

**DELUX**  
Continuous Flow GRAIN DRYERS

# INSTALLATION & OPERATION MANUAL



- DP & DPSL MODELS
- DPX & DPXSL MODELS
- DPX4T MODELS
- DPX8T MODELS
- DPX12 MODELS
- DPX16GT MODELS



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DELUX MANUFACTURING COMPANY  
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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.

EACH SECTION OF THIS MANUAL IS FULLY ILLUSTRATED FOR FAST, ACCURATE REFERENCE. **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 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. 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.**

**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 ARE LIMITED TO THE WARRANTIES PROVIDED BY THAT PART'S MANUFACTURER. THIS INCLUDES, BUT IS NOT LIMITED TO, ELECTRIC MOTORS, GEARHEADS, 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 NEGLIGENCE, MISUSE, ACCIDENTAL DAMAGE, ABNORMAL OR UNUSUALLY HEAVY USE, NORMAL WEAR AND TEAR, NEGLIGENCE, 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 IS 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, UNFORSEEABLE, 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 MANUFACTURER. IN SUCH EVENT, PURCHASER'S DRYER SERVICE MANUAL CONTAINS A LIST OF THE MOTOR MANUFACTURER'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:           PHONE: 308-237-2274   TOLL FREE: 800-658-3240  
  FAX:     308-234-3765   WEB: <http://www.deluxmfg.com>  
DELUX MFG COMPANY  
4650 AIRPORT ROAD  
P.O. BOX 1027  
KEARNEY, NE 68848-1027

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 MIS-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. REFER TO THE TABLE OF CONTENTS FOR LOCATION OF THE PRESEASON AND REGULAR SEASON RATE CHARGES.

**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 A CASH IN ADVANCE OR CASH ON COMPLETION OF SERVICE. ALL SERVICE OR REPAIR WORK RENDERED BY AUTHORIZED DELUX SERVICE PERSONNEL MUST BE INVOICED THROUGH AN EXISTING AUTHORIZED DELUX MFG COMPANY DEALER.

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

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

IN	MOISTURE OF DRIED GRAIN %								
	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**

(DRYER RATED CAPACITY @ 20-15%)

$$\text{-----} \times (\text{BPH IN CHART 1}) \times \text{F2} \times \text{F3} \times \text{F4}$$

1000

1/13/2010

GRAIN SHRINKAGE TABLE

SHRINKAGE WHEN GRAIN IS DRIED TO THESE LEVELS

INITIAL MOISTURE PERCENT	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
	4.48	3.93	3.37	2.81	2.24	1.67	1.09	-	-	-	-	-	-	-	-
	5.05	4.50	3.95	3.39	2.83	2.25	1.68	1.09	-	-	-	-	-	-	-
	5.61	5.06	4.51	3.95	3.39	2.84	2.26	1.68	1.10	-	-	-	-	-	-
	6.18	5.64	5.10	4.55	3.99	3.42	2.85	2.28	1.70	1.10	-	-	-	-	-
	6.75	6.21	5.67	5.12	4.57	4.01	3.44	2.87	2.29	1.70	1.11	-	-	-	-
	7.32	6.79	6.25	5.70	5.15	4.59	4.03	3.46	2.88	2.30	1.71	1.11	-	-	-
	7.89	7.36	6.82	6.28	5.73	5.18	4.62	4.05	3.48	2.88	2.31	1.72	1.11	-	-
	8.45	7.92	7.38	6.84	6.29	5.74	5.17	4.59	4.08	3.48	2.91	1.72	1.12	-	-
	9.02	8.50	7.97	7.44	6.90	6.35	5.79	5.23	4.67	4.08	3.52	2.93	2.33	1.73	1.12
	9.59	9.07	8.55	8.01	7.48	6.93	6.38	5.83	5.27	4.67	4.12	3.54	2.94	2.35	1.74
	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
	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
	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
	11.86	11.362	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
	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
	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
	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
	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
	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
	15.28	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
	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
	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
	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
	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
	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
	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
	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
	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
	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
	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

- % DRY MATTER IN WET GRAIN
- FORMULAS (1) SHRINKAGE = (100% - % DRY MATTER IN DRY GRAIN X 100) + .05% HANDLING SHRINK
- (2) VALUE OF SHRINK = PRICE BASIS GRADE X SHRINKAGE
- (3) RETURNS TO DRYING = DISCOUNT - VALUE OF SHRINKAGE



**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 CERTIFIED FOUNDATION DRAWINGS FOR EACH DRYER MODEL THAT SHOULD BE FOLLOWED FOR NEW INSTALLATIONS. IF ANY DOUBT, CONSULT LOCAL CERTIFIED ENGINEER FOR YOUR SEPECIFIC APPLICATION.

**IMPORTANT: DRYER MUST BE LEVEL BOTH LENGTHWISE AND CROSSWISE AT ALL TIMES DURING THE DRYING PROCESS OR DAMAGE TO THE DRYER WILL RESULT.**

4. **CONSULT YOUR LOCAL ELECTRICAL POWER COMPANY FOR PROPER TRANSFORMER SIZING. CONSULT WITH YOUR LOCAL ELECTRICIAN FOR INSTALLATION OF ELECTRICAL SERVICE.**

5. **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 PARTS, REFER TO DRAWING FOR PROPER PART 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 DRAWING.**

5. INSTALL MOTOR AND CONDUIT ASS'Y PLUS HOOK-UP OF HIGH GRAIN SHUTDOWN ASS'Y LOCATED ON THE TOP ROOF SECTION. ATTACH ELECTRICAL WIRING PER DRAWING. (NOTE: MERCURY 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 5.1 FOR FULL LOAD AMPS PER DRYER MODEL.

NOTE: ALL MOTORS ARE EQUIPPED FOR 240V, 380V, 415V OR 480V THREE (3), PHASE OPERATION RESPECTIVELY. WHEN 230V SINGLE PHASE POWER IS ONLY AVAILABLE, A PHASE CONVERTER MUST BE INSTALLED AHEAD OF DRYER TO OBTAIN THREE (3) PHASE POWER.

2. **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.**

3. **ELECTRICAL PHASING** - FOR YOUR CONVENIENCE YOUR DRYER HAS HAD ALL MOTORS 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"). WILD LEG "L2" SINCE 1996**

4. **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.

5. **IMPORTANT:**

1. **MAKE SURE DRYER IS PROPERLY GROUNDED.** GROUND LUG IS PROVIDED.
2. **HAVE THE POWER COMPANY OR YOUR LOCAL ELECTRICIAN CHECK LINE VOLTAGE AND AMPERAGE.** MAKE SURE VOLTAGE DROP IS MINIMUM.

**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 5.2.
2. 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 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 10-20 PSI.
4. BEFORE STARTING THE DRYER FOR THE FIRST TIME, MAKE CERTAIN THAT PIPE UNIONS & 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 OFF OF MAXIMUM BTU/HR CONSUMPTION PER DRYER MODEL. SEE TABLE 5.2.
2. ALL NATURAL GAS DRYERS REQUIRE A PRESSURE REGULATOR NEAR THE BASE OF THE DRYER TO MINIMIZE PRESSURE FLUCTUATIONS.
3. SUPPLIED PRESSURE TO DRYER FUEL SYSTEM SHOULD NOT EXCEED 20 PSI.
4. BEFORE STARTING THE DRYER FOR THE FIRST TIME, MAKE CERTAIN THAT ALL PIPE UNIONS BOTH INSIDE AND OUTSIDE THE DRYER ARE PROPERLY TIGHTENED.
5. IN SOME CASES BURNER ORIFICES MAY NEED TO BE RESIZED TO ACCOMADATE VARYING DRYING CONDITIONS.

TABLE 5.1

MODEL	FT	FULL LOAD AMPS (DRYER ONLY)					
		230V 1P	208V 3P	240V 3P	380V 3P	480V 3P	575V 3P
MSF-31010	10	72.1	N/A	N/A	N/A	N/A	N/A
MSF-41515	10	90.1	61.5	56.5	35.6	27.4	22.0
MSF-62520	15	N/A	77.6	71.1	44.6	35.2	28.5
MSF-72525	15	N/A	93.0	85.1	54.6	42.2	33.5
DP 2510	10	64.1	N/A	N/A	N/A	N/A	N/A
DP 3015	10	82.1	N/A	N/A	N/A	N/A	N/A
DP 4020	15	126.1	N/A	N/A	N/A	N/A	N/A
DP 5020	20	126.1	N/A	N/A	N/A	N/A	N/A
DP 7530	30	185.1	N/A	N/A	N/A	N/A	N/A
DP 10040	40	251.1	N/A	N/A	N/A	N/A	N/A
DP 3015	10	N/A	56.9	52.3	33.3	25.8	20.8
DP 4025	15	N/A	93.0	85.1	54.6	42.2	33.5
DP 6030	20	N/A	110.6	101.1	64.6	50.2	40.5
DP 7550	25	N/A	173.8	158.5	102.4	79.4	63.2
DP 9045	30	N/A	162.8	148.5	95.4	74.4	60.2
DP 12060	40	N/A	218.2	198.9	127.8	99.6	80.6
DPSL 3520	10	N/A	70.1	64.3	40.3	31.8	25.8
DPSL 4530	15	N/A	106.2	97.1	61.6	48.2	38.5
DPSL 7040	20	N/A	137.0	125.1	78.6	62.2	50.5
DPSL 8560	25	N/A	200.2	182.5	116.4	91.4	73.2
DPSL 10560	30	N/A	202.4	184.5	116.4	92.4	75.2
DPSL 14080	40	N/A	271.0	246.9	155.8	123.6	100.6
DPX 4525	10	N/A	90.1	82.5	52.6	40.4	32.0
DPX 7040	15	N/A	137.0	125.1	78.6	62.2	50.5
DPX 9050	20	N/A	167.8	153.1	98.6	76.2	60.5
DPX 13575	30	N/A	251.7	229.3	148.2	114.8	91.4
DPX 180100	40	N/A	346.7	315.7	204.1	158.0	125.5
DPXSL 5030	10	N/A	103.3	94.5	59.6	46.4	37.0
DPXSL 8050	15	N/A	167.8	153.1	98.6	76.2	60.5
DPXSL 10060	20	N/A	194.2	177.1	112.6	88.2	70.5
DPXSL 12560	25	N/A	203.3	185.3	118.2	92.8	74.4
DPXSL 15090	30	N/A	291.3	265.3	169.2	132.8	106.4
DPXSL 200120	40	N/A	399.5	363.7	232.1	182.0	145.5

\*\* FULL LOAD AMPS BASED ON UL 508A TABLE 50.1 AND 50.6

\*\* FULL LOAD AMPS DOES NOT INCLUDE ANY AUX. HANDLING EQUIPMENT.



TABLE 5.1 - 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	106.2	97.1	61.6	48.2	38.5
DPX4T 8460	15	N/A	190.1	173.7	115.6	87.0	70.0
DPX4T 11260	20	N/A	200.2	182.5	116.4	91.4	73.2
DPX4T 140100	25	N/A	313.3	285.3	182.2	142.8	114.4
DPX4T 16890	30	N/A	297.4	270.9	172.8	135.6	108.6
DPX4T 224120	40	N/A	399.5	363.7	232.1	182.0	145.5
DPX8T 6440	10	N/A	132.2	121.1	76.6	60.2	47.5
DPX8T 12880	20	N/A	252.2	230.5	146.4	115.4	91.2
DPX8T 160120	25	N/A	371.4	338.9	225.8	169.6	136.6
DPX8T 192120	30	N/A	375.4	342.9	217.8	171.6	135.6
DPX8T 256160	40	N/A	503.5	459.7	292.1	230.0	181.5
DPX12T 7250	10	N/A	161.2	147.1	93.6	73.2	58.5
DPX12T 10860	15	N/A	197.1	179.7	114.6	90.0	72.0
DPX12T 144100	20	N/A	310.2	282.5	180.4	141.4	113.2
DPX12T 175120	25	N/A	371.4	338.9	225.8	169.6	136.6
DPX12T 216150	30	N/A	462.4	420.9	268.8	210.6	168.6
DPX12T 288200	40	N/A	625.6	569.3	363.7	284.8	227.7
DPX16GT 8250	10	N/A	161.2	147.1	93.6	73.2	58.5
DPX16GT 12360	15	N/A	197.1	179.7	114.6	90.0	72.0
DPX16GT 164100	20	N/A	310.2	282.5	180.4	141.4	113.2
DPX16GT 210120	25	N/A	371.4	338.9	225.8	169.6	136.6
DPX16GT 246150	30	N/A	462.4	420.9	268.8	210.6	168.6
DPX16GT 328200	40	N/A	625.6	569.3	363.7	284.8	227.7

\*\* FULL LOAD AMPS BASED ON UL 508A TABLE 50.1 AND 50.6

\*\* FULL LOAD AMPS DOES NOT INCLUDE ANY AUX. HANDLING EQUIPMENT.

TABLE 5.2

MODEL	(FT)	TOTAL CFM	MINIMUM		MAXIMUM		MAX. w/ OPT. RECLAIM	
			TEMP. RISE (F)	BTU/HR (MILLION)	TEMP. RISE (F)	BTU/HR (MILLION)	TEMP. RISE (F)	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 5.2 - CONT'D

MODEL	(FT)	TOTAL CFM	MINIMUM		MAXIMUM		MAX. w/ OPT. RECLAIM	
			TEMP. RISE (F)	BTU/HR (MILLION)	TEMP. RISE (F)	BTU/HR (MILLION)	TEMP. RISE (F)	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 H.P. LOAD. THE POWER SUPPLY WIRING AND TRANSFORMERS MUST BE CAPABLE OF PROVIDING ADEQUATE MOTOR STARTING AND OPERATING VOLTAGE.

4. **CONSIDERING TOTAL H.P. LOAD** AND DISTANCE FROM TRANSFORMER. SIZE AND INSTALL WIRE AND CONDUIT BETWEEN TRANSFORMERS 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**

(REFER TO SECTION 5 OF SERVICE MANUAL FOR "FUEL SUPPLY RECOMMENDED"). **CONTACT YOUR LOCAL FUEL SUPPLIER FOR PROPER SIZING OF REGULATORS AND PLUMBING.**

**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.

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 HAVE BEEN PHASED AT FACTORY. IN THE EVENT PHASES ARE REVERSED, SHUT OFF POWER ON MAIN BREAKER, REVERSE T1 AND T2 AT MAIN BREAKER. **CHECK BACKSIDE OF FAN HUBS FOR FOREIGN OBJECTS THAT WILL THROW FAN OUT OF BALANCE.** FAN CURRENT SHOULD BE CHECKED TO BE SURE AMPERAGE IS WITHIN LIMITS ON NAMEPLATE.

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 FEED ROLL. IF DIRECTION IS INCORRECT, REVERSE LEADS A1 AND A2 ON SCR CONTROL UNIT.

**STARTUP PROCEDURE****ALL MODEL SERIES DRYERS****1. CHECK DRYER THOROUGHLY BEFORE STARTING**

- A. CHECK AND CLEAN SCREENS IN PLENUM CHAMBER.
- B. CHECK METERING SYSTEM FOR FOREIGN MATERIAL AND CLEAN.
- C. CHECK AUGERS AND AUXILIARY EQUIPMENT FOR CORRECT ROTATION.

**2. FRESH-AIR INTAKE DOORS**

- A. FRESH-AIR INTAKE DOORS 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 OUT GOING TEMPERATURE OF THE PRODUCT BEING DRIED.
- B. **SETTINGS:** OPEN THE DOORS THAT ARE LOCATED DIRECTLY ON THE FAN(S) FULL OPEN. OPEN OTHER DOORS AS NEEDED BUT NOT LESS THAN ONE INCH. 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, TO OBTAIN A COOL PRODUCT IT MAY BE NECESSARY TO ALSO ADJUST THE PLENUM TEMPERATURE DOWN.
- C. **CAUTION: HAVING THE FRESH AIR INTAKE PORTS 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.**

**3. ALL SWITCHES IN "OFF" POSITION**

- A. MAIN POWER LIGHT WILL COME "ON".

**4. TURN "ON" MAIN POWER****5. TO FILL WITH WET GRAIN**

- A. MOVE POWER SWITCH TO "ON" POSITION. THIS WILL ENERGIZE PANEL POWER RELAY AND PROVIDE 115 VAC TO CONTROL SYSTEM. SAFETY CIRCUIT LIGHT WILL COME "ON" AND SAFETY CIRCUIT MONITOR LIGHTS WILL COME "ON".
- B. 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".

**6. TO START FAN(S)**

- A. MOVE FAN START SWITCH TO "ON" POSITION UNTIL ALL FAN(S) START. 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 AUTOMATIC LOAD

TIMERS, WHICH ALLOW ONLY ONE(1) FAN TO START AT A TIME.

7. TO START BURNER(S)

A. TURN "ON" FUEL SUPPLY TO DRYER.

1. NATURAL GAS - "OPEN" MANUAL VALVE.
2. LP GAS - OPEN AT SUPPLY TANK, QUICK ACTING VALVE AND BALL VALVE "ON" DRYER.

DRYER MUST BE STARTED ON VAPOR UNTIL INTERNAL VAPORIZER IS WARM, THEN SWITCH TO LIQUID.  
TANK MUST HAVE BOTH VAPOR AND LIQUID DRAW AVAILABLE TO DRYER.

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 TIME DELAY THE IGNITION FIRING LIGHT(S) WILL COME "ON".

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 "OUT".

F. ADJUST FUEL PRESSURE

1. NATURAL GAS - 2# TO 6# NORMAL - 10 # MAXIMUM
2. LP GAS - 10# TO 12# NORMAL - 20 # MAXIMUM

G. ADJUST PLENUM SETPOINT FOR DESIRED OPERATING TEMPERATURE.

1. TO INCREASE HEAT, USE THE "UP" ARROW KEY OF THE TEMPERATURE CONTROLLER TO INCREASE THE SETPOINT TO THE DESIRED OPERATING TEMPERATURE.  
 SEE FIGURE 7-A FOR PLENUM TEMPERATURES FOR VARIOUS CROPS.

NOTE: RECOMMENDED PLENUM HIGH LIMIT SETTING: 30 TO 50°F ABOVE PLENUM TEMPERATURE.  
MAXIMUM SETTING ALLOWED: 260°F

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 7-A

2. TO DECREASE HEAT, USE THE "DOWN" ARROW KEY OF THE TEMPERATURE CONTROLLER TO DECREASE THE SETPOINT TO THE DESIRED OPERATING TEMPERATURE.

H. WHEN TEMPERATURE HAS REACHED DESIRED SET POINT IN PLENUM CHAMBER AND DRYER HAS HAD SUFFICIENT TIME TO WARM UP, "OPEN" LIQUID VALVE AT PROPANE TANK AND SHUT "OFF" VAPOR SUPPLY.

I. ADJUST MODULATING CONTROL FOR DESIRED OPERATING TEMPERATURE.



# Watlow EZ-ZONE Automatic Temperature Controller

## 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 (plenum 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.

## **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 "AUT 1" in the lower display and "180 F" 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 "AUT 1" in the lower display and "180 F" 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.

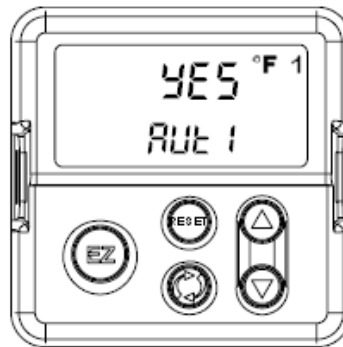
### **Micro-Tuning**

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

## **Linkage and Modulating Motor Calibration**

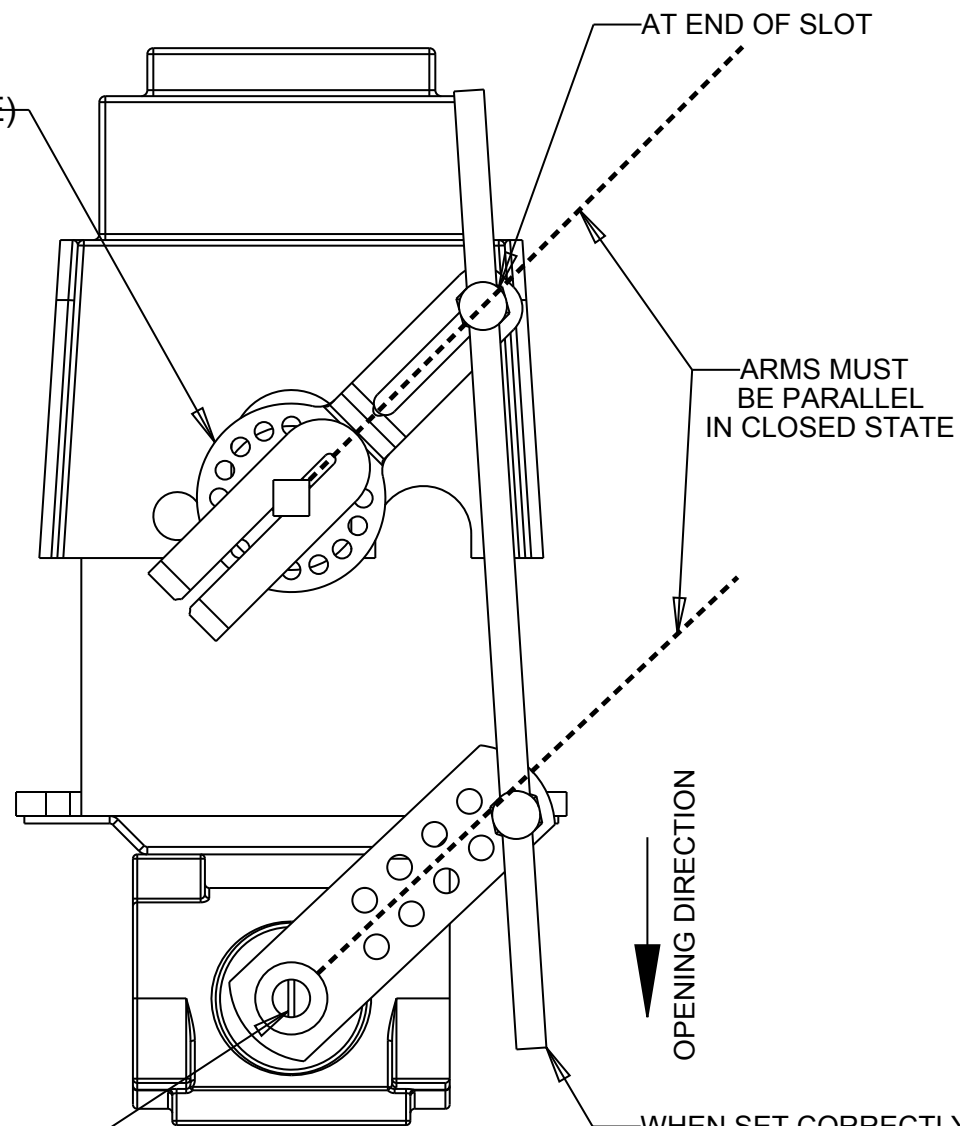
\*\*\*THIS PROCEDURE IS PERFORMED AT THE FACTORY AND SHOULD NOT BE REQUIRED DURING INITIAL SETUP\*\*\*

To calibrate the modulating motor to the controller, follow the steps below closely:

- 1) **The linkage must be set EXACTLY as the drawing (No.: 900-009214) on the next page shows. Errors in the linkage setup will cause temperature stability problems.**
- 2) With all the switches in the “OFF” position and power locked out from the Dryer Control Center, place a jumper wire between terminals #20 and #22 located on the insert panel of the Dryer Control Center. Once the jumper is in place return power to the Control Center.
- 3) The dryer **should not** be running during this procedure, but main panel power must be present and the safety circuit proven.
- 4) From the Home Screen press the ADVANCE (green) key 2 times to reach the screen shown on right of page.
- 5) Use the UP key to change the upper display to “P7Rn”. Press the RESET once key to return to the Home Screen. The controller is now in manual mode.
- 6) On the controller, use the UP or DOWN key to change the lower display to “00”.
- 7) Remove the blue weather cover from modulating motor.
- 8) Remove top motor cover from modulating motor.
- 9) Find the turn dial potentiometer labeled “ZERO” on the circuit board and with a small screwdriver, increase to its maximum. Find the turn dial potentiometer labeled “SPAN” and decrease it to its minimum.
- 10) Wait for modulating motor to stop (if any movement).
- 11) Slowly decrease the “ZERO” until the actuator begins to respond. The modulating motor should start and run clockwise approximately two degrees.
- 12) Slowly increase the zero just enough to return the modulating motor back to its full counter-clockwise position.
- 13) On the controller use the UP or DOWN key to change the lower display to “000”.
- 14) Slowly increase the “SPAN” until there is a slight counter-clockwise movement of the modulating motor. The modulating motor should start and run counter-clockwise approximately two degrees.
- 15) Slowly decrease the “SPAN” just enough to return the modulating motor back to its full clockwise position.
- 16) Repeat step 4, and use the DOWN arrow key to change the upper display to back to “Auto” like figure above. Press the RESET key to return to the Home Screen. The controller has now returned to automatic mode (**Note: In normal dryer operation the dryer must be in automatic mode to function properly.**)
- 17) Remove the jumper that was put in place in step 2.

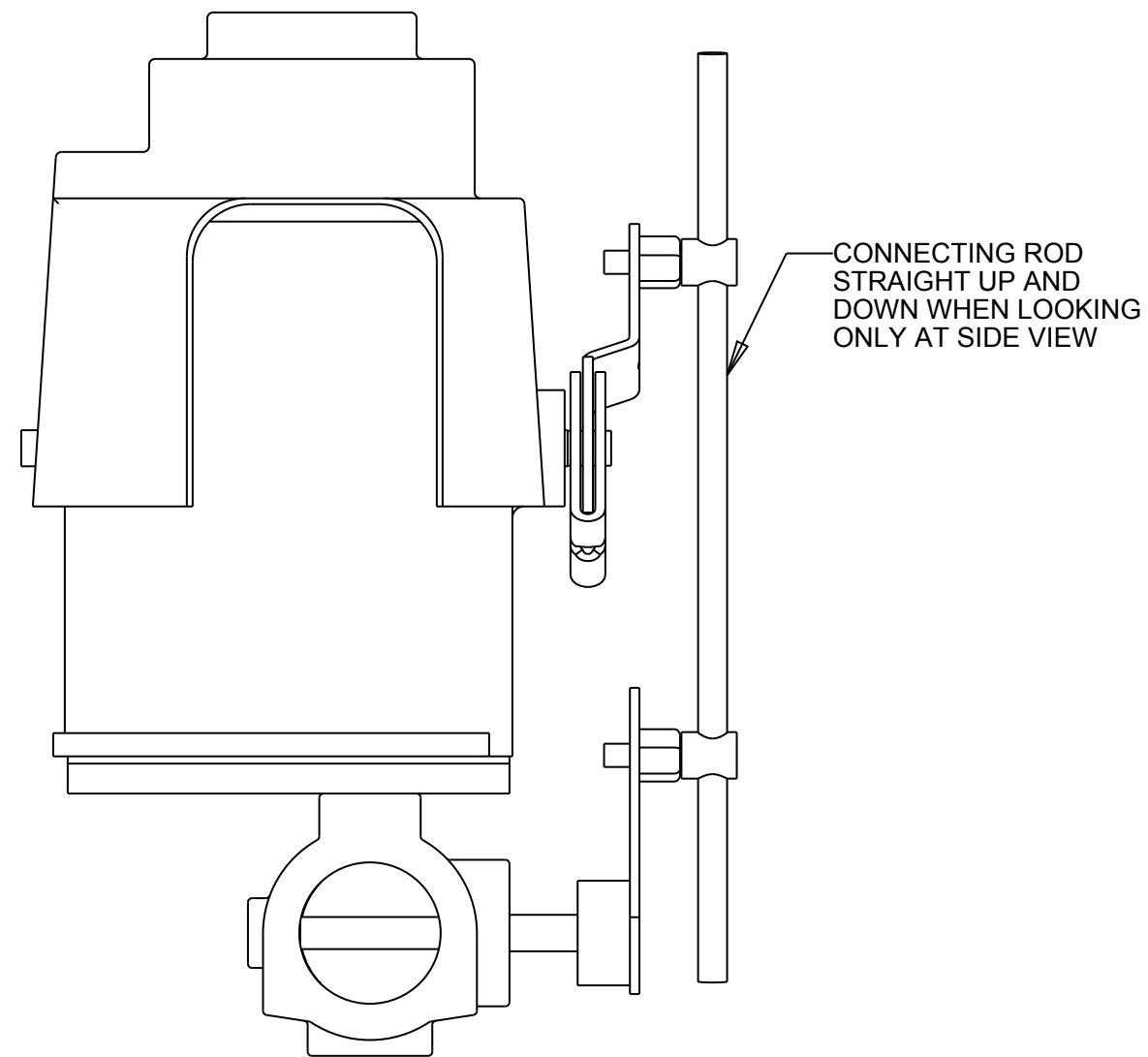


START  
(VALVE SHOWN IN CLOSED STATE)



SLOT IN BUTTERFLY STEM  
INDICATES POSITION OF  
VALVE DISC.  
(VALVE IS CLOSED)

WHEN SET CORRECTLY,  
THE CONNECTING ROD  
WILL BE AT A SLIGHT  
ANGLE LIKE SHOWN



SIDE VIEW

				DRAWN BY JGW	<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE:  ILLUSTRATION TEMPERATURE CONTROL MODULATING MOTOR & LINKAGE ADJUSTMENT
				DATE 01/06/10			
				CHK'D	USED ON:	DRAWING NO.  900-009214	
					NEXT ASS'Y:		
				SCALE .500	MATL.	SHEAR SIZE	
ECO#	LET	DESCRIPTION	DATE	TOLERANCE: DECIMAL #10 FRACTION #/32 ANGLE # UNLESS OTHERWISE SPECIFIED			

## **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. "R I" should be in upper display and "SEt" in lower display.
- 2) Press the DOWN arrow key 3 times. "oEPt" 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 "SLo" 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 "SPH I" 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: "L i I" in the upper display and "REtR" 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: "L i I" ; "Er. 2" in the upper display and "REtR" 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. 1" in the upper display and "REtR" 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	<ul style="list-style-type: none"> <li>Alarm latching is active</li> <li>Alarm set to incorrect output</li> <li>Alarm is set to incorrect source</li> <li>Sensor input is out of alarm set point range</li> <li>Alarm set point is incorrect</li> <li>Alarm is set to incorrect type</li> <li>Digital input function is incorrect</li> </ul>	<ul style="list-style-type: none"> <li>Reset alarm when process is within range or disable latching</li> <li>Set output to correct alarm source instance</li> <li>Set alarm source to correct input instance</li> <li>Correct cause of sensor input out of alarm range</li> <li>Set alarm set point to correct trip point</li> <li>Set alarm to correct type: process, deviation or power</li> <li>Set digital input function and source instance</li> </ul>
Alarm won't occur	Alarm will not activate output	<ul style="list-style-type: none"> <li>Alarm silencing is active</li> <li>Alarm blocking is active</li> <li>Alarm is set to incorrect output</li> <li>Alarm is set to incorrect source</li> <li>Alarm set point is incorrect</li> <li>Alarm is set to incorrect type</li> </ul>	<ul style="list-style-type: none"> <li>Disable alarm silencing, if required</li> <li>Disable alarm blocking, if required</li> <li>Set output to correct alarm source instance</li> <li>Set alarm source to correct input instance</li> <li>Set alarm set point to correct trip point</li> <li>Set alarm to correct type: process, deviation or power</li> </ul>
<b>[AL1]</b> Alarm Error <b>[AL2]</b> <b>[AL3]</b> <b>[AL4]</b>	Alarm state cannot be determined due to lack of sensor input	<ul style="list-style-type: none"> <li>Sensor improperly wired or open</li> <li>Incorrect setting of sensor type</li> <li>Calibration corrupt</li> </ul>	<ul style="list-style-type: none"> <li>Correct wiring or replace sensor</li> <li>Match setting to sensor used</li> <li>Check calibration of controller</li> </ul>
<b>[ALL1]</b> Alarm Low <b>[ALL2]</b> <b>[ALL3]</b> <b>[ALL4]</b>	Sensor input below low alarm set point	<ul style="list-style-type: none"> <li>Temperature is less than alarm set point</li> <li>Alarm is set to latching and an alarm occurred in the past</li> <li>Incorrect alarm set point</li> <li>Incorrect alarm source</li> </ul>	<ul style="list-style-type: none"> <li>Check cause of under temperature</li> <li>Clear latched alarm</li> <li>Establish correct alarm set point</li> <li>Set alarm source to proper setting</li> </ul>
<b>[ALH1]</b> Alarm High <b>[ALH2]</b> <b>[ALH3]</b> <b>[ALH4]</b>	Sensor input above high alarm set point	<ul style="list-style-type: none"> <li>Temperature is greater than alarm set point</li> <li>Alarm is set to latching and an alarm occurred in the past</li> <li>Incorrect alarm set point</li> <li>Incorrect alarm source</li> </ul>	<ul style="list-style-type: none"> <li>Check cause of over temperature</li> <li>Clear latched alarm</li> <li>Establish correct alarm set point</li> <li>Set alarm source to proper setting</li> </ul>
<b>[EPI1]</b> Error Input <b>[EPI2]</b>	Sensor does not provide a valid signal to controller	<ul style="list-style-type: none"> <li>Sensor improperly wired or open</li> <li>Incorrect setting of sensor type</li> <li>Calibration corrupt</li> </ul>	<ul style="list-style-type: none"> <li>Correct wiring or replace sensor</li> <li>Match setting to sensor used</li> <li>Check calibration of controller</li> </ul>
Limit won't clear or reset	Limit will not clear or reset with keypad or digital input	<ul style="list-style-type: none"> <li>Sensor input is out of limit set point range</li> <li>Limit set point is incorrect</li> <li>Digital input function is incorrect</li> </ul>	<ul style="list-style-type: none"> <li>Correct cause of sensor input out of limit range</li> <li>Set limit set point to correct trip point</li> <li>Set digital input function and source instance</li> </ul>
<b>[LE1]</b> Limit Error	Limit state cannot be determined due to lack of sensor input, limit will trip	<ul style="list-style-type: none"> <li>Sensor improperly wired or open</li> <li>Incorrect setting of sensor type</li> <li>Calibration corrupt</li> </ul>	<ul style="list-style-type: none"> <li>Correct wiring or replace sensor</li> <li>Match setting to sensor used</li> <li>Check calibration of controller</li> </ul>
<b>[LL1]</b> Limit Low	Sensor input below low limit set point	<ul style="list-style-type: none"> <li>Temperature is less than limit set point</li> <li>Limit outputs latch and require reset</li> <li>Incorrect alarm set point</li> </ul>	<ul style="list-style-type: none"> <li>Check cause of under temperature</li> <li>Clear limit</li> <li>Establish correct limit set point</li> </ul>

Indication	Description	Possible Cause(s)	Corrective Action
<b>[Lh]</b> Limit High	Sensor input above high limit set point	<ul style="list-style-type: none"> <li>• Temperature is greater than limit set point</li> <li>• Limit outputs latch and require reset</li> <li>• Incorrect alarm set point</li> </ul>	<ul style="list-style-type: none"> <li>• Check cause of over temperature</li> <li>• Clear limit</li> <li>• Establish correct limit set point</li> </ul>
<b>[Lo]</b> <b>[Po]</b> 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%.	<ul style="list-style-type: none"> <li>• Setting of Open Loop Detect Time incorrect</li> <li>• Setting of Open Loop Detect Deviation incorrect</li> <li>• Thermal loop is open</li> <li>• Open Loop Detect function not required but activated</li> </ul>	<ul style="list-style-type: none"> <li>• Set correct Open Loop Detect Time for application</li> <li>• Set correct Open Loop Deviation value for application</li> <li>• Determine cause of open thermal loop: misplaced sensors, load failure, loss of power to load, etc.</li> <li>• Deactivate Open Loop Detect feature</li> </ul>
<b>[Pr]</b> <b>[Pr]</b> 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.	<ul style="list-style-type: none"> <li>• Setting of Open Loop Detect Time incorrect</li> <li>• Setting of Open Loop Detect Deviation incorrect</li> <li>• Output programmed for incorrect function</li> <li>• Thermocouple sensor wired in reverse polarity</li> </ul>	<ul style="list-style-type: none"> <li>• Set correct Open Loop Detect Time for application</li> <li>• Set correct Open Loop Deviation value for application</li> <li>• Set output function correctly</li> <li>• Wire thermocouple correctly, (red wire is negative)</li> </ul>
<b>[rP]</b> Ramping 1 <b>[rP]</b> Ramping 2	Controller is ramping to new set point	<ul style="list-style-type: none"> <li>• Ramping feature is activated</li> </ul>	<ul style="list-style-type: none"> <li>• Disable ramping feature if not required</li> </ul>
<b>[UN]</b> Autotuning 1 <b>[UN]</b> Autotuning 2	Controller is autotuning the control loop	<ul style="list-style-type: none"> <li>• User started the autotune function</li> <li>• Digital input is set to start autotune</li> </ul>	<ul style="list-style-type: none"> <li>• Wait until autotune completes or disable autotune feature</li> <li>• Set digital input to function other than autotune, if desired</li> </ul>
No heat/cool action	Output does not activate load	<ul style="list-style-type: none"> <li>• Output function is incorrectly set</li> <li>• Control mode is incorrectly set</li> <li>• Output is incorrectly wired</li> <li>• Load, power or fuse is open</li> <li>• Control set point is incorrect</li> <li>• Incorrect controller model for application</li> </ul>	<ul style="list-style-type: none"> <li>• Set output function correctly</li> <li>• Set control mode appropriately (Open vs Closed Loop)</li> <li>• Correct output wiring</li> <li>• Correct fault in system</li> <li>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop</li> <li>• Obtain correct controller model for application</li> </ul>
No Display	No display indication or LED illumination	<ul style="list-style-type: none"> <li>• Power to controller is off</li> <li>• Fuse open</li> <li>• Breaker tripped</li> <li>• Safety interlock switch open</li> <li>• Separate system limit control activated</li> <li>• Wiring error</li> <li>• Incorrect voltage to controller</li> </ul>	<ul style="list-style-type: none"> <li>• Turn on power</li> <li>• Replace fuse</li> <li>• Reset breaker</li> <li>• Close interlock switch</li> <li>• Reset limit</li> <li>• Correct wiring issue</li> <li>• Apply correct voltage, check part number</li> </ul>
No Serial Communication	Cannot establish serial communications with the controller	<ul style="list-style-type: none"> <li>• Address parameter incorrect</li> <li>• Incorrect protocol selected</li> <li>• Baud rate incorrect</li> <li>• Parity incorrect</li> <li>• Wiring error</li> <li>• EIA-485 converter issue</li> <li>• Incorrect computer or PLC communications port</li> <li>• Incorrect software setup</li> <li>• Wires routed with power cables</li> <li>• Termination resistor may be required</li> </ul>	<ul style="list-style-type: none"> <li>• Set unique addresses on network</li> <li>• Match protocol between devices</li> <li>• Match baud rate between devices</li> <li>• Match parity between devices</li> <li>• Correct wiring issue</li> <li>• Check settings or replace converter</li> <li>• Set correct communication port</li> <li>• Correct software setup to match controller</li> <li>• Route communications wires away from power wires</li> <li>• Place 120 Ω resistor across EIA-485 on last controller</li> </ul>



Indication	Description	Possible Cause(s)	Corrective Action
Process doesn't control to set point	Process is unstable or never reaches set point	<ul style="list-style-type: none"> <li>• Controller not tuned correctly</li> <li>• Control mode is incorrectly set</li> <li>• Control set point is incorrect</li> </ul>	<ul style="list-style-type: none"> <li>• Perform autotune or manually tune system</li> <li>• Set control mode appropriately (Open vs Closed Loop)</li> <li>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop</li> </ul>
Temperature runaway	Process value continues to increase or decrease past set point.	<ul style="list-style-type: none"> <li>• Controller output incorrectly programmed</li> <li>• Thermocouple reverse wired</li> <li>• Controller output wired incorrectly</li> <li>• Short in heater</li> <li>• Power controller connection to controller defective</li> <li>• Controller output defective</li> </ul>	<ul style="list-style-type: none"> <li>• Verify output function is correct (heat or cool)</li> <li>• Correct sensor wiring (red wire negative)</li> <li>• Verify and correct wiring</li> <li>• Replace heater</li> <li>• Replace or repair power controller</li> <li>• Replace or repair controller</li> </ul>
<b>[100]</b> Device Error <b>[EE0]</b>	Controller displays internal malfunction message at power up.	<ul style="list-style-type: none"> <li>• Controller defective</li> <li>• Sensor input over driven</li> </ul>	<ul style="list-style-type: none"> <li>• Replace or repair controller</li> </ul>
<b>[hEr]</b> Heater Error	Heater Error	<ul style="list-style-type: none"> <li>• Current through load is above current trip set point</li> <li>• Current through load is below current trip set point</li> </ul>	<ul style="list-style-type: none"> <li>• Check that the load current is proper. Correct cause of overcurrent and/or ensure current trip set point is correct.</li> <li>• Check that the load current is proper. Correct cause of undercurrent and/or ensure current trip set point is correct.</li> </ul>
<b>[CEr]</b> Current Error	Load current incorrect.	<ul style="list-style-type: none"> <li>• Shorted solid-state or mechanical relay</li> <li>• Open solid-state or mechanical relay</li> <li>• Current transformer load wire associated to wrong output</li> <li>• Defective current transformer or controller</li> <li>• Noisy electrical lines</li> </ul>	<ul style="list-style-type: none"> <li>• Replace relay</li> <li>• Replace relay</li> <li>• Route load wire through current transformer from correct output, and go to the <b>[CS]</b> Source Output Instance parameter (Setup Page, Current Menu) to select the output that is driving the load.</li> <li>• Replace or repair sensor or controller</li> <li>• Route wires appropriately, check for loose connections, add line filters</li> </ul>
Menus inaccessible	Unable to access <b>[SEt]</b> , <b>[OPer]</b> , <b>[FCEy]</b> or <b>[PrOF]</b> menus or particular prompts in Home Page	<ul style="list-style-type: none"> <li>• Security set to incorrect level</li> <li>• Digital input set to lockout keypad</li> <li>• Custom parameters incorrect</li> </ul>	<ul style="list-style-type: none"> <li>• Check <b>[LoC]</b> settings in Factory Page</li> <li>• Enter appropriate password in <b>[ULoC]</b> setting in Factory Page</li> <li>• Change state of digital input</li> <li>• Change custom parameters in Factory Page</li> </ul>
EZ-Key/s don't work	EZ-Key/s does not activate required function	<ul style="list-style-type: none"> <li>• EZ-Key function incorrect</li> <li>• EZ-Key function instance not incorrect</li> <li>• Keypad malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Verify EZ-Key function in Setup Menu</li> <li>• Check that the function instance is correct</li> <li>• Replace or repair controller</li> </ul>

## **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

## 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
<b>RI</b>	<b>1</b>				<b>Analog Input 1 (PID)</b>
		<b>Rin</b>	**	**	View the process value
		<b>IEr</b>	**	**	View the cause of the most recent error
		<b>ICA</b>	0	0	Defines calibration offset
	<b>2</b>				<b>Analog Input 2 (High Limit)</b>
		<b>Rin</b>	**	**	View the process value
		<b>IEr</b>	**	**	View the cause of the most recent error
		<b>ICA</b>	0	0	Defines calibration offset
<b>Lim</b>					<b>Limit</b>
		<b>LHS</b>	100	260	Defines the high process value that will trigger the limit
<b>Mon</b>					<b>Monitor</b>
		<b>CPA</b>	**	**	View the active control mode
		<b>hPr</b>	**	**	View the current heat output level
		<b>CSP</b>	**	**	View the set point currently in effect
		<b>PwA</b>	**	**	View the current filtered process value using the control input
<b>Loop</b>					<b>Loop</b>
		<b>CP1</b>	<i>Auto</i>	<i>Auto</i>	Selects the method that this loop will use to control
		<b>RLSP</b>	90	90	Defines the the setpoint autotune will use as % of current setpoint
		<b>Aut</b>	<i>no</i>	<i>no</i>	Initiates the autotune process
		<b>CSP</b>	75	100	Defines the setpoint the controller will use in PID funtion
		<b>idS</b>	75	100	Defines a new PID setpoint if high limit is reached
		<b>hPb</b>	25	*35	Defines the proportianl band for the heat output
		<b>ti</b>	180	*56	Defines the PID intergral for the output
		<b>td</b>	0	*9	Defines the PID derivative time for the output
		<b>db</b>	0	0	Defines the offset to the proportional band
		<b>aSP</b>	0	0	Defines a fixed level of output power when in manual mode
<b>RLP1</b>	<b>1</b>				<b>Alarm 1</b>
		<b>RLo</b>	320	320	Defines the low range of alarm instance
		<b>RHi</b>	3000	3000	Defines the high range of the alarm instance
	<b>2</b>				<b>Alarm 2</b>
		<b>RLo</b>	320	320	Defines the low range of alarm instance
		<b>RHi</b>	3000	3000	Defines the high range of the alarm instance
	<b>3</b>				<b>Alarm 3</b>
		<b>RLo</b>	320	320	Defines the low range of alarm instance
		<b>RHi</b>	3000	3000	Defines the high range of the alarm instance
	<b>4</b>				<b>Alarm 4</b>
		<b>RLo</b>	320	320	Defines the low range of alarm instance
		<b>RHi</b>	3000	3000	Defines the high range of the alarm instance

# 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
R1	1	<b>Analog Input 1 (PID)</b>			
		SEn	EC	r0.1H	Selects the type of sensor used
		rEL	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 errors
		dEC	0	0	Selects precision of displayed units
		SbA	oFF	oN	Enables or disables sensor backup
R1	2	<b>Analog Input 2 (High Limit)</b>			
		SEn	EC	r0.1H	Selects the type of sensor used
		rEL	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 errors
		dEC	0	0	Selects precision of displayed units
L1P7		<b>Limit Function</b>			
		L5d	both	h19h	Selects which instance limit function will trip
		LhY	3	20	Defines the high limit hysteresis 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	<b>PID Loop 1</b>			
		hAG	Pid	Pid	Selects the heat control method
		cAG	oFF	oFF	Selects the cool control method
		tEUn	no	no	Enables or disable TRU-TUNE+ adaptive tune automatically
		tAGr	Cr it	Cr it	Selects the aggressiveness of the autotune function
		UFR	USER	USER	Selects what output will do when user switches to manual mode
		FRI	USER	oFF	Selects what output will do when an input error switches control to manual mode
		LdE	no	no	Enables or disables open-loop detection 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)
oEPt	1	<b>Output 1</b>			
		oLY	uOLT	P7R	Selects the type of output
		Fn	hERt	hERt	Selects which function will drive output
		F1	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
		oCR	00	00	Defines an offset value to the process output
	3	<b>Output 3</b>			
		Fn	oFF	oFF	Selects which function will drive output
	4	<b>Output 4</b>			
		Fn	L1P7	L1P7	Selects which function will drive output
ALP7	1	<b>Alarm 1</b>			
		ALY	oFF	oFF	Selects whether the alarm trigger is a fixed value or will track set point
	2	<b>Alarm 2</b>			

Menu	Instance	Parameter	Factory Setting	DELUX Setting	Parameter Description
		<b>REL3</b>	<i>oFF</i>	<i>oFF</i>	Selects whether the alarm trigger is a fixed value or will track set point
	3				<b>Alarm 3</b>
		<b>REL4</b>	<i>oFF</i>	<i>oFF</i>	Selects whether the alarm trigger is a fixed value or will track set point
	4				<b>Alarm 4</b>
		<b>REL5</b>	<i>oFF</i>	<i>oFF</i>	Selects whether the alarm trigger is a fixed value or will track set point
<i>Fun</i>					<b>Function</b>
		<b>LEU</b>	<i>high</i>	<i>high</i>	Selects the state in which the EZ key is in when powered up
		<b>Fn</b>	<i>nonE</i>	<i>nonE</i>	Selects the funtion of the EZ key
		<b>Fi</b>	<i>0</i>	<i>0</i>	Selects which instance the EZ key will affect
<i>gLBL</i>					<b>Global</b>
		<b>CF</b>	<i>F</i>	<i>F</i>	Selects the unit of measurement
		<b>RCLF</b>	<i>60</i>	<i>60</i>	Selects the AC line frequency
<i>Co77</i>					<b>Communications</b>
		<b>AdS</b>	<i>1</i>	<i>1</i>	Sets the network address of this controller
		<b>CF</b>	<i>F</i>	<i>F</i>	Selects UOM in which this communications channel will display
		<b>nUS</b>	<i>YES</i>	<i>YES</i>	Determines whether all values written to control will be saved in EEPROM

# 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**.

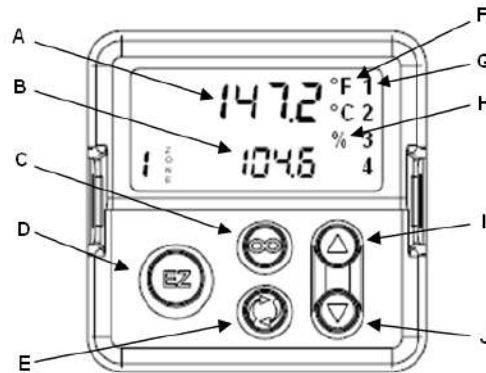
Menu	Instance	Parameter	Factory Setting	DELUX Setting	Parameter Description
<i>CUSt</i>	1				<b>Custom 1</b>
		<i>PAR</i>	<i>ACPU</i>	<i>ACPU</i>	Defines custom parameter to home page
	2				<b>Custom 2</b>
		<i>PAR</i>	<i>ACSP</i>	<i>ACSP</i>	Defines custom parameter to home page
	3				<b>Custom 3</b>
		<i>PAR</i>	<i>Pro</i>	<i>Pro</i>	Defines custom parameter to home page
	4				<b>Custom 4</b>
		<i>PAR</i>	<i>LSt</i>	<i>LSt</i>	Defines custom parameter to home page
	5				<b>Custom 5</b>
		<i>PAR</i>	<i>CP7</i>	<i>CP8</i>	Defines custom parameter to home page
	6				<b>Custom 6</b>
		<i>PAR</i>	<i>hPr</i>	<i>hPr</i>	Defines custom parameter to home page
	7				<b>Custom 7</b>
		<i>PAR</i>	<i>CPr</i>	<i>CPr</i>	Defines custom parameter to home page
	8				<b>Custom 8</b>
		<i>PAR</i>	<i>RUt</i>	<i>RUt</i>	Defines custom parameter to home page
	9				<b>Custom 9</b>
		<i>PAR</i>	<i>idLE</i>	<i>t.tUn</i>	Defines custom parameter to home page
	10				<b>Custom 10</b>
		<i>PAR</i>	<i>CP7</i>	<i>CP8</i>	Defines custom parameter to home page
	11				<b>Custom 11</b>
		<i>PAR</i>	<i>hPr</i>	<i>hPr</i>	Defines custom parameter to home page
	12				<b>Custom 12</b>
		<i>PAR</i>	<i>CPr</i>	<i>CPr</i>	Defines custom parameter to home page
	13				<b>Custom 13</b>
		<i>PAR</i>	<i>RUt</i>	<i>RUt</i>	Defines custom parameter to home page
	14				<b>Custom 14</b>
		<i>PAR</i>	<i>idLE</i>	<i>idLE</i>	Defines custom parameter to home page
	15				<b>Custom 15</b>
		<i>PAR</i>	<i>LLS</i>	<i>LLS</i>	Defines custom parameter to home page
	16				<b>Custom 16</b>
		<i>PAR</i>	<i>LhS</i>	<i>LhS</i>	Defines custom parameter to home page
	17				<b>Custom 17</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	18				<b>Custom 18</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	19				<b>Custom 19</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	20				<b>Custom 20</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
<i>LoC</i>					<b>Lock</b>
		<i>LoLo</i>	2	2	Changes the security level of the operations page
		<i>PASt</i>	<i>oFF</i>	<i>oFF</i>	Enables or disables security features
		<i>rLoC</i>	5	5	Sets the read security clearance level
		<i>SLoC</i>	5	5	Sets the write security clearance level
<i>dIRG</i>					
		<i>Pn</i>	**	**	Part number of device
		<i>rEu</i>	**	**	Software revision number
		<i>SbLd</i>	**	**	Software build number

Menu	Instance	Parameter	Factory Setting	DELUX Setting	Parameter Description
		<b>Sn</b>	**	**	Serial number of device
		<b>dAtE</b>	**	**	Date of manufacture
		<b>USr.r</b>	nonE	nonE	Restore user/default settings
		<b>USr.S</b>	nonE	nonE	Save current user settings
		<b>CLed</b>	both	both	Turns communications LED on or off for selected ports
		<b>ZonE</b>	on	on	Turns zone LED on or off based on selection
		<b>chAn</b>	on	on	Turns channel LED on or off based on selection
		<b>dPrS</b>	2	2	Defines the number of display pairs
<b>CRL</b>	<b>1</b>				<b>Calibration</b>
		<b>r<u>u</u></b>	**	**	View the raw electrical value for this input in units of sensor
		<b>EL<u>lo</u></b>	1.000	1.000	Defines the value to calibrate the low end of the input range
		<b>EL<u>oo</u></b>	0.000	0.000	Defines the value to calibrate the low end of the output range
		<b>EL<u>o5</u></b>	1.000	1.000	Defines the value to calibrate the slope of the output value
	<b>2</b>				
		<b>r<u>u</u></b>	**	**	View the raw electrical value for this input in units of sensor
		<b>EL<u>lo</u></b>	1.000	1.000	Defines the value to calibrate the low end of the input range
		<b>EL<u>oo</u></b>	0.000	0.000	Defines the value to calibrate the low end of the output range
		<b>EL<u>o5</u></b>	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 dryer 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

IN	MOISTURE OF DRIED GRAIN %								
	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	WET GRAIN				GRAIN	F4
	F2	TEMP	F3			
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**

(DRYER RATED CAPACITY @ 20-15%)  
----- X (BPH IN CHART 1) X F2 X F3 X F4  
1000

**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	<ul style="list-style-type: none"> <li>Alarm latching is active</li> <li>Alarm set to incorrect output</li> <li>Alarm is set to incorrect source</li> <li>Sensor input is out of alarm set point range</li> <li>Alarm set point is incorrect</li> <li>Alarm is set to incorrect type</li> <li>Digital input function is incorrect</li> </ul>	<ul style="list-style-type: none"> <li>Reset alarm when process is within range or disable latching</li> <li>Set output to correct alarm source instance</li> <li>Set alarm source to correct input instance</li> <li>Correct cause of sensor input out of alarm range</li> <li>Set alarm set point to correct trip point</li> <li>Set alarm to correct type: process, deviation or power</li> <li>Set digital input function and source instance</li> </ul>
Alarm won't occur	Alarm will not activate output	<ul style="list-style-type: none"> <li>Alarm silencing is active</li> <li>Alarm blocking is active</li> <li>Alarm is set to incorrect output</li> <li>Alarm is set to incorrect source</li> <li>Alarm set point is incorrect</li> <li>Alarm is set to incorrect type</li> </ul>	<ul style="list-style-type: none"> <li>Disable alarm silencing, if required</li> <li>Disable alarm blocking, if required</li> <li>Set output to correct alarm source instance</li> <li>Set alarm source to correct input instance</li> <li>Set alarm set point to correct trip point</li> <li>Set alarm to correct type: process, deviation or power</li> </ul>
<b>[ALF1]</b> Alarm Error <b>[ALF2]</b> <b>[ALF3]</b> <b>[ALF4]</b>	Alarm state cannot be determined due to lack of sensor input	<ul style="list-style-type: none"> <li>Sensor improperly wired or open</li> <li>Incorrect setting of sensor type</li> <li>Calibration corrupt</li> </ul>	<ul style="list-style-type: none"> <li>Correct wiring or replace sensor</li> <li>Match setting to sensor used</li> <li>Check calibration of controller</li> </ul>
<b>[ALL1]</b> Alarm Low <b>[ALL2]</b> <b>[ALL3]</b> <b>[ALL4]</b>	Sensor input below low alarm set point	<ul style="list-style-type: none"> <li>Temperature is less than alarm set point</li> <li>Alarm is set to latching and an alarm occurred in the past</li> <li>Incorrect alarm set point</li> <li>Incorrect alarm source</li> </ul>	<ul style="list-style-type: none"> <li>Check cause of under temperature</li> <li>Clear latched alarm</li> <li>Establish correct alarm set point</li> <li>Set alarm source to proper setting</li> </ul>
<b>[ALH1]</b> Alarm High <b>[ALH2]</b> <b>[ALH3]</b> <b>[ALH4]</b>	Sensor input above high alarm set point	<ul style="list-style-type: none"> <li>Temperature is greater than alarm set point</li> <li>Alarm is set to latching and an alarm occurred in the past</li> <li>Incorrect alarm set point</li> <li>Incorrect alarm source</li> </ul>	<ul style="list-style-type: none"> <li>Check cause of over temperature</li> <li>Clear latched alarm</li> <li>Establish correct alarm set point</li> <li>Set alarm source to proper setting</li> </ul>
<b>[EPI1]</b> Error Input	Sensor does not provide a valid signal to controller	<ul style="list-style-type: none"> <li>Sensor improperly wired or open</li> <li>Incorrect setting of sensor type</li> <li>Calibration corrupt</li> </ul>	<ul style="list-style-type: none"> <li>Correct wiring or replace sensor</li> <li>Match setting to sensor used</li> <li>Check calibration of controller</li> </ul>



<p>[P<sub>o</sub>] Loop Open Error</p>	<p>Open Loop Detect is active and the process value did not deviate by a user-selected value in a user specified period.</p>	<ul style="list-style-type: none"> <li>• Setting of Open Loop Detect Time incorrect</li> <li>• Setting of Open Loop Detect Deviation incorrect</li> <li>• Thermal loop is open</li> <li>• Open Loop Detect function not required but activated</li> </ul>	<ul style="list-style-type: none"> <li>• Set correct Open Loop Detect Time for application</li> <li>• Set correct Open Loop Deviation value for application</li> <li>• Determine cause of open thermal loop: misplaced sensors, load failure, loss of power to load, etc.</li> <li>• Deactivate Open Loop Detect feature</li> </ul>
<p>[P<sub>r</sub>] Loop Reversed Error</p>	<p>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.</p>	<ul style="list-style-type: none"> <li>• Setting of Open Loop Detect Time incorrect</li> <li>• Setting of Open Loop Detect Deviation incorrect</li> <li>• Output programmed for incorrect function</li> <li>• Thermocouple sensor wired in reverse polarity</li> </ul>	<ul style="list-style-type: none"> <li>• Set correct Open Loop Detect Time for application</li> <li>• Set correct Open Loop Deviation value for application</li> <li>• Set output function correctly</li> <li>• Wire thermocouple correctly, (red wire is negative)</li> </ul>
<p>[P<sub>r</sub>] Ramping 1</p>	<p>Controller is ramping to new set point</p>	<ul style="list-style-type: none"> <li>• Ramping feature is activated</li> </ul>	<ul style="list-style-type: none"> <li>• Disable ramping feature if not required</li> </ul>
<p>[E<sub>U</sub>] Autotuning 1</p>	<p>Controller is autotuning the control loop</p>	<ul style="list-style-type: none"> <li>• User started the autotune function</li> <li>• Digital input is set to start autotune</li> </ul>	<ul style="list-style-type: none"> <li>• Wait until autotune completes or disable autotune feature</li> <li>• Set digital input to function other than autotune, if desired</li> </ul>
<p>No heat/cool action</p>	<p>Output does not activate load</p>	<ul style="list-style-type: none"> <li>• Output function is incorrectly set</li> <li>• Control mode is incorrectly set</li> <li>• Output is incorrectly wired</li> <li>• Load, power or fuse is open</li> <li>• Control set point is incorrect</li> <li>• Incorrect controller model for application</li> </ul>	<ul style="list-style-type: none"> <li>• Set output function correctly</li> <li>• Set control mode appropriately (Open vs Closed Loop)</li> <li>• Correct output wiring</li> <li>• Correct fault in system</li> <li>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop</li> <li>• Obtain correct controller model for application</li> </ul>
<p>No Display</p>	<p>No display indication or LED illumination</p>	<ul style="list-style-type: none"> <li>• Power to controller is off</li> <li>• Fuse open</li> <li>• Breaker tripped</li> <li>• Safety interlock switch open</li> <li>• Separate system limit control activated</li> <li>• Wiring error</li> <li>• Incorrect voltage to controller</li> </ul>	<ul style="list-style-type: none"> <li>• Turn on power</li> <li>• Replace fuse</li> <li>• Reset breaker</li> <li>• Close interlock switch</li> <li>• Reset limit</li> <li>• Correct wiring issue</li> <li>• Apply correct voltage, check part number</li> </ul>
<p>No Serial Communication</p>	<p>Cannot establish serial communications with the controller</p>	<ul style="list-style-type: none"> <li>• Address parameter incorrect</li> <li>• Incorrect protocol selected</li> <li>• Baud rate incorrect</li> <li>• Parity incorrect</li> <li>• Wiring error</li> <li>• EIA-485 converter issue</li> <li>• Incorrect computer or PLC communications port</li> <li>• Incorrect software setup</li> <li>• Termination resistor may be required</li> </ul>	<ul style="list-style-type: none"> <li>• Set unique addresses on network</li> <li>• Match protocol between devices</li> <li>• Match baud rate between devices</li> <li>• Match parity between devices</li> <li>• Correct wiring issue</li> <li>• Check settings or replace converter</li> <li>• Set correct communication port</li> <li>• Correct software setup to match controller</li> <li>• Place 120 Ω resistor across EIA-485 on last controller</li> </ul>

Indication	Description	Possible Causes	Corrective Action
Process doesn't control to set point	Process is unstable or never reaches set point	<ul style="list-style-type: none"> <li>• Controller not tuned correctly</li> <li>• Control mode is incorrectly set</li> <li>• Control set point is incorrect</li> </ul>	<ul style="list-style-type: none"> <li>• Perform autotune or manually tune system</li> <li>• Set control mode appropriately (Open vs Closed Loop)</li> <li>• Set control set point in appropriate control mode and check source of set point: remote, idle, profile, closed loop, open loop</li> </ul>
Temperature runaway	Process value continues to increase or decrease past set point.	<ul style="list-style-type: none"> <li>• Controller output incorrectly programmed</li> <li>• Thermocouple reverse wired</li> <li>• Controller output wired incorrectly</li> <li>• Short in heater</li> <li>• Power controller connection to controller defective</li> <li>• Controller output defective</li> </ul>	<ul style="list-style-type: none"> <li>• Verify output function is correct (heat or cool)</li> <li>• Correct sensor wiring (red wire negative)</li> <li>• Verify and correct wiring</li> <li>• Replace heater</li> <li>• Replace or repair power controller</li> <li>• Replace or repair controller</li> </ul>
 Device Error	Controller displays internal malfunction message at power up.	<ul style="list-style-type: none"> <li>• Controller defective</li> </ul>	<ul style="list-style-type: none"> <li>• Replace or repair controller</li> </ul>
Menus inaccessible	Unable to access  ,  ,  or  menus or particular prompts in Home Page	<ul style="list-style-type: none"> <li>• Security set to incorrect level</li> <li>• Digital input set to lockout keypad</li> <li>• Custom parameters incorrect</li> </ul>	<ul style="list-style-type: none"> <li>• Check lockout setting in Factory Page</li> <li>• Change state of digital input</li> <li>• Change custom parameters in Factory Page</li> </ul>
EZ-Key doesn't work	EZ-Key does not activate required function	<ul style="list-style-type: none"> <li>• EZ-Key function incorrect</li> <li>• EZ-Key function instance not correct</li> <li>• Keypad malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Verify EZ-Key function in Setup Menu</li> <li>• Check that the function instance is correct</li> <li>• Replace or repair controller</li> </ul>

## **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

## 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
<b>Analog Input</b>					
<i>RI</i>		<i>Rin</i>	**	**	View the process value
		<i>IEr</i>	**	**	View the cause of the most recent error
		<i>ICH</i>	0	0	Defines calibration offset
<b>Monitor</b>					
		<i>CPA</i>	**	**	View the active control mode
		<i>CPc</i>	**	**	View the current cool output level
		<i>CSP</i>	**	**	View the set point currently in effect
		<i>PwA</i>	**	**	View the current filtered process value using the control input
<b>Loop</b>					
<i>Loop</i>		<i>CP7</i>	<i>Aut0</i>	<i>Aut0</i>	Selects the method that this loop will use to control
		<i>RESP</i>	90	90	Defines the the setpoint autotune will use as % of current setpoint
		<i>Aut</i>	no	no	Initiates the autotune process
		<i>CSP</i>	75	75	Defines the setpoint the controller will use in PID funtion
		<i>hdS</i>	75	115	Defines a new PID setpoint if high limit is reached
		<i>CPb</i>	25	*55	Defines the proportianl band for the cool output
		<i>ti</i>	180	0	Defines the PID intergral for the output
		<i>td</i>	0	0	Defines the PID derivative time for the output
		<i>db</i>	0	0	Defines the offset to the proportional band
		<i>oSP</i>	0	-270	Defines a fixed level of output power when in manual mode
<b>Alarm 1</b>					
<i>ALP7</i>	1	<i>ALo</i>	320	320	Defines the low range of alarm instance
		<i>AHi</i>	3000	3000	Defines the high range of the alarm instance
<b>Alarm 2</b>					
	2	<i>ALo</i>	320	320	Defines the low range of alarm instance
		<i>AHi</i>	3000	3000	Defines the high range of the alarm instance
<b>Alarm 3</b>					
	3	<i>ALo</i>	320	320	Defines the low range of alarm instance
		<i>AHi</i>	3000	3000	Defines the high range of the alarm instance
<b>Alarm 4</b>					
	4	<i>ALo</i>	320	320	Defines the low range of alarm instance
		<i>AHi</i>	3000	3000	Defines the high range of the alarm instance

# 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
<b>Analog Input</b>					
<b>Hi</b>		<b>SEN</b>	TE	RTD IH	Selects the type of sensor used
		<b>LEL</b>	2	3	Selects the leads in sensor
		<b>FIL</b>	05	10	Filters erratic signal, for smoother PID calculations
		<b>IER</b>	OFF	OFF	Forces manual clear of input errors
		<b>DEC</b>	0	00	Selects precision of displayed units
<b>PID Loop</b>					
<b>Loop</b>		<b>HAG</b>	Pid	OFF	Selects the heat control method
		<b>CAG</b>	OFF	Pid	Selects the cool control method
		<b>CCR</b>	OFF	OFF	Enables or disables cool output curve
		<b>ETUN</b>	no	no	Enables or disable TRU-TUNE+ adaptive tune automatically
		<b>ETGR</b>	CRIT	CRIT	Selects the aggressiveness of the autotune function
		<b>UFR</b>	USER	PRAN	Selects what output will do when user switches to manual mode
		<b>FAL</b>	USER	PRAN	Selects what output will do when an input error switches control to manual mode
		<b>PRAN</b>	00	-270	Defines the default manual output power if user switches control or fault
		<b>LdE</b>	no	no	Enables or disables open-loop detection feature to monitor closed-loop operations
		<b>rP</b>	OFF	OFF	Selects when controller will ramp to setpoint
		<b>LSP</b>	-1999	00	Defines the lower range of the PID setpoint (temperature in automatic mode)
		<b>hSP</b>	9999	3000	Defines the upper range of the PID setpoint (temperature in automatic mode)
		<b>SPLo</b>	-100	-100	Defines the lower range of the PID setpoint (% output in manual mode)
		<b>SPHi</b>	100	100	Defines the upper range of the PID setpoint (% output in manual mode)
<b>Output</b>					
<b>oPtE</b>		<b>oTY</b>	volt	volt	Selects the type of output
		<b>Fn</b>	HEAT	COOL	Selects which function will drive output
		<b>Fi</b>	1	1	Selects the instance of the function selected above
		<b>SLo</b>	000	000	Defines the lower range of the scale for the universal process output
		<b>Shi</b>	1000	800	Defines the upper range of the scale for the universal process output
		<b>oLo</b>	0	0	Defines the low power scale, output will never be less than the value specified
		<b>oHi</b>	100	100	Defines the high power scale, output will never be less than the value specified
		<b>oCR</b>	00	00	Defines an offset value to the process output
<b>ALP7</b>	1	<b>ALY</b>	OFF	OFF	Selects whether the alarm trigger is a fixed value or will track set point
	2	<b>ALY</b>	OFF	OFF	Selects whether the alarm trigger is a fixed value or will track set point
	3	<b>ALY</b>	OFF	OFF	Selects whether the alarm trigger is a fixed value or will track set point
	4	<b>ALY</b>	OFF	OFF	Selects whether the alarm trigger is a fixed value or will track set point
<b>Function</b>					
<b>Fun</b>		<b>LEu</b>	high	high	Selects the state in which the EZ key is in when powered up
		<b>Fn</b>	none	none	Selects the function of the EZ key
		<b>Fi</b>	0	0	Selects which instance the EZ key will affect
<b>Global</b>					
<b>gLBL</b>		<b>CF</b>	F	F	Selects the unit of measurement
		<b>ACLF</b>	60	60	Selects the AC line frequency
<b>Communications</b>					
<b>CoP7</b>		<b>AdS</b>	1	1	Sets the network address of this controller
		<b>CF</b>	F	F	Selects UOM in which this communications channel will display
		<b>nUS</b>	YES	YES	Determines whether all values written to control will be saved in EEPROM

# 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
<i>CUSt</i>	1				<b>Custom 1</b>
		<i>PAR</i>	<i>ACPU</i>	<i>ACPU</i>	Defines custom parameter to home page
	2				<b>Custom 2</b>
		<i>PAR</i>	<i>ACSP</i>	<i>ACSP</i>	Defines custom parameter to home page
	3				<b>Custom 3</b>
		<i>PAR</i>	<i>ACPU</i>	<i>CP7</i>	Defines custom parameter to home page
	4				<b>Custom 4</b>
		<i>PAR</i>	<i>ACSP</i>	<i>CPb</i>	Defines custom parameter to home page
	5				<b>Custom 5</b>
		<i>PAR</i>	<i>CP7</i>	<i>CPr</i>	Defines custom parameter to home page
	6				<b>Custom 6</b>
		<i>PAR</i>	<i>hPr</i>	<i>nonE</i>	Defines custom parameter to home page
	7				<b>Custom 7</b>
		<i>PAR</i>	<i>CPr</i>	<i>nonE</i>	Defines custom parameter to home page
	8				<b>Custom 8</b>
		<i>PAR</i>	<i>RUt</i>	<i>nonE</i>	Defines custom parameter to home page
	9				<b>Custom 9</b>
		<i>PAR</i>	<i>idLE</i>	<i>nonE</i>	Defines custom parameter to home page
	10				<b>Custom 10</b>
		<i>PAR</i>	<i>CP7</i>	<i>nonE</i>	Defines custom parameter to home page
	11				<b>Custom 11</b>
		<i>PAR</i>	<i>hPr</i>	<i>nonE</i>	Defines custom parameter to home page
	12				<b>Custom 12</b>
		<i>PAR</i>	<i>CPr</i>	<i>nonE</i>	Defines custom parameter to home page
	13				<b>Custom 13</b>
		<i>PAR</i>	<i>RUt</i>	<i>nonE</i>	Defines custom parameter to home page
	14				<b>Custom 14</b>
		<i>PAR</i>	<i>idLE</i>	<i>nonE</i>	Defines custom parameter to home page
	15				<b>Custom 15</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	16				<b>Custom 16</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	17				<b>Custom 17</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	18				<b>Custom 18</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	19				<b>Custom 19</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
	20				<b>Custom 20</b>
		<i>PAR</i>	<i>nonE</i>	<i>nonE</i>	Defines custom parameter to home page
<i>LoC</i>					<b>Lock</b>
		<i>LoLo</i>	2	2	Changes the security level of the operations page
		<i>PASt</i>	<i>oFF</i>	<i>oFF</i>	Enables or disables security features
		<i>rLoC</i>	5	5	Sets the read security clearance level
		<i>SLoC</i>	5	5	Sets the write security clearance level
<i>dIRG</i>					
		<i>Pn</i>	**	**	Part number of device
		<i>rEu</i>	**	**	Software revision number
		<i>SbLd</i>	**	**	Software build number

Menu	Instance	Parameter	Factory Setting	DELUX Setting	Parameter Description
		<b>Sn</b>	**	**	Serial number of device
		<b>dAtE</b>	**	**	Date of manufacture
		<b>USr.r</b>	nonE	nonE	Restore user/default settings
		<b>USr.S</b>	nonE	nonE	Save current user settings
		<b>CLed</b>	both	both	Turns communications LED on or off for selected ports
		<b>ZonE</b>	on	on	Turns zone LED on or off based on selection
		<b>chAn</b>	on	on	Turns channel LED on or off based on selection
		<b>dPrS</b>	2	2	Defines the number of display pairs
<b>CRL</b>					<b>Calibration</b>
		<b>rV</b>	**	**	View the raw electrical value for this input in units of sensor
		<b>ELLo</b>	1.000	1.000	Defines the value to calibrate the low end of the input range
		<b>ELo0</b>	0.000	0.000	Defines the value to calibrate the low end of the output range
		<b>ELoS</b>	1.000	1.000	Defines the value to calibrate the slope of the output value

SYSTEM OPERATION

1. A CLEAN DRYER IS AN EFFICIENT DRYER. THOROUGH INSPECTION AND CLEANING, IF NECESSARY, OF THE PLENUM HEAT CHAMBER AND VACUUM COOLING CHAMBER IS RECOMMENDED EVERY 24 HOURS OF OPERATION. CLEAN SCREENS ON INSIDE OF PLENUM HEAT CHAMBER, THEN REMOVE DUST AND FOREIGN MATERIAL FROM PLENUM FLOOR. IT IS SUGGESTED YOU COVER THE FAN AND BURNER OUTLETS TO REDUCE AMOUNT OF FOREIGN MATERIAL FALLING INTO BACK OF FAN HUBS AND BURNER RINGS.  
  
CHECK THE OUTSIDE SCREENS OF THE COOLING SECTION AND CLEAN IF NECESSARY. INSPECT AND CLEAN COOLING CHAMBER IF NECESSARY. THE AREA AROUND DRYER SHOULD ALSO BE KEPT CLEAN.
2. FOR MAXIMUM CAPACITY, FRESH-AIR INTAKE PORT DOORS SHOULD BE OPENED TO MAXIMUM. IF THE GRAIN IS WARMER THAN DESIRED AS IT DISCHARGES FROM THE DRYER, THE DOOR OPENINGS MAY BE DECREASED UNTIL DESIRED GRAIN TEMPERATURE IS ACHIEVED. NEVER CLOSE TO LESS THAN A ONE (1) INCH OPENING DURING OPERATION. ALL DOORS SHOULD BE SET WITH APPROXIMATELY THE SAME SIZE OPENING.  
  
WE RECOMMEND ALL FRESH-AIR INTAKE DOORS BE CLOSED AT THE END OF EACH DRYING SEASON.
3. FUEL SUPPLY TO DRYER SHOULD BE "SHUT OFF" AFTER EACH DRYING SEASON.
4. IF THE DRYER ELECTRICAL CONTROL BOX IS EQUIPPED WITH A MASTER CIRCUIT BREAKER WHICH SUPPLIES POWER FOR ALL DRYER OPERATIONS, THE CIRCUIT BREAKER SHOULD BE "OFF" WHEN SERVICING AND CLEANING DRYER.
5. DRYERS HAVING MORE THAN ONE(1) FAN MOTOR IS STARTED, THERE IS A 3 TO 4 SECOND DELAY BETWEEN EACH MOTOR. THIS STEP-SPACING IS TO MINIMIZE STARTING LOAD. AFTER ALL FANS ARE STARTED, POWER IS APPLIED TO THE PURGE TIMER.  
  
THE 60 SECOND PURGE CYCLE ASSURES THAT A FLAME CANNOT BE IGNITED BEFORE THE PLENUM CHAMBER HAS BEEN THOROUGHLY PURGED(5 TIMES).
6. AT THE END OF THE 60 SECOND PURGE CYCLE, A BURNER READY LIGHT WILL APPEAR IF ALL CIRCUITS ARE COMPLETED.
7. IF FLAME IS NOT DETECTED IN FIFTEEN(15) SECONDS, THE FLAME CONTROL WILL SHUTDOWN ALL SYSTEMS, INCLUDING THE PANEL POWER INTERLOCK. IT WILL THEN BE NECESSARY TO RESTART COMPLETE SYSTEM.
8. THE BURNER NOW BRINGS THE PLENUM TEMPERATURE TO DESIRED THERMOSTAT SETTING. THE TEMPERATURE CONTROLLER WILL MODULATE THE FUEL SUPPLY TO THE BURNER TO MAINTAIN TEMPERATURE AT SET POINT. THIS PREVENTS OVERHEATING OF THE PLENUM CHAMBER (CHECK HIGH LIMIT SETTING BEFORE EACH DRYING SEASON).
9. PLENUM TEMPERATURE THERMOSTAT AND "MOISTURE CONTROL THERMOSTAT" SETTINGS WILL VARY ACCORDING TO THE TYPE OF GRAIN BEING DRIED.
10. 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.



**SYSTEM SEQUENCE ANALYSIS**

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

STARTING WITH 2011 MODELS

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**SYSTEM SEQUENCE ANALYSIS**

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

STARTING WITH 2011 MODELS  
(GENERIC SCHEMATIC #900-009338)

**1A. SEQUENCE: MAIN CIRCUIT BREAKER "ON" \* (240V-3P SYSTEMS ONLY) \***

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 OCCURED.  
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 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)  
  
A4. IF VOLTAGE IS PRESENT ACROSS L1 & L3 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 (WHITE WIRE) IS CONNECTED  
TO THE COMMON LEAD OF THE INCOMING POWER SOURCE AND  
RUN 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. (WILD LEG ON L2)  
  
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.

**2. SEQUENCE: POWER SWITCH (SW1) TO "ON", ENERGIZING SAFETY CIRCUIT.**

ACTION: SAFETY CIRCUIT PROVEN LIGHT "ON" (DS11), ALL SAFETY CIRCUIT MONITOR LIGHTS "ON" (DS2 - DS8), APPLIES POWER TO ENTIRE 120 VOLT CIRCUIT AND ENERGIZES POWER RELAY (K8).

### SAFETY CIRCUIT MONITOR LIGHTS

HOW THEY WORK!

SAFETY CIRCUIT MONITOR LIGHTS (DS2 - DS8) INDICATE WHAT PART OF THE SAFETY CIRCUIT IS WORKING. TO FIND THE PROBLEM, PRESS THE POWER SWITCH (SW1) TO THE "ON" 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) 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 PADDLE IS LOOSE 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 AUXILIARY SAFETY LIGHT (DS8), \*CUSTOMER INSTALLED.\*
  - A9. DEFECTIVE BURNER SWITCH (SW3).
  - A10. DEFECTIVE POWER RELAY (K8).
  - A11. 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. IF VOLTAGE IS PRESENT ON TERMINAL #30 (120 VOLTS) THE FAN OVERLOAD LIGHT (DS3) IS DEFECTIVE, REPLACE. *IT WILL BE NECESSARY TO DETERMINE IF A SHORT CIRCUIT OR OVERLOAD CONDITION EXISTS IN THIS SYSTEM (A3A AND A3B) AND WHAT CORRECTIVE STEPS NEED TO BE TAKEN TO RESOLVE THIS CONDITION.*
- 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. IF VOLTAGE IS PRESENT ON TERMINAL #31 (120 VOLTS) THE CONVEYOR OVERLOAD LIGHT (DS4) IS DEFECTIVE, REPLACE.
- A5. 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. 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.

- 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 AND CHECK TO SEE IF THE PADDLE IS LOOSE OR IF AN OVERFLOW CONDITION HAS TRIPPED THE SWITCH. TIGHTEN THE PADDLE, 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) HELD IN THE "ON" POSITION GO AROUND THE DRYER AND FIND WHICH IS THE FIRST LIGHT ON THE EXHAUST LIMIT BOXES THAT IS NOT LIT. THIS IS THE EXHAUST LIMIT OPENING THE CIRCUIT. CHECK VOLTAGE AT EXHAUST LIMIT. IF DEFECTIVE, REPLACE. IF VOLTAGE IS PRESENT ON TERMINAL #34 (120 VOLTS) THE EXHAUST TEMPERATURE LIMIT LIGHT (DS7) IS DEFECTIVE, REPLACE.
- A8. THE AUXILIARY SAFETY LIGHT WOULD BE INSTALLED AS A SPECIAL OPTION AT THE CUSTOMERS REQUEST. IF VOLTAGE IS PRESENT ON TERMINAL #35 (120 VOLTS) THE AUXILIARY SAFETY LIGHT (DS8) IS DEFECTIVE, REPLACE.
- A9. 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.
- A10. 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.
- A11. 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 (CENTER POSITION). IF POWER IS NOT PRESENT ON TERMINAL #27 THE FLAME SYSTEM BYPASS DELAY RELAY IS DEFECTIVE, REPLACE.

**3. 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, REPITCH 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 NOT 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.

**4. SEQUENCE: BURNER SWITCH (SW3) TO "ON", ENERGIZING BURNER CIRCUIT.**

NOTE: REFER TO SCHEMATIC NUMBER: 900-009339 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, SAFTEY LOCKOUT ON FLAME CONTROL(S) (FC1, FC2, FC3, FC4).
- C1. DEFECTIVE FLAME CONTROL (FC1).
- C2. DEFECTIVE IGNITION FIRING LIGHT (DS24).
- C3. DEFECTIVE FLAME CONTROL (FC2).
- C4. DEFECTIVE IGNITION FIRING LIGHT (DS25).
- D1. DEFECTIVE FLAME CONTROL (FC3).
- D2. DEFECTIVE IGNITION FIRING LIGHT (DS26).
- D3. DEFECTIVE FLAME CONTROL (FC4).
- D4. DEFECTIVE IGNITION FIRING LIGHT (DS27).
- D5. NO FUEL TO DRYER.
- D6. PLUGGED FUEL LINE STRAINER.
- D7. DEEFECTIVE VAPOR CUTOFF VALVE COIL (SOL1) OR LIQUID CUTOFF VALVE COIL (SOL2).
- D8. DEFECTIVE PRESSURE REGULATOR.
- D9. PLUGGED BURNER HOLES.

- D6. DEFECTIVE IGNITION TRANSFORMER (XMFR 1), IGNITION PLUG, AND/OR IGNITION WIRE
- D7. DEFECTIVE IGNITION TRANSFORMER (XMFR 2), IGNITION PLUG, AND/OR IGNITION WIRE
- D8. DEFECTIVE IGNITION TRANSFORMER (XMFR 3), IGNITION PLUG, AND/OR IGNITION WIRE
- D9. DEFECTIVE IGNITION TRANSFORMER (XMFR 4), IGNITION PLUG, AND/OR IGNITION WIRE
- D10. DEFECTIVE BURNER PROVEN LIGHT (DS20), FLAME CONTROL (FC1), FLAME SENSOR, FLAME SENSOR WIRE, AND/OR BURNER GROUND WIRE.
- D11. DEFECTIVE BURNER PROVEN LIGHT (DS21), FLAME CONTROL (FC2), FLAME SENSOR, FLAME SENSOR WIRE, AND/OR BURNER GROUND WIRE.
- D12. DEFECTIVE BURNER PROVEN LIGHT (DS22), FLAME CONTROL (FC3), FLAME SENSOR, FLAME SENSOR WIRE, AND/OR BURNER GROUND WIRE.
- D13. 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 (WHITE) 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, POWER SWITCH MUST BE "ON" (CENTER POSITION).

- C1A. IF VOLTAGE IS NOT PRESENT ON TERMINAL #1 (120 VOLTS), WITH BURNER SWITCH (SW3) "ON" THE BURNER SWITCH (SW3) IS DEFECTIVE, REPLACE.
- C1B. IF VOLTAGE IS PRESENT ON TERMINAL #1 (120 VOLTS) WITH BURNER SWITCH (SW3) "ON" THEN 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.
- C2. IF VOLTAGE IS PRESENT ON TERMINAL #1 (120 VOLTS) WITH BURNER SWITCH (SW3) "ON" THEN 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.
- C3. IF VOLTAGE IS PRESENT ON TERMINAL #1 (120 VOLTS) WITH BURNER SWITCH (SW3) "ON" THEN 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.
- C4. IF VOLTAGE IS PRESENT ON TERMINAL #1 (120 VOLTS) WITH BURNER SWITCH (SW3) "ON" THEN 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 L.P. UNITS ARE MANUAL VALVES OPEN AT TANK?
- D2. REMOVE STRAINER AND CLEAN. (L.P. UNITS ONLY)
- D3. 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.

**TEST SHOULD BE PERFORMED WITH POWER "OFF" TO DRYER.**

- D4. ADJUST REGULATOR FOR 12 POUNDS OF GAS PRESSURE ON L.P. 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 VACCUM INSIDE OF BURNER USING A SHOPVAC 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.
- D6A. TO D9A. 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.
- D6B. TO D9B. 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.
- D10. 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.
- D11. 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.
- D12. 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.

- D13. 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.

**NOTE: DELUX PROVIDES THREE (3) TYPES OF LOADING SYSTEMS.**

- A. LEVELING AUGER SYSTEM. (STANDARD)
- B. GRAVITY FLOW WITHOUT HIGH AND LOW BIN SWITCHES. (OPTIONAL)
- C. GRAVITY FLOW WITH HIGH AND LOW BIN SWITCHES. (OPTIONAL)

**5A. SEQUENCE: LOAD SWITCH (SW4) TO "ON", ENERGIZING LOAD CIRCUIT.  
LEVELING AUGER SYSTEM (STANDARD)**

**ACTION:** LOAD SWITCH (SW4) "ON", GRAIN LOADING LIGHT (DS12) "ON" STARTS LEVELING AUGER 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 TILT 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 TILT 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, 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. 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.

**5B. SEQUENCE: LOAD SWITCH (SW4) TO "ON", ENERGIZING LOAD CIRCUIT. GRAVITY FLOW WITHOUT 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.

**5C. SEQUENCE: LOAD SWITCH (SW4) TO "ON", ENERGIZING LOAD CIRCUIT. GRAVITY FLOW WITH 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.

**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. NOTE: IF THE MOTOR IS DEFECTIVE THE DC DRIVE (SCR1) WILL SHOW NO VOLTAGE ON TERMINALS #73 & #74, THERE MUST BE A LOAD ON TERMINALS #73 & #74 TO COMPLETE THE TEST. A DEFECTIVE MOTOR OR BRUSHES CAN RESULT IN DAMAGE TO THE DC DRIVE (SCR1).
  - 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 D.C. 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. NOTE: IF THE MOTOR IS DEFECTIVE THE DC DRIVE (SCR1) WILL SHOW NO VOLTAGE ON TERMINALS #73 & #74, THERE MUST BE A LOAD ON TERMINALS #73 & #74 TO COMPLETE THE TEST. A DEFECTIVE MOTOR OR BRUSHES CAN RESULT IN DAMAGE TO THE DC DRIVE (SCR1).

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) "ON" - "AUTO" POSITION, THEN 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) "ON" - "AUTO" POSITION, CHECK AUTOMATIC MOISTURE RELAY (K12) TO ENSURE CONTACTS ARE CLOSING. IF NOT, RELAY IS DEFECTIVE, REPLACE.
- A3. REFER TO ERROR MESSAGES CHART ON PAGE 9-29.
- 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 9-29 THROUGH 9-31  
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  
(SEE \*NOTE ON PAGE 9-30). 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 9-29).  
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.
  - (1) BENT AUGER TUBE
  - (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.

NOTE: MOVING BURNER SWITCH TO "OFF" POSITION WILL SHUTDOWN ENTIRE DRYER. RESTART OF FANS WILL BE NECESSARY TO COOL GRAIN.

**SPECIAL NOTE:** MOVING THE POWER SWITCH TO "ON" POSITION MOMENTARILY WHILE MOVING THE BURNER SWITCH TO THE "OFF" POSITION WILL ALLOW FANS TO CONTINUE TO RUN.

5. AFTER DRYER HAS COOLED APPROXIMATELY 30 MINUTES AND PLENUM THERMOMETER READS AMBIENT TEMPERATURE CONDITIONS, SWITCH FAN SWITCH TO "OFF".
6. MOVE POWER SWITCH TO "OFF" POSITION.
7. TURN "OFF" MANUAL FUEL SUPPLY TO DRYER.
8. 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.

\*\* FUEL BURN OUT - 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" TO AVOID BURNER SAFETY LOCKOUT.

DRAWINGS

## DP AND DPSL SERIES DRYERS

## STARTING WITH 2011 MODELS

PART NUMBER	DRAWINGS
900-006320	FOUNDATION LAYOUT DP AND DPSL SERIES
*****	ANCHORS INSTRUCTION SHEET (RAWLPLUG 5/8")
900-006326	LEG EXTENSION DESIGN (SIDE AND CORNER)
900-009194	GARNER (ROOF)
900-009193	GARNER WIRING ILLUSTRATION
900-009338	SCHEMATIC - (2011- UP)
900-009339	SCHEMATIC - FLAME CONTROL (2011- UP)
900-009856	WIRING DIAGRAM FIREYE BASE - (2011- UP)
900-009215	PLUMBING SCHEMATIC - NON-CSA LIQUID PROPANE
900-009216	PLUMBING SCHEMATIC - NON-CSA NATURAL GAS
900-009217	PLUMBING SCHEMATIC - CSA LIQUID PROPANE
900-009218	PLUMBING SCHEMATIC - CSA NATURAL GAS
900-008640	ILLUSTRATION SIDE WALKWAYS (PIPE AND FITTING LOCATIONS)

ALL SHIPPING LISTS BELOW LOCATED IN SECTION 13

SLGW-DP-REV 1	SHIPPING LIST - GARNER WALKWAY
SLW-10X-REV 1	SHIPPING LIST - SIDE WALKWAY (10FT) MODELS
SLW-15X-REV 1	SHIPPING LIST - SIDE WALKWAY (15FT) MODELS
SLW-20X-REV 1	SHIPPING LIST - SIDE WALKWAY (20FT) MODELS
SLW-25X-REV 1	SHIPPING LIST - SIDE WALKWAY (25FT) MODELS
SLW-30X-REV 1	SHIPPING LIST - SIDE WALKWAY (30FT) MODELS
SLW-40X-REV 1	SHIPPING LIST - SIDE WALKWAY (40FT) MODELS
NOTE: DRAWING ILLUSTRATION FOR SIDE WALKWAYS 900-008640 (LOCATED IN SECTION 11)	
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (10FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (15FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (20FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (25FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (30FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (40FT) MODELS
900-005404	RECLAIM - OPTIONAL

**DRAWINGS**

**DPX/SL, DPX4T, DPX8T, DPX12T, DPX16GT SERIES DRYERS**

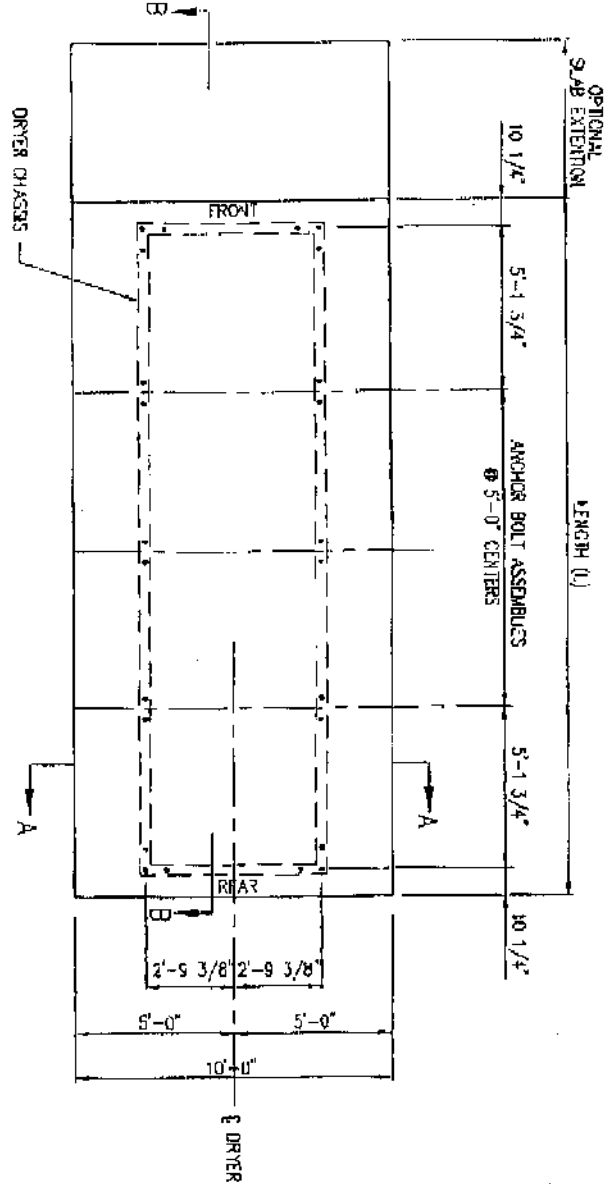
**STARTING WITH 2011 MODELS**

PART NUMBER	DRAWINGS
900-006321	FOUNDATION LAYOUT DPX/SL SERIES
900-006322	FOUNDATION LAYOUT DPX 4T SERIES
900-006323	FOUNDATION LAYOUT DPX 8T SERIES
900-007220	FOUNDATION LAYOUT DPX12T SERIES
900-006327	ANCHORS - DPX4T-8T SERIES
900-007221	ANCHORS - DPX12T SERIES
900-006326	LEG EXTENSION DESIGN (SIDE AND CORNER) DPX/SL SERIES
900-006328	LEG EXTENSION DESIGN (SIDE AND CORNER) DPX4T-8T SERIES
900-007222	LEG EXTENSION DESIGN (SIDE AND CORNER) DPX12T SERIES
900-009194	GARNER (ROOF)
900-009193	GARNER WIRING ILLUSTRATION
900-009338	SCHEMATIC - (2011 - UP)
900-009339	SCHEMATIC - FLAME CONTROL (2011 - UP)
900-009856	WIRING DIAGRAM - FIREYE BASE - (2011 - UP)
900-009215	PLUMBING SCHEMATIC - NON-CSA LIQUID PROPANE
900-009216	PLUMBING SCHEMATIC - NON-CSA NATURAL GAS
900-009217	PLUMBING SCHEMATIC - CSA LIQUID PROPANE
900-009218	PLUMBING SCHEMATIC - CSA NATURAL GAS
900-005526	ERECTION
900-008640	ILLUSTRATION SIDE WALKWAYS (PIPE AND FITTINGS LOCATIONS)

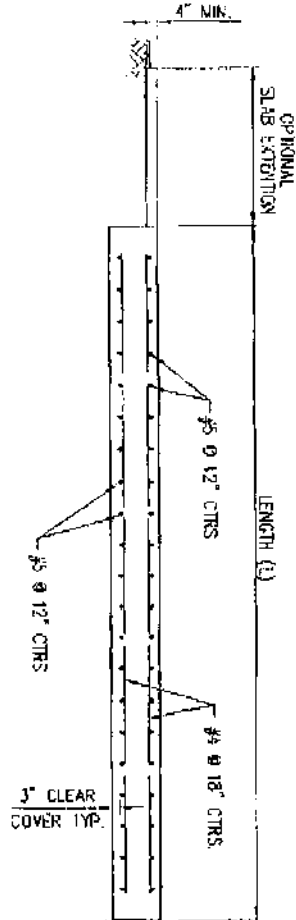
**ALL SHIPPING LISTS BELOW LOCATED IN SECTION 13**

S-DPX-SL	SHIPPING LIST - ERECTION
S-DPX 4T	SHIPPING LIST - ERECTION
S-DPX8T-12T	SHIPPING LIST - ERECTION
SLGW-DP -REV 1	SHIPPING LIST - PLENUM WALKWAY
SLGW-DPX-REV 1	SHIPPING LIST - GARNER WALKWAY
SLGW-DRY-REV 1	SHIPPING LIST - GARNER WALKWAY W/DRYER MASTER
SLW-10X -REV 1	SHIPPING LIST - SIDE WALKWAY (10FT) MODELS
SLW-15X -REV 1	SHIPPING LIST - SIDE WALKWAY (15FT) MODELS
SLW-20X -REV 1	SHIPPING LIST - SIDE WALKWAY (20FT) MODELS
SLW-25X -REV 1	SHIPPING LIST - SIDE WALKWAY (25FT) MODELS
SLW-30X -REV 1	SHIPPING LIST - SIDE WALKWAY (30FT) MODELS
SLW-40X -REV 1	SHIPPING LIST - SIDE WALKWAY (40FT) MODELS
NOTE: DRAWING ILLUSTRATION FOR SIDE WALKWAYS 900-008640 (LOCATED IN SECTION 11)	
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (10FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (15FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (20FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (25FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (30FT) MODELS
SLGRW45	SHIPPING LIST - TOP ROOF WALKWAY 45 SLOPE (40FT) MODELS

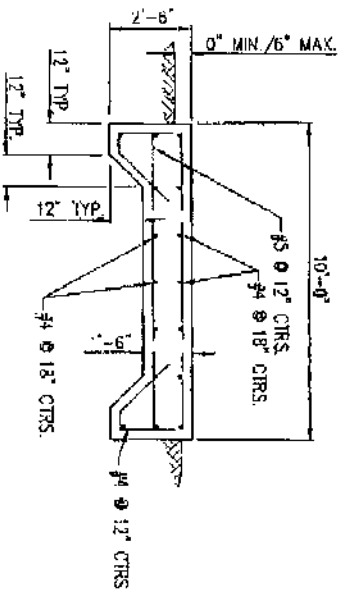




PLAN VIEW



SECTION B-B



SECTION A-A

- NOTES:
1. "HRAIT" INDICATES CONTROL PANEL END OF DRYER.
  2. OPTIONAL SLAB EXTENSION IS FOR CONCRETE WORK AREA AT CONTROL PANEL END. A MINIMUM LENGTH OF 5 FEET SHOULD BE USED.



ECN	DATE	CHANGE	AUTH

**DELUX MFG. CO.**  
AIR BASE ROAD  
KEARNEY, NEBRASKA

**FOUNDATION PLAN**  
MSF-OP-DPSL SERIES

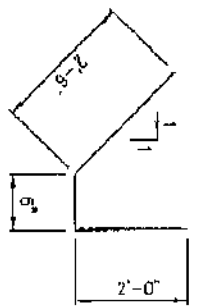
REGISTERED PROFESSIONAL ENGINEER  
STATE OF NEBRASKA  
E. S. ZIS  
No. 5215

ALP & ASSOCIATES CONSULTING ENGINEERS P.C.

DATE: 04/11/08  
BY: [Signature]  
CHECKED BY: [Signature]  
APPROVED BY: [Signature]

MODEL NO.	FOOTING LENGTH (L)	CONCRETE C.Y.	REIN. STEEL
OP 3015	12'	3.0	26-#5x 9'-6"
OPSL 3520			14-#4x 11'-6"
MSF 3010			26-#4x 3'-0" BENT
MSF 41515			
OP 4025	17'	11.3	36-#5x 9'-6"
OPSL 4530			18-#4x 16'-6"
MSF 62520			36-#4x 3'-0" BENT
MSF 72525			
OP 6030	22'	14.7	46-#5x 9'-6"
OPSL 7040			18-#4x 21'-6"
			46-#4x 3'-0" BENT
OP 7560	27'	18.0	56-#5x 9'-6"
OPSL 8580			18-#4x 26'-6"
			56-#4x 3'-0" BENT
OP 9145	32'	21.3	66-#5x 9'-6"
OPSL 10560			18-#4x 31'-6"
			66-#4x 3'-0" BENT
OP 12660	42'	28.0	86-#5x 9'-6"
OPSL 14090			18-#4x 41'-6"
			86-#4x 3'-0" BENT

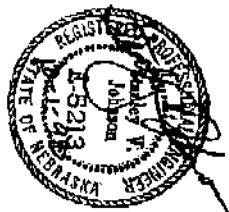
NOTE:  
 QUANTITY CONCRETE SHOWN IN THIS TABLE IS BASED ON THE NEAR FOOTING DIMENSIONS AND IS PROVIDED FOR INFORMATION ONLY. ACTUAL QUANTITY REQUIRED MAY VARY BASED ON EXCAVATION DIMENSIONS, OPTIONAL SLAB EXTENSION AND YIELD OF CONCRETE SUPPLIED.



CON	DATE	CHANGE	BY
	9/20/98	ADDED MODEL NOS OPSL & MSF	SMJ

**GENERAL NOTES**

1. THIS FOOTING IS DESIGNED IN ACCORDANCE WITH THE 1994 UNIFORM BUILDING CODE. BASIC WIND SPEED IS 90 MPH, EXPOSURE C.
2. FOOTINGS ARE DESIGNED FOR THE SPECIFIC MODEL NUMBER LISTED WITH A 4 FOOT MAXIMUM LEG EXTENSION.
3. ANCHORS SHALL BE 5/8" DEUBLE CONE ANCHORS AS MANUFACTURED BY RAWPLUG CO. INC. OR EQUAL. HOLES FOR ANCHORS WILL BE DRILLED AFTER DRYER IS SET. PROVIDE 2" x 2" x 1/4" PLATE WASHERS FOR EACH ANCHOR.
4. DRYER MUST BE LEVEL ALONG LENGTH AND WIDTH AT ALL TIMES DURING DRYING PROCESS.
5. CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.
6. REINFORCING STEEL SHALL BE ASTM A615 GRADE 60.
7. MINIMUM SOIL BEARING CAPACITY SHALL BE 1000 PSF.



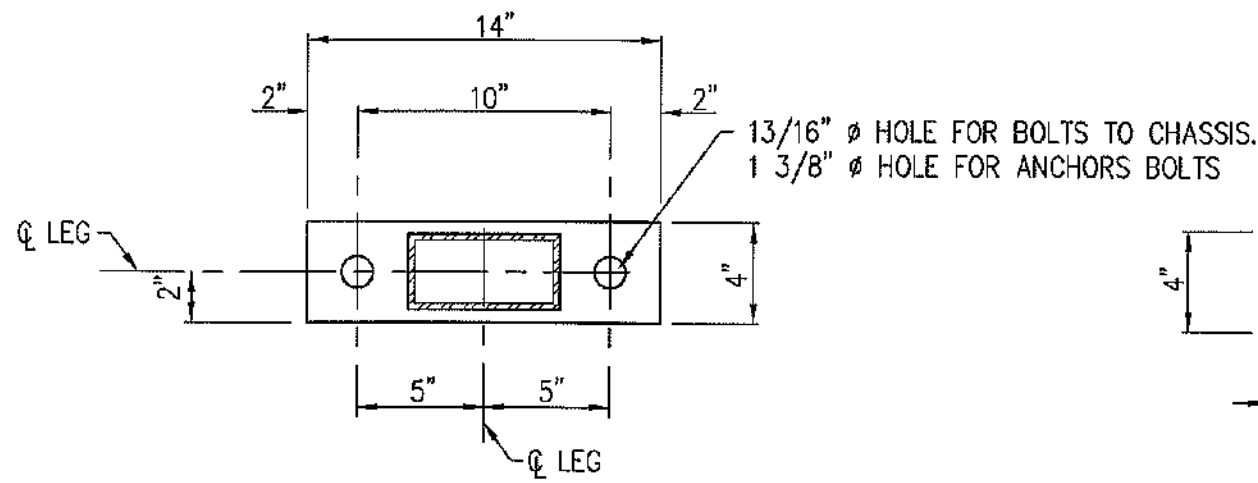
**DELUX MFG. CO.**  
 AIR BASE ROAD  
 KEARNEY, NEBRASKA

**FOUNDATION PLAN**  
 MFT-10-0-0-0-0

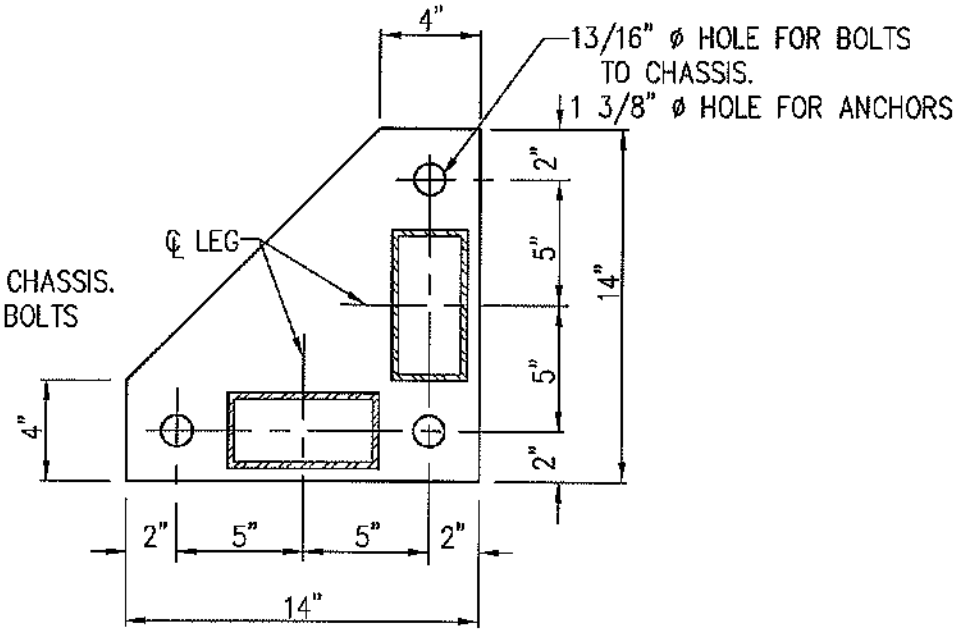
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 DRAWN BY: SMJ  
 CHECKED BY: SMJ  
 APPROVED BY: SMJ  
 PROJECT NO. 1-5213



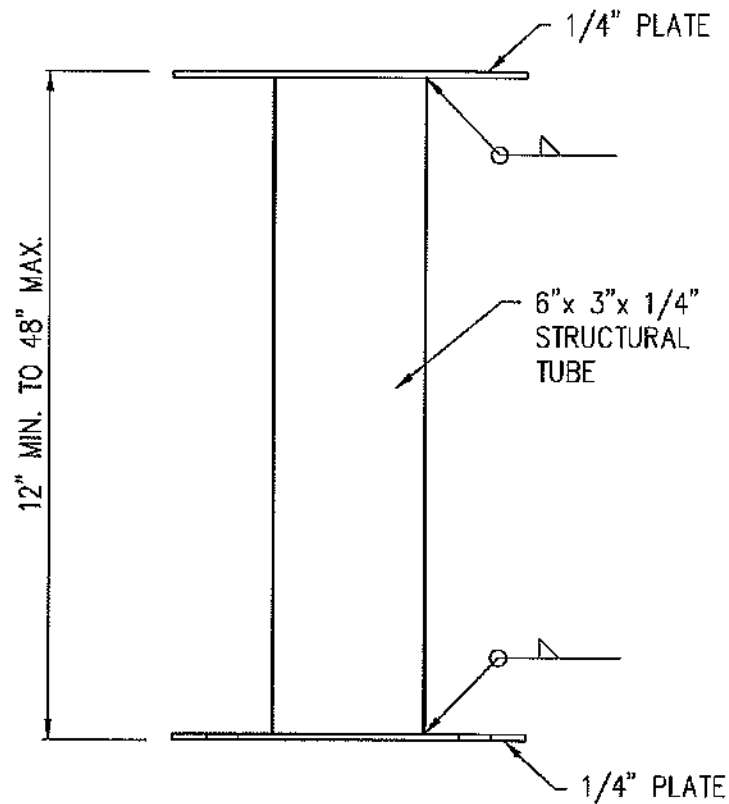
FEB 07, 2000 • 10:18:49 G:\Projects\130\130-p167-003\12-1-2.dwg



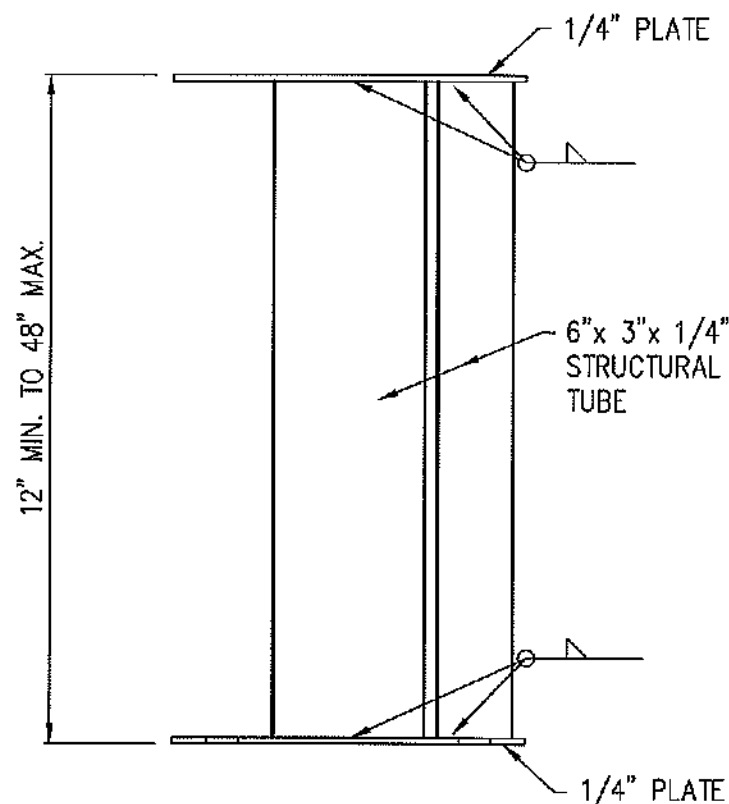
PLAN



PLAN



ELEVATION OF  
SIDE LEG EXTENSION



ELEVATION OF  
CORNER LEG EXTENSION

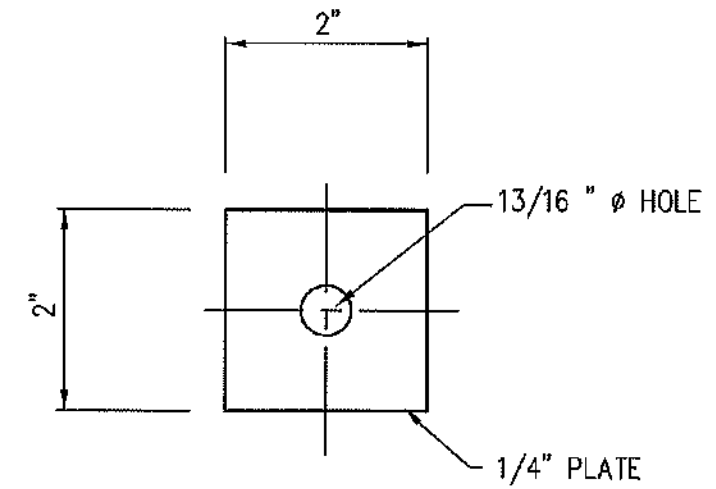


PLATE WASHER

NTS

ECN	DATE	CHANGE	AUTH

**MA**  
MILLER &  
ASSOCIATES  
CONSULTING  
ENGINEERS,  
P.C.

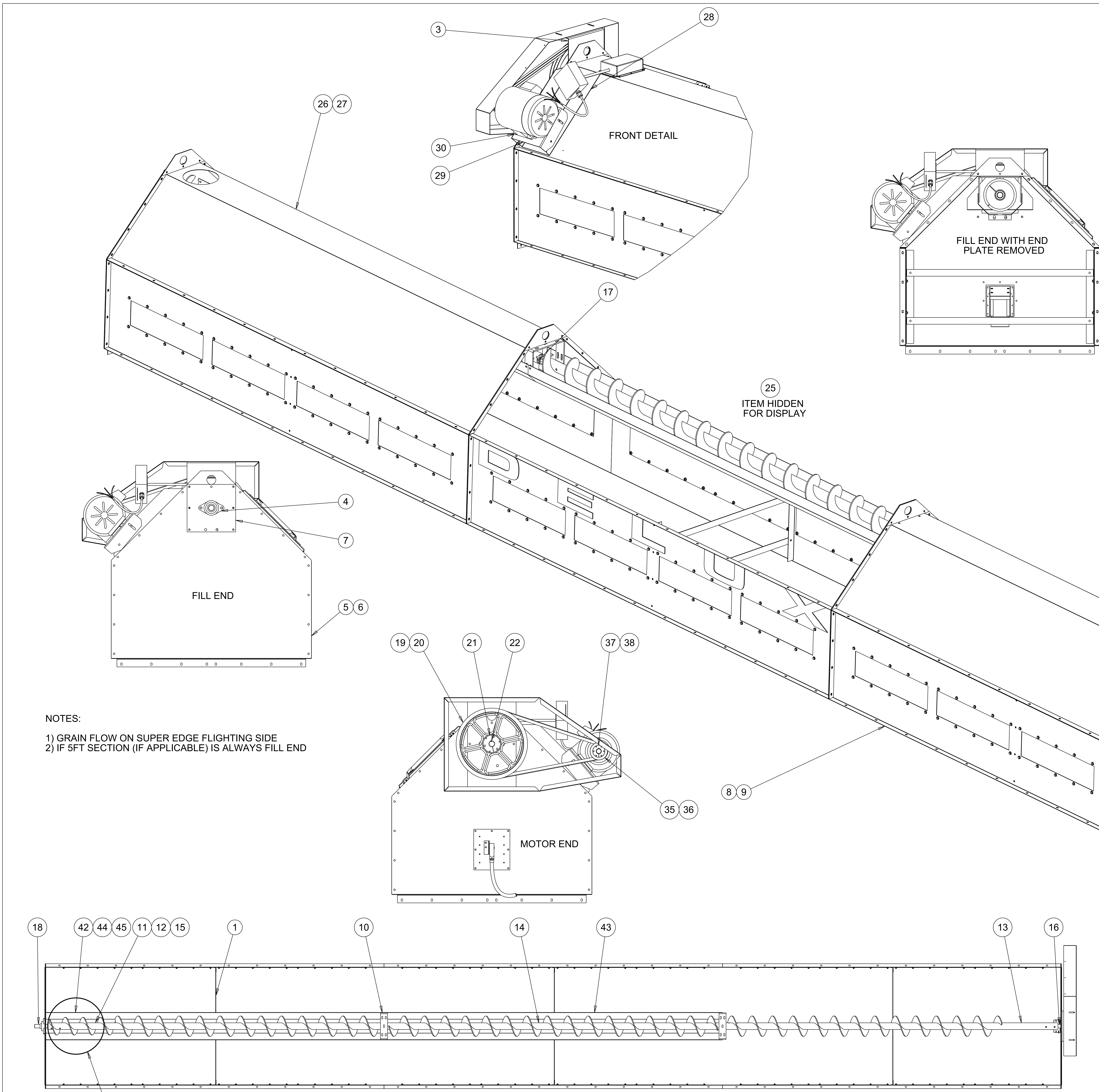
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1 1/2" = 1'-0"  
PROJECT NO.  
130-P167-002  
DATE:  
JANUARY, 1997  
DRAWN BY:  
BKS  
APPROVED BY:  
SVJ  
DRAWING NO.  
9182

**LEG EXTENSION**  
DPX12T SERIES

TITLE  
**DELUX MFG. CO.**  
AIR BASE ROAD  
KEARNEY, NEBRASKA



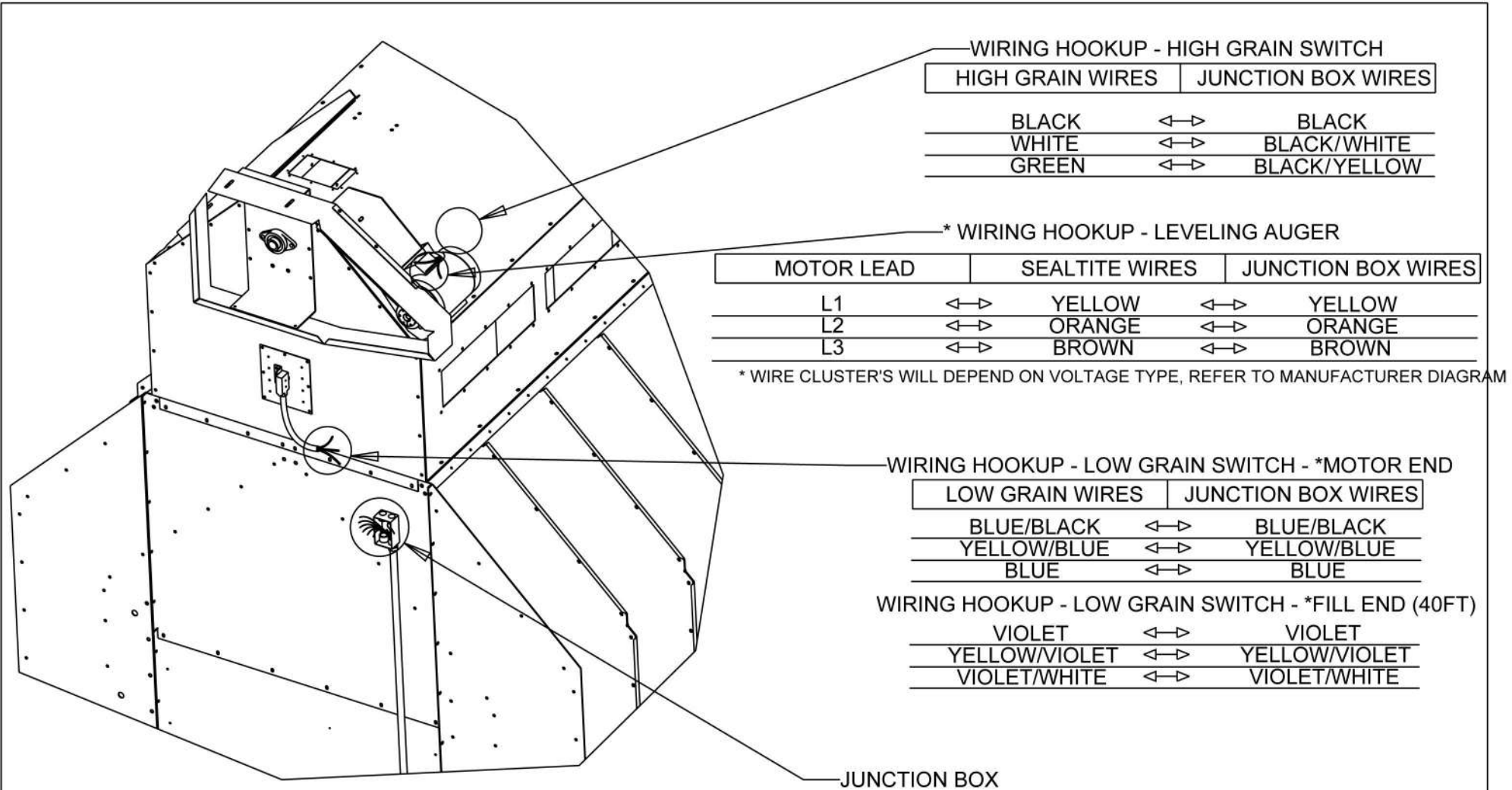
DELUX DRAWING NO.  
900-007222  
SHEET 1 OF 1



NOTES:  
 1) GRAIN FLOW ON SUPER EDGE FLIGHTING SIDE  
 2) IF 5FT SECTION (IF APPLICABLE) IS ALWAYS FILL END

ITEM	PART NO.	QUANTITY						DESCRIPTION
		10FT	15FT	20FT	25FT	30FT	40FT	
1	100-002599	2	2	4	4	6	8	CROSS STRAP
2	100-002852	1	1	1	1	1	1	END PLATE - FRONT
3	100-006824	1	1	1	1	1	1	LEVELING AUGER HEAD PLATE - FRONT
4	044-001510	2	2	2	2	2	2	1-1/4 FLANGE BEARING
5	100-006819	1	1	1	1	1	1	END PLATE - REAR
6	100-006820	1	1	1	1	1	1	END PLATE - REAR (40FT ONLY)
7	100-006825	1	1	1	1	1	1	LEVELING AUGER HEAD PLATE
8	200-007566	2	2	2	2	2	2	ASSEMBLY - GARNER SIDE 22" - 5'
9	200-007564	2	2	4	4	6	8	WELD ASSY - GARNER SIDE 22" - 10'
10	400-006827	1	1	1	2	2	3	ASSY - SUPPORT HANGER
11	200-006720	1	1	1	1	1	1	WELD ASSY - FILL END LEVELING AUGER - 10'
12	200-006834	1	1	1	1	1	1	WELD ASSY - 10' AUGER (10FT ONLY)
13	200-006723	1	1	1	1	1	1	WELD ASSY - MOTOR END - LEV. AUGER 10'
14	200-006724	1	1	1	1	1	2	WELD ASSY - INTERM. LEVELING AUGER
15	200-006721	1	1	1	1	1	1	WELD ASSY - FILL END LEV. AUGER - 5'
16	100-006727	1	1	1	1	1	1	MOTOR END LEVELING AUGER SHAFT
17	100-006726	1	1	2	2	3	3	INTERMEDIATE LEVELING AUGER SHAFT
18	100-006728	1	1	1	1	1	1	FILL END LEVELING AUGER SHAFT
19	056-005370	1	1	1	1	1	1	AUGER SHEAVE 1 GROOVE (1B18.4)
20	056-005372	1	1	1	1	1	1	AUGER SHEAVE 2 GROOVE (2B18.4)
21	056-006830	1	1	1	1	1	1	BUSHING OD-SK 1-1/4"
22	100-002486	2	2	2	2	2	2	KEY 1/4" X 1/4" X 1"
23	200-002978	1	1	1	1	1	1	WELDED ASSY - GARNER TOP (10' ONLY)
24	200-002974	1	1	1	1	1	1	WELDED ASSY - GARNER TOP - MOTOR END
25	200-002976	1	1	1	1	1	2	WELDED ASSY - GARNER TOP - INTERM.
26	200-002978	1	1	1	1	1	1	WELDED ASSY - GARNER TOP - FILL END
27	200-005516	1	1	1	1	1	1	WELD ASSY - GARNER TOP - FILL END 5'
28	100-002855	1	1	1	1	1	1	MOTOR MOUNT PLATE - BOTTOM
29	100-007396	1	1	1	1	1	1	MOTOR MOUNT PLATE - TOP
30	100-007397	1	1	1	1	1	1	MOTOR MOUNT PLATE EXT - (1-2 HP ONLY)
31	004-002355	1	1	1	1	1	1	MOTOR - 1HP - 7/8" SHAFT
32	004-002673	1	1	1	1	1	1	MOTOR - 2HP - 7/8" SHAFT
33	004-002671	1	1	1	1	1	1	MOTOR - 3HP - 1-1/8" SHAFT
34	004-001982	1	1	1	1	1	1	MOTOR - 5HP - 1-1/8" SHAFT
35	056-005371	1	1	1	1	1	1	MOTOR SHEAVE 1 GROOVE (1B3.4)
36	056-005373	1	1	1	1	1	1	MOTOR SHEAVE 2 GROOVE (2B3.4)
37	056-005375	1	1	1	1	1	1	BUSHING OD-SH 7/8"
38	056-005376	1	1	1	1	1	1	BUSHING OD-SH 1-1/8"
39	049-003364	1	2	2	2	2	2	"B82" BELT 83.3 PITCH
40	200-002900	1	1	1	1	1	1	ASSY - GARNER BELT GUARD
41	400-004198	1	1	1	1	1	1	ASSY - HIGH GRAIN SHUTDOWN
42	200-005195	1	1	1	1	1	1	WELD ASSY - AUGER TROUGH - FILL END
43	200-005363	1	1	1	1	1	2	WELD ASSY - AUGER TROUGH - INTER.
44	200-005514	1	1	1	1	1	1	WELD ASSY - AUGER TROUGH - 5' FILL END
45	200-007617	1	1	1	1	1	1	WELD ASSY - AUGER TROUGH (10FT ONLY)
46	035-003426	1	1	1	1	1	2	ASSY - LOW GRAIN SWITCH
47	040-005321	120	150	190	230	300	375	BOLT - WHIZ LOCK - 5/16" X 3/4"
48	040-005324	4	8	8	12	12	16	HEX BOLT - 7/16" X 3" GRADE 8
49	040-002739	29	29	29	29	29	29	SCREW - TCS - 5/16" X 3/4"
50	040-001440	4	4	4	4	4	4	BOLT - WHIZ LOCK - 3/8" X 1-1/4"
51	040-005440	23	25	27	28	32	36	BOLT - WHIZ LOCK - 3/8" X 1"
52	040-001459	120	150	190	230	300	375	NUT - WHIZ LOCK - 5/16"
53	040-001460	27	29	31	32	36	40	NUT - WHIZ LOCK - 3/8"
54	040-006732	4	8	8	12	12	16	NUT - LOCK - 7/16"

DRAWN BY		<b>DELUX MFG. CO.</b>		TITLE
DATE		KEARNEY, NE		
CHKD		USED ON:		
NEXT ASSY:				
SCALE		MATERIAL		DRAWING NO.
SHEAR SIZE				
TOLERANCE: DECIMAL #10 FRACTION #/32 ANGLE # UNLESS OTHERWISE SPECIFIED				



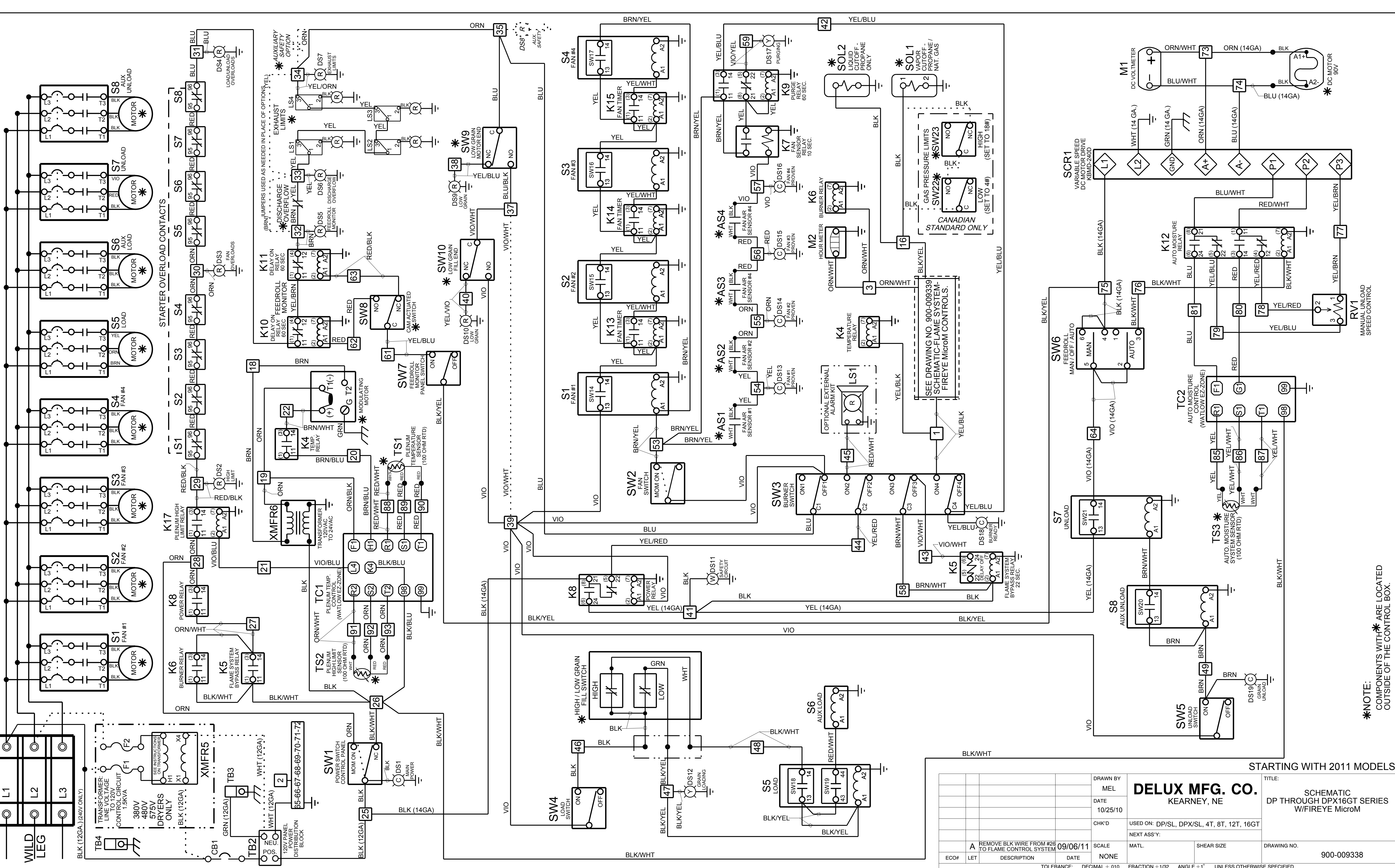
				DRAWN BY JGW	<b>DELUX MFG. CO.</b> KEARNEY, NE	TITLE:	
				DATE 12/12/09		GARNER WIRING ILLUSTRATION DP/DPSSL/DPXSL/4T/8T/12T STARTING WITH 2010 MODELS	
				CHK'D			
					NEXT ASS'Y:		
				SCALE .050	MATL.	SHEAR SIZE	DRAWING NO. 900-009193
ECO#	LET	DESCRIPTION	DATE				

TOLERANCE: DECIMAL #10 FRACTION #16 UNLESS OTHERWISE SPECIFIED



MAIN DISCONNECT PROTECTION TO BE PROVIDED BY OTHERS AND NOT MOUNTED ON OR WITHIN THE CONTROL BOX.

WILD LEG



\*NOTE: COMPONENTS WITH \* ARE LOCATED OUTSIDE OF THE CONTROL BOX.

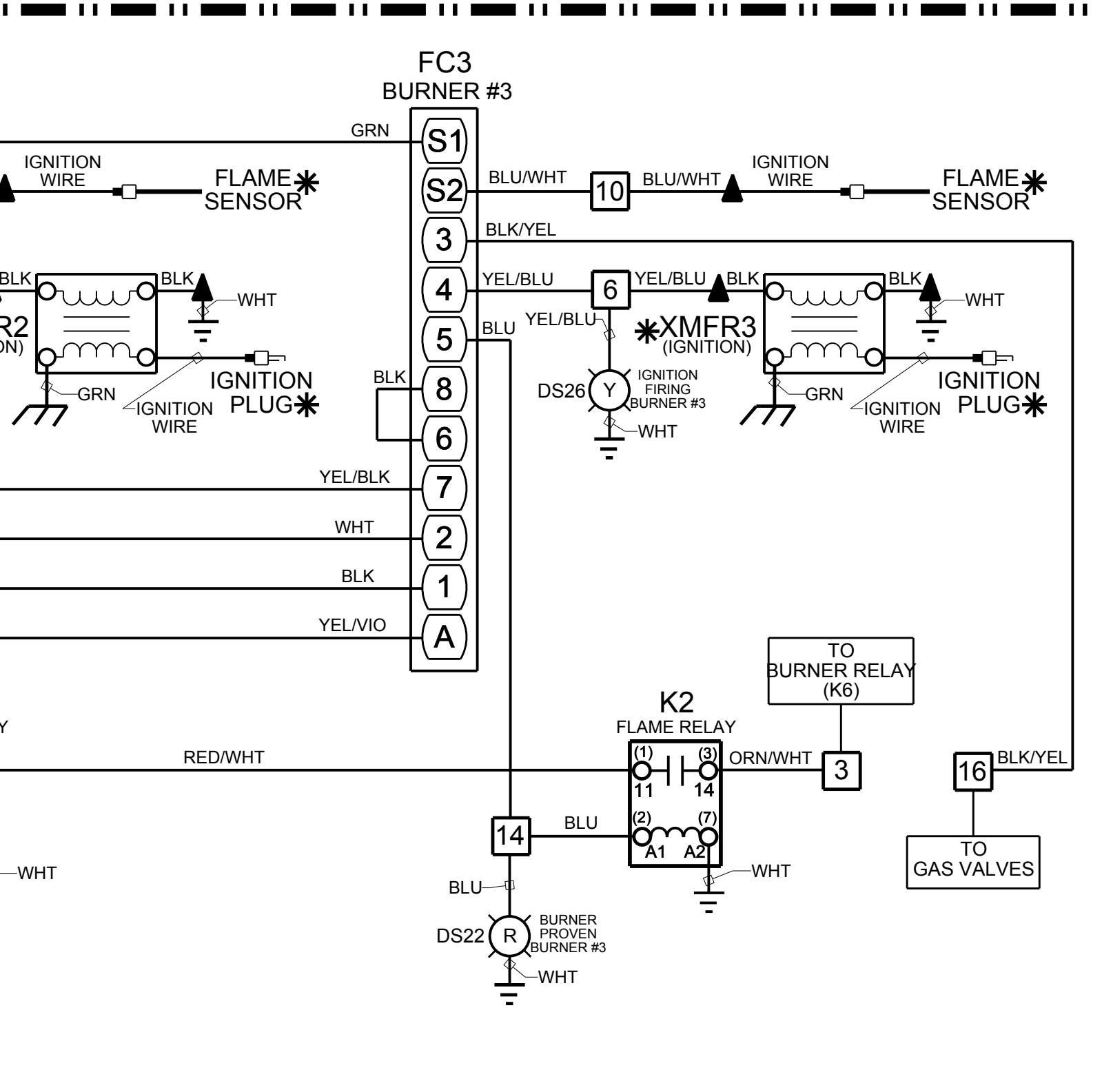
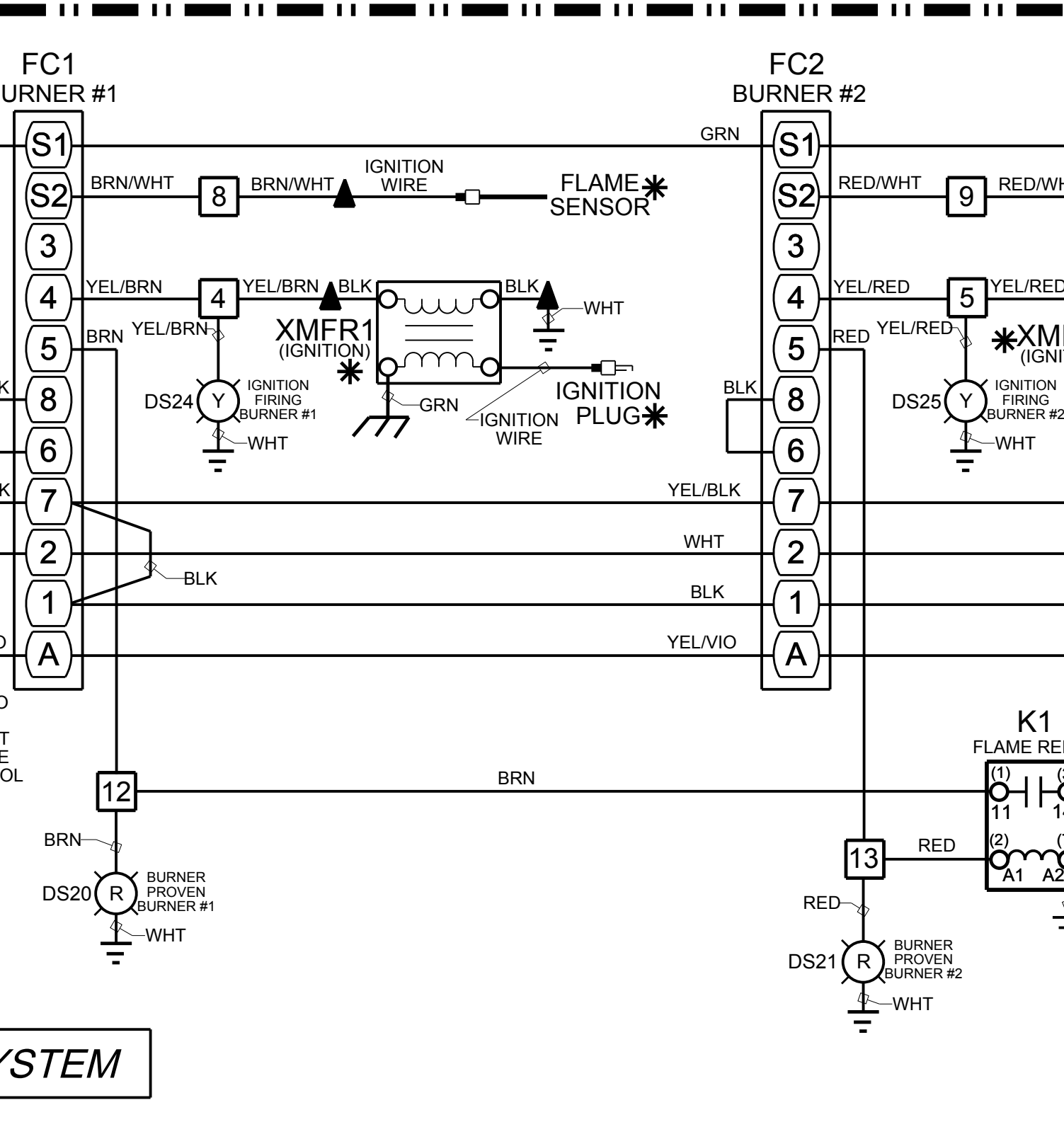
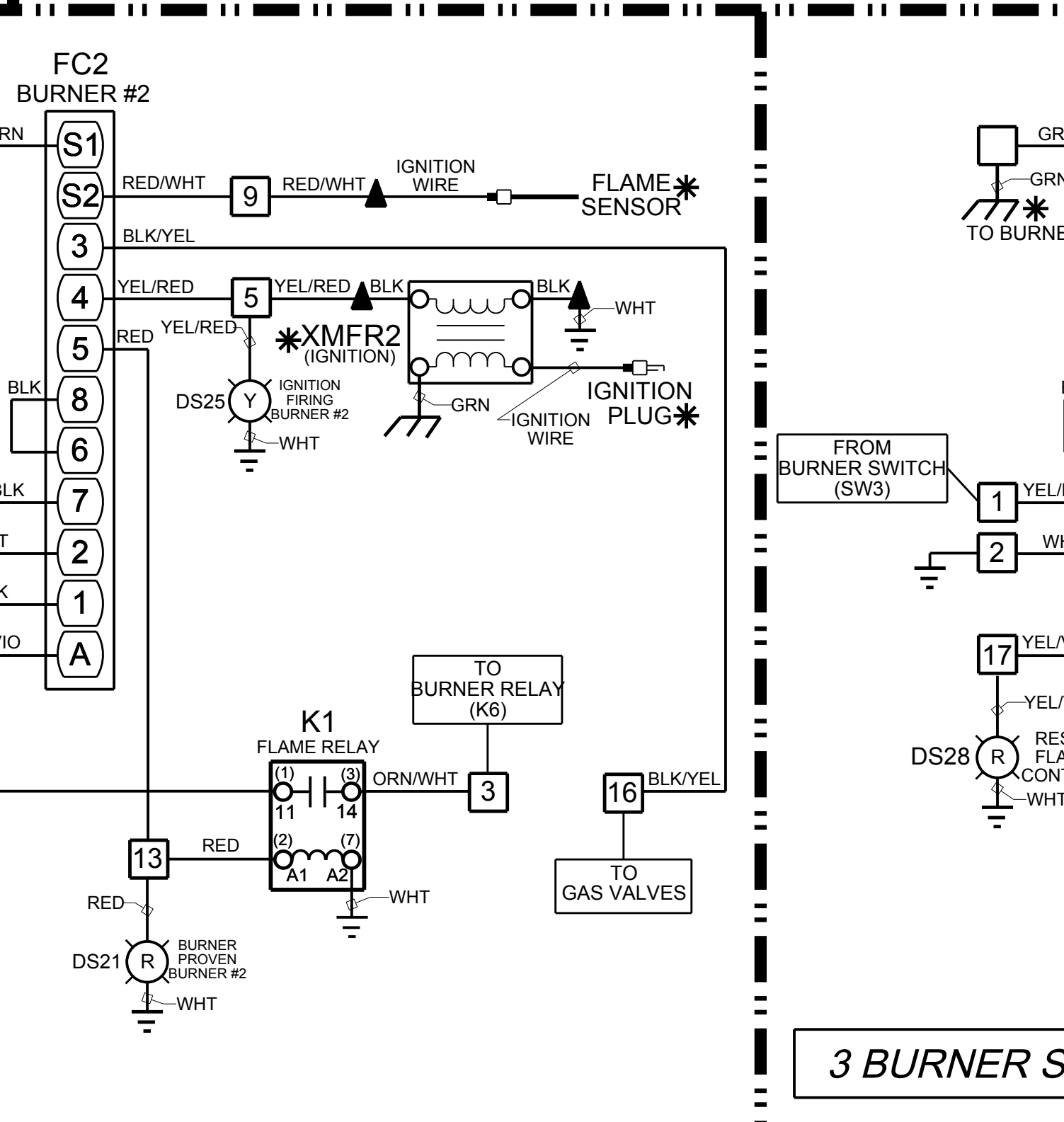
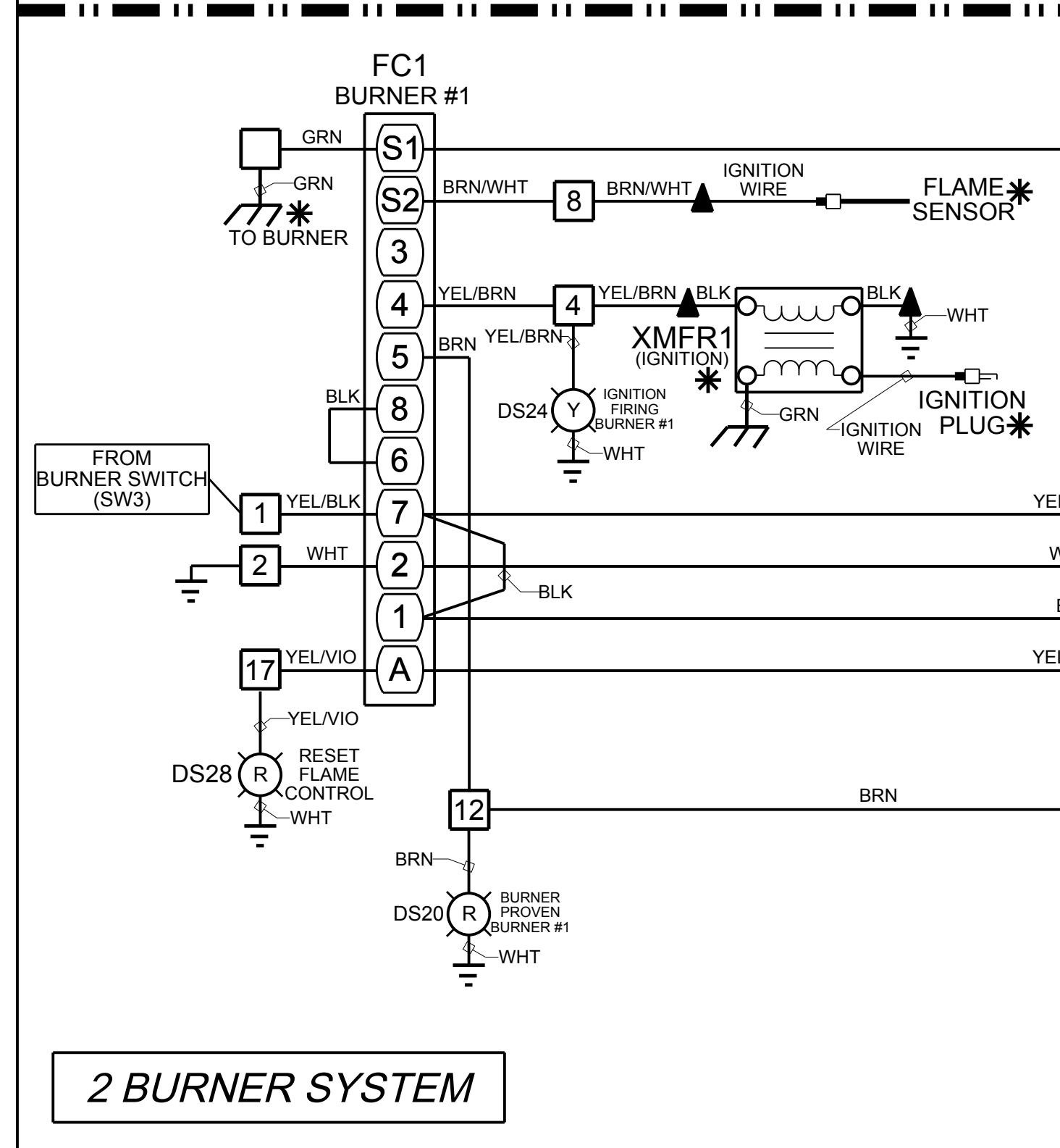
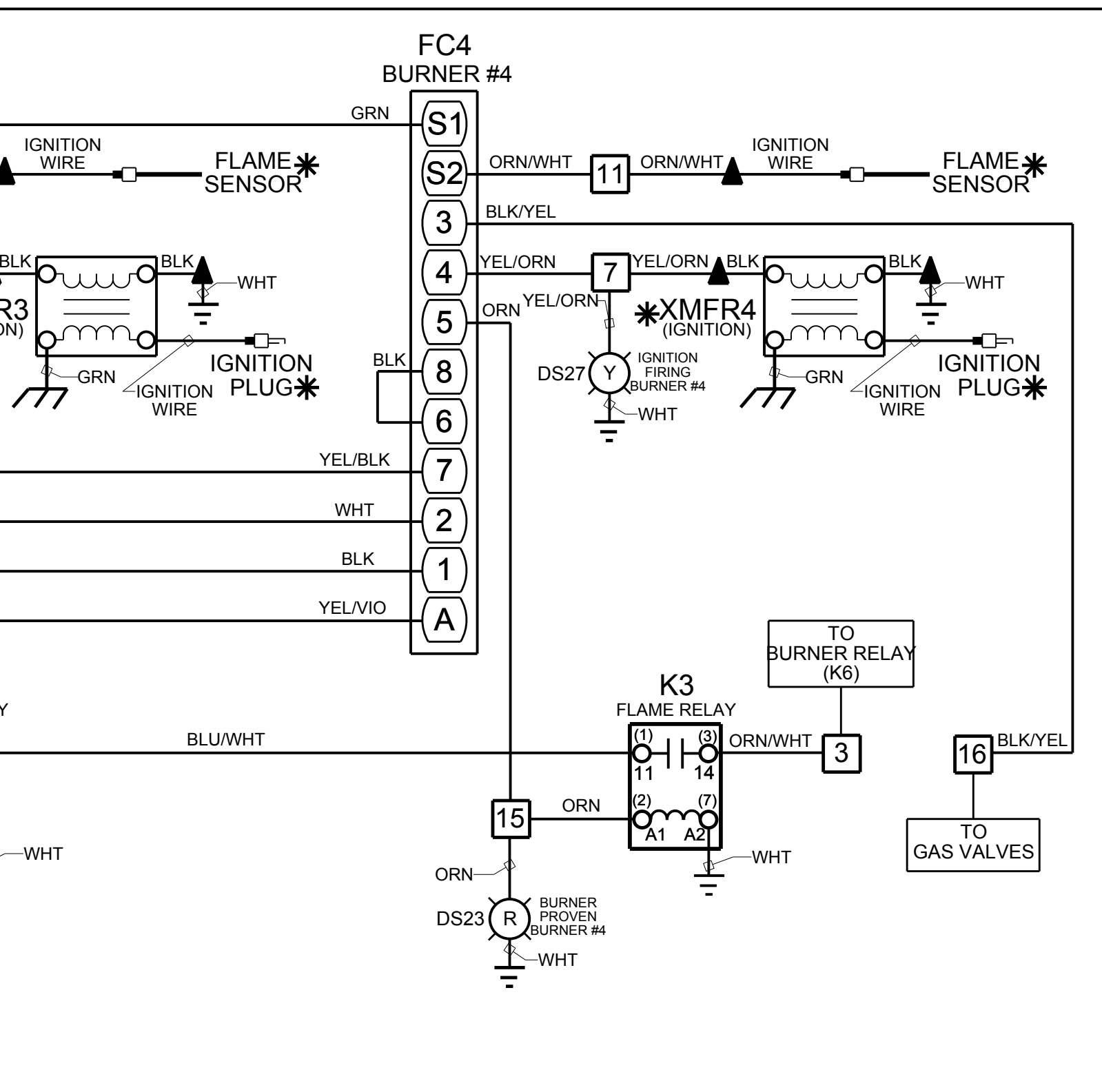
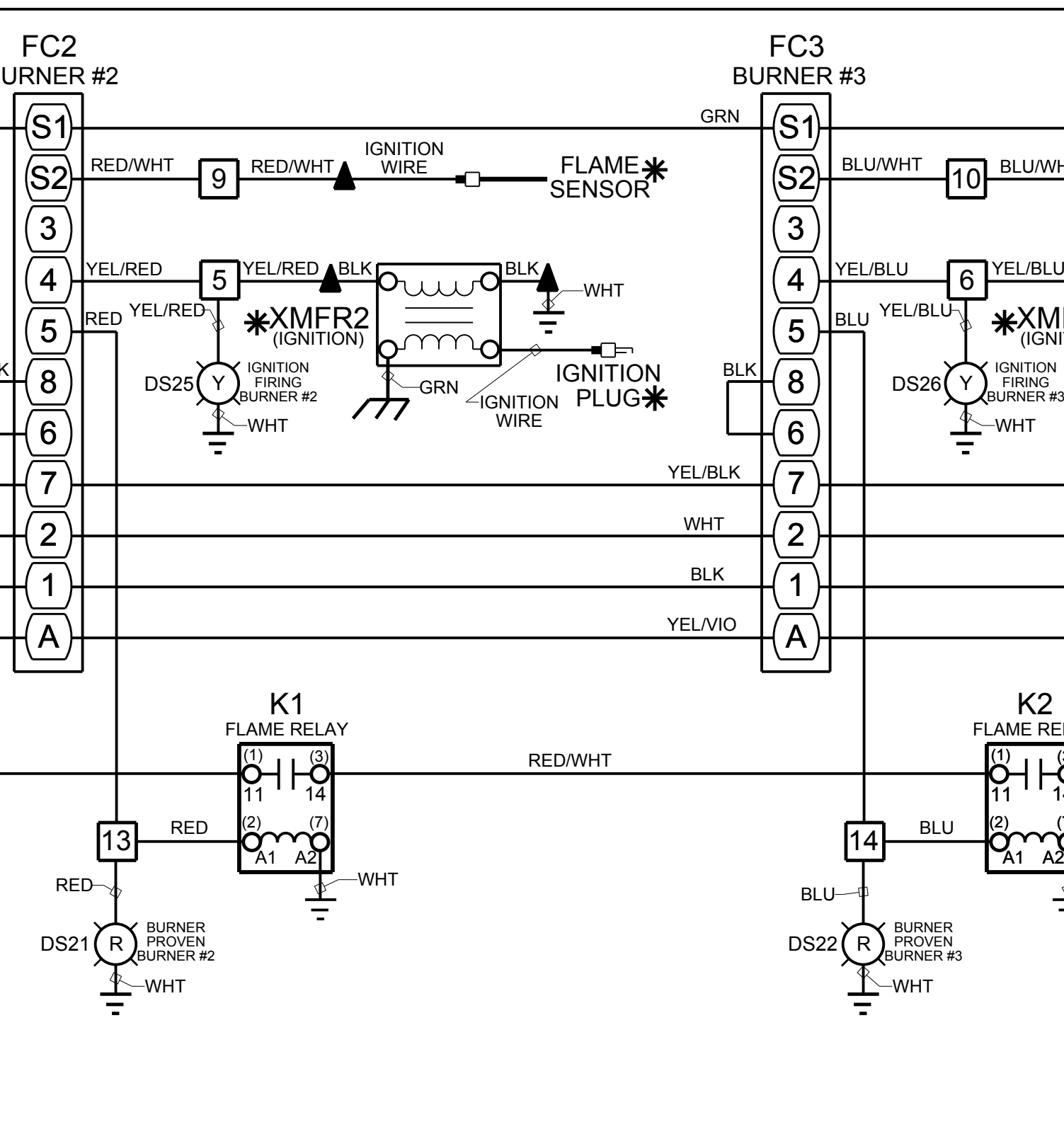
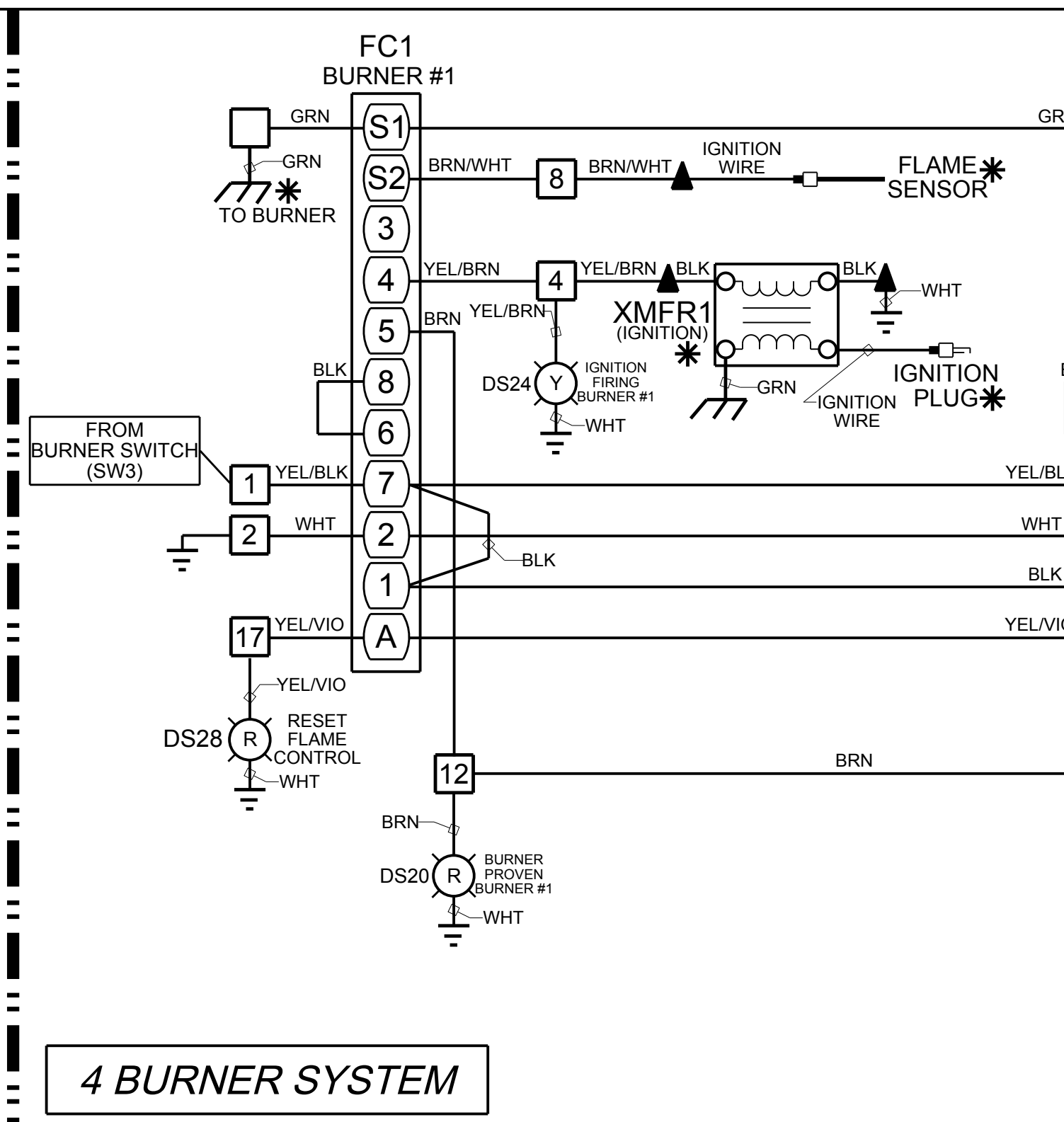
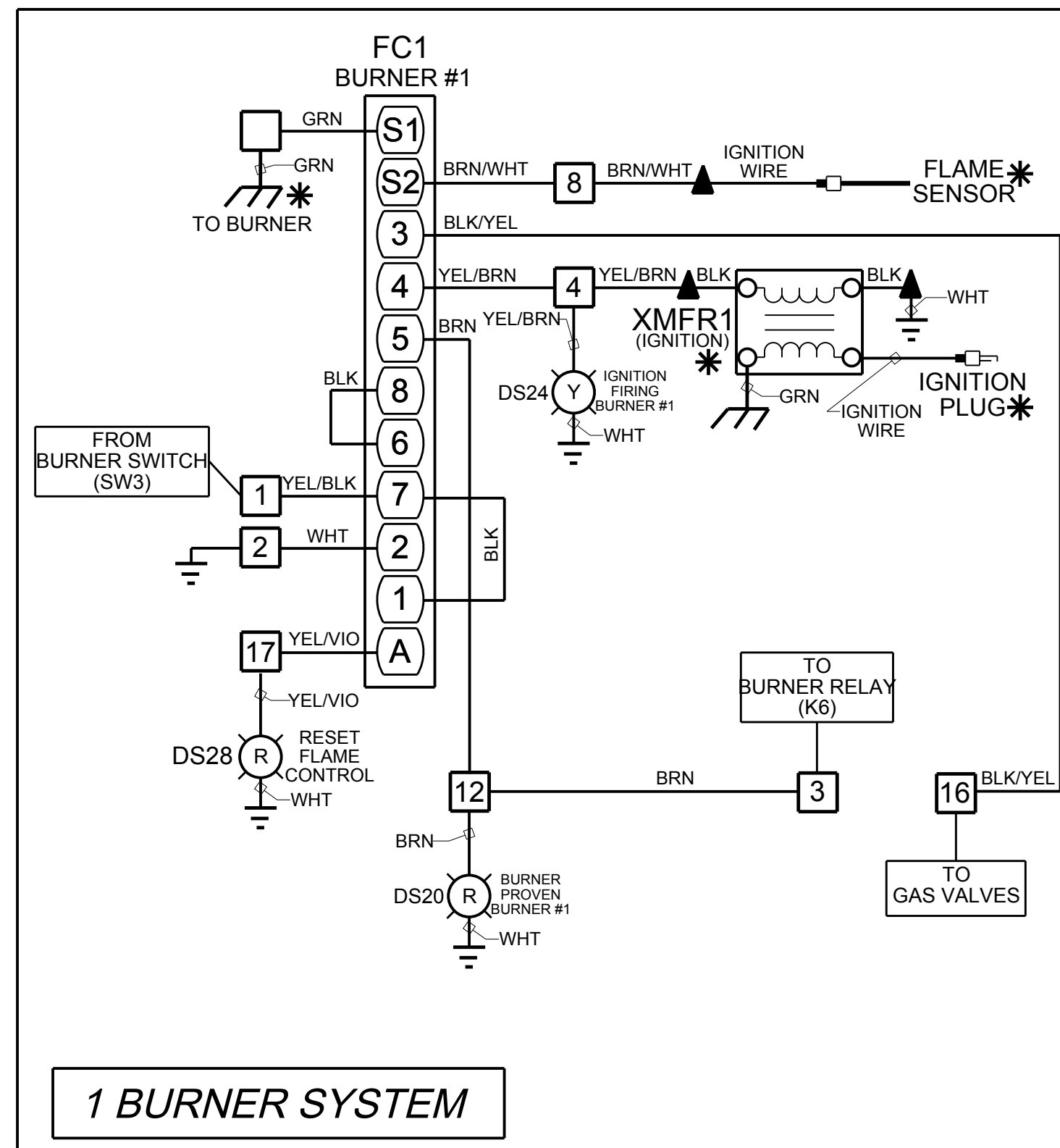
DRAWN BY MEL		DATE 10/25/10		CHK'D		USED ON: DP/SL, DPX/SL, 4T, 8T, 12T, 16GT		NEXT ASS'Y:	
SCALE NONE		MATERIAL		SHEAR SIZE		DRAWING NO.		900-009338	
TOLERANCE: DECIMAL ±.010		FRACTION ±1/32		ANGLE ±1°		UNLESS OTHERWISE SPECIFIED			

DELUX MFG. CO.  
KEARNEY, NE

STARTING WITH 2011 MODELS

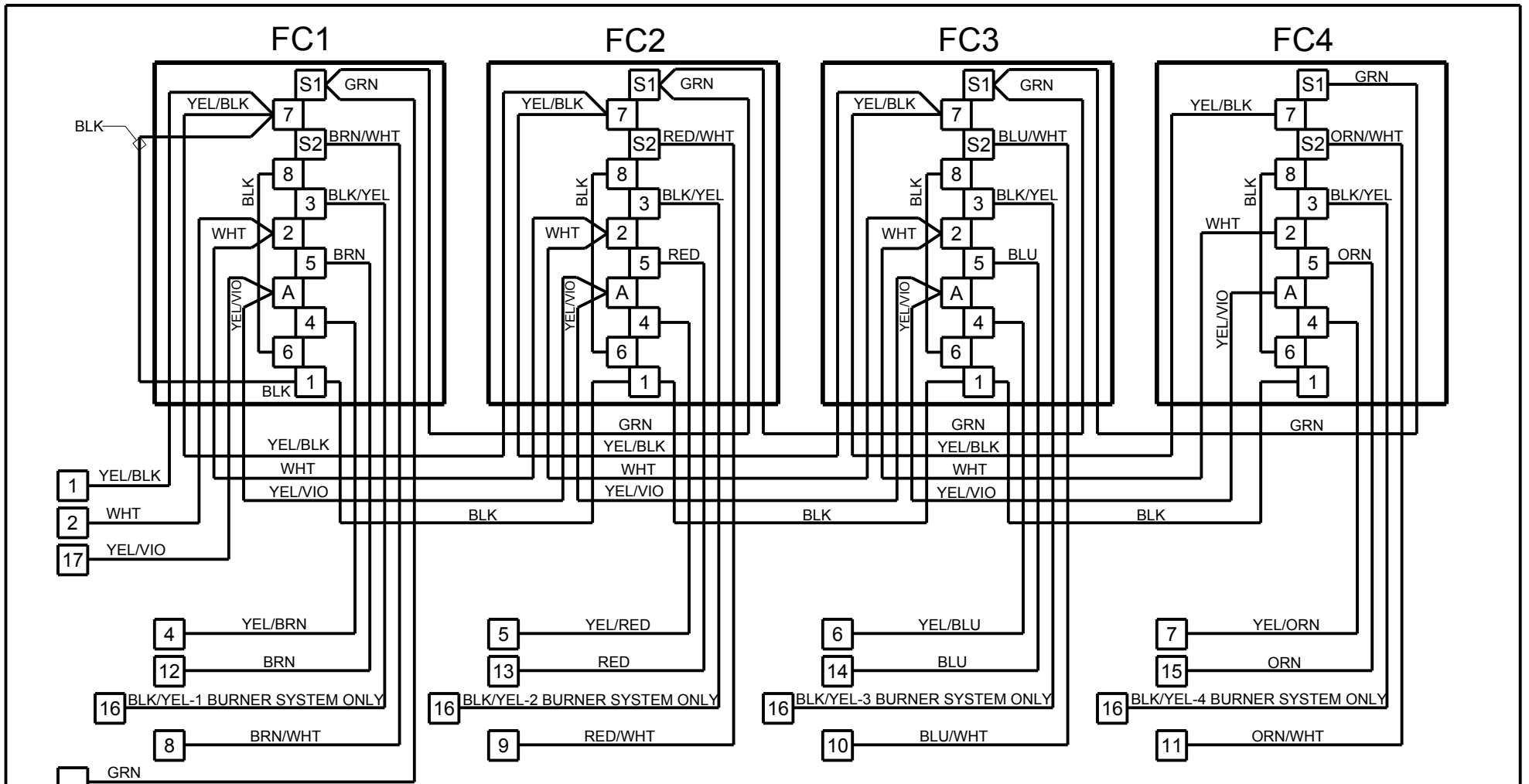
TITLE:  
SCHEMATIC  
DP THROUGH DPX16GT SERIES  
W/FIREYE MicroM

CANADA: THE EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT INSTALLATION CODES FOR GAS BURNING APPLIANCES AND EQUIPMENT, CAN/CGA-B149.1 AND CAN/CGA-B149.2, OR APPLICABLE PROVINCIAL REGULATIONS, WHICH SHOULD BE CAREFULLY FOLLOWED IN ALL CASES. AUTHORITIES HAVING JURISDICTION SHOULD BE CONSULTED BEFORE INSTALLATIONS ARE MADE.



\*NOTE COMPONENTS WITH \* ARE LOCATED OUTSIDE OF THE CONTROL BOX.

		DRAWN BY MEL		STARTING WITH 2011 MODELS	
		DATE 11/01/10		TITLE <b>DELUX MFG. CO.</b> KEARNEY, NE	
		CHKD		USED ON: DP/SL, DPX/SL, 4T, 8T, 12T	
		NEXT ASSY:		SCHEMATIC FIREYE MicroM FLAME SYSTEM (USED WITH: SCHEMATIC 900-009338)	
A		BURNER #1 ONLY: ADD BLK WIRE FROM 1 TO 7. REMOVE BLK WIRE FROM #26 TO 1.		SCALE SHEAR SIZE	
ECC#		DESCRIPTION		DRAWING NO. 900-009339	
		DATE		TOLERANCE: DECIMAL ±.010 FRACTION ±1/32 ANGLE ±1° UNLESS OTHERWISE SPECIFIED	



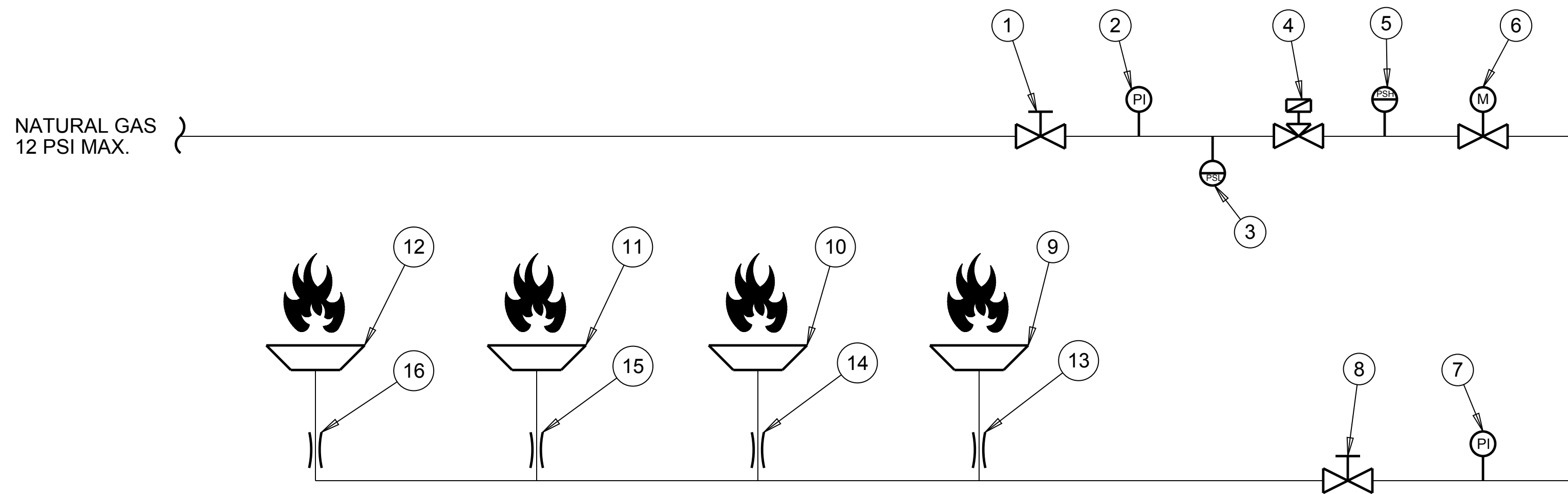
STARTING WITH 2011 MODELS

				DRAWN BY MEL	<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE:  WIRING DIAGRAM FIREYE SYSTEM BASE MicroM SERIES REF: 900-009338 - MASTER REF: 900-009339 - MASTER
				DATE 12/08/10			USED ON: NEXT ASS'Y:
				CHK'D			DRAWING NO. 900-009856
	A	BURNER #1 ONLY: ADD BLK WIRE FROM 1 TO 7. REMOVE BLK WIRE FROM #26 TO 1.	09/06/11	SCALE NONE	MATL.	SHEAR SIZE	
ECO#	LET	DESCRIPTION	DATE	SCALE	MATL.	SHEAR SIZE	DRAWING NO.

TOLERANCE: DECIMAL ±.010 FRACTION ±1/32 ANGLE ±1° UNLESS OTHERWISE SPECIFIED



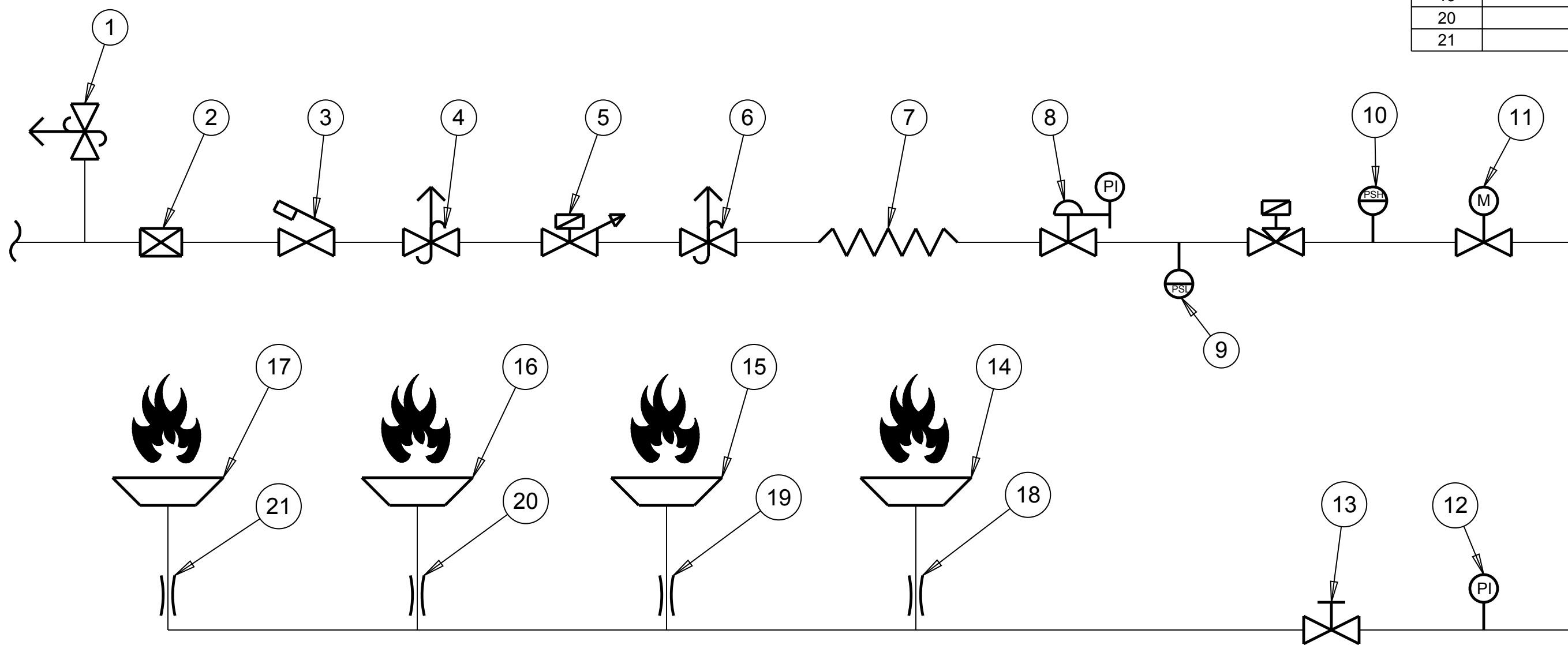
ITEM	DESCRIPTION
1	MANUAL BALL VALVE
2	PRESSURE GAUGE
3	PRESSURE SWITCH - LOW
4	ELECTRONIC SOLENIOD VALVE (FAIL SAFE)
5	PRESSURE GAUGE - HIGH
6	ELECTRIC BUTTERFLY VALVE (TEMP. CONTROL)
7	PRESSURE GAUGE
8	MANUAL BALL VALVE
9	BURNER #1
10	BURNER #2
11	BURNER #3
12	BURNER #4
13	ORIFICE - BURNER #1
14	ORIFICE - BURNER #2
15	ORIFICE - BURNER #3
16	ORIFICE - BURNER #4



				DRAWN BY JGW	<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE: PLUMBING SCHEMATIC NATURAL GAS - CSA DP/DPSL, DPX/SL, 4T, 8T, 12T	
				DATE 01/11/10				
				CHK'D	USED ON:			
					NEXT ASS'Y:			
				SCALE	MATL.	SHEAR SIZE	DRAWING NO. 900-009218	
ECO#	LET	DESCRIPTION	DATE	TOLERANCE: DECIMAL #10 FRACTION #1/32 ANGLE # UNLESS OTHERWISE SPECIFIED				

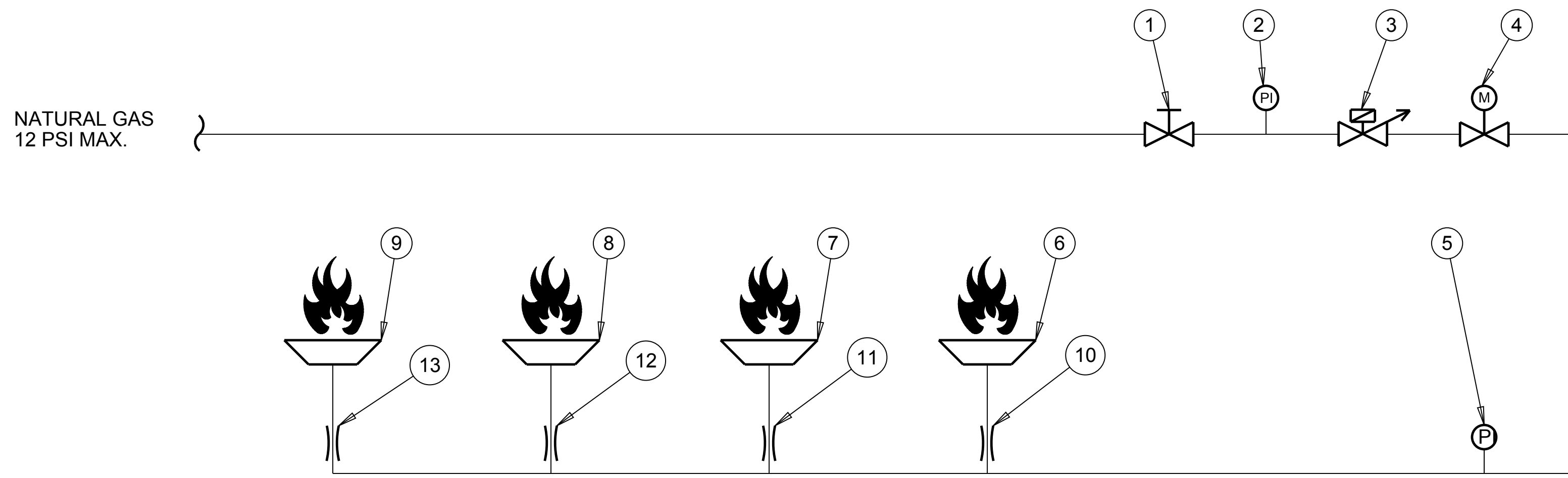
ITEM	DESCRIPTION
1	PRESSURE RELIEF VALVE
2	STRAINER
3	QUICK ACTING CUT-OFF
4	PRESSURE RELIEF VALVE
5	ELECTRIC SOLENOID VALVE (VAPOR)
6	PRESSURE RELIEF VALVE
7	INTERNAL VAPORIZER
8	PRESSURE REGULATOR WITH GAUGE
9	PRESSURE SWITCH - LOW
10	PRESSURE SWITCH - HIGH
11	ELECTRIC BUTTERFLY VALVE (TEMP. CONTROL)
12	PRESSURE GAUGE
13	MANUAL BALL VALVE
14	BURNER #1
15	BURNER #2
16	BURNER #3
17	BURNER #4
18	ORIFICE - BURNER #1
19	ORIFICE - BURNER #2
20	ORIFICE - BURNER #3
21	ORIFICE - BURNER #4

LIQUID PROPANE  
(VAPOR DURING STARTUP)  
250 PSI MAX.



				DRAWN BY JGW	<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE: PLUMBING SCHEMATIC LIQUID PROPANE - CSA DP/DPSL, DPX/SL, 4T, 8T, 12T		
				DATE 01/11/10					
				CHK'D	USED ON:		DRAWING NO. 900-009217		
					NEXT ASS'Y:				
				SCALE	MATL.	SHEAR SIZE			
ECO#	LET	DESCRIPTION	DATE	TOLERANCE: DECIMAL #10 FRACTION #/32 ANGLE # UNLESS OTHERWISE SPECIFIED					

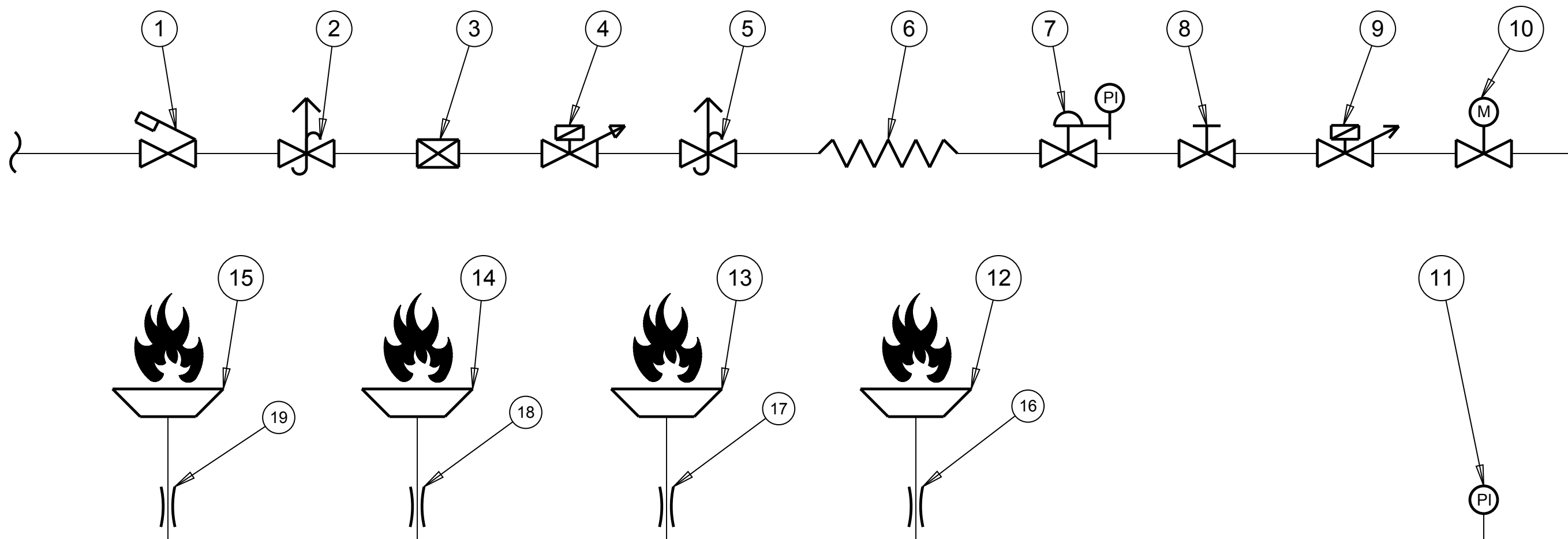
ITEM	DESCRIPTION
1	MANUAL BALL VALVE
2	PRESSURE GAUGE
3	ELECTRIC SOLENIOD VALVE
4	ELECTRIC BUTTERFLY VALVE (TEMP. CONTROL)
5	PRESSURE GAUGE
6	BURNER #1
7	BURNER #2
8	BURNER #3
9	BURNER #4
10	ORIFICE - BURNER #1
11	ORIFICE - BURNER #2
12	ORIFICE - BURNER #3
13	ORIFICE - BURNER #4



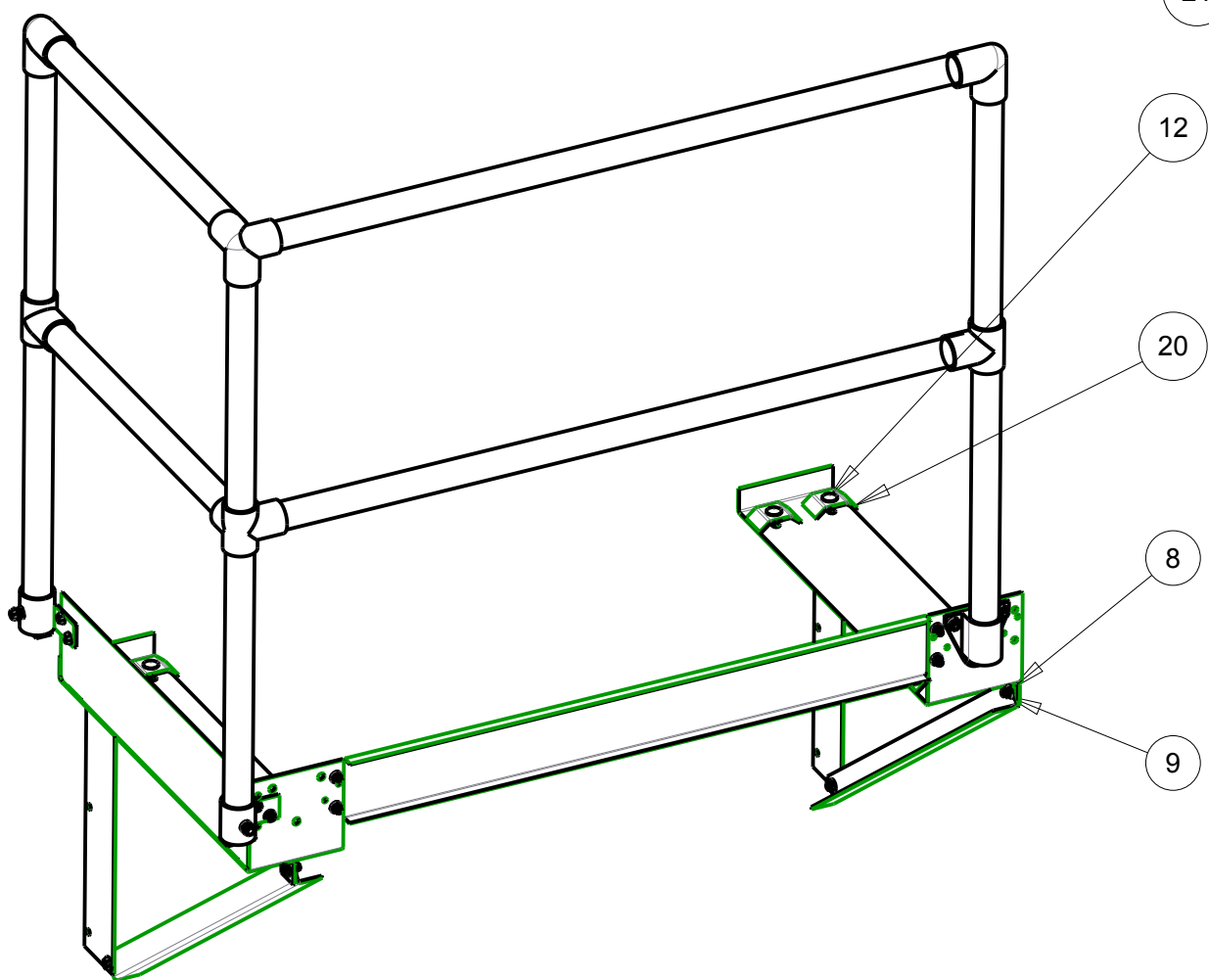
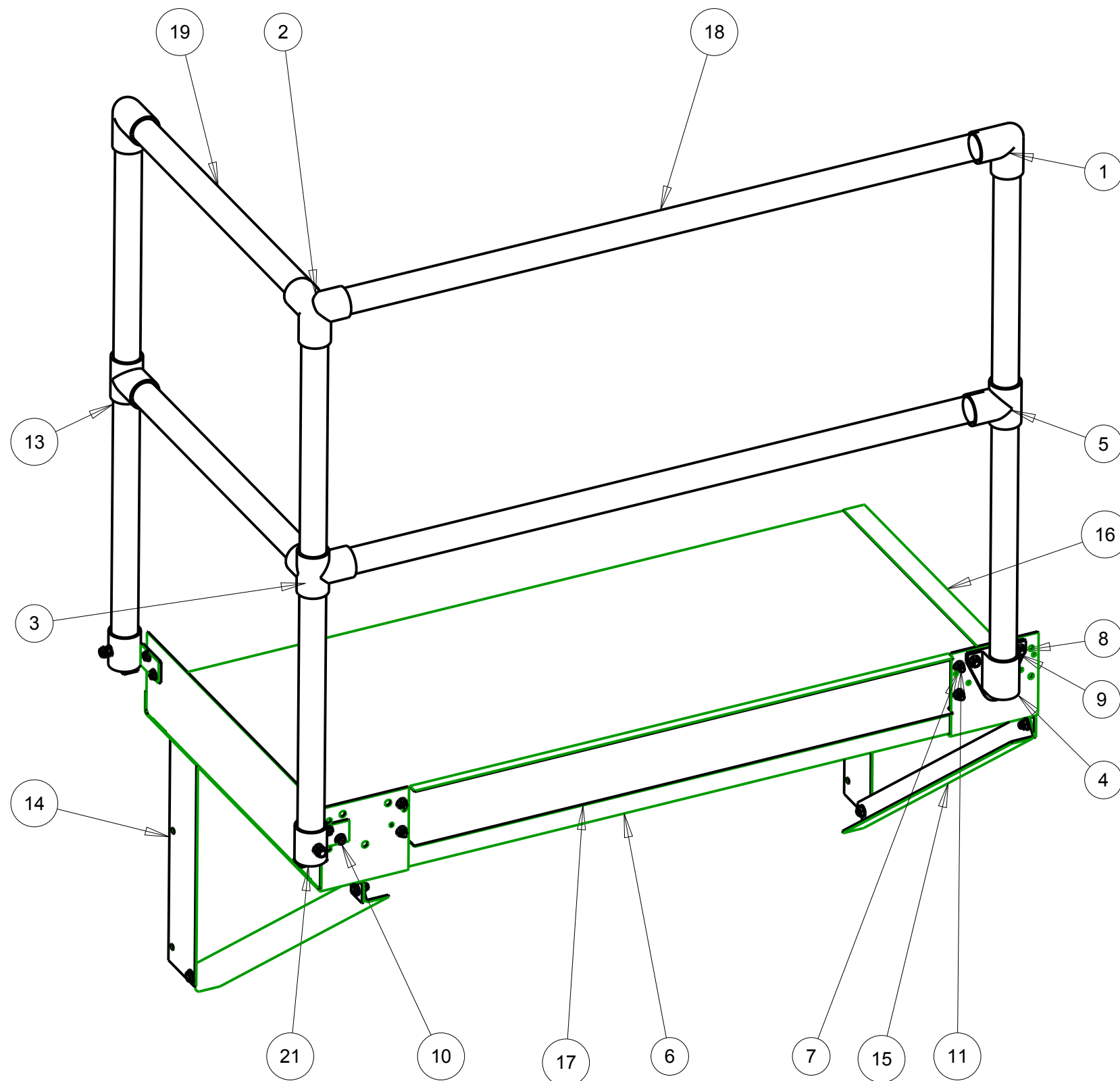
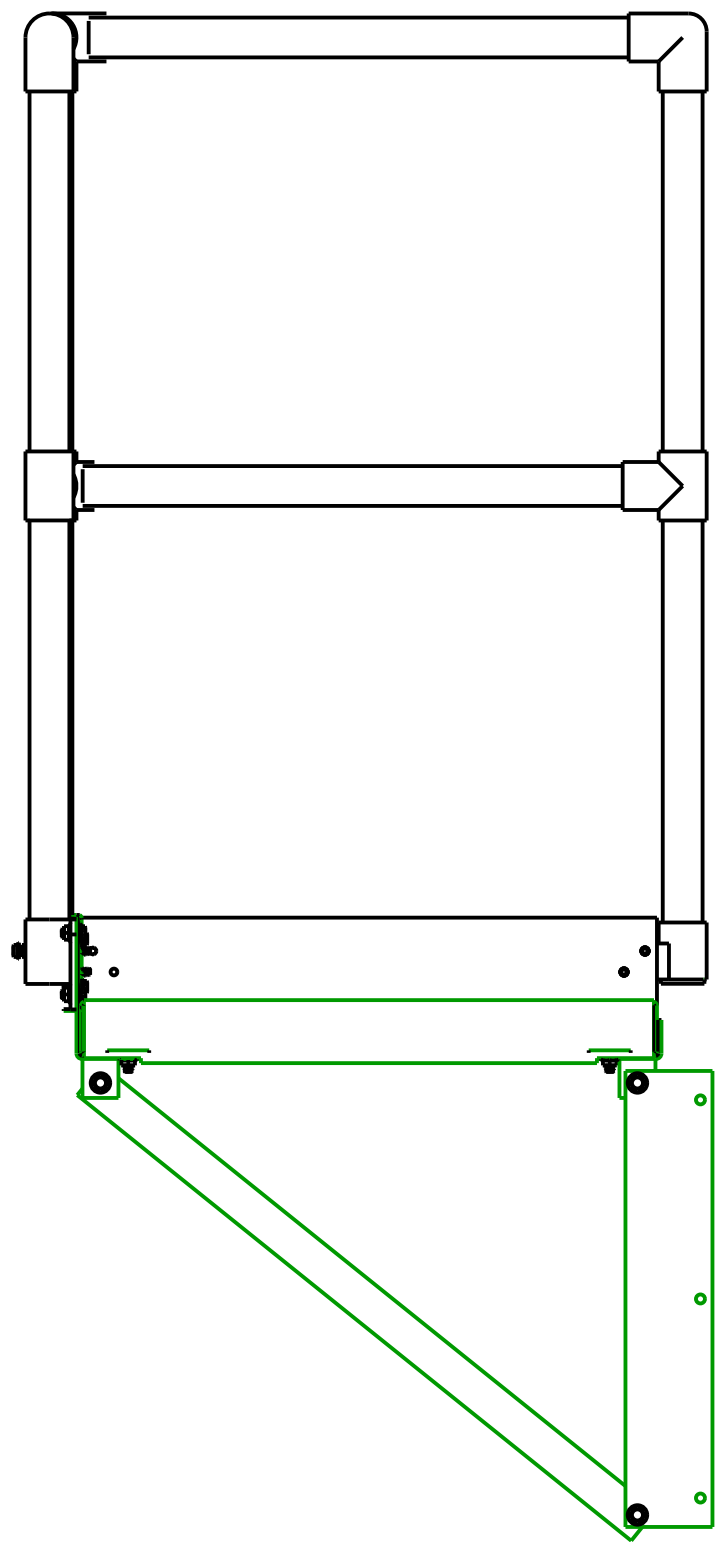
				DRAWN BY JGW	<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE: PLUMBING SCHEMATIC NATURAL GAS - NON-CSA DP/DPSL, DPX/SL, 4T, 8T, 12T	
				DATE 01/11/10				
				CHK'D	USED ON:		DRAWING NO. 900-009216	
					NEXT ASS'Y:			
ECO#	LET	DESCRIPTION	DATE	SCALE	MATL.	SHEAR SIZE		
TOLERANCE: DECIMAL #10 FRACTION #/32 ANGLE # UNLESS OTHERWISE SPECIFIED								

ITEM	DESCRIPTION
1	QUICK ACTING CUT-OFF
2	PRESSURE RELIEF VALVE
3	STRAINER
4	ELECTRIC SOLENIOD VALVE (LIQUID)
5	PRESSURE RELIEF VALVE
6	INTERNAL VAPORIZER
7	PRESSURE REGULATOR WITH GAUGE
8	MANUAL BALL VALVE
9	ELECTRIC SOLENIOD VALVE (VAPOR)
10	ELECTRIC BUTTERFLY VALVE (TEMP. CONTROL)
11	PRESSURE GAUGE
12	BURNER #1
13	BURNER #2
14	BURNER #3
15	BURNER #4
16	ORIFICE - BURNER #1
17	ORIFICE - BURNER #2
18	ORIFICE - BURNER #3
19	ORIFICE - BURNER #4

LIQUID PROPANE  
(VAPOR DURING STARTUP)  
250 PSI MAX.

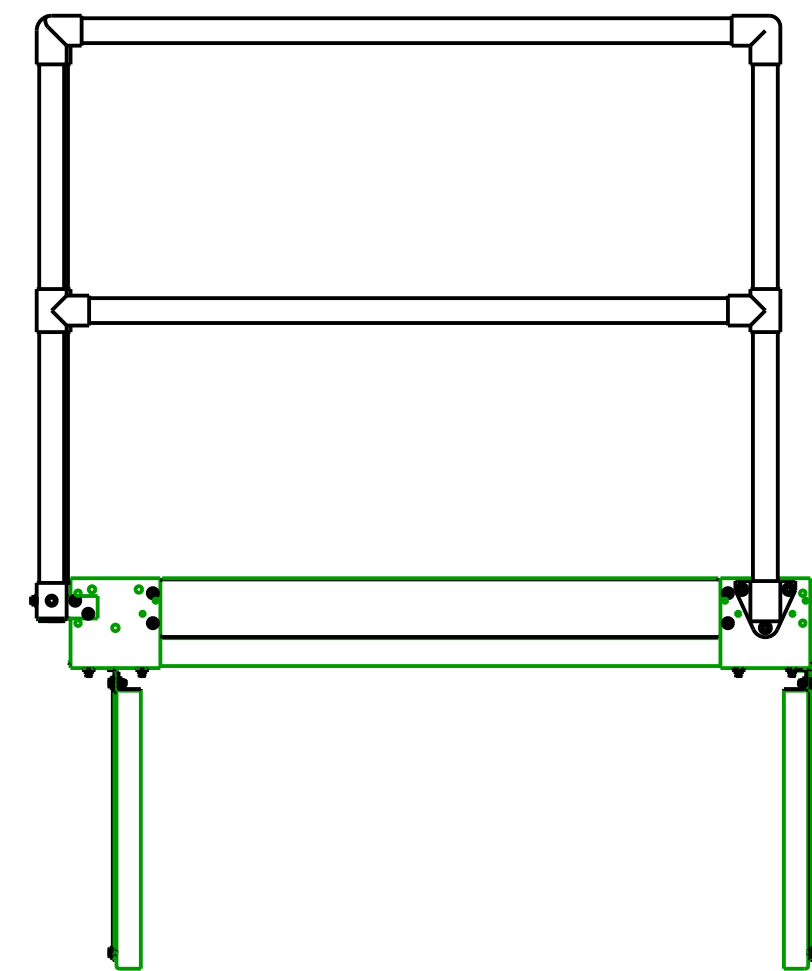


				DRAWN BY JGW	<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE:  PLUMBING SCHEMATIC LIQUID PROPANE - NON-CSA DP/DPSL, DPX/SL, 4T, 8T, 12T	
				DATE 01/11/10				
				CHK'D	USED ON:			
					NEXT ASS'Y:			
				SCALE	MATL.	SHEAR SIZE	DRAWING NO. 900-009215	
ECO#	LET	DESCRIPTION	DATE	TOLERANCE: DECIMAL #10 FRACTION #1/32 ANGLE # UNLESS OTHERWISE SPECIFIED				



SCALE 0.093  
\*GRIPSTRUT REMOVED FOR ILLUSTRATION

ITEM	PART NUMBER	QTY	DESCRIPTION
1	034-001397	2	PIPE FITTING - ELL
2	034-001399	1	PIPE FITTING - S/O ELBOW
3	034-001400	1	PIPE FITTING - S/O TEE
4	034-001404	1	PIPE FITTING - BASE
5	034-001782	2	PIPE FITTING - TEE
6	038-001412-48000	1	GRIP STRUT - 2" X 24" X 48"
7	040-001459	4	NUT - WHIZ LOCK - 5/16-18UNC
8	040-001460	17	NUT - WHIZ LOCK - 3/8-16UNC
9	040-002193	9	BOLT - WHIZ LOCK - 3/8-16UNC X 3/4
10	040-002739	4	SCREW - TCS - HEX - 5/16-18UNC X 3/4
11	040-005321	4	BOLT - WHIZ LOCK - 5/16-18UNC X 3/4"
12	040-008665	8	BOLT - CARRIAGE - 3/8-18UNC X 1-1/4
13	100-000122	3	PIPE RAILING - 38"
14	100-003133	2	CATWALK SPRT BRKT - ENDWALL
15	100-007345	2	CATWALK ANGLE BRACE - END CATWALK
16	100-007376	1	END COVER - 24" GRIP STRUT
17	100-008617	1	CATWALK TOE GUARD - END CATWALK - GARNER/PLNM
18	100-008620	2	PIPE RAILING - 45"
19	100-008621	2	PIPE RAILING - 23-1/2"
20	100-008623	8	WALKWAY CLAMP
21	200-002274	2	W.A. - HANDRAILING BRACKET - RIGHT
22	200-008493	1	W.A. - CATWALK SPRT BRKT 24" - END CATWALK - TAB RIGHT
23	200-008626	1	W.A. - CATWALK SPRT BRKT 24" - TOE GUARD - TAB MID



SCALE 0.078

				DRAWN BY JGW		<b>DELUX MFG. CO.</b> KEARNEY, NE		TITLE: ASSEMBLY CATWALK & RAILINGS	
				DATE 09/04/07				GARNER WALKWAY - DP/DPSL	
				CHK'D		USED ON:		PLENUM WALKWAY - DPX/DPXSL	
						NEXT ASS'Y:		DPX4T-8T-12T	
				SCALE .125		MATL.		SHEAR SIZE	
ECO#	LET	DESCRIPTION	DATE					DRAWING NO. 400-008618	

TOLERANCE: DECIMAL #010 FRACTION #1/32 ANGLE #1° UNLESS OTHERWISE SPECIFIED

**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 AND OIL 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. 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 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.

# REPLACEMENT PARTS

- **DP & DPSL MODELS**
- **DPX & DPXSL MODELS**
- **DPX4T MODELS**
- **DPX8T MODELS**
- **DPX12 MODELS**
- **DPX16GT MODELS**





MODEL NO: \_\_\_\_\_ LENGTH \_\_\_\_\_ FT

SERIAL NO: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

SALES ORDER NO: \_\_\_\_\_

**SPECIFICATIONS**

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

MSF-AB/CF (2011- UP) SCHEMATIC: 900-009859  
 MSF-CF ONLY (2011- UP) SCHEMATIC: 900-009860

DP-SL/DPX-SL/DPX4-8-12T-16GT (2011- UP) SCHEMATIC: 900-009338

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 500 MCM	005-005724
DISTRIBUTION BLOCK: 3 POLE 500 MCMX2	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	015-008993
MAIN POWER LIGHT: NEON - CLEAR	019-005684
POWER SWITCH: TOGGLE - MOM-ON OFF	010-005474
HOUR METER (LOWER PANEL): HOBBS - 20001-18	016-006717
POWER RELAY: 8 PIN - DPDT - 120V	007-000725
RELAY SOCKET: 8 PIN 120V - POWER	007-008938
SAFETY CIRCUIT PROVEN LIGHT: NEON - WHITE	019-005685
TERMINAL STRIP: 3 POLE	016-004761
MARKER STRIP 1 TO 3	016-004762

TERMINAL STRIP:	12	POLE	016-004224
MARKER STRIP	1	TO 12	016-004225
MARKER STRIP	13	TO 24	016-006386
MARKER STRIP	25	TO 36	016-006387
MARKER STRIP	37	TO 48	016-006388
MARKER STRIP	49	TO 60	016-006389
MARKER STRIP	61	TO 72	016-006390
MARKER STRIP	73	TO 84	016-006391
MARKER STRIP	85	TO 96	016-009189

**FAN CONTROL CIRCUIT**

FAN SWITCH: TOGGLE - MOM-ON	010-005681
BOOT PROTECTOR: FAN SWITCH	016-004791
FAN SWITCH: TOGGLE - DPST ON/OFF	(MSF ONLY) 010-005475
BOOT PROTECTOR: FAN SWITCH	016-004791
FAN PROVEN LIGHT(S): NEON - CLEAR	019-005684
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 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(S): HONEYWELL - S437A 1009	009-005213
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 AIR SENSOR - COPPER	100-009123
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 - YELLOW	019-005687
BURNER READY LIGHT: NEON - CLEAR	019-005684
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: 38" FAN - 10HP	056-008704
SPLIT TAPER BUSHING- QD-E X 1 5/8: 38" FAN - 15/20HP	056-008705
SPLIT TAPER BUSHING- QD-E X 1 7/8: 38" FAN - 25/30HP	056-008706
SPLIT TAPER BUSHING- QD-E X 2 1/8: 43" FAN - 40/50HP	056-008707
SPLIT TAPER BUSHING- QD-E X 2 3/8: 43" FAN - 60HP	056-008708

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



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

LOAD SWITCH: TOGGLE - SPST - OFF/ON	010-005475
GRAIN LOADING LIGHT: NEON - YELLOW	019-005687
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	019-003410

**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:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-006861
LEVELING 8" AUGER SET W/1 1/4" SHAFTS 15FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-006862
LEVELING 8" AUGER SET W/1 1/4" SHAFTS 20FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-006863
LEVELING 8" AUGER SET W/1 1/4" SHAFTS 25FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-006864
LEVELING 8" AUGER SET W/1 1/4" SHAFTS 30FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-006865
LEVELING 8" AUGER SET W/1 1/4" SHAFTS 40FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-006866
LEVELING 10" AUGER SET W/1 1/4" SHAFTS 10FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-007410
LEVELING 10" AUGER SET W/1 1/4" SHAFTS 15FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-007411
LEVELING 10" AUGER SET W/1 1/4" SHAFTS 20FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-007412
LEVELING 10" AUGER SET W/1 1/4" SHAFTS 25FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-007413
LEVELING 10" AUGER SET W/1 1/4" SHAFTS 30FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	035-007414
LEVELING 10" AUGER SET W/1 1/4" SHAFTS 40FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>	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:	200-006834
USE ON 10FT DRYERS ONLY	<b><u>(SUPER EDGE FLIGHTING)</u></b>
LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS FRONT 10FT	200-006723
MOTOR END	<b><u>(SUPER EDGE FLIGHTING)</u></b>
LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS	200-006724
DISCHARGE INTERMEDIATE 10FT:	<b><u>(SUPER EDGE FLIGHTING)</u></b>
LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS REAR 5FT:	200-006721
NON MOTOR END	<b><u>(SUPER EDGE FLIGHTING)</u></b>
LEVELING 8" AUGER SECTION FOR 1 1/4" SHAFTS REAR 10FT:	200-006720
NON MOTOR END	<b><u>(SUPER EDGE FLIGHTING)</u></b>

**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 <b><u>(SUPER EDGE FLIGHTING)</u></b>	
LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS FRONT 10FT	200-006794
MOTOR END <b><u>(SUPER EDGE FLIGHTING)</u></b>	
LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS	200-006793
INTERMEDIATE 10FT: <b><u>(SUPER EDGE FLIGHTING)</u></b>	
LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS REAR 5FT:	200-007640
NON MOTOR END <b><u>(SUPER EDGE FLIGHTING)</u></b>	
LEVELING 10" AUGER SECTION FOR 1 1/4" SHAFTS REAR 10FT:	200-006792
NON MOTOR END <b><u>(SUPER EDGE FLIGHTING)</u></b>	

**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
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
<b><u>W/OUT</u></b> 1-1/4" SPLIT BEARING	
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
<b><u>W/OUT</u></b> 1-1/4" SPLIT BEARING	
<u>HARDWARE NEEDED WITH EACH HANGER ASS'Y:</u> (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
LEVLEING 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
INTERMEDIATE HANGER ASS'Y- 8" LEVELING AUGER/TROUGH W/HARDWARE W/ 1-1/4" SPLIT BEARING	400-006827
INTERMEDIATE HANGER ASS'Y- 8" LEVELING AUGER/TROUGH W/HARDWARE <b>W/OUT</b> 1-1/4" SPLIT BEARING	200-007319
INTERMEDIATE HANGER ASS'Y-10" LEVELING AUGER/TROUGH W/HARDWARE W/ 1-1/4" SPLIT BEARING	400-006829
INTERMEDIATE HANGER ASS'Y-10" LEVELING AUGER/TROUGH W/HARDWARE <b>W/OUT</b> 1-1/4" SPLIT BEARING	200-007320

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



**LEVELING DRAG CONVEYOR (OPTIONAL)**

DRAG CHAIN: SIZE 8" (STRAIGHT W/UHMW PADS (PER FOOT)	054-006838
DRAG CHAIN: CONNECTING LINK FOR 8" CHAIN STRAIGHT PADS	054-006836
DRAG CHAIN: SPROCKET 9 TOOTH, 1 15/16" BORE (PITCH	054-006837
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

**LEVELING DRAG CONVEYOR**

COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 15/16" BORE DRAG SHAFT - TAIL - MOTOR END	047-001931
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/8" BORE REDUCER SHAFT - TAIL - MOTOR END	047-006144
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/2" BORE REDUCER SHAFT - TAIL - MOTOR END	047-002779
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 5/8" BORE REDUCER SHAFT - TAIL - MOTOR END	047-001932
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/4" BORE REDUCER SHAFT - TAIL - MOTOR END	047-006145
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	019-005685

**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**

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
BOOT PROTECTOR: FEEDROLL MONITOR PANEL SWITCH	016-004791
FEEDROLL MONITOR LIGHT: NEON - WHITE	019-005685
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

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

UNLOAD SWITCH: TOGGLE - SPST - OFF/ON 010-005475  
GRAIN UNLOADING LIGHT: NEON - CLEAR 019-005684

**DISCHARGE 8" AUGER KITS W/ 1 1/4" SHAFTS (SUPER EDGE FLIGHTING)**  
INCLUDES: AUGER(S), SHAFTS 1 1/4" W/BOLTS-SPLIT & END BEARING(S)  
(NO DISCHARGE EXTENSION AUGER)  
**YOU MUST ORDER AUGER EXTENSIONS SEPERATE**

DISCHARGE 8" AUGER SET W/1 1/4" SHAFTS 10FT: **(SUPER EDGE FLIGHTING)** 035-006869  
DISCHARGE 8" AUGER SET W/1 1/4" SHAFTS 15FT: **(SUPER EDGE FLIGHTING)** 035-006870  
DISCHARGE 8" AUGER SET W/1 1/4" SHAFTS 20FT: **(SUPER EDGE FLIGHTING)** 035-006871  
DISCHARGE 8" AUGER SET W/1 1/4" SHAFTS 25FT: **(SUPER EDGE FLIGHTING)** 035-006872  
DISCHARGE 8" AUGER SET W/1 1/4" SHAFTS 30FT: **(SUPER EDGE FLIGHTING)** 035-006873  
DISCHARGE 8" AUGER SET W/1 1/4" SHAFTS 40FT: **(SUPER EDGE FLIGHTING)** 035-006874

**DISCHARGE AUGERS EXTENSION W/ 1 1/4" SHAFTS (SUPER EDGE FLIGHTING)**  
INCLUDES: AUGER ONLY NO SHAFTS OR HARDWARE  
**YOU MUST ORDER AUGER TROUGHS, TOPS AND HANGER BRACKETS SEPERATE**

DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 1' 200-006875  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 1' 6" 200-006876  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 2' 200-006877  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 2' 6" 200-00XXXX  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 3' 200-006878  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 4' 200-006879  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 5' 200-006880  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 6' 200-006881  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 7' 200-006882  
DISCHARGE 8" AUGER EXT FOR/1 1/4" SHAFTS **(SUPER EDGE FLIGHT)** 8' 200-006883

**DISCHARGE 8" AUGER SECTIONS FOR 1 1/4" SHAFTS (SUPER EDGE FLIGHTING)**  
INCLUDES: AUGER ONLY NO SHAFTS OR BOLTS

DISCHARGE 8" AUGER SECTION FOR 1 1/4" SHAFTS 5FT: 200-006725  
DISCHARGE 8" AUGER SECTION FOR 1 1/4" SHAFTS 10FT: 200-006724  
LEVELING

**DISCHARGE 8" AUGER PARTS 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  
  
END BEARING - 2-BOLT FLANGE - 1 1/4" BORE: 044-001510  
  
HANGER ASS'Y - DISCHARGE 8" AUGER FOR 1 1/4" SHAFTS 400-006852  
INTERMEDIATE & REAR **WITH** SPLIT BEARING:  
  
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 8" AUGER EXTENSION TROUGHS**

**INCLUDES: ONLY THE TROUGH - NO TOP/AUGERS OR HARDWARE**  
**YOU MUST ORDER AUGER TROUGH (TOP) EXTENSIONS SEPERATE**

DISCHARGE	8"	AUGER TROUGH EXTENSION: 1'	200-005396
DISCHARGE	8"	AUGER TROUGH EXTENSION: 1' 6" (18")	200-005848
DISCHARGE	8"	AUGER TROUGH EXTENSION: 2'	200-005413
DISCHARGE	8"	AUGER TROUGH EXTENSION: 2' 6" (30")	200-00XXXX
DISCHARGE	8"	AUGER TROUGH EXTENSION: 3'	200-005408
DISCHARGE	8"	AUGER TROUGH EXTENSION: 4	200-005414
DISCHARGE	8"	AUGER TROUGH EXTENSION: 5'	200-005854
DISCHARGE	8"	AUGER TROUGH EXTENSION: 6'	200-005861
DISCHARGE	8"	AUGER TROUGH EXTENSION: 7'	200-005867
DISCHARGE	8"	AUGER TROUGH EXTENSION: 8'	200-005873

**DISCHARGE 8" AUGER EXTENSION TOPS**

**INCLUDES: ONLY THE TOP - NO TROUGH/AUGER OR HARDWARE**  
**YOU MUST ORDER AUGER TROUGH EXTENSIONS SEPERATE**

DISCHARGE	8"	AUGER TROUGH TOP: 1'	100-005399
DISCHARGE	8"	AUGER TROUGH TOP: 1' 6" (18")	100-005850
DISCHARGE	8"	AUGER TROUGH TOP: 2'	100-005409
DISCHARGE	8"	AUGER TROUGH TOP: 2' 6" (30")	100-00XXXX
DISCHARGE	8"	AUGER TROUGH TOP: 3'	100-005406
DISCHARGE	8"	AUGER TROUGH TOP: 4	100-005410
DISCHARGE	8"	AUGER TROUGH TOP: 5'	100-005856
DISCHARGE	8"	AUGER TROUGH TOP: 6'	100-005863
DISCHARGE	8"	AUGER TROUGH TOP: 7'	100-005869
DISCHARGE	8"	AUGER TROUGH TOP: 8'	100-005875

**DISCHARGE 8" 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 8" 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 8" 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 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 ( <b><u>STRAIGHT</u></b> 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 <b><u>STRAIGHT PADDLES</u></b>	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

**DISCHARGE DRAG CONVEYOR**

COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 15/16" BORE DRAG SHAFT - TAIL - MOTOR END	047-001931
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/8" BORE REDUCER - TAIL - MOTOR	047-008281
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/4" BORE REDUCER - TAIL - MOTOR	047-008282
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/8" BORE REDUCER - TAIL - MOTOR	047-006144
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 1/2" BORE REDUCER - TAIL - MOTOR	047-002779
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 5/8" BORE REDUCER - TAIL - MOTOR	047-001932
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 3/4" BORE REDUCER - TAIL - MOTOR	047-006145
COUPLING SPROCKET: 60 CHAIN, 18 TOOTH, 1 7/8" BORE REDUCER - TAIL - MOTOR	047-008929
COUPLING CHAIN: DOUBLE WIDTH: SIZE # 6018	036-001930

NOTE: FOR MOTORS, GEAR REDUCERS, STARTER SIZES, HEATER ELEMENTS,  
FUSE BLOCKS, FUSES, AND WIRE SIZES REFER TO THE CHARTS.

**DISCHARGE DRAG CONVEYOR**

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 CONTROL PID: WATLOW EZ-ZONE (PM6C1FA-AAAAAAA)	006-009168
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
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

**AUTOMATIC TEMPERATURE CONTROL SYSTEM**

AUTOMATIC TEMP CONT. /H. LIMIT: WATLOW EZ-ZONE (PM6CFA-ALEJAAA)	006-009149
TEMPERATURE CONROL SENSOR: WATLOW 100Ω RTD STEM	009-007199
HIGH LIMIT SENSOR: WATLOW 100Ω RTD STEM	009-007199
SENSOR BOX: 4X4X2 PVC W/COVER	016-003537
SENSOR CORD GRIP:	016-000976
HIGH LIMIT RELAY: 8 PIN-DPDT-120V	007-000725
RELAY SOCKET: 8 PIN 120V - HIGH LIMIT	007-008938
VAPOR HIGH LIMIT: SPST - OPEN - 220F (MSF ONLY)	006-005472
QUICK ACTING VALVE: 1/2"	028-003013
QUICK ACTING VALVE: 3/4"	028-005529
RELIEF VALVE W/ RAIN CAP: POP ACTION	028-003014
RAIN CAP: RELIEF VALVE	028-003015
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
VAPORIZER: ROUND 24 1/2" DIA. (MSF ONLY)	031-005477
LIQUID PROPANE REGULATOR: REGO 1/2" MAX 30#	028-003012
LIQUID PROPANE REGULATOR: REGO 2" MAX 500# (BIG JOE)	028-006316

AUTOMATIC TEMPERATURE CONTROL SYSTEM

TEMPERATURE CONTROL BUTTERFLY VALVE: ECLIPSE 1-1/4" 028-008957  
TEMPERATURE CONTROL BUTTERFLY VALVE: ECLIPSE 2" 028-005933  
BUTTERFLY VALVE MOTOR MOUNT KIT: ECLIPSE 028-005936

TEMPERATURE CONTROL MODULATING MOTOR: JOHNSON CONTROL M150X 004-005418  
TEMPERATURE CONTROL INTERFACE BOARD: JOHNSON R81GAA-2 006-005421  
TEMPERATURE CONTROL MOTOR LINKAGE ARM: 028-008958  
TEMPERATURE CONTROL MOTOR WEATHER COVER 004-005931  
TEMPERATURE CONTROL TRANSFORMER: 24VAC 008-000754

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

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.

CANADIAN STANDARD ASSEMBLY OR OPTIONAL

AUTOMATIC SHUTOFF VALVE: MAXON 1 1/4" (SLOW OPENING) 028-007558  
REPLACEMENT COIL SHUTOFF VALVE: MAXON 1 1/4" 014-000853

AUTOMATIC SHUTOFF VALVE: MAXON 2" (SLOW OPENING) 028-007778  
REPLACEMENT COIL SHUTOFF VALVE: MAXON 2" 014-000854

SWITCH - HIGH/LOW PRESSURE LIMIT: ASCO 010-007559  
PRESSURE TRANSDUCER: 0- 9 PSI - ASCO 010-007736  
PRESSURE TRANSDUCER: 4-36 PSI - ASCO 010-007738



LABELS AND DECALS

DECAL: "DELUX" - 6" HIGH - BLUE	018-006813
DECAL: "MADE IN THE USA"	018-005521
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

**DOOR HANDLES, LATCHES AND HINGES**

DOOR HANDLE: LOCKING	- PANEL BOX	040-001476
	BRAND: AUSTIN KEY # BP112	
CAM LATCH: UPPER DOOR	- PANEL BOX	200-004058
CAM LATCH: LOWER DOOR	- PANEL BOX	040-006848
DOOR LATCH: SPRING	- SWITCH PANEL - PANEL BOX	040-002941
DOOR HANDLE: NON-LOCKING	- COOLING CHAMBER	040-004822
CAM LATCH: COOLING CHAMBER		200-006868
DOOR LATCH: PLENUM DOOR		040-002934
HINGE: PLENUM DOOR		043-001507
DOOR LATCH: RECLAIM DOOR		043-001503

**MISC. ITEMS**

VIEWING WINDOW	- PLENUM	100-006167
VIEWING WINDOW HOLDER	- PLENUM	100-006168

**OPTIONAL FEATURES**

**(OPTIONAL FEATURE) EXHAUST AIR COLUMN CONTROLS**

SENSOR ONLY: 10FT		006-006148
SENSOR ONLY: 15FT		006-006149
SENSOR ONLY: 20FT		006-006925

**(OPTIONAL FEATURE) ALARM KIT**

HORN: 120V SURFACE MOUNT		016-008037
LIGHT FIXTURE ASS'Y: 90 DEGREE		016-005975
LIGHT: RED BULB		019-001091



# **SPECIFICATION CHARTS**

- **DP & DPSL MODELS**
- **DPX & DPXSL MODELS**
- **DPX4T MODELS**
- **DPX8T MODELS**
- **DPX12 MODELS**
- **DPX16GT MODELS**



**STARTER COMPONENTS - TELEMECANIQUE**  
**TELEMECANIQUE PART NUMBER / DELUX PART NUMBER**

<b>240V 3P</b>				<b>480V 3P</b>			
<b>HP</b>	<b>ITEM 1</b>	<b>ITEM 2</b>	<b>AUX. CONT.</b>	<b>HP</b>	<b>ITEM 1</b>	<b>ITEM 2</b>	<b>AUX. CONT.</b>
1	LUB12	LUCA12FU	LUA1C11	1	LUB12	LUCA05FU	LUA1C11
	001-008907	001-008910	001-008928		001-008907	001-008909	001-008928
2	LUB12	LUCA12FU	LUA1C11	2	LUB12	LUCA05FU	LUA1C11
	001-008907	001-008910	001-008928		001-008907	001-008909	001-008928
3	LUB12	LUCA12FU	LUA1C11	3	LUB12	LUCA12FU	LUA1C11
	001-008907	001-008910	001-008928		001-008907	001-008910	001-008928
5	LUB32	LUCA32FU	LUA1C11	5	LUB12	LUCA12FU	LUA1C11
	001-008908	001-008911	001-008928		001-008907	001-008910	001-008928
7.5	LUB32	LUCA32FU	LUA1C11	7.5	LUB12	LUCA12FU	LUA1C11
	001-008908	001-008911	001-008928		001-008907	001-008910	001-008928
10	LUB32	LUCA32FU	LUA1C11	10	LUB32	LUCA32FU	LUA1C11
	001-008908	001-008911	001-008928		001-008908	001-008911	001-008928
15	GV3P50	LC1D50AG7	GVAD0110	15	LUB32	LUCA32FU	LUA1C11
	001-009861	001-008921	001-009232		001-008908	001-008911	001-008928
20	GV3P65	LC1D65AG7	GVAD0110	20	LUB32	LUCA32FU	LUA1C11
	001-008915	001-008922	001-009232		001-008908	001-008911	001-008928
25	GV7RE80	LC1D80G7	GV7AE11	25	GV3P40	LC1D40AG7	GVAD0110
	001-008916	001-008923	001-008931		001-008914	001-008920	001-009232
30	GV7RE80	LC1D80G7	GV7AE11	30	GV3P40	LC1D40AG7	GVAD0110
	001-008916	001-008923	001-008931		001-008914	001-008920	001-009232
40	GV7RE150	LC1D115G7	GV7AE11	40	GV3P50	LC1D50AG7	GVAD0110
	001-008918	001-008924	001-008931		001-009861	001-008921	001-009232
50	GV7RE150	LC1D150G7	GV7AE11	50	GV7RE80	LC1D80G7	GV7AE11
	001-008918	001-008925	001-008931		001-008916	001-008923	001-008931
60	GV7RE220	LC1D150G7	GV7AE11	60	GV7RE80	LC1D80G7	GV7AE11
	001-008919	001-008925	001-008931		001-008916	001-008923	001-008931

<b>575V 3P</b>				<b>380V 3P</b>			
<b>HP</b>	<b>ITEM 1</b>	<b>ITEM 2</b>	<b>AUX. CONT.</b>	<b>HP</b>	<b>ITEM 1</b>	<b>ITEM 2</b>	<b>AUX. CONT.</b>
1	LUB12	LUCA05FU	LUA1C11	1	LUB12	LUCA05FU	LUA1C11
	001-008907	001-008909	001-008928		001-008907	001-008909	001-008928
2	LUB12	LUCA05FU	LUA1C11	2	LUB12	LUCA05FU	LUA1C11
	001-008907	001-008909	001-008928		001-008907	001-008909	001-008928
3	LUB12	LUCA12FU	LUA1C11	3	LUB12	LUCA12FU	LUA1C11
	001-008907	001-008910	001-008928		001-008907	001-008910	001-008928
5	LUB12	LUCA12FU	LUA1C11	5	LUB12	LUCA12FU	LUA1C11
	001-008907	001-008910	001-008928		001-008907	001-008910	001-008928
7.5	LUB12	LUCA12FU	LUA1C11	7.5	LUB32	LUCA32FU	LUA1C11
	001-008907	001-008910	001-008928		001-008908	001-008911	001-008928
10	LUB12	LUCA12FU	LUA1C11	10	LUB32	LUCA32FU	LUA1C11
	001-008907	001-008910	001-008928		001-008908	001-008911	001-008928
15	LUB32	LUCA32FU	LUA1C11	15	LUB32	LUCA32FU	LUA1C11
	001-008908	001-008911	001-008928		001-008908	001-008911	001-008928
20	LUB32	LUCA32FU	LUA1C11	20	GV3P40	LC1D40AG7	GVAD0110
	001-008908	001-008911	001-008928		001-008914	001-008920	001-009232
25	LUB32	LUCA32FU	LUA1C11	25	GV3P40	LC1D40AG7	GVAD0110
	001-008908	001-008911	001-008928		001-008914	001-008920	001-009232
30	GV3P40	LC1D40AG7	GVAD0110	30	GV3P50	LC1D50AG7	GVAD0110
	001-008914	001-008920	001-009232		001-009861	001-008921	001-009232
40	GV3P50	LC1D50AG7	GVAD0110	40	GV3P65	LC1D65AG7	GVAD0110
	001-009861	001-008921	001-009232		001-008915	001-008922	001-009232
50	GV3P65	LC1D65AG7	GVAD0110	50	GV7RE80	LC1D80G7	GV7AE11
	001-008915	001-008922	001-009232		001-008916	001-008923	001-008931
60	GV7RE80	LC1D80G7	GV7AE11	60	GV7RE100	LC1D115G7	GV7AE11
	001-008916	001-008923	001-008931		001-008917	001-008924	001-008931

<b>230V 1P</b>				<b>208V 3P</b>			
<b>HP</b>	<b>ITEM 1</b>	<b>ITEM 2</b>	<b>AUX. CONT.</b>	<b>HP</b>	<b>ITEM 1</b>	<b>ITEM 2</b>	<b>AUX. CONT.</b>
<b>1</b>	LUB12	LUCC12FU	LUA1C11	<b>1</b>	LUB12	LUCA12FU	LUA1C11
	001-008907	001-008912	001-008928		001-008907	001-008910	001-008928
<b>2</b>	LUB12	LUCC12FU	LUA1C11	<b>2</b>	LUB12	LUCA12FU	LUA1C11
	001-008907	001-008912	001-008928		001-008907	001-008910	001-008928
<b>3</b>	LUB32	LUCC32FU	LUA1C11	<b>3</b>	LUB12	LUCA12FU	LUA1C11
	001-008908	001-008913	001-008928		001-008907	001-008910	001-008928
<b>5</b>	LUB32	LUCC32FU	LUA1C11	<b>5</b>	LUB32	LUCA32FU	LUA1C11
	001-008908	001-008913	001-008928		001-008908	001-008911	001-008928
<b>7.5</b>	GV3P40	LC1D50AG7	GVAD0110	<b>7.5</b>	LUB32	LUCA32FU	LUA1C11
	001-008914	001-008921	001-009232		001-008908	001-008911	001-008928
<b>10</b>	GV3P50	LC1D65AG7	GVAD0110	<b>10</b>	LUB32	LUCA32FU	LUA1C11
	001-009861	001-008922	001-009232		001-008908	001-008911	001-008928
<b>15</b>	GV3ME80	LC1D80G7	GV3A08	<b>15</b>	GV3P50	LC1D50AG7	GVAD0110
	001-009052	001-008923	001-008930		001-009861	001-008921	001-009232
				<b>20</b>	GV3P65	LC1D65AG7	GVAD0110
					001-008915	001-008922	001-009232
				<b>25</b>	GV7RE80	LC1D80G7	GV7AE11
					001-008916	001-008923	001-008931
				<b>30</b>	GV7RE100	LC1D115G7	GV7AE11
					001-008917	001-008924	001-008931
				<b>40</b>	GV7RE150	LC1D150G7	GV7AE11
					001-008918	001-008925	001-008931
				<b>50</b>	GV7RE150	LC1D150G7	GV7AE11
					001-008918	001-008925	001-008931
				<b>60</b>	N/A	N/A	N/A
					N/A	N/A	N/A

**NOTES:**

- 1) **GV7RE80** STARTERS REQUIRE 2 SETS OF 3 LUGS; GV7AC021 [001-008926].  
**GV7RE100, GV7RE150 AND GV7RE220** REQUIRE 2 SETS OF 3 LUGS; GV7AC022 [001-008927].
- 2) ALL AUXILIARY STARTERS USE AT *LEAST* AN **LUB32** SIZE STARTER BASE, EVEN IF OVERLOAD REQUIREMENTS ARE LESS.
- 3) USE **(1) LUFN20 [001-008936]** AUX. CONT. ON EACH LOAD MOTOR STARTER.

**FAN MOTORS AND FANS 38" AND 43" DIA PITCH SETTINGS FOR \*\*\*\* GREENHECK**

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

MODEL	DIA FAN	--PITCH-- SETTING	MOTOR	VOLTAGE				
MSF-31010-CF	10FT 38"	?-??/??"	10 HP	230V-1P				
MSF-31010-AB	10FT 38"		10 HP	230V-1P				
MSF-41515-CF	10FT 38"		15 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF-41515-AB	10FT 38"		15 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF-62520-CF	15FT 38"		20 HP		208V-3P	240V-3P	480V-3P	575V-3P
MSF-62520-AB	15FT 38"		20 HP		208V-3P	240V-3P	480V-3P	575V-3P
MSF-72525-CF	15FT 38"		25 HP		208V-3P	240V-3P	480V-3P	575V-3P
MSF-72525-AB	15FT 38"		25 HP		208V-3P	240V-3P	480V-3P	575V-3P
MSF2 5217	10FT 36" TOP	?-??/??"	10 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 5217	10FT 30" BOT	?-??/??"	7.5 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 7817	15FT 36" TOP	?-??/??"	15 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 7825	15FT 30" BOT	?-??/??"	10 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 10435	20FT 42" TOP	?-??/??"	20 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 10435	20FT 30" BOT	?-??/??"	15 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 13050	25FT 42" TOP	?-??/??"	30 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
MSF2 13050	25FT 30" BOT	?-??/??"	20 HP	230V-1P	208V-3P	240V-3P	480V-3P	575V-3P
DP 2510	10FT 38"	?-??/??"	10 HP	230V-1P				
DP 3015	10FT 38"		15 HP	230V-1P				
DP 4020	15FT 38"		10 HP	230V-1P				
DP 5020	20FT 38"		10 HP	230V-1P				
DP 7530	30FT 38"		10 HP	230V-1P				
DP 10040	40FT 38"		10 HP	230V-1P				
DP 3015	10FT 38"	?-??/??"	15 HP		208V-3P	240V-3P	480V-3P	575V-3P
DP 4025	15FT 38"		25 HP		208V-3P	240V-3P	480V-3P	575V-3P
DP 6030	20FT 38"		15 HP		208V-3P	240V-3P	480V-3P	575V-3P
DP 7550	25FT 38"		25 HP		208V-3P	240V-3P	480V-3P	575V-3P
DP 9045	30FT 38"		15 HP		208V-3P	240V-3P	480V-3P	575V-3P
DP 12060	40FT 38"		15 HP		208V-3P	240V-3P	480V-3P	575V-3P
DPSL 3520	10FT 38"	?-??/??"	20 HP		208V-3P	240V-3P	480V-3P	575V-3P
DPSL 4530	15FT 38"		30 HP		208V-3P	240V-3P	480V-3P	575V-3P
DPSL 7040	20FT 38"		20 HP		208V-3P	240V-3P	480V-3P	575V-3P
DPSL 8560	25FT 38"		30 HP		208V-3P	240V-3P	480V-3P	575V-3P
DPSL 10560	30FT 38"		20 HP		208V-3P	240V-3P	480V-3P	575V-3P
DPSL 14080	40FT 38"		20 HP		208V-3P	240V-3P	480V-3P	575V-3P



**FAN MOTORS AND FANS 38" AND 43" DIA PITCH SETTINGS FOR \*\*\*\* GREENHECK**

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

<b>MODEL</b>	<b>DIA FAN</b>	<b>--PITCH-- SETTING</b>	<b>MOTOR</b>	<b>----- VOLTAGE</b>	<b>-----</b>	<b>-----</b>	<b>-----</b>	<b>-----</b>
DPX	4525 10FT 38"	?-??/??"	25 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX	7040 15FT 38"		20 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX	9050 20FT 38"		25 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX	N/A 25FT ***		N/A	N/A	N/A	N/A	N/A	
DPX	13575 30FT 38"		25 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX	180100 40FT 38"		25 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPXSL	5030 10FT 38"	?-??/??"	30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPXSL	8050 15FT 38"		25 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPXSL	10060 20FT 38"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPXSL	12560 25FT 43"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPXSL	15090 30FT 38"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPXSL	200120 40FT 38"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX4T	5630 10FT 43"	?-??/??"	30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX4T	8460 15FT 43"		60 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX4T	11260 20FT 43"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX4T	140100 25FT 43"		50 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX4T	16890 30FT 43"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX4T	224120 40FT 43"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX8T	6440 10FT 43"	?-??/??"	40 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX8T	9660 15FT ***		N/A	N/A	N/A	N/A	N/A	
DPX8T	12880 20FT 43"		40 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX8T	160120 25FT 43"		60 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX8T	192120 30FT 43"		40 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX8T	256160 40FT 43"		40 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX12T	7250 10FT 43"	?-??/??"	50 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX12T	10860 15FT 43"		30 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX12T	144100 20FT 43"		50 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX12T	175120 25FT 43"		60 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX12T	216150 30FT 43"		50 HP	208V-3P	240V-3P	480V-3P	575V-3P	
DPX12T	288200 40FT 43"		50 HP	208V-3P	240V-3P	480V-3P	575V-3P	

**FAN MOTORS AND FANS 38" AND 43" DIA PITCH SETTINGS FOR \*\*\*\* GREENHECK**

**380V-3P \*\* 50Hz \*\* 1450RPM**

<b>MODEL</b>	<b>DIA FAN</b>	<b>--PITCH-- SETTING</b>	<b>MOTOR</b>	<b>VOLTAGE</b>
MSF-31010-CF	10FT 38"	?-??/??"	10 HP	380V-3P
MSF-31010-AB	10FT 38"		10 HP	380V-3P
MSF-41515-CF	10FT 38"		15 HP	380V-3P
MSF-41515-AB	10FT 38"		15 HP	380V-3P
MSF-62520-CF	15FT 38"		20 HP	380V-3P
MSF-62520-AB	15FT 38"		20 HP	380V-3P
MSF-72525-CF	15FT 38"		25 HP	380V-3P
MSF-72525-AB	15FT 38"		25 HP	380V-3P
MSF2 5217	10FT 36"	TOP ?-??/??"	10 HP	380V-3P
MSF2 5217	10FT 30"	BOT ?-??/??"	7.5 HP	380V-3P
MSF2 7817	15FT 36"	TOP ?-??/??"	15 HP	380V-3P
MSF2 7825	15FT 30"	BOT ?-??/??"	10 HP	380V-3P
MSF2 10435	20FT 42"	TOP ?-??/??"	20 HP	380V-3P
MSF2 10435	20FT 30"	BOT ?-??/??"	15 HP	380V-3P
MSF2 13050	25FT 42"	TOP ?-??/??"	30 HP	380V-3P
MSF2 13050	25FT 30"	BOT ?-??/??"	20 HP	380V-3P
DP 2510	10FT 38"	?-??/??"	10 HP	380V-3P
DP 3015	10FT 38"		15 HP	380V-3P
DP 4020	15FT 38"		10 HP	380V-3P
DP 5020	20FT 38"		10 HP	380V-3P
DP 7530	30FT 38"		10 HP	380V-3P
DP 10040	40FT 38"		10 HP	380V-3P
DP 3015	10FT 38"		15 HP	380V-3P
DP 4025	15FT 38"		25 HP	380V-3P
DP 6030	20FT 38"		15 HP	380V-3P
DP 7550	25FT 38"		25 HP	380V-3P
DP 9045	30FT 38"		15 HP	380V-3P
DP 12060	40FT 38"		15 HP	380V-3P
DPSL 3520	10FT 38"	?-??/??"	20 HP	380V-3P
DPSL 4530	15FT 38"		30 HP	380V-3P
DPSL 7040	20FT 38"		20 HP	380V-3P
DPSL 8560	25FT 38"		30 HP	380V-3P
DPSL 10560	30FT 38"		20 HP	380V-3P
DPSL 14080	40FT 38"		20 HP	380V-3P

FAN MOTORS AND FANS 38" AND 43" DIA PITCH SETTINGS FOR \*\*\*\* GREENHECK

380V-3P \*\* 50Hz \*\* 1450RPM

MODEL	DIA FAN	--PITCH-- SETTING	MOTOR	VOLTAGE
DPX	4525 10FT 38"	?-??/??"	25 HP	380V-3P
DPX	7040 15FT 38"		20 HP	380V-3P
DPX	9050 20FT 38"		25 HP	380V-3P
DPX	N/A 25FT ***		N/A	N/A
DPX	13575 30FT 38"		25 HP	380V-3P
DPX	180100 40FT 38"		25 HP	380V-3P
DPXSL	5030 10FT 38"	?-??/??"	30 HP	380V-3P
DPXSL	8050 15FT 38"		25 HP	380V-3P
DPXSL	10060 20FT 38"		30 HP	380V-3P
DPXSL	12560 25FT 43"		30 HP	380V-3P
DPXSL	15090 30FT 38"		30 HP	380V-3P
DPXSL	200120 40FT 38"		30 HP	380V-3P
DPX4T	5630 10FT 43"	?-??/??"	30 HP	380V-3P
DPX4T	8460 15FT 43"		60 HP	380V-3P
DPX4T	11260 20FT 43"		30 HP	380V-3P
DPX4T	140100 25FT 43"		50 HP	380V-3P
DPX4T	16890 30FT 43"		30 HP	380V-3P
DPX4T	224120 40FT 43"		30 HP	380V-3P
DPX8T	6440 10FT 43"	?-??/??"	40 HP	380V-3P
DPX8T	9660 15FT ***		N/A	N/A
DPX8T	12880 20FT 43"		40 HP	380V-3P
DPX8T	160120 25FT 43"		60 HP	380V-3P
DPX8T	192120 30FT 43"		40 HP	380V-3P
DPX8T	256160 40FT 43"		40 HP	380V-3P
DPX12T	7250 10FT 43"	?-??/??"	50 HP	380V-3P
DPX12T	10860 15FT 43"		30 HP	380V-3P
DPX12T	144100 20FT 43"		50 HP	380V-3P
DPX12T	175120 25FT 43"		60 HP	380V-3P
DPX12T	216150 30FT 43"		50 HP	380V-3P
DPX12T	288200 40FT 43"		50 HP	380V-3P

FAN MOTOR PART NUMBER

<u>MOTOR</u>	<u>VOLTAGE</u>	<u>FRAME</u>	<u>SHAFT</u>	<u>PART NUMBER</u>
10HP	230V-1P	215T	1 3/8"	004-004574
10HP	208V/240V/480V-3P	215T		004-002675
10HP	380V-3P	215T		004-007857
10HP	575V-3P	215T		004-007570
15HP	230V-1P	256T	1 5/8"	004-006147
15HP	208V/240V/480V-3P	254T		004-002950
15HP	380V-3P	254T		004-007858
15HP	575V-3P	254T		004-007632
20HP	208V/240V/480V-3P	256T	1 5/8"	004-004872
20HP	380V-3P	256T		004-007859
20HP	575V-3P	256T		004-007556
25HP	208V/240V/480V-3P	284T	1 7/8"	004-000644
25HP	380V-3P	284T		004-007860
25HP	575V-3P	284T		004-007423
30HP	208V/240V/480V-3P	286T	1 7/8"	004-000645
30HP	380V-3P	286T		004-007861
30HP	575V-3P	286T		004-007569
40HP	208V/240V/480V-3P	324T	2 1/8"	004-000646
40HP	380V-3P	324T		004-007862
40HP	575V-3P	324T		004-004393
50HP	208V/240V/480V-3P	326T	2 1/8"	004-000647
50HP	380V-3P	326T		004-007863
50HP	575V-3P	326T		004-007628
60HP	208V/240V/480V-3P	364T	2 3/8"	004-000648
60HP	380V-3P	364T		004-007864
60HP	575V-3P	364T		004-007627

- NOTES:** 1. ALL MOTORS ARE 1750 RPM AND TEFC (EXCEPT 380V-3P).
2. ALL MOTORS USED FOR 380V-3P (50HZ) OPERATION WILL BE RUN AT 1450 RPM AND TEFC.

**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		---NATURAL GAS---		-LIQUID PROPANE--		QTY
	FAN		PART NUMBER	DIA	PART NUMBER	DIA	
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"	100-006962	15/32	100-006955	11/32	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"	100-006963	31/64	100-006956	23/64	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		---NATURAL GAS---		-LIQUID PROPANE--		QTY
	FAN		PART NUMBER	DIA	PART NUMBER	DIA	
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"	100-006964	33/64	100-006958	13/32	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"	100-003809	5/8	100-003808	1/2	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"	100-003809	5/8	100-003808	1/2	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	5/8	100-003808	1/2	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:

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



ORIFICE PART NUMBERS

<u>ORIFICE DIA</u>	<u>PART NUMBER</u>	<u>ORIFICE DIA</u>	<u>PART NUMBER</u>
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**

<b>MODEL</b>	<b>FT</b>	<b><u>L.P.</u> LIQUID VALVES &amp; PIPE</b>	<b><u>L.P.</u> VAPORIZER SIZES ROUND FIN</b>	<b><u>L.P.</u> VAPOR REGULATOR, VALVES &amp; PIPE</b>	<b><u>MANIFOLD</u> SOLENOID VALVE &amp; PIPE</b>	<b><u>MANIFOLD</u> BUTTERFLY VALVE</b>
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
DP-SL 3520	10	1/2	4R	1/2	1 1/4	1 1/4
DP-SL 4530	15	1/2	8R	1/2	1 1/4	1 1/4
DP-SL 7040	20	1/2	8R	1/2	1 1/4	1 1/4
DP-SL 8560	25	1/2	12R	1/2	1 1/4	1 1/4
DP-SL 10560	30	1/2	12R	1/2	1 1/4	1 1/4
DP-SL 14080	40	3/4	8R/8R	2	2	2

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

<b>MODEL</b>	<b>FT</b>	<b>L.P. LIQUID VALVE S &amp; PIPE</b>	<b>L.P. VAPORIZER SIZES ROUND FIN</b>	<b>L.P. VAPOR REGULATOR, VALVES &amp; PIPE</b>	<b>MANIFOLD SOLENOID VALVE &amp; PIPE</b>	<b>MANIFOLD BUTTERFLY VALVE</b>
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
DPX-SL 5030	10	1/2	8R	1/2	1 1/4	1 1/4
DPX-SL 8050	15	1/2	12R	1/2	1 1/4	1 1/4
DPX-SL 10060	20	1/2	12R	1/2	1 1/4	1 1/4
DPX-SL 12560	25	3/4	8R/8R	2	2	2
DPX-SL 15090	30	3/4	8R/8R	2	2	2
DPX-SL 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 145TC- 7/8-CLASS B	004-006472	5:1 140TC-7/8	052-008861
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

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 ONLY

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

**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 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
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

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 ONLY

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

**STANDARD DI S CHARGE 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
DPX8T 9660	15	N/A				
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 ONLY

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

**STANDARD DI SCHARGE 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

NOTE: 1. ALL MOTORS SHOWN 380V-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 ONLY

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

**STANDARD DI S CHARGE 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.

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 ONLY

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



**STANDARD DI SCHARGE 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

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 ONLY

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

**STANDARD DI SCHARGE 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 DI SCHARGE 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 ONLY

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

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.

**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.

**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-8"	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.

1/18/2011

**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	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX12T 10860	15	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX12T 144100	20	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX12T 175120	25	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX12T 216150	30	3B3.4	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	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX16GT 12360	15	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX16GT 164100	20	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX16GT 210120	25	3B3.4	SH 1-3/8	2B15.4	SK 1-1/4
DPX16GT 246150	30	3B3.4	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.





# SHIPPING LISTS

- **DP & DPSL MODELS**
- **DPX & DPXSL MODELS**
- **DPX4T MODELS**
- **DPX8T MODELS**
- **DPX12 MODELS**
- **DPX16GT MODELS**



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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>1P</u>	<u>1P</u>	<u>1P</u>	<u>1P</u>	<u>1P</u>
		<u>(FT)</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>30</u> <u>40</u>
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 10FT - 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
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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>1P (FT)10</b>	<b>1P 15</b>	<b>1P 20</b>	<b>1P 30</b>	<b>1P 40</b>
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	3P	3P	3P	3P	3P
			10	15	20	25	30	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
200-005516	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	1	1	1	1	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 10FT - 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

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	3P	3P	3P	3P	3P
			10	15	20	25	30	40
200-006992	AUGER TROUGH INTER	10FT - 8"	-	-	1	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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>(FT)</u>	<u>3P 10</u>	<u>3P 15</u>	<u>3P 20</u>	<u>3P 25</u>	<u>3P 30</u>	<u>3P 40</u>
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
200-005516	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 10FT - 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



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	3P	3P	3P	3P	3P
			10	15	20	25	30	40
200-006992	AUGER TROUGH INTER	10FT - 8"	-	-	1	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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>(FT)</u>	<u>3P 10</u>	<u>3P 15</u>	<u>3P 20</u>	<u>3P 25</u>	<u>3P 30</u>	<u>3P 40</u>
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
200-005516	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 10FT - 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

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	3P	3P	3P	3P	3P
			10	15	20	25	30	40
200-006992	AUGER TROUGH INTER	10FT - 8"	-	-	1	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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 240V/480V-3P DRYERS**

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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>(FT)</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>40</u>
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	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	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	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	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	

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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 380V-3P DRYERS**

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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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	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	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	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	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 - 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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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	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	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	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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>(FT)</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>40</u>
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	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 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	-	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 - 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
<b>(*) NOTE:</b> 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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 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	-	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 - 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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	1	-
100-003343	BELT GUARD BACK PLATE - 8"	1	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	2	3
056-007872	SHEAVE AUGER 2B15.4	1	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	1
056-005373	SHEAVE MOTOR 2B3.4	1	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	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	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
<b>(* ) NOTE:</b> 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	1
100-007397	MOTOR ADAPTER PLATE	1	1	-	-	-	-	-
100-007396	MOTOR PLATE TOP 1-5HP	1	1	1	1	1	1	-
100-002855	MOTOR PLATE BOT 1-5HP	1	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	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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 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	-	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 - 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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>(FT)</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>40</u>
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	1	-
100-003343	BELT GUARD BACK PLATE - 8"	1	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	2	3
056-005372	SHEAVE AUGER 2B18.4	1	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	1
056-005373	SHEAVE MOTOR 2B3.4	1	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	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	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
<b>(*) NOTE:</b> 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	1
100-007397	MOTOR ADAPTER PLATE	1	1	-	-	-	-	-
100-007396	MOTOR PLATE TOP 1-5HP	1	1	1	1	1	1	-
100-002855	MOTOR PLATE BOT 1-5HP	1	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	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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 10FT - 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

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>(FT)</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>40</u>
200-006817	BELT GUARD 10" AUGER	1	1	1	1	1	1	1
100-006818	BELT GUARD BACK PLATE 10" AUGER	1	1	1	1	1	1	1
049-003364	BELT "B82" 83.3PITCH	2	2	2	2	2	2	3
056-005372	SHEAVE AUGER 2B18.4	1	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	1
056-005373	SHEAVE MOTOR 2B3.4	1	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	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	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	1
100-007397	MOTOR ADAPTER PLATE	1	1	-	-	-	-	-
100-007396	MOTOR PLATE TOP 1-5HP	1	1	1	1	1	1	-
100-002855	MOTOR PLATE BOT 1-5HP	1	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	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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 10FT - 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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
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	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 10FT - 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

<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>(FT)</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>40</b>
200-006817	BELT GUARD 10" AUGER	1	1	1	1	1	1	1
100-006818	BELT GUARD BACK PLATE 10" AUGER	1	1	1	1	1	1	1
049-003364	BELT "B82" 83.3PITCH	2	2	2	2	2	2	3
056-005372	SHEAVE AUGER 2B18.4	1	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	1
056-005373	SHEAVE MOTOR 2B3.4	1	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	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	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	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	1
100-007397	MOTOR ADAPTER PLATE	1	1	-	-	-	-	-
100-007396	MOTOR PLATE TOP 1-5HP	1	1	1	1	1	1	-
100-002855	MOTOR PLATE BOT 1-5HP	1	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	22
040-005321	BOLT WHIZ 5/16-18UNC X 3/4	156	156	196	240	310	384	384
040-001459	NUT WHIZ 5/16-18UNC	156	156	196	240	310	384	384
040-001483	BOLT WHIZ 3/8 -16UNC X 1	22	22	24	28	32	36	36
040-001440	BOLT WHIZ 3/8 -16UNC X 1 1/4	4	4	4	4	4	4	4
040-001460	NUT WHIZ 3/8 -16UNC	26	26	28	32	36	40	40