0 | 15.32 | 808.29 | 1212.75 | 1616.58 | 2021.04 | 2425.50 | 3234.42 | |
| 64.0 | 15.56 | 821.12 | 1232.00 | 1642.24 | 2053.12 | 2464.00 | 3285.76 | |
| 65.0 | 15.80 | 833.95 | 1251.25 | 1667.90 | 2085.20 | 2502.50 | 3337.10 | |
| 66.0 | 16.04 | 846.78 | 1270.50 | 1693.56 | 2117.28 | 2541.00 | 3388.44 | |
| 67.0 | 16.29 | 859.61 | 1289.75 | 1719.22 | 2149.36 | 2579.50 | 3439.78 | |
| 68.0 | 16.53 | 872.44 | 1309.00 | 1744.88 | 2181.44 | 2618.00 | 3491.12 | |
| 69.0 | 16.77 | 885.27 | 1328.25 | 1770.54 | 2213.52 | 2656.50 | 3542.46 | |
| 70.0 | 17.02 | 898.10 | 1347.50 | 1796.20 | 2245.60 | 2695.00 | 3593.80 | |

**DRY GRAIN UNLOADING RATE – DPX4T AND DPX8T SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. | |
|---|---|---|---|---|---|---|---|---|
| D.C. RPM | BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRU BU/HR | DRY BU/HR | DRY | VOLTS |
| 71.0 | 17.26 | 910.93 | 1366.75 | 1821.86 | 2277.68 | 2733.50 | 3645.14 | |
| 72.0 | 17.50 | 923.76 | 1386.00 | 1847.52 | 2309.76 | 2772.00 | 3696.48 | |
| 73.0 | 17.75 | 936.59 | 1405.25 | 1873.18 | 2341.84 | 2810.50 | 3747.82 | |
| 74.0 | 17.99 | 949.42 | 1424.50 | 1898.84 | 2373.92 | 2849.00 | 3799.16 | |
| 75.0 | 18.23 | 962.25 | 1443.75 | 1924.50 | 2406.00 | 2887.50 | 3850.50 | |
| 76.0 | 18.48 | 975.08 | 1463.00 | 1950.16 | 2438.08 | 2926.00 | 3901.84 | |
| 77.0 | 18.72 | 987.91 | 1482.25 | 1975.82 | 2470.16 | 2964.50 | 3953.18 | |
| 78.0 | 18.96 | 1000.74 | 1501.50 | 2001.48 | 2502.24 | 3003.00 | 4004.52 | |
| 79.0 | 19.20 | 1013.57 | 1520.75 | 2027.14 | 2534.32 | 3041.50 | 4055.86 | |
| 80.0 | 19.45 | 1026.40 | 1540.00 | 2052.80 | 2566.40 | 3080.00 | 4107.20 | |
| 81.0 | 19.69 | 1039.23 | 1559.25 | 2078.46 | 2598.48 | 3118.50 | 4158.54 | |
| 82.0 | 19.93 | 1052.06 | 1578.50 | 2104.12 | 2630.56 | 3157.00 | 4209.88 | |
| 83.0 | 20.18 | 1064.89 | 1597.75 | 2129.78 | 2662.64 | 3195.50 | 4261.22 | |
| 84.0 | 20.42 | 1077.72 | 1617.00 | 2155.44 | 2694.72 | 3234.00 | 4312.56 | |
| 85.0 | 20.66 | 1090.55 | 1636.25 | 2181.10 | 2726.80 | 3272.50 | 4363.90 | |
| 86.0 | 20.91 | 1103.38 | 1655.50 | 2206.76 | 2758.88 | 3311.00 | 4415.24 | |
| 87.0 | 21.15 | 1116.21 | 1674.75 | 2232.42 | 2790.96 | 3349.50 | 4466.58 | |
| 88.0 | 21.39 | 1129.04 | 1694.00 | 2258.08 | 2823.04 | 3388.00 | 4517.92 | |
| 89.0 | 21.64 | 1141.87 | 1713.25 | 2283.74 | 2855.12 | 3426.50 | 4569.26 | |
| 90.0 | 21.88 | 1154.70 | 1732.50 | 2309.40 | 2887.20 | 3465.00 | 4620.60 | |

SPECIAL CHART: DRIVE SPROCKET: 4024 DRIVEN SPROCKET: 4032

| MODEL | VOLT | (=) | RPM | DRY BU. / MIN. | DRY BU. / HR |
|---|---|---|---|---|---|
| 10 FT. | 1 | (=) | .2431 | .2139 | 12.83 |
| 15 FT. | 1 | (=) | .2431 | .3209 | 19.25 |
| 20 FT. | 1 | (=) | .2431 | .4278 | 25.66 |
| 25 FT. | 1 | (=) | .2431 | .5348 | 32.08 |
| 30 FT. | 1 | (=) | .2431 | .6418 | 38.50 |
| 40 FT. | 1 | (=) | .2431 | .8557 | 51.34 |

**DRY GRAIN UNLOADING RATE – DPX12T & DPX16GT SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR |
| 0.0 | 2.63 | 139.00 | 208.50 | 278.00 | 347.60 | 417.10 | 556.10 |
| 11.0 | 2.90 | 152.90 | 229.35 | 305.80 | 382.36 | 458.81 | 611.71 |
| 12.0 | 3.16 | 166.80 | 250.20 | 333.60 | 417.12 | 500.52 | 667.32 |
| 13.0 | 3.42 | 180.70 | 271.05 | 361.40 | 451.88 | 542.23 | 722.93 |
| 14.0 | 3.69 | 194.60 | 291.90 | 389.20 | 486.64 | 583.94 | 778.54 |
| 15.0 | 3.95 | 208.50 | 312.75 | 417.00 | 521.40 | 625.65 | 834.15 |
| 16.0 | 4.21 | 222.40 | 333.60 | 444.80 | 556.16 | 667.36 | 889.76 |
| 17.0 | 4.48 | 236.30 | 354.45 | 472.60 | 590.92 | 709.07 | 945.37 |
| 18.0 | 4.74 | 250.20 | 375.30 | 500.40 | 625.68 | 750.78 | 1000.98 |
| 19.0 | 5.00 | 264.10 | 396.15 | 528.20 | 660.44 | 792.49 | 1056.59 |
| 20.0 | 5.27 | 278.00 | 417.00 | 556.00 | 695.20 | 834.20 | 1112.20 |
| 21.0 | 5.53 | 291.90 | 437.85 | 583.80 | 729.96 | 875.91 | 1167.81 |
| 22.0 | 5.79 | 305.80 | 458.70 | 611.60 | 764.72 | 917.62 | 1223.42 |
| 23.0 | 6.06 | 319.70 | 479.55 | 639.40 | 799.48 | 959.33 | 1279.03 |
| 24.0 | 6.32 | 333.60 | 500.40 | 667.20 | 834.24 | 1001.04 | 1334.64 |
| 25.0 | 6.58 | 347.50 | 521.25 | 695.00 | 869.00 | 1042.75 | 1390.25 |
| 26.0 | 6.85 | 361.40 | 542.10 | 722.80 | 903.76 | 1084.46 | 1445.86 |
| 27.0 | 7.11 | 375.30 | 562.95 | 750.60 | 938.52 | 1126.17 | 1501.47 |
| 28.0 | 7.37 | 389.20 | 583.80 | 778.40 | 973.28 | 1167.88 | 1557.08 |
| 29.0 | 7.64 | 403.10 | 604.65 | 806.20 | 1008.04 | 1209.59 | 1612.69 |
| 30.0 | 7.90 | 417.00 | 625.50 | 834.00 | 1042.80 | 1251.30 | 1668.30 |
| 31.0 | 8.16 | 430.90 | 646.35 | 861.80 | 1077.56 | 1293.01 | 1723.91 |
| 32.0 | 8.43 | 444.80 | 667.20 | 889.60 | 1112.32 | 1334.72 | 1779.52 |
| 33.0 | 8.69 | 458.70 | 688.05 | 917.40 | 1147.08 | 1376.43 | 1835.13 |
| 34.0 | 8.95 | 472.60 | 708.90 | 945.20 | 1181.84 | 1418.14 | 1890.74 |
| 35.0 | 9.22 | 486.50 | 729.75 | 973.00 | 1216.60 | 1459.85 | 1946.35 |
| 36.0 | 9.48 | 500.40 | 750.60 | 1000.80 | 1251.36 | 1501.56 | 2001.96 |
| 37.0 | 9.74 | 514.30 | 771.45 | 1028.60 | 1286.12 | 1543.27 | 2057.57 |
| 38.0 | 10.01 | 528.20 | 792.30 | 1056.40 | 1320.88 | 1584.98 | 2113.18 |
| 39.0 | 10.27 | 542.10 | 813.15 | 1084.20 | 1355.64 | 1626.69 | 2168.79 |
| 40.0 | 10.53 | 556.00 | 834.00 | 1112.00 | 1390.40 | 1668.40 | 2224.40 |

**DRY GRAIN UNLOADING RATE – DPX12T & DPX16GT SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR |
| 41.0 | 10.80 | 569.90 | 854.85 | 1139.80 | 1425.16 | 1710.11 | 2280.01 |
| 42.0 | 11.06 | 583.80 | 875.70 | 1167.60 | 1459.92 | 1751.82 | 2335.62 |
| 43.0 | 11.32 | 597.70 | 896.55 | 1195.40 | 1494.68 | 1793.53 | 2391.23 |
| 44.0 | 11.59 | 611.60 | 917.40 | 1223.20 | 1529.44 | 1835.24 | 2446.84 |
| 45.0 | 11.85 | 625.50 | 938.25 | 1251.00 | 1564.20 | 1876.95 | 2502.45 |
| 46.0 | 12.11 | 639.40 | 959.10 | 1278.80 | 1598.96 | 1918.66 | 2558.06 |
| 47.0 | 12.38 | 653.30 | 979.95 | 1306.60 | 1633.72 | 1960.37 | 2613.67 |
| 48.0 | 12.64 | 667.20 | 1000.80 | 1334.40 | 1668.48 | 2002.08 | 2669.28 |
| 49.0 | 12.90 | 681.10 | 1021.65 | 1362.20 | 1703.24 | 2043.79 | 2724.89 |
| 50.0 | 13.17 | 695.00 | 1042.50 | 1390.00 | 1738.00 | 2085.50 | 2780.50 |
| 51.0 | 13.43 | 708.90 | 1063.35 | 1417.80 | 1772.76 | 2127.21 | 2836.11 |
| 52.0 | 13.69 | 722.80 | 1084.20 | 1445.60 | 1807.52 | 2168.92 | 2891.72 |
| 53.0 | 13.95 | 736.70 | 1105.05 | 1473.40 | 1842.28 | 2210.63 | 2947.33 |
| 54.0 | 14.22 | 750.60 | 1125.90 | 1501.20 | 1877.04 | 2252.34 | 3002.94 |
| 55.0 | 14.48 | 764.50 | 1146.75 | 1529.00 | 1911.80 | 2294.05 | 3058.55 |
| 56.0 | 14.74 | 778.40 | 1167.60 | 1556.80 | 1946.56 | 2335.76 | 3114.16 |
| 57.0 | 15.01 | 792.30 | 1188.45 | 1584.60 | 1981.32 | 2377.47 | 3169.77 |
| 58.0 | 15.27 | 806.20 | 1209.30 | 1612.40 | 2016.08 | 2419.18 | 3225.38 |
| 59.0 | 15.53 | 820.10 | 1230.15 | 1640.20 | 2050.84 | 2460.89 | 3280.99 |
| 60.0 | 15.80 | 834.00 | 1251.00 | 1668.00 | 2085.60 | 2502.60 | 3336.60 |
| 61.0 | 16.06 | 847.90 | 1271.85 | 1695.80 | 2120.36 | 2544.31 | 3392.21 |
| 62.0 | 16.32 | 861.80 | 1292.70 | 1723.60 | 2155.12 | 2586.02 | 3447.82 |
| 63.0 | 16.59 | 875.70 | 1313.55 | 1751.40 | 2189.88 | 2627.73 | 3503.43 |
| 64.0 | 16.85 | 889.60 | 1334.40 | 1779.20 | 2224.64 | 2669.44 | 3559.04 |
| 65.0 | 17.11 | 903.50 | 1355.25 | 1807.00 | 2259.40 | 2711.15 | 3614.65 |
| 66.0 | 17.38 | 917.40 | 1376.10 | 1834.80 | 2294.16 | 2752.86 | 3670.26 |
| 67.0 | 17.64 | 931.30 | 1396.95 | 1862.60 | 2328.92 | 2794.57 | 3725.87 |
| 68.0 | 17.90 | 945.20 | 1417.80 | 1890.40 | 2363.68 | 2836.28 | 3781.48 |
| 69.0 | 18.17 | 959.10 | 1438.65 | 1918.20 | 2398.44 | 2877.99 | 3837.09 |
| 70.0 | 18.43 | 973.00 | 1459.50 | 1946.00 | 2433.20 | 2919.70 | 3892.70 |

**DRY GRAIN UNLOADING RATE – DPX12T & DPX16GT SERIES DRYERS**

D.C. VOLTS = DRY UNLOAD RATE PER HOUR

| MODEL: | | 10FT. | 15FT. | 20FT. | 25FT. | 30FT. | 40FT. |
|---|---|---|---|---|---|---|---|
| D.C. VOLTS | RPM | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR | DRY BU/HR |
| 71.0 | 18.69 | 986.90 | 1480.35 | 1973.80 | 2467.96 | 2961.41 | 3948.31 |
| 72.0 | 18.96 | 1000.80 | 1501.20 | 2001.60 | 2502.72 | 3003.12 | 4003.92 |
| 73.0 | 19.22 | 1014.70 | 1522.05 | 2029.40 | 2537.48 | 3044.83 | 4059.53 |
| 74.0 | 19.48 | 1028.60 | 1542.90 | 2057.20 | 2572.24 | 3086.54 | 4115.14 |
| 75.0 | 19.75 | 1042.50 | 1563.75 | 2085.00 | 2607.00 | 3128.25 | 4170.75 |
| 76.0 | 20.01 | 1056.40 | 1584.60 | 2112.80 | 2641.76 | 3169.96 | 4226.36 |
| 77.0 | 20.27 | 1070.30 | 1605.45 | 2140.60 | 2676.52 | 3211.67 | 4281.97 |
| 78.0 | 20.54 | 1084.20 | 1626.30 | 2168.40 | 2711.28 | 3253.38 | 4337.58 |
| 79.0 | 20.80 | 1098.10 | 1647.15 | 2196.20 | 2746.04 | 3295.09 | 4393.19 |
| 80.0 | 21.06 | 1112.00 | 1668.00 | 2224.00 | 2780.80 | 3336.80 | 4448.80 |
| 81.0 | 21.33 | 1125.90 | 1688.85 | 2251.80 | 2815.56 | 3378.51 | 4504.41 |
| 82.0 | 21.59 | 1139.80 | 1709.70 | 2279.60 | 2850.32 | 3420.22 | 4560.02 |
| 83.0 | 21.85 | 1153.70 | 1730.55 | 2307.40 | 2885.08 | 3461.93 | 4615.63 |
| 84.0 | 22.12 | 1167.60 | 1751.40 | 2335.20 | 2919.84 | 3503.64 | 4671.24 |
| 85.0 | 22.38 | 1181.50 | 1772.25 | 2363.00 | 2954.60 | 3545.35 | 4726.85 |
| 86.0 | 22.64 | 1195.40 | 1793.10 | 2390.80 | 2989.36 | 3587.06 | 4782.46 |
| 87.0 | 22.91 | 1209.30 | 1813.95 | 2418.60 | 3024.12 | 3628.77 | 4838.07 |
| 88.0 | 23.17 | 1223.20 | 1834.80 | 2446.40 | 3058.88 | 3670.48 | 4893.68 |
| 89.0 | 23.43 | 1237.10 | 1855.65 | 2474.20 | 3093.64 | 3712.19 | 4949.29 |
| 90.0 | 23.70 | 1251.00 | 1876.50 | 2502.00 | 3128.40 | 3753.90 | 5004.90 |

SPECIAL CHART: DRIVE SPROCKET: 4026 DRIVEN SPROCKET: 4032

| MODEL | VOLT | (=) | RPM | DRY BU. / MIN. | DRY BU. / HR |
|---|---|---|---|---|---|
| 10 FT. | 1 | (=) | .2633 | .2317 | 13.90 |
| 15 FT. | 1 | (=) | .2633 | .3476 | 20.85 |
| 20 FT. | 1 | (=) | .2633 | .4634 | 27.80 |
| 25 FT. | 1 | (=) | .2633 | .5793 | 34.76 |
| 30 FT. | 1 | (=) | .2633 | .6951 | 41.71 |
| 40 FT. | 1 | (=) | .2633 | .9268 | 55.61 |

## Alarm, Limit, Indication & Error Messages

| Indication | Description | Possible Causes | Corrective Action |
|---|---|---|---|
| Alarm won't clear or reset | Alarm will not clear or reset with keypad or digital input | • Alarm latching is active<br>• Alarm set to incorrect output<br>• Alarm is set to incorrect source<br>• Sensor input is out of alarm set point range<br>• Alarm set point is incorrect<br>• Alarm is set to incorrect type<br>• Digital input function is incorrect | • Reset alarm when process is within range or disable latching<br>• Set output to correct alarm source instance<br>• Set alarm source to correct input instance<br>• Correct cause of sensor input out of alarm range<br>• Set alarm set point to correct trip point<br>• Set alarm to correct type: process, deviation or power<br>• Set digital input function and source instance |
| Alarm won't occur | Alarm will not activate output | • Alarm silencing is active<br>• Alarm blocking is active<br>• Alarm is set to incorrect output<br>• Alarm is set to incorrect source<br>• Alarm set point is incorrect<br>• Alarm is set to incorrect type | • Disable alarm silencing, if required<br>• Disable alarm blocking, if required<br>• Set output to correct alarm source instance<br>• Set alarm source to correct input instance<br>• Set alarm set point to correct trip point<br>• Set alarm to correct type: process, deviation or power |
| AlE1 Alarm Error<br>AlE2<br>AlE3<br>AlE4 | Alarm state cannot be determined due to lack of sensor input | • Sensor improperly wired or open<br>• Incorrect setting of sensor type<br>• Calibration corrupt | • Correct wiring or replace sensor<br>• Match setting to sensor used<br>• Check calibration of controller |
| AlL1 Alarm Low<br>AlL2<br>AlL3<br>AlL4 | Sensor input below low alarm set point | • Temperature is less than alarm set point<br>• Alarm is set to latching and an alarm occurred in the past<br>• Incorrect alarm set point<br>• Incorrect alarm source | • Check cause of under temperature<br>• Clear latched alarm<br>• Establish correct alarm set point<br>• Set alarm source to proper setting |
| AlH1 Alarm High<br>AlH2<br>AlH3<br>AlH4 | Sensor input above high alarm set point | • Temperature is greater than alarm set point<br>• Alarm is set to latching and an alarm occurred in the past<br>• Incorrect alarm set point<br>• Incorrect alarm source | • Check cause of over temperature<br>• Clear latched alarm<br>• Establish correct alarm set point<br>• Set alarm source to proper setting |
| Er1 Error Input | Sensor does not provide a valid signal to controller | • Sensor improperly wired or open<br>• Incorrect setting of sensor type<br>• Calibration corrupt | • Correct wiring or replace sensor<br>• Match setting to sensor used<br>• Check calibration of controller |

| | | | |
|---|---|---|---|
| LPo 1<br>Loop Open Error | Open Loop Detect is active and the process value did not deviate by a user-selected value in a user specified period. | • Setting of Open Loop Detect Time incorrect<br>• Setting of Open Loop Detect Deviation incorrect<br>• Thermal loop is open<br>• Open Loop Detect function not required but activated | • Set correct Open Loop Detect Time for application<br>• Set correct Open Loop Deviation value for application<br>• Determine cause of open thermal loop: misplaced sensors, load failure, loss of power to load, etc.<br>• Deactivate Open Loop Detect feature |
| LPr 1<br>Loop Reversed Error | Open Loop Detect is active and the process value is headed in the wrong direction when the output is activated based on deviation value and user-selected value. | • Setting of Open Loop Detect Time incorrect<br>• Setting of Open Loop Detect Deviation incorrect<br>• Output programmed for incorrect function<br>• Thermocouple sensor wired in reverse polarity | • Set correct Open Loop Detect Time for application<br>• Set correct Open Loop Deviation value for application<br>• Set output function correctly<br>• Wire thermocouple correctly, (red wire is negative) |
| rP 1 Ramping 1 | Controller is ramping to new set point | • Ramping feature is activated | • Disable ramping feature if not required |
| tUn 1 Autotuning 1 | Controller is autotuning the control loop | • User started the autotune function<br>• Digital input is set to start autotune | • Wait until autotune completes or disable autotune feature<br>• Set digital input to function other than autotune, if desired |
| No heat/cool action | Output does not activate load | • Output function is incorrectly set<br>• Control mode is incorrectly set<br>• Output is incorrectly wired<br>• Load, power or fuse is open<br>• Control set point is incorrect<br>• Incorrect controller model for application | • Set output function correctly<br>• Set control mode appropriately (Open vs Closed Loop)<br>• Correct output wiring<br>• Correct fault in system<br>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop<br>• Obtain correct controller model for application |
| No Display | No display indication or LED illumination | • Power to controller is off<br>• Fuse open<br>• Breaker tripped<br>• Safety interlock switch open<br>• Separate system limit control activated<br>• Wiring error<br>• Incorrect voltage to controller | • Turn on power<br>• Replace fuse<br>• Reset breaker<br>• Close interlock switch<br>• Reset limit<br>• Correct wiring issue<br>• Apply correct voltage, check part number |
| No Serial Communication | Cannot establish serial communications with the controller | • Address parameter incorrect<br>• Incorrect protocol selected<br>• Baud rate incorrect<br>• Parity incorrect<br>• Wiring error<br>• EIA-485 converter issue<br>• Incorrect computer or PLC communications port<br>• Incorrect software setup<br>• Termination resistor may be required | • Set unique addresses on network<br>• Match protocol between devices<br>• Match baud rate between devices<br>• Match parity between devices<br>• Correct wiring issue<br>• Check settings or replace converter<br>• Set correct communication port<br>• Correct software setup to match controller<br>• Place 120 Ω resistor across EIA-485 on last controller |

| Indication | Description | Possible Causes | Corrective Action |
|---|---|---|---|
| Process doesn't control to set point | Process is unstable or never reaches set point | • Controller not tuned correctly<br>• Control mode is incorrectly set<br>• Control set point is incorrect | • Perform autotune or manually tune system<br>• Set control mode appropriately (Open vs Closed Loop)<br>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop |
| Temperature runway | Process value continues to increase or decrease past set point. | • Controller output incorrectly programmed<br>• Thermocouple reverse wired<br>• Controller output wired incorrectly<br>• Short in heater<br>• Power controller connection to controller defective<br>• Controller output defective | • Verify output function is correct (heat or cool)<br>• Correct sensor wiring (red wire negative)<br>• Verify and correct wiring<br>• Replace heater<br>• Replace or repair power controller<br>• Replace or repair controller |
| 100 Device Error rEEo | Controller displays internal malfunction message at power up. | • Controller defective | • Replace or repair controller |
| Menus inaccessible | Unable to access SEt, OP-Er, FCty or ProF menus or particular prompts in Home Page | • Security set to incorrect level<br>• Digital input set to lockout keypad<br>• Custom parameters incorrect | • Check lockout setting in Factory Page<br>• Change state of digital input<br>• Change custom parameters in Factory Page |
| EZ-Key doesn't work | EZ-Key does not activate required function | • EZ-Key function incorrect<br>• EZ-Key function instance not incorrect<br>• Keypad malfunction | • Verify EZ-Key function in Setup Menu<br>• Check that the function instance is correct<br>• Replace or repair controller |

## Clearing Errors & Limit Messages

To clear error or limit messages press the RESET key. You may also turn main panel power "OFF" and back "ON" again. Error or Limit messages will not clear until the cause or reason for the error has been addressed.

# Watlow EZ-ZONE Moisture Controller - Configuration Record

## Setup Page

To reach the Setup page hold the "up" and "down" arrow keys together for **6 seconds**.

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| Ai | | | | | **Analog Input** |
| | | SEn | tC | r0.1K | Selects the type of sensor used |
| | | rtL | 2 | 3 | Selects the leads in sensor |
| | | FiL | 0.5 | 10 | Filters erratic signal, for smoother PID calculations |
| | | tEr | oFF | oFF | Forces manual clear of input errrors |
| | | dEC | 0 | 0.0 | Selects precision of displayed units |
| LooP | | | | | **PID Loop** |
| | | hAG | Pid | oFF | Selects the heat control method |
| | | CAG | oFF | Pid | Selects the cool control method |
| | | CCr | oFF | oFF | Enables or disables cool output curve |
| | | tEUn | no | no | Enables or disable TRU-TUNE+ adaptive tune automatically |
| | | tAGr | Cr iE | Cr iE | Selects the aggressiveness of the autotune funtion |
| | | UFA | USEr | MAn | Selects what output will do when user switches to manual mode |
| | | FAiL | USEr | MAn | Selects what ouput will do when an input error switches control to manual mode |
| | | MAn | 0.0 | -270 | Defines the default manual output power if user swiches control or fault |
| | | LdE | no | no | Enables or disables open-loop detction feature to monitor closed-loop operations |
| | | rP | oFF | oFF | Selects when controller will ramp to setpoint |
| | | LSP | -1999 | 100 | Defines the lower range of the PID setpoint (temperature in automatic mode) |
| | | hSP | 9999 | 3000 | Defines the upper range of the PID setpoint (temperature in automatic mode) |
| | | SPLo | -100 | -100 | Defines the lower range of the PID setpoint (% output in manual mode) |
| | | SPhi | 100 | 0 | Defines the upper range of the PID setpoint (% output in manual mode) |
| otPt | | | | | **Output** |
| | | oty | voLt | voLt | Selects the type of output |
| | | Fn | hEAt | CooL | Selects which function will drive output |
| | | Fi | 1 | 1 | Selects the instance of the function selected above |
| | | SLo | 0.00 | 0.00 | Defines the lower range of the scale for the universal process output |
| | | Shi | 10.00 | 8.00 | Defines the upper range of the scale for the universal process output |
| | | oLo | 0 | 0 | Defines the low power scale, output will never be less than the value specified |
| | | ohi | 100 | 100 | Defines the high power scale, output will never be less than the value specified |
| | | oCA | 0.0 | 0.0 | Defines an offset value to the process output |
| ALM1 | 1 | | | | **Alarm 1** |
| | | Aty | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| | 2 | | | | **Alarm 2** |
| | | Aty | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| | 3 | | | | **Alarm 3** |
| | | Aty | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| | 4 | | | | **Alarm 4** |
| | | Aty | oFF | oFF | Selects whether the alarm trigger is a fixed value or will track set point |
| FUn | | | | | **Function** |
| | | LEu | high | high | Selects the state in which the EZ key is in when powered up |
| | | Fn | nonE | nonE | Selects the funtion of the EZ key |
| | | Fi | 0 | 0 | Selects which instance the EZ key will affect |
| GLbL | | | | | **Global** |
| | | CF | F | F | Selects the unit of measurement |
| | | ACLF | 60 | 60 | Selects the AC line frequency |
| Com1 | | | | | **Communications** |
| | | Ad5 | 1 | 1 | Sets the network address of this controller |
| | | CF | F | F | Selects UOM in which this communications channel will display |
| | | nU5 | YES | YES | Determines whether all values written to control will be saved in EEPROM |

# Watlow EZ-ZONE Moisture Controller - Configuration Record

## Operations Page

To reach the Operations page hold the "up" and "down" arrow keys together for **3 seconds**.

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| AI | | | | | **Analog Input** |
| | | AIn | ** | ** | View the process value |
| | | iEr | ** | ** | View the cause of the most recent error |
| | | iCA | 0 | 0 | Defines calibration offset |
| Mon | | | | | **Monitor** |
| | | CMdA | ** | ** | View the active control mode |
| | | CPr | ** | ** | View the current cool output level |
| | | CSP | ** | ** | View the set point currently in effect |
| | | PuA | ** | ** | View the current filtered process value using the control input |
| Loop | | | | | **Loop** |
| | | CMd | AUto | AUto | Selects the method that this loop will use to control |
| | | AtSP | 90 | 90 | Defines the the setpoint autotune will use as % of current setpoint |
| | | AUt | no | no | Initiates the autotune process |
| | | CSP | 75 | 75 | Defines the setpoint the controller will use in PID funtion |
| | | id.S | 75 | 115 | Defines a new PID setpoint if high limit is reached |
| | | CPb | 25 | *55 | Defines the proportianl band for the cool output |
| | | ti | 180 | 0 | Defines the PID intergral for the output |
| | | td | 0 | 0 | Defines the PID derivative time for the output |
| | | db | 0 | 0 | Defines the offset to the proportional band |
| | | oSP | 0 | -27.0 | Defines a fixed level of output power when in manual mode |
| ALM | 1 | | | | **Alarm 1** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | AHi | 300.0 | 300.0 | Defines the high range of the alarm instance |
| | 2 | | | | **Alarm 2** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | AHi | 300.0 | 300.0 | Defines the high range of the alarm instance |
| | 3 | | | | **Alarm 3** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | AHi | 300.0 | 300.0 | Defines the high range of the alarm instance |
| | 4 | | | | **Alarm 4** |
| | | ALo | 32.0 | 32.0 | Defines the low range of alarm instance |
| | | AHi | 300.0 | 300.0 | Defines the high range of the alarm instance |

*** DEPENDENT UPON DRYER MODEL - Pb1 settings: DP/DPSL=55; DPX/DPXSL=47; DPX4T=47; DPX8T=43; DPX12T=40; DPX16GT=40**

# Watlow EZ-ZONE Moisture Controller - Configuration Record

## Factory Page

To reach the Factory page hold the "RESET" and "Advance" arrow keys together for **6 seconds**.

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| CUSt | 1 | | | | **Custom 1** |
| | | PAr | AC.Pu | AC.Pu | Defines custom parameter to home page |
| | 2 | | | | **Custom 2** |
| | | PAr | AC.SP | AC.SP | Defines custom parameter to home page |
| | 3 | | | | **Custom 3** |
| | | PAr | AC.Pu | CP7 | Defines custom parameter to home page |
| | 4 | | | | **Custom 4** |
| | | PAr | AC.SP | CPb | Defines custom parameter to home page |
| | 5 | | | | **Custom 5** |
| | | PAr | CP7 | CPr | Defines custom parameter to home page |
| | 6 | | | | **Custom 6** |
| | | PAr | hPr | nonE | Defines custom parameter to home page |
| | 7 | | | | **Custom 7** |
| | | PAr | CPr | nonE | Defines custom parameter to home page |
| | 8 | | | | **Custom 8** |
| | | PAr | AUt | nonE | Defines custom parameter to home page |
| | 9 | | | | **Custom 9** |
| | | PAr | idLE | nonE | Defines custom parameter to home page |
| | 10 | | | | **Custom 10** |
| | | PAr | CP7 | nonE | Defines custom parameter to home page |
| | 11 | | | | **Custom 11** |
| | | PAr | hPr | nonE | Defines custom parameter to home page |
| | 12 | | | | **Custom 12** |
| | | PAr | CPr | nonE | Defines custom parameter to home page |
| | 13 | | | | **Custom 13** |
| | | PAr | AUt | nonE | Defines custom parameter to home page |
| | 14 | | | | **Custom 14** |
| | | PAr | idLE | nonE | Defines custom parameter to home page |
| | 15 | | | | **Custom 15** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 16 | | | | **Custom 16** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 17 | | | | **Custom 17** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 18 | | | | **Custom 18** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 19 | | | | **Custom 19** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| | 20 | | | | **Custom 20** |
| | | PAr | nonE | nonE | Defines custom parameter to home page |
| LoC | | | | | **Lock** |
| | | LoCo | 2 | 2 | Changes the security level of the operations page |
| | | PASE | oFF | oFF | Enables or disables security features |
| | | rLoC | 5 | 5 | Sets the read security clearance level |
| | | SLoc | 5 | 5 | Sets the write security clearance level |
| diAG | | | | | |
| | | Pn | ** | ** | Part number of device |
| | | rEv | ** | ** | Software revision number |
| | | SbLd | ** | ** | Software build number |

| Menu | Instance | Parameter | Factory Setting | DELUX Setting | Parameter Description |
|---|---|---|---|---|---|
| | | Sn | ** | ** | Serial number of device |
| | | dAtE | ** | ** | Date of manufacture |
| | | USr.r | nonE | nonE | Restore user/default settings |
| | | USr.S | nonE | nonE | Save current user settings |
| | | C.LEd | both | both | Turns communications LED on or off for selected ports |
| | | ZonE | on | on | Turns zone LED on or off based on selection |
| | | chAn | on | on | Turns channel LED on or off based on selection |
| | | d.Pr5 | 2 | 2 | Defines the number of display pairs |
| CAL | | | | | **Calibration** |
| | | r7u | ** | ** | View the raw electrical value for this input in units of sensor |
| | | EL.Lo | 1.000 | 1.000 | Defines the value to calibrate the low end of the input range |
| | | EL0.0 | 0.00 | 0.00 | Defines the value to calibrate the low end of the output range |
| | | EL0.5 | 1.000 | 1.000 | Defines the value to calibrate the slope of the output value |

**GRAIN DRYER PERFORMANCE CHART**
**CHART # 1**

DRYING CAPACITY WET
BPH PER 1000 BPH–RATED
CAPACITY ON YELLOW CORN

| | MOISTURE OF DRIED GRAIN % | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **IN** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** |
| 13 | 870 | 1200 | 1900 | – | – | – | – | – | – |
| 14 | 740 | 930 | 1250 | – | – | – | – | – | – |
| 15 | 640 | 780 | 1000 | 1550 | – | – | – | – | – |
| 16 | 550 | 690 | 850 | 1200 | 1900 | – | – | – | – |
| 17 | 500 | 600 | 730 | 960 | 1400 | – | – | – | – |
| 18 | 450 | 530 | 650 | 800 | 1100 | 1600 | – | – | – |
| 19 | 410 | 480 | 570 | 710 | 910 | 1250 | 1800 | – | – |
| 20 | 380 | 440 | 510 | 630 | 770 | 1000 | 1350 | 1900 | – |
| 21 | 360 | 410 | 480 | 560 | 690 | 880 | 1100 | 1450 | 1900 |
| 22 | 340 | 380 | 440 | 510 | 620 | 760 | 920 | 1150 | 1450 |
| 23 | 320 | 360 | 410 | 470 | 560 | 680 | 800 | 1000 | 1200 |
| 24 | 300 | 340 | 390 | 440 | 510 | 610 | 720 | 850 | 1000 |
| 25 | – | 320 | 370 | 410 | 480 | 560 | 640 | 740 | 870 |
| 26 | – | – | 350 | 390 | 440 | 510 | 590 | 670 | 770 |
| 27 | – | – | 340 | 370 | 420 | 480 | 540 | 610 | 700 |
| 28 | – | – | 320 | 360 | 400 | 450 | 500 | 570 | 630 |
| 29 | – | – | – | 350 | 390 | 430 | 480 | 530 | 590 |
| 30 | – | – | – | 340 | 380 | 420 | 460 | 510 | 560 |

| **PLENUM TEMP** | **F2** | **WET GRAIN TEMP** | **F3** | **GRAIN** | **F4** |
|---|---|---|---|---|---|
| 140 F | .46 | 20 F | .74 | CORN | 1.0 |
| 150 F | .50 | 30 F | .78 | SOYBEANS | 1.0 |
| 160 F | .55 | 40 F | .82 | MILO | .9 |
| 170 F | .61 | 50 F | .86 | WHEAT | .8 |
| 180 F | .69 | 60 F | .91 | | |
| 190 F | .77 | 70 F | 1.00 | | |
| 200 F | .88 | | | | |
| 210 F | 1.00 | | | | |

**HOW TO USE CHARTS TO FIGURE YOUR CAPACITY**

$$\frac{\text{(DRYER RATED CAPACITY @ 20–15\%)}}{1000} \times \text{(BPH IN CHART 1)} \times F2 \times F3 \times F4$$

# GRAIN SHRINKAGE TABLE

**SHRINKAGE WHEN GRAIN IS DRIED TO THESE LEVELS**

| INITIAL MOISTURE | 12.0 | 12.5% | 13.0% | 13.5% | 14.0% | 14.5% | 15.0% | 15.5% | 16.0% | 16.5% | 17.0% | 17.5% | 18.0% | 18.5% | 19.0% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERCENT | (PERCENT OF SHRINKAGE) | | | | | | | | | | | | | | |
| 15.5 | 4.48 | 3.93 | 3.37 | 2.81 | 2.24 | 1.67 | 1.09 | - | - | - | - | - | - | - | - |
| 16.0 | 5.05 | 4.50 | 3.95 | 3.39 | 2.83 | 2.25 | 1.68 | 1.09 | - | - | - | - | - | - | - |
| 16.5 | 5.61 | 5.07 | 4.52 | 3.97 | 3.41 | 2.84 | 2.26 | 1.68 | 1.10 | - | - | - | - | - | - |
| 17.0 | 6.18 | 5.64 | 5.10 | 4.55 | 3.99 | 3.42 | 2.85 | 2.28 | 1.70 | 1.10 | - | - | - | - | - |
| 17.5 | 6.75 | 6.21 | 5.67 | 5.12 | 4.57 | 4.01 | 3.44 | 2.87 | 2.29 | 1.70 | 1.11 | - | - | - | - |
| 18.0 | 7.32 | 6.79 | 6.25 | 5.70 | 5.15 | 4.59 | 4.03 | 3.46 | 2.88 | 2.30 | 1.71 | 1.11 | - | - | - |
| 18.5 | 7.89 | 7.36 | 6.82 | 6.28 | 5.73 | 5.18 | 4.62 | 4.05 | 3.48 | 3.48 | 2.31 | 1.72 | 1.11 | - | - |
| 19.0 | 8.45 | 7.95 | 7.40 | 6.86 | 6.31 | 5.76 | 5.21 | 4.64 | 4.08 | 4.08 | 2.91 | 2.32 | 1.72 | 1.12 | - |
| 19.5 | 9.02 | 8.50 | 7.97 | 7.44 | 6.90 | 6.35 | 5.79 | 5.23 | 4.67 | 4.67 | 3.52 | 2.93 | 2.33 | 1.73 | 1.12 |
| 20.0 | 9.59 | 9.07 | 8.55 | 8.01 | 7.48 | 6.93 | 6.38 | 5.83 | 5.27 | 5.27 | 4.12 | 3.54 | 2.94 | 2.35 | 1.74 |
| 20.5 | 10.16 | 9.64 | 9.12 | 8.59 | 8.06 | 7.52 | 6.97 | 6.42 | 5.86 | 5.30 | 4.72 | 4.14 | 3.55 | 2.96 | 2.36 |
| 21.0 | 10.73 | 10.24 | 9.70 | 9.17 | 8.64 | 8.10 | 7.56 | 7.01 | 6.46 | 5.89 | 5.32 | 4.75 | 4.16 | 3.57 | 2.97 |
| 21.5 | 11.30 | 10.79 | 10.27 | 9.75 | 9.22 | 8.69 | 8.15 | 7.60 | 7.05 | 6.49 | 5.93 | 5.35 | 4.77 | 4.19 | 3.59 |
| 22.0 | 11.86 | 11.36Z | 10.84 | 10.33 | 9.80 | 9.27 | 8.74 | 8.19 | 7.63 | 7.09 | 6.53 | 5.96 | 5.38 | 4.80 | 4.21 |
| 22.5 | 12.43 | 11.93 | 11.42 | 10.90 | 10.38 | 9.86 | 9.32 | 8.78 | 8.24 | 7.69 | 7.13 | 6.57 | 5.99 | 5.40 | 4.83 |
| 23.0 | 13.00 | 12.50 | 11.99 | 11.48 | 10.97 | 10.44 | 9.91 | 9.38 | 8.84 | 8.29 | 7.73 | 7.17 | 6.60 | 6.03 | 5.44 |
| 23.5 | 13.57 | 13.07 | 12.57 | 12.06 | 11.55 | 11.03 | 10.50 | 9.97 | 9.43 | 8.89 | 8.34 | 7.78 | 7.21 | 6.64 | 6.06 |
| 24.0 | 14.14 | 13.64 | 13.14 | 12.64 | 12.13 | 11.61 | 11.09 | 10.56 | 10.03 | 9.49 | 8.94 | 8.38 | 7.82 | 7.25 | 6.68 |
| 24.5 | 14.701 | 14.21 | 13.72 | 13.22 | 12.71 | 12.20 | 11.68 | 11.15 | 10.62 | 10.09 | 9.54 | 8.99 | 8.43 | 7.87 | 7.30 |
| 25.0 | 5.28 | 14.79 | 14.29 | 13.79 | 13.29 | 12.78 | 12.26 | 11.74 | 11.22 | 10.68 | 10.14 | 9.60 | 9.04 | 8.48 | 7.91 |
| 25.5 | 15.84 | 15.35 | 14.87 | 14.37 | 13.87 | 13.37 | 12.85 | 12.33 | 11.81 | 11.28 | 10.75 | 10.20 | 9.65 | 9.09 | 8.53 |
| 26.0 | 16.41 | 15.93 | 15.44 | 14.95 | 14.45 | 13.95 | 13.44 | 12.93 | 12.41 | 11.88 | 11.35 | 10.81 | 10.26 | 9.71 | 9.15 |
| 26.5 | 16.98 | 16.50 | 16.02 | 15.53 | 15.03 | 14.54 | 14.03 | 13.52 | 13.00 | 12.48 | 11.95 | 11.41 | 10.87 | 10.32 | 9.76 |
| 27.0 | 17.55 | 17.07 | 16.60 | 16.11 | 15.62 | 15.12 | 14.62 | 14.11 | 13.60 | 13.08 | 12.55 | 12.02 | 11.48 | 10.93 | 10.38 |
| 27.5 | 18.11 | 17.64 | 17.17 | 16.69 | 16.20 | 15.71 | 15.21 | 14.71 | 14.20 | 13.68 | 13.16 | 12.63 | 12.09 | 11.55 | 11.00 |
| 28.0 | 18.68 | 18.21 | 17.74 | 17.26 | 16.78 | 16.29 | 15.79 | 15.29 | 14.79 | 14.27 | 13.75 | 13.23 | 12.70 | 12.16 | 11.61 |
| 28.5 | 19.25 | 18.79 | 18.32 | 17.84 | 17.36 | 16.87 | 16.38 | 15.88 | 15.38 | 14.87 | 14.36 | 13.83 | 13.30 | 12.77 | 12.23 |
| 29.0 | 19.82 | 19.36 | 18.89 | 18.42 | 17.94 | 17.46 | 16.97 | 16.48 | 15.98 | 15.47 | 14.96 | 14.44 | 13.91 | 13.38 | 12.85 |
| 29.5 | 20.39 | 19.93 | 19.47 | 19.00 | 18.52 | 18.04 | 17.56 | 17.07 | 16.57 | 16.07 | 15.56 | 15.05 | 14.52 | 14.00 | 13.46 |
| 30.0 | 20.95 | 20.50 | 20.04 | 19.58 | 19.10 | 18.63 | 18.15 | 17.66 | 17.17 | 16.67 | 16.16 | 15.65 | 15.13 | 14.61 | 14.08 |

FORMULAS

(1) $\text{SHRINKAGE} = \frac{(100\% - \%\ \text{DRY MATTER IN DRY GRAIN} \times 100) + .05\%\ \text{HANDLING SHRINK}}{\%\ \text{DRY MATTER IN WET GRAIN}}$

(2) VALUE OF SHRINK = PRICE BASIS GRADE X SHRINKAG

(3) RETURNS TO DRYING = DISCOUNT - VALUE OF SHRINKAGE

**DRYER OPERATING LOG**

DATE_____

PAGE_____OF_____

DRYER_____

ELEVATOR_____LOCATION_____

GRAIN_____REMARKS, CONDITION OR GRADE_____

| TIME OF DAY | AIR TEMPERATURES, F AMBIENT DRYING VOLT | WET GRAIN %MOISTURE | DRY GRAIN TEMP %MOISTURE | MOISTURE REMOVED |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| AVERAGES: | | | | |

SUMMARY (USE ONE OR MORE PAGES FOR A BIN, A SHIPMENT, OR A TOTAL RUN)

GRAIN DESTINATION_____TOTAL WET GRAIN DRIED_____BU.

FINAL MOISTURE_____& TEMP._____F AVG. DRYING CAPACITY_____BU/HR.

WET GRAIN_____,F.M._____% TOTAL FUEL COST $_____

DRY GRAIN GRADE_____,F.M._____% AVG. FUEL COST BU. $_____

# SYSTEM SEQUENCE ANALYSIS AND TROUBLESHOOTING

DP/DPSL, DPX/DPXSL, DPX4T, DPX8T, DPX12T AND DPX16GT SERIES

**2015 MODELS**

## TABLE OF CONTENTS

# SYSTEM SEQUENCE ANALYSIS AND TROUBLESHOOTING

DP/DPSL, DPX/DPXSL, DPX4T, DPX8T, DPX12T AND DPX16GT SERIES MODELS

**2015 MODELS**

(Generic Schematic-Standard PID: 900-010832)
(Generic Schematic-with MoistureLink: 900-010833)

## 1A. Sequence: main circuit breaker "ON" *(230V-1P, 240V-3P systems) *

Action: Main power light "ON", applies power to high voltage circuits and 120v control circuit breaker (CB1).

Symptoms:
A. No main power light (DS1).
B. Control circuit breaker (CB1) has tripped.

Possible Causes:
A1. Defective main power light (DS1).
A2. Defective control circuit breaker (CB1).
A3. Defective fuse in main panel disconnect.
A4. Missing 120 volt wire.

B1. Short circuit.
B2. Overload condition has occurred.
B3. Defective control circuit breaker (CB1).

Corrective Action:
A1. Check terminal #25 for 120 volts. If power is Present the main power light (DS1) is defective, replace.

A2. Check circuit breaker (CB1) for fault.

A3. Check across L1 & L3 (L2 on 1P) on the main power distribution block. If 240 volts is not present, check main panel disconnect for power and if fuses are defective, replace. (Wild Leg is on L2 – 3P only)

A4. If voltage is present across L1 & L3 (L2 on 1P) on the main power distribution block, check to see if the black wire is connected from L1 on the main power distribution block to the positive side on the 120V panel power distribution block (TB2). Also check to see that the ground lead (green wire) is connected to chassis ground and the common lead of the incoming power source is connected to chassis ground.

B1. Repair or replace burned or bare wiring in contact with chassis or other wiring.

B2. Check current for any overload conditions and Correct.

B3. Inspect circuit breaker (CB1) for defect. Replace.

**1B. Sequence: Main circuit breaker "ON" *(380V, 480V, 575V-3P systems)***

Action: Main power light "ON", applies power to high voltage circuits, step down transformer (XMFR5) and 120V control circuit breaker (CB1).

Symptoms:
A. No main power light (DS1).
B. Control circuit breaker (CB1) has tripped.

Possible Causes:
A1. Defective main power light (DS1).
A2. Defective control circuit breaker (CB1).
A3. Defective fuse in main panel disconnect.
A4. Defective fuses F1 and/or F2.
A5. Defective transformer (XMFR5).

B1. Short circuit.
B2. Overload condition.
B3. Defective circuit breaker (CB1).

Corrective Action:
A1. Check terminal #25 for 120 volts. If power is present the main power light (DS1) is defective, replace.

A2. Check control circuit breaker (CB1), if defective, replace.

A3. Check across L1 & L3 on the main power distribution block. If line voltage is not present, check main panel disconnect for power. If fuses are defective, replace.

A4. Check to see if voltage is present on L1-POS and L2-NEU (120 volts) on the 120 volt panel power distribution block (TB2). If power is not present, check fuse F1 and F2. If defective, replace.

A5. If fuse F1 and F2 are okay and no voltage is present on L1-POS and l2-NEU (120 volts) on the 120 volt panel power distribution block (TB2) the step down transformer (XMFR 5) is defective, replace.

B1. Repair or replace burned or bare wiring in contact with chassis or other wiring.

B2. Check current for any overload conditions and correct.

B3. Inspect circuit breaker (CB1) for defect. Replace.

**2A. Sequence: Power switch (SW1) to "RUN", energizing temperature And moisture controls**

Action: Temperature control (Watlow EZ-Zone) and moisture control (Watlow EZ-Zone ***or*** MoistureLink) are energized. Approximate 3 second delay for temperature control and 10 second delay for Moisturelink to lock in related safety functions before moving to "START".

***For information on operation and troubleshooting of the Watlow Controls and MoistureLink, see section 5.***

**2B. Sequence: Power switch (SW1) to "START", energizing safety circuit.**

Action: Safety circuit proven light on (DS11), all safety circuit monitor lights on (DS2 – DS8, DS32), applies power to entire 120 volt circuit and energizes power relay (K8).

**How the safety circuit monitor lights work:**

Safety circuit monitor lights (DS2 – DS8, DS32) indicate what part of the safety circuit is working. To find the problem, press the power switch (SW1) to the "START" position and hold. Find the first light that is not on. That will show the device that is not allowing the safety circuit to lock in.

*** Place all switches in "OFF" position before trouble shooting ***

Symptoms:
- A. No safety circuit proven light (DS11) when the power switch (SW1) is engaged, but some of the safety circuit monitor lights (DS2 – DS8, DS32) will light when the power switch (SW1) is engaged but will go off when the power switch (SW1) is released.
- B. Safety circuit proven light (DS11) on when the power switch (SW1) is engaged but will go off when the power switch (SW1) is released.

Possible Causes:
- A1. Defective power switch (SW1).
- A2. No plenum high limit light (DS2), defective high limit or high limit tripped from excessive heat in plenum chamber.
- A3. No fan overload light (DS3), defective fan overload device (S2, S3, S4, S4), or starter overload tripped from a fan motor drawing high amperage.
- A4. No conveyor overload light (DS4), defective conveyor overload device (S5, S6, S7, S8), or starter overload tripped from an auger drawing high amperage.
- A5. No feedroll monitor light (DS5), defective feedroll monitor switch (SW8) or cam nut, timer relay (K10, K11), or on/off selector switch (SW7).
- A6. No discharge overflow light (DS6), defective discharge overflow switch or overflow condition has tripped switch.

A7. No exhaust temperature limit light (DS7), defective exhaust limit or limit has tripped because of excessive exhaust air temperature.
A8. No access door light (DS8), defective door safety switch(s) or plenum and/or cooling door open.
A9. No auxiliary safety light (DS32), *customer installed.*
A10. Defective burner switch (SW3).
A11. Defective power relay (K8).
A12. Defective safety circuit proven light (DS11).

B. Defective flame system bypass delay relay (K5).

Corrective Action:

A1. If voltage is present on terminal #25 (120 volts) then check for voltage on terminal #28 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, the power switch (SW1) is defective, replace.

A2. If voltage is present on terminal #28 (120 volts) then check for voltage on terminal #29 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, the plenum high limit may have tripped from excessive heat in the plenum chamber, reset. If voltage is present on terminal #29 (120 volts) the plenum high limit light (DS2) is defective, replace. *(For all models, refer to the "automatic temperature control" section for operation and a trouble shooting guide for the temperature/high limit system)*

A3. If voltage is present on terminal #29 (120 volts) then check for voltage on terminal #30 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, one or more fan starter overloads (S1 thru S4) may have tripped from a motor drawing high amperage. Determine which one is open. Reset tripped overload. *It will be necessary to determine if a short circuit or overload condition exists in this system and what corrective steps need to be taken to resolve this condition.* If voltage is present on terminal #30 (120 volts) the fan overload light (DS3) is defective, replace.

A4. If voltage is present on terminal #30 (120 volts) then check for voltage on terminal #31 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, one or more conveyor starter overloads (S5 thru S8) may have tripped from a motor drawing high amperage. Determine which one is open. Reset tripped overload. *It will be necessary to determine if a short circuit or overload condition exists in this system and what*

*corrective steps need to be taken to resolve this condition.* If voltage is present on terminal #31 (120 volts) the conveyor overload light (DS4) is defective, replace.

A5. *(Note: the feedroll monitor is meant to operate while the metering system is operating. If not, the feedroll monitor selector switch (SW7) should be in the "OFF" position. Also, power is not supplied to the feedroll monitor selector switch (SW7) until the unload load switch (SW5) is "ON".)* With the feedroll selector switch in the "OFF" position, if voltage is present on terminal #31 (120 volts) then check for voltage on terminal #32 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, one or both of the time delay relays (K10 & K11) are defective. Replace. With the metering system operating and the feedroll monitor selector switch (SW7) "ON", if dryer shuts down within 60 seconds, check voltage (120 volts) on terminals #62 and #63. Voltage should be present on each terminal about every 2 to 4 seconds while the feedrolls are turning. If voltage is not present on both terminals check feedroll monitor switch (SW8) for correct operation and cam nut adjustment located on feedroll sprocket. Adjust cam nut or replace feedroll monitor switch (SW8). If voltage is present, check the time delay relays (K10 & K11) for proper operation and setting (60 sec.). Set to 60 seconds or replace if defective.

A6. If voltage is present on terminal #32 (120 volts then check for voltage on terminal #33 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, check the discharge overflow switch for correct operation or if an overflow condition has tripped the switch. Clear the overflow or replace the switch. If voltage is present on terminal #33 (120 volts) the discharge overflow light (DS6) is defective, replace.

A7. If voltage is present on terminal #33 (120 volts) then check for voltage on terminal #34 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, one of the exhaust temperature limits has tripped because of excessive exhaust air temperature or is defective. With the power switch (SW1) in the "OFF" position, check continuity on exhaust limits. Open circuit indicates tripped or defective limit switch. If still open after dryer cools down, switch is defective. Replace. If voltage is present on terminal #34 (120 volts) the exhaust temperature limit light (DS7) is defective, replace.

A8. If voltage is present on terminal #34 (120 volts) then check for voltage on terminal #35 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present, one or both of the access door switches are open because of an open plenum and/or cooling door or switch is defective. If a door is open, close and latch it (be sure switch activating angle is adjusted to push the plunger of the switch in far enough to activate the switch contacts). If door(s) are closed and adjusted properly, with the power switch (SW1) in the "OFF" position, check continuity across the brown to blue lead on each switch. Open circuit indicates switch is defective. Replace. If voltage is present on terminal #35 (120 volts) the access door switch light (DS8) is defective, replace.

A9. The auxiliary safety light would be installed as a special option at the customer's request. If voltage is present on terminal #36 (120 volts) the auxiliary safety light (DS32) is defective, replace.

A10. If voltage is present on terminal #35 (120 volts) then check for voltage on terminal #39 (120 volts) while holding the power switch (SW1) in the "ON" position and with the burner switch (SW3) in the "OFF" position. If no voltage is present, the burner switch (SW3) is defective, replace.

A11. If voltage is present on terminal #39 (120 volts) then check for voltage on terminal #41 (120 volts) while holding the power switch (SW1) in the "on" position. If no voltage is present and the burner switch (sw3) is in the "OFF" position, the power relay (K8) is defective, replace.

A12. If voltage is present on terminal #41 (120 volts) while holding the power switch (SW1) in the "ON" position and the burner switch (SW3) is in the "OFF" position, the safety circuit proven light is defective, replace.

B. If voltage is present on terminal #41 (120 volts) check voltage at terminal #27 with power switch (SW1) engaged ("RUN"). If power is not present on terminal #27 the flame system bypass delay relay is defective, replace.

**Note: Delux provides three (3) types of loading systems.**

A. Leveling system. (Standard) [(Auger - standard) (Drag conveyor - optional)]
B. Gravity flow without high and low bin switches. (Optional)
C. Gravity flow with high and low bin switches. (Optional)

**3A. Sequence: Load switch (SW4) to "ON", energizing load circuit. Leveling system (standard)**

Action: Load switch (SW4) "ON", grain loading light (DS12) "ON". Starts leveling auger (conveyor) on dryer and wet auxiliary loading. Loads dryer automatically as required. Grain loading light (DS12) on until high / low grain monitor shuts load auger off. Low grain light(s) (DS9, DS10) on until grain engages paddle(s) on low grain switch(s) (SW9, SW10).

Symptoms:
A. No grain loading light (DS12).
B. Grain loading light (DS12) on but loading system not running.
C. Dryer shuts down immediately or during loading operation.
D. Low grain light(s) (DS9, DS10) stay lit.
E. Leveling auger and auxiliary loading run continually.
F. Dryer overloads (too full).

Possible Causes:
A1. Defective load switch (SW4).
A2. Defective switch (low) in high / low grain monitor.
A3. Defective grain loading light (DS12).

B1. Defective load auger starter coil (S5).
B2. Defective load auger starter interlock (SW19).
B3. Defective auxiliary load starter coil (S6).

C. Overload(s) on load auger and/or auxiliary load starter(s) (S5, S6) tripped.

D1. Grain has not engaged paddles properly on low grain switch(s) (SW9, SW10).
D2. Defective low grain switch(s) (SW9, SW10).

E. Improper grain loading rate.

F. Improper adjustment of high / low grain monitor.

Corrective Action:
A1. If voltage is present on terminal #39 (120 volts), Turn load switch (SW4) to "on" then check for voltage on terminal #46. If voltage is not present the load switch (SW4) is defective, replace.

A2. If voltage is present on terminal #46 (120 volts), then check for voltage on terminal #47. Note: make sure high / low grain monitor paddle is hanging in the down position. If voltage is not present, the switch (low) is defective, replace.

A3. If voltage is present on terminal #47 (120 volts), the grain loading light (DS12) is defective, replace.

B1. If load auger starter (S5) does not pull-in and voltage is present at load side of coil, the holding coil is defective, replace.

B2. If load auger starter (S5) does pull-in, check load side of interlock (SW19) on load auger starter (S5) for presence of voltage (120 volts). If voltage is present at load side of interlock (SW19), check opposite side of interlock (SW19). If no power is present, the interlock (SW19) is defective, replace.

B3. If auxiliary load starter (S6) does not pull-in and voltage is present at load side of coil, the holding coil is defective, replace.

C. Overloads on load auger and/or auxiliary load starters (S5, S6) may have tripped from a motor drawing high amperage. Determine which one is open. Reset defective overload. It will be necessary to determine if a short circuit or excessive overload condition exists in this isolated system and what corrective steps need to be taken to resolve this condition. Other possible causes could be (1) bad motor, replace. (2) jammed auxiliary load system, correct. (3) loose wiring connections on terminals, tighten. (4) defective overload, replace. (5) improper adjustment of high / low grain monitor, (auger only) adjust tilt switches (low and/or high) in high / low grain monitor box. Adjust low tilt switch so that the load system will turn on just before the grain paddle swings to a straight down position. Adjust high tilt switch so that the load system will turn off when the grain pushes the paddle forward to 40° angle.

D1. Trash and plugging problem - check low grain switch(s) (SW9, SW10) for trash buildup behind paddle.

D2a. Front low grain switch (SW9). If voltage (120 volts) is present on terminal #35 check voltage on terminal #37 with switch paddle engaged. If voltage is not present the low grain switch front (SW9) is defective, replace.

D2b. Rear low grain switch (SW10). If voltage (120 volts) is present on terminal #37 check voltage on terminal #39 with switch paddle engaged. If voltage is not present the low grain switch rear (SW10) is defective, replace.

E. Check for empty wet grain supply. Check auxiliary load system for plugging, broken belt, improper flow rate, undersized load system, etc. That may restrict grain flow to dryer.

F. Adjust tilt switches (low and/or high) in high / low grain monitor box (auger only). Adjust low tilt switch so that the load system will turn "on" just before the grain paddle swings to a straight down position. Adjust high tilt switch so that the load system will turn off when the grain pushes the paddle forward to 40° angle.

**3B. Sequence: Load switch (SW4) to "ON", energizing load circuit. Gravity flow <u>without</u> high and low bin switches. (Optional)**

Action: Load switch (SW4) "ON", grain loading light (DS12) on Starts wet auxiliary loading. Low grain light(s) (DS9, DS10) on until grain engages paddle(s) on low grain switch(s) (SW9, SW10)

Symptoms:
A. No grain loading light (DS12).
B. Grain loading light (DS12) on but loading system not running.
C. Dryer shuts down immediately or during loading operation.
D. Low grain light(s) (DS9, DS10) stay lit.

Possible Causes:
A1. Defective load switch (SW4).
A2. Defective grain loading light (DS12).

B. Defective auxiliary load starter coil (S6).

C. Overload on auxiliary load starter (S6) tripped.

D1. Grain has not engaged paddles properly on low grain switch(s) (SW9, SW10).
D2. Defective low grain switch(s) (SW9, SW10).
D3. Improper grain loading rate.

Corrective Action:

A1. If voltage is present on terminal #39 (120 volts), Turn load switch (SW4) to "ON" then check for voltage on terminal #46. If voltage is not present the load switch (SW4) is defective, replace.

A2. If voltage is present on terminal #47 (120 volts), the grain loading light (DS12) is defective, replace.

B. If auxiliary load starter (S6) does not pull in and voltage is present at load side of coil, the holding coil is defective, replace.

C. Overload on auxiliary load starter (S6) may have tripped from a motor drawing high amperage. Reset defective overload. It will be necessary to determine if a short circuit or excessive overload condition exists in this isolated system and what corrective steps need to be taken to resolve this condition. Other possible causes could be: (1) Bad motor, replace; (2) Jammed auxiliary load system, correct; (3) Loose wiring connections on terminals, tighten; (4) Defective overload, replace.

D1. Trash and plugging problem - check low grain switch(s) (SW9, SW10) for trash buildup behind paddle.

D2a. Front low grain switch (SW9). If voltage (120 volts) is present on terminal #35 check voltage on terminal #37 with switch paddle engaged. If voltage is not present the low grain switch front (SW9) is defective, replace.

D2b. Rear low grain switch (SW10). If voltage (120 volts) is present on terminal #37 check voltage on terminal #39 with switch paddle engaged. If voltage is not present the low grain switch rear (SW10) is defective, replace.

D3. Check for empty wet grain supply. Check auxiliary load system for plugging, broken belt, improper flow rate, undersized load system, etc. that may restrict grain flow to dryer.

**3C. Sequence: Load switch (SW4) to "ON", energizing load circuit. Gravity flow <u>with</u> high and low bin switches. (Optional)**

Action: Load switch (SW4) "ON", grain loading light (DS12) on starts wet auxiliary loading. Loads dryer automatically as required. Grain loading light (DS12) on until grain level control switch(s) (high) shuts auxiliary load system off . Low grain light(s) (DS9, DS10) on until grain engages paddle(s) on low grain switch(s) (SW9, SW10). Note: operation of grain level control lights (1) low light (DS31) off until grain engages paddle. (2) High light(s) (DS29, DS30) off until grain engages paddles shutting off load system.

Symptoms: A. No grain loading light (DS12).
B. Grain loading light (DS12) on but loading system not running.

C. Dryer shuts down immediately or during loading operation.
D. Low grain light(s) (DS9, DS10) stay lit.
E. No (low) grain loading light (DS31).
F. No (high) grain loading light(s) (DS29, DS30).
G. Auxiliary loading running continually.

Possible Causes:

A1. Defective load switch (SW4).
A2. Defective (low) grain level control switch (SW13).
A3. Defective grain loading light (DS12).

B. Defective auxiliary load starter(s) coil.

C1. Defective load auger starter interlock.
C2. Overload(s) on auxiliary load starter(s) tripped.

D1. Grain has not engaged paddles properly on low grain switch(s) (SW9, SW10).
D2. Defective low grain switch(s) (SW9, SW10).
D3. Improper grain loading rate.

E1. Grain has not engaged paddle properly on (low) grain level control switch (SW13).
E2. Defective (low) grain level control switch (SW13). Defective (low) grain level control light (DS31).
E3. Improper grain loading rate.

F1. Grain has not engaged paddles properly on (high) grain level control switch(s) (SW11, SW12).
F2. Defective (high) grain level control switch(s) (SW11, SW12). Defective (high) grain level control light(s) (DS29, DS30).
F3. Improper grain loading rate.

G. Improper grain loading rate.

Corrective Action:

A1. If voltage is present on terminal #39 (120 volts), Turn load switch (SW4) to "ON" then check for voltage on terminal #46. If voltage is not present the load switch (SW4) is defective, replace.

A2. If voltage is present on terminal #46 (120 volts), then check for voltage on terminal #47, with switch paddle engaged. If voltage is not present the (low) grain level control switch (SW13) is defective, replace.

A3. If voltage is present on terminal #47 (120 volts), the grain loading light (DS12) is defective, replace.

B. If auxiliary load starter(s) does not pull in and voltage is present at load side of coil, the holding coil is defective, replace.

C1. If auxiliary load starter(s) does pull in, check load side of interlock on auxiliary load starter for presence of voltage (120 volts). If voltage is present at load side of interlock, check opposite side of interlock. If no voltage is present, the interlock is defective, replace.

C2. Overloads on auxiliary load starter(s) may have tripped from a motor drawing high amperage. Determine which one is open. Reset defective overload. It will be necessary to determine if a short circuit or excessive overload condition exists in this isolated system and what corrective steps need to be taken to resolve this condition. Other possible causes could be: (1) Bad motor, replace; (2) Jammed auxiliary load system, correct; (3) Loose wiring connections on terminals, tighten; (4) Defective overload, replace.

D1. Trash and plugging problem - check low grain switch(s) (SW9, SW10) for trash buildup behind paddle.

D2a. Front low grain switch (SW9). If voltage (120 volts) is present on terminal #35 check voltage on terminal #37 with switch paddle engaged. If voltage is not present the low grain switch front (SW9) is defective, replace.

D2b. Rear low grain switch (SW10). If voltage (120 volts) is present on terminal #37 check voltage on terminal #39 with switch paddle engaged. If voltage is not present the low grain switch rear (SW10) is defective, replace.

D3. Check for empty wet grain supply. Check auxiliary load system for plugging, broken belt, improper flow rate, undersized load system, etc. That may restrict grain flow to dryer.

E1. Trash and plugging problem - check (low) grain level control switch (SW13) for trash buildup behind paddle.

E2. If voltage (120 volts) is present on terminal #46, check voltage on terminal #52 with switch paddle engaged. If voltage is not present the (low) grain level control switch (SW13) is defective, replace. If voltage is present, (low) grain level control light (DS31) is defective, replace.

E3. Check for empty wet grain supply. Check auxiliary load system for plugging, broken belt, improper flow rate,

undersized load system, etc. That may restrict grain flow to dryer.

F1. Trash and plugging problem - check (high) grain level control switch(s) (SW11, SW12) for trash buildup behind paddle.

F2a. (High - front) grain level control switch. If voltage (120 volts) is present on terminal #46, check voltage on terminal #50 with switch paddle engaged. If voltage is not present the (high - front) grain level control switch (SW11) is defective, replace. If voltage is present, (high -front) grain level control light (DS29) is defective, replace.

F2b. (High - rear) grain level control switch. If voltage (120 volts) is present on terminal #46, check voltage on terminal #51 with switch paddle engaged. If voltage is not present the (high - rear) grain level control switch (SW12) is defective, replace. If voltage is present, (high -rear) grain level control light (DS30) is defective, replace.

F3. Check for empty wet grain supply. Check auxiliary load system for plugging, broken belt, improper flow rate, undersized load system, etc. That may restrict grain flow to dryer.

G. Check for empty wet grain supply. Check auxiliary load system for plugging, broken belt, improper flow rate, undersized load system, etc. That may restrict grain flow to dryer.

**4. Sequence: Fan switch (SW2) to "ON", hold until all fans are operational.**

Action: Fan starter(s) (S1, S2, S3, S4) start and lock into operation (5 seconds delay between fans on multi fan units). All fan proven light(s) on (DS13, DS14, DS15, DS16), after a 10 second delay the purging light (DS17) will light and after 60 seconds the burner ready light (DS18) will light.

**Note**: Fan number one (# 1) is closest to control panel.

Symptoms:
A. Dryer shuts down immediately or during fan(s) (S1, S2, S3, S4) startup.
B. Fan starter(s) (S1, S2, S3, S4) will not lock into operation when fan switch (SW2) is released.
C. Some or none of the fan proven light(s) (DS13, DS14, DS15, DS16) stay lit, after the fan starter(s) (S1, S2, S3, S4) lock into operation.
D. Purging light (DS17) will not light.
E. Burner ready light (DS18) will not light.

Possible Causes:

A1. Overload(s) on fan starter(s) (S1, S2, S3, S4), tripped.
A2. Fan air sensor(s) (AS1, AS2, AS3, AS4), shorted.
A3. Misc. Short circuit(s) in system.

B1. Defective fan switch (SW2).
B2. Defective starter coil (S1, S2, S3, S4).
B3. Defective starter interlock (SW14, SW15, SW16, SW17).
B4. Defective fan timer (K13, K14, K15).

C1. Incorrect fan rotation.
C2. Defective fan air sensor (AS1).
Defective fan proven light (DS13).
C3. Defective fan air sensor (AS2).
Defective fan proven light (DS14).
C4. Defective fan air sensor (AS3).
Defective fan proven light (DS15).
C5. Defective fan air sensor (AS4).
Defective fan proven light (DS16).

D1. Defective fan sensor relay (K7).
defective purging light (DS17).

E1. Defective purge relay (K9).
defective burner ready light (DS18).

Corrective Action:

Note: The burner switch (SW3) must be in "OFF" position

A1. One or more starter overloads (S1, S2, S3, S4) have tripped from a motor drawing high amperage. Determine which one is open. Reset tripped overload. It will be necessary to determine if a short circuit or overload condition exists in this isolated system and what corrective steps need to be taken to resolve this condition. Other possible causes could be: (1) Bad fan starter overload module, replace; (2) Fan pitch set to high, re-pitch to correct setting; (3) Incorrect setting on overload, set overload to motor full load amps; (4) Loose wiring connections on terminals, tighten.

A2. Check the terminations inside the fan air sensor(s) (AS1, AS2, AS3, AS4) to insure the switch has not come loose or the terminals are tight and a wire is not shorting against the case. The fan air sensor(s) (AS1, AS2, AS3, AS4) are located in the cooling chamber on the side of the fan drum.

A3. Repair or replace burned or bare wiring in contact with chassis or other wiring.

B1. If voltage is present on terminal #39 (120 volts) then check for voltage on terminal #53 (120 volts) while holding the fan switch (SW2) in the "ON" position. If no voltage is present the fan switch (SW2) is defective, replace. The burner switch (SW3) must be in "OFF" position.

B2. If fan #1 does not pull in and voltage is present at terminal #53 (120 volts), check load side of starter coil for presence of voltage when fan switch (SW2) is depressed. If voltage is present at load side of coil on starter (S1), the holding coil is defective and must be replaced. Check all coils on other fan starter(s) (S2,S3, S4) in sequence to find defective coil and replace. Note: when checking coils on fan starter(s) (S2, S3, S4) the starter interlock(s) (SW15, SW16, SW17) on the previous starter must pull in and the fan timer(s) (K13, K14, K15) must time out to see voltage present on the next starter.

B3. If fan #1 pulls in, check load side of interlock (SW14) for presence of voltage when fan switch (SW2) is depressed. If voltage is present at load side of interlock (SW14) check opposite side of interlock (SW14). If no power is present the interlock (SW14) is defective, replace. Check all interlocks on other fan starter(s) (S2, S3, S4) in sequence to find defective interlock and replace. Note: to check interlock(s) (SW15, SW16, SW17) on other fan starter(s) (S2, S3, S4) starters must be pulled in.

B4. If fan #1 pulls in, check load side of fan timer (K13) on terminal #2 (A1) located on fan timer plug-in base. If voltage is present (120 volts) then check terminal #3 located on fan timer (K13) plug-in base, remember to allow the timer to time out before checking voltage on terminal #3, if voltage is not present the fan timer (K13) is defective, replace. Note: to check other timer(s) (K14, K15) follow the same procedure.

C1. If some or none of the fan proven lights stay lit check to see if the fan(s) are rotating in the correct direction. When electrical service is installed, attention must be paid to proper phasing. All motors have been phased at the factory. In the event phases are reversed, shutoff power on main breaker, reverse L1 and L3 at main breaker. (Wild leg must be on L2)

C2. If voltage is present on terminal #53 (120 volts) then check for voltage on terminal #54 (120 volts) while the fan(s) are locked into operation. If no voltage is present the fan air sensor (AS1) is defective, replace. If voltage is

present on terminal #54 the fan proven light (DS13) is defective, replace.

C3. If voltage is present on terminal #54 (120 volts) then check for voltage on terminal #55 (120 volts) while the fan(s) are locked into operation. If no voltage is present the fan air sensor (AS2) is defective, replace. If voltage is present on terminal #55 the fan proven light (DS14) is defective, replace.

C4. If voltage is present on terminal #55 (120 volts) then check for voltage on terminal #56 (120 volts) while the fan(s) are locked into operation. If no voltage is present the fan air sensor (AS3) is defective, replace. If voltage is present on terminal #56 the fan proven light (DS15) is defective, replace.

C5. If voltage is present on terminal #56 (120 volts) then check for voltage on terminal #57 (120 volts) while the fan(s) are locked into operation. If no voltage is present the fan air sensor (AS4) is defective, replace. If voltage is present on terminal #57 the fan proven light (DS16) is defective, replace.

D1. With fan(s) running check to see if voltage is present on terminal #57 (120 volts), then check for voltage (120 volts) on terminal #A1 (2) on the purge relay (K9), remember to allow the fan sensor relay (K7) to time out (10 sec) before checking voltage on terminal #A1 (2) of the purge relay (K9), if voltage is not present the fan sensor relay (K7) is defective, replace. If voltage (120 volts) is <u>not</u> present on terminal #59, and present on terminal #A1 (2) of the purge relay (K9), purge relay is defective, replace. If voltage (120 volts) is present on terminal #59 but purging light (DS17) is not lit, purging light (DS17) is defective, replace.

E1. With fan(s) running check to see if voltage is present on terminal #59 (120 volts) before the purge relay (K9) has timed out (60 sec). Then after 60 seconds, check for voltage on terminal #42 (120 volt). If voltage is not present, the purge relay (K9) is defective, replace. If voltage is present, the burner ready light (DS18) is defective, replace.

**5. Sequence: Burner switch (SW3) to "ON", energizing burner circuit.**

Note: refer to schematic number: 900-010043 for burner circuit.

Action: Fuel supplied to burners. Ignition firing light(s) (DS24, DS25, DS26, DS27) on for 3-5 seconds, burner proven light(s) (DS20, DS21, DS22, DS23) on.

Symptoms:
- A. Dryer shuts down immediately upon engaging burner Switch (SW3).
- B. Reset flame control light (DS28) on.
- C. Some or none of the ignition firing light(s) (DS24, DS25, DS26, DS27) light.
- D. Some or none of the burner proven light(s) (DS20, DS21, DS22, DS23) stay lit.
- E. All burner proven light(s) (DS20, DS21, DS22, DS23) come on momentarily, then dryer shuts down.

Possible Causes:
- A1. Low grain situation (low grain light(s) (DS9, DS10) on, indicating low grain). Note: burners will not fire without dryer being full of grain.
- A2. Defective low grain switch(s) (SW9, SW10).
- A3. Flame system bypass delay relay (K5) is set too low (15 sec).
- A4. Vapor cutoff valve coil (SOL1) or liquid cutoff valve coil (SOL2) shorted.

- B. Flame failure, safety lockout on flame control(s) (FC1, FC2, FC3, FC4).

- C1. Defective burner switch (SW3)
- C2a. Defective flame control (FC1).
  Defective ignition firing light (DS24).
- C2b. Defective flame control (FC2).
  Defective ignition firing light (DS25).
- C2c. Defective flame control (FC3).
  Defective ignition firing light (DS26).
- C2d. Defective flame control (FC4).
  Defective ignition firing light (DS27).

- D1. No fuel to dryer.
- D2. Plugged fuel line strainer.
- D3. Defective vapor cutoff valve coil (SOL1) or liquid cutoff valve coil (SOL2).
- D4. Defective pressure regulator.
- D5. Plugged burner holes.
- D6. Leak in gas line to burners.

D7. Defective ignition transformer (XMFR 1), ignition plug, and/or ignition wire
D8. Defective ignition transformer (XMFR 2), ignition plug, and/or ignition wire
D9. Defective ignition transformer (XMFR 3), ignition plug, and/or ignition wire
D10. Defective ignition transformer (XMFR 4), ignition plug, and/or ignition wire
D11. Defective burner proven light (DS20), flame control (FC1), flame sensor, flame sensor wire, and/or burner ground wire.
D12. Defective burner proven light (DS21), flame control (FC2), flame sensor, flame sensor wire, and/or burner ground wire.
D13. Defective burner proven light (DS22), flame control (FC3), flame sensor, flame sensor wire, and/or burner ground wire.
D14. Defective burner proven light (DS23), flame control (FC4), flame sensor, flame sensor wire, and/or burner ground wire.

E1. Defective flame relay (K1).
E2. Defective flame relay (K2).
E3. Defective flame relay (K3).
E4. Defective burner relay (K6).

Corrective Action:

A1a. Fill dryer full of grain.

A1b. Trash and plugging problem - check low grain switch(s) (SW9, SW10) for trash buildup behind paddle.

A2a. Front low grain switch (SW9). If voltage (120 volts) is present on terminal #35 check voltage on terminal #37 with switch paddle engaged. If voltage is not present the low grain switch front (SW9) is defective, replace.

A2b. Rear low grain switch (SW10). If voltage (120 volts) is present on terminal #37 check voltage on terminal #39 with switch paddle engaged. If voltage is not present the low grain switch rear (SW10) is defective, replace.

A3. Set flame system bypass delay relay (K5) to 15 Seconds.

A4. Inspect coils (SOL1, SOL2) for bad connections inside coil cases or disconnect each coil separately and connect to an outside 120 volt source and listen for the valve to pull in, if not pulling in the coil is defective, replace. Note: test should be performed with all power "OFF" to dryer.

B. Manual reset is required, push reset button (black) on flame control(s) (FC1, FC2, FC3, FC4). Flame controls are located on inside of large panel box door. Note: when resetting Fireye model MicroM, burner switch must be turned ‘ON’ (with dryer in ‘Burner Ready’ mode).

C1. If voltage is not present on terminal #1 (120 volts), with burner switch (SW3) "on" the burner switch (SW3) is defective, replace.

C2. If voltage is present on terminal #1 (120 volts) with burner switch (SW3) "on":

C2a. Check for voltage on terminal #4 (there will be a 4 to 5 second delay before voltage will be present on terminal #4). If voltage is not present on terminal #4 the flame control (FC1) is defective, replace. If voltage is present the ignition firing light (DS24) is defective, replace.

C2b. Check for voltage on terminal #5 (there will be a 4 to 5 second delay before voltage will be present on terminal #5). If voltage is not present on terminal #5 the flame control (FC2) is defective, replace. If voltage is present the ignition firing light (DS25) is defective, replace.

C2c. Check for voltage on terminal #6 (there will be a 4 to 5 second delay before voltage will be present on terminal #6). If voltage is not present on terminal #6 the flame control (FC3) is defective, replace. If voltage is present the ignition firing light (DS26) is defective, replace.

C2d. Check for voltage on terminal #7 (there will be a 4 to 5 second delay before voltage will be present on terminal #7). If voltage is not present on terminal #7 the flame control (FC4) is defective, replace. If voltage is present the ignition firing light (DS27) is defective, replace.

D1. Check fuel supply to dryer, check gas pressure, and manual valves "open" on dryer. Note: On LP units are check manual valves at tank.

D2. Remove strainer and clean. (LP units only)

D3. **Test should be performed with power "OFF" to dryer**. Inspect coils (SOL1, SOL2) for bad connections inside coil cases or disconnect each coil separately and connect to an outside 120 volt source and listen for the valve to pull in, if not pulling in, the coil is defective, replace.

D4. Adjust regulator for 12 pounds of gas pressure on LP units and 10 pounds on natural gas units. If no pressure is present call your local supplier.

D5a. Inspect burner(s) for plugged holes and clean. (Burner holes are 5/64" diameter). If burner holes are open it may be necessary to remove and vacuum inside of burner using a shop vacuum connected to fuel inlet hole.

D5b. Water in burner(s) - it's possible over the off season that water has gotten into the burner ring. Remove pipe plug located on fuel train outside burner drum.

D6. Check for loose or broken fittings and pipe from valve assembly to burners.

D7a. To D10a. Inspect ignition plug for carbon buildup on Electrodes, check gap 1/8" to 3/16", and inspect ignition wire for tight connections and condition of wire. If defective, replace as required.

D7b. To D10b. Remove transformer, ignition wire and ignition Plug from dryer. Connect 120 volts to ignition transformer with ignition plug and wire connected. If no spark on ignition plug, transformer is defective, replace.

D11. If voltage is present on terminal #12 (120 volts), burner proven light (DS20) is defective, replace. If voltage is not present on terminal #12, refer to Fireye bulletin located in section 14, component literature. Check for flame signal per bulletin instructions. If flame signal is not present, inspect flame sensor for cracked porcelain, broken rod, loose flame rod, and inspect flame sensor wire for tight connections and condition of wire. Also inspect green burner ground wire for tight connections and condition of wire. Replace as required. If flame signal is present, flame control (FC1) is defective, replace.

D12. If voltage is present on terminal #13 (120 volts), burner proven light (DS21) is defective, replace. If voltage is not present on terminal #13, refer to Fireye bulletin located in section 14, component literature. Check for flame signal per bulletin instructions. If flame signal is not present, inspect flame sensor for cracked porcelain, broken rod, loose flame rod, and inspect flame sensor wire for tight connections and condition of wire. Also inspect green burner ground wire for tight connections and condition of wire. Replace as required. If flame signal is present, flame control (FC2) is defective, replace.

D13. If voltage is present on terminal #14 (120 volts), burner proven light (DS22) is defective, replace. If voltage is not present on terminal #14, refer to Fireye bulletin located in section 14, component literature. Check for flame signal per bulletin instructions. If flame signal is not present, inspect flame sensor for cracked porcelain, broken rod, loose flame rod, and inspect flame sensor wire for tight connections and condition of wire. Also inspect green burner ground wire for tight connections and condition of wire. Replace as required. If flame signal is present, flame control (FC3) is defective, replace.

D14. If voltage is present on terminal #15 (120 volts), burner proven light (DS23) is defective, replace. If voltage is not present on terminal #15, refer to Fireye bulletin located in section 14, component literature. Check for flame signal per bulletin instructions. If flame signal is not present, inspect flame sensor for cracked porcelain, broken rod, loose flame rod, and inspect flame sensor wire for tight connections and condition of wire. Also inspect green burner ground wire for tight connections and condition of wire. Replace as required. If flame signal is present, flame control (FC4) is defective, replace.

E1. With flame system “ON”, burner proven lights (DS20, DS21) on, check terminal #14 (3) (120 volts) located on the flame relay (K1) plug-in base. If no voltage is present the flame relay (K1) is defective, replace.

E2. With flame system "ON”, burner proven lights (DS20, DS21, DS22) on, check terminal #14 (3) (120 volts) located on the flame relay (K2) plug-in base. If no voltage is present the flame relay (K2) is defective, replace.

E3. With flame system "ON", burner proven lights (DS20, DS21, DS22, DS23) on, check terminal #14 (3) (120 volts) located on the flame relay (K3) plug-in base. If no voltage is present the flame relay (K3) is defective, replace.

E4. With flame system "ON", burner proven light(s) (DS20, DS21, DS22, DS23) on. Visually inspect the contacts in the flame relay (K6) to see if they are closing. If not, the flame relay (K6) is defective, replace.

**6. Sequence: Unload switch (SW5) to "ON", energizing unload circuit.**

Action: Unload switch (SW5) "ON", grain unloading light (DS19) on, starts unload auger and dry auxiliary unloading. Unloads dry grain from the dryer at a pre-selected rate.

Symptoms:
A. No grain unloading light (DS19).
B. Grain unloading light (DS19) on but unloading system not running.
C. Dryer shuts down immediately or during unloading operation.

Possible Causes:
A. Defective grain unloading switch (SW5).
Defective grain unloading light (DS19).

B1. Defective auxiliary unload starter coil (S8).
B2. Defective auxiliary unload starter interlock (SW20).
B3. Defective unload auger starter coil (S7).

C1. Overload(s) on unload auger and/or auxiliary unload starter(s) (S7, S8) tripped.
C2. Open discharge overflow switch (optional on some models).

Corrective Action:
A. If voltage is present on terminal #39 (120 volts), turn unload switch (SW5) to "ON". Then check for voltage on terminal #49. If voltage is not present the unload switch (SW5) is defective, replace. If voltage is present, the grain unloading light (DS19) is defective, replace.

B1. If auxiliary unload starter (S8) does not pull in and voltage is present at load side of coil, the holding coil is defective, replace.

B2. If auxiliary unload starter (S8) does pull in, check load side of interlock (SW20) on auxiliary unload starter (S8) for presence of voltage (120 volts). If voltage is present at load side of interlock (SW20), check opposite side of interlock (SW20). If no voltage is present, the interlock (SW20) is defective, replace.

B3. If unload auger starter (S7) does not pull in and voltage is present at load side of coil, the holding coil is defective, replace.

C1. Overloads on unload auger and/or auxiliary unload starter(s) (S7, S8) may have tripped from a motor drawing high amperage. Determine which one is open. Reset

defective overload. It will be necessary to determine if a short circuit or excessive overload condition exists in this isolated system and what corrective steps need to be taken to resolve this condition. Other possible causes could be: (1) Bad motor, replace; (2) Jammed unload system, correct; (3) Loose wiring connections on terminals, tighten; (4) Defective overload, replace.

C2. Check for overflow condition, correct.

**7A. Sequence: Metering selector switch (SW6) to "MAN", energizing metering system circuit.**

Action: Metering selector switch (SW6) to "MAN" position, starts metering rolls and discharges at variable rate controlled by setting of manual metering control (RV1).

**Note:** Unload auger and auxiliary unload system must be “ON” before metering system is energized.

Symptoms:
A. Metering rolls do not start.
B. Dryer shuts down immediately or during unloading operation.
C. Rate of discharge cannot be controlled.

Possible Cause:
A1. Defective unload starter interlock (SW21).
A2. Defective fuse(s) – DC motor drive (SCR1).
A3. Defective metering roll selector switch (SW6).
A4. Defective DC motor drive (SCR1).
A5. Defective DC motor and/or brushes.
A6. Defective manual speed control (RV1).

B1. Short circuit in dc motor and/or brushes.
B2. Short circuit in dc motor drive (SCR1).
B3. Feedroll monitor system "open" due to: defective feedroll monitor switch (SW8) or cam nut, timer relay(s) (K10, K11), or metering rolls stopping because of jammed metering rolls or broken chain.

C1. Defective manual speed control (RV1).
C2. Defective DC motor drive (SCR1).
C3. DC motor drive (SCR1) out of calibration.

Corrective Action:
A1. If unload auger starter (S7) does pull in, check Load side of interlock (sw21) on unload auger starter (S7) for presence of voltage (120 volts). If voltage is present at load side of interlock (SW21), check opposite side of interlock (SW21). If no voltage is present, the interlock (SW21) is defective, replace.

A2. Check fuse(s) located on dc drive (SCR1) if defective, replace.

A3. If voltage is present on terminal #64 (120 volts) with metering roll selector switch (SW6) "ON" then check for voltage on terminal #75. If voltage is not present the metering roll selector switch (SW6) is defective, replace.

A4. If voltage is present on terminal #75 (120 volts) with metering roll selector switch (SW6) "ON" then check for voltage (0 to 90 volts dc) on terminals #73 (+) & #74 (-). If voltage is not present, the SCR control is defective, replace.

A5. Disconnect motor wires and check for continuity. If no continuity, check brushes to insure both brushes are making contact with the rotor. If they are not, clean or replace. If both brushes are making contact the motor is defective, repair or replace. Note: a defective motor or brushes can result in damage to the dc drive (SCR1).

A6. Disconnect wires from the manual metering control (RV1) and check resistance of control (0 to 5k ohms), turning control knob 270 degrees. If full span does not occur or spikes occur replace manual metering control (RV1).

B1. Disconnect motor wires and check for continuity. If continuity is present check each wire to ground for a short circuit. If a short circuit is present repair or replace motor.

B2. With power "OFF" and dc motor wire disconnected check terminal #75 to ground for a short circuit. If a short circuit is present the dc drive (SCR1) needs to be repaired or replaced.

B3a. If voltage is present on terminal #31 (120 volts) then check for voltage on terminal #32 (120 volts) while holding the power switch (SW1) in the "ON" position. If no voltage is present the feedroll monitor circuit is open. First, check to see if the selector switch (SW7) is in the "OFF" position. If selector switch (SW7) is in the "ON" position, return to "OFF" position.

B3b. If dryer shuts down within 60 seconds when feedroll monitor selector switch (SW7) is "ON" and metering system is operating, check voltage (120 volts) on terminals #62 and #63. Voltage should be present on each terminal about every 2 to 4 seconds while the feedrolls are turning. If voltage is not present on both terminals check feedroll monitor switch (SW8) for correct

operation and cam nut adjustment located on feedroll sprocket. Adjust cam nut or replace feedroll monitor switch (SW8). If voltage is present, check the time delay relays (K10 & K11) for proper operation and setting (60 sec.). Set to 60 seconds or replace if defective.

B3c. Check for jammed metering roll(s), correct, or check broken chain, repair or replace.

C1. Disconnect wires from the manual metering control (RV1) and check resistance of control (0 to 5k ohms), turning control knob 270 degrees. If full span does not occur or spikes occur, replace manual metering control (RV1).

C2. If voltage is present on terminal #75 (120 volts) with metering selector switch (SW6) "on" then check for voltage (0 to 90 volts dc) on terminals #73 (+) & #74 (-), if voltage is not present the SCR control is defective, replace.

C3. Step 1: Remove the cover of the dc drive (SCR1) and locate the "MIN", "MAX" and "IR COMP" pots on the circuit board.

Step 2: Set the metering selector switch (SW6) to the "MAN" position.

Step 3: IR compensation adjustment:

(a.) IR compensation is provided to overcome the motor's natural tendency to slow down as load increases. If the motor slows down excessively as it is loaded, the pot marked "IR COMP" should be adjusted clockwise.

(b.) If the “IR COMP” is adjusted too far clockwise, the motor will begin to oscillate in speed or "hunt". If this pulsing of speed occurs, adjust the “IR COMP” counterclockwise until the motor speed stabilizes.

Step 4: Minimum speed adjustment:

(a.) Adjust the manual speed control (RV1) fully counterclockwise.

(b.) Adjust the "MIN" speed pot on dc drive (SCR1) with a screwdriver until you read 8 vdc on the dc voltmeter (M1).

Step 5: Maximum speed adjustment:

(a.) Adjust the manual speed control (RV1) fully clockwise.

(b.) Adjust the "MAX" speed pot on the dc drive (SCR1) with a screwdriver until you read 85 vdc on the dc voltmeter (M1). Note: do not exceed 90 vdc in manual or automatic mode. This will cause damage to the dc motor.

Step 6: Make sure your take away system can handle 90 vdc output of grain. If not, you can adjust the "MAX" speed pot on the dc drive (SCR1) down to meet your system capacity. (ex. 75 vdc).

Step 7: Recheck the unloading rate by starting at step 4 and verify that the minimum and maximum voltages have been properly set.

Step 8: Place cover on the dc drive (SCR1).

Note: For more information on the dc drive (SCR1), refer to Section 14 "Component Literature".

**7B. Sequence: Metering selector switch (SW6) to "AUTO", energizing automatic metering system circuit.**

**Note: Before trouble shooting automatic metering system, manual metering system must be operational. If not, refer to sequence "7a".**

Action: Metering selector switch (SW6) to "AUTO" position, starts metering rolls and discharges at variable rate controlled by setting of automatic metering control (TC2). The automatic system senses grain temperature in the grain column and adjusts the discharge rate as necessary to aid in maintaining a consistent grain moisture level.

**Note**: Unload auger and auxiliary unload system must be "ON" before metering system is energized.

Symptoms:
A. Rate of discharge cannot be adjusted.
B. Not maintaining a consistent grain moisture level.

Possible Causes:
A1. Defective metering selector switch (SW6).
A2. Defective automatic moisture relay (K12).
A3. Defective moisture sensor or sensor wiring.
A4. Defective automatic metering control (TC2).

B1. Improper setting of moisture control system.
B2. Incorrect configuration of automatic metering control (TC2).

Corrective Action:
A1. If voltage is present on terminal #64 (120 volts)

With metering selector switch (SW6) in "AUTO" position, check for voltage on terminal #76. If voltage is not present the metering selector switch (SW6) is defective, replace.

A2. If voltage is present on terminal #76 (120 volts) with metering selector switch (SW6) in "AUTO" position, check automatic moisture relay (K12) to ensure contacts are closing. If not, relay is defective, replace.

A3. Refer to error messages chart, Watlow EZ-Zone Moisture Control insert in Section 5.

A4. Check automatic metering control as follows:

Step 1: Check supply voltage (120 volts) with a volt meter between terminals 98 and 99 on the control. If the supply voltage is not present, check the power source for problems.

Step 2: Check the 0-10 vdc output by measuring with a vom between the F1(+) and G1(-) terminals. If 0-10 vdc is not present or is out of tolerance, consider the control to be defective and replace.

B1a. Final grain moisture level was not stabilized in manual mode before switching to automatic mode. Return to manual mode and stabilize moisture level.

**Note**: A complete cycle of grain flow through the dryer must occur before seeing an accurate grain moisture level. This time is determined by the moisture content of the grain entering the dryer and the desired discharge moisture level. This time can vary from approximately one (1) hour to two (2) hours. Changing the manual mode before stabilizing will give improper grain moisture level outputs in the automatic mode.

**(Time + Patience = Desired final moisture level).**

B1b. When only one (1) to two (2) points of moisture are being removed from the grain being dried, the manual mode is recommended.

B2a. Automatic metering control configuration settings: Pages in the Watlow EZ-Zone Moisture Control insert in Section 5 provide the information needed to check or change the configuration settings.
**Setup is normally done at the factory and should only be done by a qualified technician or under instruction from the factory.**

B2b. The proportional band (pb) setting on the controller affects how fast the control reacts to changes in the grain moisture. The pb should already be set to the desired value for your dryer. The pb can be set by pressing the 'Advance' key until "pb1" appears in the lower display,

then press ‘up’ or ‘down’ key to achieve desired set point which is shown in the upper display. If it seems that the system is not responding enough to changes in moisture content of your incoming grain, change the pb value to a lower number. If the system seems to react too much and hunts back and forth, change the pb value to a higher number. Press the ‘Infinity’ key and temperature and set point will return to the display.

***Note**: it is the moisture of your discharge grain over a period of time that is important. Do not make changes too soon because the system appears to be changing speeds too quickly. Sometimes it takes a lot of reaction to maintain the desired results.*

**8. Dryer vibration cause and prevention.**

| | | |
|---|---|---|
| Symptoms: | A. | Fan(s) vibrating. (See Fan Vibration:, page 9-30). |
| | B. | Discharge auger and/or leveling auger vibrating. |
| | C. | Dryer not level. |
| Possible Causes: | A1. | Dirt in fan hub. |
| | A2. | Loose fan hub. |
| | A3. | Loose fan blade(s). |
| | A4. | Blade(s) damaged. |
| | A5. | Loose or broken motor mounts. |
| | A6. | Defective fan motor bearing(s). |
| | B1. | Auger(s) out of balance. |
| | B2. | Defective auger bearing(s). |
| | B3. | Bent auger shaft(s). |
| | B4. | Loose or broken bearing hanger(s). |
| | C1. | Not leveled when installed. |
| | C2. | Inadequate dryer support. |
| Corrective Action: | A1. | Clean fan hub. |
| | A2. | Tighten and align hub bolts. |
| | A3. | Reset blade pitch to proper setting and tighten. |
| | A4. | Replace fan or have fan repaired and rebalanced. |
| | A5. | Repair and check fan for vibration cause and correct. |
| | A6. | Replace motor bearing(s) or replace motor. |
| | B1. | Inspect for problem, repair or replace.<br>(1) bent auger tube<br>(2) flighting not wearing even. |
| | B2. | Replace bearing(s). |
| | B3. | Replace shaft(s). |
| | B4. | Replace hanger(s). |
| | C1. | Level dryer properly. |
| | C2. | Support dryer per foundation print. |

# FAN VIBRATION: CAUSE AND PREVENTION

**Extreme damage can occur from fan vibration. The major cause of vibration is related to dust accumulation and improper maintenance of the fan assembly and fan motor.**

During the drying process, a considerable amount of dust is dispersed into the air. This air is channeled across the motor and fan into the plenum chamber. The dust can collect on the motor and on the inside of the fan hub or the center portion of the fan. The amount of dust varies from the type and quality of product being dried. When a dryer is shut down, dust may fall off the fan hub unevenly. Upon restarting, this accumulation of dust will act as extra weight on the fan, causing the fan to be out of balance. Preventive maintenance procedures to eliminate vibration causes are as follows: **inspect the fan hub for dirt**, **check the fan blades for chips, cracks and proper setting, make sure all bolts on the bushing are tight**. **Check the fan motor making sure motor mount bolts are secure**, **motor bearings running cool and not noisy**. Major motor manufacturers recommend that motors be rotated a minimum of five revolutions every thirty days to provide proper lubrication of bearings and prevent moisture contamination in the motor housing. Inspect motor and fan assembly ensuring free turning of fan blades and to ensure proper clearance between blades and fan drum.

**Fan and/or motor vibration over a long period of time will eventually cause problems. Check your dryer!**

## SHUTDOWN PROCEDURE

1. Move metering roll drying selector switch to "OFF" position.

2. Move unload switch to "OFF" position.

3. Move load switch to "OFF" position.

4. Move burner switch to "OFF" position. **Holding the power switch to "ON" position momentarily while moving the burner switch to the "OFF" position will allow fans to continue to run**. Otherwise moving burner switch to "OFF" position will shutdown entire dryer and restart of fans will be necessary to cool grain.

**Note**: **To clear the lines of fuel** - turn "OFF" fuel supply at tank or dryer with burner switch in "ON" position. As soon as pressure gauge on dryer drops to zero, immediately switch burner switch to "OFF" as noted above to avoid burner safety lockout.

5. After dryer has cooled approximately 30 minutes and plenum thermometer reads ambient temperature conditions, move power switch to "OFF".

6. Turn "OFF" manual fuel supply to dryer.

7. Return all switches to "OFF" position.

## EMERGENCY SHUTDOWN

1. **Move power switch to "OFF"**, located on lower panel in the electrical control box of the dryer. All systems, electrical and fuel will shutdown.

2. **Turn "OFF" manual fuel supply** to dryer.

3. **Turn "OFF" main disconnect** to dryer.

4. **Return all switches to "OFF"** position.

# GENERAL OPERATOR MAINTENANCE

**Safety code** --------- **use caution in operating this equipment.**

**The design and manufacture of this dryer is directed toward operator safety.**

**Use extreme caution in working around high speed fans, gas fired burners, discharge augers, and auxiliary augers, which may start without warning when the dryer is operating on automatic controls.**

Continued safe, dependable operation of automatic equipment depends to a great degree upon the owner/operator. For a safe dependable drying system, follow the recommendations within the manual and make it a practice to regularly inspect the operation of the unit for any developing problems or unsafe conditions.

## Keep a clean dryer

**Do not allow fine material to accumulate on the plenum floor or a trash fire can result.**

**Checking the dryer at least every 24 hours and cleaning will help prevent problems.**
**The dryer should not be left unattended for extended periods of time.**

## Safety first!

Use only approved ladders and walkways to gain access to the dryer.

**Disconnect and lockout all energy sources** to the dryer before repair or maintenance is performed.

Be sure all guards and shields are in place before operating the dryer.

## Preparing dryer for operation

Check all safety controls for proper operation.

Check for worn or broken parts that need to be replaced.

Lubricate per instruction literature located in section 14.

Open air intakes doors.

Check belts for wear and tension.

Check chain tension and sprocket alignment.

Run fans and discharge system to assure proper function.

Clean fuel strainer-drain fuel lines.

## During season

**Inspect plenum and cooling chambers daily.** Clean out any accumulation of dirt, chaff, fines, etc.

Check feedrolls for proper grain flow.

Check chain and belt alignment daily.

Inspect exterior screens for plugging--clean for effective drying.

## Post season service

**Turn off all fuel and power to the dryer.**

Clean out plenum and cooling chambers, grain columns and augers.

Clean exterior of dryer.

Leave auger slide gates open for drainage.

Clean fuel strainer-drain fuel lines.

Lubricate per instructions - section 14.

Apply protective coating to chain and sprockets.

Inspect for worn/damaged parts that should be replaced.

Keep all access doors closed.

## General lubrication

1. Gear drives
   a. Lubrication levels to be checked on initial startup.
   b. Lubricate per instruction plate on gear head.
2. Auger bearings
   a. Bearings used are of the permanently lubricated type.
3. Auger hanger bearings
   a. Bearings used are of the permanently lubricated type.
4. Roller chain
   a. Spray with rust preventative lubricant at the end of each season.
5. Fan motor
   a. Follow manufacturer's instructions.

DELUX
Continuous Flow GRAIN DRYERS

# REPLACEMENT PARTS

- DP & DPSL SERIES
- DPX & DPXSL SERIES
- DPX4T SERIES
- DPX8T SERIES
- DPX12T SERIES
- DPX16GT SERIES

MODEL NO: _____ LENGTH: _____ FT SERIAL NO: _____

**SPECIFICATIONS**
**DP/DPSL/DPX/DPXSL/DPX4T/DPX8T/DPX12T/DPX16GT**

SCHEMATIC: 900-010832 DP-SL/DPX-SL/DPX4-8-12T-16GT 2015(Honeywell MOD. MOTOR)
SCHEMATIC: 900-010833 W/MOISTURE-LINK 2015 (Honeywell MOD. MOTOR)

FUEL: [ ] NG - NATURAL GAS [ ] LP - LIQUID PROPANE

VOLTAGE: [ ]230V-1P [ ]208V-3P [ ]240V-3P [ ]380V-3P(50HZ)[ ]480V-3P [ ]575V-3P

PHASE CONVERTER: [ ]YES [ ]NO CONTROL BOX DOOR LOCKS: AUSTIN - KEY #BP112

---

**CONTROL CIRCUIT**

| PART DESCRIPTION - INFORMATION | DELUX PART NUMBER |
|---|---|
| DISTRIBUTION BLOCK: 2 POLE 350 MCM | 005-004765 |
| DISTRIBUTION BLOCK: 3 POLE 350 MCM | 005-003090 |
| DISTRIBUTION BLOCK: 3 POLE 600 MCM | 005-005724 |
| DISTRIBUTION BLOCK: 3 POLE 500 MCM X 2 | 005-006018 |
| STEP DOWN TRANSFORMER: GE - 1.5 KVA - 380V | 008-006351 |
| STEP DOWN TRANSFORMER: GE - 1.5 KVA - 480V | 008-001928 |
| STEP DOWN TRANSFORMER: GE - 1.5 KVA - 575V | 008-007420 |
| FUSE BLOCK: 2P - 600V - 30A | 005-000683 |
| FUSE: STEP DOWN TRANSFORMER: FRS 7 - 380V & 480V | 000-000553 |
| FUSE: STEP DOWN TRANSFORMER: FRS 5 - 575V | 000-001862 |
| CONTROL CIRCUIT BREAKER | 015-010136 |
| MAIN POWER LIGHT: NEON - CLEAR | 019-009259 |
| POWER SWITCH: TOGGLE - MOM-ON OFF | 010-005474 |
| SAFETY CIRCUIT PROVEN LIGHT: NEON - WHITE | 019-009260 |
| HOUR METER (LOWER PANEL): HOBBS - 20001-18 | 016-006717 |
| TERMINAL BLOCK - 2 CONDUCTOR WITH FUSE | 016-010056 |
| TERMINAL BLOCK END CAP | 016-010575 |
| FUSE - 3AMP - 1/4"X1-1/4 -FAST ACTING | 000-010851 |
| POWER RELAY & HIGH LIMIT/OVERLOAD RELAY: 8 PIN-DPDT-120V | 007-000725 |
| RELAY SOCKET: 8 PIN 120V | 007-008938 |

---

**FAN CONTROL CIRCUIT**

| | |
|---|---|
| FAN SWITCH: TOGGLE - MOM-ON OFF | 010-005474 |
| FAN PROVEN LIGHT(S): NEON - CLEAR | 019-009259 |
| FAN TIMER(S): (8) PIN - DPDT - 120V - 0 TO 60 SEC. | 007-009166 |
| RELAY SOCKET: 8 PIN 120V - FAN TIMER | 007-008938 |
| FAN SAIL SENSOR ASS'Y - SENSOR AND WIDE ALUM. PADDLE ASS'Y | 400-009148 |
| FAN SAIL SENSOR ASS'Y - SENSOR AND SOLID PADDLE ASS'Y | 400-007230 |
| FAN SAIL SENSOR ASS'Y - SENSOR AND PERF PADDLE ASS'Y | 400-008700 |
| FAN SAIL SENSOR(S): HONEYWELL - S437A 1009 | 009-005213 |

| | |
|---|---|
| FAN SAIL SENSOR WIDE ALUM. PADDLE W/ ARM ASS'Y: | 400-009147 |
| FAN SAIL SENSOR SOLID PADDLE W/ ARM ASS'Y: | 400-007229 |
| FAN SAIL SENSOR PERFORATED PADDLE W/ ASS'Y: | 400-008699 |
| FAN SAIL SENSOR WIDE ALUM. PADDLE: | 100-009039 |
| FAN SAIL SENSOR SOLID PADDLE: | 100-007228 |
| FAN SAIL SENSOR PERFORATED PADDLE: | 100-008698 |
| FAN VACUUM SWITCH: BEC R72-C1-ID-192 | 009-003435 |
| TUBE ASS'Y.- AIR SENSOR - COPPER W/MESH COVER | 400-006729 |
| ELBOW 90 DEG 1/4" TO 1/8" - BRASS | 021-001137 |
| FAN SENSOR RELAY: SURFACE MOUNT - SPST - 120V - 10 SEC. | 007-005315 |
| FAN SENSOR REALY BASE: | 007-005315-01 |
| PURGE RELAY: (8)PIN - DPDT - 120V - 60 SEC. | 007-009166 |
| RELAY SOCKET: 8 PIN 120V - PURGE | 007-008938 |
| PURGING LIGHT: NEON - AMBER | 019-009258 |
| BURNER READY LIGHT: NEON - CLEAR | 019-009259 |
| FAN GREENHECK - 38" - ADJUSTABLE PITCH: | 038-008298 |
| FAN GREENHECK - 43" - ADJUSTABLE PITCH: | 038-008299 |
| SPINNER DOMED - FAN GREENHECK 21" (HUB) | 038-008300 |
| SPLIT TAPER BUSHING- QD-E X 1 3/8: FAN - 10HP | 056-008704 |
| SPLIT TAPER BUSHING- QD-E X 1 5/8: FAN - 15/20HP | 056-008705 |
| SPLIT TAPER BUSHING- QD-E X 1 7/8: FAN - 25/30HP | 056-008706 |
| SPLIT TAPER BUSHING- QD-E X 2 1/8: FAN - 40/50HP | 056-008707 |
| SPLIT TAPER BUSHING- QD-E X 2 3/8: FAN - 60HP | 056-008708 |

NOTE: FOR MOTORS, FAN PITCH, STARTER SIZES, AND WIRE SIZES REFER TO CHARTS.

---

**BURNER AND IGNITION SYSTEM**

| | |
|---|---|
| BURNER SWITCH: TOGGLE - 4PDT ON/ON | 010-005682 |
| IGNITION FIRING LIGHT(S): NEON - AMBER | 019-009258 |
| BURNER PROVEN LIGHT(S): NEON - RED | 019-009257 |
| FLAME CONTROL(S): FIREYE - MicroM (TOTAL ASSEMBLY) | 400-009858 |
| CHASSIS MEC 120 | 007-009334 |
| PROGRAMMER MODULE MEP 100 | 007-009335 |
| AMPLIFIER MODULE MERT 4 | 007-009336 |
| WIRING BASE: FLAME CONTROL | 007-000741 |
| RESET FLAME CONTROL LIGHT: NEON - RED | 019-009257 |
| FLAME SENSOR(S) ROD: AUBURN - FRS-4-6 | 031-001384 |
| WIRE ASS'Y-FLAME SENSOR - 102" | 400-006303 |
| WIRE ASS'Y - GND BURNER - 102" | 400-006304 |
| IGNITION TRANSFORMER(S): ALLANSON - 120V | 008-000755 |
| IGNITION SPARK PLUG(S): CHAMPION - W95D | 031-001955 |
| WIRE ASS'Y-IGNITION TRANSFORMER TO SPARK PLUG - 109" | 400-006302 |
| IGNITION WIRE: (PER FOOT) | 031-001366 |
| FLAME RELAY & BURNER RELAY: (8)PIN - DPDT - 120V | 007-000725 |
| RELAY SOCKET: 8 PIN 120V | 007-008938 |
| BURNER DELAY OFF RELAY: (11)PIN - 120V | 007-010868 |
| RELAY SOCKET:11 PIN 120V - BURNER DELAY OFF | 007-010869 |

| | |
|---|---|
| BURNER (OCTAGON SHAPE) W/ ROUND TUBING | 200-002951 |
| PIPE STREET-ELL 1" 90 DEGREE | 021-001116 |
| ORIFICE PIPE 1" X 12" | 100-003138 |
| FLAME ROD MOUNTING TAB: USED TO MOUNT FLAME ROD FRS-4-6 | 100-005080 |
| SPARK PLUG MOUNTING TAB: USED TO MOUNT SPARK PLUG W95D | 100-003111 |
| BURNER STANDOFF BRACKET 38": USED W/ 38" FANS 4 REQ'D | 100-007362 |
| BURNER STANDOFF BRACKET 43": USED W/ 43" FANS 4 REQ'D | 100-003341 |
| BOLT-WHIZ 3/8-16UNC X 1" ( FOUR -4 PER STANDOFF) | 040-001483 |
| NUT -WHIZ 3/8-16UNC X 1" ( FOUR -4 PER STANDOFF) | 040-001460 |
| BURNER COVER ASS'Y 38": USED W/ 38" & 43" FANS | 400-003371 |

---

**WET LOAD SYSTEM (LEVELING AUGER OR DRAG CONVEYOR)**

| | |
|---|---|
| LOAD SWITCH: TOGGLE - SPST - OFF/ON | 010-005475 |
| GRAIN LOADING LIGHT: NEON - AMBER | 019-009258 |
| FILL 8" AUGER LEVEL CONTROL: HI-LO SWITCH DELUX | 400-004198 |
| FILL 10" AUGER LEVEL CONTROL: HI-LO SWITCH DELUX | 400-006737 |
| FILL AUGER LEVEL CONTROL SWITCH: TILT SWITCH | 010-003392 |
| LOW GRAIN SHUTDOWN CONTROL: DELUX - ASS'Y -PADDLE MOTOR END | 400-009196 |
| LOW GRAIN SHUTDOWN CONTROL: DELUX - ASS'Y -PADDLE FILL END (40') | 400-009197 |
| LOW GRAIN SHUTDOWN CONTROL SWITCH: SIDE PLUNGER SWITCH(BZE6-2RN) | 010-003386 |
| LOW GRAIN LIGHT(S): NEON - RED | 019-009257 |

**LEVELING 8" AND 10" AUGER KITS W/ 1 1/4" SHAFTS (SUPER EDGE FLIGHTING)**

INCLUDES: AUGER(S), SHAFTS 1 1/4" W/BOLTS-SPLIT BEARING(S)-END BEARINGS

| | |
|---|---|
| LEVELING 8" AUGER SET W/1 1/4" SHAFTS 10FT: **(SUPER EDGE FLIGHTING)** | 035-006861 |
| LEVELING 8" AUGER SET W/1 1/4" SHAFTS 15FT: **(SUPER EDGE FLIGHTING)** | 035-006862 |
| LEVELING 8" AUGER SET W/1 1/4" SHAFTS 20FT: **(SUPER EDGE FLIGHTING)** | 035-006863 |
| LEVELING 8" AUGER SET W/1 1/4" SHAFTS 25FT: **(SUPER EDGE FLIGHTING)** | 035-006864 |
| LEVELING 8" AUGER SET W/1 1/4" SHAFTS 30FT: **(SUPER EDGE FLIGHTING)** | 035-006865 |
| LEVELING 8" AUGER SET W/1 1/4" SHAFTS 40FT: **(SUPER EDGE FLIGHTING)** | 035-006866 |
| LEVELING 10" AUGER SET W/1 1/4" SHAFTS 10FT: **(SUPER EDGE FLIGHTING)** | 035-007410 |
| LEVELING 10" AUGER SET W/1 1/4" SHAFTS 15FT: **(SUPER EDGE FLIGHTING)** | 035-007411 |
| LEVELING 10" AUGER SET W/1 1/4" SHAFTS 20FT: **(SUPER EDGE FLIGHTING)** | 035-007412 |
| LEVELING 10" AUGER SET W/1 1/4" SHAFTS 25FT: **(SUPER EDGE FLIGHTING)** | 035-007413 |
| LEVELING 10" AUGER SET W/1 1/4" SHAFTS 30FT: **(SUPER EDGE FLIGHTING)** | 035-007414 |
| LEVELING 10" AUGER SET W/1 1/4" SHAFTS 40FT: **(SUPER EDGE FLIGHTING)** | 035-006867 |

**LEVELING 8" AUGER SECTIONS FOR 1 1/4" SHAFTS (SUPER EDGE FLIGHTING)**

INCLUDES: AUGER ONLY - NO 1 1/4" SHAFTS OR BOLTS

| | |
|---|---|
| LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS 10FT: USE ON 10FT DRYERS ONLY **(SUPER EDGE FLIGHTING)** | 200-006834 |
| LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS FRONT 10FT MOTOR END **(SUPER EDGE FLIGHTING)** | 200-006723 |
| DISCHARGE/LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS 10FT: INTERMEDIATE 10FT: **(SUPER EDGE FLIGHTING)** | 200-006724 |
| LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS REAR 5FT: NON MOTOR END **(SUPER EDGE FLIGHTING)** | 200-006721 |

LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS REAR 10FT: 200-006720
NON MOTOR END **(SUPER EDGE FLIGHTING)**

**LEVELING 10" AUGER SECTIONS FOR 1 1/4" SHAFTS (SUPER EDGE FLIGHTING)**

INCLUDES: AUGER ONLY – NO 1 1/4" SHAFTS OR BOLTS

LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS 10FT: 200-007639
USE ON 10FT DRYERS ONLY **(SUPER EDGE FLIGHTING)**

LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS FRONT 10FT 200-006794
MOTOR END **(SUPER EDGE FLIGHTING)**

LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS 200-006793
INTERMEDIATE 10FT: **(SUPER EDGE FLIGHTING)**

LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS REAR 5FT: 200-007640
NON MOTOR END **(SUPER EDGE FLIGHTING)**

LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS REAR 10FT: 200-006792
NON MOTOR END **(SUPER EDGE FLIGHTING)**

**LEVELING 8" AND 10" AUGER PARTS FOR 1 1/4" SHAFTS**

LEVELING AUGER SHAFT 1 1/4" FRONT: KEYED – MOTOR END 100-006727
LEVELING AUGER SHAFT 1 1/4" INTERMEDIATE: 100-006726
LEVELING AUGER SHAFT 1 1/4" REAR: NON-KEYED 100-006728
BOLT – HEX, 7/16-16UNC X 3” 040-005324
NUT – CROWN LOCK, 7/16-16UNC X 3” 040-006732

END BEARING – 2-BOLT FLANGE – 1 1/4" BORE: 044-001510

INTERMEDIATE HANGER ASS’Y- 8” LEVELING AUGER/TROUGH W/HARDWARE 400-006827
W/ 1-1/4” SPLIT BEARING
INTERMEDIATE HANGER ASS’Y- 8” LEVELING AUGER/TROUGH W/HARDWARE 200-007319
**W/OUT** 1-1/4” SPLIT BEARING
AUGER TROUGH HANGER – 8” LEVELING (10FT DRYER ONLY) 100-004700
INTERMEDIATE HANGER ASS’Y-10” LEVELING AUGER/TROUGH W/HARDWARE 400-006829
W/ 1-1/4” SPLIT BEARING
INTERMEDIATE HANGER ASS’Y-10” LEVELING AUGER/TROUGH W/HARDWARE 200-007320
**W/OUT** 1-1/4” SPLIT BEARING
HARDWARE NEEDED WITH EACH HANGER ASS’Y: (2) 042-001495 WASHER 5/16
(2) 040-001436 BOLT-HEX 5/16-18UNC X 1” (2) 040-004068 NUT- LOCK 5/16-18UNC

HANGER BEARING-SPLIT WOOD-TOP HALF 1 1/4": 044-006714
HANGER BEARING-SPLIT WOOD-BOTTOM HALF 1 1/4": 044-006713
HANGER BEARING SADDLE 1 1/4": 044-006715

LEVELING AUGER BELT: B82 049-003364
LEVELING AUGER BELT: B76 049-007874

LEVELING AUGER SHEAVE SINGLE GROOVE: 1-B18.4-QD 056-005370
LEVELING AUGER SHEAVE DOUBLE GROOVE: 2-B18.4-QD 056-005372
LEVELING AUGER SHEAVE TRIPLE GROOVE: 3-B18.4-QD 056-006832
LEVELING AUGER SHEAVE SINGLE GROOVE: 1-B15.4-QD 056-007871
LEVELING AUGER SHEAVE DOUBLE GROOVE: 2-B15.4-QD 056-007872
LEVELING AUGER SHEAVE TRIPLE GROOVE: 3-B15.4-QD 056-007873

LEVELING AUGER BUSHING: SK-1 1/4" BORE 056-006830

LEVELING MOTOR SHEAVE SINGLE GROOVE: 1-B3.4QD 056-005371
LEVELING MOTOR SHEAVE DOUBLE GROOVE: 2-B3.4QD 056-005373

| | |
|---|---|
| LEVELING MOTOR SHEAVE TRIPLE GROOVE: 3-B3.4QD | 056-006833 |
| BUSHING LEVELING AUGER MOTOR: SH- 7/8" BORE | 056-005375 |
| BUSHING LEVELING AUGER MOTOR: SH-1 1/8" BORE | 056-005376 |
| BUSHING LEVELING AUGER MOTOR: SH-1 3/8" BORE | 056-006344 |

**LEVELING 8" AND 10" AUGER TROUGH SECTIONS (STANDARD FLIGHTING)**

INCLUDES: TROUGH ONLY, NO HARDWARE.

| | |
|---|---|
| LEVELING 8" AUGER TROUGH 5FT:10FT DRYER ONLY | 200-007002 |
| LEVELING 8" AUGER TROUGH INTERMEDIATE 10FT: | 200-006992 |
| LEVELING 8" AUGER TROUGH REAR 5FT: | 200-007002 |
| LEVELING 8" AUGER TROUGH REAR 10FT: | 200-006993 |
| LEVELING 10" AUGER TROUGH FRONT 5FT:10FT DRYER ONLY | 200-007000 |
| LEVELING 10" AUGER TROUGH INTERMEDIATE 10FT: | 200-006999 |
| LEVELING 10" AUGER TROUGH REAR 5FT: | 200-007000 |
| LEVELING 10" AUGER TROUGH REAR 10FT: | 200-007379 |

---

**LEVELING DRAG CONVEYOR (OPTIONAL)**

| | |
|---|---|
| DRAG CHAIN: SIZE 8” 2-5/8” PITCH (**STRAIGHT** W/UHMW PADDLES-PER FT) | 054-006838 |
| DRAG CHAIN: CONNECTING LINK FOR 8” CHAIN STRAIGHT PADS | 054-006836 |
| DRAG CHAIN: SPROCKET 9 TOOTH, 1 15/16” BORE (2-5/8” PITCH) | 054-006837 |
| DRAG CHAIN: SPROCKET 14 TOOTH, 1 15/16” BORE (2-5/8” PITCH) | 054-008206 |
| UHMW PADDLE REPLACEMENT 2-5/8” PITCH **STRAIGHT PADDLES** | 054-008743 |
| DRAG CHAIN: ROLLER RETURN ASS'Y FOR 8" CHAIN | 054-004508 |
| DRAG SHAFT BEARINGS: FOUR(4) BOLT, 1 15/16" BORE | 044-002067 |
| DRAG SHAFT: HEAD – NON MOTOR END | 100-004527 |
| DRAG SHAFT: TAIL – MOTOR END | 100-004546 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 15/16" BORE DRAG SHAFT – HEAD – MOTOR END | 047-001931 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/8” BORE REDUCER – HEAD – MOTOR | 047-008281 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/4" BORE REDUCER – HEAD – MOTOR | 047-008282 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/8” BORE REDUCER – HEAD – MOTOR | 047-006144 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/2” BORE REDUCER – HEAD – MOTOR | 047-002779 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 5/8” BORE REDUCER – HEAD – MOTOR | 047-001932 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/4” BORE REDUCER – HEAD – MOTOR | 047-006145 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 7/8” BORE REDUCER – HEAD – MOTOR | 047-008929 |
| COUPLING CHAIN: DOUBLE WIDTH: SIZE # 6018 | 036-001930 |

---

**WET LOAD SYSTEMS (OPTIONAL)**
**GRAVITY FLOW GARNER CONTROL SYSTEM W HIGH / LOW SWITCHES**

| | |
|---|---|
| GRAIN LEVEL CONTROL SWITCH: ROTARY BINDICATOR | 010-002655 |
| GRAIN LEVEL CONTROL LIGHTS: NEON – WHITE | 019-009260 |

## METERING ROLLS

| | | |
|---|---|---|
| MOTOR: 1 HP DC – 1750 RPM – 56C FR – 5/8" SH | | 004-001985 |
| BRUSH KIT: 1HP DC BALDOR | | 004-006859 |
| NOTE: CONTACT MOTOR MANUFACTURER FOR MOTOR WARRANTY OR SERVICE. | | |
| GEAR REDUCER: 1 HP DC 60:1 RATIO – 1" SH – 56C FR | | 052-003962 |
| SPROCKET METERING ROLLS: 40 CHAIN – 32 TOOTH – 1" BORE | | 200-003035 |
| IDLER SPROCKET: 40 CHAIN – 17 TOOTH – 1/2" BORE | | 047-002982 |
| ROLLER CHAIN: SIZE # 40 (PER FOOT) | | 046-001548 |
| ROLLER CHAIN: CONNECTING LINK # 40 | | 046-001552 |
| ROLLER CHAIN: OFFSET LINK # 40 | | 046-001556 |
| FEEDROLLS: TWO REQ'D PER FIVE(5) FOOT COLUMN (P/N = ONE) | | 100-000099 |
| BOLT –HEX 1/4–20UNC X 2” (4 PER FIVE(5) FOOT COLUMN) | | 040-002178 |
| NUT –HEX 1/4–20UNC (4 PER FIVE(5) FOOT COLUMN) | | 040-001455 |
| WASHER –LOCK 1/4 (4 PER FIVE(5) FOOT COLUMN) | | 042-001498 |
| FEEDROLL SHAFT 1" DIA – FRONT (KEYED) | | 100-000098 |
| FEEDROLL SHAFT 1" DIA – INTERMEDIATE | | 100-000097 |
| FEEDROLL SHAFT 1" DIA – REAR (NOT KEYED) | | 100-007990 |
| FEEDROLL SHAFT BEARINGS: INSERT 1" W/O LOCK | | 044-001514 |
| FEEDROLL SHAFT BEARINGS: 1” SPLIT–WOOD | PR. | 044-009102 |
| BEARING HOLDERS: FLANGETTE TWO REQ'D PER BEARING | EA. | 044-001957 |
| BOLT CARRIAGE 5/16–18UNC X 3/4" (3 PER INSERT BEARING) | | 040-005439 |
| BOLT WHIZ LOCK 5/16–18UNC X 1/2" (3 PER WOOD BEARING) | | 040-006791 |
| NUT WHIZ LOCK 5/16–18UNC (3 PER BEARING) | | 040-001459 |
| FEEDROLL SHELF PLATE (GALV) | | 100-009065 |

## FEEDROLL MONITOR CONTROL (STANDARD PID MOISTURE CONTROL)

| | |
|---|---|
| FEEDROLL MONITOR COMPLETE ASS’Y (10FT ONLY) | 400-009202 |
| FEEDROLL MONITOR COMPLETE ASS’Y | 400-009195 |
| FEEDROLL MONITOR PANEL SWITCH: TOGGLE – SPST – OFF/ON | 010-005475 |
| FEEDROLL TIME DELAY RELAY: (8)PIN DPDT – 120V – 15 SEC. | 007-009166 |
| RELAY SOCKET: (8) PIN 120V – FEEDROLL MONITOR TIME DELAY | 007-008938 |
| FEEDROLL MONITOR SENSOR SWITCH: SWITCH – ROLLER | 010-005767 |
| FEED ROLL MONITOR CAM: DELUX | 200-006019 |

## FEEDROLL MONITOR CONTROL (OPTIONAL MOISTURELINK MOISTURE CONTROL)

| | |
|---|---|
| FEEDROLL MONITOR CONDUIT/BOX/SWITCH ASS’Y | 400-010170 |
| SWITCH–PROXIMITY – FEEDROLL MONITOR (MoistureLink) | 010-010098 |
| FEEDROLL MONITOR PANEL SWITCH: TOGGLE – SPST – OFF/ON | 010-005475 |

## DRY UNLOAD SYSTEM (DISCHARGE 8" AUGER OR DRAG CONVEYOR)

| | |
|---|---|
| UNLOAD SWITCH: TOGGLE – SPST – OFF/ON | 010-005475 |
| GRAIN UNLOADING LIGHT: NEON – CLEAR | 019-009259 |

## DISCHARGE AUGER KITS– 8" W/ 1 1/4" SHAFTS

INCLUDES: AUGER(S), SHAFTS, BOLTS/NUTS, SPLIT BEARINGS & END BEARING

**(DOES NOT INCLUDE EXTENSION AUGER – SEE BELOW FOR EXTENSIONS)**

| | |
|---|---|
| DISCHARGE AUGER SET– 8" W/1 1/4" SHAFTS 10FT: | 035–006869 |
| DISCHARGE AUGER SET– 8" W/1 1/4" SHAFTS 15FT: | 035–006870 |
| DISCHARGE AUGER SET– 8" W/1 1/4" SHAFTS 20FT: | 035–006871 |
| DISCHARGE AUGER SET– 8" W/1 1/4" SHAFTS 25FT: | 035–006872 |
| DISCHARGE AUGER SET– 8" W/1 1/4" SHAFTS 30FT: | 035–006873 |
| DISCHARGE AUGER SET– 8" W/1 1/4" SHAFTS 40FT: | 035–006874 |

## DISCHARGE AUGER SECTIONS – 8" FOR 1 1/4" SHAFTS

INCLUDES: AUGER ONLY NO SHAFTS OR BOLTS

| | |
|---|---|
| DISCHARGE 8" AUGER SECTION: 5FT | 200–006725 |
| DISCHARGE/LEVELING 8" AUGER SECTION: 10FT | 200–006724 |

## DISCHARGE AUGER PARTS – 8" FOR 1 1/4" SHAFTS

| | |
|---|---|
| DISCHARGE AUGER SHAFT 1 1/4" FRONT: KEYED – MOTOR END: | 100–006727 |
| DISCHARGE AUGER SHAFT 1 1/4" INTERMEDIATE: | 100–006726 |
| DISCHARGE AUGER SHAFT 1 1/4" REAR: NON–KEYED | 100–006728 |
| BOLT – HEX, 7/16–16UNC X 3" | 040–005324 |
| NUT – CROWN LOCK, 7/16–16UNC X 3" | 040–006732 |
| END BEARING – 2–BOLT FLANGE – 1 1/4" BORE: | 044–001510 |
| HANGER ASS'Y – DISCHARGE 8" AUGER FOR 1 1/4" SHAFTS INTERMEDIATE & REAR **WITH** SPLIT BEARING: | 400–006852 |
| HANGER ASS'Y – DISCHARGE 8" AUGER FOR 1 1/4" SHAFTS INTERMEDIATE & REAR **W/OUT** SPLIT BEARING: | 200–007322 |
| HANGER BEARING–SPLIT WOOD–TOP HALF 1 1/4": | 044–006714 |
| HANGER BEARING–SPLIT WOOD–BOTTOM HALF 1 1/4": | 044–006713 |
| HANGER BEARING SADDLE 1 1/4": | 044–006715 |
| ROLLER CHAIN: SIZE # 40 (PER FOOT) | 046–001548 |
| ROLLER CHAIN: CONNECTING LINK # 40 | 046–001552 |
| ROLLER CHAIN: OFFSET LINK # 40 | 046–001556 |

## DISCHARGE AUGER TROUGH SECTIONS W/ SLIDE GATES

INCLUDES: ONLY THE TROUGH W/ SLIDE GATES, NO HARDWARE

| | |
|---|---|
| DISCHARGE 8" AUGER TROUGH SECTION 5FT FOR ALL DRYERS: | 400–005496 |
| DISCHARGE 8" AUGER TROUGH SECTION 10FT FOR ALL DRYERS: | 400–005495 |

## DISCHARGE AUGER TROUGH SECTIONS W/OUT SLIDE GATES

INCLUDES: ONLY THE TROUGH NO SLIDE GATES, NO HARDWARE

| | |
|---|---|
| DISCHARGE 8" AUGER TROUGH SECTION 5FT FOR ALL DRYERS: | 200–005499 |
| DISCHARGE 8" AUGER TROUGH SECTION 10FT FOR ALL DRYERS: | 200–005498 |

## DISCHARGE AUGER TROUGH PARTS

| | |
|---|---|
| SLIDE GATE: DISCHARGE 8" AUGER TROUGH: | 100–005503 |
| SLIDE GATE RAIL: DISCHARGE 8" AUGER TROUGH (TWO REQ'D) | 100–005502 |
| AUGER TROUGH DOOR ASS'Y: | 400–007643 |

AUGER TROUGH COVER ANGLE: 100-005912

NOTE: P/N 040-001449 TCS 1/4" X 1/2" USED TO MTG. AUGER TROUGH COVER ANGLE TO AUGER DOOR (QT'Y. PER DOOR 6)

---

## DISCHARGE AUGER EXTENSIONS BY TYPE
## 8" AUGER, 1 1/4" SHAFTS

---

### STANDARD DROP DISCHARGE AUGER EXTENSION (OPEN END TROUGH)

**STANDARD DROP – ASSEMBLIES**

INCLUDES: AUGER, TROUGH, COVER, SHAFT, BOLTS/NUTS, BEARING

| | |
|---|---|
| DISCHARGE EXTENSION – ASSEMBLY: 1' | 400-009008 |
| DISCHARGE EXTENSION – ASSEMBLY: 1' 6" (18") | 400-009157 |
| DISCHARGE EXTENSION – ASSEMBLY: 2' | 400-009158 |
| DISCHARGE EXTENSION – ASSEMBLY: 2' 6" (30") | 400-009159 |
| DISCHARGE EXTENSION – ASSEMBLY: 3' | 400-009160 |
| DISCHARGE EXTENSION – ASSEMBLY: 4' | 400-009161 |
| DISCHARGE EXTENSION – ASSEMBLY: 5' | 400-009162 |
| DISCHARGE EXTENSION – ASSEMBLY: 6' | 400-009163 |
| DISCHARGE EXTENSION – ASSEMBLY: 7' | 400-009164 |
| DISCHARGE EXTENSION – ASSEMBLY: 8' | 400-009165 |
| DISCHARGE EXTENSION – ASSEMBLY: 9' | 400-009906 |
| DISCHARGE EXTENSION – ASSEMBLY: 10' | 400-009907 |

**STANDARD DROP – WELDED ASSEMBLY – 8" AUGER**

INCLUDES: AUGER ONLY – NO SHAFTS OR HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – AUGER: 1' | 200-006875 |
| DISCHARGE EXTENSION – AUGER: 1' 6" (18") | 200-006876 |
| DISCHARGE EXTENSION – AUGER: 2' | 200-006877 |
| DISCHARGE EXTENSION – AUGER: 2' 6" (30") | 200-008597 |
| DISCHARGE EXTENSION – AUGER: 3' | 200-006878 |
| DISCHARGE EXTENSION – AUGER: 4' | 200-006879 |
| DISCHARGE EXTENSION – AUGER: 5' | 200-006880 |
| DISCHARGE EXTENSION – AUGER: 6' | 200-006881 |
| DISCHARGE EXTENSION – AUGER: 7' | 200-006882 |
| DISCHARGE EXTENSION – AUGER: 8' | 200-006883 |
| DISCHARGE EXTENSION – AUGER: 9' | 200-009915 |
| DISCHARGE/LEVELING 8" AUGER SECTION: 10FT | 200-006724 |

**STANDARD DROP – WELDED ASSEMBLY – TROUGH**

INCLUDES: TROUGH ONLY – NO TOP, AUGER, HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – TROUGH: 1' | 200-005396 |
| DISCHARGE EXTENSION – TROUGH: 1' 6" (18") | 200-005848 |
| DISCHARGE EXTENSION – TROUGH: 2' | 200-005413 |
| DISCHARGE EXTENSION – TROUGH: 2' 6" (30") | 200-008600 |
| DISCHARGE EXTENSION – TROUGH: 3' | 200-005408 |
| DISCHARGE EXTENSION – TROUGH: 4 | 200-005414 |
| DISCHARGE EXTENSION – TROUGH: 5' | 200-005854 |
| DISCHARGE EXTENSION – TROUGH: 6' | 200-005861 |
| DISCHARGE EXTENSION – TROUGH: 7' | 200-005867 |
| DISCHARGE EXTENSION – TROUGH: 8' | 200-005873 |
| DISCHARGE EXTENSION – TROUGH: 9' | 200-009908 |
| DISCHARGE EXTENSION – TROUGH: 10' | 200-009909 |

**STANDARD DROP – TOP (TROUGH COVER)**
INCLUDES: TOP ONLY – NO TROUGH, AUGER, HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – TOP: 1′ | 100-005399 |
| DISCHARGE EXTENSION – TOP: 1′ 6″ (18″) | 100-005850 |
| DISCHARGE EXTENSION – TOP: 2′ | 100-005409 |
| DISCHARGE EXTENSION – TOP: 2′ 6″ (30″) | 100-008599 |
| DISCHARGE EXTENSION – TOP: 3′ | 100-005406 |
| DISCHARGE EXTENSION – TOP: 4 | 100-005410 |
| DISCHARGE EXTENSION – TOP: 5′ | 100-005856 |
| DISCHARGE EXTENSION – TOP: 6′ | 100-005863 |
| DISCHARGE EXTENSION – TOP: 7′ | 100-005869 |
| DISCHARGE EXTENSION – TOP: 8′ | 100-005875 |
| DISCHARGE EXTENSION – TOP: 9′ | 100-009912 |
| DISCHARGE EXTENSION – TOP – FRONT: 5′ (FOR 10′ EXT.) | 100-009913 |

---

**BOTTOM DROP DISCHARGE AUGER EXTENSION (CLOSED END TROUGH W/10″ ROUND DROP)**

---

**BOTTOM DROP – ASSEMBLIES**
INCLUDES: AUGER, TROUGH, COVER, SHAFT, BOLTS/NUTS, BEARING

| | |
|---|---|
| DISCHARGE EXTENSION – ASSEMBLY: 1′ 6″ (18″) | 400-007916 |
| DISCHARGE EXTENSION – ASSEMBLY: 2′ | 400-008057 |
| DISCHARGE EXTENSION – ASSEMBLY: 2′ 6″ (30″) | 400-008783 |
| DISCHARGE EXTENSION – ASSEMBLY: 3′ | 400-008784 |
| DISCHARGE EXTENSION – ASSEMBLY: 4′ | 400-008785 |
| DISCHARGE EXTENSION – ASSEMBLY: 5′ | 400-008786 |
| DISCHARGE EXTENSION – ASSEMBLY: 6′ | 400-008787 |
| DISCHARGE EXTENSION – ASSEMBLY: 7′ | 400-010001 |
| DISCHARGE EXTENSION – ASSEMBLY: 8′ | 400-010002 |

**BOTTOM DROP – WELDED ASSEMBLY – 8″ AUGER**
INCLUDES: AUGER ONLY – NO SHAFTS OR HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – AUGER: 1′ 6″ (18″) | 200-006875 |
| DISCHARGE EXTENSION – AUGER: 2′ | 200-008060 |
| DISCHARGE EXTENSION – AUGER: 2′ 6″ (30″) | 200-008778 |
| DISCHARGE EXTENSION – AUGER: 3′ | 200-008779 |
| DISCHARGE EXTENSION – AUGER: 4′ | 200-008780 |
| DISCHARGE EXTENSION – AUGER: 5′ | 200-008781 |
| DISCHARGE EXTENSION – AUGER: 6′ | 200-008782 |
| DISCHARGE EXTENSION – AUGER: 7′ | 200-009999 |
| DISCHARGE EXTENSION – AUGER: 8′ | 200-010000 |

**BOTTOM DROP – WELDED ASSEMBLY – TROUGH**
INCLUDES: TROUGH ONLY – NO TOP, AUGER, HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – TROUGH: 1′ 6″ (18″) | 200-008058 |
| DISCHARGE EXTENSION – TROUGH: 2′ | 200-008059 |
| DISCHARGE EXTENSION – TROUGH: 2′ 6″ (30″) | 200-008773 |
| DISCHARGE EXTENSION – TROUGH: 3′ | 200-008774 |
| DISCHARGE EXTENSION – TROUGH: 4 | 200-008775 |
| DISCHARGE EXTENSION – TROUGH: 5′ | 200-008776 |
| DISCHARGE EXTENSION – TROUGH: 6′ | 200-008777 |
| DISCHARGE EXTENSION – TROUGH: 7′ | 200-009997 |
| DISCHARGE EXTENSION – TROUGH: 8′ | 200-009998 |

**BOTTOM DROP – TOP (TROUGH COVER)**
INCLUDES: TOP ONLY – NO TROUGH, AUGER, HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – TOP: 1′ 6″ (18″) | 100-007901 |
| DISCHARGE EXTENSION – TOP: 2′ | 100-007902 |
| DISCHARGE EXTENSION – TOP: 2′ 6″ (30″) | 100-008772 |
| DISCHARGE EXTENSION – TOP: 3′ | 100-007903 |
| DISCHARGE EXTENSION – TOP: 4 | 100-007904 |
| DISCHARGE EXTENSION – TOP: 5′ | 100-007905 |
| DISCHARGE EXTENSION – TOP: 6′ | 100-007906 |
| DISCHARGE EXTENSION – TOP: 7′ | 100-007907 |
| DISCHARGE EXTENSION – TOP: 8′ | 100-007908 |

---

**MOISTURELINK DISCHARGE AUGER EXTENSION**

---

**MOISTURELINK – ASSEMBLIES**
INCLUDES: AUGER, TROUGH, COVER, SHAFT, BOLTS/NUTS, BEARING

| | |
|---|---|
| DISCHARGE EXTENSION – ASSEMBLY: 2′ | 400-010114 |
| DISCHARGE EXTENSION – ASSEMBLY: 3′ | 400-010115 |
| DISCHARGE EXTENSION – ASSEMBLY: 4′ | 400-010116 |
| DISCHARGE EXTENSION – ASSEMBLY: 5′ | 400-010117 |
| DISCHARGE EXTENSION – ASSEMBLY: 6′ | 400-010118 |

**MOISTURELINK – WELDED ASSEMBLY – 8″ AUGER**
INCLUDES: AUGER ONLY NO SHAFTS OR HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – AUGER: 2′ | 200-006875 |
| DISCHARGE EXTENSION – AUGER: 3′ | 200-008779 |
| DISCHARGE EXTENSION – AUGER: 4′ | 200-008780 |
| DISCHARGE EXTENSION – AUGER: 5′ | 200-008781 |
| DISCHARGE EXTENSION – AUGER: 6′ | 200-008782 |

**MOISTURELINK – WELDED ASSEMBLY – TROUGH**
INCLUDES: TROUGH ONLY – NO TOP, AUGER, HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – TROUGH: 2′ | 200-010108 |
| DISCHARGE EXTENSION – TROUGH: 3′ | 200-010109 |
| DISCHARGE EXTENSION – TROUGH: 4 | 200-010110 |
| DISCHARGE EXTENSION – TROUGH: 5′ | 200-010111 |
| DISCHARGE EXTENSION – TROUGH: 6′ | 200-010112 |

**MOISTURELINK – TOP (TROUGH COVER)**
INCLUDES: TOP ONLY – NO TROUGH, AUGER, HARDWARE

| | |
|---|---|
| DISCHARGE EXTENSION – TOP: 2′ | 100-007902 |
| DISCHARGE EXTENSION – TOP: 3′ | 100-007903 |
| DISCHARGE EXTENSION – TOP: 4 | 100-007904 |
| DISCHARGE EXTENSION – TOP: 5′ | 100-007905 |
| DISCHARGE EXTENSION – TOP: 6′ | 100-007906 |

---

**DISCHARGE OVERFLOW MONITOR (AUGERS ONLY)**

| | |
|---|---|
| DISCHARGE OVERFLOW SWITCH: SELECTASWITCH W/COIL FEELER | 010-006716 |
| PADDLE – DISCHARGE OVERFLOW SWITCH (COIL FEELER) | 100-008308 |
| BRACKET – DISCHARGE OVERFLOW SWITCH (COIL FEELER) | 100-003374 |

## DISCHARGE DRAG CONVEYOR

| | |
|---|---|
| DRAG CHAIN: SIZE 8" 2-5/8" PITCH (**STRAIGHT** W/UHMW PADDLES-PER FT) | 054-006838 |
| DRAG CHAIN: CONNECTING LINK FOR 8" CHAIN STRAIGHT PADS | 054-006836 |
| DRAG CHAIN: SPROCKET 9 TOOTH, 1 15/16" BORE (2-5/8" PITCH) | 054-006837 |
| DRAG CHAIN: SPROCKET 14 TOOTH, 1 15/16" BORE (2-5/8" PITCH) | 054-008206 |
| UHMW PADDLE REPLACEMENT 2-5/8" PITCH **STRAIGHT PADDLES** | 054-008743 |
| | |
| DRAG CHAIN: ROLLER RETURN ASS'Y FOR 8" CHAIN | 054-004508 |
| | |
| DRAG SHAFT BEARINGS: FOUR(4) BOLT, 1 15/16" BORE | 044-002067 |
| DRAG SHAFT: TAIL - NON MOTOR END | 100-004527 |
| DRAG SHAFT: HEAD - MOTOR END | 100-004546 |
| | |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 15/16" BORE DRAG SHAFT - HEAD - MOTOR END | 047-001931 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/8" BORE REDUCER - HEAD - MOTOR | 047-008281 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/4" BORE REDUCER - HEAD - MOTOR | 047-008282 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/8" BORE REDUCER - HEAD - MOTOR | 047-006144 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/2" BORE REDUCER - HEAD - MOTOR | 047-002779 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 5/8" BORE REDUCER - HEAD - MOTOR | 047-001932 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/4" BORE REDUCER - HEAD - MOTOR | 047-006145 |
| COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 7/8" BORE REDUCER - HEAD - MOTOR | 047-008929 |
| | |
| COUPLING CHAIN: DOUBLE WIDTH: SIZE # 6018 | 036-001930 |

NOTE: FOR MOTORS, GEAR REDUCERS, STARTER SIZES AND WIRE SIZES REFER TO THE CHARTS.

| | |
|---|---|
| BOTTOM COVER - INT. 5FT SECTION - 8" DRAG CONVEYOR | 100-004531 |
| BOTTOM COVER - INT. 4FT SECTION - 8" DRAG CONVEYOR | 100-004562 |
| BOTTOM COVER - 18" HEAD SECTION - 8" DRAG CONVEYOR | 100-008730 |
| BOTTOM COVER - TAIL SECTION - 8" DRAG CONVEYOR | 100-008558 |

---

**AUTOMATIC MOISTURE CONTROL SYSTEM**

| | |
|---|---|
| SCR CONTROL: KB DC DRIVE – MODIFIED | 006-009080 |
| FUSE: 15 AMP – SCR CONTROL (KB DC DRIVE) | 000-004705 |
| FUSE: 20 AMP – SCR CONTROL (KB DC DRIVE) | 000-009326 |
| MOISTURE SENSOR:(ONLY) MINCO – 100 OHM-RTD 3-WIRE LENGTH 9FT | 009-007200 |
| MOISTURE SENSOR ASS'Y MINCO – 100 OHM-RTD 3-WIRE LENGTH 9FT | 400-008027 |
| MOISTURE SENSOR:(ONLY) MINCO – 100 OHM-RTD 3-WIRE LENGTH 19FT | 009-007201 |
| MOISTURE SENSOR ASS'Y MINCO – 100 OHM-RTD 3-WIRE LENGTH 19FT | 400-008028 |
| MOISTURE SENSOR:(ONLY) MINCO – 100 OHM-RTD 3-WIRE LENGTH 29FT | 009-007202 |
| MOISTURE SENSOR ASS'Y MINCO – 100 OHM-RTD 3-WIRE LENGTH 29FT | 400-008029 |

**(STANDARD PID MOISTURE CONTROLS)**

| | |
|---|---|
| MOISTURE CONTROL PID: WATLOW EZ-ZONE (PM6C1FA-AAAAAAA) | 006-009168 |
| POT MANUAL SPEED CONTROL SCR: 5K W/WIRES | 400-009072 |
| KNOB: POT MANUAL SPEED CONTROL SCR | 006-000713 |
| SCR SELECTOR SWITCH MAN/AUTO: TOGGLE – DPDT ON/OFF/ON | 010-003132 |
| DC VOLTMETER: SIMPSON MODEL 1227 0 TO 100VDC | 017-007946 |
| MOISTURE RELAY: (8)PIN – DPDT – 120V | 007-000725 |
| RELAY SOCKET: 8 PIN 120V – MOISTURE | 007-008938 |

**--- OR ---**

**(OPTIONAL MOISTURELINK MOISTURE CONTROLS)**

| | |
|---|---|
| MOISTURELINK CONTROL MODULE; OCS-HORNER XL7e-HE-XW1E0 | 006-010852 |
| CABLE-CAT5E-3FT-UNSHIELDED-YELLOW | 012-010164 |
| CABLE-CAT5E-7FT-SHIELDED-BLUE | 012-010163 |
| TRANSFORMER – 30W / 1.3AMP | 008-010052 |
| RELAY – DPDT 24VDC COIL 8 PIN | 007-010054 |
| BASE-I/O MODULES-ETHERNET SMARTRAIL-HORNER | 006-010366 |
| BASE-I/O MODULE-ANALOG INPUT/OUTPUT 2CH/2CH-SMARTRAIL -HORNER | 006-010049 |
| BASE-I/O MODULE-DC INPUT/RELAY OUT 8IN/8RLY-SMARTRAIL -HORNER | 006-010050 |
| BASE-I/O MODULE- ANALOG INPUT 4CH RTD-SMARTRAIL -HORNER | 006-010051 |
| ANALOG SIGNAL CONVERTER/ISOLATOR 0-10VDC IN/OUT | 006-010099 |
| DATA CARD-2GB-MICRO SD-W/ADAPT. | 006-010157 |
| FUSE – 2AMP – 1/4"X1-1/4 -FAST ACTING | 000-010156 |
| MOISTURE LINK DISCHARGE SAMPLER ASSEMBLY W/MOTOR | 400-010113 |

**(MOISTURELINK PLUS OPTION)**

| | |
|---|---|
| CELLULAR GATEWAY-DIGI 3G CON WAN DC-WAN-U805 | 006-010059 |
| CABLE-CAT5E-7FT-SHEILDED-BLUE | 012-010163 |
| CABLE-COAXIAL-RG58-SMA/M TO SMA/F-5FT | 012-010163 |

## AUTOMATIC TEMPERATURE CONTROL SYSTEM

| | |
|---|---|
| AUTOMATIC TEMP./H. LIMIT: WATLOW EZ-ZONE (PM6CFA-ALEJAAA)(STD.) | 006-009149 |
| **--- OR ---** | |
| AUTOMATIC TEMP/HL/MRTU: WATLOW EZ-ZONE (PM6C1FA-1LEJAAA) (USED WITH OPTIONAL MOISTURELINK SYSTEM) | 006-009888 |
| TEMPERATURE CONTROL SENSOR: WATLOW 100Ω RTD STEM | 009-007199 |
| HIGH LIMIT SENSOR: WATLOW 100Ω RTD STEM | 009-007199 |
| TEMPERATURE/HIGH LIMIT SENSORS BOX ASSEMBLY | 400-009304 |
| QUICK ACTING VALVE: 1/2" | 028-003013 |
| QUICK ACTING VALVE: 3/4" | 028-005529 |
| HYDROSTATIC RELIEF VALVE W/ RAIN CAP | 028-010730 |
| LIQUID VALVE: ASCO 1/2" | 028-003097 |
| LIQUID VALVE: ASCO 3/4" | 028-005482 |
| REPLACEMENT COIL LIQUID VALVE: ASCO 1/2" & 3/4" | 014-006291 |
| REPLACEMENT DIAPHRAGM KIT LIQUID VALVE: ASCO 1/2" | 028-005206 |
| REPLACEMENT DIAPHRAGM KIT LIQUID VALVE: ASCO 3/4" | 028-007150 |
| VAPORIZER: 8” ROUND FIN (4-ROW) | 031-003093 |
| VAPORIZER: 16” ROUND FIN (8-ROW) | 031-003094 |
| VAPORIZER: 24” ROUND FIN (12-ROW) | 031-003095 |
| LIQUID PROPANE REGULATOR: REGO 1/2" MAX 30# | 028-003012 |
| LIQUID PROPANE REGULATOR: 2", 8-20# | 028-006316 |
| TEMP. CONTROL BUTTERFLY VALVE W/LINKAGE KIT: MAXON 1-1/4” | 028-010346 |
| TEMP. CONTROL BUTTERFLY VALVE W/LINKAGE KIT: MAXON 2” | 028-010347 |
| TEMPERATURE CONTROL MODULATING MOTOR: HONEYWELL M7284A2004/U | 004-010348 |
| PRESSURE GAUGE: MAX 30# | 017-001033 |
| PRESSURE GAUGE: MAX 60# | 017-008459 |
| BALL VALVE: 1/2" FULL PORT | 028-003026 |
| BALL VALVE: 1 1/4" FULL PORT | 028-003027 |
| BALL VALVE: 2" FULL PORT | 028-005362 |
| AUTOMATIC SHUTOFF VALVE: ASCO 1 1/4” | 028-003098 |
| REPLACEMENT COIL AUTOMATIC VALVE: ASCO 1 1/4" | 014-000852 |
| AUTOMATIC SHUTOFF VALVE: ASCO 2” | 028-004623 |
| REPLACEMENT COIL AUTOMATIC VALVE: ASCO 2" | 014-000852 |
| --- OR OPTIONAL --- | |
| MANUAL SHUTOFF VALVE: MAXON 1 1/4" | 028-001309 |
| REPLACEMENT COIL MANUAL SHUTOFF VALVE: MAXON 1 1/4" | 014-000853 |
| MANUAL SHUTOFF VALVE: MAXON 2" | 028-001311 |
| REPLACEMENT COIL MANUAL SHUTOFF VALVE: MAXON 2" | 014-000854 |

NOTE: FOR ORIFICE SIZES, MANIFOLD PIPE SIZES, LIQUID PIPE SIZES, VAPOR PIPE SIZES, SOLENOID VALVE SIZES, BUTTERFLY VALVE SIZES, LIQUID VALVE SIZES AND VAPORIZERS REFER TO CHARTS.

**ACCESS DOOR SAFETY SWITCH**

| | |
|---|---|
| LIMIT SWITCH-PLUNGER-NO/NC | 010-010837 |

**DOOR HANDLES, LATCHES, HINGES AND MISC. ITEMS**

| | |
|---|---|
| DOOR HANDLE: LOCKING - PANEL BOX (BRAND: AUSTIN, KEY # BP112) | 040-001476 |
| CAM LATCH: UPPER DOOR - PANEL BOX | 040-006707 |
| CAM LATCH: LOWER DOOR - PANEL BOX | 040-006848 |
| DOOR LATCH: SPRING - SWITCH PANEL - PANEL BOX | 040-002941 |
| DOOR HANDLE LEFT HAND NON-LOCKING | 040-004822 |
| CAM / INSIDE HANDLE, 1" X 5 1/2" | 040-010742 |
| DOOR LATCH: RECLAIM DOOR | 043-001503 |
| VIEWING WINDOW - PLENUM | 100-006167 |
| VIEWING WINDOW HOLDER - PLENUM | 100-006168 |

**(OPTIONAL FEATURE) EXHAUST LIMITS**

| | |
|---|---|
| SENSOR ONLY: 20FT | 006-006925 |

**LABELS AND DECALS**

| | |
|---|---|
| DECAL: "DELUX" - 6" HIGH - BLUE | 018-006813 |
| LABEL: "CAUTION DO NOT ENTER" | 018-002407 |
| LABEL: "DANGER HIGH VOLAGE" | 018-001070 |
| LABEL: "START-UP PROCEDURE" | 018-007949 |
| LABEL: "FACTORY - SALES * SERVICE * PARTS | 018-006254 |
| LABEL: "WARNING "STOP" | 018-004742 |
| LABEL: "POWER BELT WARNING" | 018-004743 |
| LABEL: "WARNING POWER AUGER" | 018-004744 |
| LABEL: "CAUTION KEEP HANDS CLEAR" | 018-001071 |
| LABEL: "BURNER COVER" | 018-003401 |
| LABEL: "EMERGENCY SLIDE GATES" | 018-006806 |
| LABEL: "DO NOT WALK ON GARNER (ROOF)" | 018-006809 |
| LABEL: "OPEN FRESH AIR DOOR "FULL OPEN" | 018-006808 |
| LABEL: "OPEN FRESH AIR DOOR AS NEEDED" NOT LESS THAN.." | 018-006807 |

**(OPTIONAL FEATURE) ALARM KIT**

| | |
|---|---|
| HORN: 120V SURFACE MOUNT | 016-008037 |
| LIGHT - STROBE - PIPE MOUNT | 016-008038 |

# COMBINATON STARTERS – SIEMENS (2014+)

**SIEMENS CATALOG NUMBER**

**DELUX PART NUMBER**

| 240V 3P | | | | | | |
|---|---|---|---|---|---|---|
| **HP** | **COMBINATION STARTER** | **TERM. BLOCK (FOR UL508 TYPE E)** | **OVERLOAD CONTACT** | *** ADDITIONAL AUX. CONTACT** | **FLA RANGE** | **MOTOR AMPS** |
| **1** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 3.0 |
| **2** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 5.8 |
| **3** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 8.4 |
| **5** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 13.4 |
| **7.5** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 18.8 |
| **10** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 24.0 |
| **15** | 3RA1135-4FB35-1AK6<br>001-010067 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 28 – 40 | 36.2 |
| **20** | 3RA1145-4JB44-1AK6<br>001-010070 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 45 - 63 | 48.0 |
| **25** | 3RA1145-4KB44-1AK6<br>001-010071 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 57 – 75 | 60.0 |
| **30** | 3RA1145-4LB46-1AK6<br>001-010072 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 70 - 90 | 76.0 |
| **40** | 3RA1145-4MB46-1AK6<br>001-010073 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 80 - 100 | 96.0 |
| **HP** | **MSP (Schneider)** | **AUX. CONTACT/ LUGS** | **CONTACTOR (Siemens)** | **TERMINAL BLOCK (x 2)** | **FLA RANGE** | **MOTOR AMPS** |
| **50** | GV7RE150<br>001-008918 | 001-008931<br>001-008927 (6) | 3RT1055-6AF36 (150A)<br>001-008692 | 3RT1956-4G<br>001-008695 | 90 – 150 | 116.0 |
| **60** | GV7RE220<br>001-008919 | 001-008931<br>001-008927 (6) | 3RT1055-6AF36 (150A)<br>001-008692 | 3RT1956-4G<br>001-008695 | 132 - 220 | 135.0 |

* ADDITIONAL AUX. CONTACT REQUIRED FOR LOAD STARTER ON ALL DRYERS AND UNLOAD STARTER WITH MOISTURELINK.

| 480V 3P | | | | | | |
|---|---|---|---|---|---|---|
| **HP** | **COMBINATION STARTER** | **TERM. BLOCK (FOR UL508 TYPE E)** | **OVERLOAD CONTACT** | *** ADDITIONAL AUX. CONTACT** | **FLA RANGE** | **MOTOR AMPS** |
| **1** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 1.5 |
| **2** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 2.9 |
| **3** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 4.2 |
| **5** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 6.7 |
| **7.5** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 9.4 |
| **10** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 12.0 |
| **15** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 18.1 |
| **20** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 24.0 |
| **25** | 3RA1135-4FB35-1AK6<br>001-010067 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 28 – 40 | 30.0 |
| **30** | 3RA1135-4GB35-1AK6<br>001-010068 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 36 – 45 | 38.0 |
| **40** | 3RA1135-4HB36-1AK6<br>001-010069 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 40 - 50 | 48.0 |
| **50** | 3RA1145-4JB44-1AK6<br>001-010070 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 45 – 63 | 58.0 |
| **60** | 3RA1145-4KB45-1AK6<br>001-010071 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 57 – 75 | 67.8 |

* ADDITIONAL AUX. CONTACT REQUIRED FOR LOAD STARTER ON ALL DRYERS AND UNLOAD STARTER WITH MOISTURELINK.

| 575V 3P | | | | | | |
|---|---|---|---|---|---|---|
| **HP** | **COMBINATION STARTER** | **TERM. BLOCK (FOR UL508 TYPE E)** | **OVERLOAD CONTACT** | *** ADDITIONAL AUX. CONTACT** | **FLA RANGE** | **MOTOR AMPS** |
| **1** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 1.2 |
| **2** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 2.4 |
| **3** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 3.3 |
| **5** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 5.3 |
| **7.5** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 7.6 |
| **10** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 9.6 |
| **15** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 14.8 |
| **20** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 19.2 |
| **25** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 23.9 |
| **30** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 29.0 |
| **40** | 3RA1135-4GB35-1AK6<br>001-010068 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 36 – 45 | 39.0 |
| **50** | 3RA1135-4HB36-1AK6<br>001-010069 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 40 - 50 | 46.0 |
| **60** | 3RA1145-4JB44-1AK6<br>001-010070 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 45 – 63 | 54.4 |

* ADDITIONAL AUX. CONTACT REQUIRED FOR LOAD STARTER ON ALL DRYERS AND UNLOAD STARTER WITH MOISTURELINK.

| 380V 3P | | | | | | |
|---|---|---|---|---|---|---|
| **HP** | **COMBINATION STARTER** | **TERM. BLOCK (FOR UL508 TYPE E)** | **OVERLOAD CONTACT** | *** ADDITIONAL AUX. CONTACT** | **FLA RANGE** | **MOTOR AMPS** |
| **1** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 1.8 |
| **2** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 3.4 |
| **3** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 4.4 |
| **5** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 8.6 |
| **7.5** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 11.2 |
| **10** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 14.7 |
| **15** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 22.0 |
| **20** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 28.0 |
| **25** | 3RA1135-4FB35-1AK6<br>001-010067 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 28 – 40 | 35.0 |
| **30** | 3RA1135-4HB36-1AK6<br>001-010069 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 40 - 50 | 42.0 |
| **40** | 3RA1145-4JB44-1AK6<br>001-010070 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 45 – 63 | 56.0 |
| **50** | 3RA1145-4KB45-1AK6<br>001-010071 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 57 – 75 | 67.0 |
| **60** | 3RA1145-4LB46-1AK6<br>001-010072 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 70 - 90 | 80.5 |

* ADDITIONAL AUX. CONTACT REQUIRED FOR LOAD STARTER ON ALL DRYERS AND UNLOAD STARTER WITH MOISTURELINK.

| 208V 3P | | | | | | |
|---|---|---|---|---|---|---|
| **HP** | **COMBINATION STARTER** | **TERM. BLOCK (FOR UL508 TYPE E)** | **OVERLOAD CONTACT** | *** ADDITIONAL AUX. CONTACT** | **FLA RANGE** | **MOTOR AMPS** |
| **1** | 3RA61201CP32<br>001-010064 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 1.0 – 4.0 | 3.1 |
| **2** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 6.0 |
| **3** | 3RA61201DP32<br>001-010065 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 3.0 – 12.0 | 9.0 |
| **5** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 13.9 |
| **7.5** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 21.0 |
| **10** | 3RA61201EP32<br>001-010066 | 3RV2925-5EB<br>001-010074 | INCL. | 3RA6911-1A<br>001-010076 | 8.0 – 32.0 | 25.4 |
| **15** | 3RA1135-4GB36-1AK6<br>001-010068 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 36 – 45 | 38.0 |
| **20** | 3RA1145-4JB44-1AK6<br>001-010070 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 45 – 63 | 51.0 |
| **25** | 3RA1145-4KB45-1AK6<br>001-010071 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 57 – 75 | 63.3 |
| **30** | 3RA1145-4LB46-1AK6<br>001-010072 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 70 - 90 | 78.0 |
| **HP** | **MSP (Schneider)** | **AUX. CONTACT/ LUGS** | **CONTACTOR (Siemens)** | **TERMINAL BLOCK (x 2)** | **FLA RANGE** | **MOTOR AMPS** |
| **40** | GV7RE150<br>001-008918 | 001-008931<br>001-008927 (6) | 3RT1054-6AF36 (115A)<br>001-008691 | 3RT1956-4G<br>001-008695 | 90 - 150 | 102.0 |
| **50** | GV7RE150<br>001-008918 | 001-008931<br>001-008927 (6) | 3RT1055-6AF36 (150A)<br>001-008692 | 3RT1956-4G<br>001-008695 | 90 – 150 | 128.0 |
| **60** | GV7RE220<br>001-008919 | 001-008931<br>001-008927 (6) | 3RT1056-6AF36 (185A)<br>001-010087 | 3RT1956-4G<br>001-008695 | 132 - 220 | 149.0 |

* ADDITIONAL AUX. CONTACT REQUIRED FOR LOAD STARTER ON ALL DRYERS AND UNLOAD STARTER WITH MOISTURELINK.

| 230V 1 Phase | | | | | | |
|---|---|---|---|---|---|---|
| **HP** | **COMBINATION STARTER** | **TERM. BLOCK (FOR UL508 TYPE E)** | **OVERLOAD CONTACT** | ***ADDITIONAL AUX. CONTACT** | **FLA RANGE** | **MOTOR AMPS** |
| **1** | 3RA2120-1HA24-0AK6<br>001-010081 | 3RV2928-1H<br>001-010079 | 3RV2901-1A<br>001-010078 | 3RH2921-1DA11<br>001-010080 | 5.5 - 8 | 5.9 |
| **2** | 3RA2120-1KA24-0AK6<br>001-010082 | 3RV2928-1H<br>001-010079 | 3RV2901-1A<br>001-010078 | 3RH2921-1DA11<br>001-010080 | 9 - 12.5 | 11.5 |
| **3** | 3RA2120-4AA26-0AK6<br>001-010083 | 3RV2928-1H<br>001-010079 | 3RV2901-1A<br>001-010078 | 3RH2921-1DA11<br>001-010080 | 11 - 16 | 14.0 |
| **5** | 3RA2120-4CA27-0AK6<br>001-010084 | 3RV2928-1H<br>001-010079 | 3RV2901-1A<br>001-010078 | 3RH2921-1DA11<br>001-010080 | 17 - 22 | 19.1 |
| **7.5** | 3RA1135-4FB35-1AK6<br>001-010067 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 28 – 40 | 29.0 |
| **10** | 3RA1135-4GB36-1AK6<br>001-010068 | NA | INCL. | 3RH1921-1EA11<br>001-010086 | 36 - 45 | 38.0 |
| **15** | 3RA1145-4KB45-1AK6<br>001-010071 | 3RT1946-4GA07<br>001-010075 | 3RV1901-1A<br>001-010137 | 3RH1921-1EA11<br>001-010086 | 57 - 75 | 60.0 |

* ADDITIONAL AUX. CONTACT REQUIRED FOR LOAD STARTER ON ALL DRYERS AND UNLOAD STARTER WITH MOISTURELINK.

# FAN PITCH SETTINGS - ALL MODELS
# GREENHECK FANS

## 60Hz 1750 RPM

**230V-1P; 208V-3P; 240V-3P; 480V-3P; 575V-3P**

| MODEL | | FAN HP | FAN DIA. | FAN PITCH (DEG.) |
|---|---|---|---|---|
| **MSF-31010** | 10FT | 10 | 38” | **5** |
| **MSF-41515** | 10FT | 15 | 38” | **10** |
| **MSF-62520** | 15FT | 20 | 38” | **12** |
| **MSF-72525** | 15FT | 25 | 38” | **16** |
| | | | | |
| **DP 2510** | 10FT | 10 | 38” | **3 1/2** |
| **DP 3015 (1P)** | 10FT | 15 | 38” | **8** |
| **DP 4020** | 15FT | 10 | 38” | **3 1/2** |
| **DP 5020** | 20FT | 10 | 38” | **3 1/2** |
| **DP 7530** | 30FT | 10 | 38” | **3 1/2** |
| **DP 10040** | 40FT | 10 | 38” | **3 1/2** |
| | | | | |
| **DP 3015 (3P)** | 10FT | 15 | 38” | **8** |
| **DP 4025** | 15FT | 25 | 38” | **14** |
| **DP 6030** | 20FT | 15 | 38” | **8** |
| **DP 7550** | 25FT | 25 | 38” | **14** |
| **DP 9045** | 30FT | 15 | 38” | **8** |
| **DP 12060** | 40FT | 15 | 38” | **8** |
| | | | | |
| **DPSL 3520** | 10FT | 20 | 38” | **10** |
| **DPSL 4530** | 15FT | 30 | 38” | **16** |
| **DPSL 7040** | 20FT | 20 | 38” | **10** |
| **DPSL 8560** | 25FT | 30 | 38” | **16** |
| **DPSL 10560** | 30FT | 20 | 38” | **10** |
| **DPSL 14080** | 40FT | 20 | 38” | **10** |
| | | | | |
| **DPX 4525** | 10FT | 25 | 38” | **14** |
| **DPX 7040** | 15FT | 20 | 38” | **10** |
| **DPX 9050** | 20FT | 25 | 38” | **14** |
| **DPX 13575** | 30FT | 25 | 38” | **14** |
| **DPX 180100** | 40FT | 25 | 38” | **14** |
| | | | | |
| | | | | |

| MODEL | | FAN HP | FAN DIA. | FAN PITCH (DEG.) |
|---|---|---|---|---|
| **DPXSL 5030** | 10FT | 30 | 38” | **16** |
| **DPXSL 8050** | 15FT | 25 | 38” | **14** |
| **DPXSL 10060** | 20FT | 30 | 38” | **16** |
| **DPXSL 12560** | 25FT | 30 | 43” | **8** |
| **DPXSL 15090** | 30FT | 30 | 38” | **16** |
| **DPXSL 200120** | 40FT | 30 | 38” | **16** |
| | | | | |
| **DPX4T 5630** | 10FT | 30 | 43” | **8** |
| **DPX4T 8460** | 15FT | 60 | 43” | **21** |
| **DPX4T 11260** | 20FT | 30 | 43” | **8** |
| **DPX4T 140100** | 25FT | 50 | 43” | **16** |
| **DPX4T 16890** | 30FT | 30 | 43” | **8** |
| **DPX4T 224120** | 40FT | 30 | 43” | **8** |
| | | | | |
| **DPX8T 6440** | 10FT | 40 | 43” | **13** |
| **DPX8T 12880** | 20FT | 40 | 43” | **13** |
| **DPX8T 160120** | 25FT | 60 | 43” | **21** |
| **DPX8T 192120** | 30FT | 40 | 43” | **13** |
| **DPX8T 256160** | 40FT | 40 | 43” | **13** |
| | | | | |
| **DPX12T 7250** | 10FT | 50 | 43” | **16** |
| **DPX12T 10860** | 15FT | 30 | 43” | **8** |
| **DPX12T 144100** | 20FT | 50 | 43” | **16** |
| **DPX12T 175120** | 25FT | 60 | 43” | **21** |
| **DPX12T 216150** | 30FT | 50 | 43” | **16** |
| **DPX12T 288200** | 40FT | 50 | 43” | **16** |
| | | | | |
| **DPX16GT 8250** | 10FT | 50 | 43” | **16** |
| **DPX16GT 12360** | 15FT | 30 | 43” | **8** |
| **DPX16GT 164100** | 20FT | 50 | 43” | **16** |
| **DPX16GT 210120** | 25FT | 60 | 43” | **21** |
| **DPX16GT 246150** | 30FT | 50 | 43” | **16** |
| **DPX16GT 328200** | 40FT | 50 | 43” | **16** |

# AIR AND HEAT SPECIFICATIONS

| MODEL | FT | DRYING AIRFLOW CFM | NUMBER OF BURNERS | BTU - MILLION 210 OPERATING TEMP. AMBIENT TEMPERATURE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0° | 10° | 20° | 40° | 60° | 70° |
| MSF-31010-CF | 10 | 13435 | 1 | 3.05 | 2.90 | 2.76 | 2.47 | 2.18 | 2.03 |
| MSF-31010-AB | 10 | 13435 | 1 | 3.05 | 2.90 | 2.76 | 2.47 | 2.18 | 2.03 |
| MSF-41515-CF | 10 | 19150 | 1 | 4.34 | 4.14 | 3.93 | 3.52 | 3.10 | 2.90 |
| MSF-41515-AB | 10 | 19150 | 1 | 4.34 | 4.14 | 3.93 | 3.52 | 3.10 | 2.90 |
| MSF-62520-CF | 15 | 21863 | 1 | 4.96 | 4.72 | 4.49 | 4.01 | 3.54 | 3.31 |
| MSF-62520-AB | 15 | 21863 | 1 | 4.96 | 4.72 | 4.49 | 4.01 | 3.54 | 3.31 |
| MSF-72525-CF | 15 | 24804 | 1 | 5.63 | 5.36 | 5.09 | 4.55 | 4.02 | 3.75 |
| MSF-72525-AB | 15 | 24804 | 1 | 5.63 | 5.36 | 5.09 | 4.55 | 4.02 | 3.75 |
| DP 2510 1P | 10 | 10077 | 1 | 1.96 | 1.85 | 1.74 | 1.52 | 1.31 | 1.20 |
| DP 3015 1P | 10 | 14985 | 1 | 2.91 | 2.75 | 2.59 | 2.27 | 1.94 | 1.78 |
| DP 4020 1P | 15 | 20154 | 2 | 3.92 | 3.70 | 3.48 | 3.05 | 2.61 | 2.39 |
| DP 5020 1P | 20 | 20154 | 2 | 3.92 | 3.70 | 3.48 | 3.05 | 2.61 | 2.39 |
| DP 7530 1P | 30 | 30231 | 3 | 5.88 | 5.55 | 5.22 | 4.57 | 3.92 | 3.59 |
| DP 10040 1P | 40 | 40308 | 4 | 7.84 | 7.40 | 6.97 | 6.09 | 5.22 | 4.88 |
| DP 3015 3P | 10 | 14985 | 1 | 2.91 | 2.75 | 2.59 | 2.27 | 1.94 | 1.78 |
| DP 4025 3P | 15 | 20511 | 1 | 3.99 | 3.77 | 3.54 | 3.10 | 2.66 | 2.44 |
| DP 6030 3P | 20 | 29970 | 2 | 5.83 | 5.50 | 5.18 | 4.53 | 3.88 | 3.56 |
| DP 7550 3P | 25 | 41022 | 2 | 7.97 | 7.53 | 7.9 | 6.20 | 5.32 | 4.87 |
| DP 9045 3P | 30 | 44955 | 3 | 8.74 | 8.25 | 7.77 | 6.80 | 5.83 | 5.34 |
| DP 12060 3P | 40 | 59940 | 4 | 11.65 | 11.00 | 10.36 | 9.06 | 7.77 | 7.12 |
| DP-SL 3520 | 10 | 17808 | 1 | 3.46 | 3.27 | 3.08 | 2.70 | 2.31 | 2.12 |
| DP-SL 4530 | 15 | 22896 | 1 | 4.45 | 4.20 | 3.96 | 3.46 | 2.97 | 2.72 |
| DP-SL 7040 | 20 | 35616 | 2 | 6.92 | 6.54 | 6.15 | 5.39 | 4.62 | 4.23 |
| DP-SL 8560 | 25 | 45792 | 2 | 8.90 | 8.41 | 7.91 | 6.92 | 5.93 | 5.44 |
| DP-SL 10560 | 30 | 53424 | 3 | 10.39 | 9.81 | 9.23 | 8.08 | 6.92 | 6.35 |
| DP-SL 14080 | 40 | 71232 | 4 | 13.85 | 13.08 | 12.31 | 10.77 | 9.23 | 8.46 |
| DPX 4525 | 10 | 20511 | 1 | 3.99 | 3.77 | 3.54 | 3.10 | 2.66 | 2.44 |
| DPX 7040 | 15 | 35616 | 2 | 6.92 | 6.54 | 6.15 | 5.39 | 4.62 | 4.23 |
| DPX 9050 | 20 | 41022 | 2 | 7.97 | 7.53 | 7.09 | 6.20 | 5.32 | 4.87 |
| DPX 13575 | 30 | 61533 | 3 | 11.96 | 11.30 | 10.63 | 9.30 | 7.97 | 7.31 |
| DPX 180100 | 40 | 82044 | 4 | 15.95 | 15.06 | 14.18 | 12.41 | 10.63 | 9.75 |

## AIR AND HEAT SPECIFICATIONS

| MODEL | FT | DRYING AIRFLOW CFM | NUMBER OF BURNERS | BTU - MILLION 210 OPERATING TEMP. AMBIENT TEMPERATURE | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 0° | 10° | 20° | 40° | 60° | 70° |
| DPX-SL 5030 | 10 | 22896 | 1 | 4.45 | 4.20 | 3.96 | 3.46 | 2.97 | 2.72 |
| DPX-SL 8050 | 15 | 41022 | 2 | 7.97 | 7.53 | 7.09 | 6.20 | 5.32 | 4.87 |
| DPX-SL 10060 | 20 | 45792 | 2 | 8.90 | 8.41 | 7.91 | 6.92 | 5.93 | 5.44 |
| DPX-SL 12560 | 25 | 57876 | 2 | 11.25 | 10.63 | 10.00 | 8.75 | 7.50 | 6.88 |
| DPX-SL 15090 | 30 | 68688 | 3 | 13.35 | 12.61 | 11.87 | 10.39 | 8.90 | 8.16 |
| DPX-SL 200120 | 40 | 91584 | 4 | 17.80 | 16.81 | 15.83 | 13.85 | 11.87 | 10.88 |
| DPX4T 5630 | 10 | 28938 | 1 | 5.63 | 5.31 | 5.00 | 4.38 | 3.75 | 3.44 |
| DPX4T 8460 | 15 | 44043 | 1 | 8.56 | 8.09 | 7.61 | 6.66 | 5.71 | 5.23 |
| DPX4T 11260 | 20 | 57876 | 2 | 11.25 | 10.63 | 10.00 | 8.75 | 7.50 | 6.88 |
| DPX4T 140100 | 25 | 79500 | 2 | 15.45 | 14.60 | 13.74 | 12.02 | 10.30 | 9.44 |
| DPX4T 16890 | 30 | 86814 | 3 | 16.88 | 15.94 | 15.00 | 13.13 | 11.25 | 10.31 |
| DPX4T 224120 | 40 | 115752 | 4 | 22.50 | 21.25 | 20.00 | 17.50 | 15.00 | 13.75 |
| DPX8T 6440 | 10 | 34201 | 1 | 6.65 | 6.28 | 5.91 | 5.17 | 4.43 | 4.06 |
| DPX8T 9660 | 15 | N/A | | | | | | | |
| DPX8T 12880 | 20 | 68402 | 2 | 13.30 | 12.56 | 11.82 | 10.34 | 8.86 | 8.13 |
| DPX8T 160120 | 25 | 88036 | 2 | 17.11 | 16.16 | 15.21 | 13.31 | 11.41 | 10.46 |
| DPX8T 192120 | 30 | 102603 | 3 | 19.95 | 18.84 | 17.73 | 15.51 | 13.30 | 12.19 |
| DPX8T 256160 | 40 | 136804 | 4 | 26.60 | 25.12 | 23.64 | 20.68 | 17.73 | 16.25 |
| DPX12T 7250 | 10 | 39750 | 1 | 7.73 | 7.30 | 6.87 | 6.01 | 5.15 | 4.72 |
| DPX12T 10860 | 15 | 57876 | 2 | 11.25 | 10.63 | 10.00 | 8.75 | 7.50 | 6.88 |
| DPX12T 144100 | 20 | 79500 | 2 | 15.46 | 14.60 | 13.74 | 12.02 | 10.30 | 9.45 |
| DPX12T 175120 | 25 | 88086 | 2 | 17.12 | 16.17 | 15.22 | 13.32 | 11.42 | 10.47 |
| DPX12T 216150 | 30 | 119250 | 3 | 23.18 | 21.89 | 20.61 | 18.03 | 15.46 | 14.17 |
| DPX12T 288200 | 40 | 159000 | 4 | 30.91 | 29.19 | 27.48 | 24.04 | 20.61 | 18.89 |
| DPX16GT 8250 | 10 | 39750 | 1 | 7.73 | 7.30 | 6.87 | 6.01 | 5.15 | 4.72 |
| DPX16GT 12360 | 15 | 57876 | 2 | 11.25 | 10.63 | 10.00 | 8.75 | 7.50 | 6.88 |
| DPX16GT 164100 | 20 | 79500 | 2 | 15.46 | 14.60 | 13.74 | 12.02 | 10.30 | 9.45 |
| DPX16GT 210120 | 25 | 88086 | 2 | 17.12 | 16.17 | 15.22 | 13.32 | 11.42 | 10.47 |
| DPX16GT 246150 | 30 | 119250 | 3 | 23.18 | 21.89 | 20.61 | 18.03 | 15.46 | 14.17 |
| DPX16GT 328200 | 40 | 159000 | 4 | 30.91 | 29.19 | 27.48 | 24.04 | 20.61 | 18.89 |

# ORIFICE CHART

| MODEL | DIA FAN | ---NATURAL GAS--- PART NUMBER | DIA | -LIQUID PROPANE-- PART NUMBER | DIA | QTY |
|---|---|---|---|---|---|---|
| MSF-31010-CF | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| MSF-31010-AB | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| MSF-41515-CF | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| MSF-41515-AB | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| MSF-62520-CF | 15FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 1 |
| MSF-62520-AB | 15FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 1 |
| MSF-72525-CF | 15FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 1 |
| MSF-72525-AB | 15FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 1 |
| MSF2 5217 TOP | 10FT 36" | 100-006953 | 5/16 | 100-006961 | 29/64 | 1 |
| MSF2 5217 BOT | 10FT 30" | 100-003145 | 9/32 | 100-003146 | 3/8 | 1 |
| MSF2 7825 TOP | 15FT 36" | 100-003146 | 3/8 | 100-006963 | 31/64 | 1 |
| MSF2 7825 BOT | 15FT 30" | 100-003145 | 9/32 | 100-003146 | 3/8 | 1 |
| MSF2 10435 TOP | 20FT 42" | 100-006957 | 25/64 | 100-003808 | 1/2 | 1 |
| MSF2 10435 BOT | 20FT 30" | 100-003146 | 3/8 | 100-006962 | 15/32 | 1 |
| MSF2 13050 TOP | 25FT 42" | 100-006958 | 13/32 | 100-006964 | 33/64 | 1 |
| MSF2 13050 BOT | 25FT 30" | 100-003146 | 3/8 | 100-006963 | 31/64 | 1 |
| DP 2510 | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| DP 3015 | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| DP 4020 | 15FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 2 |
| DP 5020 | 20FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 2 |
| DP 7530 | 30FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 3 |
| DP 10040 | 40FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 4 |
| DP 3015 | 10FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 1 |
| DP 4025 | 15FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 1 |
| DP 6030 | 20FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 2 |
| DP 7550 | 25FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 2 |
| DP 9045 | 30FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 3 |
| DP 12060 | 40FT 38" | 100-003146 | 3/8 | 100-003145 | 9/32 | 4 |
| DPSL 3520 | 10FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 1 |
| DPSL 4530 | 15FT 38" | 100-006963 | 31/64 | 100-006956 | 23/64 | 1 |
| DPSL 7040 | 20FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 2 |
| DPSL 8560 | 25FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 2 |
| DPSL 10560 | 30FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 3 |
| DPSL 14080 | 40FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 4 |

## ORIFICE CHART

| MODEL | | DIA FAN | ---NATURAL GAS--- PART NUMBER | DIA | -LIQUID PROPANE-- PART NUMBER | DIA | QTY |
|---|---|---|---|---|---|---|---|
| DPX | 4525 | 10FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 1 |
| DPX | 7040 | 15FT 38" | 100-006961 | 29/64 | 100-006953 | 5/16 | 2 |
| DPX | 9050 | 20FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 2 |
| DPX | 13575 | 30FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 3 |
| DPX | 180100 | 40FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 4 |
| DPXSL | 5030 | 10FT 38" | 100-006963 | 31/64 | 100-006956 | 23/64 | 1 |
| DPXSL | 8050 | 15FT 38" | 100-006962 | 15/32 | 100-006955 | 11/32 | 2 |
| DPXSL | 10060 | 20FT 38" | 100-006963 | 31/64 | 100-006956 | 23/64 | 2 |
| DPXSL | 12560 | 25FT 43" | 100-006963 | 31/64 | 100-006956 | 23/64 | 2 |
| DPXSL | 15090 | 30FT 38" | 100-006963 | 31/64 | 100-006956 | 23/64 | 3 |
| DPXSL | 200120 | 40FT 38" | 100-006963 | 31/64 | 100-006956 | 23/64 | 4 |
| DPX4T | 5630 | 10FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 1 |
| DPX4T | 8460 | 15FT 43" | 100-006962 | 15/32 | 100-006959 | 27/64 | 1 |
| DPX4T | 11260 | 20FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 2 |
| DPX4T | 140100 | 25FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 2 |
| DPX4T | 16890 | 30FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 3 |
| DPX4T | 224120 | 40FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 4 |
| DPX8T | 6440 | 10FT 43" | 100-003808 | 1/2 | 100-006957 | 25/64 | 1 |
| DPX8T | 9660 | 15FT 43" | N/A | N/A | N/A | N/A | N/A |
| DPX8T | 12880 | 20FT 43" | 100-003808 | 1/2 | 100-006957 | 25/64 | 2 |
| DPX8T | 160120 | 25FT 43" | 100-003808 | 1/2 | 100-006957 | 25/64 | 2 |
| DPX8T | 192120 | 30FT 43" | 100-003808 | 1/2 | 100-006957 | 25/64 | 3 |
| DPX8T | 256160 | 40FT 43" | 100-003808 | 1/2 | 100-006957 | 25/64 | 4 |
| DPX12T | 7250 | 10FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 1 |
| DPX12T | 10860 | 15FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 2 |
| DPX12T | 144100 | 20FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 2 |
| DPX12T | 175120 | 25FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 2 |
| DPX12T | 216150 | 30FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 3 |
| DPX12T | 288200 | 40FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 4 |
| DPX16GT | 8250 | 10FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 1 |
| DPX16GT | 12360 | 15FT 43" | 100-006963 | 31/64 | 100-003146 | 3/8 | 2 |
| DPX16GT | 164100 | 20FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 2 |
| DPX16GT | 210120 | 25FT 43" | 100-003809 | 33/64 | 100-006958 | 13/32 | 2 |
| DPX16GT | 246150 | 30FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 3 |
| DPX16GT | 328200 | 40FT 43" | 100-006964 | 33/64 | 100-006958 | 13/32 | 4 |

NOTE:

1. ORIFICE SIZE: OCCASIONALLY CONDITIONS MAY EXIST THAT REQUIRES ORIFICE SIZE TO BE MODIFIED ON EVERY MODEL.

## ORIFICE PART NUMBERS

| ORIFICE DIA | PART NUMBER | ORIFICE DIA | PART NUMBER |
|---|---|---|---|
| 1/8 (.125) | 031-002168 | 7/16 (.421) | 100-006960 |
| 1/4 (.250) | 100-006950 | 29/64 (.453) | 100-006961 |
| 17/64 (.265) | 100-006951 | 15/32 (.468) | 100-006962 |
| 9/32 (.281) | 100-003145 | 31/64 (.484) | 100-006963 |
| 19/64 (.296) | 100-006952 | 1/2 (.500) | 100-003808 |
| 5/16 (.312) | 100-006953 | 33/64 (.515) | 100-006964 |
| 21/64 (.328) | 100-006954 | 17/32 (.531) | 100-006965 |
| 11/32 (.343) | 100-006955 | 35/64 (.546) | 100-006966 |
| 23/64 (.359) | 100-006956 | 9/16 (.562) | 100-006967 |
| 3/8 (.375) | 100-003146 | 37/64 (.578) | 100-006968 |
| 25/64 (.390) | 100-006957 | 19/32 (.593) | 100-006969 |
| 13/32 (.406) | 100-006958 | 39/64 (.609) | 100-006970 |
| 27/64 (.421) | 100-006959 | 5/8 (.625) | 100-003809 |

## FUEL TRAIN W/MODULATING SYSTEM & ROUND FIN VAPORIZER PIPE SIZES

| MODEL | FT | L.P. LIQUID VALVES & PIPE | L.P. VAPORIZER SIZES ROUND FIN | L.P. VAPOR REGULATOR, VALVES & PIPE | MANIFOLD SOLENOID VALVE & PIPE | MANIFOLD BUTTERFLY VALVE |
|---|---|---|---|---|---|---|
| MSF-31010-CF | 10 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-31010-AB | 10 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-41515-CF | 10 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-41515-AB | 10 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-62520-CF | 15 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-62520-AB | 15 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-72525-CF | 15 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| MSF-72525-AB | 15 | 1/2 | 24 1/2" | 1/2 | 1 1/4 | 1 1/4 |
| DP 2510 | 10 | 1/2 | 4R | 1/2 | 1 1/4 | 1 1/4 |
| DP 3015 | 10 | 1/2 | 4R | 1/2 | 1 1/4 | 1 1/4 |
| DP 4020 | 15 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DP 5020 | 20 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DP 7530 | 30 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DP 10040 | 40 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DP 3015 | 10 | 1/2 | 4R | 1/2 | 1 1/4 | 1 1/4 |
| DP 4025 | 15 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DP 6030 | 20 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DP 7550 | 25 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DP 9045 | 30 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DP 12060 | 40 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPSL 3520 | 10 | 1/2 | 4R | 1/2 | 1 1/4 | 1 1/4 |
| DPSL 4530 | 15 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DPSL 7040 | 20 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DPSL 8560 | 25 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPSL 10560 | 30 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPSL 14080 | 40 | 3/4 | 8R/8R | 2 | 2 | 2 |

**FUEL TRAIN W/MODULATING SYSTEM & ROUND FIN VAPORIZER PIPE SIZES**

| MODEL | FT | L.P. LIQUID VALVES & PIPE | L.P. VAPORIZER SIZES ROUND FIN | L.P. VAPOR REGULATOR, VALVES & PIPE | MANIFOLD SOLENOID VALVE & PIPE | MANIFOLD BUTTERFLY VALVE |
|---|---|---|---|---|---|---|
| DPX 4525 | 10 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DPX 7040 | 15 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPX 9050 | 20 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPX 13575 | 30 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPX 180100 | 40 | 3/4 | 12R/12R | 2 | 2 | 2 |
| DPXSL 5030 | 10 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DPXSL 8050 | 15 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPXSL 10060 | 20 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPXSL 12560 | 25 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPXSL 15090 | 30 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPXSL 200120 | 40 | 3/4 | 12R/12R | 2 | 2 | 2 |
| DPX4T 5630 | 10 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DPX4T 8460 | 15 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPX4T 11260 | 20 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPX4T 140100 | 25 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX4T 16890 | 30 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX4T 224120 | 40 | 3/4 | 8R/8R/12R | 2 | 2 | 2 |
| DPX8T 6440 | 10 | 1/2 | 8R | 1/2 | 1 1/4 | 1 1/4 |
| DPX8T 9660 | 15 | N/A | - | - | - | - |
| DPX8T 12880 | 20 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPX8T 160120 | 25 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX8T 192120 | 30 | 3/4 | 12R/12R | 2 | 2 | 2 |
| DPX8T 256160 | 40 | 3/4 | 8R/12R/12R | 2 | 2 | 2 |
| DPX12T 7250 | 10 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPX12T 10860 | 15 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPX12T 144100 | 20 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX12T 175120 | 25 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX12T 216150 | 30 | 3/4 | 8R/8R/12R | 2 | 2 | 2 |
| DPX12T 288200 | 40 | 3/4 | 12R/12R/12R | 2 | 2 | 2 |
| DPX16GT 8250 | 10 | 1/2 | 12R | 1/2 | 1 1/4 | 1 1/4 |
| DPX16GT 12360 | 15 | 3/4 | 8R/8R | 2 | 2 | 2 |
| DPX16GT 164100 | 20 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX16GT 210120 | 25 | 3/4 | 8R/12R | 2 | 2 | 2 |
| DPX16GT 246150 | 30 | 3/4 | 8R/8R/12R | 2 | 2 | 2 |
| DPX16GT 328200 | 40 | 3/4 | 12R/12R/12R | 2 | 2 | 2 |

# STANDARD DISCHARGE SYSTEM

( FOR *LEESON/OHIO GEAR* GEAR REDUCERS)
ALL MOTORS – 230V-1P – 240V-3P - 480V-3P

| MODEL | FT | TYPE | MOTOR | MOTOR PART NUMBER | GEAR REDUCER | GEAR REDUCER PART NUMBER |
|---|---|---|---|---|---|---|
| MSF-31010-CF 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P 143TC- 7/8-CLASS B | 004-006471 | 5:1 140TC-7/8 | 052-008861 |
| MSF-31010-AB 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P 143TC- 7/8-CLASS B | 004-006471 | 5:1 140TC-7/8 | 052-008861 |
| MSF-41515-CF 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P 143TC- 7/8-CLASS B | 004-006471 | 5:1 140TC-7/8 | 052-008861 |
| MSF-41515-AB 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P 143TC- 7/8-CLASS B | 004-006471 | 5:1 140TC-7/8 | 052-008861 |
| MSF-41515-CF | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| MSF-41515-AB | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| MSF-62520-CF | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| MSF-62520-AB | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| MSF-72525-CF | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| MSF-72525-AB | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DP 2510 1P | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP 3015 1P | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP 4020 1P | 15 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P 143TC- 7/8-CLASS B | 004-006471 | 5:1 140TC-7/8 | 052-008861 |
| DP 5020 1P | 20 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P 143TC- 7/8-CLASS B | 004-006471 | 5:1 140TC-7/8 | 052-008861 |
| DP 7530 1P | 30 | AUGER-8" | 2HP-1750RPM-60HZ-115/230V-1P 182TC- 7/8-CLASS B | 004-007896 | 5:1 180TC-1 1/8 | 052-008862 |
| DP 10040 1P | 40 | AUGER-8" | 3HP-1750RPM-60HZ- 230V-1P 184TC-1-1/8-CLASS B | 004-006473 | 5:1 180TC-1 1/8 | 052-008862 |
| DP 3015 | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP 4025 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DP 6030 | 20 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DP 7550 | 25 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DP 9045 | 30 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DP 12060 | 40 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 5:1 180TC-1 1/8 | 052-008862 |
| DP-SL 3520 | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP-SL 4530 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 7040 | 20 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 8560 | 25 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 10560 | 30 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 14080 | 40 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX 4525 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX 7040 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX 9050 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX 13575 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX 180100 | 40 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |

# STANDARD DISCHARGE SYSTEM

( FOR *LEESON/OHIO GEAR* GEAR REDUCERS)
ALL MOTORS – 230V-1P – 240V-3P - 480V-3P

| MODEL | FT | TYPE | MOTOR | MOTOR PART NUMBER | GEAR REDUCER | GEAR REDUCER PART NUMBER |
|---|---|---|---|---|---|---|
| DPX-SL 5030 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 8050 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 10060 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 12560 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX-SL 15090 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 5:1 180TC-1 1/4 | 052-008862 |
| DPX-SL 200120 | 40 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX4T 5630 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 8460 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 11260 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 140100 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX4T 16890 | 30 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX4T 224120 | 40 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX8T 6440 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX8T 12880 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX8T 160120 | 25 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX8T 192120 | 30 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX8T 256160 | 40 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX12T 7250 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 10860 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 144100 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 175120 | 25 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX12T 216150 | 30 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX12T 288200 | 40 | DRAG-8" | 5HP-1750RPM-60HZ-240/480V-3P 184TC-1-1/8-CLASS B | 004-001982 | 30:1 180TC-1-7/8 | 052-008866 |
| DPX16GT 8250 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P 143TC- 7/8-CLASS B | 004-005415 | 5:1 140TC-7/8 | 052-008861 |
| DPX16GT 12360 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P 145TC- 7/8-CLASS B | 004-005416 | 5:1 140TC-7/8 | 052-008861 |
| DPX16GT 164100 | 20 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX16GT 210120 | 25 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX16GT 246150 | 30 | DRAG-8" | 3HP-1750RPM-60HZ-240/480V-3P 182TC-1-1/8-CLASS B | 004-001980 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX16GT 328200 | 40 | DRAG-8" | 5HP-1750RPM-60HZ-240/480V-3P 184TC-1-1/8-CLASS B | 004-001982 | 30:1 180TC-1-7/8 | 052-008866 |

NOTE: 1. ALL MOTORS SHOWN 240V/480V-3P UNLESS STATED (1P) INDICATING 230V-1P

2. DRAG CAPACITIES @ 5 POINTS
   30:1 UP TO 1200 BU/HR DRYER MAX. 2310 BU 2HP (DRAG 8" WIDE X 10" HIGH)
   20:1 UP TO 1900 BU/HR DRYER MAX. 3465 BU 3HP (DRAG 8" WIDE X 10" HIGH)
   15:1 UP TO 2560 BU HR DRYER MAX. 4620 BU 3HP (DRAG 8" WIDE X 10" HIGH
   30:1 UP TO 2880 BU/HR DRYER MAX. 5355 BU 5HP (DRAG 8" WIDE X 14" HIGH) - DPX12T/16GT ONLY

3. WHEN ORDERING GEAR REDUCERS STATE: BRAND – RATIO - FRAME - SHAFT DIAMETER.

# STANDARD DISCHARGE SYSTEM

( FOR *LEESON/OHIO GEAR* GEAR REDUCERS)

ALL MOTORS – 380V-3P

| MODEL | FT | TYPE | MOTOR | MOTOR PART NUMBER | GEAR REDUCER | GEAR REDUCER PART NUMBER |
|---|---|---|---|---|---|---|
| MSF-41515-CF | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| MSF-41515-AB | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| MSF-62520-CF | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| MSF-62520-AB | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| MSF-72525-CF | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| MSF-72525-AB | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DP 3015 | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP 4025 | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DP 6030 | 20 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DP 7550 | 25 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DP 9045 | 30 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DP 12060 | 40 | AUGER-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 5:1 180TC-1 1/8 | 052-008862 |
| DP-SL 3520 | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP-SL 4530 | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 7040 | 20 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 8560 | 25 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 10560 | 30 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 14080 | 40 | AUGER-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX 4525 | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX 7040 | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX 9050 | 20 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX 13575 | 30 | AUGER-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX 180100 | 40 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX-SL 5030 | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 8050 | 15 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 10060 | 20 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 12560 | 25 | AUGER-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX-SL 15090 | 30 | AUGER-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX-SL 200120 | 40 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |

# STANDARD DISCHARGE SYSTEM

( FOR *LEESON/OHIO GEAR* GEAR REDUCERS)
ALL MOTORS – 380V-3P

| MODEL | FT | TYPE | MOTOR | MOTOR PART NUMBER | GEAR REDUCER | GEAR REDUCER PART NUMBER |
|---|---|---|---|---|---|---|
| DPX4T 5630 | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 8460 | 15 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 11260 | 20 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 140100 | 25 | AUGER-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX4T 16890 | 30 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX4T 224120 | 40 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX8T 6440 | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX8T 9660 | 15 | N/A | | | | |
| DPX8T 12880 | 20 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX8T 160120 | 25 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX8T 192120 | 30 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX8T 256160 | 40 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX12T 7250 | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 10860 | 15 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 144100 | 20 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 175120 | 25 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX12T 216150 | 30 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX12T 288200 | 40 | DRAG-8" | 5HP-1450RPM-50HZ- 380V-3P 184TC-1-1/8-CLASS B | 004-007868 | 30:1 180TC-1-7/8 | 052-008866 |
| DPX16GT 8250 | 10 | AUGER-8" | 1HP-1450RPM-50HZ- 380V-3P 143TC- 7/8-CLASS B | 004-007865 | 5:1 140TC-7/8 | 052-008861 |
| DPX16GT 12360 | 15 | AUGER-8" | 2HP-1450RPM-50HZ- 380V-3P 145TC- 7/8-CLASS B | 004-007866 | 5:1 140TC-7/8 | 052-008861 |
| DPX16GT 164100 | 20 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX16GT 210120 | 25 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX16GT 246150 | 30 | DRAG-8" | 3HP-1450RPM-50HZ- 380V-3P 182TC-1-1/8-CLASS B | 004-007867 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX16GT 328200 | 40 | DRAG-8" | 5HP-1450RPM-50HZ- 380V-3P 184TC-1-1/8-CLASS B | 004-007868 | 30:1 180TC-1-7/8 | 052-008866 |

NOTE: 1. ALL MOTORS SHOWN 380V 3P (50HZ)

2. DRAG CAPACITIES @ 5 POINTS
   30:1 UP TO 1200 BU/HR DRYER MAX. 2310 BU 2HP (DRAG 8" WIDE X 10" HIGH)
   20:1 UP TO 1900 BU/HR DRYER MAX. 3465 BU 3HP (DRAG 8" WIDE X 10" HIGH)
   15:1 UP TO 2560 BU HR DRYER MAX. 4620 BU 3HP (DRAG 8" WIDE X 10" HIGH
   30:1 UP TO 2880 BU/HR DRYER MAX. 5355 BU 5HP (DRAG 8" WIDE X 14" HIGH) - DPX12T/16GT ONLY

3. WHEN ORDERING GEAR REDUCERS STATE: BRAND – RATIO - FRAME - SHAFT DIAMETER.

# STANDARD DISCHARGE SYSTEM

( FOR *LEESON/OHIO GEAR* GEAR REDUCERS)

ALL MOTORS – 575V-3P

| MODEL | FT | TYPE | MOTOR | MOTOR PART NUMBER | GEAR REDUCER | GEAR REDUCER PART NUMBER |
|---|---|---|---|---|---|---|
| MSF-41515-CF | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| MSF-41515-AB | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| MSF-62520-CF | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| MSF-62520-AB | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| MSF-72525-CF | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| MSF-72525-AB | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DP 3015 | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP 4025 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DP 6030 | 20 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DP 7550 | 25 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145TC-7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DP 9045 | 30 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145TC-7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DP 12060 | 40 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 5:1 180TC-1 1/8 | 052-008862 |
| DP-SL 3520 | 10 | AUGER-8" | DRIVES FROM DC | | | |
| DP-SL 4530 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 7040 | 20 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 8560 | 25 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145TC-7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 10560 | 30 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145TC-7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DP-SL 14080 | 40 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX 4525 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX 7040 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX 9050 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145TC-7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX 13575 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX 180100 | 40 | DRAG-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX-SL 5030 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 8050 | 15 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P 143TC-7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 10060 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145TC-7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX-SL 12560 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX-SL 15090 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX-SL 200120 | 40 | DRAG-8" | 3HP-1750RPM-60HZ-575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |

# STANDARD DISCHARGE SYSTEM

( FOR *LEESON/OHIO GEAR* GEAR REDUCERS)
ALL MOTORS – 575V-3P

| MODEL | FT | TYPE | MOTOR | MOTOR PART NUMBER | GEAR REDUCER | GEAR REDUCER PART NUMBER |
|---|---|---|---|---|---|---|
| DPX4T 5630 | 10 | AUGER-8" | 1HP-1750RPM-60HZ- 575V-3P 143TC- 7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 8460 | 15 | AUGER-8" | 2HP-1750RPM-60HZ- 575V-3P 145TC- 7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 11260 | 20 | AUGER-8" | 2HP-1750RPM-60HZ- 575V-3P 145TC- 7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX4T 140100 | 25 | AUGER-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 5:1 180TC-1 1/8 | 052-008862 |
| DPX4T 16890 | 30 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX4T 224120 | 40 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX8T 6440 | 10 | AUGER-8" | 1HP-1750RPM-60HZ- 575V-3P 143TC- 7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX8T 9660 | 15 | N/A | | | | |
| DPX8T 12880 | 20 | AUGER-8" | 2HP-1750RPM-60HZ- 575V-3P 145TC- 7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX8T 160120 | 25 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX8T 192120 | 30 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX8T 256160 | 40 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX12T 7250 | 10 | AUGER-8" | 1HP-1750RPM-60HZ- 575V-3P 143TC- 7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 10860 | 15 | AUGER-8" | 2HP-1750RPM-60HZ- 575V-3P 145TC- 7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 144100 | 20 | AUGER-8" | 2HP-1750RPM-60HZ- 575V-3P 145TC- 7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX12T 175120 | 25 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX12T 216150 | 30 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX12T 288200 | 40 | DRAG-8" | 5HP-1750RPM-60HZ- 575V-3P 184TC-1-1/8-CLASS B | 004-007631 | 30:1 180TC-1-7/8 | 052-008866 |
| DPX16GT 8250 | 10 | AUGER-8" | 1HP-1750RPM-60HZ- 575V-3P 143TC- 7/8-CLASS B | 004-007424 | 5:1 140TC-7/8 | 052-008861 |
| DPX16GT 12360 | 15 | AUGER-8" | 2HP-1750RPM-60HZ- 575V-3P 145TC- 7/8-CLASS B | 004-007616 | 5:1 140TC-7/8 | 052-008861 |
| DPX16GT 164100 | 20 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX16GT 210120 | 25 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 20:1-180TC-1-1/4 | 052-008864 |
| DPX16GT 246150 | 30 | DRAG-8" | 3HP-1750RPM-60HZ- 575V-3P 182TC-1-1/8-CLASS B | 004-007571 | 15:1 180TC-1 1/8 | 052-008865 |
| DPX16GT 328200 | 40 | DRAG-8" | 5HP-1750RPM-60HZ- 575V-3P 184TC-1-1/8-CLASS B | 004-007631 | 30:1 180TC-1-7/8 | 052-008866 |

NOTE: 1. ALL MOTORS SHOWN 575V 3P

2. DRAG CAPACITIES @ 5 POINTS
   30:1 UP TO 1200 BU/HR DRYER MAX. 2310 BU 2HP (DRAG 8" WIDE X 10" HIGH)
   20:1 UP TO 1900 BU/HR DRYER MAX. 3465 BU 3HP (DRAG 8" WIDE X 10" HIGH)
   15:1 UP TO 2560 BU HR DRYER MAX. 4620 BU 3HP (DRAG 8" WIDE X 10" HIGH
   30:1 UP TO 2880 BU/HR DRYER MAX. 5355 BU 5HP (DRAG 8" WIDE X 14" HIGH) - DPX12T/16GT ONLY

3. WHEN ORDERING GEAR REDUCERS STATE: BRAND – RATIO - FRAME - SHAFT DIAMETER.

## SPROCKET CHART FOR 1 1/4" AUGER SHAFTS

230V-1P – 240V-3P – 480V-3P - 575V-3P

| MODEL | FT | METERING ROLLS | DC GEAR REDUCER | AUGER REDUCER | AUGER SHAFT |
|---|---|---|---|---|---|
| MSF 31010-CF 1P | 10 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| MSF 31010-AB 1P | 10 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| | | | | | |
| MSF 41515-CF 1P | 10 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| MSF 41515-AB 1P | 10 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| | | | | | |
| MSF 62520-CF | 15 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| MSF 62520-AB | 15 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| | | | | | |
| MSF 72525-CF | 15 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| MSF 72525-AB | 15 | 4016-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| | | | | | |
| DP 2510 1P | 10 | 4032-1 | 4012-1 & 4060-1 | NONE | 4015-1 1/4 |
| DP 3015 1P | 10 | 4032-1 | 4012-1 & 4060-1 | NONE | 4015-1 1/4 |
| DP 4020 1P | 15 | 4032-1 | 4012-1 | 4016-7/8 | 4024-1 1/4 |
| DP 5020 1P | 20 | 4032-1 | 4012-1 | 4016-7/8 | 4024-1 1/4 |
| DP 7530 1P | 30 | 4032-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| DP 10040 1P | 40 | 4032-1 | 4012-1 | 4024-1 1/8 | 4024-1 1/4 |
| | | | | | |
| DP 3015 | 10 | 4032-1 | 4012-1 & 4060-1 | NONE | 4015-1 1/4 |
| DP 4025 | 15 | 4032-1 | 4012-1 | 4016-7/8 | 4024-1 1/4 |
| DP 6030 | 20 | 4032-1 | 4012-1 | 4016-7/8 | 4024-1 1/4 |
| DP 7550 | 25 | 4032-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| DP 9045 | 30 | 4032-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| DP 12060 | 40 | 4032-1 | 4012-1 | 4024-1 1/8 | 4024-1 1/4 |
| | | | | | |
| DPSL 3520 | 10 | 4032-1 | 4012-1 & 4060-1 | NONE | 4015-1 1/4 |
| DPSL 4530 | 15 | 4032-1 | 4012-1 | 4016-7/8 | 4024-1 1/4 |
| DPSL 7040 | 20 | 4032-1 | 4012-1 | 4016-7/8 | 4024-1 1/4 |
| DPSL 8560 | 25 | 4032-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| DPSL 10560 | 30 | 4032-1 | 4012-1 | 4016-7/8 | 4016-1 1/4 |
| DPSL 14080 | 40 | 4032-1 | 4012-1 | 4024-1 1/8 | 4024-1 1/4 |

NOTE: 1. THE METERING IDLER SPROCKET 4017-1/2 IS THE SAME FOR ALL DRYERS.

2. REFER TO SPROCKET PAGE FOR PART NUMBERS.

## SPROCKET CHART FOR 1 1/4" AUGER SHAFTS

230V-1P – 240V-3P – 480V-3P - 575V-3P

| MODEL | FT | METERING ROLLS | DC GEAR REDUCER | AUGER REDUCER | AUGER SHAFT |
|---|---|---|---|---|---|
| DPX 4525 | 10 | 4032-1 | 4016-1 | 4016-7/8 | 4024-1 1/4 |
| DPX 7040 | 15 | 4032-1 | 4016-1 | 4016-7/8 | 4024-1 1/4 |
| DPX 9050 | 20 | 4032-1 | 4016-1 | 4016-7/8 | 4016-1 1/4 |
| DPX 13575 | 30 | 4032-1 | 4016-1 | 4024-1 1/8 | 4024-1 1/4 |
| DPX 180100 | 40 | 4032-1 | 4016-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPXSL 5030 | 10 | 4032-1 | 4016-1 | 4016-7/8 | 4024-1 1/4 |
| DPXSL 8050 | 15 | 4032-1 | 4016-1 | 4016-7/8 | 4024-1 1/4 |
| DPXSL 10060 | 20 | 4032-1 | 4016-1 | 4016-7/8 | 4016-1 1/4 |
| DPXSL 12560 | 25 | 4032-1 | 4016-1 | 4024-1 1/8 | 4024-1 1/4 |
| DPXSL 15090 | 30 | 4032-1 | 4016-1 | 4024-1 1/8 | 4024-1 1/4 |
| DPXSL 200120 | 40 | 4032-1 | 4016-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX4T 5630 | 10 | 4032-1 | 4024-1 | 4016-7/8 | 4024-1 1/4 |
| DPX4T 8460 | 15 | 4032-1 | 4024-1 | 4016-7/8 | 4016-1 1/4 |
| DPX4T 11260 | 20 | 4032-1 | 4024-1 | 4016-7/8 | 4016-1 1/4 |
| DPX4T 140100 | 25 | 4032-1 | 4024-1 | 4024-1 1/8 | 4024-1 1/4 |
| DPX4T 16890 | 30 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX4T 224120 | 40 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX8T 6440 | 10 | 4032-1 | 4024-1 | 4016-7/8 | 4024-1 1/4 |
| DPX8T 9660 | 15 | 4032-1 | 4024-1 | 4016-7/8 | 4016-1 1/4 |
| DPX8T 12880 | 20 | 4032-1 | 4024-1 | 4024-7/8 | 4024-1 1/4 |
| DPX8T 160120 | 25 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX8T 192120 | 30 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX8T 256160 | 40 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX12T 7250 | 10 | 4032-1 | 4026-1 | 4016-7/8 | 4016-1 1/4 |
| DPX12T 10860 | 15 | 4032-1 | 4026-1 | 4016-7/8 | 4016-1 1/4 |
| DPX12T 144100 | 20 | 4032-1 | 4026-1 | 4024-7/8 | 4024-1 1/4 |
| DPX12T 175120 | 25 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX12T 216150 | 30 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX12T 288200 | 40 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX16GT 8250 | 10 | 4032-1 | 4026-1 | 4016-7/8 | 4016-1 1/4 |
| DPX16GT 12360 | 15 | 4032-1 | 4026-1 | 4016-7/8 | 4016-1 1/4 |
| DPX16GT 164100 | 20 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX16GT 210120 | 25 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX16GT 246150 | 30 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX16GT 328200 | 40 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |

NOTE: 1. THE METERING IDLER SPROCKET 4017-1/2 IS THE SAME FOR ALL DRYERS.

2. REFER TO SPROCKET PAGE FOR PART NUMBERS.

## SPROCKET CHART FOR 1 1/4" AUGER SHAFTS

380V-3P

| MODEL | FT | METERING ROLLS | DC GEAR REDUCER | AUGER REDUCER | AUGER SHAFT |
|---|---|---|---|---|---|
| MSF 41515-CF | 10 | 4016-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| MSF 41515-AB | 10 | 4016-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| | | | | | |
| MSF 62520-CF | 15 | 4016-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| MSF 62520-AB | 15 | 4016-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| | | | | | |
| MSF 72525-CF | 15 | 4016-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| MSF 72525-AB | 15 | 4016-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| | | | | | |
| DP 3015 | 10 | 4032-1 | 4012-1 & 4060-1 | NONE | 4015-1 1/4 |
| DP 4025 | 15 | 4032-1 | 4012-1 | 4016-7/8 | 4020-1 1/4 |
| DP 6030 | 20 | 4032-1 | 4012-1 | 4016-7/8 | 4020-1 1/4 |
| DP 7550 | 25 | 4032-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| DP 9045 | 30 | 4032-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| DP 12060 | 40 | 4032-1 | 4012-1 | 4024-1 1/8 | 4020-1 1/4 |
| | | | | | |
| DPSL 3520 | 10 | 4032-1 | 4012-1 & 4060-1 | NONE | 4015-1 1/4 |
| DPSL 4530 | 15 | 4032-1 | 4012-1 | 4016-7/8 | 4020-1 1/4 |
| DPSL 7040 | 20 | 4032-1 | 4012-1 | 4016-7/8 | 4020-1 1/4 |
| DPSL 8560 | 25 | 4032-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| DPSL 10560 | 30 | 4032-1 | 4012-1 | 4020-7/8 | 4016-1 1/4 |
| DPSL 14080 | 40 | 4032-1 | 4012-1 | 4024-1 1/8 | 4020-1 1/4 |
| | | | | | |
| DPX 4525 | 10 | 4032-1 | 4016-1 | 4016-7/8 | 4020-1 1/4 |
| DPX 7040 | 15 | 4032-1 | 4016-1 | 4016-7/8 | 4020-1 1/4 |
| DPX 9050 | 20 | 4032-1 | 4016-1 | 4020-7/8 | 4016-1 1/4 |
| DPX 13575 | 30 | 4032-1 | 4016-1 | 4024-1 1/8 | 4020-1 1/4 |
| DPX 180100 | 40 | 4032-1 | 4016-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPXSL 5030 | 10 | 4032-1 | 4016-1 | 4016-7/8 | 4020-1 1/4 |
| DPXSL 8050 | 15 | 4032-1 | 4016-1 | 4016-7/8 | 4020-1 1/4 |
| DPXSL 10060 | 20 | 4032-1 | 4016-1 | 4020-7/8 | 4020-1 1/4 |
| DPXSL 12560 | 25 | 4032-1 | 4016-1 | 4024-1 1/8 | 4020-1 1/4 |
| DPXSL 15090 | 30 | 4032-1 | 4016-1 | 4024-1 1/8 | 4020-1 1/4 |
| DPXSL 200120 | 40 | 4032-1 | 4016-1 | REFER TO DRAG CONVEYOR PARTS | |

NOTE: 1. THE METERING IDLER SPROCKET 4017-1/2 IS THE SAME FOR ALL DRYERS.

2. REFER TO SPROCKET PAGE FOR PART NUMBERS.

## SPROCKET CHART FOR 1 1/4" AUGER SHAFTS

380V-3P

| MODEL | FT | METERING ROLLS | DC GEAR REDUCER | AUGER REDUCER | AUGER SHAFT |
|---|---|---|---|---|---|
| DPX4T 5630 | 10 | 4032-1 | 4024-1 | 4016-7/8 | 4020-1 1/4 |
| DPX4T 8460 | 15 | 4032-1 | 4024-1 | 4020-7/8 | 4016-1 1/4 |
| DPX4T 11260 | 20 | 4032-1 | 4024-1 | 4020-7/8 | 4016-1 1/4 |
| DPX4T 140100 | 25 | 4032-1 | 4024-1 | 4024-1 1/8 | 4020-1 1/4 |
| DPX4T 16890 | 30 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX4T 224120 | 40 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX8T 6440 | 10 | 4032-1 | 4024-1 | 4016-7/8 | 4016-1 1/4 |
| DPX8T 9660 | 15 | 4032-1 | 4024-1 | 4020-7/8 | 4016-1 1/4 |
| DPX8T 12880 | 20 | 4032-1 | 4024-1 | 4020-7/8 | 4020-1 1/4 |
| DPX8T 160120 | 25 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX8T 192120 | 30 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX8T 256160 | 40 | 4032-1 | 4024-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX12T 7250 | 10 | 4032-1 | 4026-1 | 4016-7/8 | 4024-1 1/4 |
| DPX12T 10860 | 15 | 4032-1 | 4026-1 | 4016-7/8 | 4024-1 1/4 |
| DPX12T 144100 | 20 | 4032-1 | 4026-1 | 4016-7/8 | 4024-1 1/4 |
| DPX12T 175120 | 25 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX12T 216150 | 30 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX12T 288200 | 40 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| | | | | | |
| DPX16GT 8250 | 10 | 4032-1 | 4026-1 | 4016-7/8 | 4024-1 1/4 |
| DPX16GT 12360 | 15 | 4032-1 | 4026-1 | 4016-7/8 | 4024-1 1/4 |
| DPX16GT 164100 | 20 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX16GT 210120 | 25 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX16GT 246150 | 30 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |
| DPX16GT 328200 | 40 | 4032-1 | 4026-1 | REFER TO DRAG CONVEYOR PARTS | |

NOTE: 1. THE METERING IDLER SPROCKET 4017-1/2 IS THE SAME FOR ALL DRYERS.

2. REFER TO SPROCKET PAGE FOR PART NUMBERS.

## STANDARD LEVELING (AUGER) SYSTEM

ALL MOTORS – 230V-1P – 240V-3P - 480V-3P

| MODEL | FT | TYPE | MOTOR DESCRIPTION | DELUX MOTOR P/N. |
|---|---|---|---|---|
| MSF 31010-CF 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P-143T- | 7/8-CLASS B 004-003236 |
| MSF 31010-AB 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P-143T- | 7/8-CLASS B 004-003236 |
| MSF 41515-CF 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P-143T- | 7/8-CLASS B 004-003236 |
| MSF 41515-AB 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-1P-143T- | 7/8-CLASS B 004-003236 |
| MSF 41515-CF | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P-143T- | 7/8-CLASS B 004-002355 |
| MSF 41515-AB | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P-143T- | 7/8-CLASS B 004-002355 |
| MSF 62520-CF | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| MSF 62520-AB | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| MSF 72525-CF | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| MSF 72525-AB | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| DP 2510 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-3P-143T- | 7/8-CLASS B 004-003236 |
| DP 3015 1P | 10 | AUGER-8" | 1HP-1750RPM-60HZ-115/230V-3P-143T- | 7/8-CLASS B 004-003236 |
| DP 4020 1P | 15 | AUGER-8" | 2HP-1750RPM-60HZ-115/230V-1P-182T-1 | 1/8-CLASS B 004-007779 |
| DP 5020 1P | 20 | AUGER-8" | 2HP-1750RPM-60HZ-115/230V-1P-182T-1 | 1/8-CLASS B 004-007779 |
| DP 7530 1P | 30 | AUGER-8" | 3HP-1750RPM-60HZ- 230V-1P-184T-1 | 1/8-CLASS B 004-005417 |
| DP 10040 1P | 40 | AUGER-8" | 5HP-1750RPM-60HZ- 230V-1P-184T-1 | 1/8-CLASS B 004-004869 |
| DP 3015 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P-143T- | 7/8-CLASS B 004-002355 |
| DP 4025 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| DP 6030 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| DP 7550 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 | 1/8-CLASS B 004-002671 |
| DP 9045 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 | 1/8-CLASS B 004-002671 |
| DP 12060 | 40 | AUGER-8" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 | 1/8-CLASS B 004-002672 |
| DP-SL 3520 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P-143T- | 7/8-CLASS B 004-002355 |
| DP-SL 4530 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| DP-SL 7040 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- | 7/8-CLASS B 004-002673 |
| DP-SL 8560 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 | 1/8-CLASS B 004-002671 |
| DP-SL 10560 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 | 1/8-CLASS B 004-002671 |
| DP-SL 14080 | 40 | AUGER-8" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 | 1/8-CLASS B 004-002672 |

NOTE: 1. ALL MOTORS SHOWN 240V/480V-3P UNLESS STATED (1P) INDICATING 230V-1P.

## STANDARD LEVELING (AUGER) SYSTEM

ALL MOTORS – 230V-1P – 240V-3P - 480V-3P

| MODEL | FT | TYPE | MOTOR DESCRIPTION | DELUX MOTOR P/N. |
|---|---|---|---|---|
| DPX 4525 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P-143T- 7/8-CLASS B | 004-002355 |
| DPX 7040 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX 9050 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX 13575 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX 180100 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-240/480V-3P-215T-1 3/8-CLASS B | 004-002675 |
| DPX-SL 5030 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-240/480V-3P-143T- 7/8-CLASS B | 004-002355 |
| DPX-SL 8050 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX-SL 10060 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX-SL 12560 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX-SL 15090 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX-SL 200120 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-240/480V-3P-215T-1 3/8-CLASS B | 004-002675 |
| DPX4T 5630 | 10 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX4T 8460 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX4T 11260 | 20 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX4T 140100 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX4T 16890 | 30 | AUGER-8" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX4T 224120 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-240/480V-3P-215T-1 3/8-CLASS B | 004-002675 |
| DPX8T 6440 | 10 | AUGER-8" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX8T 9660 | 15 | N/A | | |
| DPX8T 12880 | 20 | AUGER-8" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX8T 160120 | 25 | AUGER-8" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX8T 192120 | 30 | AUGER-8" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX8T 256160 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-240/480V-3P-215T-1 3/8-CLASS B | 004-002675 |
| DPX12T 7250 | 10 | AUGER-10" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX12T 10860 | 15 | AUGER-10" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX12T 144100 | 20 | AUGER-10" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX12T 175120 | 25 | AUGER-10" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX12T 216150 | 30 | AUGER-10" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX12T 288200 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-240/480V-3P-215T-1 3/8-CLASS B | 004-002675 |
| DPX16GT 8250 | 10 | AUGER-10" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX16GT 12360 | 15 | AUGER-10" | 2HP-1750RPM-60HZ-240/480V-3P-145T- 7/8-CLASS B | 004-002673 |
| DPX16GT 164100 | 20 | AUGER-10" | 3HP-1750RPM-60HZ-240/480V-3P-182T-1 1/8-CLASS B | 004-002671 |
| DPX16GT 210120 | 25 | AUGER-10" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX16GT 246150 | 30 | AUGER-10" | 5HP-1750RPM-60HZ-240/480V-3P-184T-1 1/8-CLASS B | 004-002672 |
| DPX16GT 328200 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-240/480V-3P-215T-1 3/8-CLASS B | 004-002675 |

NOTE: 1. ALL MOTORS SHOWN 240V/480V-3P UNLESS STATED (1P) INDICATING 230V-1P.

# STANDARD LEVELING (AUGER) SYSTEM

ALL MOTORS – 380V-3P

| MODEL | FT | TYPE | MOTOR DESCRIPTION | DELUX MOTOR P/N. |
|---|---|---|---|---|
| MSF 41515-CF | 10 | AUGER-8” | 1HP-1450RPM-50HZ-380V-3P-143T-7/8-CLASS B | 004-007853 |
| MSF 41515-AB | 10 | AUGER-8” | 1HP-1450RPM-50HZ-380V-3P-143T-7/8-CLASS B | 004-007853 |
| MSF 62520-CF | 15 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| MSF 62520-AB | 15 | AUGER-8” | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| MSF 72525-CF | 15 | AUGER-8” | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| MSF 72525-AB | 15 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DP 3015 | 10 | AUGER-8” | 1HP-1450RPM-50HZ-380V-3P-143T-7/8-CLASS B | 004-007853 |
| DP 4025 | 15 | AUGER-8” | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DP 6030 | 20 | AUGER-8” | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DP 7550 | 25 | AUGER-8” | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DP 9045 | 30 | AUGER-8” | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DP 12060 | 40 | AUGER-8” | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DP-SL 3520 | 10 | AUGER-8” | 1HP-1450RPM-50HZ-380V-3P-143T-7/8-CLASS B | 004-007853 |
| DP-SL 4530 | 15 | AUGER-8” | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DP-SL 7040 | 20 | AUGER-8” | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DP-SL 8560 | 25 | AUGER-8” | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DP-SL 10560 | 30 | AUGER-8” | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DP-SL 14080 | 40 | AUGER-8” | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |

NOTE: 1. ALL MOTORS SHOWN 380V-3P.

## STANDARD LEVELING (AUGER) SYSTEM

ALL MOTORS – 380V-3P

| MODEL | FT | TYPE | MOTOR DESCRIPTION | DELUX MOTOR P/N. |
|---|---|---|---|---|
| DPX 4525 | 10 | AUGER-8" | 1HP-1450RPM-50HZ-380V-3P-143T-7/8-CLASS B | 004-007853 |
| DPX 7040 | 15 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX 9050 | 20 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX 13575 | 30 | AUGER-8" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX 180100 | 40 | AUGER-10" | 10HP-1450RPM-50HZ-380V-3P-215T-1 3/8-CLASS B | 004-007857 |
| DPX-SL 5030 | 10 | AUGER-8" | 1HP-1450RPM-50HZ-380V-3P-143T-7/8-CLASS B | 004-007853 |
| DPX-SL 8050 | 15 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX-SL 10060 | 20 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX-SL 12560 | 25 | AUGER-8" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX-SL 15090 | 30 | AUGER-8" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX-SL 200120 | 40 | AUGER-10" | 10HP-1450RPM-50HZ-380V-3P-215T-1 3/8-CLASS B | 004-007857 |
| DPX4T 5630 | 10 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX4T 8460 | 15 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX4T 11260 | 20 | AUGER-8" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX4T 140100 | 25 | AUGER-8" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX4T 16890 | 30 | AUGER-8" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DPX4T 224120 | 40 | AUGER-10" | 10HP-1450RPM-50HZ-380V-3P-215T-1 3/8-CLASS B | 004-007857 |
| DPX8T 6440 | 10 | AUGER-8" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX8T 9660 | 15 | N/A | | |
| DPX8T 12880 | 20 | AUGER-8" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX8T 160120 | 25 | AUGER-8" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DPX8T 192120 | 30 | AUGER-8" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-002656 |
| DPX8T 256160 | 40 | AUGER-10" | 10HP-1450RPM-50HZ-380V-3P-215T-1 3/8-CLASS B | 004-007857 |
| DPX12T 7250 | 10 | AUGER-10" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX12T 10860 | 15 | AUGER-10" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX12T 144100 | 20 | AUGER-10" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX12T 175120 | 25 | AUGER-10" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DPX12T 216150 | 30 | AUGER-10" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DPX12T 288200 | 40 | AUGER-10" | 10HP-1450RPM-50HZ-380V-3P-215T-1 3/8-CLASS B | 004-007857 |
| DPX16GT 8250 | 10 | AUGER-10" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX16GT 12360 | 15 | AUGER-10" | 2HP-1450RPM-50HZ-380V-3P-145T-7/8-CLASS B | 004-007854 |
| DPX16GT 164100 | 20 | AUGER-10" | 3HP-1450RPM-50HZ-380V-3P-182T-1 1/8-CLASS B | 004-007855 |
| DPX16GT 210120 | 25 | AUGER-10" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DPX16GT 246150 | 30 | AUGER-10" | 5HP-1450RPM-50HZ-380V-3P-184T-1 1/8-CLASS B | 004-007856 |
| DPX16GT 328200 | 40 | AUGER-10" | 10HP-1450RPM-50HZ-380V-3P-215T-1 3/8-CLASS B | 004-007857 |

NOTE: 1. ALL MOTORS SHOWN 380V-3P.

## STANDARD LEVELING (AUGER) SYSTEM

ALL MOTOR - 575V-3P

| MODEL | | FT | TYPE | MOTOR DESCRIPTION | DELUX MOTOR P/N. |
|---|---|---|---|---|---|
| MSF | 41515-CF | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P-143T-7/8-CLASS B | 004-007630 |
| MSF | 41515-AB | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P-143T-7/8-CLASS B | 004-007630 |
| MSF | 62520-CF | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| MSF | 62520-AB | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P 145T-7/8-CLASS B | 004-007425 |
| MSF | 72525-CF | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| MSF | 72525-AB | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DP | 3015 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P-143T-7/8-CLASS B | 004-007630 |
| DP | 4025 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DP | 6030 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DP | 7550 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DP | 9045 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DP | 12060 | 40 | AUGER-8" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DP-SL | 3520 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P-143T-7/8-CLASS B | 004-007630 |
| DP-SL | 4530 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DP-SL | 7040 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DP-SL | 8560 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DP-SL | 10560 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DP-SL | 14080 | 40 | AUGER-8" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |

NOTE: 1 ALL MOTORS SHOWN 575V-3P.

## STANDARD LEVELING (AUGER) SYSTEM

ALL MOTOR – 575V-3P

| MODEL | FT | TYPE | MOTOR DESCRIPTION | DELUX MOTOR P/N. |
|---|---|---|---|---|
| DPX 4525 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P-143T-7/8-CLASS B | 004-007630 |
| DPX 7040 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX 9050 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX 13575 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX 180100 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-575V-3P-215T-1 3/8-CLASS B | 004-007570 |
| DPX-SL 5030 | 10 | AUGER-8" | 1HP-1750RPM-60HZ-575V-3P-143T-7/8-CLASS B | 004-007630 |
| DPX-SL 8050 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX-SL 10060 | 20 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX-SL 12560 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX-SL 15090 | 30 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX-SL 200120 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-575V-3P-215T-1 3/8-CLASS B | 004-007570 |
| DPX4T 5630 | 10 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX4T 8460 | 15 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX4T 11260 | 20 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX4T 140100 | 25 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX4T 16890 | 30 | AUGER-8" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX4T 224120 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-575V-3P-215T-1 3/8-CLASS B | 004-007570 |
| DPX8T 6440 | 10 | AUGER-8" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX8T 9660 | 15 | N/A | | |
| DPX8T 12880 | 20 | AUGER-8" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX8T 160120 | 25 | AUGER-8" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX8T 192120 | 30 | AUGER-8" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX8T 256160 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-575V-3P-215T-1 3/8-CLASS B | 004-007570 |
| DPX12T 7250 | 10 | AUGER-10" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX12T 10860 | 15 | AUGER-10" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX12T 144100 | 20 | AUGER-10" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX12T 175120 | 25 | AUGER-10" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX12T 216150 | 30 | AUGER-10" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX12T 288200 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-575V-3P-215T-1 3/8-CLASS B | 004-007570 |
| DPX16GT 8250 | 10 | AUGER-10" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX16GT 12360 | 15 | AUGER-10" | 2HP-1750RPM-60HZ-575V-3P-145T-7/8-CLASS B | 004-007425 |
| DPX16GT 164100 | 20 | AUGER-10" | 3HP-1750RPM-60HZ-575V-3P-182T-1 1/8-CLASS B | 004-007615 |
| DPX16GT 210120 | 25 | AUGER-10" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX16GT 246150 | 30 | AUGER-10" | 5HP-1750RPM-60HZ-575V-3P-184T-1 1/8-CLASS B | 004-007629 |
| DPX16GT 328200 | 40 | AUGER-10" | 10HP-1750RPM-60HZ-575V-3P-215T-1 3/8-CLASS B | 004-007570 |

NOTE: 1 ALL MOTORS SHOWN 575V-3P.

# SHEAVES & BUSHINGS
## STANDARD LEVELING SYSTEM
## (AUGER)
## 230V-1P 240/480/575V-3P

| MODEL | FT | MOTOR | | AUGER | |
|---|---|---|---|---|---|
| | | SHEAVE | BUSHING | SHEAVE | BUSHING |
| MSF-31010-CF 1P | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| MSF-31010-AB 1P | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| MSF-41515-CF 1P | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| MSF-41515-AB 1P | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| MSF-62520-CF | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| MSF-62520-AB | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| MSF-72525-CF | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| MSF-72525-AB | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DP 2510 1P | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| DP 3015 1P | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| DP 4020 1P | 15 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DP 5020 1P | 20 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DP 7530 1P | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DP 10040 1P | 40 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DP 3015 | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| DP 4025 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DP 6030 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DP 7550 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DP 9045 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DP 12060 | 40 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPSL 3520 | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| DPSL 4530 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPSL 7040 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPSL 8560 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPSL 10560 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPSL 14080 | 40 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |

NOTE: 1. USE BELT P/N: 049-003364 (B82).
2. REFER TO SHEAVE-BUSHING-BELT PAGE FOR PART NUMBERS.

# SHEAVES & BUSHINGS
## STANDARD LEVELING SYSTEM
## (AUGER)
## 230V-1P 240/480/575V-3P

| MODEL | FT | MOTOR | | AUGER | |
|---|---|---|---|---|---|
| | | SHEAVE | BUSHING | SHEAVE | BUSHING |
| DPX 4525 | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| DPX 7040 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX 9050 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX 13575 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX 180100 | 40 | 3B3.4 | SH 1-3/8 | 3B18.4 | SK 1-1/4 |
| DPXSL 5030 | 10 | 1B3.4 | SH 7/8 | 1B18.4 | SK 1-1/4 |
| DPXSL 8050 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPXSL 10060 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPXSL 12560 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPXSL 15090 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPXSL 200120 | 40 | 3B3.4 | SH 1-3/8 | 3B18.4 | SK 1-1/4 |
| DPX4T 5630 | 10 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX4T 8460 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX4T 11260 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX4T 140100 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX4T 16890 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX4T 224120 | 40 | 3B3.4 | SH 1-3/8 | 3B18.4 | SK 1-1/4 |
| DPX8T 6440 | 10 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX8T 9660 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX8T 12880 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX8T 160120 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX8T 192120 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX8T 256160 | 40 | 3B3.4 | SH 1-3/8 | 3B18.4 | SK 1-1/4 |
| DPX12T 7250 | 10 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX12T 10860 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX12T 144100 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX12T 175120 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX12T 216150 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX12T 288200 | 40 | 3B3.4 | SH 1-3/8 | 3B18.4 | SK 1-1/4 |
| DPX16GT 8250 | 10 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX16GT 12360 | 15 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX16GT 164100 | 20 | 2B3.4 | SH 7/8 | 2B18.4 | SK 1-1/4 |
| DPX16GT 210120 | 25 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX16GT 246150 | 30 | 2B3.4 | SH 1-1/8 | 2B18.4 | SK 1-1/4 |
| DPX16GT 328200 | 40 | 3B3.4 | SH 1-3/8 | 3B18.4 | SK 1-1/4 |

NOTE: 1. USE BELT P/N: 049-003364 (B82).
2. REFER TO SHEAVE-BUSHING-BELT PAGE FOR PART NUMBERS.

# SHEAVES & BUSHINGS
## STANDARD LEVELING SYSTEM
## (AUGER)
## 380V-3P

| MODEL | FT | MOTOR | | AUGER | |
|---|---|---|---|---|---|
| | | SHEAVE | BUSHING | SHEAVE | BUSHING |
| MSF-41515-CF | 10 | 1B3.4 | SH 7/8 | 1B15.4 | SK 1-1/4 |
| MSF-41515-AB | 10 | 1B3.4 | SH 7/8 | 1B15.4 | SK 1-1/4 |
| MSF-62520-CF | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| MSF-62520-AB | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| MSF-72525-CF | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| MSF-72525-AB | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DP 3015 | 10 | 1B3.4 | SH 7/8 | 1B15.4 | SK 1-1/4 |
| DP 4025 | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DP 6030 | 20 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DP 7550 | 25 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DP 9045 | 30 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DP 12060 | 40 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPSL 3520 | 10 | 1B3.4 | SH 7/8 | 1B15.4 | SK 1-1/4 |
| DPSL 4530 | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPSL 7040 | 20 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPSL 8560 | 25 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPSL 10560 | 30 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPSL 14080 | 40 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX 4525 | 10 | 1B3.4 | SH 7/8 | 1B15.4 | SK 1-1/4 |
| DPX 7040 | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPX 9050 | 20 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPX 13575 | 30 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX 180100 | 40 | 3B3.4 | SH 1-3/8 | 3B15.4 | SK 1-1/4 |
| DPXSL 5030 | 10 | 1B3.4 | SH 7/8 | 1B15.4 | SK 1-1/4 |
| DPXSL 8050 | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPXSL 10060 | 20 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPXSL 12560 | 25 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPXSL 15090 | 30 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPXSL 200120 | 40 | 3B3.4 | SH 1-3/8 | 3B15.4 | SK 1-1/4 |

NOTE: 1. USE BELT P/N: 049-007874 (B76).
2. REFER TO SHEAVE-BUSHING-BELT PAGE FOR PART NUMBERS.

**SHEAVES & BUSHINGS**
**STANDARD LEVELING SYSTEM**
**(AUGER)**
**380V-3P**

| MODEL | FT | MOTOR | | AUGER | |
|---|---|---|---|---|---|
| | | SHEAVE | BUSHING | SHEAVE | BUSHING |
| DPX4T 5630 | 10 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPX4T 8460 | 15 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPX4T 11260 | 20 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX4T 140100 | 25 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX4T 16890 | 30 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX4T 224120 | 40 | 3B3.4 | SH 1-3/8 | 3B15.4 | SK 1-1/4 |
| DPX8T 6440 | 10 | 2B3.4 | SH 7/8 | 2B15.4 | SK 1-1/4 |
| DPX8T 9660 | 15 | N/A | N/A | 2B15.4 | N/A |
| DPX8T 12880 | 20 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX8T 160120 | 25 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX8T 192120 | 30 | 2B3.4 | SH 1-1/8 | 2B15.4 | SK 1-1/4 |
| DPX8T 256160 | 40 | 3B3.4 | SH 1-3/8 | 3B15.4 | SK 1-1/4 |
| DPX12T 7250 | 10 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX12T 10860 | 15 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX12T 144100 | 20 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX12T 175120 | 25 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX12T 216150 | 30 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX12T 288200 | 40 | 3B3.4 | SH 1-3/8 | 3B15.4 | SK 1-1/4 |
| DPX16GT 8250 | 10 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX16GT 12360 | 15 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX16GT 164100 | 20 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX16GT 210120 | 25 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX16GT 246150 | 30 | 2B3.4 | SH 1-3/8 | 2B15.4 | SK 1-1/4 |
| DPX16GT 328200 | 40 | 3B3.4 | SH 1-3/8 | 3B15.4 | SK 1-1/4 |

NOTE: 1. USE BELT P/N: 049-007874 (B76).
2. REFER TO SHEAVE-BUSHING-BELT PAGE FOR PART NUMBERS.

DELUX
Continuous Flow GRAIN DRYERS

# SHIPPING LISTS

- DP & DPSL SERIES
- DPX & DPXSL SERIES
- DPX4T SERIES
- DPX8T SERIES
- DPX12T SERIES
- DPX16GT SERIES

MODEL:_____LENGTH_____FT

SERIAL NO:____-____-_____-_____-_____

**SHIPPING LIST – ERECTION – SPLICE PLATES AND HARDWARE**

**DPX AND DPXSL MODELS**

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 100-005261 | SPLICE PLATE SHORT | 4 | 4 | 4 | 4 | 4 | 4 |
| 2. | 100-005262 | SPLICE PLATE LONG | 1 | 1 | 1 | 1 | 1 | 1 |
| 3. | 100-006356 | SPLICE PLATE PLENUM | 2 | 2 | 2 | 2 | 2 | 2 |
| 4. | 040-002739 | TCS 5/16 X 3/4 | 50 | 50 | 50 | 50 | 50 | 50 |
| 5. | 040-001483 | BOLT-WL 3/8 X 1 | 64 | 98 | 128 | 160 | 192 | 256 |
| 6. | 040-001460 | NUT-WL 3/8 | 64 | 98 | 128 | 160 | 192 | 256 |
| 7. | 300-010839 | PLENUM DOOR SUB-ASS'Y | 1 | 1 | 1 | 1 | 1 | 1 |
| 8. | 100-010345 | SIDES - DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 9. | 100-010344 | TOP/BOT.- DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 10. | 100-010353 | HINGE SUPPORT.-DOOR | 3 | 3 | 3 | 3 | 3 | 3 |
| 11. | 100-010835 | CATCH-PLENUM DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 12. | 040-001434 | BOLT-HEX 5/16 x 3/4 | 3 | 3 | 3 | 3 | 3 | 3 |
| 13. | 040-004068 | NUT-NYLOCK 5/16 | 3 | 3 | 3 | 3 | 3 | 3 |
| 14. | 040-005321 | BOLT-WL 5/16 X 3/4 | 26 | 26 | 26 | 26 | 26 | 26 |
| 15. | 040-001459 | NUT-WL 5/16 | 26 | 26 | 26 | 26 | 26 | 26 |

* HARDWARE INCLUDED FOR ROOF TO BASE ONLY (USE BOLTS-WL 3/8 X 1)

* GARNER IS ASSEMBLED ON ROOF.

* SPLICE PLATES (USE TCS 5/16 X 3/4)

* PLENUM DOOR MUST BE INSTALLED IN FIELD, (SEE DRAWING #900-010876)

* REFER TO ILLUSTRATION DRAWING P/N 900-005526 FOR LOCATION OF PARTS.

ADDITIONAL SHIPPING LIST FOR MODELS WITH DISCHARGE DRAG CONVEYORS

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 040-005321 | BOLT-WL 5/16 X 3/4 | 32 | 42 | 52 | 62 | 72 | 82 |
| 2. | 040-001459 | NUT-WL 5/16 | 32 | 42 | 52 | 62 | 72 | 82 |

MODEL:_____LENGTH_____FT

SERIAL NO:____-____-_____-_____-_____

**SHIPPING LIST – ERECTION – SPLICE PLATES AND HARDWARE**

**DPX4T MODELS**

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 100-005261 | SPLICE PLATE SHORT | 4 | 4 | 4 | 4 | 4 | 4 |
| 2. | 100-005262 | SPLICE PLATE LONG | 1 | 1 | 1 | 1 | 1 | 1 |
| 3. | 100-006356 | SPLICE PLATE PLENUM | 2 | 2 | 2 | 2 | 2 | 2 |
| 4. | 040-002739 | TCS 5/16 X 3/4 | 50 | 50 | 50 | 50 | 50 | 50 |
| 5. | 040-001483 | BOLT-WL 3/8 X 1 | 64 | 98 | 128 | 160 | 192 | 256 |
| 6. | 040-001460 | NUT-WL 3/8 | 64 | 98 | 128 | 160 | 192 | 256 |
| 7. | 300-010839 | PLENUM DOOR SUB-ASS'Y | 1 | 1 | 1 | 1 | 1 | 1 |
| 8. | 100-010345 | SIDES - DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 9. | 100-010344 | TOP/BOT.- DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 10. | 100-010353 | HINGE SUPPORT.-DOOR | 3 | 3 | 3 | 3 | 3 | 3 |
| 11. | 100-010835 | CATCH-PLENUM DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 12. | 040-001434 | BOLT-HEX 5/16 x 3/4 | 3 | 3 | 3 | 3 | 3 | 3 |
| 13. | 040-004068 | NUT-NYLOCK 5/16 | 3 | 3 | 3 | 3 | 3 | 3 |
| 14. | 040-005321 | BOLT-WL 5/16 X 3/4 | 26 | 26 | 26 | 26 | 26 | 26 |
| 15. | 040-001459 | NUT-WL 5/16 | 26 | 26 | 26 | 26 | 26 | 26 |

* HARDWARE INCLUDED FOR ROOF TO BASE ONLY, (USE BOLTS-WL 3/8 X 1)

* FOUR FOOT EMPTY AND ROOF SHIPPED AS ONE SECTION.

* GARNER IS SHIPPED NOT ASSEMBLED.

* SPLICE PLATES (USE TCS 5/16 X 3/4)

* PLENUM DOOR MUST BE INSTALLED IN FIELD, (SEE DRAWING #900-010876)

* REFER TO ILLUSTRATION DRAWING P/N 900-005526 FOR LOCATION OF PARTS.

ADDITIONAL SHIPPING LIST FOR MODELS WITH DISCHARGE DRAG CONVEYORS

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 040-005321 | BOLT-WL 5/16 X 3/4 | 32 | 42 | 52 | 62 | 72 | 82 |
| 2. | 040-001459 | NUT-WL 5/16 | 32 | 42 | 52 | 62 | 72 | 82 |

MODEL:_____LENGTH_____FT

SERIAL NO:____-____-_____-_____-_____

**SHIPPING LIST - ERECTION - SPLICE PLATES AND HARDWARE**

**DPX8T MODELS**

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 100-005261 | SPLICE PLATE SHORT | 8 | NA | 8 | 8 | 8 | 8 |
| 2. | 100-005262 | SPLICE PLATE LONG | 3 | NA | 3 | 3 | 3 | 3 |
| 3. | 100-006356 | SPLICE PLATE PLENUM | 2 | NA | 2 | 2 | 2 | 2 |
| 4. | 040-002739 | TCS 5/16 X 3/4 | 110 | NA | 110 | 110 | 110 | 110 |
| 5. | 040-002193 | BOLT-WL 3/8 X 3/4 | 8 | NA | 16 | 16 | 24 | 32 |
| 6. | 040-001483 | BOLT-WL 3/8 X 1 | 128 | NA | 256 | 320 | 384 | 512 |
| 7. | 040-001460 | NUT-WL 3/8 | 136 | NA | 272 | 336 | 408 | 544 |
| 8. | 300-010839 | PLENUM DOOR SUB-ASS'Y | 1 | 1 | 1 | 1 | 1 | 1 |
| 9. | 100-010345 | SIDES - DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 10. | 100-010344 | TOP/BOT.- DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 11. | 100-010353 | HINGE SUPPORT.-DOOR | 3 | 3 | 3 | 3 | 3 | 3 |
| 12. | 100-010835 | CATCH-PLENUM DOOR FRAME | 2 | 2 | 2 | 2 | 2 | 2 |
| 13. | 040-001434 | BOLT-HEX 5/16 x 3/4 | 3 | 3 | 3 | 3 | 3 | 3 |
| 14. | 040-004068 | NUT-NYLOCK 5/16 | 3 | 3 | 3 | 3 | 3 | 3 |
| 15. | 040-005321 | BOLT-WL 5/16 X 3/4 | 26 | 26 | 26 | 26 | 26 | 26 |
| 16. | 040-001459 | NUT-WL 5/16 | 26 | 26 | 26 | 26 | 26 | 26 |

* HARDWARE INCLUDED FOR ROOF TO EIGHT FOOT SECTION AND EIGHT FOOT SECTION TO BASE. (USE BOLTS-WL 3/8 X 1)

* GARNER IS SHIPPED ASSEMBLED ON ROOF.

* PLENUM DOOR MUST BE INSTALLED IN FIELD, (SEE DRAWING #900-010876)

* SPLICE PLATES (USE TCS 5/16 X 3/4)

* BURNER DRUMS MUST BE INSTALLED IN FIELD, HARDWARE INCLUDED (USE BOLTS-WL 3/8 X 3/4)

* REFER TO ILLUSTRATION DRAWING P/N 900-005526 FOR LOCATION OF PARTS.

ADDITIONAL SHIPPING LIST FOR MODELS WITH DISCHARGE DRAG CONVEYORS

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 040-005321 | BOLT-WL 5/16 X 3/4 | 32 | NA | 52 | 62 | 72 | 82 |
| 2. | 040-001459 | NUT-WL 5/16 | 32 | NA | 52 | 62 | 72 | 82 |

MODEL:_____LENGTH_____FT

SERIAL NO:____-____-_____-_____-_____

**SHIPPING LIST - ERECTION - SPLICE PLATES AND HARDWARE**

**DPX12T/DPX16GT MODELS**

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 100-005261 | SPLICE PLATE SHORT | 8 | 8 | 8 | 8 | 8 | 8 |
| 2. | 100-005262 | SPLICE PLATE LONG | 4 | 4 | 4 | 4 | 4 | 4 |
| 3. | 040-002739 | TCS 5/16-18UNC X 3/4 | 120 | 120 | 120 | 120 | 120 | 120 |
| 4. | 040-002193 | BOLT 3/8-16UNC X 3/4 | 8 | 16 | 16 | 16 | 24 | 32 |
| 5. | 040-001483 | BOLT 3/8-16UNC X 1 | 128 | 192 | 256 | 320 | 384 | 512 |
| 6. | 040-001460 | NUT 3/8-16UNC | 136 | 208 | 272 | 336 | 408 | 544 |

* HARDWARE INCLUDED FOR ROOF TO TWELVE FOOT SECTION AND TWELVE FOOT SECTION TO BASE. (USE BOLTS 3/8-16UNC X 1)

* DPX12T: GARNER IS SHIPPED ASSEMBLED ON ROOF.
* DPX16GT: GARNER IS SHIPPED **NOT** ASSEMBLED.

* SPLICE PLATES (USE TCS 5/16-18UNC X 3/4)

* BURNER DRUMS MUST BE INSTALLED IN FIELD, HARDWARE INCLUDED (USE BOLTS 3/8-16UNC X 3/4)

* REFER TO ILLUSTRATION DRAWING P/N 900-005526 FOR LOCATION OF PARTS.

ADDITIONAL SHIPPING LIST FOR MODELS WITH DISCHARGE DRAG CONVEYORS

| ITEM | PART NUMBER | PART DESCRIPTION | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 1. | 040-005321 | BOLT 5/16-16UNC-3/4 | 32 | 42 | 52 | 62 | 72 | 82 |
| 2. | 040-001459 | NUT 5/16-18UNC | 32 | 42 | 52 | 62 | 72 | 82 |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**1P – DENOTES 230V–1P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | 1P (FT) 10 | 1P 15 | 1P 20 | 1P 30 | 1P 40 |
|---|---|---|---|---|---|---|
| 400–009208 | TOP ASS'Y 10FT W/ONE DOOR W/ 8" | 1 | – | – | – | – |
| 400–009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 |
| 200–002976 | TOP ASS'Y 10FT INTERMEDIATE | – | – | – | 1 | 2 |
| 200–005516 | TOP ASS'Y 5FT REAR W/ 8" | – | 1 | – | – | – |
| 200–002978 | TOP ASS'Y 10FT REAR W/ 8" | – | – | 1 | 1 | 1 |
| 400–007623 | GARNER SIDE ASS'Y 5FT – 22" | – | 2 | – | – | – |
| 400–007624 | GARNER SIDE ASS'Y 10FT – 22" | 2 | 2 | 4 | 6 | 8 |
| 100–002599 | CROSS STRAP | 2 | 2 | 4 | 6 | 8 |
| 100–002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 6 | 8 |
| 100–007641 | LADDER SUPPORT BRACKET | 1 | 1 | 1 | 1 | 1 |
| 100–002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 |
| 100–006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | – |
| 100–006820 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | 1 |
| 400–009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 |
| 400–009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | 1 |
| 100–006824 | AUGER HEAD PLATE FRONT | 1 | 1 | 1 | 1 | 1 |
| 100–006825 | AUGER HEAD PLATE REAR | 1 | 1 | 1 | 1 | 1 |
| 200–006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – |
| 200–006723 | AUGER ONLY FRONT 1OFT – 8" | – | 1 | 1 | 1 | 1 |
| 200–006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 2 |
| 200–006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | – | – |
| 200–006720 | AUGER ONLY REAR 10FT – 8" | – | – | 1 | 1 | 1 |
| 100–006727 | AUGER SHAFT 1 1/4" FT–KEYED | 1 | 1 | 1 | 1 | 1 |
| 100–006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 3 |
| 100–006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | 1 | 1 | 1 | 1 | 1 |
| 040–005324 | BOLT HEX 7/16–14UNC X 3" | 4 | 8 | 8 | 12 | 16 |
| 040–006732 | NUT –LOCK 7/16–14UNC | 4 | 8 | 8 | 12 | 16 |
| 400–006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 3 |
| 100–004700 | TROUGH SUPPORT HANGER – 8" | 1 | – | – | – | – |
| 200–006992 | AUGER TROUGH INTER 10FT – 8" | – | – | – | 1 | 2 |
| 200–007002 | AUGER TROUGH REAR 5FT – 8" | 1 | 1 | – | – | – |
| 200–006993 | AUGER TROUGH REAR 10FT – 8" | – | – | 1 | 1 | 1 |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**1P – DENOTES 230V–1P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 1P 10 | 1P 15 | 1P 20 | 1P 30 | 1P 40 |
|---|---|---|---|---|---|---|---|
| 200–005388 | BELT GUARD | | 1 | 1 | 1 | 1 | 1 |
| 100–003343 | BELT GUARD BACK PLATE | | 1 | 1 | 1 | 1 | 1 |
| 049–003364 | BELT "B82" 83.3PITCH | | 1 | 2 | 2 | 2 | 2 |
| 056–005370 | SHEAVE AUGER 1B18.4 | | 1 | – | – | – | – |
| 056–005372 | SHEAVE AUGER 2B18.4 | | – | 1 | 1 | 1 | 1 |
| 056–006830 | BUSHING QD–SK 1–1/4 | | 1 | 1 | 1 | 1 | 1 |
| 056–005371 | SHEAVE MOTOR 1B3.4 | | 1 | – | – | – | – |
| 056–005373 | SHEAVE MOTOR 2B3.4 | | – | 1 | 1 | 1 | 1 |
| 056–005375 | BUSHING QD–SH 7/8 | | 1 | – | – | – | – |
| 056–005376 | BUSHING QD–SH 1–1/8 | | – | 1 | 1 | 1 | 1 |
| 044–001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 |
| 004–003236 | MOTOR 1HP 1750RPM 230V–1P 143T | 7/8 | 1 | – | – | – | – |
| 004–007779 | MOTOR 2HP 1750RPM 230V–1P 182T | 1–1/8 | – | 1 | 1 | – | – |
| 004–005417 | MOTOR 3HP 1750RPM 230V–1P 182T | 1–1/8 | – | – | – | 1 | – |
| 004–004869 | MOTOR 5HP 1750RPM 230V–1P 184T | 1–1/8 | – | – | – | – | 1 |
| 100–002486 | KEY–MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 |
| 100–007397 | MOTOR ADAPTER PLATE | | 1 | – | – | – | – |
| 100–007396 | MOTOR PLATE TOP | | 1 | 1 | 1 | 1 | 1 |
| 100–002855 | MOTOR PLATE BOT | | 1 | 1 | 1 | 1 | 1 |
| 040–002739 | TCS 5/16–18UNC X 3/4 | | 29 | 29 | 29 | 29 | 29 |
| 040–005321 | BOLT WHIZ 5/16–18UNC X 3/4 | | 120 | 150 | 190 | 300 | 375 |
| 040–001459 | NUT WHIZ 5/16–18UNC | | 120 | 150 | 190 | 300 | 375 |
| 040–001483 | BOLT WHIZ 3/8 –16UNC X 1 | | 23 | 25 | 27 | 32 | 36 |
| 040–001440 | BOLT WHIZ 3/8 –16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 |
| 040–001460 | NUT WHIZ 3/8 –16UNC | | 27 | 29 | 31 | 36 | 40 |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST - GARNER ASSEMBLY - MSF/DP/DPSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P - DENOTES 240V/480V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 3P 10 | 3P 15 | 3P 20 | 3P 25 | 3P 30 | 3P 40 |
|---|---|---|---|---|---|---|---|
| 400-009208 | TOP ASS'Y 10FT W/ONE DOOR W/ 8" | 1 | - | - | - | - | - |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | - | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y 10FT INTERMEDIATE | - | - | - | 1 | 1 | 2 |
| 200-OO5516 | TOP ASS'Y 5FT REAR W/ 8" | - | 1 | - | 1 | - | - |
| 200-002978 | TOP ASS'Y 10FT REAR W/ 8" | - | - | 1 | - | 1 | 1 |
| 400-007623 | GARNER SIDE ASS'Y 5FT - 22" | - | 2 | - | 2 | - | - |
| 400-007624 | GARNER SIDE ASS'Y 10FT - 22" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-007641 | LADDER SUPPORT BRACKET | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | 1 | - |
| 100-006820 | END PLATE REAR W/SWITCH 40FT | - | - | - | - | - | 1 |
| 400-009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | - | - | - | - | - | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006825 | AUGER HEAD PLATE REAR | 1 | 1 | 1 | 1 | 1 | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY - 8" | 1 | - | - | - | - | - |
| 200-006723 | AUGER ONLY FRONT 1OFT - 8" | - | 1 | 1 | 1 | 1 | 1 |
| 200-006724 | AUGER ONLY INTER 10FT - 8" | - | - | - | 1 | 1 | 2 |
| 200-006721 | AUGER ONLY REAR 5FT - 8" | - | 1 | - | 1 | - | - |
| 200-006720 | AUGER ONLY REAR 10FT - 8" | - | - | 1 | - | 1 | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | - | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE-NON-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT HEX 7/16-14UNC X 3" | 4 | 8 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT -LOCK 7/16-14UNC | 4 | 8 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y - 8" | - | 1 | 1 | 2 | 2 | 3 |
| 100-004700 | TROUGH SUPPORT HANGER - 8" | 1 | - | - | - | - | - |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP/DPSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | | 3P 10 | 3P 15 | 3P 20 | 3P 25 | 3P 30 | 3P 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT – 8" | | – | – | – | 1 | 1 | 2 |
| 200-007002 | AUGER TROUGH REAR 5FT – 8" | | 1 | 1 | – | 1 | – | – |
| 200-006993 | AUGER TROUGH REAR 10FT – 8" | | – | – | 1 | – | 1 | 1 |
| 200-005388 | BELT GUARD | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-003343 | BELT GUARD BACK PLATE | | 1 | 1 | 1 | 1 | 1 | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | | 1 | 2 | 2 | 2 | 2 | 2 |
| 056-005370 | SHEAVE AUGER 1B18.4 | | 1 | – | – | – | – | – |
| 056-005372 | SHEAVE AUGER 2B18.4 | | – | 1 | 1 | 1 | 1 | 1 |
| 056-006830 | BUSHING QD–SK 1–1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005371 | SHEAVE MOTOR 1B3.4 | | 1 | – | – | – | – | – |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | – | 1 | 1 | 1 | 1 | 1 |
| 056-005375 | BUSHING QD–SH 7/8 | | 1 | 1 | 1 | – | – | – |
| 056-005376 | BUSHING QD–SH 1–1/8 | | – | – | – | 1 | 1 | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-002355 | MOTOR 1HP 1750RPM 240/480V–3P | 143T 7/8 | 1 | – | – | – | – | – |
| 004-002673 | MOTOR 2HP 1750RPM 240/480V–3P | 145T 7/8 | – | 1 | 1 | – | – | – |
| 004-002671 | MOTOR 3HP 1750RPM 240/480V–3P | 182T 1–1/8 | – | – | – | 1 | 1 | – |
| 004-002672 | MOTOR 5HP 1750RPM 240/480V–3P | 184T 1–1/8 | – | – | – | – | – | 1 |
| 100-002486 | KEY–MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | 1 | – | – | – |
| 100-007396 | MOTOR PLATE TOP | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-002855 | MOTOR PLATE BOT | | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-002739 | TCS 5/16–18UNC X 3/4 | | 29 | 29 | 29 | 29 | 29 | 29 |
| 040-005321 | BOLT WHIZ 5/16–18UNC X 3/4 | | 120 | 150 | 190 | 230 | 300 | 375 |
| 040-001459 | NUT WHIZ 5/16–18UNC | | 120 | 150 | 190 | 230 | 300 | 375 |
| 040-001483 | BOLT WHIZ 3/8 –16UNC X 1 | | 23 | 25 | 27 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 –16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 –16UNC | | 27 | 29 | 31 | 32 | 36 | 40 |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP/DPSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 3P 10 | 3P 15 | 3P 20 | 3P 25 | 3P 30 | 3P 40 |
|---|---|---|---|---|---|---|---|
| 400-009208 | TOP ASS'Y 10FT W/ONE DOOR W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y 10FT INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 200-OO5516 | TOP ASS'Y 5FT REAR W/ 8" | – | 1 | – | 1 | – | – |
| 200-002978 | TOP ASS'Y 10FT REAR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-007623 | GARNER SIDE ASS'Y 5FT – 22" | – | 2 | – | 2 | – | – |
| 400-007624 | GARNER SIDE ASS'Y 10FT – 22" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-007641 | LADDER SUPPORT BRACKET | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | 1 | – |
| 100-006820 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | – | 1 |
| 400-009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 2 |
| 400-009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | 1 | 1 | 1 | 1 | 1 | 2 |
| 100-006824 | AUGER HEAD PLATE FRONT | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006825 | AUGER HEAD PLATE REAR | 1 | 1 | 1 | 1 | 1 | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 1OFT – 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 1 | 2 |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | – | – | 1 | – | 1 | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT HEX 7/16–14UNC X 3" | 4 | 8 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT –LOCK 7/16–14UNC | 4 | 8 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 2 | 3 |
| 100-004700 | TROUGH SUPPORT HANGER – 8" | 1 | – | – | – | – | – |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP/DPSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 3P 10 | 3P 15 | 3P 20 | 3P 25 | 3P 30 | 3P 40 |
|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT – 8" | – | – | – | 1 | 1 | 2 |
| 200-007002 | AUGER TROUGH REAR 5FT – 8" | 1 | 1 | – | 1 | – | – |
| 200-006993 | AUGER TROUGH REAR 10FT – 8" | – | – | 1 | – | 1 | 1 |
| 200-005388 | BELT GUARD | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-003343 | BELT GUARD BACK PLATE | 1 | 1 | 1 | 1 | 1 | 1 |
| 049-007874 | BELT "B76" 77.8PITCH | 1 | 2 | 2 | 2 | 2 | 2 |
| 056-007871 | SHEAVE AUGER 1B15.4 | 1 | – | – | – | – | – |
| 056-007872 | SHEAVE AUGER 2B15.4 | – | 1 | 1 | 1 | 1 | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005371 | SHEAVE MOTOR 1B3.4 | 1 | – | – | – | – | – |
| 056-005373 | SHEAVE MOTOR 2B3.4 | – | 1 | 1 | 1 | 1 | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | 1 | 1 | 1 | – | – | – |
| 056-005376 | BUSHING QD-SH 1-1/8 | – | – | – | 1 | 1 | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007853 | MOTOR 1HP 1450RPM 380V-3P 143T 7/8 | 1 | – | – | – | – | – |
| 004-007854 | MOTOR 2HP 1450RPM 380V-3P 145T 7/8 | – | 1 | 1 | – | – | – |
| 004-007855 | MOTOR 3HP 1450RPM 380V-3P 182T 1-1/8 | – | – | – | 1 | 1 | – |
| 004-007629 | MOTOR 5HP 1450RPM 380V-3P 184T 1-1/8 | – | – | – | – | – | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | 1 | 1 | 1 | – | – | – |
| 100-007396 | MOTOR PLATE TOP | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-002855 | MOTOR PLATE BOT | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | 29 | 29 | 29 | 29 | 29 | 29 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | 120 | 150 | 190 | 230 | 300 | 375 |
| 040-001459 | NUT WHIZ 5/16-18UNC | 120 | 150 | 190 | 230 | 300 | 375 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | 23 | 25 | 27 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | 27 | 29 | 31 | 32 | 36 | 40 |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP/DPSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 3P 10 | 3P 15 | 3P 20 | 3P 25 | 3P 30 | 3P 40 |
|---|---|---|---|---|---|---|---|
| 400-009208 | TOP ASS'Y 10FT W/ONE DOOR W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y 10FT INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 200-OO5516 | TOP ASS'Y 5FT REAR W/ 8" | – | 1 | – | 1 | – | – |
| 200-002978 | TOP ASS'Y 10FT REAR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-007623 | GARNER SIDE ASS'Y 5FT – 22" | – | 2 | – | 2 | – | – |
| 400-007624 | GARNER SIDE ASS'Y 10FT – 22" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-007641 | LADDER SUPPORT BRACKET | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | 1 | – |
| 100-006820 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | – | 1 |
| 400-009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 2 |
| 400-009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006825 | AUGER HEAD PLATE REAR | 1 | 1 | 1 | 1 | 1 | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 1OFT – 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 1 | 2 |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | – | – | 1 | – | 1 | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT HEX 7/16–14UNC X 3" | 4 | 8 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT –LOCK 7/16–14UNC | 4 | 8 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 2 | 3 |
| 100-004700 | TROUGH SUPPORT HANGER – 8" | 1 | – | – | – | – | – |

MODEL: _____LENGTH_____FT

SERIAL NO:____-____-____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – MSF/DP/DPSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 3P 10 | 3P 15 | 3P 20 | 3P 25 | 3P 30 | 3P 40 |
|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT – 8" | – | – | – | 1 | 1 | 2 |
| 200-007002 | AUGER TROUGH REAR 5FT – 8" | 1 | 1 | – | 1 | – | – |
| 200-006993 | AUGER TROUGH REAR 10FT – 8" | – | – | 1 | – | 1 | 1 |
| 200-005388 | BELT GUARD | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-003343 | BELT GUARD BACK PLATE | 1 | 1 | 1 | 1 | 1 | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | 1 | 2 | 2 | 2 | 2 | 2 |
| 056-005370 | SHEAVE AUGER 1B18.4 | 1 | – | – | – | – | – |
| 056-005372 | SHEAVE AUGER 2B18.4 | – | 1 | 1 | 1 | 1 | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005371 | SHEAVE MOTOR 1B3.4 | 1 | – | – | – | – | – |
| 056-005373 | SHEAVE MOTOR 2B3.4 | – | 1 | 1 | 1 | 1 | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | 1 | 1 | 1 | – | – | – |
| 056-005376 | BUSHING QD-SH 1-1/8 | – | – | – | 1 | 1 | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007630 | MOTOR 1HP 1750RPM 575V-3P 143T 7/8 | 1 | – | – | – | – | – |
| 004-007425 | MOTOR 2HP 1750RPM 575V-3P 145T 7/8 | – | 1 | 1 | – | – | – |
| 004-007615 | MOTOR 3HP 1750RPM 575V-3P 182T 1-1/8 | – | – | – | 1 | 1 | – |
| 004-007629 | MOTOR 5HP 1750RPM 575V-3P 184T 1-1/8 | – | – | – | – | – | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | 1 | 1 | 1 | – | – | – |
| 100-007396 | MOTOR PLATE TOP | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-002855 | MOTOR PLATE BOT | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | 29 | 29 | 29 | 29 | 29 | 29 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | 120 | 150 | 190 | 230 | 300 | 375 |
| 040-001459 | NUT WHIZ 5/16-18UNC | 120 | 150 | 190 | 230 | 300 | 375 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | 23 | 25 | 27 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | 27 | 29 | 31 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX/DPXSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOORS W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y 10FT INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT W/REAR DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT W/REAR DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-007623 | GARNER SIDE ASS'Y 5FT – 22" | – | 2 | – | 2 | – | – |
| 400-007624 | GARNER SIDE ASS'Y 10FT – 22" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 | – |
| 100-006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | 1 | – |
| 100-006821 | END PLATE FRONT W/SWITCH 40FT | – | – | – | – | – | 1 |
| 100-006822 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | – | 1 |
| 400-009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT – 8" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006825 | AUGER HEAD PLATE REAR – 8" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006770 | AUGER HEAD PLATE FRONT – 10" | – | – | – | – | – | 1 |
| 100-006771 | AUGER HEAD PLATE REAR – 10" | – | – | – | – | – | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 1OFT – 8" | – | 1 | 1 | 1 | 1 | – |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 1 | – |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | – | – | – | – | 1 | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | – | – | – | – | – | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | – | – | 2 |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | – | – | – | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT–HEX 7/16–14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT –LOCK 7/16–14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 2 | – |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | – | – | – | – | 3 |

MODEL:_____LENGTH_____FT

SERIAL NO:____-____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX/DPXSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT - 8" | | - | - | 1 | 1 | 1 | - |
| 200-007002 | AUGER TROUGH REAR 5FT - 8" | | 1 | 1 | - | 1 | - | - |
| 200-006993 | AUGER TROUGH REAR 10FT - 8" | | - | - | 1 | - | 1 | - |
| 200-006999 | AUGER TROUGH INTER 10FT - 10" | | - | - | - | - | - | 2 |
| 200-007000 | AUGER TROUGH REAR 10FT - 10" | | - | - | - | - | - | 1 |
| 200-005388 | BELT GUARD - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 100-003343 | BELT GUARD BACK PLATE - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 200-006817 | BELT GUARD - 10″ | | - | - | - | - | - | 1 |
| 100-006818 | BELT GUARD BACK PLATE - 10″ | | - | - | - | - | - | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | | 1 | 2 | 2 | 2 | 2 | 3 |
| 056-005370 | SHEAVE AUGER 1B18.4 | | 1 | - | - | - | - | - |
| 056-005372 | SHEAVE AUGER 2B18.4 | | - | 1 | 1 | 1 | 1 | - |
| 056-006832 | SHEAVE AUGER 3B18.4 | | - | - | - | - | - | 1 |
| 056-006830 | BUSHING QD-SK 1 1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005371 | SHEAVE MOTOR 1B3.4 | | 1 | - | - | - | - | - |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | - | 1 | 1 | 1 | 1 | - |
| 056-006833 | SHEAVE MOTOR 3B3.4 | | - | - | - | - | - | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | | 1 | 1 | 1 | - | - | - |
| 056-005376 | BUSHING QD-SH 1-1/8 | | - | - | - | 1 | 1 | - |
| 056-006344 | BUSHING QD-SH 1-3/8 | | - | - | - | - | - | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-002355 | MOTOR 1HP 1750RPM 240/480V-3P 143T | 7/8 | 1 | - | - | - | - | - |
| 004-002673 | MOTOR 2HP 1750RPM 240/480V-3P 145T | 7/8 | - | 1 | 1 | - | - | - |
| 004-002671 | MOTOR 3HP 1750RPM 240/480V-3P 182T | 1-1/8 | - | - | - | 1 | 1 | - |
| 004-002675 | MOTOR 10HP 1750RPM 240/480V-3P 215T | 1-3/8 | - | - | - | - | - | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | 1 | - | - | - |
| 100-007396 | MOTOR PLATE TOP 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-002855 | MOTOR PLATE BOT 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-006740 | MOTOR PLATE TOP 10HP | | - | - | - | - | - | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | | - | - | - | - | - | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | | 114 | 144 | 184 | 224 | 294 | 364 |
| 040-001459 | NUT WHIZ 5/16-18UNC | | 114 | 144 | 184 | 224 | 294 | 364 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | | 20 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | | 24 | 26 | 28 | 32 | 36 | 40 |

S-G-DPX-380V

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX/DPXSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOORS W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y 10FT INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT W/REAR DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT W/REAR DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-007623 | GARNER SIDE ASS'Y 5FT – 22" | – | 2 | – | 2 | – | – |
| 400-007624 | GARNER SIDE ASS'Y 10FT – 22" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 | – |
| 100-006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | 1 | – |
| 100-006821 | END PLATE FRONT W/SWITCH 40FT | – | – | – | – | – | 1 |
| 100-006822 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | – | 1 |
| 400-009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT – 8" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006825 | AUGER HEAD PLATE REAR – 8" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006770 | AUGER HEAD PLATE FRONT – 10" | – | – | – | – | – | 1 |
| 100-006771 | AUGER HEAD PLATE REAR – 10" | – | – | – | – | – | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 10FT – 8" | – | 1 | 1 | 1 | 1 | – |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 1 | – |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | – | – | – | – | 1 | – |
| 200-006794 | AUGER ONLY FRONT 10FT – 10" | – | – | – | – | – | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | – | – | 2 |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | – | – | – | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE-NON-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT-HEX 7/16-14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT -LOCK 7/16-14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 2 | – |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | – | – | – | – | 3 |

S-G-DPX-380V

MODEL:_____LENGTH_____FT

SERIAL NO:____-____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX/DPXSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT - 8" | - | - | 1 | 1 | 1 | - |
| 200-007002 | AUGER TROUGH REAR 5FT - 8" | 1 | 1 | - | 1 | - | - |
| 200-006993 | AUGER TROUGH REAR 10FT - 8" | - | - | 1 | - | 1 | - |
| 200-006999 | AUGER TROUGH INTER 10FT - 10" | - | - | - | - | - | 2 |
| 200-007000 | AUGER TROUGH REAR 10FT - 10" | - | - | - | - | - | 1 |
| 200-005388 | BELT GUARD - 8″ | 1 | 1 | 1 | 1 | 1 | - |
| 100-003343 | BELT GUARD BACK PLATE - 8″ | 1 | 1 | 1 | 1 | 1 | - |
| 200-006817 | BELT GUARD - 10″ | - | - | - | - | - | 1 |
| 100-006818 | BELT GUARD BACK PLATE - 10″ | - | - | - | - | - | 1 |
| 049-007874 | BELT "B76" 77.8PITCH | 1 | 2 | 2 | 2 | 2 | 3 |
| 056-007871 | SHEAVE AUGER 1B15.4 | 1 | - | - | - | - | - |
| 056-007872 | SHEAVE AUGER 2B15.4 | - | 1 | 1 | 1 | 1 | - |
| 056-007873 | SHEAVE AUGER 3B15.4 | - | - | - | - | - | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005371 | SHEAVE MOTOR 1B3.4 | 1 | - | - | - | - | - |
| 056-005373 | SHEAVE MOTOR 2B3.4 | - | 1 | 1 | 1 | 1 | - |
| 056-006833 | SHEAVE MOTOR 3B3.4 | - | - | - | - | - | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | 1 | 1 | 1 | - | - | - |
| 056-005376 | BUSHING QD-SH 1-1/8 | - | - | - | 1 | 1 | - |
| 056-006344 | BUSHING QD-SH 1-3/8 | - | - | - | - | - | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007853 | MOTOR 1HP 1450RPM 380V-3P 143T 7/8 | 1 | - | - | - | - | - |
| 004-007854 | MOTOR 2HP 1450RPM 380V-3P 145T 7/8 | - | 1 | 1 | - | - | - |
| 004-007855 | MOTOR 3HP 1450RPM 380V-3P 182T 1-1/8 | - | - | - | 1 | 1 | - |
| 004-007857 | MOTOR 10HP 1450RPM 380V-3P 215T 1-3/8 | - | - | - | - | - | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | 1 | 1 | 1 | - | - | - |
| 100-007396 | MOTOR PLATE TOP 1-5HP | 1 | 1 | 1 | 1 | 1 | - |
| 100-002855 | MOTOR PLATE BOT 1-5HP | 1 | 1 | 1 | 1 | 1 | - |
| 100-006740 | MOTOR PLATE TOP 10HP | - | - | - | - | - | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | - | - | - | - | - | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | 114 | 144 | 184 | 224 | 294 | 364 |
| 040-001459 | NUT WHIZ 5/16-18UNC | 114 | 144 | 184 | 224 | 294 | 364 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | 20 | 22 | 24 | 28 | 34 | 40 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | 24 | 26 | 28 | 32 | 36 | 40 |

S-G-DPX-575V

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX/DPXSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOORS W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y 10FT INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT W/REAR DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT W/REAR DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-007623 | GARNER SIDE ASS'Y 5FT – 22" | – | 2 | – | 2 | – | – |
| 400-007624 | GARNER SIDE ASS'Y 10FT – 22" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002589 | TOP GARNER SIDE STIFFENING BRACKET | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002852 | END PLATE FRONT W/SWITCH | 1 | 1 | 1 | 1 | 1 | – |
| 100-006819 | END PLATE REAR STANDARD | 1 | 1 | 1 | 1 | 1 | – |
| 100-006821 | END PLATE FRONT W/SWITCH 40FT | – | – | – | – | – | 1 |
| 100-006822 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | – | 1 |
| 400-009196 | ASS'Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS'Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT – 8" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006825 | AUGER HEAD PLATE REAR – 8" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006770 | AUGER HEAD PLATE FRONT – 10" | – | – | – | – | – | 1 |
| 100-006771 | AUGER HEAD PLATE REAR – 10" | – | – | – | – | – | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 10FT – 8" | – | 1 | 1 | 1 | 1 | – |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 1 | – |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | – | – | – | – | 1 | – |
| 200-006794 | AUGER ONLY FRONT 10FT – 10" | – | – | – | – | – | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | – | – | 2 |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | – | – | – | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE-NON-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT-HEX 7/16-14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT -LOCK 7/16-14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 2 | – |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | – | – | – | – | 3 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX/DPXSL MODELS**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT - 8" | - | - | 1 | 1 | 1 | - |
| 200-007002 | AUGER TROUGH REAR 5FT - 8" | 1 | 1 | - | 1 | - | - |
| 200-006993 | AUGER TROUGH REAR 10FT - 8" | - | - | 1 | - | 1 | - |
| 200-006999 | AUGER TROUGH INTER 10FT - 10" | - | - | - | - | - | 2 |
| 200-007000 | AUGER TROUGH REAR 10FT - 10" | - | - | - | - | - | 1 |
| 200-005388 | BELT GUARD - 8″ | 1 | 1 | 1 | 1 | 1 | - |
| 100-003343 | BELT GUARD BACK PLATE - 8″ | 1 | 1 | 1 | 1 | 1 | - |
| 200-006817 | BELT GUARD - 10″ | - | - | - | - | - | 1 |
| 100-006818 | BELT GUARD BACK PLATE - 10″ | - | - | - | - | - | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | 1 | 2 | 2 | 2 | 2 | 3 |
| 056-005370 | SHEAVE AUGER 1B18.4 | 1 | - | - | - | - | - |
| 056-005372 | SHEAVE AUGER 2B18.4 | - | 1 | 1 | 1 | 1 | - |
| 056-006832 | SHEAVE AUGER 3B18.4 | - | - | - | - | - | 1 |
| 056-006830 | BUSHING QD-SK 1 1/4 | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005371 | SHEAVE MOTOR 1B3.4 | 1 | - | - | - | - | - |
| 056-005373 | SHEAVE MOTOR 2B3.4 | - | 1 | 1 | 1 | 1 | - |
| 056-006833 | SHEAVE MOTOR 3B3.4 | - | - | - | - | - | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | 1 | 1 | 1 | - | - | - |
| 056-005376 | BUSHING QD-SH 1-1/8 | - | - | - | 1 | 1 | - |
| 056-006344 | BUSHING QD-SH 1-3/8 | - | - | - | - | - | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007630 | MOTOR 1HP 1750RPM 575V-3P 143T 7/8 | 1 | - | - | - | - | - |
| 004-007425 | MOTOR 2HP 1750RPM 575V-3P 145T 7/8 | - | 1 | 1 | - | - | - |
| 004-007615 | MOTOR 3HP 1750RPM 575V-3P 182T 1-1/8 | - | - | - | 1 | 1 | - |
| 004-007570 | MOTOR 10HP 1750RPM 575V-3P 215T 1-3/8 | - | - | - | - | - | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | 1 | 1 | 1 | - | - | - |
| 100-007396 | MOTOR PLATE TOP 1-5HP | 1 | 1 | 1 | 1 | 1 | - |
| 100-002855 | MOTOR PLATE BOT 1-5HP | 1 | 1 | 1 | 1 | 1 | - |
| 100-006740 | MOTOR PLATE TOP 10HP | - | - | - | - | - | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | - | - | - | - | - | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | 114 | 144 | 184 | 224 | 294 | 364 |
| 040-001459 | NUT WHIZ 5/16-18UNC | 114 | 144 | 184 | 224 | 294 | 364 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | 20 | 22 | 24 | 28 | 34 | 40 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | 24 | 26 | 28 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX4T/DPX8T**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOOR W/ 8" | | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y INTERMEDIATE | | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT REAR ONE DOOR W/ 8" | | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT REAR ONE DOOR W/ 8" | | – | – | 1 | – | 1 | 1 |
| 400-006579 | GARNER SIDE ASS'Y 5FT – 34" | | – | 2 | – | 2 | – | – |
| 400-006578 | GARNER SIDE ASS'Y 10FT – 34" | | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-007363 | TOP GARNER SIDE STIFFENING BRACKET 34” | | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-006580 | END PLATE FRONT W/SWITCH – 34" | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006823 | END PLATE REAR STANDARD – 34" | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006772 | END PLATE FRONT W/SWITCH 40FT | | – | – | – | – | – | 1 |
| 100-006773 | END PLATE REAR W/SWITCH 40FT | | – | – | – | – | – | 1 |
| 400-009196 | ASS’Y LOW GRAIN SWITCH (MOTOR END) | | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS’Y LOW GRAIN SWITCH (FILL END) | | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT 8” | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006825 | AUGER HEAD PLATE REAR 8” | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006770 | AUGER HEAD PLATE FRONT 10” | | – | – | – | – | – | 1 |
| 100-006771 | AUGER HEAD PLATE REAR 10” | | – | – | – | – | – | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 1OFT – 8" | | – | 1 | 1 | 1 | 1 | – |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | | – | – | – | 1 | 1 | – |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | | – | – | 1 | – | 1 | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | | – | – | – | – | – | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | | – | – | – | – | – | 2 |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | | – | – | – | – | – | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT–KEYED | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT–HEX 7/16–14UNC X 3" | | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT –LOCK 7/16–14UNC | | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | | – | 1 | 1 | 2 | 2 | – |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | | – | – | – | – | – | 3 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX4T/DPX8T**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT - 8 | | - | - | - | 1 | 1 | - |
| 200-007002 | AUGER TROUGH REAR 5FT - 8 | | - | 1 | - | 1 | - | - |
| 200-006993 | AUGER TROUGH REAR 10FT - 8 | | - | - | 1 | - | 1 | - |
| 200-006999 | AUGER TROUGH INTER 10FT - 10" | | - | - | - | - | - | 2 |
| 200-007000 | AUGER TROUGH REAR 10FT - 10" | | - | - | - | - | - | 1 |
| 200-005388 | BELT GUARD - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 100-003343 | BELT GUARD BACK PLATE - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 200-006817 | BELT GUARD - 10″ | | - | - | - | - | - | 1 |
| 100-006818 | BELT GUARD BACK PLATE - 10″ | | - | - | - | - | - | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | | 2 | 2 | 2 | 2 | 2 | 3 |
| 056-005372 | SHEAVE AUGER 2B18.4 | | 1 | 1 | 1 | 1 | 1 | - |
| 056-006832 | SHEAVE AUGER 3B18.4 | | - | - | - | - | - | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | 1 | 1 | 1 | 1 | 1 | - |
| 056-006833 | SHEAVE MOTOR 3B3.4 | | - | - | - | - | - | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | | 1 | 1 | - | - | - | - |
| 056-005376 | BUSHING QD-SH 1-1/8 | | - | - | 1 | 1 | 1 | - |
| 056-006344 | BUSHING QD-SH 1-3/8 | | - | - | - | - | - | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-002673 | MOTOR 2HP 1750RPM 240/480V-3P 145T 7/8 | | 1 | 1 | - | - | - | - |
| 004-002671 | MOTOR 3HP 1750RPM 240/480V-3P 182T 1-1/8 | | - | - | 1 | * | - | - |
| 004-002672 | MOTOR 5HP 1750RPM 240/480V-3P 184T 1-1/8 | | - | - | - | * | 1 | - |
| 004-002675 | MOTOR 10HP 1750RPM 240/480V-3P 215T 1-3/8 | | - | - | - | - | - | 1 |
| **(*) NOTE:** | DPX4T USE A 3HP MOTOR ------ DPX8T USE A 5HP MOTOR | | | | | | | |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | - | - | - | - |
| 100-007396 | MOTOR PLATE TOP 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-002855 | MOTOR PLATE BOT 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-006740 | MOTOR PLATE TOP 10HP | | - | - | - | - | - | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | | - | - | - | - | - | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001459 | NUT WHIZ 5/16-18UNC | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | | 22 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | | 26 | 26 | 30 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX4T/DPX8T**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOOR W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT REAR ONE DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT REAR ONE DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-006579 | GARNER SIDE ASS'Y 5FT – 34" | – | 2 | – | 2 | – | – |
| 400-006578 | GARNER SIDE ASS'Y 10FT – 34" | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-007363 | TOP GARNER SIDE STIFFENING BRACKET 34” | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-006580 | END PLATE FRONT W/SWITCH – 34" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006823 | END PLATE REAR STANDARD – 34" | 1 | 1 | 1 | 1 | 1 | – |
| 100-006772 | END PLATE FRONT W/SWITCH 40FT | – | – | – | – | – | 1 |
| 100-006773 | END PLATE REAR W/SWITCH 40FT | – | – | – | – | – | 1 |
| 400-009196 | ASS’Y LOW GRAIN SWITCH (FILL END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS’Y LOW GRAIN SWITCH (MOTOR END) | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT 8” | 1 | 1 | 1 | 1 | 1 | – |
| 100-006825 | AUGER HEAD PLATE REAR 8” | 1 | 1 | 1 | 1 | 1 | – |
| 100-006770 | AUGER HEAD PLATE FRONT 10” | – | – | – | – | – | 1 |
| 100-006771 | AUGER HEAD PLATE REAR 10” | – | – | – | – | – | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 1OFT – 8" | – | 1 | 1 | 1 | 1 | – |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | – | – | – | 1 | 1 | – |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | – | – | 1 | – | 1 | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | – | – | – | – | – | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | – | – | 2 |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | – | – | – | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT–HEX 7/16–14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT –LOCK 7/16–14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | – | 1 | 1 | 2 | 2 | – |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | – | – | – | – | 3 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX4T/DPX8T**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT - 8 | | - | - | - | 1 | 1 | - |
| 200-007002 | AUGER TROUGH REAR 5FT - 8 | | 1 | 1 | - | 1 | - | - |
| 200-006993 | AUGER TROUGH REAR 10FT - 8 | | - | - | 1 | - | 1 | - |
| 200-006999 | AUGER TROUGH INTER 10FT - 10" | | - | - | - | - | - | 2 |
| 200-007000 | AUGER TROUGH REAR 10FT - 10" | | - | - | - | - | - | 1 |
| 200-005388 | BELT GUARD - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 100-003343 | BELT GUARD BACK PLATE - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 200-006817 | BELT GUARD - 10″ | | - | - | - | - | - | 1 |
| 100-006818 | BELT GUARD BACK PLATE - 10″ | | - | - | - | - | - | 1 |
| 049-007874 | BELT "B76" 77.8PITCH | | 2 | 2 | 2 | 2 | 2 | 3 |
| 056-007872 | SHEAVE AUGER 2B15.4 | | 1 | 1 | 1 | 1 | 1 | - |
| 056-007873 | SHEAVE AUGER 3B15.4 | | - | - | - | - | - | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | 1 | 1 | 1 | 1 | 1 | - |
| 056-006833 | SHEAVE MOTOR 3B3.4 | | - | - | - | - | - | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | | 1 | 1 | - | - | - | - |
| 056-005376 | BUSHING QD-SH 1-1/8 | | - | - | 1 | 1 | 1 | - |
| 056-006344 | BUSHING QD-SH 1/3/8 | | - | - | - | - | - | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007854 | MOTOR 2HP 1450RPM 380V-3P 145T 7/8 | | 1 | 1 | - | - | - | - |
| 004-007855 | MOTOR 3HP 1450RPM 380V-3P 182T 1-1/8 | | - | - | 1 | * | - | - |
| 004-007629 | MOTOR 5HP 1450RPM 380V-3P 184T 1-1/8 | | - | - | - | * | 1 | - |
| 004-007857 | MOTOR 10HP 1450RPM 380V-3P 215T 1-3/8 | | - | - | - | - | - | 1 |
| **(*) NOTE:** | DPX4T USE A 3HP MOTOR ------ DPX8T USE A 5HP MOTOR | | | | | | | |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | - | - | - | - |
| 100-007396 | MOTOR PLATE TOP 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-002855 | MOTOR PLATE BOT 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-006740 | MOTOR PLATE TOP 10HP | | - | - | - | - | - | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | | - | - | - | - | - | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001459 | NUT WHIZ 5/16-18UNC | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | | 22 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | | 26 | 26 | 30 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX4T/DPX8T**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOOR W/ 8" | | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y INTERMEDIATE | | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT REAR ONE DOOR W/ 8" | | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT REAR ONE DOOR W/ 8" | | – | – | 1 | – | 1 | 1 |
| 400-006579 | GARNER SIDE ASS'Y 5FT – 34" | | – | 2 | – | 2 | – | – |
| 400-006578 | GARNER SIDE ASS'Y 10FT – 34" | | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-007363 | TOP GARNER SIDE STIFFENING BRACKET 34” | | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-006580 | END PLATE FRONT W/SWITCH – 34" | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006823 | END PLATE REAR STANDARD – 34" | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006772 | END PLATE FRONT W/SWITCH 40FT | | – | – | – | – | – | 1 |
| 100-006773 | END PLATE REAR W/SWITCH 40FT | | – | – | – | – | – | 1 |
| 400-009196 | ASS’Y LOW GRAIN SWITCH (MOTOR END) | | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS’Y LOW GRAIN SWITCH (FILL END) | | – | – | – | – | – | 1 |
| 100-006824 | AUGER HEAD PLATE FRONT – 8” | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006825 | AUGER HEAD PLATE REAR – 8” | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006770 | AUGER HEAD PLATE FRONT – 10” | | – | – | – | – | – | 1 |
| 100-006771 | AUGER HEAD PLATE REAR – 10” | | – | – | – | – | – | 1 |
| 200-006834 | AUGER ONLY 10FT ONLY – 8" | | 1 | – | – | – | – | – |
| 200-006723 | AUGER ONLY FRONT 1OFT – 8" | | – | 1 | 1 | 1 | 1 | – |
| 200-006724 | AUGER ONLY INTER 10FT – 8" | | – | – | – | 1 | 1 | – |
| 200-006721 | AUGER ONLY REAR 5FT – 8" | | – | 1 | – | 1 | – | – |
| 200-006720 | AUGER ONLY REAR 10FT – 8" | | – | – | 1 | – | 1 | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | | – | – | – | – | – | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | | – | – | – | – | – | 2 |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | | – | – | – | – | – | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT-KEYED | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE-NON-KEYED | | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT-HEX 7/16-14UNC X 3" | | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT -LOCK 7/16-14UNC | | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006827 | AUGER SUPPORT HANGER ASS'Y – 8" | | – | 1 | 1 | 2 | 2 | – |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | | – | – | – | – | – | 3 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-___-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX4T/DPX8T**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006992 | AUGER TROUGH INTER 10FT - 8 | | - | - | - | 1 | 1 | - |
| 200-007002 | AUGER TROUGH REAR 5FT - 8 | | 1 | 1 | - | 1 | - | - |
| 200-006993 | AUGER TROUGH REAR 10FT - 8 | | - | - | 1 | - | 1 | - |
| 200-006999 | AUGER TROUGH INTER 10FT - 10" | | - | - | - | - | - | 2 |
| 200-007000 | AUGER TROUGH REAR 10FT - 10" | | - | - | - | - | - | 1 |
| 200-005388 | BELT GUARD - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 100-003343 | BELT GUARD BACK PLATE - 8″ | | 1 | 1 | 1 | 1 | 1 | - |
| 200-006817 | BELT GUARD - 10″ | | - | - | - | - | - | 1 |
| 100-006818 | BELT GUARD BACK PLATE - 10″ | | - | - | - | - | - | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | | 2 | 2 | 2 | 2 | 2 | 3 |
| 056-005372 | SHEAVE AUGER 2B18.4 | | 1 | 1 | 1 | 1 | 1 | - |
| 056-006832 | SHEAVE AUGER 3B18.4 | | - | - | - | - | - | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | 1 | 1 | 1 | 1 | 1 | - |
| 056-006833 | SHEAVE MOTOR 3B3.4 | | - | - | - | - | - | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | | 1 | 1 | - | - | - | - |
| 056-005376 | BUSHING QD-SH 1-1/8 | | - | - | 1 | 1 | 1 | - |
| 056-006344 | BUSHING QD-SH 1-3/8 | | - | - | - | - | - | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007425 | MOTOR 2HP 1750RPM 575V-3P 145T 7/8 | | 1 | 1 | - | - | - | - |
| 004-007615 | MOTOR 3HP 1750RPM 575V-3P 182T 1-1/8 | | - | - | 1 | * | - | - |
| 004-007629 | MOTOR 5HP 1750RPM 575V-3P 184T 1-1/8 | | - | - | - | * | 1 | - |
| 004-007570 | MOTOR 10HP 1750RPM 575V-3P 213T 1-3/8 | | - | - | - | - | - | 1 |
| **(*) NOTE:** DPX4T USE A 3HP MOTOR ------ DPX8T USE A 5HP MOTOR | | | | | | | | |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | - | - | - | - |
| 100-007396 | MOTOR PLATE TOP 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-002855 | MOTOR PLATE BOT 1-5HP | | 1 | 1 | 1 | 1 | 1 | - |
| 100-006740 | MOTOR PLATE TOP 10HP | | - | - | - | - | - | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | | - | - | - | - | - | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001459 | NUT WHIZ 5/16-18UNC | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | | 22 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | | 26 | 26 | 30 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-_____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX12T & DPX16GT**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOOR W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT REAR ONE DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT REAR ONE DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-006579 | GARNER SIDE ASS'Y 5FT – 34" | – | 2 | – | 2 | – | – |
| 400-006578 | GARNER SIDE ASS'Y 10FT – 34” | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-007363 | TOP GARNER SIDE STIFFENING BRACKET 34” | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-006772 | END PLATE FRONT W/SWITCH – 34”,10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007383 | END PLATE REAR W/O SWITCH – 34”,10 | 1 | 1 | 1 | 1 | 1 | – |
| 100-006773 | END PLATE REAR W/SWITCH – 34”,10” | – | – | – | – | – | 1 |
| 400-009196 | ASS’Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS’Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006770 | AUGER HEAD PLATE FRONT 10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006771 | AUGER HEAD PLATE REAR 10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 200-007381 | AUGER ONLY 10FT ONLY – 10" | 1 | – | – | – | – | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | – | 1 | 1 | 1 | 1 | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | 1 | 1 | 2 |
| 200-007382 | AUGER ONLY REAR 5FT – 10" | – | 1 | – | 1 | – | – |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | 1 | – | 1 | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE–NON–KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT–HEX 7/16–14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT –LOCK 7/16–14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | 1 | 1 | 2 | 2 | 3 |
| 200-006999 | AUGER TROUGH INTER 10FT – 10" | – | – | – | 1 | 1 | 2 |
| 200-007379 | AUGER TROUGH REAR 5FT – 10” | 1 | 1 | – | 1 | – | – |
| 200-007000 | AUGER TROUGH REAR 10FT – 10" | – | – | 1 | – | 1 | 1 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-_____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX12T & DPX16GT**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 240V/480V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006817 | BELT GUARD 10" AUGER | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006818 | BELT GUARD BACK PLATE 10" AUGER | | 1 | 1 | 1 | 1 | 1 | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | | 2 | 2 | 2 | 2 | 2 | 3 |
| 056-005372 | SHEAVE AUGER 2B18.4 | | 1 | 1 | 1 | 1 | 1 | – |
| 056-006832 | SHEAVE AUGER 3B18.4 | | – | – | – | – | – | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | 1 | 1 | 1 | 1 | 1 | – |
| 056-006833 | SHEAVE MOTOR 3B3.4 | | – | – | – | – | – | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | | 1 | 1 | – | – | – | – |
| 056-005376 | BUSHING QD-SH 1-1/8 | | – | – | 1 | 1 | 1 | – |
| 056-006344 | BUSHING QD-SH 1-3/8 | | – | – | – | – | – | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-002673 | MOTOR 2HP 1750RPM 240/480V-3P 145T | 7/8 | 1 | 1 | – | – | – | – |
| 004-002671 | MOTOR 3HP 1750RPM 240/480V-3P 182T | 1-1/8 | – | – | 1 | – | – | – |
| 004-002672 | MOTOR 5HP 1750RPM 240/480V-3P 184T | 1-1/8 | – | – | – | 1 | 1 | – |
| 004-002675 | MOTOR 10HP 1750RPM 240/480V-3P 215T | 1-3/8 | – | – | – | – | – | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | – | – | – | – |
| 100-007396 | MOTOR PLATE TOP 1-5HP | | 1 | 1 | 1 | 1 | 1 | – |
| 100-002855 | MOTOR PLATE BOT 1-5HP | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006740 | MOTOR PLATE TOP 10HP | | – | – | – | – | – | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | | – | – | – | – | – | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001459 | NUT WHIZ 5/16-18UNC | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | | 22 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | | 26 | 26 | 28 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-_____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX12T & DPX16GT**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V-3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOOR W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT REAR ONE DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT REAR ONE DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-006579 | GARNER SIDE ASS'Y 5FT – 34" | – | 2 | – | 2 | – | – |
| 400-006578 | GARNER SIDE ASS'Y 10FT – 34” | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-007363 | TOP GARNER SIDE STIFFENING BRACKET 34” | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-006772 | END PLATE FRONT W/SWITCH – 34”,10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007383 | END PLATE REAR W/O SWITCH – 34”,10” | 1 | 1 | 1 | 1 | 1 | – |
| 100-006773 | END PLATE REAR W/SWITCH – 34”,10” | – | – | – | – | – | 1 |
| 400-009196 | ASS’Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS’Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006770 | AUGER HEAD PLATE FRONT 10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006771 | AUGER HEAD PLATE REAR 10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 200-007381 | AUGER ONLY 10FT ONLY – 10" | 1 | – | – | – | – | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | – | 1 | 1 | 1 | 1 | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | 1 | 1 | 2 |
| 200-007382 | AUGER ONLY REAR 5FT – 10" | – | 1 | – | 1 | – | – |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | 1 | – | 1 | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE-NON-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT-HEX 7/16-14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT -LOCK 7/16-14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | 1 | 1 | 2 | 2 | 3 |
| 200-006999 | AUGER TROUGH INTER 10FT – 10" | – | – | – | 1 | 1 | 2 |
| 200-007379 | AUGER TROUGH REAR 5FT – 10” | 1 | 1 | – | 1 | – | – |
| 200-007000 | AUGER TROUGH REAR 10FT – 10" | – | – | 1 | – | 1 | 1 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-_____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX12T & DPX16GT**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 380V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION | (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|---|
| 200-006817 | BELT GUARD | 10" AUGER | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006818 | BELT GUARD BACK PLATE | 10" AUGER | 1 | 1 | 1 | 1 | 1 | 1 |
| 049-007874 | BELT "B76" 83.3PITCH | | 2 | 2 | 2 | 2 | 2 | 3 |
| 056-007872 | SHEAVE AUGER 2B15.4 | | 1 | 1 | 1 | 1 | 1 | – |
| 056-007873 | SHEAVE AUGER 3B15.4 | | – | – | – | – | – | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005373 | SHEAVE MOTOR 2B3.4 | | 1 | 1 | 1 | 1 | 1 | – |
| 056-006833 | SHEAVE MOTOR 3B3.4 | | – | – | – | – | – | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | | 1 | 1 | – | – | – | – |
| 056-005376 | BUSHING QD-SH 1-1/8 | | – | – | 1 | 1 | 1 | – |
| 056-006344 | BUSHING QD-SH 1-3/8 | | – | – | – | – | – | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007854 | MOTOR 2HP 1450RPM 380V-3P 145T 7/8 | | 1 | 1 | – | – | – | – |
| 004-007855 | MOTOR 3HP 1450RPM 380V-3P 182T 1-1/8 | | – | – | 1 | – | – | – |
| 004-007856 | MOTOR 5HP 1450RPM 380V-3P 184T 1-1/8 | | – | – | – | 1 | 1 | – |
| 004-007857 | MOTOR 10HP 1450RPM 380V-3P 215T 1-3/8 | | – | – | – | – | – | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | | 1 | 1 | – | – | – | – |
| 100-007396 | MOTOR PLATE TOP 1-5HP | | 1 | 1 | 1 | 1 | 1 | – |
| 100-002855 | MOTOR PLATE BOT 1-5HP | | 1 | 1 | 1 | 1 | 1 | – |
| 100-006740 | MOTOR PLATE TOP 10HP | | – | – | – | – | – | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | | – | – | – | – | – | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001459 | NUT WHIZ 5/16-18UNC | | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | | 22 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | | 26 | 26 | 28 | 32 | 36 | 40 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-_____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX12T & DPX16GT**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 400-009211 | TOP ASS'Y 10FT W/TWO DOOR W/ 8" | 1 | – | – | – | – | – |
| 400-009205 | TOP ASS'Y 10FT W/ONE DOOR W/O 8" | – | 1 | 1 | 1 | 1 | 1 |
| 200-002976 | TOP ASS'Y INTERMEDIATE | – | – | – | 1 | 1 | 2 |
| 400-009220 | TOP ASS'Y 5FT REAR ONE DOOR W/ 8" | – | 1 | – | 1 | – | – |
| 400-009221 | TOP ASS'Y 10FT REAR ONE DOOR W/ 8" | – | – | 1 | – | 1 | 1 |
| 400-006579 | GARNER SIDE ASS'Y 5FT – 34" | – | 2 | – | 2 | – | – |
| 400-006578 | GARNER SIDE ASS'Y 10FT – 34” | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-002599 | CROSS STRAP | 3 | 3 | 6 | 6 | 9 | 12 |
| 100-007363 | TOP GARNER SIDE STIFFENING BRACKET 34” | 2 | 2 | 4 | 4 | 6 | 8 |
| 100-006772 | END PLATE FRONT W/SWITCH – 34”,10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007383 | END PLATE REAR W/O SWITCH – 34”,10” | 1 | 1 | 1 | 1 | 1 | – |
| 100-006773 | END PLATE REAR W/SWITCH – 34”,10” | – | – | – | – | – | 1 |
| 400-009196 | ASS’Y LOW GRAIN SWITCH (MOTOR END) | 1 | 1 | 1 | 1 | 1 | 1 |
| 400-009197 | ASS’Y LOW GRAIN SWITCH (FILL END) | – | – | – | – | – | 1 |
| 100-006770 | AUGER HEAD PLATE FRONT 10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006771 | AUGER HEAD PLATE REAR 10” | 1 | 1 | 1 | 1 | 1 | 1 |
| 200-007381 | AUGER ONLY 10FT ONLY – 10" | 1 | – | – | – | – | – |
| 200-006794 | AUGER ONLY FRONT 1OFT – 10" | – | 1 | 1 | 1 | 1 | 1 |
| 200-006793 | AUGER ONLY INTER 10FT – 10" | – | – | – | 1 | 1 | 2 |
| 200-007382 | AUGER ONLY REAR 5FT – 10" | – | 1 | – | 1 | – | – |
| 200-006792 | AUGER ONLY REAR 10FT – 10" | – | – | 1 | – | 1 | 1 |
| 100-006727 | AUGER SHAFT 1 1/4" FT-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006726 | AUGER SHAFT 1 1/4" INTER | – | 1 | 1 | 2 | 2 | 3 |
| 100-006728 | AUGER SHAFT 1 1/4" RE-NON-KEYED | 1 | 1 | 1 | 1 | 1 | 1 |
| 040-005324 | BOLT-HEX 7/16-14UNC X 3" | 4 | 6 | 8 | 12 | 12 | 16 |
| 040-006732 | NUT -LOCK 7/16-14UNC | 4 | 6 | 8 | 12 | 12 | 16 |
| 400-006829 | AUGER SUPPORT HANGER ASS'Y – 10" | – | 1 | 1 | 2 | 2 | 3 |
| 200-006999 | AUGER TROUGH INTER 10FT – 10" | – | – | – | 1 | 1 | 2 |
| 200-007379 | AUGER TROUGH REAR 5FT – 10” | 1 | 1 | – | 1 | – | – |
| 200-007000 | AUGER TROUGH REAR 10FT – 10" | – | – | 1 | – | 1 | 1 |

MODEL:_____LENGTH_____FT

SERIAL NO:_____-_____-_____-_____-_____

**SHIPPING LIST – GARNER ASSEMBLY – DPX12T & DPX16GT**

PARTS LISTED ARE FOR AUGERS W/ 1 1/4" SHAFTS

**3P – DENOTES 575V–3P DRYERS**

W/ 8" OR W/O 8" INDICATES WITH OR WITHOUT 8" DIA FILLING HOLE

| PART NUMBER | PART DESCRIPTION (FT) | 10 | 15 | 20 | 25 | 30 | 40 |
|---|---|---|---|---|---|---|---|
| 200-006817 | BELT GUARD 10" AUGER | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-006818 | BELT GUARD BACK PLATE 10" AUGER | 1 | 1 | 1 | 1 | 1 | 1 |
| 049-003364 | BELT "B82" 83.3PITCH | 2 | 2 | 2 | 2 | 2 | 3 |
| 056-005372 | SHEAVE AUGER 2B18.4 | 1 | 1 | 1 | 1 | 1 | – |
| 056-006832 | SHEAVE AUGER 3B18.4 | – | – | – | – | – | 1 |
| 056-006830 | BUSHING QD-SK 1-1/4 | 1 | 1 | 1 | 1 | 1 | 1 |
| 056-005373 | SHEAVE MOTOR 2B3.4 | 1 | 1 | 1 | 1 | 1 | – |
| 056-006833 | SHEAVE MOTOR 3B3.4 | – | – | – | – | – | 1 |
| 056-005375 | BUSHING QD-SH 7/8 | 1 | 1 | – | – | – | – |
| 056-005376 | BUSHING QD-SH 1-1/8 | – | – | 1 | 1 | 1 | – |
| 056-006344 | BUSHING QD-SH 1-3/8 | – | – | – | – | – | 1 |
| 044-001510 | AUGER BEARING W/FLANGE 1 1/4" | 2 | 2 | 2 | 2 | 2 | 2 |
| 004-007425 | MOTOR 2HP 1750RPM 575V-3P 145T 7/8 | 1 | 1 | – | – | – | – |
| 004-007615 | MOTOR 3HP 1750RPM 575V-3P 182T 1-1/8 | – | – | 1 | – | – | – |
| 004-007629 | MOTOR 5HP 1750RPM 575V-3P 184T 1-1/8 | – | – | – | 1 | 1 | – |
| 004-007570 | MOTOR 10HP 1750RPM 575V-3P 213T 1-3/8 | – | – | – | – | – | 1 |
| 100-002486 | KEY-MOTOR 1/4" X 1/4" X 1" | 1 | 1 | 1 | 1 | 1 | 1 |
| 100-007397 | MOTOR ADAPTER PLATE | 1 | 1 | – | – | – | – |
| 100-007396 | MOTOR PLATE TOP 1-5HP | 1 | 1 | 1 | 1 | 1 | – |
| 100-002855 | MOTOR PLATE BOT 1-5HP | 1 | 1 | 1 | 1 | 1 | – |
| 100-006740 | MOTOR PLATE TOP 10HP | – | – | – | – | – | 1 |
| 100-006741 | MOTOR PLATE BOT 10HP | – | – | – | – | – | 1 |
| 040-002739 | TCS 5/16-18UNC X 3/4 | 22 | 22 | 22 | 22 | 22 | 22 |
| 040-005321 | BOLT WHIZ 5/16-18UNC X 3/4 | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001459 | NUT WHIZ 5/16-18UNC | 156 | 156 | 196 | 240 | 310 | 384 |
| 040-001483 | BOLT WHIZ 3/8 -16UNC X 1 | 22 | 22 | 24 | 28 | 32 | 36 |
| 040-001440 | BOLT WHIZ 3/8 -16UNC X 1 1/4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 040-001460 | NUT WHIZ 3/8 -16UNC | 26 | 26 | 28 | 32 | 36 | 40 |

# SUNFLOWER DRYING RECOMMENDATIONS FOR DELUX GRAIN DRYERS

The following information concerns the drying of sunflowers in delux dryers. This material has been specially prepared to assist the operator in the **safe and effective** operation of the dryer for this purpose.

**It is very important to completely read and understand these recommendations and precautions prior to attempting to dry sunflowers !!!**

## SUNFLOWER DRYING PRECAUTIONS

1. Refer to your service manual for suggested drying temperature settings.
2. **Clean sunflowers prior to drying.**
3. Harvest when seeds are below 20% moisture content. Moisture above 20% adversely affects the flow characteristics of the sunflower seeds.
4. **Never leave dryer unattended while drying sunflowers.**
5. All Delux dryers are equipped with meter roll unloading systems and should be checked for uniform grain movement by observing downward movement of sunflowers in the grain columns and by occasionally stopping the load operation to observe the level of the top surface of the grain. If movement is not uniform, open appropriate clean-out doors and inspect for possible obstructions or grain bridging. All Delux dryers should also be completely unloaded daily for cleaning and inspection inside the grain columns.
6. **Keep the dryer clean. Periodically inspect and clean inside plenum and cooling chambers, along with the area surrounding the dryer. Fine hairs and fibers common to sunflowers can be drawn into the fan-heater unit(s), increasing the risk of fire.**
7. **Be prepared in case of fire.** Have a hose and/or fire extinguisher near the dryer. Small fires (sometimes called flares) can be extinguished by shutting off the airflow and applying water to the overheated area. More excessive fires may require complete unloading of the dryer onto the ground. **Do not unload into a storage bin.**
8. Check the dryer for a buildup of waxy material that may accumulate on auger flighting and other surfaces when handling sunflowers (especially with higher moisture sunflowers). If buildup is excessive, it should be removed.
9. Do not over dry. **Sunflowers dry easily and over drying can increase the risk of fire.** Safe storage moisture content is 9% for sunflower seeds.